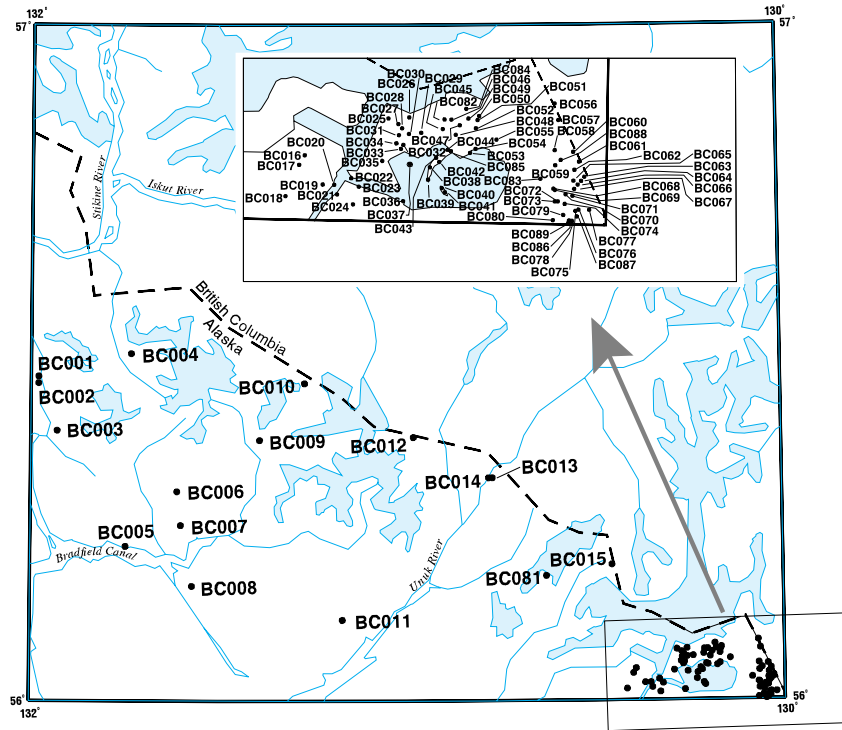


U.S. Department of the Interior - U.S. Geological Survey

Bradfield Canal quadrangle

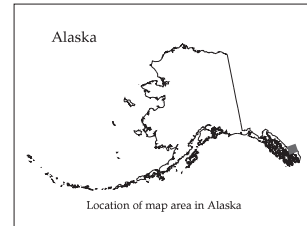
Descriptions of the mineral occurrences shown on the accompanying figure follow. See U.S. Geological Survey (1996) for a description of the information content of each field in the records. The data presented here are maintained as part of a statewide database on mines, prospects and mineral occurrences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



Distribution of mineral occurrences in the Bradfield Canal 1:250,000-scale quadrangle, southeastern Alaska

This and related reports are accessible through the USGS World Wide Web site <http://www-mrs-ak.wr.usgs.gov/ardf>. Comments or information regarding corrections or missing data, or requests for digital retrievals should be directed to Donald Grybeck, USGS, 4200 University Dr., Anchorage, AK 99508-4667, e-mail dgrybeck@usgs.gov, telephone (907) 786-7424. This compilation is authored by:

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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, product, or firm names is for descriptive purposes only and does not imply endorsement by the U.S. Government.



Site name(s): Spud**Site Type:** Prospect**ARDF no.** BC001**Latitude:** 56.48**Quadrangle:** BC B-6**Longitude:** 131.98**Location description and accuracy:**

The approximate location of the Spud prospect, known chiefly from U.S. Bureau of Mines claim records (U.S. Bureau of Mines, 1979), is in Section 21 at an elevation of about 2300 feet. It is below the toe of Nelson Glacier, about 1.8 mile north-northeast of Berg Mountain (Elliott and Koch, 1981, p. 7, loc. 1). This location is probably accurate within about a quarter of a mile.

Commodities:**Main:** Ag, Pb, Zn**Other:****Ore minerals:** Sulfide minerals**Gangue minerals:** Calcite?**Geologic description:**

The country rocks in the general area of the Spud prospect (Koch, 1996, 1997) are Mesozoic or Paleozoic pelitic schist and paragneiss, and subordinate amphibolite and marble. The Spud deposit has been described as a sulfide replacement in marble (Elliott and Koch, 1981, loc. 1). No other geological information about this prospect has been made public.

Alteration:**Workings/Exploration:**

Some diamond drilling and probably some minor trenching.

Age of mineralization:**Deposit model:****Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production:** None**Status:** Inactive**Production notes:****Reserves:****Additional comments:****References:**

U.S. Bureau of Mines, 1979; Elliott and Koch, 1981; Koch, 1996; Koch, 1997

Primary reference: Elliott and Koch, 1981**Reporter:** H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Copper King**Site Type:** Prospect**ARDF no.** BC002**Latitude:** 56.47**Quadrangle:** BC B-6**Longitude:** 131.98**Location description and accuracy:**

The approximate location of the Copper King prospect is in Section 27 about 1.2 miles NNE of Berg Mountain, on the north side of a west tributary to Aaron Creek at an elevation of about 1700 feet (Elliott and Koch, 1981, p. 7, loc. 3). This location is probably accurate to within about a quarter of a mile.

Also see Additional Comments field, below.

Commodities:**Main:** Ag, Au, Cu, Pb, Zn**Other:****Ore minerals:** Sulfide? minerals**Gangue minerals:****Geologic description:**

There is little reliable information about the Copper King prospect (Cobb, 1978, loc. 1; Elliott and Koch, 1981, loc. 3). The country rocks in the general area of the Copper King prospect are Mesozoic or Paleozoic pelitic schist and paragneiss and subordinate amphibolite and marble (Koch, 1996, 1997). Ambiguous early descriptions suggest that the deposit may be a sulfide-bearing vein carrying Cu, Pb, and Zn minerals and some gold and silver. No other geological information about this property has been made public.

Alteration:**Workings/Exploration:****Age of mineralization:****Deposit model:**

Polymetallic vein?

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

22c?

Production: None**Status:** Undetermined**Production notes:****Reserves:****Additional comments:**

Early reports describing the Copper King prospect (Chapin, 1916, p. 78; 1918, p. 75) also refer to the Berg claims, a prospect that is described separately in this report (BC003). Parts of some of the early descriptions of the Copper King and Berg prospects may actually refer to a deposit in the Berg Basin area to the west in the adjoining Petersburg quadrangle.

Claim(s) staked in 1906 and restaked in 1951. An adit 300 feet long was reported in 1916 (Chapin, 1916), but the reference may actually be to a prospect in Berg Basin to the west in the Petersburg quadrangle.

References:

Chapin, 1916, 1918; Cobb, 1978 (OFR 78-922); Elliott and Koch, 1981; Koch, 1996; Koch, 1997

Primary reference: Elliott and Koch, 1981

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Berg**Site Type:** Prospect**ARDF no.** BC003**Latitude:** 56.4**Quadrangle:** BC B-6**Longitude:** 131.93**Location description and accuracy:**

The approximate location of the Berg prospect is about 0.4 mile west of lower Aaron Creek and 0.9 mile east of Berg Creek, in Section 24, at an elevation of about 150 feet (Cobb, 1978, loc. 1; Elliott and Koch, 1981, p. 7, loc. 3). This location is probably accurate within about a quarter of a mile.

Also see Additional Comments field, below.

Commodities:**Main:** Au?**Other:****Ore minerals:** Unknown**Gangue minerals:****Geologic description:**

The country rocks in the general area of the Berg prospect (Koch, 1996, 1997) are Mesozoic or Paleozoic pelitic schist and paragneiss, and subordinate amphibolite and marble. Ambiguous early descriptions suggest that the prospect is an auriferous lode deposit. No other geological information about this property has been made public.

Alteration:**Workings/Exploration:**

Chapin (1916, p. 78) mentions development work on the Berg claims in 1915, but this reference may actually be to a prospect in Berg Basin, in the adjoining Petersburg quadrangle.

Age of mineralization:**Deposit model:****Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production:** None**Status:** Inactive**Production notes:****Reserves:****Additional comments:**

There is little geologic information about the Berg prospect. Early reports describing it (Chapin, 1916, p. 78; 1918, p. 75) include references to the Copper King prospect (BC002). Parts of some of the early descriptions of the Berg prospect are ambiguous, and may actually refer to a deposit in Berg Basin, to the west in the adjoining Petersburg quadrangle.

References:

Chapin, 1916, 1918; Cobb, 1978 (OFR 78-922); Elliott and Koch, 1981; Koch, 1996;
Koch, 1997

Primary reference: Elliott and Koch, 1981

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Cone Mountain**Site Type:** Prospect**ARDF no.** BC004**Latitude:** 56.514**Quadrangle:** BC C-6**Longitude:** 131.733**Location description and accuracy:**

The approximate location of the Cone Mountain prospect is in Section 7 at an elevation of about 3000 feet on the west flank of Cone Mountain, about 0.8 mile east of the Kateel River (Elliott and Koch, 1981, p. 7, loc. 4). This location is probably accurate within about a quarter of a mile.

Commodities:**Main:** U?**Other:** Pb?, Zn?**Ore minerals:** Unspecified radioactive minerals**Gangue minerals:****Geologic description:**

The country rocks in the general area of the Cone Mountain prospect are a Miocene(?) alkali feldspar granite stock and associated quartz-porphyrific rhyolite dikes (Koch, 1996, 1997). The prospect is on the western margin of the stock, which intrudes Eocene granodiorite and quartz monzonite plutons and Mesozoic or Paleozoic pelitic schist and paragneiss. A group of 145 claims was staked in 1976, presumably for uranium-bearing and related minerals (Elliott and Koch, 1981, loc. 4; Koch and others, 1981; U. S. Geological Survey, 1979). Geochemical surveys [(Koch and Elliott, 1981 (OFR 81-728C-K)] show high values of Ag, Be, Mo, Nb, Pb, Sn, Y and REE, and Zn in rock, stream-sediment and heavy-mineral concentrate samples from the immediate area of the stock. Differentiation enrichment of these elements in such a highly-evolved silicic magma may account for most of the values reported, but a few Pb and Zn values are sufficiently high to suggest local sulfide deposition.

Alteration:**Workings/Exploration:**

145 claims staked in 1976. Claims were active for 2 or 3 years. Exploration by private interests included some diamond drilling. Geochemical surveys by the U.S. Geological Survey in the late 1970's [Koch and Elliott, 1981 (OFR 81-728C-K)] show high values of Ag, Be, Mo, Nb, Pb, Sn, Y and REE, and Zn in rock, stream-sediment and heavy-mineral concentrate samples from the immediate area of the stock.

Age of mineralization:

Miocene?

Deposit model:

Felsic plutonic uranium?

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

17

Production: None**Status:** Inactive**Production notes:****Reserves:**

Additional comments:

References:

U. S. Geological Survey, 1979 (OFR 79-830); Elliott and Koch, 1981; Koch and Elliott, 1981 (OFR 81-728C-K); Koch and others, 1981; Koch, 1996; Koch, 1997

Primary reference: Elliott and Koch, 1981

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Unnamed**Site Type:** Occurrence**ARDF no.** BC005**Latitude:** 56.222**Quadrangle:****Longitude:** 131.746**Location description and accuracy:**

This unnamed mineral occurrence (Elliott and Koch, 1981, p. 7, loc. no. 5) is at sealevel on the north shore of Bradfield Canal, in Section 24, about 2.6 miles northwest of the mouth of Tom Creek. The location is accurate to within about 500 feet.

Commodities:**Main:** Cu**Other:****Ore minerals:** Chalcopyrite**Gangue minerals:****Geologic description:**

The country rocks in the general area of this occurrence are Mesozoic or Paleozoic pelitic schist and paragneiss and subordinate amphibolite and marble (Koch, 1996, 1997). The occurrence consists of rusty-weathering quartzo-feldspathic schist containing disseminated chalcopyrite.

Alteration:

Schist hostrock is ironstained

Workings/Exploration:**Age of mineralization:****Deposit model:****Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production:** None**Status:** Inactive**Production notes:****Reserves:****Additional comments:****References:**

Elliott and Koch, 1981; Koch, 1996; Koch, 1997

Primary reference: Elliott and Koch, 1981**Reporter:** H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Waco**Site Type:** Occurrence**ARDF no.** BC006**Latitude:** 56.31**Quadrangle:** BC B-5**Longitude:** 131.61**Location description and accuracy:**

The approximate location of this prospect, known in 1981 (Elliott and Koch, 1981, p. 7, loc. 6) only from a U.S. Bureau of Mines claims map (U.S. Bureau of Mines, 1979), is in Section 24, at an elevation of about 1800 feet. It is on a hillside northeast of a southeast-flowing branch of upper White River. This location probably is accurate within about a half-mile.

Commodities:**Main:** Ag, Au, Cu**Other:****Ore minerals:** Unknown**Gangue minerals:****Geologic description:**

The country rocks in the general area of this reported mineral occurrence are Mesozoic or Paleozoic paragneiss and orthogneiss and subordinate amphibolite and marble (Koch, 1996, 1997). No other information about this occurrence was publicly available in 1997 (Koch, 1997, p. 23).

Alteration:**Workings/Exploration:****Age of mineralization:****Deposit model:****Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production:** None**Status:** Undetermined**Production notes:****Reserves:****Additional comments:**

10 lode claims staked in 1969 (U.S. Bureau of Mines, 1979).

References:

U.S. Bureau of Mines, 1979; Elliott and Koch, 1981; Koch, 1996; Koch, 1997

Primary reference: Koch, 1997**Reporter:** H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Unnamed**Site Type:** Occurrence**ARDF no.** BC007**Latitude:** 56.26**Quadrangle:** BC B-5**Longitude:** 131.6**Location description and accuracy:**

The approximate location of this unnamed occurrence, known in 1981 (Elliott and Koch, 1981, p. 7, loc. 7) only from a U.S. Bureau of Mines claims map, is in the Kapho Mountains, in Section 2, at an elevation of about 3900 feet. It is on a north-trending ridge at the east margin of a small glacier. The location is probably accurate to within about a quarter of a mile.

Commodities:**Main:** Cu?**Other:****Ore minerals:** Unknown**Gangue minerals:****Geologic description:**

The country rocks in the general area of this occurrence are Mesozoic or Paleozoic paragneiss and orthogneiss and subordinate amphibolite and marble (Koch, 1996, 1997). No other geological information about this occurrence was publicly available in 1997 (Koch, 1997, p. 23).

Alteration:**Workings/Exploration:****Age of mineralization:****Deposit model:****Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production:** None**Status:** Undetermined**Production notes:****Reserves:****Additional comments:**

An unknown number of lode claims were staked in 1974 (U.S. Bureau of Mines, 1979).

References:

U.S. Bureau of Mines, 1979; Elliott and Koch, 1981; Koch, 1996; Koch, 1997

Primary reference: Koch, 1997**Reporter:** H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Zimovia**Site Type:** Occurrence**ARDF no.** BC008**Latitude:** 56.17**Quadrangle:** BC A-5**Longitude:** 131.57**Location description and accuracy:**

The approximate location of the Zimovia occurrence, known in 1981 (Elliott and Koch, 1981, p. 7, loc. 8) only from a U.S. Bureau of Mines claims map (U.S. Bureau of Mines, 1979), is at sealevel on the north shore of upper Bradfield Canal, in Section 25. It is about 2 miles due east of the mouth of Harding River. The location is probably accurate to within about a quarter of a mile.

Commodities:**Main:** Radioactive(?) minerals**Other:****Ore minerals:** Unknown**Gangue minerals:****Geologic description:**

The country rocks in the general area of this unverified mineral occurrence are migmatite, orthogneiss, and subordinate paragneiss of Mesozoic or Paleozoic age (Koch, 1996, 1997). No other geological information about this occurrence was publicly available in 1997 (Koch, 1997).

Alteration:**Workings/Exploration:****Age of mineralization:****Deposit model:****Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production:** None**Status:** Inactive**Production notes:****Reserves:****Additional comments:**

An unknown number of lode claims were staked, apparently for unspecified radioactive minerals, in 1956 (U.S. Bureau of Mines, 1979).

References:

U.S. Bureau of Mines, 1979; Elliott and Koch, 1981; Koch, 1996; Koch, 1997

Primary reference: Elliott and Koch, 1981**Reporter:** H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): North Bradfield River; Ptarmigan**Site Type:** Prospect**ARDF no.** BC009**Latitude:** 56.386**Quadrangle:** BC B-5**Longitude:** 131.39**Location description and accuracy:**

The above coordinates are for the approximate center of a group of mineral occurrences at an elevation of about 3300 feet on a ridge in Section 24, between two forks of upper North Bradfield River. Cobb (1978, loc. 2-4) gives the following coordinates to encompass the area of the known deposits: Lat. 56.383-56.40N; Long. 131.383-131.417W. These coordinates probably define the geographic limits of the known deposits with an accuracy of a few hundred feet.

Commodities:**Main:** Cu, Fe**Other:** Ag, Au, Mo, Zn**Ore minerals:** Chalcopyrite, hematite, magnetite, malachite, pyrrhotite**Gangue minerals:** Calcite, calc-silicate minerals**Geologic description:**

The North Bradfield River prospect (MacKevett and Blake, 1963, p. D1-D21) consists chiefly of metasomatic, magnetite-skarn deposits at the northwest end of a large roof pendant of gneiss, granulite, schist, marble, and skarn in quartz monzonite of the Coast Range Batholith, which in turn is cut by dikes of quartz diorite, aplite, and alaskite. The metamorphic bedded rocks are complexly folded. MacKevett and Blake (1963, p. D15-D16) interpret the general structure of the pendant as an overturned syncline that probably extends for many miles to the southeast. Sonnevil (1981, p. B117), on the other, hand, interprets the dominant structure in the area as a homocline with northwest to northeast dips. Koch (1997, p. 24) reports that the pendant is marked by an aeromagnetic trough that roughly parallels its outcrop (U. S. Geological Survey, 1979). The deposit is in marble units of the roof pendant and consists of calc-silicate skarn that is partly replaced by massive magnetite with interstitial pyrrhotite; the magnetite is cut by veinlets of chalcopyrite. This ore contains subordinate amounts of hematite, limonite, and malachite. The orebodies, of which at least 15 are exposed, are crudely stratiform and apparently discontinuous; they range in strike length from 50-350 feet and in thickness from 2-40 feet. Koch (1997, p. 24-25) suggests that at least some of the metal concentration in these deposits is related to the emplacement of an Eocene quartz monzonite and granodiorite stock, near the contact with the Mesozoic or Paleozoic metamorphic bedded rocks that host the deposits (Elliott and Koch, 1981; Koch, 1996). Koch (1997, p. 24, 25) and Elliott and Koch (1981, p. 8, loc. 9) also report anomalous amounts of Ag, Au, Mo, and Zn in rock samples collected at and near the North Bradfield River deposits.

Alteration:

Calc-silicate skarn is developed in marble units; local iron staining

Workings/Exploration:

The deposit was discovered in 1955 and was explored by private interests in the 1960's by surface stripping, an airborne magnetometer survey, and six diamond drillholes totalling 186 feet. Koch (1997, p. 24) reports that the pendant is marked by an aeromagnetic trough that roughly parallels its outcrop (U.S. Geological Survey, 1979). Koch (1997, p. 24, 25) and Elliott and Koch (1981, loc. 9) also report anomalous amounts of Ag, Au, Mo, and Zn in rock samples collected at and near the North Bradfield River deposits.

Age of mineralization:

Eocene?

Deposit model:

Fe skarn

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

18d

Production: None**Status:** Probably inactive**Production notes:****Reserves:****Additional comments:**

Elliott and Koch (1981) also apply the name 'Ptarmigan' to the North Bradfield River prospect.

References:

MacKevett and Blake, 1963; Cobb, 1978 (OFR 78-922); U. S. Geological Survey, 1979 (OFR 79-932); Elliott and Koch, 1981; Sonnevil, 1981; Koch, 1996; Koch, 1997

Primary reference: MacKevett and Blake, 1963; Sonnevil, 1981**Reporter:** H. C. Berg (Fullerton, California)**Reporter affiliation:****Last report date:** 5/17/98

Site name(s): Craig**Site Type:** Occurrence**ARDF no.** BC010**Latitude:** 56.47**Quadrangle:** BC B-4**Longitude:** 131.27**Location description and accuracy:**

The approximate location of the Craig occurrence, known in 1981 (Elliott and Koch, 1981, p. 8, loc. 10) only from a U.S. Bureau of Mines claim map (U.S. Bureau of Mines, 1979), is at an elevation of about 4000 feet on a steep mountainside southwest of a north-flowing tributary of the South Fork of Craig River. The occurrence, which is a few hundred feet below the foot of an icefield, is about 1.1 mile southwest of the Alaska-British Columbia boundary, and roughly 3.8 miles west-northwest of Mt. Pounder on the International Boundary. This location probably is accurate to within about a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Chalcopyrite, magnetite, pyrite, pyrrhotite**Gangue minerals:****Geologic description:**

The country rocks in the general area of the Craig occurrence are Mesozoic or Paleozoic metasedimentary rocks, locally including marble, and subordinate metavolcanic rocks (Elliott and Koch, 1981; Koch, 1996). The deposit (Elliott and Koch, 1981, loc. 10) consists of chalcopyrite, pyrite, and pyrrhotite disseminated in the metasedimentary rocks; the chalcopyrite also occurs in thin veinlets. Skarn float at or near the prospect contains magnetite and minor chalcopyrite.

Alteration:

Sulfide disseminations in metasedimentary rocks.

Workings/Exploration:

Koch (1997, p. 24-26) reports anomalous values of Ag, Au, Cu, and Zn in a few rock and stream-sediment samples collected by the U.S. Geological Survey in the late 1970's in the area near the Craig occurrence.

Age of mineralization:

Mesozoic or Paleozoic(?)

Deposit model:**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production:** None**Status:** Inactive**Production notes:****Reserves:**

Additional comments:

Sixty claims were recorded in 1977 (U.S. Bureau of Mines, 1979), but were not active in 1981 (Elliott and Koch, 1981, loc. 10).

References:

U.S. Bureau of Mines, 1979; Elliott and Koch, 1981; Koch, 1996; Koch, 1997

Primary reference: Elliott and Koch, 1981

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Unnamed**Site Type:** Occurrence**ARDF no.** BC011**Latitude:** 56.12**Quadrangle:** BC A-4**Longitude:** 131.17**Location description and accuracy:**

This unnamed occurrence is located at an elevation of about 3350 feet a few hundred feet upslope from a small (0.1 mile diameter) unnamed lake on a northwest-trending ridge drained by east-flowing tributaries to the lower Hulakon (Eulachon) River (Elliott and Koch, 1981, p. 8, loc. 11). The location is accurate to within about a quarter of a mile.

Commodities:**Main:** Mo**Other:****Ore minerals:** Molybdenite**Gangue minerals:** Diopside, garnet, quartz**Geologic description:**

The country rocks in the general area of this occurrence are Mesozoic or Paleozoic paragneiss and orthogneiss, and subordinate amphibolite and marble (Elliott and Koch, 1981; Koch, 1997). The mineral occurrence consists of small, irregular pods of garnet-diopside skarn containing 1% disseminated molybdenite (Elliott and Koch, 1981, loc. 11). The skarn, which is accompanied by calc-silicate rock, forms pods and discontinuous disrupted layers(?) in amphibolite. The molybdenite occurs as minute discrete flakes in the skarn, and in and near glassy quartz veinlets (Koch, 1997, p. 31). Pelitic paragneiss about 1.5 miles north of this occurrence contains disseminated minute flakes of molybdenite, and geochemically anomalous Ag and Sn (Koch, 1997, p. 31). Koch (1997, p. 30-32) also reports anomalous values of Ag, Au, Cu, Mo, Sn, and Zn in a few geochemical samples collected by the U. S. Geological Survey in the late 1970's near this occurrence.

Alteration:

Formation of calc-silicate skarn in amphibolite country rock

Workings/Exploration:

Pelitic paragneiss about 1.5 miles north of this occurrence contains disseminated minute flakes of molybdenite, and geochemically anomalous Ag and Sn (Koch, 1997, p. 31). Koch (1997, p. 30-32) also reports anomalous values of Ag, Au, Cu, Mo, Sn, and Zn in a few geochemical samples collected in the area near this occurrence by the U.S. Geological Survey in the late 1970's.

Age of mineralization:**Deposit model:**

Skarn

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

18c or 18d

Production: None**Status:** Inactive**Production notes:****Reserves:**

Additional comments:

This occurrence is in Misty Fiords National Monument

References:

Elliott and Koch, 1981; Koch, 1996; Koch, 1997

Primary reference: Elliott and Koch, 1981

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Unnamed**Site Type:** Occurrence**ARDF no.** BC012**Latitude:** 56.39**Quadrangle:** BC B-3**Longitude:** 130.98**Location description and accuracy:**

This unnamed occurrence (Elliott and Koch, 1981, p. 8, loc. 12) is at an elevation of about 2400 feet on a ridge between Blue River and West Fork of Blue River. It is on or near the boundary of Sections 24 and 25, and about 0.4 mile south-southwest of the Alaska-British Columbia boundary. The location is accurate to within about a quarter of a mile.

Commodities:**Main:** Mo**Other:****Ore minerals:** Molybdenite**Gangue minerals:** Feldspar and quartz (aplite)**Geologic description:**

The country rocks in the general area of this occurrence comprise a stock of Eocene leucocratic quartz monzonite and granodiorite (Elliott and Koch, 1981; Koch, 1996). The occurrence consists of a float sample collected by the U. S. Geological Survey in 1979 (Elliott and Koch, 1981, loc. 12). The sample consists of aplite rubble that contains up to about 0.5% visible molybdenite. All of the rubble at the locality is aplite, but not all of it contains visible molybdenite. The association of molybdenite, aplite, and leucocratic quartz monzonite suggests a porphyry-molybdenum deposit model.

Alteration:**Workings/Exploration:****Age of mineralization:**

Eocene?

Deposit model:

Porphyry molybdenum?

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

21b?

Production: None**Status:** Inactive**Production notes:****Reserves:****Additional comments:**

This occurrence is in Misty Fiords National Monument

References:

Elliott and Koch, 1981; Koch, 1996

Primary reference: Elliott and Koch, 1981

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Unuk River**Site Type:** Occurrence**ARDF no.** BC013**Latitude:** 56.33**Quadrangle:** BC B-3**Longitude:** 130.77**Location description and accuracy:**

The approximate location of this occurrence is on the northwest bank of Unuk River about a mile below the Alaska-British Columbia boundary (Elliott and Koch, 1981, p. 8, loc. 13). The location is probably accurate to within about a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Chalcopyrite, pyrite, pyrrhotite**Gangue minerals:** Quartz(?)**Geologic description:**

The country rocks in the general area of this occurrence are Mesozoic or Paleozoic metasedimentary rocks that locally include marble, and subordinate metavolcanic rocks (Elliott and Koch, 1981; Koch, 1996). The metamorphosed bedded rocks form a mile-wide septum between a stock of Eocene leucocratic quartz monzonite on the north, and a batholith of Tertiary or Cretaceous granodiorite and quartz diorite on the south. The mineral occurrence consists of pyrite, pyrrhotite, and chalcopyrite in a 2-foot thick quartz(?) vein (Wedow and others, 1952, p. 57).

Alteration:**Workings/Exploration:****Age of mineralization:****Deposit model:**

Polymetallic vein?

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

22c?

Production: None**Status:** Inactive**Production notes:****Reserves:****Additional comments:**

This occurrence is in Misty Fiords National Monument.

References:

Wedow and others, 1952; Elliott and Koch, 1981; Koch, 1996

Primary reference: Elliott and Koch, 1981**Reporter:** H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Boundary**Site Type:** Occurrence**ARDF no.** BC014**Latitude:** 56.33**Quadrangle:** BC B-3**Longitude:** 130.78**Location description and accuracy:**

The Boundary occurrence, known in 1981 (Elliott and Koch, 1981, p. 8, loc. 14) only from a U.S. Bureau of Mines claims map (U.S. Bureau of Mines, 1979), probably is a placer deposit on the Unuk River approximately 1.5 mile below the Alaska-British Columbia boundary. The location is probably accurate within about a quarter of a mile.

Commodities:**Main:** Ag, Au**Other:****Ore minerals:****Gangue minerals:****Geologic description:**

The country rocks in, and immediately upstream from, the area of this placer(?) occurrence are Tertiary or Cretaceous granodiorite and quartz diorite; Mesozoic or Paleozoic metasedimentary and metavolcanic rocks and minor marble; and Eocene leucocratic quartz monzonite and granodiorite (Elliott and Koch, 1981; Koch, 1996). No other geologic information about this property was publicly available in 1981 (Elliott and Koch, 1981, loc. 14).

Alteration:**Workings/Exploration:****Age of mineralization:**

Holocene?

Deposit model:

Placer?

Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):**Production:** None**Status:** Inactive**Production notes:**

Unknown, but probably small, if any

Reserves:**Additional comments:**

Ten placer(?) claims staked in the valley of Unuk River (U.S. Bureau of Mines, 1979). Occurrence is in Misty Fiords National Monument.

References:

U.S. Bureau of Mines, 1979; Elliott and Koch, 1981; Koch, 1996

Primary reference: Elliott and Koch, 1981

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Joker**Site Type:** Occurrence**ARDF no.** BC015**Latitude:** 56.201**Quadrangle:** BC A-2**Longitude:** 130.454**Location description and accuracy:**

The Joker group of 20 claims is at an average elevation of about 1600 feet near the foot of the ridge north of the Leduc River and west of Clara Smith Glacier gorge (Berg and others, 1977, p. 73, 123, and plate 1). The site is about 0.6 of a mile west-southwest of the Alaska-British Columbia boundary. The location is accurate to within about a quarter of a mile.

Commodities:**Main:** Mo?**Other:****Ore minerals:** Molybdenite?, pyrite**Gangue minerals:** Calcite, quartz**Geologic description:**

The country rocks in the general area of the claims are metavolcanic and metasedimentary strata of the Jurassic or older Mesozoic Hazelton Group, and Eocene quartz monzonite and granodiorite stocks that intrude the Hazelton (Berg and others, 1977, p. 15-26, and plate 1). A field investigation in 1973 by the U.S. Bureau of Mines (Berg and others, p. 42, 123) reported very sparse pyrite and possible molybdenite in quartz-calcite fissure veinlets in Hazelton schist and gneiss that is intruded by aplitic quartz monzonite dikes.

Alteration:

Intense iron oxide alteration of country rocks within 6 inches of the aplitic dikes.

Workings/Exploration:**Age of mineralization:****Deposit model:**

Polymetallic veins?

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:****Additional comments:**

The Joker group of 20 claims were staked in 1952. No claim monuments or evidence of workings were found by the U.S. Bureau of Mines in 1973. This site is in Misty Fiords National Monument.

References:

Berg and others, 1977

Primary reference: Berg and others, 1977

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Unnamed**Site Type:** Occurrence**ARDF no.** BC016**Latitude:** 56.047**Quadrangle:** BC A-2**Longitude:** 130.393**Location description and accuracy:**

This unnamed occurrence is in Section 22 at an elevation of about 2000 feet on the northwest flank of Banded Mountain (Berg and others, 1977, p. 133 and plate 1; Cobb, 1978, p. 87; Elliott and Koch, 1981, p. 8. loc. 16). The location is probably accurate to within about a quarter of a mile.

Commodities:**Main:** Cu**Other:** Ag?, Au?**Ore minerals:** Chalcopyrite, pyrrhotite**Gangue minerals:** Quartz**Geologic description:**

The country rock in the general area of this occurrence is graywacke of the Jurassic or older Mesozoic Hazelton Group (Berg and others, 1977, p. 15 and plate 1). A field investigation in 1973 by the U.S. Bureau of Mines (Berg and others, 1977, p. 133) reported that the deposit consists of a quartz pod that contains pyrrhotite and traces of chalcopyrite, in conspicuously iron-stained graywacke. The pod is about 2 feet thick and probably no more than 20 feet long; it pinches out at either end.

Alteration:

Graywacke hostrock is conspicuously iron stained.

Workings/Exploration:

A channel sample taken by the U. S. Bureau of Mines in 1973 across the thickest part of the quartz pod containing the most abundant sulfides assayed 1200 ppm Cu and 1.5 ppm Ag. A grab sample of a smaller pod about 6 inches thick contained a similar amount of Ag, much less Cu, and 0.05 ppm Au.

Age of mineralization:**Deposit model:**

Polymetallic vein

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:****Additional comments:**

Twenty or more claims were staked in 1928 or 1929 on the northwest side of Banded Mountain, but it is not known whether they included this occurrence. The site is in Misty Fiords National Monument.

References:

Berg and others, 1977; Cobb, 1978 (OFR 78-922); Elliott and Koch, 1981

Primary reference: Berg and others, 1977

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Glacier; Banded Mountain**Site Type:** Prospect**ARDF no.** BC017**Latitude:** 56.04**Quadrangle:** BC A-2**Longitude:** 130.4**Location description and accuracy:**

The site is in Section 27 on the northwest flank of Banded Mountain at an elevation of about 2700 feet (Elliott and Koch, 1981, p. 9, locs. 17a and 17b) This location is probably accurate to within about a half mile. Also see Additional Comments field, below.

Commodities:**Main:** Ag, Au, Cu, Pb**Other:** Mo?**Ore minerals:** Chalcopyrite, galena, pyrite, pyrrhotite; molybdenite?**Gangue minerals:** Quartz**Geologic description:**

The country rocks in the general area of this site are graywacke and andesitic tuff and breccia of the Jurassic or older Mesozoic Hazelton Group (Berg and others, 1977, p. 15, 40, 41, and plate 1). The deposit at the Glacier prospect (Buddington, 1929, p. 120-121) consists of quartz fissure veins as much as one foot thick in graywacke and subordinate andesite tuff and breccia that is cut by a Tertiary lamprophyre dike 3 feet thick. The veins contain pyrite, small amounts of pyrrhotite and chalcopyrite, and rarely, galena. Assays showed 0.04 oz Au and 6 oz Ag per ton and 3% Cu. Quartz float near the Glacier prospect that may have come from the Glacier or similar veins contain pyrite, chalcopyrite, and molybdenite. In 1972-73, a U.S. Bureau of Mines field team searched for, but could not locate, this prospect (Berg and others, 1977, p. 41).

In 1972-73, a U. S. Bureau of Mines field team (Berg, 1977, p. 132-133) investigated a vivid iron-stained zone in the cliffs at an elevation of about 3000-4300 feet on the northwest side of Banded Mountain about one mile due west of the summit. Hazelton Group gneiss and schist in the iron-stained zone contain up to 2% pyrite and pyrrhotite. Assays of chip samples of the zone showed 10-60 ppm Cu, 10-15 ppm Pb, 30-150 ppm Zn, and up to 10 ppm Mo.

Alteration:

Local intense iron staining

Workings/Exploration:

Workings on the Glacier prospect included surface stripping and an 8-foot adit (Buddington, 1929, p. 120-121). Early assays showed 0.04 oz Au and 6 oz Ag per ton and 3% Cu.

Assays of chip samples of an iron-stained zone taken by the U.S. Bureau of Mines in 1972-3 showed 10-60 ppm Cu, 10-15 ppm Pb, 30-150 ppm Zn, and up to 10 ppm Mo.

Age of mineralization:**Deposit model:**

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:****Additional comments:**

Site is in Misty Fiords National Monument. Some of the early publications describing this site are vague or ambiguous [Smith, 1932 (B824, p 17); 1933 (B836, p.15; B844-A, p. 17); 1934 (B857-A, p. 16; B864-A, p. 16)]. Elliott and Koch (1981, p. 9) describe Glacier (Banded Mountain?) (Loc. 17a) and Banded Mountain (Glacier?) (Loc. 17b) separately, but assign both prospects identical map coordinates. This record assigns them the same ARDF number, but otherwise follows Elliott and Koch.

Early publications (Smith, 1932, 1933, 1934) that include vague references to lode prospects on the northwest side of Banded Mountain probably refer to the Glacier prospect. These prospects also were referred to as the Metcalf and Fin(d)ley claims.

References:

Buddington, 1929; Smith, 1932 (B824); Smith, 1933 (B836, 844-A); Smith, 1934 (B857-A, 864-A); Berg and others, 1977; Elliott and Koch, 1981

Primary reference: Buddington, 1929**Reporter:** H. C. Berg (Fullerton, California)**Reporter affiliation:****Last report date:** 5/17/98

Site name(s): Goat; Cub**Site Type:** Prospect**ARDF no.** BC018**Latitude:** 56.017**Quadrangle:** BC A-2**Longitude:** 130.417**Location description and accuracy:**

The Goat prospect (Berg and others, 1977, p. 40-41, 114-115; Elliott and Koch, 1981, p. 9, loc. 18a) is located in Section 23, on the west ridge of Banded Mountain at an elevation of about 4700 feet. This location is accurate to within about a quarter of a mile. Also see Additional Comments field, below.

Commodities:**Main:** Ag, Au, Cu**Other:****Ore minerals:** Chalcopyrite, pyrrhotite**Gangue minerals:** Calcite, quartz**Geologic description:**

The country rocks in the general area of this site are graywacke hornfels and argillite of the Jurassic or older Mesozoic Hazelton Group (Berg and others, 1977, p. 15-17 and plate 1; Koch, 1996). At the Goat prospect (Berg and others, p. 40-41, 114-115; Elliott and Koch, 1981, loc. 18a), quartz-calcite veins up to 6 inches thick in banded graywacke hornfels locally contain abundant pyrrhotite and minor chalcopyrite. The metagraywacke also contains small amounts of pyrrhotite. Channel samples of the veins assay up to 0.8 ppm Au and 3 ppm Ag. Chip samples of the pyrrhotite-bearing metagraywacke contain only traces of valuable metals. A geologic description of the Cub prospect was not publicly available at the time of a U. S. Geological Survey field investigation in 1973 (Berg and others, 1977), but its geologic setting is probably similar to that at the Goat prospect.

Alteration:

Outcrops near site are intensely iron stained.

Workings/Exploration:

Channel samples of the veins assayed up to 0.8 ppm Au and 3 ppm Ag.

Age of mineralization:**Deposit model:**

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:****Additional comments:**

Goat: 2 claims staked in 1969-70. Claims were active in fall of 1973.

Cub: 28 claims staked in 1969-70. Claims were active in fall of 1973.

Berg and others (1977, p. 40-41, 70, 72-72) and Elliott and Koch (1981, loc. 18b)

link the Cub group of 28 claims to the Goat group of 2 claims, but only the Goat group is described. Site is in Misty Fiords National Monument.

References:

Berg and others, 1977; Elliott and Koch, 1981; Koch, 1996

Primary reference: Berg and others, 1977

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Marmot, upper basin**Site Type:** Prospect**ARDF no.** BC019**Latitude:** 56.026**Quadrangle:** BC A-2**Longitude:** 130.369**Location description and accuracy:**

The Marmot upper basin prospect (Berg and others, 1977, p. 106) is in Section 26 on the southeast side of Banded Mountain at an elevation of about 4600 to 4750 feet.

This location is accurate to within about a quarter of a mile.

Commodities:**Main:** Ag, Cu, Mo, Pb**Other:** Au, Zn**Ore minerals:** Chalcopyrite, galena, molybdenite, pyrite**Gangue minerals:** Calcite, quartz**Geologic description:**

The country rocks in the general area of this prospect (Berg and others, 1977, p. 15-18, 22; Koch, 1996) are banded variegated pelitic hornfels, phyllite, and fine-grained schist of the Jurassic or older Mesozoic Hazelton Group. The metasedimentary rocks are intruded by andesite dikes that may be apophyses of the Triassic Texas Creek Granodiorite, and by aplite dikes that may be apophyses of Eocene Hyder Quartz Monzonite. The mineral deposit (Berg and others, 1977, p. 100, 106, 110, 112; Elliott and Koch, 1981, p. 9, loc. 19) consists of a stockwork(?) of quartz [-calcite] veins up to about 3 feet thick in locally iron-stained dark pelitic hornfels of the Hazelton Group. The veins contain pyrite, chalcopyrite, molybdenite, and galena. The highest assay values reported from vein and hostrock samples collected by the U.S. Bureau of Mines in 1972 were 2000 ppm Mo, 5000 ppm Pb, 3000 ppm Cu, 150 ppm Ag, and 0.1 ppm Au. Lead-isotope studies of the galena at the Marmot upper basin prospect (Maas and others, 1995, p. 229-248) indicate that the deposit is Eocene in age, contemporaneous with emplacement of the Hyder Quartz Monzonite.

Alteration:

Local intense iron staining

Workings/Exploration:

Highest assay values reported from veins and hostrock samples collected by U.S. Bureau of Mines in 1972 were 2000 ppm Mo, 5000 ppm Pb, 3000 ppm Cu, 150 ppm Ag, and 0.1 ppm Au.

Age of mineralization:

Lead-isotope studies of the galena at the Marmot upper basin prospect (Maas and others, 1995, p. 229-248) indicate that the deposit is Eocene in age, contemporaneous with emplacement of the Hyder Quartz Monzonite.

Deposit model:

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:**

Reserves:**Additional comments:**

The Marmot group of 51 claims that were staked in 1969 covered all or parts of the old Jumbo (Banded Mountain) (BC021), Galena (BC022), and Edelweiss (BC023) prospects, which are described separately in this report. The Marmot upper basin prospect area was only recently exposed by retreat of glacial ice. The prospect was active in 1973. Site is in Misty Fiords National Monument.

References:

Berg and others, 1977; Elliott and Koch, 1981; Maas and others, 1995; Koch, 1996

Primary reference: Berg and others, 1977

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Edelweiss; Marmot group**Site Type:** Prospect**ARDF no.** BC020**Latitude:** 56.026**Quadrangle:** BC A-2**Longitude:** 130.354**Location description and accuracy:**

The Edelweiss prospect, which was restaked in 1969 as part of the Marmot group of 51 claims (BC019), is approximately located on the boundary of Sections 25 and 26, on the southeast side of Banded Mountain at an elevation of about 4500 feet (Berg and others, 1977, p. 110 and plate 2; Elliott and Koch, 1981, p. 9, loc. 20). This location is accurate to within about a quarter of a mile.

Commodities:**Main:** Ag, Au, Pb**Other:****Ore minerals:** Galena, pyrite, pyrrhotite**Gangue minerals:** Quartz**Geologic description:**

The country rocks in the general area of the Edelweiss prospect are recrystallized tuffaceous graywacke, slate, quartzite[?], and minor limestone of the Jurassic or older Mesozoic Hazelton Group (Buddington, 1929, p. 101; Berg and others, 1977, p. 15-17; Koch, 1996). The deposit consists of a quartz fissure vein about a foot thick that cuts metagraywacke and contains pyrite, pyrrhotite, and galena. A picked sample of the vein assayed 1.6 oz Au and 10.2 oz Ag per ton (Buddington, 1929, p. 110). Select grab samples collected by the U.S. Bureau of Mines in 1972 (Berg and others, 1977, p. 110-113) showed up to 15000 ppm Pb and 300 ppm Ag, but no gold.

Alteration:

Local intense iron staining.

Workings/Exploration:

Explored by an open cut, now partly caved.

A picked sample (Buddington, 1929, p. 110) of the vein assayed 1.6 oz Au and 10.2 oz Ag per ton. Samples collected in 1972 (Berg and others, 1977, p. 110-113) showed up to 15000 ppm Pb and 300 ppm Ag, but no gold.

Age of mineralization:**Deposit model:**

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:**

Additional comments:

Deposit originally staked in 1925 or 1926; more claims staked in 1928; restaked as part of Marmot group in 1969.
Site is in Misty Fiords National Monument.

References:

Buddington, 1929; Berg and others, 1977; Elliott and Koch, 1981; Koch, 1996

Primary reference: Berg and others, 1977

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Jumbo; Marmot, lower basin**Site Type:** Prospect**ARDF no.** BC021**Latitude:** 56.019**Quadrangle:** BC A-2**Longitude:** 130.35**Location description and accuracy:**

The approximate location of the Jumbo prospect is in Section 36 on the southeast flank of Banded Mountain just above Through Glacier at an elevation of about 3400 feet (Elliott and Koch, 1981, p. 10, loc. 21). The location is probably accurate to within about a quarter of a mile. Also see Additional Comments field, below.

Commodities:**Main:** Ag, Mo, Pb, Zn**Other:** Au, Cu, Zn**Ore minerals:** Chalcopyrite, galena, molybdenite, pyrite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The country rocks in the area of this prospect are metamorphosed pelitic strata of the Jurassic or older Mesozoic Hazelton Group, which are underlain and locally intruded by the Triassic Texas Creek Granodiorite; and the Eocene Hyder Quartz Monzonite, which intrudes the Hazelton and Texas Creek rocks (Berg and others, 1977, p. 15-17; Koch, 1996). The deposit (Buddington, 1929, p. 101) consists of quartz fissure veins up to about 2 feet thick that cut metagraywacke, argillite, and banded hornfels and contain pyrite, galena, molybdenite, and traces of chalcopyrite and sphalerite. A field investigation in 1972 by the U.S. Bureau of Mines did not locate the Jumbo prospect or find the Jumbo adit reportedly driven sometime after Buddington's work (1929). Samples of quartz veins, breccia zones, and iron-stained, locally sulfide-bearing country rocks collected in 1972 in the general area of the Jumbo prospect (Berg and others, 1977, p. 101-110) contained up to 200 ppm Ag, 6% Pb, 8% Zn, and more than 2000 ppm Mo, but the average values of these metals was much lower. The veins also contain minor Cu, Zn, and Au. Lead-isotope studies of the galena at the Marmot lower basin prospect (Maas, 1995, p. 229-248) indicate that the deposit is Eocene in age, and contemporaneous with emplacement of the Hyder Quartz Monzonite.

Alteration:

Local intense iron staining of veins and country rocks.

Workings/Exploration:

An adit is said to have been driven sometime after 1929.

Samples collected in 1972 by U. S. Bureau of Mines contained up to 200 ppm Ag, 6% Pb, 8% Zn, and more than 2000 ppm Mo, but the average values of these metals was much lower.

Age of mineralization:

Lead-isotope studies of the galena at the Marmot lower basin prospect (Maas, 1995, p. 229-248) indicate that the deposit is Eocene in age, and contemporaneous with emplacement of the Hyder Quartz Monzonite.

Deposit model:

Polymetallic veins

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

22c

Production: None**Status:** Inactive

Production notes:**Reserves:****Additional comments:**

The Jumbo prospect on Banded Mountain (Buddington, 1929, p. 101) was originally staked in 1925 with 2 claims, restaked as a 6-claim group in 1933, 1935, and 1941, and covered in 1969 by the Marmot group of 51 claims (Berg and others, 1977, p. 40-41, 100-114). This record covers the area described as 'Marmot, lower basin (Jumbo area)' in Berg and others (1977, p. 101-106). Site is in Misty Fiords National Monument.

References:

Buddington, 1929; Berg and others, 1977; Elliott and Koch, 1981; Maas and others, 1995; Koch, 1996.

Primary reference: Berg and others, 1977

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Galena; Marmot group**Site Type:** Prospect**ARDF no.** BC022**Latitude:** 56.031**Quadrangle:** BC A-1**Longitude:** 130.332**Location description and accuracy:**

The Galena prospect, covered in 1969 by the Marmot group of claims, is in Section 25 on the eastern slope of Banded Mountain at an elevation of about 2600 feet (Berg and others, 1977, p. 112; Elliott and Koch, 1981, p. 10, loc. 22). The location is accurate to within about a quarter of a mile.

Commodities:**Main:** Ag, Cu, Mo, Pb,Zn**Other:****Ore minerals:** Chalcopyrite, galena, molybdenite, pyrite, sphalerite**Gangue minerals:** Calcite, quartz**Geologic description:**

The country rocks in the area of the Galena prospect are metamorphosed pelitic strata of the Jurassic or older Mesozoic Hazelton Group, locally cut by fine-grained light-colored dikes that may be apophyses of the Eocene Hyder Quartz Monzonite (Berg and others, 1977, p. 15-17, 22-23; Smith, 1977; Koch, 1996). The deposit (Berg and others, 1977, p. 112-114) consists of quartz (-calcite) stringers and fissure veins up to about 8 inches thick that cut pelitic hornfels. The veins locally contain pyrite, galena, molybdenite, chalcopyrite, and sphalerite. The highest sulfide concentrations commonly are adjacent to fracture intersections. The highest metal values for samples of veins collected by the U. S. Bureau of Mines in 1972 (Berg and others, 1977, p. 112-114) were 30 ppm Ag, 500 ppm Mo, 300 ppm Cu, 6500 ppm Pb, and 2000 ppm Zn. The total metal content of veins in the area, however, is low.

Alteration:

Outcrops locally are intensely iron stained.

Workings/Exploration:

Highest metal values for samples of veins collected by U.S. Bureau of Mines in 1972 were 30 ppm Ag, 500 ppm Mo, 300 ppm Cu, 6500 ppm Pb, and 2000 ppm Zn. The average tenor of the veins, however, is low.

Age of mineralization:**Deposit model:**

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:**

Additional comments:

The Galena prospect, originally staked in the 1920's, was covered in 1969 by the Marmot group of 51 claims.
The site is in Misty Fiords National Monument.

References:

Berg and others, 1977; Smith, 1977; Elliott and Koch, 1981; Koch, 1996

Primary reference: Berg and others, 1977

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Greenpoint**Site Type:** Prospect**ARDF no.** BC023**Latitude:** 56.025**Quadrangle:** BC A-1**Longitude:** 130.322**Location description and accuracy:**

The Greenpoint prospect is at an elevation of about 2700 feet on an untimbered point about 750 feet south of the confluence of Greenpoint and Through glaciers (Berg and others, 1977, p. 93-96; Elliott and Koch, 1981, p. 10, loc. 23). The location is probably accurate to within about a quarter of a mile. Also see Additional Comments field, below.

Commodities:**Main:** Ag, Cu, Mo, Pb**Other:****Ore minerals:** Chalcopyrite, galena, molybdenite, pyrite**Gangue minerals:** Calcite, quartz**Geologic description:**

The country rocks in the area of the Greenpoint prospect are pelitic metasedimentary and andesitic metavolcanic rocks of the Jurassic or older Mesozoic Hazelton Group, and quartz monzonite and granodiorite of the Eocene Hyder Quartz Monzonite (Berg and others, 1977, p. 15-17, 22-23; Smith, 1977; Koch, 1996). The deposit (Berg and others, 1977, p. 93-96) consists of numerous quartz-calcite fissure veinlets up to 6 inches thick in multiple fracture sets that cut pelitic hornfels of the Hazelton Group. The veinlets contain up to 5% pyrite, lesser amounts of galena and molybdenite, and traces of chalcopyrite. Chip samples of the veinlets collected in 1972 by U.S. Bureau of Mines investigators contained as much as 30 ppm Ag. Average metal content was 2.4 ppm Ag, 400 ppm Pb, and 65 ppm Mo. One sample assayed 1100 ppm Zn.

Alteration:**Workings/Exploration:**

Explored, probably in 1920's, by a small pit and open cut. Chip samples of veinlets collected in 1972 by the U. S. Bureau of Mines averaged 2.4 ppm Ag, 400 ppm Pb, and 65 ppm Mo. One sample contained 30 ppm Ag, and one assayed 1100 ppm Zn.

Age of mineralization:**Deposit model:**

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:**

Additional comments:

The Greenpoint claims staked in 1970 (Berg and others, 1977, p. 94) extend beyond the Greenpoint prospect described in this record and cover the old Heckla prospect, which is described separately (BC024).

Site is in Misty Fiords National Monument.

References:

Berg and others, 1977; Smith, 1977; Elliott and Koch, 1981; Koch, 1996.

Primary reference: Berg and others, 1977

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Heckla; Greenpoint**Site Type:** Prospect**ARDF no.** BC024**Latitude:** 56.012**Quadrangle:** BC A-1**Longitude:** 130.329**Location description and accuracy:**

The Heckla prospect, in the southern part of the 12-claim Greenpoint group staked in 1970, is in Section 31 at an elevation of about 4000 feet on the northwest slope of a mountain about 1 mile south-southwest of the confluence of Through and Greenpoint glaciers (Berg and others, 1977, p. 96; Elliott and Koch, 1981, p. 10, loc. 24).

Commodities:**Main:** Ag, Cu, Mo, Pb, Zn**Other:** Au**Ore minerals:**

Anglesite, chalcopyrite, covellite, digenite, galena, malachite, molybdenite, pyrite, pyrrhotite, sphalerite

Gangue minerals: Quartz**Geologic description:**

The country rocks in the area of the Heckla prospect are mainly pelitic hornfels of the Jurassic or older Mesozoic Hazelton Group. Near the prospect, graywacke hornfels is cut by dikes of diorite or andesite that may be apophyses of Triassic Texas Creek Granodiorite, and by felsic dikes that may be apophyses of Eocene Hyder Quartz Monzonite (Berg and others, 1977, p. 15-18, 22-23, 96-97; Smith, 1977; Koch, 1996). The mineral deposit (Berg, and others, 1977, p. 96-100) consists of five principal quartz fissure veins up to about 4 feet thick. The veins cut graywacke hornfels and minor calcareous schist and contain pyrite, galena, and molybdenite, locally abundant sphalerite and pyrrhotite, sporadic chalcopyrite and a little malachite, and microscopic traces of covellite and digenite. Small amounts of anglesite are in some of the more oxidized zones. Some of the quartz is vuggy and locally iron stained. The wallrock adjacent to the main (Heckla) vein is sheared, altered, and impregnated with sulfides over a width of about 3 feet. Channel samples of the veins collected in 1972 by the U.S. Bureau of Mines (Berg, 1977, p. 98-99) contain up to 9% Pb, 8.5% Zn, 1% Cu, and 15% Mo; assays also show up to 20 oz of Ag and 0.23 oz of Au per ton. Moffit (1927, p. 30) reports that a one-ton test shipment was made in 1925 by 'Hummel, Blasher, and Moss,' which Buddington (1929, p. 102) indicates came from the Heckla prospect. Buddington (p. 101-102) also reports that a picked sample yielded 0.08 oz of Au and 54.3 oz of Ag per ton, 21.6% Pb, 32.1% Zn, and 4.1% Cu. Lead-isotope studies of the galena at the Heckla prospect (Maas, 1995, p. 229-248) indicate that the deposit is Eocene in age, contemporaneous with emplacement of the Hyder Quartz Monzonite.

Alteration:

Wallrocks adjacent to veins are impregnated with sulfide minerals. Local iron staining. Local oxidation and formation of secondary copper and lead minerals.

Workings/Exploration:**Age of mineralization:**

Lead-isotope studies of the galena at the Heckla prospect (Maas, 1995, p. 229-248) indicate that the deposit is Eocene in age, contemporaneous with emplacement of the Hyder Quartz Monzonite.

Deposit model:

Polymetallic veins

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

22c

Production: Yes; small**Status:** Inactive**Production notes:**

One-ton test shipment made in 1925.

Reserves:**Additional comments:**

Five claims staked in 1925. Prospect covered by 12-claim Greenpoint group staked in 1970.

Site is in Misty Fiords National Monument.

References:

Moffit, 1927; Buddington, 1929; Berg and others, 1977; Smith, 1977; Elliott and Koch, 1981; Maas and others, 1995; Koch, 1996

Primary reference: Berg and others, 1977**Reporter:** H. C. Berg (Fullerton, California)**Reporter affiliation:****Last report date:** 5/17/98

Site name(s): Cathedral**Site Type:** Prospect**ARDF no.** BC025**Latitude:** 56.075**Quadrangle:** BC A-1**Longitude:** 130.285**Location description and accuracy:**

The Cathedral prospect is in Section 25 at an elevation of about 3100-3400 feet on the south end of the bold ridge between Chickamin and West Texas glaciers, just above west-facing cliffs (Berg and others, 1977, p. 90; Elliott and Koch, 1981, p. 11, loc. 25). The location is accurate to within about a quarter of a mile.

Commodities:**Main:** Ag, Au, Cu, Pb, Zn**Other:****Ore minerals:** Chalcopyrite, galena, pyrite, pyrrhotite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The country rocks in the area of the Cathedral prospect include pelitic metasedimentary strata of the Jurassic or older Mesozoic Hazelton Group; the Triassic Texas Creek Granodiorite, which underlies and locally intrudes the Hazelton; and the Eocene Hyder Quartz Monzonite, which intrudes the Hazelton and Texas Creek rocks (Berg and others, 1977, p. 15-18, 22-23; Smith, 1977; Koch, 1996). The deposit (Berg and others, 1977, p. 38-39, 90-91; Elliott and Koch, p. 11, loc. 25) consists of quartz fissure veins up to about 5 feet thick in graywacke hornfels. The veins contain shoots of nearly massive sphalerite and (or) galena, together with subordinate amounts of chalcopyrite, pyrite, and pyrrhotite. Channel samples collected in 1972 by the U. S. Bureau of Mines across the full width of the thickest (5-foot) vein and its 7-inch-thick footwall massive sulfide zone averaged 70 ppm Ag, 0.17% Cu, 0.75% Pb, and 7.5% Zn. A channel sample only of the massive sulfide contained 4.4 oz Ag per ton, 0.27% Cu, 0.9% Pb, and 35% Zn. One analysis showed 0.05 ppm Au. Samples of a smaller (2.5-inch-thick) sulfide-bearing vein assayed 20 oz Ag per ton, 19% Pb, and 9% Zn.

Alteration:

Locally intense iron staining.

Workings/Exploration:

Early workings included an approximately 10-foot-long stripped area. Channel samples collected in 1972 by the U. S. Bureau of Mines across the full width of the thickest (5-foot) vein and its 7-inch-thick footwall massive sulfide zone averaged 70 ppm Ag, 0.17% Cu, 0.75% Pb, and 7.5% Zn. A channel sample only of the massive sulfide contained 4.4 oz Ag per ton, 0.27% Cu, 0.9% Pb, and 35% Zn. One analysis showed 0.05 ppm Au. Samples of a smaller (2.5-inch-thick) sulfide-bearing vein assayed 20 oz Ag per ton, 19% Pb, and 9% Zn.

Age of mineralization:**Deposit model:**

Polymetallic veins

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

22c

Production: None**Status:** Inactive

Production notes:

Reserves:

Additional comments:

Four claims staked in 1930 probably covered this prospect.
Site is in Misty Fiords National Monument.

References:

Berg and others, 1977; Smith, 1977; Elliott and Koch, 1981; Koch, 1996

Primary reference: Berg and others, 1977

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Marietta; Pecos; Solo Pecos**Site Type:** Mine**ARDF no.** BC026**Latitude:** 56.076**Quadrangle:** BC A-1**Longitude:** 130.258**Location description and accuracy:**

The Marietta mine is in Section 9 at an elevation of about 4600 feet, near the lower edge of an icefield overlooking Chickamin Glacier, and about 1.6 mile north of Texas Lake (Berg and others, 1977, p. 76; Elliott and Koch, 1981, p. 11, loc. 26).

Commodities:**Main:** Ag, Au**Other:** Cu, Pb, Zn**Ore minerals:** Electrum, gold; galena**Gangue minerals:** Calcite, quartz**Geologic description:**

The country rocks in the area of the Marietta mine are pelitic metasedimentary strata of the Jurassic or older Mesozoic Hazelton Group. The Hazelton is underlain and locally intruded by the Triassic Texas Creek Granodiorite, and both the Hazelton and Texas Creek rocks are intruded by the Eocene Hyder Quartz Monzonite (Berg and others, 1977, p. 15-18, 22-23; Smith, 1977; Koch, 1996). There is no published geologic description of this deposit, which is covered by ice. The discovery around 1925 of electrum-bearing float nearby led to tunneling beneath the ice that resulted in the discovery in 1937 of a vein under the glacier (Berg and others, 1977, p. 76-77; Elliott and Koch, 1981), followed by unconfirmed reports of production of 300-400 oz of gold and electrum. A search by the U.S. Bureau of Mines in 1972-73 (Berg and others, 1977, p. 76-77) failed to find bedrock workings due to snow and ice cover. Analyses by the Bureau of Mines of sparse galena-, pyrrhotite-, and chalcopyrite-bearing quartz-calcite veinlets in graywacke and argillite near the reported mine site showed small amounts of Cu, Pb, Zn, and Ag, but virtually no gold. Lead-isotope studies of galena from the Pecos and Solo Pecos claims in the area of the Marietta mine (Maas and others, 1995, p. 229-248) indicate that the deposits on those claims are Eocene in age, contemporaneous with emplacement of the Hyder Quartz Monzonite.

Alteration:**Workings/Exploration:**

Almost 6000 feet of ice tunnels were driven to find the source of gold-and electrum-bearing float found on the mountainside below the mine. Analyses in 1972-73 by the U. S. Bureau of Mines of sparse galena-, pyrrhotite-, and chalcopyrite-bearing quartz-calcite veinlets in graywacke and argillite near the reported mine site showed small amounts of Cu, Pb, Zn, and Ag, but virtually no gold. Operators of the nearby Pecos and Solo Pecos claims (Maas and others, 1995, p. 238, 241, 243) explored those deposits by mapping, sampling, ground geophysical work, and limited diamond drilling, but the ground was abandoned at the time of the U. S. Bureau of Mines investigation in 1973 (Berg and others, 1977, p. 76-77).

Age of mineralization:

Lead-isotope studies of galena from the Pecos and Solo Pecos claims in the area of the Marietta mine (Maas and others, 1995, p. 229-248) indicate that the deposits on

those claims are Eocene in age, contemporaneous with emplacement of the Hyder Quartz Monzonite.

Deposit model:

Polymetallic veins

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

22c

Production: Yes; small

Status: Inactive

Production notes:

Unconfirmed report of production of 300-400 oz of gold and electrum in 1937.

Reserves:**Additional comments:****References:**

Berg and others, 1977; Smith, 1977; Elliott and Koch, 1981; Maas and others, 1995; Koch, 1996

Primary reference: Berg and others, 1977

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Chickamin**Site Type:** Prospect**ARDF no.** BC027**Latitude:** 56.071**Quadrangle:** BC A-1**Longitude:** 130.272**Location description and accuracy:**

The Chickamin prospect is in Section 9 at an elevation of about 3000 feet on a precipitous west-facing mountainside overlooking Chickamin Glacier. It is about 1.4 mile north-northeast of Disappearing Lake (Berg and others, 1977, p. 84; Elliott and Koch, 1981, p. 11, loc. 27).

Commodities:**Main:** Cu, Pb, Zn**Other:****Ore minerals:** Chalcopyrite, galena, pyrite, pyrrhotite, tetrahedrite**Gangue minerals:** Quartz**Geologic description:**

The country rocks in the area of the Chickamin prospect are metamorphosed pelitic strata of the Jurassic or older Mesozoic Hazelton Group that are underlain and locally intruded by the Triassic Texas Creek Granodiorite. Both the Hazelton and Texas Creek, in turn, are intruded by the Eocene Hyder Quartz Monzonite (Smith, 1977; Berg and others, 1977, p. 15-18, 22-23). Buddington (1929, p. 100) describes the deposit as a quartz stringer lode and a three-foot-thick quartz fissure vein in graywacke. The stringers and vein contain galena, chalcopyrite, sphalerite, pyrite, and a little pyrrhotite and tetrahedrite. In 1972-73, a U. S. Bureau of Mines field team searched for but could not find the prospect, which probably was covered by snow (Berg and others, 1977, p. 84). A grab sample from a foot-thick granitic dike in the area near the prospect contained traces of pyrrhotite and goethite.

Alteration:

Local iron staining

Workings/Exploration:**Age of mineralization:****Deposit model:**

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:****Additional comments:**

Prospect could not be located 1972-73. Site is in Misty Fiords National Monument.

References:

Buddington, 1929; Smith, 1977; Berg and others, 1977; Elliott and Koch, 1981

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Silver King**Site Type:** Prospect**ARDF no.** BC028**Latitude:** 56.068**Quadrangle:** BC A-1**Longitude:** 130.267**Location description and accuracy:**

The Silver King prospect (Buddington, 1929, p. 100; Elliott and Koch, 1981, p. 11, loc. 28) is in Section 9 at an elevation of about 3800 feet on a steep west-facing mountainside overlooking Chickamin Glacier. It is about 1.1 mile north-northwest of Texas Lake. This location is probably accurate to within about a quarter of a mile.

Commodities:**Main:** Ag, Au, Cu, Pb, Zn**Other:** Barite**Ore minerals:** Arsenopyrite, barite, chalcopyrite, galena, pyrite, sphalerite, tetrahedrite**Gangue minerals:** Quartz**Geologic description:**

The country rocks in the area near the Silver King prospect are metamorphosed pelitic strata of the Jurassic or older Mesozoic Hazelton Group; the Triassic Texas Creek Granodiorite, which underlies and locally intrudes the Hazelton; and the Eocene Hyder Quartz Monzonite, which intrudes the Hazelton and Texas Creek rocks (Smith, 1977; Berg and others, 1977, p. 15-18, 22-23). Buddington (1929, p. 99-100) describes the deposit as a quartz fissure vein 6-30 inches thick in graywacke and argillite cut by a quartz diorite dike. The vein contains 2-8 inches of solid sulfides, including sphalerite, galena, pyrite, chalcopyrite, tetrahedrite, and a little arsenopyrite; a little barite also is present. A sample of the solid sulfides, chiefly galena, assayed 1.28 oz of Au and 5.96 oz of Ag per ton, 55% Pb, and 2.2% Cu. This prospect could not be located in 1972-73, probably owing to snow cover (Berg and others, 1977, p. 38-39). Lead-isotope studies of galena at the Silver King prospect indicate that the deposit is Eocene in age, contemporaneous with emplacement of the Hyder Quartz Monzonite (Maas, 1995, p. 229-248).

Alteration:**Workings/Exploration:**

According to Buddington (1929, p. 99-100), the lower exposure of the vein was stripped for 50 feet, and the upper exposure was stripped for 8 feet.

An early assay of a sample of the solid sulfide part of the vein showed 1.28 oz of Au and 5.96 oz of Ag per ton, 55% Pb, and 2.2% Cu.

Age of mineralization:

Lead-isotope studies of galena at the Silver King prospect indicate that the deposit is Eocene in age, contemporaneous with emplacement of the Hyder Quartz Monzonite (Maas, 1995, p. 229-248).

Deposit model:

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:**

Reserves:

Additional comments:

References:

Buddington, 1929; Smith, 1977; Berg and others, 1977; Elliott and Koch, 1981;
Maas and others, 1995

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Hummel**Site Type:** Prospect**ARDF no.** BC029**Latitude:** 56.065**Quadrangle:** BC A-1**Longitude:** 130.242**Location description and accuracy:**

The Hummel prospect is in Section 15 at an elevation of about 4300 feet on a steep, south-facing mountainside overlooking upper West Fork of Texas Creek. It is about 1.5 mile northeast of Texas Lake (Elliott and Koch, 1981, p. 11, loc. 29). The location is accurate to within about a quarter of a mile.

Commodities:**Main:** Ag, Au, Cu, Pb, Zn**Other:****Ore minerals:** Chalcopyrite, galena, pyrite, sphalerite, tetrahedrite**Gangue minerals:** Quartz**Geologic description:**

The country rocks in the area of the Hummel prospect include pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group; the Triassic Texas Creek Granodiorite, which underlies and locally intrudes the Hazelton; and the Eocene Hyder Quartz Monzonite, which intrudes both the Hazelton and Texas Creek rocks (Smith, 1977; Koch, 1996). The deposit (Buddington, 1929, p. 98) consists of stringers of sulfides and quartz in a shear zone that cuts argillite and slate. The zone is at least 2 feet thick and contains up to 6 inches of solid sulfides along the hanging wall. The sulfides include sphalerite, galena, pyrite, chalcopyrite, and minor tetrahedrite. A nearly pure sample of the sphalerite contained 22.8 oz of Ag and 0.02 oz of Au per ton.

Alteration:**Workings/Exploration:**

Minor surface exploration.

An early assay of a nearly pure sample of the sphalerite showed 22.78 oz of Ag and 0.02 oz of Au per ton.

Age of mineralization:**Deposit model:**

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:****Additional comments:**

References:

Buddington, 1929; Smith, 1977; Elliott and Koch, 1981; Koch, 1996

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Double Anchor; Alaska State Mines Extension**Site Type:** Prospect**ARDF no.** BC030**Latitude:** 56.064**Quadrangle:** BC A-1**Longitude:** 130.258**Location description and accuracy:**

The Double Anchor prospect is in Section 16 at an elevation of about 4100 feet near the top of a south-facing mountainside overlooking Texas Lake, about 0.7 mile south of the lake (Berg and others, 1977, p. 79; Elliott and Koch, 1981, p. 11, loc. 30).

Commodities:**Main:** Ag, Au, Cu, Pb, Zn**Other:** Cu**Ore minerals:** Chalcopyrite, galena, pyrite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The country rocks in the area near the Double Anchor prospect are pelitic metasedimentary and minor andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group; the Triassic Texas Creek Granodiorite, which underlies and locally intrudes the Hazelton; and the Eocene Hyder Quartz Monzonite, which cuts both the Hazelton and Texas Creek rocks (Smith, 1977; Koch, 1996). Buddington (1929, p. 98-99) describes the deposit as a subhorizontal shear zone in argillite and graywacke that contains seams and stringers of quartz and sulfides, including sphalerite, galena, pyrite, chalcopyrite, and sparse pyrrhotite. The largest orebody is about 2.5 feet thick and 30 feet long; most individual veins are less than an inch thick. Thick quartz veins nearby are only sparsely mineralized. Berg and others (1977, p. 38-39) describe two quartz breccia zones. One is subhorizontal, up to about a foot thick, and exposed for about 700 feet along strike; the other dips steeply and is exposed for about 160 feet along strike. Both zones contain pyrite, galena, sphalerite, and chalcopyrite. The weighted average of analyses of samples collected by the U.S. Bureau of Mines in 1972 (Berg and others, 1977, p. 79-84) across about a two-foot-width of the main (subhorizontal) orebody is 4.3% Pb, 1.0% Zn, and 3.5 oz Ag and 0.022 oz Au per ton. Lead-isotope studies of galena from the Double Anchor prospect have yielded Jurassic and Eocene ages (Maas and others, 1995, p. 235, 244). The deposit is interpreted to be polygenetic, originating during Jurassic Hazelton island-arc volcanism (Alldrick, 1993), and then partly remobilized or reconstituted as fissure veins during Eocene emplacement of the Hyder Quartz Monzonite.

Alteration:

Local intense iron staining. The subhorizontal quartz breccia zone is oxidized.

Workings/Exploration:

Prospect was explored, probably in the 1920's, by pits and short adits. The weighted average of analyses of samples collected by the U.S. Bureau of Mines in 1972 (Berg and others, 1977, p. 79-84) across about a two-foot-width of the main (subhorizontal) orebody is 4.3% Pb, 1.0% Zn, and 3.5 oz Ag and 0.022 oz AU per ton.

Age of mineralization:

Lead-isotope studies of galena from the Double Anchor prospect have yielded Jurassic and Eocene ages (Maas and others, 1995, p. 235, 244). The deposit is interpreted to be polygenetic, originating during Jurassic Hazelton island-arc

volcanism (Alldrick, 1993), and then partly remobilized or reconstituted during Eocene emplacement of the Hyder Quartz Monzonite.

Deposit model:

Polymetallic veins

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

22c

Production: None

Status: Inactive

Production notes:**Reserves:****Additional comments:**

Four claims were recorded in 1923; property was restaked in 1958 as part of the Alaska State Mines Extension claim group of 19 lode and 2 placer claims. The claims were inactive in 1973 (Berg and others, 1977, p. 76).

References:

Buddington, 1929; Smith, 1977; Berg and others, 1977; Elliott and Koch, 1981; Alldrick, 1993; Maas and others, 1995

Primary reference: Berg and others, 1977

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Dugas; Stampede; Blasher Extension**Site Type:** Prospect**ARDF no.** BC031**Latitude:** 56.063**Quadrangle:** BC A-1**Longitude:** 130.271**Location description and accuracy:**

The prospect is in Section 16 at an elevation of about 4100 feet, about 1.8 mile north-northwest of Texas Lake (Elliott and Koch, 1981, p. 12, loc. 31; Berg and others, 1977, plate 2). The location probably is accurate to within about a quarter of a mile.

Commodities:**Main:** Ag, Au, Cu, Pb, Zn**Other:****Ore minerals:** Chalcopyrite, galena, malachite, pyrite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The country rocks in the area of this prospect are pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group. The Hazelton is underlain and locally intruded by the Triassic Texas Creek Granodiorite, and both the Hazelton and Texas Creek are intruded by the Eocene Hyder Quartz Monzonite (Smith, 1977; Berg, 1977, p. 15-18, 22-23; Koch, 1996). Buddington (1929, p. 99) describes three types of deposits, hosted in graywacke and slate: (1) quartz fissure veins in a shattered zone cutting across bedding; (2) mineralized quartz stringers in shear zones parallel to bedding; and (3) stringers of sulfide minerals parallel to bedding. The sulfide minerals are sphalerite, galena, pyrite, and chalcopyrite. Fracture surfaces in an aplite are faced with some of the sulfides. Berg and others (1977, p. 38-39, 77, 79-80) describe the strongly iron-stained deposit as a shear zone up to two feet wide in graywacke and argillite that contains small amounts of galena, sphalerite, and chalcopyrite. They also describe a mineralized aplite dike and a two-foot-thick quartz vein that contains small to trace amounts of the same sulfide minerals and malachite. A single composite sample from three channel samples assayed 300 ppm Cu, 250 ppm Pb, 200 ppm Zn, and 10 ppm Ag. The highest precious-metal assays from 5 samples were 0.05 ppm Au and 30 ppm Ag.

Alteration:

Local intense iron staining. Minor oxidation of chalcopyrite to malachite.

Workings/Exploration:

The only workings identified in 1973 (Berg and others, 1977) were three small pits or trenches. A single composite from three channel samples assayed 300 ppm Cu, 250 ppm Pb, 200 ppm Zn, and 10 ppm Ag. The highest precious-metal assays from 5 samples were 0.05 ppm Au and 30 ppm Ag.

Age of mineralization:**Deposit model:**

Polymetallic veins

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

22c

Production: None**Status:** Inactive

Production notes:**Reserves:****Additional comments:**

This prospect, identified in 1972 (Berg and others, 1977, p. 77, 79-80) by three small pits, was called Dugas by Buddington (1929, p. 99) and Stampede by Berg and others (1977, p. 38-39, 77, 79). The Dugas/Stampede prospect area was originally staked in 1925 and restaked several times since then. In 1958 it was covered by the Alaska State Mines Extension group of claims. None of these claims was active in 1973.

The name Blasher Extension has also been associated with this prospect area. Site appears to be just within Misty Fiords National Monument.

References:

Buddington, 1929; Smith, 1977; Berg and others, 1977; Elliott and Koch, 1981; Koch, 1996

Primary reference: Berg and others, 1977

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Blasher; Lone Star Group**Site Type:** Prospect**ARDF no.** BC032**Latitude:** 56.056**Quadrangle:** BC A-1**Longitude:** 130.265**Location description and accuracy:**

The Blasher prospect is in Section 16 at an elevation of about 2600 feet approximately 0.3 mile northwest of Texas Lake (Elliott and Koch, 1981, p. 12, loc. 32). The location is accurate to within about a quarter of a mile. Also see Additional Comments field, below.

Commodities:**Main:** Ag, Au, Cu, Mo, Pb, Zn**Other:****Ore minerals:** Chalcopyrite, galena, pyrite, pyrrhotite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The country rocks in the area of the Blasher prospect include pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group; the Triassic Texas Creek Granodiorite, which underlies and locally intrudes the Hazelton; and the Eocene Hyder Quartz Monzonite, which intrudes both the Hazelton and Texas Creek rocks (Smith, 1977; Berg and others, 1977, p. 15-18, 22-23; Koch, 1996). Buddington (1929, p. 100) describes the deposit as a shattered and fissured zone in quartzite, less than 200 feet above the contact of the Texas Creek Granodiorite. The zone, traced along strike for about 1500 feet, contains a quartz vein about 4 feet thick and many mineralized quartz stringers. The veins carry galena, pyrite, sphalerite, and minor chalcopyrite. A short adit driven in argillite to undercut the lode encountered quartz veinlets containing disseminated molybdenite. Berg and others (1977, p. 38-39, 72, 85-89) describe the deposit as a quartz vein up to 2 feet thick and exposed along strike for about 140 feet. The hostrocks are Hazelton hornfels and quartz monzonite that is interpreted as a cupola of the Texas Creek Granodiorite. The vein contains erratically distributed chalcopyrite, galena, sphalerite, pyrrhotite, pyrite, and molybdenite. A weighted average of assay data over the exposed length of the vein gives 0.93% Cu, 1.15% Pb, 1.25% Zn, 0.002% Mo, and 4.4 oz Ag and 0.016 oz Au per ton. Small amounts of powellite are present locally in the vein, and the quartz monzonite and hornfels country rocks locally contain sparse molybdenite. Lead-isotope studies of galena from the Blasher prospect (Maas and others, 1995, p. 244) indicate that the deposit is Eocene in age, contemporaneous with emplacement of the Hyder Quartz Monzonite.

Alteration:

Hostrock identified as quartzite may have formed by silicification of pelitic country rock.

Workings/Exploration:

Property has been explored by a short drift, surface opencuts, trenches, and pits, and seven diamond drillholes.

A weighted average of assay data over the exposed length of the vein gives 0.93% Cu, 1.15% Pb, 1.25% Zn, 0.002% Mo, and 4.4 oz Ag and 0.016 oz Au per ton (Berg and others, 1977).

Age of mineralization:

Lead-isotope studies of galena from the Blasher prospect (Maas and others, 1995, p. 244) indicate that the deposit is Eocene in age, contemporaneous with emplacement of the Hyder Quartz Monzonite.

Deposit model:

Polymetallic veins

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

22c

Production: None

Status: Inactive

Production notes:**Reserves:****Additional comments:**

The Blasher prospect was originally staked in 1923, restaked several times, and covered in 1970-71 by the Lone Star group of 32 claims (Berg and others, 1977, p. 85).

References:

Buddington, 1929; Smith, 1977; Berg and others, 1977; Elliott and Koch, 1981; Maas and others, 1995; Koch, 1996

Primary reference: Berg and others, 1977

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Morning; Lakeside; Lone Star Group**Site Type:** Prospect**ARDF no.** BC033**Latitude:** 56.053**Quadrangle:** BC A-1**Longitude:** 130.268**Location description and accuracy:**

The approximate location of this site is at an elevation of about 2350 feet on the divide between Texas and Disappearing lakes (Elliott and Koch, 1981, p. 12, loc. 33) This location probably is accurate to within about a quarter of a mile.

Commodities:**Main:** Ag, Pb**Other:****Ore minerals:** Galena, pyrite**Gangue minerals:** Quartz**Geologic description:**

The country rock in the area of this site is the Triassic Texas Creek Granodiorite, which is locally intruded by apophyses of Eocene Hyder Quartz Monzonite (Smith, 1977; Berg and others, 1977, p. 17-18). Buddington (1929, p. 101) describes the Morning deposit as a quartz vein 2-4 feet thick in Texas Creek Granodiorite. The vein contains much pyrite and sparse pockets of galena. The vein described by Buddington was not found during U.S. Geological Survey-U.S. Bureau of Mines field investigations in 1972-73 (Berg, 1977, p. 84-85). Instead, massive quartz float on the property was sampled and assayed 280 ppm Cu, 4000 ppm Pb, 120 ppm Zn, and 15 ppm (0.4 oz/ton) Ag. Lead-isotope studies of galena from the Lakeside prospect (Maas and others, 1995, p. 229-248) indicate that the deposit is Eocene in age, contemporaneous with emplacement of the Hyder Quartz Monzonite.

Alteration:**Workings/Exploration:**

Prospect was explored by small pits and trenches, probably in the 1920's. Massive quartz float on the property was sampled in 1972 by the U. S. Bureau of Mines and assayed 280 ppm Cu, 4000 ppm Pb, 120 ppm Zn, and 15 ppm (0.4 oz/ton) Au.

Age of mineralization:

Lead-isotope studies of galena from the Lakeside prospect (Maas and others, 1995, p. 229-248) indicate that the deposit is Eocene in age, contemporaneous with emplacement of the Hyder Quartz Monzonite.

Deposit model:

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:**

Additional comments:

The Morning prospect (Buddington, 1929, p. 101), was probably relocated as the Lakeside prospect (Berg and others, 1977, p. 38-39), and was covered in 1970 by the Lone Star group of 32 claims.

References:

Buddington, 1929; Smith, 1977; Berg and others, 1977; Elliott and Koch, 1981; Maas and others, 1995

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Lake**Site Type:** Prospect**ARDF no.** BC034**Latitude:** 56.057**Quadrangle:** BC A-1**Longitude:** 130.274**Location description and accuracy:**

The Lake prospect is at an elevation of about 2400 feet along an old trail in the southwest corner of Section 16, about 0.2 mile northeast of Disappearing Lake (Berg and others, 1977, p. 84; Elliott and Koch, 1981, p. 12, loc. 34). The location is accurate within about a quarter of a mile.

Commodities:**Main:** Cu, Pb**Other:****Ore minerals:** Chalcopyrite, galena, pyrite**Gangue minerals:** Quartz**Geologic description:**

The country rock in the area of the Lake prospect is the Triassic Texas Creek Granodiorite, which underlies and locally intrudes pelitic metasedimentary strata of the Jurassic or older Mesozoic Hazelton Group (Smith, 1977; Berg and others, 1977, p. 17-18; Koch, 1996). Buddington (1925, p. 74; 1929, p. 101) describes the deposit as a quartz fissure vein 11 inches thick in Texas Creek Granodiorite just below the contact of Hazelton metasedimentary rocks. The footwall of the vein contains abundant galena and subordinate pyrite. Berg and others (1977, p. 38-39, 84) describe a quartz vein about 3 feet thick in Texas Creek Granodiorite just below the Hazelton contact. About 12 inches of the footwall of the vein contains pyrite, galena, and microscopic traces of chalcopyrite, whereas the upper part of the vein is almost barren. A sample across the width of the vein assayed 35 ppm Cu, 35 ppm Pb, and 25 ppm Zn.

Alteration:**Workings/Exploration:**

The Lake prospect was originally staked in 1923 and explored by a few small pits, most of which are caved or overgrown.

A sample collected in 1972 by the U. S. Bureau of Mines (Berg and others, 1977) across the width of the vein assayed 35 ppm Cu, 35 ppm Pb, and 25 ppm Zn.

Age of mineralization:**Deposit model:**

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:**

Additional comments:

Prospect originally staked in 1923.

References:

Buddington, 1925, 1929; Smith, 1977; Berg and others, 1977; Elliott and Koch, 1981; Koch, 1996

Primary reference: Berg and others, 1977

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Hummel Canyon**Site Type:** Prospect**ARDF no.** BC035**Latitude:** 56.044**Quadrangle:** BC A-1**Longitude:** 130.292**Location description and accuracy:**

The Hummel Canyon prospect is at an elevation of about 2500 feet in Section 20 about 0.2 mile northeast of the mouth of Hummel Canyon and 0.4 mile southwest of Disappearing Lake (Berg and others, 1977, p. 92; Elliott and Koch, 1981, p. 12, 10c. 35). This location is probably accurate to within about a quarter of a mile.

Commodities:**Main:** Ag, Cu, Mo, Pb, Zn**Other:****Ore minerals:** Chalcopyrite, galena, molybdenite, pyrite, sphalerite**Gangue minerals:** Quartz?**Geologic description:**

The country rocks in the area of the Hummel Canyon prospect are Triassic Texas Creek Granodiorite that underlies and locally intrudes pelitic metasedimentary and andesitic metavolcanic rocks of the Jurassic or older Mesozoic Hazelton Group (Smith, 1977; Berg and others, 1977, p. 15-18; Koch, 1996).

The deposit consists of a pyritic silicified zone up to a foot thick, associated with slightly pyritic hornfels wallrock (Berg and others, 1977, p. 92). Samples of the silicified zone and the pyritic wallrock contained negligible amounts of Cu, Pb, Zn, Mo, and Ag.

Alteration:

Silicification and pyritization, apparently of pelitic country rocks. Local intense iron staining.

Workings/Exploration:

Prospect was explored by an eleven-foot adit, probably in the 1920's.

Age of mineralization:**Deposit model:****Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production:** None**Status:** Inactive**Production notes:****Reserves:****Additional comments:**

Site is in Misty Fiords National Monument

References:

Smith, 1977; Berg and others, 1977; Elliott and Koch, 1981; Koch, 1996

Primary reference: Berg and others, 1977

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Swennings Greenpoint**Site Type:** Occurrence**ARDF no.** BC036**Latitude:** 56.015**Quadrangle:** BC A-1**Longitude:** 130.264**Location description and accuracy:**

The Swennings Greenpoint mineral occurrence is in Section 33 above Greenpoint Glacier at an elevation of about 4200 feet (Berg and others, 1977, p. 92; Elliott and Koch, 1981, p. 13, loc. 36). This location is accurate to within about a quarter of a mile.

Commodities:**Main:** Ag, Mo, Pb**Other:** Cu, Zn**Ore minerals:** Galena, molybdenite**Gangue minerals:** Quartz**Geologic description:**

The country rocks in the area of this occurrence are pelitic metasedimentary strata of the Jurassic or older Mesozoic Hazelton Group, which are underlain and locally intruded by the Triassic Texas Creek Granodiorite; and the Eocene Hyder Quartz Monzonite, which intrudes the Hazelton and Texas Creek rocks (Smith, 1977; Berg and others, 1977, p. 15-17, 22-23; Koch, 1996).

The deposit consists of quartz veins in Hazelton hornfels about 50 feet from the contact of a dike of Hyder Quartz Monzonite (Berg and others, 1977, p. 92-93). The veins, which strike N30W and dip 65-70NE, are iron stained and contain scattered knots of galena and molybdenite. Assays of samples collected in 1972 by the U.S. Bureau of Mines showed as much as 100 ppm Ag, 350 ppm Cu, 4.5% Pb, 1000 ppm Zn, and 2000 ppm Mo. Lead-isotope studies of galena from the Swennings Greenpoint occurrence (Maas and others, 1995, p. 229-248) indicate that the deposit is Eocene in age, contemporaneous with emplacement of the Hyder Quartz Monzonite.

Alteration:

Local intense iron staining of quartz veins

Workings/Exploration:

Assays of samples collected in 1972 by the U.S. Bureau of Mines (Berg and others, 1977) showed as much as 100 ppm Ag, 350 ppm Cu, 4.5% Pb, 1000 ppm Zn, and 2000 ppm Mo.

Age of mineralization:

Lead-isotope studies of galena from the Swennings Greenpoint occurrence (Maas and others, 1995, p. 229-248) indicate that the deposit is Eocene in age, contemporaneous with emplacement of the Hyder Quartz Monzonite.

Deposit model:

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:**

Reserves:

Additional comments:

Claims were inactive in 1973.
Site is in Misty Fiords National Monument.

References:

Smith, 1977; Berg and others, 1977; Elliott and Koch, 1981; Maas and others, 1995; Koch, 1996

Primary reference: Berg and others, 1977

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Texas Creek Comstock; Hyder Lead; Texas Comstock; Joe Joe; Fortuna; Alaska-Comstock; Jackson-Hummel**Site Type:** Prospect**ARDF no.** BC037**Latitude:** 56.042**Quadrangle:** BC A-1**Longitude:** 130.256**Location description and accuracy:**

The above coordinates are for the approximate center of a group of five prospects in a map area about 0.5 mile (Lat 56.039-56.044) by 1.0 mile (Long 130.246-130.265) on the mountainside south of Texas Lake (Elliott and Koch, 1981, p. 13, loc. 37). The prospects are at elevations ranging from about 3200 to 4300 feet in Sections 21 and 22. The location of the prospect area is probably accurate within about a quarter of a mile.

Commodities:**Main:** Ag, Au, Cu, Mo, Pb, Zn**Other:** Barite**Ore minerals:**

Chalcopyrite, galena, molybdenite, pyrite, pyrrhotite, sphalerite, tetrahedrite

Gangue minerals: Quartz; calcite, chlorite**Geologic description:**

The country rocks in the general area of these prospects include pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group; the Triassic Texas Creek Granodiorite, which underlies and locally intrudes the Hazelton; and the Eocene Hyder Quartz Monzonite, which intrudes both the Hazelton and Texas Creek rocks (Smith, 1977; Koch, 1996).

Buddington (1925, p. 91-93; Cobb, 1978, p. 42-43) described a deposit, called 'Texas Creek Comstock' in his report, as quartz fissure veins up to 11 feet thick in granodiorite, metamorphosed graywacke, and tuff that contain galena, pyrite, chalcopyrite, and molybdenite. Andesite porphyry and aplite dikes cut both the granodiorite and metamorphic rocks. Assays showed 3.6-16.9 oz Ag and a trace to 0.18 oz Au per ton, and as much as 0.61 % Cu, 72.8% Pb, and 2.6% Zn.

In 1929, Buddington (1929, p. 102-108) described quartz veins in quartz diorite of the Texas Creek Granodiorite and in the metagraywacke and tuff in the roof of the pluton. The veins in the pluton generally are leaner in metallic minerals than those in the overlying bedded rocks. The veins carry galena, pyrite, chalcopyrite, sphalerite, pyrrhotite, and tetrahedrite. Gangue minerals include quartz, barite, calcite, and chlorite. Free gold was found in a piece of quartz(?) float from an unknown source.

Lead-isotope studies of galena from the Hyder Lead prospect (Maas and others, 1995, p. 229-248) indicate that the deposit is Eocene in age, contemporaneous with emplacement of the Hyder Quartz Monzonite.

Alteration:

Workings/Exploration:

Early workings included surface stripping and opencuts.
Early assays showed 3.6-16.9 oz Ag and a trace to 0.18 oz Au per ton, and as much as 0.61 % Cu, 72.8% Pb, and 2.6% Zn.

Age of mineralization:

Lead-isotope studies of galena from the Hyder Lead prospect (Maas and others, 1995, p. 229-248) indicate that the deposit is Eocene in age, contemporaneous with emplacement of the Hyder Quartz Monzonite.

Deposit model:

Polymetallic veins

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

22c

Production: None

Status: Inactive

Production notes:**Reserves:****Additional comments:****References:**

Buddington, 1925; Buddington, 1929; Smith, 1977; Cobb, 1978 (OFR 78-922);
Elliott and Koch, 1981; Maas and others, 1995

Primary reference: Cobb, 1978 (OFR 78-922)

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Raygold**Site Type:** Occurrence**ARDF no.** BC038**Latitude:** 56.04**Quadrangle:** BC A-1**Longitude:** 130.23**Location description and accuracy:**

This possible occurrence, known only from a U.S. Bureau of Mines claim map (U.S. Bureau of Mines, 1979), reportedly is in the vicinity of the Texas Creek Comstock deposit (BC037). It is approximately located in Section 22 at an elevation of about 3700 feet on a mountainside west of Ferguson Glacier (Elliott and Koch, 1981, p. 13, loc. 38). The location is probably accurate within about a half mile.

Commodities:**Main:** Pb, Zn**Other:****Ore minerals:** Unknown**Gangue minerals:****Geologic description:**

The country rocks in the general area of this reported mineral occurrence are pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group, which is underlain and locally intruded by the Triassic Texas Creek Granodiorite (Smith, 1977; Koch, 1996). There is no other publicly available geologic information about this occurrence.

Alteration:**Workings/Exploration:****Age of mineralization:****Deposit model:****Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production:** None**Status:** Undetermined**Production notes:****Reserves:****Additional comments:****References:**

U.S. Bureau of Mines, 1979

Primary reference: U.S. Bureau of Mines, 1979**Reporter:** H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Keno**Site Type:** Prospect**ARDF no.** BC039**Latitude:** 56.031**Quadrangle:** BC A-1**Longitude:** 130.232**Location description and accuracy:**

The Keno prospect is in Section 27 at an elevation of about 4000 feet on an east-facing mountainside above Ferguson Glacier (Elliott and Koch, p. 13, loc. 39). The location is probably accurate within about a quarter of a mile.

Commodities:**Main:** Ag, Au, Cu, Pb, Zn**Other:** Barite**Ore minerals:** Chalcopyrite, galena, pyrite, sphalerite, tetrahedrite**Gangue minerals:** Quartz**Geologic description:**

The country rocks in the area of the Keno prospect are pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton, Group, which are underlain and locally intruded by the Triassic Texas Creek Granodiorite (Smith, 1977; Koch, 1996).

In 1925, Buddington (p. 94) described the deposit as quartz fissure veins 2-4 feet thick that cut granodiorite and contain galena and other sulfides. A specimen, presumably of the best ore, contained 0.6 oz Au and 3 oz Ag per ton, and 48% Pb.

In 1929, Buddington (p. 108) reported an adit driven along a quartz vein up to 4.5 feet thick in Texas Creek Granodiorite. The vein had been traced on the surface for about 400 feet, and contained oreshoots of solid sulfides as much as 7 inches thick comprising galena, pyrite, chalcopyrite, sphalerite, and tetrahedrite. The quartz also carries disseminated pyrite and, locally, some barite.

Alteration:**Workings/Exploration:**

Early workings included a 50-foot adit.

An early assay, presumably of the best ore, showed 0.6 oz Au and 3 oz Ag per ton, and 48% Pb.

Age of mineralization:**Deposit model:**

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:**

Additional comments:

References:

Buddington, 1925; Buddington, 1929; Smith, 1977; Elliott and Koch, 1981; Koch, 1996

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Juneau**Site Type:** Occurrence**ARDF no.** BC040**Latitude:** 56.025**Quadrangle:** BC A-1**Longitude:** 130.214**Location description and accuracy:**

The Juneau occurrence is in Section 26 at an elevation of about 3800 feet on a west-facing mountainside above Ferguson Glacier (Elliott and Koch, 1981, p. 13, loc. 40).

The location is probably accurate within about a quarter of a mile.

Commodities:**Main:** Cu, Pb**Other:****Ore minerals:** Chalcopyrite, galena, pyrite**Gangue minerals:** Quartz**Geologic description:**

The country rocks in the area of the Juneau occurrence are pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group, which are underlain and locally intruded by the Triassic Texas Creek Granodiorite (Smith, 1977; Koch, 1996).

Buddington (1929, p. 108-108) describes the deposit as a quartz vein 3-6 feet thick in Texas Creek Granodiorite. The vein, reportedly traced on the surface for 1300 feet, locally contains small shoots of chalcopyrite. A second vein is said to carry galena and pyrite.

Alteration:**Workings/Exploration:****Age of mineralization:****Deposit model:**

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:****Additional comments:****References:**

Buddington, 1929; Smith, 1977; Elliott and Koch, 1981, Koch, 1996

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Sunset**Site Type:** Prospect**ARDF no.** BC041**Latitude:** 56.022**Quadrangle:** BC A-1**Longitude:** 130.21**Location description and accuracy:**

The Sunset prospect is in Section 35 at an elevation of about 4700 feet on a west-facing mountainside above Ferguson Glacier (Elliott and Koch, 1981, p. 13, loc. 41). The location is probably accurate within about a quarter of a mile.

Commodities:**Main:** Ag?, Pb**Other:** Barite**Ore minerals:** Galena, pyrite**Gangue minerals:** Quartz**Geologic description:**

The country rocks in the area of the Sunset prospect are pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group, which is underlain and locally intruded by the Triassic Texas Creek Granodiorite (Smith, 1977; Koch, 1996).

The deposit (Buddington, 1929, p. 109) consists of two sulfide-bearing quartz veins in Texas Creek Granodiorite near an isolated roof pendant of argillite and graywacke. One vein is 1-3 feet thick, has been traced on the surface for about 900 feet, and contains local concentrations of galena and pyrite. At one place, a shattered zone 20 feet wide contains about a five-foot width of quartz stringers carrying galena and pyrite. The other vein is about 3 feet thick, has been traced in outcrop for about 600 feet, and contains locally disseminated pyrite and a lens 4 inches thick and 12 feet long of pyrite, galena, and barite.

Alteration:**Workings/Exploration:**

Early workings consisted of minor surface stripping.

Age of mineralization:**Deposit model:**

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:**

Additional comments:

Elliott and Koch (1981, p. 13. loc. 41) show silver as a queried commodity at the Sunset prospect, but do not mention silver in their description of the deposit. Silver also is not mentioned in any of the earlier published descriptions of the prospect.

References:

Buddington, 1929; Smith, 1977; Elliott and Koch, 1981; Koch, 1996

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Engineer**Site Type:** Prospect**ARDF no.** BC042**Latitude:** 56.044**Quadrangle:** BC A-1**Longitude:** 130.218**Location description and accuracy:**

The Engineer prospect is in Section 23 at an elevation of about 3750 feet on a west-facing mountainside overlooking lower Ferguson Glacier (Elliott and Koch, 1981, p. 13, loc. 42). This location is probably accurate within about a quarter of a mile.

Commodities:**Main:** Ag, Au, Cu, Pb**Other:** W**Ore minerals:** Chalcopyrite, galena, pyrite, scheelite**Gangue minerals:** Quartz**Geologic description:**

The country rocks in the area of the Engineer prospect are pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group, which is underlain and locally intruded by the Triassic Texas Creek Granodiorite; and the Eocene Hyder Quartz Monzonite, which intrudes the Hazelton and Texas Creek rocks (Smith, 1977; Koch, 1996).

The deposit (Buddington, 1929, p. 109-110) consists of a quartz fissure vein 1-4.5 feet (generally 2-4 feet) thick hosted by Texas Creek Granodiorite near its contact with Hazelton argillite and graywacke. The vein locally contains masses of chalcopyrite, pyrite, and galena, and rare grains of scheelite. Assays of seven specimens from the sulfide-rich masses showed 0.04-0.64 oz Au and 7.6-26 oz Ag per ton, and 11.3-55.3% Pb.

Lead-isotope studies of galena from the Engineer prospect (Maas and others, 1995, p. 229-248) indicate that the deposit is Eocene in age, contemporaneous with emplacement of the Hyder Quartz Monzonite.

Alteration:**Workings/Exploration:**

Prospect was explored, probably in the 1920's, by a 30-foot adit and several opencuts.

Early assays of seven specimens from sulfide-rich masses showed 0.04-0.64 oz Au and 7.6-26 oz Ag per ton, and 11.3-55.3% Pb.

Age of mineralization:

Lead-isotope studies of galena from the Engineer prospect (Maas and others, 1995, p. 229-248) indicate that the deposit is Eocene in age, contemporaneous with emplacement of the Hyder Quartz Monzonite.

Deposit model:

Polymetallic veins

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

22c

Production: None**Status:** Inactive

Production notes:

Reserves:

Additional comments:

References:

Buddington, 1929; Smith, 1977; Elliott and Koch, 1981; Maas and others, 1995;
Koch, 1996

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): North Star; Bevacque; Bervaqua**Site Type:** Occurrence**ARDF no.** BC043**Latitude:** 56.047**Quadrangle:** BC A-1**Longitude:** 130.222**Location description and accuracy:**

The North Star occurrence is in Section 23 at an elevation of about 3850 feet on a west-facing mountainside overlooking lower Ferguson Glacier, and about 1.2 mile east-southeast of Texas Lake (Elliott and Koch, 1981, p. 13, loc. 43). The location probably is accurate to within about a quarter of a mile.

Commodities:**Main:** Ag?, Au?, Pb**Other:****Ore minerals:** Galena, pyrite**Gangue minerals:** Quartz**Geologic description:**

The country rocks in the area of the North Star occurrence are pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group, which are underlain and locally intruded by the Triassic Texas Creek Granodiorite (Smith, 1977; Koch, 1996).

Buddington (1929, p. 110) describes the deposit as a quartz fissure vein in graywacke about 150 feet from the contact of the Texas Creek Granodiorite. The vein is 1-2.5 feet thick and exposed in outcrop for 50 feet. Locally the vein contains masses of galena and a little pyrite.

Alteration:**Workings/Exploration:****Age of mineralization:****Deposit model:**

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:****Additional comments:**

The name Bevacque (Bervaqua) has been associated with this occurrence (Buddington, 1929).

Elliott and Koch (1981, p. 13, loc. 43) list silver and gold as queried commodities at the North Star prospect, but do not mention them in their description of the deposit.

Nor is silver or gold mentioned in any of the earlier published descriptions of the prospect.

References:

Buddington, 1929; Smith, 1977; Elliott and Koch, 1981; Koch, 1996

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Jumbo (near Texas Creek)**Site Type:** Occurrence**ARDF no.** BC044**Latitude:** 56.053**Quadrangle:** BC A-1**Longitude:** 130.207**Location description and accuracy:**

The Jumbo occurrence near Texas Creek is on or near the boundary of Sections 14 and 23 at an elevation of about 3750 feet on a north-facing mountainside overlooking the West Fork of Texas Creek and about 1.8 mile due east of Texas Lake (Elliott and Koch, 1981, p. 13, loc. 44). The location is probably accurate to within about a quarter of a mile.

Commodities:**Main:** Cu, Pb, Zn**Other:****Ore minerals:** Chalcopyrite, galena, pyrite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The country rocks in the area of this occurrence are pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group, which is underlain and locally intruded by the Triassic Texas Creek Granodiorite (Smith, 1977; Koch, 1996).

The deposit (Buddington, 1929, p. 111) is in a graywacke roof pendant in granodiorite and consists of quartz-cemented graywacke breccia in a shear zone 1-3.5 feet wide. The quartz ranges from one-inch stringers to two-foot veins and carries local shoots of galena, pyrite, and chalcopyrite. Some of the graywacke country rock is impregnated with pyrite and a little chalcopyrite. A 10-inch wide intersecting fissure zone contains 6 inches of quartz carrying galena, pyrite, and a little chalcopyrite and sphalerite.

Alteration:

Graywacke wallrock adjacent to quartz veins is impregnated with sulfide minerals.

Workings/Exploration:**Age of mineralization:****Deposit model:**

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:****Additional comments:**

Prospect originally staked in 1925

References:

Buddington, 1929; Smith, 1977; Elliott and Koch, 1981; Koch, 1996

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Iron Cap**Site Type:** Prospect**ARDF no.** BC045**Latitude:** 56.068**Quadrangle:** BC A-1**Longitude:** 130.214**Location description and accuracy:**

The Iron Cap prospect is at the south boundary of Section 11 at an elevation of about 3850 feet on a south-facing mountainside overlooking the West Fork of Texas Creek, and about 1.8 mile east-northeast of the outlet of Texas Lake (Elliott and Koch, 1981, p. 14, loc. 45). The location is accurate to within about a quarter of a mile.

Commodities:**Main:** Ag, Au, Cu, Zn**Other:****Ore minerals:** Arsenopyrite, chalcopyrite, pyrrhotite, sphalerite**Gangue minerals:** Calcite, quartz**Geologic description:**

The country rocks in the area of the Iron Cap prospect are pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group, which is underlain and locally intruded by the Triassic Texas Creek Granodiorite (Smith, 1977; Koch, 1996).

The deposit (Buddington, 1929, p. 44, 98) consists of an 11-foot zone of slate and fine-grained tuffaceous graywacke containing stringers and veins of sulfides, and a 2-foot quartz-calcite vein carrying pyrrhotite, chalcopyrite, sphalerite, and a little arsenopyrite. The deposit, which is about 100 feet above the contact of the Texas Creek Granodiorite, is approximately parallel to the bedding in the slate and graywacke hostrocks. A sample (Buddington, 1925, p. 95) assayed 0.04 oz Au and 6.28 oz Ag per ton, and 2% Cu.

Alteration:

Slate and graywacke country rocks are impregnated with sulfide minerals.

Workings/Exploration:

Deposit was explored in 1920's by an opencut 12 feet wide. A sample (Buddington, 1925, p. 95) assayed 0.04 oz Au and 6.28 oz Ag per ton, and 2% Cu.

Age of mineralization:**Deposit model:**

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:**

Additional comments:

Prospect originally staked in 1923.

References:

Buddington, 1925; Buddington, 1929; Smith, 1977; Elliott and Koch, 1981; Koch, 1996

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Silver Bell**Site Type:** Occurrence**ARDF no.** BC046**Latitude:** 56.075**Quadrangle:** BC A-1**Longitude:** 130.203**Location description and accuracy:**

The Silver Bell prospect is in Section 11 at an elevation of about 4600 feet on a south-facing mountainside overlooking the West Fork of Texas Creek, about 2.5 miles northeast of the outlet of Texas Lake (Elliott and Koch, 1981, p. 14, loc. 46). The location is accurate to within about a quarter of a mile.

Commodities:**Main:** Cu, Pb, Zn**Other:****Ore minerals:** Chalcopyrite, galena, pyrite, sphalerite, tetrahedrite**Gangue minerals:** Quartz**Geologic description:**

The country rocks in the area of the Silver Bell prospect are pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group, which is underlain and locally intruded by the Triassic Texas Creek Granodiorite; and the Eocene Hyder Quartz Monzonite, which intrudes the Hazelton and Texas Creek rocks (Smith, 1977; Koch, 1996).

The deposit (Buddington, 1929, p. 44, 97) is a quartz fissure vein about 2 feet thick in brecciated argillite and graywacke; the mineralized breccia zone is nearly parallel to the bedding. The quartz carries inclusions of the country rock and generally sparsely disseminated pyrite, chalcopyrite, and a little galena and sphalerite. Part of the vein is a solid mass as much as 13 inches thick of galena and minor tetrahedrite. Lead-isotope studies of galena from the Silver Bell occurrence (Maas and others, 1995, p. 229-248) indicate that the deposit is Eocene in age, contemporaneous with emplacement of the Hyder Quartz Monzonite.

Alteration:**Workings/Exploration:****Age of mineralization:**

Lead-isotope studies of galena from the Silver Bell occurrence (Maas and others, 1995, p. 229-248) indicate that the deposit is Eocene in age, contemporaneous with emplacement of the Hyder Quartz Monzonite.

Deposit model:

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:**

Additional comments:

Prospect originally staked in 1925. Vein was exposed for a length of 50 feet at the time of Buddington's visit in 1929 (p. 97).

References:

Buddington, 1929; Smith, 1977; Elliott and Koch, 1981; Maas and others, 1995; Koch, 1996

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Silver Star**Site Type:** Prospect**ARDF no.** BC047**Latitude:** 56.071**Quadrangle:** BC A-1**Longitude:** 130.192**Location description and accuracy:**

The Silver Star prospect is in Section 12 about 2.7 miles east-northeast of the outlet of Texas Lake. It consists of an upper zone at an elevation of about 3750 feet, and a lower zone at an elevation of about 3000 feet (Elliott and Koch, 1981, p. 14, loc. 47). The map coordinates are for the approximate midpoint between the zones and are probably accurate within about a quarter of a mile.

Commodities:**Main:** Ag, Au, Pb, Zn**Other:****Ore minerals:** Arsenopyrite, freibergite, galena, pyrite, pyrrhotite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The country rocks in the area of the Silver Star prospect are pelitic metasedimentary and andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group, which is underlain and locally intruded by the Triassic Texas Creek Granodiorite (Smith, 1977; Koch, 1996).

The deposit (Buddington, 1929, p. 97) lies along the contact between Texas Creek Granodiorite and overlying Hazelton argillite and consists of quartz fissure veins on both sides of the the contact. Two veins as much as a foot thick in a two-foot wide shear zone in the granodiorite (Buddington, 1925, p. 89-90) contain mainly galena and pyrite and were explored by a 30-foot adit. About 100 feet above the adit entrance the zone is about 7 feet wide. It consists of heavily mineralized quartz as much as 9 inches wide in the footwall and more than a foot of sparsely mineralized quartz in the hanging wall (Buddington, 1929, p. 97). The veins in the argillite consist of quartz stringers approximately parallel to the bedding that locally contain galena, sphalerite, and pyrite, and smaller amounts of pyrrhotite, arsenopyrite, and freibergite. A select sample from the granodiorite lode is said to have assayed an ounce of gold per ton (Buddington, 1925, p. 89-90).

Alteration:**Workings/Exploration:**

Prospect was explored, probably in the 1920's, by a 30-foot adit. A select sample from the granodiorite lode is said to have assayed an ounce of gold per ton.

Age of mineralization:**Deposit model:**

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:**

Reserves:

Additional comments:

Prospect was originally staked in 1923.

References:

Buddington, 1925; Buddington, 1929; Smith, 1977; Elliott and Koch, 1981; Koch, 1996

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Texas Discovery**Site Type:** Occurrence**ARDF no.** BC048**Latitude:** 56.064**Quadrangle:** BC A-1**Longitude:** 130.197**Location description and accuracy:**

The Texas Discovery occurrence is in Section 13 at approximately 2000 feet elevation. It is just above the old wagon road that follows the West Fork of Texas Creek, and about 2.3 miles below the outlet of Texas Lake (Elliott and Koch, 1981, p. 14, loc. 48). The location probably is accurate within about a quarter of a mile.

Commodities:**Main:** Ag, Au, Cu, Pb**Other:****Ore minerals:** Chalcopyrite, galena, pyrite, pyrrhotite**Gangue minerals:** Quartz**Geologic description:**

The country rock in the area of this occurrence is Triassic Texas Creek Granodiorite, which regionally underlies and locally intrudes pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group (Smith, 1977, Koch, 1996).

The deposit (Buddington, 1925, p. 74; Elliott and Koch, 1981, loc. 48) consists mainly of a quartz fissure vein 1-14 inches thick in granodiorite. The vein contains galena, pyrite, pyrrhotite, and minor chalcopyrite. An assay of a picked sample of this vein reportedly showed 30% Pb, about 1.06 oz Au per ton, and a little silver. A nearby quartz stringer 4 inches thick contains galena and chalcopyrite (Buddington, 1929, p. 98).

Alteration:**Workings/Exploration:**

An early assay of a picked sample of the main vein reportedly showed 30% Pb, about 1.06 oz Au per ton, and a little silver.

Age of mineralization:**Deposit model:**

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:****Additional comments:**

Occurrence was originally staked in 1923.

References:

Buddington, 1925; Buddington, 1929; Smith, 1977; Elliott and Koch, 1981; Koch, 1996

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Ibex**Site Type:** Prospect**ARDF no.** BC049**Latitude:** 56.076**Quadrangle:** BC A-1**Longitude:** 130.181**Location description and accuracy:**

The Ibex prospect is in Section 12 at an elevation of about 3700 feet on the west wall of the valley of upper Ibex Creek (Elliott and Koch, 1981, p. 14, loc. 49).

Commodities:**Main:** Ag, Pb, Zn**Other:****Ore minerals:** Chalcopyrite, galena, pyrite, sphalerite, tetrahedrite**Gangue minerals:** Quartz**Geologic description:**

The country rocks in the area of the Ibex prospect are Triassic Texas Creek Granodiorite, which underlies and locally intrudes pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group; and the Eocene Hyder Quartz Monzonite, which intrudes the Hazelton and Texas Creek rocks (Smith, 1977; Koch, 1996).

The deposit consists of quartz fissure veins in granodiorite and overlying argillite and quartzite within 200 feet of the contact between the Texas Creek and its Hazelton roof. Buddington (1925, p. 88-89) describes a pinch-and-swell vein 15 inches to 2 feet thick of quartz and sulfides in argillite and quartzite cut by granite porphyry and granodiorite. The sulfides are mainly interbanded sphalerite and galena; pyrite, chalcopyrite, and tetrahedrite are also present. Assays of picked specimens reportedly showed high values of Ag, Cu, and Pb.

Buddington (1926, p. 53-54) also describes a second lode, discovered in 1924. It is 5 inches to 3 feet thick and was traced in outcrop for several hundred feet. This lode consists of galena- and pyrite-bearing quartz stringers in a fissure zone in granodiorite.

Lead-isotope studies of galena from the Ibex prospect (Maas and others, 1995, p. 229-248) indicate that the deposit is Eocene in age, contemporaneous with emplacement of the Hyder Quartz Monzonite.

Alteration:

The quartzite hostrock may reflect silicification of pelitic country rock.

Workings/Exploration:

A crosscut driven 131 feet to undercut the vein described by Buddington in 1925 did not find the vein and was abandoned (Buddington, 1926, p. 53-54).

Age of mineralization:

Lead-isotope studies of galena from the Ibex prospect (Maas and others, 1995, p. 229-248) indicate that the deposit is Eocene in age, contemporaneous with emplacement of the Hyder Quartz Monzonite.

Deposit model:

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:****Additional comments:**

The Ibex prospect was originally staked in 1923.

References:

Buddington, 1925; Buddington, 1926; Smith, 1977; Elliott and Koch, 1981; Maas and others, 1995; Koch, 1996

Primary reference: Buddington, 1929**Reporter:** H. C. Berg (Fullerton, California)**Reporter affiliation:****Last report date:** 5/17/98

Site name(s): Silver Coin**Site Type:** Occurrence**ARDF no.** BC050**Latitude:** 56.0779**Quadrangle:** BC A-1**Longitude:** 130.167**Location description and accuracy:**

The Silver Coin occurrence is in Section 7 at an elevation of about 4150 feet on a south-facing mountainside about 0.4 mile east of upper Ibex Creek (Elliott and Koch, 1981, p. 14, loc. 50). The location is probably accurate within about a quarter of a mile.

Commodities:**Main:** Cu, Pb**Other:****Ore minerals:** Chalcopyrite, galena, pyrite; malachite**Gangue minerals:** Quartz**Geologic description:**

The country rock in the area of the Silver Coin occurrence is Triassic Texas Creek Granodiorite, which regionally underlies and locally intrudes pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group; and the Eocene Hyder Quartz Monzonite, which intrudes the Hazelton and Texas Creek rocks (Smith, 1977; Koch, 1996).

Buddington (1925, p. 90; 1929, p. 95) describes the deposit as a quartz fissure vein up to about 10 feet thick and 50 feet long in a shear zone in granodiorite. The northern 25 feet of the vein contains a shoot as much as 5 feet thick of massive galena, accompanied by a little pyrite and chalcopyrite. The remainder of the vein is barren. A little malachite occurs on shear surfaces in the granodiorite footwall of the ore shoot.

Lead-isotope studies of galena from the Silver Coin occurrence (Maas and others, 1995, p. 229-248) indicate that the deposit is Eocene in age, contemporaneous with emplacement of the Hyder Quartz Monzonite.

Alteration:

Minor oxidation of chalcopyrite to malachite.

Workings/Exploration:**Age of mineralization:**

Lead-isotope studies of galena from the Silver Coin occurrence (Maas and others, 1995, p. 229-248) indicate that the deposit is Eocene in age, contemporaneous with emplacement of the Hyder Quartz Monzonite.

Deposit model:

Polymetallic vein

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

22c

Production: None**Status:** Inactive**Production notes:**

Reserves:

Additional comments:

Site probably originally staked in 1923

References:

Buddington, 1925; Buddington, 1929; Smith, 1977, Elliott and Koch, 1981; Maas and others, 1995; Koch, 1996

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Homestake**Site Type:** Mine**ARDF no.** BC051**Latitude:** 56.075**Quadrangle:** BC A-1**Longitude:** 130.169**Location description and accuracy:**

The Homestake mine is in Section 7 at about 3500 feet elevation on a south-facing mountainside approximately 0.3 mile east of upper Ibex Creek (Elliott and Koch, 1981, p. 14, loc. 51). The location is probably accurate within a quarter of a mile.

Commodities:**Main:** Ag, Au, Cu, Pb, Zn**Other:****Ore minerals:** Chalcopyrite, galena, pyrite, sphalerite, tetrahedrite**Gangue minerals:** Quartz**Geologic description:**

The country rock in the area of the Homestake mine is Triassic Texas Creek Granodiorite, which regionally underlies and locally intrudes pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group; and the Eocene Hyder Quartz Monzonite, which intrudes the Hazelton and Texas Creek rocks (Smith, 1977, Koch, 1996).

The deposit consists of a quartz fissure vein 4-5.5 feet thick in Texas Creek Granodiorite (Buddington, 1925, p. 88-89). The vein was traced in outcrop for about 250 feet. The mineralized parts of the vein contain bands of solid sulfide up to 4 feet thick consisting mainly of argentiferous 'steel' galena, accompanied by pyrite, chalcopyrite, and a little sphalerite. The granodiorite hanging wall of the vein contains stringers of tetrahedrite. So-called 'steel' galena resembles augen gneiss with eyes of granulated pyrite in flow-banded galena; this texture indicates that the mineral deposit was subjected to intense stress since its formation (Buddington and Chapin, 1929, p. 320).

A 9.5-ton test shipment of sorted ore sent to a smelter in 1925 contained 50% Pb, 0.7% Zn, 22.87 oz Ag per ton, and 0.29 oz Au per ton (Buddington, 1929, p. 95; Cobb, 1978, p. 39).

Lead-isotope studies of galena from the Homestake mine (Maas and others, 1929, p. 229-248) indicate that the deposit is Eocene in age, contemporaneous with emplacement of the Hyder Quartz Monzonite.

Alteration:**Workings/Exploration:**

A 25-foot crosscut adit is reported to have cut the vein 35 feet below its outcrop (Buddington, 1926, p. 53).

Age of mineralization:

Lead-isotope studies of galena from the Homestake mine (Maas and others, 1929, p. 229-248) indicate that the deposit is Eocene in age, contemporaneous with emplacement of the Hyder Quartz Monzonite.

Deposit model:

Polymetallic veins

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

22c

Production: Yes; small**Status:** Inactive**Production notes:****Reserves:****Additional comments:**

Property originally staked in 1923

References:

Buddington, 1925; Buddington, 1926; Buddington, 1929; Smith, 1977; Cobb, 1978 (OFR 78-922); Elliott and Koch, 1981; Maas and others, 1995; Koch, 1996

Primary reference: Buddington, 1929**Reporter:** H. C. Berg (Fullerton, California)**Reporter affiliation:****Last report date:** 5/17/98

Site name(s): Evening Star; Morning Star**Site Type:** Prospect**ARDF no.** BC052**Latitude:** 56.069**Quadrangle:** BC A-1**Longitude:** 130.171**Location description and accuracy:**

The Evening Star prospect is in the southwest corner of Section 52 at an elevation of about 2450 feet (Elliott and Koch, 1981, p. 14, loc. 52). It is on the west bank of an unnamed south-flowing tributary to West Fork Texas Creek about a mile from the West Fork. This location is probably accurate to within about a quarter of a mile.

Commodities:**Main:** Pb**Other:****Ore minerals:** Galena**Gangue minerals:** Granodiorite, quartz**Geologic description:**

The country rock in the area of this site is Triassic Texas Creek granodiorite, which regionally underlies and locally intrudes pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group (Smith, 1977; Koch, 1996).

Buddington (1925, p. 90; 1929, p. 94) describes a 10-foot adit driven along a thin stringer of 'steel' galena in shattered granodiorite, and a parallel 9-inch-thick quartz vein about 100 feet farther up the mountainside.

Alteration:**Workings/Exploration:**

Prospect was explored in 1920's by a small opencut and a 10-foot adit.

Age of mineralization:**Deposit model:**

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:****Additional comments:**

Originally staked in 1923.

Early descriptions (Buddington, 1925, p. 90) of this site also include references to Morning Star claims.

References:

Buddington, 1925; Buddington, 1929; Smith, 1977; Elliott and Koch, 1981; Koch, 1996

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Nothiger; Standard**Site Type:** Prospect**ARDF no.** BC053**Latitude:** 56.051**Quadrangle:** BC A-1**Longitude:** 130.178**Location description and accuracy:**

The Nothiger prospect is in the northeast corner of Section 24 at an elevation of about 2500 feet . It is on the steep west wall of the valley just below the foot of Casey Glacier (Elliott and Koch, 1981, p. 15, loc. 53). The location is probably accurate within a quarter of a mile. Also see Additional Comments field, below.

Commodities:**Main:** Pb**Other:****Ore minerals:** Galena, pyrite**Gangue minerals:** Quartz**Geologic description:**

The country rock in the area of this prospect is Triassic Texas Creek Granodiorite, which regionally underlies and locally intrudes pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group (Smith, 1977; Koch, 1996).

The deposit (Buddington, 1929, p. 94) comprises an extensive shear zone 20-40 feet thick in granodiorite that contains a quartz vein and many quartz stringers. The main vein is 2.5-6 feet thick and contains a little galena and pyrite. The deposit was explored by a 12-foot crosscut adit driven through the main vein into the granodiorite footwall.

Alteration:**Workings/Exploration:**

The deposit was explored in the 1920's by a 12-foot crosscut adit driven through the main vein into the granodiorite footwall.

Age of mineralization:**Deposit model:**

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:****Additional comments:**

Site probably originally staked in about 1923. Some reports also include references to the Standard claims, staked in 1931(?), that probably include the Nothiger prospect.

References:

Buddington, 1929; Smith, 1977; Elliott and Koch, 1981, Koch, 1996

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Liberty**Site Type:** Occurrence**ARDF no.** BC054**Latitude:** 56.054**Quadrangle:** BC A-1**Longitude:** 130.171**Location description and accuracy:**

The Liberty occurrence is in the southwest corner of Section 18 at an elevation of about 1800 feet . It is on the east side of a small ridge about 0.1 mile east of an unnamed creek draining Casey Glacier (Elliott and Koch, p. 15, loc. 54). The location is probably accurate within a quarter of a mile. Also see Additional Comments field, below.

Commodities:**Main:** Pb**Other:****Ore minerals:** Galena**Gangue minerals:** Quartz**Geologic description:**

The country rock in the area of this occurrence is Triassic Texas Creek Granodiorite, which regionally underlies and locally intrudes pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group (Smith, 1977; Koch, 1996).

The deposit (Buddington, 1929, p. 93-94) consists of a quartz vein as much as 2 feet thick in a 20-40-foot wide shear zone in granodiorite. The vein contains local shoots of galena.

Alteration:**Workings/Exploration:****Age of mineralization:****Deposit model:**

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:****Additional comments:**

The prospect was originally staked in 1925.

The Standard claims, staked in 1931(?), may cover all or part of the Liberty occurrence.

Cobb's (1978, p. 56) reference to scheelite at this occurrence probably applies to

scheelite at another Liberty property (Byers and Sainsbury, 1956, p. 140 and plate 1).

References:

Buddington, 1929; Byers and Sainsbury, 1956; Smith, 1977; Cobb, 1978 (OFR 78-922); Elliott and Koch, 1981; Koch, 1996

Primary reference: Elliott and Koch, 1981

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Silver Bar; McVey**Site Type:** Occurrence**ARDF no.** BC055**Latitude:** 56.061**Quadrangle:** BC A-1**Longitude:** 130.144**Location description and accuracy:**

The Silver Bar occurrence is in Section 17 at an elevation of about 1950 feet. It is on a south-facing mountainside about 0.3 mile north of the West Fork of Texas Creek (Elliott and Koch, 1981, p. 15, loc. 55). The location is accurate within about a quarter of a mile. Also see Additional Comments field, below.

Commodities:**Main:** Cu, Pb**Other:** Barite**Ore minerals:** Chalcopyrite, galena, pyrite; barite**Gangue minerals:** Quartz**Geologic description:**

The country rock in the area of this occurrence is Triassic Texas Creek Granodiorite, which regionally underlies and locally intrudes pelitic metasedimentary and andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group (Smith, 1977; Koch, 1996).

The deposit (Buddington, 1929, p. 93) consists of a quartz vein up to 3 feet thick in a shear zone in granodiorite. The vein, exposed in outcrop for 250-300 feet, is mostly barren, but locally contains pockets and bands of chalcopyrite, minor galena and pyrite, and barite.

Alteration:**Workings/Exploration:****Age of mineralization:****Deposit model:**

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:****Additional comments:**

Occurrence originally staked in 1923.

Some descriptions of this occurrence also include references to the McVey claims (Cobb, 1978, p. 70).

References:

Buddington, 1929; Smith, 1977; Cobb, 1978 (OFR 78-922); Elliott and Koch, 1981;
Koch, 1996

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Bartholf**Site Type:** Occurrence**ARDF no.** BC056**Latitude:** 56.088**Quadrangle:** BC A-1**Longitude:** 130.069**Location description and accuracy:**

The Bartholf property, which apparently straddles the Alaska-British Columbia boundary, is mainly in British Columbia. It is in Sections 2 and 3 at an elevation of about 1430 feet, on the north side of a west-trending ridge about 0.6 mile north-northeast of Cantu Mountain (Elliott and Koch, 1981, p. 15, loc. 56).

Commodities:**Main:** Cu, Pb**Other:** Barite**Ore minerals:** Chalcopyrite, galena, pyrite; barite**Gangue minerals:** Quartz**Geologic description:**

The country rock in the area of this occurrence is Triassic Texas Creek Granodiorite, which regionally underlies and locally intrudes pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group (Smith, 1977; Koch, 1996).

The deposit (Buddington, 1929, p. 92-93) consists of a quartz fissure vein, probably in granodiorite. The vein is as much as a foot thick (average is 6 inches thick) and contains disseminated chalcopyrite and local shoots of pyrite and galena; plates of barite are common.

Alteration:**Workings/Exploration:****Age of mineralization:****Deposit model:**

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:****Additional comments:**

Property originally staked in mid-1920's. Claims lie mainly on the Canadian side of the International Boundary.

References:

Buddington, 1929; Smith, 1977; Elliott and Koch, 1981; Koch, 1996

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Cantu**Site Type:** Mine**ARDF no.** BC057**Latitude:** 56.076**Quadrangle:** BC A-1**Longitude:** 130.064**Location description and accuracy:**

The Cantu mine is in Section 11 on the east flank of Cantu Mountain about 0.1 mile from the Canadian border. The mine is at an elevation of about 1500 feet and the deposits crop out between elevations of about 1200 and 2180 feet (Buddington, 1929, p. 91-92; Elliott and Koch, 1981, p. 15, loc. 57). The location is accurate within about a tenth of a mile. Also see Additional Comments field, below.

Commodities:**Main:** Ag, Au, Cu, Pb, Zn**Other:** Barite**Ore minerals:** Chalcopyrite, galena, pyrite, sphalerite, tetrahedrite**Gangue minerals:** Barite, calcite(?), quartz**Geologic description:**

The country rocks in the general area of the Cantu mine include the Triassic Texas Creek Granodiorite, which underlies and locally intrudes pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group; the Eocene Boundary Granodiorite (Smith, 1977), which intrudes the Hazelton and Texas Creek rocks; and still-younger Tertiary lamprophyre dikes (Smith, 1973), which cut all of the other rocks.

The deposit (Buddington, 1929, p. 43, 91-92) consists of sulfide-bearing quartz-barite-calcite(?) fissure veins in Texas Creek Granodiorite, which is cut by quartz porphyry and lamprophyre dikes. The veins, ranging from a few inches to three feet thick, as well as smaller veinlets, carry galena, sphalerite, and tetrahedrite, generally sparse pyrite and chalcopyrite, and, in places, barite equal in amount to the quartz.

Maas and others' (1995, p. 258) description of the Cantu deposit differs from Buddington's in that they interpret the hostrock as Hazelton greenstone, not Texas Creek Granodiorite.

Assays of a carefully selected 20-ton shipment sent to a smelter in 1925 showed 0.175-0.30 oz Au and 13.80-31.05 oz Ag per ton, 37.20-44.1% Pb, and 5.6-12.2% Zn. Assays of grab samples of sorted ore were generally comparable in metal content, except for one sample rich in tetrahedrite that contained 61.2 oz Ag per ton. A grab sample from another vein 30-35 feet thick that contained streaks and disseminations of pyrite gave an assay of 0.8 oz Au and 1.202 oz Ag per ton.

Lead-isotope studies of galena from the Cantu deposit (Maas and others, 1995, p. 254) indicate that the deposit is Jurassic in age, contemporaneous, at least in part, with island-arc volcanism in Hazelton time (Alldrick, 1993).

Alteration:

Workings/Exploration:

Presumably fairly extensive surface and underground workings. Maas and others (1995, p. 258) report four adits ranging from 10-40 feet long.

Assays of a carefully selected 20-ton shipment sent to a smelter in 1925 showed 0.175-0.30 oz Au and 13.80-31.05 oz Ag per ton, 37.20-44.1% Pb, and 5.6-12.2% Zn. Assays of grab samples of sorted ore were generally comparable in metal content, except for one sample rich in tetrahedrite that contained 61.2 oz Ag per ton. A grab sample from another vein 30-35 feet thick that contained streaks and disseminations of pyrite gave an assay of 0.8 oz Au and 1.202 oz Ag per ton.

Age of mineralization:

Lead-isotope studies of galena from the Cantu deposit (Maas and others, 1995, p. 254) indicate that the deposit is Jurassic in age, contemporaneous, at least in part, with island-arc volcanism in Hazelton time (Alldrick, 1993).

Deposit model:

Polymetallic veins

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

22c

Production: Yes; small

Status: Inactive

Production notes:

A 20-ton test shipment was sent to a smelter in 1925

Reserves:**Additional comments:**

Claims were originally located in 1925. The Cantu group, restaked in 1949 and 1966, probably covered an area somewhat different from the original Cantu claims (U.S. Bureau of Mines, 1979).

References:

Buddington, 1929; Smith, 1973; Smith, 1977; U.S. Bureau of Mines, 1979; Elliott and Koch, 1981; Alldrick, 1993; Maas and others, 1995; Koch, 1996

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Charles; Nelson and Pitcher**Site Type:** Occurrence**ARDF no.** BC058**Latitude:** 56.054**Quadrangle:** BC A-1**Longitude:** 130.068**Location description and accuracy:**

The approximate location of this occurrence is in the southwest corner of Section 14 at an elevation of about 500 feet, astride the old tractor trail between Cantu Mountain and Mineral Hill (Elliott and Koch, 1981, p. 15, loc. 58). The location probably is accurate within about a quarter of a mile.

Commodities:**Main:** Ag, Au, Cu, Pb, Zn**Other:****Ore minerals:** Chalcopyrite, galena, pyrite, sphalerite**Gangue minerals:** Quartz; quartz porphyry**Geologic description:**

The country rocks in the general area of this occurrence are pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group, which are underlain and locally intruded by the Triassic Texas Creek Granodiorite. The Hazelton and Texas Creek rocks are intruded by the Eocene Boundary Granodiorite, and all of these rocks in turn are cut by still-younger Tertiary lamprophyre dikes (Smith, 1973, 1977; Koch, 1996).

The deposit (Westgate, 1922, p. 129, 139-140) consists of sulfide minerals disseminated in sheared, silicified granite porphyry that is cut by small, barren quartz veins. The sulfides are sphalerite, galena, pyrite, and chalcopyrite. Assays reportedly showed small amounts of Au and Ag.

Alteration:

Silicification and sulfidization of granite porphyry

Workings/Exploration:**Age of mineralization:****Deposit model:**Polymetallic veins;
Porphyry copper, North America(?)**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):**

22c; 17(?)

Production: None**Status:** Inactive**Production notes:****Reserves:****Additional comments:**

References:

Westgate, 1922; Smith, 1973; Smith, 1977; Elliott and Koch, 1981; Koch, 1996

Primary reference: Westgate, 1922

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Ninety-six; Gold Eagle**Site Type:** Prospect**ARDF no.** BC059**Latitude:** 56.043**Quadrangle:** BC A-1**Longitude:** 130.067**Location description and accuracy:**

This prospect is in Section 23 at an elevation of about 500 feet at the west base of Mineral Hill and just off the old road on the east bank of Texas Creek (Elliott and Koch, 1981, p. 15, loc. 59). The location is probably accurate within a tenth of a mile. Also see Additional Comments field, below.

Commodities:**Main:** Cu, Pb, Zn**Other:****Ore minerals:** Chalcopyrite, galena, sphalerite, tetrahedrite**Gangue minerals:** Quartz**Geologic description:**

The country rocks in the area of this prospect are the Triassic Texas Creek Granodiorite, which underlies and locally intrudes pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group; the Eocene Boundary Granodiorite, which intrudes the Hazelton and Texas Creek rocks; and still-younger Tertiary lamprophyre dikes, which cut all the other rocks (Smith, 1973, 1977; Koch, 1996).

The deposit (Buddington, 1925, p. 87, and 1929, p. 93; summarized by Cobb, 1978, p. 61) is in a breccia zone in a Texas Creek granodiorite dike in interbedded slate and quartzite. The breccia zone is about 5 feet thick and was traced in outcrop for about 200 feet. The zone consists of reticulating quartz stringers and veinlets that aggregate 12-14 inches in thickness that contain galena, sphalerite, a little chalcopyrite, and sparse tetrahedrite. A 63-foot adit was driven to intersect the lode, but there is no record of any production.

Maas and others (1995, p. 254) suggest that the age of the Ninety-six (96) prospect is Eocene, based on similarities in mineralogy, structural setting, and hostrock, to isotope-dated Eocene deposits in the Hyder district (see, for example, BC086). If so, the deposit is contemporaneous with emplacement of the Boundary Granodiorite.

Alteration:

Hostrock identified as quartzite may indicate silicification of pelitic country rock.

Workings/Exploration:

Deposit was explored in the 1920's by opencuts and a 100-foot adit that was driven to intersect the lode.

Age of mineralization:

Maas and others (1995, p. 254) suggest that the age of the Ninety-six (96) prospect is Eocene, based on similarities in mineralogy, structural setting, and hostrock, to isotope-dated Eocene deposits in the Hyder district (see, for example, BC086). If so, the deposit is contemporaneous with emplacement of the Boundary Granodiorite.

Deposit model:

Polymetallic veins

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

22c

Production: Yes; small**Status:** Undetermined**Production notes:**

Reported small test shipment of hand-cobbed ore (Maas and others, 1995, p. 258).

Reserves:**Additional comments:**

Probably originally staked in early 1920's.

In an early report, Buddington (1925, p. 87) includes a reference to Snyder, presumably the claimholder at the time. The Gold Eagle claims, staked in 1955, probably covered the Ninety-six property (U.S. Bureau of Mines, 1979).

References:

Buddington, 1925; Buddington, 1929; Smith, 1973; Smith, 1977; Cobb, 1978 (OFR 78-922); U.S. Bureau of Mines, 1979; Elliott and Koch, 1981; Maas and others, 1995; Koch, 1996

Primary reference: Cobb, 1978 (OFR 78-922)**Reporter:** H. C. Berg (Fullerton, California)**Reporter affiliation:****Last report date:** 5/17/98

Site name(s): Gold Cliff Premier**Site Type:** Prospect**ARDF no.** BC060**Latitude:** 56.053**Quadrangle:** BC A-1**Longitude:** 130.044**Location description and accuracy:**

The Gold Cliff Premier prospect is at an elevation of about 450-800 feet adjoining the Salmon River at the northeast foot of Mineral Hill (Elliott and Koch, 1981, p. 16, loc. 60). The original claims lay along both sides of the river, and the property appears to straddle the boundary of sections 23 and 24. The location is probably accurate within a quarter of a mile.

Commodities:**Main:** Ag, Au, Cu, Pb, Zn**Other:****Ore minerals:** Chalcopyrite, galena, pyrite, pyrrhotite, sphalerite, tetrahedrite**Gangue minerals:** Calcite, quartz**Geologic description:**

The country rocks in the area of the prospect are pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group; the Texas Creek Granodiorite, which underlies and locally intrudes the Hazelton; the Eocene Boundary Granodiorite, which intrudes the Hazelton and Texas Creek rocks; and still-younger Tertiary lamprophyre dikes that cut all of these rocks (Smith 1973, 1977; Koch, 1996).

The deposit (Buddington, 1929, p. 90) is in quartzite, tuff and slate cut by Triassic and Eocene porphyritic granodiorite dikes and consists of intensely fractured and pyritized quartzite, and of sheared tuffaceous rock mineralized with a 2.5 foot band of pyrite, quartz, and calcite. Samples of the mineralized band assayed as much as 1 oz Au and 3-4 oz Ag per ton. Elsewhere on the property, there is a narrow stringer of galena, and a 1-inch stringer of sphalerite, chalcopyrite, tetrahedrite, and pyrrhotite.

Alteration:

Intense pyritization of country rocks. Hostrock identified as quartzite may represent silicification of pelitic country rock.

Workings/Exploration:

Prospect was explored by opencuts, probably in the 1920's.

Early assays of samples of pyritized tuffaceous country rock showed as much as 1 oz Au and 3-4 oz Ag per ton.

Age of mineralization:**Deposit model:**

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:**

Reserves:

Additional comments:

Claims originally staked in 1920 and restaked in 1925 (Buddington, 1929, p. 90).

References:

Buddington, 1929; Smith, 1973; Smith, 1977; Elliott and Koch, 1981; Koch 1996

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Border**Site Type:** Prospect**ARDF no.** BC061**Latitude:** 56.046**Quadrangle:** BC A-1**Longitude:** 130.036**Location description and accuracy:**

The Border prospect is in Section 24 at an elevation of about 650 feet, adjacent to the Alaska-British Columbia boundary (Elliott and Koch, 1981, p. 16, loc. 61). The property apparently straddles the old road that led to the boundary roadhouse, now in ruins. The location is accurate to within 0.1 mile.

Commodities:**Main:** Cu, Pb, Zn**Other:****Ore minerals:** Chalcopyrite, galena, pyrite, sphalerite**Gangue minerals:** Calcite?, quartz**Geologic description:**

The country rocks in the area of the Border prospect are pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group; the Triassic Texas Creek Granodiorite, which underlies and locally intrudes the Hazelton; the Eocene Border Granodiorite, which intrudes the Hazelton and Texas Creek rocks; and still-younger Tertiary lamprophyre dikes that cut all these rocks (Smith, 1973, 1977; Koch, 1996).

The deposit (Buddington, 1929, p. 90) consists of gash (fissure) veins of quartz in a shear zone in slate and graywacke between two granodiorite porphyry dikes. The quartz contains galena, pyrite, sphalerite, and a little chalcopyrite in sulfide shoots up to 6 inches thick, and considerable carbonate (calcite?).

Alteration:**Workings/Exploration:**

Prospect was explored by a 70-foot adit, probably in the 1920's.

Age of mineralization:**Deposit model:**

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:****Additional comments:**

Property originally staked in early 1920's

References:

Buddington, 1929; Smith, 1973; Smith, 1977; Elliott and Koch, 1981; Koch, 1996

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Virginia**Site Type:** Prospect**ARDF no.** BC062**Latitude:** 56.04**Quadrangle:** BC A-1**Longitude:** 130.042**Location description and accuracy:**

The Virginia prospect is at the southwest corner of Section 24 at an elevation of about 600 feet, between an abandoned aerial tramway and the old road that follows the Salmon River to the International Boundary (Elliott and Koch, 1981, p. 16, loc. 61). The location is accurate to within about 0.1 mile.

Commodities:**Main:** Au, Cu, Pb, Zn**Other:****Ore minerals:** Chalcopyrite, galena, pyrite, pyrrhotite, sphalerite, tetrahedrite**Gangue minerals:** Calcite, quartz**Geologic description:**

The country rocks in the area of the Virginia prospect are pelitic metasedimentary and subordinate andesitic metavolcanic (greenstone) strata of the Jurassic or older Mesozoic Hazelton Group; the Triassic Texas Creek Granodiorite, which underlies and locally intrudes the Hazelton; the Eocene Boundary Granodiorite, which intrudes the Hazelton and Texas Creek rocks; and still-younger Tertiary lamprophyre dikes that cut all the other rocks (Smith, 1973, 1977; Koch, 1996).

The deposit (Buddington, 1925, p. 74, 84; 1929, p. 43, 88-89) is in a mineralized shear zone in porphyritic greenstone cut by granodiorite and lamprophyre(?) dikes. An interval 12-16 feet wide in the 50-foot wide shear zone contains an oreshoot of nearly solid sulfides, accompanied by quartz gangue. The sulfides are pyrrhotite, sphalerite, pyrite, and a little galena and tetrahedrite. The greenstone also contains disseminated sulfide minerals, stringers of quartz, calcite, and sulfide minerals. Near contacts of granodiorite porphyry dikes, the greenstone also contains the contact-metamorphic minerals garnet and epidote. A little chalcopyrite occurs along with the other sulfides in some of the epidote-rich greenstone.

Selected samples of the ore reportedly assayed as high as 4.5 oz Au per ton.

Alteration:

Local contact metamorphism of greenstone; greenstone is impregnated with sulfide minerals

Workings/Exploration:

Prospect was explored in 1920's by 600-700 feet of crosscuts and tunnels.

Selected samples of the ore reportedly assayed as high as 4.5 oz Au per ton; average Au content was about 0.25 oz per ton.

Age of mineralization:**Deposit model:**

Polymetallic veins; Skarn Zn-Pb

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

22c; 18c

Production: None

Status: Inactive

Production notes:

Reserves:

Additional comments:

Deposit originally staked in 1919.

References:

Buddington, 1925; Buddington, 1929; Smith, 1973; Smith, 1977; Elliott and Koch, 1981; Koch, 1996

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Stoner; Stoner Gold and Silver Mining Corporation**Site Type:** Prospect**ARDF no.** BC063**Latitude:** 56.035**Quadrangle:** BC A-1**Longitude:** 130.029**Location description and accuracy:**

The Stoner prospect, also referred to as the Stoner Gold and Silver Mining Corporation, is in Section 25 at an elevation of about 850-1450 feet on the divide between Cabin and Boundary creeks, and within a few hundred feet of Cabin Creek (Elliott and Koch, 1981, p. 16, loc. 63). The location probably is accurate within a few hundred feet.

Commodities:**Main:** Ag, Au, Pb, Zn**Other:****Ore minerals:** Galena, pyrite, pyrrhotite, sphalerite, tetrahedrite**Gangue minerals:** Calcite, quartz**Geologic description:**

The country rocks in the area of this prospect are pelitic metasedimentary and subordinate andesitic metavolcanic (greenstone) strata of the Jurassic or older Mesozoic Hazelton Group; the Triassic Texas Creek Granodiorite, which underlies and locally intrudes the Hazelton; the Eocene Boundary Granodiorite, which intrudes the Hazelton and Texas Creek rocks; and still-younger Tertiary lamprophyre dikes, which cut all the other rocks (Smith 1973, 1977; Koch, 1996).

There are three types of deposits on the property (Westgate, 1922, p. 131-132; Buddington, 1925, p. 74, 83; 1929, p. 43, 89-90; Cobb, 1978, p. 76): (1) sulfides in quartz-calcite veins and disseminated sulfides in greenstone; (2) sparse sulfides in quartz fissure veins in or near contacts between slate and granitic dikes; and (3) sulfides in seams, disseminations, and along fractures in quartz porphyry dikes. The sulfides are pyrite, sphalerite, galena, tetrahedrite, and pyrrhotite. In addition to sulfide replacement, some of the greenstone also is silicified. Early assays reportedly showed as much as 0.5 oz Au and 20.5 oz Ag per ton, and 28% Pb.

'Concentrated' sulfide samples from a shear zone on the Stoner prospect yielded an Eocene lead-isotope age (Maas and others, 1995, p. 254). The deposit, however, is similar in mineralogy, structural setting, and hostrock to isotopically-dated Jurassic deposits nearby in the Hyder district (see, for example, BC065, BC067). The lode thus may be polygenetic, originating as a 'disseminated' deposit during Jurassic Hazelton island-arc volcanism (Alldrick, 1993), and then partly remobilized into shear zones during emplacement of the Boundary Granodiorite.

Alteration:

Greenstone is impregnated with sulfide minerals; local silicification of greenstone

Workings/Exploration:

Prospect was explored in 1920's by open cuts and a 15-foot shaft.. As much as 0.5 oz Au and 20.5 oz Ag per ton, and 28% Pb reported in early assays.

Age of mineralization:

'Concentrated' sulfide samples from a shear zone on the Stoner prospect yielded an Eocene lead-isotope age (Maas and others, 1995, p. 254). The deposit, however, is similar in mineralogy, structural setting, and hostrock to isotopically-dated Jurassic deposits nearby in the Hyder district (see, for example, BC065, BC067). The lode thus may be polygenetic, originating as a 'disseminated' deposit during Jurassic Hazelton island-arc volcanism (Alldrick, 1993), and then partly remobilized into shear zones during emplacement of the Boundary Granodiorite.

Deposit model:

Polymetallic veins

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

22c

Production: None

Status: Inactive

Production notes:**Reserves:****Additional comments:**

Deposit originally staked in early 1920's

References:

Westgate, 1922; Buddington, 1925; 1929; Smith, 1973; Smith, 1977; Cobb, 1978 (OFR 78-922); Elliott and Koch, 1981, Alldrick, 1993; Maas and others, 1995; Koch, 1996

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Stoner-Clegg-O'Rourke**Site Type:** Prospect**ARDF no.** BC064**Latitude:** 56.032**Quadrangle:** BC A-1**Longitude:** 130.033**Location description and accuracy:**

This prospect is in Section 25 at an elevation of about 1350 feet on the divide between Boundary and Daly creeks, and about 0.1 mile from Daly Creek (Elliott and Koch, 1981, p. 16, loc. 64). The location is probably accurate within 0.1 mile.

Commodities:**Main:** Cu, Pb, Zn**Other:****Ore minerals:** Chalcopyrite, galena, pyrite, pyrrhotite, sphalerite, tetrahedrite**Gangue minerals:** Calcite**Geologic description:**

The country rocks in the area of this prospect are pelitic metasedimentary and subordinate andesitic (greenstone) metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group; the Triassic Texas Creek Granodiorite, which underlies and locally intrudes the Hazelton; the Eocene Boundary Granodiorite, which intrudes the Hazelton and Texas Creek rocks, and still-younger Tertiary lamprophyre dikes, which cut all the other rocks (Smith, 1973, 1977; Koch, 1996).

The deposit (Buddington, 1929, p. 88) consists of greenstone containing calcite veinlets with sphalerite, pyrite, and galena, and small amounts of pyrrhotite, chalcopyrite, and tetrahedrite. Some of the greenstone contains disseminated pyrite and pyrrhotite.

Alteration:

Part of the greenstone country rock is impregnated with sulfide minerals.

Workings/Exploration:

Deposit was explored by opencuts and a 75-foot adit, probably in the 1920's.

Age of mineralization:**Deposit model:**

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:****Additional comments:**

Probably originally staked in early 1920's

References:

Buddington, 1929; Smith, 1973; Smith, 1977; Elliott and Koch, 1981; Koch, 1996

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Lower Daly-Alaska; Iron; Elevenmile**Site Type:** Mine**ARDF no.** BC065**Latitude:** 56.032**Quadrangle:** BC A-1**Longitude:** 130.043**Location description and accuracy:**

The lower Daly-Alaska mine is in Section 25 at an elevation of about 400 feet on lower Daly Creek (Elliott and Koch, 1981, p. 16, loc. 65). The location is accurate within about 100 feet. Also see upper Daly-Alaska mine (BC066), and Additional Comments field, below.

Commodities:**Main:** Ag, Au, Cu, Pb, Zn**Other:****Ore minerals:** Arsenopyrite, chalcopyrite, freibergite, galena, native silver, pyrite, pyrrhotite, sphalerite, tetrahedrite**Gangue minerals:** Calcite, quartz**Geologic description:**

The country rocks in the area of the Daly-Alaska property are pelitic metasedimentary and subordinate andesitic (greenstone) metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group; the Triassic Texas Creek Granodiorite, which underlies and locally intrudes the Hazelton; the Eocene Boundary Granodiorite, which intrudes the Hazelton and Texas Creek rocks; and still-younger Tertiary lamprophyre dikes, which cut all the other rocks (Smith, 1973, 1977; Koch, 1996).

The deposit at the lower Daly-Alaska mine (Elliott and Koch, 1981, loc. 65) is a shear or breccia zone in pyritized and silicified greenstone that contains quartz-calcite veinlets and sulfide stringers. The sulfides include mainly pyrrhotite, sphalerite, galena, pyrite, tetrahedrite, and chalcopyrite. Buddington (1929, p. 87-88) also reports small amounts of arsenopyrite, freibergite, and native silver at the lower Daly-Alaska site. High silver values and some gold were reported and some ore reportedly was shipped from the property, which was explored by open cuts and developed by a few hundred feet of underground workings from two or more portals.

Lead-isotope studies of galena from the lower Daly-Alaska mine (Maas and others, 1995, p. 254) indicate that the deposit is Jurassic in age, contemporaneous, at least in part, with island-arc volcanism in Hazelton time (Alldrick, 1993).

Alteration:

Greenstone hostrock is pyritized and silicified.

Workings/Exploration:

Property was explored by open cuts and developed by a few hundred feet of underground workings from two or more portals, mainly between about 1915 and 1925.

Age of mineralization:

Lead-isotope studies of galena from the lower Daly-Alaska mine (Maas and others, 1995, p. 254) indicate that the deposit is Jurassic in age, contemporaneous, at least in part, with island-arc volcanism in Hazelton time (Alldrick, 1993).

Deposit model:

Polymetallic veins

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

22c

Production: Yes; small

Status: Inactive

Production notes:

An unknown amount of ore reportedly was shipped from the property, probably between 1915 and 1925.

Reserves:**Additional comments:**

The first Daly-Alaska claims were located in 1912 and 1913.

Descriptions of the Daly-Alaska property in early reports (Chapin, 1916, p. 97; Westgate, 1922, p. 128, 131-133; Buddington, 1925, p. 74, 83-84; 1929, p. 43-44, 86-88; Buddington and Chapin, 1929, p. 318, 327, 357-358), which were summarized by Cobb (1978, p. 23-24), do not consistently distinguish between the lower and upper workings. Elliott and Koch (1981, locs. 65, 66), however, describe them separately, and their descriptions are used in this report.

An early name that apparently referred in general to the Daly-Alaska property was the New Alaska (Mining Company).

Also see upper Daly-Alaska mine (BC066).

References:

Chapin, 1916; Westgate, 1922; Buddington, 1925; Buddington, 1929; Buddington and Chapin, 1929; Smith, 1973; Smith, 1977; Cobb, 1978 (OFR 78-922); Elliott and Koch, 1981; Aldrick, 1993; Maas and others, 1995; Koch, 1996

Primary reference: Elliott and Koch, 1981

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Upper Daly-Alaska; Hoosier; Bertha; Western**Site Type:** Mine**ARDF no.** BC066**Latitude:** 56.0292**Quadrangle:** BC A-1**Longitude:** 130.0375**Location description and accuracy:**

The upper Daly-Alaska mine is in Section 25 at an elevation of about 1250-1800 feet on Daly Creek (Elliott and Koch, 1981, p. 17, loc. 66).

Also see lower Daly-Alaska mine (BC065), and Additional Comments field, below.

Commodities:**Main:** Ag, Au, Cu, Pb, Zn**Other:****Ore minerals:** Arsenopyrite, chalcopyrite, galena, pyrite, pyrrhotite, sphalerite, tetrahedrite**Gangue minerals:** Calcite, quartz**Geologic description:**

The country rocks in the area of this site are pelitic metasedimentary and subordinate andesitic (greenstone) metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group; the Triassic Texas Creek Granodiorite, which intrudes the Hazelton; the Eocene Boundary Granodiorite, which intrudes the Hazelton and Texas Creek rocks; and still-younger Tertiary lamprophyre dikes, which cut all the other rocks (Smith, 1973, 1977; Koch, 1996).

The deposit at the upper Daly-Alaska mine (Elliott and Koch, 1981, loc. 66) is in fractured zones in silicified greenstone, tuff, and quartz porphyry. The zones contain disseminated pyrite, calcite veinlets, quartz gash veinlets, and bands and patches of relatively massive sulfide minerals. Sphalerite, galena, and pyrite are reported, along with lesser amounts of tetrahedrite, chalcopyrite, pyrrhotite and arsenopyrite. Selected samples of the sulfides probably contain silver and some gold.

Concentrated sulfide samples from a shear zone at the upper Daly-Alaska mine site yielded an Eocene lead-isotope age (Maas and others, 1995, p. 254, 259). The deposit, however, is similar in mineralogy, structural setting, and hostrock to isotopically dated Jurassic deposits nearby in the Hyder district (see, for example, BC065, 067). The lode thus may be polygenetic, originating as a 'disseminated' deposit during Jurassic (Hazelton) island-arc volcanism (Alldrick, 1993), and then partly remobilized into shear zones during emplacement of the Boundary Granodiorite.

Alteration:

Mineralized greenstone country rock is silicified and partly replaced by calcite and disseminated pyrite.

Workings/Exploration:

Deposit was explored by open cuts and more than 100 feet of underground workings, mainly between about 1915 and 1925.

Age of mineralization:

Concentrated sulfide samples from a shear zone at the upper Daly-Alaska mine site yielded an Eocene lead-isotope age (Maas and others, 1995, p. 254, 259). The deposit, however, is similar in mineralogy, structural setting, and hostrock to isotopically dated Jurassic deposits nearby in the Hyder district (see, for example,

BC065, 067). The lode thus may be polygenetic, originating as a 'disseminated' deposit during Jurassic (Hazelton) island-arc volcanism (Alldrick, 1993), and then partly remobilized or reconstituted into shear zones during emplacement of the Boundary Granodiorite.

Deposit model:

Polymetallic veins

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

22c

Production: Yes; small

Status: Inactive

Production notes:

A little ore was probably mined, but there is no public record of the amount of production.

Reserves:**Additional comments:**

The first claims on this property were located in 1912 and 1913. Descriptions of the Daly-Alaska property in early reports (Chapin, 1916, p. 97; Westgate, 1922, p. 128, 131-133; Buddington, 1925, p. 74, 83-84; 1929, p. 43-44, 86-88; Buddington and Chapin, 1929, p. 318, 327, 357-358), which were summarized by Cobb (1978, p. 23-24), do not consistently distinguish between the upper and lower workings. Elliott and Koch (1981, locs. 65, 66), however, describe the upper and lower workings separately, and their descriptions are used in this report (also see lower Daly-Alaska mine, BC065).

In early reports, the name New Alaska Mining Company apparently applied in general to the Daly-Alaska property.

References:

Chapin, 1916; Westgate, 1922; Buddington, 1925; Buddington, 1929; Buddington and Chapin, 1929; Smith, 1973; Smith, 1977; Cobb, 1978 (OFR 78-922); Elliott and Koch, 1981; Alldrick, 1993; Maas and others, 1995; Koch, 1996

Primary reference: Elliott and Koch, 1981

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Alaska-Premier**Site Type:** Prospect**ARDF no.** BC067**Latitude:** 56.026**Quadrangle:** BC A-1**Longitude:** 130.042**Location description and accuracy:**

The Alaska-Premier prospect is in Section 25 at an elevation of about 1340 feet, approximately 0.2 mile southwest of Daly Creek (Elliott and Koch, 1981, p. 17, loc. 67). The location is accurate to within about 0.1 mile. Also see Additional Comments field, below.

Commodities:**Main:** Ag, Au, Cu, Pb, Zn**Other:****Ore minerals:** Arsenopyrite, chalcopyrite, galena, pyrite, pyrrhotite, sphalerite, tetrahedrite**Gangue minerals:** Quartz**Geologic description:**

The country rocks in the area of the Alaska-Premier prospect are pelitic metasedimentary and subordinate andesitic (greenstone) metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group; the Triassic Texas Creek Granodiorite, which underlies and locally intrudes the Hazelton; the Eocene Boundary Granodiorite, which intrudes the Hazelton and Texas Creek rocks; and still-younger Tertiary lamprophyre dikes, which cut all the other rocks (Smith, 1973, 1977, Koch, 1996).

The deposit (Buddington, 1925, p. 74, 78-79; 1929, p. 85-86) is in greenstone, slate, and graywacke country rocks. It consists of sulfide-bearing quartz veinlets in shattered zones in three sheets of altered 'felsite,' which may be either quartz porphyry sills or a facies of the greenstone. The veins contain pyrite, sphalerite, galena, pyrrhotite, and chalcopyrite; selected samples reportedly assayed as high as 35 oz Au per ton. A 3-foot thick mineralized shear zone in a felsite sheet contains disseminated(?) pyrite, galena, sphalerite, chalcopyrite, tetrahedrite, pyrrhotite, and arsenopyrite. Assays of some of the mineralized felsite showed about 0.097-0.145 oz Au and about 1.0 oz Ag per ton.

Lead-isotope studies of galena from the Alaska-Premier prospect (Maas and others, 1995, p. 254) indicate that the deposit is Jurassic in age, contemporaneous, at least in part, with island-arc volcanism in Hazelton time (Alldrick, 1993).

Alteration:

Sheared hostrocks are partly replaced by disseminated sulfides, and possibly silicified.

Workings/Exploration:

Property was explored by open cuts and developed by more than 200 feet of underground workings, probably mostly in the 1920's.

Selected samples of sulfide-rich quartz veins reportedly assayed as high as 35 oz Au per ton. Assays of some of the sheared and mineralized felsite showed about 0.097-0.145 oz Au and 1.0 oz Ag per ton.

Age of mineralization:

Lead-isotope studies of galena from the Alaska-Premier prospect (Maas and others, 1995, p. 254) indicate that the deposit is Jurassic in age, contemporaneous, at least in part, with island-arc volcanism in Hazelton time (Alldrick, 1993).

Deposit model:

Polymetallic veins

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

22c

Production: None

Status: Inactive

Production notes:**Reserves:****Additional comments:**

Property probably originally staked in early 1920's.

The Alaska-Premier site probably includes the old Ready Money and Alaska claims (Cobb, 1978, p. 92-93).

References:

Buddington, 1925; Buddington, 1929; Smith, 1973; Smith, 1977; Cobb, 1978 (OFR 78-922); Elliott and Koch, 1981; Alldrick, 1993; Maas and others, 1995; Koch 1996

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Martha Lee**Site Type:** Occurrence**ARDF no.** BC068**Latitude:** 56.026**Quadrangle:** BC A-1**Longitude:** 130.069**Location description and accuracy:**

The approximate location of this unverified mineral occurrence, known in 1981 (Elliott and Koch, 1981, p. 17, loc. 68) only from a U.S. Bureau of Mines claim map (U.S. Bureau of Mines, 1978), is at the western edge of Section 26, at the southwest foot of Mineral Hill. The site is at an elevation of just under 200 feet, and adjacent to the road along the east side of Texas Creek. The location is probably accurate within about a quarter of a mile.

Commodities:**Main:** Ag(?), Au, Cu, Pb, Zn**Other:****Ore minerals:** Unknown**Gangue minerals:****Geologic description:**

The country rock in the area of this site is Triassic Texas Creek Granodiorite, which underlies and locally intrudes pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group; the Eocene Boundary Granodiorite, which intrudes the Hazelton and Texas Creek rocks; and still-younger Tertiary lamprophyre dikes, which cut all the other rocks (Smith, 1973, 1977; Koch, 1996).

Other than the commodities reported on a U.S. Bureau of Mines claim map (U.S. Bureau of Mines, 1979), no geologic information about this site was publicly known in 1981.

Alteration:**Workings/Exploration:****Age of mineralization:****Deposit model:****Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production:** None**Status:** Undetermined**Production notes:****Reserves:****Additional comments:**

Four claims staked in 1965.

References:

Smith, 1973; Smith, 1977; U.S. Bureau of Mines, 1979, Elliott and Koch, 1981;
Koch, 1996

Primary reference: Elliott and Koch, 1981

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Cripple Creek**Site Type:** Prospect**ARDF no.** BC069**Latitude:** 56.025**Quadrangle:** BC A-1**Longitude:** 130.067**Location description and accuracy:**

The Cripple Creek prospect is in the north part of Section 35 at an elevation of about 400 feet, between the Salmon River Road and an abandoned aerial tramway (Elliott and Koch, 1981, p. 17, loc. 69). The location is accurate within about a quarter of a mile. Also see Additional Comments field, below.

Commodities:**Main:** Ag(?), Cu, Pb, Zn**Other:****Ore minerals:** Chalcopyrite, galena, pyrite, pyrrhotite, sphalerite, tetrahedrite**Gangue minerals:** Quartz**Geologic description:**

The country rocks in the area of this prospect are the Triassic Texas Creek Granodiorite, which underlies and locally intrudes pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group; the Eocene Boundary Granodiorite, which intrudes the Texas Creek and Hazelton rocks; and still-younger Tertiary lamprophyre dikes, which cut all the other rocks (Smith 1973, 1977; Koch, 1996).

There appear to be two main types of deposits (Buddington, 1925, p. 74; 1929, p. 83-84). (1) A quartz fissure vein up to 8 feet thick in the footwall of a 10-15-foot thick sheeted shear zone in granodiorite. The vein contains considerable galena and smaller amounts of pyrite, chalcopyrite, sphalerite, and tetrahedrite, and was explored by a 45-foot adit and a short crosscut. (2) Fissured and brecciated zones comprising sulfide-bearing quartz veinlets and sulfide-impregnated granodiorite. Pyrite is the principal sulfide in these zones, accompanied by a little galena and sphalerite.

Alteration:

Sheared granodiorite is partly replaced(?) by disseminated sulfides.

Workings/Exploration:

Property was developed in 1920's by a 45-foot adit and a short crosscut.

Age of mineralization:**Deposit model:**

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:**

Additional comments:

Property was probably originally staked in early 1920's. Taken over by Brigadier Mining Company sometime before 1929 (Buddington, 1929, p. 83).

References:

Buddington, 1925; Buddington, 1929; Smith, 1973; Smith, 1977; Elliott and Koch, 1981; Koch, 1996

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Portland**Site Type:** Prospect**ARDF no.** BC070**Latitude:** 56.022**Quadrangle:** BC A-1**Longitude:** 130.053**Location description and accuracy:**

The Portland prospect is in Section 35 at an elevation of about 2200 feet on a northwest-facing mountainside overlooking the confluence of Salmon River and Texas Creek, and about 0.7 mile due east of the ruins at Ninemile (Elliott and Koch, 1981, p. 17, loc. 70). Also see Additional Comments field, below.

Commodities:**Main:** Cu, Pb, Zn**Other:****Ore minerals:** Chalcopyrite, galena, pyrite**Gangue minerals:** Quartz**Geologic description:**

The country rocks in the area of the Portland prospect are the Triassic Texas Creek Granodiorite, which underlies and locally intrudes pelitic metasedimentary and subordinate andesitic (greenstone) metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group; the Eocene Boundary Granodiorite, which intrudes the Hazelton and Texas Creek rocks; and still-younger Tertiary lamprophyre dikes, which cut all the other rocks (Smith, 1973, 1977; Koch, 1996).

Buddington's (1929, p. 84) description of the Portland group ambiguously includes information about the Hobo group, which he also describes separately (p. 84-85). (See Additional Comments field, below). The deposit is in greenstone and slate cut by a dike of granodiorite porphyry. On the Portland group, Buddington describes only a quartz vein along the slate-dike contact that contains many inclusions of the country rocks and which was exposed in an open cut. On the Hobo group, he describes a 2-3 foot quartz vein in the dike, and a 2-foot quartz vein in slate that was explored by a 15-foot adit and traced for 1500 feet by pits and surface exposures. The slate-hosted vein contains sparsely disseminated pyrite, galena, and sphalerite, and a little chalcopyrite. The slate also contains other quartz veins and stringers.

Alteration:**Workings/Exploration:**

Quartz vein in slate was explored by pits and a 15-foot adit, probably in the 1920's.

Age of mineralization:**Deposit model:**

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:**

Reserves:**Additional comments:**

The Portland group was originally staked in 1919.

Buddington's (1929, p. 84) description of the Portland group ambiguously includes information about the adjoining Hobo group, which he also describes separately (p. 84-85). This record (BC070) summarizes Buddington's ambiguous description of the Portland(-Hobo) group, whereas BC071 summarizes Buddington's separate description of the Hobo group.

References:

Buddington, 1929; Smith, 1973; Smith, 1977; Elliott and Koch, 1981; Koch, 1996

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Hobo; Swede**Site Type:** Prospect**ARDF no.** BC071**Latitude:** 56.021**Quadrangle:** BC A-1**Longitude:** 130.044**Location description and accuracy:**

The Hobo prospect, at the eastern edge of Section 35, is at an elevation of about 2400-2450 feet on a northwest-facing mountainside overlooking the confluence of the Salmon River and Texas Creek. It is about 1.0 mile east of the ruins at Ninemile (Elliott and Koch, 1981, p. 17, loc. 71). The location is accurate within about a quarter of a mile. Also see Additional Comments field, below.

Commodities:**Main:** Ag, Au, Cu, Pb, Zn**Other:****Ore minerals:** Arsenopyrite, chalcopyrite, galena, pyrite, pyrrhotite, sphalerite**Gangue minerals:** Calcite, quartz**Geologic description:**

The country rocks in the area of this site are pelitic metasedimentary and subordinate andesitic (greenstone) metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group, which is underlain and locally intruded by the Triassic Texas Creek Granodiorite; the Eocene Boundary Granodiorite, which intrudes the Hazelton and Texas Creek rocks; and still-younger Tertiary lamprophyre dikes, which cut all of the other rocks (Smith, 1973, 1977; Koch, 1996).

The deposit (Buddington, 1929, p. 84-85) consists of mineralized (pyritized) greenstone containing veins or veinlike replacements of pyrite, pyrrhotite, and sphalerite, and smaller amounts of chalcopyrite, galena, and arsenopyrite. Early assays show some gold and silver, generally in small and variable amounts. Another vein in greenstone contains pyrite, pyrrhotite, and a little arsenopyrite in quartz gangue; these sulfides carry about 0.2-0.58 oz Au per ton. Nearby quartz veins in a fissure zone in greenstone carry pyrite, galena, and sphalerite.

Elliott and Koch (1981, loc. 71) describe the deposit as greenstone that contains mineralized zones with seams, fracture facings, and veins of the same sulfides described by Buddington. Their report also refers to quartz veins and disseminated sulfides; to quartz and calcite as the principal gangue minerals; and to a reported 9 oz of Au per ton in some samples.

Concentrated sulfide samples from a shear zone on the Hobo prospect yielded an Eocene lead-isotope age (Maas and others, 1995, p. 254). The deposit, however, is similar in mineralogy, structural setting, and hostrock to isotopically dated Jurassic deposits nearby in the Hyder district (see, for example, BC065, BC067). The lode thus may be polygenetic, originating as a 'disseminated' deposit during Jurassic (Hazelton) island-arc volcanism (Alldrick, 1993), and then partly remobilized into shear zones during emplacement of the Boundary Granodiorite.

Alteration:

Greenstone country rock is impregnated with sulfide minerals.

Workings/Exploration:

Property explored by open cuts, probably mainly in the 1920's.
Early assays of sulfide samples show 0.2-0.58 oz Au per ton. Some samples reported to carry as much as 9 oz Au per ton.

Age of mineralization:

Concentrated sulfide samples from a shear zone on the Hobo prospect yielded an Eocene lead-isotope age (Maas and others, 1995, p. 254). The deposit, however, is similar in mineralogy, structural setting, and hostrock to isotopically dated Jurassic deposits nearby in the Hyder district (see, for example, BC065, BC067). The lode thus may be polygenetic, originating as a 'disseminated' deposit during Jurassic (Hazelton) island-arc volcanism (Alldrick, 1993), and then partly remobilized into shear zones during emplacement of the Boundary Granodiorite.

Deposit model:

Polymetallic veins

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

22c

Production: None

Status: Inactive

Production notes:**Reserves:****Additional comments:**

The Hobo group was originally staked in 1919.

The Swede group (Buddington, 1925, p. 78) is probably the same as the Hobo group, but has also been referred to in descriptions of the Portland and Daly-Alaska properties (Cobb, 1978, p. 73).
Also see BC070.

References:

Buddington, 1925; Buddington, 1929; Smith, 1973; Smith, 1977; Cobb, 1978 (OFR 78-922); Elliott and Koch, 1981; Alldrick, 1993; Maas and others, 1995; Koch, 1996

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Crest**Site Type:** Prospect**ARDF no.** BC072**Latitude:** 56.0167**Quadrangle:** BC A-1**Longitude:** 130.063**Location description and accuracy:**

The Crest prospect is in Section 35 at an elevation of about 1150 feet on a west-facing mountainside overlooking Salmon River about 0.5 mile below its confluence with Texas Creek. It is about 0.5 mile southeast of the ruins at Ninemile (Elliott and Koch, 1981, p. 18, loc. 72). The location is accurate within about 0.2 mile. Also see Additional Comments field, below.

Commodities:**Main:** Au, Cu, Pb**Other:****Ore minerals:** Chalcopyrite, galena, pyrite**Gangue minerals:** Quartz**Geologic description:**

The country rock in the area of the Crest prospect is the Triassic Texas Creek Granodiorite, which underlies and locally intrudes pelitic metasedimentary and subordinate andesitic (greenstone) strata of the Jurassic or older Mesozoic Hazelton Group (Smith, 1977; Koch, 1996).

The deposit (Buddington, 1929, p. 81-82) is in a thin but persistent fissure zone in granodiorite that has been traced for about 350 feet in opencuts and strippings. The zone contains quartz veins or stringers as much as 3 feet in aggregate thickness that contain shoots of relatively massive galena, accompanied by pyrite and a little chalcopyrite. The granodiorite country rock adjacent to the veins is impregnated with pyrite, which also occurs with galena on fracture surfaces. Some small quartz stringers assayed as much as 5 oz Au per ton, but most are much leaner.

Alteration:

Granodiorite country rock adjacent to veins is impregnated with sulfides.

Workings/Exploration:

Prospect was explored in 1920's by open cuts and stripping. Some sulfide-bearing quartz stringers assayed as high as 5 oz Au per ton, but most are much leaner.

Age of mineralization:**Deposit model:**

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:****Additional comments:**

Property probably originally staked in early 1920's.
The Crest(?) claims staked in 1978(?) are not on the old Crest property (Elliott and Koch, 1981, loc. 72).

References:

Buddington, 1929; Smith, 1977; Elliott and Koch, 1981; Koch, 1996

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Butte; Brigadier; Hyder Butte**Site Type:** Prospect**ARDF no.** BC073**Latitude:** 56.0167**Quadrangle:** BC A-1**Longitude:** 130.067**Location description and accuracy:**

The Brigadier prospect is in Section 35 near its western boundary at an elevation of about 650 feet on a west-facing mountainside overlooking the Salmon River about 0.7 mile below its confluence with Texas Creek. It is about 0.1 mile east of the Salmon River road (Elliott and Koch, 1981, p. 18, loc. 73). The location is accurate within about 0.2 mile. Also see Additional Comments field, below.

Commodities:**Main:** Ag, Au, Pb**Other:** W**Ore minerals:** Galena, pyrite; scheelite**Gangue minerals:** Quartz**Geologic description:**

The country rock in the area of this prospect is the Triassic Texas Creek Granodiorite, which underlies and locally intrudes pelitic metasedimentary and subordinate andesitic (greenstone) metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group; and the Eocene Hyder Quartz Monzonite, which intrudes the Hazelton and Texas Creek rocks (Smith, 1977, Koch, 1996).

The deposit (Buddington, 1929, p. 81) consists of quartz fissure veins in granodiorite that contain galena and pyrite. There are two main veins, each 10 inches to 3 feet thick, that have been traced in outcrop for 400-500 feet. Early assays of two samples showed 11.4-14.1% Pb, and 0.24-0.6 oz Au and 10.2-20.6 oz Ag per ton. Byers and Sainsbury (1956, p. 140) report that the veins also contain rare grains of scheelite.

Maas and others (1995, p. 254) suggest that the age of the Brigadier deposit is Eocene, based on similarities in mineralogy, structural setting, and hostrock, to isotopically dated Eocene deposits in the Hyder district (see, for example, BC086). If so, the age of the deposit is contemporaneous with emplacement of the Hyder Quartz Monzonite.

Alteration:**Workings/Exploration:**

Prospect was explored by opencuts and a 25-foot shaft, probably in the early 1920's. Early assays of two samples of sulfide-bearing quartz veins showed 11.4-14.1% Pb, and 0.24-0.6 oz Au and 10.2-20.6 oz Ag per ton.

Age of mineralization:

Maas and others (1995, p. 254) suggest that the age of the Brigadier deposit is Eocene, based on similarities in mineralogy, structural setting, and hostrock, to isotopically dated Eocene deposits in the Hyder district (see, for example, BC086). If so, the age of the deposit is contemporaneous with emplacement of the Hyder Quartz Monzonite.

Deposit model:

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:****Additional comments:**

The prospect probably was originally staked in the early 1920's.

Early reports describing the Brigadier property also refer to the Butte (Buddington, 1929, p. 81) and Hyder Butte (Cobb, 1978, p. 13, 92) claims.

References:

Buddington, 1929; Byers and Sainsbury, 1956; Smith, 1977; Cobb, 1978 (OFR 78-922); Elliott and Koch, 1981; Maas and others, 1995; Koch, 1996

Primary reference: Buddington, 1929**Reporter:** H. C. Berg (Fullerton, California)**Reporter affiliation:****Last report date:** 5/17/98

Site name(s): Bluebird**Site Type:** Occurrence**ARDF no.** BC074**Latitude:** 56.015**Quadrangle:** BC A-1**Longitude:** 130.054**Location description and accuracy:**

The Bluebird occurrence is in Section 35 at an elevation of about 2350 feet on a west-facing mountainside about 0.1 mile southeast of the confluence of Salmon River and Texas Creek (Elliott and Koch, 1981, p. 18, loc. 74). The location is accurate within about a quarter of a mile.

Commodities:**Main:** W**Other:** Cu, Mo, Pb**Ore minerals:** Chalcopyrite, galena, molybdenite, pyrite, scheelite**Gangue minerals:** Quartz**Geologic description:**

The country rock in the area of this occurrence is the Triassic Texas Creek Granodiorite, which underlies and locally intrudes pelitic metasedimentary and subordinate andesitic (greenstone) metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group (Smith, 1977; Koch, 1996).

The deposit (Byers and Sainsbury, 1956, p. 139-140) consists of a quartz vein in granodiorite about 1500 feet from its contact with rocks of the Hazelton Group. The vein is 4 inches thick and exposed for only a few feet; it contains sparsely disseminated pyrite, chalcopyrite, galena and scheelite in the central part and molybdenite along the walls. Hand specimens contain an estimated 0.5% WO₃.

Alteration:**Workings/Exploration:**

Hand specimens of the scheelite-bearing vein contain an estimated 0.5% WO₃

Age of mineralization:**Deposit model:**

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:****Additional comments:****References:**

Byers and Sainsbury, 1956; Smith, 1977; Elliott and Koch, 1981; Koch, 1996

Primary reference: Byers and Sainsbury, 1956

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Alaska-Premier (near Skookum Creek)**Site Type:** Prospect**ARDF no.** BC075**Latitude:** 56.01**Quadrangle:** BC A-1**Longitude:** 130.04**Location description and accuracy:**

The approximate location of this prospect is in the southwest corner of Section 36 at an elevation of about 3100 feet. It is near the southwest end of a ridge about 0.15 mile northwest of Skookum Creek (Elliott and Koch, 1981, p. 18, loc. 75). The location probably is accurate within about a half mile. Also see Additional Comments field, below.

Commodities:**Main:** W**Other:****Ore minerals:** Scheelite**Gangue minerals:** Quartz**Geologic description:**

The country rocks in the area of this prospect are pelitic metasedimentary and subordinate andesitic (greenstone) metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group, which is underlain and locally intruded by the Triassic Texas Creek Granodiorite (Smith, 1977; Koch, 1996).

The only published description of the geology of this prospect is by Byers and Sainsbury (1956, p. 140 and plate 1), who report only that scheelite occurs on the property.

Alteration:**Workings/Exploration:****Age of mineralization:****Deposit model:****Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production:** None**Status:** Inactive**Production notes:****Reserves:****Additional comments:**

This property apparently is in the vicinity of the Monarch (BC079) and upper Fish Creek (BC078) prospects, and is not contiguous to the Alaska-Premier property (BC067) described elsewhere in this report.

References:

Byers and Sainsbury, 1956; Smith, 1977; Elliott and Koch, 1981, Koch, 1996

Primary reference: Byers and Sainsbury, 1956

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Hyder Skookum**Site Type:** Prospect**ARDF no.** BC076**Latitude:** 56.011**Quadrangle:** BC A-1**Longitude:** 130.036**Location description and accuracy:**

The Hyder Skookum prospect, in Section 36 near its southern boundary, is at an elevation of about 3150 feet on the southeast wall of Skookum Creek, and about hundred or so feet above the creek (Elliott and Koch, 1981, p. 18, loc. 76). The location is accurate within about 0.2 mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Arsenopyrite, chalcopyrite, pyrite, pyrrhotite**Gangue minerals:** Calcite, quartz**Geologic description:**

The country rocks in the area of this prospect are pelitic metasedimentary and subordinate andesitic (greenstone) metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group, which is underlain and locally intruded by the Triassic Texas Creek Granodiorite (Smith, 1977; Koch, 1996).

Buddington (1929, p. 72) describes two types of deposits at this site. One deposit is a sulfide replacement mass in somewhat schistose greenstone near the contact of a quartz porphyry dike. The mass consists of pyrrhotite and a little chalcopyrite and arsenopyrite. Some sulfides also are disseminated in quartz in the same zone. The other type of deposit comprises two parallel quartz veins up to 7 feet thick that locally form breccias with the quartz porphyry or greenstone country rocks. Some of the country rock fragments in the breccias are impregnated with pyrite and a stringer in the greenstone carries a little disseminated sulfide. Surface exposures of the veins carry a little calcite but are mostly barren of sulfides.

Alteration:

Greenstone country rock and fragments of country rocks in breccias are partly replaced by sulfides.

Workings/Exploration:

Deposit was explored by an open cut, probably in the 1920's.

Age of mineralization:**Deposit model:**

Polymetallic veins

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

22c

Production: None**Status:** Inactive**Production notes:****Reserves:**

Additional comments:

References:

Buddington, 1929; Smith, 1977; Elliott and Koch, 1981; Koch, 1996

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Titan; Titan Salmon River Syndicate**Site Type:** Prospect**ARDF no.** BC077**Latitude:** 56.011**Quadrangle:** BC A-1**Longitude:** 130.022**Location description and accuracy:**

This prospect, in the southeast corner of Section 36, is at an elevation of about 3350 feet about 0.2 mile east of Fish Creek and 0.8 mile west-northwest of Mt. Welker, which is on the International Boundary (Elliott and Koch, 1981, p. 18, loc. 77) The location is accurate within about a quarter of a mile.

Commodities:**Main:** Ag, Au, Cu, Pb, Zn**Other:****Ore minerals:** Arsenopyrite, chalcopyrite, galena, pyrite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The country rocks in the area of this prospect are pelitic metasedimentary and subordinate andesitic (greenstone) metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group, which is underlain and locally intruded by the Triassic Texas Creek Granodiorite; the Eocene Hyder Quartz Monzonite, which intrudes the Hazelton and Texas Creek rocks; and still-younger Tertiary lamprophyre dikes, which cut all the other rocks (Smith, 1973, 1977; Koch, 1996).

The deposit (Buddington, 1925, p. 74; 1929, p. 72-74; Elliott and Koch, 1981, loc. 77) is in Hazelton Group greenstone and slate cut by Triassic and Eocene porphyry dikes. Most of the work (about 550 feet of adit and crosscuts) was done to prospect quartz veins up to 2 feet thick in a sheared and altered porphyry dike with many included layers of slate and greenstone. The shear zone was traced in outcrop for about 750 feet. The porphyry near the veins is impregnated with pyrite, and the quartz contains disseminated sphalerite and lesser amounts of galena, pyrite, and chalcopyrite. Picked surface samples of this lode reportedly were high in Au and Ag; samples from underground were leaner. In the early 1920's (Buddington, 1925, p. 74), one of the owners described this deposit as a quartz body 12 feet wide carrying about 0.19 oz Au and 6 oz Ag per ton. Selected samples of rich stringers in porphyry were said to assay as much as 4.5 oz Au per ton.

Elsewhere on this property a sheared 7-to-10-foot-thick quartz vein in greenstone(?) is cut by a granodiorite porphyry dike. Local shoots in the walls of this vein carry a little disseminated galena, sphalerite, pyrite, and chalcopyrite. Another shear zone in greenstone carried considerable arsenopyrite and a little galena.

Despite fairly extensive underground workings on this property, there is no public record of any production.

Alteration:

Sheared country rocks adjacent to veins are impregnated with sulfide minerals.

Workings/Exploration:

Property was explored in 1920's by about 550 feet of adit and crosscuts.

In the early 1920's (Buddington, 1925, p. 74), one of the owners described this deposit as a quartz body 12 feet wide carrying about 0.19 oz Au and 6 oz Ag per ton.

Selected samples of rich stringers in porphyry were said to assay as much as 4.5 oz Au per ton.

Age of mineralization:

Deposit model:

Polymetallic veins

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

22c

Production: None

Status: Inactive

Production notes:

Despite fairly extensive underground workings, there is no public record of any production.

Reserves:

Additional comments:

Property originally staked in 1917; last reported work was in 1928.

References:

Buddington, 1925; Buddington, 1929; Smith, 1973; Smith, 1977; Elliott and Koch, 1981; Koch, 1996

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Fish Creek; Olympia Extension; Last Chance; Single Rose; Mountain View; Summit; Climax**Site Type:** Mine**ARDF no.** BC078**Latitude:** 56.00278**Quadrangle:** BC A-1**Longitude:** 130.0444**Location description and accuracy:**

This site, the principal focus of a large area of properties and claims, is at the eastern edge of Section 2 at an elevation of about 2600 feet on the west side of Skookum Creek (Elliott and Koch, 1981, p. 19, loc. 78). This location, which applies principally to the main mine workings, is accurate within about 0.1 mile. Also see Additional Comments field, below

Commodities:**Main:** Ag, Au, Cu, Pb, W, Zn**Other:** Barite**Ore minerals:** Arsenopyrite, chalcopyrite, galena, pyrite, pyrrhotite, scheelite, sphalerite, tetrahedrite**Gangue minerals:** Ankerite, quartz**Geologic description:**

The country rocks in the area of this site are pelitic metasedimentary and subordinate andesitic (greenstone) metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group; the Triassic Texas Creek Granodiorite, which underlies and locally intrudes the Hazelton; the Eocene Hyder Quartz Monzonite, which intrudes the Hazelton and Texas Creek rocks; and still-younger Tertiary lamprophyre dikes, which cut all the other rocks (Smith, 1973, 1977; Koch, 1996).

The deposit (Chapin, 1916, p. 98-99; Westgate, 1921, p. 128; Buddington, 1925, p. 77-78; 1929, p. 43, 68-71; Byers and Sainsbury, 1956, p. 138; Cobb, 1978, p. 29-30, Elliott and Koch, 1981, loc. 77) is at the contact of Texas Creek Granodiorite and Hazelton greenstone, graywacke, and slate, and consists of mineralized quartz veins, mostly within the granodiorite.

A quartz-barite-ankerite fissure vein as much as 10 feet thick (average 3 feet) occurs on the Olympia Extension claim. It contains galena, tetrahedrite, chalcopyrite, pyrite, and sphalerite; locally the tetrahedrite forms stringers up to 2 inches thick. About 64 tons of sorted ore that were shipped from this property in the 1920's reportedly averaged \$90 per ton (1920's prices), but the total production, if any, is not publicly known. Assays of samples taken across this vein showed a trace to 1.42 oz Au and 3.0-94.8 oz Ag per ton, 2.5-14.5% Pb, and a trace to 2% Cu.

On the Summit claim, a mass several feet thick and at least 10 feet long of almost solid pyrrhotite is in pyritized greenstone. Small amounts of pyrite, arsenopyrite, chalcopyrite, and quartz accompany the massive pyrrhotite, samples of which assayed 0.36 oz Au and 4 oz Ag per ton, and 2% Cu.

Byers and Sainsbury (1956, p. 138 and plate 13) report sparse scheelite in quartz veins on the Fish Creek claims at the southern edge of the Bradfield Canal quadrangle.

Maas and others (1995, p. 254) suggest that the age of the deposit in Texas Creek Granodiorite on the Olympia Nos. 8 and 9 claims (p. 260 and fig. 66) is Eocene, based on similarities in mineralogy, structural setting, and hostrock, to lead-isotope-dated Eocene deposits nearby in the Hyder district (see, for example, BC086). If so, the age of the deposit is contemporaneous with emplacement of the Hyder Quartz Monzonite.

Alteration:

Greenstone country rock is impregnated with sulfide minerals.

Workings/Exploration:

Mine developed by about 800 feet of underground workings, probably mostly in the 1920's.

Early assays of samples taken across the vein on the Olympia Extension claim showed a trace to 1.42 oz Au and 3.0-94.8 oz Ag per ton, 2.5-14.5% Pb, and a trace to 2% Cu. Samples of massive sulfide on the Summit claim assayed 0.36 oz Au and 4 oz Ag per ton, and 2% Cu.

Age of mineralization:

Maas and others (1995, p. 254) suggest that the age of the deposit in Texas Creek Granodiorite on the Olympia Nos. 8 and 9 claims (p. 260, and fig. 66) is Eocene, based on similarities in mineralogy, structural setting, and hostrock, to lead-isotope-dated Eocene deposits nearby in the Hyder district (see, for example, BC086). If so, the age of the deposit is contemporaneous with emplacement of the Hyder Quartz Monzonite.

Deposit model:

Polymetallic veins

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

22c

Production: Yes; small

Status: Inactive

Production notes:

About 64 tons of sorted ore that were shipped from this property in the 1920's reportedly averaged \$90 per ton (1920's prices), but the total production, if any, is not publicly known.

Reserves:**Additional comments:**

This site comprises an extensive group of claims, most of which are to the south in the Ketchikan quadrangle. Claims wholly or mostly in the Bradfield Canal quadrangle are Olympia Extension (Last Chance), Single Rose, Mountain View, Summit, and Climax. Some early reports describe the Last Chance (formerly Olympia Extension) separately. The Liberty Group (Byers and Sainsbury, 1956) covers several former Fish Creek area claims.

References:

Chapin, 1916; Westgate, 1921; Buddington, 1925; Buddington, 1929; Byers and Sainsbury, 1956; Smith, 1973; Smith, 1977; Cobb, 1978 (OFR 78-922); Elliott and Koch, 1981; Maas and others, 1995; Koch, 1996

Primary reference: Buddington, 1929; Cobb, 1978 (OFR 78-922)

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Monarch**Site Type:** Prospect**ARDF no.** BC079**Latitude:** 56.00694**Quadrangle:** BC A-1**Longitude:** 130.0556**Location description and accuracy:**

The Monarch prospect, in Section 2 at an elevation of about 2350 feet, is on a west-facing mountainside about 0.6 mile east-northeast of the Riverside mine adit (Elliott and Koch, 1981, p. 19, loc. 79). The location is accurate within about 0.2 mile.

Commodities:**Main:** Ag, Au, Cu, Pb, Zn**Other:** W; barite**Ore minerals:** Chalcopyrite, galena, pyrite, scheelite, sphalerite, tetrahedrite; barite**Gangue minerals:** Quartz**Geologic description:**

The country rocks in the area of the Monarch prospect are the Triassic Texas Creek Granodiorite, which underlies and locally intrudes pelitic metasedimentary and subordinate andesitic (greenstone) metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group; the Eocene Hyder Quartz Monzonite, which intrudes the Hazelton and Texas Creek rocks; and still-younger Tertiary lamprophyre dikes, which cut all the other rocks (Smith, 1973, 1977; Koch, 1996).

The deposit (Buddington, 1929, p. 74-75; Byers and Sainsbury, 1956, p. 139) consists of quartz-barite fissure veins in granodiorite that contain local shoots of galena, pyrite, tetrahedrite, sphalerite, and chalcopyrite, and sparse grains of scheelite. Samples of one vein assayed about 1-1.5 oz Au per ton, and a specimen of tetrahedrite reportedly contained 266 oz of Ag and about 1.0 oz of Au per ton. Barite is locally an abundant constituent of the veins. Byers and Sainsbury (1956, p. 139) report that a quartz veinlet four inches thick and exposed for most of the length of a 30-foot drift contains an estimated 0.5-3.0% WO₃. The veinlet may be part of the Olympia Extension (BC078) vein that crops out 1000 feet to the southeast.

Maas and others (1995, p. 254) suggest that the age of the Monarch deposit is Eocene, based on similarities in mineralogy, structural setting, and hostrock, to lead-isotope-dated Eocene deposits nearby in the Hyder district (see, for example, BC086). If so, the deposit is contemporaneous with emplacement of the Hyder Quartz Monzonite.

Alteration:**Workings/Exploration:**

The deposit was explored in the 1920's by opencuts, stripping, and a 30-foot adit. Early assays of samples of one vein showed about 1-1.5 oz Au per ton, and a specimen of tetrahedrite reportedly contained 266 oz of Ag and about 1.5 oz Au per ton.

A quartz veinlet four inches thick and exposed for most of the length of a 30-foot drift contains an estimated 0.5-3.0% WO₃ (Byers and Sainsbury, 1956).

Age of mineralization:

Maas and others (1995, p. 254) suggest that the age of the Monarch deposit is Eocene, based on similarities in mineralogy, structural setting, and hostrock, to lead-isotope-dated Eocene deposits nearby in the Hyder district (see, for example, BC086). If so, the deposit is contemporaneous with emplacement of the Hyder Quartz Monzonite.

Deposit model:

Polymetallic veins

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

22c

Production: None

Status: Inactive

Production notes:**Reserves:****Additional comments:****References:**

Buddington, 1929; Byers and Sainsbury, 1956; Smith, 1973; Smith, 1977; Elliott and Koch, 1981; Maas and others, 1995; Koch, 1996

Primary reference: Buddington, 1929

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Riverside; Riverview; Lindeborg**Site Type:** Mine**ARDF no.** BC080**Latitude:** 56.003**Quadrangle:** BC A-1**Longitude:** 130.069**Location description and accuracy:**

The Riverside mine is near the west boundary of Section 2 at an elevation of about 500 feet (main adit), and just east of the road running along the Salmon River (Elliott and Koch, 1981, p. 20, loc. 80). The location is accurate within about 100 feet. Also see Additional Comments field, below.

Commodities:**Main:** Ag, Au, Cu, Pb, W, Zn**Other:** Barite**Ore minerals:** Chalcopyrite, galena, pyrite, pyrrhotite, scheelite, sphalerite, tetrahedrite**Gangue minerals:** Ankerite, calcite, quartz**Geologic description:**

The country rocks in the area of the Riverside mine are the Triassic Texas Creek Granodiorite, which underlies and locally intrudes pelitic metasedimentary and subordinate andesitic (greenstone) metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group; the Eocene Hyder Quartz Monzonite, which intrudes the Texas Creek and Hazelton rocks; and still-younger Tertiary lamprophyre dikes, which cut all the other rocks (Smith, 1973, 1977; Koch, 1996).

The deposit (Chapin, 1916, p. 97; Westgate, 1922, p. 139; Buddington, 1925, p. 74-75, 79-82; 1929, p. 43, 77-81; Thorne and others, 1948, p. 4-5; Byers and Sainsbury, 1956, p. 125-136; Noel, 1966, p. 53-55; Cobb, 1978, p. 66-69) consists of two or three main quartz fissure veins up to 7 feet thick in Texas Creek Granodiorite, and the Lindeborg deposit, which is either a mineralized shear zone in a Hazelton schist inclusion in the granodiorite (according to most workers), or a mineralized zone of mylonitic gneiss and ultramylonite derived from the granodiorite (according to Smith, 1977, p. 17-18). The Lindeborg deposit contains considerable scheelite; the quartz veins carry only small amounts. Other than scheelite, the principal ore minerals are galena, pyrite, tetrahedrite, pyrrhotite, chalcopyrite, sphalerite, and native gold. The principal gangue mineral is quartz, accompanied by small amounts of calcite, ankerite, and barite.

In the Texas Creek Granodiorite, the scheelite-bearing lodes (Byers and Sainsbury, 1956, p. 125-136) are mineralized shoots in quartz fissure veins. In the Lindeborg shear zone, they are in part quartz fissure veins and in part replacement deposits. Scheelite in the Lindeborg zone appears to have preferentially replaced calcareous laminae in the schist hostrock. The Lindeborg lode is about 3 feet thick and has been traced in outcrop for 2000 feet and through a vertical interval of more than 700 feet.

Lead-isotope studies of galena from the Riverside mine (Maas and others, 1995, p. 254) indicate that the deposit is Eocene in age, contemporaneous with emplacement of the Hyder Quartz Monzonite.

Alteration:

Workings/Exploration:

The Riverside mine operated discontinuously from 1925-1951. It was developed by more than 6000 feet of underground workings and explored by about 4600 feet of diamond drill holes, mainly during World War II.

Age of mineralization:

Lead-isotope studies of galena from the Riverside mine (Maas and others, 1995, p. 254) indicate that the deposit is Eocene in age, contemporaneous with emplacement of the Hyder Quartz Monzonite.

Deposit model:

Polymetallic veins

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

22c

Production: Yes; small

Status: Inactive

Production notes:

From 1925-1951, the Riverside mine yielded about 30,000 tons of ore. Almost all of the ore was from the Lindeborg lode, which produced about 3,000 oz Au, 100,000 oz Ag, 100,000 lb Cu, 250,000 lb Pb, 20,000 lb Zn, and 70,000 lb WO₃.

Reserves:**Additional comments:**

Deposit probably originally staked about 1915-1920. Some descriptions of the Riverside mine refer to it as the Riverview or Lindeborg property (Cobb, 1978, p. 66).

References:

Chapin, 1916; Westgate, 1922; Buddington, 1925; Buddington, 1929; Thorne and others, 1948; Byers and Sainsbury, 1956; Noel, 1966; Smith, 1973; Smith, 1977; Cobb, 1978 (OFR 78-922); Elliott and Koch, 1981; Koch, 1996

Primary reference: Byers and Sainsbury, 1956; Cobb, 1978 (OFR 78-922)

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Unnamed**Site Type:** Occurrence**ARDF no.** BC081**Latitude:** 56.185**Quadrangle:** BC A-2**Longitude:** 130.628**Location description and accuracy:**

The approximate location of this unverified occurrence is in the south part of Section 31 at an elevation of about 4250 feet, on an east-facing mountainside overlooking the toe of Gracey Creek Glacier (Koch, 1997, p. 53, loc. 81). The location probably is accurate within about a quarter of a mile.

Commodities:**Main:** Ag**Other:****Ore minerals:** Unknown**Gangue minerals:****Geologic description:**

The country rocks in the area of this reported occurrence are Tertiary or Cretaceous leucocratic quartz monzonite and granodiorite of the Coast Range Batholith, and roof pendants of Mesozoic or Paleozoic metapelitic and metavolcanic strata, locally including marble (Koch, 1996). On Koch's (1997) map, the occurrence appears to be in the plutonic rocks between metamorphic roof pendants, or alternatively, in an outcrop of metamorphic rocks too small to show at the scale of Koch's map. Other than location and unverified occurrence of silver, no other geologic information about this site has been made public

Alteration:**Workings/Exploration:****Age of mineralization:****Deposit model:****Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production:** None**Status:** Undetermined**Production notes:****Reserves:****Additional comments:**

Koch's scanty description of this occurrence in his (1997) report may have been taken from a U.S. Bureau of Mines claim map, but there is no reference to one in his report.

Site is in Misty Fiords National Monument.

References:

Koch, 1997

Primary reference: Koch, 1997

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Iron Cap**Site Type:** Prospect**ARDF no.** BC082**Latitude:** 56.075**Quadrangle:** BC A-1**Longitude:** 130.212**Location description and accuracy:**

The Iron Cap prospect (Maas and others, 1995, p. 233, 235, 245) is in Section 11 at an elevation of about 4700 feet. It is on a south-facing mountainside overlooking the West Fork of Texas Creek, and about 2.3 miles northeast of Texas Lake. The location is accurate within about 0.1 mile.

Commodities:**Main:** Ag, Pb, Zn**Other:****Ore minerals:** Galena, pyrite, sphalerite**Gangue minerals:** Calcite, quartz**Geologic description:**

The country rocks in the area of the Iron Cap prospect are pelitic metasedimentary and subordinate andesitic volcanic strata of the Jurassic or older Mesozoic Hazelton Group; the Triassic Texas Creek Granodiorite, which underlies and locally intrudes the Texas Creek; and the Eocene Hyder Quartz Monzonite, which intrudes the Hazelton and Texas Creek rocks (Smith, 1977; Koch, 1996).

Maas and others (1995, p. 235,245) describe the deposit as lenses and disseminations of pyrite, galena, and sphalerite in quartz-carbonate lenses in Hazelton argillite. Lead-isotope studies of galena from the prospect (Maas and others, p. 235) indicate that the deposit is Jurassic in age, contemporaneous at least in part with island-arc volcanism in Hazelton time (Alldrick, 1993).

Samples of the deposit collected by the U.S. Bureau of Mines in 1992 or 1993 (Maas and others, 1995, p. 245) contain up to 42.9 ppm Ag, 7270 ppm Pb, and 4.76% Zn.

Alteration:

Sulfides disseminations in argillite hostrock

Workings/Exploration:

Deposit has been explored by a trench.

Samples of the deposit collected by the U.S. Bureau of Mines in 1992 or 1993 (Maas and others, p. 245) contain up to 42.9 ppm Ag, 7270 ppm Pb, and 4.76% Zn.

Age of mineralization:

Maas and others (1995, p. 235,245) describe the deposit as lenses and disseminations of pyrite, galena, and sphalerite in quartz-carbonate lenses in Hazelton argillite. Lead-isotope studies of galena from the prospect (Maas and others, p. 235) indicate that the deposit is Jurassic in age, contemporaneous at least in part with island-arc volcanism in Hazelton time (Alldrick, 1993).

Deposit model:

Polymetallic veins

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

22c

Production: None

Status: Undetermined

Production notes:

Reserves:

Additional comments:

References:

Smith, 1977; Alldrick, 1993; Maas and others, 1995; Koch, 1996

Primary reference: Maas and others, 1995

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Dog Hole**Site Type:** Prospect**ARDF no.** BC083**Latitude:** 56.033**Quadrangle:** BC A-1**Longitude:** 130.086**Location description and accuracy:**

The Dog Hole prospect (Maas and others, 1995, p. 233, 235, 244) is in the northeast corner of Section 16 at an elevation of about 4600 feet. It is on a south-facing mountainside about 1.0 mile north-northeast of Texas Lake. The location is accurate within about 0.1 mile.

Commodities:**Main:** Ag, Au, Pb, Zn**Other:****Ore minerals:** Galena, pyrite, sphalerite**Gangue minerals:** Quartz?**Geologic description:**

The country rocks in the area of the Dog Hole prospect are pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group, which is underlain and locally intruded by the Triassic Texas Creek Granodiorite; and the Eocene Hyder Quartz Monzonite, which intrudes the Hazelton and Texas Creek rocks (Smith, 1977; Koch, 1996).

Maas and others (1995, p. 235, 244) describe the deposit as sulfide-bearing silicified(?) Hazelton volcanic rock and argillite. The sulfides are pyrite, galena, and sphalerite. Lead-isotope studies of galena from the prospect indicate that the deposit is Jurassic in age, contemporaneous, at least in part, with island-arc volcanism in Hazelton time (Alldrick, 1993).

Samples of the deposit collected by the U.S. Bureau of Mines in 1992 or 1993 (Maas and others, 1995, p. 244) contain up to 1.3 ppm Ag, 30.1 ppm Ag, 0.84 % Pb, and 2.17% Zn.

Alteration:

Volcanic and sedimentary hostrocks are silicified (?)

Workings/Exploration:

Prospect has been explored by a 6-foot adit.

Samples of the deposit collected by the U.S. Bureau of Mines in 1992 or 1993 (Maas and others, 1995, p. 244) contain up to 1.3 ppm Ag, 30.1 ppm Ag, 0.84 % Pb, and 2.17% Zn.

Age of mineralization:

Maas and others (1995, p. 235, 244) describe the deposit as sulfide-bearing silicified(?) Hazelton volcanic rock and argillite. The sulfides are pyrite, galena, and sphalerite. Lead-isotope studies of galena from the prospect indicate that the deposit is Jurassic in age, contemporaneous, at least in part, with island-arc volcanism in Hazelton time (Alldrick, 1993).

Deposit model:

Polymetallic veins

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

22c

Production: None

Status: Undetermined

Production notes:

Reserves:

Additional comments:

References:

Smith, 1977; Alldrick, 1993; Maas and others, 1995; Koch, 1996

Primary reference: Maas and others, 1995

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Ibex Saddle**Site Type:** Prospect**ARDF no.** BC084**Latitude:** 56.083**Quadrangle:** BC A-1**Longitude:** 130.184**Location description and accuracy:**

The Ibex Saddle prospect (Maas, 1995, p. 233, 235, 245) is in the south part of Section 1 at an elevation of about 4500 feet, adjacent to the west margin of a small lobe of Texas Glacier at the head of Ibex Creek. The location is accurate within about 0.1 mile.

Commodities:**Main:** Ag, Pb, Zn**Other:****Ore minerals:** Galena, pyrite, sphalerite**Gangue minerals:** Quartz?**Geologic description:**

The country rocks in the area of the Ibex Saddle prospect are pelitic metasedimentary and subordinate andesitic volcanic strata of the Jurassic or older Mesozoic Hazelton Group, which is underlain and locally intruded by the Triassic Texas Creek Granodiorite; and the Eocene Hyder Quartz Monzonite, which intrudes the Hazelton and Texas Creek rocks (Smith, 1997; Koch, 1996).

Maas and others (1995, p. 235, 245) describe the deposit as sulfide-bearing silicified[?] andesite. The sulfides are pyrite, galena, and sphalerite. Samples of the deposit collected by the U.S. Bureau of Mines in 1992 or 1993 contain up to 656 ppb Au, 40.7 ppm Ag, 2705 ppm Cu, 2.6% Pb, and 7.5% Zn.

Lead-isotope studies of galena from the Ibex Saddle prospect (Maas and others, 1995, p. 235) indicate that the deposit is Jurassic in age, contemporaneous, at least in part, with island-arc volcanism in Hazelton time (Alldrick, 1993).

Alteration:

Andesite hostrock is silicified and impregnated with sulfide minerals.

Workings/Exploration:

Samples of the deposit collected by the U.S. Bureau of Mines in 1992 or 1993 (Maas and others, 1995, p. 245) contain up to 656 ppb Au, 40.7 ppm Ag, 2705 ppm Cu, 2.6% Pb, and 7.5% Zn.

Age of mineralization:

Lead-isotope studies of galena from the Ibex Saddle prospect (Maas and others, 1995, p. 235) indicate that the deposit is Jurassic in age, contemporaneous, at least in part, with island-arc volcanism in Hazelton time (Alldrick, 1993).

Deposit model:

Polymetallic veins

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

22c

Production: None**Status:** Undetermined**Production notes:**

Reserves:

Additional comments:

References:

Smith, 1977; Alldrick, 1993; Maas and others, 1995; Koch, 1996

Primary reference: Maas and others, 1995

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Casey Glacier Sphalerite**Site Type:** Occurrence**ARDF no.** BC085**Latitude:** 56.052**Quadrangle:** BC A-1**Longitude:** 130.203**Location description and accuracy:**

The Casey Glacier Sphalerite occurrence consists of mineralized boulders of float scattered in an area of about a quarter of a square mile (Maas, 1995, p. 233, 235). The occurrence is in the northeast corner of Section 23 between elevations of about 3500 and 4100 feet, on a north-facing mountainside south of the West Fork of Texas Creek. It is about 2.0 miles east of Texas Lake. The above coordinates are for the approximate center of the area of float boulders. The location is accurate to within about a quarter of a mile.

Commodities:**Main:** Pb, Zn**Other:** Ag, Au, Cu**Ore minerals:** Chalcopyrite, galena, pyrite, sphalerite**Gangue minerals:** Calcite, quartz**Geologic description:**

The country rocks in the area of this occurrence are pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group, which is underlain and locally intruded by the Triassic Texas Creek Granodiorite; and the Eocene Hyder Quartz Monzonite, which intrudes the Hazelton and Texas Creek rocks (Smith, 1977; Koch, 1996).

Maas and others (1995, p. 235, 246) describe the occurrence as mineralized float boulders of brecciated Hazelton andesite containing massive bands and veinlets of sphalerite, galena, and minor(?) pyrite and chalcopyrite. The sulfides carry silver and a trace of gold. Intense silica and carbonate alteration has accompanied brecciation and mineralization. Lead-isotope studies of galena from this occurrence (Maas and others, p. 235) indicate that the mineralization is Jurassic in age, contemporaneous, at least in part, with island-arc volcanism in Hazelton time (Alldrick, 1993).

Alteration:

Intense silica and carbonate alteration of brecciated andesite hostrock.

Workings/Exploration:**Age of mineralization:**

Lead-isotope studies of galena from this occurrence (Maas and others, 1995, p. 235) indicate that the mineralization is Jurassic in age, contemporaneous, at least in part, with island-arc volcanism in Hazelton time (Alldrick, 1993).

Deposit model:

Polymetallic veins

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

22c

Production: None**Status:** Undetermined**Production notes:**

Reserves:

Additional comments:

Although no outcrop of the banded sulfides was found, the location of the boulder rubblecrop suggests that their source is beneath the icefield at the summit between Ferguson and Casey Glaciers (Maas, 1995, p. 235).

References:

Smith, 1977; Alldrick, 1993; Maas and others, 1995; Koch, 1996

Primary reference: Maas and others, 1995

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Ronan**Site Type:** Mine**ARDF no.** BC086**Latitude:** 56.003**Quadrangle:** BC A-1**Longitude:** 130.048**Location description and accuracy:**

The Ronan mine is in Section 2 at an elevation of about 2800 feet on the rounded ridge about 0.1 mile west of Skookum Creek, and 0.8 mile east of the Riverside mine (adit) (Maas, 1995, p. 255 and fig. 66). The location is accurate within about 0.1 mile.

Commodities:**Main:** Ag, Au, Pb, Zn**Other:** W**Ore minerals:** Galena, pyrite, sphalerite, tetrahedrite; scheelite**Gangue minerals:** Quartz**Geologic description:**

The country rocks in the area of the Ronan mine are pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group; the Triassic Texas Creek Granodiorite, which underlies and locally intrudes the Hazelton; and the Eocene Hyder Quartz Monzonite, which intrudes the Hazelton and Texas Creek rocks (Smith, 1977; Koch, 1996).

Maas and others(1995, p. 254-257) describe the deposit as a well-defined shear or fracture zone in Texas Creek Granodiorite. The zone strikes northwest and dips steeply northeast, and contains sulfide shoots in quartz or quartz(-granodiorite?)-breccia veins. The principal sulfides are pyrite, galena, sphalerite and tetrahedrite; some of the veins contain scheelite. Samples collected by the U. S. Bureau of Mines in 1992 or 1993 from about 450 feet of the approximately 2-foot-thick main Ronan vein averaged 5.8 ppm Au, 296 ppm Ag, 0.3% Cu, 1.6% Pb, and 0.35% Zn (Maas and others, 1995, p. 257).

Lead-isotope studies of galena from the Ronan mine (Maas and others, 1995, p. 254) indicate that the deposit is Eocene in age, contemporaneous with the emplacement of the Hyder Quartz Monzonite.

Alteration:**Workings/Exploration:**

The Ronan mine was explored by pits and trenches, and developed by about 700 feet of underground workings (Maas and others, 1995, p. 255).

Samples collected by the U. S. Bureau of Mines in 1992 or 1993 from about 450 feet of the approximately 2-foot-thick main Ronan vein averaged 5.8 ppm Au, 296 ppm Ag, 0.3% Cu, 1.6% Pb, and 0.35% Zn (Maas and others, 1995, p. 257).

Age of mineralization:

Lead-isotope studies of galena from the Ronan mine (Maas and others, 1995, p. 254) indicate that the deposit is Eocene in age, contemporaneous with the emplacement of the Hyder Quartz Monzonite.

Deposit model:

Polymetallic veins

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

22c

Production: Yes; small**Status:** Undetermined**Production notes:**

An unknown, but probably small, amount of gold reportedly was produced from the Ronan deposit (Maas and others, 1995, p. 260).

Reserves:**Additional comments:**

The Ronan vein may continue to the northwest and join the Monarch vein (BC079).

References:

Smith, 1977; Maas and others, 1995; Koch, 1996

Primary reference: Maas and others, 1995**Reporter:** H. C. Berg (Fullerton, California)**Reporter affiliation:****Last report date:** 5/17/98

Site name(s): Iron No. 1-4; Shaft Creek Copper**Site Type:** Prospects**ARDF no.** BC087**Latitude:** 56.006**Quadrangle:** BC A-1**Longitude:** 130.038**Location description and accuracy:**

This site consists of a 0.6-mile-long, north-northeast-trending line of prospects in Section 1 between elevations 2600-3250 feet on the divide between Skookum and Fish Creeks (Maas and others, 1995, p. 252 and fig. 66). The above coordinates are for the approximate center of this line of prospects, all of which are within a half-mile of the map location.

Commodities:**Main:** Ag, Au, Cu**Other:****Ore minerals:** Arsenopyrite, chalcopyrite, galena, pyrrhotite, sphalerite**Gangue minerals:** Quartz?**Geologic description:**

The country rocks in the general area of this site are pelitic metasedimentary and subordinate andesitic metavolcanic (greenstone) strata of the Jurassic or older Mesozoic Hazelton Group; the Triassic Texas Creek Granodiorite, which underlies and locally intrudes the Hazelton; the Eocene Hyder Quartz Monzonite, which intrudes the Hazelton and Texas Creek rocks; and still-younger Tertiary lamprophyre dikes, which cut all the other rocks (Smith 1973, 1977; Koch, 1996).

Maas and others (1995, p. 252, 260) describe the deposits as veins, disseminations, and masses of gold-bearing pyrrhotite with associated chalcopyrite and arsenopyrite, and local sphalerite and galena. Individual mineralized zones range from about 60-450 feet wide and are located near or in shears in Hazelton volcanic rocks (greenstone). The prospects roughly align with the contact between Hazelton volcanics and Texas Creek Granodiorite, and are never more than about 1300 feet in lateral distance from the surface exposure of that contact.

Maas and others (p. 252) suggest that the age of the deposits is Jurassic, based on similarities in mineralogy, structural setting, and hostrock, with isotopically-dated Jurassic deposits nearby in the Hyder district (for example, see BC065, 067), and at the Scottie gold mine nearby in British Columbia (Alldrick, 1993). If so, the deposits are contemporaneous, at least in part, with island-arc volcanism in Hazelton time (Alldrick, 1993).

Alteration:

Volcanic (greenstone) hostrocks are impregnated with sulfide minerals.

Workings/Exploration:

The prospects have been explored by small pits and trenches; there is a flooded shaft on Shaft Creek Copper prospect.

Various samples of the deposits collected by the U. S. Bureau of Mines in 1992 or 1993 (Maas and others, 1995, p. 260) contain up to 14.74 ppm Au (Iron No. 2), 64.11 ppm Ag (Iron No. 4), 17.3% Cu (Shaft Creek Copper), 6370 ppm Pb (Iron No. 4), and 6840 ppm Zn (Iron No. 4).

Age of mineralization:

Maas and others (1995, p. 252) suggest that the age of the deposits is Jurassic, based on similarities in mineralogy, structural setting, and hostrock, with isotopically-dated Jurassic deposits nearby in the Hyder district (for example, see BC065, 067), and at the Scottie gold mine nearby in British Columbia (Alldrick, 1993). If so, the deposits are contemporaneous, at least in part, with island-arc volcanism in Hazelton time (Alldrick, 1993).

Deposit model:

Polymetallic veins

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

22c

Production: Yes; small

Status: Undetermined

Production notes:

Small amount of ore stored at Shaft Creek Copper prospect.

Reserves:**Additional comments:****References:**

Smith, 1973; Smith, 1977; Alldrick, 1993; Maas and others, 1995; Koch, 1996

Primary reference: Maas and others, 1995

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Top**Site Type:** Prospect**ARDF no.** BC088**Latitude:** 56.047**Quadrangle:** BC A-1**Longitude:** 130.06**Location description and accuracy:**

The Top prospect is in Section 23 at an elevation of about 1500 feet on the west side of Mineral Hill, 0.3 mile due west of its highest point (Maas and others, 1995, p. 254 and fig. 66). The location is accurate within about 0.1 mile.

Commodities:**Main:** Ag, Au, Zn**Other:****Ore minerals:** Pyrite, sphalerite, tetrahedrite**Gangue minerals:** Quartz**Geologic description:**

The country rocks in the area of the Top prospect are pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group; the Triassic Texas Creek Granodiorite, which underlies and locally intrudes the Hazelton; and the Eocene Hyder Quartz Monzonite, which intrudes the Hazelton and Texas Creek rocks (Smith, 1977; Koch, 1996).

According to Maas and others (1995, p. 254, 258), the deposit consists of disseminated and semi-massive pyrite, sphalerite, and tetrahedrite, and a quartz-sulfide vein. The deposit is hosted in Hazelton volcanic rocks and has been exposed for a length of about 450 feet. Maas and others (p. 254) suggest that this deposit is Jurassic in age, based on similarities in mineralogy, structural setting, and hostrock, to isotopically-dated Jurassic deposits elsewhere in the Hyder district (for example, see BC065, BC067). If so, the deposit is contemporaneous, at least in part, with island-arc volcanism in Hazelton time (Alldrick, 1993).

Alteration:

Volcanic hostrocks are impregnated with sulfide minerals.

Workings/Exploration:

The deposit has been exposed by surface trenching for about 450 feet. Samples collected by the U.S. Bureau of Mines in 1992 or 1993 (Maas and others, 1995, p. 258) contain up to 48.03 ppm Au, 100.8 ppm Ag, and 10.3% Zn.

Age of mineralization:

Maas and others (1995, p. 254) suggest that this deposit is Jurassic in age, based on similarities in mineralogy, structural setting, and hostrock, to isotopically-dated Jurassic deposits elsewhere in the Hyder district (for example, see BC065, BC067). If so, the deposit is contemporaneous, at least in part, with island-arc volcanism in Hazelton time (Alldrick, 1993).

Deposit model:

Polymetallic veins

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

22c

Production: None**Status:** Undetermined**Production notes:**

Reserves:

Additional comments:

References:

Smith, 1977; Alldrick, 1993; Maas and others, 1995; Koch, 1996

Primary reference: Maas and others, 1995

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

Site name(s): Ronan Copper**Site Type:** Prospect**ARDF no.** BC089**Latitude:** 56.001**Quadrangle:** BC A-1**Longitude:** 130.049**Location description and accuracy:**

The Ronan Copper prospect is in Section 2 at an elevation of about 2750 feet on the rounded ridge about 0.1 mile west of Skookum Creek, and about 0.8 mile east-southeast of the Riverside mine adit (Maas and others, 1995, p. 252, 255, and fig. 66). The location is accurate within about 0.1 mile.

Commodities:**Main:** Ag, Au, Cu**Other:****Ore minerals:** Arsenopyrite, chalcopyrite, galena, pyrrhotite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The country rocks in the area of the Ronan Copper prospect are pelitic metasedimentary and subordinate andesitic metavolcanic strata of the Jurassic or older Mesozoic Hazelton Group; the Triassic Texas Creek Granodiorite, which underlies and locally intrudes the Hazelton; the Eocene Hyder Quartz Monzonite, which intrudes the Hazelton and Texas Creek rocks; and still-younger Tertiary lamprophyre dikes, which cut all the other rocks (Smith, 1973, 1977; Koch, 1996).

Maas and others (1995, p. 252, 260) describe the deposit as one of group of gold-bearing pyrrhotite deposits comprising disseminations and masses of sulfide minerals, accompanied by quartz, in shear zones in Hazelton volcanic rocks. The sulfide minerals in this group of deposits include auriferous pyrrhotite, with associated chalcopyrite and arsenopyrite, and local sphalerite and galena.

Maas and others (1995, p. 252) suggest that the Ronan Copper deposit is Jurassic in age, based on similarities in mineralogy, structural setting, and hostrock, to isotopically-dated Jurassic deposits nearby in the Hyder district (see, for example, BC065, 067). If so, the deposit is contemporaneous, at least in part, with island-arc volcanism in Hazelton time (Alldrick, 1993).

Alteration:

Volcanic hostrock is impregnated with sulfide minerals.

Workings/Exploration:

Prospect has been explored by surface pits and trenches.

Channel samples collected in 1992 by the U. S. Bureau of Mines (Maas and others, 1995, p. 260) contain up to 169 ppb Au, 66.51 ppm Ag, and 2.5% Cu.

Age of mineralization:

Maas and others (1995, p. 252) suggest that the Ronan Copper deposit is Jurassic in age, based on similarities in mineralogy, structural setting, and hostrock, to isotopically-dated Jurassic deposits nearby in the Hyder district (see, for example, BC065, BC067). If so, the deposit is contemporaneous, at least in part, with island-arc volcanism in Hazelton time (Alldrick, 1993).

Deposit model:

Polymetallic veins

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

22c

Production: None

Status: Undetermined

Production notes:

Reserves:

Additional comments:

References:

Smith, 1973; Smith, 1977; Alldrick, 1993; Maas and others, 1995; Koch, 1996

Primary reference: Maas and others, 1995

Reporter: H. C. Berg (Fullerton, California)

Reporter affiliation:

Last report date: 5/17/98

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