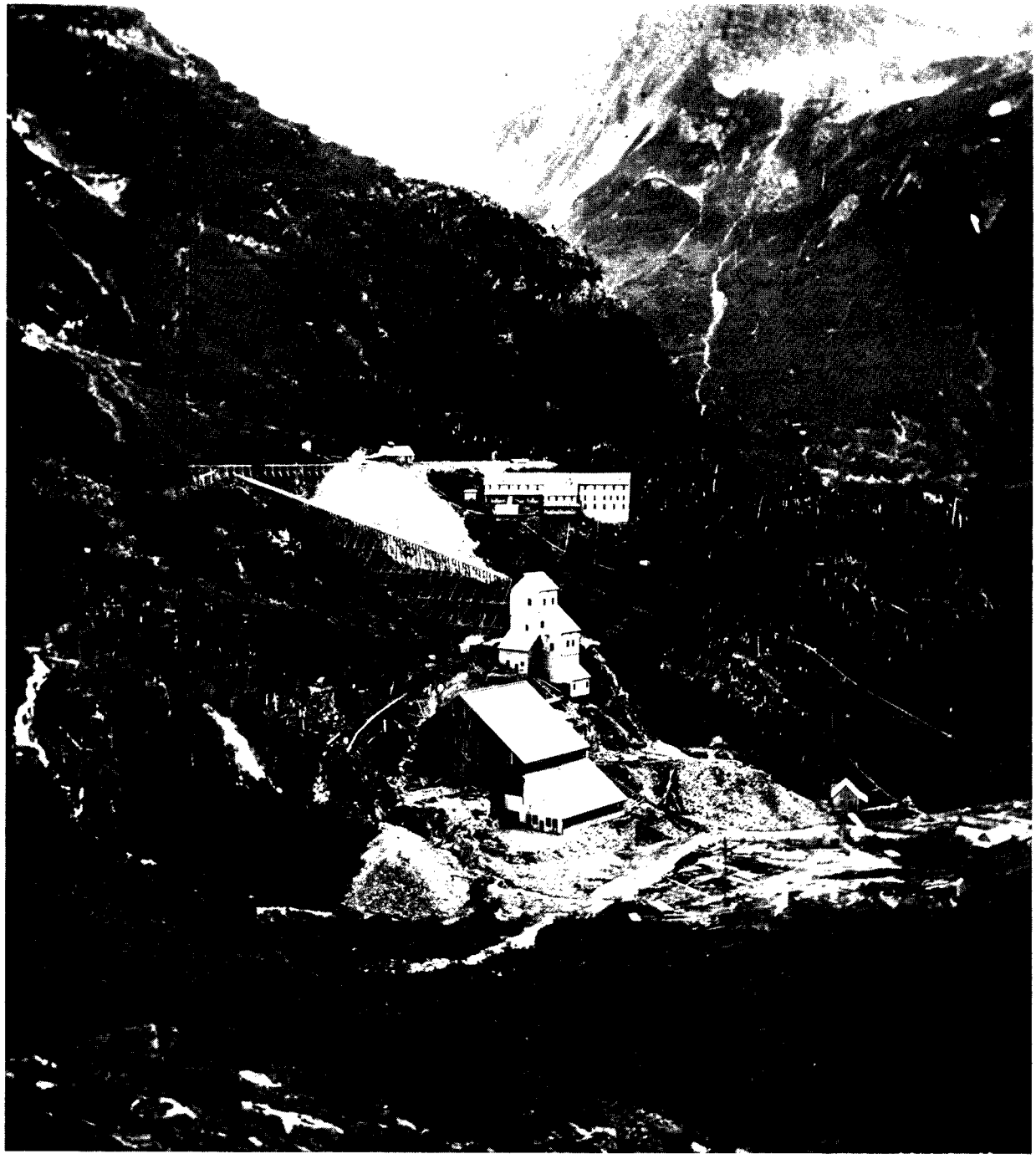
JUNEAU GOLD BELT AREA

Preliminary mine, prospect, sample location maps and descriptions

By: Earl Redman, William S. Roberts, Al Clough and Joseph Kurtak

ALASKA FIELD OPERATIONS CENTER, JUNEAU, ALASKA



Perseverance Mine, 1908 (Case & Draper Coll., Ak. Hist. Lib.)

UNITED STATES DEPARTMENT OF THE INTERIOR

Donald P. Hodel, Secretary

BUREAU OF MINES

Robert C. Horton, Director

OFR 85-86

CONTENTS

APPENDIXES

ILLUSTRATIONS

TABLES

UNIT OF MEASURE ABBREVIATIONS USED IN THIS REPORT

elev	elevation	oz/st	ounce per short ton
ft	foot	ppb	parts per billion
in	inch	ppm	parts per million
mm	million	%	percent
oz	troy ounce	yd^3	cubic yard
lbs	pounds		

PRELIMINARY MINE, PROSPECT, AND SAMPLE LOCATION MAPS AND DESCRIPTIONS, JUNEAU GOLD BELT AREA

by Earl Redman[1], William S. Roberts[2], Al Clough[1], and Joseph Kurtak[2]

ABSTRACT

The Juneau Gold Belt portion of the Juneau Mining District has historically had the greatest mining and exploration activity within the district and is the subject of this report. Between 1880 and 1983, the mines within the Juneau Gold Belt produced 6.7 million oz gold, 3.1 million oz silver, and 45 million lbs lead, all of which had a total value of about $157,000,000.

Information in this report is based on an extensive literature search which included unpublished private company reports, U.S. Geological Survey, State of Alaska, and Bureau reports, personal interviews, and Bureau field work. The field work during 1985 revealed the locations of numerous adits, shafts and other old mine workings, many of which were previously either unreported or misplotted on existing published maps. The Bureau examined approximately 85 mines, prospects, and occurrences and collected 675 samples for analysis.

INTRODUCTION

In 1985, the Bureau of Mines began the Juneau Mining District Study to evaluate the mineral resources of the northern portion of southeast Alaska (fig. 1). The program was designed to determine the mineral development potential of mines, prospects, and favorable mineralized zones within the study area. Program objectives are to determine reserves, study the application of modern beneficiation technologies to known occurrences, evaluate economic feasibility, and examine the economic and legislative effects on mineral development. The district study is scheduled for completion in 1989.

Mine and prospect location maps which accompany this report (figures 2-4) are at a scale of 1:63,360 in order to show accurate locations of mines, prospects, and occurrences and their associated workings.

Figure 5 displays the general locations of samples taken by the Bureau during 1985. Appendix A. contains annotated prospect descriptions and Bureau work summaries. Analytical results are listed in Appendix B.

PURPOSE AND SCOPE

The maps and appendixes in this report summarize the location, mining

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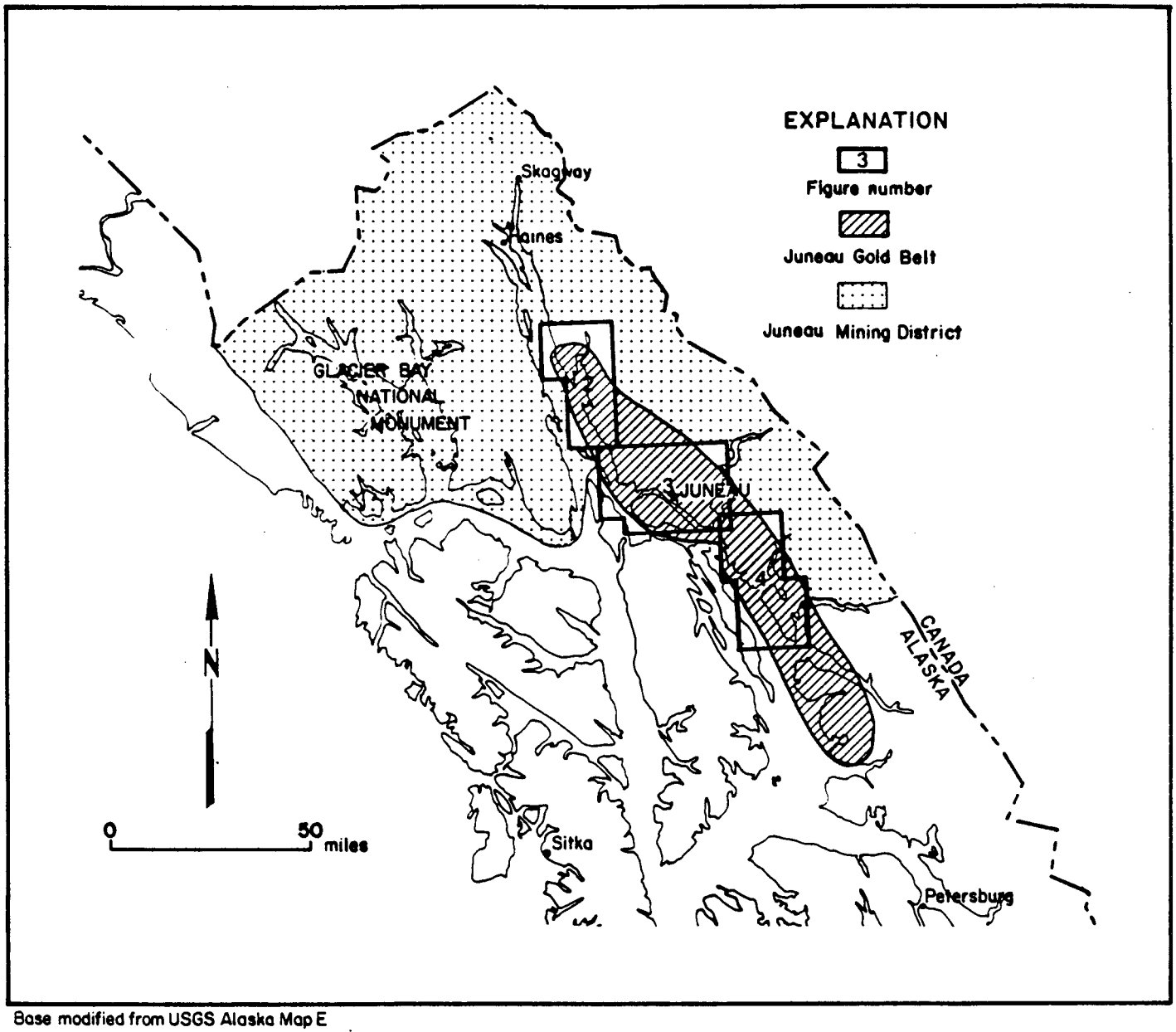

Base modified from USGS Alaska Map E

Figure 1. – Juneau Mining District Study Area showing the Juneau Gold Belt.

history, known production, general geology, work done by the Bureau in 1985, and analytical results from Bureau sampling of the mines, prospects, and mineral occurrences in the Juneau Gold Belt (fig. 1).

Limited geological interpretation of relationships at specific deposits are described in the annotated prospect descriptions in Appendix A., but no attempt has been made to make interpretations or conclusions based on the data. Resource calculations and overall conclusions will be presented in a future report following completion of field and laboratory studies.

HISTORY

The first recorded gold discoveries in the Juneau Gold Belt occurred at Powers Creek and Windham Bay in 1869. Since that time, mines in the Gold Belt have produced more than 6.7 million oz gold, 3.1 million oz silver, and 45 million lbs of lead (table 1). The vast bulk of this production came from the Treadwell and Alaska Juneau mines, both of which were the largest and lowest grade gold mines in the world while they were active.

Initial gold production from the Gold Belt came from placer deposits. In the early 1880's, however, lode deposits became of increasing importance. The first stamp mills were erected at Treadwell Mine and in Silver Bow Basin in 1881 and lode production increased rapidly. The years between 1890 and 1915 were the heyday of the smaller mines in the region such as the Sumdum, Comet, Jualin, Silver Queen, and Eagle River mines. It was also the time of greatest production from the Treadwell complex (the Treadwell, 700 Foot, Mexican, and Ready Bullion Mines). During this period, the Treadwell mines were producing a world-record 5,000 tons of ore each day.

By 1917, most of the smaller mines had shut down and the Treadwell Mine, except for the Ready Bullion, was forced to close because of a cave-in which completely filled the mine with sea water. The Treadwell mines produced a total of about 3.1 million oz gold from ore that averaged 0.13 oz/st gold. The Alaska Gastineau Co. (the old Perseverance Mine) and the Alaska Juneau mines, however, began their large-scale operations at this time. The Alaska Gastineau operation was highly innovative and, at first very successful, using ball mills patterned after those being used at porphyry copper deposits in the American southwest. But mine and mill problems forced the operation to stop work in 1921.

The Alaska Juneau Mine followed the milling example of the Alaska Gastineau Co. and used a ball mill for ore grinding. After initial difficulties, the mine and mill became very successful, handling over 12,000 tons of ore each day and making a profit from ore than averaged 0.04 oz/st gold. During the 1930's and early 1940's, the Alaska Juneau Mine was the largest and lowest-grade gold mine in the world and one of the largest lead producers. The fixed price of gold and war-time inflation made the operation unprofitable and the mine closed in 1944 after it had produced 2.9 million oz gold, 1.9 million oz silver, and 40 million lbs lead.

ACKNOWLEDGMENTS

Numerous local prospectors, claim owners and geologists generously allowed the Bureau to map and sample their respective prospects. Special thanks are due to Dale Henkins, Roger Eichman, and John Ritter who accompanied Bureau personnel on several trips into the field, sharing their local knowledge about

Table 1. Summary table of mine production

Mine	Years Active	Production		
		Au (oz)	Ag (oz)	Pb (lb)
Alaska Juneau	1880-1944	2.9 mm	1.9 mm	40.0 mm
Perseverance	1886-1921	500,900	311,000	4.8 mm
Ebner	1888-1906	29,000		
Nowell placer	1889-1906	19,350		
Little Basin placer	pre-1900	2,400		
Ground Hog	1893	150		
Glacier/Silver Queen	1888-1906	$500,000	combined Au, Ag	
Gould & Curry	1895	1,250		
Alaska Juneau tailings	1948-1954,1981-83	6,831	1,663	2,500
Alaska Gastineau tailings	1937-1948	890		
Treadwell	1881-1921	3.1 mm	151,000	
Ivanhoe	1897-1903	340		
Horrible	1897-1901	74		
Kensington	1897-1900	2,600		
Northern Belle	1896-1897	940		
Bear	1891-1897	800		
Comet	1893-1901	22,250		
Jualin	1896-1919	36,000		
E Pluribus Unum	1904-1909,1935-40	292	69	100
Aurora Borealis	pre-1885	300		
Rex	1904	145		
Eagle River	1902-1915	20,000	8,853	
Smith & Heid	1897-1904,1933-34	min 50		
Peterson	1903-1922	209	8	
Winn	1924	290	102	115
Enterprise	1906-1916	100		
Crystal	1899-1909	3,500		
Sumdum Chief	1890-1903	24,000	24,000	
Redwing	1897,1901-1902	3,000		
Marty	1925-1927	55		

area prospect locations and geology. The Bureau also appreciates the aid of George Morlein, District Geolgoist for Houston International Minerals in Anchorage, AK, who helped us locate many workings and provided geological insights. David Stone, Vice President of Customer Service for Alaska Electric Light and Power Co. (AEL&P purchased most of the property and records of the Alaska-Juneau Gold Mining Co. in 1972), was a valuable source for information about the Alaska Juneau and Treadwell mines, especially the early history. We also appreciate the efforts of Rick Frederickson, Senior Geologist with WGM and Project Manager in charge of evaluating the possibility of reopening the Alaska Juneau and Treadwell mines, for getting the Bureau access to the underground workings within his project area.

The authors were ably assisted by Messrs. Lance Miller, Rich Giraud ,and Brian Peck, seasonal employees, who aided in locating, mapping, and sampling the mines and prospects.

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APPENDIX A. - ANNOTATED PROSPECT DESCRIPTIONS AND BUREAU WORK

The Juneau Gold Belt has been divided into three areas for use in this report which are shown on figure 1. The divisions between areas are geographic and not geologic. Figure 2 includes the Berners Bay, Bessie Mountain, Yankee Basin, and Eagle River areas. Figure 3 covers Spaulding Meadows and the Juneau and Douglas areas. Areas south from Taku Inlet to Holkam Bay are shown on figure 4. All 1985 sample locations for the Juneau Gold Belt are shown on figure 5. Samples collected by the Bureau are shown in parentheses in the Bureau work portion of the prospect descriptions.

Berners Bay And Eagle River Areas

1. Ivanhoe

The Ivanhoe Mine was worked by the Mellen Mining Co. between 1897 and 1903. The company explored four quartz veins at an elev of about 2,300 ft with at least 1,100 ft of workings. A 20-stamp mill reduced the ore. The mine produced 340 oz of gold from 3,000 tons of ore. The main vein is 1- to 9-ft thick and is enclosed in altered basalt about 3,000 ft from the contact of the Jualin diorite (Knopf, 1911a).

** The Bureau briefly examined the prospect and found the main portal to be open, but with unsafe workings, and the vein stoped to the surface. No mapping was done due to limited time and the unstable mine conditions but a quartz lense 400 ft long and 8-10 ft wide was examined and sampled. Three vein samples averaged 0.26 oz/st gold, 0.23 oz/st silver and 2 samples contained an average of 1.6% copper (3639,3744-3745). 1/

2. Horrible

The Horrible Mine was discovered in 1896 and operated by the Portland Alaska Gold Mining Co. in 1897, 1898 and 1901. A 10-stamp mill was built near the beach in 1897 and about 1,000 ft of workings were developed. The mine produced about 75 oz of gold from 500 tons of ore. (Knopf, 1911a)

The vein, known as the Savage vein, cuts the Jualin diorite and has been traced for about 3,000 ft to the east where it outcrops above the Bear Tunnel. The vein is 3- to 12-ft thick and contains about 0.2 oz/st gold. In the Mexican tunnel (135-ft long with 90- and 12-ft drifts), between the Horrible and Bear (9) 2/ mines, the vein is about 5-ft wide but carried only 0.02 oz/st gold. Only a small amount of work has been done on this vein (Kensington Mines Co.).

** A brief examination of the area by the Bureau located one open 84-ft-long adit. The adit was mapped. Four samples were taken of a pyrite and chalcopyrite-bearing quartz vein that ranged from 3- to 48-in wide contained from a trace to 0.909 oz/st gold and up to 2.17 oz/st silver (3746-3749).

3. Ophir

The Ophir prospect was worked in 1908 when 875 ft of workings were completed in three tunnels. The Ophir vein has been exposed by a 350-ft tunnel and 250 ft of crosscuts and contains 0.12 to 0.5 oz/st gold. A 75-ft-deep inclined shaft was put down on the Chilkat vein and the Selkirk

1/ Paragraphs beginning with "**" give the results of Bureau work done 1985. Prospects that do not have the "**" were not examined by the Bureau.
2/ Numbers in parentheses refer to the other mines and prospects in the

text.vein has been cut by a 125-ft tunnel with a 75-ft crosscut (Kensington Mines Co.).

The Ophir prospect contains several quartz veins that are 2- to 14-ft thick and cut the Jualin diorite. These veins were the Hartford (750-ft elev), the Ophir (1,200-ft elev), the Chilkat (1,700-ft elev), the Selkirk (2,000-ft elev), and the Acropolis vein (2,500-ft elev). The veins carry minor pyrite and free gold (Kensington Mines Co.; Knopf, 1911a).

4. Eureka

The Eureka prospect, at an elev of 2,800 ft, was evaluated between 1897 and 1916. It is very similar to the Kensington (5) and consists of a quartz stockwork in the Jualin diorite. The orebody is about 30-ft wide and 400-ft long where it is exposed in the Kensington tunnel (Knopf, 1911a). Grade of the Eureka deposit in the Kensington tunnel was 0.31 oz/st gold over an 18 ft vein width (Townsend, 1940).

5. Kensington

The Kensington property was first owned by the Berners Bay Mining and Milling Co. which mined the deposit from 1897 to 1900, producing about 2,600 oz gold from 10,342 tons of ore (Kensington Mines Co.) from workings at an elev of 2,800 ft. A total of 5,790 tons were mined in 1900. Milling resulted in 5% bullion, 62% concentrates and 33% went to tailings (Knopf, 1911a). The Kensington Crosscut was begun in 1904 and finished in 1915 with a length of 5,000 ft. The crosscut intercepted the Eureka (4), Kensington, and Johnson (6) deposits. In 1915, the Kensington, Bear (9) and Comet (13) properties were consolidated by the Hayden-Stone interests. Reserves were reported to be 500,000 tons above the adit level in 1916 (Kensington Mines Co.). Intermittent development continued until the mines were abandoned in 1938. In 1981, the Kensington Mine, along with the Comet (13), Bear (9), Eureka 4), and Northern Belle (8) mines, was optioned by Placid Oil Co. which has actively explored the property with diamond drilling.

The Kensington orebody is composed of a stockwork of quartz veins in the Jualin diorite. The veins range from less than an inch to about 2-ft thick and occur at random orientations in relatively unaltered diorite. The veins contain pyrite and traces of galena. The main deposit is 80-ft wide, 160-ft long, and 800-ft deep and has a grade of 0.1 to 0.15 oz/st gold (Kensington Mines Co.; Knopf, 1911a; Townsend, 1940).

** The Kensington adit is open and is presently being used for exploration of the deposit by a private company.

6. Johnson

Work done at the Johnson prospect before 1910 was confined to the surface between elev of 2,500 and 3,000 ft. Tunnel and surface cuts were made in 1910 and the Kensington tunnel was driven to intersect Johnson deposit in 1913. By 1915, the Johnson deposit had been explored by 1,600 ft of workings from the Kensington tunnel. The prospect has also been known as the Northern Lights and includes the Yellow Jacket and Elmira veins (Kensington Mines Co.).

The Johnson deposit consists of a stockwork of quartz veins along the contact between the Jualin pluton and basaltic country rock. A potential orebody 1,500-ft long and 50- to 70- ft wide with a grade of 0.19 oz/st gold has been outlined (Knopf, 1911a). The stockwork contains pyrite, and like the Kensington stockwork, only a small percentage of free gold. The sharply-defined veins run diagonally across the diorite-basalt contact (Kensington Mines Co.; Townsend, 1940).

8. Northern Belle

The Northern Belle Mine operated between 1896 and 1897, producing about 940 oz gold from 2,302 tons of ore (Townsend, 1940). The mine is similar to the Eureka (4) and has a vein that trends about N-S, dips 55 degrees east, and contains stockwork stringers. Gold was reported to be 78% free-milling. (Kensington Mines Co.)

9. Bear

The Bear Mine was found at an elev of 1,200 ft in 1890 and was operated by the Berners Bay Mining and Milling Co. between 1891 and 1897. The 5,900 tons of ore mined yielded about 800 oz gold (0.14 oz/st recovered from ore that averaged 0.17 oz/st gold). The mine produced 4,900 tons of ore in 1895 and 1,000 tons in 1897 (Kensington Mines Co.). An 1,100-ft-long adit cut the veins and a 200-ft raise was driven to the surface. Stoping occurred on three levels up to the surface and a total of 2,150 ft of workings were completed. Ore was sent to the Comet mill (Knopf, 1911a).

The Bear Mine is in highly fractured diorite containing nonparallel quartz veins. The veins, from 2.5- to 11-ft thick, contain pyrite, chalcopyrite, and arsenopyrite. About 50% of the gold was free milling (Kensington Mines Co.; Knopf, 1911a).

** The Bear adit is now caved.

10. Gold King

The Gold King prospect, at an elev of 2,100 ft on the east side of Johnson Creek, (also known as the DZ) consists of a series of thin quartz veins cutting the Jualin diorite at the head of Johnson Creek. The veins have been explored by a 64-ft adit with a 20-ft drift. The veins are 0.25- to 10-in thick. Samples from thin quartz veins in the drift contained gold values of 0.08 and 1.1 oz/st gold (BuMines, 1985b).

** The Gold King prospect was located by Bureau geologists who mapped and sampled the adit and adjacent surface outcrops. Three samples were taken from surface outcrops and 7 samples were taken in the adit. One 8-ft chip-sample in the drift contained 1.07 oz/st gold while a surface vein sample contained 0.287 oz/st gold (3149-3159).

11. Greek Boy

The Greek Boy prospect, near the Berners River, was discovered sometime before 1900. The Greek Boy Mining Co. had driven four adits on the prospect by 1905. Prospect development was continued between 1905 and 1911 by Stewart Woods and Joe Demos and over 1,300 ft of workings were completed. The workings consist of a 937-ft-long adit No. 1 at 100-ft elev, a 200-ft-long adit No. 2 connected to No. 1 by a 55-ft winze, and 95-ft-long adit No. 3 at an elev of 400 ft. The property was dropped when the Jualin Mine (17) closed in 1917. Gudmund Jensen reopened the old tunnels in 1934 but did little other work (Roehm, 1938b).

The deposit consists of a more or less continuous stringer lode 8- to 20-ft wide in a narrow schist band along the contact of diorite gneiss and metabasalt. The lower portion of the deposit (called the Yellow Lode) consists of a fault or fissure in metabasalt that can be traced for over 1,000 ft. Gold values ranged from trace to 0.2 oz/st gold (Roehm, 1938b).

Six thousant ft northwest of tunnel No. 1, a trench along a lake reportedly exposed a 100-ft-wide mineralized zone and a 50-ft-wide altered schist zone that contains numerous quartz stringers and some pyrite. Values from samples taken in 1938 ranged from 0.02 to 0.14 oz/st gold.

** The Greek Boy prospect is located about a half mile from the Berners River. All three adits were found to be caved at the main workings but 4 prospect pits at an elev of 2,500 ft were well exposed. Two dump samples from the main adit gave values of 0.21 and 0.43 oz/st gold but only a trace gold was found in seven samples in the upper pits (3124-3127, 3258-3263, 3913-3919).

12. Sweeny Creek

The Sweeny Creek prospect is reported to be a wide quartz ledge that gave "satisfactory results" during exploration in 1905 (Wright & Wright, 1905b).

13. Comet

The Comet Mine was located in 1890 at an elev of 2,200 ft the head of Sherman Creek by six men who sold it to Thomas Nowell in 1892 (Knopf, 1911a). Development began in 1893 and the main crosscut was driven 1,875 ft during 1896. A 40-stamp mill was built on lower Sherman Creek at the Bear Mine. About 9,700 oz gold was produced by 1895, from ore that average 2.4 to 3.9 oz/st gold. By 1901, over 22,250 oz of gold had been produced from 51,500 tons of ore with an average grade of 0.46 oz/st gold (Kensington Mines Co.). The ore was milled to produce 87% bullion and 5% concentrates (Townsend, 1940). The Comet veins were developed by 9,000 ft of workings on ten levels. There was renewed exploration in 1932 to 1933 but no development.

The Comet deposit consists of two north-trending, parallel quartz veins 2- to 8-ft wide and 50 ft apart that cut the Jualin diorite. The veins carry pyrite, chalcopyrite, galena and, locally, much free gold. About 90% of the gold was free milling. The main vein was mined to a depth of 800 ft from the surface and was still well developed on the lowest level. On the first level of the mine, the vein had a length of 100 ft but it increased to 400 ft at depth. The second vein was 1- to 3-ft wide and saw little development. The northern end of the Comet veins are faulted off but the veins may continue at the Northern Belle Mine (8) (Knopf, 1911a; Townsend, 1940).

** All adits at the Comet Mine are now caved but one stope is open to the surface.

14. Seward

The Seward vein outcrops at 2,600 ft on the divide between Johnson and Sherman Creeks. The only workings consist of an open cut and a 60-ft shaft. The Seward vein is 10- to 12-ft wide at the open cut and 5- to 7-ft at the bottom of the shaft. The vein varies from 5- to 12-ft thick and has been traced for 400 ft. Mineralization is similar to that at the Comet (13) and most of the gold is free. Samples from the vein range in value from 0.15 oz to 0.7 oz/st gold. (Kensington Mines Co.)

15. Cumberland

** The 54-ft-long Cumberland adit cuts greenschist and black slate at about 2,250-ft-elev near the head of the middle fork of Sweeny Creek. Some pyrite-bearing quartz occurs at the portal and along a fault near the face.

The adit was opened by the Bureau and three samples taken but no significant values were obtained (3809, 3920-3921).

16. Indiana

The Indiana prospect consists of 2,800 ft of workings in three tunnels driven in 1896 and 1897 across the hypothesized extension of the Jualin veins about a quarter mile north of the Jualin Mine (17). The longest tunnel is 1,100 ft long. No mineralization was found, except for a 6-in quartz vein near the portal of the lowest adit. A 10-stamp mill built in 1897 (?) was destroyed by fire shortly after being finished (Knopf, 1911a). Recent work indicates that the workings missed the Jualin veins because of a northwesterly bend in the vein system (Bear Creek Mining Co., 1984).

** The three adits are now caved.

17. Jualin

The Jualin deposit was discovered in 1895 at an elev of 600 ft next to Johnson Creek by Frank Cook. H.W. Mellen and H.E. Hoggatt, of the Boonville group, bought the prospect in 1896 and built a 10-stamp mill which operated until 1901. By that year, 15,800 oz gold had been produced but water in the mine halted work. The mine was reopened in 1905 and was operated for two years by the Boonville group, producing about 6,100 oz gold by the end of 1906. The mine was leased in 1907 and 1908 and clean up of the old stopes yielded another 1,100 oz of gold. Belgian interests purchased the mine in 1912 and operated it until 1917, producing about 13,400 oz of gold. Minor production occurred in 1919 and 1920. Work began on Berners Tunnel in 1914. By 1923, the face was 5,000 ft from the portal and about 2,500 ft from the Jualin Mine but work was halted by financial problems. A 150-ft-deep shaft was sunk in 1928 and about 150 oz of gold produced. Between 1896 and 1928, about 36,000 oz of gold were extracted from 74,624 tons of ore (about 0.5 oz/st). The gold was about 83% free-milling (Southeast Alaska Mining Corp., 1929). Eudore Poncin evaluated and promoted the mine in 1938 and 1939 but the property lay idle until staked by Hyak Mining Co. in 1978. The property was drilled in 1983 and 1984 (Bear Creek Mining Co., 1983, 1984).

The Jualin orebody is composed of at least five large, interconnected quartz veins in a north-trending shear zone in the Jualin diorite (Southeast Alaska Mining Corp, 1929). The shear zone is 100- to 175-ft wide and much of the diorite in the zone is highly crushed and broken. The steeply-dipping veins in the shear zone vary from 1- to 20-ft thick, averaging about 5 ft, and have lateral and vertical extents of 300 to 500 ft. The veins fill fault strands and are also cut by the faults. The highly fractured rock between the large veins has been healed by many low-angle 0.25- to 3-in quartz veins. The mineralized shear zone is strongly altered to ankerite, pyrite, chlorite, quartz and sericite (Redman, 1983).

** The Bureau made brief examinations of three adits, the South Shaft, and the dump. The main haulage adit is caved at 125-ft and an intermediate level above the main tunnel is caved at 40-ft. The upper level has approximately 550 ft of open workings, however, the first 100 ft is very bad ground. The 11 surface and subsurface samples taken averaged 0.11 oz/st gold (3494-3499, 3632-3633, 7082-7085) while 13 samples taken of altered and quartz-rich material from the main Jualin dump averaged 0.09 oz/st gold (3270, 3901-3910, 7080-7081).

18. Snowslide Gulch

The Snowslide Gulch (Falls) prospect consists of a 115-ft adit driven at an elev of 960 ft into pyritic quartz, chlorite schist. The adit cuts a

stratiform zone of disseminated pyrite and a bluish, pyrite-bearing quartz vein.

** The Bureau mapped and sampled the adit but found no significant values. (3634-3635)

19. Thomas

The Thomas occurrence consists of a small caved adit along an old cord road about a quarter mile southeast of the Jualin Mine (17). No bedrock is now exposed.

** A dump sample contained no significant values. (3500)

20. Valentine

The Valentine (Diana) prospect is along Johnson Creek about a half mile below the Jualin Mine (17) and has two water-filled shafts. One shaft, reported to be 55-ft deep (Southeast AK Mining Corp., 1929), was sunk on the best mineralization and a second shaft, of unknown depth, was sunk on pyritic rocks across Johnson Creek.

Mineralization consists of a 5-ft-wide zone of stratiform chalcopyrite stringers in sericite schist and chlorite schist and was traced for 150 ft.

** A high-grade dump sample contained 4.7 oz/st gold, 2.59 oz/st silver, and 5.1% copper. (3636-3638)

21. Fremming

The Fremming prospect was discovered before 1905 (Wright & Wright, 1906) and has been developed by a 360-ft adit and an 85-ft shaft (Knopf, 1911a).

The deposit consists of abundant disseminated pyrite in a 6-ft layer of pale green quartz-chlorite schist and chlorite schist. Stratiform mineralization has been traced for over 800 ft on the surface by pits and trenches. The band contains 10 to 30% disseminated pyrite in high-grade zones and about 3% elsewhere. High-grade mineralized rock samples found on the adit dump consisted of stratiform massive sulfides up to 3-in thick with sphalerite, galena, pyrite and chalcopyrite. A small shear near the mineralized horizon contained sphalerite, chalcopyrite, pyrite and galena (Redman, 1983).

** The Bureau found the adit to be caved at the portal and the shaft water-filled 55 ft below the collar. A high-grade sample from the adit dump contained 0.369 oz/st gold, 2.88 oz/st silver, 7.4% zinc, and 2.2% lead. A sample from the shaft dump carried 0.9oz/st gold, 0.8 oz/st silver (3804-3806).

22. Hoggatt Creek

The Hoggatt Creek prospect includes a 22-ft adit with several pits and trenches that have exposed a quartz vein for at least 600 ft. The vein varies from a few inches to 4-ft thick and follows a shear in porphyroblastic greenschist. There are small amounts of pyrite in the vein (BuMines, 1985b).

** The prospect was located by the Bureau at an elev of 500 ft a short distance north of the Jualin pipeline. The adit, a few trenches, and an open cut were located and sampled by the Bureau but no significant mineralization was found (3800-3803).

23. Yankee Boy

The Yankee Boy vein was discovered at an elev of 550 ft by the McCloskey brothers in 1911. They drove a 136-ft tunnel and made several open cuts.

The vein cuts both diorite and greenschist and has been traced over 3,000 ft. It varies from a few inches to 5-ft thick and averages 2-ft thick. The vein consists of a bluish quartz center, which carries most of the values, with white quartz margins. The vein in the Yankee tunnel contains pyrite and a little arsenopyrite. Assays taken in 1938 gave gold values ranging from trace to 0.34 oz/st gold (average. 0.1oz/st) and less than 0.5 oz/st silver in the adit and 1.6 oz/st gold and 1.0 oz/st silver in the trench (Roehm, 1938a).

24. Berners Tunnel

The Berners Tunnel was driven between 1914 and 1923 to provide access and drainage for the Jualin Mine (17). The portal is at an elev of 100 ft, about 500 ft up Hoggatt Creek from the old Jualin power plant that is located on lower Johnson Creek. Work on the tunnel was stopped 5000 ft from the portal with the face still 2500 ft from the Jualin Mine (17).

** The portal of the Berners Tunnel was located but is completely caved and no Bureau work was done.

25. Mystery Lode

The Mystery Lode prospect is 3/4 mile southeast of the Fremming deposit (21) and consists of a short, 20- to 40-ft-deep water-filled shaft driven on a 3-ft-thick phyllite layer in greenschist. The phyllite layer contains disseminated and massive pyrite layers. Massive layers are up to 2-in thick and disseminated pyrite forms from 5 to 15% of the remaining phyllite. Some gold and silver have been reported (Redman, 1983).

26. Johnson Creek

A water-filled shaft has been found near the mouth of Johnson Creek. The dump is small and undiagnostic but the shaft may have been used to test the placer potential of lower Johnson Creek (Redman, 1985).

27. Johnson Creek placer

Claims were staked on lower Johnson Creek in 1977 for placer gold (BuMines, 1980).

28. Berners Bay

The Berners Bay prospect was staked in 1885 on some copper mineralization near the beach (Berners Bay Mining Dist.). Little else is known about the prospect.

29. Tacoma

The Tacoma prospect was discovered in 1901 by Wahl and Johnson between 390- and 1,000-ft elev on the south side of Sawmill Creek. Intermittent assessment work was done until 1914 when the claim was abandoned. Minor work was done in 1936. The mineralized showings occur near a small southern tributary to Sawmill Creek from 390- to 1,000-ft elev. Three short adits and a few cuts were made to explore the property.

Bedrock is composed of black slate and greenstone. The slates are highly folded and contain slightly mineralized stringer zones while the greenstones can range from a few ft- to 150-ft wide and may be intrusive into the slate. The greenstones are cut by quartz-filled cross fractures and both the veins and the greenstones are mineralized with pyrite.

At 390-ft elev, a 15-ft wide stringer zone carries only traces of gold and silver. A 72-ft adit was driven in slate at 1,000-ft elev that crosscuts bunches of heavily mineralized quartz up to 4-ft thick. The quartz contains massive bunches of pyrite, arsenopyrite, galena and sphalerite. About 1,000 ft northwest of the adit are two more adits at 680- and 780-ft elev. The upper adit is 37-ft long and cuts a pyritic 8-ft-wide quartz vein. The lower adit is 18-ft long and cuts a 2- to 4-in-wide vein with gouge. Only traces of gold and silver were found in samples taken in 1937 (Roehm, 1937g).

30. Gold Standard/California

The California and Gold Standard deposits, apparently located on the same vein, about a mile east of Echo Cove, were discovered in 1897 by two parties. The California was discovered by E. Pond and J. Davies and the Gold Standard was found by J. McWilliams, P. Early, G. Stuckey, Chas. Brown, and D. Fraser. In 1898 the Gold Standard was purchased by the California group. Also by 1898, the Falls Tunnel on the California and the Contact Tunnel on the Gold Standard had been driven and a second adit started on the Gold Standard. Additional adits were driven on the California in 1900 and 1902. The Knob discoveries, at the lower end of the California workings, were made in 1935. A total of six tunnels, an inclined shaft (totalling about 700 or 800 ft of workings done before 1905) and numerous open cuts were made on the deposits. The Falls adit is 80-ft long, the Cabin adit is 140-ft, the Gold Standard adit is 120-ft, and the Greenstone adit is 85-ft long (Roehm, 1937f).

The deposits occur along the contact of black slate with greenstone and consist of small quartz lenses, veins and veinlets. Locally, the veins are like stringer lodes and are usually in schistose greenstone. The veins contain arsenopyrite with minor galena and sphalerite and the gold appears to be associated with the arsenopyrite (Roehm, 1937f).

On the California prospect the adits explore veins that range from 0.7- to 4-ft wide. One sample from this area contain a trace of gold and 2.4 oz of silver. On the Gold Standard prospect veins 2- to 6-ft wide were found to average about 0.09 oz/st gold. The Gold Knob showings consist of small quartz lenses up to 50-ft long with values ranging from 0.1 to 0.72 oz/st gold and a trace of silver (Roehm, 1937f).

31. Cowee Creek

A single lode claim was staked on Cowee Creek in 1971 (BuMines, 1980).

32. Blue Jay

The Blue Jay prospect, discovered in 1907 north of the head of Canyon Creek, is near and similar to the Joyce-Jensen deposit (33). In 1907, a 25-ft adit cut a stringer zone in slate that contained about 0.3 oz/st gold (Wright, 1908).

33. Joyce-Jensen

The Joyce-Jensen (also known as the Yankee Boy, and Yankee Girl) was found at an elev of about 2,500 ft at the head of Canyon Creek about 1906 and is very similar to the Maude S (34). A 40-ft adit was driven in 1907 and a 100-ft adit was finished before 1910. The stringer lode is in slate and is up to 12-ft wide. An 8-ft section of the zone carried 0.34 oz/st gold and the rest only about 0.07 oz/st (Knopf, 1912).

34. Maude S

The Maude S prospect was discovered about 1906 near the Joyce-Jensen prospect (33). In 1907, an 80-ft adit was driven that crosscut a 4.5-ft-thick quartz-slate stringer zone that contained about 0.3 oz/st gold (Wright, 1908).

35. E Pluribus Unum

The E Pluribus Unum property was discovered at an elev of about 2,000 ft before 1904 and has been developed by two connected tunnels, with a total of 365 ft of workings (275 ft in the lower tunnel, 50 ft in the upper tunnel with a 60-ft raise between the two). Most of the underground work was done in 1904 with additional development in 1909. The mine had produced about 150 oz of gold from 15 tons of high-grade ore by 1909 (Roehm, 1936a). In the mid 1930's, Ashenbrenner and others produced 142 oz of gold, 69 oz of silver, and 100 lbs of lead from 71 tons of ore (BuMines, 1985).

The E Pluribus Unum deposit consists of randomly oriented quartz veins in a contorted graywacke near black slate. Mineralization consists of three stages: (1) low-grade stringer lode, (2) medium-grade massive quartz veins and (3) high-grade lenticular pods. The 20- to 40-ft-wide stringer lode has been traced for 4,000 ft to the south, and contains small veinlets with pyrite and minor galena and arsenopyrite. In the center of the stringer zone is a 2- to 4-ft-wide quartz vein with some pyrite and arsenopyrite that carries higher gold values than the stringer zone. The main ore shoots occur along the margins of the vein as later, high grade pods. These pods are 1.5- to 2-ft wide and 18- to 50-ft long. They contain arsenopyrite, galena, sphalerite, stibnite, and gold with values from 4.8 to 14.5 oz/st gold. The best developed pod is on the surface over the tunnels and is 1.5-ft wide, 26-ft long and was mined to a depth of 14 ft (Roehm, 1936a).

** The Bureau located three open adits and numerous trenches at an elev of 2,200 ft at the head of Canyon Creek. Of six samples taken, three contained significant gold values of 0.16, 0.2, and 0.24 oz/st (3272-3275, 7219-7220).

36. Black Chief

The Black Chief prospect was probably staked before 1904 on a 2- to 4-ft-wide quartz vein (called the Gold Pan vein) in a stringer lode in slate along the contact of slate and graywacke. The zone is parallel to the E Pluribus Unum (35) and ranges from a few to 20-ft wide. The quartz vein contains pyrite, arsenopyrite, galena and sphalerite. About 300 ft of workings have been driven to test the vein at depth but no vein was found (Roehm, 1936a; Wright, 1909).

** The Bureau located one open adit at the prospect but did no sampling.

37. Aurora Borealis

The Aurora Borealis deposit was discovered sometime before 1895 by J. McWilliams and Peter Early. The mine was developed by four adits driven before 1895 at elev between 1,100 and 1,400 ft and had a 5-stamp mill in operation in 1895 (Knopf, 1912). About $6,000 were reportedly produced (Roehm, 1936e). Ten additional stamps were brought to the property sometime before 1910 but were never removed from their shipping cases (Roehm, 1936e).

The deposit consists of three parallel quartz veins in black slate at the contact of greenstone conglomerate and has been traced for 500 ft along strike. At least one of the veins can be seen in the two limbs of an anticline. The lowest adit cuts a vein that ranges from 2- to 6-ft-thick. Adit No. 2, 80 ft above, was driven 200 ft into the hill and exposed a vein 4- to 6-ft thick. Adit 3 is 70 ft above adit 2 and contains a vein 6- to 14-ft thick while the highest tunnel, 150 ft above adit 3 cut a vein 6- to 16-ft thick. Mineralization in the veins consists of pyrite, arsenopyrite, minor galena and free gold. A number of samples taken in 1947 gave results from 0.02 to 0.2 oz/st gold and 0.7 oz/st silver (Roehm, 1936e,1947).

** The Bureau located the Aurora Borealis Mine near the head of Bessie Creek. A very poor trail leads to the mine from Yankee Cove. Three of the four reported adits were found, and two were open. Many open cuts were also found. Of 13 samples taken, 6 had gold values ranging from 0.06 to 0.12 oz/st and one contained 0.329 oz/st (3123, 7202-7205, 7213-7218).

38. Bessie

The Bessie prospect may have been discovered by J. McWilliams and Peter Early about the same time as the Aurora Borealis (37)(Roehm, 1936e). The prospect, between elev of 1,700 and 1,900 ft, has been developed by a 287-ft adit and, 1,000 ft southeast, by a 176-ft adit with 75-ft crosscut and a 96-ft shaft from the surface. The vein has been traced for up to 1,600 ft horizontally and 800 ft vertically.

The deposit is composed of a 1- to 2-ft-wide banded quartz vein within greenstone conglomerate. The vein contains pyrite, sphalerite, arsenopyrite, minor galena and gold and has been traced for 1000 ft to the southeast where it is 3- to 4-ft thick. The gold is reportedly of uniform value throughout the quartz in the vein and not in seams or pockets. Samples taken from the Bessie area in 1916 contained from 0.38 to 2.01 oz/st gold (average about 1 oz/st) and 2 to 7 oz/st silver (Roehm, 1936e, 1947).

** The Bessie workings were found at the head of Bessie Creek. Two open adits, a shaft and series of open cuts were examined by the Bureau. Of 13 samples taken, 8 had gold values ranging from 0.07 to 0.53 oz/st while one sample contained 0.97 oz/st gold (7077-7079, 7201, 7206-7212).

39. Alaska Washington

The Alaska Washington prospect was discovered about the same time as the Bessie (38) and the Aurora Borealis (37) and worked primarily during 1904 (Wright & Wright, 1906). Some work was done in 1910 (Knopf, 1912). Four adits, with a total of about 600 ft of workings explore the vein between 1,800 and 2,500-ft elev.

The Alaska Washington vein is similar to the Bessie vein. It averages 3-ft wide but swells to as much as 6-ft and has been traced for several thousand ft (Knopf, 1912).

** The Alaska Washington workings were located by the Bureau about 0.7 miles south of the Bessie prospect. Two open adits and a series of open cuts were mapped and sampled. Five of 12 samples contained 0.03 to 0.16 oz/st gold (3135-3139, 3276-3280, 7199-7200, 7221-7222).

40. Dividend,

The Dividend prospect is one of a group of claims in Yankee Basin that include the Cascade (42), Julia No.1 (41), Julia No. 2, Puzzler (43), and Noonday (45)prospects that were all discovered about 1903 (?)(Wright & Wright, 1906). The Standard Crosscut, started at 1300-ft elev below the Dividend lode late in 1905 (Wright, 1907), was driven 920 ft to intersect the Dividend ore body, along which 250 ft of drifts were driven. The crosscut was to be extended to cut the Cascade (42) and Julia (41) veins (Wright, 1908) but work was not finished.

The Dividend prospect consists of 12 ft of mineralized black slate at the contact with greenstone cut by quartz stringers (Wright & Wright, 1906). The greenstone is altered along the mineralized area. At the prospect, pyrite is the most common sulfide but arsenopyrite, galena and free gold are also present (Knopf, 1912).

** The Standard Crosscut was located in Yankee Basin. The Bureau opened, mapped, and sampled the 1,090 ft of workings in the Standard Crosscut and took nine samples. Eight samples contained insignificant gold values but one sample contained 0.09 oz/st gold over a 7-ft vein width (3188-3189, 7272-7278).

41. Julia

The Julia claims in Yankee Basin cover the Julia No. 1 and Julia No. 2 veins and is similar to the Cascade (43), Puzzler (44) and Noonday (46) prospects. The claims were probably staked by 1903 (Wright & Wright, 1906)

The Julia veins are part of a zone of irregularly banded slate and quartz that is 1,200-ft wide (Wright & Wright, 1906). An estimated 10% of the ground in the area consists of quartz (Wright, 1908). The Julia No. 1 vein is a 12-ft zone of mineralized schist and quartz. The Julia No. 2 vein is a similar zone that is 8-ft wide (Wright & Wright, 1906).

42. Cascade

The Cascade lode occurs at 2,000-ft elev in Yankee Basin and is developed by an inclined shaft 90-ft deep (Knopf, 1912).

The ore zone is six ft wide in graywacke slate and contains considerable arsenopyrite and minor galena and sphalerite. Ore sampled had an average of 0.58 oz/st gold over a five ft vein width (Knopf, 1912). The Cascade vein may be continuous with the Julia No. 1 vein (Wright & Wright, 1906).

43. Puzzler

The Puzzler is a 14-ft-wide section of schist with mineralized quartz in Yankee Basin (Knopf, 1912).

44. Rex

The Rex prospect is in greenstone at 2,800-ft elev above the Eagle River Mine (46). It was opened in 1903 and mined in 1903-1904, producing about 145 oz of gold. The discontinuous vein is primarily calcite with some quartz and contains arsenopyrite and spongy gold nuggets (about 0.01 oz each) (Spencer, 1906).

45. Noonday

The Noonday prospect is in Yankee Basin and consists of a six ft quartz vein in slate (Knopf, 1912).

46. Eagle River

The Eagle River deposit was discovered in 1902 by Mr. Sandstone and Neil Ward and optioned by C.D. Mallary (Eagle River Mining Co.). Development began in 1903 with construction of a 10-stamp mill and some tunnelling. In 1906, there were 3,000 ft of tunnelling and 1,000 ft of shafts and raises. A 20-stamp mill was operating in 1908. Most mining was done between 1904 and 1910 on quartz lenses and stringers with exploration of the old workings in 1911 and 1912. By 1912, there were 30,000 ft of workings in the mine. A total of 70,112 tons of ore were milled (Thane, 1916).

The Flume tunnel, 500 ft below the old workings, was driven about 3,000 ft between 1913 and 1915. From the Flume Tunnel, 4,764 tons of ore were produced from which only 56.5% of the gold was recovered (1,325 oz) (Rogers, 1916). Between 1907 and 1915, the Eagle River Mine produced 13,553 oz of gold and 8,853 oz of silver (BuMines, 1985). The mine shut down in 1916 after producing a total of about 20,000 oz of gold. The Flume Tunnel was reopened in 1933 but little new work was done (Stone, 1980).

Orebodies at the Eagle River Mine consisted of small lenses and faulted blocks along the contact between black slate and graywacke. The slate at the contact has been crushed. Mineralization in the old workings was of lower grade than in the Flume Tunnel and the mode of occurrence is different. In the old workings, 90% of the gold was recovered but only 56.5% was recovered from ore in the Flume Tunnel. Gold in the upper workings was free while gold in the Flume Tunnel was probably associated with the sulfides (floatation tests of Flume Tunnel ore recovered 90% of the gold). A sample used in the flotation test contained a gold to silver ratio of 1.4:1 (Rogers, 1916).

47. Mother Lode

The Mother Lode prospect is along the same trend as the Bessie (38) and the Alaska Washington (39) and was found about the same time. It has been explored by open cuts. The prospect consists of barren quartz masses in greenstone conglomerate that contains pyrite and arsenopyrite (Knopf, 1912).

48. Oleson

The Oleson prospect is a small occurrence near the Eagle River Mine (46). Two open cuts and a short adit have exposed some thin quartz veins in slate along the contact with greenstone. Arsenopyrite is the only sulfide (Knopf, 1912).

49. Mitchell-McPherson

The Mitchell-McPherson prospect was discovered in 1904 and two short adits were driven at an elev of 1,500 ft by 1910. Some work was done as late as 1914. The prospect consists of a 6-ft-wide zone of crushed and mineralized diorite containing sparse pyrite and galena in quartz. Gold averaged 0.25-0.35 oz/st (Knopf, 1912).

50. Summit/St. Louis

The Summit and St. Louis prospects were originally discovered near the lower end of the Herbert Glacier in 1889 by J. Sundof and W. Moran. In 1902, the Summit prospect was staked by T. Smith and W. Hatcher who sunk a 22-ft shaft on the Summit claim. J. Holland attempted to work glacial sands below Herbert Glacier in 1932 with little success (Roehm, 1936d).

The Summit claim covers a 6- to 8-in mineralized quartz vein that has been traced for 30 ft in granite gneiss. Samples taken from the dump of the shaft in 1936 contained visible free gold and assayed about 3 oz/st gold and 0.6 oz/st silver (Roehm, 1936d).

The St. Louis prospect consists of a shear zone up to 7-ft wide that contains quartz fragments with arsenopyrite, pyrite and galena. Other mineralized zones occur between and near the Summit and St. Louis claims. These include mineralized stringer zones in slate and quartz veins in greenstone and diorite gneiss. The veins contain pyrite and some arsenopyrite but assays show only 0.1 oz/st gold or less (Knopf, 1912).

51. Windfall Creek placer

Upper Windfall Creek was discovered in 1882 and was placer mined between 1882 and 1906 with minor production. A 150-ft-wide, 20-ft-deep channel contained low-grade placer gold (Wright, 1907).

** The Bureau took two 0.1 yd^3 placer samples from Windfall Creek. The best sample yielded 0.01 oz/yd^3 gold. (3309-3310)

52. Smith and Heid

Gold was initially found on the Smith and Heid property in 1890 when James Smith and Gus Brown discovered placer gold. In 1893, James Patton and Smith discovered the quartz lodes at an elev of 2,000 ft while sluicing about 35 oz of gold from the overburden. In 1896, an arrastre was built near the falls of Windfall Creek and a few oz of gold recovered. The Falls Tunnel was driven in 1893 to 36 ft. In 1896, No. 1 tunnel was driven to 150 ft and No. 2 tunnel to 90 ft. Tom Smith and French Louis set a second arrastre in 1900 and milled 20 tons of ore, recovering 8 oz of gold and two tons of concentrate. The concentrates were later smelted yielding 3.5 more oz of gold. A total of 500 ft of tunnelling, mostly on the No.1 tunnel (with 290 ft of tunnel and 45 ft of drifts), had been completed by 1910. In the early 1930's the deposit was restaked by Ashby and Torro who recovered a small amount of gold by sluicing in 1933 and did some trenching in 1933 and 1934 (Roehm, 1937e).

The prospect consists of black graywacke schist, black slate and greenschist cut by quartz veins and stringers. Most mineralization occurs along the contacts of the greenschist units. The main vein is a few in to 20-ft-thick and contains arsenopyrite, pyrite, galena, and sphalerite. It reportedly gave values ranging from trace to 0.59 oz/st gold and 0.6 oz/st silver. Nearby, a 20-ft-wide band of white quartz-sericite schist is ribboned with quartz and contains fine-grained galena, sphalerite, pyrite, arsenopyrite and chalcopyrite. Gold values in the sericite schist were only 0.01 to 0.02 oz/st gold (Roehm, 1937e).

** An open adit was located during an aerial search by the Bureau but was not entered.

53. Patton

The Patton prospect was discovered in 1882 and explored by open cuts and two adits over several hundred ft. The lower adit is at an elev of 2,475 ft and is 210-ft long. It cuts a 7-ft-thick quartz vein that averaged only about 0.003 oz/st gold (but with values as high as 1.0 oz/st). The second adit is at an elev of 2,810 ft, and has a 40-ft adit with a 100-ft drift along the vein. The vein only averaged 6-in thick but carried an average value of 0.62 oz/st gold.

The vein cuts biotite schist and is vertical. The ore body ranges from a few in to 7-ft thick, is stained by iron oxides, but contains no sulfides. Some free gold is present (Knopf, 1912; Nelson, 1933).

** The Bureau made a brief visit to the prospect and a grab sample from a trench contained 0.61 oz/st gold (3122).

54. Montana Basin

The basin gravels were discovered in 1882 and placer mined between 1882 and 1906 (Spencer, 1906). Harry Watson did some small scale placer mining on Montana Creek between 1926 and 1934 (BuMines, 1985)

The Montana Basin area contains both placer and lode deposits. The lode deposits consist of quartz stringers in slate and two quartz veins up to 2-ft thick. The quartz contains sparse pyrite and arsenopyrite with traces of gold. Stringer zones are 20- to 70-ft wide and average 30 ft. Five adits, each about 100-ft long, have been driven to explore the prospect (Spencer, 1906).

** Five panned concentrate samples were taken from Montana Creek (3946-3950). One pan sample contained 1.09 ppm gold (3947-3950). One dump sample contained 0.608 oz/st gold (7198).

55. Mansfield Gold Mining Co.

The Mansfield Gold Mining Co. worked on quartz veins and placer deposits in McGinnis Creek from 1903 (Wright & Wright, 1905) to 1908. Other work was done between 1912 and 1917. Several quartz stringers were followed by tunnelling in 1906 but were found to be of no value (Eakin, 1918).

** The Bureau located some old trenches which contained sphalerite-bearing quartz. Two samples were taken and one contained 0.29% zinc (3312-3313).

56. McGinnis

The McGinnis Creek placer deposit adjoins the Mansfield Group (55) of patented claims and was staked in 1939. The deposit consists of a talus pile overlying greenstone and slate. The slate is highly folded and contains numerous veinlets and strings of pyrite-bearing quartz which yielded up to 0.07 oz/st gold. Two placer cuts have been sluiced from the talus pile. One cut yielded 3 oz of gold from about 220 yd^3 of material. A second cut gave only minor fine gold (Roehm, 1940).

** The Bureau took one 0.1 yd^3 placer sample which did not contain significant gold (3311).

57. Peterson

The Peterson deposit was discovered by George Rudd near Peterson Lake in 1897 but J.G. Peterson and others staked most of the area. First development on the Peterson lode was by T.G. Drew in 1903 who did considerable open cutting and some tunnel development. An arrastre was tried but it failed. Peterson erected a 2-stamp mill in 1905 and recovered sufficient gold to defray expenses . Alaska Consolidated Mines Co. operated the property from 1909-1910 and drove a 360-ft adit on Prairie claim. Several hundred tons of ore said to average 0.3 oz/st gold and a trace silver were mined. A 100-ft inclined shaft was sunk in 1911-12 by B.L. Thane and H.T. Tripp and some work done in 1914 by Peterson. Intermittent work continued until 1922. From 1916 to 1921, the mine produced 209 oz of gold and 8 oz of silver from 531 tons of ore (0.39 oz/st gold). In 1935, the inclined shaft was pumped out by J.C. Holland and considerable sampling was done. The Prairie claim has five adits with 300 ft of workings, and three shafts (total of 200 ft). The Cannon Ball claim has three short adits with 160 ft of workings and a 320-ft adit was driven on Entrance No. 1 claim. The Jessie and the You and I claims both have a 20-ft adit (Roehm, 1937b). Dale Henkins did small scale mining in 1982 (Henkins, 1984).

Mineralization at the Peterson Mine consists of quartz veins with arsenopyrite and pyrite hosted by black slate in contact with altered diorite dike. The slates are intensely folded and one vein occupies the crest of an anticline. Three parallel tunnels on the Prairie claim follow the crest of the fold where the highest grade of gold reportedly occurs. The main vein on the Prairie claim is 8- to 10-ft-wide and has been traced for 300 ft. Other veins on the prospect are less than 3-ft thick (Knopf, 1912; Roehm, 1937b).

** All workings located by the Bureau in 1985 were caved but seven dump and trench samples were taken (3101-3103, 3201-3204). Three samples contained 0.04 to 0.12 oz/st gold.

58. Upper Peterson Creek

** A caved adit and trench was found by Bureau personnel during 1985 in upper Peterson Creek. A sample of quartz float near the workings contained 0.19 oz/st gold (3320-3321).

59. Mendenhall

The Mendenhall prospect was discovered and worked before 1912. It consists of a 100-ft-wide stringer lode in slate and greenschist that has been prospected by an 85-ft adit and a 30-ft open-cut. The veinlets contain pyrrhotite, galena, and arsenopyrite. The slate contains a little arsenopyrite and a nearby amphibolite dike carries pyrrhotite in calcite veins (Knopf, 1912).

60. Nugget Creek placer

About 1900, gold nuggets were discovered in upper Nugget Creek. A little prospecting followed but no other work has been reported. The gold is thought to come from small quartz veins in nearby schists (Spencer, 1906).

61. Treasury Hill

The Treasury Hill prospect, also known as the Auke Group, Shooting Star, Paradise Peek, or Glacier View prospect, was discovered in 1908 by Victor Spaulding, Perry Wiley and Harry Brie at an elev of about 1,700 ft. A short adit and some trenching was done in 1909 to uncover the deposit . On Gold Knob claim, a 655-ft adit was driven which cuts black slate and a mafic dike (Knopf, 1912). A 2-stamp mill was carried half way to the workings but was never set up (Stone, 1980).

The mineralization consists of quartz veins in a mafic dike that intrudes greenschist and black slate. The veins are primarily small stringers but up to 50 ft of quartz is reported. An area 50-ft wide by 400-ft long in the mafic dike is brecciated and filled with quartz. Arsenopyrite, pyrrhotite, pyrite, galena, and gold occur in the veins. Prospect pits indicate that the mineralization extends about 3,000 ft along strike. Samples of barren vein material gave values up to 0.15 oz/st gold with an average of 0.07 oz/st (Roehm, 1937d). The Gold Knob adit was reported to average 0.04 oz/st gold for its 655-ft length (Roehm, 1937d).

** Several trenches and the 655-ft Gold Knob adit were mapped and sampled by the Bureau. Of 28 samples collected, seven contained 0.04 to 0.2 oz/st gold and one sample contained 0.545 oz/st gold (3210-3216, 3224-3231, 3271, 3315-3319, 3322-3326, 7191-7192).

62. Dull and Stevens

The Dull and Stevens prospect (also known as the Gold King) was staked in 1908 by Tom Dull and Tom Stevens. Initial work consisted of open cuts and some sluicing on the discovery. In 1917, the property was picked up by the Alaska Treadwell Co. which drove two adits and did considerable trenching by the end of 1918. Two more adits were driven later by the owner and 14 oz of gold recovered from a small pocket. The four adits are 150-, 200-, 300-, and 144-ft-long respectively (Roehm, 1937a).

Mineralized zones at the Dull and Stevens occur in both slate and greenstone along their contacts. The greenstone sill varies from a few ft to a few hundred ft wide and has locally brecciated margins. Crushed slate and the brecciated zones are cemented by quartz stringers, veins and masses. Only small amounts of gold were found (values from trace to 0.29 oz/st gold with one sample of 1.34 oz/st gold). Pyrite and minor arsenopyrite, pyrrhotite, galena and chalcopyrite also occur in the veins (Roehm, 1937a).

** Three of four known adits at the prospect, two adjacent adits on Waydelich Creek 308- and 192-ft-long and a 142-ft-long adit on lower Gold Knob, were found and mapped by the Bureau. An adit by Lake Creek was not searched for. Twenty-three samples were taken in the three adits and seven contained gold values between 0.04 and 0.1 oz/st (3190-3199, 3241, 7193-7197, 7279-7285).

63. Winn

The Winn prospect was discovered in 1882 and was developed by a 20-ft adit. The only reported production came in 1924 when 290 oz of gold, 102 oz of silver, and 115 lbs of lead were extracted from 27 tons of ore (10.7 oz/st gold) (BuMines, 1985). Mineralization consists of quartz, albite, and ankerite in veins that cut a highly altered diorite. Diorite around the quartz stringers contains pyrite, arsenopyrite, albite and carbonate (Knopf, 1912).

64. Lemon Creek

The Lemon Creek prospect, at an elev of 1,330 ft below the Lemon Creek Glacier, consists of quartz veins known prior to 1905 (Spencer, 1906).

** The Bureau found that mineralization occurs in several quartz veins in biotite feldspar gneiss that extend over a width of a few tens of ft. The veins have been traced for at least 300 ft along strike, are 6-in to 1-ft thick, and contain pyrrhotite, galena, sphalerite and chalcopyrite.

Fourteen chip samples were collected from the veins and six contained significant gold. The best gold value was 0.16 oz/st. Other samples contained up to 0.16 oz/st silver and 9.7% zinc (3417-3422, 7069-7076).

65. Glacier placer

The Glacier placer was staked on the oldest placer workings in Lemon Creek immediately below Lemon Creek Glacier. The original placer claims were staked in the 1880's and mining took place prior to 1900 (an abandoned cabin and sluice were found) but nothing is known of its success. Nothing is known of later work (Spencer, 1906).

66. Lemon Creek placer

Placer gold was found in Lemon Creek shortly after the original Juneau discoveries but it was not until 1902 that large-scale operations were attempted. At that time, the Lemon Creek Co. installed a small hydraulic

plant about 1.5 miles above the mouth of the creek but after six weeks of operation work was halted due to water shortages. No further work was reported (Spencer, 1906).

67. Clark

The Clark prospect (also called the Sawmill Creek prospect) was probably discovered in the early 1880's. It is composed of two quartz veins in diorite and slate. The vein is up to 4-ft wide and has been exposed for 200 ft along strike and 100 ft vertically. The main sulfides in the vein are pyrrhotite and pyrite with minor galena, sphalerite and chalcopyrite. Samples taken prior to 1905 contained less than 0.1 oz/st gold (Spencer, 1906).

68. Doran

The Doran prospect, at 500-ft elev above Twin Lakes, was discovered and worked before 1912. A 100-ft adit and a 30-ft-long drift were driven at the north end of the claim and a 180-ft-long adit was driven to the mineralized zone at the south end.

The deposit is in shattered, sheared, and altered diorite cut by quartz/calcite/albite veins with pyrite. Albite is common. The dike, or series of parallel dikes, apparently continue to the lower Lemon Creek canyon (Knopf, 1912).

69. Wagner

The Wagner prospect (also known as the Salmon Creek or Boston prospect) was staked in 1898 by John Wagner, John McGonigle and Charles Skuse. A 5-stamp mill was built in 1905 but little gold was produced. Tunnelling was done on the Wagner prospect in 1904-1906 and in 1914 resulting in a total of 1,150 ft of workings. In 1914, a 20-ton tubular mill was in operation and a 15-stamp mill was under construction. No work was done after 1915 (Eakin, 1918).

The deposit consists of 4 or 5 veins, between slate and a greenstone dike, that range from 6- to 20-ft thick and carry pyrite, arsenopyrite, chalcopyrite, sphalerite, galena, and tetrahedrite (Spencer, 1906).

70. Carlson Creek

The Carlson Creek prospect (also known as the Clark, Silver Falls, and Kathleen prospect) was discovered in 1911 at 1,200-ft elev above Gold Fork of Carlson Creek. Some drifting was completed in 1939. The prospect has been explored by three adits and many open cuts. The Silver Falls adit is 150-ft long (Townsend, 1939).

Mineralization at Carlson Creek consists of a large quartz vein and several smaller veins in schist and gneiss. The vein is up to 20-ft wide and consists of white quartz with scattered fragments of the pyritized, altered and sheared gneiss country rock (Townsend, 1939). Alteration of the gneiss at the Silver Falls adit extends at least 100 ft from the vein. Pyrite, stibnite, arsenopyrite, sphalerite and galena occur in the vein. The main vein has been offset by at least two quartz-filled faults (BuMines, 1985b). The main vein may be as long as a mile although much cover makes correlation of the various fragments tenuous. Townsend (1939) reports that the two best exposed mineralized zones, each 100 ft long, average 3.5 and 5.1-ft thick with average grades of 0.43 oz/st gold and 2.54 oz/st silver (Townsend, 1939).

** The Bureau mapped and sampled the 150-ft-long Silver Falls adit and examined the lower adit which is caved 10 ft from the portal. A total of 16 samples were collected. Nine samples contained from 0.05 to 0.601 oz/st gold and 0.5 to 4.96 oz/st silver (3059-3067, 3456-3462).

71. Goldstein

The Goldstein prospect was known before 1918 and is shown on a U.S. Geol. Survey map as being on the north side of Mt. Juneau (U.S. Geol. Surv., 1918).

72. Dora

The Dora prospect was staked about 1881 and worked with an arrastre for several years on a small basis. Litigation tied up the property until 1895 when the ground was sold to William Ebner and John Waydelich. In 1909, the property was consolidated with the Hallam group (73)(Stone, 1980). There is no information about the geology of the prospect.

73. Hallam

The Hallam property was staked in 1901 and short tunnels and shallow pits had been made by 1903. A small arrastre was operated but with little success in 1903. The prospect was consolidated with the Ebner Mine (76) in 1909 by California Nevada Copper. The Alaska Juneau Gold Mining Co. did extensive trenching, sampling and drove two tunnels on the deposit in 1931 (Spencer, 1906).

Mineralization at the prospect consists of quartz veins that occur along the contact between greenstone and black slate. These veins reportedly contained considerable amounts of free gold. The veins have been traced for 4,000 ft across the Hallam property and are the northern continuation of the Alaska Juneau system (Spencer, 1906).

74. Humboldt

The Humboldt prospect was discovered in 1881. The next year the first stamp mill in the Gold Creek Basin, with 5 stamps, was set up to work ore from the mine (Spencer, 1906). In 1889, the mill was enlarged to 10 stamps (Stone, 1980) and did custom milling for small mines in the area (Stone, 1986). The only recorded developmental work occurred in 1903 and 1904 (Spencer, 1904; Wright & Wright, 1905).

75. Jeff & Russell

The Jeff & and Russell prospect was explored by the Alaska Juneau Co. in 1930. The company drove a 2,630-ft-long adit with 1080 ft of crosscuts but did no further work (Stone, 1986).

The adit primarily cuts black phyllite and both green and brown metagabbro but also exposes some light-colored phyllite. The last 800 ft of the adit is cut by pyrrhotite-bearing quartz veins.

** The Bureau mapped and sampled the workings, collecting a total of 26 samples. Seven samples contained between 0.05 and 0.29 oz/st gold and 0.14 oz/st silver. The remaining samples contained no significant gold values (3050-3058, 3444-3449, 3612-3616, 7087-7092).

76. Ebner

The Ebner was staked in 1880 and the first mill was built in 1888. About 1,500 ft of tunnelling had been done by 1905 and 27,820 oz of gold produced (Spencer, 1906). The Ebner mill had 15 stamps in 1907 and plans were begun for a new 200-stamp mill and more workings in 1910 (Knopf, 1911b) but were evidently never put into effect (Stone, 1986). A 5-stamp mill was placed by the adit entrance in 1913 (Stone, 1980). A 3,500-ft-long adit was driven in 1914 and more extensive workings were completed in 1916. The Ebner Mine had produced about 29,000 oz of gold by 1906 when the mine, with more than 12,000-ft of workings, was merged with the Alaska Juneau Mine (80)(Twenhofel, 1952).

The Ebner Mine is on the northern part of the Alaska Juneau vein system. Mineralization consists of numerous quartz veins in slate and metagabbro. The veins carry pyrrhotite, pyrite, chalcopyrite and some free gold. The Ebner orebody was 60- to 90-ft wide, 200- to 300-ft long, and 300- to 500-ft deep (Spencer, 1906; Knopf, 1911b; Stone, 1980; Wright & Wright, 1906; Twenhofel, 1952).

** The Bureau examined 7,800 ft of workings and mapped 1,400 ft of the Ebner adit and adjacent workings but took no samples. A large stope is open to the surface above the old Ebner workings but the adits above Ebner Falls are caved.

77. Middle Flat placer

The Middle Flat placer deposit was discovered in 1881 and occupies the portion of Gold Creek below Silver Bow Basin and the Ebner Mine (76). It is 2,500 ft long and 100- to 200-ft wide (Spencer, 1906).

78. Reilly

The Reilly prospect consists of a short adit on the north side of Gold Creek a short distance below its confluence with Granite Creek (U.S. Geol. Surv., 1918; Eakin, 1918).

79. Little Basin placer

The Little Basin placer, discovered in 1881 and adjacent to the original Alaska Juneau Mine area (80), produced about 2,400 oz gold before tailings from the Alaska Juneau mill buried the area prior to 1900 (Spencer, 1906).

80. Alaska-Juneau

The Alaska-Juneau lode was discovered in 1880 but had only minor development work until 1891 when a 5-stamp mill was constructed. A 30-stamp mill was built in 1896 and in early 1897 the Alaska Juneau Gold Mining Co. was formed to mine claims located between the Ebner (76) and Perseverance (85) mines. From 1903 to 1905, two adits were driven under the open pit to explore the ore body. The 6,500-ft-long Gold Creek Tunnel was driven and large-scale development began between 1911 and 1912. A 50-stamp pilot mill was erected in 1913-1914 and a ball mill was constructed in 1917 (Twenhofel, 1952). The mill was designed to process 8,000 tons per day but only averaged 3,833 tons per day during its first year (Stone, 1980), resulting in heavy losses. Finally, in 1920, after many modification and the introduction of hand sorting, the mill began operating at a profit. Between 1893 and 1920, the mine produced 3.8 million tons of ore and recovered $0.83 per ton at an average cost of $0.65 per ton. The Alaska Juneau Mine operated on little or no profit from 1914 to 1928 (Stone, 1980).

In 1925, the Ebner Mine was operated under royalty by the Alaska Juneau Co. An exploration program in the early 1930's discovered the Deep North Orebody, which proved to be the richest orebody to that time. The Alaska Gastineau property (85) was purchased in 1934 and peak mining years were the late 1930's. Between 1939 and 1941, an average of 4.6 million tons of ore were sent to the mill each year with $0.98 per ton recovered at a cost of $0.73 per ton.

In 1941, less ore was mined due to labor shortages created by World War II. The average employment was 200 men less than in 1940 (Stone, 1980). The mine was closed in 1944 after yielding more than $80,000,000 in gold. Total production, including gold from the Ebner (76) and Perseverance (85) mines and from mill clean-up, totalled 2,888,996 oz gold, 1,949,810 oz silver, 40,219,281 lbs lead and 380,716 lbs of copper (Twenhofel, 1952).

Mineralized quartz vein swarms at the Alaska Juneau Mine are localized where there are many small metagabbro bodies in the phyllite. Both the metagabbro and phyllite are well mineralized. The ore zone at the mine is between 100 and 400-ft wide (Wernecke, 1932).

Slate and metagabbro in the mineralized zone have undergone intense hydrothermal alteration to biotite, ankerite, muscovite, quartz and albite. The metagabbros are the more intensely altered of the two rock types. Quartz veins are irregular and vary from a few inches to a few ft wide and between 25 and 300 ft in length. Gold-bearing veins crosscut foliation while pre-gold veins parallel foliation (Twenhofel, 1952).

The Alaska Juneau lode system exhibits a distinct mineral zoning. Pyrrhotite is the only mineral that occurs throughout the system and it dominates the northwest end of the mineralized zone. At this end the veins are larger, more sharp-walled, and have a gold-silver ratio of 7:1. To the southeast, in the North Ore Body, pyrite and sphalerite become increasingly common and quartz veins become more irregular and plentiful. The first traces of galena occur in the southeast portion of the North Ore Body. Further to the southeast in the South Ore Body, sphalerite and galena are more common than in the North Ore Body and the first arsenopyrite occurs. The gold-silver ratio for the South Ore Body is about 1.5:1. In the Perseverance Mine (85), at the southeast end of the zone, sphalerite and galena are increasingly abundant and arsenopyrite reaches its peak of abundance. Gold-silver ratio for the Perseverance ore body is about 1:1 (Wernecke, 1932; Twenhofel, 1952).

** The Bureau surveyed the workings of the 6, 7, 8, and 9 Levels of the Deep North Orebody and did detailed mapping of about 11,000 ft of workings on the 6 and 8 Levels. The Bureau mapped a zonation pattern across the North Orebody that is very similar to the longitudinal zoning previously known. Galena, sphalerite and pyrrhotite are all present along the southwestern margin of the ore zone. Galena is restricted to that margin while sphalerite extends farther into the mineralized zone. On the northeastern margin of the deposit, pyrrhotite is the only sulfide mineral. A total of 48 samples were collected representing channel and high grade selected samples. Grades of channel samples ranged from nil up to 11.2 oz/st gold (3001-3003, 3087, 3177-3187, 3437-3470, 3602-3610, 7086, 7102-7110).

81. Nowell placer

The Nowell placer deposit, in Silver Bow Basin, was discovered in 1881 and worked in a minor way until 1889, when the American Gold Mining Co. acquired the basin. The company put in a 3,400-ft drainage tunnel in 1891 and operated two hydraulic monitors until 1901 when litigation halted work (Spencer, 1906). The ground yielded about 19,350 oz of gold (Wright & Wright 1906) from gravel averaging about $0.14 per yard by 1901 (Spencer, 1906). Minor work continued until 1908 (Wright, 1908).

82. April placer

The April placer claim was staked on lower Gold Creek in 1880 (Harris Mining Dist.).

83. Jualpa

The Jualpa placer, in Last Chance Basin behind Juneau, was discovered in 1880 and underwent considerable development during 1897 and 1898 after it was acquired by the Last Chance Hydraulic Mining Co. Alluvial deposits were about 4,000-ft long, 700-ft wide, and up to 100-ft deep. A 2,000-ft-long tunnel was driven to tap the deepest part of the basin but old rock slide debris forced

the tunnel to be put in through uneconomic gravel. The Jualpa Mining Co. continued the work between 1903 and 1905 (Spencer, 1906). A 4,250-ft flume was installed but floods in late 1905 destroyed part of the flume and blocked the drainage tunnel (Wright & Wright, 1906). The venture was not too successful (Spencer, 1906).

84. Boston

The Boston prospect is along Gold Creek near Juneau. A 118-ft-deep shaft and 500 ft of drifting were done in 1905 and 1906 (Wright, 1907). Some additional work done in 1914 (Eakin, 1915).

The prospect covers a mineralized albite diorite dike up to 100 ft wide that contains low-grade gold (Wright, 1907).

85. Perseverance

The Perseverance deposit was discovered in 1880 at the head of Gold Creek. The claims were consolidated in 1885. An arrastre was built in 1886 and a 10-stamp mill in 1889 resulting in production of over 3,000 oz gold by 1894. There were 1900 ft of workings by 1903. In 1905, the Alexander Tunnel was pushed to 2500 ft and, in 1906, a 100-stamp mill was built. Until 1912, the mine operated only from May to October but paid a profit. At that time, the ore body had been developed over a width of 70 ft, a length of 1,800 ft, and a depth of 1,600 ft (Stone, 1980). Mill records showed that several thousand tons of ore contained an average of $1.50 per ton (Stone, 1980) with operating costs of $0.85 per ton.

The Alaska Gastineau Mining Co., formed in 1911, began work on the Sheep Creek Tunnel in 1912, and finished the 10,500-ft tunnel in 1914. In December of 1912, the mill in Silver Bow Basin was destroyed by fire. The Salmon Creek dam was completed in 1913 and a 6000 ton/day mill constructed in 1915. During the first year of the mill's operation, 1.1 million tons of ore were treated. This ore averaged $0.94 per ton (Stone, 1980) while operating costs were $0.71 per ton. In 1917, the mine produced 2.24 million tons of ore and recovered $0.90 per ton (Stone, 1980) with expenses of $0.77 per ton (Mining and Scientific Press, 1921). The mine then worked at a loss until 1921 when it was forced to close. In 1919 and 1920, the mine produced an average of 2.2 million tons of ore (150,000 to 200,000 tons per month according to Mertie, 1921), but operated at a loss (Stone, 1980). Although $0.70 per ton was recovered in 1920 (Stone, 1980), operating expenses were $0.83 (Mining and Scientific Press, 1921). Between 1916 and 1921, the mine produced 383,693 oz of gold, 310,660 oz of silver, and 4,793,391 lbs of lead (BuMines, 1985). Including the 10,500-ft-long Sheep Creek adit, about 19 miles of workings were developed.

The property was purchased by the Alaska Juneau Company in 1934 (Stone, 1980). Production from the mine after that year is included with that from the Alaska Juneau Mine (80).

** Bureau work was restricted to determining access within the workings via the Alexander Crosscut and making brief examinations of geology for comparison with the Alaska Juneau Mine. It was noted that the altered rock in the Perseverance Mine was probably derived more from greenschist than the metagabbro found in the Alaska Juneau Mine. Only one random high-grade sample was collected. (3120)

86. Lurvey placer

The Lurvey placer deposit occurs at an elev of 2,150 ft near the head of Lurvey Creek and was discovered about 1881. In 1889, a tunnel 350-ft long was

driven to tap the gravels in the basin and about an acre of ground was sluiced to a depth of 15 or 20 ft. Little gold was reportedly recovered (Spencer, 1906).

87. Upper Gold Creek workings

In upper Gold Creek, at elev of about 2,600 ft, several claims were held by the Alaska Rubicon Gold Mining Co. The claims were probably worked in the 1880's or 1890's.

Host rocks consist of black phyllite, biotite feldspar gneiss, and quartz, muscovite schist. Quartz veins exposed in the workings are parallel to foliation, boudined and tend to only a few in thick. Veins up to a ft thick do occur. Only traces of pyrite are visible.

** Bureau mapping located four adits and four trenches between 2,600- and 2,700-ft elev at the headwaters of Gold Creek. Three of the adits were open (14- to 32-ft long) and all of the trenches (10- to 60-ft long) were well exposed. A total of three samples were collected from the workings but no significant values were found. (3817-3819)

88. Bull Consolidated

The Bull Consolidated group was discovered at the head of Gold Creek in 1905 and a few sacks of high-grade ore were extracted for testing (Wright & Wright 1906). No other work was ever reported. Location of the prospect is uncertain but a shaft located at an elev of 3,200 ft on the north flank of Sheep Mountain may be the Bull Consolidated. The shaft was sunk in a strongly iron-stained biotite feldspar gneiss cut by at least three quartz veins that are from 6-in to 3-ft thick.

** The Bureau located the shaft and collected two samples. One sample from the shaft dump contained 0.04 oz/st silver.

89. McKinley

** A 150-ft adit located by the Bureau at 2,200-ft elev near the Lurvey placer deposit (86) follows several thin, but persistent, quartz veins in black phyllite. The veins parallel foliation and are usually 1- to 3-in thick with local pods to 20-in. Phyllite near the quartz veins is highly silicified and contains streaks of pyrrhotite. Only traces of pyrite or pyrrhotite occur in most of the veins but, locally, pyrrhotite and pyrite formed up to 20% of the vein.

The adit was mapped and three samples were collected but no significant values were found.

90. Ground Hog

The Ground Hog Mine, at elev between 2,600 and 3,000 ft adjacent to the Perseverance Mine (85), was discovered in 1881. Several adits, from 30- to 118-ft long, and a number of pits were opened in 1893 and a "few thousand dollars" of gold mined. The mine had a 4,000-ft-long tram which carried ore to the Nowell placer mine from which it was taken to a mill at the lower end of the Nowell tunnel (Wright & Wright, 1906).

Mineralization consists of a network of abundant thin, discontinuous quartz veins from 0.25- to 18-in thick that cut altered greenschist. The altered greenschist is almost identical in appearance to the brown metagabbro in the Alaska Juneau Mine (80). Green chromian mica (fuchsite ?) is very common in both the schist and the quartz veins. There are several quartz-rich zones separated by less altered greenschist (BuMines, 1985b).

** The Bureau mapped three adits and several trenches. Eleven samples were taken and the best contained 0.07 oz/st gold and 0.8 oz/st silver (3827-3828, 3831-3839)

91. Alaska Juneau tailings

The Alaska Juneau tailings were worked between 1948 and 1954 by Howard Hayes and others. They sluiced about 150,000 tons of material and produced 5,931 oz gold, 1463 oz silver, 2,500 lbs lead, and 1,400 lbs of copper (BuMines, 1985). In 1982, the Taku Mining Co. began sluicing the tailings and, by 1983, had processed 70,000 tons of material and removed 900 oz gold and 200 oz silver.

92. Prospect pit

** An 8-ft-long pit was located by the Bureau at an elev of 3,410 ft near the Sheep Creek-Gold Creek saddle has exposed a 3-ft-wide boudined quartz vein in black phyllite. Phyllite adjacent to the vein is altered. No sulfides are visible but a sample contained 0.32 oz/st silver (3299).

93. Ibex

The Ibex Mine, at an elev of 2,600 ft on the southeast flank of Mt. Roberts, was discovered in 1888. There were three adits and several hundred ft of workings by 1903 (Spencer 1906). One quartz vein was stoped to the surface.

The Ibex is similar to the Glacier (95) and Silver Queen (96) mines and consists of concordant, boudined quartz veins in black phyllite. The veins carry pyrite, pyrrhotite, sphalerite, galena and tetrahedrite.

** The Bureau found three adits, two of which were open, and a stope that was open to the surface. The main adit was caved but the second adit was open for 40 ft. An upper 80-ft adit was also open. Seven samples taken by the Bureau contained an average of 7.46 oz/st silver with a high value of 29.7 oz/st silver (3820-3826). Rare visible gold was found in dump rocks but the highest assay value was only 0.05 oz/st.

94. Alaska Consolidated

The Alaska Consolidated prospect covered a large area between Sheep Creek, Sheep Mountain and Powerline Ridge (Spencer, 1906).

On Powerline Ridge, three parallel quartz veins cut biotite, feldspar gneiss. The veins range from 1- to 6-ft thick, can be traced for about 300 ft, and contain some pyrite. The adit, at an elev of 2,630 ft, is 20 ft long and exposes black schist cut by a few thin, concordant quartz stringers with no visible sulfides.

** The Bureau found the open adit at an elev of 2,630 ft below Sheep Mtn. and an open cut on Powerline Ridge. No significant mineralization was found (3298, 3300, 3808, 3911-3912).

95. Glacier 96. Silver Queen

The Glacier lode was discovered in 1887 and the Silver Queen in 1888 (Spencer, 1906). Both prospects were brought under the same ownership in 1889. A 10-stamp mill was built in 1889 but was initially only able to recover $12 from a ton of ore that averaged $60/ton silver (Stone, 1980). Twenty stamps were added in 1895. Through 1895, the Silver Queen Mine had produced $100,000 in silver and $20,000 in gold (1890's prices) (Becker,

1894). The Glacier and Silver Queen mines were connected by workings in 1903 and combined production of the two deposits over their operating lives was about $500,000 of combined silver and gold from 7,500 ft of workings (Spencer, 1906).

The ore bodies consist of lenticular, boudined, overlapping quartz veins 0.5- to 12-ft-wide that contain pyrrhotite, sphalerite, chalcopyrite, pyrargyrite, native silver, arsenopyrite, galena, tetrahedrite and gold. The veins were emplaced in black and green phyllite near the greenstone contact. The four main veins parallel foliation of the phyllite host rock but some veins follow minor shears. The veins were mined for 400- to 900-ft vertically (Spencer, 1906, Becker, 1894). The gold/silver ratio was reported to be about 1:20 (Spencer, 1906) although values reported above indicate a ratio of 1:200.

** Three adits of the Silver Queen Mine were found between 1,100- and 1,300-ft elev by the Bureau. Only the No. 1 adit was open and it was caved at 45 ft. Four samples taken by the Bureau averaged 29.4 oz/st silver and 0.16 oz/st gold (3043, 3255-3257).

The Bureau located two portals of the Glacier mine and two exploration adits between 1,500- and 1,800-ft elev above Sheep Creek. The mine portals (on Levels No. 3 and 4) were open for up to 180 ft before being blocked. Fourteen samples taken by the Bureau averaged 4.77 oz/st silver with gold generally less than 0.03 oz/st (3017-3030).

97. Denny

The Denny prospect is between 2,000- and 3,000-ft elev on the north side of Sheep Creek and almost surrounds the Gould & Curry Mine (98). It was explored by at least four adits.

** Four open adits were located by the Bureau. The upper adits, at elev of 2,800 and 2,900 ft, are 34- and 86-ft long and cut silicified biotite gneiss. They contain common concordant and discordant quartz veins with small amounts of pyrrhotite. Other adits, at elev of 2,625 and 2,040 ft, are 11- and 16-ft long and were driven into black phyllite. The lower adits have thin quartz veins with no visible sulfides.

Bureau sampling revealed no significant gold values (3471-3477, 3096-3097) except for a sample from the 2,625-ft adit that contained 0.426 oz/st gold (3600).

98. Gould & Curry

The Gould & Curry Mine, located at an elev of 2,800 ft, was probably discovered in the early 1890's. Gold production for 1895 was 1,250 oz gold but production for other years, if any, is not known (Becker, 1894).

The deposit consists of three 15-in-thick quartz veins in black slate. The veins are discontinuous, cross-cut the slatey structure, and contain sphalerite, pyrrhotite, pyrite and free gold (Becker, 1894).

** The main portal of the Gould & Curry Mine, buried with snow, and some pits were found by the Bureau. Free gold and coarse clots of sphalerite, galena, and pyrrhotite were found on the dump. Two high-grade dump samples averaged 1.1 oz/st gold and 4.7% zinc (3098-3098, 3478).

99. Anderson

The Anderson was discovered and examined before 1905. Several short adits 40- to 50-ft long were completed but little other work was done.

The prospect covers the southeast continuation of the Silver Queen (6) and

Glacier (95) veins in Sheep Creek. The quartz veins occur in black slate near the contact with greenstone. There are probably four veins with thicknesses of 2-to 4-ft but at least one stringer zone 20-ft wide has been reported. The veins contain pyrite, sphalerite, and galena (Spencer, 1906).

100. Sheep Creek Tunnel

The Sheep Creek Tunnel is located at an elev of 725 ft on the north side of Sheep Creek.

** The easternmost of the two Sheep Creek Tunnel portals was located by the Bureau and traced from the surface for about 500 ft. Most of this section was caved.

101. McCartney

The McCartney prospect is located near Salmon Creek between the Anderson (99) and Reagan (103) prospects (U.S. Geol. Surv., 1918).

102. Texas & Florida

The Texas & Florida occurrence consists of a short adit exploring a slate diorite contact near Cross Bay Creek.

103. Raegan

Veins from the Silver Queen Mine (96) were traced southeast to the Reagan area in 1888 to 1890 (?). By 1903, about 320 ft of workings (a 250-ft-long adit, a 40-ft winze, and a 40-ft shaft) had explored two closely spaced veins that follow a shear along a black phyllite-greenstone contact.

The veins at the Reagan prospect are 1- to 3-ft thick and contain galena, sphalerite, chalcopyrite, pyrite, tetrahedrite, arsenopyrite, electrum, and native silver (Spencer, 1906).

** The Bureau found one open and one caved adit and a water-filled shaft at the Raegan prospect. The upper adit which was mapped and sampled. A total of 12 samples were taken from the adit and averaged 1.64 oz/st silver and 0.01 oz/st gold (3004-3015).

104. Dolan

The Dolan prospect is shown on an old map near the mouth of Sheep Creek but other no information has been found in the literature (U.S. Geol. Surv., 1918).

105. Gold Belt

The Gold Belt (or Nelson-Lott) prospect occurs at the head of Sheep Creek on what is thought to be the continuation of the Raegan (103) veins. A 2,500-ft-long adit was driven in 1913-1914. No production is known (Chapin, 1916).

** The caved portal of the Gold Belt adit was located at an elev of about 1,000 ft near the upper end of Sheep Creek by aerial reconnaissance.

106. Alaska Gastineau tailings

The Alaska Gastineau tailings at Thane, from the Perseverance Mine (85), were worked from 1937 to 1948 by Howard Hayes and others. This operation worked 13,400 tons of material and extracted 890 oz gold and 249 oz silver. In 1983, the Juneau Mining Co. began feasibility studies and facility construction for mining operations on the tailings but the venture was not successful (BuMines, 1985).

107. Middle Peak

The Middle Peak prospects are at the head of Sheep Creek. Several adits are shown on maps and the deposit is reported to contain sphalerite, galena, arsenopyrite and chalcopyrite. It is near the black slate/greenstone contact (Lathram, 1959).

108. Alaska Taku

The Alaska Taku prospect was staked in 1915 (Chapin, 1916) and covers the upper portions of Grindstone and Rhein Creeks. A few open cuts made in 1916 to explore the black slate/greenstone contact are said to have exposed stringer lodes similar to the Perseverance lode (85)(Eakin, 1918).

109. Point Cooper

Point Cooper was discovered in the 1960's and has a series of very iron-stained schists and gneisses that carry some pyrrhotite. Three quartz stringer zones cut these rocks but only one, located 0.2 mile north of Cooper Point, carried any mineralization. Small amounts of gold (0.2 oz/st gold) have been reported from geochemical samples taken by exploration companies and state geologists (Herreid, 1962; Stevens, 1983).

110. Penn Alaska

The Penn Alaska prospect near Taku Inlet was discovered about 1914 when some stripping was done. Mineralization at the prospect is composed of quartz veins in slate (Eakin, 1915).

111. Rainbow

Gold was reportedly found in 1955 in quartz veins in a quarry pit (BuMines, 1980).

112. Eagle Creek

Placer claims were reportedly staked at the mouth of Eagle Creek (BuMines, 1980).

** One panned concentrate sample was taken from Eagle Creek but no gold was detected (3434).

113. Douglas Antimony

The Douglas Antimony prospect, located on lower Eagle Creek, was originally staked by Ralph Thompson in 1932. A short 40-ft adit has been driven into a stibnite-bearing vein which outcrops along 70-ft of the creek.

Mineralization consists of a quartz vein 6- to 16-in thick that cuts greenstone near a black slate contact. Massive stibnite occurs in a zone 2- to 6-in thick on the footwall of the vein and assays done in 1942 gave almost 52% antimony in the massive stibnite and 20.7% antimony across 16-in of the vein. Gold and silver values were nil (Roehm, 1942).

** The Bureau mapped and sampled the 40-ft adit but a sample of massive stibnite contained no gold or silver (3130).

114. New Boston

In 1887, the Alaska Union Mining Co. built an 80-stamp mill, a wharf, and support facilities below the New Boston group of claims on Eagle Creek before exploring the property. When two adits were driven the ground was found to contain only a few cents of value per ton and the prospect was abandoned (Stone, 1980).

The adits expose a narrow band of felsic volcanic rocks that contain disseminated pyrite and traces of sphalerite, galena and chalcopyrite.

** The Bureau located, mapped and sampled both adits. The shorter adit, with 415 ft of workings, is located in Eagle Creek at an elev of 500 ft and the longer adit, 1040-ft long, was found a quarter mile east. Gold and silver values were nil but one sample contained 303 ppm copper (3129, 3450-3455, 3735-3739).

115. Kowee Creek

Placer claims have been staked near head of Kowee Creek (BuMines, 1980).

** A panned concentrate sample taken from Kowee Creek contained no detectable gold (3433).

115. Foster

The Foster prospect consists of four short adits in Lawson Creek that explore thin quartz stringers in black phyllite.

** The Bureau found four short adits in the half mile of Kowee Creek above the highway. Three of the adits, 12- to 22-ft-long, were mapped and sampled. The fourth was also open but was made inaccessible by a large pool formed by Kowee Creek. The highest value was 171 ppm copper (3951-3959).

116. Lost Lucy

A 315-ft-long adit was driven before 1939 to explore quartz veins along the contact between slate and greenstone. Only a trace of gold was present (Roehm, 1939).

117. Lawson Creek

Placer claims were staked along Lawson Creek in the early 1880's (BuMines, 1980).

** A panned concentrate sample taken from Lawson Creek contained 1.66 ppm gold (3432).

118. Bear Creek

Placer claims were staked on Bear Creek in 1967 (BuMines, 1980)

119. Mayflower Island

On the northern end of Mayflower Island, a 12-ft-long adit was driven before 1894 on a 3.5-ft-wide quartz vein in granite. The vein contains pyrite, pyrrhotite, and "some fine specimens " (Becker, 1894) of gold.

** The Bureau found that the adit is open but no samples were taken.

120. Holeman

The Holeman prospect is along the trend of the Treadwell dike north of the Treadwell Mine (127) and south of Lawson Creek. The prospect was explored by diamond drilling in 1916 (Eakin, 1918).

121. Tyee

The Tyee prospect is adjacent to the Bear's Nest prospect (124), north of the Treadwell Mine (127). Little is known except that it was explored by diamond drilling in 1916 (Eakin, 1918).

122. Jumbo

The Jumbo prospect (also known as the Josie and Karen) was discovered in 1921 when some fine gold was sluiced from a few cuts about a quarter mile south of Lawson Creek at an elev of 700 ft. The prospect was developed between 1922 to 1924 with a 125-ft adit and some open cuts. A one-stamp mill was taken to the property but never used (Roehm, 1937c).

The prospect is composed of black slate enclosing a layer of "schistose and altered greenschist". This unit may be a felsic schist similar to that at the Yakima prospect. The mineralized band is 70-ft thick in the adit and contains a few small, narrow, irregular quartz veins and disseminated chalcopyrite, pyrite and sphalerite. Mineralized samples from the tunnel in 1937 gave an average grade of 0.08 oz/st gold with higher grade zones carrying as much as 0.17 oz/st (Roehm, 1937c).

** The Bureau located the Jumbo adit during reconnaissance surveys of the area but no work was done or samples taken. The adit is open.

123. Skookum Chief

The Skookum Chief prospect was staked when fine gold was panned from soil overlying mineralized andesite at an elev of about 1,000 ft. The area is underlain primarily by slate which encloses the 150-ft-wide greenstone. Small barren quartz veinlets cut a 6-ft-thick zone of pyritized greenstone at the footwall. The quartz veins are barren but visible gold has been reported in the greenstone. Sampling of several open cuts gave only a trace to 0.01 oz/st gold and no silver (Roehm, 1936c).

Location is uncertain.

124. Bear's Nest

The Bear's Nest was discovered in 1881 along the trend of the Treadwell dike. A 1,200-ft-long adit was driven from the beach to crosscut the hypothesized northwesterly extension of the Treadwell ore dike in 1888 and an 80-stamp mill built. Little mineralization was discovered (Stone, 1980). Little else has been reported except that some prospecting work was done in 1911 (Brooks, 1912).

125. Treadwell tailings

The Treadwell tailings form the beach from Douglas almost to Ready Bullion Creek. They consist of the tailings from the five stamp mills that processed the Treadwell ore (127-130). In 1949, Howard Hayes acquired the Treadwell tailings and worked 4,500 tons of material, producing 115 oz gold and 12 oz silver (BuMines, 1985). Current claims exist on the tailings (BuMines, 1985b).

** Five placer samples, each 0.1 yd^3, were taken by the Bureau from the tailings beaches near the sites of the main stamp mills of the Treadwell, Mexican, and Ready Bullion mines. Visible gold was panned from the beach sands but analytical results have not yet been received (3428-3431, 3488).

126. Jersey

The Jersey prospect, also called the Jersey City, is about a half mile south of the Treadwell mines (127-130) at an elev of 900 ft. This prospect was explored by a shaft and crosscut in 1914 (Eakin, 1915) and diamond drilling in 1916 (Eakin, 1918).

The deposit is very similar to the Alaska Treasure prospect (135) and different than the Treadwell (127). The Jersey is stratiform in nature and may have a volcanigenic origin. The host rocks are primarily pyritic quartz

sericite schist in greenschist with thin slate bands, all of which carry sulfide mineralization. Assay results were reported to be "encouraging" (Eakin, 1915).

** The Jersey prospect was examined briefly by the Bureau but only two samples was taken and they contained no significant values (3119).

127-130. Treadwell group
127. Treadwell, 128. 700 Foot, 129. Mexican, 130. Ready Bullion

The Treadwell deposit was discovered along the east side of Douglas Island in 1881. Four mines, the Treadwell, 700 Foot, Mexican and Ready Bullion, operated on the deposit under one management. Initial production was from placers overlying the ore body but lode mining began in 1882 (Spencer, 1906).

The first mill, with five stamps, was completed at the Treadwell Mine in 1881. In 1885, a 120-stamp mill was built at the Treadwell with 120 more stamps added in 1888. In 1899, 300 more stamps were added (Spencer, 1906). The Mexican Mine began operations in 1894 with 60 stamps but the mill was enlarged to 120 stamps in 1896. In 1898, a 120-stamp mill began processing ore at the Ready Bullion Mine and in 1899, the 700 Foot Mine began operations with a 100-stamp mill (Stone, 1980). Twenty stamps were added to the 700 Foot mill in 1911 bringing the total number of stamps in the four mines to 900 (Eakin, 1915).

By 1917, mining operations had reached a depth of 2,200 ft below the surface with the main shaft over 2,700-ft deep. Gold production totaled 375,294 fine oz by 1896, 1,161,000 fine oz by 1904, 2,821,420 oz by 1915, and 3,142,273 oz by the end of 1917. Between 1906 and 1917, at least 150,914 oz silver were also produced. Average yield was 0.13 oz gold per ton ($2.61 per ton) and operating costs were $1.67 per ton (Stone, 1980).

Caving at the mines began as early as 1909 with major caving occurring in 1913 and 1915 (Wernecke, 1916). The final caving, during which sea water filled the Treadwell, Mexican and 700 mines, occurred on April 21, 1917 (Wernecke, 1917). The Ready Bullion Mine continued operations until December 18, 1922. Mill clean ups in the 20's and 30's yielded a final 1,030 oz gold (BuMines, 1985).

The Treadwell deposits are hosted by sills of altered diorite that intrude black slate and greenstone. The sills are now composed primarily of albite, with a few relict phenocrysts of feldspar, local hornblende, chlorite and epidote, and cut by a fine network of thin quartz and calcite veins. The sills and veins contain auriferous pyrite. Gold is distributed fairly evenly throughout the albite diorite and between 60% and 75% of the gold was extracted by the stamp mills. Molybdenite is a locally common accessory mineral in the diorite (Spencer, 1905, 1906; Hershey, 1911).

** The Bureau made a brief examination of the mineralized dike in the Treadwell glory hole but no mapping or sampling was done. At the Mexican Mine, the Bureau examined two open pits and surveyed 3,360-ft of workings on the Adit Level below the pits. No mapping or sampling were done of these workings this year.

131. Yakima

The Yakima prospect was discovered before 1899 and worked between 1899 and 1901. In 1899, the Moore shaft was sunk 90 ft and continued to 175 ft the next year. About 1,000 ft of workings were driven off the shaft in 1900 and 1901. The 60-ft-long Davis tunnel and a 25-ft-deep shaft were completed by 1901 (AK Tread. Gold Mining Co., 1917).

The deposit is part of a mineralized volcanigenic horizon that includes the Alaska Treasure (135) and the Jersey (126) prospects. At the Yakima, the horizon consists of pyritized sericite schist in a greenschist belt that contains considerable quartz and calcite. The zone is at least 300-ft wide and a mile long. Samples from the dump contain galena and sphalerite with quartz and albite (Spencer, 1904).

** Two water-filled shafts and a caved adit were located at the Yakima prospect by the Bureau. The surface area of prospect was mapped and four samples taken One outcrop sample taken near the lower shaft contained 0.28 oz/st gold and 0.32 oz/st silver (3740-3743).

132. Mineral Queen

The Mineral Queen prospect consists of a 410-ft-long adit that cuts coarse-grained amphibolite, and a water-filled adit about 40-ft long that follows a 6-ft-thick quartz vein in amphibolite. In the long adit, which opens onto the beach near the mouth of Bullion Creek, a shear zone in the amphibolite has been intruded by a felsic rock that contains abundant molybdenite and pyrite. A 20-ft-wide zone of chlorite schist and felsic rock has been mineralized with molybdenite and up to 10% pyrite cubes. Molybdenite is found either adjacent to quartz veins associated with the felsic rock or in the foliation of the schist (BuMines, 1985b).

** The Bureau surveyed and mapped the 410-ft adit. An 11-ft section of the adit averaged 0.57 oz/st gold and carried 750 ppm Mo (3481-3487). The second adit, about 50 ft above the beach and 40-ft long, was located but not entered because of deep water.

133. Douglas Mining Co.

Claim were staked in 1959 by the Douglas Mining Co. at the mouth of Bullion Creek (BuMines, 1980).

134. Ready Bullion Creek

Two caved adits explored quartz veins in mafic dike and slate. One vein contained 5% pyrite (BuMines, 1985b).

135. Alaska Treasure

The Alaska Treasure prospect, also called the Nevada Creek deposit is located at an elev of 800 ft and was discovered by William Thompson in 1884. Only minor development was done on the prospect until the Alaska Treasure Consolidated Mining Co. was organized in 1903 by Frank Stone. Most of the exploratory work was done between 1906 and 1915. In 1906, the Alaska Treasure Consolidated Mines Co. drove the 130-ft Corbus Tunnel, the 100-ft Hogback workings, and 900 ft of workings at the Hudson Tunnel. A 20-stamp mill and a 450-ft flume were also constructed (Wright, 1907). A mill-run test was conducted in 1906 that yielded 0.14 oz/st gold by amalgamation, 0.19 oz/st gold in the sulfides and a total of 0.34 oz/st gold in the sample (Spencer, 1906). The mill was closed after the test and never reopened. Assays from the Corbus tunnel ranged from nil to 0.40 oz/st gold. In 1907 the prospect was closed and did not reopen until 1909 when an English group began to drive the Main Working Tunnel at an elev of 210 ft. Between 1910 and 1912, the 3,880-ft-long tunnel was driven to undercut the mineralized zone. This tunnel reportedly cut 365 ft of ore. The English withdrew in 1911. Other English interests reexamined the deposit in 1914 but arrangements were not finished before World War I began (Whetherell, 1969). Only assessment work was done in

1916 and some sampling was carried out in 1935. The prospect was idle until 1968 when AlVenCo examined the ground. Drilling by AlVenCo found gold present in all felsic zones but only in concentrations of 0.5 to 3.0 ppm. Silver values were lower with about 60% of samples having 0.4 to 2.5 ppm. Lead and zinc were present in concentrations that averaged 300 to 500 ppm for lead and 400 to 800 ppm for zinc in the better zones (Whetherell, 1969).

The Alaska Treasure deposit occurs in a zone of schistose felsic tuffs, flows and agglomerates within the Douglas Island volcanics. The felsic volcanic sequence occurs in a zone a mile wide and 1.5 miles long but the main area of economic interest averages 90-ft thick and has been traced for 2,000 ft on the surface. The mineralized zone may be continuous with the Yakima (131) and Jersey (126) deposits (BuMines, 1985b).

Mineralization consists of thin, stratiform layers of sphalerite, galena, with some pyrite and chalcopyrite plus quartz and calcite veinlets that contain auriferous pyrite, chalcopyrite, galena, sphalerite, pyrrhotite and possibly some tetrahedrite. The felsic volcanic rocks commonly have 1 to 5% disseminated pyrite cubes (BuMines, 1985b).

** The Bureau mapped and sampled the Hodson and Main Working Tunnels. An old tram line was traced that begins at the beach immediately north of Nevada Creek, passes the Main Working Tunnel, and continues to the Hudson adit. The Hogback Shaft and the Corbus Tunnel were located but were inaccessible. Fourteen samples were taken in the mineralized portion of the Main Working Tunnel and three contained from 0.03 to 0.13 oz/st gold (3618-3631). Thirty samples were taken within the Hudson adit (3706-3715, 3922-3934) and four more were taken from the dump and outcrops near the portal (3105-3107, 3304). Within the main ore zone, 12 samples averaged 0.08 oz/st gold over 40 ft. A rich sample from the Hudson dump contained 15.1% zinc, 9.4% lead, 0.011 oz/st gold, and 2.27 oz/st silver. Zinc and lead were moderately anomalous in mineralized portions of both the Hudson and Main Working Tunnels.

136. Atlin Alaska

The Atlin Alaska prospect was reported to have been idle for several years by 1906 (Wright, 1907) and there are no other references to it in the literature. Location of the prospect is very uncertain but an adit with 175 ft of workings located by the Bureau at an elev of 1,600 ft in upper Nevada Creek may be the Atlin Alaska prospect (BuMines, 1985b).

The adit cuts pyritic felsic schist much like that at the Alaska Treasure prospect (135) (BuMines, 1985b).

** The Bureau located, mapped and sample the adit in upper Nevada Creek. Ten samples were taken in the adit (3724-3733) and three more of outcrops in the area (3718, 3722-3723). None of the samples contained significant values.

137. Mammoth

The Mammoth prospect, located at the head of Nevada Creek at an elev of about 1,050 ft, was found prior to 1905 when two short crosscut adits were driven to explore mineralized felsic schists. Only assessment work was done in 1906 and nothing has been reported since (Wright & Wright, 1906). Mineralization consists of pyrite and quartz stringers in two bands of felsic schist and greenschist with intercalated slate.

** The Bureau located two short caved adits in the banks along Nevada Creek. Of six samples taken on the prospect, one contained 0.27 oz/st silver and 0.36% zinc but all were very low in gold (3302-3303, 3935-3938).

138. Red Diamond

The Red Diamond prospect was discovered before 1905 and occurs at about 1,250 ft just over the divide from the head of Nevada Creek. The deposit, similar to the Alaska Treasure (135) and has been explored by a 120-ft-long adit which cut 36 ft of mineralized rock. Work was halted early in 1906 after the encouraging gold content found in 1905 proved to be uneconomic (Wright & Wright, 1906).

Mineralization is composed of a band of felsic schist that contains disseminated pyrite and quartz stringers.

** The Bureau located a caved adit, several trenches, and possibly a caved shaft. Only two samples were taken from the dump of the caved adit. One sample contained 0.127 oz/st gold and the other carried 955 ppm zinc and 620 ppm lead (3104, 3301).

Port Snettisham Area

139. Bach

The Bach prospect occurs at about 2,500 ft above Speel Arm. Mineralization is reported to consist of a quartz vein containing auriferous sulfides hosted by diorite on which assessment work was done for several years prior to 1905 (Wright & Wright, 1906).

** The Bureau unsuccessfully searched for the Bach prospect. A stream sediment sample taken near the presumed location of the prospect contained no significant metal values.

140. Taku Chief

The Taku Chief claims were staked in 1954 by Henry (Tiger) Olson above Taku Harbor. Some open cuts, trenching and an adit were reportedly made. The deposit contains zinc and gold (BuMines, 1980).

141. Bum Cat placer

The Bum Cat placer deposit is near the mouth of a stream draining Taku Lake at the head of Taku Harbor (BuMines, 1980).

142. Taku placer

The Taku placer deposit occurs near the upper end of Taku Harbor at the mouth of an eastern tributary. It is also known by the names Keegan, Libby, McNeill & Libby, Little Tiger, Sessions, Sherman, and Blevens (BuMines, 1980).

143. Iron Lode

The Iron Lode prospect, alternately known as the Magnetite Lode, Spruce Tree, Olson, Tiger Olson, Vern Pick, and Coral Keys, is shown as being at an elev of 1,000 ft on the east flank of Taku Mtn. above Taku Harbor. The deposit is reported to contain iron (BuMines, 1980).

144. Great Bear

The Great Bear prospect is located on the south side of Taku Harbor near the beach. It is also known as the Brown Bear, Sharon-Skrznski, Henry Olson, and Mang Mose deposit. It is listed as containing gold and nickel (BuMines, 1980).

145. Sunrise

The Sunrise Canyon prospect was discovered by Henry (Tiger) Olson in 1935. The prospect is located at an elev of about 3,000 ft between "Lake Olson" and "Lost Rocker Lake" north of Limestone Inlet. A Canadian company optioned the property in 1953 and held it until 1955 but little work was done (Pittman, 1957).

The deposit consists of rhodochrosite, manganite and rhodonite in veins in a "very schistose grey-green quartz-phyllite". The veins appear to be localized in the upper, more schistose 200- to 300-ft-wide part of a wide section of phyllites overlain by metabasalts and tuffs. The main vein ranges from 1- to 3.5-ft wide and parallels foliation. The veins contain about 70% rhodochrosite, 15% manganite, 10% quartz, and 5% rhodonite. There may be some psilomelane. Jasperoid may be associated with the veins. A half mile NW of a small divide, several small veins (0.1- to 0.5-ft thick) can be traced in a bluff for about 300 ft. Samples of the veins averaged about 28.6% Mn with virtually no gold and 0.05 oz silver. A beneficiation test done in 1957 by the Bureau produced only a 40.6% concentrate, less than the marketable (at that time) concentrate of 48% (Pittman, 1957).

146. AEK

The AEK lode claims were staked in 1980 on the ridge divide between Prospect and Limestone Creeks (about 1,500-2,000-ft elev) in a long, narrow belt that parallels the lithologic structure of the area (BuMines, 1980). Iron-stained slate containing thin quartz veins, some barium, and traces of silver have been reported (State of Alaska, 1985).

147. Prospect Creek placer

A large placer claim group was staked on Prospect Creek in 1979 (Bumines, 1980).

** Two 0.1 yd^3 placer samples were taken from Prospect Creek. Only trace quantities of visible gold were detected (7095-7096).

148. JLC

A large group of placer claims were staked on the creek north and west of Bogert Point in 1980 (State of Alaska, 1985).

** One 0.1 yd^3 placer concentrate sample was taken from this creek at an elev of 300 ft. No gold was detected in the sample and only granitic float was noted in the creek channel (7097).

149. Bogert Point placer

42 placer claims were staked on Bogert Point area in 1978 (BuMines, 1980). Very small amounts of fine gold can be sluiced from the area (Redman, 1985).

150. Enterprise

The Enterprise Mine was probably discovered about 1905 at an elev of 1,300 ft on the north side of Limestone Inlet. Exploration consisted of stripping from 1906 until 1910 when 30 ft of tunnel were driven. By 1914, 195 ft of workings had been driven and about 200 tons of ore processed in a Johnson rod mill. At least 15 oz gold and a little silver were produced. In 1914, B.L. Thane took over the property and explored the deposit with 245 ft of workings. Two adits were completed, a 120-ft-long upper adit and a 320-ft-long lower adit. A 5-stamp mill was used to produce about 85 oz gold from about 300 tons of ore (0.28 oz/st gold). In 1934, a 52-ft inclined raise was put in by H. Jackson and A. Westhall (Roehm, 1936e).

The deposit consists of a 2-ft-wide quartz vein in granitic rock. The well-defined vein shows evidence of some normal movement along the vein. The vein contains sphalerite, chalcopyrite, and pyrite with free gold. Gold values decrease downward. Reported samples from the lower adit were 0.01 to 0.22 oz/st gold while a raise from the adit yielded 0.06 to 0.48 oz/st gold. The upper adit gave values of 0.12 to 0.98 oz/st gold. An open cut above the upper adit carried 1.34 oz/st gold (Roehm, 1936e).

** The Bureau located the remains of the Enterprise mill, a poorly defined trail leading from the mill to the mine, and two open adits. The lower adit is mostly caved just in from the portal and was not entered but the upper adit was mapped and sampled. Two samples were taken of the Enterprise vein, along with two of the enclosing granitic country rock. One vein sample yielded 0.736 oz/st gold over 2.4 ft (7001-7006).

151. Whigg placer

The name "Whigg placer mine" first appeared on the U.S.G.S. Taku River 1:250,000 quadrangle in 1960 but there is no information about the "mine". The site was staked in 1980 (State of Alaska, 1985).

152. Mist placer

Placer claims were staked on Mist Creek in 1980 (State of Alaska, 1985).

** A 0.1 yd^3 placer sample was taken from this creek in 1985. A trace of visible gold was seen in the sample (7094).

153. Snettisham

The Snettisham iron deposits were known before the turn of the century when the Crystal and Friday mines were in operation. In 1918, four or five tons of solid titaniferous magnetite were taken from near the old Snettisham post office, shipped to Douglas for analysis, and found to contain 4-5% titanium. Robert Coughlin and W. Pekovich staked the Michele and Suzanne claim groups on the deposit in 1950. In 1953, the Bureau of Mines drilled 6,543 ft of diamond drill holes in the property and defined a mineralized zone 9,500-ft long, 2,300-ft wide and 475-ft thick (Thorne and Wells, 1956) with reserves of 400 to 500 million tons of 18-20% Fe, 2% TiO_2, 0.7% V_2O_5, and 0.0027 oz/st Pt group metals (Cobb, 1978b). The Marcona Corp. conducted extensive exploration of the deposit in 1969 (Carnes, 1981).

The Snettisham deposit is in a pyroxenite pluton that has intruded phyllite. The northwestern portion of the pluton is composed of pyroxenite and hosts the magnetite deposits. Magnetite is generally disseminated but also occurs in local concentrations. Small amounts of pyrrhotite, chalcopyrite and ilmenite are found with the magnetite and traces of silver have been noted (Thorne and Wells, 1956).

154. Friday

The Friday Mine was discovered in 1895 at an elev of 400 ft, south of Port Snettisham. Operations began in 1899 under the Alaska Snettisham Gold Mining Co. By 1903, a 20-stamp mill was in operation at the mine (Spencer, 1906). Two adits, 750- and 600-ft long, were driven on the deposit and some mining took place (BuMines, 1985b).

Mineralization consists of a 1- to 6-ft thick quartz vein which fills a thrust fault in pyroxenite. The quartz-filled fault and mineralization are very similar to those in the Crystal Mine (155) and are probably related (BuMines, 1985b). The ore consists mainly of auriferous pyrite with local chalcopyrite. Abundant magnetite is common in the pyroxenite.

** The Friday Mine was located by the Bureau near an old corduroy road that starts near the site of the town of Snettisham. The two main adits, with a total of 1,300 ft of workings, and a small 20-ft-long adit were found to be open and were mapped and sampled. Twenty samples were collected and averaged 0.19 oz/st gold. The best gold value was 1.261 oz/st (3109-3118, 3221-3223, 3405-3407, 7013-7016).

155. Crystal

The Crystal Mine, also called the Daisy Belle, was discovered by Bernard Heinz in 1895 at an elev of 850 ft about 0.7-mi south of the Friday Mine (154). A 5-stamp mill was erected in 1900. By 1902, the mine had produced about 1,200 oz of gold and, in 1903, had 1,000 ft of tunnels, drifts and winzes. The mine was optioned in 1903 by the Alaska Snettisham Gold Mining

Co. (owners of the Friday Mine), who produced another 1,200 oz of gold before exhausting ore above the adit level in 1905. Ore was trammed to the 20-stamp mill at the Friday Mine (Spencer, 1906). Heinz did small scale mining until 1909 and and some cleanup work in 1910, producing an additional 1,000 oz. Between 1915 and 1921, Heinz produced a final 80 oz. gold. Total production at the Crystal Mine was about 3,500 oz. gold (BuMines, 1985). The Alaska Treadwell Mining Co. purchased the accumulated concentrates in 1917 (Stone, 1980).

The Crystal vein, which is 1- to 10-ft thick with an average width of 4 ft, fills a low-angle fault zone that cuts amphibolite. Quartz in the vein is discontinuous and forms large lensoid masses up to a few hundred-ft long. The vein includes abundant fragments of both altered and unaltered wallrock and has many quartz and calcite-lined vugs. Pyrite cubes are common both in the quartz and in the fragments while chalcopyrite is locally present. Masses of pyrite also occur and can be up to 6-in thick and 10-ft long (BuMines, 1985b). Gold was reported to occur as small crystals on the faces of the pyrite grains (Spencer, 1906). Alteration of the amphibolite extends from a few inches to a few ft away from the vein (BuMines, 1985b).

** Five open adits and about 2,300 ft of underground workings were located by the Bureau at the Crystal Mine. Four of the adits are interconnected by workings and stopes. A total of 45 samples were taken at the mine and gold values averaged 0.29 oz/st (3034-3036, 3205-3209, 3218, 3220, 3305-3308, 3401-3404, 7026-7052). A sample of pyrite from one vein contained 6.46 oz/st gold (7038).

156. Gilbert Bay

The Gilbert Bay prospect was located in 1979 on the mountain east of the tidal flats at the head of Gilbert Bay (BuMines, 1980).

157. Sweetheart Creek

Two claims were staked in 1964 at the mouth of Sweetheart Creek in 1964, for gold, silver and copper (BuMines, 1980).

158. Cook Group

Frank Cook staked three claims along the south side and near the outlet of Sweetheart Lake in 1902. The ore is reported to contain considerable galena and some gold (Wright & Wright, 1906).

159. Gold Nest

The Gold Nest claims were staked in 1912 on a 30-ft-thick brecciated pyritic quartz vein in schist 300 ft from a prominent saddle above lower Sweetheart Lake. Sulfide-bearing float boulders, with pyrite and some arsenopyrite, are found near an open cut on the vein. Small amounts of gold silver and lead were found (Kimball and others, 1984).

160. Arms

The Arms claims were staked in 1974 on conspicuously iron-stained gneiss at the elbow of lower Tracy Arm. Traces of pyrrhotite and chalcopyrite occur in the gneiss (Kimball and others, 1984).

161. Sweetheart Ridge

The Sweetheart Ridge prospect may have been found as early as the late 1890's when the Elephant, Mastodon, Readgister, and Golden Gate claims were staked at an elev of 3,000 ft on the ridge west of Tracy Arm in the general

area of the deposit (Kimball and others, 1984). The prospect was found by the Bureau of Mines in 1974 and explored by a few thousand ft of diamond drilling and geophysics between 1978 and 1982 (Henkins, 1984).

The deposit is a stratiform sulfide body in mica schist belt within greenschist. Several small massive sulfide pods occur in an area a few hundred-ft long and chalcopyrite stringers are found in a zone up to 200-ft wide by 10,000-ft long. The largest massive sulfide pod is 8-in thick and 6-ft long with abundant sphalerite, chalcopyrite, pyrite, and galena. Mica schist layers with abundant disseminated pyrite enclose the massive sulfide pods and contain up to 0.25 oz/st gold (Redman, 1978).

** The Sweetheart Ridge prospect was briefly examined by the Bureau but no mapping or sampling was done. No significant work appears to have been done on the claims since Mapco's diamond drilling and geophysical surveys between 1978 and 1982.

162. Williams Cove

Finely disseminated pyrite occurs in schist along the east side of Williams Cove. Samples taken by the U.S. Geological Survey revealed only a minor geochemical anomaly (Kimball and others, 1984).

163. Carroll Creek placer

A small placer gold deposit, evidently known in 1881 (BuMines, 1980), was staked in 1981 (State of Alaska, 1985). Some sluicing has been done in recent years and placer gold can be found in the creek (Redman, 1985).

** The Bureau collected a 0.1 yd^3 placer sample from active gravels in the creek. No visible gold was detected in the concentrates but there is evidence of recent placer mining and prospecting near the mouth of Carroll Creek (7098).

164. Mapco

The area south and southeast of Meigs Peak was staked in 1981 by Mapco as the Cars group. Mapco did a large airborne EM survey of the region in 1981 and may have staked both a geochemical and an EM anomaly (Henkins, 1984). Stream sediment samples taken from the large stream southeast of Meigs Peak are anomalous in silver (0.5 to 5 ppm), gold (0.15 to 0.7 ppm), zinc (200 to 400 ppm), and lead (20 to 140 ppm). Small amounts of pyrrhotite were found in quartz stringers in schist (Kimball and others, 1984).

165. Boulder Creek placer

The Boulder Creek placer deposit, known as early as 1881 (BuMines, 1980), was restaked in 1980. A small operation worked the lower portion of the stream sometime between 1980 and 1983 (State of Alaska, 1985). Fine gold can be panned from the stream (Redman, 1985).

** The Bureau collected a 0.1 yd^3 placer sample from the active channel on Boulder Creek and a trace of fine gold was noted in the concentrates. Evidence of recent small scale placer mining is present near the mouth of the creek (7093).

166. Pt. Coke

About the turn of the century, the Hecla, Black Hawk, Grey Eagle, and Chicago claims were staked on a mineralized schist zone 700 ft northeast of

Pt. Coke. A 240-ft-wide area of quartz veining occurs in schist just below high tide line and contains traces of sulfide mineralization. Low copper values were all that could be found in the mid 1970's (Kimball and others, 1984).

APPENDIX B. - GEOCHEMISTRY

Sampling And Analytical Procedures

Stream sediment, panned-concentrate, placer, and rock samples were collected for analysis. The procedure for collecting placer samples consisted of processing 0.1 yd^3 of gravels through a 4-foot-long sluice box. The resultant concentrates were visually examined to ascertain free gold content and also submitted for analysis. Rock samples were of several types, including grab, select, random-chip, representative-chip, spaced-chip, continuous-chip and chip-channel. Grab samples are randomly collected outcrop or float materials and select samples are grab samples of specific material. Random-chip samples consist of small rock fragments broken randomly from outcrop while representative-chip samples are used to characterize an outcrop. Spaced-chip samples are composed of a series of rock fragments taken at a designated interval and continuous-chip samples consist of a continuous series of rock fragments taken from the outcrop. Chip-channel samples are taken over a relatively uniform width and depth across the outcrop.

Samples were prepared and analyzed by a commercial laboratory in Denver, Colorado. Four different preparation and analytical procedures were used with selection depending on type of sample and information needed.

Stream sediment samples were dried and screened with the minus-80-mesh fraction being retained for analysis. Panned-concentrate samples were pulverized to a nominal minus 150-mesh. Rock samples were first crushed to minus-10 mesh then, using standard splitting techniques, a 250 gram-aliquot was pulverized to a nominal minus 150-mesh.

Sample grinding was done using a chromian-steel ring-and-puck swing mill. A test using five samples of geochemically clean quartz was initiated to determine maximum expected levels of contamination from the grinding cells. Table 1 lists the values obtained in the test. Previous tests had the same results and quartz represents a worst case. Most other rock types, including diorite, schist, and phyllite, would receive less than half of the contamination indicated for quartz.

Table 2.- Metal values detected in geochemically clean quartz after grinding in chromian-steel grinding cell

Sample	Elements, ppm					
	Cr	Mn	Co	Ni	Mo	W
1.....	150	18	3	4	2	3
2.....	160	21	3	7	1	2
3.....	300	58	5	4	1	3
4.....	240	29	2	5	2	4
5.....	290	42	2	3	1	4

Note: Analyses by Bondar-Clegg, Inc., Denver, CO, using atomic absorption spectrophotometry, except for W which was analyzed by a carbonate sinter-colorimetric technique.

All samples were analyzed for Au, Ag, Cu, Pb, and Zn by a commercial laboratory and will be further analysed by emission spectrometer for 34 additional elements at the U.S. Bureau of Mines Reno Research Center. The emission spectrometer data will be released in a forthcoming report.

An atomic absorption spectrophotometer technique, using samples of 0.5 gram, was used for determinations of Ag, Cu, Pb, and Zn. The sample was put into solution using a hot extraction HNO_3-HCL technique.

The analytical method used for gold depended upon the type of sample and information required. For stream-sediment and panned-concentrate samples, a 20-gram split was analyzed using a fire assay-atomic absorption spectrophotometer technique. Rock samples were routinely analyzed in a similar manner unless a metallic-fire assay was specified.

The metallic-fire assay method was used when coarse gold was suspected to be present in the samples, or basic size distribution of metallic gold was desired. This method required careful crushing and screening of the sample to separate possible metallics in the plus-100 mesh fraction. The entire plus-100 mesh fraction, usually weighing from a few to as much as 100 grams, was then fire-assayed. A 20-gram aliquot was fire-assayed from the minus-100 mesh fraction, with the final assay value being calculated from the combined data.

Detection limits for the various techniques are listed in table 2. When sample determinations exceeded the maximum detection limits of the atomic absorption spectrophotometer technique, a specific wet assay procedure was used to determine metal concentration.

Analytical Results

Sample data and analytical results are tabulated in appendix B. In addition to the sample results, the following information is listed in the table: sample location number (fig. 5), map prospect number (figs. 2-4), sample number, prospect name, sample type, and sample lithology. The results, organized by sample location number and cross-referenced to prospect number, are keyed to the sample location map (fig. 5), and prospect maps (figs. 2-4), respectively. Abbreviations used in the table are defined at the beginning of appendix B.

Table 3.- Detection limits by analytical technique

Element	Minimum, ppm	Maximum, ppm
Atomic absorption spectrophotometry		
Ag.....	0.2	30
Cu.....	1	20,000
Pb.....	2	7,500
Zn.....	1	20,000
Fire assay-atomic absorption spectrophotometry		
Au.....	0.005	none
Metallic-fire assay		
Au.....	0.005	none

Note: Maximum and minimum detection limits as reported by Bondar-Clegg, Inc.,

Denver, CO.

Key to listing of sample results, Juneau Gold Belt, 1985

Location no.: Refers to map numbers plotted on plate 5. Each location number may represent more than one sample.

Prospect no.: Refers to map numbers plotted on figures 2-4.

Prospect name: Samples collected from the indicated location number are identified by prospect or location name. Some prospect names are followed by elev (ft). This helps to differentiate portals at a given prospect.

Sample no.: Field sample number.

Sample type: See key to abbreviations, following page.

Sample lithology: Rock types are capitalized, mineral names and modifying terms are lower case. In the case of continuous chip samples and channel samples the sample length, in ft, is indicated following the lithological designation.

Atomic absorption: Analyses of Cu, Pb, Zn, and Ag by atomic absorption spectrophotometer technique (see text).

FA/AA: Analyses of Au by fire assay-atomic absorption spectrophotometer technique (see text).

Specific: Quantitative assays for Pb and Zn by specific wet chemical technique (see text).

Metallic-Fire Assay: The "total Au, oz/st" lists the calculated assay for the entire sample assayed. This value takes into account the assay value for the minus-100 mesh fraction ("-100 Au, oz/st") and the amount of gold recovered from the plus-100 fraction ("+100 Au, mg"). The "+100 Wt, grams" and the "-100 Wt, grams" indicates the weight of the respective, sieved fractions.

Abbreviations

Heading	Abbreviation	Term
Sample type	CC	continuous-chip
	CH	channel
	CR	representative-chip
	G	grab
	PC	panned-concentrate
	PL	placer sample
	RC	random-chip
	RG	random-grab
	S	select
	SC	spaced-chip
	SS	stream-sediment
Sample lithology and related terms	arseno	arsenopyrite
	gn	galena
	horn	hornblende
	mag	magnetite
	po	pyrrhotite
	py	pyrite
	qtz	quartz
	ser	sericite
	stib	stibnite
	sulf	sulfides
	Aggl	agglomerate
	Amph	amphibolite
	Congl	conglomerate
	Gnst	greenstone
	Metacongl	metaconglomerate
	Metagab	metagabbro
	Metaseds	metasediments
	Phyl	phyllite
	Qtzite	quartzite
	Sandst	sandstone
	Sch	schist
	alt	altered
	bk	black
	bn	brown
	gy	gray
	meta	metamorphosed
	silc	silcified
	volc	volcanic
Prospect number	NP	no prospect number for indicated sample location(s)
Sample results	NA	not analyzed
	ND	analyzed but not detected
	T	trace

NOTE: The analytical techniques, including atomic absorption spectrophotometry (AA), fire-assay atomic absorption spectrophotometry (FA-AA), fire-assay (FA), and metallic-fire assay, are described in the text.

APPENDIX B. - JUNEAU GOLD BELT RESULTS: 1985

Figure numbers 5 Location no.	2-4 Prospect no.	Prospect name	Sample no.	Sample type	Sample lithology	Atomic Absorption Cu ppm	Pb ppm	Zn ppm	Ag ppm	FA/AA Au ppb	Fire Assay Ag Oz/t	Fire Assay Au Oz/t	Specific Pb %	Specific Zn %	Metallic Fire Assay +100 Wt grams	+100 Au mg	-100 Wt grams	-100 Au Oz/t	Total Au Oz/t
1	1	Ivanhoe	3639	S	qtz	16200	10	27	9.5	1690	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3744	CC	qtz-6.0'	15700	10	9	24.0	>10000	NA	0.301	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3745	S	qtz	51	14	3	7.6	>10000	NA	0.435	NA	NA	NA	NA	NA	NA	NA
2	11	Greek Boy	3916	CC	qtz-5.0'	275	13	18	0.5	190	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3917	S	qtz-dump	470	10	20	0.9	600	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3918	CC	qtz-5.0'	74	12	12	0.2	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
3	11	Greek Boy	3913	CC	qtz-6.1'	129	14	33	0.5	1040	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3914	CC	qtz-8.0'	125	10	27	0.4	690	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3915	S	qtz-dump	1560	11	28	3.5	4250	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3919	CC	qtz-0.5'	115	280	53	10.0	2020	NA	NA	NA	NA	NA	NA	NA	NA	NA
4	2	Horrible	3746	SC	qtz-4.0'	14200	2	17	>30.0	>10000	2.17	0.909	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3747	SC	qtz-1.5'	1110	4690	181	>30.0	400	1.67	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3748	SC	qtz-2.0'	77	26	13	2.7	910	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3749	CR	alt Diorite	352	15	76	4.3	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
5	10	Gold King	3149	RC	chl Diorite	116	23	223	0.9	215	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3150	RC	do.	170	13	60	0.2	140	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3151	RC	qtz	6	18	51	7.7	>10000	NA	0.287	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3152	CH	qtz-8.0'	35	22	23	18.0	>10000	NA	1.069	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3154	CH	Diorite-0.4'	130	11	69	2.4	2520	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3155	RC	chl Diorite	120	13	74	<0.2	255	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3156	CH	qtz-4.0'	71	15	52	0.9	460	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3157	RC	chl Diorite	128	14	72	<0.2	90	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3158	RC	do.	69	12	45	0.2	180	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3159	RC	chl Diorite	73	5	42	<0.2	180	NA	NA	NA	NA	NA	NA	NA	NA	NA
6	11	Greek Boy	3127	PC	Alluvium	64	2	41	<0.2	20	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3260	S	Diorite-dump	47	18	175	<0.2	30	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3261	SS	Alluvium	194	3	40	<0.2	320	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3262	SS	Alluvium	6	6	25	0.2	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3263	SS	Alluvium	7	7	41	<0.2	30	NA	NA	NA	NA	NA	NA	NA	NA	NA
7	do.	do.	3128	PC	Alluvium	5	4	32	<0.2	20	NA	NA	NA	NA	NA	NA	NA	NA	NA
8	do.	do.	3124	G	dump	14	22	48	<0.2	220	NA	0.432	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3125	G	dump	410	6	51	3.1	7225	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3126	PC	Alluvium	27	7	37	<0.2	20	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3258	SS	Alluvium	51	6	37	<0.2	55	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3259	SS	Alluvium	101	4	39	<0.2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
9	15	Cumberland	3809	CR	qtz	39	26	85	0.6	20	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3920	G	Slates-dump	67	17	51	0.4	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3921	CC	qtz-4.0'	101	14	138	0.2	15	NA	NA	NA	NA	NA	NA	NA	NA	NA
10	NP	Johnson Ck area	3264	RC	mag Sandst	59	15	238	<0.2	25	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3265	RC	Congl	57	15	215	<0.2	60	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3266	RC	Congl	55	11	229	<0.2	50	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3267	RC	Congl	45	10	151	<0.2	125	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3268	S	meta Sandst	30	6	220	<0.2	60	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3269	RC	meta Sandst	48	11	172	<0.2	30	NA	NA	NA	NA	NA	NA	NA	NA	NA

Figure numbers 5	2-4					Atomic Absorption			FA/AA	Fire Assay		Specific		Metallic Fire Assay				
Location no.	Prospect no.	Prospect name	Sample no.	Sample type	Sample lithology	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb	Ag Oz/t	Au Oz/t	Pb %	Zn %	+100 Wt grams	+100 Au mg	-100 Wt grams	-100 Au Oz/t	Total Au Oz/t
11	17	Jualin	3270	G	dump	114	20	86	<0.2	1700	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3494	CC	Diorite-3.7'	214	14	91	0.8	730	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3495	S	qtz	880	5	47	4.6	>10000	NA	1.232	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3496	CR	qtz	970	12	28	2.1	995	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3497	CC	qtz-2.1'	114	30	81	1.4	190	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3498	CC	qtz-3.9'	133	30	15	1.9	1480	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3499	CR	qtz	22	37	31	3.3	3925	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3901	S	qtz, dump	199	50	266	2.7	1780	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3902	S	do.	141	60	214	0.4	45	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3903	S	do.	125	17	100	0.7	210	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3904	S	do.	98	12	91	0.5	1010	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3905	S	do.	159	57	113	1.2	890	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3906	S	do.	151	62	81	10.0	>10000	NA	0.359	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3907	S	do.	104	30	86	2.2	1600	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3908	S	do.	164	22	42	1.6	1290	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3909	S	do.	205	23	98	1.3	1470	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3910	S	do.	785	10	100	2.2	1810	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7080	G	qtz-dump	119	60	60	2.4	5880	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7081	G	do.	77	>7500	14500	29.0	8365	NA	NA	1.71	NA	NA	NA	NA	NA	NA
do.	do.	do.	7082	G	silc Diorite	111	95	212	0.9	820	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7083	RC	Diorite, qtz	231	78	158	1.6	810	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7084	CC	qtz-1.2'	18	8	39	0.6	1380	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7085	CC	Diorite-1.4'	358	18	140	3.8	4905	NA	NA	NA	NA	NA	NA	NA	NA	NA
12	do.	South Shaft of Jualin	3632	G	qtz	75	36	148	1.2	4000	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3633	G	alt Diorite	51	11	23	1.4	>10000	NA	1.038	NA	NA	NA	NA	NA	NA	NA
13	18	Snowslide Gulch	3634	CC	qtz-3.5'	114	50	116	1.4	35	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3635	CR	chl Sch	71	8	118	<0.2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
14	19	Thomas	3500	G	dump	70	16	46	<0.2	55	NA	NA	NA	NA	NA	NA	NA	NA	NA
15	20	Valentine	3636	G	qtz-dump	>20000	4	1050	>30.0	>10000	2.59	4.706	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3637	S	qtz & sulf	197	7	101	0.9	185	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3638	S	qtz & sulf	335	6	63	0.7	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
16	21	Fremming	3804	S	dump	234	91	740	27.0	>10000	NA	0.902	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3805	CC	gn Sch-1.2'	480	56	10200	17.0	3590	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3806	G	sulfides	1970	>7500	>20000	>30.0	>10000	2.88	0.369	2.23	7.40	NA	NA	NA	NA	NA
17	22	Hoggatt Ck	3800	CR	qtz	177	8	30	<0.2	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3801	CC	gn Sch	360	11	70	0.6	395	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3802	CC	qtz-3.0'	16	6	9	0.2	15	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3803	CC	alt Diorite	137	17	71	0.2	85	NA	NA	NA	NA	NA	NA	NA	NA	NA
18	35	E. Pluribus Unum	3272	CC	qtz-2.5'	11	56	47	0.7	5660	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3273	CC	qtz-1.5'	7	540	207	2.5	8340	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3274	CC	qtz-5.0'	16	15	78	<0.2	50	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3275	G	dump	5	1200	16	6.1	6700	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7219	RC	qtz	10	9	33	<0.2	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7220	G	do.	7	7	31	<0.2	155	NA	NA	NA	NA	NA	NA	NA	NA	NA

key to abbreviations on page 53

Figure numbers 5 Location no.	2-4 Prospect no.	Prospect name	Sample no.	Sample type	Sample lithology	Atomic Absorbtion Cu ppm	Pb ppm	Zn ppm	Ag ppm	FA/AA Au ppb	Fire Assay Ag Oz/t	Fire Assay Au Oz/t	Specific Pb %	Specific Zn %	Metallic Fire Assay +100 Wt grams	+100 Au mg	-100 Wt grams	-100 Au Oz/t	Total Au Oz/t
19	37	Aurora Borealis	3123	RC	alt volc	740	24	75	1.8	5325	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7202	CC	qtz-3.0'	8	44	13	0.2	450	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7203	CC	qtz-3.3'	19	58	86	0.5	2750	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7204	CC	qtz	14	52	83	2.1	>10000	NA	0.329	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7205	RC	qtz	97	16	143	0.5	2200	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7213	CC	qtz-1.6'	59	13	77	0.8	4130	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7214	CC	qtz-1.0'	65	9	81	0.9	3925	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7215	RC	Slate	79	11	127	0.2	105	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7216	SC	qtz-1.2'	42	59	104	0.4	3260	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7217	RC	Slate & qtz	70	3	108	0.3	2250	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7218	RC	do.	75	17	129	0.3	385	NA	NA	NA	NA	NA	NA	NA	NA	NA
20	38	Bessie	7077	G	qtz	98	263	118	2.2	>10000	NA	0.970	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7078	CC	qtz-1.1'	15	122	22	0.5	>10000	NA	0.240	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7079	CC	do.	9	91	17	0.5	760	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7206	CC	qtz-1.3'	11	117	23	0.4	>10000	NA	0.422	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7207	CC	qtz-1.5'	41	73	105	0.2	>10000	NA	0.300	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7208	CC	qtz-2.8'	19	21	22	0.5	2710	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7209	CC	qtz-0.8'	16	11	52	1.0	4610	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7210	CC	qtz-0.6'	80	5	180	0.6	2530	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7211	RC	Meta congl.	108	10	102	0.7	30	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7212	CC	Congl-2.0'	171	5	104	<0.2	35	NA	NA	NA	NA	NA	NA	NA	NA	NA
21	NP	Bessie Ck.	7201	S	do.	40	1380	189	4.7	>10000	NA	0.533	NA	NA	NA	NA	NA	NA	NA
22	40	Dividend	3188	CH	qtz-0.5'	30	11	25	0.2	210	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3189	CH	qtz-1.5'	30	11	25	0.2	545	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7272	S	Slate & qtz	43	16	35	0.3	540	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7273	CC	do.	46	15	87	1.2	3190	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7274	RC	alt volc	72	13	67	0.3	25	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7275	SC	Slate & qtz	41	16	42	0.3	1360	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7276	CC	do.	120	15	69	0.6	2070	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7277	RC	alt Gnst	77	8	53	<0.2	55	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7278	SC	chl Schi	200	11	70	0.2	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
24	39	Alaska Washington	7200	G	qtz	15	50	30	0.3	3485	NA	NA	NA	NA	NA	NA	NA	NA	NA
25	do.	do.	3135	S	qtz	44	40	37	0.6	2810	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3136	CH	qtz-1.0'	32	24	17	<0.2	310	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3137	RC	qtz	140	57	242	<0.2	470	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3276	RC	vol Congl	123	11	88	<0.2	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3278	CC	qtz-2.0'	38	7	192	<0.2	5045	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3279	CH	alt qtz-2.8'	9	4	40	<0.2	790	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3280	CH	qtz-0.5'	22	7	47	0.3	2850	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7222	G	qtz	6	8	8	0.3	940	NA	NA	NA	NA	NA	NA	NA	NA	NA
26	do.	do.	7199	S	qtz float	12	4	5	<0.2	205	NA	NA	NA	NA	NA	NA	NA	NA	NA
27	do.	do.	7221	G	Tuff breccia	101	10	89	<0.2	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
28	do.	do.	3138	CH	qtz-1.0'	37	26	41	0.2	1150	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3139	CC	do.	83	9	76	0.2	2090	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3277	CC	Congl-3.0'	114	17	78	<0.2	340	NA	NA	NA	NA	NA	NA	NA	NA	NA

Key to abbreviations on page 53

Figure numbers 5 Location no.	2-4 Prospect no.	Prospect name	Sample no.	Sample type	Sample lithology	Atomic Absorbtion Cu ppm	Pb ppm	Zn ppm	Ag ppm	FA/AA Au ppb	Fire Assay Ag Oz/t	Fire Assay Au Oz/t	Specific Pb %	Specific Zn %	Metallic Fire Assay +100 Wt grams	+100 Au mg	-100 Wt grams	-100 Au Oz/t	Total Au Oz/t
29	51	Windfall Ck.	3309	PC	Alluvium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
30	do.	do.	3310	PC	Alluvium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
31	53	Patton	3122	G	dump	875	24	80	2.1	4050	NA	0.608	NA	NA	NA	NA	NA	NA	NA
do.	54	Montana Basin	7198	S	qtz	18	8	16	0.2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
32	56	McGinnis Ck	3312	S	qtz	11	6	2860	0.4	310	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3313	G	do.	11	4	33	0.3	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
33	do.	do.	3311	PC	do.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
34	NP	Montana Ck	3949	PC	2 pans	NA	NA	NA	NA	45	NA	NA	NA	NA	NA	NA	NA	NA	NA
35	NP	McGinnis Ck	3950	PC	2 pans	NA	NA	NA	NA	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
36	NP	Montana Ck	3947	PC	1 pan	NA	NA	NA	NA	1090	NA	NA	NA	NA	NA	NA	NA	NA	NA
37	NP	Montana Ck	3948	PC	2 pans	NA	NA	NA	NA	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
38	NP	Montana Ck	3946	PC	2 pans	NA	NA	NA	NA	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
39	57	Peterson	3101	G	dump	171	14	174	0.3	135	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3102	CC	qtz-1.0'	3	22	15	0.2	560	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3103	CC	qtz-0.3'	63	36	73	0.3	1860	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3201	RC	qtz-dump	33	29	18	1.3	4115	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3202	RC	do.	91	25	86	1.7	850	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3203	CC	qtz-4.0'	3	15	5	0.3	1490	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3204	RC	qtz-dump	6	43	20	2.3	4620	NA	NA	NA	NA	NA	NA	NA	NA	NA
42	58	Upper Peterson Ck	3320	S	do.	4	124	5	1.2	6350	NA	NA	NA	NA	NA	NA	NA	NA	NA
45	do.	do.	3321	S	do.	32	6	18	0.3	420	NA	NA	NA	NA	NA	NA	NA	NA	NA
40	61	Treasury Hill	3224	CC	do.	50	10	3	<0.2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3225	CC	qtz-2.1'	28	19	6	<0.2	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3226	RC	alt Gnst	10	9	11	<0.2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3227	RC	do.	57	14	68	<0.2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3271	CC	qtz-3.0'	17	6	22	0.2	75	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7192	CC	qtz-6.6'	14	11	12	<0.2	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
41	do.	do.	3228	S	qtz	30	35	15	<0.2	15	NA	NA	NA	NA	NA	NA	NA	NA	NA
43	do.	do.	3229	RC	do.	189	46	69	0.3	430	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3230	G	do.	53	20	13	0.2	440	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3231	RC	do.	89	21	40	0.3	955	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3319	S	do.	11	8	15	<0.2	115	NA	NA	NA	NA	NA	NA	NA	NA	NA
44	do.	do.	3322	G	do.	208	103	91	1.0	>10000	NA	0.545	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3323	CC	qtz-1.2'	5	6	5	<0.2	255	NA	NA	NA	NA	NA	NA	NA	NA	NA
46	do.	do.	3210	G	qtz-trench	3	10	4	<0.2	1520	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3211	G	qtz-dump	23	12	12	0.2	20	NA	NA	NA	NA	NA	NA	NA	NA	NA
47	do.	do.	3212	G	do.	5	20	1	0.3	4265	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3213	CC	Gnst-3.0'	226	9	105	<0.2	850	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3214	CC	qtz	135	9	56	<0.2	435	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3215	RC	qtz-dump	11	16	5	<0.2	1490	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3315	G	qtz	3	2	12	0.5	1880	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3216	G	qtz	2	12	3	<0.2	295	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3316	CC	do.	21	5	27	0.2	25	NA	NA	NA	NA	NA	NA	NA	NA	NA

Key to abbreviations on page 53

Figure numbers 5 Location	2-4 Prospect	Prospect name	Sample no.	Sample type	Sample lithology	Atomic Absorbtion Cu ppm	Pb ppm	Zn ppm	Ag ppm	FA/AA Au ppb	Fire Assay Ag Oz/t	Fire Assay Au Oz/t	Specific Pb %	Specific Zn %	Metallic Fire Assay +100 Wt grams	+100 Au ag	-100 Wt grams	-100 Au Oz/t	Total Au Oz/t
no.	no.	name	no.	type	lithology	ppm	ppm	ppm	ppm	ppb	Oz/t	Oz/t	%	%	grams	ag	grams	Oz/t	Oz/t
do.	do.	do.	3317	RC	do.	4	2	4	0.2	155	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3318	S	do.	3	10	2	0.3	>10000	NA	0.067	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3324	RC	qtz	118	47	47	0.2	2270	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3325	RC	Gnst	204	11	27	<0.2	255	NA	NA	NA	NA	NA	NA	NA	NA	NA
48	do.	do.	3326	SC	Slate & qtz	107	14	93	<0.2	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7191	SC	do.	64	14	68	<0.2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
49	62	Dull & Stephens	3241	RC	qtz	<1	15	5	<0.2	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7193	CC	qtz-1.6'	26	13	35	0.2	3250	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7194	CC	qtz-1.1'	50	33	39	<0.2	925	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7195	CC	Slate & qtz	146	15	89	<0.2	1490	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7196	CC	qtz-3.0'	156	35	65	<0.2	1350	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7197	G	qtz float	4	6	3	<0.2	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
50	do.	do.	3198	CH	qtz-1.0'	57	26	60	1.7	3260	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3199	CH	qtz-1.1'	17	6	6	0.2	165	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7279	CC	qtz-0.6'	61	20	41	<0.2	540	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7280	CC	qtz-2.1'	21	5	26	<0.2	1010	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7281	CC	qtz-3.0'	77	12	56	0.4	2430	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7282	CC	Qtz Gnst sel	85	10	92	0.3	770	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7283	CC	qtz-1.9'	44	5	21	<0.2	110	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7284	CC	qtz-0.9'	27	7	29	<0.2	75	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7285	CC	qtz-3.0'	109	153	19	0.7	3225	NA	NA	NA	NA	NA	NA	NA	NA	NA
51	do.	do.	3190	CH	qtz-0.5'	21	8	21	0.2	820	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3191	CR	qtz	98	12	75	<0.2	1765	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3192	CR	do.	10	68	10	0.6	2640	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3193	CR	do.	12	6	12	0.4	2815	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3194	CH	qtz-1.0'	15	13	18	0.2	55	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3195	CR	Gnst	19	13	15	<0.2	35	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3196	S	calcite	109	7	107	<0.2	75	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3197	CH	qtz-0.9'	16	15	31	<0.2	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
52	NP	East Mendenhall	3700	G	bk Slate	367	190	845	4.5	25	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3701	G	bk Slate	1000	49	770	6.4	120	NA	NA	NA	NA	NA	NA	NA	NA	NA
53	NP	West Glacier Ck	3200	G	Diorite	3	43	19	0.6	3400	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	NP	do.	3945	PC	1 pan	NA	NA	NA	NA	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
54	64	Lemon Ck	3417	CC	qtz-1.0'	292	4450	>20000	>30.0	5550	NA	NA	NA	2.66	NA	NA	NA	NA	NA
do.	do.	do.	3418	CC	qtz-0.3'	308	5910	>20000	>30.0	2925	5.50	NA	NA	9.70	NA	NA	NA	NA	NA
do.	do.	do.	3419	CC	qtz-0.5'	38	151	232	2.8	15	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3420	CC	qtz-0.7'	255	860	5800	>30.0	1640	2.77	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3421	CC	qtz-0.7'	101	2290	9800	>30.0	2400	0.97	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3422	CC	qtz-0.7'	87	945	>20000	>30.0	1080	2.09	NA	NA	3.19	NA	NA	NA	NA	NA
do.	do.	do.	7069	CC	qtz-0.3'	79	76	415	2.5	110	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7070	CC	qtz-0.7'	560	312	342	6.1	480	NA	NA	NA	NA	NA	NA	NA	NA	NA

Key to abbreviations on page 53

Figure numbers 5 Location no.	2-4 Prospect no.	Prospect name	Sample no.	Sample type	Sample litnology	Atomic Absorbtion Cu ppm	Pb ppm	Zn ppm	Ag ppm	FA/AA Au ppb	Fire Assay Ag Oz/t	Fire Assay Au Oz/t	Specific Pb %	Specific Zn %	Metallic Fire Assay +100 Wt grams	+100 Au mg	-100 Wt grams	-100 Au Total Au Oz/t	Au Oz/t
54	64	Lemon Ck	7071	CC	qtz-0.3'	166	361	2080	>30	30	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7072	CC	qtz-1.2'	164	1125	920	>30	1950	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7073	CC	qtz-0.3'	62	1135	135	16.0	85	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7074	CC	qtz-0.4'	136	24	345	0.8	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7075	CC	qtz-1.5'	232	80	116	1.9	30	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7076	RC	qtz	61	11	46	0.2	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
55	70	Carlson Ck	3059	RG	qtz & stib	21	7	10	2.8	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3060	RG	qtz & arseno	15	17	59	9.3	7660	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3061	RG	qtz	9	15	16	16.0	2010	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3062	CC	qtz-0.6'	6	3	13	1.2	50	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3063	CC	alt Metaseds	40	91	93	5.1	350	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3064	CC	alt Metaseds	63	15	95	8.2	355	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3456	CC	qtz-1.9'	20	13	32	9.2	1110	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3457	CC	qtz-3.0'	25	12	70	6.8	1765	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3458	CC	Metased-2.0'	31	10	65	13.0	2595	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3459	CC	alt Metaseds	51	19	95	15.0	2550	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3460	CC	Metased-5.9'	142	17	101	5.3	360	NA	NA	NA	NA	NA	NA	NA	NA	NA
56	do.	do.	3065	CC	qtz & arseno	88	550	79	>30.0	>10000	4.22	0.601	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3066	CC	do.	54	173	42	>30.0	>10000	4.50	0.303	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3067	RG	do.	14	6	36	8.9	1290	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3461	CC	qtz-5.0'	9	284	65	>30.0	2640	1.22	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3462	CC	qtz-6.0'	41	57	20	>30.0	5450	4.96	NA	NA	NA	NA	NA	NA	NA	NA
57	75	Jeff & Russell	3050	CC	qtz-1.8'	57	5	10	1.4	2625	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3051	RC	gy Phyl	53	9	12	1.1	30	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3052	RC	gy Metagab	175	16	40	0.4	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3053	CC	qtz-0.3'	31	8	46	0.3	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3054	CC	gy Phyl Sch	101	15	78	0.4	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3055	CC	qtz-7.0'	23	11	15	0.6	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3056	RG	dump	63	16	70	0.5	25	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3057	RG	dump	52	12	40	0.3	130	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3058	RG	dump	75	8	85	1.3	30	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3444	S	qtz	6650	11	249	28.0	1480	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3445	S	qtz	167	5	32	1.0	2320	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3446	RC	alt horn Sch	89	11	76	0.4	20	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3447	RC	pc & Phyl	166	17	95	6.7	50	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3448	RC	qtz	85	9	35	0.7	2950	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3449	RC	bn Metagab	103	12	63	0.2	50	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3612	G	bk Argil	30	10	75	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3613	G	gy Metagab	115	15	51	1.0	135	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3614	G	gy Aaph	119	20	60	1.2	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3615	G	gn Aaph	54	5	43	0.3	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3616	G	gy Qtzite	145	10	160	0.6	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7087	CC	qtz-1.4'	58	30	219	1.5	2590	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7088	CC	qtz-2.1'	190	6	19	4.8	>10000	NA	0.294	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7089	CC	qtz-1.9'	11	54	38	0.8	3600	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7090	CC	qtz-1.1'	51	6	14	0.7	2390	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7091	G	silc Phyl	1280	16	386	7.3	125	NA	NA	NA	NA	NA	NA	NA	NA	NA

Key to abbreviations on page 53

do.	do.	do.	7092	CC	massive Po	570	29	59	7.8	390	NA	NA	NA	NA	NA	NA	NA	NA	NA

Figure numbers 5	2-4					Atomic Absorption				FA/AA	Fire Assay		Specific		Metallic Fire Assay				
Location no.	Prospect no.	Prospect name	Sample no.	Sample type	Sample lithology	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb	Ag Oz/t	Au Oz/t	Pb %	Zn %	+100 Mt grams	+100 Au mg	-100 Mt grams	-100 Au Oz/t	Total Au Oz/t
58	80	AJ-6 level	3001	CC	qtz-2.1'	3	26	10	1.6	NA	NA	NA	NA	NA	26.86	<.002	205.07	<0.002	<.002
do.	do.	do.	3002	CC	qtz-4.0'	46	36	3333	0.6	NA	NA	NA	NA	NA	12.11	<.002	141.80	<0.002	<.002
do.	do.	do.	3003	CC	qtz-4.0'	100	24	58	0.4	NA	NA	NA	NA	NA	39.56	0.003	170.28	0.003	<.002
do.	do.	do.	3087	CC	qtz-2.4'	141	1980	26600	>30.0	NA	5.38	NA	NA	2.66	63.26	5.127	210.92	0.579	0.991
do.	do.	do.	3177	CH	qtz-10.0'	91	33	96	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3178	CH	qtz-2.0'	150	38	2190	0.5	840	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3179	CH	qtz-7.0'	199	20	90	0.7	2605	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	80	AJ-6 level	3180	CH	qtz-10.0'	166	55	174	0.4	510	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3181	CH	qtz-4.0'	170	163	352	0.6	1670	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3182	CH	qtz-0.5'	770	83	210	15.0	NA	NA	NA	NA	NA	18.55	1.943	211.35	1.274	1.418
do.	do.	do.	3183	CH	bk Phyl-4.5'	86	35	102	0.5	255	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3184	CH	qtz-2.0'	137	1980	450	5.6	>10000	NA	0.288	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3185	CH	bk Phyl-5.0'	82	52	98	0.3	335	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3186	CH	bk Phyl-2.0'	126	1210	475	14.0	>10000	NA	0.312	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3187	CH	bk Phyl-2.0'	54	21	89	0.6	30	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	AJ-8 level	3437	S	sph	400	18	>20000	0.2	NA	NA	NA	NA	37.30	30.60	>99.999	287.10	3.575	20.151
do.	do.	do.	3438	S	po	1460	18	>20000	>30.0	NA	12.37	NA	NA	2.47	116.92	77.958	368.78	2.358	6.472
do.	do.	AJ-6 level	3439	S	po	1330	>7500	3530	19.0	NA	NA	NA	1.05	NA	59.16	0.503	289.04	0.131	0.151
do.	do.	do.	3440	S	gn	111	>7500	5940	>30.0	NA	NA	NA	13.80	NA	24.49	29.160	188.54	0.851	4.746
do.	do.	do.	3441	S	sph	535	>7500	>20000	>30.0	NA	31.87	NA	1.29	36.60	31.75	26.313	275.89	3.255	5.414
do.	do.	do.	3442	S	po	1080	450	410	15.0	NA	NA	NA	NA	NA	66.08	11.733	284.96	0.458	1.347
do.	do.	do.	3443	S	sph	211	>7500	>20000	>30.0	NA	51.27	NA	0.79	42.10	75.68	>99.999	331.06	7.833	17.220
do.	do.	do.	3464	S	po	805	>7500	11000	>30.0	NA	16.79	NA	2.10	NA	12.77	25.642	223.58	1.461	4.527
do.	do.	do.	3465	S	sph	825	2560	>20000	>30.0	NA	9.76	NA	NA	27.50	4.93	4.978	126.20	2.777	3.790
do.	do.	do.	3466	S	sph	400	>7500	>20000	>30.0	NA	60.18	NA	6.20	28.00	45.19	>99.999	327.83	2.924	11.717
do.	do.	do.	3467	S	gn	54	>7500	10200	>30.0	NA	58.60	NA	21.50	NA	2.26	12.651	136.09	0.372	3.033
do.	do.	do.	3468	S	gn	234	>7500	>20000	>30.0	NA	37.77	NA	41.30	2.39	1.22	1.650	199.33	0.124	0.363
do.	do.	do.	3469	S	gn	19	>7500	327	>30.0	NA	81.92	NA	35.00	NA	6.41	0.607	369.68	0.203	0.216
do.	do.	do.	3470	S	sph+po	178	3930	>20000	>30.0	NA	7.07	NA	NA	27.80	14.04	41.160	204.96	2.840	8.140
do.	do.	do.	3602	CC	Metagab-7.0'	123	103	308	0.6	NA	NA	NA	NA	NA	38.81	0.119	208.84	0.058	0.063
do.	do.	do.	3603	CC	Metagab-2.0'	32	3450	725	20.0	8200	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3604	CC	qtz-4.0'	276	>7500	10300	>30.0	>10000	4.97	11.213	1.00	NA	NA	NA	NA	NA	NA
do.	do.	do.	3605	CC	Metagab-10.0	119	119	77	0.4	480	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3606	CC	Metagab-6.0'	96	266	254	0.6	NA	NA	NA	NA	NA	43.59	0.082	214.86	0.044	0.046
do.	do.	do.	3607	CC	Metagab-3.0'	126	>7500	204	>30.0	>10000	1.45	2.959	9.10	NA	NA	NA	NA	NA	NA
do.	do.	do.	3608	CC	Metagab-3.0'	96	131	119	0.6	NA	NA	NA	NA	NA	21.05	0.020	216.26	0.020	0.021
do.	do.	do.	3609	CC	qtz-2.0'	37	125	125	0.6	NA	NA	NA	NA	NA	45.74	0.131	174.53	0.014	0.028
do.	do.	do.	3610	CC	Metagab-10.0	74	104	102	0.3	NA	NA	NA	NA	NA	16.04	0.002	182.20	0.018	0.017
do.	do.	do.	7086	S	pyrrhotite	283	675	2000	>30	NA	1.44	NA	NA	NA	5.22	0.018	102.17	0.108	0.108
do.	do.	do.	7102	CC	qtz-0.5'	86	43	57	1.8	NA	NA	NA	NA	NA	57.37	3.317	198.63	0.771	0.976
do.	do.	do.	7103	CC	bn Phyl-3.8'	71	30	52	0.6	NA	NA	NA	NA	NA	27.03	0.008	180.31	0.007	0.007
do.	do.	do.	7104	CC	gy Phyl-7.4'	91	45	86	0.4	NA	NA	NA	NA	NA	43.38	0.002	185.87	0.002	0.002
do.	do.	do.	7105	CC	gy Phyl-6.5'	71	15	105	0.3	NA	NA	NA	NA	NA	23.03	0.002	225.43	0.002	0.002
do.	do.	do.	7106	CC	Phyl-12.0'	80	9	84	0.2	NA	NA	NA	NA	NA	29.38	0.002	234.39	0.002	0.002
do.	do.	do.	7107	CC	gy Phyl-9.4'	73	14	109	0.3	NA	NA	NA	NA	NA	23.39	0.002	226.07	0.003	0.003
do.	do.	do.	7108	CC	shear-1.0'	73	46	65	1.1	NA	NA	NA	NA	NA	63.90	0.074	185.14	0.025	0.027
do.	do.	do.	7109	CC	Metagab-8.5'	146	12	59	0.5	NA	NA	NA	NA	NA	58.15	0.002	174.78	0.073	0.055
do.	do.	do.	7110	CC	qtz-1.9'	81	6270	4960	18.0	NA	NA	NA	NA	NA	30.60	0.740	205.97	0.007	0.097
59	87	Upper Gold Ck	3819	CH	qtz	55	8	60	<0.2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA

Figure numbers 5 Location no.	2-4 Prospect no.	Prospect name	Sample no.	Sample type	Sample lithology	Atomic Absorption Cu ppm	Pb ppm	Zn ppm	Ag ppm	FA/AA Au ppb	Fire Assay Ag Oz/t	Fire Assay Au Oz/t	Specific Pb %	Specific Zn %	Metallic Fire Assay +100 Wt grams	+100 Au mg	-100 Wt grams	-100 Au Oz/t	Total Au Oz/t
60	90	Groundhog	3827	RC	qtz	58	13	42	0.3	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	90	do.	3828	CC	chl Sch-11.0	65	10	46	0.9	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
61	85	Perseverance	3120	RG	qtz & sulf	48	>7500	>20000	>30.0	>10000	2.77	0.575	4.72	8.60	NA	NA	NA	NA	NA
62	89	McKinley Adit	3840	CR	qtz	73	7	79	0.3	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3841	S	do.	60	7	152	1.8	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3842	CC	Phyl-6.0'	73	7	79	0.3	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
63	87	Upper Gold Ck	3817	CR	qtz	74	18	292	1.6	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
64	do.	do.	3818	SC	bk Slate	50	12	224	1.3	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
65	88	Bull Consolidated	3829	G	alt Gneiss	27	133	60	1.2	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3830	G	qtz	24	7	13	0.8	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
66	90	Ground Hog	3831	CC	qtz-8.0'	32	3650	13	27.0	2475	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3832	CC	gn Sch-7.0'	61	46	53	1.6	225	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3833	SC	alt gn Sch	100	34	48	1.6	15	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3834	SC	do.	54	14	48	0.9	75	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3835	SC	do.	72	19	50	1.1	20	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3836	SC	silc gn Sch	62	22	53	1.9	165	NA	NA	NA	NA	NA	NA	NA	NA	NA
67	do.	do.	3837	CR	qtz	20	11	16	0.7	1090	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3838	SC	qtz & gn Sch	54	11	59	4.0	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3839	SC	qtz-20.0'	57	16	50	1.7	85	NA	NA	NA	NA	NA	NA	NA	NA	NA
68	NP	Roberts Mtn	3108	RG	qtz ser Sch	69	7	15	1.1	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
69	92	Prospect Pit	3299	CC	qtz-2.6'	25	490	32	11.0	145	NA	NA	NA	NA	NA	NA	NA	NA	NA
70	93	Upper Ibex	3820	CC	qtz-1.0'	212	3460	735	>30.0	470	15.24	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3821	RC	bk Slate	74	23	89	5.7	20	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3822	CC	qtz-0.8'	87	2810	6560	>30.0	550	3.64	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3823	CC	qtz-0.9'	1030	>7500	8720	>30.0	1695	29.69	NA	1.32	NA	NA	NA	NA	NA	NA
71	do.	Middle Ibex	3824	CC	qtz-0.5'	25	58	73	25.0	25	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3825	CC	Phyl & qtz	39	61	77	18.0	60	NA	NA	NA	NA	NA	NA	NA	NA	NA
72	do.	do.	3826	CC	qtz-3.8'	92	820	405	>30.0	930	2.24	NA	NA	NA	NA	NA	NA	NA	NA
73	94	Alaska Consolidated	3298	G	qtz & Phyl	32	12	34	0.2	45	NA	NA	NA	NA	NA	NA	NA	NA	NA
74	97	Denny	3475	CC	qtz	263	15	137	0.2	875	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3476	SC	silc Gneiss	45	22	88	0.2	890	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3477	SC	silc Gneiss	25	16	96	0.2	75	NA	NA	NA	NA	NA	NA	NA	NA	NA
75	97	do.	3096	CC	qtz-3.8'	9	27	12	0.2	25	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3097	CC	qtz-3.2'	20	5	28	0.2	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3471	CC	qtz-0.5'	167	141	375	1.6	125	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3472	CC	qtz-1.3'	29	38	381	0.6	445	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3473	SC	Gneiss-10.0'	26	44	261	0.3	20	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3474	SC	do.	17	38	184	0.2	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
76	do.	do.	3600	CC	qtz-1.7'	135	8	45	0.8	>10000	NA	0.426	NA	NA	NA	NA	NA	NA	NA

Key to abbreviations on page 53

Figure numbers 5 Location no.	2-4 Prospect no.	Prospect name	Sample no.	Sample type	Sample lithology	Atomic Absorbtion Cu ppm	Pb ppm	Zn ppm	Ag ppm	FA/AA Au ppb	Fire Assay Ag Oz/t	Fire Assay Au Oz/t	Specific Pb %	Specific Zn %	Metallic Fire Assay +100 Mt grams	+100 Au mg	-100 Mt grams	-100 Au Oz/t	Total Au Oz/t
77	98	Gould & Curry	3098	RG	qtz	263	195	52000	2.5	NA	NA	NA	NA	5.20	67.33	3.177	215.53	0.570	0.762
do.	do.	do.	3099	RG	do.	1810	60	6300	3.2	NA	NA	NA	NA	NA	3.08	0.118	217.04	0.059	0.065
do.	do.	do.	3478	S	qtz-dump	390	1200	>20000	9.5	NA	NA	NA	NA	4.26	47.66	9.374	205.16	0.449	1.446
78	93	Alaska Consolidated	3300	CC	qtz-3.9'	227	13	10	0.7	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3808	CR	do.	54	11	9	<0.2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3911	S	qtz-dump	291	13	18	0.4	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3912	RC	qtz	70	8	9	0.5	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
79	95	Glacier-1520'	3017	CC	qtz-0.8'	76	1195	256	>30.0	275	5.02	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3018	CC	qtz-0.9'	352	1505	3580	>30.0	610	8.95	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3020	CC	qtz-2.0'	144	1455	1140	>30.0	90	1.51	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	Glacier-1680'	3019	CC	qtz & Phyl	322	3330	131	>30.0	465	6.93	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3021	CC	qtz-0.7'	12	83	39	9.7	45	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	Glacier-1660'	3022	CC	qtz-0.6'	144	2490	2990	>30.0	70	2.88	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3023	CC	qtz-0.6'	219	1360	685	>30.0	640	13.99	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	Glacier-1990'	3024	CC	qtz-0.6'	33	41	45	5.9	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	Glacier-1930'	3025	CC	qtz-0.8'	37	76	39	14.0	320	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	Glacier-1800'	3026	CC	qtz & Sch	37	2050	2820	>30.0	195	5.12	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	Glacier-1775'	3027	CC	qtz-2.4'	180	286	570	>30.0	1140	4.70	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	Glacier-1590'	3028	CC	qtz-0.5'	189	2490	1100	>30.0	1150	6.51	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3029	CC	qtz-0.6'	203	7150	600	>30.0	2935	9.73	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3030	CC	qtz-0.6'	55	830	635	19.0	35	NA	NA	NA	NA	NA	NA	NA	NA	NA
80	96	Silver Queen-1260'	3043	CC	qtz-1.1'	287	725	2470	>30.0	1390	3.09	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	Silver Queen-1315'	3255	CC	qtz-0.8'	1370	6830	8100	>30.0	2850	34.81	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3256	CC	qtz	1500	>7500	15300	>30.0	3450	35.54	NA	0.83	NA	NA	NA	NA	NA	NA
do.	do.	do.	3257	CC	qtz-0.4'	1290	>7500	5950	>30.0	>10000	43.47	0.417	2.11	NA	NA	NA	NA	NA	NA
81	93	Alaska Consolidated	3479	RG	qtz-dump	8	15	120	0.2	15	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3480	CC	qtz	1	8	26	0.2	145	NA	NA	NA	NA	NA	NA	NA	NA	NA
82	NP	Snowslide Ck	3436	PC	2 pans	NA	NA	NA	NA	1180	NA	NA	NA	NA	NA	NA	NA	NA	NA
83	NP	Cross Bay Ck	3435	PC	do.	NA	NA	NA	NA	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
84	NP	Sheep Ck	3493	PC	2 pans	NA	NA	NA	NA	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA
85	103	Reagan	3004	CC	qtz-1.8'	600	820	785	>30.0	NA	2.96	NA	NA	NA	22.06	0.002	165.54	0.006	0.006
do.	do.	do.	3005	CC	qtz-1.7'	152	227	385	16.0	NA	NA	NA	NA	NA	19.24	<.002	187.08	<.002	<.002
do.	do.	do.	3006	CC	qtz-4.0'	95	374	261	19.0	NA	NA	NA	NA	NA	37.93	0.015	213.01	0.007	0.009
do.	do.	do.	3007	CC	qtz-2.8'	132	384	238	>30.0	NA	2.33	NA	NA	NA	24.59	0.026	206.48	0.008	0.011
do.	do.	do.	3008	CC	qtz-3.2'	94	172	336	15.0	NA	NA	NA	NA	NA	21.43	0.183	160.84	0.012	0.041
do.	do.	do.	3009	CC	qtz-1.0'	36	36	85	5.1	NA	NA	NA	NA	NA	9.97	<.002	137.42	<.002	<.002
do.	do.	do.	3010	CC	qtz-3.0'	54	112	131	13.0	NA	NA	NA	NA	NA	24.50	0.004	204.25	0.006	0.006
do.	do.	do.	3011	CC	qtz-3.0'	55	135	75	12.0	NA	NA	NA	NA	NA	12.20	<.002	145.80	0.007	0.007
do.	do.	do.	3012	CC	qtz-3.1'	99	1535	2080	>30.0	NA	1.50	NA	NA	NA	14.25	0.027	148.95	0.016	0.021
do.	do.	do.	3013	CC	qtz-2.0'	81	104	130	10.0	NA	NA	NA	NA	NA	20.04	<.002	167.28	<.002	<.002
do.	do.	do.	3014	CC	qtz-3.3'	165	885	1160	>30.0	NA	4.10	NA	NA	NA	43.65	0.056	203.69	0.028	0.035
do.	do.	do.	3015	CC	qtz-2.4'	108	1265	625	>30.0	NA	6.12	NA	NA	NA	14.74	0.180	144.20	0.044	0.077

Key to abbreviations on page 53

APPENDIX B. - JUNEAU GOLD BELT RESULTS: 1985

Figure numbers 5 Location no.	2-4 Prospect no.	Prospect name	Sample no.	Sample type	Sample lithology	Atomic Absorption Cu ppm	Pb ppm	Zn ppm	Ag ppm	FA/AA Au ppb	Fire Assay Ag Oz/t	Fire Assay Au Oz/t	Specific Pb %	Specific Zn %	Metallic Fire Assay +100 Mt grams	+100 Au eg	-100 Mt grams	-100 Au Total Au Oz/t	Total Au Oz/t
86	NP	Sheep Ck	3489	PC	3 pans	NA	NA	NA	NA	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA
87	NP	Nineмile Ck	3491	PC	do.	NA	NA	NA	NA	<15	NA	NA	NA	NA	NA	NA	NA	NA	NA
88	NP	Neilson Ck	3492	PC	do.	NA	NA	NA	NA	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA
89	NP	Fish Ck	3490	PC	do.	NA	NA	NA	NA	2240	NA	NA	NA	NA	NA	NA	NA	NA	NA
90	112	Eagle Creek	3434	PC	5 pans	NA	NA	NA	NA	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA
91	113	Douglas Antimony	3130	G	stib	24	24	17	<0.2	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
92	114	New Boston	3129	G	qtz sch	121	21	97	<0.2	35	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3450	RC	qtz ser Sch	78	26	115	<0.2	25	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3451	RC	alt Diorite	40	13	55	<0.2	15	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3452	RC	gn Phyl	91	23	36	0.5	25	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3453	RC	qtz	16	11	21	0.3	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3454	RC	qtz ser sch	149	111	2510	0.8	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3455	RC	Metavolc	143	26	100	0.4	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3735	SC	Gnst-20.0'	152	2	40	0.3	20	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3736	SC	do.	263	6	50	0.4	20	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3737	SC	Sch-20.0'	165	10	80	0.3	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3738	SC	Gnst-9.0'	118	16	49	0.5	25	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3739	SC	Gnst-15.0'	303	9	41	0.2	50	NA	NA	NA	NA	NA	NA	NA	NA	NA
93	115	Kowee Ck	3433	PC	4 pans	NA	NA	NA	NA	<15	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	Foster	3951	CR	qtz, bk Phyl	107	18	52	0.2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
94	do.	do.	3952	CC	bk Phyl-3.3'	58	17	111	0.4	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
95	do.	do.	3953	CR	mica Sch	28	27	67	0.2	20	NA	NA	NA	NA	NA	NA	NA	NA	NA
96	do.	do.	3954	RC	meta Diorite	151	28	141	0.4	15	NA	NA	NA	NA	NA	NA	NA	NA	NA
97	do.	do.	3955	CR	ser qtz Sch	71	11	104	0.3	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
98	do.	do.	3957	RC	ser qtz Sch	64	8	255	0.2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
99	do.	do.	3956	SC	Sch-20.0'	47	15	66	0.5	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
100	do.	do.	3958	SC	qtz ser Sch	53	11	62	0.4	25	NA	NA	NA	NA	NA	NA	NA	NA	NA
101	do.	do.	3959	CR	Andesite	171	5	58	0.5	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
102	117	Lawson Ck	3432	PC	2 pans	NA	NA	NA	NA	1660	NA	NA	NA	NA	NA	NA	NA	NA	NA
103	125	Treadwell 240 Mill	3428	PC	2 pans	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3430	PC	20 pans	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
104	do.	Treadwell 300 Mill	3429	PC	do.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
105	129	Mexican Mill Tails	3488	PC	20 pans	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
106	126	Jersey	3119	RC	qtz	26	14	9	0.3	980	NA	NA	NA	NA	NA	NA	NA	NA	NA
107	NP	Paris Ck-830'	3121	RC	qtz sch	133	9	102	0.6	180	NA	NA	NA	NA	NA	NA	NA	NA	NA
108	130	Ready Bullion Tails	3431	PC	20 pans	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
109	132	Mineral Queen	3481	CR	Amph	349	7	47	0.2	105	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3482	CC	Amph-2.5'	298	13	72	0.3	185	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3483	CC	Amph-1.5'	390	11	87	0.4	55	NA	NA	NA	NA	NA	NA	NA	NA	NA

Key to abbreviations on page 53

Figure numbers 5 Location no.	2-4 Prospect no.	Prospect name	Sample no.	Sample type	Sample lithology	Atomic Absorbtion Cu ppm	Pb ppm	Zn ppm	Ag ppm	FA/AA Au ppb	Fire Assay Ag Oz/t	Fire Assay Au Oz/t	Specific Pb %	Specific Zn %	Metallic Fire Assay +100 Mt grams	+100 Au ag	-100 Mt grams	-100 Au Oz/t	Total Au Oz/t
109	132	Mineral Queen	3484	CC	Sch-5.0'	348	58	83	0.5	4770	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3485	CC	Sch-5.0'	1570	168	91	3.6	>10000	NA	0.432	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3486	CC	Sch-1.5'	1210	35	79	1.8	2290	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3487	CC	Sch-3.3'	1740	251	91	4.5	>10000	NA	0.280	NA	NA	NA	NA	NA	NA	NA
110	131	Yakima	3743	S	qtz ser Sch	475	760	244	11.0	9705	NA	NA	NA	NA	NA	NA	NA	NA	NA
111	do.	do.	3740	S	qtz ser Sch	85	4	19	0.5	15	NA	NA	NA	NA	NA	NA	NA	NA	NA
112	do.	do.	3741	S	do.	27	8	50	0.3	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
113	do.	do.	3742	S	do.	22	9	356	0.3	25	NA	NA	NA	NA	NA	NA	NA	NA	NA
114	135	Ak Treasure-Main	3618	SC	qtz ser Sch	143	30	70	0.9	590	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3619	SC	do.	384	1380	3160	4.9	4435	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3620	SC	do.	148	134	338	1.0	135	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3621	SC	chl Andesite	91	25	63	0.4	15	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3622	SC	qtz ser Sch	75	19	26	0.6	215	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3623	SC	do.	214	25	55	1.1	1130	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3624	SC	do.	250	690	1250	1.8	185	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3625	SC	do.	202	1020	1280	1.4	155	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3626	SC	do.	92	105	269	0.7	850	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3627	SC	do.	154	13	103	0.2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3628	SC	do.	75	13	150	<0.2	55	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3629	SC	do.	98	16	83	0.2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3630	SC	do.	86	30	200	0.4	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3631	SC	do.	94	14	35	<0.2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
115	135	Alaska Treasure	3106	CC	qtz Sch-5.0'	321	>7500	10400	9.2	NA	NA	NA	1.00	NA	19.64	0.003	183.85	0.004	0.004
116	do.	do.	3304	RC	qtz calcite	1430	3220	4580	5.1	NA	NA	NA	NA	NA	29.25	3.736	178.83	0.257	0.745
117	do.	AK Treasure-Hudson	3105	G	dump	1320	7360	>20000	6.2	NA	NA	NA	NA	2.76	25.15	0.468	175.54	0.079	0.137
do.	do.	do.	3107	CCo.	qtz Sch-5.0'	475	>7500	>20000	>30.0	NA	2.27	NA	9.40	15.90	43.82	0.018	182.10	0.011	0.011
do.	do.	do.	3810	CR	qtz	775	>7500	>20000	>30.0	>10000	1.37	2.197	3.57	5.10	NA	NA	NA	NA	NA
do.	do.	do.	3811	SC	qtz Sch-7.0'	600	585	9140	1.9	2400	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3812	SC	qtz Sch-10.0	420	329	3110	1.0	640	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3813	SC	Sch-20.0'	207	1000	1795	1.8	660	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3814	SC	Sch-20.0'	430	750	3510	1.6	720	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3815	SC	do.	268	900	830	1.7	345	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3816	CC	Sch-5.9'	605	1005	5420	2.2	95	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3922	CH	qtz Sch-5.0'	172	17	82	<0.2	30	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3923	RC	chl qtz Sch	233	19	72	0.2	980	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3924	CC	Sch-12.0'	195	17	52	0.3	630	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3925	CC	Sch-10.0'	245	36	139	1.1	4080	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3926	RC	chl qtz Sch	555	84	193	1.1	1970	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3927	RC	chl qtz Sch	330	23	121	0.7	2370	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3928	CC	qtz Sch-5.0'	179	55	356	0.6	2450	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3929	RC	chl qtz Sch	363	22	1860	0.7	1460	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3930	SC	Sch-10.0'	193	2000	1910	4.1	2310	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3931	RC	chl qtz Sch	327	53	197	0.6	1290	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3932	RC	do.	381	75	1380	1.4	6120	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3933	RC	do.	645	795	1530	6.5	6000	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3934	RC	do.	334	135	475	0.6	1480	NA	NA	NA	NA	NA	NA	NA	NA	NA

key to abbreviations on page 53

Figure numbers 5 Location no.	2-4 Prospect no.	Prospect name	Sample no.	Sample type	Sample lithology	Atomic Absorbtion Cu ppm	Pb ppm	Zn ppm	Ag ppm	FA/AA Au ppb	Fire Assay Ag Oz/t	Fire Assay Au Oz/t	Specific Pb %	Specific Zn %	Metallic Fire Assay +100 Mt grams	+100 Au ag	-100 Mt grams	-100 Au Oz/t	Total Au Oz/t
117	135	Ak Treasure-Hudson	3706	CH	qtz-3.0'	166	2230	4080	2.1	580	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3707	RC	qtz	47	231	213	0.7	15	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3708	RC	volc Aggl	495	>7500	>20000	9.2	405	NA	NA	1.36	2.01	NA	NA	NA	NA	NA
do.	do.	do.	3709	CH	qtz Sch-3.0'	270	75000	12000	7.2	225	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3710	CH	qtz Sch-6.1'	1660	430	18100	9.6	>10000	NA	0.344	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3711	CC	qtz Sch-6.9'	115	36	116	0.3	940	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3712	CC	qtz Sch-6.0'	920	3400	18100	15.0	>10000	NA	0.211	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3713	CC	qtz Sch-7.5'	450	169	875	0.6	990	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3714	CC	qtz Sch-6.7'	165	176	389	0.4	710	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3715	RC	qtz Sch-5.2'	755	2700	5690	3.4	1315	NA	NA	NA	NA	NA	NA	NA	NA	NA
118	NP	S Fk Nevada Ck-1000'	3939	CC	do.	60	23	138	<0.2	15	NA	NA	NA	NA	NA	NA	NA	NA	NA
119	NP	SE Fork Nevada Ck	3717	S	do.	2970	176	1870	3.1	440	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3720	G	qtz	805	>7500	4800	4.8	25	NA	NA	1.17	NA	NA	NA	NA	NA	NA
do.	do.	do.	3721	G	jasperoid	94	78	54	0.5	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
120	do.	do.	3719	S	do.	118	15	176	<0.2	20	NA	NA	NA	NA	NA	NA	NA	NA	NA
121	136	Atlin Alaska	3722	S	qtz ser Sch	70	14	186	0.4	30	NA	NA	NA	NA	NA	NA	NA	NA	NA
122	do.	do.	3718	S	do.	90	48	64	0.8	80	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3724	CC	Sch-20.0'	96	285	106	1.8	160	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3725	CC	do.	195	304	1740	2.1	215	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3726	CC	do.	62	311	970	0.8	135	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3727	CC	do.	53	203	845	0.9	135	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3728	CC	do.	47	90	295	0.9	80	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3729	CC	do.	84	79	379	1.0	540	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3730	CC	do.	102	65	32	1.2	800	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3731	CC	Sch-6.0'	198	54	124	1.3	610	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3732	CC	qtz 5.0'	53	580	206	1.4	75	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3733	CC	Sch-10.0'	32	373	950	0.7	130	NA	NA	NA	NA	NA	NA	NA	NA	NA
123	do.	do.	3723	S	qtz ser Sch	74	29	201	0.4	15	NA	NA	NA	NA	NA	NA	NA	NA	NA
124	NP	SE Fork Nevada Ck	3716	G	qtz ser Sch	96	16	103	0.7	15	NA	NA	NA	NA	NA	NA	NA	NA	NA
125	137	Mammoth	3302	S	qtz calcite	191	179	345	1.9	NA	NA	NA	NA	NA	17.60	<.002	184.65	<.002	<.002
do.	do.	do.	3303	S	qtz-dump	32	152	81	0.5	NA	NA	NA	NA	NA	30.67	<.002	210.65	<.002	<.002
126	do.	do.	3937	SC	Sch-6.0'	28	54	780	1.9	255									
do.	do.	do.	3938	S	dump	730	3580	860	9.3	30									
127	do.	do.	3936	SC	qtz Sch-4.0'	42	28	173	<0.2	30	NA	NA	NA	NA	NA	NA	NA	NA	NA
128	do.	do.	3935	SS	Alluvium	56	57	130	0.7	245	NA	NA	NA	NA	NA	NA	NA	NA	NA
129	138	Red Diamond	3104	G	dump	35	28	78	0.7	NA	NA	NA	NA	NA	17.22	0.040	193.59	0.132	0.127
do.	do.	do.	3301	S	qtz calcite	9	620	955	0.8	NA	NA	NA	NA	NA	16.93	<.002	164.51	<.002	<.002
130	do.	Upper Nevada Ck	3944	S	do.	84	3	59	<0.2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
131	do.	do.	3942	CC	qtz Sch-3.0'	89	17	35	<0.2	25	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3943	SC	qtz ser Sch	206	10	133	<0.2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
132	do.	do.	3941	S	qtz	105	24	48	<0.2	20	NA	NA	NA	NA	NA	NA	NA	NA	NA
133	do.	S Hudson Tributary	3940	SC	qtz ser Sch	24	11	39	<0.2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA

key to abbreviations on page 53

Figure numbers 5 Location no.	2-4 Prospect no.	Prospect name	Sample no.	Sample type	Sample lithology	Atomic Absorbtion Cu ppm	Pb ppm	Zn ppm	Ag ppm	FA/AA Au ppb	Fire Assay Ag Oz/t	Fire Assay Au Oz/t	Specific Pb %	Specific Zn %	+100 Mt grams	Metallic Fire Assay +100 Au mg	-100 Mt grams	-100 Au Oz/t	Total Au Oz/t
134	NP	Taku Harbor Area	7011	S	Metaseds	55	14	29	0.6	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
135	NP	do.	7009	CC	Metased-5.0'	15	17	29	0.4	130	NA	NA	NA	NA	NA	NA	NA	NA	NA
136	NP	do.	7007	G	qtz+py+po	24	25	15	0.9	20	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	NP	do.	7008	CR	Metavolc	14	25	114	0.6	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
137	139	Bach	3263	SS	Alluvium	7	7	41	<0.2	30	NA	NA	NA	NA	NA	NA	NA	NA	NA
138	147	Prospect Ck	7096	PL	Alluvium	NA	NA	NA	NA	T	NA	NA	NA	NA	NA	NA	NA	NA	NA
140	do.	do.	7095	PL	Alluvium	NA	NA	NA	NA	T	NA	NA	NA	NA	NA	NA	NA	NA	NA
139	148	JLC	7097	PL	Alluvium	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
141	150	Enterprise	7001	CC	qtz-2.4'	14	1160	105	21.0	>10000	NA	0.736	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7002	RC	Diorite	12	60	68	0.6	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7003	RC	do.	9	89	109	0.6	45	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7004	CC	Qtz-2.0'	4	1445	22	20.0	1250	NA	NA	NA	NA	NA	NA	NA	NA	NA
142	NP	Limestone Inlet	7005	PC	Alluvium	47	21	73	<0.2	50	NA	NA	NA	NA	NA	NA	NA	NA	NA
143	do.	do.	7006	PC	do.	31	31	63	0.4	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
144	NP	S of Mallard Cove	7116	PL	Alluvium	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
145	152	Mist Ck	7094	PL	Alluvium	NA	NA	NA	NA	T	NA	NA	NA	NA	NA	NA	NA	NA	NA
146	NP	SW Mist Ck	7117	PL	Alluvium	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
147	154	Friday	3109	CC	qtz-0.9'	48	25	7	0.4	120	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3110	CC	qtz-1.5'	48	21	10	0.9	560	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3111	CC	qtz-0.3'	116	24	35	0.6	1680	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3112	CC	qtz-0.3'	159	87	10	0.4	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3113	CC	qtz-1.2'	32	16	24	0.8	3690	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3114	CC	qtz-1.4'	1940	57	45	15.0	>10000	NA	1.261	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3115	CC	qtz-4.0'	450	26	86	2.9	5060	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3116	CC	qtz-1.8'	640	43	51	5.3	>10000	NA	0.657	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3117	CC	qtz-0.4'	1980	28	34	1.0	300	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3118	CC	qtz-1.4'	214	23	44	2.1	>10000	NA	0.324	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3221	CC	qtz-1.0'	875	24	80	2.1	4050	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3222	CC	do.	740	24	75	1.8	5325	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3223	CC	qtz-0.8'	14	22	48	<0.2	220	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3405	CC	qtz-0.5'	8	5	10	0.6	1720	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3406	CC	qtz-3.5'	595	26	84	1.5	4270	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3407	CC	qtz-1.0'	34	20	78	<0.2	20	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7013	CC	do.	590	67	26	0.6	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7014	CC	qtz-2.5'	16	44	10	0.2	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7015	CC	qtz-1.5'	460	25	54	4.3	>10000	NA	0.361	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7016	CC	do.	157	14	47	2.5	>10000	NA	0.417	NA	NA	NA	NA	NA	NA	NA
148	NP	Port Snettisham	3240	PC	Alluvium	48	15	50	0.3	325	NA	NA	NA	NA	NA	NA	NA	NA	NA
149	do.	do.	3234	PC	do.	8	8	29	<0.2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
150	do.	do.	3233	PC	do.	23	10	77	<0.2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
151	do.	do.	3232	PC	do.	34	9	69	<0.2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA

Key to abbreviations on page 53

Figure numbers 5 Location no.	2-4 Prospect no.	Prospect name	Sample no.	Sample type	Sample lithology	Atomic Absorption Cu ppm	Pb ppm	Zn ppm	Ag ppm	FA/AA Au ppb	Fire Assay Ag Oz/t	Fire Assay Au Oz/t	Specific Pb %	Specific Zn %	Metallic Fire Assay +100 Mt grams	+100 Au ag	-100 Mt grams	-100 Au Oz/t	Total Au Oz/t
152	do.	do.	3235	PC	do.	11	14	47	<0.2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
153	do.	do.	3236	PC	do.	16	18	63	<0.2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
152	do.	do.	3237	PC	do.	92	13	74	<0.2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
154	do.	do.	3238	PC	do.	37	6	30	<0.2	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
155	do.	do.	3239	PC	do.	37	15	60	<0.2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA
157	155	Crystal Mine	3034	CC	qtz & 6nst	895	320	50	8.9	>10000	NA	0.581	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3035	CC	qtz-2.1'	205	120	51	9	4135	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3036	CC	qtz-1.1'	48	29	67	0.3	185	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3205	CC	qtz-0.2'	89	36	76	0.8	NA	NA	NA	NA	NA	17.71	0.187	171.50	0.077	0.099
do.	do.	do.	3206	CC	qtz-1.4'	32	4	18	1.0	3750	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3207	CC	qtz-3.0'	174	22	91	1.2	1310	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3208	CC	qtz-1.5'	75	23	27	6.6	>10000	NA	0.523	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3209	CC	qtz-3.0'	61	17	52	0.8	555	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3218	CC	qtz-1.5'	18	11	16	0.4	450	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3220	CC	do.	208	33	95	4.6	>10000	NA	0.323	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3305	SC	qtz-3.0'	92	18	37	5.0	>10000	NA	0.718	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3306	SC	qtz-1.3'	135	7	64	0.4	220	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3307	CC	qtz-1.0'	50	15	29	0.8	890	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3308	CC	qtz-1.4'	107	17	45	1.2	900	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3401	CC	qtz-0.6'	131	71	87	5.8	NA	NA	NA	NA	NA	51.06	0.690	172.53	0.282	0.308
do.	do.	do.	3402	CC	qtz-2.5'	125	20	34	3.4	2470	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3403	CC	qtz-1.0'	9010	1650	94	>30.0	>10000	1.06	0.574	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	3404	CC	qtz-4.5'	62	10	36	0.6	730	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7026	CC	qtz-0.8'	97	29	71	1.0	NA	NA	NA	NA	NA	25.49	0.052	213.66	0.022	0.026
do.	do.	do.	7027	CC	qtz-0.8'	4	19	13	0.2	NA	NA	NA	NA	NA	10.48	<.002	167.27	0.002	0.002
do.	do.	do.	7028	CC	selvage-1.0'	102	25	105	0.8	NA	NA	NA	NA	NA	27.13	0.037	215.31	0.018	0.020
do.	do.	do.	7029	CC	qtz-1.7'	204	24	106	1.0	NA	NA	NA	NA	NA	21.95	0.051	178.68	0.035	0.039
do.	do.	do.	7030	CC	qtz-1.0'	169	102	95	9.5	NA	NA	NA	NA	NA	22.34	0.618	245.81	0.450	0.480
do.	do.	do.	7031	CC	qtz-2.0'	365	39	32	8.2	NA	NA	NA	NA	NA	23.69	0.623	172.94	0.586	0.608
do.	do.	do.	7032	CC	qtz-2.7'	710	33	42	12.0	NA	NA	NA	NA	NA	26.53	1.648	217.97	1.124	1.199
do.	do.	do.	7033	CC	qtz-2.6'	64	20	26	0.6	NA	NA	NA	NA	NA	34.32	0.034	191.49	0.033	0.032
do.	do.	do.	7034	CC	qtz-1.2'	540	28	112	0.8	NA	NA	NA	NA	NA	21.90	0.060	157.89	0.020	0.027
do.	do.	do.	7035	CC	qtz-2.2'	186	22	34	1.4	NA	NA	NA	NA	NA	12.24	0.008	198.05	0.071	0.068
do.	do.	do.	7036	CC	qtz-2.5'	64	20	26	0.6	NA	NA	NA	NA	NA	40.03	2.662	178.82	NA	2.662
do.	do.	do.	7037	CC	qtz-3.0'	540	28	112	0.8	NA	NA	NA	NA	NA	65.58	0.689	184.40	NA	0.689
do.	do.	do.	7038	S	pyrite	186	22	34	1.4	NA	1.24	NA	NA	NA	69.53	6.463	199.29	NA	6.463
do.	do.	do.	7039	CC	qtz-1.4'	52	20	89	1.0	1815	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7040	CC	qtz-1.8'	67	13	56	0.9	3040	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7041	CC	qtz-1.2'	190	13	73	0.4	980	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7042	CC	qtz-0.5'	400	17	10	4.5	>10000	NA	0.598	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7043	CC	qtz-2.5'	2020	25	13	11.0	>10000	NA	0.881	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7044	CC	qtz-0.9'	26	32	36	6.7	>10000	NA	0.405	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7045	CC	qtz-0.5'	122	29	57	3.4	>10000	NA	0.211	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7046	CC	qtz-1.5'	88	13	105	2.3	5220	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7048	CC	qtz-1.7'	141	20	57	3.4	580	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7049	CC	qtz-1.1'	38	10	35	0.8	8500	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7050	CC	qtz-1.6'	98	27	66	2.3	4735	NA	NA	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7051	CC	qtz-0.6'	45	20	39	2.3	>10000	NA	0.325	NA	NA	NA	NA	NA	NA	NA
do.	do.	do.	7052	CC	qtz-3.0'	21	14	24	1.8	2300	NA	NA	NA	NA	NA	NA	NA	NA	NA

Key to abbreviations on page 53

Figure numbers 5 Location no.	2-4 Prospect no.	Prospect name	Sample no.	Sample type	Sample lithology	Atomic Absorption Cu ppm	Pb ppm	Zn ppm	Ag ppm	FA/AA Au ppb	Fire Assay Ag Oz/t	Fire Assay Au Oz/t	Specific Pb %	Specific Zn %	Metallic Fire Assay +100 Wt grams	+100 Au mg	-100 Wt grams	-100 Au Oz/t	Total Au Oz/t
158	156	Gilbert Bay	7099	PL	Alluvium	NA	NA	NA	NA	T	NA	NA	NA	NA	NA	NA	NA	NA	NA
159	NP	Ames Ck	7024	PC	Alluvium	64	7	163	0.8	1100	NA	NA	NA	NA	NA	NA	NA	NA	NA
160	NP	do.	7025	PC	Alluvium	84	9	187	1.3	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
161	NP	do.	7100	PC	Alluvium	48	11	188	0.5	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
162	NP	do.	7101	PC	Alluvium	84	8	233	1.1	920	NA	NA	NA	NA	NA	NA	NA	NA	NA
163	164	Mapco	7022	RC	qtz	7	8	5	<0.2	75	NA	NA	NA	NA	NA	NA	NA	NA	NA
164	163	Carrol Ck	7098	PL	Alluvium	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
165	165	Boulder Ck	7093	PL	Alluvium	NA	NA	NA	NA	T	NA	NA	NA	NA	NA	NA	NA	NA	NA