

SUMMARY REPORT OF MINING INVESTIGATIONS IN THE
NIZINA, BREMNER, CHISANA, TIEKEL, NABESNA,
AND PRINCE WILLIAM SOUND DISTRICTS

to

B. D. STEWART, COMMISSIONER OF MINES

and

ITINERARY OF J. C. ROEHM, ASSOCIATE ENGINEER,
TERRITORIAL DEPARTMENT OF MINES

August 22 to September 1, 1938.

Nizina District

August 22. En route from Cordova to Kennecott.

August 23-26. Kennecott Mines.

McCarthy 87

The Kennecott officials have received instructions to close mining operations on October 15 of this year. For the period from October 15 to November 1 the company will be engaged in making all preparations for closing the mine and mill and salvaging as much machinery as possible within this period. Immediately following will be the closing and abandoning of the Copper River & Northwestern Railroad. The high rate of maintenance, reported to be \$2,000 per day, is one of the important factors that contributed to the closing of these mines. The most important factor is the absence of high grade ore in sufficient amounts, along with low grade ore, which is concentrated in the mill, to sustain the railroad maintenance along with mining and milling costs. The methods of operation, which have no doubt produced a profit the last few years, have been to run the mill at full capacity, 8,000 tons per month, on low grade ore and to mine sufficient high grade ore, 1,000 to 2,000 tons per month, mainly from pillars and stope ends. The late closing was brought about by the discovery of a small shoot of high grade ore above the 900-foot level in the Erie mine. Over a hundred thousand dollars worth of ore had been mined from this shoot up to date of visit, and the downward extension had narrowed to 30 inches. Had this shoot been of larger size or others of these high grade shoots been found, the life of the operation would no doubt have been extended.

A full crew of men, totaling 192, has been employed during the season, and this crew will be maintained until the closing date. The largest mine crew is maintained in the Bonanza mine, totaling 36 men. *KK-87-64*

In the 990 stope of Bonanza they are mining a small amount of carbonate ore. They are also mining some pillar high grade ore in the 1090 stope, which is nearly on the line of the 1050 stope of the Mother Lode. Also, in the 1052 stope where the ore ends in greenstone, some high grade ore is being scaled off the walls. One pillar in the 1090 stope, which marks the boundary line, and known as the boundary pillar, is left in place. This pillar contains 1500 tons of high grade ore. On the main level nearly all the pillars have been removed from the Birch's vein. Considerable low grade copper ore, ranging from 8 to 10 per cent copper, remains from the

surface outcrop to the main level, and down 600 feet in the old shaft on the Bonanza vein. This shaft is located 350 feet in from the portal.

Mining ceased in the Mother Lode mine on July 31. Three ore pillars were left in this mine. One, containing 8,000 to 10,000 tons, remains on the 1,000-foot level and 1002 stope. Another, remains in the 1102 stope, containing 6,000 to 7,000 tons, and the last is the boundary pillar between the Mother Lode and Bonanza. The large hoist in the Mother Lode shaft, and all track steel and pipes are to be left intact in the mine.

In the Jumbo mine 22 men are employed. The remaining ore to be mined consists of 300 tons in the stope between 1800 and 1900 levels. 900 tons of high grade ore remains between 200 and 300 levels. From the 1900 to the 2100-foot levels 2,900 tons remain. Some ore is being mined in the 341 stope. In this stope a large cave-in occurred last year. This extended from the surface to the 300-foot level. This cave was the result of removing the pillar block in the bottom where the ore split. The wedge shape block dropped from the surface and brought considerable slide rock. 5,000 feet of diamond drilling has just been completed on contract with Lynch Bros. of Seattle at a price of \$1.50 per foot with power furnished.

In the Erie mine a total of 15 men have been engaged in mining mainly the high grade ore found inclosed in a large body of low grade ore above the 900-foot level. This high grade lense has a rake with the bedding of the limestone, and it is the belief of the mine officials that more ore lenses of this kind would be found in depth following the rake of the present one. Considerable low grade ore will be left in this mine.

The Chititu mines on Rex Creek started sluicing in the middle of June. The present site of operation is on the right limit of Rex Creek one mile up from the mouth. Three nozzles were used and the volume of water was good this year. The company expects to clean 65,000 bedrock feet this season. Next season the camp is to be moved. Some road was reported built to the new workings this year. A total of 18 men have been employed.

Located $2\frac{1}{2}$ miles above the Chititu mines R. F. Snyder, Axel Walstrom, and Geo. McFreely are operating two giants on Asa Baldwin's ground. They expect to clean 5,000 bedrock feet this season. Four men are employed and only one shift was worked.

On Copper Creek seven miles above Nicolai Placers Fred Long is sluicing on the O. A. Nelson ground. Three men are employed.

Charles Jacobson is shoveling in on upper Copper Creek.

The Nicolai Placers, Inc. under J. J. Price has a crew of 18 men this season. They are operating on the right limit of Dan Creek in an old channel located at the mouth of Boulder Creek. Five giants are in operation this season. Between 70 and 80 thousand bedrock feet are expected to be cleaned this season with good recovery.

James K. Atkins was injured while cleaning bedrock at this operation on August 5. A large boulder fell from the back and rolled breaking into pieces and some of the latter hit Atkins from the rear while he was running away. He had a broken arm, bursted bladder, broken pelvis and several body injuries. He died of this injury in the Kennecott Hospital on August 16.

The Alaska Gold King Mines, Ltd., or Barrett property, on Williams Peak has been optioned to J. M. Reed of Seattle (former broker). Mr. Reed has an engineer, B. M. Reynolds, and a small crew on the property. Considerable more opencut and stripping has been done. A diesel engine and small compressor has been ordered and this fall a lower or 800-foot level tunnel is to be driven with raises to the 600-foot level every 100 feet. KX-87-23

Only two prospectors were reported prospecting in this district. Wm. Mahan is prospecting in the vicinity of Hawkins Glacier and Charles Nelson on Glacier Creek.

Bremner District

One operation totals the number in the Bremner district this year. This is the operation of the Yellow Band Gold Mining Company under the management of Asa Baldwin. This company has under option the Yellow Band group, the properties of the Bremner Mining Co., including all machinery, and the Charles Nelson prospect group. This company has just completed their aerial tramway and is engaged in moving machinery onto the tunnel site of the Yellow Band group. Only extensive surface work has been done on these properties since they were visited two years ago. More veins were found on the Chick Nelson property and several high grade spots were reported located. The present tram extends from the floor of the valley to the lower workings of the Yellow Band, a distance of 3,300 feet. Next year a tram is to be built to the Charles Nelson prospect of a greater length. KX-87-7

Carl Killian and Glen Robinson were the only two prospectors reported in the district this season.

Chisana District

The Acme Mining Company of San Francisco has an option on the Sulzer property located at Horsfeld in the White River area. This season a diamond drill was flown in from Cordova. Seven men have been employed on the drilling operations under the direction of W. Symmes. KX-78-44

O. Peterson and P. Eckland were reported prospecting for quartz on Eureka Creek.

K. J. Rickey obtained several samples from a large mineralized zone located between Johnson Creek and the Beaver. These samples were observed and consisted of mineralized porphyry, containing pyrite, chalcopyrite and pyrrhotite. The writer advised Rickey to have these assayed for nickel as the appearance of a nickel sulphide was suspected. (These samples should be checked under the name Rickey at Fairbanks).

The season in the Chisana Placer area was considerably shorter than usual with a late spring. Throughout the whole season there was a decided lack of water. A total of 16 men are employed and operating in the area this year.

Tony McGilligan is shoveling in on No. 12 above on Bonanza Creek. N. P. Nelson is hydraulicking with 5 men employed on Nos. 5 and 6 above discovery on Bonanza Creek. This season they expect a clean-up of \$20,000. Shushana Joe (Native) is shoveling-in on a fraction between claims Nos. 3 and 4 above discovery on Bonanza Creek. Don Greene is working a small hydraulic on a bench opposite No. 3 above with one man. He expects to take out \$5,000 this season. Earl Hirst is hydraulicking with one man employed on No. 2 above discovery on Bonanza. He is working an old channel on the left limit. Jack Carrol is booming on Glacier Creek. Joe Davis is working alone hydraulicking on Skookum Creek, a tributary of Little Eldorado. Al Wright is booming on Gold Run. A native was reported working on upper Little Eldorado.

Nabesna District

The mining activity in the Nabesna district is mainly centered on the operations of the Nabesna mine. Other activity has been confined to the prospect tunnel driven by the Kennecott Copper Corporation on the Rock Creek molybdenite, operation of the Ahtell Creek placers, and development on a small scale of one prospect.

One of the bright prospects for the future is the recent developments at the Nabesna mine. Two of the largest problems, one, the downward extension of the ore, has been proved; and the other, the solution of the milling problem by flotation, has been solved by honest effort and experience. Another promise which will no doubt be a great help to the Nabesna mine is the fact that the Geological Survey is making a special map of the vicinity around Nabesna on a scale of one inch to the mile.

August 29. The Nabesna mine has been operating two shifts in the mine and three shifts in the mill. Since July 1 an average of 80-90 tons of tailings have been retreated. On September 1 milling of a 50-ton capacity of mine ore is to be resumed. A total of 46 men have been employed throughout the year. In the mine diamond drilling was in progress on the 250-foot level in the Nugget crosscut. Here the drill is cutting a shear zone along the diorite limestone contact. Last year in a drift under Swede gulch on the 350-foot level an orebody 250 feet in length and 4 to 5 feet in width was encountered. This orebody extends to the 450-foot level and may continue to the 550-foot level. The average tenor of the

Nabesna
78-3
78-26
78-27

ore was reported at \$50 in gold per ton. Some low grade ore was found on the 450-foot level. The downward extension of the Nos. 45 and 49 ore-bodies had just been encountered in the end of a drift prior to visit. What the size of these bodies will be remains to be proven by continued development. The type of ore encountered looks very promising. The 650-foot level is used only for trimming. No doubt the finding of the downward extension of the orebodies on the 550-foot level may be located by further development.

The company is installing a new 420 cu. ft., 2-stage Gardner-Denver compressor at the portal of the 650-foot level. This is to be operated with electric motor and a power line is being built from the mill to this level. More cells have been added to the mill and the cyanide process has been eliminated from the circuit. The concentrating table below the ball mill makes a high grade concentrate. Thus, no bullion is produced, as all is retained in two shipping concentrates. A new Tellsmith-Wheeling jaw crusher, 9x16", has been installed in place of the old one.

The Rock Creek molybdenite property has been dropped by the Kennecott Copper Corporation. A prospect tunnel was driven 170 feet beneath the outcrop. Two faults were reported cut in the tunnel and the pegmatite dike which shows on the surface was cut at 165 feet from the portal. This dike at the point where it was cut in the tunnel was reported as showing no molybdenite. Ed Barrett drove the tunnel under contract.

Two miles below Rock Creek, at the head of Caribou Creek, Harry Moore of Chitina has staked an old quartz prospect which was held several years by Carl Whitham. There is an old tunnel reported on the property, which is now caved. Whitham reports that these showings consist of several small quartz veins along felsite dikes. The quartz contains pyrite, galena, sphalerite and free gold. Moore expects to open up the tunnel this fall.

Three men were reported employed by the Ahtell Mining Company and a profitable season was reported.

Slate Creek Area:

The Slate Creek Placers, Inc. were reported as operating three placer crews and maintaining two camps. Reports were to the effect that considerable of the ground prospected did not stand up to expectations.

J. E. Carlson has 23 men employed and is engaged in hydraulicking and drifting on Valdez Creek. Also, they were sinking a new shaft this season.

Tielkel District

More interest and activity was found to exist in the Tielkel district than last season. This activity has been confined to prospecting, and drilling.

Stanley Nickols has a Kirk-Hillman airplane drill in operation on Fourth of July Creek. Three men are employed and reports were to the effect some pay had been found and considerable difficulty was encountered with boulders in drilling. Mr. W. W. Stoll of the Pacific Alaska Consolidated Mines is interested in this prospecting venture. *KX-86-127*

Clyde Brown is putting a two ton Gibson mill on the Clyde Ellis property located on Boulder Creek four miles from the Richardson Highway. This property was reported containing a small quartz vein in graywacke and schist with spotty values.

Landcaster of Tielkel Road House has located a placer claim at the mouth of Boulder Creek. He has put in a boomer dam 60 feet in length and 12 feet in height. He expects to do some sluicing and booming this fall. Good values were reported near bedrock.

Mike Knowles did assessment work only on his property this year. *86-41*

The Standard and Poorman groups, located opposite Mile 109, Copper River & N. W. Railway, were examined by W. Symmes of the Acme Mining Company this season.

Wm. Slimpert is doing assessment work on a group of 12 claims located three miles west of the Poorman group.

A. J. Grant was reported as having discovered a large vein at the head of Unitana Creek opposite Mile 114, Copper River & N. W. Ry.

Three men were reported prospecting in this district other than those mentioned, two of which are trying to locate the bedrock origin of some cassiterite float found in an old placer digging a few miles inland from the Chitina Highway.

Prince William Sound District

The most important activity within the Prince William Sound district this season is the development program of the Ruff and Tuff Gold Mining Company, Inc. The recent pumping of the Cliff mine of the flooded underground workings and the apparent sealing of the large crack through which the salt water flooded the mine is a factor which may lead to important developments below the old high grade ore lense. Three men were reported prospecting. A showing of several crossing and radiating dikes from an apparent small intrusive stock in graywacke, slate and argillite was discovered by plane. This is located near the head of Valdez Glacier. Due to the peculiar nature of the outcropping, with considerable apparent mineralization, the writer advised the prospecting of *KX-86-45*
KX-86-46+47

these outcroppings. This has been undertaken, but the results since have not been learned. Robert Reeves made the aerial discovery while flying in this vicinity.

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Valdez

The Ruff & Tuff Gold Mining Company, Inc., located on Columbia Glacier in the Valdez Glacier area, has been operating all season. Forty tons of ore was milled which, with the amount milled last year, completely wore out the two 10-ton Gibson mills. As a result, these mills were junked and a new 20-ton Crescent mill is to be purchased. Operations started on May 1 of this year and the mill resumed on June 1. The total underground workings to date consist of 230 feet of drifting, 50 feet of crosscutting and one small stope up on the contact. The Duck Pond vein was encountered at the drift end on date of visit. The company is engaged in building a new combined bunk house, cook house and blacksmith shop. This year development work is to be carried on throughout the winter. A drilling program will be carried out and a lower tunnel driven. This season a 4,000-foot caterpillar road was constructed from the mine over the divide onto Columbia Glacier to the plane landing field. All freighting to this property was done by the Reeves Airways from Valdez at a cost of \$60 per ton landed on Columbia Glacier. Ten men have been employed this season.

J. H. Herdlick, engineer for Tillie of Spokane, is making an examination of the Cameron-Johnson property. He has five men employed and expects to make a mill test run of the ore from the five exposed veins.

The Cliff Mine operated this year until June 1 and remained closed until August 24. Following the reopening, the crew of ten men has been engaged in pumping out the lower flooded workings. The opening through which the salt water gains access to these lower workings was reported as a small distinct crack. The mill-run tailings and waste rock have been dumped on the outside and as a result have partly sealed this opening, at least to the extent that a pump can handle the water. As the pump lowers the water level large wooden wedges are being driven into this crack from the inside. Later reports were to the effect that the mine has been completely pumped and the opening sealed. It was the writer's intent to inspect this for safety and also the lower workings on the return trip, but this will have to be done next season. According to reports, during the last weeks of the former operation, this leak began and the flow of water was never great. Also, the margins of the ore lense were nearly mined and as a result no effort was made at that time to stop the leak. The last reports were that the Cliff again closed on November 10, and a production for the year of \$7,000 was reported.

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The Mayfield Mine has been operating most of the season with three men employed. A 5-ton Gibson mill was operated for a few weeks and a small mill building was constructed. Only a small recovery was made with the Gibson mill and since this mill proved inadequate, it closed August 28. An application for an R. F. C. loan was made last year on this property, and this season in August an examination was made by Herbert.

KX-86-44

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Valdez 86
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The Ramsey-Rutherford mine was not operated this year.

Ted Johnson has been operating his small stamp mill this season on his property at the head of Mineral Creek. He started in May and reports were to the effect that he is only saving one third of his values. He and his son are the only men engaged.

DeVenney is working alone driving through a fault to pick up his vein on his property at the mouth of Mineral Creek.

Vic Hacket and E. N. Fultz operated a 5-9 ton Straub mill on the old Sweepstakes property now held by Chris Peterson of Valdez. This operation started June 1 and terminated July 3. Twenty-five tons of \$7 to \$9 ore was milled and due to the low tenor of the ore the option was dropped.

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