

SUMMARY REPORT OF MINING INVESTIGATIONS IN THE INNOKO,
MT. MCKINLEY, KNIK, AND TALKEETNA PRECINCTS TO B. D.
STEWART, COMMISSIONER OF MINES, JUNEAU, ALASKA

and

ITINERARY OF J. C. ROEHM, ASSOCIATE ENGINEER, TERRI-
TORIAL DEPARTMENT OF MINES

September 1 to October 31, 1937.

September 1-3: Proceeded from Flat, Alaska to Takotna and Folger, via plane.

The Cripple Creek district located 35 miles due north of Takotna, has been the scene of new and interesting developments in the last two years. The largest operation within the district is that of the Cripple Creek Mining Company (a Strandberg operation). This company has had a very successful season. The hydraulic operation of S. Paulson on Colorado Creek has had a good season. Further this small district has been the scene of new prospecting and drilling.

Drilling of
The Cripple Mountains, a small nest of mountains, with extremities approximately 3 miles square, with small rounded peaks rising to heights over 4,000 feet, offer very favorable formations for gold, both in lode and placer. The main core of the mountains is a quartz-monzonite intruded into surrounding lavas, of various types, and shales, slates and other sediments. Gravels are extensive in this area surrounding these mountains and gold is widely distributed, the latter being proved this season by prospecting. ~~Evidence of~~ An older topography with older channels are in evidence. Well worn boulders of small size and washed gravels of comparatively shallow depths, and mainly soft bedrocks along with evenly distributed values, makes for favorable mining conditions. However, the proving of these gravels for commercial values is the important feature and from the amount already proven, the results are encouraging. The present creeks proven are Colorado and Cripple, other creeks that offer possibilities are Butte, Folger, Eldorado and Bear.

The Cripple Creek Mining Company, operating on Cripple Creek, 2½ miles from its mouth, has 26 men employed and is working three 8-hour shifts with a steam dragline. This year the company expects to clean up 400,000 feet of bedrock. The gravels average 12 feet in depth and values of 35 cents a bedrock foot ~~were~~ reported. This ground is nearly all frozen, but by stripping with bulldozer, the ground thaws itself by the following season. The company maintains a post office, known as Folger, and also built a landing field with a length of 2200 feet and east-west direction. This field has recently been taken over by the Territory. Further, the company maintains a sending and receiving radio phone.

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Transportation into this section is very expensive. Freight from Seattle costs 130 to 160 dollars a ton via Alaska Railroad to Nenana, thence by steamer to Holy Cross and up the Innoko. Airplane costs from Anchorage per pound is 29 cents. This company has the Hard-Wilson holdings on lower Cripple Creek leased. Mr. Harold Strandberg is in charge of operations.

Opshin
S. R. Paulson is operating a hydraulic and bulldozer on Colorado Creek 6 miles above where Cripple joins Colorado, 16 miles up from its mouth. The operation is hydraulic using one nozzle and bulldozer to move gravels to a hydraulic lift. Tailings are bulldozed away from boxes. He has 10 men employed, and maintains an airfield nearly level east-west, 1500 feet in length and 100 to 200 feet wide. This year 100,000 feet of bedrock is expected to be cleaned. The gravels have an average depth of 25 feet.

In this district Wm. Gritchley is prospecting in an opencut, groundsluicing at the mouth of Eldorado Creek, a tributary of Colorado Creek. Wm. Senilka is prospecting at the head of Eldorado Creek. H. Wilson and K. Arnold are drilling with a Kirk-Hillman airplane drill on Bear Creek, a tributary of Graham Creek, the latter a tributary of Colorado Creek. Reports were to the effect that they are obtaining encouraging results.

Many possibilities for future development both lode and placer are contained in this small district. Lower Colorado Creek may prove to be a dredging area, as the valley is wide and the gravels are evenly distributed over a wide area. Pay gravels on the Paulson property near the head are distributed over a width of 1300 feet. Gold has been found in several other creeks and several discoveries were made in the earlier days. The section was not mined due to high transportation costs and no rich concentrations. Further, two types of gold are found associated together. Scheelite and stibnite is found abundantly in the concentrates. The gold is rough and has considerable quartz attached and a low fineness. A 3-foot vein of quartz and stibnite with some gold values was reported at the head of Colorado Creek, extending across to the head of Montana Creek. This was not visited, but samples for assay were promised.

McGraw-Hill 74
If the present prospecting is favorable and this district continues to develop, a caterpillar road connecting with the road at Ophir would be a good recommendation. The Strandberg operation on Candle Creek, located 15 miles southeast of Takotna is in the development stage and was not visited. This property, formerly the scene of the Candle Creek dredge, owned by W. W. Johnson, Union Construction Company, is now leased to Strandberg & Son, Inc. They hold 88 claims. A considerable amount of drilling has been done, a large area stripped with dragline and a long bedrock drain has been dug. The gravels were reported partly frozen. This is an attempt to operate with dragline ground which has been unsuccessful to dredge. Some of the unfavorable factors for dredging were lack of water, partly frozen gravels and large boulders. One or two clean-ups are expected late in the season.

The Ruby District was not visited as all operations are small and old with the exception of Gustafson's operation on Long Creek. This creek is located 29 miles south of Ruby, half way between Ruby and Poorman. This is a new operation with dragline.

September 3: En route Folger to Ophir.

Victor Hill is hydraulicking along the road on a bench, 2 miles south of Ophir. He has a large opencut with 10 feet of gravel frozen and covered with 20 feet of frozen muck.

Jim Davidson is hydraulicking with 5 men for F. Speljack on Little Creek, a half mile up from the mouth on the right limit. He has cleaned 30,000 feet of bedrock which was reported as averaging 10 cents a bedrock foot.

Arvid & Frank Larson are operating a hydraulic with two nozzles and two men on the left limit of Little Creek 4 miles up from the mouth. Last year \$7,000 was recovered, and approximately the same is expected this year. They are working bench gravels which are shallow, frozen and cemented with clay and iron oxides.

Ophir F. Puntilla is operating his 2½ cubic foot flume dredge on Little Creek, 5 miles up from the mouth. He employs 9 men and works two twelve-hour shifts. On the date of visit the dredge had reached the unfrozen upper creek gravels. An attempt was made to drift mine these in earlier days, but this failed due to excess water. This ground was reported as containing good values. *K64-30*

Uotila & Hard are operating a new dragline on lower Ophir Creek. The season had been spent prior to visit in thawing and stripping, a hundred thousand square feet with hydraulic in preparation to using dragline. A month's operation with dragline is expected. *K64-31*

Johnson & Hard are operating a highline scraper near the head of Ophir Creek, 5 miles west of Ophir. This season they expect to finish a cut containing 57,000 bedrock feet. The gravels average 22 feet in depth and reported values of 40 cents per bedrock foot. Eight men are employed. *K64-31*

September 4-5: En route Ganes Creek.

F. Speljack is operating on a bench on the right limit of Ganes Creek, 10 miles up from the mouth and one-half mile below Ganes Creek dredge. Two men are employed and one nozzle is used. This is mainly a prospecting venture and an RFC. loan was applied for on three bench claims. *K64-40*

C. Gobel is shoveling in on Macky Gulch on the right limit of Ganes Creek, 200 feet up from Ganes Creek valley on No. 1 Bench Discovery claim.

The Ganes Creek Dredging Company on Ganes Creek have been operating the 3½ cubic foot dredge all season and have dredged to date nearly *K64-40*

300,000 bedrock feet with an average depth of 16 feet. Values were reported between 15 and 20 cents a yard. The dredge is operating two 12-hour shifts. The company is operating a drill one shift in front of the dredge on Ganes Creek valley. A total of 16 men are employed.

This company has become involved in a lawsuit with the John Griffin Estate, represented by Miss E. Reidy. The company last year had under lease two bench claims, known as Yager and Minnie bench. These claims were staked by John Griffin in 1907. The claims staked lengthwise of the valley, extend from the bench on the right limit out onto Ganes Creek valley flat. Last year the dredge mined on Minnie bench, recovering a total of 620½ ounces from which a royalty was paid. This year the Yager bench was drilled and the company reported low values and the dredge was moved across the side line onto company ground. The ground alongside the Yager bench was mined this year. Now it is a question of where the side line is since the positions of both the posts and lines are not definitely known due to age and old unpatented ground.

64
Sept 15
N. Vebey & A. Schweasdell are operating a dragline on Spaulding Creek, one mile up from its junction with Ganes Creek. This has been a very successful operation with dragline, but has been unsuccessful prior with hydraulic operations. The ground averages 25 cents a bedrock foot. Dragline cleans 5,000 bedrock feet a day. Every ten days since starting in late June, they have cleaned up better than \$12,000. Only eight men are employed. The contributing factors that make this such a successful operation are:

X 64-2

1. Uniform shallow gravel with no large boulders.
2. Uniform pay across valley and on or near bedrock.
3. Soft bedrock and no cementing material.
4. Uniform grades.
5. Uniform valley widths.
6. No stripping or bulldozing required.
7. Uniform depth of gravels.
8. Plenty of water pressure - pumping not necessary for elevated boxes.
9. All thawed ground (unusual in this district).
10. Good valley length.
11. Road to operation.

Thus all the machinery necessary is the dragline and fuel oil is delivered by contract.

P. Savage & H. Matheson are operating their small flume dredge, recently purchased from Puntilla, on Ganes Creek, 13 miles up from the mouth and 3 miles above Ganes Creek dredge. This is the first season with this dredge under this ownership. Eight men are employed. Very spotty ground has been encountered. Several large nuggets were found. Since the season has been spent mainly prospecting ground with the dredge, better than expenses were reported.

X 64-40

September 6: En route Ganes to Yankee Creek.

Felder and Gale are operating their flume dredge on Yankee Creek 9 miles up from its mouth on the holdings of the 20 claims of the Flume Dredging Company. The dredge is operating on the Mayflower association or No. 10 above discovery, reworking the tailings of the Flume Dredging Company. This makes the third time this ground has been worked and still recovering gold better than expenses. Occasionally the winchman locates a large nugget on the bucket line. The largest found was \$800. Nine men are employed and the dredge operates two 12-hour shifts.

Ophir 64
The Golden Horn Mining Company (Fairbanks capital) has taken over considerable ground below Felder & Gale on Yankee Creek, but has not started any operation.

Ophir 64
The Ophir Development Company has a total of sixty claims located on the left limit of the Innoko River between the mouth of Ganes Creek to below Ophir Creek. This season they operated a Kirk-Hillman airplane drill and drilled their holdings for two miles. Good results were reported. Three men were employed.

J. Ware & R. Jackama are hydraulicking on a bench on the right limit of Spruce Creek, three miles up from the mouth. They have two men employed.

Evan Jones & Nickelson are hydraulicking on a bench above Ware & Jackama on Spruce Creek. Two men are employed.

Mrs. Anderson is drift mining on Anvil Creek.

September 7: En route Takotna to Medfra.

Medfra 65
September 8-11: Mining conditions in the Nixon Fork region have been much the same as past years. The Nixon Fork Mine has operated all season with a few hundred tons of ore mined and ready to mill. This mine has been working one shift and the mill started September 10. Seven men have been employed. Several matters concerning safety were called to their attention, however, nothing of a serious nature.

Medfra 65
This company has leased two claims, the Texas and Southern Cross to W. D. McGowan and K. Lind. They have started a 4½x5' shaft, using a highline driven by gasoline power to hoist and dump. They expect to prospect for ore from this shaft this winter.

E. M. Whelan has been mining on the old Whelan mine, and from a new shaft down 35 feet and located 300 feet east of the glory hole, he has taken nearly a hundred tons of ore. Also fifty more tons were taken from the old glory hole workings. This has been hauled to Nixon Fork mill and it is to be milled this fall. This ore was reported to run \$50 in gold per ton.

Medfra 6-5
In a small gulch, a tributary of Hidden Creek and approximately one mile south of Nixon Fork mine, E. M. Whelan has been ground sluicing. He has recovered 81 ounces from 2,000 feet of bedrock. KX 28-21

C. Winan working with one man has taken out 100 ounces on Hidden Creek. 6,000 feet of bedrock were cleaned. KX 28-21

R. Richardson is ground sluicing on Ruby Creek a few hundred feet below Nixon Fork mill. He has cleaned 8,600 feet of bedrock and recovered 52 ounces.

J. Strand is ground sluicing below Richardson. His recovery is unknown.

September 12-15: En route Medfra to Anchorage and Willow Creek.

The Independence and the Free Gold mines are under lease to the Alaska Pacific Mining Company. This company was engaged in milling 15 ton of ore per day from the Independence mine in which considerable development work has been done. Last year two hundred tons were milled from the Free Gold or Martin property. This year this latter property has been idle, but development will start this winter. In the Independence a new ore shoot over a hundred feet in length and one to six feet wide was discovered containing good values. On the strength of the ore developed and milled (\$158,000 recovered from June 6 to September 8, this year - not for publication), the company is building a new mill and power plant. A 30-ton Marcy ball mill ran by Fairbanks Morse 60 H. P. Diesel, 2-stage Gardner-Denver 2-stage compressor run by a 125 H. P. caterpillar Diesel, and four old Denver cells, are the main machinery installed. This mill is to be ready for operation in October. New camp buildings, including four small modern apartments have been constructed. Sixty-three men are employed, of which forty will be retained through the winter. Two 8-hour shifts are worked. KX 28-232 (Rec'd) 85-117

Mr. Gus Oien is engineer for the company, and considerable of the success has been due to his ability. Safety conditions within the mine and mill have been given considerable thought.

September 16: The workings of the High Grade prospect were visited. Two men have been employed this summer prospecting by drifting underground. No ore was encountered. KX 85-61

The Gold Cord mine has been operating on a small scale all year with seven men employed. The mill has been operating one shift averaging three tons a day. The ore has been mined from the old stopes and from a new shaft which is now in process of sinking below the old workings on the south side of the main fault. KX 85-29-106

The Kelly Gold Mines Corporation, located over the mountain from the Independence at the head of Willow Creek, has a new 15-ton Eldorado ball mill nearly completed. Nearly \$20,000 in development work has been spent and considerable ore was reported found. This mill is to start operating the latter part of this month. The mine was not visited, however, three veins have been proven to contain ore it was reported. - 6 - KX 85-44410

September 17: The Lucky Shot and War Baby mines were visited. Considerable development has been the major program in both mines. In the Lucky Shot nearly all of the ore has been mined. Very little ore was found below the 500' level. A few small lenses were found above the 650 level and these are being stoped at the present time. Pillars are being taken in the old stopes above the 400-foot level. Most of the stopes are filled and the occasional one not filled shows considerable weight on the stull timbers. No dangerous condition was noted as the pillars are taken very carefully. At the present time the company was drifting on the 500' level through the Lucky Shot fault into the west block with hopes of finding the westward continuation of the Lucky Shot vein. In the War Baby the ore is being stoped from the 260' level. Here the ore is 5 feet in width. Two small stopes above the 410' level are being mined, however, very little ore shows on this level. A long drift, over 3,000' has been driven west on this level through the Capp's fault under the Lucky Shot. The vein was followed for over 2,000 feet, but no ore was encountered. The company intends to raise from this level to the 650' level of the Lucky Shot, a distance approximately 800' on the dip of the vein. A problem exists as to what point to raise to strike ore if it exists between these levels. It is the writer's belief that Lucky Shot and War Baby vein is of supergene origin and no great amount of ore will be found below the 650' level. This could be definitely proven with microscopic slides with a great saving of money to the company. The ore of the War Baby being at its lower elevation is due to the rotary action of the Capps fault. The possibility of ore in the block west of the Lucky Shot fault depends upon the action caused by this fault which is possibly of the same type. An average of 90 men have been employed and the mill has been running continuously. In the mill the concentrating table has been cut out of the circuit and a Pan American jig has been added below the Marcy ball mill. This has resulted in better recovery of concentrates and more gold for amalgamation. The diamond drilling program of last year in the War Baby and to the east to pick up the continuation of the vein, was unsuccessful.

Rapp & Till have nearly completed treating the tailings of the Lucky Shot mill and are moving part of their cyanide plant to the tailing pile of the Ready Bullion. There they expect to treat 25 tons a day. A small part of the plant will be left at Lucky Shot to treat the daily mill run tailings. They have nine men employed and working three 8-hour shifts.

On the Jap property, located at the head of Willow Creek, Morris Anderson is mining and milling 200 to 300 pounds of high grade ore a day. This was reported coming from a 10-inch high grade vein.

Sydney Black is developing a small property with two men employed on Craigie Creek, near the head.

Ed Hill and Ward Schrafe are prospecting in a tunnel located on the divide between Craigie and Purchase creeks.

Jack Jefferies and Fyle did assessment work only this year on the Marion Twin and Mint properties.

September 12: The Fern Mine has been running steadily both mine and mill for the last two years with a fair degree of success. This year an average of 400 tons a month has been milled. Sufficient ore is blocked at the present time at the same rate of consumption for two years. This is above the No. 1 level not far below the surface. Ore in the present stope is 27 feet wide with 20 feet of quartz. This ore was reported averaging \$24 per ton. A raise from the stope will be through to the surface in a month's time. This will greatly aid ventilation. No. 3 tunnel level located 225 feet below No. 2 level is a new level, and driven a distance of 300 feet. This is to be driven 700 feet and to connect up with a winze on No. 3 vein on No. 2 level. This is to intercept the continuation of the ore in depth which has a flat rake to the east. KX 85-26

In the mill a new 125 H. P. caterpillar diesel is being installed to run the mill in winter. A 25-ton Straub ball mill is to be installed, replacing the Denver quartz. A new 15 kilowatt generator is installed run by Pelton for lights. In addition a new cold storage plant has been installed, a new addition to the bunk house and mill and several other improvements made. Twenty-eight men are employed.

In regard to safety, several conditions exist which should be remedied. The mine is badly in need of timber and the men in need of safety training.

The Thorpe property on Grubstake Creek below the Lucky Shot was the scene of assessment work only this year. Seventy-five feet of tunnel was driven and a high grade lense of ore was reported found. This property was not visited. KX 85-30

September 19: En route Willow Creek to Cache Creek district.

A total of 100 men were reported this season in the Fairweather, Cache and Peters creek areas engaged in mining and prospecting. Only the Peters and Cache Creek areas were visited.

The largest operation is that of the Peters Creek Mining Company operated by Pat McDonald, Inc. This operation with dragline and washing plant has been very successful. A total recovery of \$235,000 was reported for the season from a reported total of 200,000 yards. Operation was started earlier this year than usual, starting May 5. An average of 24 men have been employed working two 10-hour shifts. Mr. Ross is in charge of operations. Next season the washing plant will have to be moved to lower grade ground below former workings, since the operation has advanced upriver to a narrow canyon with not sufficient width to pass the washing plant through. This lower section has been drilled this year and profitable values were found. On date of visit P. McDonald, Inc. leased 10 miles of ground on Cache Creek which includes the Murry, Harper and Morgan holdings, only creek claims being leased. These holdings are to be prospected and drilled this winter. KX 85-30

P. McDonald, Inc. has four men prospecting on Pass Creek, a tributary of Camp Creek.

September 20: En route up Peters Creek.

H. A. Peters is hydraulicking with one giant on the left limit of Peters Creek, 6 miles above Petersville.

Larry Cummins and Fred Strunks are hydraulicking bench ground on the left limit of Peters Creek above H. A. Peters. They have cleaned up 4,000 bedrock feet which averaged 16 cents a bedrock foot.

On the Tokichitna River above the West Fork, the above found a 2-foot vein of quartz, which was traced over a mile and a half. This vein was reported in schist with numerous dikes and near granite contact. Samples seen from this vein show a glossy to white, strained and fractured quartz, heavily mineralized with pyrrhotite, pyrite, chalcopyrite and sphalerite. This was reported to pan considerable free gold. Results of assays were promised to be forwarded to this office. One specimen sample is on display in this office.

Last year Mr. F. L. Wagner, operator at Bird Creek, had two men prospecting at the head of Bear Creek, a tributary of the Tokichitna River. They found one hundred ounces of coarse gold in one spot, mainly nuggets. The nuggets were very smooth and bright and another type of gold was rough with considerable quartz. The largest nugget was four and a half ounces. This year they returned to the spot, but could not find any more coarse gold.

Frank Jenkins is hydraulicking on Willow Creek, a tributary of Cottonwood, the latter a tributary of Peters Creek. He has three men employed and working ground that runs 30 to 50 cents a foot.

D. Francis is sniping on Jenkins' ground above Jenkins' operation.

Erickson Bros. are sniping at the head of Willow Creek.

Ed Wagner is hydraulicking on the M & M. claim on a bench on the left limit one mile above Petersville. He has two men employed.

The Dutch Creek Mining Company is hydraulicking with eight men on First Creek, a tributary of Dutch Creek. This is operated by M. Tripte. Thirty thousand feet of bedrock was reported cleaned up this year. Last year sixteen thousand dollars was taken out. This operation was reported closed down for the season and was not visited.

E. Sinclair and E. Blair are prospecting with an automatic dam on Dutch Creek, four miles below Tripte.

Considerable prospecting and some mining was carried on in the Fairview section to the west of Cache Creek. No new finds were reported.

M. Hamburg, J. De Vault and J. Glaska are operating a hydraulic with 12 men on Pass Creek and prospecting on Sunflower.

Pat Collins is working a small hydraulic alone on Camp Creek near the head.

Several companies in this district have sent prospectors into this section.

F. L. Wagner is operating with a large hydraulic plant on Bird Creek, one mile up from the mouth on the old C. Hammersmith property. This property, a group of 24 claims, is owned by the Alaska Exploration Company. This ground was formerly held by the Alaska Continental Gold Mining Company. This season only 10,000 yards of material was moved and the value is not known. Due to the hard compact cemented nature of the bank and gravels, the operations of the former company failed. Drilling of this ground, a bank over a hundred feet high, was recommended and if results are favorable, a cylinder washing plant was recommended. This year 14 men were employed. Next year considerable more ditch is to be dug and a much larger hydraulic plant is to be installed.

September 21: En route to Cache Creek.

A total of 46 men are engaged in mining in the area drained by Cache Creek and its tributaries. A road built by the Alaska Road Commission extends from across the Susitna River at Talkeetna to Petersville. This road is passible with truck to within six miles of Petersville. The remainder is only graveled in spots and is under construction, but is possible with caterpillar. From Petersville the caterpillar road extends up Peters Creek to Bird Creek and over and down Cache Creek and around 18 miles from lower Cache Creek joining a caterpillar road from Fairweather section to Peters Creek road house at mile twenty-three on the Petersville road. This winter and fall the road is to be built four miles north of Petersville and a bridge put across Peters Creek.

This district appears to have considerable promise for the future, old high bench channels have been discovered with better pay than the present creek bottoms were. One was opened up on Nugget Creek by Olie Dahl, whom took out \$8,000 from a few hundred bedrock feet this season. Another on Falls Creek just opened up by Carlson and Anderson. The Peters Creek Mining Company plan big operations on Cache Creek if the ground proves up.

One of the most discouraging factors is the high freight rates into this section which are higher than many camps in the interior. Freight costs \$100 a ton from Talkeetna under the present transportation by caterpillar of J. De Vault, whom also has a government contract for transporting persons across the Susitna River at a cost of two dollars a person each way.

Reeve & Reeve are hydraulicking on the Nagley group of claims at the mouth of Gold Creek near the head of Cache Creek. They cleaned 64,000 feet of bedrock which was reported to average six cents a foot. Two men are employed and two giants used.

Olie Dahl was hydraulicking on an old channel, 150 feet above the bed of Nugget Creek half a mile above the mouth. Dahl took out \$8,000 this season up to September 1 after which time this property was bought by C. P. Morgan and R. H. Kellogg from Mrs. Murray. Since Dahl had no lease these workings were taken over and operated by Morgan & Kellogg, working three shifts with five men. They expect to take out a few thousand more yet this season. This ground in this channel is approximately 200 feet wide and was reported to run two dollars per yard.

T. Weatherall is doing assessment work on ground on the right limit of Gold Creek, a tributary of Cache Creek.

Fred Dazel is sniping with a small hydraulic on the Murray ground below Rambler Creek on Cache.

Frank Tareskie is hydraulicking on Cache Creek below Nugget Creek on the Murray ground.

Tony Marco and Joe Dorsey are sniping on Falls Creek at the mouth of the Canyon.

Geo. Petioff and partner are ground sluicing on upper Nugget Creek.

Sanford Bros., T. & E. are hydraulicking with a 300' head on Falls Creek, a mile up from the mouth on Nagley ground. They have cleaned 25,000 feet of bedrock which was reported as averaging 12 cents a foot.

J. Anderson & Carlson have been prospecting on Falls Creek for the last two seasons and have just opened up a high bench channel, $2\frac{1}{2}$ miles up from the mouth on the left limit. This channel is nearly 200 feet wide and the bottom pay gravel is from 8 to 12 feet thick. This is covered with 50 to 60 feet of glacial gravels. This channel gravel was reported as averaging 67 cents a bedrock foot. This channel is 40 feet above present creek and was reported traced for a mile and a half. Next season they expect to put in a hydraulic plant. Considerable coarse gold is found on bedrock.

J. Snyder & Muir are hydraulicking on a bench on the left limit of Dollar Creek, $5\frac{1}{2}$ miles up from the mouth.

Jeff Wilson is sniping on Dollar Creek on the Nagley ground.

Hans Erickson is ground sluicing and prospecting on Spruce Creek, a tributary of Cache Creek.

September 22: The Thunder Creek Mines has been mining on six bench cuts on Thunder Creek, cleaning 28,000 feet of bedrock this year, which was reported containing values of 10 cents per foot. Only one man is employed.

Mrs. Murray and C. Harper have been operating a hydraulic on Cache Creek at the mouth of Falls Creek. Five men have been employed. 5,500 feet of bedrock has been cleaned. Two 8-hour shifts are worked.

J. Krunnenacher is operating a hydraulic on Chechacko Creek, 1,000 feet up from its mouth on Cache Creek, one-half mile below Falls Creek. One cut was mined this year that averaged 14 cents a bedrock foot. He is mining alone.

George Anderson was reported constructing a small mill on his property at the head of Nugget Creek. He is reported as having an 8-inch quartz vein in graywacke that follows along a small dike and the dip is very flat. Considerable free gold is reported showing in the vein. Eighty samples taken on the vein were reported to average \$2 a ton.

September 23-26: En route Cache Creek to Girdwood and Crow Creek Mining Company.

September 27: The Crow Creek Mining Company, located 9 miles east of Girdwood, has been milling intermittently during the season. The company now owns the Monarch & Jewel mines. A new aerial cable was built from mill to the Jewel mine, and three ton of ore was milled. Some development work was done in the mine. Mining at present consists of taking out pillars in the Monarch. Two hundred and fifty tons was mined from the north vein this season. A lower tunnel was driven to pick up the south vein at vertically 100 feet below. This vein was not found due to the fact the ore plunges to the south and the tunnel was not driven far enough to hit the plunging orebody. An average of five men have been employed during the season. K1-85-64

September 28: The Greenback Mining Company, located below the Crow Creek Mining Company, has been engaged in driving a crosscut 300 feet south of their incline shaft in from the bank of the creek. This tunnel was driven 150 feet this year with two men on contract, but the vein was not intercepted. No milling has been done this year and the lower workings are filled with water.

Mr. H. Bahrenburg is doing assessment work on his property above the Crow Creek Mining Company on the Hottentot claims. Also he has been prospecting for placer on the top of the mountain in glacial morain. Snow prevented seeing this property. K1-85-21

September 29: A. S. Erickson is operating a hydraulic plant on Crow Creek three-fourths of a mile above the canyon and five miles up from Girdwood. A total of seven men are employed working two shifts. Approximately 50,000 feet of bedrock was cleaned this year which averaged according to reports 75 cents a foot. Evidence of old channels covered with glacial material are in evidence here.

September 30: En route Girdwood to Moose Pass.

October 1: En route Moose Pass to Hirshey Mine.

October 2: The Hirshey Mine was visited upon special request of Mrs. Hirshey, who has the mine up for sale. For the nine claims (non-patented), mill site and all equipment, Mrs. Hirshey wants the sum of \$10,000 with no payment for one year and terms, or \$1,000 down and the balance of \$5,000 on terms, the latter totaling \$6,000. A sketch of the workings was obtained and a few samples taken. Most of the higher grade or profitable ore has been mined and stoped. However, there are two crashshoots on the lower level which extended below the level. It is a question as to values in these short narrow shoots as to whether they will warrant either sinking or along crosscut tunnels. Mrs. J. Hirshey is in Seattle for the winter at 320 Cedar Street. Kk 95-47

October 3: The New Hope Mine is located on Palmer Creek, one mile below the Hirshey Mine on the same side of the valley. This is a new discovery found by R. Hatcher last July (discovery mentioned in summary report of last year). It is owned by E. Swetman and only two claims are staked. Two small quartz veins intersect on the surface with widths from four to twelve inches. They are exposed nearly a hundred feet. This season a crosscut tunnel was driven 76' below the outcrop, but failed to cut the veins and a portion of the crosscut was driven into the footwall. This was due to the fact that the veins did not continue after intersecting and the intersection has a decided rake away from the direction of the crosscut tunnel. This was pointed out to the miner and he was started in the direction of the intersection. Kk 95-128

October 4: The Sunshine group of claims, seven lode and two placer claims, are located two miles below the Hirshey mine on Palmer Creek and on the opposite side of the valley. This group is owned by T. Sobel and Son. Sobel has two tunnels into the mountain. The upper tunnel follows a small banded vein which is intersected by a flat vein in massive gray-wacke. The lower tunnel, over 400 feet in length fails to locate the vein. The result was due to driving into the hanging wall and following a fault. This work was all done by hand. The upper tunnel was sampled and sketch made of workings. Kk 95-31

October 5: The Gold Mint group, located on the right limit of Palmer Creek six miles down from the head, consists of 11 claims owned by I. Nearhouse. The upper surface showings visited by H. Townsend were not Kk 95-21

visited due to snow. Below, Nearhouse has a 240' crosscut tunnel driven by hand which intersects the vein. On the vein he has driven over 90 feet on continuous ore that varies from a few inches to thirty inches. This was sampled and a sketch was made. This ore pans considerable fine gold. The mill is off the road approximately 1,000 feet and between 300 and 400 feet above. Nearhouse milled a few tons of ore which was packed down by horse, but to date he has not retorted his amalgam. He has a Straub sectional mill - 3 to 6 ton size. He wants a caterpillar road built to the mill for transportation of supplies. This could easily be done with bulldozer as no brush or trees are present. The length would be less than 2,000 feet and the cost would be small. Thus he could contract his supplies and machinery delivered to the mill. He intends to raise money for an aerial tram to the mill. This would be a very good recommendation to the Bureau of Public Roads which is maintaining this road from Moose Pass and Hope and Palmer Creek.

The placer operations on Resurrection Creek were not visited as some were closed down for the year.

Earl Clark is hydraulicking on the property of the St. Louis Mining Company $4\frac{1}{2}$ miles up Resurrection Creek from Hope. He has eight men employed and is working two 10-hour shifts. Reports were that \$20,000 was taken out this year.

Clark Bros., E. & C., and Beiswanger have eight men employed hydraulicking on Resurrection $3\frac{1}{2}$ miles up from Hope. Reports are lacking in regard to production.

A partnership company (name unknown) has 12 men employed hydraulicking on the old Pearson ground. They were reported as having only a small clean-up.

Joe Richards was reported sniping on Bear Creek.

Wm. Taylor was reported prospecting on a quartz prospect four miles up Bear Creek from the mouth.

Ed Hahn is hydraulicking with one man $4\frac{1}{2}$ miles up Palmer Creek from the mouth.

Louis Shell is operating a hydraulic plant with one man $2\frac{1}{2}$ miles up from its mouth on Turnagain Arm.

October 6: En route to Oracle Mine.

Mr. Ralph Reed has a lease on the Oracle Mine which follows after the lease by Dunkle of last year. This year considerable development has been done in the main crosscut tunnel. An ore shoot 150' in length with an average thickness of 12 inches and extending to upper level has been proven. This ore was reported to average \$45 in gold a ton. A complete new mill

and plant has been constructed. A new type of mill, known as Spaulding Airplane Ball mill, capacity 15 to 25 tons, was installed followed by a Titan rotary amalgamator and Eclipse concentrator. This mill was ready to run on date of visit. This is the first mill of the kind in Alaska.

On the claim above the Oracle Mine Mr. Lindsley has constructed an arrastre and running ore that was developed by Dunkle last year. The arrastre is run by water power and over a hundred ounces of gold was reported recovered.

Mike Connley is hydraulicking on lower Sixmile Creek. This property was drilled last year by L. Johnson who had a lease on it then.

G. C. McCann, located at Mile 33 on Sixmile Creek, owns a group of five claims in creek. Next year he expects to put in a hydraulic plant. This year he has been working alone digging ditches. He is also caretaker for the Kenai Dredge Company. He reports that the sellers of the 40 H. P. caterpillar diesel took it back for balance due.

E. Mullen & H. Edwards were operating a small scraper dumping into boxes on the left limit of Sixmile Creek at Mile 31 and 40 feet off the road. They ran 320 yards of gravel and it averaged 13 cents a yard.

October 7: Oscar Dahl was prospecting at the mouth of Juneau Creek.

Jack Shields was working a cut on a bench at Mile 20.

Kanack and partner were ground sluicing two months this season on a bench above the mouth of Mills Creek.

At Mile 24 Sam Gatis was working alone on Canyon Creek.

At Mile 25 Davis was preparing ground for hydraulic operation on Canyon Creek.

October 8: C. G. Plowman & H. W. Edwards are hydraulicking with two men at the mouth of Mills Creek located at Mile 20½. Two small pits were worked this season and recovery was reported small.

October 9: En route to Seward.

E. & L. Tulare have purchased half interest in the Crown Point mine located at Mile 29 on the Alaska Railroad. O. Prosius shipped some ore this season. This mine has been recently surveyed and winter program of development has been laid out. A visit was not necessary at this time. The Tulares reported finding a new ore shoot.

October 10-13: En route Seward to Juneau.

October 13-22: Home office, Juneau.

October 23: En route Chichagof.

October 24: The McKallick property, known as Alaska Gold Digger, and located a mile and a half southwest of Chichagof, has been incorporated into a million dollars, one million share corporation known as the American Gold Company. McKallick has been drifting by hand with one man. In extending the hanging wall crosscut of last year, a 2 to 6 inch vein of quartz was encountered. This was drifted on a total of 32 feet. To date besides the surface work of two years ago a total of 108 feet of drift and 46 feet of crosscut have been completed to date. A total of three small shear veins are present. The last vein was sampled at five foot intervals. Prior samples are contained in report of Alaska Gold Digger gives returns. A sketch was made of the drift. Free gold shows in the quartz of this latter vein. Mr. McKallick is president of the company, J. Hermle, vice president and J. Thibodeau, secretary.

October 25: The Chichagoff Mine was visited in company with F. Hills, superintendent. The company is engaged at the present in development work. They have started a new shaft 50 feet in the hanging wall. This shaft is to be two 4'x4' compartments and vertical. It is to extend from 1900 to 2000 level, distance 150', of which over half is completed. Then they intend to sink another 150 feet to 2100 level and stope three ore shoots known on the 2000 level. This shaft is so located that if values prove up satisfactorily on the 2100 level, it will be raised to the 1200 level and possibly further, also this shaft will not cut the vein since the vein changes dip below the 1900 to the east a few degrees. The 2000 level is connected with a through raise and this makes through ventilation to the surface. An important examination was made of this mine this summer by a Mr. Anderson from Portland. He examined the mine taking samples of quartz and wall rocks in the old stopes from the main level down. Slides were to be made and the mine studied for possible ore in depth for Portland capital. The mill has not run since September 15 and will not until after shaft is down to 2100. Some milling ore still remains in the stopes between 2000 level and 1900 level. This cannot be mined during the development. The future depends on values of the ore in the three shoots below 2000 level. A total of 54 men are employed. In regard to safety, conditions were not as bad as expected.

October 26: En route to Juneau.