

TERRITORY OF ALASKA
DEPARTMENT OF MINES
JUNEAU, ALASKA

JR 195-6

REPORT OF INVESTIGATIONS BY HOWARD M. FOWLER
ASSOCIATE MINING ENGINEER, TERRITORIAL
DEPARTMENT OF MINES IN THE

HYDER, KETCHIKAN, WRANGELL, PETERSBURG,
JUNEAU, SITKA, AND SKAGWAY PRECINCTS
MAY 24 TO NOVEMBER 10, 1950.

May 24 - Juneau to Ketchikan

There is little evidence to show that assessment work is being done. Apparently, the majority of claim holders intend to falsify assessment work, or plan to drop their claims.

May 29 - To Hollis

Mr. Jim Matuska at Hollis is holding the Cascade claims, the Puyallup (i.e. Hope) claims, and also is maintaining the Lucky Nell group. Actually, later examination indicated that sufficient work was apparently not done on these claims.

KX-119-30
KX-119-29

May 30 - Wendell Dawson's mine at Hollis was visited

KX-119-8

Mr. Dawson returned to the property from Utah on February 1, 1950 in an attempt to make an early season start. However, he was seriously handicapped by heavy snows and found that he actually would have been farther ahead by returning at least six weeks later.

Mr. Dawson's lawsuit with Howard Larned of Seattle was decided adversely for Mr. Dawson by Judge Folta during the spring session of court at Ketchikan (Opinion No. 2681Ka. Filed: May 11, 1950).

Mr. Larned in his suit against Mr. Dawson contended that Mr. Dawson had staked two claims near Hollis, Alaska, that over-lapped claims owned by Mr. Larned. Previous separate examinations by Mr. Aner Erickson, Ketchikan engineer, and by Mr. Howard M. Fowler, Associate Mining Engineer for the Territory of Alaska, Department of Mines, failed to disclose any discovery monuments or corner posts on the ground claimed by

Mr. Larned. No side lines could be found by Mr. Fowler, but occasional old blazes were found, although they had no apparent connection with the claim boundaries; i.e. it could not be determined definitely just where the claims in question lay. The court decided that Mr. Larned could return and re-establish his old claim lines, and the claims would be valid. Mr. Dawson was charged a \$5.00 token damage, but was also assessed all court costs, and costs of the plaintiff--even to expenses of witnesses from Seattle. This amounted to \$1,300.00 which, it is reported, was later reduced to \$800.00.

During the past summer, it was reported that Mr. Brown, surveyor at Ketchikan was employed by Mr. Larned to re-run the claim lines. According to the report, a preliminary survey showed that Mr. Dawson was never on the ground in question, and that when Mr. Larned's claim lines are laid out, Mr. Dawson's ground will be found to be approximately 150 feet above Mr. Larned's end claim line. After the preliminary survey disclosed this condition, no further attempt was made to re-establish end lines on Mr. Larned's claims. This in effect, continues to throw a cloud on Mr. Dawson's title to ground in the area, and makes it difficult for him to raise the necessary capital to properly develop his mine. /

May 31 - Hollis to Ketchikan

June 1 - 2 - At Ketchikan

June 3 - To Moth Bay, Revilla Island

This property was being diamond drilled by a U. S. Bureau of Mines crew under direction of Mr. Robert Warfield, Bureau of Mines engineer. Several holes were drilled, but final results of the drilling program are not yet known. It has been stated by Bureau personnel that a visual examination of the drill cores indicated that the mineralization was weak at the points of intersection with the structure in question. A report by the Bureau will be released at a future date.

Mr. Howard Hayes has stated that he has been approached by Mr. Stanton Warburton of Tacoma, one of the owners of the Moth Bay Property, with the proposal that Mr. Hayes remove the ore showing on the surface. Previous examinations have indicated an ore averaging about 8 percent zinc, 3 percent copper, and two or three dollars in gold. Tonnage estimates are not available.

June 4-5 - At Ketchikan

June 6 - To Mr. Bob Novatney's at Helm Bay

June 7 - At Novatney's claims

Mr. Novatney's claims were still too deeply buried in snow for an examination. Mr. Novatney was interested in having his claims surveyed and mapped, and was told that a return would be made at a later date for that purpose.

Ketchikan 120
A trip was made to the Buggee claims on Helm Bay. This property consists of four unpatented claims, and lays adjacent to the Gold Standard Mine owned by Doctor Dickinson of Ketchikan. *KX-120-43*

Assessment work on the Buggee claims is being done by Bob Novatney. Tunnels are being cleared out, and beach cabins are being torn down or repaired.

The Gold Standard (19 claims) has had no work done on it for many years. The bunkhouse is in a poor state of repair, and the mill building is on the ground. Doctor Dickinson plans to re-habilitate the bunkhouse, but for what purpose is unknown. *KX-120-88*

June 8 - Bert Libe's Blue Jay Mine

This property consisting of two claims was visited. Surface buildings are in good condition. A thorough check was made of the surface and underground workings, and later examinations of recordings in Ketchikan showed that Mr. Libe filed that his work was done. *KX-119-124*
KX-120-91

Helm Bay 119-119
In checking the underground structure, a split was noted entering the left rib of the right drift. The split occurred at a point approximately three fifth of the distance from the cross-cut tunnel to the drift face. There is a possibility that this split may prove to be the main ore structure. One sample (HMF 115) was cut on the split with low results. However, inasmuch as the compressor and airline is already in, one or two rounds should be driven on the split to determine its ore possibilities.

The Sleeping Beauty prospect of Henry Stensland on Helm Bay was checked. The Stenslands arrived in Helm Bay on the morning of the eighth with a rigging scow to do assessment work. The Stenslands planned to do assessment work on the four Sleeping Beauty claims, nineteen Gold Standard claims, and four limestone claims on George Inlet in the 22 days left. *KX-119-162*

in the assessment year. Actually, as later announced, the assessment year was extended to the first of October.

The assessment work planned by the Stenslands for their property was to construct a float in front of the beach cabin. Investigation showed no work having been done for several years on the prospect. Mr. Stensland talked of driving a small amount of tunnel work on the property at some indefinite future date. He was advised to first systematically trench the vein structures before attempting an expensive tunnel project.

June 9 -

Two quartz outcrops near Mr. Novatney's beach cabin were examined and sampled. Sample HMF 116 was a grab sample of a 2 foot wide quartz kidney on the right bank of a creek approximately 100 yards north of the Novatney cabin. The assay results were negative. Sample HMF 117 was taken across a quartz vein 1.3 feet wide and about 100 feet back of the Novatney cabin. The results of this sample were also negative. The beach area of Helm Bay is spotted with this type of barren quartz outcrop in schist and seldom carries any appreciable amount of gold.

June 10 - Return to Ketchikan

June 11-12 - At Ketchikan

June 13 - McKay trip to Hyder delayed. Remain at Ketchikan.

June 14 - To Hyder via Fred McKay mailboat

June 15 - Arrive at Hyder

A visit was made to the Riverside Mine during the afternoon. This property was leased by J. H. Scott of San Francisco, California in April 1950, to Col. E. M. Thomson of Vancouver, B. C. The property is now called Riverside Tungsten Mine, with home address at 81-553 Granville St., Vancouver, B. C. Present Mine officials are: Ed Moore, Mine Engineer and Manager; Bob McLeod, Mill Superintendent; Norman Potter, Mine Foreman; Tom Bailey, Timekeeper; and Joe McConnell, Afternoon Shift Boss. Employment at the Riverside Mine averages about 32 men.

The Riverside mill and powerhouse were safety examined during the afternoon with the following results:

POWERHOUSE

Safety
Power Safety
June 16

1. Belting and pulleys are exposed and need guards.
2. Pressure gauges are not of sufficiently high calibration to give accurate readings for pressures maintained in air receivers.
3. Air receivers have no recorded tests. Receivers should be tested at least once each six months at a pressure 40% above maintained pressure.
4. The powerhouse does not have adequate fire protection either in the form of hoses or extinguishers.
5. There are no guards or goggles on grinding wheel.
6. There is no guard around electric panel board.

OUTSIDE

1. Approximately 80 cases of powder were sitting alongside the road and mill for at least two days.

MILL

1. Belts and pulleys are exposed and need guards.
2. Inadequate guard rails have been constructed along cat walks and stairways.
3. Guard rail must be placed around head of ball mill. Man on chute can slip and fall 12-15 feet on top of moving ball mill.

June 16 -

The underground workings of the mine were safety examined.

MINE

1. Air receiver has no safety valve or pressure gauge.
2. Powder magazine is improperly located with respect to surface and mine workings.

General conditions in the mine are fair; however, additional timber needs to be placed in operating stopes and caution should be taken to keep manways in good state of repair with ladder offsets at least each 20 feet.

Dr C 118

General attitude of the present Riverside management towards safety appears to be good. Mr. Ed Moore, a recent graduate of the University of British Columbia, is cooperative and appears to be correcting the state of disorder, which existed prior to his arrival, as fast as he is able.

June 17 - Last Chance Claims

Dr C 118

To Last Chance claims on Upper Fish Creek by saddle horse. These claims (four) are held by Mr. Sidney Anderson of Hyder. Mr. Anderson desired a check of outcrops to determine if any radioactivity was present. Examination disclosed no activity on examined outcrops.

June 18 - Return to Hyder

June 19 -

KX-118-33

Mr. Lester Bigham and wife, former residents of Hyder and nephew, Dick Bigham were in Hyder on a mining promotion. Mr. Lester Bigham had recently purchased the Homestake Prospect located on Texas Creek from a Mr. Rosenberg, formerly of Hyder but now a resident of California.

Mr. Bigham has ideas of large scale mining promotion, and in line with that purchased the Homestake for \$5,000.00 sight unseen. He also has two other properties on Texas Creek all of which are represented as high grade lead properties-- one called the "Bessie B" and the other with no name. Mr. Bigham formed a company called the Black Diamond Consolidated Mining Co., incorporated in Delaware for \$500,000.00.

Dr C 118

Mr. Bigham has setup his nephew, Dick Bigham, as President of the corporation, and himself as Secretary. Then he persuaded his wife to sell stock to her relatives. With the money from the stock sale and with money he could borrow from his nephew, he then paid for the Homestake. With part of his remaining capital he purchased a 300 c. f. Worthington Blue Brute Compressor and various items of second hand drilling equipment in Seattle and Spokane. Then, knowing that the Jones Act prohibited him from shipping his equipment to Hyder via the Canadian Steamship Line servicing the area, and knowing that John Scott of the Riverside Mine had a special permit allowing him to ship over the Canadian line, Mr. Bigham shipped all of his equipment to John Scott in care of the Riverside Mine. Upon arrival at Stewart, B. C., the customs papers were not quite in order, but the customs officials thinking that the consignment

was for Mr. Scott, cleared it, expecting to straighten out the papers later. Meanwhile, the Riverside Mine people were expecting a compressor, and so thinking this one had been sent for them, accepted it. When Mr. Bigham went to collect his compressor, the true picture came out, and Mr. Scott then refused to accept it on his permit as he could not risk a violation and possible loss of his permit.

The end result was that the compressor was impounded and returned to Seattle. A short time later, Mr. Bigham apparently thought he had his difficulties ironed out because he shipped the compressor to Hyder again by the Canadian Line. It was again impounded and returned south. After further maneuvering, the compressor came north again, and was finally allowed to remain.

Dr. C. 118
At the time of my visit to Hyder, the two Mr. Bighams were making no effort to engage in mining activities. Upon my insistence, an examination of the Homestake was conducted. This prospect lies on the west fork of the tributary to Ibex Creek, and on the opposite side of the valley from Casey Glacier. It is nearly 2,000 feet above the valley floor, about one and one fourth miles from the road, and at an elevation of approximately 3,500 feet. Because of excessive snow conditions, it is accessible for only 3 months a year. From the road, a pack horse trail has been cut to the prospect, but the trail has such an adverse grade over much of its length that it is not suitable for packing operations.

Examination of the Homestake Prospect disclosed a vein structure of approximately 150 feet exposed length with a strike of N 20° E and dip 44° E. The north 75 feet is strongly mineralized. One sample cut across 4.5 feet assayed:

<u>Sple. No.</u>	<u>Width</u>	<u>Oz. Cu</u>	<u>Oz. Ag</u>	<u>% Pb</u>	<u>% Zn</u>	<u>% Cu</u>
HMF-119	4.5'	0.04	4.36	39.56	Trace	1.42

A 12 foot tunnel has been driven across the ore structure at about 10 feet below the outcrop. The structure has a rapid increase in silica to the south with a resultant decrease in mineralization. The strike of the vein structure is such that it would outcrop on a sheer cliff face a short distance to the south. However, there is no evidence of the structure on the cliff. It has apparently faulted or pinched

Br. C. 118

out under the talus lying in front of the cliff. To the north the vein pinches out abruptly a few feet from the ore shoot. Its projection is covered by snow and therefore could not be traced. Due to the limited size of the mineralized zone, and its apparent lack of extensions either north or south, and because of its inaccessibility, and the short possible working season, the prospect was judged to have no further present merit. Mr. Bigham was advised to waste no more of his time or his money on it.

June 20-21 - At Hyder

June 22 - To Chickamin Glacier

June 23 -

To Mt. Andrew on opposite side of Chickamin Glacier to investigate aplite dikes in the area for possible U_3O_8 content.

June 24 -

The Mt. Andrew area proved to be too heavily buried in snow for an examination. It, therefore, was postponed until a more apropos future date.

June 25 -

An arrangement was made with the Bighams for an examination of the other two prospects on which they were attempting to promote. Mr. Lester Bigham had declined the examination on several previous requests, and it was only on the insistence of the field engineer, and the nephew, Mr. Dick Bigham, that the examination was arranged.

Reference 120

Mr. Lester Bigham, Mr. Dick Bigham, and myself traveled to the foot of Ferguson Glacier where, in a creek bed, there was supposed to be a 16-inch width of solid galena. Mr. Bigham was unable to locate the vein. A reconnaissance by the writer failed to have any results. The other prospect, the Bessie B, was supposed to be located on one of the valley walls overlooking the Ferguson Glacier, about three miles back from the foot of the glacier. After a trip back over the glacier, Mr. Bigham said that he could not locate the Bessie B although he stated that he had at one time cooked for a crew driving on it. The cliffs overlooking the glacier were nearly bare, and a survey with field glasses failed to locate a tunnel portal. Inasmuch as the crevasses were numerous, and since the snow filling the cracks was half rotten, it was decided that for the sake of safety, no further search would be conducted. At any rate, a property located here would have to be unusually good to be minable.

June 27 -

KX-118-44

The Bighams have decided that they will consider purchasing the Cantu Property near the West Fork of the Salmon Glacier in order to continue their promotion. This property is now owned equally by Frank Blasher, Little Joe Frank, and Sid Anderson, all from Hyder. After consulting among themselves, the owners have decided they will sell the property to Lester Bigham for \$25,000.00 with \$3,000.00 cash down or for \$10,000.00 cash to be divided \$3,000.00 to each of the partners, and \$1,000.00 to go to Bigham for buying it.

Br. C. 113

This property overhangs the Salmon River Valley, and is at least 1,500 feet above the valley floor. Access to a point 200 feet from the outcrop is by an extremely steep pack trail. Two short tunnels have been driven on the vein. The lower has been covered over by slide material, and is not accessible without considerable work. The upper tunnel is only about 30 feet long, and is driven on a structure containing heavy sulfide mineralization--mostly pyrite. However, the outcrop above the tunnel while well exposed is at present completely impossible to travel. Iron pins have been driven several feet apart into the rock to hang on, but part of these have been bent over by falling boulders. Inasmuch as it was 1,500 feet to the valley floor, it did not require a great deal of consideration to decide not to make a further examination at this time. However, this property may have some merit if properly handled, so a further examination may be made during 1951 with proper equipment and assistance.

June 28 - At Hyder

June 29 - July 3

KX-120-8450

At the Mountain View prospect investigating U_3O_8 occurrences. On July 3, the geiger counter was apparently out of order, and it was sent to Ketchikan to be repaired. It was necessary to have the counter checked against standards at that office since at that time, no standards were available for field use.

Ketch 120

The U_3O_8 investigation is under a separate report, and reference should be made to that cover.

July 4-5 - At Hyder

July 6 - At Mountain View Prospect

July 7 -

Inasmuch as the geiger counter has not yet been returned from Ketchikan, and no other examination is pending, advantage was taken of an offer to visit the Tide Lake Gold property at Tide Lake, British Columbia. This property, although extremely isolated, has minable amounts of electrum. Inasmuch as this deposit is extremely unusual, and occurrences of this mineral are known on the Alaskan side, the visit was fully warranted. It was hoped that clues to this type of mineral deposition might be of assistance in evaluating the Alaskan occurrences.

July 8-9 - Tide Lake Gold Property

1000 feet
The Tide Lake Gold Property, more properly called the East Gold Mine, and formerly called the Pioneer Group is located on the east side of the valley formerly filled by Tide Lake at the head of the Bowser River. Today, Tide Lake occupies only the extreme upper end of the valley due to the major portion of the lake having drained out through the rotting ice of the Franknackie Glacier which blocks off the lower end of the valley. The property is owned by Mrs. Peggy Phillips, of Stewart, B. C., and operated by her husband, Mr. Al Phillips.

The Tide Lake property is found in a series of tuffs, tuffaceous sediments, greywacke, and argillites. The major structure in the area is a closely folded anticline with a north-northwest strike, and a southward plunge. Much shearing and folding is evident, and probably was caused by sympathetic movements to the intrusions of the Coast Range batholith, although the deposition of the electrum deposit is not considered to be a part of that intrusion.

The electrum, when first discovered, was mistaken because of its pale yellow color for pyrite, and some time elapsed before its true identity was learned. Although gold mineralization occurs on the property in several narrow quartz veins, and shear zones, it has been found economically important only in two narrow (maximum width is 2 feet) high grade veins. The electrum is found associated with quartz, galena, sphalerite, calcite, pyrite, chalcopryrite, pyrargyrite, tetrahedrite, and arsenopyrite. The richest of the ore has been found in the widest sections of the veins, and in those zones a considerable abundance of calcite is noticeable. In the lower grade and narrow sections, quartz is the predominant gangue mineral. There is virtually no surface evidence of the ore structure, as it has a reverse dip near the surface, and is marked only by a narrow knife edge fracture.

Studies by Mr. Allan P. Fawley of the Department of Geology, University of California, show that the electrum in one of the veins has a gold fineness of 404 = 10, and an assumed silver fineness of 596. Mr. Al Phillips, who is working the property, states that the second vein was not discovered until after Mr. Fawley's visit, and that the electrum in it has a gold fineness of 596 = 10, and a silver fineness of 404. One is just the reverse of the other. Ruby silver (Pyrargyrite) is often found in close association with the electrum.

Mr. Fawley made a considerable study of the Tide Lake occurrence for his Master of Science Degree in Geology at Queen's University. Mr. Fawley's studies showed that the various minerals present at the property are of primary deposition--this is in spite of the fact that although there is no evidence of secondary enrichment, the grade of the ore decreases rapidly with depth. In a raise to the surface, ore averaged 60 oz. gold and 100 oz. silver per ton. On the adit level, less than 100 feet below the surface, the ore averaged 20 oz. gold and 45 oz. silver per ton, and in a short winze, the ore went 10 oz. gold and 30 oz. silver. Studies by Fisher of gold deposits over the world show that the silver-gold ratio has a definite bearing on the temperature of deposition. From these studies, it can be shown that the deposit is of epithermal origin.

The visit to the property disclosed some unusual mining conditions. Although a nearly new compressor was at the property of sufficient capacity to run a small machine, Mr. Al Phillips has no faith in a miner's ability to drill holes properly with compressed air, and so insists on stoping being done by single and double jacking. After the ore is broken, it is trammed to the portal in a wheel barrow, and dumped on a muck plate. There it is sprayed with a garden hose and the large pieces of electrum pounded off the ore with a hammer. The electrum is tossed in a five gallon kerosene can and the rest of the ore chunk is sacked. The cans of electrum are packed five miles to Summit Lake and flown to Stewart, B. C. The balance of the ore that is sacked is pack horsed seventeen miles to the Big Missouri Camp where it is transferred to a truck and taken to Stewart, B. C. A shipment of nearly five gallons of electrum at the time of the writer's visit brought returns of slightly over \$5,000.00. The sacked ore brought returns of slightly over \$1,000.00 per ton. It was observed that after the washing of the ore on the muck plate at the mine portal, all the fines were thrown out on the dump, and lost. Since these fines are exceedingly rich in gold, it was suggested to Mr. Phillips

that he build a sluice box and recover them. Mr. Phillips stated that the same suggestion had been made by members of the British Columbia Department of Mines, and by other visiting geologists. However, he added that he knew nothing of sluice boxes, had never constructed one, and had no idea on how to commence, and therefore was not too interested. The writer offered to construct a sluice box for Mr. Phillips and the offer was accepted. A short 8 foot box, 12 inches wide, was constructed with 3 banks of riffles and a gunny sack on the lower end. Two half shovel fulls of dump material was placed in the box and washed. A solid coating of what appeared to be sulfides covered each riffle and the gunny sack. A large part of this actually was fine electrum. Mr. Phillips expressed surprise, and stated that hereafter he would sluice all his fines.

Later, it was reported by Mr. Phillips that fines recovered by sluicing only averaged \$450.00 per ton and were not worth saving. Therefore, he had stopped all sluicing operations and was again discarding them on the dump. Further questioning by the writer disclosed that Mr. Phillips did not clean the material removed from the boxes, but instead sacked it in toto. For someone who knows how to recover it, there is a nice stake of easy money laying on Mr. Phillips' dump.

July 10 - From Tide Lake to Hyder

July 11 - 12 - at Mountain View Prospect

July 13 - To Ketchikan by mailboat

July 14-17 - At Ketchikan on official business

July 18 - To Unuk River Landing by Ketchikan Air Service

The Bishops (Stanley and Bob) at Unuk Landing requested future examination of prospects on the Unuk River near the Canadian line. Examination was deferred until an unspecified future date because Stanley Bishop, the prospector of the two, was engaged in cutting a raft of logs for immediate delivery, and so was unable to make a trip. Inasmuch as Bob Bishop was free, a trip was made to the Chickamin River cabin of Mr. Al Wolfe at the mouth of the Chickamin. The trip was made during the night of July 18.

July 19 -

Mr. Wolfe has done considerable prospecting in the area, but has not discovered anything to be examined since the last visit to his cabin during 1949. Mr. Bishop and the writer then continued up the Chickamin River by river boat to the mouth of the Leduc River ten miles from tidewater. This country is extremely rugged with steep high mountains rising abruptly out of the valley on both sides. The valley (one-half to one mile wide) is partially timbered, and it is apparent the river has flooded many times across the full width of the lower valley to a depth of perhaps six feet. Upon entering the Leduc River, the valley narrows considerably and is probably not over one-fourth mile wide in many places. The mountains are extremely steep and high, and in many places do not appear passable. The Leduc is a typical glacial river--changing its course frequently, swift, and carrying large amounts of silt and debris. Frequently, it splits up into many shallow rocky and narrow channels and therefore is extremely difficult to traverse safely with a boat. Mr. Bishop's boat was a specially designed river boat with lifting rack and powered with a 22 Hp. outboard motor. About 18 pins were sheared, and fine glacial silt badly cut into the lower unit. On several river stretches, the 22 Hp. motor would barely hold its own with the current, and on several occasions, the hazard to boat and gear was great. On the other hand, in some of the split up sections of the river, it was necessary to line the equipment over rapidly shifting sand and gravel bars. Throughout the entire river covered, sweepers, submerged snags, and boulders presented a steady hazard--particularly at those times immediately after the shearing of a pin. About 20 miles of the Leduc were covered, and in no place were there any evident signs of mineralization. River sand and gravels were examined frequently, but all the material observed was either derived from the diorite mountains through which the river cut, or were from some dioritic phase as gabbroid types, or quartz boulders. Inasmuch as this river cuts through the heart of the Coast Range batholith, it affords an excellent cross-section of that igneous intrusive. It is known from rather reliable reports that the headwaters of the river intersect a mineralized zone on the east flank of the batholith. Part of this zone lies in Alaska, and part in Canada. It is, however, probably one of the most inaccessible sections of Alaska, but is probably worthy of an investigation at some future date.

Broad, deep, narrow

July 20 - Return down Leduc River to Unuk Landing

July 21 -

Contact was made with the "Beverly B", a cabin cruiser on charter to the Fisheries Research Institute of the University of Washington. The "Beverly B" was at the mouth of the Unuk River, and planned to return to Ketchikan shortly. Arrangements were made for a ride.

July 22 -

By permission of the "Beverly B" skipper, time was taken for a quick examination of a sand-gravel deposit at the mouth of Grant Creek. This deposit is of interest because in the Ketchikan area there is an acute shortage of suitable sand and gravel for construction purposes. At present, some aggregate is brought up from Seattle, but for the most part, crushed rock from the beaches near Ketchikan is used, and it is not completely satisfactory. Mr. Jerry Gamble of Ketchikan has now staked the Grant Creek deposit, and has tentative plans for mining it with a pumping unit and barges. Inasmuch as the deposit is low lying with generally less than 5 feet of bank, and immediately adjacent to tidewater, Mr. Gamble's plan is probably the most satisfactory method for cheap handling of the material.

The Grant Creek deposit areal extent is unknown as is its depth; ~~however, it can easily supply~~ without difficulty all the future civilian and military needs for sand and gravel in the Ketchikan area. The deposit is composed of material derived from the Coast Range batholith, and is dioritic in character. Some sign of iron staining and clay bands are evident, but should present no problem. One several pound sample (HMF 133) was taken to the Ketchikan Assay Office of the Territorial Department of Mines with the following report by Mr. Art Glover, Assayer-in-charge.

"HMF-133 was examined as requested, and in my opinion, it contains too high a percentage of mica for the better grades of fine aggregate. The high mica content, and perhaps a slightly high iron oxide content, are the only obvious objections, and for most general work it would probably provide a satisfactory material. For better grades of work, some additional washing would be necessary."

Arrive in Ketchikan in evening.

July 23 - At Ketchikan

July 24-25 - At Ketchikan (weathered in)

July 26 - Silvas Lake

The Silvas Lake Tunnel Project of the City of Ketchikan was visited. Mr. Aner Erickson of Ketchikan is in charge of the work. The project involves the breakthrough of the tunnel into the lake floor in order to bring the water of that lake into use for the generation of hydroelectric power. Mr. Erickson had promised completion of the work for the fall of 1948, but due to a combination of factors was unable to do so. At this time work was barely getting started for the year because of a late spring and heavy rains. Fifty-six feet of tunnel still remained to be driven, and the lake level still had to be lowered 30 feet. Mr. Erickson proposed to do this by sinking an 8 foot winze on the lake shore and connecting with a raise from the tunnel. Then he planned to break out the pillar between the raise and the lake floor, and by this means lower the lake some 15 feet. Then he proposed to continue the tunnel out for a final breakthrough.

It was later reported, Mr. Erickson had considerable trouble with his plan and finally hired the deep sea diver that he had employed the previous year to attempt the breakthrough from the lake floor. After considerable time, the diver was finally successful in opening a hole in the lake floor of sufficient size to complete the draining of the lake. This was completed in the late fall.

A return was made to Ketchikan and a trip made to Mr. Bob Novatney's claims on Helm Bay via Ketchikan Air Service.

July 27 -

At the previous request of Mr. Bob Novatney for a survey of his two claims, both to Mr. Howard M. Fowler, Associate Mining Engineer, and to Mr. Leo H. Saarela, Commissioner of Mines, the return to Helm Bay was made. Mr. Novatney stated that he has had these claims since the early 1930's. A hundred feet of shallow trenching would cover the work done to date. Part of these trenches had sluffed in and were not in shape for an examination. Mr. Novatney was concerned principally with having a survey of the claims made.

However, a quick examination did show a quartz vein

with strike N 50° E, dip from vertical to 50° north, and width of approximately 12 inches in a schist with strike of N 70° E and dip 70° south. The vein has frequent local rolls and at a point about 50 feet northeast of the principal open cut joins a second vein with strike of N 5° E, dip of 50° W, and width of 30 inches. Three samples were cut.

<u>Sple No.</u>	<u>Width</u>	<u>Oz. Au.</u>	<u>Oz. Ag.</u>
HMF-136	30"	Nil	Nil
HMF-137 quartz	grab	Trace	Nil
HMF-137 sulfides	grab	0.04	Trace

These results are not encouraging, and are typical of the quartz lenses and outcrops of the Helm Bay area. However, it must be pointed out that several small high grade pockets have been found in the district. Mr. Novatney later--during the winter--brought into the Juneau Office of the Department of Mines several samples of beautiful high grade found subsequent to the writer's visit, and while Mr. Novatney is convinced that he now has the largest and richest gold property in the country, it is probable that actually he has found a small pocket or local enrichment in the vein. However, an examination during 1951 is fully justified, and has been requested by Mr. Novatney.

July 28 - At Mr. Bob Novatney's cabin

July 29 - Return to Ketchikan via Ketchikan Air Service

July 30 - To Dora Lake via Jim Pitcher's boat

At Dora Lake on Prince of Wales Island, prospect work on the ~~Dora Lake claims~~ by the ~~Tillicum Mining Co.~~ was visited. The Tillicum Mining Company was formed by Mr. George Roberts and associates to prospect the Dora Lake claims which Mr. Roberts leased from Smith, Van Zandt, and Rosselle of Ketchikan. Mr. Roberts contracted 50 feet of tunnel to be single-jacked at 25 dollars a foot to two supposed ex-miners. Work started on June 1, 1950 and continued until July 30, 1950. Mr. Roberts assisted for one month. Only 23 feet of doghole tunnel were completed, but the purpose of the work was served. The tunnel cross-cut to pick up an extension of a zinc-lead outcrop, but the work disclosed no continuation of mineralization at the tunnel level--approximately 50 feet below the outcrop. Mr. Roberts has dropped the property, and apparently the Tillicum Mining Co. is no longer in existence.

44-119-34

This prospect has been previously written up by Mr. J. C. Roehm, Territorial Department of Mines, and by the U. S. Geological Survey, Bulletin 347.

July 31 - at Ketchikan

August 1 - To Wrangell via Alaska Coastal Airlines

August 2 - To Berg Basin to visit the Silver King Group of 10 claims owned by Mr. L. C. Berg of Sitka, Alaska.

August 3 -

Mr. Walford Peterson is in charge of a diamond drilling program at the property of L. C. Berg in Berg Basin. The property is nine miles from tidewater, and although considerable money has been spent on trail work, the trail for the most part consists of single trees fallen in the direction of travel. In a very few years, as these logs rot out, there will be no more foot trail.

Kx. 117.13+19

Operations in 1950 started on May 2nd, with 5 men employed. On July 6, the crew was increased to 7 men and will be maintained at that figure until about the middle of September, at which time the property will close for the winter.

Mr. Peterson is now drilling in the face of a 790 foot tunnel. He has drilled 611 feet of EX hole 11° up from the face. Nearly the entire distance is reported to be in schist with some quartz stringers and two dikes of unstated widths or type. Three water courses and mud seams have been encountered in the last 25 feet. The rock traversed in the 611 feet drilled is free cutting. Water pressure from the hole is 125 psi. Core recovery is about 95 percent. The slate encountered during the last two hundred feet is very compact. At the time of the writer's visit, footage drilled per shift averaged only two or three feet due to drilling beyond the rated capacity of the drill. Mr. Peterson reported that the last two hundred feet drilled showed an increase in mineralization with considerable cube pyrite in evidence. Equipment at the property includes 1 C. P. diamond drill of 500 foot rated capacity with air gun, 2 Worthington 60 cf. compressors @ 100 psi, 1 high pressure Fairbanks-Morse pumping unit (Capacity unstated), 3000 feet of air hose

consisting of 800 feet of 1.5 inch, 800 feet of 1.25 inch, and 1400 feet of 1 inch diameter. Also included is 800 feet of diamond drill rods, 2 new 45 pound Worthington jackhammers, and one Worthington leyner.

There are also considerable quantities of drills steel, numerous boxes of bits (all new), tools, and various other small items of gear not recorded.

Paralleling the tunnel was a narrow stringer high in galena, but it had no continuity, and the width was generally under four inches. A dike approximately 200 feet in from the tunnel portal with width of 6.2 feet was sampled (HMF 139) as was 3.0 feet of the schist hanging wall which carried a small amount of sulfides (HMF 138). A grab sample was taken of the outcrop on the mountainside above the tunnel. (HMF 140). This outcrop appears to be an almost barren aplite dike about 5 feet in width, and it is supposed to be the extension of this structure for which the diamond drill hole is pointed.

<u>Sple No.</u>	<u>Width</u>	<u>Oz. Au.</u>	<u>Oz. Ag.</u>	<u>%U₃O₈</u>
HMF 138	3'	Trace	Nil	0.004
HMF 139	6.2'	Nil	Nil	0.006
HMF 140	Grab	Nil	Nil	0.006

August 4 - Return to Wrangell

August 5 - Wrangell to Petersburg

No mining activity is in progress in the vicinity of Petersburg. Mr. Jack Schoonover is still holding his claims on Taylor Creek on Kupreanof Island, and Mr. Earl Ohmer is holding the Maid of Mexico property.

August 6 - Petersburg to Juneau

August 7 - At Juneau

August 8 - To Gustavus to contact Mr. Bert Parker for an examination of the Le Roy Mine in Glacier Bay.

August 9-10 - At LeRoy Mine

This property has been written up in a separate report, and a map drawn for the Department of Mines files.

RX-111-2

For information regarding this property, reference is made to the report.

August 11 - Glacier Bay

The Iroquois and Cora Prospects were visited. Both of these prospects are about one mile northwest of the LeRoy Mine and consist of narrow (1 inch to 12 inches) quartz veins in diorite. High assays have been reported from the prospects with occasional samples up to \$800.00. The average grade of ore, however, is stated by Mr. Bert Parker to approximate \$40.00. In view of the difficulty of operation here, and the narrowness of the veins, these prospects have no immediate value.

August 12 - Return to Gustavus

August 13 - To Juneau

August 14-15 - At Juneau

August 16

A trip to examine Mr. Sam Pekovich's magnetite claims at Snettisham has been arranged. However, inasmuch as the U. S. Bureau of Mines boat Swan II had also arranged to go to Snettisham, but by way of Funter Bay, the trip was made with them.

August 17 - Arrive at Snettisham

August 18-20 - At Snettisham

This examination has been written up, and a map drawn for a separate report. Reference is made to that report in the Department of Mines files.

In the afternoon of August 20, a trip was made to the mouth of the Whiting River in Mr. A. H. Fache's boat. It was planned to go up the Whiting River to examine the silver-lead occurrence noted in the U. S. G. S. Bulletin 773. However, a pin sheared on the outboard, and it could not be repaired. Inasmuch as it was not practical to attempt a trip up the river without a motor, the trip had to be cancelled.

August 21 - Return to Snettisham

August 22 - At Snettisham

August 23 - To Juneau via Dean Goodwin Airways

August 24-25 - At Juneau

August 26 - To Hoonah

Mr. Jim Burnett of Hoonah reported finding gallium at a prospect in Port Frederick a few miles from Hoonah. Because of a request for an examination of this occurrence, a trip was made to Hoonah.

August 27 -

This prospect is about one mile from the head of Port Frederick on the east side of the bay, is about 100 feet from the beach. The gallium is reported to occur in a dolerite dike in diorite with strike S 30° E, undetermined dip, and width of 40 feet. Sample HMF-152 was cut at 5 foot intervals over the 40 foot width. Sample HMF-153 was taken from float material heavy in pyrite on the beach below the dike. Sample HMF-154 was cut over a 40 foot width 100 feet south of sample HMF-152.

Juneau 112

<u>Sple. No.</u>	<u>Width</u>	<u>Oz. Au.</u>	<u>Oz. Ag.</u>	<u>% Ga.</u>
HMF-152	40'	Trace	Trace	0.001
HMF-153	grab	Trace	Trace	0.001
HMF-154	40'	Nil	Trace	0.001

Gallium is frequently found in minute quantities in mineralized areas, and while it's occurrence is rather common, it seldom is found in commercial amounts. Mr. Burnett was advised that the property did not warrant further work.

August 28 - Return to Juneau

August 29-30 - At Juneau

August 31 - To Hirst-Chichagof Mine at Kimshan Cove, Chichagof Is.

This property is being opened up after a war time L-208 closure.

September 1 - At Hirst-Chichagof Mine

Office of
The rehabilitation of the Hirst-Chichagof Mine at Kimshan Cove is under the direction of Mr. Paul Sorenson. At the time of the visit, 5 men were employed. The work consisted of repairing the mill, power plant, various surface building, dewatering the shaft, replacing rotten station timber, and general clean-up work. R²-44-6947C

Plans call for the mine to start production shortly after the first of the year. Inasmuch as work at the property was only in the early stages of advance, it was not practical to conduct the customary safety inspection.

September 2 - Return to Juneau via Alaska Coastal Airlines

September 3-4 - At Juneau

September 5 - To Mole Harbor, Admiralty Island to examine a supposed vermiculite occurrence discovered by Mr. Hasselborg of Mole Harbor.

Mr. Hasselborg brought a sample into the Juneau office of the Department of Mines that he stated expanded considerably on heating. Blowpipe tests by Mr. R. L. Stewart of the Department of Mines verified this, and a sample was sent to Mr. John J. O'Shea, Assayer-in-Charge at the Department of Mines Assay Office at Anchorage. Mr. O'Shea's report follows:

5/1/44
"The sample is a micaceous mineral showing properties exhibited by vermiculites to some degree. Bloating resulted from heating in both the electric and the assay furnace. Volume expansion of the electric furnace product approximated 18%, and that of the assay furnace about 15%. The material treated in the assay furnace was scorched. This was, no doubt, due to overheating. The maximum temperature of the assay furnace was in excess of 2000° F, and that of the electric furnace was in the 1800° F range.

A larger amount of sample should be submitted for more conclusive tests."

Although the amount of bloating exhibited by the sample was not great, and far below that required for commercial use, it was considered encouraging by the Commissioner of Mines, and an examination was recommended.

September 6-7 - At Mole Harbor

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5.
11.
Contact was made with Mr. Hasselborg at Mole Harbor. He was told of the results of the bloating tests, and of the desire of the Department of Mines for an examination. Mr. Hasselborg stated that he could not remember just where he obtained the material, but thought that he might have gotten it about three miles back in the brush while deer hunting. He added, however, that it might have come from an outcrop on the beach. This material did not answer the description of the sample sent Mr. O'Shea, but a sample was cut for examination at the Juneau Office of the Department of Mines. There, it was verified that this was not the material in question.

Mr. Hasselborg is in his eighties, and did not appear to remember his trip into the Department Office with the original sample.

September 8 - Return to Juneau via Alaska Coastal Airlines

September 9 - At Juneau

September 10 - To Upper Sweetheart Lake via Dean Goodwin Airways

This trip was made to examine the Whiting River silver-lead prospect. This prospect has been written up in U. S. G. S. Bulletin No. 773.

September 11 - 12

113
Took a River
From studies of available maps it was decided that the Whiting River silver-lead occurrence would be most accessible from Upper Sweetheart Lake, as it was not believed practical to land a plane on the Whiting River. Later evidence proved this erroneous, and it is now known that a small plane can land at the point on the Whiting River shown in U. S. G. S. Bulletin No. 773 as being the closest to the prospect.

However, upon traveling from Upper Sweetheart Lake to the Whiting River silver-lead prospect trail, it was discovered that a short section of the trail was wiped out by slides. Without ropes, and pick, it was not possible to cross the slide as it was too steep to maintain footing. Below the trail was a several hundred foot drop-off. In view of this, it was decided that the examination would have to be called

7/14/44 113

off until a trip with proper equipment could be made. There is no other known or evident way to by-pass this slide.

September 13 - To Juneau via Dean Goodwin Airways

September 14 - At Juneau

September 15 - To Haines via Alaska Coastal Airlines

September 16 - To Klukwan to visit the Alaska Iron Company

41-104-52

Shageluk 110

The Alaska Iron Company has been engaged in a three year staking program of magnetite claims near Klukwan. While no one was in evidence at the claims at the time of the visit, a check of the recording office disclosed that the company now has 70 placer claims and 132 lode claims or a total of 202 claims. Obviously, it is impossible for them to do the assessment work on this amount of ground. The company plans were not learned, but it is reported that they have a "deal" pending with outside steel companies.

September 17 - At Haines

September 18 - To Skagway

There is no prospecting or mining activity in progress in the Skagway area. The U. S. Commissioner and others were contacted but reported nothing of interest. A return to Juneau was made in the afternoon.

September 19 - To Ketchikan

Prospect 118

Because of repeated letters from Mr. Sid Anderson, U. S. Commissioner at Hyder for a return visit by the Department of Mines engineer to the Hyder district to check discoveries of U_3O_8 bearing dikes in the Chickamin River area, it was decided to make a return visit there. For that reason, a return to Ketchikan was made on September 19.

September 20 - To Hyder via Fred McKay mailboat

September 21 - Arrive at Hyder

September 22 - At Hyder

118

September 23 - To Upper Texas Creek to examine reported U_3O_8 occurrences in that area. Mr. Sid Anderson has formed a group called the ABC Group composed of Sid Anderson, Frank Blasher, and Albert Casey to prospect for U_3O_8 in the Hyder area. In

line with this they have staked numerous claims in the Texas Creek area on aplite dikes found there.

Brasfield Census 118
September 24-26 -

KX-118-19
Numerous dikes were checked in the Texas Creek--Chickamin area. Among these was a dike at the portal of the "Molybdenum Lead", on the hillside in back of the Blasher cabin at an elevation of 2,435 feet. The background count at the Blasher cabin was 27 counts per minute, but at the portal varied from 85 to 100 per minute. Tests on individual samples indicated a percentage of about 0.005% U_3O_8 .

Other dikes checked were along the Thorton Trail, at the junction of Texas Creek Valley with the Chickamin Glacier, and in the basin formerly occupied by Disappearing Lake. In none of these did the indicated U_3O_8 content exceed 0.005%. The ABC Group was encouraged to continue their search but was advised that none of the dikes found to date were promising.

September 27 - Return to Hyder from Texas Creek

September 28 - Return to Chickamin to check reported aplite dikes on Mt. Andrew.

September 29 - Across the Chickamin Glacier to Mt. Andrew

The Mt. Andrew area was comparatively free of snow, but investigation did not disclose the presence of any aplite dikes in the area. Some checking was done on other rock types as diorite and slate, but no noticeable activity was detected.

September 30 - Return to Texas Creek from Mt. Andrew

Brasfield Census 118
Because Mr. Larry Thorton of Ketchikan failed to do his assessment work during the assessment year July 1, 1949 to July 1, 1950, or during the extension granted from July 1, 1950 to October 1, 1950, his Solo Group of mining claims overlooking the Chickamin Glacier will become open at 12 o'clock noon, October 1, 1950. These claims are noted for the presence of minable amounts of electrum and various groups in Stewart and Hyder have been waiting for an opportunity to acquire them. Eleven would-be stakers arrived at the cabin of Frank Blasher near the Chickamin Glacier on the afternoon and evening of September 30. Three of the stakers, including Mr. Sid Anderson, U. S. Commissioner at Hyder, climbed the mountain to the claims on the afternoon of the 30th.

October 1 - Eight additional stakers, including Mr. Al Phillips of Tide Lake, and the writer, journeyed to the claims on the morning of October 1st. The writer made the trip on request of

several of the stakers, and also to observe the staking.

Upon arriving at the Thorton cabin at the site of the claims, the various claim seekers held a conference, and finally decided that since it was obviously impossible for any one of them to stake the ground alone, they had better form an eleven man partnership. This was done and, of course, now placed the property in such shape that it cannot be worked.

At the time the writer left Hyder, the participants in the staking had divided into two camps--each trying to work out a plan whereby the others could be eliminated. With such confusion coming up, it was suggested by the writer that the boys get together and high card for the property. Although most of the stakers signified willingness, the leaders of the two opposing factions would not agree. It was obvious that the odds would be too great against them on that type of settlement.

October 2-3 - At Hyder

October 4 - To Cantu Prospect and return to Hyder

Mr. Ed Moore, engineer for the Riverside Mine, stated that Col. Thompson, lessee of the Riverside had requested him to examine the Cantu prospect with a view to a possible option of the property from Mr. Sid Anderson, Frank Elasher, and Little Joe Frank. As a courtesy to him, and to lend him any possible assistance, the Department of Mines engineer decided to accompany him. Mr. Moore was unable to conduct a complete examination because of the hazards of the terrain, and because a light snow had fallen making footing difficult. A further examination will probably be made by Mr. Moore in the spring when conditions are more favorable.

October 5 - Return to Ketchikan via Fred McKay mailboat

October 6 - Arrive at Hyder

October 7 - At Ketchikan

October 8 - To Wendell Dawson Mine at Hollis, Alaska

This property was given a further examination because of additional work done by Mr. Dawson, and because of Mr. Dawson's request. The examination is written up in a separate report, and reference is made to that report.*

Mr. Dawson has had considerable difficulty with machinery breakdowns, orders for supplies, and concentrate shipments. The burden has gotten so heavy that it is questionable if Mr. Dawson can re-open his property in the spring.

- 25 -

* 11/3/52 Report has never been turned in by Fowler.
When he left Dept. 10/1/52 he was to forward it from Tacoma, dif

Craig 119
As an example of Mr. Dawson's troubles, and the troubles that beset small operators, during the winter of 1949-50 he shipped 28,540 pounds of concentrates to the Tacoma Smelter. It took 4 men 2 hours to load the concentrates at Hollis without benefit of longshoremen. To unload at Ketchikan, it required 12 longshoremen plus 2 foremen 2 hours or a total unloading cost of \$65.00. The cost to ship to Ketchikan by mailboat was five dollars per ton, or \$70.00. The cost to ship south by Alaska Steamship Co. was \$272.19 (includes wharfage, etc, to smelter). The total charges of shipping the concentrates from Hollis to Ketchikan were \$407.19. This does not include the charges for transporting the concentrates from the mine to Hollis.

In addition, during the summer of 1950, Mr. Dawson shipped a consignment of concentrates to the Tacoma Smelter that left Ketchikan via Alaska Steamship on June 12, 1950, but did not arrive at the smelter until August 10, 1950. The concentrates had apparently lain on the Alaska Steamship dock in Seattle during the intervening time.

October 9-11 - At Dawson Mine

October 12 - Return to Ketchikan. Borrowed transit had to be back.

October 13-14 - At Ketchikan

October 15 - Return to Dawson Mine to continue work there

October 16-20 - At Dawson Mine

October 21 - Return to Ketchikan for added supplies

October 22-23 - At Ketchikan

October 24 - Ketchikan to Kasaan

Craig 119
At the request of Mr. John Bufers, a stop at Kasaan was made to examine claims recently staked by Mr. Bufers on the mountainside back of Kasaan. Mr. Bufers has cut a good trail to his prospect from a point one mile west of Kasaan on the Kasaan--Salt Chuck Trail. The prospect has been previously staked and dropped. Opencuts have been excavated at various elevations from 1,320 feet to about 2,000 feet on various dikes, and narrow quartz veins in limestone. One sample, cut for identification purpose, was cut on the widest dike observed with the following results reported by Mr. Art Glover, Assayer-in-charge at the Ketchikan Assay Office.

"HMF-173 is a basaltic greenstone. There is evidence that waters, circulating along joint planes, are depositing a little secondary copper mineralization, and the source of the primary copper minerals is most likely not in the greenstone itself."

Field examination disclosed occasional small amounts of chalcopyrite in the dike rock, and it is evident that this is actually the source of the secondary copper minerals. However, while many of the opencuts have caved in, none of the cuts examined were promising and Mr. Bufers was so advised.

October 25 - From Kasaan to Hollis

October 26-November 2 - At Dawson Mine

November 3 - At Ketchikan

November 4-7 - At Ketchikan

November 8 - To Metlakatla and return via Ketchikan Air Service

Although there have been several attempts made in the past to open the Annette Island Indian Reservation to prospecting and development of mineral resources on the island, none of these attempts have met with success.

The reservation was set up by act of Congress, March 3, 1891 for the benefit of the Metlakatla Indian Community. All lands were withdrawn from mineral exploitation by not only the white prospectors in the area but also by the Indians themselves. This is in spite of the fact that a number of favorable prospects had been discovered prior to the establishment of the reservation.

C
K
In 1902, Alfred H. Brooks of the U. S. Geological Survey recommended in Professional Paper No. I, entitled "Preliminary Report on the Ketchikan Mining District, Alaska" pp. 108-109, that the mineralized portion of the island be opened to prospecting and development of mineral resources. Quote:

K
"The shores of Annette Island are rather low compared with other parts of the region. Its central part is occupied by mountain peaks, which run to heights of 2,000 and 3,000 feet. The geology of the island was not studied by the writer, but from best accounts it would seem probable that the eastern part is occupied by the rocks of the Ketchikan series. Metamorphic limestones have been found on the island, and also igneous rocks. The first discoveries of ore in the Ketchikan district were made on Annette Island in 1891 or 1892. The deposits are quartz veins carrying free gold, pyrite, and silver-bearing tetrahedrite, and are said to resemble those of the Dolomi region, which suggests that the Wales series may be represented. Assays have shown high gold and silver values in some of the ores. There can be no doubt that a part of Annette Island at least lies within an ore-bearing zone."

"By act of Congress Annette Island was reserved for the exclusive use of the Metlakatla Indian community. When the act was passed it was supposed that the Indians would become an agricultural people and gradually bring the island under cultivation. This expectation has not been realized, and their occupation of land is confined to 2 or 3 square miles near the village. Under the able guidance of Mr. Duncan they have become an industrial people, owning and operating sawmills and canneries, and engaging in many other occupations, though not in farming or mining. They are prohibited by law from developing mines on the island. The Indians are not required to remain on the island, but leave it and return to it at their own volition. A number have established industrial enterprises in the neighboring region, and have thereby fully proved their ability to hold their own in direct competition with the white man. In fact, the developments of the last few years go to show that their prosperity is dependent on their coming into commercial relations with the white man. Being an industrial community, Metlakatla can not isolate itself from the rest of Alaska. Among its members are many sturdy, self-reliant men, who would be the first to resent the idea that they needed the fostering care of the Federal Government to protect them when they come in touch with the white race.

In view of these facts it would seem only just that a portion of the island, say the region lying tributary to Port Chester, be given to the Metlakatla Indians, and the remainder of the island, which is not now and never will be used by the Indians, be thrown open to mining location. The Indian side of the controversy which exists between them and the prospectors has been ably presented by others, and the writer has felt impelled to present the side of the prospectors. The latter are represented as a body of adventurers, ready to swarm down on this little community, rob the Indians of their lands, and teach them the vices of modern civilization. In point of fact, many of the prospectors have lived in the region nearly as long as the Indians, who came from British Columbia in the eighties. As a class the prospectors are honest and industrious, and have the greatest sympathy for the good work which has been done at Metlakatla. All that they ask is to be allowed to develop such portions of the island as are not now and never will be used by the Indians."

In August, 1921, the Mayor and Council of Annette Island Reserve at Metlakatla issued Special Permits for prospecting and mining under certain specified conditions and some active prospecting was started. However, the Bureau of Indian Affairs of the Department of the Interior eventually stepped in and stopped that. A letter written on June 3, 1932 by the Secretary of the Interior to Mr. Ralph Smith, Mayor of Metlakatla, states:

"In reply to your letter of May 23, 1932, you are informed that under uniform rulings of the Department, mineral lands in the

Annette Islands reserved by the act of March 3, 1891 (26 Stat. 1100) are not under any law or regulation subject to exploration and development by any person, whether he be a native inhabitant or not. Persons who explore, mine, or extract minerals from such lands do so without authority of law or regulation, and are trespassers. Bills proposed in Congress to open the islands to location, sale, or purchase under the United States Mining laws were not approved by this Department, and have failed of passage. Permits issued under a misconception of authority by the Council of Annette Island Reserve were held by the Department to be invalid and permittees so notified.

After considerable study of local conditions and the question as to its advantage to native inhabitants, the Department favors the inauguration of a plan for development of the mineral resources of the Island by a system of leasing, patterned after the General Leasing Act of February 25, 1920, under which royalties would be reserved to the community and to the Territory, development by outside interest would be permitted and possessory rights of individual Metlakatlans to the land they occupy recognized.

Ketchikan 120
This plan will form a part of a tentative program for the solution of some of the problems relating to the Reserve, which is now in process of formulation, and which my assistants are now engaged in working out, but manifestly, until this plan has been adopted and officially promulgated, no rights in individuals to the minerals in the lands will be recognized."

However, as of 1951 the matter was still bogged down in red tape and nothing done. A very similar situation has existed on other reservations in the country, but only recently because of U₃O₈ discoveries on the Navajo Reservation a system of leasing there was established. As yet, this applies only to the Navajo lands, but there is no valid reason why it could not be applied here also. For that reason, the trip to Metlakatla was made. The matter was discussed with the Mayor, Mr. John Smith, who appeared sympathetic, and offered to bring it up for discussion at the next council meeting. As of January 15, 1951, no advice has been received from Mr. Smith of the present council attitude.

November 9 - At Ketchikan

November 10 - Return to Juneau

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