

Report of investigations by Howard M. Fowler,
Associate Mining Engineer, Territorial Department of Mines,
in the Petersburg, Wrangell, Ketchikan,
and Hyder Mining Districts, Alaska
May 22, - August 16, 1951

May 22 - To Petersburg via Ellis Air. To Louis Dyrdaahl prospect
on Kuiu Island via Alaska Island Airlines.

May 23 - An examination was made of a lead prospect on the beach,
approximately one-fourth mile North of the Jack Hungerford lead-zinc
prospect. This mineral showing is owned by Louis Dyrdaahl, Walford
Peterson, and Oscar Elisen. Mr. Elisen showed the Territorial
engineer several samples of highgrade galena ore in the Juneau Office
and stated that similar material was evident over a minimum width of
75 feet, between high and low tide mark. He further stated that the
strike of the structure was such that it did not parallel the beach,
but instead entered the timber.

Examination of the prospect disclosed that the structure had
a width of from 12 to 14 feet, which was principally of barite, altered
diabase dikes, and fine grained galena bands less than 1/8th inch widths
within the barite. Some narrow stringers of widths less than two inches,
and containing small amounts of galena were found over a fifty to sixty
foot width. The general area was principally of diabase dikes trend-
ing Northward, and generally paralleling the galena bearing zone.

Examination disclosed that the dikes and galena zone rolled
and re-entered the bay without at any place reaching high tide mark.
No further examination was necessary and Mr. Dyrdaahl was advised to
drop the prospect.

May 24 - Return to Petersburg.

Examination of the Recorder's Books disclosed that Mr. Oscar
Elisen is holding 25 claims on Kuiu Island - called the Kuiu Island Lode
claims. This ground is located approximately one and one-half miles
North of the Hungerford Prospect.

Mr. Dave Ohmer is still holding the Maid of Mexico and the
Texas Lode Mining Claims. Mr. Ora P. Schoonover is holding 5 claims
on Taylor Creek, Kupreanof Island.

To Wrangell via Ellis Air.

May 25 - Mr. Joel Wing is now U.S. Commissioner at Wrangell, succeeding Mr. Zurat, who was accidentally killed during the fall of 1950.

There is no present mining activity near Wrangell. Mr. Berg of Sitka still holds 10 lead-zinc claims in Berg Basin, but work there will probably be suspended during 1951, because of lack of available labor. Mr. Walford Peterson has been in charge of diamond drilling at the property. Mr. Peterson reports that he has been unable to hire a crew and that a diamond drill he had planned to drop into the property probably will not be uncrated.

Mr. Peterson stated that he would like an examination of a new showing in that area during 1951, and tentative arrangements have been made for it when show conditions improve.

To Ketchikan via Ellis Air.

May 26 - 29, - at Ketchikan on official business.

May 30 - To Londevan Prospect on George Inlet via private boat.

This prospect is located near the beach, but has not been in shape for an examination because the portal of the tunnel has been closed by slide material for a number of years.

The tunnel has been opened by Elmer Johnson and Kenneth Pond of Ketchikan, but it was found that the air in the prospect did not contain sufficient oxygen to permit entry into the workings. Mr. Johnson and Mr. Pond allowed a several month lapse before again visiting the property in the hope that the air might improve. The visit by the Territorial Field Engineer, Howard M. Fowler, confirmed the dangerous air condition reported by the men and showed that there could have been little or no improvement during the preceding several months.

Examination disclosed that it was possible to reach the end of the over 2000-foot crosscut tunnel, but throughout the last 500 feet sufficient oxygen for safe work was not present. It was not possible to enter the approximate 2500 feet of drifting along the vein.

This property is best reported on in U.S.G.S. Bulletin 592, Mineral Resources of Alaska - 1913.

Because the portal of this property will undoubtedly be closed by slides during the coming winter, thus again preventing an examination of the property for many years, and because the present prospect holders have expended considerable work here, and are now in need of Department assistance, it was recommended that the use of the Department oxygen apparatus be allowed for an examination. It, of course, is obvious that the purchase of a compressor and several thousand feet of pipe solely for

the purpose of an examination is entirely impractical. There are no other means by which the property can be ventilated.

The request for the oxygen apparatus was denied by the Juneau office of the Department of Mines, on the grounds that bad air is unheard of in a hardrock property. Therefore, plans for the examination were dropped. The property holders were so advised.

Hot Air
JP
May 31 - To Caamano Point, Cleveland Peninsula, to examine Mr. George Roberts' Antimony Prospect. This prospect was formerly owned by Mr. Val Klemm of Ketchikan. However, Mr. Klemm died in 1950, and the property was sold to Mr. Roberts for \$500.00. The property has been reported on by the U.S. Geological Survey, and by Mr. Jack Roehm, of the Territorial Department of Mines. KA-(20-112

Mr. Roberts stated that he had a contract to supply antimony to an Eastern buyer but that the ore must contain 45% antimony. He added that on the basis of the U.S. Geological Survey, and Department of Mines reports, he had had no doubt that he could readily fulfill this requirement. However, on further development, the ore did not measure up to the assays obtained by the two Government Agencies and it was necessary to do considerable up-grading by hand sorting. The size of the pockets are apparently larger than previously estimated, but development has not been carried far enough ahead to determine their probably size.

Mr. Roberts has mined an estimated 14 tons of ore, and has several tons up-graded to meet the buyer's specifications. None of the ore has been taken to the beach but Mr. Roberts has laid a plank trail the one-half mile distance so that a wheelbarrow may be used.

About one month's work has been put in by Mr. Roberts on the property, and he has hired a helper for two weeks. However, he plans to close the property in a few days in order to work at a cannery for the summer. He then plans to return in the fall and complete the mining of the known pockets. All drilling is with hand steel at present, but consideration is being given to the bringing in of a small 50 c.f. compressor.

June 1-3 - At Ketchikan due to T.R. Book sent from Juneau being unstamped and therefore not usable.

June 4 - A trip was made to McLean's Arm on Prince of Wales Island to check a reported hematite body about 5 miles from the beach. Although the weather was clear, the air was full of downdrafts which made it impossible to gain and hold any altitude. It was reported that the iron oxide croppings should be readily visible from the air, but one circle over the area failed to locate them. Due to the dangerous flying conditions present the efforts were not continued.

June 5 - 8 - To Duke Island to investigate a large magnetic anomaly present on the Southeast end of the island. The seaward extension of this anomaly is well mapped on U.S.C. and G.S. Chart 8075.

The anomaly is particularly strong in the vicinity of East Island to the Southeast of Duke Island. This area was not investigated because of the lack of available transportation. However, examination of the South side of Duke Island from Mt. Lazaro to Morse Cove on the East side of the island, disclosed a body of hornblendite with a weak magnetite mineralization. Only small amounts of visible magnetite were present. Two samples were cut on the beach on the North side of Judd Harbor in the most promising area located.

<u>sp. no.</u>	<u>Width</u>	<u>% Fe</u>	<u>% Ti O2</u>	<u>% P</u>	<u>% Hf</u>
HMF-200	10'	13.54	4.24	Tr.	Tr.
HMF-201	12'	16.25	4.14	0.004	Tr.

There are no indications of iron or titanium percentages approaching a commercial grade ore. Furthermore, the area involved is one of extremely low relief, thus imposing additional problems of mining. No further investigation is apparently justified, and no further work has been scheduled.

June 11 - At Ketchikan on official business.

June 12 - At U.S. Immigration Service. Mr. Walford Peterson, diamond drill contractor for L.C. Berg of Sitka, requested information and assistance in obtaining Canadian labor for the Berg Prospect near Wrangell. U.S. labor is scarce locally, and Mr. Peterson cannot continue his drilling program at the property without additional men.

U.S. Immigration advises that considerable red tape is involved in importing Canadian labor, and that it must be clearly established that U.S. labor cannot be obtained. They advised that a communication should be addressed to Washington, D.C., concerning the matter, and that, of course, a considerable time delay would result. Mr. Peterson cannot afford that delay.

June 13 - 14 - Weathered in. Because weather condition prevented leaving Ketchikan, the Department of Mines engineer decided to utilize the time involved in assisting Mr. Walford Peterson in obtaining a local crew for his scheduled work in Berg Basin. This was purely a courtesy measure extended to Mr. Peterson in an attempt to assist him in continuing one of the few remaining mining operations in Southeast Alaska. Two men were obtained and sent to Mr. Peterson in Wrangell.

June 15 - 16 - On the strength of a fairly high grade sample of carnotite brought into the Ketchikan Assay Office by Mr. Bert Libe of Ketchikan, a trip was made to Union Bay on Cleveland Peninsula. Mr. Libe reported that the sample was found near the old Union Bay cannery site. Examination of

disclosed no possible source of the sample which contained a large amount of what appeared to be "bone coal". Since much of the coal used in the past in Southeast Alaska was mined in Utah, it appears possible that the sample arrived in Union Bay via a coal sack. Several small piles of abandoned coal were found at the cannery site.

Some magnetite was observed in the Union Bay area and an examination of the occurrence in the future is justified. Plane schedule prevented the examination at this time.

June 17 - At Ketchikan.

June 18 - 19 - Upon the continued request of Mr. Kenneth Pond and Mr. Elmer Johnson for assistance in examining the Lon de Van Prospect, an attempt was made to borrow the required oxygen apparatus from the U.S. Coast Guard at Ketchikan. The efforts met with some success, as one breathing apparatus was made available. However, it was decided that the hazard attached to one man entering the prospect alone was too great, especially since there was considerable heavy ground and caved areas in the tunnel and drifts. For that reason, immediate plans for examination of the ground were abandoned. 24-20-46

Note: During the summer of 1952, Mr. Howard M. Fowler, although no longer connected with the Territorial Department of Mines, was asked by Mr. Kenneth Pond and Mr. Elmer Johnson of Ketchikan, to assist them in an examination of the Londevan Prospect. Oxygen equipment had been obtained from the Juneau office of the Department of Mines, but neither Mr. Pond nor Mr. Johnson was familiar with its operation. The assistance was granted and an examination of the prospect made. 12

Several badly caved areas were encountered in the 2000 foot cross-cut tunnel. The oxygen content of the air was low throughout the entire tunnel, and at a point 1500 feet in from the portal, a candle flame repeatedly was extinguished.

The country rock in the tunnel consists of banded argillites and black slates, with occasional acidic porphyry intrusives. Small amounts of pyrite and hydrozincite are present.

Two thousand feet from the portal the tunnel intersects a North-South striking quartz vein with a width of from 4 inches to about two feet, and a generally steep dip to the South. A small amount pyrite, and an occasional speck of galena and scheelite were present. However, drifts to the North and South on the vein were badly caved. To the North, access could be gained by exercising extreme caution, and by wading hip deep in water. No mineralization of consequence was noted. To the South, access could be gained for only about 100 feet. Heavy ground, caved areas, and

deep water back of the caves prevented further examination.

Because of the weak mineralization present, and the extreme danger of attempting a further examination, work was stopped. Mr. Pond and Mr. Johnson were advised not expend further money and effort on the property.

June 20 - 22 - A trip was made to Sitklan Island at the entrance to Portland Canal to examine a mica occurrence owned by Mr. Frank Blasher and partners. The mica occurs in a gneissic structure in small segregations with no books found over four inches in long dimension. The majority of the rocks were heavily fractured and iron stained. None of the mica was of suitable grade for a commercial product.

The examination was concluded when the boat upset and nearly all Department and personal gear spilled overboard. All Department gear was recovered and apparently suffered no damage after thorough cleaning and drying.

June 23 - At Ketchikan.

June 24 - 25 - Mr. Helmuth Wedow of the U.S. Geological Survey Trace Elements Division requested that the Department of Mines engineer accompany his party to Union Bay, Cleveland Peninsula, to further investigate the carnotite specimen found there by Mr. Bert Libe of Ketchikan. The trip was made on the Geological Survey boat "Triton".

Examination of the area by the Geological Survey crew revealed no U₃O₈ mineralization present.

The Union Bay magnetite occurrence was examined briefly from the cannery cove, and North along the beach for approximately 2½ miles to Vixen Harbor.

The magnetite occurred in a hornblendite and was for the most part finely disseminated throughout the rock mass. Small local segregations of magnetite were observed but the samples cut were all of too low grade for possible mining.

The Coast and Geodetic Survey reports magnetic disturbances of 38° East at the small island ¾ mile South of Union Point, and of 4° to 7° East elsewhere over the water area of the eastern side of Union Bay.

Three samples were cut.

Sple. No.	Location	Width	% Fe	% Ti	% P
HMF-202	150' Ea. of Cannery Creek.	50'	16.25	4.16	Tr.
HMF-203	1st cove South of Union Point.	Grab	16.25	3.46	0.005
HMF-204	In Cabin Cove	over 250 yds.	24.02	5.56	0.01

There are no indications of a body of mineable magnetite in this area. It is, therefore, not recommended that any additional work be scheduled.

June 26 - The U.S.G.S. crew decided to check U_3O_8 possibilities in the Helm Bay area, and to contact Mr. Bert Libe while there regarding the Union Bay carnotite. The final results of the U.S.G.S. verified the earlier results found by Howard M. Fowler of the Department of Mines.

June 27 - 30 - At Ketchikan of official business.

July 1 - 9 - On temporary Leave-of-Absence from Department of Mines duties.

July 10 - At Ketchikan on official business.

July 11 - 12 - A quick round trip was made to Hyder, Alaska, via the McKay Transportation Co. boat Eureka. Mr. Sid Anderson, U.S. Commissioner at Hyder had requested urgently that the Department of Mines come to Hyder to contact a representative of Mr. John Scott, owner of the Riverside Mine, before that man returned south. Mr. Jim Langdon, the representative of Mr. Scott, was apparently in Hyder for only a short time to investigate the possibility of reopening the mine. The mine, a lead-tungsten producer, is now one of the more important base metal producers in the Territory.

Contact with Mr. Langdon disclosed that Mr. John Scott had decided to come to Hyder for a few days soon to check into the possibilities of reopening the property. Mr. Scott, a San Francisco millionaire, has applied for a D.M.A. loan for the property but apparently is prepared to go ahead without the loan if Bureau of Mines cooperation cannot be obtained.

The assistance of the Department of Mines was requested for the following program:

1. A transit survey to determine the relation or location of the underground workings to the property boundaries.
2. A check of the tungsten possibilities in the present mine workings.
3. A sampling program in the most promising areas of the mine.
4. A recommended program for the Company to follow in the prospect for and development of new ore reserves in the mine. Suggestions for changes in the mill flowsheet were also requested. Tailing losses at this property have been very high.
5. A check of eU_3O_8 possibilities were also requested for the property.

Mr. Langdon was informed that the Department of Mines would be happy to be of assistance to the company and would cooperate in setting up a suitable program for the property. Mr. Langdon was further advised that a return would be made in a week to the area but that an examination near Wrangell was now scheduled for the next few days.

Subsequently, a return was made to the Riverside Mine, and the requested work performed. A complete and separate report and maps of the property were prepared and a copy sent to Mr. Scott at San Francisco, California. A copy is on file with the Department of Mines at Juneau, Alaska.

A request for an examination was also made by Mr. Al Phillips for the Solo Group of claims on the Chickamin Glacier. This property was formerly owned by Mr. Larry Thornton of Ketchikan and is known to contain some very high-grade electrum. Mr. Phillips is now engaged in trying to drive a tunnel through the glacier ice in order to tap the vein and operate the property.

The Department of Mines engineer, Howard M. Fowler, was later advised that no examination of the Solo Group would be necessary as all work at the property had been abandoned. Sixty-three days work by Al Phillips and Walter Herman between May 28, and August 5th, disclosed that a pocket of high-grade electrum ore known to exist under the glacier had been mined out by, probably, Mr. Larry Thornton of Ketchikan, the original property owner. Very little additional exploration for new pockets was attempted by Mr. Phillips and Mr. Herman. However, Mr. Herman gave a resume of the seasons work which included:

A tunnel 130 feet long was driven in the ice until solid rock was reached. The tunnel then followed the rock for approximately 30 feet, at which point a natural room about 700 feet long and with a grade of 20 to 30 degrees was found. About 600 feet up the room, a quartz vein approximately 18 inches wide, and containing considerable galena was found. No attempt to sample or explore this vein was made.

A short tunnel, 62 feet long was driven in the ice from the upper end of the room. Another large room in the ice was found in which the old Larry Thornton rock tunnel was found. This tunnel was 135 feet long and driven in a quartz breccia. The vein width varied from 4 to 5 feet, with quartz averaging 2 or 3 feet in width, and gouge averaging about 2 feet in width. Considerable iron pyrite was evident along the boundaries of the old pocket, and was present in both the quartz and in the gouge. The pyrite extended back from the boundaries of the pocket for 25 to 30 feet, thus making an excellent indicator of the presence of the pocket. The one known pocket had previously been mined out, apparently by Mr. Thornton; however, Mr. Herman stated that an ice tunnel drive 115 feet along the top of the vein exposed a small amount of pyrite that he believed might indicate a second pocket. Work was stopped, however, probably because of lack of money.

W.
July 13 - Mr. Walford Peterson of Wrangell was contacted with regard to a requested examination near Berg Basin. Mr. Peterson stated the examination was not now necessary because further rechecking by him had disclosed that the vein consisted of only a "wedge".

July 14 - 16 - A temporary leave of absence was taken from Department of Mines duties for a quick trip to Prince Rupert on personal business.

July 17 - At Ketchikan preparing for the Riverside examination at Hyder.

July 18 - Enroute to Hyder.

July 19 - 24 - Engaged in examining the Riverside Mine.

Ketchikan, Alaska
July 25 - A short examination of the Canyon Vein on the Mountain View property was made. Several specimens with decided counter reactions were obtained and sent to Ketchikan with instructions to show to Mr. Helmuth Wedow of the Geological Survey, now in Ketchikan, and to forward the samples to Mr. Leo Saarela at Juneau. These samples are not representative material and the enrichment appears to be the result of descending waters through the rock fractures. It was felt, however, that the samples might be of interest to Mr. Wedow and the Geological Survey in their examination of Alaskan occurrences of U_3O_8 . *11-12-8*

The Mountain View Property contains several known acid dikes known to contain weak U_3O_8 mineralization. Although no U_3O_8 mineralization approaching a commercial grade ore has been found, it is believed that a closer check of the area is justified.

July 26 - August 8 - Riverside examination was completed. Report is on file with the Territorial Department of Mines, at Juneau, Alaska.

August 8 - Return to Ketchikan via McKay Transportation Company.

August 10 - Arrive at Ketchikan.

August 11 - To Ralph Finzel Zinc Prospect on south end of Gravina Island.

This prospect is called the Bald Eagle Group and consists of two claims extending from the beach northeast for 3000 feet.

Ketchikan
Only a small amount of work has been done at the property, and consists principally of a 5'x7' vertical winze, ten feet from the high tide mark, and three partially caved trenches along the strike of the mineralized structure. Two of the trenches show a small amount of zinc-lead enrichment, but the third trench, approximately 100 feet northwest of the winze has no visible mineralization. The winze has been sunk on

a greenstone schist containing galena, sphalerite, and pyrite, over a 11 foot apparent width, and with a strike of N38°W. The winze is flooded but reported to be about 50 feet deep.

The property is not ready for an examination, and Mr. Finzel was advised to clear his trenches, and if possible, to dewater the winze. He was further advised that a sampling program and survey of the property would be made at that time.

August 12 - 14 - At Ketchikan on official business.

August 15 - Ketchikan to Wrangell.

August 16 - Wrangell to Juneau.

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