Council Folder
Nome to Cape Nome

TERRITORY OF ALASKA

DEPARTMENT OF MINES

Year 1938

ASSAY OFFICE

AT Nome

October 31, 1938

Council District

B. D. Stewart
Commissioner of Mines
Juneau, Alaska.

Dear Mr. Stewart:

I have spent the period between September 22 and Sept. 28 in the Council district on investigations for the Territorial Department of Mines.

The "town" of Council is situated on the left limit of the Niukluk River just above the mouth of Melsing Creek. It is about 22 miles north of Bluff.

There are about 35 persons in Council during the winter. Summers over a hundred persons may be accounted for in the vicinity. There is one river freighting company, one grocery store and a 4th. class post-office in town. A part-time weather bureau reports to Nome several times a day. There is a phone line to Nome which the public may use for a service charge of $ 2.70 per Nome call.

Folder 53

From Council there is a 15 mile dirt road up Ophir Creek and a 6 mile dirt road up Melsing Creek. A 1500' x 300' air-plane field has been constructed on a river bar in front of town, and a 600' x 150' field at the end of the Melsing Creek road. A 7 mile tram-way from Council to Ophir Creek is owned by the Ophir Gold Dredging Company.

Freight for the Council district is brought by ocean steamer to Golofnin where there is a $ 10. per ton lighterage charge. River Freight from Golofnin to Council is $ 25 per ton ships measure. In 1937, 300 tons of freight were brought up river from Golofnin. In 1938, 484 tons. The increased tonage was due to the construction of a dredge on the Fish River. From Council, the freighting company has a Caterpillar "28" and wagon with which it takes freight at the rate of $ 4. per hour. Regular airplane freight from Nome is 10¢ per pound with a minimum charge of 50¢/ In 1938, 26 tons of gasoline were hauled by airplane from Nome to the landing field at the end of the Melsing Creek road. During the investigation, a plane freighted diesel oil for two days between Golofnin and the Council field.

NOTED
road
JAN 9 - 1939
B. D. STEWART
Commissioner of Mines

Food prices in Council are about the same as at Nome; flour is $ 6 to $ 7. per 100#, sugar is $ 9. per 100#, potatoes are $ 6.75 per 100#, eggs 60¢ per dozen, butter 60¢ per pound, bacon 60¢ pound, no. 2 canned vegetables 25¢ per can. Local wood in 8' and 16' lengths sells for $ 14. per cord in town.

The mining operations in this district consist of four dredges three hydraulic outfits and about 20 to 25 individual miners and snipers.

The Inland Dredging Company, associated with the Council Dredging Company, have purchased the old "Camp Creek Dredge". They plan to move it this winter to their ground about 9 miles above Council, on the Niukluk River. The dredge is a wooden hull, 2 foot close-connected, flume type, with two spuds. It is intended to use the dredge making only minor repairs. Caterpillar diesels may be purchased to replace the present gas engines.

The Ophir Gold Dredging Company's 3 1/2 foot close-connected, hydro-electric, stacker dredge on Ophir Creek, has not been in operation since 1935. T. J. Shaw, owner, estimates that an expenditure of $ 8000 to $ 10000 would be necessary to place the dredge and hydro-electric plant in running order. Mr. Shaw has no definate plans regarding its use in the immediate future.

The Council Dredging Company's dredge on the Niukluk River was constructed in 1934 by C. H. Pearson. Some of the parts were obtained from a dredge originally built in Portland, Oregon by Hammond for Dr. Desoto. In 1903 this boat was dismantled and assembled on the Niukluk River below Council. Later it was moved to Ophir Creek and operated as the Blue Goose dredge, and still later bought and operated by the Wild Goose Mining Company. After working out Ophir Creek it was idle a number of years till bought by C. H. Pearson for the Council Dredging Company. The reconstructed dredge has a new hull and housing (75 M lumber used),a new semi-diesel engine, pumps, tumbler shaft and intermediate shafting. One inch has been added to the lips of the old 3 cubic foot buckets so that their capacity has been increased. The gears, belts, shafting etc. have been well guarded, and a good first-aid kit was kept in the camp, although at the time of the examination the kit on the dredge was in poor shape.

KA53-190

The Inland Dredging Company, associated with the Council Dredging Company, are operating on the Fish River, about 30 miles east of Council and just below the mouth of Aggie Creek. Some of the machinery on this dredge cames from a "Yuba" originally built for Carry Breighton and Associates in 1911 on Shovel Creek, a tributary to Solomon River. Later it was operated by A. Neiland and Associates; still later it was dismantled and moved to Spruce Creek, where it was operated by Scott and Jones. It was bought in 1937 by the Inland Dredging Company and the machinery moved by tug and lighter from the beach at Spruce Creek to Golofnin and then by river barge to its present location on Fish River. The freight from Spruce Creek to Golofnin was $ 25 per ton and from Golofnin to Aggie Creek, $ 25. per ton. 85M lumber was used in the construction of the dredge hull and housing and the various camp buildings. Dredge construction started July 13, 1938 and dredging started September 10, 1938. During this period, an average of 14 men working one 10 hour shift were employed. At the time of the examination there were no safety devices on the dredge. Before leaving, however, the erection of guards was started and the management promised their immediate completion.

KA53-188

The North Star Dredging Company, managed by Steiner and Meebes is operating a 2 3/4 foot open-link, flume dredge about 1 1/2 miles up the Niukluk River from Council. The machinery on the dredge comes from one built by the Union Iron Works of San Francisco in 1913 on Mystery Creek, Council district. It was run here for three years by the Star Dredging Company. It was then sold to the Northern Light Mining Company and moved to Ophir Creek where it was operated till 1927. The North Star Dredging Company then bought it and worked down Ophir Creek and onto the NiuklukRiver flats and on to its present position. In 1937 a new hull was built and a new 85 H.P. Venn Severin Oil engine installed to replace the 2 - 35 H.P. Westerns. At this time a new bucket line was added, and a 5 inch pump connected to a 40 H.P. converted Ford marine engine. An interesting example of high costs is shown when a spud broke while hard bedrock was being dug. Over $ 200 was paid for welding this spud, which was divided about as follows; $ 10 for labor, $ 15 for materials, and over $ 175 for air-plane transportation.

The North Star Dredging Company have never had a major lost time accident. At the time of the examination gears, belts and shafts were well guarded, A small first-aid kit was kept on the boat, a larger one at the camp.

KA53-181

The Glass Dredging Company, managed by Clyde Glass operates a 2 1/2 foot, open-link dredge on Melsing Creek. The dredge is one of the oldest in Alaska. It is the old "Kimball" dredge which first started dredging at the mouth of Melsing Creek. Many of the dredges now operating elsewhere are using parts from older dredges, but the Glass Dredge is unusual in that the old hull, housing and machinery are practically the same as was used when the dredge first started digging more than six miles downstream. The only important change has been in the engine. An 85 H.P. Ford V 8 was substituted last season for the old 50 H.P. Western. The Ford engine lasts about one season, after which it is more economical to buy a new engine than to repair the old one.

The ground has been dredged as far as it has been prospected. If drilling indicates that there is not enough ground available for another dredging season, it is planned to dismantle the dredge and move it to some other ground in this district.

Aside from the set-screws on the shaftings being will guarded, the machinery at the time of examination was in dangereous condition. Gears and belts were exposed, shafts uncovered, belts placed so that the men walked thru them, stairs broken and hand rails absent, and the deck cluttered. First aid kits on the boat and in the camp were well stocked and most of the men employed had had some first-aid training. All realized the dangereous condition of the boat and were making a special effort to be careful. In so far as the dredge carried too small a crew to spare for extra work, (3 on days and 2 on nights) and as the season was almost over, no safety devices or changes were made this season. The manager promised that during the winter he would make all of the changes advised.

T. J. Shaw is operating a hydraulic mine on No. 7 Ophir Bench. Due to the low water he did not start operating till August 9th, this season. He employed an average of about 7 men most of the season.

Chester Milligan is operating a small hydraulic outfit on No. 11 Ophir Creek. He started about July 1 st. and has employed 3 men most of the season.

W. Brookins is running two crews on Sweetcake Creek. One pit is being piped in with giants, while in the other a home made hydraulic elevator is used. Four men were employed most of the season.

20 to 25 snipers have been estimated to have been working intermittently this season in the district. About half of these are natives or breeds.

The following photographs were taken while in the Council district:

C. 1 and C. 2.--Inland Dredging Co. Dredge on Fish River.
C. 3.--Inland Dredging Co. Camp on Fish River.
C.4 and C.5.--North Star Dredging Co. Dredge on Niukluk River.
c.6.--Council Dredging Co. Dredge on Niukluk River.
C. 7.--Council Dredging Co. Camp.
C 8. to C. 11 inclusive. Glass Dredging Co. Melsing Creek.

Mechanical details of the four dredges operating in this district are shown on the placer forms provided for that purpose and in a separate listing included at the end of this report.

Respectfully submitted,

A. B. Shallit

A. B. Shallit

Mechanical Details of Dredges Operating in Council District

	COUNCIL DR. CO	NORTH STAR DR. CO.	GLASS DR. CO.	INLAND DR. CO.
Location	Niukluk River	Niukluk River	Melsing Creek	Fish River
Manager	C. H. Pearson	O. Steiner	C. Glass	F. K. Dent
Type	Flume	Flume	Flume	Flume
Size buckets	3 plus.	2 3/4	2 1/2	2 3/4
Type Bucket-line	Close-Con.	open	open	close-con.
No. of buckets	56	30	30	58
Pitch of buckets	25"	26"	18"	27½"
Speed	22½	16½	17	24
No. pieces, buckets	2	2	3	2
Diam. Buc. pins	2"	2¼"	1 3/4"	3"
Weight, bucket		245#	200#	300#
Material, buckets	Mn. steel	Mn. steel	some Mn. steel	Mn. Steel
Material, Lips	Mn. steel	Mn. steel	some Mn. steel	Mn. steel
Hull, material	wood	wood	wood	wood
Hull, length	78'	70'	65'	66'
Hull, beam	38'	36'	32'	38'
Hull, depth	5'02½"	58"	60"	60"
Hull, draft	38"	30"	48"	30"
Width, well	56"	60"	45"	56"
Digs below water	18'	14'	14'	
Digs above water	10'	6'	7'	6'
No. sides, upper tumb.	5	5	5	6
Tumb. shaft diam.	8"	8"	7"	
Span. ℄. bearings	66"	72"	66"	
No. sides Low. Tumb.	5	6	6	6

continued

continued

Mechanical Details of Dredges Operating in Council District.

	COUNCIL DR. CO.	NORTH STAR DR. CO.	GLASS DR. CO.	INLAND DR. CO.
	ladder in all four dredges hung from own shaft instead of from upper tumbler.			
Save-all size	34"x36" 72"x48"	60"x48" 84"x 48"	60"x14" 36"x14"	72"x45"
Grizzly, size	2' x 12'	3½' x 14'	3' x 4'	
Flume, material	wood, steel liner	all steel	all steel	steel, bolted
Flume, length	120'	72'	40'	90'
Flume, width	40"	36"	30"	36"
Flume, grade	11" to 12'	1" to 10"		1" to 12"
Riffles	R.R.&Hung.	R.R.& Cross.	R.R.	R.R.& Hung.
Pump, main. Make	Allis-Chal.	Dayton-Dowd	Byron-Jack.	Yuba.
Main pump, size	14"-40'head	10"-35'head	10" x 10"	9" x 10"
Aux. Pump. make	Byron-Jack	Kimball-Krough		Fairbanks-Morse
Aux. pump, size.	5"-40' head	5"-45' head	2"	4"x5"-40' head
Winch, size	30' x 8'	6' x 12'	6' x 11'	5' x 13½'
Drum, width of face	18"		8"	11"
Drums, diam.	14"	12"	8"	12"
No. of drums	8	7	5	7
Steel Spud, size	18"x24"x40'	18½"x28½"x25'	wood 18"x18"x30'	20"x30"x32'
Steel Spud, weight	6 tons	3½ tons	point, 700#	6 tons
Wood Spud, size	18"x24"x40'	18"x24"x32'	18"x18"x25'	20"x30"x25'
Main Engine	Venn Severins	Venn Severins	Ford V 8	Wash. Iron. Wks
Horse Power	100 at 360 R.P.M.	85 at 300R.P.M.	85	100 at 350R.P.M.
Fuel & Cons./24 hrs.	Diesel, 110 gal.	Diesel, 85 gal.	gas, 124 gal.	Diesel, 90 gal.
Aux. Engines	Ford V 8	Cushman, gasoline	Western	Mod.B.Ford
Aux. Engine, H.P.	60	4	50	40

continued

Mechanical Details of Dredges Operating in Council District

	COUNCIL DR. CO.	NORTH STAR DR. CO.	GLASS DR.CO.	INLAND DR. CO.
Wire Rope Size				
Hawsen	3/4"&1¼"	1¼"	5/8"	1 1/8"
Bow line	3/4"	5/8"	1/2"	3/4"
Stern	5/8"	5/8"	1/2"	3/4"
Ladder	3/4"	3/4"	1/2"	3/4"
Spud	3/4"	5/8"	1/2"	3/4"
Mech. Advantage				
Ladder	10	9	8	8
Spud	3	2	2	4
SAFETY				
Belt guards	good	good	poor	none
Gear guards	good	good	fair	none
Keys	good	good	good	some
Stair rails	fair	fair	poor	good
Safety details in general	good	good	poor	Built in 1938 starting to put guards etc. up.

A. B. Shallit

Year 1938 Teller Precinct

TERRITORY OF ALASKA

DEPARTMENT OF MINES ~~#R~~ Teller 43

Teller District

ASSAY OFFICE

AT Nome

September 30, 1938.

NOTED
Read
1938

B. D. STEWART
Commissioner of Mines

Mr. B. D. Stewart
Commissioner of Mines
Juneau, Alaska.

Dear Mr. Stewart:

Pursuant to your instructions of July 26, 1938, I have visited the Teller district and here with submit my report there on.

Teller is located on a sand spit between Grantley Harbor and Port Clarence. Founded in 1900, it once had a population of over 1000, but now supports about 100 persons, native and white. It contains the recording office for the Port Clarence Precinct as well as a commissioner, post office, federal and Territorial school. Two general stores act as supply points for the district. There is neither hotel, restaurant or road house.

Port Clarence is probably the best harbor along the coast line of Seward Pennisula. Large vessels can anchor within about a mile of Teller; while Grantley Harbor can be entered by vessels drawing not more than 12 feet of water. The open season for navigation is between June 10-30 and October 15, the bay itself is often open until November 25th.

As there are no deep water docks, freight must be lightered a distance of 1 to 1½ miles. Ordinary freight rates from Seattle to Teller are $19.00 per ton, about the same as from Seattle to Nome. Lighterage is from $5.50 to $12. 00 per ton, average being $9.00. Fuel oil costs $8.50 and Coal $5.50 per ton to lighter.

Heavy freighting by air plane was sucessfully carried on from Teller to points in the Kougarok section. There is a natural 1200' landing field with a possible additional 2600' which might be used as a runway. In case of a cross wind a 900' East and West field back of town can be used. The harbor is usually ideal for sea planes and in winter a lake near town may be used by planes equiped with skiis.

There is a commercial radio phone station KANJ that maintains regular daily schedules with Nome. This station cooperates with the weather bureau and is of immesurable help to airplanes and coast wise vessels, as well as being the only means of communication with Nome and the outlying districts.

The rocks south of Grantley Harbor are mostly limestones , slates and schists, with here and there dikes and sills of greenstone. The rocks north of Grantley Harbor are of the same type limestones, slates and schists; but here amygadaloidal basalt is more common than green stone.

The well developed terraces, benches and plateaus suggest several periods of uplift and erosion. The typical drowning of Grantley Harbor suggests a geologically recent tilting of the region in that direction.

The few mining operations in this district are no true indication of the amount of probable placer ground available. Most of the creeks in which the lime schist formation is cut by quartz and calcite veins are held by prospectors who do little or no development work. The tendency here as well as elsewhere in other districts visited was to hold ground more as a speculation than as a personal prospecting venture.

The actual mining operations of the district include two companies using dredges and three using other open cut methods.

KX 43-66

N. B. Tweet and Sons operate a 2 cu. ft. open link flume dredge on Deese Creek, about 8 miles S. S. E. of Teller by road. The dredge was originally built on Sunset Creek, on the north side of Grantley Harbor in 1914 by American Dredge Building and Construction Company. Tweet and Sons started moving the dredge to its present location in the winter of 1931; due to lack of experience it took until the spring of 1934 to get it to Deese Creek. In all fairness it should be stated that the actual moving of the dredge was accomplished in about one month, after cutting it in two and loading it on bob-sleds drawn by a caterpillar 20 tractor.

The dredge was originally powered with a 50 h. p. gasoline engine using 5 gal. per hour. A D8800 Caterpillar diesel unit was substituted having a fuel consumption of 2 gal. diesel oil per hour. The estimated saving in fuel oil is $15.00 per day.

Ten men are employed, six of them being equal partners. The dredge has only been operated at a rpofit the last few years. Being a family affair not much attention is paid to cost or operating data.

KX 43-2

About 10 miles further on the same road the Bartholomae Oil Corporation is operating a 2 3/4 cu. ft. open link flume dredge on Gold Run Creek. This dredge was also originally built on Sunset Creek, Grantley Harbor. It was constructed in 1913 by Peake and Johnson and moved to its present location by the Bartholomee Oil Corporation in 1935. The boat is powered with a single cylinder 75 h. p. Western Enterprise gasoline engine which consumes 135 gal. gasoline per 22 hours, at a cost of 27½ cents a gallon.

An interesting detail of these operations is the use of air-hammers to drill holes for cold-water thaw points. Large boulders in the frozen ground ahead of the dredge necessitated drilling, as it was found impractical ~~to dry~~ to drive points by any standard method.

As shown in the accompaning photographs, Ingersoll-Rand 39 Dry Hammers were suspended from an "A" frame mounted on a tractor. Air was supplied by a 105 cubic foot I.R.portable compressor. The holes were speced 10' apart and drilled to an average depth of 8'. 20 8' holes were drilled per 10 hour shift, two shifts being worked. A total of 343 holes were drilled, mostly from 7' to 12' deep. This took 319 man hours at an average rate of 7.2' per man-hour. 371 gal. of gasoline and 5 quarts of lubricating oil were used and 53 2" jack bits.

The drill steel was made in four foot sections. It was found that if the steel had been made in 4, 8, 12, and 16 foot sections, much trouble that was experienced in coupling the 4 foot sections could have been eliminated. It was also decided that a 2½" jack bit would have been preferable to the 2" bit used.

Compressed air hammer drilling is not recommended as a substitute for driving points, but as a method applicable in ground containing large boulders where ordinary point driving is impossible.

K-43-61 On a bench, about a claim length above the Bartholomae Oil Corp. dredge Olie Martinson is groundsluicing and shoveling-in. Being a man of about 70 Mr. Martinsen takes his time about working, seldom putting in over a month of active work per season. In 1937 he produced $6,000. His total production since 1921 has been about $90,000.

K-43-65 On the other side of Grantley Harbor, the Arctic Mines Inc. are hydraulicking on Sunset Creek. This is on the ground on which the present Deese Creek and Gold Run Creek dredge were originally constructed. The operation is a typical hydraulic plant using two 1 cu. yd. Fresno's to scrape the dirt to the giants and a 1 cu. yd. power drag scraper to stack tailings. It has been estimated that costs could be cut by using either a bulldozer or a gas-shovel instead of the present tailing stacker.

K-43-74 The only other actual mining operation in the vicinity of Teller is that of the Teller Commercial Co. Operating a Fresno scraper on Offield Creek. One man besides the manager Barney Vogen is usually employed. The operation has a probable life of five years.

Aside from the actual working operators described above, the following prospectors were noted:

K-43-88 1--J. Marks and C. O'Leary--"Caterpillar 22" and Airplane drill, prospecting on tributary to Bluestone River.

K-43-68 2--J. J. O'Leary--prospecting 18 claims on Bluestone River.

K-43-67 3--Harry Cremidas--on Iglor Creek.

K-43-70 4--C. F. Rice and F. Rice --on Swanson Creek.

43-70 5--Dickesen and partners--on Swanson Creek.

K-43-67 6--John Reed--on Igloo Creek.

7--John Omedling--on Peterburg Creek.

8--Some natives, name unknown--on Slate Creek.

K-43-67 9--H. Johnson--on Igloo Creek.

10--Karakuk brothers--on Quartz Creek, trib. to Gold Run.

K-43-69 11--J. Hegness and K. Dronge--drill and tractor on Windy Creek, trib. to American River.

12--J. Hull--on Millon Creek, trib. to Windy Creek.

K-43-61 13--H. Dobson and C. F. Tjernagel--on Budd Creek, trib. to Am. River.

K-43-74 14--W. Guisler--on Offield Creek.

A Silver-Gold prospect at Lost River is the only lode property on which more than surface work has been preformed. Altho nothing has been done on it in recent years, it is understood that an attempt will be made to open up and examine the workings this fall.

K-43-64

Three claims have been located on a "graphite lode" 24 miles east of Teller on the north slope of the Saw Tooth Mountains. The lode is said to be exposed in an 18' adit and width of from 50' to 60' exposed in a gorge. The country rock is said to be schists and granite, the graphite occuring as kidneys in the granite.

K-43-65

A prefunctory examination was made for P. O'Brien of a "lode prospect" about 15 miles South of Teller. It consisted of small lens of quartz in schist. Sampling and assaying failed to show gold or silver.

The following statistics have been complied form the Port Clarence Precinct for the period from Jan. 1938 to Aug. 16, 1938.

84 claims were recorded for placer gold. Of these 55 were staked as 20 acre claims, 23 as 40's, 1 as 60, 2 as 80's and 3 as 160's.

92 claims were recorded for placer tin. Of these 84 were staked as 20 acre tracts and 8 as 160 acre-associations.

A list of the number of claims or parts of claims recorded according to locality follows:

Lopp Lagoon Bench--63.
Million Creek--16.
Schulitz Creek--32.
Granite Creek--14.
American River--11.
Goodwin Creek--10.
Ohio Creek--9.
Igloo Creek--7.
Slate Creek--7.
Boulder Creek--6.
Right Fork--5.
Bay Creek--5.
Battle Creek--4.
Cape Creek Bench--4.
Eldorado--4.
Gold Run2.
Bluestone River--2.
Birch Creek--1.
Crosby Creek--1.
Needle Creek--1.
Krueger Creek--1.

These statistics are not accurately compiled as the recording book showed errors due to repetition, as well as claims recorded almost a year after staking. They do however show the localities where prospecting is presumably going on and that there is considerable activity in the York tin region.

Acknowledgement is due the U. S. G. S. for information drawn on from their bulletins and also to George W. Hellerich, manager for the Bartholomae Oil Corporation dredge. I am also indebted to the various miners and other citizens of Teller for their many courtesies extended.

Respectfully Submitted,

A. B. Shallit

A. B. Shallit.

Jan. 1938 St. Michael Precinct

TERRITORY OF ALASKA

DEPARTMENT OF MINES

~~IR~~ Norton Bay 54

IR

ASSAY OFFICE

AT Nome

Norton Bay Region.

Unglik River etc Sept. 15, 1938

NOTED
& read
JAN 6 - 39

B. D. STEWART
Commissioner of Mines

Mr. B. D. Stewart
Commissioner of Mines
Juneau, Alaska.

Dear Mr. Stewart:

Pursuant to your instructions of July 26th, I have visited the Norton Bay Region and here-with submit my report on the mining activities near the mouth of the Ungalik River. This is the only stream between the Koyuk and the Yukon where placer mining has been successfully carried on, or where there has been recent prospecting.

In the Norton Bay region, east of the Koyuk River # the country is formed of late sedimentary rocks that are little if any metamorphosed. The opinion of the U. S. G. S. as well as the finding of prospectors is to the effect that the chances of locating economically important gold deposits, except under local conditions, are slight.

Bonanza Creek, tributary to the Ungalik River is the only former placer mining site in this region and at present is part of the new Ungalik Syndicate dredge operations. The only other mining in this region is that of Shaw and Cook who are operating a 2½ cu. ft. dredge three miles away. Both of these properties have undoubtly received their gold from the same geologic source. A Tertiary # dike(probably a diorite) was observed cutting the Cretaceous sediments forming the hills between the two camps. Mineralization in this area of granitic rocks seems to be the source of the gold bearing gravels of these deposits.

If these are the local conditions govering the source of gold placers, and the findings of the operating camps seem to confirm them, then areas remaining to be prospected are definately limited.

The purpose of this report is to describe the activities in this region. The routine mechanical details are best noted by refering to the placer forms provided for that purpose. Other details of cost and construction not shown in the forms will be listed here-under.

Her cards filed separately. "St Michael Precinct"

#--U. S. G. S. Bulletin 449. P. S. Smith and H. M. Eakin.

The Ungalik Syndicate

After spending $15,000 to $16,000 prospect-drilling the property, the Ungalik Syndicate placed a 3 cu. ft. all-steel pontoon dredge at the mouth of Bonanza Creek on the Ungalik River.

The dredge, designed by Washington Iron Works, was assembled on the ground under the directions of their agent Jack Trunbull. The ship freighting the parts arrived on the 23rd of June, 1938. Freighting to camp started on June 28th and was finished on July 29th. Construction of the dredge was started July 5th. and actual operation bagun August 12th, altho the dredge was not completed until August 25th. The only important delays in construction were occasioned because some of the bolt holes in the iron work were not drilled in their proper places.

The original pruchase price of the dredge was $75,000 but it cost over $103,000 ready to operate. This included freight and lighterage, construction etc. but not insurance, interest, camp or other expenses.

Costs:

Dredge	$75,000
Freight	$12,500
Lighterage	$4,800
Tractor and parts	$11,000
Thawing outfit (250 3/4"x10' cold water points complete)	$3,500
Camp Buildings: lumber and freight	$2,000
Camp Buildings: labor	$2,000
Tools and Equipment	$1,200
Derrick used in constructing dredge	$1,100
Food and Supplies	$1,300
Diesel oil, 600 drums	$4,500
Labor including board, and construction	$6,000
Labor including board, freighting	$2,654

The cost of fuel oil at the dredge may be arrived at as follows:

Cost in Seattle			$0.065 per gal.
Freight	$ 14.00	per ton.	0.052 per gal.
Lighterage	$ 8.50	per ton.	0.032 per gal.
Tractor freight	$5.00	per ton. 5 drums.	$0.019 per gal.
Drum Cost	$2.00	53 gal.	$0.038 per gal.
		TOTAL	$0.206 per gal.

In case equipment must be flown in, conditions may be such that the final cost is out of proportion to the original cost of the article. A typical example is that of a tank of Oxygen needed during construction:

Tank of Oxygen, Seattle price	$4.07
Tank of Oxygen, purchased at Nome	$10.00
Airplane freight to nearest landing @ 15 cents lb.	$20.00
Three men, one day freighting from landing	$24.00
Rent of boat	$5.00
TOTAL COST	$59.00

The followir constructional details not inc? ed in the placer form may be of interes.:

The hull is composed of 23 pontoons of the following sizes and weights:

2--7'x11'x5'6" weighing about 6250 lbs. each.
2--7'x 14'x 5'6" weighing about 6250 lbs. each.
16--8'x 16'x 5'6" weighing about 8000 lbs. each.
1--4'6"x18'x5'6" weighing about 6520 lbs. eachl
2--4'6"x16'x5'6" weighing about 5000 lbs. each.

The following size and type wire-rope was used:

Tail-sluice support line--plow steel--3/4"-6x19
Swing lines--plow steel--3/4"-6x19
Swing lines--lang lay--3/4"-6x19
Swing lines--lang lay--plow steel--3/4"-6x19
Ladder Hoist--lang lay--plow steel--7/8"-6x19
Stacker Hoist--plow steel 3/4"-6x19
Hawsen Rope--Galvanized Steel--1 3/8"-6x37

The following belts were specified

Stacker-conveyor belt--140' - 28" wide.
Drive belts:
Main--6 ply rubber--70'x16"
Screen--6 ply--40'x10"
Stacker--6 ply--40'x10"
Winch--6ply--70'x10"
Screen and Stacker--6 ply--70'x12"

Sixty-eight 3 cu. ft. buckets were ordered, 2 more than used on the bucket line, these averaged about 670 pounds, or a total of 44,220 pounds for the bucket line. 268 rubber riffles 35½" &31½" wide, weighing about 16 pounds each were also ordered.

In the construction of the dredge, a 15 H. P. 4 drum winch, weighing 14,700 lbs., driven by a Hercules model Z X B gasoline engine was used. All freighting was done with R. D. 7 Caterpiller tractor and a 5 ton Athey Forged Trak wagon.

Regular radio-phone schedule is maintained between a private station K. A. A. B. at the camp and Nome, Egavick and Mirow Airlines. The transmitter is a 50 watt Northern Radio, type No. 385A.

Altho the operation has not been in progress long enough to make any recommendations the following inovations, which may be of interest, were observed: 1--All-rubber riffles. 2--"Jar" springs for the spud. 3-- 2speed winch. 4--Housing insulation of Celotex between ~~sluice-box sets~~ sheet steel.

It has been suggested that the following changes would be desirable: 1--A larger winch room. 2--Greater pump capacity. 3--Liners between sluice-box sets. It has also been suggested that a heavy-duty, long-lived diesel engine could have been purchased for a very little more than the lighter presumably shorter lived "Caterpillar" diesel.

Shaw and Cook

1454-1

The Shaw and Cook Company have begun operating a 2½ cu. ft. open link dredge on their property, which is located 3 miles above the mouth of the Ungalik River and about 4 miles below the Ungalik Syndicate operations.

The dredge started operating on August 26th, but due to the exceptionally high water in the river was shut down a few hours later. All during my stay in the vicinity it was kept secured to the bank, so that no data can be supplied as to the actual runing details.

The hull and the superstructure of the dredge have been constructed of all new material. It was built on the property under the supervision of G. Rosen, dredge master for Shaw and Cook. The hull was so planned that new machinery, including a 2ft. close connected or a 3ft. open link bucket line, could be substituted for the present equipment. The details of the present machinery are given on the Placer form provided for that purpose. This equipment was obtained from what was known as the John Miller Dredge, in the Council district. It was originally built on Warm Bottom Creek, then moved to Albion Creek and from there the machinery was moved to its present location. The purchase price was not given but it was intimated that it was very low.

Dismanteling of the old dredge was done by L. E. Ost of Council, under contract for $2,750. The machinery was lightered from Council to the mouth of the Ungalik River by the Lomen Commercial Company for $990 and freighted up river by natives at $12.00 per ton. Fifty five thousand feet of lumber were used in the construction of the new dredge. 100 drums of Gasoline were contracted landed at the mouth of the Ungalik River for $2,000. The actual construction work took 10 men working 10 hours a day, 50 days or 5000 man hours.

An appeal for a $25,000 loan from the R. F. C. brought a return offer of $30,000 on April 8, 1936. The offer was refused and since then independent means have been found to finance the proposition.

The estimated costs as submitted to the R. F. C. are as follows:

Dismantling and freight on dredge from Albion Creek to Ungalik River	$4,600
Cost of hull lumber plus the freight from Seattle to Ungalik River (the hull size has been increased since this estimate)	$2,250
Construction of hull	$3,500
Fuel and lubricating oil, to Ungalik River	$3,500
Repairs and assembling machinery, nails, bolts, okum, paint etc. Camp buildings and furnishings, groceries and labor	$11,150
TOTAL	$25,000

In the report to the R. F. C. a dredgeable area of 800,000 cubic yards, with an average gold content of $1.50 per cu. yd. was estimated. The present estimate as given by Mrs. Cook from recent drillings place the yardage at 2,000,000 and the average gold content at $1.87. Mr. F. Shaw however, tho concuring to the 2,000,000 cu. yd. estimate, places the average gold contents

at something slightly less than $1.50.

The hull and superstructure of the dredge, being newly built and well constructed, should give a minimum of trouble. The present equipment, especially the winches and drive engine, is badly worn and will require constant vigilance if it is to last through the 1939 season.

The following acknowledgements are here with made for help in obtaining the information found in this report: Mr. A. Pearson, of the Ungalik Syndicate Operations and Frank Shaw and Mrs Cook, of the Shaw and Cook Operations. To the latter I am also indebted for the hospitality of their camp during my visit.

n.b. The following photographs taken during my trip to this section are here after listed:

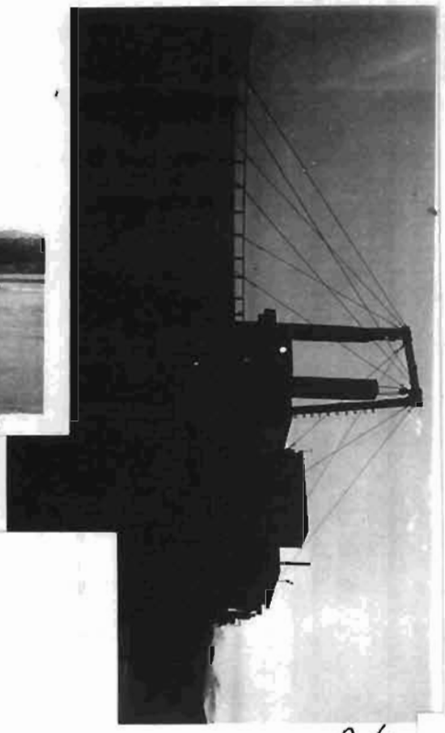
1, 2, 3, 4.--Details Shaw and Cook Dredge.
5, 6, --Details Ungalik Syndicate Dredge.
7, --Ungalik Syndicate Camp from Bonanza Creek.
8, --Ungalik Syndicate Camp, Ungalik River.
(Winch and boom used in assembling dredge in left foreground--P. S. Smith and Pilot on oildrum raft.)

Respectfully submitted,

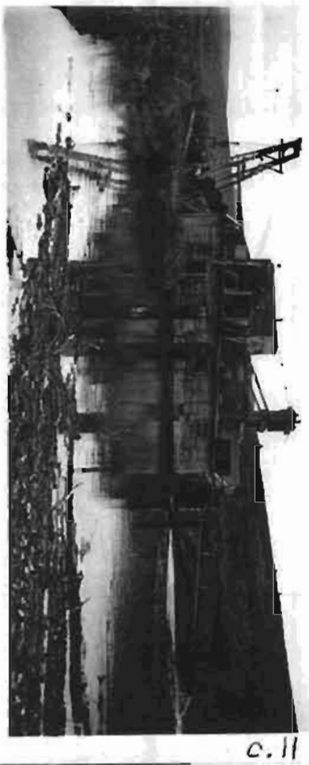
A. B. Shallit

A. B. Shallit

C.5



C.6



C.11

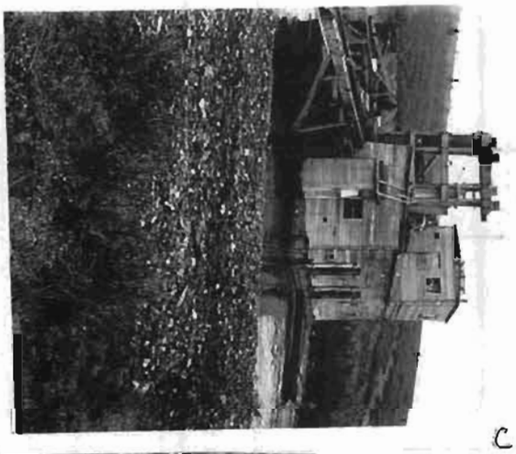
C.7

C.4

C.3

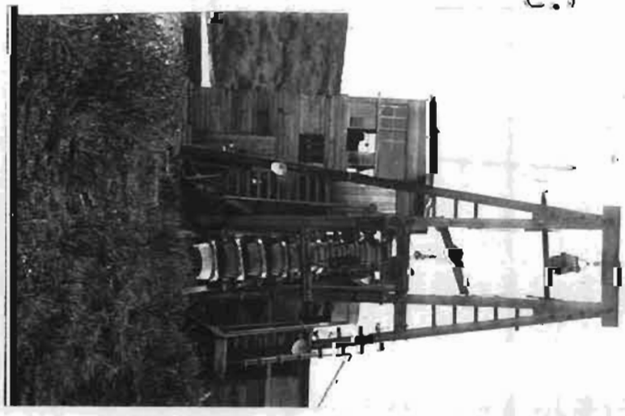
C.10

C.1



C.9

C.2



C.8

COUNCIL REPORT C. 5

North Star Dredging Co., Niukluk River

COUNCIL REPORT C. 4 C.7

Council Dredging Co., Camp

COUNCIL REPORT C. 3.

Inland Dredging Co., Fish River

COUNCIL REPORT C. 1

Inland Dredging Co., Fish River

COUNCIL REPORT C. 2.

Inland Dredging Co., Fish River.

COUNCIL REPORT C. 11

Glass Dredging Co., Melsing Creek

COUNCIL REPORT C. 6

Council Dredging Co., Niukluk River

COUNCIL REPORT C. 4

North Star Dredging Co., Niukluk River

COUNCIL REPORT C. 10

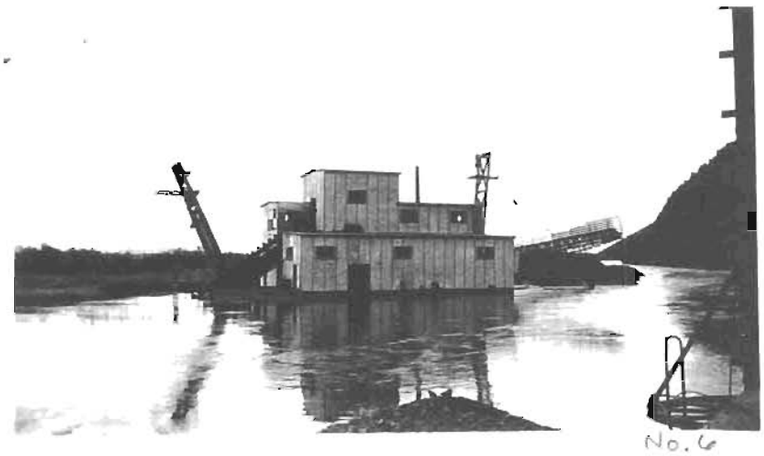
Glass Dredging Co., Melsing Creek.

COUNCIL REPORT C. 9

Glass Dredging Company, Melsing Creek.

COUNCIL REPORT C.8

Glass Dredging Company, Melsing Creek.



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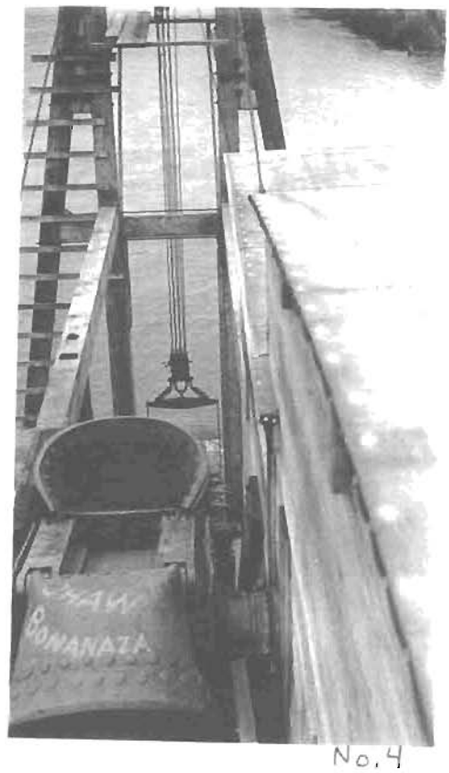


No. 4

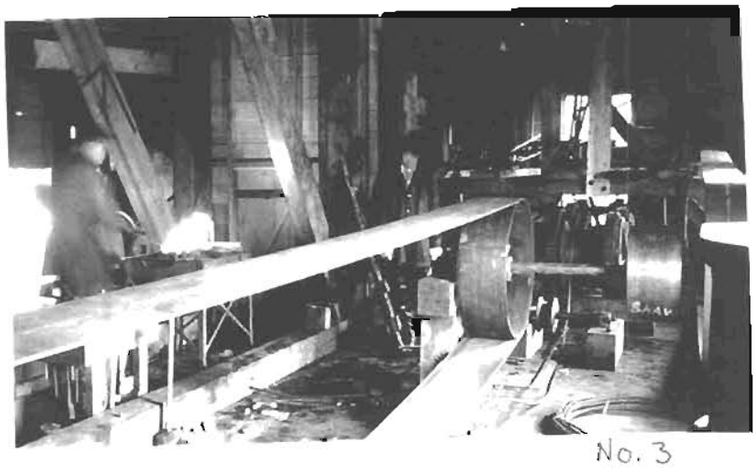
No. 1

No. 5

No. 2

No. 8

No. 7



No. 3

No. 6. Details, Ungalik Syndicate Dredge
Ungalik River.

NORTON BAY REGION REPORT

No. 1. Details, Shaw and Cook Dredge
Ungalik River

NORTON BAY REGION REPORT

No. 5. Details, Ungalik Syndicate Dredge
Ungalik River.

NORTON BAY REGION REPORT

No. 8. Ungalik Syndicate Camp, Ungalik River

NORTON BAY REGION REPORT

No. 3. Details, Shaw and Cook Dredge
Ungalik River

NORTON BAY REGION REPORT

No. 4. Details, Shaw and Cook Dredge
Ungalik River

NORTON BAY REGION REPORT

No. 2. Details, Shaw and Cook Dredge
Ungalik river

NORTON BAY REGION REPORT

No. 7. Ungalik Syndicate Camp from Bonanza Creek

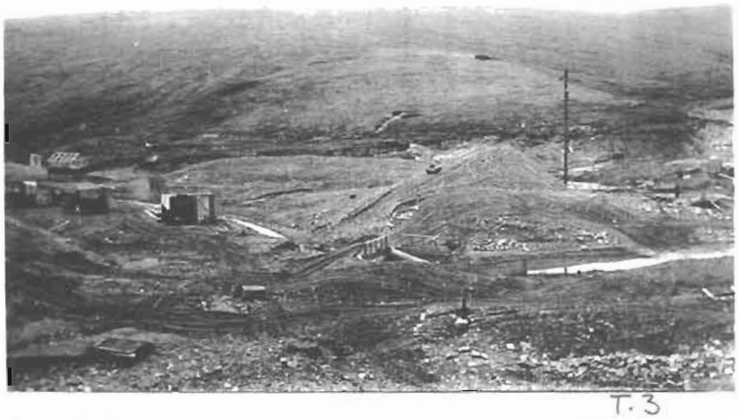
NORTON BAY REGION REPORT

T.1

T.6

T.2

T.7



T.3

T.8

T.9

T.4

T.5

T.10

Bartholomae Oil Corp. dredge at Gold Run Creek.

TELLER REPORT

T.1

Bartholomae Oil Corp. camp at Gold Run Creek

TELLER REPORT

T.2

Arctic Mines Inc. plant at Sunset Creek.

TELLER REPORT

T.3

Arctic Mines Inc. plant at Sunset Creek.

TELLER REPORT

T.4

B. Tweet and Sons dredge at Deese Creek.

TELLER REPORT

T.5

Part of Teller from the air.

TELLER REPORT

T.6

Note size of boulders found at Gold Run Creek.
Bartholomae Oil Corp. dredge in background.

TELLER REPORT

T.7

Drilling thaw holes with air-hammers,
Bartholomae Oil Corp.
Gold Run Creek.

TELLER REPORT.

T.8

Drilling thaw holes with air-hammer on Bartholomae Oil Corp. property, Gold Run

TELLER REPORT

T.9

N. B. Tweet and Sons pumping plant at Deese Creek. Hydraulic and thaw ground ahead of dredge.

TELLERREPORT

TELLER REPORT

T.10