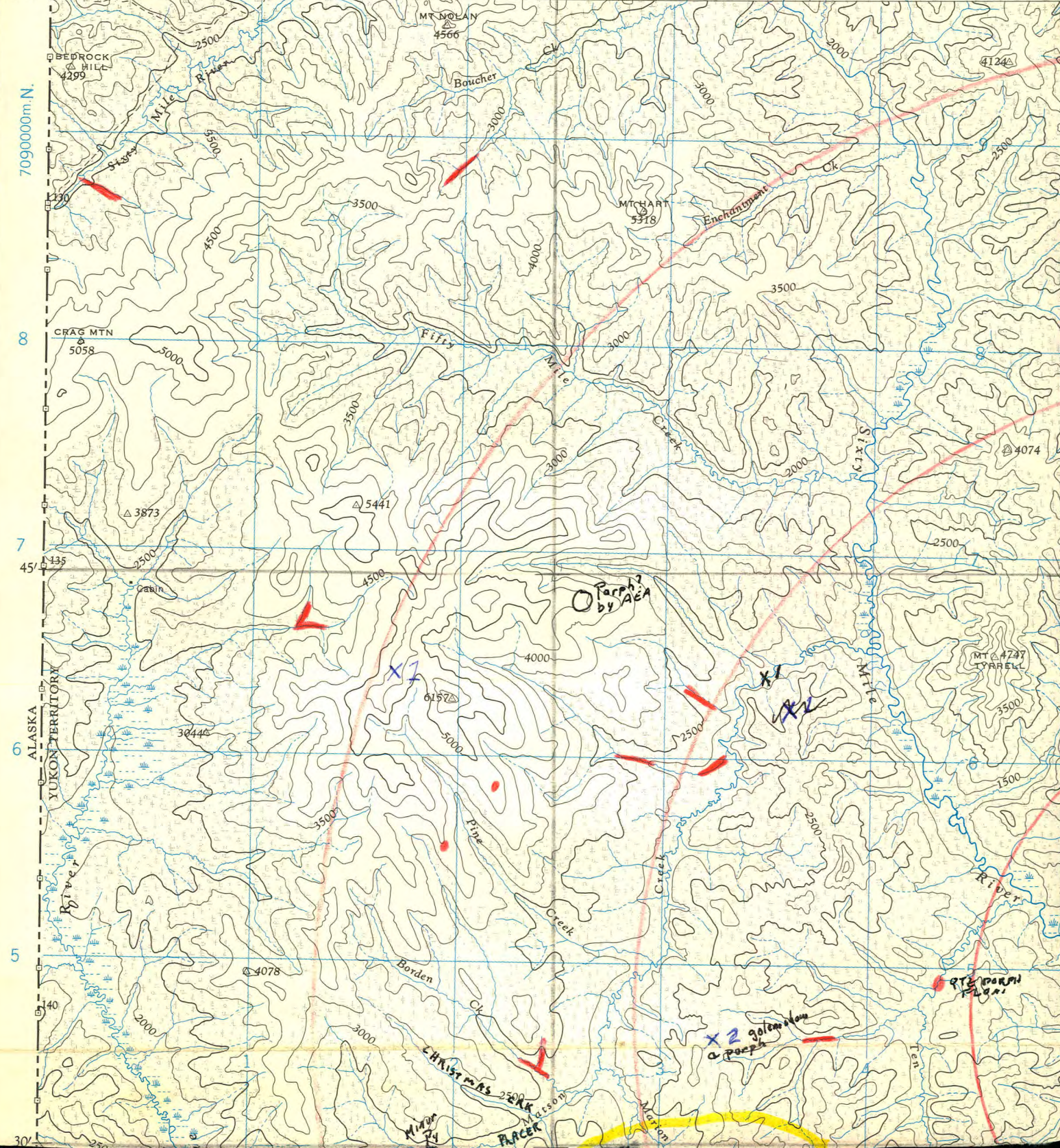


115 N N.W.
9,10,15,16 510000m E

141°00' 2 30' 3 15' 4 140°



7090000m N.

8

7

6

5

30

ALASKA
YUKON TERRITORY

BEDROCK HILL
4299

MT. MCLAN
4566

CRAG MTN
5058

MITCHART
5318

3873

5441

6157

3044

4078

MT. TYRELL
4727

3500

1500

CHRISTMAS PLACER
Mason

x2 goldenstone
a parph

RT 2000
E 2000



WOUNDED MOOSE DOME Δ 4553

Dome Ck

McCrimmon Ck

Valley

RIVER

Rosebud Creek

GRIZZLY DOME Δ 3862

Wathalla

RYROXENE MTN Δ 4551

MT ADAM Δ 4158

4

3

2

1

700000m.N.

9

63°00'

1

45'

2

30'

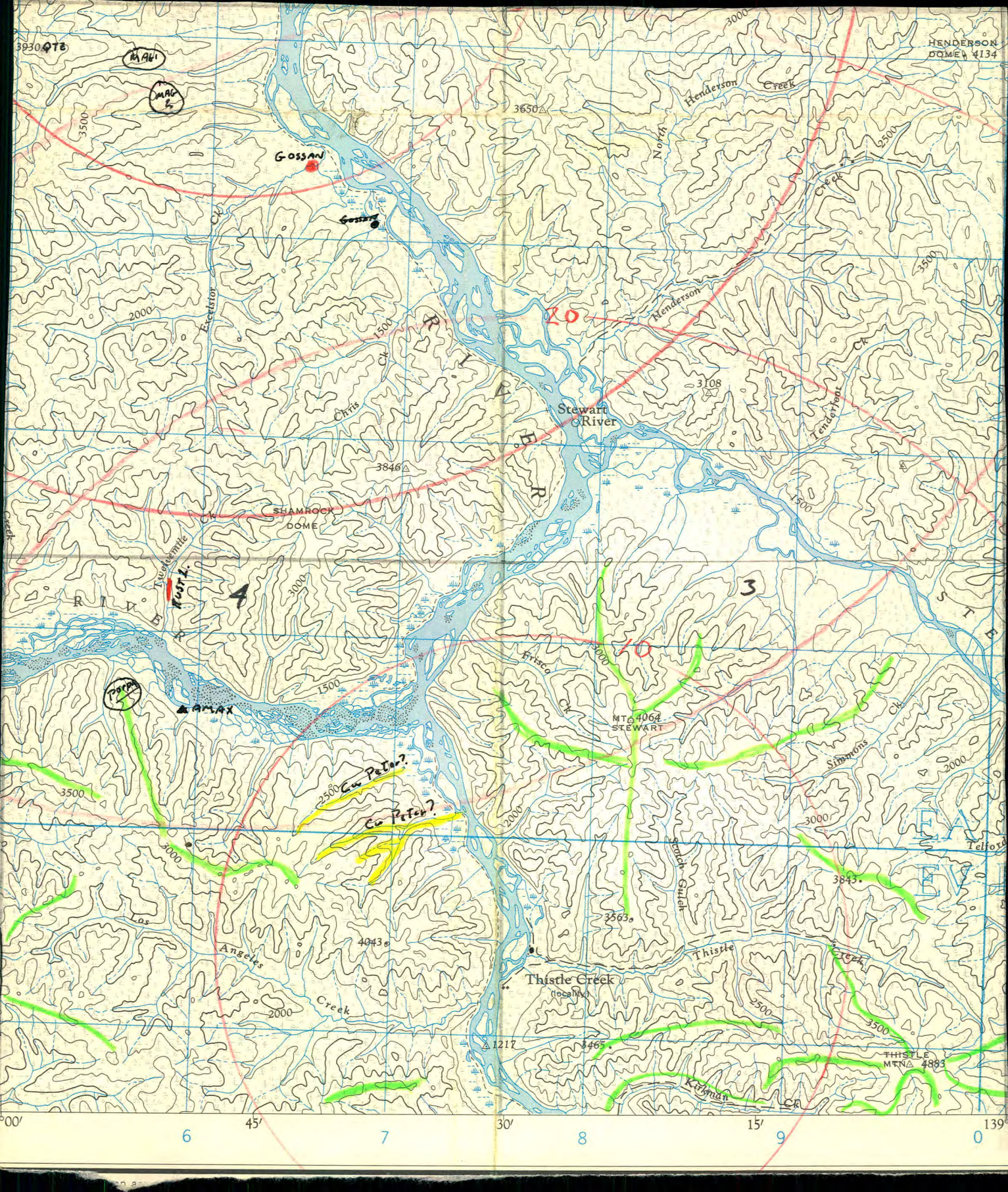
3

15'

640000m.E.

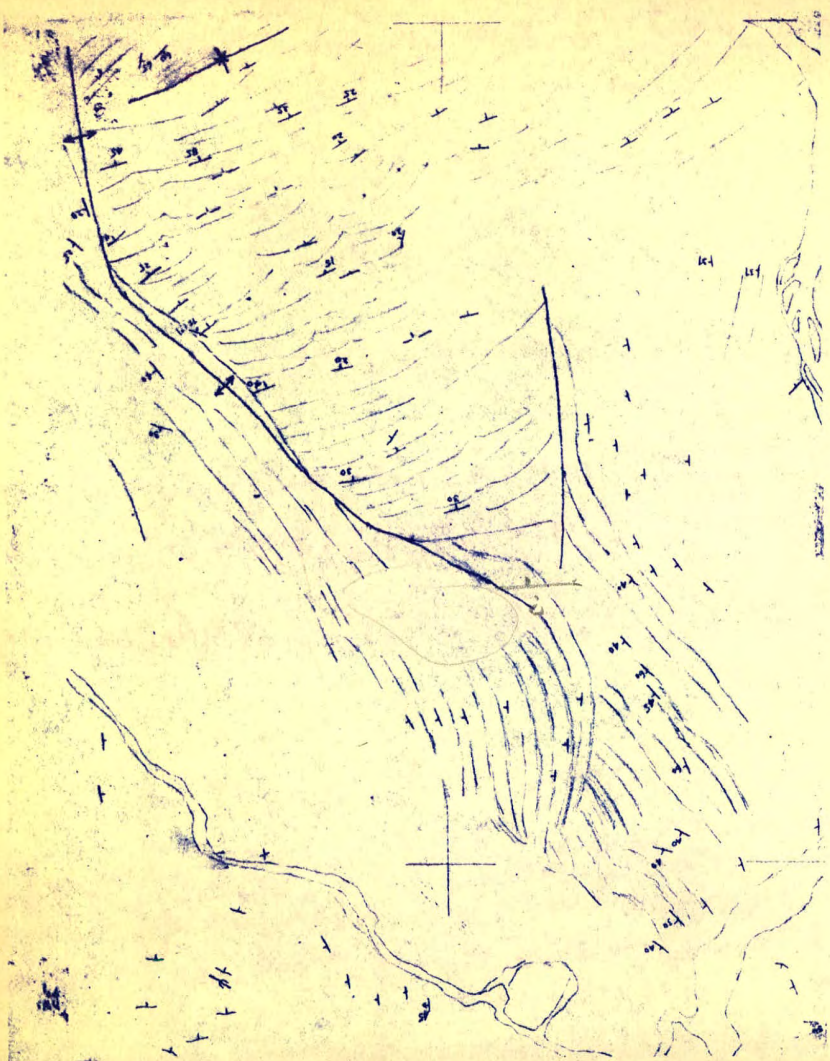
5

138°00'









<u>NPS- & Occur.</u> <u>Number</u>	<u>Reference</u>	<u>Name of Occurrence</u>	<u>Date</u>	<u>Lat. & Long.</u>	<u>Metals</u>	<u>Host Rock (with age)</u>	<u>Alteration, Gangue and Control</u>	<u>Remarks</u>
STEWART RIVER 115-O & N (E½)								
/ 115N15-1	34 GSC P67-36	C.C.L. Grp. Sixty Mile Mining Co.	1966	63°50'N 140°48'W	Ag, Pb	Gneiss	Fault & fracture fillings	10' in width - up to 18" Gal.
/ 115N15-2	33 GSC P67-36	Johnson per Grp.	1965	64°00'N 140°47'W	Ag, Pb	Tertiary volc.	Veins. Carbonate mica	Veins N60°E/steep up to 32". Sample across 32" - .04 oz. Ag, 12.5 oz. Ag., 26.4% Pb & 4.7% 2 short holes, one 7½" massive gal. intersect. 26' below sur. other nil.
/ 115O11-1	37 GSC P67-36	Canex McKinnon Creek	1963	63°41'N 139°07'W	Au	Aurif. congl. Eocene	Qtz. veins in congl.	
/ 115O14-2	35 GSC P67-36	Klondike Lode Gold Mining	1962	63°54'N 139°18'W	Au	Qtz. musc. chl. schist	Qtz. veins & stringers	Stripping & drilling (800'-6' limited core recovery & low values
/ 115O14-3	36 GSC P67-36	Lonestar		63°54'N 139°13'W very approx.	Au	Sericite & chl. sch. (Klondike sch.)	Qtz. veins	Boulder lode - N50°W/70°-80°SE 3-1-' wide (1'-7' of qtz) occasional grains and nuggets.
115O3-4	38 GSC P67-36	Black Fox		63°07½'N 139°12'W	Pb, Cu	Grey mica gneiss	Vein	Veins N17°E/30NW (magnetic-18' exposed 3' in a cut 10' deep- gal, cpy, py, mal.

Stewart River - Priority areas

115-0

1. Head of Australia Cr. - Aho's note. [115-0/9]
2. Mt. Stewart Area - [115-0/3] Pb Cu showing -
Tert. Porphy intrusion, related fault in Yukon grp - sch, gneiss, qz, ls.
Thistle Creek area done 1963 - Cu not reflected in geochem.
3. Grizzly Dome area [115-0/2] similar setting to Mt. Stewart.
4. White River - Yukon R jct. area [115-0/4] - reported Pb Ag.
[492 oz Ag?] 4' vein. - 3½ - 4 mi up second creek running
into Yukon R above White R. mouth. (which side?).

115 N (E½)

5. - Fifty mile - sixty mile area - two Ag Pb showings

012596

115 - N(E $\frac{1}{2}$)

115 - N(E $\frac{1}{2}$)

LODE OCCURRENCES

SIXTYMILE AREA

NTS 115 N 15

Mosquito Creek

#1 CCL Group (Sixtymile Mining Company Limited) (63°50'N, 140°48'W)
(Silver-Lead)

References: Cockfield (1921); Green (1966, p. 28).

1966

This property, originally staked by M. Chefkoi and J.R. Lerner and subsequently optioned by A.H. Moisey, is now held by Sixtymile Mining Company Limited of Edmonton. The company presently holds 52 claims in the area which is reported to contain a number of galena showings (Green, 1966, p. 28). During 1966 some bulldozer trenching was carried out by the present company. The property was not visited.

N
S
T
T

Mosquito Creek

NTS 115 N 15

(Silver-Lead)

#1 CCL Group (63°50'N, 140°48'W)

Reference: Cockfield (1921).

1965

The CCL group of 16 claims was staked by prospectors M. Chefkoi and J.R. Lerner, both of Whitehorse, Yukon, to cover float and geochemical anomalies discovered while prospecting in the area during the 1965 field season. The property was subsequently optioned by A.H. Moisey, of Edmonton who carried out bulldozer trenching, located galena in place, and acquired a large number of additional claims in the general area.

The showing, which was not visited, is reported to lie near the head of the west fork of Mosquito Creek, a tributary of Sixtymile River, at an elevation of about 4,200 feet, and is accessible only by bulldozer trail from the Sixtymile placer area.

A number of bulldozer trenches located on some of the anomalies are reported to have exposed a series of approximately parallel faults in gneiss, some of which are up to 10 feet in width and in places contain up to 18 inches of massive galena.

SIXTYMILE AREA

(Silver-Lead)

NTS 155 N 15

#2 Per Group (64° CO¹H, 14.0° 4.7%Z)Reference: Cockfield (1921).

1965

P. Johnson of Whitehorse, Yukon holds 16 claims of the Per and Pag groups covering a silver-lead showing located on the edge of the dredge tailings on the right limit of Sixtymile River about 3/10ths of a mile upstream from Miller Creek. The showing, an old one discovered during dredging, was staked and re-examined in 1965 by P. Johnson and P. Gaudard, both of Whitehorse, Yukon. It is reached by a secondary road about 10 1/2 miles in length that leaves the main Sixtymile road to the International boundary at Mile 49.

When visited early in August, the showing had been stripped for a distance of several hundred feet, but because of sloughing the vein itself was only exposed for a distance of about 30 feet at that time. Stripping by bulldozer is difficult as the vein occurs in frozen and altered rock that thaws to produce a gumbolike mud and as the showing is at river level and would require a bedrock cut several thousand feet in length for adequate drainage.

The showing exposed comprises a galena-bearing vein up to 32 inches in width occurring in altered volcanic rocks of probable Tertiary age (Cockfield, 1921). The vein strikes about N 60°E and dips steeply. A chip sample across the 32 inch width, which contains galena with the exception of a 4 inch barren zone in the centre assayed*: 0.04 ounces of gold and 12.5 ounces of silver per ton, 26.4 per cent lead, and 4.7 per cent zinc. Another sample, about 10 feet to the southwest along the vein, taken over a width of 18 inches composed mainly of altered clayey material with some pyrite assayed*: 0.08 ounces of gold and 0.80 ounces of silver per ton, 1.2 per cent lead and 0.4 per cent zinc. A composite sample of three pieces of massive galena from the vein assayed*: 0.02 ounces of gold, and 33.5 ounces of silver per ton, 85.5 per cent lead, and 0.6 per cent zinc. Later in the season, two short diamond drill holes were put down one of which did not cut vein material and the other cut 7 1/2 inches of galena at a depth of 26 feet below surface.

Most bedrock is decomposed in the vicinity of the showing but scattered outcrops of altered, buff weathering, pale brown to grey, volcanic rocks, of probable felsic composition remain. These have a glassy grey matrix and are crowded with altered feldspar phenocrysts, both euhedral and rounded, to about 3 mm in size. Under the

* Assayed by G. Spalding, Whitehorse, Y.T.

1965

microscope the rocks were found to be highly altered to secondary minerals with little or none of the original minerals remaining. Much of the secondary material is indeterminate but abundant carbonate, probably magnesite (No about 1.70) and some fine mica is present.

The silver to lead ratio of the Fer group is low and the deposit is difficult to explore because of drainage problems. However, silver-bearing galena has been reported from placer concentrates on Miller Creek (Cockfield, 1921, p.42), in a prospect near the head of the Creek (op.cit. p. 51) and on the CCL group described in this report and the general area would appear worthy of careful prospecting.

PLACER OCCURRENCES

115-O

LODE OCCURRENCES

HAYSTACK MOUNTAIN AREA

McKinnon Creek

NTS 115 O 11

- #1 Canex Aerial Exploration Limited (63°41'N, 139°07 1/2'W)

References: McConnell (1905, pp. 65B-66B)**; MacLean (1914, pp. 62-71); Bostock (1942).

1963

Late in 1963, Canex Aerial Exploration Limited staked 40 quartz claims on McKinnon Creek, covering an area of Eocene conglomerate that is known to contain gold values. The area was originally staked at the turn of the century by the McKinnon brothers and C. Fothergill. McConnell (1905) and MacLean (1914) described the earlier work, and Bostock (1942), the Eocene conglomerate.

* Assayed by G. Spalding, Whitehorse, Y.T.

** Reprinted in Geological Survey of Canada Memoir 284 (Bostock, 1957, p. 109).

DAWSON MINING DISTRICT

KLONDIKE AREA

Eldorado and Bonanza Creeks

NTS 115 O 14

#2 Klondike Lode Gold Mines Limited (63°54'N, 139°18'W)
1963

References: Skinner (1961, pp. 31-32; 1962, pp. 30-31);
Green and Godwin (1963, p. 19).

The company was inactive in 1963.

DAWSON MINING DISTRICT

KLONDIKE AREA

Eldorado and Bonanza Creeks

NTS 115 O 14

#2 Klondike Lode Gold Mines Limited (63°54'N, 139°18'W)
1962

References: Skinner (1961, pp. 31-32; 1962, pp. 30-31)

Klondike Lode Gold Mines Limited was incorporated in 1960 to explore for lode gold deposits in the area between Bonanza and Eldorado Creeks. The original placer claims of this area were the richest of the Klondike Gold Fields, but despite many years of prospecting only a very limited amount of gold-bearing bedrock has been discovered. As of May 1962, the company held 152 full and fractional mineral claims in the area.

Exploration carried out by the company in 1960 and 1961 consisted of an extensive program of bulldozer stripping and both diamond and churn drilling. In 1962, 5 diamond-drill holes with a total length of 638 feet were put in across Eldorado Creek at the mouth of French Gulch and a single hole with a length of 142 feet was drilled at the mouth of Gay Gulch, also on Eldorado Creek. The depth of overburden and the physical characteristics of the contorted quartz-muscovite-chlorite schist bedrock made drilling difficult. Low values were obtained from some of the limited amount of core recovered.

EXPLORATION AND PROSPECTING

KLONDIKE AREA

NTS 1150 14

Eldorado and Bonanza Creeks

#2 Klondike Lode Gold Mines Limited

References: McConnell (1905*, pp. 10B-28B); MacLean (1914*, pp. 20-40); Cockfield (1930*, pp. 2A-4A; 1931, pp. 9A-10A); Bostock (1936b, pp. 7-8; 1942); Skinner (1961, pp. 31-32).

1961

Klondike Lode Gold Mines Limited was formed in Vancouver in 1960 to explore a triangular-shaped area of gold-bearing rocks lying mainly between Eldorado Creek, upper Bonanza Creek, and Victoria Gulch, about 10 miles south-southeast of Dawson. The company holds most of this area with claims that surround twenty-two staked in 1960 by J. Lamontagne and J. Castonguay, and thirteen Crown-granted claims, nine of which were formerly owned by the Consolidated Lone Star Mining Company.

In 1961, exploration commenced late in April and continued until early October. Geologist G. Hilchey with a crew of eight to thirteen men, using a D-7 and a D-8 bulldozer, power wagons, a diamond-drill and a churn-drill, did about 1 1/2 miles of sidehill trenching, 600 feet of diamond-drilling and 275 feet of churn drilling. Most of the work was confined to the left limit of Oro Grand Gulch and upper Seven Pup, tributary of Victoria Gulch, but some was done on the left limit of French Gulch. The cuts and churn-drill cuttings were sampled and the heavy minerals were concentrated in a small sluice-box,

*Reprinted in GSC Mem. 284 (Bostock, 1957).

as in 1960. The most encouraging results were obtained on Oro Grand Gulch and Seven Pup and these areas will likely be diamond-drilled in 1962. Some potential placer ground was staked on Oro Grand Gulch and above French Gulch.

Klondike Area

#2 Eldorado and Bonanza Creeks

1960

NTS 115 o 14

Klondike Lode Gold Mines Limited was formed in Vancouver in 1960 to explore a triangular-shaped area of gold-bearing rocks lying mainly between Eldorado Creek, upper Bonanza Creek, and Victoria Gulch, about 10 miles south-southeast of Dawson. The company holds most of this area with 147 claims that surround 38 staked in 1960 by J. Lamontagne and J. Castonguay, and 13 Crown-granted claims, 9 of which were formerly owned by the Consolidated Lone Star Mining Company¹.

Exploration on the property commenced early in July 1960 and continued until freeze-up, about the first of October. A D-8 bulldozer equipped with a U-blade was used to make sidehill cuts closely following the surface contour. Between Victoria and O'Neil Gulches, five subparallel cuts, averaging about 3,400 feet long, were made between elevations of 2,200 and 2,700 feet. Along and north of Gay Gulch four subparallel cuts, averaging about 4,300 feet long, were made between elevations of 2,000 and 2,600 feet. Other cuts were made on the right limit of Eldorado Creek opposite French Gulch.

All of the cuts were sampled at intervals averaging 100 feet. The samples consisted of vertical channels on the uphill side of the cut and averaged about 3 cubic feet in volume. These were put through a small sluice-box and the concentrates were panned and examined for gold. The final panning concentrates were stored in pint sealers for future reference. The sampling revealed some gold-bearing zones, and one in the vicinity of Gay Gulch was exposed by making downhill cuts. Further bulldozer-trenching and sampling is planned for the 1961 season to delimit and explore the source areas indicated in the 1960 work.

The geology of the Klondike area is described by McConnell (1905) and reprinted in Bostock's report (1957, p. 64), and is shown on a map by Bostock (1942). A brief summary is given here under 'Placer Mining—Klondike Area'.

The Klondike Lode Gold Mines' property is underlain by light grey to light green quartz-sericite schists (Klondike schist). Sidehill cuts opposite French Gulch, west of Victoria Gulch, and north of Gay Gulch, and deeper downhill cuts to bedrock in the latter area

¹The geology of the Lone Star mine is described by MacLean (1914, p. 20), Cockfield (1930, p. 2A; 1931, p. 9A) or Bostock (1957, pp. 597, 617), and Bostock (1936b, p. 7).

show that these rocks are cut by numerous quartz stringers and veins, some of which carry pyrite and gold. The schistosity of the schists commonly strikes northwest and dips moderately to the west. Evidence of a large fault, of probably major significance to ore control in the area, was found by G. Hilchey, geologist in charge of exploration for Klondike Lode Gold Mines Limited. He found a northwesterly trending zone of gouge in the bed of Eldorado Creek at Gay Gulch and large quantities of gouge on the dredge tailings along lower Bonanza Creek.

PLACER OCCURRENCES

Kirkman Creek

NTS 115 0 3

#1 L.M. Ross (63°00'N, 139°15'W)

References: Skinner (1961, pp. 13-14; 1962, pp. 15-16);
Green and Godwin (1963, p. 57; 1964, p. 72); Green
(1965, pp. 67-68; 1966, pp. 108-109).

Since 1957, L.M. Ross has operated a bulldozer-sludging plant on Kirkman Creek, a tributary entering the Yukon River about 90 miles upstream from Dawson. Late in the 1966 season, operations on the creek were concluded and Ross began moving his equipment back to Dawson via river-boat. The property included claims 14 to 19 Below Upper Discovery, two 1-mile leases lower on the creek, and claims 7 Above to 6 Below Upper Discovery, leased from Ballarat Mines Limited.

Total production from 1957 to the end of 1965 was about 4,134 ounces of crude gold. During 1966, working with one helper, Ross mined 165,000 bedrock square feet and recovered about 397 ounces of crude gold. (see also Upper Bonanza Creek, page 74). The property was not visited in 1966.

KIRKMAN CREEK - STEWART RIVER AREA

Kirkman Creek

NTS 115 0 3

#1 L.M. Ross (63°00'N, 139°15'W)

References: Skinner (1961, pp. 13-14; 1962, pp. 15-16); Green
and Godwin (1963, p. 57; 1964, p. 72); Green (1965, pp. 67-68).

L.M. Ross operates a bulldozer-sludging plant on Kirkman Creek, a westerly flowing tributary of Yukon River, about 90 miles upstream from Dawson. Access is by float plane from Dawson or by river-boat from Dawson or Minto and thence via a 7-mile truck road up Kirkman Creek.

Ross owns creek claims 14 to 19 Below Upper Discovery and two 1-mile leases lower on the creek and leases 7 Above to 6 Below Upper Discovery from Ballarat Mines Limited. Ross has operated on Kirkman Creek since 1957; during 1965, Ross and one helper mined a total of approximately 160,000 bedrock square feet and recovered about 383 ounces of crude gold. Mining was done in two areas, lower on the Creek near 14 Below (about 60,000 square feet) and about 1 Below. The ground was about 35 feet deep in both areas and considerable trouble was encountered with large boulders and erratic pay. Stripping has now been completed from Discovery to about 5 Above and it is expected that bulldozer mining will be completed during 1966, the creek having been mined for a distance of about 3½ miles upstream from the canyon.

#1) L.M. Ross (63°00'N, 139°15'W)

1964

References: Skinner (1961, pp. 13-14; 1962, pp. 15-16); Green and Godwin (1963, p. 57; 1964, p. 72).

L.M. Ross operates a bulldozer-slucing plant on Kirkman Creek, a westerly flowing tributary of Yukon River, about 90 miles upstream from Dawson. Access is by float plane from Dawson or by river-boat from Dawson or Minto and thence via a 7-mile truck road up Kirkman Creek.

Ross owns creek claims 14 to 19 Below Upper Discovery and two 1-mile leases lower on the creek and leases 7 Above to 6 Below Upper Discovery from Ballarat Mines Limited. Ross has operated on Kirkman

Creek since 1957 and has produced 2,351 ounces of fine gold from 1957 to 1963, inclusive. During 1964, Ross and one helper mined about 125,000 cubic yards on Claims 17 to 19 Below, working upstream from the Canyon. About 900 ounces of crude gold were produced. In addition, ground was stripped from about 3 Below to Upper Discovery in preparation for mining in 1965.

Kirkman Creek

#1) L.M. Ross (63°00'N, 139°15'W)

NTS 115 O 3

References: Skinner (1961, pp. 13-14; 1962, pp. 15-16); Green and Godwin (1963, p. 57).

1963

L.M. Ross operates a bulldozer-slucing plant on Kirkman Creek, a westerly flowing tributary of Yukon River, about 90 miles upstream from Dawson. Access is by float plane from Dawson or by river-boat from Dawson or Minto and thence via a 7-mile truck road up Kirkman Creek.

Ross owns creek claims 14 to 19 Below Upper Discovery and two 1-mile leases lower on the creek; he leases from 7 Above to 6 Below Upper Discovery from Ballarat Mines Limited. Ross has operated on Kirkman Creek since 1957 and has produced about 2,600 ounces of crude gold from 1957 to 1963, inclusive. During 1963, Ross and one helper mined approximately 85,000 cubic yards and produced 527 ounces of crude gold. Two D-8 bulldozers were used.

The operation was visited by Green in early June at which time Ross was installing his slucing plant on 7 Below. The valley of Kirkman Creek in this area is V-shaped with a gentle gradient and a narrow valley floor.

An area about 150 feet in width and 1,200 feet long had been prepared for mining and Ross reported that in this area the creek bed contained about 4 feet of gravel overlain by 22 feet of muck, both frozen. The gravel contains slabby boulders of metamorphic rock, a few of which are up to 2 feet in maximum diameter, in a fine sandy matrix. Bedrock in the cut is a hard quartz-amphibole-biotite gneiss. The gold produced varies between 868 and 896 in fineness, much of it is coarse, and nuggets to 1 1/4 ounces have been recovered. Gold with adherent quartz is common. Other heavy minerals include magnetite, garnet, and pyrite.

KIRKMAN CREEK AREA

Kirkman Creek

NTS 115 O 3

#1 L.N. Ross (63°01'N, 139°20'W)

References: Skinner (1961, pp. 13-14; 1962, pp. 15-16)

L.N. Ross owns creek claims 14 to 19 Below Upper Discovery and a 1-mile lease 2 1/2 miles above the mouth of Kirkman Creek; he leases three Upper Discovery claims and claims 1 to 5 Above and Nos. 1 to 6 Below Upper Discovery from Ballarat Mines Limited. Ross has operated a bulldozer-slucing plant on Kirkman Creek since 1957. Production in 1962 was about 561 ounces of crude gold.

HENDERSON CREEK - THISTLE CREEK AREA

References: Cairnes (1917a*); Cockfield (1930*, p. 2A; 1931*, p. 1A); Bostock (1934*, p. 4A; 1935, p. 3; 1936b, p. 4; 1937, p. 4; 1938, p. 8; 1939, p. 10; 1941, p. 16).

Kirkman Creek

NTS 115 O 3

#1 L.N. Ross

Reference: Skinner (1961, pp. 13-14).

1961

L.N. Ross owns creek claims 14 to 19 inclusive Below Upper Discovery and a 1-mile lease 2 1/2 miles above the mouth; he leases three Upper Discovery claims and claims 1 to 5 Above and Nos. 1 to 6 Below Upper Discovery from Ballarat Mines Limited.

*Reprinted in GSC Mem. 284 (Bostock, 1957).

All are on Kirkman Creek. The Upper Discovery claims are about 7 miles above the mouth of the creek and about a mile above Ross' camp and workings. Ross operated a bulldozer-slucing plant on Kirkman Creek from 1957 to 1961 and produced a total of about 2,600 crude ounces of gold. The creek was worked extensively between 1914 and 1920 and again between 1934 and 1941. Ballarat Mines Limited operated on the creek in 1953. In 1960, Ross mined on Kirkman Creek from May 10 until September 25 and produced 800 crude ounces of gold. In 1961 about three weeks of stripping was done in the spring and about a month of mining in July and August. Recovery was about 130 crude ounces of gold. Equipment used included two D-8 bulldozers, a pump and sluice-box.

The bed of the creek at the working site is about 200 feet wide and contains about 5 feet of coarse gravel overlain by about 15 to 20 feet of muck—both frozen. The gold is coarse, has a fineness of about 860, and occurs in the lower part of the gravel and in the fractured schistose bedrock. The muck and 3 or 4 feet of gravel are stripped and the remaining gravel and about a foot of bedrock are mined.

Henderson and Kirkman Creeks Area²

#1 Kirkman Creek

NTS 115 O 3

Lorne Ross operates a bulldozer-slucing plant on ground leased from Ballarat Mines Limited, 6 miles up Kirkman Creek—a 12-mile-long westerly flowing tributary of Yukon River, about 70 miles south of Dawson. Access is by chartered float plane from Dawson, or by chartered river-boat from Dawson or Pelly Crossing and thence via a 6-mile truck road up Kirkman Creek. Mail and supplies are flown in every 2 weeks and a radio schedule with Dawson is maintained.

Ross first leased Ballarat Mines Limited ground on Ballarat and Kirkman Creeks in 1955; he worked Ballarat Creek in 1955, 1956, 1958, and 1959, and Kirkman Creek from 1957 to 1960 inclusive, and produced a total of about 2,500 ounces of gold. Assisted by his brother Norman, he mined about 800 feet up the creek from May 10 to September 25, 1960 with two D-8 bulldozers, a pump, and a sluice-box. They recovered about 800 ounces of gold, most of which was coarse. During the 1960 mining, they encountered several shafts and drifts that had been made between 1914 and 1920.

Kirkman Creek valley is open-V-shaped. At the mining site, the creek bed is about 200 feet wide and contains about 5 feet of gravel overlain by 15 to 20 feet of muck—both frozen. As the gold occurs in the lowest 1 foot of gravel and in the crevices of the schistose bedrock, the upper 3 or 4 feet of gravel, as well as the muck, is stripped. Then the following year the remaining gravel and the upper foot of bedrock are put through the sluice-box. Mining cuts are about 100 feet wide and 200 feet along the creek.

#2 W.E. Edwards (63°04 1/2'N, 139°18'W)

NTS 115 0 3

1964

References: Skinner (1962, p. 16); Green and Godwin (1964, pp. 72-73).

W.E. Edwards did not continue his operation in 1964.

THISTLE CREEK AREA

NTS 115 0 3

#2 W.E. Edwards (63°04 1/2'N, 139°18'W)

Reference: Skinner (1962, p. 16).

1963

W.E. Edwards operates on Thistle Creek, a westerly flowing tributary of the Yukon River, about 80 miles upstream from Dawson. Access is by float plane from Dawson or by riverboat from Dawson or Minto and thence via a 7-mile truck road to the property.

Edwards holds two placer prospecting leases on the lower part of Thistle Creek and is operating on a 5-mile lease assigned by R. Burian. The latter extends upstream from the mouth of Scotch Gulch and some dredging has been done on the upper 3 1/2 miles by Yukon Gold Placers Limited. Edwards has worked on the creek since 1961, but no production has been reported. Equipment includes a sluice-box, automatic gate, and two AC bulldozers.

When visited by Green early in June, Edwards and one helper were preparing to install a sluicing plant on the right limit of Thistle Creek about 1 mile upstream from Scotch Gulch. The valley at this point is V-shaped with a flat floor about 1,000 feet in width. Preparatory stripping had been done on an area of about 25,000 square feet using water from an automatic gate. Edwards reports that the depth to bedrock in the area prepared is variable, but averages about 16 feet comprised of 12 feet of gravel and 4 feet of overlying muck, both frozen. Most of the boulders in the gravel are tabular and less than 1 foot in maximum diameter. Bedrock is soft chlorite-rich schist.

Thistle Creek

#2# W. Edwards

NTS 115 0 3

1961

W. Edwards of Alaska has leased the lower 6 1/2 miles of Thistle Creek and tested placer ground near the mouth of the creek. He intends to mine the benches at the mouth of Green Gulch in 1962. Edwards has acquired a HD-15 and two HD-20 bulldozers, pumps and pipe from Nighthawk Mines Limited which operated a 4 1/2-cubic-foot bucket dredge on Thistle Creek from 1949 to 1952.

#3 R. Burian

1961

NTS 115 0 3

R. Burian of Stewart River has a 4-mile placer lease above the Edwards lease on Thistle Creek and a 1-mile placer lease on Henderson Creek about 15 miles from its mouth.

Brewer Creek

NTS 115 03,2

#4 K. Djukastein (63°11'N, 139°00'W)

References: Green (1965, p. 68; 1966, p. 109).

K. Djukastein completed ¹⁹⁶⁶ his third year of operation on a one-mile prospecting lease on Brewer Creek, a left limit tributary of Stewart River, about 3 miles downstream from Barker Creek. In 1966, Djukastein, working with one helper, mined 19,000 bedrock square feet and recovered about 279 ounces of crude gold plus about 5 ounces jewellery gold. In addition 3 prospect shafts were sunk to test new ground. Equipment includes a D-4 bulldozer. The property was not visited.

Brewer Creek

#4 K. Djukastein (63°11'N, 139°00'W)

NTS 115 03,2

Reference: Green (1965, p. 68).

K. Djukastein holds a one-mile ¹⁹⁶⁵ placer prospecting lease on Brewer Creek, a left limit tributary of Stewart River, about 3 miles downstream from Barker Creek. During the 1965 season he and one hired man worked on the creek from May 25 to October 3, mined about 19,000 bedrock square feet and recovered about 247 ounces of crude gold. During the season, a ditch about 5,000 feet long was built to feed a 10 inch pipe. Equipment includes a D-4 bulldozer.

Brewer Creek

#4 K. Djukastein (63°11'N, 139°00'W)

NTS 115 0 3,2,

1964

K. Djukastein holds a one-mile placer prospecting lease on Brewer Creek, a left limit tributary of Stewart River, about 3 miles downstream from Barker Creek. During the 1964 season he and one hired man worked on the creek from 20 June to 13 September, mined about 12,000 bedrock square feet and recovered 135 ounces of fine gold. Djukastein reports that in the part of the creek bottom mined the gravels are between 3 and 6 feet deep and the overlying muck 4 to 12 feet and that both are frozen. An area has been stripped in preparation for the 1965 season. Equipment includes a D-4 bulldozer and a 20 HP 6-inch pump, pipe, and monitor.

Henderson Creek

§#5

Golden Gate Placers (63°26'N, 139°08'W)

NTS 1150 6

References: Green and Godwin (1964, p. 73); Green (1965, p. 69).

1965

The Burian family of Stewart River, Yukon own 6 placer claims and operate a bulldozer-sluicing plant on main Henderson Creek, immediately upstream from the former dredging operation (Green, 1965). Golden Gate Creek, a right limit tributary joins Henderson Creek immediately above their operation. During 1965, a cut was mined on the right limit of Henderson Creek and about 25,000 square feet partially stripped. The valley is reported to have a mineable width of about 400 feet in this area, part of which has been mined previously. Production was about 105 ounces of crude gold. Equipment includes a TD 9 and a TD 13 bulldozer.

Henderson Creek

NTS 115 0 6

References: McConnell (1905, p. 32A)*; Department of Mines and Technical Surveys (1964).

The placer deposits of Henderson Creek were discovered in 1898 (McConnell, 1905), but work on the creek appears to have been restricted to a few hand-mining operations until Yukon Gold Placers Limited brought a small dredge into production in 1949. The dredge operated from 1949 to 1956, with the exception of 1953, and produced about 26,636 ounces

*Reprinted in Geological Survey of Canada, Memoir 284 (Bostock, 1957, p. 42).

of fine gold (Dep't of Mines and Technical Surveys, 1964). The dredge operated for about 2 miles on main Henderson Creek and the lower end of the workings are some 10 miles from the mouth of the creek.

#5

Golden Gate Placers (63°26'N, 139°08'W)

NTS 115 0 6

Reference: Green and Godwin (1964, p. 73).

1964

The Burian family of Stewart River, Yukon, operates a bulldozer-sluicing plant on a 1-mile placer prospecting lease on main Henderson Creek, upstream from the former dredging operation. Their operation, reached by a rough road from near the mouth of Henderson Creek, is immediately above Golden Gate Creek, a right limit tributary that joins main Henderson Creek about 12 miles from the mouth. In 1964, they operated the plant from 15 June to 25 September, mined about 12,000 cubic yards and recovered about 111 ounces of crude gold.

HENDERSON CREEK AREA

NTS 115 O 6

#5 R. Burian (63°26'N, 139°08'W)

1963

Mrs. R. Burian of Stewart, Y.T. owns a 1-mile placer prospecting lease on Henderson Creek, about 12 miles from its mouth.

In 1963 the Burian family started mining the creek. They mined upstream across a 250-foot width from the bottom of their lease, which is immediately above Golden Gate Creek. Approximately 38,400 cubic yards were sluiced from early June to 15 September, yielding 58 ounces of crude gold. Sluicing did not start until mid-August and the operation was hampered by frozen ground.

Equipment includes a TD-18 bulldozer, and a 19-foot by 35-inch wooden sluice-box.

Where mined, the section averages about 10 feet of gravel overlain by 3 feet of muck. Old workings are present on the lease.

#5 Henderson Creek

1960

F. Perret and E. LeSaux operated a sluicing plant on Henderson Creek from May 1 to September 1, 1960 and produced about 250 ounces of gold. They do not expect to mine there in 1961 because the paystreak is not continuous.

Lamontagne and E. Schink)
(63°43.5'N, 138°41'W)

References: Green and Godwin (1963, pp. 51-52; 1964, pp. 62-63); Green (1965, p. 62; 1966, pp. 100-101).

1966

Gold Run Placers Limited leases claims 36 to 51 on Gold Run Creek from the Yukon Consolidated Gold Corporation Limited. The property is accessible from the Dominion Creek road by a 3-mile road along the left limit of Gold Run Creek. Using bulldozer-sluicing methods, the present operators produced a total of about 4,248 ounces of crude gold during the period 1962 to 1965, inclusive. In 1966, production was about 536 crude ounces of gold. The property was not visited in 1966.

Gold Run Creek
(Tributary of Dominion Creek)

NTS 115 O 10

#6 Gold Run Placers Limited (J. Lamontagne and E. Schink) (63°43½'N, 138°41'W)

References: Green and Godwin (1963, pp. 51-52; 1964, pp. 62-63); Green (1965, p. 62).

1965

Lamontagne and Schink lease claims 36 to 51 on Gold Run Creek from the Yukon Consolidated Gold Corporation Limited. The property is accessible from the Dominion Creek road by a 3-mile road along the left limit of Gold Run Creek. Production from 1962, the first year of mining to 1964 was about 3,332 ounces of crude gold. In 1965, about 18,500 yards were mined with a production of about 916 ounces of crude gold.

The ground being worked lies immediately upstream from the upper limit of dredging on Gold Run Creek and has been extensively worked by hand methods, mainly underground mining using fires on bedrock, although some open-cut mining was done near the mouth of Laskey Creek, about 45 Above. Very little gravel appears to have been present on bedrock prior to the first mining at which time most of it was hoisted so that it now overlies the muck. Silt and muck are up to 20 feet thick and, in the upper few feet, contain considerable organic material, both wood and fine rootlets, locally referred to as "dog hair". The ground is prepared for mining by ground sluicing using an automatic gate. The method is found effective particularly if care is taken to ensure that the water undercuts large silt blocks. The remaining few feet of gravel and up to 4 feet of bedrock are then mined using a bulldozer-sluicing plant. Very little time is required for mining and most of the time and water is used in stripping. Water supply is a problem in extended periods of dry weather.

During the 1965 season, a slot about 100 feet wide and covering claims 41 and 42 Above was mined along the left limit, continuing the mining started on 36 Above in 1962. In addition, stripping had been completed to 47 Above on the left limit and to about 39 Above on the right limit. Equipment used includes two D-6 bulldozers.

#6

J. Lamontagne and E. Schink (63°43'N, 138°39'W)References: Green and Godwin (1963, pp. 51-52; 1964, pp. 62-63).

1964

Lamontagne and Schink lease claims 36 to 51, excluding 45, on Gold Run Creek from the Yukon Consolidated Gold Corporation Limited. The property is accessible from the Dominion Creek road by a 3-mile road along the left limit of Gold Run Creek. Production from 1962, the first year of mining, and 1963 was 2,080 ounces of crude gold (1,693 ounces fine gold). In 1964, the partners mined approximately 110,000 cubic yards on claims 39 and 40 with a production of 1,252 ounces of crude gold.

In 1964, work on the property started in mid-April and sluicing was carried out from 1st July to 5 September. Stripping, in preparation for the 1965 season was done from claims 41 to 45 and a dam was built on claim 50.

Gold Run Creek

#6

J. Lamontagne and E. Schink (63°43'N, 138°39'W)Reference: Green and Godwin (1963, pp. 51-52).

1963

Partners Lamontagne and Schink lease claims 36 to 51 excluding 45, on Gold Run Creek. These claims belong to and have been test-drilled by the Yukon Consolidated Gold Corporation Limited. The property is accessible from the Dominion Creek road along the left limit of Gold Run Creek.

Production on Gold Run Creek in 1962, the first year of the partners' operation, was 162 ounces of gold from claim 36. During 1963, approximately 115,000 cubic yards that yielded 1,918 ounces of crude gold (1,844 ounces of fine gold) were mined from the left limit of claims 36 to 38.

In 1963, work on the property started in mid-April and sluicing was carried out from mid-July to the beginning of September. Stripping, in preparation for the 1964 season, was done from claims 39 to 41.

Equipment includes two D-6 bulldozers, a sluice-box, and a sled-mounted number 2 monitor and pump. Two dams are used to store water. The main dam is on claim 42, just below 42 Pup, and the lower, smaller dam is on claim 39. Water is directed to the sluice-box by a canal. In 1963, the water supply was good in July, but in August and September it was necessary to store water an average of 2 days for 1 1/2 days of sluicing.

The ground has been extensively worked in previous hand operations resulting in a section that is mixed gravel and muck; locally all the gravel has been removed and the muck is directly on

1963 =

bedrock. The gravel contains only a few cobbles, which are generally less than 6 inches in maximum diameter. The fineness of this gravel results in a large proportion of the tailings being carried down the bedrock drain leaving a correspondingly smaller amount to be stacked with a bulldozer. Bedrock is quartz-mica schist, which has locally decomposed to greenish micaceous clay. One foot to 2 feet of bedrock is mined. The surface of the bedrock is very irregular, and, as a result, previous operators did not mine some pockets of gravel. Typical gold, concentrated near bedrock, is smooth, fine to coarse in size, and averages 849 in fineness.

Gold Run Creek

NTS 115 Ø 10

#6

J. Lamontagne and E. Schink (63°43'N, 138°39'W)

1962

Lamontagne and Schink lease claims 36 to 51, excluding 45, on Gold Run Creek. These claims belong to and have been test-drilled by Yukon Consolidated Gold Corporation. The property is accessible from the Dominion Creek road by a 3-mile road along the left limit of Gold Run Creek.

Work on Gold Run Creek was commenced in 1962. Claims 36 to 39 were stripped and claim 36 was sluiced, but frozen ground limited the latter operation. During 1962 approximately 1,300 cubic yards were mined between May 1 and October 1, yielding about 162 crude ounces of gold. Typical gold is smooth and fine to coarse in

size. Other heavy minerals include: magnetite, generally as well formed octahedral crystals to 3 mm in maximum dimension, coarse scheelite, pyrite, and garnet.

Equipment includes two D-6 bulldozers, a sluice-box, and a pump and number 2 monitor mounted on a sled.

The ground has been extensively worked in previous hand operations. Abundant remains of wood fires for thawing ground were observed, and the section consists of a mixture of muck, gravel, and old timber. Gravel observed in the section contained only a few cobbles; these were generally less than 6 inches in maximum diameter. Visible bedrock in the creek was decomposed to a greenish clay. An outcrop near the camp, however, was fresh quartz-mica schist.

The Yukon Consolidated Gold Corporation Limited

Mining Operations

NTS 115 O 10

#6 Gold Run Creek

1964

Operation No. 18, intended for bulldozer operation, and located between claims No. 12 and No. 16 commenced with the installation of a stripping plant in 1964. The plant operated from 29 May to 15 September and removed 182,590 cubic yards of overburden at a cost of 32.57 cents per cubic yard. Work started on the plant and site on 11 April and finished on 19 October. 64

#7 Northern Yukon Services Limited (63°35'N, 138°51'W)

References: Skinner (1961, p. 12; 1962, p. 14); Green and Godwin (1963, p. 55; 1964, pp. 64-65); Green (1965, p. 63).

1965

Northern Yukon Services Limited, owned by M.D. Cole of Dawson, operates a sluicing plant on Eureka Creek on ground sublet from G. Shaw, H. Hanulik, J. Buss, and Dr. J. Rooks. The property is accessible from Granville via an access road 12 miles in length.

The company has operated a bulldozer-sluicing plant on Eureka Creek since 1960, and production from 1960 to 1964 inclusive, is 5,613 ounces of crude gold. In 1965, the plant operated on claims 15 and 16 Below and 90,000 bedrock square feet were mined with a production of about 438 ounces of crude gold. Three men were employed. It is not planned to continue the operation in 1966.

#7 Northern Yukon Services Limited (63°35'N, 138°51'W)

References: Skinner (1961, p. 12; 1962, p. 14); Green and Godwin (1963, p. 55; 1964, pp. 64-65).

1964

Northern Yukon Services Limited, owned by M.D. Cole of Dawson, operates a sluicing plant on Eureka Creek on ground sublet from G. Shaw, H. Hanulik, J. Buss, and Dr. J. Rooks. The property is accessible from Granville via an access road 12 miles in length.

The company has operated a bulldozer-sluicing plant on Eureka Creek since 1960, and production, from 1960 to 1963 inclusive, is 3,046 ounces of fine gold. In 1964, the plant operated on claims 13 to 17 Below and 150,000 bedrock square feet were mined with a production of about 1,353 ounces of crude gold. Four men were employed.

#7 Northern Yukon Services Limited (63°35'N, 138°51'W)

References: Skinner (1961, p. 12; 1962, p. 14); Green and Godwin (1963, p. 55).

1963

Northern Yukon Services Limited is owned by M.D. Cole of Dawson. The company operates a sluicing plant on Eureka Creek on ground sublet from G. Shaw, H. Hanulik, J. Buss, and Dr. J. Rooks. The property is accessible from Granville via the road to Eureka Placers Limited.

Two D-8 bulldozers are used in conjunction with a 1 1/2-yard dragline, which is used to pile tailings and dig drainage ditches. Other equipment includes an automatic gate-equipped dam, and a sled-mounted monitor and pump.

1963¹³

From May to late August the company mined the left limit of the left fork on Discovery claim and started mining claim 15 Below Discovery. Total recovery was 1,030 ounces of crude gold; 500 ounces from 60,000 bedrock square feet on claim 15, and 530 ounces from 60,000 bedrock square feet (gravel section averaging about 6 feet deep) on Discovery claim. Claims 15 to 20 Below Discovery were stripped and a drainage ditch 2,500 feet long was excavated to these claims. The section exposed in the ditch is 15 to 20 feet thick. An automatic gate-equipped dam was being used to assist in thawing and the company expects to have about 300,000 square feet prepared for mining in 1964.

The following section was exposed on Discovery claim when visited by Godwin in early August:

	Thickness in feet	
	Unit	Total from base
Old tailings	4	18
Grey black, silty, organic muck. Undecomposed wood occurs throughout this unit	2	14
Poorly sorted cobble gravel. Cobbles, locally with a common horizontal orientation, are generally platy, subrounded, less than 6 inches in maximum diameter, and composed of massive grey quartzite. Boulders are uncommon. Several silt lenses, in the order of 4 inches thick, occur in this unit. Matrix is composed of sand and silt. Toward the bottom of the unit the matrix comprises about 60 per cent of the unit. Gold is concentrated near bedrock	11	12

	Thickness in feet	
	Unit	Total from base
Bedrock is quartz mica schist. Locally the schist is decomposed to micaceous clay. Unit is excavated to a depth of about 1 foot	1	1

Reference: Skinner (1962, p. 14)
1962

Northern Yukon Services Limited is owned by M.D. and L.G. Cole of Dawson, Y.T. Placer ground is on Eureka Creek and is subleased from G. Shaw, H. Hanulik, J. Buss, and Dr. J. Rooks of Dawson, Y.T.

In 1962 the company worked the left limit below the fork on the Discovery claim, mining approximately 130,000 bedrock square feet from April 30 to October 1. About 630 ounces of gold were produced. The property is accessible from Granville along the same access road to Eureka Placers Limited.

Several D-8 bulldozers were used in conjunction with a dragline for piling tailings. A monitor was used for clearing most of the muck. Water for the sluice was supplied from the right fork of Eureka Creek by a ditch.

When the writers visited the area the ground was being prepared downstream for mining during 1963. The owners also plan to mine the left limit of the left fork.

In the 1962 operation a working width of about 200 feet was mined. The muck contains abundant remains of Pleistocene animals and is about 10 feet thick, but this thickness is very variable. Gravel underlying the muck is about 14 feet thick, but this too is variable. Muck and 6 feet of gravel were removed before mining underlying gravel and 2 feet of bedrock. There are old workings on benches in the vicinity, but the ground mined in 1962 had not been previously worked.

The gravels are clayey and poorly sorted, with cobbles generally platy, subrounded, and less than 6 inches in maximum diameter. Cobbles are mainly massive grey quartzite, but about 5 per cent of them are white quartz. Boulders are not common. Locally, sandy material is abundant.

Bedrock is locally decomposed and clayey; elsewhere it is mainly grey micaceous quartzite and quartz mica schist.

The gold is found at the base of the gravel and is generally coarse.

7 # Northern Yukon Services Limited

Reference: Skinner (1961, p. 12).

1961

Northern Yukon Services Limited—owned by M.D. and L.G. Cole (brothers)—sublease placer ground from Eureka Placers Limited on Eureka Creek below the forks and operate a bulldozer-slucing plant there. In 1961, from April 28 to September 30, the company, with a crew of six, mined about 150,000 bedrock square feet of gravel and produced 1,800 crude ounces of gold. Equipment included three D-8 bulldozers, a 1 1/2-cubic-yard dragline, a 10- by 12-inch diesel-driven pump, a No. 2 monitor, and a sluice-box.

The bed of Eureka Creek below the forks is about 200 feet wide and contains about 12 feet of gravel and 12 feet of muck. The gold is coarse—nuggets weigh up to 1 ounce—and is present at the base of the gravel and in the underlying fractured schistose bedrock. The muck and the upper 6 feet of gravel are stripped, then the underlying gravel and about 2 feet of the bedrock are mined.

NTS 115 O 10

Eureka Creek

NTS 115 O 10

#8 Eureka Placers Yukon Limited (63°34'N, 138°51'W)

References: Skinner (1962, p. 13); Green and Godwin (1963, pp. 54-55;
1964, p. 64).

1964

The company was inactive in 1964.

Eureka Creek

NTS 115 O 10

#8 Eureka Placers Yukon Limited (63°34'N, 138°51'W)

References: Skinner (1962, p. 13); Green and Godwin (1963,
pp. 54-55).

1963

Eureka Placers Yukon Limited (owned by G. Shaw, H. Hanulik, J. Buss, and Dr. J. Rooks) own 2 Discovery claims, 26 claims on the right fork Above and Below Discovery on Eureka Creek, and a 3-mile placer prospecting lease on the left fork of Eureka Creek. The property is about 12 miles from Granville along a good access road.

In 1963, N. Ross and a helper mined the top half of the lower mile of the 3-mile lease. This is on the left fork of Eureka Creek about 1/2 mile above the fork. Approximately 32,000 cubic yards of gravel were mined from 1 May to 10 October 1963. About 1,023 ounces of crude gold were produced.

Equipment includes a D-7 and a D-8 bulldozer, and a 30-foot by 48-inch sluice-box with a 20-foot dump-box. Water supplied along a ditch to the sluice-box, was stored in an earth-dammed pond.

Gravels are clayey, poorly sorted, and contain tabular boulders to 1 foot maximum diameter, composed of grey micaceous quartzite and quartz mica schist, which locally is decomposed to micaceous clay.

Ross believes the pay streak to be in the order of 30 feet wide. A 100-foot width, however, is mined. Typically the section is composed of 8 feet of gravel overlain by 5 feet of muck. After stripping, an 8-foot thickness, including 3 feet of bedrock, was mined. Individual cuts vary greatly in value because the ground has been extensively worked in the past.

#8 Eureka Placers Yukon Limited (63°34'N, 138°51'W)Reference: Skinner (1962, p. 13)

1962

Eureka Placers Yukon Limited (owned by G. Shaw, H. Hanulik, H. Buss, and Dr. J. Rooks of Dawson, Y.T.) own two Discovery claims, twenty-six claims on the right fork Above and Below Discovery on Eureka Creek, and a 3-mile prospecting lease on the left fork of Eureka Creek. The property is about 12 miles from Granville along a good access road.

In 1962 N. Ross and a helper mined ground on the left fork about 1/2 mile above the fork. Approximately 80,000 bedrock square feet were mined between May 1 and October 1, producing about 700 ounces of gold. Typical gold is fine, dark, dull, flattened, and runs about 720 in fineness. Because of inclusions of dark quartz it is unsuitable for jewellery. The largest nugget found weighed about 3/4 ounce. A D-7 and a D-8 bulldozer were used during operations and water was supplied from an earth-dammed pond with a ditch to the sluice-box. The sluice-box was about 30 inches wide, and had a 16 per cent grade. Mercury was used to catch fine gold.

The working width was about 100 feet across the stream at the time of the writers' visit. Gravel in the cut was about 5 feet thick and the overlying muck, 3 feet. The owners report that the gravel is typically 10 feet thick, the muck 5 feet thick. After stripping, a 7-foot thickness including 2 feet of bedrock was sluiced. All the ground has been extensively worked in the past resulting in a wide variation in the bedrock values between individual cuts. The ground is marginal, but the company expects workable values upstream to the forks.

Gravels are clayey, poorly sorted, and contain tabular boulders to 1 foot maximum diameter of grey micaceous quartzite and gneissic material. Iron oxide is abundant. Bedrock is grey micaceous quartzite with some quartz mica schist.

#8 Eureka Placers LimitedReference: Skinner (1961, p. 12).

1961

Eureka Placers Limited—owned by G. Shaw, H. Hanulik, J. Buss, and Dr. J. Rooks of Dawson—own two Discovery claims and 26 claims on the right fork Above and Below Discovery on Eureka Creek, tributary of Indian River. The company also has a 4-mile prospecting lease on the left fork of Eureka Creek and a 1-mile lease on Eighteen Pup, left limit tributary of the left fork. Since 1959, Eureka Placers has operated a bulldozer-sluicing plant on the left fork of Eureka Creek about 1/2 mile above the forks. In 1960 it mined 80,000 bedrock square feet of gravel and recovered 951 crude ounces of gold, whereas in 1961, from May 1 to September 27, it mined about 120,000 bedrock square feet of gravel and recovered 352 crude ounces of gold. Equipment used included a D-7 and a D-8 bulldozer and a 26-inch by 30-foot sluice-box equipped with an 8- by 16-foot hopper. Three men were employed.

The creek bed at the workings is about 80 feet wide and contains about 6 feet of fine gravel overlain by about 6 feet of muck. The gold is coarse, in rough and flattened grains, has a fineness of about 735, and is present at the base of the gravel and in the underlying

fractured schistose bedrock. Nuggets up to 1/2 ounce have been recovered, and 2- to 5-dollar ones are common. Magnetite and hematite occur with the gold in the concentrate.

#8 Eureka Creek

1960

Eureka Creek Placers Limited—owned by George Shaw, Wm. Hakonson, and Henry Hanulix, all of Dawson—was formed in 1959 to mine on Eureka Creek, a northward-flowing tributary of Indian River, about 6 1/2 miles below Sulphur Creek. The company, employing three men, operated on the left fork of Eureka Creek between April 1 and September 30, 1960 with a D-6 and D-7 bulldozer and sluicing equipment, and mined 30,000 bedrock square feet of gravel. Production was 951 ounces of gold.

M. D. and L. G. Cole (brothers), using a bulldozer, pump, monitor, and sluice-box, mined at the forks of Eureka Creek under agreement with Eureka Placers Limited from April 15 to September 30, 1960. With the help of three hired men they mined 120,000 bedrock square feet of gravel and produced 800 ounces of gold.

9
References: Skinner (1961, p. 10; 1962, p. 11); Green and Godwin (1963, pp. 48-49; 1964, pp. 59-60).

1964

I. Norbeck owns a placer prospecting lease (covering claims 35, 35a, and 35b Below Discovery) on Hunker Creek about 1/2 mile below Gold Bottom Creek. Working alone, he operates a hydraulic-sluicing plant at Temperance Hill on a low-level bench on the left limit of Hunker Creek on claims 35 and 35a. Water for the operation is brought from Gold Bottom Creek by ditch during the spring run-off and is pumped from Hunker Creek during the remainder of the season. In 1964, Norbeck recovered about 148 ounces of crude gold. The depth of black muck is increasing rapidly as the pit is extended into the hill and the operation may not be continued in 1965.

#9 I. Norbeck (63°58'N, 139°58 1/2'W)

NTS 115 O 13

References: Skinner (1961, p. 10; 1962, p. 11); Green and Godwin (1963, pp. 48-49).

1963

I. Norbeck owns a placer prospecting lease (covering claims 34, 35, 35a, and 35b Below Discovery) on Hunker Creek about 3/4 mile below Gold Bottom Creek. He operates a hydraulic-sluicing plant at Temperance Hill on a low-level bench on the left limit of Hunker Creek on claims 35 and 35a.

In 1963, an 850-foot by 50-foot arcuate strip (adjacent to the one mined in 1962) was mined on the low-level bench, which is about 10 feet above the level of Hunker Creek. Approximately 120 ounces of crude gold were recovered. Typical gold occurs as fine grains concentrated near bedrock. Other heavy minerals include: silver, magnetite, ilmenite, cassiterite, monazite, and zircon.

During the spring run-off, water is brought 3 miles from Gold Bottom Creek along a canal to the property. During the remainder of the season water is pumped from Hunker Creek with a 10 by 10 inch centrifugal pump, rated at 3,600 gallons per minute, that is driven by a 171 horsepower General Motors Twin diesel. Other equipment includes several monitors, a TD-18 bulldozer, and a 30-foot by 36-inch sluice-box with a 24-foot dump-box. Forty to 70 feet of black organic muck, containing abundant remains of Pleistocene

animals and ice lenses up to 15 feet thick, overlies 5 to 10 feet of poorly sorted gravel. Abundant old workings are very evident. These have resulted in areas where muck is resting directly on bedrock, and in local mixing of the gravel and muck. Bedrock is mined to a depth of about 3 feet and is composed of platy quartz-chlorite schist.

Mining Operations

NTS 1150 10

65 #10

Sulphur Creek

1966
Dredge No. 8 (7-cubic-foot buckets) working up middle Sulphur Creek, finished at about claim 48 Below. It operated from 3 May to 15 November, mined 499,786 cubic yards at a cost of 54.8 cents per yard, recovered 2,975 fine ounces of gold and 686 ounces of silver valued at \$104,101.

Dredge No. 9 (5 3/4-cubic-foot buckets) worked on upper Sulphur Creek below the mouth of Green Gulch. In 1966 it operated from 7 May to 13 October, mined 311,767 cubic yards at a cost of 83.4 cents per yard, recovered 4,491 fine ounces of gold and 952 ounces of silver for a total value of \$159,698.

#10 Sulphur Creek

1965

Dredge No. 8 (7-cubic-foot buckets) is working up middle Sulphur Creek about claim 60 Below. In 1965 this dredge operated from 3 May until 4 November, mined 657,340 cubic yards of gravel at a cost of 35.0 cents per cubic yard, and recovered 6,917 ounces of fine gold and 1,483 ounces of silver valued at \$242,177. Work started on the dredge and site 6 April and finished on 10 November. The thawing plant ahead of the dredge operated from 26 May to 25 September and thawed 1,206,241 cubic yards of gravel at a cost of 7.13 cents per cubic yard. Work on the plant site began 7 April and ended 25 October.

Dredge No. 9 (5 3/4-cubic-foot buckets) is working upstream on upper Sulphur Creek about 1.7 miles below the mouth of Green Gulch. In 1965 this dredge operated from 3 May to 3 November, mined 380,699 cubic yards of gravel at a cost of 69.5 cents per cubic yard, and recovered 5,263 ounces of fine gold and 1,157 ounces of silver with a total value of \$184,208. Work started on the dredge and site 5 April and finished 7 November. No stripping or thawing was done ahead of the dredge.

Dredge No. 8 (7-cubic-foot buckets) is working up Sulphur Creek about 4 1/2 miles northwest of Granville. In 1964 this dredge operated from 6 May until 23 November, mined 800,807 cubic yards of gravel at a cost of 30.4 cents per cubic yard, and recovered 5,790 ounces of fine gold and 1,175 ounces of silver valued at \$204,320. Work started on the dredge and site 6 April and finished on 26 November. The stripping plant ahead of the dredge removed from 1 June to 9 September 232,039 cubic yards of muck at a cost of 9.91 cents per cubic yard. Work on the plant started 11 April and finished 30 September. No thawing was done ahead of the dredge in 1964.

Dredge No. 9 (5 3/4-cubic-foot buckets) is working upstream on upper Sulphur Creek about 2 miles south of the mouth of Green Gulch. In 1964 this dredge operated from 27 May to 24 November, mined 333,623 cubic yards of gravel at a cost of 58.3 cents per cubic yard, and recovered 5,547 ounces of fine gold and 1,192 ounces of silver valued at \$195,835. Work started on the dredge and site 7 April and finished 26 November. The thawing plant ahead of the dredge operated from 4 June to 25 September and thawed 488,686 cubic yards of gravel at a cost of 11.96 cents per cubic yard. Work on the plant and site started 11 April and finished 19 October. No stripping was done ahead of the dredge in 1964.

#10 Sulphur Creek 1963

Dredge No. 8 (7-cubic-foot buckets) is working up Sulphur Creek about 2 miles northwest of Granville. In 1963 this dredge operated from 29 April until 16 November, mined 931,866 cubic yards of gravel at a cost of 24.9 cents per cubic yard, and recovered 4,754 ounces of fine gold and 963 ounces of silver valued at \$167,387. Work started on the dredge and site 5 April and finished on 23 November. The stripping plant ahead of the dredge removed from 20 May to

4 October 521,807 cubic yards of muck at a cost of 9.0 cents per cubic yard. Work on the plant started 13 April and finished 15 October. No thawing was done ahead of the dredge in 1963.

Dredge No. 9 (5 3/4-cubic-foot buckets) is working upstream on upper Sulphur Creek about 2 miles south of the mouth of Green Gulch. In 1963 this dredge operated from 9 May to 15 November, mined 386,640 cubic yards of gravel at a cost of 52.6 cents per cubic yard, and recovered 4,678 ounces of fine gold and 945 ounces of silver valued at \$164,737. Work started on the dredge and site 1 April and finished 18 November. The thawing plant ahead of the dredge operated from 24 May to 24 September and thawed 828,203 cubic yards of gravel at a cost of 9.9 cents per cubic yard. Work on the plant and site started 13 April and finished 22 October. No stripping was done ahead of the dredge in 1963.

#10 Sulphur Creek 1962

Dredge No. 8 (7-cubic-foot buckets) is working down Sulphur Creek about 1 mile north of Granville. In 1962 this dredge operated from May 2 until November 22, mined 1,010,242 cubic yards of gravel at a cost of 23.1 cents per cubic yard, and recovered 6,782 ounces of fine gold and 1,396 ounces of silver valued at \$239,524. Work started on the dredge and site on April 5 and finished on November 25.

1962

Dredge No. 9 (5 3/4-cubic-foot buckets) is working upstream on upper Sulphur Creek about 2 miles south of the mouth of Green Gulch. In 1962 this dredge operated from May 10 to November 17, mined 346,181 cubic yards of gravel at a cost of 59.7 cents per cubic yard, and recovered 5,323 ounces of fine gold and 1,173 ounces of silver valued at \$188,822. Work started on the dredge and site on April 4 and finished on November 21. The stripping plant operated from May 27 to July 31 and removed 101,848 cubic yards of overburden at a cost of 15.4 cents per cubic yard. Work started on the plant and site on April 15.

NTS 115 O 10

#10

Dredge No. 8 (7-cubic-foot buckets) is working down lower Sulphur Creek about 2 1/2 miles from its mouth. In 1961 this dredge operated from May 3 until November 10, mined 922,380 cubic yards of gravel at a cost of 31.4 cents per cubic yard, and recovered 9,579 fine ounces of gold and 1,929 ounces of silver valued at \$346,842. Work started on the dredge and site on April 6 and finished on November 13.

Dredge No. 9 (5 3/4-cubic-foot buckets) is working up upper Sulphur Creek at the mouth of Friday Gulch, about 9 1/2 miles from Hunker Summit. In 1961 this dredge operated from May 1 until November 7, mined 336,153 cubic yards of gravel at a cost of 57.8 cents per cubic yard, and recovered 6,057 fine ounces of gold and 1,313 ounces of silver valued at \$219,516. Work started on the dredge and site on April 10 and finished on November 9.

#10 The following is a short account of the present operations of the company.

1960

Dredge No. 6 (7-cubic-foot buckets) is at the mouth of lower Sulphur Creek. It was built in 1935 on lower Dominion Creek and placed in service in 1936. It mined until November 1960, except for the years 1943-47 inclusive.

Dredge No. 8 (7-cubic-foot buckets) is about 3 miles up Sulphur Creek. It was built in 1937 on claim No. 49 Below Discovery on Middle Sulphur area and placed in service in 1938. It mined until November 1960, except for the years 1943-45 inclusive.

Dredge No. 9 (5 3/4-cubic-foot buckets) is on the left limit of Sulphur Creek about 6 miles from King Solomon Dome. It was constructed in 1938 on upper Sulphur Creek and put in operation that autumn. It mined until the end of the 1960 season, except for the years 1943-48 inclusive.

#11 F. Chudy (63°59'N, 139°21.5'W)

NTS 115 O 14

Reference: Green (1966, p. 94)

1966

F. Chudy of Whitehorse dropped claims 54 and 55 Below on Bonanza Creek on which last season's mining was done. During July of 1966, Chudy mined on claims 17 and 18 Above, Upper Bonanza Creek, with only limited success. Production was about 60 ounces crude gold.

In August, 1966, Chudy transferred his operation to Eldorado Creek where he holds claims 2,3,4, and 5 up from the mouth of the creek. Working with one part time helper and a TD-18 tractor, Chudy stripped about 150,000 bedrock square feet in preparation for mining next season. A small amount of test mining was carried out this year, with production from this being about 26 ounces of crude gold. Neither of these properties were visited.

#11 F. Chudy (63°59'N, 139°21½'W)

NTS 115 O 14

1965

F. Chudy of Whitehorse, Yukon holds claims 54 and 55 Below Bonanza Creek, near the limits of the former Bronson and Rae concession. During the season, he mined a portion of a narrow, poorly-defined bench about 100 feet above the present level of Bonanza Creek. Water for sluicing was pumped from a small pond in the dredge tailings.

Bedrock on the bench, sloping about plus ten degrees towards the hill behind, consists of hard chloritic pebbly quartzite. It is overlain by up to 8 feet of rock debris with blocks of phyllite and quartzite to 1 foot in maximum dimension in a matrix of comminuted rock composed mainly of fine grains of quartz and mica. A minor amount of gravel is also present.

A portion of the outer edge of the bench had been open-cut by the early miners in the area. During the past season, an area about 180 feet along the bench and 90 feet wide was mined using a small T-6 gas bulldozer and later for a short period, a D-6 and a D-8. About 176 ounces of crude gold was recovered. Considerable difficulty was encountered in the riffles plugging with a white mineral, believed to be cerussite, and a portion of the gold may not have been recovered. The gold recovered varies from about 790 to 758 in fineness, in general, with the lower grade towards the edge of the bench. Typical gold is rough, much of it in nuggets to wheat size.

#12) A.T. Fry (63°57'N, 139°22'W)

NTS 115 O 14

Reference: Green (1966, pp. 94-95).

1966
On Bonanza Creek, A.T. Fry holds claim 32 Below Discovery and leases claims 20, 21, 27, 30 and 36 Below from the Yukon Consolidated Gold Corporation Limited. In addition, Fry holds hill claims opposite 30 and 31 Below on Bonanza Creek, on the right limit of Boulder Creek opposite claim 2 Above, and 2 claims each on either side of Monte Cristo and Fox Gulches. Also, Fry has purchased 2 right limit bench claims opposite 50 and 51 Below on Bonanza Creek, from H. Leaman.

During the 1966 season Mr. and Mrs. Fry worked claim 28 Below on Bonanza Creek, the No. 2 Monte Cristo hill claim, and the bench claims purchased from H. Leaman, on Bonanza right limit. Work on the Monte Cristo area is directed at eventual mining of King Solomon Hill, overlooking Bonanza Creek near Monte Cristo Gulch. Mining operations were hampered by low water conditions during 1966. Production was 135 ounces of crude gold. Equipment includes a D-7 and a D-6 bulldozer.

#12 A.T. Fry (63°57'N, 139°22'W)

1965

NTS115 O 14

A.T. Fry holds 31 and 32 Below and leases 26 to 30 Below from the Yukon Consolidated Gold Corporation and in addition, holds two creek claims on both Boulder Creek and Monte Cristo Gulch. During the 1965 season, Mr. and Mrs. Fry mined two areas of ground originally overlain by White Channel Gravels, located on the lip of King Solomon Hill overlooking Bonanza Creek and near Monte Cristo Gulch. The lip of the Hill appears to have been hand-mined originally and then left in the subsequent hydraulic operations. In the present operation, about 8 feet of gravel and bedrock are stripped by bulldozer and pushed into a sluice box set below the lip of the bedrock bench. Water for the sluice is obtained from Boulder Creek. Production for the season was about 168 ounces of crude gold.

#12 A.T. Fry (63°57'N, 139°22'W)

References: Skinner (1961, p. 9; 1962, p. 9); Green and Godwin (1963, pp. 45-46; 1964, p. 57).

1964

A.T. Fry owns three hill claims on King Solomon Hill, which is on the left limit of Bonanza Creek about 6 miles from the mouth, and two creek claims on both Boulder Creek and Monte Cristo Gulch, to the north and south of King Solomon Hill respectively. The Fry family's main operation is a hydraulic pit in White Channel gravels on King Solomon Hill using water brought by ditch from upper Boulder Creek.

During the 1964 season, his production was 191 ounces of crude gold. About 5,000 cubic yards were mined in the cut on King Solomon Hill.

References: Skinner (1961, p. 9; 1962, p. 9); Green and Godwin (1963, pp. 45-46).

1963

A. T. Fry owns two creek claims on Boulder Creek and two on Monte Cristo Creek, but operates mainly on his three hill claims on King Solomon Hill, which is on the left limit of Bonanza Creek, 6 miles up Bonanza Creek Road.

From September 1959 till October 1962, Fry has produced about 919 ounces of crude gold. In 1963, approximately 30,000 cubic yards that were mined from 1 May to 5 October yielded 262 ounces of crude gold.

The operation on King Solomon Hill is in White Channel gravels on a bedrock terrace that is about 190 feet above Bonanza Creek. In 1963, Fry worked a hydraulic pit in the gravels (same locality as 1962), and a clean-up operation around the rim of the terrace. In addition, Fry has an operation on Monte Cristo Creek, which is worked when water is abundant.

Equipment used includes three wooden sluice-boxes, a monitor, and a RD-6 and D-7 bulldozer. Water is supplied to King Solomon Hill by pipeline, but owing to a water shortage, continuous sluicing is not possible. With the aid of a storage tank, however, Fry is able to work for short periods at a time; in 1963, sluicing time over the summer averaged only 3 1/2 hours a day.

#12 A. T. Fry (63°57'N, 139°22'W)

NTS 115 O 14

References: Skinner (1961, p. 9; 1962, p. 9)

1962

A. T. Fry owns two creek claims on Boulder Creek, two on Monte Cristo Creek, and owns and operates a hydraulic pit on three hill claims on King Solomon Hill, which is on the left limit of Bonanza Creek, 6 miles up Bonanza Creek Road.

From September 1959 till October 1961 Fry produced about 723 crude ounces of gold. In 1962 approximately 12,000 cubic yards of gravel were mined over the period from May 15 to October 1, yielding 196 crude ounces of gold. Typical gold is well worn, flat, and platy, and occurs commonly as grains up to 3 or 4 cm long and 1 to 2 cm thick. The largest nugget recovered by Fry was about 1 1/2 ounces. Fineness of this gold ranges from 785 to 800. Other heavy minerals include magnetite and cassiterite.

Equipment used includes a sluice-box, a monitor, and a RD-6 and D-7 bulldozer.

The gravel is washed through a bedrock cut to the sluice-box, which dumps northwards toward Boulder Creek. Boulders that are frequently 1 foot or more across must either be broken by hand (so they will pass through the bedrock cut) or stacked.

The hydraulic pit is in frozen White Channel gravels that are on a bedrock terrace about 190 feet above Bonanza Creek. When the writers visited the area in September a section of White Channel gravel about 40 feet high and 180 feet long was exposed in the cut. The gravels are about 20 per cent quartz and similar to those at Cripple Hill. A 2-foot thick sand layer about 10 feet from the bottom of the section seemed to be fairly continuous.

Reference: Skinner (1961, p. 9).

1962

A. T. Fry owns two creek claims on Boulder Creek, and two on Monte Cristo Creek, and three hill claims on King Solomon Hill on the left limit of Bonanza Creek, 6 miles up the Bonanza Creek Road, where he operates a hydraulic pit. The White Channel gravels there were mined by drifting as early as 1900 and later by hydraulicking. The Yukon Gold Company acquired the property in 1907 and hydraulicked it until 1924; in 1927 the property was taken over by the Yukon Consolidated Gold Corporation. Fry acquired his first claims there in 1945 and began hydraulicking on Monte Cristo Gulch in 1952. He mined there until 1959, with the exception of the years 1947 and 1958, and produced about 505 crude ounces of gold. In the latter parts of most of these seasons he also mined on claim No. 44 Below Discovery on Hunker Creek. Fry started his present hydraulic pit on the right limit of Boulder Creek in September 1959 and has worked it since that time, producing about 475 crude ounces of gold. In 1961 he mined from April 17 to October 10 and produced about 248 crude ounces of gold.

The hydraulic pit is in frozen White Channel gravels about 190 feet in altitude above Bonanza Creek, and—when visited in July 1961—the face was about 180 feet long, semicircular in outline, and 45 to 50 feet high. The pit drains northward to Boulder Creek through a ditch worn in bedrock. The sluice-box is placed at the outlet of the ditch about 130 feet in altitude below the pit. Water is ditched 1 1/2 miles from upper Boulder Creek along its left limit, and this supplied enough water (in July) to operate a 7-inch monitor for about 1 1/2 hours, four times a day. Four- or five-inch nozzles are used on the monitor. An RD-6 bulldozer is used to move the gravel to the ditch leading to the sluice-box.

The lower 14 feet of the White Channel face is composed of gravel containing quartz boulders up to 18 inches long and is overlain by about 2 to 3 feet of sand, which in turn is overlain by about 30 feet of stratified gravel containing quartz cobbles up to 6 inches long. Gold is distributed throughout the gravel from top to bottom. It has a fineness of about 800, is flattened, and commonly is in grains up to 3 or 4 cm long and 1 to 2 cm thick. Other heavy minerals found in these gravels are magnetite and cassiterite. The bedrock is grey-green quartz-sericite schist having a schistosity that strikes 125° and dips 25° southward. The schist is cut by numerous irregular quartz veins that average about an inch in thickness.

#12 Bonanza Creek

NTS 115 O 14

1960

Arthur Fry operates a small hydraulic pit in White Channel gravels on King Solomon Hill, 3 miles up Bonanza Creek on the left limit bench immediately south of Boulder Creek. From April 15 to October 31, 1960, Fry, assisted by his son during the school holidays, mined 35,000 cubic yards of gravel from which 225 ounces of gold was recovered. The pit, about 250 feet above the level of Bonanza Creek, has a working face 25 to 30 feet high and 75 to 100 feet long. Water is piped from upper Boulder Creek for use in the monitors and an RD-6 bulldozer is used to move the gravel to the sluice-box, which drains through a ditch cut in the Klondike schist bedrock.

#13 H.C. and D.F. Boutillier (63°56'N, 139°21'W)

References: Skinner (1961, p. 9; 1962, pp. 9-10); Green and Godwin (1963, p. 46; 1964, p. 57); Green (1965, p. 58; 1966, p. 95).

1966
H.C. and D.F. Boutillier own 11 creek claims on Adams Creek and 4 bench claims on Adams Hill, about 8 miles up on the left limit of Bonanza Creek. In past years they have operated a hydraulic plant on Adams Hill and a bulldozer-slucing plant on Adams Creek. During the period 15 April - 1 October 1966, the Boutillier's mined a total of about 11,000 bedrock square feet and produced 177 ounces of crude gold. The property was not visited.

#13 H.C. and D.F. Boutillier (63°56'N, 139°21'W)

NTS 115 O 14

References: Skinner (1961, p. 9; 1962, pp. 9-10); Green and Godwin (1963, p. 46; 1964, p. 57); Green (1965, p. 58).

1965
H.C. and D.F. Boutillier own 11 creek claims on Adams Creek and 4 bench claims on Adams Hill, about 8 miles up on the left limit of Bonanza Creek. Their operations include a hydraulic plant on Adams Hill and a bulldozer-slucing plant on Adams Creek, the latter being operated when there is insufficient water on the hill. In 1965, they mined on the creek for 6 days with a production of 47 ounces and the remainder of the season on the hill with an additional 53 ounces for a total of about 100 ounces of crude gold.

When visited in mid-September, the face in the hydraulic cut was about 125 feet high and some 4 feet of gravel had still to be removed to clean up an area of about 2,000 square feet of bedrock. Much trouble was encountered with sloughing. Blocks of chloritic phyllite up to about 15 feet by 5 feet were exposed above bedrock in the face of the cut earlier in the season and were later found to have gravel behind them. The blocks may represent an island in the channel or may have been washed in during a sudden storm during deposition of the gravels. The operation was south of the area near the edge of the cut where what appeared to be high bedrock was encountered previously (Green, 1965, p. 58).

(1963, p. 46; 1964, p. 57).

1964

H.C. and D.F. Boutillier own 11 creek claims on Adams Creek and 4 bench claims on Adams Hill, about 8 miles up on the left limit of Bonanza Creek. Their operations include a hydraulic plant on Adams Hill and a bulldozer-sluicing plant on Adams Creek, the latter being operated when there is insufficient water on the hill. In 1964, they operated on the hill for the entire season and produced 205 ounces of crude gold through mining 5,000 bedrock square feet.

The work done in the hydraulic cut on Adams Hill was at the north end. Further extension in this direction appears to be blocked by chloritic phyllite, which rises possibly 8 feet above the normal base of the White Channel gravels. This rock was poorly exposed when the cut was visited early in October and it was uncertain whether the rise was caused by logging, slide rock, or the presence of an island in the original channel where the White Channel gravels were deposited.

#13 H.C. and D.F. Boutillier (63°56'N, 139°21'W)

References: Skinner (1961, p. 9; 1962, pp. 9-10); Green and Godwin (1963, p. 46).

1963

H.C. and D.F. Boutillier own 11 creek claims on Adams Creek and 4 bench claims on Adams Hill, about 8 miles up on the left limit of Bonanza Creek. In the 1963 season the Boutilliers operated a hydraulic plant in White Channel gravels on Adams Hill whenever water was available, and worked on Adams Creek with a bulldozer sluicing plant when there was no water on the hill.

On Adams Hill approximately 5,000 bedrock square feet were mined from April to the end of September, 1963, yielding 143 ounces of crude gold. From claim 8 on Adams Creek 5,000 bedrock square feet were mined over approximately 30 days yielding 83 ounces of crude gold.

#13 H.C. and D.F. Boutillier (63°56'N, 139°21'W)

References: Skinner (1961, p. 9; 1962, pp. 9-10)

1962

H.C. and D.F. Boutillier own eleven creek claims on Adams Creek and four bench claims on Adams Hill, about 8 miles up and on the left limit of Bonanza Creek. Generally, the Boutilliers operate a hydraulic plant in White Channel gravels on Adams Hill in the spring when water is plentiful and a bulldozer-sluicing plant on Adams Creek during the summer. During the 1962 season, however, they restricted their activity to their sluicing operation on Adams Hill. In 1962 approximately 4,000 to 5,000 bedrock square feet were mined over the period from May 13 to September 20, yielding 196 crude ounces of gold.

Gravels on Adams Hill are fairly fine and about 40 per cent quartz. Few cobbles are over 8 inches long, and 2- to 3-foot thick sandy lenses are common. Gold is generally found at the base of the section on bedrock, but in part of the cut seemed to the authors to be concentrated on a layer of clay that was probably either a decomposed dyke or fault gouge.

Equipment used on Adams Hill includes a monitor supplied with water from about 3 1/2 miles up Adams Gulch, and a sluice-box that discharges over the bedrock terrace toward Bonanza Creek.

Reference: Skinner (1961, p. 9).

1961

H.C. and D.F. Boutillier own eleven creek claims on Adams Creek and four bench claims on Adams Hill, all about 8 miles up on the left limit of Bonanza Creek. The Boutilliers operate a hydraulic plant in White Channel gravels on Adams Hill in the spring when the water is plentiful and a bulldozer-sluicing plant on Adams Creek during the summer. They mined from April 1 to October 4, 1961, and recovered about 300 crude ounces of gold.

A TD-40 bulldozer and sluice-box is used on Adams Creek. The creek flows in a narrow V-shaped valley whose bed at the workings, on No. 8 claim about 4,000 feet from the mouth, is about 50 feet wide and contains about 5 feet of coarse gravel overlain by 5 to 10 feet of frozen muck. The gravels contain slabs of Klondike schist, 18 inches to 4 feet long, and some coarse gold.

1960

#13

H.C. and D.F. Boutillier operate a bulldozer-sluicing plant about 3,500 feet up Adams Creek—one of the largest tributaries of Bonanza Creek; it comes in from the west about a mile below Eldorado Forks. The Boutillier brothers, using a TD-40 bulldozer and a sluice-box, mined from April 1 to October, 1960 on claim No. 8 (above the mouth of the creek) and recovered 280 ounces of gold. Adams Creek flows in a narrow V-shaped valley whose bed at the workings is about 50 feet wide and contains about 5 feet of coarse gravel. These gravels are difficult to work as they contain a large number of Klondike schist slabs between 18 inches and 4 feet long. Although the gravels are relatively poor, they contain coarse gold. Nuggets up to 6 1/2 ounces have been recovered from them.

Joseph Lamontagne stripped ground on Bonanza Creek from late July to October 15, 1960 in preparation for mining in 1961. From April 1 to mid-July, Lamontagne operated on Bedrock Creek in the Sixtymile River area.

The Yukon Consolidated Gold Corporation Limited

Mining Operations

#14 . BONANZA CR.

NTS 115 O 14

1960

Dredge No. 4 was the last of the large dredges to operate in the Klondike. Its bucket line had about 65 buckets of 16-cubic-foot capacity—as did dredges No. 2 and 3. Dredge No. 4 started on Bonanza Creek in 1941, on or near claim No. 65 Below Discovery (a short distance above Sourdough Hill). It worked its way up Bonanza Creek (except during 1945) until the end of the 1959 season, when it finished just above Queen Gulch, or about on claim No. 23. This dredge was capable of digging as much as 5 feet into the schistose bedrock that underlies the district and to a total depth of 52 feet below the waterline. Its average capacity was about 12,000 cubic yards of gravel per day or 1,800,000 cubic yards a season. During the last few years of its operation,

dredge No. 4 was hindered by the large amount of gravel that had to be dug. Some tailings from hydraulic mining of the White Channel bench gravels are up to 50 feet above the level of the creek. This, as well as the 40 or 50 feet of gravel below the waterline, had to be dug, reducing the value of the grade handled to as little as 10 cents a cubic yard. Consequently, the dredge was operating at a loss and had to be shut down.

Victoria Gulch
(Tributary of Upper Bonanza Creek)

#15 F. Perret (63°55'N, 139°12'W)

NTS 115 O 14

References: Skinner (1962, p. 10); Green and Godwin (1963, p. 47; 1964, p. 58); Green (1965, p. 59; 1966, p. 96).

1966

F. Perret (in past years in partnership with E. Lesaux) operates a bulldozer-slucing plant at the mouth of Victoria Gulch and leases claims 43 and 44 Above Discovery on Bonanza Creek from the Yukon Consolidated Gold Corporation Limited. Due to low water conditions, no mining was carried out in 1966. Stripping was done in preparation for mining next year.

Victoria Gulch
(Tributary of Upper Bonanza Creek)

#1 E. Lesaux and F. Perret (63°55'N, 139°12'W)

NTS 115 O 14

References: Skinner (1962, p. 10); Green and Godwin (1963, p. 47; 1964, p. 58); Green (1965, p. 59).

1965

E. Lesaux and F. Perret operate a bulldozer sluicing plant at the mouth of Victoria Gulch, a tributary of Upper Bonanza Creek. Claims 42 and 43 Above Discovery on Bonanza Creek are leased from the Yukon Consolidated Gold Corporation. The operation uses water from Victoria Gulch, and mining is restricted in periods of dry weather. In the 1965 season, the partners mined a slot about 40 feet wide and 200 feet long on the right limit of Victoria Gulch and produced about 234 ounces of crude gold. The depth of muck rises to 30 feet against the hillside and includes ice lenses to 6 feet thick. Rimrock is reported to rise steeply behind the edge of the present mining. Most of the muck was removed by ground sluicing using the water of Victoria Gulch and the gravels pushed across bedrock to the sluice box near the left limit. What little gravel was left undisturbed by earlier mining is poorly sorted and contains slabby rock to about one foot in maximum dimension. Bedrock is chloritic phyllite containing areas of tough pebbly phyllite that act as natural riffles.

W. Christianson (63°54'N, 139°12'W)

References: Green and Godwin (1964, p. 58).

Using a rocker, W. Christianson recovered about 15 ounces of crude gold from Victoria Gulch in the vicinity of 7 Pup.

Victoria Gulch
(Tributary of Upper Bonanza Creek)

#15 E. Lesaux and F. Perret (63°55'N, 139°12'W)

References: Skinner (1962, p. 10); Green and Godwin (1963, p. 47; 1964, p. 58).

1964

E. Lesaux and F. Perret operate a bulldozer sluicing plant at the mouth of Victoria Gulch, a tributary of Upper Bonanza Creek. Claims 42 and 43 Above Discovery on Bonanza Creek are leased from the Yukon Consolidated Gold Corporation. In 1964, they worked on the claims from mid-April to early October. An area of about 15,000 square feet was mined and about 300 ounces of crude gold were produced. The operation uses water from Victoria Gulch, and operations are restricted in periods of dry weather.

Victoria Gulch

#15 E. Lesaux and F. Perret (63°55'N, 139°12'W)

References: Skinner (1962, p. 10); Green and Godwin (1963, p. 47).

1963

E. Lesaux and F. Perret operate a bulldozer-sluicing plant at the mouth of Victoria Gulch, a tributary of Upper Bonanza Creek. Claims 42 and 43 Above Discovery on Bonanza Creek are leased from the Yukon Consolidated Gold Corporation.

They worked on the claims from mid-April to early October and sluiced from May 15 to September 20. An area of about 16,000 square feet was mined and 206 ounces of crude gold were produced. Equipment includes two TD-18 bulldozers.

The property was visited by Green in early October. The cut is located in Victoria Gulch in a small area missed by the dredge operating on Upper Bonanza. The valley floor is about 150 feet in width at this point and the depth to bedrock is about 16 feet. The ground being mined was originally extremely rich and has all been worked previously by underground operations. Bedrock in the cut is soft quartz-chlorite schist and about 6 inches are mined. The operation uses water from Victoria Gulch and was severely restricted in the middle of the season because of the limited supply of water available from this source.

W. Christianson (63°54'N, 139° 12 1/2'W)

Using a rocker, W. Christianson recovered about 50 ounces of crude gold from Victoria Gulch at the mouth of 7 Pup. The gold is reported to have come from a paystreak missed by earlier miners.

15
#15 E. Lesaux and F. Perret (63°55'N, 139°12'W)

Reference: Skinner (1962, p. 10)
1962

E. Lesaux and F. Perret have a 1/2-mile placer lease on Victoria Gulch, and lease claims No. 42 and No. 43 Above Discovery on Bonanza Creek (at the mouth of Victoria Gulch) from the Yukon Consolidated Gold Corporation. Their operation was washed out in the spring of 1962 when a dam on Upper Bonanza failed. They hope to be in production in 1963.

1962

#15 E. Lesaux and F. Perret

1961

NTS 115 O 14

E. Lesaux and F. Perret have a 1/2-mile placer lease on Victoria Gulch and lease claims No. 42 and No. 43 Above Discovery on Bonanza Creek (at the mouth of Victoria Gulch) from the Yukon Consolidated Gold Corporation. They stripped and mined from May 1 until September 25, 1961, using a TD-18 bulldozer and sluicing equipment, and recovered 70 crude ounces of gold.

1961

Hunker Creek 1966

#16

Dredge No. 11 (7-cubic-foot buckets) worked up lower Hunker Creek toward Last Chance Creek. It continued to be the most productive unit of the company's operations, providing nearly half the total production value for 1966. This dredge operated from 1 May to 13 November, and dredged 1,001,527 cubic yards of gravel at a cost of 32.6 cents per yard. Recovery was 14,940 fine ounces of gold and 3,408 ounces of silver for a total value of \$525,910.

#16 Hunker Creek

1965

Dredge No. 11 (7-cubic-foot buckets) is working up Hunker Creek about 1.3 miles below Last Chance Creek. In 1965 this dredge operated from 1 May to 4 November, mined 693,169 cubic yards of gravel at a cost of 32.7 cents per cubic yard, and recovered 6,537 ounces of fine gold and 1,435 ounces of silver with a total value of \$233,341. Work started on the dredge and site 5 April and finished on 8 November. No stripping or thawing was done ahead of the dredge.

#16 Hunker Creek

1964

Dredge No. 11 (7-cubic-foot buckets) is working down Hunker Creek, about 2 miles below Last Chance Creek. In 1964 this dredge operated from 4 May to 26 November, mined 978,141 cubic yards of gravel at a cost of 19.8 cents per cubic yard, and recovered 6,479 ounces of fine gold and 1,361 ounces of silver valued at \$229,346. Work started on the dredge and site 3 April and finished on 28 November. No stripping or thawing was done ahead of the dredge in 1964.

#16 Hunker Creek

1963

Dredge No. 11 (7-cubic-foot buckets) is working down Hunker Creek, about 1 1/2 miles below Last Chance Creek. In 1963 this dredge operated from 29 April to 16 November, mined 898,391 cubic yards of gravel at a cost of 26.1 cents per cubic yard, and recovered 6,658 ounces of fine gold and 1,402 ounces of silver valued at \$238,543. Work started on the dredge and site 5 April and finished on 19 November. The thawing plant ahead of the dredge operated from 11 May to 24 September and thawed 1,282,482 cubic yards of gravel at a cost of 7.3 cents per cubic yard. Work on the plant and site started 13 April and finished 11 October. No stripping was done ahead of the dredge in 1963.

#16 Hunker Creek

NTS 115 014

1962

Dredge No. 11 (7-cubic-foot buckets) is working down Hunker Creek, just over 1 mile below Last Chance Creek. In 1962 this dredge operated from May 3 to November 26, mined 930,410 cubic yards of gravel at a cost of 27.0 cents per cubic yard, and recovered 11,125 ounces of fine gold and 2,425 ounces of silver valued at \$392,354. Work started on the dredge and site on April 5 and finished on November 30. The thawing plant ahead of the dredge operated from June 6 to September 27 and thawed 808,843 cubic yards of gravel at a cost of 11.1 cents per cubic yard. Work on the plant and site started on April 20 and finished on October 21.

1961

#16

Dredge No. 11 (7-cubic-foot buckets) is working down lower Hunker Creek, 1/2 mile below Last Chance Creek. When it reaches the old dredge tailings at the mouth of Hunker Creek it will work its way back up the left limit of Hunker Creek to Last Chance Creek and thence up the latter creek. In 1961 this dredge operated from April 27 until November 4, mined 887,013 cubic yards of gravel at a cost of 25.6 cents per cubic yard, and recovered 10,757 fine ounces of gold and 2,217 ounces of silver valued at \$288,856. Work started on the dredge and site on April 7 and finished on November 7.

1960

#16

Dredge No. 11 (7-cubic-foot buckets) is on Hunker Creek at the mouth of Last Chance Creek. It was constructed on claim No. 57 Below Discovery in Middle Hunker area during the spring and summer of 1939 and started digging in September of that year. It mined until November 1960, except for the year 1944.

#17 G. Fant and I. Norbeck (63°58'N, 139°00'W)

References: Skinner (1961, p. 10; 1962, p. 11)

1962

G. Fant and I. Norbeck have a 5 claim (34 to 35C Below Discovery) prospecting lease on Hunker Creek about 3/4 mile below Gold Bottom Creek, and operate a hydraulic-sluicing plant on a low-level bench on the left limit of Hunker Creek on claims 34 to 35 Below Discovery.

An arcuate strip, 850 feet in length, is mined on a low level bench that is about 10 feet above the level of Hunker Creek. Approximately 319 ounces of crude gold were recovered in 1962. Typical gold is fine grained and is concentrated at the bedrock. Other heavy minerals include: magnetite, ilmenite, pyrite, and garnet.

Normally, during the spring run-off in May, water is ditched for 3 miles from middle Gold Bottom Creek, but during the remainder of the mining season it is pumped from Hunker Creek. Equipment used includes a 10-by-12-inch diesel-driven pump, several monitors, a sluice-box, and a TD-18 bulldozer.

In late September 1962, a 50-foot section was exposed. The top 40 to 45 feet was black organic muck containing abundant remains of Pleistocene animals and ice lenses that were up to 15 feet thick. The bottom 5 to 10 feet of the section was poorly sorted gravel. The sandy fraction contained abundant muscovite. Angular and platy cobbles, up to 6 inches maximum diameter, comprise about 25 per cent of the gravel. Old workings are abundant as suggested by old timbering, an old iced-up adit visible in the face of the cut, and tailings from shafts on the hill immediately above the cut. Bedrock is mined to a depth of about 3 feet and is composed of platy quartz-chlorite schist.

#17 G. Fant and I. Norbeck

Reference: Skinner (1961, p. 10).

1961

G. Fant and I. Norbeck have a five-claim (34 to 35 C Below Discovery) prospecting lease on Hunker Creek about 3/4 mile below Gold Bottom Creek and operate a hydraulic-sluicing plant on a low-level bench on the left limit of Hunker Creek on claims 34 and 35 Below Discovery. In 1961 they stripped placer ground from April 27 until mid-August, then mined until the end of September and recovered about 272 fine ounces of gold.

Normally in May, during the spring run-off, water is ditched for 3 miles from middle Gold Bottom Creek, but during the remainder of the mining season it is pumped from Hunker Creek. Equipment used includes a 10- by 12-inch diesel-driven pump, 2,000 feet of 10-inch steel pipe, five 4-inch and one 5-inch monitors a TD-18 bulldozer, and a sluice-box.

The bench, which is only a few feet in altitude above Hunker Creek, contains 3 to 6 feet of gravel overlain by 20 to 40 feet of black frozen muck. The gravel is composed mainly of flat schistose pebbles, subangular quartz pebbles and some quartz boulders. The gold is fine grained and is present in the lower part of the gravel and in the shattered bedrock to a depth of 5 feet. The latter is mined as well as the gravel. Bones of mastodons, mammoths, bison, and other Pleistocene animals, and beaver cuttings, are present in the muck.

1960

#17

George Fant and Ivor Norbeck operate a hydraulic-sluicing plant in White Channel gravels on the left limit bench of Hunker Creek at Temperance Hill, immediately below Gold Bottom Creek. From April 15 to October 1, 1960 they mined a 50-foot-high face with a pump, three monitors, a TD-18 bulldozer and a sluice-box, and produced 578 ounces of gold.

References: Skinner (1961, p. 10; 1962, pp. 10, 11)

J. and I.C. Bremner own 29 bench and hill claims and lease 9 creek and bench claims from G.M. Thompson on Lower Last Chance Creek, main tributary of lower Hunker Creek. In 1962, they worked a hydraulic pit in White Channel Gravels on Discovery Hill.

Approximately 6,500 bedrock square feet were mined over the period from April 20 to October 15, 1962, yielding 210 ounces of crude gold. Typical gold has a fineness of about 700, and is generally flaky; some nuggets with adherent quartz occur. Other heavy minerals include: silver, magnetite, ilmenite, cassiterite, monazite, and zircon.

Water is brought 5 miles from the forks of Last Chance Creek along a canal. The last section is piped, providing about a 40-foot head to a number 2 monitor. The only other equipment used is a sluice-box. Fortunately, the bedrock is so soft that tailings from the sluice-box generally cut bedrock drains to the edge of the bench. A maximum of 3 men are used in the operation.

When the writers visited the area in late September, a 30-foot section of White Channel Gravels was exposed in the cut on Discovery Hill. Cobbles are scattered throughout the section and are generally less than 6 inches maximum diameter. A few quartz boulders with a maximum diameter of 12 inches occur. Bedrock is rusty weathering altered volcanic rocks.

Hunker Creek

#18 J. and I.C. Bremner

1961

Reference: Skinner (1961, p. 10).

J. and I.C. Bremner own 29 bench and hill claims and lease 9 creek and bench claims from G.M. Thompson on lower Last

Chance Creek, main tributary of lower Hunker Creek. They operate a hydraulic pit in White Channel gravels on Graves and Allan benches, left limit of Last Chance Creek, and in 1961 mined from April 20 until October 4 and produced 280 crude ounces of gold.

#18 Hunker Creek

1960

John and Ian C. Bremner operate a hydraulic-sluicing plant on Last Chance Creek, the first main tributary of Hunker Creek; it comes in from the southwest as one goes upstream. In 1960, the Bremners and a hired man mined from April 15 to October 15, and produced about 200 ounces of gold.

#19 E. Schink (63°59'N, 139°03'W)

NTS 115 O 14

References: Skinner (1961, p. 11; 1962, p. 11)
1962

E. Schink operated a small hydraulic operation on a bench claim on Paradise Hill, Hunker Creek. Production, during 1962, was about 31 ounces of crude gold.

#19 E. Schink

1961

Reference: Skinner (1961, p. 11).

E. Schink owns a bench claim on Paradise Hill, a hill claim on the left limit of Hunker Creek above No. 72 Below Discovery, and three hill claims on the right limit of Eighty Pup, left limit tributary of Hunker Creek. In 1961 he leased (from Yukon Consolidated Gold Corporation) and worked two bench claims on Paradise Hill, on the left limit of Hunker Creek about 5 miles up the Hunker Creek Road. Schink mined from April 25 until September 30, 1961, using a D-8 bulldozer, monitor, and sluice-box and produced 150 fine ounces of gold.

F. and G. Caley (63°59'N, 139°04'W)

Partners F. Caley and son G. Caley own one bench claim on Paradise Hill. In 1963 some work, from mid-April to mid-May, was done preparing ground for sluicing in the spring of 1964. Very little water is available on the hill and, consequently, advantage has to be taken of the run-off in the spring.

Nugget Hill

#20

J.A. Gould (63°59'N, 139°02'W)

NTS 115 O 14

Reference: Skinner (1961, p. 10).

1965

J.A. Gould operated a small hydraulic-sluing plant in White Channel gravels on Nugget Hill on a part-time basis during the 1965 season. He produced about 28 ounces of crude gold.

1960

NTS 115 O 14

#20

R.S. and J.A. Gould have a small hydraulic-sluing plant in White Channel gravels on the left limit bench of Hunker Creek, at Nugget Hill, between Hester and Independence Creeks. The gravels there are coarse, about 10 feet thick, and contain many quartz boulders up to 2 feet long. The boulders are removed with a wheelbarrow or D-4 bulldozer and the finer material is washed into a sluice-box through a short ditch cut in the graphitic-schist bedrock. John Gould, who operates the plant alone, had a very poor season because 6 weeks of work were lost due to injury, and the gravels mined were of low grade.

#21

Quartz Creek (63°47'N, 139°06'W)
1966

The company began mining on Quartz Creek early in the 1966 season, following preparation of ground in this area during 1965. Working on right limit ground upstream from the mouth of Calder Creek, 70,000 bedrock square feet was mined, representing a total of about 30,000 cubic yards sluiced. An additional 60,000 cubic yards of overburden was stripped by bulldozer.

A unique innovation in mining methods was tested on the Quartz Creek operation. This involved the use of a 48-inch by 100-foot conveyor belt system mounted on a D-8 bulldozer to transport gravel to an elevated, wheel-mounted mobile sluicing plant. Although some initial mechanical problems were encountered with the system, the company feels that these can be surmounted and that the method will ultimately reduce mining costs significantly.

#21

Quartz Creek (63°47'N, 139°06'W)
1965

No mining was done on Quartz Creek but late in the season bulldozer-stripping and test drilling was done on the right limit in an area between 1,000 and 2,000 feet upstream from the mouth of Calder Creek. The company plans to mine on Quartz Creek in 1966.

#21

Quartz Creek (63°47'N, 139°06'W)
1964

On Quartz Creek, the company holds lease claims 19-28 Below A. Mack's Discovery from the Yukon Consolidated Gold Corporation Limited. In 1964, Ballarat Mines Limited operated a bulldozer-sluicing plant in one cut near the mouth of Quartz Creek and seven small cuts on the right limit bench between claims 20 to 30 Below. The cut near the mouth of the creek was put in on an area of high bedrock missed by the dredging operation. Values were low and the cut was abandoned after 8,000 cubic yards had been mined. The seven cuts on the right limit bench had a total area of 265,500 bedrock square feet and about 73,000 cubic yards were sluiced in the period 1 July to 7 September 1964. Equipment used in the Quartz and Dominion Creek operation includes 6 bulldozers and a sled-mounted pump.

Quartz Creek

#21

Ballarat Mines Limited (63°48'N, 139°06'W)

Reference: Skinner (1962, p. 12)
1963

Ballarat Mines Limited, owned by G.D. Franklin, of Seattle, Washington, and H. Schmidt of Healdsburg, California, is the

1963

second largest producer in the Dawson area with a total production in excess of 5,000 ounces. During 1962, the company operated on Eldorado Creek for the entire season and on both Quartz and Dominion Creeks for part of the season. For descriptions of the other operations refer to the creeks concerned.

The company operated a bulldozer-slucing plant on Quartz Creek during part of 1962. Stripping on the creek was done in 1961, and from June to September 1962, approximately 100,000 bedrock square feet were mined on claims 30 and 31. Typical gold is very fine and has been difficult to recover. Recovery was greatly improved using mercury, and spreading the gravel thinly by splitting the finer gravel into 2 side boxes at the bottom end of the sluice-box. These side boxes recovered considerable gold.

The men and equipment, exclusive of the sluice-box were moved to Dominion Creek later in the season.

The cut mined during 1962 averaged about 17 feet in thickness, but was locally up to 30 feet thick. Gravels are similar to the White Channel Gravels of the Klondike area.

#22 A. Sundt (63°50'N, 139°02'W)

NTS 115 O 14

References: Skinner (1962, p. 14); Green and Godwin (1963, pp. 53-54; 1964, p. 63); Green (1965, p. 62; 1966, p. 102).

1966

A. Sundt owns 4 claims on Little Blanche Creek, a tributary of Quartz Creek, as well as 8 claims on Quartz Creek itself. In 1966, Sundt operated a bulldozer-sluing plant and recovered about 294 crude ounces of gold. The property was not visited.

Quartz Creek

#22

A Sundt (63°50'N, 139°02'W)

References: Skinner (1962, p. 14); Green and Godwin (1963, pp. 53-54; 1964, p. 63); Green (1965, p. 62).

1965

A. Sundt owns 4 claims on Little Blanche Creek (a tributary of Quartz Creek), and 8 claims on Quartz Creek. In 1965, Sundt operated a bulldozer-sluing plant with a production of about 235 ounces of crude gold.

Quartz Creek

#22

A. Sundt (63°50'N, 139°02'W)

References: Skinner (1962, p. 14); Green and Godwin (1963, pp. 53-54; 1964, p. 63).

1964

A. Sundt owns 4 claims on Little Blanche Creek (a tributary of Quartz Creek), and 8 claims on Quartz Creek. In 1964, Sundt, assisted by one helper, operated a bulldozer-sluing plant on claims 5, 6, and 7 Above A. Mack's Discovery and mined about 50,000 cubic yards with a production of 394 ounces of crude gold.

Quartz Creek

#22

A. Sundt (63°50'N, 139°02'W)

References: Skinner (1962, p. 14); Green and Godwin (1963, pp. 53-54).

1963

A. Sundt owns a 1/2-mile placer prospecting lease and 4 claims on Little Blanche Creek (a tributary of Quartz Creek), and 8 claims on Quartz Creek. In 1963 he operated a bulldozer sluing plant on the left limit of Quartz Creek on claims 2 Below A. Mack's Discovery, and on 6A and 7 immediately above Mack Fork.

Approximately 35,000 bedrock square feet were mined from June to October 1963. About 300 ounces of crude gold were produced.

#22

A. Sundt (63°50'N, 139°02'W)

Reference: Skinner (1962, p. 14)
1962

A. Sundt owns a 1/2-mile lease on Little Blanche Creek (a tributary of Quartz Creek), and about 12 claims on Quartz Creek. In 1962 he operated a bulldozer-slucing plant on claims 6 and 6A on a bench on the right limit of Quartz Creek immediately above Mack Fork.

Approximately 40,000 bedrock square feet were mined in two cuts within an area 200 feet by 800 feet, between June 10 and the

beginning of October, 1962. All the ground was not thawed. About 129 ounces of crude gold were produced. Typical gold is flaky and nuggets weigh up to 1/2 ounce.

Water is limited, but a dam enables 3 hours of slucing after 18 hours of storage. Other equipment includes a D-8 bulldozer and a sluice-box.

The bedrock of the bench is about 25 feet above the bedrock in the creek. Muck thickness varies from about 3 feet on the bench to more than 10 feet in the creek. Gravel ranges in thickness from 10 to 25 feet and is dirty and silty. As boulders are generally absent, most of the tailings wash away and little stacking is required. Old workings are abundant and as much as 4 feet of tailings occur on top of the muck. Bedrock, composed of green decomposed schist, is uneven and commonly forms knolls with 10 feet of relief.

#22

A. Sundt

1961

A. Sundt in 1961 operated a bulldozer-slucing plant on Little Blanche Creek, a tributary of Quartz Creek. He mined about a mile from the mouth of the creek and produced 111 fine ounces of gold.

References: Green (1965, p. 62; 1966, p. 102).

1966
In 1966, Sailer recovered about 112 ounces of crude gold from his operation on Quartz Creek. The property was not visited.

#23

A. Sailer (63°47'N, 139°06'W)

Reference: Green (1965, p. 62).

1965
Early in the 1965 season, Sailer did stripping on his one-mile prospecting lease on Dominion Creek, located on the left limit between claims 83 to 91 Below. Later in the season he mined about 7,000 bedrock square feet on right limit hill claim 27 Below A. Mack's Discovery and recovered about 73 ounces of crude gold.

#23 A. Sailer (63°47'N, 139°06'W)

1964

During the 1964 season, Sailer operated a bulldozer-slucing plant on right limit hill claim 27 Below A. Mack's Discovery, owned by O. Lunde. Using a D6 bulldozer and working alone he mined about 4,000 bedrock square feet between 22 July and 15 September and recovered 53

ounces of crude gold. Sailer also holds a 1-mile prospecting lease on the left limit of Dominion Creek opposite claims 83 to 91 Below Discovery, which he intends to prospect next year in addition to working the Quartz Creek claim.

qtz creek.

#24 L.M. Fuhr (63°49'N, 139°04'W)

NTS 115 0 14

References: Skinner (1962, p. 14); Green and Godwin (1963, p. 53).

1963

L.M. Fuhr owns a 1/2-mile placer prospecting lease on the right limit near Number 7 camp, and claims 3 to 18 Below A. Mack's Discovery on Quartz Creek. He operates a bulldozer sluicing plant.

Fuhr, with one hired man, mined approximately 20,000 bedrock square feet from 1 June to 20 October 1963, which yielded about 213 ounces of crude gold.

#24 L.M. Fuhr (63°49'N, 139°04'W)

Reference: Skinner (1962, p. 14)

1962

L.M. Fuhr owns a 1/2-mile lease on the right limit near Number 7 Camp and claims 3 to 18 Below A. Mack's Discovery on Quartz Creek. He operated a bulldozer-sluicing plant on 4 and 5 Below in 1962.

A maximum crew of 3 men moved approximately 15,000 bedrock square feet between May 15 and October 15, 1962, which yielded about 369 ounces of fine gold.

Equipment includes a TD-18 bulldozer, a sluice-box, and a steamboiler. The boiler was used for thawing in the spring of 1962, but was not satisfactory.

#24 L.M. Fuhr

1961

L.M. Fuhr operated a bulldozer-sluice plant on Quartz Creek in 1961. He mined about 1 1/2 miles above Calder Creek and produced 102.5 fine ounces of gold.

Quartz Creek

#25 O. Lunde

NTS 115 O 14

Reference: Skinner (1961, p. 12)
1961

O. Lunde owns Radford's Discovery claim and hill claim Upper Half R.L. No. 27 Below A. Mack's Discovery on Quartz Creek. He operated a bulldozer-slucing plant on Quartz Creek about a mile above Calder Creek and produced 120 crude ounces of gold in 1960 and 286 ounces in 1961. During the seasons of 1957 to 1959 inclusive he mined on Dominion Creek at the mouth of Caribou Creek. Equipment used included a D-6 bulldozer, a 10- by 12-inch diesel pump and a sluice-box.

#25 Quartz Creek

1960

25
Ole Lunde, early in July 1960, moved his mining equipment—a pump, a monitor, a D-6 bulldozer and a sluice-box—from Dominion Creek to Quartz Creek, a southerly flowing tributary of Indian River lying southeast of King Solomon Dome. Lunde stripped ground on Quartz Creek from mid-July until early September; he then mined until October 11, and produced 120 ounces of gold.

On Eldorado Creek, the company owns claims 29, 30 and 43-OA and leases claims 28 and 31 to 46A from The Yukon Consolidated Gold Corporation, and claims 47 to 56 from J. Castonguay and D.M. Campbell, and has operated a bulldozer-sluicing plant since 1961. The valley of this portion of Eldorado Creek is narrow with steep walls and tailings disposal has presented a considerable problem in much of the work.

In 1955, the company mined about 80,230 cubic yards in a total of 7 cuts; 4 located between claims 44 and 46A and 3 starting up the creek from the end of the dredge operation at the upper end of claim 27.

The upper cuts are now completed to within about 300 feet of the mouth of Chief Gulch. At the upper end, the cut is about 50 feet wide with rimrock exposed in the left side of the cut and on the right side in an overflow outlet close by. Gravels in the cut are about 6 feet thick and contain angular blocks to 1 foot in maximum dimension in an earthy matrix; much probably originating as slide material from the sides of the creek. The gravel is overlain by about 12 feet of silts with some muck and a few thin bands of pebble gravel. Bedrock is soft chloritic phyllite with abundant pyrite crystals. Values are reported low towards the upper end of the cuts.

The lower cuts are located on the left limit in ground that has been mined previously, resulting in much of the gravel being piled on top of the muck. Depth to bedrock is about 20 feet. Bedrock consists of a number of rock types; including graphitic phyllite, chloritic phyllite, and dense chloritic quartzite.

#26

Eldorado Creek (63°52'N, 139°15'W)

1964

On Eldorado Creek, the company owns claims 29, 30, and 43-OA, leases claims 28 and 31 to 46A from the Yukon Consolidated Gold Corporation, and claims 47 to 56 from J. Castonguay and D.M. Campbell.

In 1964, the company, using a bulldozer-sluicing plant, mined about 82,000 cubic yards on claims 36 to 43 Above over the period 15 April to 12 October. Stripping preparatory to mining has been completed to the mouth of Chief Gulch (47 Above). Equipment used includes two D-8 bulldozers and a sled-mounted monitor and pump.

#26 Eldorado Creek (63°53'N, 139°16'W)

NTS 115 O 14

1963

On Eldorado Creek, the company owns claims 29, 30, and 43-0A, leases claims 28, and 31 to 46A from the Yukon Consolidated Gold Corporation, and 47 to 56 from J. Castonguay and D.M. Campbell.

In 1963, the company mined ground on claims 35 to 38 and put in one cut at the mouth of Gay Gulch. About 68,400 cubic yards were mined over the period from 7 June to 15 September 1963. Over the same period 80,000 cubic yards were stripped on claims 38 to 46-A. Equipment used includes two D-8 bulldozers, a sluice-box, and a pump and monitor mounted together on a sled.

The ground has been extensively worked in the past (once underground and some of it twice by open-cut methods) resulting in the intermixing of gravel and muck.

Eldorado Creek

#26 Ballarat Mines Limited (63°53'N, 139°16'W)

References: Skinner (1961, p. 10; 1962, p. 10)

1962

Ballarat Mines Limited, owned by G.D. Franklin, of Seattle, Washington, and H. Schmidt of Healdsburg, California, is the second largest producer in the Dawson area, with a total production in excess of 5,000 ounces. During 1962, the company operated on Eldorado Creek for the entire season and on both Quartz and Dominion Creeks for part of the season. For descriptions of the other operations refer to the creeks concerned.

On Eldorado Creek, the company owns claims 29, 30, and 43-0A, leases claims 28 and 31 to 46A from Yukon Consolidated Gold Corporation, and claims 47 to 56 from J. Castonguay and D.M. Campbell. In 1962 the company mined ground on claims 32 to 35 that had been prepared the previous year and stripped most of the ground up to claim 44.

Equipment includes two D-8 bulldozers, a sluice-box, and a sled-mounted pump and monitor, which delivers 4,000 gpm through a 3 1/2-inch nozzle. The latter machine is very effective for stripping muck.

Eldorado Creek was the richest creek in the Yukon and, consequently, all the ground held by Ballarat Mining Company has been extensively worked - once underground and twice by open-cut methods. The company, however, is working a wider cut and cleaning the bedrock. About 71,450 cubic yards were mined during the period June 7 to September 9, 1962, with a 3-man crew. The period from June to September, however, was not devoted entirely to sluicing. Stripping was carried out intermittently over the above period, and full-scale sluicing did not start until the beginning of July.

In the 1962 operation a working width of about 200 feet was mined. Muck contains the remains of Pleistocene animals and averages about 8 feet in thickness; this thickness, however, varies considerably. Gravels contain well-rounded, elongate, quartz-mica

schist cobbles, and some quartz cobbles. Muck and old mine timber are mixed with the gravel. The bedrock is platy quartz-mica schist, which locally is decomposed to a greenish clay.

Eldorado Creek

#26 Ballarat Mines Limited

NTS 115 O 14

Reference: Skinner (1961, p. 10).

1961

Ballarat Mines Limited owns claims 29, 30, and 43-OA and leases claims 28, and 31 to 46A from Yukon Consolidated Gold Corporation and claims 47 to 56 (numbered from the mouth) from J. Castonguay and D.M. Campbell, all on Eldorado Creek. In 1961 the company stripped placer ground between claims 30 and 38, below Gay Gulch, and mined from August 5 to September 13. Three men used two D-8 bulldozers, pumps and sluicing equipment.

Eldorado Creek was the richest creek in the Klondike, and the richest part of it was between the mouth and Gay Gulch, a stretch of about 3 1/2 miles. Claims 5, 16, 17, and 30 are reported to have each produced about \$1 1/2 million of gold prior to 1904.

The bed of Eldorado Creek at the mouth of Gay Gulch is about 125 feet wide and contains about 6 feet of gravel overlain by about 9 feet of frozen muck. The gravel consists mainly of flat quartz-sericite schist pebbles, 1 inch to 6 inches long and 1 inch to 2 inches thick, and rounded quartz pebbles with some large angular quartz boulders.

#26 Eldorado Creek

1960

In preparation for mining in 1961, Ballarat Mines Limited tested and stripped placer ground on Eldorado Creek below Gay Gulch and built a gravel dam equipped with an automatic gate at the gulch. (The main operation is described here under 'Dominion Creek'.)

Last Chance Creek
(Tributary of Hunker Creek)

#27 J. and I.C. Bremner (64°00'N, 139°07'W)

NTS 115 O 14

References: Skinner (1961, p. 10; 1962, pp. 10-11); Green and Godwin (1963, p. 48; 1964, p. 59); Green (1965, p. 59; 1966, pp. 97-93).

1966

J. and I.C. Bremner own 29 bench and hill claims and lease 9 creek and bench claims from G.M. Thompson on Lower Last

Chance Creek, a main tributary of lower Hunker Creek. In 1966, the owners, working with one helper, continued mining upstream from last year's operation, a cut in White Channel gravels on Discovery Hill. In addition, test cuts were established in several other areas on the property, with little success. Mining operations were hampered by low water conditions. Total production for 1966 was about 42 ounces of crude gold. The property was not visited.

Last Chance Creek
(Tributary of Hunker Creek)

#27 J. and I.C. Bremner (64°00'N, 139°07'W)

References: Skinner (1961, p. 10; 1962, pp. 10-11); Green and Godwin (1963, p. 48; 1964, p. 59); Green (1965, p. 59).

1965

J. and I.C. Bremner own 29 bench and hill claims and lease 9 creek and bench claims from G.M. Thompson on lower Last Chance Creek main tributary of lower Hunker Creek. In 1965, the Bremners with one hired man continued working their hydraulic pit in White Channel gravels on Discovery Hill. A point near the north edge of the hill with an area of about 10,000 square feet was mined with the production of 235 ounces of crude gold. Water for the operation is brought 5 miles from the forks of Last Chance Creek and has a head of about 40 feet at the monitor. Bedrock is soft and tailings from the sluice-box cut bedrock drains to the edge of the bench. Larger boulders must be broken or stacked.

When visited late in the season the following section was exposed in the face of the cut:

	Thickness in Feet	
	Unit	Total from Base
Silt and sand with some fine gravel.....	6	33
Gravel, rounded cobbles to 3 inches, mainly of quartz, with a sandy matrix.....	17	27
Gravel, boulders to 1½ feet, mainly of chloritic phyllite (Klondike schist) but about 1/3 white quartz and a few of grey quartzite, in a pale green matrix containing quartz, muscovite, and chlorite.....	10	10

Bedrock - Volcanic rock, altered to a grey-brown clayey "gumbo" that locally contains lenses of gravel to 3 or 4 feet thick. Surface hummocky and best pay found in low areas.

An additional 49 ounces of crude gold were produced on the claims leased from G.M. Thompson.

*27

J. and I.C. Bremner (64°00'N, 139°07'W)
1964

NTS 115 O 15

References: Skinner (1961, p. 10; 1962, pp. 10-11); Green and Godwin (1963, p. 48; 1964, p. 59).

J. and I.C. Bremner own 29 bench and hill claims and lease 9 creek and bench claims from G.M. Thompson on lower Last Chance Creek, main tributary of lower Hunker Creek.

In 1964, the Bremners with one hired man continued working a hydraulic pit in White Channel gravels on Discovery Hill. They recovered about 303 ounces of crude gold.

*27

J. and I.C. Bremner (64°00'N, 139°07'W)

References: Skinner (1961, p. 10; 1962, pp. 10-11); Green and Godwin (1963, p. 48).

1963

J. and I.C. Bremner own 29 bench and hill claims and lease 9 creek and bench claims from G.M. Thompson on lower Last Chance Creek, main tributary of lower Hunker Creek.

In 1963, the Bremners with one hired man continued working a hydraulic pit in White Channel gravels on Discovery Hill. They recovered 158 ounces of crude gold.

Hunker Creek and Tributaries

#28 P. Brady (63°56'N, 138°53.5'W)

NTS 115 O 15

Reference: Green (1966, p. 97).

1966

P. Brady hand-mines on various of claims 23, 24, 6 and 7 Below, and 2, 30 and 30A Above on Hunker Creek, and Discovery claim on Mint Gulch, a tributary of Hunker Creek. Production in 1966 was about 5 ounces of crude gold.

#28 P. Brady (63°56'N, 138°53½'W)

1965

Brady holds 7 claims on Hunker Creek (23 and 24 Below near the mouth of Gold Bottom Creek, 6 and 9 Below at Whiskey Hill, 2 Above, and 30 and 30A Above on the Right Fork) and Discovery Claim on Mint Gulch, a tributary of Hunker Creek. Working by hand methods on 2 Above on Hunker and Discovery on Mint Gulch he produced about 11 ounces of crude gold in 1965. Claims 23 and 24 Below on Hunker are being worked by L.M. Ross under an agreement.

Gold Bottom Creek
(Tributary of Hunker Creek)

NTS 115⁰) 15

300. Lunde (63°55'N, 138°59'W)

References: Skinner (1961, p. 12; 1962, pp. 11-12); Green and Godwin (1963, pp. 49-50; 1964, p. 60); Green (1965, p. 60; 1966, pp. 98-99).
1966

During the 1966 season O. Lunde continued bulldozer mining on his Gold Bottom Creek property (claims 8 to 17). Production was about 135 ounces of crude gold. The property was not visited.

Gold Bottom Creek
(Tributary of Hunker Creek)

NTS 115 O 15

#30 O. Lunde (63°55'N, 138°59'W)

References: Skinner (1961, p. 12; 1962, pp. 11-12); Green and Godwin (1963, pp. 49-50; 1964, p. 60); Green (1965, p. 60).

1965

O. Lunde owns claims 8 to 17 on Gold Bottom Creek and has operated a bulldozer sluicing plant on the ground since 1962. During the 1965 season he mined about 27,000 square feet of bedrock on Claim 10, and sluiced about 9,000 cubic yards to recover 192 ounces of crude gold. Stripping was done ahead to near the mouth of Ontario Creek using an automatic gate located some 500 feet further upstream.

The recent mining has revealed an old drain extending through the workings. In the present cut, the drain appears to have been sunk in bedrock and timber covered while further downstream a timber flume above bedrock was used. The drain sunk in bedrock is now filled in but its location can be followed by springs of clear water rising through muddy water produced by the present ground sluicing. The source of the clear water must lie above the automatic gate, possibly on Soda Creek. It is not known how much of the area upstream from the present operation may have been mined previously by open-cut methods utilizing this drain.

30 #30 O. Lunde (63°55'N, 138°59'W)

References: Skinner (1961, p. 12; 1962, p. 14); Green and Godwin (1963, pp. 49-50).

1964

O. Lunde owns claims 9 to 17 and operates a bulldozer sluicing plant on Gold Bottom Creek. In his first year of production, 1962, Lunde produced 225 ounces of crude gold. In 1963, he mined about 35,000 bedrock square feet from May to October, which yielded 260 ounces of crude gold. Mining was done on the right limit and centre of Gold Bottom Creek on claims 10 and 11. For 1964, 12,000 bedrock square feet were prepared.

Gold Bottom Creek
(Tributary of Hunker Creek)

30 #30 O. Lunde (63°55'N, 138°59'W)

References: Skinner (1961, p. 12; 1962, p. 14); Green and Godwin (1963, pp. 49-50; 1964, p. 60).

1963

O. Lunde owns claims 8 to 17 on Gold Bottom Creek. Working alone he has operated a bulldozer sluicing plant on the ground since 1962 with a production of 485 ounces of crude gold in 1962 and 1963. In the 1964 season, he mined about 36,000 bedrock square feet on claims 9 and 10, and sluiced about 72,000 cubic yards to recover 322 ounces of crude gold. An automatic gate is used to strip the overlying muck.

Gold Bottom Creek

30 #30 O. Lunde (63°55'N, 138°59'W)

References: Skinner (1961, p. 12; 1962, p. 14)

1962

O. Lunde owns claims 10 to 17 and operated a sluicing plant on Gold Bottom Creek.

Lunde commenced work on Gold Bottom Creek in 1962, and from June 10 to October 1 mined about 23,500 bedrock square feet, which yielded about 225 ounces of crude gold. Typical gold is about 800 in fineness, well-worn, generally the size of wheat grains, but 10 to 15 per cent is nuggets up to 1/3 ounce in weight.

Stripping is done both with water and a D-6 bulldozer, and some ground has been prepared for 1963. The sluice-box is set at a 12 per cent grade.

At the time of the writers' visit in late September, the exposed section consisted of about 10 feet of silty muck containing abundant ice lenses underlain by 4 feet of poorly sorted gravel. The coarser fraction of the gravel is low in quartz, much of it consisting of subangular platy quartz-chlorite schist with cobbles up to 1 foot maximum diameter. The bedrock is quartz-chlorite schist and 1 to 1 1/2 feet of it is mined.

31 B. Bratsberg (63°54'N, 138°59'W)

NTS 115 O 15

References: Skinner (1961, p. 10; 1962, pp. 11-12); Green and Godwin (1963, p. 50; 1964, pp. 60-61); Green (1965, p. 60; 1966, p. 99).

1966

B. Bratsberg owns the upper 500 feet of Discovery claim and claims 3 to 12 Above Discovery on Gold Bottom Creek. A bulldozer sluicing plant has been operated in the past. No production was recorded in 1966. The property was not visited.

#31 B. Bratsberg (63°54'N, 138°59'W)

NTS 115 O 15

References: Skinner (1961, p. 10; 1962, pp. 11-12); Green and Godwin (1963, p. 50; 1964, pp. 60-61); Green (1965, p. 60).

1965

B. Bratsberg owns the upper 500 feet of Discovery claim and claims Nos. 3 to 12 Above Discovery on Gold Bottom Creek. His camp is on Discovery claim and may be reached by a 4.8 mile road along the right limit of the creek. In 1965, Bratsberg operated a bulldozer sluicing plant and produced about 159 ounces of crude gold.

#31 B. Bratsberg (63°54'N, 138°59'W)

NTS 115)O 15

References: Skinner (1961, p. 10; 1962, pp. 11-12); Green and Godwin (1963, p. 50; 1964, pp. 60-61).

1964

B. Bratsberg owns the upper 500 feet of Discovery claim and claims Nos. 3 to 12 Above Discovery on Gold Bottom Creek. His camp is on Discovery claim and may be reached by a 4.8-mile road along the right limit of the creek. In 1964, Bratsberg operated a bulldozer sluicing plant and produced about 212 ounces of crude gold.

#31 B. Bratsburg (63°54'N, 138°59'W)

NTS 1150 15

References: Skinner (1961, p. 10; 1962, pp. 11-12); Green and Godwin (1963, p. 50).

1963

B. Bratsburg owns the upper 500 feet of Discovery claim and claim Nos. 3 to 12 Above Discovery, all on Gold Bottom Creek. His camp is on Discovery claim and may be reached by a 4.8 mile road along the right limit of Gold Bottom Creek.

In 1956 and 1957, and from 1960 to 1962 Bratsburg mined his present holdings and produced about 1,162 ounces of crude gold. Previous operators appear to have worked the creek very thoroughly. Gold, concentrated at bedrock is coarse (about 5 per cent nuggets, some with adherent quartz) and ranges in fineness from 780 to 800.

claim 6, 150 ounces of crude gold were produced. Preparatory work was started at the beginning of June and sluicing was done from the end of June to early September.

Equipment includes a D-8 bulldozer, and a 36-foot by 36-inch sluice-box with a 20-foot dump-box. A dam on the upper end of claim 6 supplied water to the sluice-box through a short canal.

When visited by Godwin during the dry period at the end of August, the dam stored enough water for 1 1/2 hours of sluicing per day. When water is available, stripping of muck is facilitated with an automatic gate-equipped dam.

#31 B. Bratsberg (63°54'N, 139°00'W)

NTS 115 Ø 15

References: Skinner (1961, p. 10; 1962, pp. 11, 12)

B. Bratsberg owns the upper 500 feet of Discovery claim and claims Nos. 3 to 12 Above Discovery, all on Gold Bottom Creek. His camp is on Discovery claim and may be reached by a 4.8-mile road along the right limit of Gold Bottom Creek.

In 1956, 1957, 1960, and 1961, Bratsberg mined his present holdings and produced about 1,060 ounces of crude gold. Three cuts that were about 100 feet by 100 feet were mined during 1962 and yielded about 102 ounces of crude gold. Most of the gold has apparently been removed by previous operators. Gold concentrated at bedrock is coarse, and ranges in fineness from 780 to 800.

Ground has been thawed and prepared for working in 1963, with the aid of a dam with an automatic gate.

The creek bed at the mining site is about 80 feet wide and contains about 10 feet of gravel overlain by up to 50 feet of frozen black muck. Old workings are extensive.

Gold Bottom Creek

NTS 115 Ø 15

#31 B. Bratsberg

Reference: Skinner (1961, p. 10).

1961

B. Bratsberg owns these creek claims: upper 500 feet of Discovery (4.8 miles from the mouth), and Nos. 3 to 12 Above Discovery in Gold Bottom Creek. From 1947 to 1955, Bratsberg held and mined claims 16 to 29 above the mouth of Gold Bottom Creek and produced about 5,000 crude ounces of gold. In 1956 and 1957 he mined on his present holdings and produced about 1,000 crude ounces of gold.

In 1958 and 1959 he mined on his hill claims Nos. 24 and 26, Right Limit, Hydraulic Reserve on Hunker Creek, about a mile up the Hunker Creek Road and produced about 1,150 crude ounces of gold. In 1960 and 1961 he stripped placer ground and mined on Gold Bottom Creek and assisted his son-in-law, A. Sundt, on Little Blanche Creek. In 1961 he produced about 60 ounces of gold from his Gold Bottom property.

Bratsberg's camp is at Discovery Claim. He has mined the creek for about 1/3 mile above the camp and has stripped beyond for about 2/3 mile to Soap Creek. The creek bed at the mining site is about 80 feet wide and contains about 8 feet of gravel overlain by 15 to 30 feet of frozen muck. The gold occurs in the lower part of the gravel and a few feet in the shattered schistose bedrock. It is coarse and has a higher than average fineness.

3) #31 Gold Bottom Creek

1960

B. Bratsburg mined during the 1960 season on the right limit of the upper part of Gold Bottom Creek with a D-8 bulldozer and sluice-box. He did no work on his Hunker Creek property, 1 1/2 miles below Last Chance Creek, because of a boundary dispute.

E. Schink and J.R. Colbourne mined with a bulldozer and sluice-box on Gold Bottom Creek about a mile from its mouth, and on Paradise Hill with a hydraulic plant, bulldozer, and sluice-box; from May 1 to July 15, 1960 they recovered 52 ounces of gold.

After the Schink-Colbourne partnership broke up in July, Schink, using a D-7 bulldozer and a 50-foot-long sluice-box, continued to mine on Gold Bottom Creek; his 1960 recovery from this operation was 190 ounces of gold.

Caribou Creek
(Tributary of Dominion Creek)

NTS 115 O 15

32 #32 A. and N. Burgelman (63°49'N, 138°49'W)

References: Skinner (1961, p. 11; 1962, p. 12); Green and Godwin (1963, p. 52; 1964, pp. 61-62); Green (1965, p. 61; 1966, p. 100).

1966

Mr. and Mrs. Burgelman own claims 2, 3, 5, to 10, and 20 on Caribou Creek, a right limit tributary of Upper Dominion Creek. In addition, they own claims 117 to 122, and 130, 131A and 131B Below on Dominion Creek. During 1966, the Burgelmans mined approximately 15,000 bedrock square feet on claim 122 Below and recovered 311 ounces of crude gold.

Caribou Creek
(Tributary of Dominion Creek)

32 #32 A. and N. Burgelman (63°49'N, 138°49'W)

References: Skinner (1961, p. 11; 1962, p. 12); Green and Godwin (1963, p. 52; 1964, pp. 61-62); Green (1965, p. 61).

1965

Mr. and Mrs. Burgelman own claims Nos. 2, 3, 5 to 10, and 20 on Caribou Creek, a large right limit tributary of Upper Dominion Creek where they have operated a bulldozer-slucing plant since 1958. Early in the 1965 season, their camp and operations were moved to a 1 mile placer prospecting lease on Dominion Creek located on the left limit bench beside creek claims 143 to 179 Below, inclusive. Work was carried out in the latter area until August with a production of 53 ounces of crude gold. Subsequently, the Burgelmans returned to Caribou Creek and in the remainder of the season produced about 52 ounces of crude gold from this operation.

Caribou Creek
(Tributary of Dominion Creek)

5 #32 A. and N. Burgelman (63°49'N, 138°49'W)

References: Skinner (1961, p. 11; 1962, p. 12); Green and Godwin (1963, p. 52; 1964, pp. 61-62).

1964

Mr. and Mrs. Burgelman own claims Nos. 2, 3, 5 to 10, and 20 on Caribou Creek, a large right limit tributary of Upper Dominion Creek. They have operated a bulldozer-slucing plant since 1958 with production, from 1958 to 1963 inclusive, of 642.89 ounces of fine gold. In 1964, they mined about 30,000 cubic yards on claim 7, with a production of 104 ounces of crude gold.

32 #32 A. Burgelman (63°49'N, 138°49'W)

References: Skinner (1961, p. 11; 1962, p. 12); Green and Godwin (1963, p. 52).

1963

Mr. and Mrs. A. Burgelman have creek claims Nos. 2, 3, 5 to 10, and 20 on Caribou Creek, which is one of the larger right limit tributaries of Upper Dominion Creek. In 1963, a bulldozer-slucicing plant was operated on the left limit of the upper part of claim No. 7 (approximately the same locality as 1962). In addition, an automatic gate-equipped dam was installed to start the thawing and stripping of claims 1 to 3.

Mr. and Mrs. Burgelman have worked the creek since 1958. From 1958 to 1962 production totalled 489.58 ounces of fine gold plus 124.0 ounces of crude gold. In 1963, approximately 5,000 bedrock square feet were mined, yielding 153 ounces of crude gold (133.54 ounces of fine gold). Typical gold is bright yellow and occurs as spongy nuggets up to 1/2 ounce, which often have adherent quartz; 15 to 20 per cent of the gold occurs as smooth fine grains and suggests that two types of gold occur on the property. The gold averages about 840 in fineness. The creek gravel is 6 to 8 feet thick and is generally overlain by 15 feet of muck. Equipment includes a D-6 bulldozer, a monitor, and a 20-foot by 30-inch sluice-box with a 20-foot dump-box.

Caribou Creek

32 #32 A. Burgelman (63°49'N, 138°49'W)

References: Skinner (1961, p. 11; 1962, p. 12)

1962

Mr. and Mrs. A. Burgelman have creek claims Nos. 2, 3, 5 to 10, and 20 on Caribou Creek, which is one of the larger right-limit tributaries of Upper Dominion Creek. A bulldozer-slucicing plant was operated on the left limit on the upper part of claim No. 7 and stripping extended to claims 3 and 6 in preparation for the 1962 season.

Production in 1961 was 170 ounces of crude gold. In 1962 an area 100 feet by 540 feet was stripped, but as part of it was frozen, approximately 8,000 bedrock square feet were mined during the 1962 season yielding 165 ounces of crude gold. Typical gold occurs as spongy nuggets up to 1/2 ounce, which often have adherent quartz; only 15 to 20 per cent of the gold occurs as fine grains. The gold runs about 840 in fineness.

Equipment includes a D-6 bulldozer, a monitor, and a sluice-box.

The gravel is generally 3 or 4 feet thick and is overlain by about 15 feet of muck. A few old workings are present.

Dominion Creek

32 #32 A. Burgelman

Reference: Skinner (1961, p. 11).

1961

Mr. and Mrs. Burgelman have creek claims Nos. 2, 3, 5-10, and 20 on Caribou Creek, one of the largest right-limit tributaries of Upper Dominion Creek. They mined with a D-6 bulldozer and sluice-box from April 15 to October 15 and produced 170 crude ounces of gold.

#32 Dominion Creek

1960

Mr. and Mrs. Gus Burgelman have twenty claims along the lower left limit of Caribou Creek, one of the larger tributaries of upper Dominion Creek, coming in from the south. The productive part of the creek is a wide low bench along the left limit, much of which has been mined since 1898. In 1959 the Burgelmans mined a cut 50 feet wide by 125 feet long on claim No. 10 (about a mile from the mouth of the creek), where the gravel was about 15 feet thick; they recovered 220 ounces of gold. When the writer visited the property in August 1960, the Burgelmans were mining with a D-6 bulldozer and a sluice-box on claim No. 19 (about 2 miles from the mouth of the creek), where the gravel is about 4 feet thick. Their water supply comes through a ditch from upper Caribou Creek. Mining was carried out from April 1 to September 30, 1960, and recovery was 177 ounces of gold.

Mining Operations

Dominion Creek

NTS 115 O 15

#33

1966
Dredge No. 6 (7-cubic-foot buckets) worked on Lower Dominion Creek during the 1966 season. It operated from 3 May to 14 November (when it sank), moved 964,796 cubic yards at a cost of 42.2 cents per yard, and recovered 8,579 ounces of fine gold and 1,941 ounces of silver with a total value of \$301,257.

During 1966 the bulldozer-mining plant on the left limit of middle Dominion Creek operated from 1 June to 27 September, mined 160,515 cubic yards at a cost of 76.3 cents per cubic yard, recovered 3,046 fine ounces of gold and 688 ounces of silver with a total value of \$106,545.

Mining Operations

Dominion Creek

196 5

#33

Dredge No. 6 (7-cubic-foot buckets) is working down lower Dominion Creek about 2 miles south of Granville. In 1965 this dredge operated from 3 May until 3 November, mined 772,123 cubic yards at a cost of 40.5 cents per yard and recovered 7,129 ounces of fine gold and 1,602 ounces of silver with a total value of \$249,590. Work started on the dredge and site on 6 April and finished 11 November. The thawing plant ahead of the dredge operated from 20 May to 13 September and thawed 935,171 cubic yards of gravel at a cost of 3.33 cents per cubic yard. Work on the plant site began 7 April and ended 24 October.

Dominion Creek Benches

1965

#34

Bulldozer mining operation No. 16 is on the left limit bench of middle Dominion Creek about 1.2 miles above the mouth of Jensen Creek. During 1965 the plant operated from 1 June to 15 October, mined 137,449 cubic yards of gravel at a cost of 118.3 cents per cubic yard, and recovered 2,631 ounces of fine gold and 548 ounces of silver with a total value of \$92,071. Work started on the plant and site 1 May and ended 20 October.

Dredge No. 12 (2 ½-cubic-foot buckets) is located on the left limit bench of middle Dominion Creek about 1 ½ miles above the mouth of Jensen Creek. In 1965 this dredge operated from 2 June to 30 September, mined 202,275 cubic yards at a cost of 58.2 cents per cubic yard, and recovered 4,741 ounces of fine gold and 1,051 ounces of silver valued at \$155,939. Work started on the dredge and site 4 May and finished 3 October. No stripping or thawing was done ahead of the dredge.

#33 Dominion Creek

NTS 115 O 15

1964

Dredge No. 6 (7-cubic-foot buckets) is working down lower Dominion Creek about 2 1/2 miles south of Granville. In 1964 this dredge operated from 8 May until 18 November, mined 821,246 cubic yards at a cost of 32.4 cents per cubic yard, and recovered 8,325 ounces of fine gold and 1,583 ounces of silver valued at \$293,749. Work started on the dredge and site on 3 April and finished on 22 November. The thawing plant ahead of the dredge operated from 13 June to 11 September and thawed 1,044,291 cubic yards of gravel at a cost of 10.1 cents per cubic yard. Work on the plant and site started 11 April and finished 26 October. The stripping plant ahead of the dredge removed from 19 May to 25 September 219,180 cubic yards of muck at a cost of 13.62 cents per cubic yard. Work on the plant started 11 April and finished 18 October.

1964

#35 Dredge No. 10 (7-cubic-foot buckets) is working down middle Dominion Creek about 2 miles south of the mouth of Jensen Creek. In 1964 this dredge operated from 1 May to 1 November, mined 810,957 cubic yards at a cost of 29.7 cents per cubic yard, and recovered 7,064 ounces of fine gold and 1,419 ounces of silver valued at \$249,199. Work started on the dredge and site 7 April and finished 4 November. This dredge has completed mining its reserves and will not be operated in 1965.

74 Dominion Creek Benches

1964

#34 Bulldozer mining operation No. 16 is on the left limit bench of middle Dominion Creek about 1/2 mile above Jensen Creek. During 1964 the plant operated from 12 June to 12 October, mined 224,836 cubic yards of gravel at a cost of 78.0 cents per cubic yard, and recovered 4,779 ounces of fine gold and 950 ounces of silver valued at \$168,626. Work started on the plant and site 11 April and finished 18 October. No thawing or stripping was done ahead of the operation in 1964.

#34 Dredge No. 12 (2 1/2-cubic-foot buckets) was located on the left limit bench of middle Dominion Creek about 1 1/2 miles above Jensen Creek early in 1963. In 1964 this dredge, working downstream, operated from 12 June to 31 October, mined 259,576 cubic yards at a cost of 59.3 cents per cubic yard, and recovered 5,655 ounces of fine gold and 1,137 ounces of silver valued at \$199,492. Work started on the dredge and site 6 May and finished 2 November. No thawing or stripping was done ahead of the operation in 1964.

Mining Operations

#33 Dominion Creek

1963

Dredge No. 6 (7-cubic-foot buckets) is working down lower Dominion Creek about 2 miles south of Granville. In 1963 this dredge operated from 9 May until 16 November, mined 1,101,694 cubic yards at a cost of 25.9 cents per cubic yard, and recovered 7,413 ounces of fine gold and 1,501 ounces of silver valued at \$261,351. Work started on the dredge and site on 5 April and finished on 21 November. The stripping plant ahead of the dredge removed from 18 May to 24 October 451,870 cubic yards of muck at a cost of 13.6 cents per cubic yard. Work on the plant started 13 April and finished 17 November. No thawing was done ahead of the dredge in 1963.

#35 Dredge No. 10 (7-cubic-foot buckets) is working down middle Dominion Creek about 1 1/2 miles south of the mouth of Jensen Creek. In 1963 this dredge operated from 1 May to 16 November, mined 923,225 cubic yards at a cost of 30.8 cents per cubic yard, and recovered 7,635 ounces of fine gold and 1,536 ounces of silver valued

1963

at \$268,813. Work started on the dredge and site 3 April and finished 20 November. No thawing or stripping was done ahead of the dredge in 1963.

Dominion Creek Benches

#34

1963

Bulldozer mining operation No. 15 is on the left limit bench of middle Dominion Creek about 2 1/2 miles above Jensen Creek. During 1963 the plant operated from 26 May to 25 September, mined 138,449 cubic yards of gravel at a cost of 52.5 cents per cubic yard, and recovered 3,509 ounces of fine gold and 685 ounces of silver valued at \$122,883. Work started on the plant and site 13 April and finished 15 October.

#34

Bulldozer mining operation No. 16 is on the left limit bench of middle Dominion Creek about 1/2 mile above Jensen Creek. During 1963 the plant operated from 17 July to 11 October, mined 113,105 cubic yards of gravel at a cost of 82.4 cents per cubic yard, and recovered 2,947 ounces of fine gold and 583 ounces of silver valued at \$104,432. Work started on the plant and site 27 April and finished 15 October. The stripping plant operated from 15 May to 2 October and removed 457,464 cubic yards of overburden at a cost of 9.6 cents per cubic yard. Work started on the plant and site 13 April and finished 11 October.

#34

Dredge No. 12 (2 1/2-cubic-foot buckets) was located last winter on the left limit bench of middle Dominion Creek about 1 1/2 miles above Jensen Creek. In 1963 this dredge, working downstream, operated from 30 May to 31 October, mined 237,015 cubic yards at a cost of 71.4 cents per cubic yard, and recovered 4,377 ounces of fine gold and 873 ounces of silver valued at \$154,748. Work started on the dredge and site 6 May and finished 3 November. The thawing plant ahead of the dredge operated from 15 May to 17 September and thawed 545,492 cubic yards of gravel at a cost of 8.6 cents per cubic yard. Work on the plant and site started 13 April and finished 15 October. No stripping was done ahead of the dredge in 1963.

Mining Operations

Dominion Creek

1962

1962

#33

Dredge No. 6 (7-cubic-foot buckets) is working down lower Dominion Creek about 1 mile south of Granville. In 1962 this dredge operated from May 1 until November 15, mined 1,061,917 cubic yards at a cost of 25.1 cents per cubic yard, and recovered 7,821 ounces of fine gold and 1,641 ounces of silver valued at \$282,726. Work started on the dredge and site on April 2 and finished on November 21. The thawing plant ahead of the dredge operated from June 2 to September 12 and thawed 1,176,918 cubic yards of gravel at a cost of 6.8 cents per cubic yard. Work on the plant and site started on April 13 and finished on September 30.

#35

Dredge No. 10 (7-cubic-foot buckets) is working down middle Dominion Creek about 1/2 mile south of the mouth of Jensen Creek. In 1962 this dredge operated from May 2 to November 22, mined 1,128,656 cubic yards at a cost of 25.6 cents per cubic yard, and recovered 5,532 ounces of fine gold and 1,134 ounces of silver valued at \$196,257. Work started on the dredge and site on April 5 and finished on November 25. The thawing plant ahead of the dredge operated from May 24 to September 27 and thawed 1,489,430 cubic

Dominion Creek Benches

1962

#34

Bulldozer mining operation No. 15 is on the left limit bench of middle Dominion Creek about 2 1/2 miles above Jensen Creek. During 1962 the plant operated from July 22 to September 30, mined 120,282 cubic yards of gravel at a cost of 84.1 cents per cubic yard, and recovered 5,254 ounces of fine gold and 1,057 ounces of silver valued at \$185,196. Work started on the plant and site on April 29 and finished on October 10.

When visited in late September, a 5-man crew and 2 D-8 bulldozers were employed in the operation. Water is supplied to the dump box of the sluice under pressure. The sluice-box is set at a 16 to 17 per cent grade. The bench is about 7 feet above the present level of Dominion Creek and a section exposed at the edge of the cut consisted of 4 to 6 feet of gravel overlain by 10 to 15 feet of muck, the latter containing much silt. Bedrock composed of soft garnetiferous quartz-muscovite-chlorite-biotite schist is mined to a depth of 2 to 3 feet.

#34

Bulldozer mining operation No. 16 is on the left limit bench of middle Dominion Creek about 1/2 mile above Jensen Creek. During 1962 the plant operated from June 3 to July 22, mined 85,285 cubic yards of gravel at a cost of 61.3 cents per cubic yard, and recovered 780 ounces of fine gold and 158 ounces of silver valued at \$27,631. Work started on the plant and site on April 14 and finished on October 22. The stripping plant operated from August 3 to October 7 and removed 352,095 cubic yards of overburden at a cost of 7.6 cents per cubic yard. Work started on the plant and site on May 1 and finished October 22.

#34

Dredge operation No. 17, to be located on the left limit bench of middle Dominion Creek just under 2 miles above Jensen Creek, is to use Dredge No. 12 (2 1/2-cubic-foot buckets). This dredge is presently located on the left limit bench of Dominion Creek 1 mile below Jensen Creek and is to be moved to the bench for the 1963 operations. The thawing plant for No. 17 operated from May 23 to August 27 and thawed 401,342 cubic yards of gravel at a cost of 8.0 cents per cubic yard. Work on the plant and site started on April 13 and finished on September 27. The stripping plant for No. 17 operated from May 18 to October 3 and removed 561,678 cubic yards of overburden at a cost of 8.3 cents per cubic yard. Work started on the plant and site on April 13 and finished on October 25.

1961

#36

Dredge No. 6 (7-cubic-foot buckets) is working down lower Dominion Creek immediately below Sulphur Creek. In 1961 this

dredge operated from April 29 until November 8, mined 983,885 cubic yards of gravel at a cost of 27.4 cents per cubic yard, and recovered 9,431 fine ounces of gold and 1,881 ounces of silver valued at \$341,160. Work started on the dredge and site on April 6 and finished on November 15.

#34

Dredge No. 10 (7-cubic-foot buckets) is working down middle Dominion Creek at the mouth of Hunker Creek, 1 3/4 miles above Jensen Creek. In 1961 this dredge operated from April 28 until November 5, mined 911,591 cubic yards of gravel at a cost of 31.4 cents per cubic yard, and recovered 7,131 fine ounces of gold and 1,448 ounces of silver valued at \$257,680. Work started on the dredge and site on April 7 and finished on November 10.

1960

NTS 115 O 15

#34

Dredge No. 10 (7-cubic-foot buckets) is on the left limit of Dominion Creek about a mile above Jensen Creek. It was constructed in the autumn of 1939 on claim No. 10 Below Lower Discovery (about a mile above Portland Creek) in the middle Dominion Creek area. It mined until November 1960, except for the year 1945.

#35

Dredge No. 12 (1.2-cubic-foot buckets) finished mining No. 12 Reserves in the autumn of 1960 on claim No. 145 Below Discovery, on the left limit bench of Dominion Creek about 1/2 mile below Jensen Creek. It was constructed on claim No. 134 Below Discovery on Dominion Creek in 1953 and commenced digging in the spring of 1954. It mined every season including 1960.

Dominion Creek (63°49'N, 138°39'W)

1966

#37

Ballarat Mines Limited owns 2 creek claims and leases 60 contiguous claims extending downstream from the mouth of Caribou Creek to the adjacent property of the Yukon Consolidated Gold Corporation Limited. The company has operated a bulldozer-slucicing plant on the left limit bench of this part of Dominion Creek since 1959. During 1965, 9 cuts with a total area of 179,000 bedrock square feet and a volume of 40,500 cubic yards were sluiced on the left limit from the mouth of Portland Creek downstream to the boundary of bulldozer mining operation 14 of the Yukon Consolidated Gold Corporation Limited. An additional 50,000 cubic yards of mechanical stripping was completed on this ground. Approximately 40,000 cubic yards of overburden

stripping was completed with a water-sprinkler system in the early part of the season.

Exploration on Dominion Creek included completion of a test drilling program on a block of ground downstream from the mouth of Caribou Creek. Additional drilling was done to test new ground on both right and left limits, from Lower Discovery to claim 5 Below Lower Discovery.

#37

Dominion Creek (63°49'N, 138°39'W)

1965

Ballarat

On Dominion Creek the company owns creek claim No. 13 Below Lower Discovery, has a 1 1/4 mile lease above claim No. 9 Above Discovery, and leases 48 claims from the Yukon Consolidated Gold Corporation below the 1 1/4 mile lease. The company has operated a bulldozer-slucicing plant on the left limit bench of Dominion Creek since 1959, although during 1962 and 1964 most of the men and the equipment were employed on Quartz Creek for part of the season. During the 1965 season, 12 cuts, with a total area of 263,000 bedrock square feet and a volume of 71,000 cubic yards, were mined on the left limit of Dominion Creek between the mouth of Portland Creek and operation 14 of the Yukon Consolidated Gold Corporation Limited.

Test drilling was carried out on the right limit of Dominion Creek immediately downstream from the mouth of Caribou Creek. The results of the drilling indicated that deeply buried portions of the old creek channel extend under what was previously considered the rim of the creek. The elevation of bedrock changes very little until true rim and then rises very steeply. Against the side of the hill the old channel may be covered by as much as 40 feet of muck. Similar portions of unmined ground occur intermittently over a distance of about 3 miles downstream.

Lower Discovery and about 1,000 feet long by 300 feet wide, was stripped using the sprinkler system first devised in 1963 (Schmidt, 1964). In this method, brush was first removed by bulldozer, drainage ditches cut by perforated hose, followed by sprinkling using irrigation sprinkler fed by water pumped from Dominion Creek. About 200,000 cubic yards of muck were removed using this method in the period 17 June to 3 September 1965. The method proved effective and the cost per cubic yard is reported (Schmidt, personal communication) to be very slightly above the cost of 3.74 cents per cubic yard in 1963 (Schmidt, 1964, p. 80).

#37 Dominion Creek (63°49'N, 138°39'W)

NTS 115 O 15

1964

On Dominion Creek the company owns creek claim No. 13 Below Lower Discovery, has a 1 1/4 mile lease above claim No. 9 Above

Discovery, and leases 48 claims from the Yukon Consolidated Gold Corporation below the 1 1/4 mile lease. The company has operated a bulldozer-slucing plant on the left limit bench of Dominion Creek since 1959, although during 1962 and 1964 most of the men and the equipment were employed on Quartz Creek for part of the season. During the 1964 season, the company put in one cut early in the season before moving to Quartz Creek and five cuts after returning. The first cut, totalling 40,000 bedrock square feet and 12,000 yards sluiced, was put in on claim 69 Below, just upstream from the Yukon Consolidated Gold Corporation bulldozer mining operation No. 15. Later in the season, two cuts, totalling 30,000 bedrock square feet and 9,000 cubic yards sluiced, were put in on claims 34 Below opposite the mouth of Portland Creek and three cuts, totalling 65,000 bedrock square feet and 19,000 yards sluiced, on claims 37 and 38 Below opposite and downstream from the mouth of 72 Pup. Sprinklers were not used for thawing during the 1964 season, but an extensive stripping program using them is planned for 1965 on parts of a deeply muck-covered right limit bench that occurs intermittently for about 3 miles downstream from the mouth of Caribou Creek.

#37 Dominion Creek (63°49'N, 138°40'W)

1963

On Dominion Creek the company owns creek claim No. 13 Below Lower Discovery, has a 1 1/4 mile lease above claim No. 9 Above Discovery, and leases 48 claims from the Yukon Consolidated Gold Corporation below the 1 1/4 mile lease. Since 1959, the company has operated a bulldozer-slucing plant on the left limit bench of Dominion Creek.

During the 1963 season, 166,700 cubic yards of gravel were sluiced on claims 1, 2, and 3 Above Discovery and, late in the season, on claims 37 and 39 Below. A total of 200,000 cubic yards of muck were stripped.

Equipment used in this slucing operation included two bulldozers, and a sluice-box supplied with water by a monitor directed into the dump-box. The sluice-box is 40 feet long by 49 inches wide; mercury is kept in the lower 15 feet of the box.

A new sprinkler-stripping method of muck removal on the left limit bench of claims 37 and 38 Below Discovery was also developed over the season to remove a section of muck that was up to

30 feet deep and underlain by about 4 feet of gravel. The sprinkler-stripping method is fundamentally simple and consists of a grid of irrigation sprinklers that spray water on the frozen muck. The water thaws the frozen muck and flushes it away in a muck-saturated stream.

Equipment used by the company for the sprinkler-stripping method included the following:

- (1) a water pump, which delivered 3,000 gallons per minute at approximately 30 pounds per square inch,
- (2) a pipeline main in 11 inch, 10 inch, and 6 inch diameters,
- (3) aluminum irrigation sprinklers (Rainbird Nos. 70-B and 80-B).

An area of about 300,000 square feet was stripped with a rectangular grid of 60 sprinklers that were spaced about 30 feet apart on sprinkling lines. Sprinkling lines, fed from the main pipeline, were spaced about 50 feet apart.

To set up a sprinkler-stripping operation to remove muck probably requires the following three conditions:

- (1) Drainage for the sprinkled water must be available; hence, the set-up on the bench above Dominion Creek was ideal.
- (2) The muck must be saturated with water; the black silty, organic muck on Dominion Creek is full of ice lenses.
- (3) There should be no slide rock or other material that might blanket the muck and protect it from the action of the sprinkled water; locally difficulty was encountered with slabby slide rock on Dominion Creek, but this was removed by directing extra water to the area and by a small amount of bulldozer work.

Advantages of the sprinkler-stripping operation include:

- (1) Only one man is required to look after the entire operation.
- (2) The operation may be left unattended overnight.
- (3) Drains keep flowing and do not become blocked as they often do in hydraulic stripping when blocks of frozen muck dam the drains.
- (4) Light, portable aluminum pipe and directional sprinklers facilitate water flow adjustments so that maximum thawing and transporting efficiency can be won from the water.
- (5) The sun warms the sprayed water and the exposed muck and, consequently, is utilized in the thawing.

The company believes that this method is a very economical and rapid method of stripping muck. This is borne out by the 1963 operation which, for mining in 1964, stripped 300,000 square feet of ground in about 40 days. The sprinkler method is probably applicable elsewhere.

References: Skinner (1961, p. 11; 1962, p. 12)

1962

Ballarat Mines Limited, owned by G. D. Franklin, of Seattle, Washington, and H. Schmidt of Healdsburg, California, is the second largest producer in the Dawson area with a total production in excess of 5,000 ounces. During 1962, the company operated on Eldorado Creek for the entire season and on both Quartz and Dominion Creeks for part of the season. For descriptions of the other operations refer to the creeks concerned.

On Dominion Creek the company owns creek claim No. 13 Below Lower Discovery, has a 1 1/4-mile lease above claim No. 9 Above Lower Discovery, and leases 48 claims from Yukon Consolidated Gold Corporation below the 1 1/4-mile lease.

The company has operated a bulldozer-slucing plant since 1959 on the left limit bench of Dominion Creek between Nevada Creek and Coarse Gold Pup.

During the 1962 season, 56,000 cubic yards of gravel and bedrock were sluiced on the left limit immediately below Portland Creek on claims 35 to 38. In addition, 150,000 cubic yards of muck were stripped by both water and mechanical means. Typical gold is coarse, well worn, and about 817 in fineness. Other heavy minerals include: cassiterite, red garnet, and magnetite.

Equipment includes 2 bulldozers, and a sluice-box supplied with water by a monitor directed into the dump-box. Water at a rate of 2,000 gallons per minute is supplied to the monitor by a portable pump. Eight men were employed.

The bench being mined on the left limit is about 150 feet wide and appears to be about 10 feet above the level of Dominion Creek, but the operators report that the bench is actually about 30 feet above the level of the bedrock in the creek. Because of the abundance of old workings, the gravels are dirty and muck and timber are commonly mixed in the section down to bedrock. Where not previously mined, the muck is 10 to 15 feet thick with its lower part silty and laminated. The gravel is 5 to 6 feet thick and contains cobbles up to 1 foot maximum diameter. Bedrock is soft quartz-chlorite schist and is mined to a depth of 6 to 12 inches.

Plans for the coming year include the use of sprinklers for the removal of muck.

1960

NTS 115 O 15

#37

Ballarat Mines Limited—owned by Glen Franklin of Seattle, Washington and Harold Schmidt of Healdsburg, California—operated a bulldozer-slucing plant in 1960 on the left limit bench of Dominion Creek about 1/2 mile below Portland Creek, on ground leased from Yukon Consolidated Gold Corporation, Limited. The company also tested and stripped ground about 3 miles above Portland Creek and on Eldorado Creek below Gay Gulch, in preparation for 1961 operations. A six-man crew was employed from May 4 to September 19, 1960, using pumps, sluice-boxes, and three D-8 bulldozers.

Ballarat Mines started mining in 1951 on upper Ballarat Creek, a small tributary of Yukon River, about 80 miles south of Dawson. The company worked there until 1955. Operations were then moved to Groetcher Bench at the mouth of Klondike River, where mining was carried out until 1959—the year the operation was moved to its present site on Dominion Creek. In 1952 the company also mined on Hight Creek in the Mayo area.

Reference: Skinner (1961, pp. 11-12).
1961

Spruce Creek Placers Limited—owned by F.M. Wilson of Kirkland, Washington, J.M. Acheson of San Francisco, California, and W.L. Drury of Whitehorse—in 1959, 1960, and 1961 mined under agreement with Ballarat Mines Limited on upper Dominion Creek, about 3/4 mile below Troublesome Pup. The company, managed by Acheson, mined a width of approximately 250 feet of undredged creek gravels on the left limit of the creek as well as gravels on the lower left limit bench. The latter is about 10 feet above the creek bed and about 200 feet wide. Both the creek bed and bench have about 3 feet of gravel overlain by about 20 feet of muck. The muck was stripped off the gravel, and the gravel, together with about 2 feet of the schistose bedrock, was mined. Equipment used included: a 1 1/2-cubic-yard Keohring dragline to stack tailings and dig drainage ditches; a TD-18 and a D-8 bulldozer for stripping, feeding gravel into the sluice-box, and removing tailings; a sluice-box; and a pump and monitor to supply water for sluicing.

Spruce Creek Placers Limited started mining on Spruce Creek in the Atlin area, British Columbia, in 1940. The holdings of this company were leased by the present owners, who operated on Spruce Creek under the name "Enterprise Placers Limited". In 1956 the present owners bought the holdings of Spruce Creek Placers and have operated under that name since. The Atlin operation, managed by F.M. Wilson, mined on Spruce Creek until September 1960 when it moved to Pine Creek, also in the Atlin area. On September 15, 1961 the Dominion Creek operation was moved to Haggart Creek.

1960

Spruce Creek Placers Limited—owned by F.M. Wilson of Kirkland, Washington, J.M. Acheson of San Francisco, California, and W.L. Drury of Whitehorse—in 1960 mined ground subleased from Ballarat Mines Limited on Dominion Creek. This operation, managed

by Acheson, mines the present creek gravels in the valley bottom about 2 miles below Portland Creek. There the creek flows in a wide, open valley with a gradient of about 35 feet to the mile. The valley bottom is about 500 feet wide and contains from 2 to 4 feet of gravel overlain by 12 to 15 feet of muck. Because the creek flows on or near the top of the muck, the mining operation requires a long deep drainage ditch. In 1960, some pay gravels could not be mined, either because they were not completely drained or because they had not been stripped. Otherwise, the company had a successful season.

Equipment used included a 1 1/2-cubic-yard Keohring dragline for digging the drainage ditch and stacking the tailings; a pump and monitor for stripping; and a TD-18 and a D-8 bulldozer for stripping, feeding gravel into the sluice-box, and removing the tailings.

This company started mining on Dominion Creek in 1959 and on Spruce Creek in the Atlin area, British Columbia in 1958. The Atlin area operation, managed by F.M. Wilson, mined on Spruce Creek until September 1960, when it was moved to Pine Creek.

Allgold Creek

#39 K and S Placers (63°56'N, 138°37.5'W)

NTS 115 O 15

References: Skinner (1962, p. 14); Green and Godwin
(1963, p. 56; 1964, p. 66); Green (1965, pp. 63-64;
1966, pp. 103-104). 1966

K and S Placers, owned by M. Kinakin (formerly Kinakin and W. Scott) leases Discovery claim and claims 1 to 10 Above from Consolidated Brewis Minerals Limited. In 1966, K and S Placers added an additional 20 claims on Allgold Creek to its holdings (claims 11 to 30 Above). A camp is maintained on Allgold Creek about $\frac{1}{2}$ mile upstream from the settlement of Flat Creek on the Dawson-Mayo road. The company has operated a bulldozer-sluicing plant since 1961 and total production to the end of 1965 was about 3,626 ounces of crude gold.

During the period May to early October, 1966, Kinakin, working with one part time helper recovered about 606 ounces of crude gold from bulldozer-sluicing operations on claims 6 and 7 Above. Equipment includes a D-7 and a TD-18 tractor.

Allgold Creek

3 #39 K. and S. Placers (63°56'N, 134°37½'W)

NTS 115 O 15

References: Skinner (1962, p. 14); Green and Godwin (1963, p. 56; 1964, p. 66); Green (1965, pp. 63-64).

1965

K. and S. Placers Limited, owned by M. Kinakin and W. Scott of Dawson, operated a bulldozer-sluicing plant on Allgold Creek about ½ mile upstream from the settlement of Flat Creek on the Dawson-Mayo Road. The company leases Discovery claim and claims 1 to 10 Above from Consolidated Brewis Minerals Limited. Production by the company from 1961 to 1964 inclusive is about 2,367 ounces of crude gold. In 1965, about 1,259 ounces of crude gold were produced. Three men were employed in addition to the owners.

When visited early in October, the company was mining a cut on the right limit of Claim 2 where the following section was exposed:

	Thickness in Feet Unit	Total from Base
Silt and sand, partially removed.....	3	17
Gravel, rusty and manganese stained, with flattened cobbles of gneiss to 3 inches in a sandy matrix.....	2	14
Gravel, well stratified, with cobbles to 6 inches mainly of quartz but with some platy gneissic fragments, in a sandy matrix. Scattered silt lenses to 8 inches thick.....	6	12
Gravel, well stratified, with subangular cobbles to 6 inches, mainly of quartz but some of gneissic rock and greenish quartzite in a sandy matrix. A few sand lenses to 1 foot thick	6	6
Bedrock - Paste-like gouge formed from chloritic phyllite.....		

The valley of Allgold Creek in the area being mined is very wide, rising gently on the right limit. On some of the lower claims mining has now been carried out over a width of about 225 feet and may be extended farther up the right limit slope. Muck is commonly about 6 feet thick in the centre of the creek rising to 10 feet or more on the margins. It contains much sand and silt and, in general is readily removed, except when a high wood content is present. The gravels are loosely packed and contain few boulders to 1 foot in diameter. Bedrock varies from hard chlorite and biotite gneisses to paste-like material formed from comminuted bedrock. Gold is fine and platy and contains much silver including some nuggets.

Since 1961, mining has been carried up the left limit to about 6 Above and to 2 Above on the right limit. An extensive area on the right limit has been partially stripped preparatory to mining using a dam on 7 Above. Equipment includes a TD 18 and a D-7 bulldozer.

All Gold Creek

#39

K. and S. Placers Limited (63°56'N, 138°37 1/2'W)

NTS 115 O 15

References: Skinner (1962, p. 14); Green and Godwin (1963, p. 56;
1964, p. 66).

1964

K. and S. Placers Limited, owned by M. Kinakin and W. Scott of Dawson, operated a bulldozer-sluicing plant on All Gold Creek about 1/2 mile upstream from the settlement of Flat Creek on the Dawson-Mayo Road. The company leases Discovery claim and claims 1 to 10 Above from Consolidated Brewis Minerals Limited. Production by K. and S. Placers Limited from 1961 to 1963 inclusive is 1,236 ounces of fine gold. In 1964, about 998 ounces of crude gold were produced. Three men were employed.

All Gold Creek

#39

K. and S. Placers Limited (63°56'N, 138°37 1/2'W)

References: Skinner (1962, p. 14); Green and Godwin (1963,
p. 56).

1963

K. and S. Placers Limited, owned by M. Kinakin and W. Scott of Dawson, operated a bulldozer-sluicing plant on All Gold Creek about 1/2 mile upstream from the settlement of Flat Creek on the Dawson-Mayo Road. The company leases Discovery claim and claims 1 to 10 Above from DeCoursey-Brewis Minerals Limited.

During 1963, approximately 40,000 cubic yards were mined with a TD-18 bulldozer over the period June 27 to early October, yielding 820 ounces of crude gold. One man was employed in addition to the owners.

When visited by Green in early October, the company was mining on claim 5 Above. The valley of All Gold Creek is very wide at this point, rising gently on the right limit. The operators are able to mine a width of about 250 feet before the overburden on this limit becomes too deep to handle economically. The operators report that the average depth to bedrock on the creek is about 12 feet, composed of 6 feet of cobble gravel overlain by silt, fine sands, and a minor amount of organic material. All the overburden is frozen. The gravels are poorly sorted. Most cobbles are 6 inches or less in maximum diameter, although a few boulders to 1 foot were observed. Most boulders are composed of quartz-feldspar-biotite gneiss. Bedrock varies from fresh quartz-feldspar-biotite gneiss to clayey material, which appears to have formed through decomposition of the gneiss. In addition, small areas of white clay may have formed from altered volcanic rocks. The operators report that only the areas underlain by fresh gneiss contain pay and that the early mining on the creek consisted of shafting in search of these areas. The gold recovered is very fine and flaky.

#39

K. and S. Placers Limited (63°57'N, 138°37'W)

NTS 115 C 15

Reference: Skinner (1962, p. 14)

1962

K. and S. Placers Limited, owned by M. Kinakin and W. Scott of Dawson, operated a bulldozer-sluicing plant and leases Discovery claim and creek claims 1 to 10 on All Gold Creek from the De Coursey-Brewis Limited.

During 1962 approximately 50,000 cubic yards were mined with a D-6 bulldozer from May 15 to September 30, yielding 375 ounces of crude gold. One man was employed.

All Gold Creek

#39

K. and S. Placers Limited

1961

K. and S. Placers Limited—owned by M. Kinakin and W. Scott of Dawson—in 1961 operated a bulldozer-sluicing plant on All Gold Creek and produced 174 fine ounces of gold. In 1960, Kinakin and G. Jarvis mined on All Gold Creek under the name "All Gold Creek Mining Company" and produced 83 fine ounces of gold.

Klondike River Valley

#40 D.M. Strachan (63°56.5'N, 138°37.5'W)

NTS 115 O 15

References: Green and Godwin (1964, p. 76); Green (1965,
p. 64; 1966, p. 104).
1966

D.M. Strachan and associates of Dawson hold 4 placer claims along the south side of Klondike River Valley, just west of the settlement of Flat Creek.

During 1966, about 2 weeks were spent on the property, stripping ground with 2 bulldozers in preparation for mining in 1967. Strachan and his associates have also leased 25 claims on Last Chance Creek from the Yukon Consolidated Gold Corporation Limited and other owners and expect to be working in this area also in 1967.

Klondike River Valley

#40 D.M. Strachan (63°56½'N, 138°37½'W)

References: Green and Godwin (1964, p. 76); Green (1965,
p. 64).
1965

D.M. Strachan of Dawson holds 4 placer claims along the south side of the Klondike River Valley just west of the settlement of Flat Creek. During 1965 he continued his part-time hydraulic operation on a poorly defined bench about 30 feet above the level of the Klondike River. The water supply is pumped from the Klondike River. During 1965, about 32 ounces of crude gold was shipped.

Klondike River Valley

#40 D.M. Strachan (63°56 1/2'N, 138°37 1/2'W)

Reference: Green and Godwin (1964, p. 67).
1964

D.M. Strachan of Dawson holds 4 placer claims along the south side of the Klondike River Valley just west of the settlement of Flat Creek. During 1964 he continued his part-time hydraulic operation on a poorly defined bench about 30 feet above the level of the Klondike River. The water supply is pumped from the Klondike River. During 1964, 94 ounces of crude gold were shipped.

Klondike River Valley

#40 D.M. Strachan (63°56 1/2'N, 138°37 1/2'W)

1960

D.M. Strachan of Dawson holds two placer claims along the south side of the Klondike River valley just west of the settlement of Flat Creek. During 1963, he stripped vegetation and some muck from a poorly defined bench about 100 feet in width and 30 feet above the Stewart Crossing-Dawson Road. The operation necessitated rerouting the latter road for about three tenths of a mile. At the western end of this stripping a small cut of about 8,000 bedrock square feet has been made by a monitor using water pumped from the Klondike River. The section exposed in the cut consists of 10 feet of coarse river gravels overlain by up to 30 feet of muck containing some rusty sand and fine gravel lenses, all frozen. Bedrock is soft, graphitic quartz-mica schist. No production has been reported.

PROPOSED PROSPECTING IN THE
THISTLE MOUNTAIN DISTRICT
YUKON

A.E. Aho
Geological Engineer

*Also look at the
1950-51 from District*

SUMMARY

Thistle Mountain, a source area for several placer creeks, shows favourable structure consisting of cross-folding and a zone of northwest faulting accompanied by nearby Tertiary intrusives. Gold and high grade silver-lead mineralization occur in the area but it has not been prospected or geologically studied in any detail. I consider the area well worth closer prospecting. Moreover, gold and silver both have promising futures at present and have the high unit value necessary for mining in Yukon.

I propose to spend three weeks to a month or more with a good prospector to map and prospect this area, aided by geochemistry and geophysics where warranted. Cost of the program will be \$3000 per month with 15% vendor interest to be split between myself and the prospector in any resultant discovery.

*Stock in a public company
to be formed*

INTRODUCTION

Elsewhere in the Cordillera many mining districts are characterized by some unique change, difference, irregularity or intensification in regional structure such as cross-folding, complex doming or uplift, plugs or rows of intrusives, serpentinites, fracture belts, or an echelon gaps or discontinuities in fault systems, etc.

Such localities have tended to become the loci of prolonged, hindered, and repeated deformation; formation and differentiation of magma; intensification of strain; formation of deep channelways for ore fluids; and complexity with

favourable tensional conditions and structural traps for ore. Thus, if favourable rock types, alteration, and mineral occurrences are also found in such an area of "anomalous" structure, it constitutes a favourable mineral district well worth close investigation.

The Thistle Mountain district has such characteristics.

LOCATION AND ACCESS (See Figure 1)

Thistle Mountain lies between the junction of Yukon and Stewart Rivers at about latitude 63°N and longitude 139°W , 70 miles due south of Dawson City and 220 miles northwest of Whitehorse.

The area can be reached very easily by river or by float plane and helicopter from Dawson City.

Roads lead up Ballarat, Kirkman, Thistle, Barker, and Scroggie Creeks in the general area.

GEOLOGIC SETTING (See Figure 1)

This district lies along a discontinuous regional lineament which extends from the Carmacks district, along Big and Hayes Creeks, through this area, down Yukon River, and up Sixtymile River, a total distance of 150 miles. Along or near this lineament are the gold, silver-lead, and copper prospects of the Carmacks district; the gold prospects of Selwyn River; gold and silver-lead of Thistle Mountain; and gold and silver-lead of the Sixtymile. Thus the lineament may be a regional ore control.

The rocks in the Thistle Mountain district are chiefly schists and quartzites of the Yukon Group of Pre-Cambrian age, with minor lenses of intercalated limestone, and bodies and belts of granite gneiss. Regionally these rocks strike northeasterly and dip steeply; but from Thistle Mountain NW to Mount Stewart, for a distance of about 20 miles, the schists and quartzites strike ENE and dip moderately to gently SE, butting against a major NW fault. Rocks northeast of this fault strike northwest.

Mount Stewart, on the northwest end of this area of cross-structure, is a coarse syenitic stock of early Tertiary

age intruded into the NW end of the fault zone. The structural focus of the district, and apparently the focus of mineralization as well, appears to be at Thistle Mountain itself, perhaps also extending NW and SE along the ridge (elevation 3000-4000') which forms the divide between the Yukon and Stewart River watersheds.

SOURCE OF THE PLACER GOLD

Since 1898 Ballarat, Kirkman, Thistle, and Barker Creeks have all produced modest amounts of placer gold, concentrated near the heads of these creeks which are all within a short distance of one another on Thistle Mountain. Minor amounts of gold found on Telford, Brewer, Simmons and other creeks appear to have come from the northwest ridge along which the fault zone extends. Thistle Mountain itself, apparently characterized by a fold in the Yukon Group and by a change in direction of the main northwest fault, shows a few minor east-west lineaments running transverse to the major northwest faults and at a small angle to the quartzites and schists. If these minor lineaments, visible on air photos, are vein or fault zones, they are located in the right position to have thrown gold into the four main creeks.

LODE PROSPECTS

Coarse placer gold is reported in Ballarat Creek and coarse, angular gold in quartz has been found at the head of Kirkman Creek; but virtually no lode prospecting has been done in the district, due to lack of interest and the characteristic residual overburden of this unglaciated region. However, the dredge at the head of Thistle Creek encountered galena in the gravels, reportedly assaying 40 to 60 oz/ton silver, and a small silver-lead prospect with values of 160 oz/ton silver is reported just above the dredge camp. This high silver content would make a silver-lead prospect of mineable width very attractive.

Where only one such prospect occurs, others, probably better, almost certainly exist, and these could be found by further prospecting, especially since very little such work has been done in the area. The local limestones might be favourable host rocks.

CONCLUSION

1. Many mineral districts which have been first discovered as sources of placer gold, often only in modest amounts, have developed into substantial producers of other metals.
2. The Thistle Mountain vicinity shows several characteristics suggestive of a well-defined mineral district, but little or no prospecting has been done.
3. With concentrated work, deposits of gold and high grade silver-lead and perhaps other minerals of economic grade may be discovered in this area.

PROPOSED WORK

The area should be closely examined for favourable geologic conditions and mineralization which would indicate the potentialities.

I propose to spend three to four weeks or more with a good prospector to map, pan, and prospect the vicinity of Thistle Mountain with the aid of geochemistry and geophysics where warranted, and to prepare complete reports and maps on this work.

This preliminary work would be done at a complete cost of \$3000 per month, and 15% of the vendor interest or its equivalent would be granted to myself and the prospector on any resultant discovery.

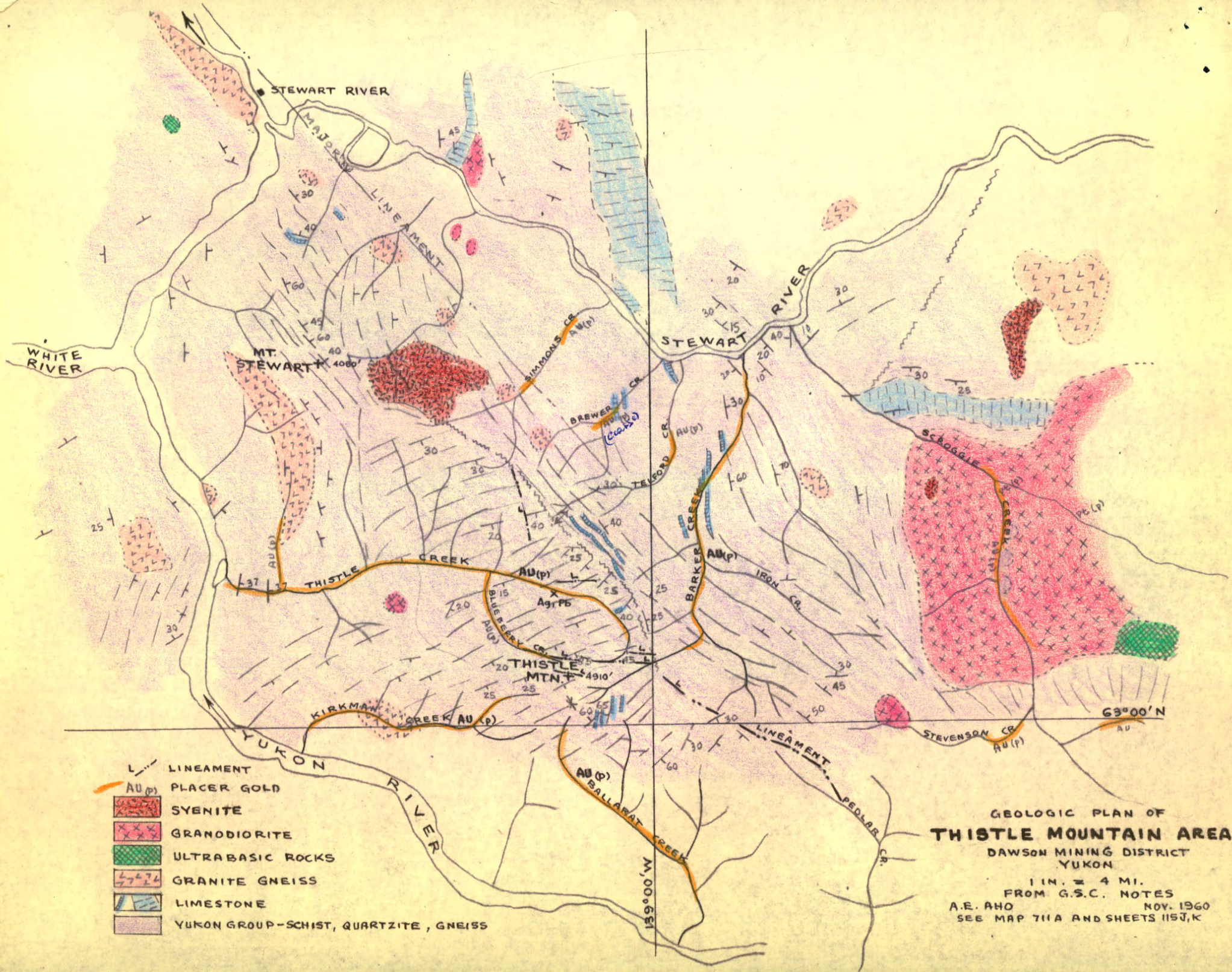
↳ stock in a public company to be formed

Further work, if warranted, can be carried on under a similar contract or some other mutually agreeable arrangement.

Respectfully submitted,



A.E. Aho, Ph.D.



GEOLOGIC PLAN OF
THISTLE MOUNTAIN AREA
 DAWSON MINING DISTRICT
 YUKON

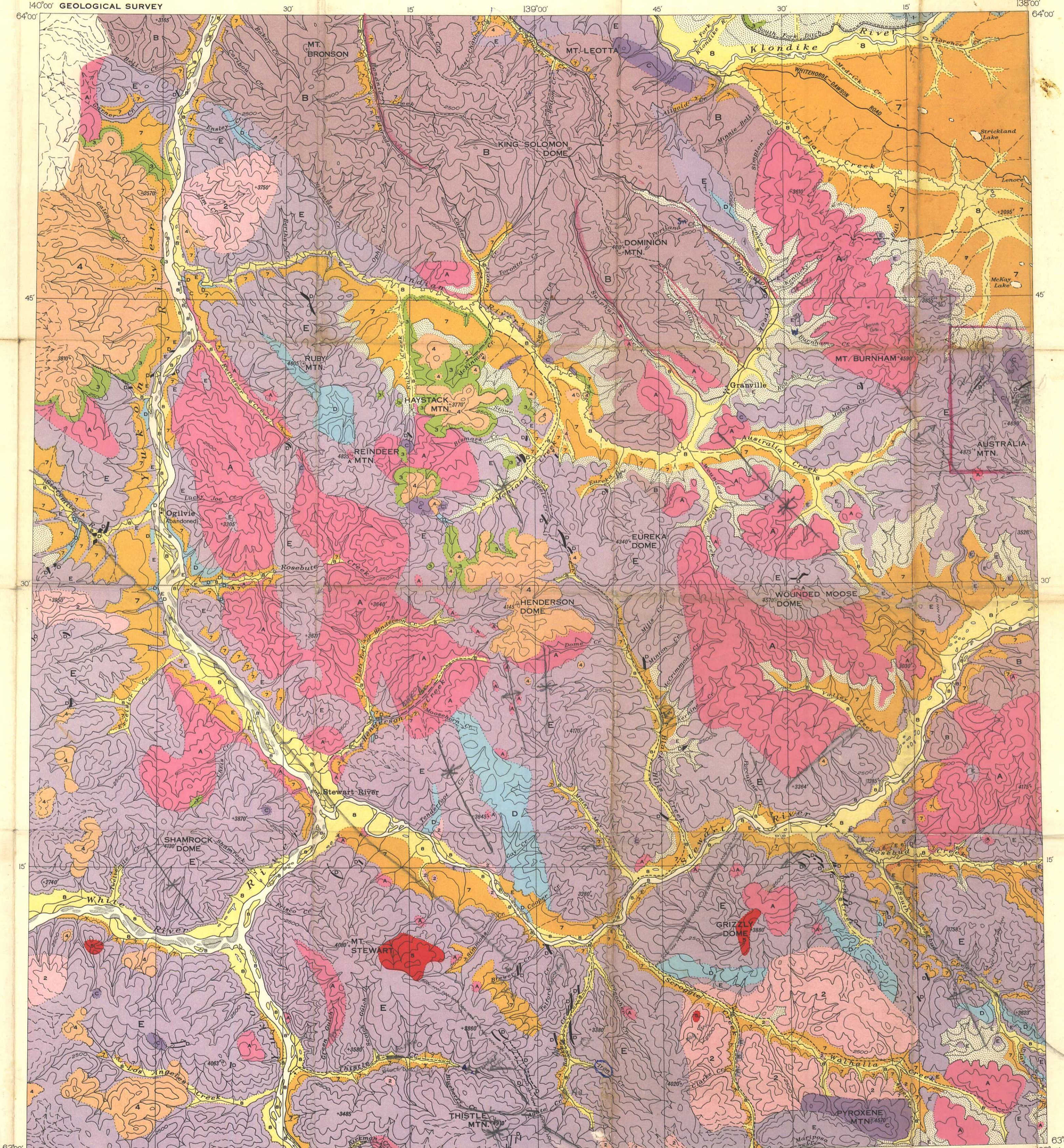
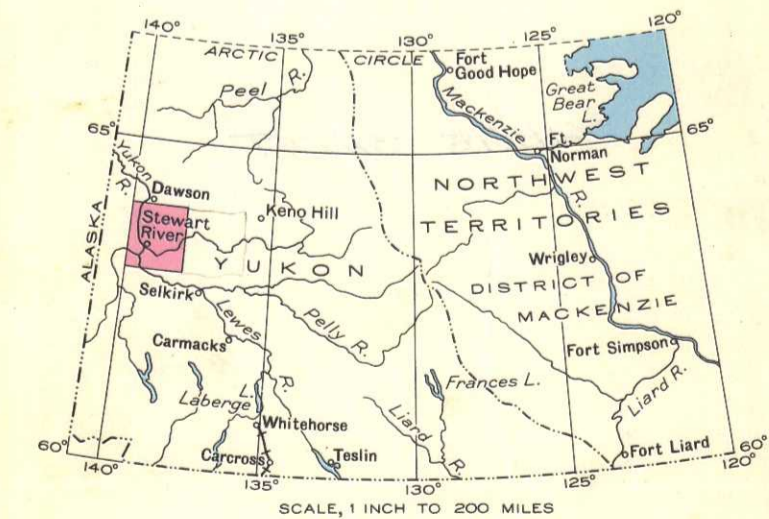
1 IN. = 4 MI.
 FROM G.S.C. NOTES
 A.E. AHO NOV. 1960
 SEE MAP 711A AND SHEETS 115J, K

LEGEND

- MODERN RECENT**
- 8 Stream deposits
- TERTIARY AND MODERN**
- 7 Stream deposits
- SELKIRK SERIES**
- 6 Basalt, andesite
- TERTIARY EOCENE OR LATER**
- 5 Granite porphyry, syenite porphyry
- 4 Andesite, basalt, dacite, trachyte, rhyolite, breccia, tuff, agglomerate
- EOCENE**
- 3 Conglomerate, sandstone, shale, coal; tuff
- MESOZOIC**
- JURASSIC OR LATER**
- 2 Chiefly granite and granodiorite
- ORDOVICIAN OR LATER**
- 1 Argillite, sandstone, conglomerate
- PRECAMBRIAN AND LATER**
- A Chiefly gneissic granite
- B Klondike schist: sericite schist, minor chlorite schist
- C Gabbro, pyroxenite, peridotite, serpentine
- D Limestone
- E Gneiss, quartzite, schist, slate

- Deeply drift-covered areas
- Fault
- Road and building
- Road not well travelled
- Trail
- Post Office
- Lake and stream (position approximate)
- Sand or gravel
- Contours (interval 500 feet)
- Contours (position approximate)
- Height in feet above Mean sea-level

Geology by H. S. Bostock, 1935, 1936, and 1937.
Base-map compiled by the Topographical Survey, 1941, from original surveys, 1934 and 1935. Cartography by the Drafting and Reproducing Division, 1942.



DESCRIPTIVE NOTES

Ogilvie map-area has not been glaciated. Outcrops are scarce and are confined mainly to ridge tops, steep south-facing slopes, and stream-cut banks. Rock fragments in the soil commonly reveal the nature of the underlying bedrock.

The area is one of long ridges with steep sides and of narrow, V-shaped valleys. The tops of the ridges are rounded and exhibit a general uniformity of elevation but include no appreciable plateau areas. The accordant summit levels represent an erosion surface developed in Tertiary time and since entrenched to depths of over 2000 feet by the main rivers. The upland surface truncates all the rock formations except the lava flows in Rosebud Creek.

The main river valleys and their tributaries are bordered by remnants of rock terraces at many levels. The terraces record periods of relatively stable base level during uplift and dissection of the upland surface. The lowest terrace is the most persistent. In the lower part of Stewart Valley, near Scroggie Creek, it is less than 100 feet above the river but disappears higher upstream. Downstream, along Yukon Valley, it rises to 250 feet or more above the river at the north edge of the map-area. The terrace extends up Indian and Sixtymile Rivers as well as up the larger streams in the region of Bonanza and Hunker Creeks.

The YUKON GROUP (E) consists of gneisses, schists, micaceous quartzite, phyllite, slate and limestone, and some sheared greenstones that resemble altered volcanic rocks. Quartz veins are abundant in many localities. Sections up to a thousand feet or more thick may be mainly composed of a single rock type, but in all cases there is some intermingling of other types and distinctive horizons are lacking. The structure and sequence of the strata are only broadly apparent. A major synclinal axis traverses the central part of the map-area northward from near the mouth of Barker Creek through the limestone body on Gay Creek, the heads of Montana and Ruby Creeks, and across Yukon-River at the mouth of Enslay Creek. Adjacent anticlines, if present, are not apparent and on Los Angeles and Australia Creeks the strata for the most part dip toward the syncline. Large areas separated by faults from the major structure show no relationship to the syncline. The angle of dip of the strata is generally between 20 and 50 degrees. Micaceous quartzites, mica schists, and mica gneisses predominate in the southwest and on Australia Creek and probably constitute the lowest part of the group present in this district. They appear to be overlain by an assemblage containing a large proportion of hornblende-feldspar gneiss and this, in turn, is succeeded by strata of all types among which limestone (D) becomes increasingly abundant toward the top of the section. Near the principal limestone zone, and for a few miles on either side of the synclinal axis, the strata of various places are less altered and include more granitic phyllites and slates than elsewhere. Contact metamorphism is exceptionally intense near some of the intrusive bodies. Southeast and east of Mount Burnham the Yukon Group is cut by abundant dykes of pegmatite.

The Palaeozoic strata (1) in the northeast corner of the map-area form part of a large area of these rocks. They consist mainly of well-bedded, black, grey, and brown argillite, brown sandstone, and pebble-conglomerate. Some of the strata are calcareous. Others are siliceous and cherty. Two miles northeast of the map-area, fossils of Ordovician or, more probably, later Palaeozoic age were found in what are believed to be the same rocks. The beds are cut by andesite dykes. They show none of the regional metamorphism of the Yukon Group (E), the Klondike schist (B), or the gneissic granite (A).

A number of small, basic to ultrabasic intrusions (C) lie in three northwest-trending belts. The dykes and boss near Australia Mountain are of serpentinized peridotite. The smaller dykes are much sheared and slickensided and, in places, are schistose, but the larger bodies, such as that on Mount Leotta, are quite massive. A body of massive, coarse, green pyroxenite forms Pyroxene Mountain. To the northwest on Black Hills and Eldorado Creeks, are bodies, including dykes too small to map, of diabase, hornblende-rich gabbro, hornblende, pyroxenite, and peridotite. They show little shearing but a few are foliated. Two irregular bodies and a number of unmapped dykes of pyroxenite and gabbro occur near White River. They are partly serpentinized and, in places, are somewhat foliated. All these basic rocks intrude the Yukon Group. On the whole they are less sheared and less distinctly foliated than the adjacent granitic intrusions. The little available evidence indicates that they have been intruded by the granitic rocks and that they may not all be of the same age.

The KLONDIKE SCHIST (B) is typically a light-coloured, massive, sericitic rock containing much quartz, commonly in corrugated lenses a small fraction of an inch thick. It grades through feldspathic quartz-mica schist to augen-gneiss (A) and to more massive granitic types. Small bodies of schist similar to the Klondike schist occur in the area of gneissic granite on Henderson Creek. The Klondike schist truncates strata of the Yukon Group, holds inclusions of these rocks, and otherwise exhibits characteristics of an intrusive rock.

The greater part of the main bodies of gneissic granitic rocks (A) are close to granite in composition but some of the smaller bodies are of granodiorite and quartz diorite. Remnants of larger feldspar or quartz crystals lie in a foliated groundmass of feldspar, quartz, mica, chlorite and, less commonly, hornblende, tourmaline, and garnet. Parts of the larger bodies may be only slightly gneissic. Other parts have been crushed and sheared to form fine-grained rocks. All gradations exist between these extremes and are well exemplified by the granite body that extends northwestward from Mount Burnham. Many dykes and sills of gneissic granite, apite, and pegmatite, related to the larger gneissic granite bodies, lie in the Yukon Group strata near contacts with the gneissic granite.

East of the Yukon and north of Indian River is a stock of coarse, grey granite (2). The rock is not foliated and is sheared in only a few small areas. The large granite body exposed on either side of Scroggie and Waltham Creeks (2) is a coarse white granite near the junction of these creeks but, farther south and east, is more nearly a granodiorite and carries large pink feldspar crystals. Along its southern contact is a zone composed mainly of hornblende and pink feldspar. The body contains numerous xenoliths of the Yukon Group and innumerable pegmatitic intrusions that, in places, make up fully 30 per cent of the volume of the rock.

A clastic assemblage (3) consisting of conglomerate, sandstone, arkose, greywacke, shale, and tuff lies unconformably on rocks of the Yukon Group (E) and associated intrusions (A, B, and C) and is overlain by lavas of the Carmacks Group (4). Over 500 feet of chiefly conglomerate is exposed on McKinnon Creek. Here pebbles and grains of white vein quartz make up the greater part of the rock. Other pebbles are of quartzite, gneiss, and schist, and, like the vein quartz, are derived from the underlying Yukon Group. The pebbles are rounded and few are over two inches long. With the conglomerate is interbedded some sandstone and carbonaceous shales, the latter containing thin seams of coal. Fragments of plants are common. The formation is cut by a number of dykes of rocks lithologically similar to the overlying lavas. The areas of these sedimentary rocks to the south consist of similar strata but those west of Yukon River hold detrital materials from various formations including some that are not present in the map-area. Volcanic materials of the Carmacks Group (4) are intercalated with the upper beds of these sedimentary deposits. The strata dip at angles up to 35 degrees. The area fringed by these rocks west of Yukon River forms a syncline trending northwesterly with a minor anticline in it extending up Galena Creek. Along the power ditch between the forks of Klondike River are beds of conglomerate, shale, clay, and lignite (3) that have been correlated tentatively with the strata described above. They form part of a sedimentary basin that extends for over 50 miles to the northwest, in parts of which plants regarded as of Eocene age have been found.

The CARMACKS GROUP (4) of volcanic rocks is predominantly andesitic in composition. West of Yukon and north of Sixtymile Rivers the strata appear conformable with the underlying Tertiary beds (3). On either side of McKinnon Creek they occur as sheets that cut through and overlie the sedimentary beds. South of Sixtymile River a large part of the lavas are light-coloured; include more of the acidic varieties than elsewhere; and, in places, appear to be intrusive. The acidic types resemble the Tertiary intrusive rocks (6) but have typically volcanic textures. In almost all parts of the map-area are a few dykes resembling the volcanic rocks, and in the area west of Yukon River, north and south of White River, such dykes are abundant.

Three porphyritic bodies (5) that range from granite to syenite lie in the southern part of the area and are regarded as of Tertiary age because of their resemblance to some of the Tertiary volcanic rocks. They intrude the Yukon Group but their relationships to other formations are not known. Mirolitic textures are common.

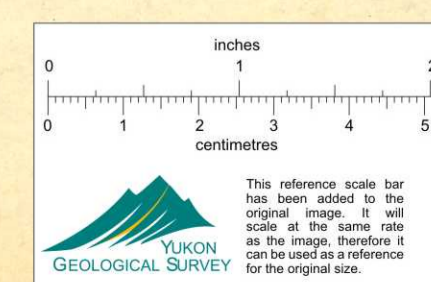
Remnants of a basalt lava flow of the SELKIRK SERIES (6), as much as 100 feet thick, lie on both sides of Rosebud Valley. In places the base of the flow is less than 40 feet above the creek.

Deposits of stream gravels (7) lie on rock terraces and on high saddles in the ridges close to the level of the upland surface. The great deposits of Flat, Rosebud, and Valley Creeks and of Indian River, and the White Channel gravels of the Klondike are believed to have accumulated more or less contemporaneously and all are stream deposits. The White Channel deposits along Bonanza, Hunker, and other creeks draining into Klondike and Indian Rivers formed solely from the rocks in their respective valleys, whereas gravels along Flat Creek contain great quantities of detritus from the Ogilvie Mountains to the north, and those of Stewart Valley from the country to the southeast. The gravel terraces in the valleys of Stewart River and Rosebud Creek contain distinctive chert, chert breccia, and conglomeratic material from Pelly River, not found on the upper Stewart River. The gravels are over 200 feet thick on Bonanza Creek and along Yukon River, and over 500 feet thick on Flat and Rosebud Creeks. Large deposits occur along Valley and Rosebud Creek valleys up to an elevation of 2500 feet, and chert pebbles characteristic of these gravels were observed as high up as 3000 feet. The deposits filled Stewart Valley and were carried through the lowest pass to Australia Creek and down the valley of Indian River to its mouth. Subsequent uplift has led to the re-excavation of the valleys through the gravels into the rock floor beneath and the formation of the lowest rock terrace. Recent stream deposits (8) floor the valley bottoms and flood plains. They rest on the lowest bedrock surfaces of their respective areas.

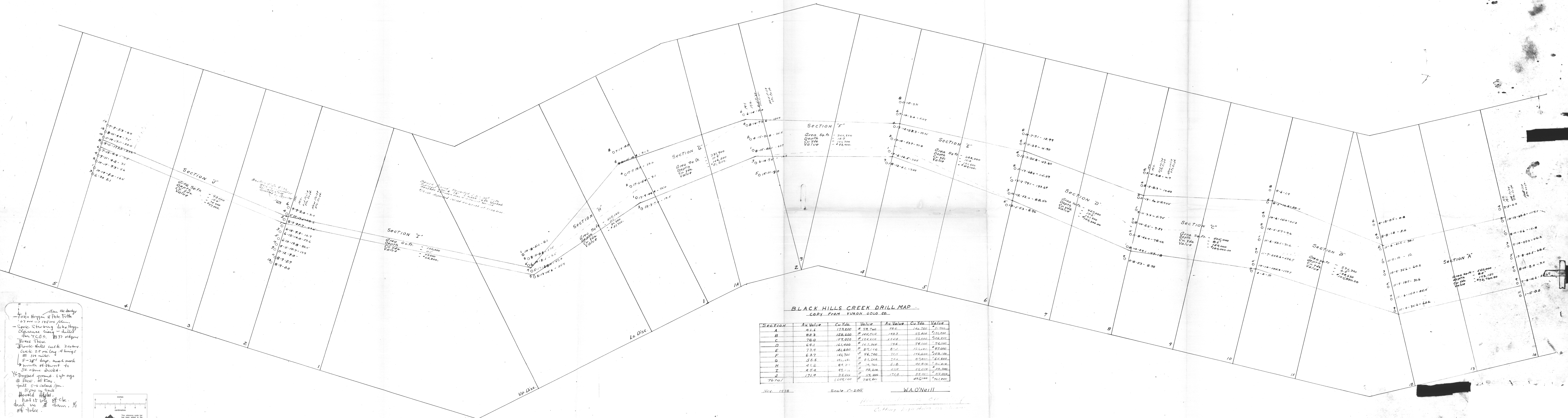
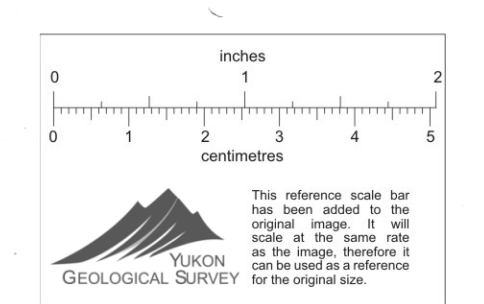
The area mapped includes all but the northern fringe of the Klondike placer district. Though its deposits were discovered nearly fifty years ago they are still an important source of gold and promise to be so for some time to come. In other parts of the area, notably the central and southern, a number of creeks have, in the past, been found to carry gold placers of some importance. These have been found in the gravels of both the recent (8) and older (7) stream deposits. Most of these creeks have still to be investigated by drilling or other modern methods. The possibilities of lode mining are largely unexplored. Though the areas of the Yukon Group adjacent to the intrusive rocks present features favouring lode deposits, there have been few discoveries and none has yielded a profitable production.

MAP 711A
OGILVIE
YUKON TERRITORY

Scale, 2531/160 or 1 inch to 4 Miles
Approximate magnetic declination, 34° East.



- John Morgan & Pete Toth
 16700 - 120000/Chm.
 - Sock Steeking John Morgan
 Clearance way - drilled
 for Y.C.C. 1937 old pipe
 - Bore Hole
 Black Hills celtic 2nd
 Creek 2.5 mi long 4 ft high
 = 100 mi.
 8-28' deep, much work
 - mouth of stream to
 52-acre drills.
 - Dropped ground. 1 ft age
 @ base of hole
 - full 5000 ft
 - 5000 in total
 - Hordell Holes
 - Has 15 in of ck.
 - deal w/ 8' diam. 10'
 of hole.



BLACK HILLS CREEK DRILL MAP
 COPY FROM YUKON GOLD CO.

Section	Ax. Value	Cu. Yds.	Value	Ax. Value	Cu. Yds.	Value
A	42.4	173,200	\$ 73,240	30.0	146,700	\$ 41,910
B	82.3	128,600	\$ 103,260	143.7	42,400	\$ 31,550
C	78.0	157,000	\$ 124,660	122.4	72,600	\$ 56,880
D	64.1	161,400	\$ 102,360	74.6	78,000	\$ 59,000
E	73.4	121,600	\$ 59,100	87.1	151,600	\$ 97,000
F	63.7	151,700	\$ 46,700	70.3	126,600	\$ 78,000
G	55.5	151,000	\$ 81,500	72.7	80,200	\$ 28,600
H	41.2	84,300	\$ 24,700	61.8	40,800	\$ 20,400
I	45.4	42,100	\$ 22,200	13.9	12,000	\$ 22,200
J	171.7	341,100	\$ 21,000	171.4	34,100	\$ 21,000
TOTAL		1,209,100	\$ 704,600		495,100	\$ 261,200

Nov. 1938 Scale 1" = 200' W.A. O'Neill
 New location on map
 Cutting 1/2 mi. N. of 100'

LEGEND:

LODE DEPOSITS

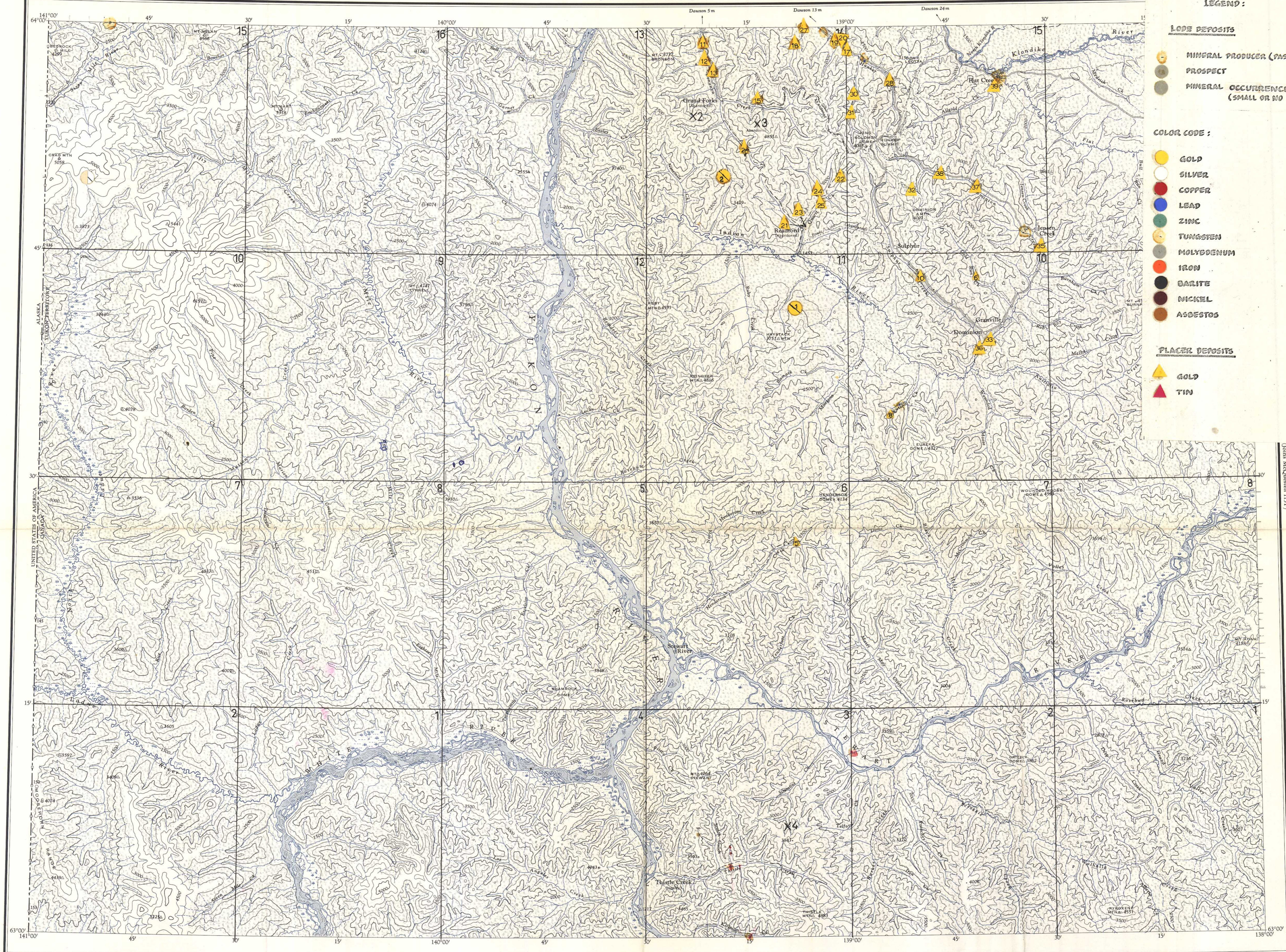
- MINERAL PRODUCER (PAST, PRESENT OR FUTURE)
- PROSPECT
- MINERAL OCCURRENCE (SMALL OR NO INFORMATION AVAILABLE)

COLOR CODE:

- GOLD
- SILVER
- COPPER
- LEAD
- ZINC
- TUNGSTEN
- MOLYBDENUM
- IRON
- GARNITE
- NICKEL
- ASBESTOS

PLACER DEPOSITS

- GOLD
- TIN



Compiled, 1963, by the SURVEYS AND MAPPING BRANCH, DEPARTMENT OF MINES AND TECHNICAL SURVEYS, from large scale maps and (west of 140°) from air photographs taken in 1949. Printed 1963.

Transverse Mercator Projection
North American Datum 1927
Contour Interval 500 feet
Elevations in feet above Mean Sea Level
Magnetic declination 31°28' East at centre of map 1963
Annual change (decreasing) 3.5'

Some names on this map are not yet official. Corrections or additions are invited by the Surveys and Mapping Branch.

(Joins Snag 115J & 115K (E 1/2))
STEWART RIVER
YUKON TERRITORY

Certains noms inscrits sur cette carte ne sont pas encore officiels. La Direction des levés et de la cartographie saurait être au public de lui signaler corrections et additions.

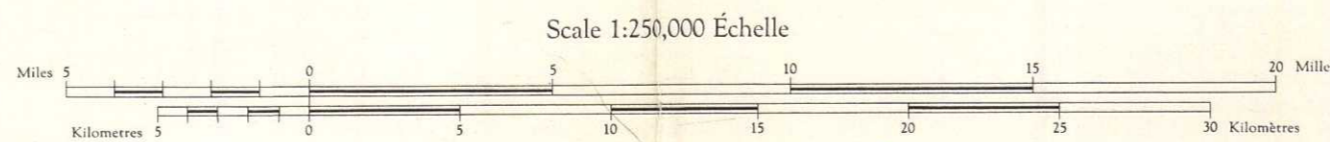
Projection Transverse de Mercator
Réseau géodésique nord-américain unifié (1927)
Équidistance des courbes 500 pieds
Élévations en pieds au-dessus du niveau moyen de la mer
Déclinaison magnétique au centre de la feuille en 1963: 31°28' Est
Variation annuelle (décroissante) 3.5'

Rédigée en 1963, par la DIRECTION DES LEVÉS ET DE LA CARTOGRAPHIE, MINISTÈRE DES MINES ET DES RELEVÉS TECHNIQUES, d'après les cartes à large échelle, et (ouest de 140°) d'après les photographies aériennes prises en 1949. Imprimée en 1963.

Ces cartes sont en vente au Bureau de distribution des cartes, Ministère des Mines et des Relevés techniques, Ottawa.

BILL OWEN - ARCHIBALD

- Road, all weather Chemin, toute saison
- Wagon or winter road Chemin de terre ou d'hiver
- Trail or portage Sentier ou portage
- Town Ville
- Village or settlement Village ou hameau
- Post office Bureau de poste
- Building Bâtiment



PROVISIONAL MAP

CARTE PROVISOIRE

- Horizontal control point Point géodésique
- Boundary monument Borne frontière
- Spot elevation, in feet Repère de nivellement en pieds
- Rapids; falls Rapides; chutes
- Marsh or swamp Marais ou marécage
- Depression contour Courbes de cunette
- Surveyed line Ligne arpentée

