120098

PLACER GOLD EVALUATION REPORT
SIXTYMILE GOLD DISTRICT, YUKON TERRITORY
NORTH LADUE RIVER AREA

on

NORTH LADUE RIVER TRIBUTARY
SODA CREEK
LATITUDE 63°30'N
LONGITUDE 140°50'W
YUKON LEASE PROSPECT PL7792
DAWSON MINING DISTRICT
YUKON TERRITORY
N.T.S. SHEETS 115-N-7 AND 115-N-10

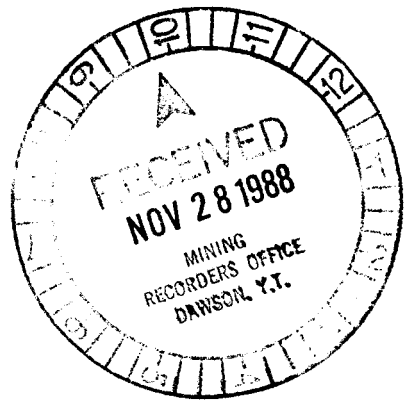
for

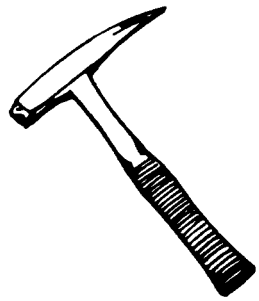
R. G. HILKER
CALGARY, ALBERTA
ASSESSMENT WORK
LEASE EXPENDITURE

by

R. G. HILKER, P. ENG.
TRON DUIK CONSULTANTS LTD.
CALGARY, ALBERTA

EFFECTIVE DATE
AUGUST 29, 1988





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"CONFIDENTIAL REPORT"
DAWSON MINING DISTRICT

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INTRODUCTION

The Klondike gold fields are located east of the Yukon River between north latitude 63°35' and 64°15' in the Yukon Territory, Canada. The gold district is generally bounded by the Yukon River on the west; by the Klondike River on the north, by Flat Creek, a tributary of the Klondike, and Dominion Creek, a tributary of Indian River on the east; and by the Indian River on the south. The area within these boundaries measures approximately 800 square miles. Most of the streams that drain the 800 square mile area are all gold-bearing to some extent. The most productive streams have been Bonanza, Eldorado, Hunker, Bear, Quartz and Sulphur Creeks and related tributaries. A considerable number of gold-bearing creeks are located west of the main Klondike gold field and the Alaska/Yukon boundary.

The Klondike Gold District is located east of the Coast Range and is within the Cordilleran Interior Plateau. The district is further described to be situated in the Western Yukon Plateau and locally forms a part of the Tertiary-aged Klondike Plateau. The topography was formed by uplifting of an undulated plain which formed a series of long branching ridges between intersecting streams and rivers. The topography of the area has an average elevation of 1,700 to 4,000 feet and forms the western part of the Quaternary age Dawson Range. The maximum relief of the Klondike district is approximately 4,000 feet. The Klondike District is non-glaciated and lies within the discontinuous zone of permafrost. The valleys are mainly V-shaped, are broad-floored and have interlocking spurs. The stream system contains clear water, indicating that they are not presently transporting material because of frozen gravel conditions and bedrock grade. The valleys have been sunk into the uplands to a depth of 1,500 to 3,000 feet.

During the period 1971 to present, considerable interest has been revived in the Klondike and Sixtymile, Yukon Territory, placer gold fields due to the increase in the price of gold. The method of mining gold-bearing material in a creek bed or bench deposit has changed considerably during the period 1882 to the present. Since 1950, large-size crawler-type diesel tractors have been developed by advanced technology and have, therefore, permitted large volumes of material to be moved mechanically. In the early years (1886 - 1930) in the Klondike, and Sixtymile gold fields, the main method of placer mining was by hand, hydraulic monitoring and dredging operations. This method moved gold-bearing gravels through a sluice box to recover the high-density raw gold. In addition, it was necessary to thaw frozen muck and gravel material by hydraulic or mechanical methods and costly steam points or water circulation methods. However, it is presently possible to move large volumes of gold-bearing creek material by using hugh crawler tractors, motor scrapers or by front-end loaders. The crawler-type tractor can be equipped with 'rippers' to break permafrost material and expose frozen muck and gravel to the warm atmosphere and sun to accelerate thawing.

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The Sixtymile and Forty Mile gold districts were first operated in 1882-1887. Mr. Ladue occupied the trading post at Ogilvie on the Yukon River and was consequently instrumental in the development of the Sixtymile gold camp. The Ladue River and North Ladue River were named after him for his activity in the area.

The Klondike placer district was discovered in 1897, and is still an important source of gold. With the increase in the price of gold, production can be expected for several more years. The price of gold will need to be above the $500.00 to $600.00 Canadian per ounce mark to make placer mining in the area profitable, due to the high costs of labour and machinery necessary for a placer operation. Total gold production from the Klondike, Forty Mile, Sixtymile, Mayo and Livingstone area has been approximately 12,000,000 ounces from 1896 to 1980.

Placer deposits occur along various creeks within the Sixtymile district, in the creek and bench gravels. The producing area in the vicinity of Glacier Site has been mainly Miller, Glacier, Little Gold and Big Gold Creeks, and a short stretch of the Sixtymile River. Placer deposits are presently being mined on the upper right limit of Matson Creek and on the lower part of Ten Mile Creek.

The North Ladue River drainage system and tributaries are all situated in the Klondike Schist. The whole of the rich Klondike Gold Field is similarly located in the rock types of the Klondike Schist. The North Ladue River drainage system is located within approximately 360 square miles of the Klondike Schist rock formation. Placer gold is reported to occur in several areas of the North Ladue River drainage system, most notably on the main valley and Deep and Rice Creeks. The nearest placer gold production is on Matson Creek within one mile of the North Ladue River tributaries. The North Ladue River and tributary creeks were placer drilled during the summer season of 1981. The 1981 drilling indicated economic gold bearing gravels on Gemini, Soda and Spud Creeks, that are right limit tributaries of the North Ladue River.

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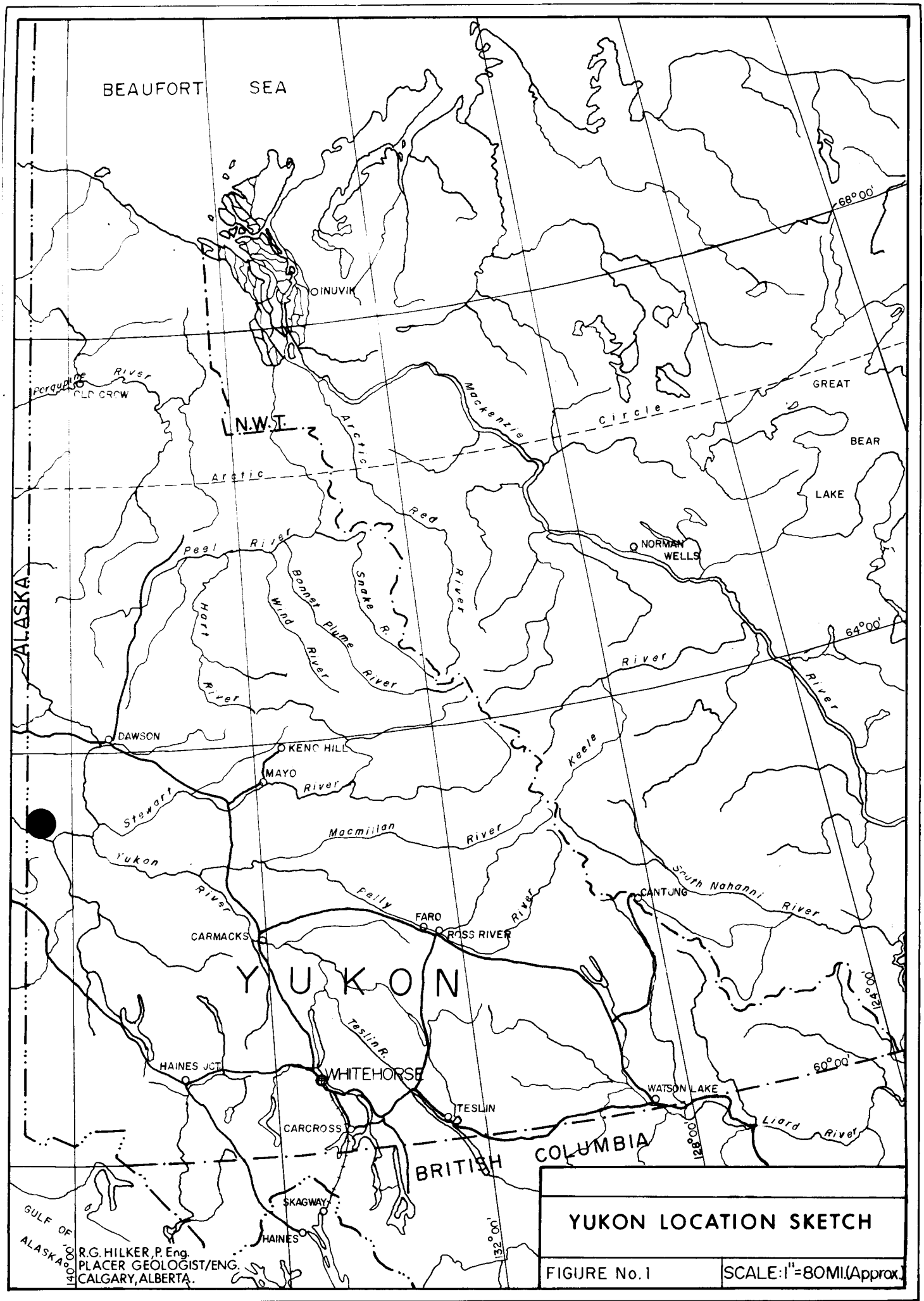

YUKON LOCATION SKETCH

FIGURE No. 1

SCALE: 1" = 80MI. (Approx.)

R.G. HILKER, P. Eng.
PLACER GEOLOGIST/ENG.
CALGARY, ALBERTA.

LOCATION AND ACCESS

General - Sixtymile Gold District/North Ladue River Area

The Sixtymile gold district is situated east of the Alaska-Yukon boundary between latitude 63°15'N to 64°10'N. The area is bounded on the north by the divide between the Sixtymile and Forty Mile drainage system; on the east by the Sixtymile and Yukon Rivers; on the south by the White and Ladue Rivers, and on the west by the Alaska boundary.

The general Sixtymile district that is referred to by the writer in this report encompasses an area of approximately 1,900 square miles. The area described is roughly 64 miles long between Moose Creek at the north limit and the Ladue River at the south end. The region is approximately 32 miles wide between the Alaska-Yukon boundary and east to the Sixtymile and Yukon Rivers. The Klondike gold district is within an area of approximately 800 square miles and is located about 48 miles east of Glacier Site.

The site of Glacier is accessible by vehicle from Dawson City via the Sixtymile Highway and by a secondary road to Glacier Creek. The road system is approximately 65 miles in length from Dawson City to Glacier Creek on the Sixtymile River. A tractor tote trail has been constructed south of Bedrock Creek and the Sixtymile River to the headwaters of the right fork of the North Ladue River. A tractor road is located downstream on the North Ladue River to Cassidy Creek and then upstream on Cassidy Creek to the divide with Matson Creek. The tote road continues south of Cassidy Creek on the east side of the North Ladue River to Gemini, Soda and Spud Creeks.

The distance from Dawson City to the Glacier airstrip is 48 airmiles; to the Matson airstrip 60 airmiles and to the North Ladue River 65 airmiles. The Glacier airstrip is located near the confluence of Big Gold Creek and the Sixtymile River. The Matson airstrip is located on the right limit approximately eight miles above the confluence of Marion and Matson Creeks. The Tenmile airstrip is located on the left limit of the Sixtymile River just below its confluence with Tenmile Creek. The North Ladue River airstrips are located on ridges south of Cassidy and Gemini Creeks.

The North Ladue River and Gemini/Soda/Spud right-limit tributary creeks are located on NTS Sheets 115-N-7 and 10 that are within the Dawson Mining District of the Yukon Territory. The confluences of Gemini/Soda/Spud Creeks with the North Ladue River are located on topography NTS Sheets 115-N-7 and 10, scale 1:50,000. The tributaries Gemini-Soda-Spud Creeks are approximately Latitude 63°16'N and 63°46.8'N and Longitude 140°00'W and 140°35'W.

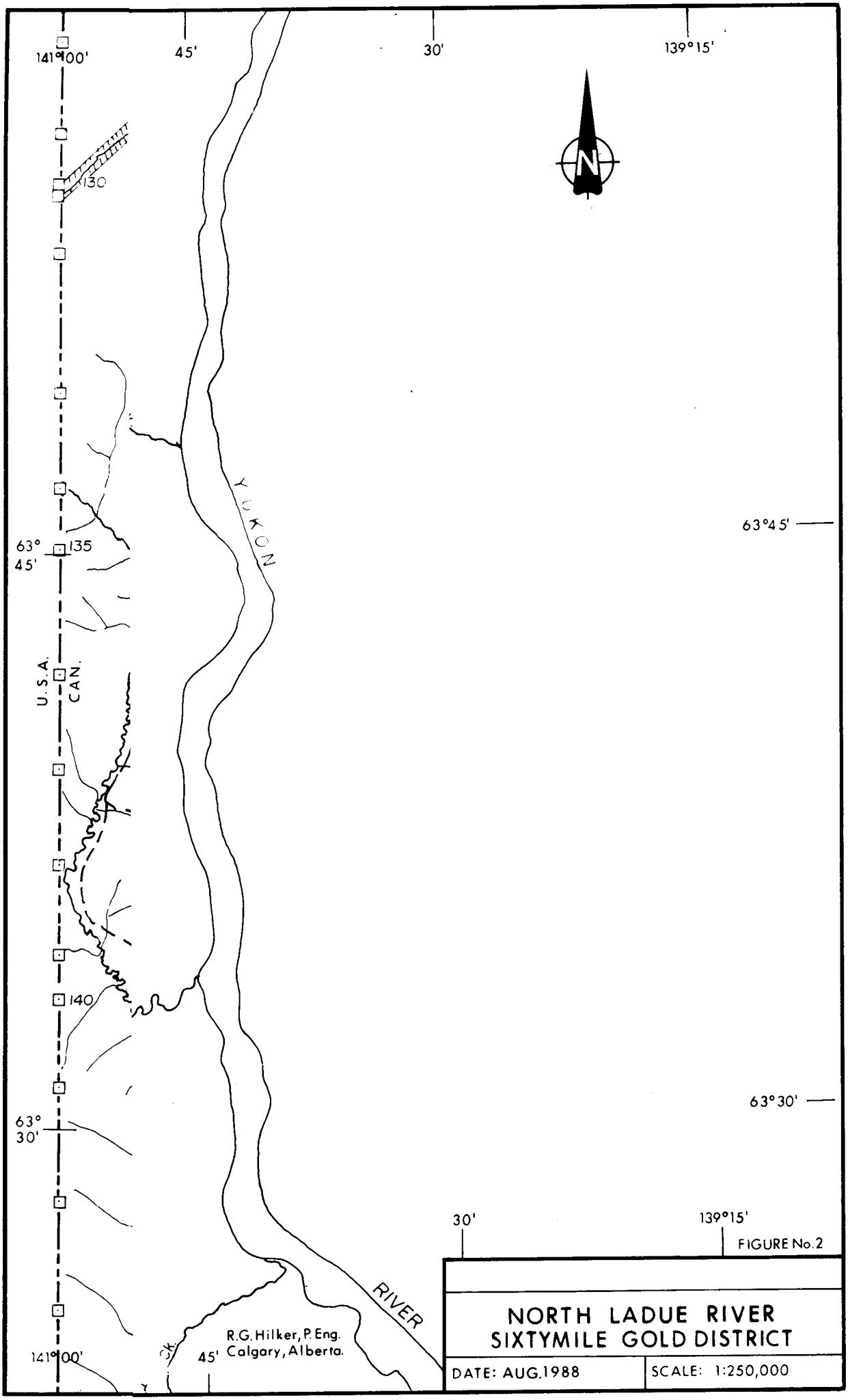

FIGURE No. 2

NORTH LADUE RIVER
SIXTYMILE GOLD DISTRICT

DATE: AUG. 1988

SCALE: 1:250,000

YUKON LEASE PROSPECT

Leases To Prospect are issued under the provisions of the Yukon Placer Mining Act for a one year period and renewable to a maximum of three years. The leases are issued for placer gold prospecting exploration and cannot be mined until converted to "placer claims". The Yukon Placer Lease Soda PL7792 is located on a right-limit tributary of the North Ladue River. The river valley has not been surveyed with a "baseline" to locate placer leases or claims and tributary creeks. The Soda Lease To Prospect is therefore located as staked by Post #1 and Post #2 within the drainage system. The placer property has not been legally surveyed and referenced to any government survey monuments located on the Yukon-Alaska Boundary.

The "creek" or "river" surveyed baselines are used to accurately locate placer claims staked within a drainage valley. Surveyed "creek baselines" were located on the major creeks and benches, in the Klondike district, to establish where the "Discovery Claims" were staked and be a reference as to where placer claims were located "Above Discovery" - A/D or, "Below Discovery" - B/D.

The placer lease PL7792 is recorded in the Dawson Mining District - Yukon Territory, and plotted on placer NTS Sheet 115-N-10 and 7 (see Plan showing Leases To Prospect). The lease is located approximately near Latitude 63°30'N, Longitude 140°50'W.

Leases To Prospect - North Ladue River Area

Creek	Lease Prospect	Length	Registered Owner	Anniversary Date
Soda	PL #7792	4 miles	Robert G. Hilker	22 Sept. 1988

Note: On 28 August 1988, the 4 mile Lease To Prospect PL7792 was converted to Yukon Placer Claims and the Soda 1 - 40 (incl.) placer claims were staked over the boundaries of the lease by R. G. Hilker. The Affidavit of Expenditure On Prospecting Lease - PL7792, for work done on the lease to the value of at least $4,000.00 was filed and received 29 August 1988, at the Mining Recorders Office, Dawson City, Y.T.

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Indian and Northern Affairs Canada | Affaires indiennes et du Nord Canada

LEASE TO PROSPECT
YUKON PLACER MINING ACT

[X] New	[ ] 1st Renewal	[ ] 2nd Renewal
Mining District: DAWSON		Number: 7792

By This Lease to Prospect made under and by virtue of Section 92 of the Yukon Placer Mining Act and in consideration of receipt of the fees as prescribed by subsections (8) and (13) of the said Section, the Commissioner hereby grants to Robert G. Hilker of 324 Silver Valley Rise, N.W., Calgary, Alberta the right to prospect for one year commencing on the 22nd day of September, 19 87, and ending on the 22nd day of September, 19 88 on the lands described hereunder.

DESCRIPTION

DAWSON MINING DISTRICT - UNNAMED TRIBUTARY OF NORTH LADUE RIVER - 115-N-7-10

4 Mile Creek Prospecting Lease

Commencing from Post #1 which is on an Unnamed L.L. Tributary of North Ladue River approximately 2,500 feet upstream from its confluence with North Ladue River, thence upstream a maximum distance of four (4) miles and not to exceed Post #2. (The location extends not more than 1,000 feet on each side of the baseline.)

THIS Lease is issued subject to the following terms and conditions:

1. The term of this lease shall be one year, renewable, subject to subsection 92(11) of the *Act*, for two additional periods of one year each if the lessee satisfies the Commissioner of the lessee's financial ability and intention to thoroughly prospect during such additional period and has otherwise complied with the *Act* and the terms and conditions of this lease.
2. It is a term and condition of this lease that, prior to the termination of the year, the lessee shall furnish evidence, supported by affidavit, to the satisfaction of the Commissioner that he has incurred during the year an expenditure of at least ----------FOUR---------- thousand dollars ($ 4,000.00) in prospecting operations by recognized methods upon the location itself, in accordance with the proposal submitted in support of the application for the lease, or as amended, and attached hereto as Appendix A, or such reasonable alternative as the Commissioner may consider satisfactory, such evidence to include:
   (a) evidence of physical work on the ground, and
   (b) a statement of expenditures (supported by receipts, where applicable, on request) in sufficient detail to show reasonable costs of labour and direct operating costs of equipment expended on actual prospecting operations by recognized methods on the location itself, exclusive of other costs such as costs of mobilization, transportation of personnel and equipment, travel time, access, camps, food, lodging and capital costs, and
   (c) a report of physical work accomplished (including dimensions and volumes of excavations, etc.), a description of material encountered (overburden, stream-gravel, bedrock, permafrost, etc.) and a description of the sampling method employed or the reason for no sampling having been done, and
   (d) a plan or map showing the locations of the physical work.
3. The lessee shall comply with all applicable legislation, including the *Northern Inland Waters Act*, the *Occupational Health & Safety Act*, and, where applicable, the *Territorial Lands Act*, and any Regulations or Orders made pursuant thereto.
4. This lease conveys no right to mine, other than for purposes of prospecting and small-scale testing.
5. While this lease remains in force the lessee is not eligible to make application for another lease to prospect.
6. The lessee shall not assign, transfer or sublet the rights described in this lease, or any portion thereof, without the consent in writing of the Minister of Indian Affairs and Northern Development being first had and obtained.
7. If the evidence of expenditure referred to in paragraph 2 above is not furnished before the termination of the year, or is not satisfactory, the lessee is not entitled to a renewal of the lease, to grant of any placer mining claim staked within the lease during the year, or to make application for consent to assign, transfer or sublet any rights described in the lease.

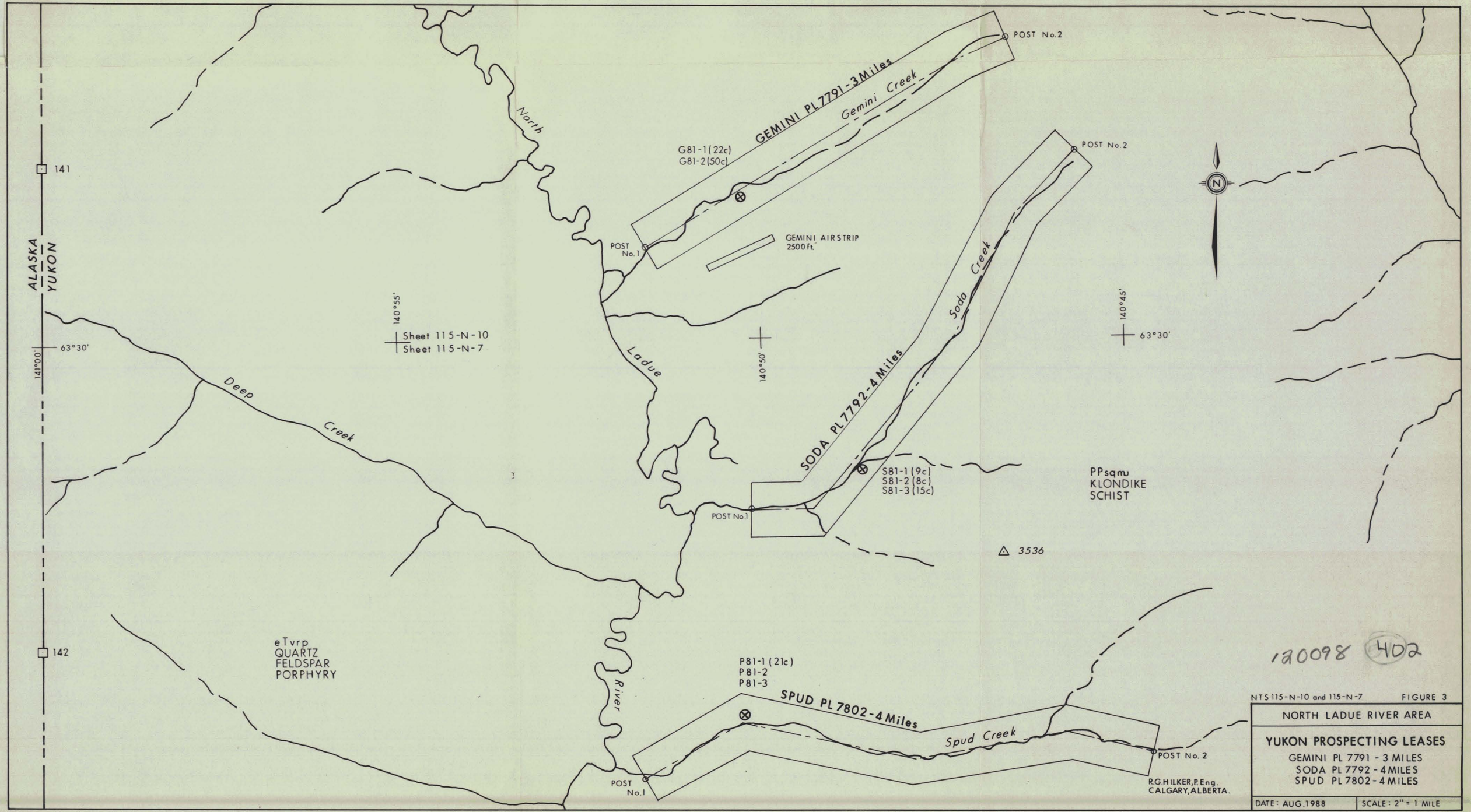
Signed at Whitehorse Yukon,

This 22nd day of September, 19 87.

B.R. Baxter
Regional Manager, Mineral Rights for Commissioner of Yukon Territory

802-6000-10 (6-84)

Canada



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NTS 115-N-10 and 115-N-7 FIGURE 3

NORTH LADUE RIVER AREA

YUKON PROSPECTING LEASES

GEMINI PL 7791 - 3 MILES
SODA PL 7792 - 4 MILES
SPUD PL 7802 - 4 MILES

R.G. HILKER, P. Eng.
CALGARY, ALBERTA.

DATE: AUG. 1988 | SCALE: 2" = 1 MILE

HISTORY OF SIXTYMILE GOLD DISTRICT

The existence of gold on the Yukon River has been known since 1869 and the first gold prospectors entered the Yukon in 1878, according to Dawson, and in 1873 as reported by Goodrich. Sand-bar placer mining was carried out on the Big Salmon in 1881 and discoveries of gold-bearing bars on the Lewes, Pelly and Stewart Rivers soon followed. The Stewart River proved the most productive and in 1885 and 1886 was actively worked. The first discovery of coarse gold was made in 1886 on the Forty Mile River, however, the greatest part of the gold field was located in the Alaska Territory. Further discoveries extended the producing area to the drainage streams flowing into the Sixtymile River in the Yukon Territory. The Sixtymile River drainage system was the chief producer of placer gold until the discovery of the rich creeks in the Klondike district in 1896.

In 1892 the Forty Mile gold field was extended to tributaries of the Sixtymile River and Mr. C. Miller received credit for the discovery. Miller Creek flows into the Sixtymile River a few miles south of the old Glacier Creek Post Office Site.

The first organized mining on Miller Creek was conducted during the summer of 1892 and $6,000.00 worth of gold was recovered. The approximate price of placer gold in 1892 was $17.00 per ounce and refined gold was $20.67 per ounce. Therefore, about 353 ounces of placer gold were recovered after the discovery claim was first recorded on Miller Creek. During the summer of 1892, gold discoveries were made on Glacier and Big Gold Creeks. The three creeks accounted for the main gold production in the Yukon until 1896 when interest was shifted from the Sixtymile area to the Klondike.

In the winter of 1912, a dredge was installed on Miller Creek by the Northern American Transportation and Trading Company. The dredge was steam-operated and of the Risden type, with an open bucket line and a bucket capacity of 5 1/3 cubic feet. In 1915 the dredge produced about 13,000 ounces and in 1916 about 8,900 ounces of gold. The dredge was closed down for over ten years, probably due to the First World War in 1914 - 1918, and was put back into operation by the Holbrook Dredging in 1929 through 1941.

In the Sixtymile District, R. G. McConnell has reported total gold production from 1893 - 1901 as $500,000 or approximately 29,412 ounces. The total estimated production of the Sixtymile area, by W. E. Cockfield in 1917 was $2,541,600 between 1892 and 1917, or approximately 149,506 ounces of gold. The reported value of gold does not include production from Matson Creek.

The Sixtymile Gold district placer crude gold has a reported fineness of 775,808, 810, 844, 847, 830, 860 and 890 fine and is representative of the district.

During the period 1929 to 1940, prospect drilling was conducted on the Sixtymile River and Miller Creek. Small sluicing operations were conducted by individual miners and reported on Miller, Glacier and Big Gold Creeks and on the Sixtymile River.

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The Yukon Explorations Limited Company completed the building of a 3 1/2 cubic feet bucket line dredge in August of 1947. The dredge property was located near the confluence of Big Gold and Glacier Creeks and the valley of Sixtymile River and operated between 1947 and 1959. The dredge was operated under the name of Yukon Explorations Ltd. in 1947 and 1948 and produced about $50,000 in gold and silver. The Yukon Placer Mining Company then operated the dredge from 1949 to 1961 and produced a total of $2,536,430 gold and silver. At the end of the 1961 operation the Yukon Placer Mining Company closed down the dredge on the Sixtymile River property.

Since late 1940 and 1961 a number of companies and individual placer miners operated bulldozer-sluicing operations in the Sixtymile area of Miller, Glacier and Big Gold Creeks. From 1962 to 1972 very little mining activity was conducted in the area. The Sixtymile district has had increased mining activity since the increase in the price of gold in 1973. The total gold that has been reported mined in the Sixtymile Gold District 1892 - 1965 was 234,314 ounces.

The Sixtymile area and Moosehorn Range is currently very active in several parts of the region the following companies are conducting substantial placer mining operations:

1) Cogasa - the company worked on the Sixtymile River in the Glacier Creek area. The company is reported to be moving large quantities of gold-bearing gravels in a sluicing operation using D9-type crawler tractors and scraper-earth movers. Production in 1977 was reported to be 3,400 ounces of crude gold. The company has been reported to be inactive during the 1985 mining season.

2) Oakbay Manor Ten Mile Mining Ltd. - this company is very successfully producing raw gold on Tenmile Creek. The confluence of Tenmile Creek and the Yukon River is located on the right limit of the Yukon River, opposite the historical 1886 site of Ogilvie. The company reported 6,000 ounces of crude gold produced in 1977 and 5,000 ounces in 1981 on Tenmile Creek. The company is reported to continue mining operations from 1982 through 1985.

3) Claymore Resources - the company is placer mining on an unnamed creek which flows into Alaska, U.S.A. and is located on the eastern drainage system of the Moosehorn Range. The placer operation has been profitable during 1978, 1979 and 1980, however, no production figures are available. Mining operations have continued from 1981 to 1985.

4) Goldmark Minerals Ltd. - the company mined on the upper part of Matson Creek and produced 315 ounces in 1978, 2,100 ounces in 1979, 2,200 ounces in 1980 and 951 ounces in 1981. Mining operations have continued from 1982 to 1985, however the company ceased mining on Matson Creek at the end of the 1985 summer season.

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HISTORY OF MATSON CREEK

Matson Creek forms what is referred to as the South Fork of the Sixtymile River and contains a watershed comparable to the river above the forks. The headwaters of Matson Creek reach the divide near the North Fork of the North Ladue River and flow in a northeasterly direction to the Sixtymile River (see Plan #1 - Location). The creek is gently-sloping, within a wide valley, and is over 30 miles in length. The Discovery Claim was staked in 1911 and was therefore referred to as "being discovered in 1911". The Discovery Claim is situated towards the head of the Matson Creek and at the foot of Weide Gulch. Matson Creek rises from the confluence of the Sixtymile River to within 10 miles of the Alaska border.

Matson Creek and all its drainage tributaries were staked from end to end in 1911. Weide Gulch is located about 5 miles above the forks in Matson and Marion Creek.

Gold values were reported by W. E. Cockfield in 1917 to be $0.18 and $1.00 per square foot of both coarse and fine gold.

Placer claims located near Weide Gulch were worked by Mr. J. Matson who lived on the creek and placer-mined from about 1911 until 1946. The creek was named for Mr. Matson, who also had the distinction of having married the famous "Klondike Kate" of Dawson City fame. Mr. Matson died in 1946 and the sudden cause of his death is still shrouded in mystery, although there are numerous rumours as to the reason for his decease (John Matson 1863-1946).

Placer prospecting leases were staked on Matson Creek in 1951 and located about 5 miles upstream from the confluence of the Sixtymile River.

In recent years, Placer Prospecting Leases have been staked on Matson Creek. Mr. Gerry Malone, now deceased, started to build a tractor road from Bedrock Creek and the Sixtymile River to Matson Creek in 1975 and the summer of 1976. The road was never completed and is about 4 miles north of Matson Creek; however, the route of the road is not suitable for tractor-train travel.

In the summer of 1977 "Leases To Prospect" were staked on the entire length of Matson Creek and on tributaries to Matson Creek. The tributaries staked were; Marion and Dawson Creeks, Christmas - Borden - Pine and Svenn - Glazy Creeks.

During the summer of 1978 a placer mining operation was established on upper Matson Creek. The discovery open cut produced 315 ounces of crude gold, in ten days of sluicing from 10,000 cubic yards of bench gravels. The placer mining operation was continued in 1979 through 1985 with gold production from upper Matson Creek.

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Previous Mining Operation - 1978 to 1985

Goldmark Minerals Ltd. - Calgary, Alberta mobilized placer mining equipment and camp trailers to Matson Creek in 1978. A 1,500 foot airstrip was constructed in 1978 to haul fuel and supplies to the upper part of Matson Creek. Tractor trenching discovered rich placer gravels near the mouth of Bow Pup and Matson Creek. During a ten-day period in early October 1978, 10,000 cubic yards of gravels were sluiced and 315 ounces of placer gold recovered. From the summer of 1978 through 1985, Goldmark continued summer sluicing operations and exploration programs on the upper part of Matson Creek. The writer has researched the Goldmark Minerals Ltd. Annual Reports for 1979-1980-1981-1982-1983-1984 and Interim Reports from 1983-1984 and 1985 and summarized the production and exploration data.

Summary Production, Matson Creek

Year Production	Cubic Yards Sluiced	*Placer Gold Recovered	Grade Cubic Yard	**1985 Grade Cubic Yard
1978	(M) 10,000 cy	315 oz.	$ 7.35 cy	$12.13 cy
1979	(M) 40,000	2,100 oz.	$19.75	$20.21
	(V) 25,500	242 oz.	$ 4.24	$ 3.65
1980	(M) 23,000	2,200 oz.	$56.87	$36.82
	(V) 1,600	16 oz.	$10.56	$ 3.85
1981	(M)150,000	857 oz. 94 oz.	$ 2.80	$ 2.20
1982	(V) 8,000	33 oz.	$ 2.04	$ 1.59
1983	(V) 4,000	75 oz.	$ 8.55	$ 7.22
1984	(M) 55,000	992 oz.	$ 6.51	$ 6.94
1985	(M) Unknown	50 oz.	($ 6.51)	($ 6.94)

(M) - Matson Project - Mark Claims

(V) - Val d'Or Project - Gold Claims

* - Placer gold is 885 fineness

** - 1985 price of gold determined in December/85 at $318.00 U.S. and Canadian dollar exchange rate of $1.37. The price of gold is set at $435.00 for calculation purposes in this report.

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Weighted Average Values - Previous Production

1)	*10,000 cy	X $12.13 cy	=	$ 121,300
	40,000 cy	X $20.21 cy	=	808,400
	25,500 cy	X $ 3.65 cy	=	93,075
	23,000 cy	X $36.82 cy	=	846,860
	1,600 cy	X $ 3.85 cy	=	6,160
	150,000 cy	X $ 2.20 cy	=	330,000
	8,000 cy	X $ 1.59 cy	=	12,720
	4,000 cy	X $ 7.22 cy	-	28,880
	55,000 cy	X $ 6.94 cy	=	381,700
	317,100 cy			$2,629,095

* The production figures used are compiled from the Summary Production Data Table - gold price is $435/oz. Cdn.

2) Weighted average $\frac{\$2,629,095}{317,000 \text{ cy}}$ = $8.29 per cubic yard

- or there is approximately $\frac{\$8.29 \text{ cy}}{\$12.38 \text{ gms}}$ = 0.670 gms/cy

3) During the time period of 1978 - 1985, or in eight summer field seasons, the previous operators sluiced approximately 317,000 cy of gravels that contained a weighted average of $8.29/cy gold values. There was gold produced in 1981 (94 oz.) and 1985 (50 oz.) with no gravel yardage documented.

Therefore, previous placer operators have indicated that gravel values have been approximately $8.29 cy yard based on a gold price of $435 Cdn.

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HISTORY - NORTH LADUE RIVER AREA

The following conclusions are quoted from G.S.C. Memoir 123, Sixtymile and Ladue River Area, Yukon, by W. E. Cockfield, 1921:

"Placer deposits occur along the various creeks named in this report, both in the creek gravels and in the bench gravels, but the producing area has been limited largely to Miller, Glacier and Big Gold Creeks and a short stretch of Sixty Mile River. Portions of the gravels still remain untouched, but the production has been steadily decreasing, and this decrease will continue unless energetic prospecting is undertaken. The geological conditions on Boucher, California and many other creeks are identical with those on Miller and Glacier Creeks and there is no apparent reason why the placer gold should be confined to those creeks already producing. With regard to the Ladue Valley, it may be said that none of the creeks has been thoroughly tried. The shafts that have been sunk are no test of such a great area. Float gold has been found at a number of points, but whether payable deposits occur can be told only by prospecting. The ground in the main valleys is deep, the thickness of the superficial deposits frequently exceeding 75 feet, but equally good returns may be obtained from the tributary valleys which are more easily worked.

Regions where the metamorphic rocks of the Yukon group have been invaded by later granitic, andesitic and basaltic rocks have proved good gold producers and should in this case prove favourable also, particularly as the region has not been glaciated."

SIXTYMILE AND LADUE RIVER AREA

The following conclusions are quoted from the Geological Survey Summary Report, 1917, Part B, page 8B (Sixtymile Gold District):

"It will be seen from the outline given above that much ground remains to be worked on the creeks which have already been discovered and known to contain gold, and that a small but steady production is expected for some years to come. The estimated production for 1917 is $50,000. This estimate was very kindly furnished me by Mr. William Schofield, Mining Recorder at Glacier Creek. On the other hand, it does not seem reasonable to suppose that all the economic deposits of gold have been discovered or that the entire gold belt of the Sixtymile River has been prospected. There is no reason, in view of the geological conditions, why the gold belt should be confined to the creeks mentioned above and that the rest of Sixtymile and Ladue valleys, particularly as the region has not been glaciated. Float gold is known at several points in Ladue Valley and although, at the time of writing, no deposits of economic important have been discovered, still it must be remembered that very little prospecting has been done there. The ground in the master valleys is deep and, consequently, the writer hopes to see the producing field much enlarged in the future. With regard to the creeks which are already producing, the production must come more and more from the bench gravels, as the creek gravels become exhausted."

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EARLY PROSPECTING - NORTH LADUE RIVER AREA

During the staking of the prospecting leases in the fall of 1980, the following early prospecting on the North Ladue River was noted:

1. Basic exploration churn drilling was conducted on the North Ladue River during the summer of 1976. The churn drill used was a Kirk Hillman Airplane Drill, mounted on a pipe sled; it places a five-inch casing and has a 6.5" drive shoe. In an affidavit for assessment work on lapsed PL3658, four 5" diameter drill holes were sunk:

   Hole #4: 102' deep
   Hole #5: 100' deep
   Hole #6: Approximately 100' deep
   Hole #7: 71' deep

   The churn drill holes were drilled on the North Ladue River and indicate deep gravels to bedrock in the area of lapsed PL3658 within the main valley floor; however, the main Ladue River Valley gravels could be dredged to bedrock.

2. Shafts and an old Procupine Boiler located about 20 miles upstream from the mouth of the North Ladue River.

3. Five old shafts and cabin on upper lease of Rice Creek.

4. All the tributary creeks to the North Ladue River contain typical Klondike Schist gravels which are very similar to gravels that occur on Upper Matson Creek and in the Klondike Gold Field creeks of Eldorado, Bonanza, Hunker, Quartz, Sulphur, etc.

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PLACER EXPLORATION - NORTH LADUE RIVER AREA

General

During the summer and fall of 1981, placer gold exploration was conducted on the North Ladue River and adjoining tributaries. The exploration programme consisted of tractor trenching in creek and bench gravels, and placer hammer drilling in the main valley and on 10 of the tributary creeks. The exploration trenching and drilling was applied to assessment work on the Yukon Prospecting Leases.

The tributary creeks drilled are described as follows:

North Ladue River

Hole Nos. LAD 81-1 to LAD 81-11
Total of 11 holes
Total footage: 601 feet

Deer Creek

Hole Nos. D 81-1 to D 81-3
Total of 3 holes
Total footage: 128 feet

Club Creek

Hole Nos. C 81-1 to C 81-3
Total of 3 holes
Total footage: 120 feet

Lila Creek

Hole Nos. L 81-1 to L 81-3
Total of 3 holes
Total footage: 160 feet

Atlinto Creek

Hole Nos. AT 81-1 to AT 81-6
Total of 6 holes
Total footage: 250 feet

Apollo Creek

Hole Nos. AP 81-1 to AP 81-28
Total of 28 holes
Total footage: 1264 feet

Gemini Creek

Hole Nos. G 81-1 & 2
Total of 2 holes
Total footage: 96 feet
(Excellent gold indications)

Soda Creek

Hole Nos. 581-1 to 581-3
Total of 3 holes
Total footage: 137 feet
(Excellent gold indications)

Spud Creek

Hole Nos. SP 81-1 to SP 81-20
Total of 20 holes
Total footage: 789 feet
(Favourable gold indications)

Hook Creek

Hole Nos. H 81-1 to H 81-8
Total of 8 holes
Total footage: 330 feet

Deep Creek

Hole Nos. D 81-1 to D 81-4
Total of 4 holes
Total footage: 112 feet

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NORTH LADUE RIVER PROJECT
1981 Placer Drilling Summary
September 17 - November 5, 1981

Drill Hole #	Location	Total Depth	Black Muck	Gravels	Bedrock
		Ft.	Ft.	Ft.	Ft.
Gemini Creek					
G 81-1	GEMINI #10	54	0-13	13-40	40-54
G 81-1	GEMINI #10	42	0-6	6-42	---
Soda Creek					
S 81-1	SODA #13	36	0-12	12-28	28-36
S 81-2	SODA #13	51	0-10	10-48	48-51
S 81-3	SODA #13	50	0-4.5	4.5-50	---
Spud Creek					
SP 81-1	SPUD #11	40	0-4	4-36	36-40
SP 81-2	SPUD #11	50	0-14	14-43	43-50
SP 81-3	SPUD #11	27	0-12	12-26	26-27
SP 81-4	SPUD #16	38	0-4	4-36	36-38
SP 81-5	SPUD #16	40	0-12	12-38	38-40
SP 81-6	SPUD #16	42	0-11	11-42	---
SP 81-7	SPUD #22	24	--	0-22	22-24
SP 81-8	SPUD #22	44	0-12	12-44	---
SP 81-9	SPUD #22	54	0-12	12-52	52-54
SP 81-10	SPUD #22	58	0-22	22-58	---
SP 81-11	SPUD #25	20	0-7	7-19	19-20
SP 81-12	SPUD #25	38	0-12	12-36	36-38
SP 81-13	SPUD #25	56	0-22	22-56	---
SP 81-14	SPUD #35	32	0-14	14-30	30-32
SP 81-15	SPUD #35	30	0-10	10-28	28-30
SP 81-16	SPUD #35	40	0-12	12-34	34-40
SP 81-17	SPUD #36	34	0-4	4-29	29-34
SP 81-18	SPUD #36	40	0-8	8-37	37-40
SP 81-19	SPUD #36	44	0-4	4-44	---
SP 81-20	SPUD #36	38	0-18	18-38	---

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PRINCIPLES OF PLACER DEPOSITS

General:

In the formation of placer deposits, mechanical concentration is the natural separation of heavy from light minerals by means of moving water or air by which the heavier minerals become concentrated into a payzone deposit. The placer minerals are released from host rock or veins by the weathering process. The heavy minerals and rock or vein material are washed slowly downslope to the nearest stream. Moving stream water sweeps away the lighter matrix and the heavier placer minerals sink to the bottom of the drainage creek or are moved downstream relatively short distances. From thousands of tons of debris, the few heavy minerals in each ton are gradually concentrated in the stream gravels until they accumulate in sufficient abundance to be classified a placer deposit. The very small amount of gold contained in the original matrix host rock and veins is concentrated in a stream system gravels in relatively small volume paystreak.

Placer Deposits:

A placer deposit is described as a mass of gravel, sand, or similar material resulting from the decomposition of crumbling and erosion of solid rocks that contain particles or nuggets of gold, platinum, tin or other valuable minerals derived from the rocks or veins. Placer mining is a type of mining in which the surficial detritus or gravel is washed for gold or other valuable minerals. When water under pressure is employed to break down the gravels, the term hydraulic mining is generally used. There are deposits of detrital or gravel material containing gold which are buried below waste gravels too deep to be profitably extracted by surface mining. The deep buried gold-bearing gravel material must be worked by drifting beneath the overlaying barren material. The underground operation necessary to extract auriferous material from near bedrock is termed "drift mining".

Payzone Gravels:

Placer concentrations can occur only if the valuable minerals possess the three properties; high specific gravity, chemical resistance to weathering and durability. Placer minerals that have these properties are gold, magnetite, illmenite, garnet, zircon, hematite, chromite, epidote, olivine, limonite, rutile, pyrozine, monazite, native copper, tinstone and platinum. The black sand or heavy concentrate content of gold placers is commonly between 5 and 20 pounds of black sand concentrate per cubic yard of gravel. The heavy minerals are deposited within the gravels of a drainage system above and on bedrock. The concentration of heavy minerals in gravels is referred to as paystreak or payzone. The gold bearing payzone gravels above bedrock deposition dimensions are length, width and thickness. The payzone usually contains variable gold content along a continuous and discontinuous payzone. The gold bearing gravels are usually 5 - 12 feet thick above bedrock and overlayed by waste gravels. The heavy minerals and gold are worked into soft decomposed bedrock for 2 - 4 feet by water hydraulics.

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KLONDIKE DISTRICT PERMAFROST

The Klondike Gold District is within the "discontinuous permafrost zone", the gravels in the region are frozen in parts and thawed in other areas. The permafrost condition varies in thickness from surface to a depth of 200 feet in the creek, bench and hill gravel deposits. Therefore, a majority of the gold bearing placer ground in the Yukon Territory is permanently frozen for about 60 - 200 feet in depth. The gold-bearing gravels are usually overlain by several feet of "black muck" that contains 50 to 75% ice by volume. The Yukon black muck is a mixture of fine silt, partially decomposed vegetation and ice. When thawed the black muck becomes a thick soupy partial liquid that flows.

The position of the creeks to sun exposure during the long daylight hours in the summer months, has caused a thawing effect on north and east slopes in the area. Consequently, alternate thawing and freezing conditions have caused erosion, land sliding and creeping on the north and east slopes of the unconsolidated gravels. Therefore, any gold-bearing terrace gravels are re-deposited into the creek bottom over previously deposited creek gravels. Alternately, the south and west facing terrace gravels are in their original deposition position and have been uplifted to their present elevation above the creek valley bottom. The creeks in the area are not cutting deeper into the present valley bottoms, due probably, to bedrock grade and frozen gravel conditions. The valleys in the area have a main terrace and gravels that are located between 50 to 75 feet above the present stream level. Discontinuous permafrost occurs in the creek valleys and areas dredged in one season by the Yukon Consolidated Gold Company's eight dredging operations on Bonanza, Eldorado and Hunker Creeks, 68.4% was frozen and required thawing by steam. The present method of thawing is to strip the surface vegetation off the muck and expose it to the sun. A second method of thawing is hydraulic monitoring of the surface vegetation and muck by producing a 'head' of water with a high-pressure pump. Frozen gravel and muck conditions of permafrost exist in the Scroggie, Klondike, Stewart and Sixtymile gold-bearing districts. Quoted from: 'The Yukon Territory - Its History and Resources - 1916'.

"Throughout almost all the mining districts in the Yukon Territory, with the exception of Kluane, the gravels are covered by a body of black frozen muck which varies from 4 to 20 feet in thickness. The muck can be picked, but no impression can be made on the frozen gravels, which have to be thawed. The thickness of the frozen stratum varies considerably and is less on the ridges than in the valleys and less on southern than on northern slopes. A shaft sunk on the ridge south of Eldorado Creek reached unfrozen ground at a depth of 60 feet, while one in the valley of Eldorado Creek was stopped by running water at a depth of a little over 200 feet. Another shaft sunk through gravel on the plateau between Bonanza Creek and the Klondike River passed through the frost line at a depth of 175 feet; near the head of Quartz Creek, a shaft tapped running water at a depth of about 216 feet. The summer heat has little effect on the frozen layer except in the few places where the surface is unprotected by moss. Exposed gravel beds in

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favourable positions thaw out to a depth of from 6 to 10 feet, but where moss is present frost is always encountered close to the surface. The depth of gravel varies from 3 feet on some of the creeks to 30 and 40 feet on Lower Dominion and from 80 to 100 feet on Quartz Creek. The frozen muck which overlies the gravels forms an exceedingly firm roof and no timbering is required in the drifts. The shafts in which self-dumpers are operating, however, are usually timbered as well as the tunnels leading from the bottom of the shafts to the face of the drifts. Underneath the frozen muck, large chambers can be excavated during the winter. In one case on Dominion Creek, a muck roof, unsupported by pillars, covered a vault said to measure 140 feet by 230 feet, and remained unbroken until mid-summer. Examples of muck roofs spanning vaults over 100 feet in width are quite common".

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SIXTYMILE GOLD FIELD GEOLOGY

GENERAL GEOLOGY

The Sixtymile district is located east of the Coast Range and is within the Cordilleran Interior Plateau. The district is further described to be situated in the Western Yukon Plateau and locally forms a part of the Tertiary-aged Klondike Plateau. The topography was formed by uplifting of an undulated plain which formed a series of long branching ridges between intersecting streams and rivers. The topography of the area has an average elevation of 4,000 to 4,800 feet and forms the western part of the Quarternary age Dawson Range. The maximum relief of the Sixtymile and Ladue Rivers district is 4,000 feet.

The most important tributaries of the Sixtymile River are Big Gold, Little Gold, Glacier, Miller, California, Boucher, Fish, Fifty Mile (middle fork) and Matson (south fork) Creeks. The main Ladue River tributary is Rice Creek and the important tributaries on the North Ladue River are McElfish and Bakke Creeks.

The Sixtymile and Ladue River district is non-glaciated and lies within the discontinuous zone of permafrost. The valleys are mainly V-shaped, are broad-floored and have interlocking spurs. The stream system has clear water, indicating that they are not presently transporting material because of frozen gravel conditions and bedrock grade. The valleys have been sunk into the uplands to a depth of 1,500 to 3,000 feet.

The Sixtymile district has several gold producing creeks; at Glacier Site - Miller, Glacier, Little Gold and Big Gold Creeks; Upper Matson Creek, Pups and Gulches; Ten Mile Creek; and reported float gold on the North Ladue River, Rice Creek and associated drainage tributaries.

The Miller, Glacier and Little Gold Creeks area is contained within the Nasina Series quartzite formation. To the north of Little Gold Creek, south of the Sixtymile River and south of Miller Creek three large patches of Klondike Schist occur. The Klondike Schist and Nasina Series are part of the Yukon Group and probably Permian or Later in age. The Yukon Group formations of Klondike Schist and the Nasina Series are intruded by a Tertiary age andesite and basalt stock. Big Gold Creek is located within the andesite and basalt intrusive stock. All of the gold-bearing creek and bench gravels are contained in Miller, Glacier, Little and Big Gold Creeks. The drainage from the four creeks empty into the Sixtymile River and consequently gold-bearing gravels have been deposited at the confluences of the creeks and the river. The Sixtymile River valley contains gold-bearing gravels a short distance downstream from the four creeks. The first gravels to be worked on the Sixtymile River were the bench gravels lying between the mouth of Miller Creek and the mouth of Big Gold Creek. Later the Sixtymile creek gravels were dredged between Miller and Big Gold Creeks.

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The Nasina Quartzite is probably Permian or Later in age (D. J. Templeman-Kluit, 1974 - P 23 Nasina Quartzite), as like most rocks of the Yukon Group being Pre-Mesozoic in age. The Nasina Quartzite consists of; black weathering, massive, dark grey to black graphitic-quartzite with lesser grey micaceous quartzite and quartz mica schist (D. J. Tempelman-Kluit, 1974), as described on the Stewart Map. On the Dawson Map (L. H. Green and J. A. Roddick, 1961) describes the Nasina Series as; grey and grey-green, micaceous quartzite; dary grey, light grey and silvery muscovite schist, minor fine-grained quartz biotite gneiss, graphitic schist and quartz-muscovite chlorite schist; higher rank metamorphic rocks with biotite and garnet; coarsely crystalline whitish limestone. W. E. Cockfield, 1921, describes the Nasina Series as; quartzite, quartz-mica schist, mica schist, sheared conglomerate, graphite schist, and crystalline limestone mainly of sedimentary origin.

The older Yukon Group (Unit E - Bostock, 1942) (Schist Gneiss - D. J. Tempelman-Kluit, 1974) of rocks consists mainly of mica schists, hornblende schists, chloritic schists, actinolite schists, cyanite schists, greenstone schists, schistose quartzites, schistose amphibolites, mica gneisses, hornblende gneisses, gneissoid quartzites, and crystalline limestone that is in parts dolomitic. Several of the schistose rock types have been metamorphosed gradually and pass into corresponding gneissoid varieties. Particularly there is a transition between a mica and hornblende schist into mica hornblende gneisses. The schistose and gneissoid rocks are reported by D. P. Cairnes to be mainly of sedimentary derivation, but that some of the rocks may be of igneous origin. Because of the folding, faulting, contortion and high degree of metamorphism of the origin source rocks, the original sedimentary and igneous rock types are indistinguishable in the field. The schistose rocks and associated gneissoid rocks and crystalline limestone are similar to the schistose rocks of the Klondike and in other of the more important gold producing districts of Yukon and Alaska. These Schists Gneiss group of rocks underlie the Indian River and Scroggie gold-bearing districts.

Quartz veins are abundant in the metamorphic rocks of the Yukon Group, they consist of the Pelly Gneiss, Schist Gneiss, Klondike Schist, Nasina Quartzite and a Foliated Biotite Granodiorite (D. J. Tempelman-Kluit, 1974). The Klondike gold is thought to have been derived from the Klondike Schists. The Sixtymile gold source appears to be derived from the Nasina Quartzite and the gold source in the Indian River and Scroggie districts appear to be from a Schist Gneiss rock type that includes rocks of the Klondike Schist and Pelly Gneiss that are undifferentiated. Consequently, any of the members of the Yukon Group; Schist Gneiss, Klondike Schist or the Nasina Quartzite; probably contribute to the source of the placer gold, if gold carrying quartz veins have been injected into planes of foliation of the host rock. These Yukon Groups of rocks are a common factor in the Klondike and surrounding placer gold districts. The quartz veins are probably of different ages and possibly the vein material was injected into the host rocks from Permian(?) and/or Triassic(?) aged granitic or ultramafic intrusives.

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ROCK TYPES LITHOLOGY - G.S.C.

The following description of the PPsn - Schist Gneiss, PPsqm - Klondike Schist and PPqc - Nasina Quartzite is quoted from the G.S.C. Paper (pp. 20 - 23) 73-41, Reconnaissance Geology of Aishihik Lake, Snag and Part of Stewart River Map-Areas, West-Central Yukon by D. J. Tempelman-Kluit, 1974.

"*SCHIST AND GNEISS*

An unnamed assemblage of schist and gneiss (P Psn) is found in northeastern Snag map-area south of Yukon River and in eastern parts of Stewart River map-area. These rocks are recessive weathering and generally poorly exposed except along the Yukon River and some of its tributaries. Some good exposures are seen on the ridge between the Yukon and White Rivers.

The unit is made up largely of nondistinctive and monotonous muscovite-biotite quartzite and quartz mica schist, but it locally includes granodiorite gneiss and augen gneiss like the Pelly Gneiss. Minor amounts of amphibolite and coarsely crystalline marble are interfoliated with the schists. The rocks are metamorphosed to biotite grade (upper greenschist facies) and have a well-developed schistosity.

The rocks probably represent or include somewhat higher grade metamorphic equivalents of the Klondike Schist and Pelly Gneiss, but on the ridge between the White and Yukon Rivers Klondike Schist apparently overlies (structurally) the Schist-Gneiss unit. Mertie's (1937) Birch Creek Schist (also see Foster, 1970) which is probably equivalent to the Schist Gneiss unit is also thought to include metamorphic equivalents of Foster. The schist and gneiss is equivalent to, and continuous with, map unit E of Bostock (1942). The age of the rocks is unknown, but the unit was metamorphosed with the other rocks and it is therefore probably Paleozoic and/or older.

KLONDIKE SCHIST

The name Klondike Schist (PPsqm) is an informal one first applied by McConnell (1905a) to certain rocks in the Klondike district. The name as used here refers only to the characteristic lithologies and implies nothing regarding the age, thickness or stratigraphic relations of the rocks.

Rocks lithologically like McConnell's Klondike Schist (1905a) occur extensively in west-central Stewart River map-area and two small areas of these rocks are differentiated in northern Snag map-area. The rocks are recessive and weather a rather distinctive orange colour; they are generally poorly exposed even on ridge tops. The best area in which to see these rocks is on the hill at the head of Rice Creek. Similar lithologies are included locally in the Schist-Gneiss unit.

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Cockfield (1921, p. 14-18), and Green (1972, p. 109-110) give detailed lithologic descriptions of the Klondike Schist. Rocks of the unit include pale green, fine-grained, chlorite-muscovite-quartz schist with minor augen gneiss and amphibolite. All rocks have a well-developed, rather irregular foliation. Compositional layering, where seen, is a flaser structure that results from strong shearing and granulation. The latest recrystallization of the rocks postdates strong shearing. Metamorphism was of moderate to upper greenschist facies. Lenses and boudins of white quartz are common in the Klondike Schist and may total 5 percent of its volume. Amphibolite, an important constituent of this unit, is interfoliated with the micaceous schists and is itself an actinolite quartz schist.

The unit resembles map-unit B of Dawson map-area (Green, 1971) and map-unit B of Ogilvie map-area (Bostock, 1942). In Alaska similar rocks have been mapped by Foster (1970) as Klondike Schist.

Little is known of the stratigrapic relations of the Klondike Schist, but its spatial association with rocks of the Pelly Gneiss suggests that the two units are broadly contemporaneous. Their metamorphism is probably of the same age.

Cockfield (1921) and others give evidence suggesting that the Klondike Schist is metaigneous, but Green (1972) considers the unit metasedimentary.

Potassium argon age determinations of micas in the Klondike Schist in adjacent areas (Green, 1972, p. 116) suggest that this rock was last metamorphosed about early Mesozoic time and considering similar evidence for the Pelly Gneiss both units are probably pre-Mesozoic.

NASINA QUARTZITE

The name Nasina Quartzite (PPqc), first used by McConnell (1905a) refers to a group of rocks of distinctive lithology. The name is not intended to imply anything regarding age or stratigraphic relations. Nasina-type quartzite is found in small areas in northernmost Stewart River map-area, but in the project area its main exposures are in central Snag map-area. The unit is recessive weathering and good exposure are rare. The best area for study is on Stevenson Ridge where small exposures and plentiful float give a good impression of the unit. Some good exposures of these rocks are also found on Nisling River.

As detailed descriptions of the lithology of the Nasina Quartzite by Cockfield (1921, p. 14-15) and Green (1972, p. 108) are readily available only a summary is given here. Rocks of the Nasina Quartzite are dark grey to black, graphitic and micaceous quartzite with interfoliated graphitic biotite-muscovite schist. Thin colour lamination, the result of alternating layers of light and dark grey quartzite, is common and characteristic. The unit includes local thick lenses of grey laminated marble. The Nasina

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rocks are metamorphosed to greenschist facies and are of metasedimentary origin. They have a fairly well-developed schistosity and their recrystallization continued after minor structures were formed.

The Nasina Quartzite, like most other rocks of the Yukon Group, is probably pre-Mesozoic. Its metamorphism, inferred from age determinations of other Yukon Group strata, is probably Triassic. The stratigraphic relations of the Nasina Quartzite are unknown and give no clue about the age of the rocks. Cockfield (1921, p.16) contended that rocks of the Nasina 'series''are the oldest in the Sixtymile district, for they are cut or overlain by all the other rocks'. The writer saw no evidence to support this contention. Green (1972, p. 109) implies that the Nasina Quartzite is Paleozoic on the basis of fossils collected by him and by Mertie (1937). No fossils were found in the present investigation. The area of Nasina Quartzite in central Snag map-area is new and has not previously been studied, unlike the area in northern Stewart River map-area. These rocks have unfortunately yielded no new information on their age. Rocks like those of the Nasina Quartzite are included by Muller (1967, p. 22) in his map-unit 1 which includes equivalents of several map-units described herein. Some quartzite like that of the Nasina is found in northwestern Aishihik Lake map-area where it is included in the Biotite Schist unit."

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SIXTYMILE DISTRICT

TABLE OF FORMATIONS - STEWART SHEET

CENOZOIC

EOCENE OR YOUNGER

eTcv - Carmacks Group - andesite, basalt and flow breccia

eTvrp - Quartz Feldspar Porphyry

MESOZOIC

CRETACEOUS

LMqm - Quartz Monzonite

PALEOZOIC

CARBONIFEROUS AND/OR PERMIAN

Pv - Sheared Greenstone

PERMIAN AND/OR OLDER

Pt - Chert and Metachert

PPqmm - Foliated Muscovite Quartz Monzonite

PROTEROZOIC

PERMIAN AND/OR OLDER

PPgd - Foliated Biotite Granodiorite

PPqc - Nasina Quartzite

PPsqm - Klondike Schist

PPsn - Schist Gneiss

PPgdn - Pelly Gneiss

After Geology: D.J. Tempelman-Kluit, Paper 73-41, 1974

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Indian and Northern Affairs Canada | Affaires indiennes et du Nord Canada

AFFIDAVIT OF EXPENDITURE ON PROSPECTING LEASE
YUKON PLACER MINING ACT

RECEIVED
AUG 29 1988
MINING RECORDERS OFFICE
DAWSON, Y.T.
Office Date Stamp

Mining District: Dawson

1. (Name) R. G. HILKER

Of (Postal Address) 324 Silver Valley Rise N.W. Calgary, Alta. T3B 4B2

Hereby apply under Section 92(10) on 92(12) of the YUKON PLACER MINING ACT, for approval of work on Prospecting Lease Number 7792 issued 22 September, 19 87

Description of lease Unnamed Tributary of North Lodge River - 115-N-7 & 10 Commencing from Post #1 which is on an Unnamed L.L. Tributary of North Lodge River appx. 2500 ft upstream from its confluence with North Lodge River, thence upstream a max. distance of 4 miles and not to exceed Post #2.

I MAKE OATH AND SAY THAT –

1. Work has been done on the said lease to the value of at least $4,000.00 dollars between the 22nd day of Sept., 19 87 and the 28 day of Aug., 19 88.

2. Following is a detailed statement of the said work in accordance with proposal submitted.

(With a sketch showing location and type of worked attached) Placer Report - Geological evaluation of Sodo Creek (mineral, gradient width creek valley, bedrock types etc.) Pan sample creek and pup gravels - baseline cut on creek and ~~pup~~ baseline drained with 1400 feet pickets. Helicopter transportation to property. Report to be submitted by R. G. Hilker, P. Eng - placer engineer (Report to follow)

Sworn before me at Dawson City

in Yukon

This 29 day of August, 19 88

R. G. Hilker
Applicant

Notary Public

802-6000-8 (6-84)

Canada

Indian and Northern Affairs Canada / Affaires indiennes et du Nord Canada

APPLICATION FOR GRANT FOR PLACER MINING
SCHEDULE "A" - FORM 1
YUKON PLACER MINING ACT

This form to be submitted in duplicate to the Mining Recorder for the District in which the claim is situated, with a sketch of the location

Mining District: DAWSON

Office Date Stamp

I, (full name) ROBERT G. HILKER, occupation PROSPECTOR & PENG.

of (postal address) 324 SILVER VALLEY RISE N.W. - CALGARY, ALBERTA, T3B 4B2

hereby apply, under the Yukon Placer Mining Act, for a grant of a claim for Placer Mining as defined in the said Act in

(Here describe locality) Unnamed Tributary of North Sodue River (P) 115-N-7&10 (Staked from 4 mile PL 7792)

INSCRIPTION ON NO. 1 POST: POST #1, SODA #, 500 ft., 28 AUG. 1988 ROBERT G. HILKER

INSCRIPTION ON NO. 2 POST: POST #2, SODA #, 500 ft., 28 AUG. 1988 ROBERT G. HILKER

AND I MAKE OATH AND SAY THAT:

1. To the best of my knowledge and belief, the land is such as can be located under Section 17 of the said Act;

2. I did on the 28th day of AUGUST 19 88, mark out on the ground, in accordance in every particular with the provisions of the said Act, the claim for which I make this application and in so doing, I did not encroach on any other claim or mining location previously laid out by any other person;

3. The length of the said claim, as nearly as I could measure is 500 feet, and that the description sets forth to the best of my knowledge and ability, its position;

4. I staked out the claim by planting two legal posts numbered 1 and 2 respectively;

5. I make this application in good faith to acquire the claim for the sole purpose of mining to be prosecuted by myself, or by myself and associates or by my assignee.

Sworn before me at DAWSON CITY, Y.T.

this _____ day of AUGUST, 19 88

Notary Public

Applicant

Canada

GEOLOGY LEGEND

CENOZOIC

EOCENE

- etcv — Carmacks Group
- eTvrp — Quartz Feldspar Porphyry

MESOZOIC

CRETACEOUS

- LMqm — Quartz Monzonite

PALEOZOIC

CARBONIFEROUS and/or PERMIAN

- Pv — Sheared Greenstone

PERMIAN and/or OLDER

- Pt — Chert and Metachert
- PPqmm — Foliated Muscovite Quartz Monzonite

PROTEROZOIC and/or OLDER

PERMIAN

- PPgd — Foliated Biotite Granodiorite
- PPqc — Nasina Quartzite
- PPsqm — Klondike Schist
- PPsn — Schist Gneiss
- PPgdn — Pelly Gneiss

Geology by: D.J. Tempelman-Kluit
Paper 73-41, Map 18-1973

FIGURE No. 4

NORTH LADUE RIVER GENERAL GEOLOGY

DATE: AUG. 1988 | SCALE: 1: 250,000

R.G. Hilker, P.Eng.
Calgary, Alberta.

NORTH LADUE RIVER AREA GEOLOGY

The oldest rocks in the Ladue River, North Ladue River, and Matson Creek area are Precambrian-aged Proterozoic units of Pelly Gneiss, Schist Gneiss and Klondike Schist. The three units were previously contained in the Yukon Group. The Proterozoic-aged Nasina Quartzite occurs on the divide between the Sixtymile and Forty Mile drainage. Immediately north of the left fork of the North Ladue River, a stock of Paleozoic foliated muscovite quartz monzonite occurs. In the north part of the map sheet and located at the head of Boucher Creek, a Permian-aged unit of chert and metochert is exposed. On the right limit of the Ladue River and northwest from the White River, a Carboniferous or Permian-aged sheared greenstone outcrops. Cretaceous-aged quartz monzonite plugs are located on the south end and east side of the North Ladue River and north of the right fork. Two stocks of Cenozoic Eocene-aged quartz feldspar porphyry are located on the North Ladue River and the fork between Matson and Marion Creeks. A large formation of the Carmacks Group andesite, basalt and flow breccia extrudes east of Matson Creek and the Sixtymile River. The North Ladue River drainage system and upper twelve miles of Matson Creek is located within the Klondike Schist unit of metamorphic rocks that are PROTEROZOIC AND/OR PALEOZOIC in age. The lower eighteen miles of Matson Creek is bounded on the north-west side by the Pelly Gneiss unit that is PROTEROZOIC in age; and on the south-east side by CENOZOIC age Carmacks Group volcanics and intrusive Quartz Feldspar Porphyry. The North Ladue River and Matson Creek drainage system is located within approximately 360 square miles of the Klondike Schist rock formation. The area north-west of the confluence of Matson and Pine Creeks is underlain by the Pelly Gneiss and to the south-west by Quartz Feldspar Porphyry. The geology of the area is contained on the Geological Survey of Canada Maps: Ogilvie Map 711A by H. S. Bostock (1935) and Stewart River, Paper 73-41 by D. J. Tempelman-Kluit in 1970-1971-1972. The recent geology mapping is better correlated over large areas and the ages of the formations have been more reliably determined.

CENOZOIC

Eocene or Younger

CARMACKS GROUP: brown-weathering, brown, green and red andesite, basalt and flow breccia.

QUARTZ FELDSPAR PORPHYRY: light coloured acid quartz feldspar porphyry and rhyolite; minor acid tuff breccia, crystal lithic tuff and ignimbrite.

PROTEROZOIC

Permian and/or Older

KLONDIKE SCHIST: black and orange weathering well foliated pale green chlorite muscovite quartz schist; includes augen gneiss and amphibolite.

PELLY GNEISS: strongly foliated to gneissic muscovite chlorite biotite granodiorite; minor augen gneiss; grades locally to garnetiferous amphibolite.

Geology by - D. J. Tempelman-Kluit

The North Ladue River and upper Matson Creek drainage system and tributaries are all situated in the Klondike Schist. The whole of the rich Klondike Gold Field is similarly located in the rock types of the Klondike Schist.

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TOPOGRAPHY

The Sixtymile, North Ladue River, and Matson Creek area gold district is situated east of the Alaska-Yukon boundary between latitude 63°15'N to 64°10'N latitude. The area is bounded on the north by the divide between Sixtymile and Forty Mile drainage system; on the east by the Sixtymile and Yukon Rivers; on the south by the White and Ladue Rivers; and on the west by the Alaska boundary. The area is unglaciated and is a Tertiary accordance summit level in that the hill tops or mountain summits over a region have approximately the same elevation. The original peneplain has become naturally dissected by the drainage system over the past 65 million years. The higher ridges in the area are 4,500 feet in elevation. At Matson Creek on the Sixtymile River to Upper Matson Creek the terrain generally rises from an elevation of 1,500 feet to a headwater elevation of 4,000 feet. The valleys are V-shaped in cross-section with interlocking spurs. The creek valleys and spurs are a characteristic type of depression which develop over a long length of time in an unglaciated region.

The position of the creeks to sun exposure during the long daylight hours in the summer months has caused a thawing effect on north and east slopes in the area; consequently, alternate thawing and freezing conditions have caused erosion, land sliding and creeping on the north and east slopes of the unconsolidated gravels. Therefore, any gold-bearing terrace gravels are re-deposited into the creek bottom over previously deposited creek gravels. Alternatively, the south and west facing terrace gravels are in their original deposition position and have been uplifted to their present elevation above the creek valley bottom. The creeks in the area are not cutting deeper into the present valley bottoms due, probably, to bedrock grade and frozen gravel conditions. The valleys in the area have a main terrace and gravels that are located between 50 to 75 feet above the present stream level.

GOLD BEARING GRAVELS

In the Sixtymile area the gold occurs in the present creek bottom gravels, in bench gravels on the terrace and in re-concentrated bench gravels which have been deposited over the creek gravels. The bench terrace gravels contain the original concentrate of gold and the creek or valley gold-bearing gravels are derived from bench gravels and are, therefore, a secondary concentrate. In parts where there have been land slides and creeping of material off the north and east facing slopes, then a third concentrate of gold-bearing gravels occurs.

1st concentrate ---------- Bench gravels from terrace
2nd concentrate ---------- Creek gravels
3rd concentrate ---------- Overlying creek gravels

Terrace - A relatively flat, and sometimes long and narrow, surface commonly bounded by steep upslopes and downslopes on opposite sides. Gravel terraces may be stepped, and they are commonly dissected by traverse drainage patterns.

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PLACER PROPERTY DEVELOPMENT

GENERAL

Since the discovery of gold in the Yukon Territory at Forty Mile in 1886, the Sixtymile in 1892, the Klondike in 1896 and at Scroggie in 1898, the value of gold, method of recovery, and location have determined a placer gravel reserve. The economics of the time period involved had the effect of delineating profitable gravels from non-profitable gravels for the recovery of gold. The method of testing gravels for economic gold content varied with available financing, mining method and quantity of gravel to be mined.

The mining method chosen required a low volume or high volume of gravels to be processed; the methods were further affected by the technology available during a specific time period. The operation methods employed since 1881 have varied: river sand-bars by hand-rocking; on creeks and benches by hand-mining from a shaft and drifting laterally; hydraulicking and ground sluicing when water was available; dredging creek gravels; and by mechanical heavy duty equipment. Testing of placer gravels has been by hand-sunk shafts, hammer drilling, hand panning and by test cuts and pits excavated by machinery. Generally, because of the heterogeneous nature of placer gold distribution in the gravels, a large volume bulk sample of the gravels being tested is preferable to a small sample. However, placer gold usually occurs on or near the bedrock trap which retains the heavy gold particles and other heavy mineral concentrates; it is therefore necessary to test the surface area of bedrock and at depth into bedrock. When testing bedrock, the best method is to hand-pan bedrock samples that have been taken from surface and a few inches into the host rock. The strike, dip and type of host rock should be noted and recorded.

To explore, develop and place into production a placer property, the following described procedure is necessary and essential:

1. Basic Placer Exploration:

   - Exploration drilling
   - Detail drilling
   - Development drilling

   and/or

   - Pit samples (triangle method)
   - Open cut bulk sample
   - Payzone sample (backhoe)

2. Placer Feasibility Study:

   - Grade and volume
   - Mining plan
   - Costs/expenditures for development

3. Placer Production:

   - Placer operation
   - Operating costs

The average value of gold contained in the combined volumes of gravel and overlying black muck for the entire Klondike gold fields is reported to be 0.012 oz./cu. yd. or 0.373 gms/cu. yd. (Personal communication - R. L. Debicki).

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Ontario Securities Commission Policy

1) Ore and Grade Classification: Canadian Securities Law Reports. The Ontario Securities Commission states in Policy 2, Statement (54 - 839), that care should be taken in the use of the word "ore", when preparing Engineer's Reports for securities purposes. The term "ore" is defined in the most recent Ontario Regulations as follows:

(a) *ORE - means a natural aggregate of one or more minerals which, at a specified time and place, may be mined and sold at a profit, or from which some part may be profitably separated;*

(b) *Proven Ore or Measured Ore - means that material for which tonnage is computed from dimensions revealed in outcrops or trenches or underground workings or drill holes and for which the grade is computed from the results of adequate sampling, and for which the sites for inspection, sampling, and measurement are so spaced and the geological character so well defined that the size, shape, and mineral content are established, and for which the computed tonnage and grade are judged to be accurate within limits which shall be stated and for which it shall be stated whether the tonnage and grade of proven ore or measured ore are in situ or extractable, with dilution factors shown, and reasons for the use of these dilution factors clearly explained;*

(c) *Probable Ore or Indicated Ore - means that material for which tonnage and grade are computed partly from specific measurements, samples, or production data, and partly from projection for a reasonable distance on geological evidence, and for which the sites available for inspection, measurement, and sampling are too widely or otherwise inappropriately spaced to outline the material completely or to establish its grade throughout;*

(d) *Possible Ore or Inferred Ore - means that material for which quantitative estimates are based largely on broad knowledge of the geologic character of the deposit and for which there are few, if any, samples or measurements, and for which the estimates are based on an assumed continuity or repetition for which there are reasonable geological indications, which indications may include comparison with deposits of similar type, and bodies that are completely concealed may be included if there is specific evidence of their presence.*

Note: *Where the word "ore" may not properly be used, such terms as "mineralization", "mineralized bodies" or "concentrations", etc., should be used.*

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PLACER EXPLORATION EXPENDITURES

Lease To Prospect - PL7792: Robert G. Hilker

1) Soda Creek - (Lat. 63°30'N - Long. 140°50'W) a left-limit tributary of the North Ladue River, NTS Sheets 115-N-10 and 115-N-7.

- Length - 4 miles (20,000 ft.) or 6.44 km (6,436 meters)
- Elevation Headwaters - 3,500 ft. (1,066.7 meters)
- Elevation Mouth - 1,750 ft. (533.37 meters)
- Difference Elevation - 1,750 ft. (533.37 meters)
- Gradient Creek - 8.75%
- Lower Soda Creek (13,000 ft. - rise 600 ft.) Gradient 4.6%

The anniversary date of PL7792 is the 22 September 1988, and expenditures of at least $4,000.00 for assessment work was filed on the lease the 29 August, 1988. Robert G. Hilker travelled from Calgary, Alberta on August 21-23 to Whitehorse and to Dawson City on August 25. On August 26 and 28, R. G. Hilker examined the lease PL7792 and hand panned creek gravels from four test sites. Commencing at Post #1 - PL7792, on August 27 and 28, a 20,000 foot baseline was cut and chained each 1+00 feet on the lease by linecutting contractor Denis Jacobs - Coureur Des Bois Ltd., Whitehorse. Transportation expenditures to the North Ladue property were incurred August 26 and 28, 1988. The Soda baseline was cut and chained for location of placer test sites and future exploration work on Soda Creek.

Table #1

Test Site	B.L. Location	Approx. Weight	Gold Colors	Heavy Concentrate
S-01	40+00 ft.	100#	1 f.s.	Magnetite
S-02	60+00 ft.	100#	1 f.s.	Magnetite
S-03	66+00 ft.	100#	Nil	Magnetite
S-04	80+00 ft.	100#	Nil	Magnetite

Note: All samples panned were creek "Klondike Gravel" - one pan of creek gravels weighs approximately 25 lbs. and there is approximately 132 pans of gravel per cubic yard - 3,300 lbs.

2) Soda Creek baseline 20,000 feet (4 miles) contract cost of $400/mile or $1,600.00 (included all camp, travel and labour costs). Two line-cutters slashed and chained the creek baseline.

3) Rotary blade helicopter flying costs to Gemini and Soda creeks, North Ladue River area - Trans North Air August 26 - $1,287.30 and August 28 - $1,042.10 or (pro-rated for expenses on Soda Creek - $1,164.70).

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4) Placer Gold Evaluation Report - Effective Date - August 29, 1988 (pro-rated expenditure $3,116.15).

5) Mr. R. H. Whittingham - Mining Recorder, Dawson Mining District, Y.T. - Robert G. Hilker requests that the contents of this Placer Gold Evaluation Report - Effective Date August 29, 1988 be "CONFIDENTIAL" until such time as the placer claims Soda 1 - 30 (incl.) reverts to the Crown.

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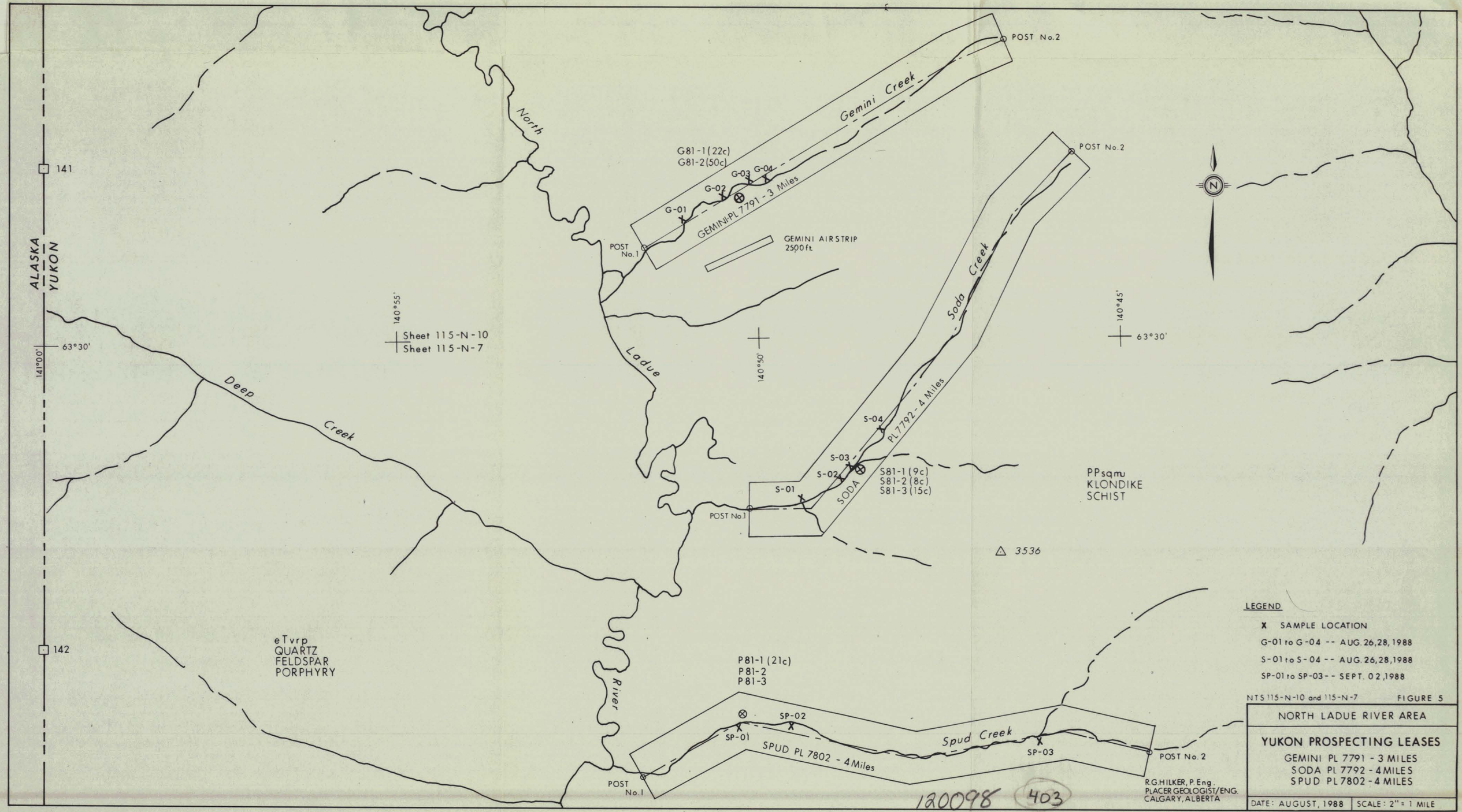

LEGEND

X SAMPLE LOCATION

G-01 to G-04 -- AUG. 26,28, 1988

S-01 to S-04 -- AUG. 26,28,1988

SP-01 to SP-03 -- SEPT. 02,1988

NTS 115-N-10 and 115-N-7 FIGURE 5

NORTH LADUE RIVER AREA

YUKON PROSPECTING LEASES

GEMINI PL 7791 - 3 MILES
SODA PL 7792 - 4 MILES
SPUD PL 7802 - 4 MILES

DATE: AUGUST, 1988 | SCALE: 2" = 1 MILE

R.G. HILKER, P. Eng.
PLACER GEOLOGIST/ENG.
CALGARY, ALBERTA

120098 403

NORTH LADUE RIVER ECONOMIC GEOLOGY

General

The North Ladue River valley and ten tributary creeks were placer drilled September 7 - November 5, 1981. Exploration drilling was conducted to collect the maximum amount of basic placer data within the drainage system. The 1981 drilling conducted in 90 locations in the North Ladue River valley and on ten tributary creeks indicated gold bearing paystreaks. There was a total of 3,987 feet of drilling completed in 90 holes. Three of the right-limit tributary creeks drilled indicated a possible gold paystreak.

1) Gemini Creek - excellent gold colours
2) Soda Creek --- excellent gold colours
3) Spud Creek --- favourable gold indications

The drill cuttings were processed in a small aluminum long-tom or small sluice box and the heavy concentrates recovered from the nomad matting. The heavy concentrates were hand-panned and a count was made of gold colours present. The small sample was then dried and placed in plastic containers with snap-on lids. The dried sample was checked for magnetite content and other minerals present, and the container labelled with hole number, footage of sample, number of gold colours when present, and creek name. A drill log was made of each hole and all pertinent data noted and documented. The samples require to be further checked by a geologist, using a binocular microscope to further identify heavy minerals that may be present in the concentrate.

- Two feet of 6 5/8" OD drill hole produced approximately 65 pounds of gravel, sand and silt cuttings.

- Each drill hole provided useful placer data such as thickness of black muck and gravels, type of gravels, bedrock depth and composition, clay layers, and amount of heavy concentrate.

1) Summary 1981 Placer Drill Program:

Total number of holes completed	90 holes
Total footage drilled on 11 creeks	3,987 feet
Total number of days drilled	33 days
Average number of holes drilled/day	2.73 holes/day
Average footage drilled/day	120.8 feet/day

Gemini Creek

Hole Nos. G 81-1 & 2
Total of two holes
Total footage: 96 feet
(Excellent gold indications)

Soda Creek

Hole Nos. 581-1 to 581-3
Total of three holes
Total footage: 137 feet
(Excellent gold indications)

Spud Creek

Hole Nos. SP 81-1 to SP 81-20
Total of twenty holes
Total footage: 789 feet
(Favourable gold indications)

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NORTH LADUE RIVER PROJECT
1981 Placer Drilling Summary
September 07 - November 5, 1981

Drill Hole #	Location	Total Depth	Black Muck	Gravels	Bedrock
		Ft.	Ft.	Ft.	Ft.
Gemini Creek					
G 81-1	GEMINI #10	54	0-13	13-40	40-54
G 81-1	GEMINI #10	42	0-6	6-42	---
Soda Creek					
S 81-1	SODA #13	36	0-12	12-28	28-36
S 81-2	SODA #13	51	0-10	10-48	48-51
S 81-3	SODA #13	50	0-4.5	4.5-50	---
Spud Creek					
SP 81-1	SPUD #11	40	0-4	4-36	36-40
SP 81-2	SPUD #11	50	0-14	14-43	43-50
SP 81-3	SPUD #11	27	0-12	12-26	26-27
SP 81-4	SPUD #16	38	0-4	4-36	36-38
SP 81-5	SPUD #16	40	0-12	12-38	38-40
SP 81-6	SPUD #16	42	0-11	11-42	---
SP 81-7	SPUD #22	24	--	0-22	22-24
SP 81-8	SPUD #22	44	0-12	12-44	---
SP 81-9	SPUD #22	54	0-12	12-52	52-54
SP 81-10	SPUD #22	58	0-22	22-58	---
SP 81-11	SPUD #25	20	0-7	7-19	19-20
SP 81-12	SPUD #25	38	0-12	12-36	36-38
SP 81-13	SPUD #25	56	0-22	22-56	---
SP 81-14	SPUD #35	32	0-14	14-30	30-32
SP 81-15	SPUD #35	30	0-10	10-28	28-30
SP 81-16	SPUD #35	40	0-12	12-34	34-40
SP 81-17	SPUD #36	34	0-4	4-29	29-34
SP 81-18	SPUD #36	40	0-8	8-37	37-40
SP 81-19	SPUD #36	44	0-4	4-44	---
SP 81-20	SPUD #36	38	0-18	18-38	---

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ECONOMIC GEOLOGY
Summary of Gold Colours - Drill Cuttings
North Ladue River Project

Drill Hole #	Location	Total Depth Ft.	Sample Footage	Sample Length Ft.	Colours	Remarks
Gemini Creek						
G 81-1	GEMINI #10	54	13-30	17	1 large	Black sands
			30-40	10	22 clrs	Black sands
			40-54	14	nil	Black sands
G 81-2	GEMINI #10	42	6-36	30	---	Minor conc.
			36-42	6	50 clrs	Abd. blk. sands
Soda Creek						
S 81-1	SODA #13	36	12-36	24	9 clrs	Black sands
S 81-2	SODA #13	51	10-36	26	8 clrs	Abd. blk. sands
			36-51	15	---	Abd. blk. sands
			30-48	18	Possible platinum mineral	
S 81-3	SODA #13	50	4.5-36	31.5	4 clrs	Black sands
			36-50	14	15 clrs	Black sands
Spud Creek						
SP 81-1	SPUD #11	40	4-28	24	29 clrs	Black sands
			28-40	12	nil	---
SP 81-2	SPUD #11	50	14-38	24	3 f.s.	---
			38-50	12	nil	Minor blk. sands
SP 81-3	SPUD #11	27	16-27	11	3 clrs & 4 f.s.	---
SP 81-4	SPUD #16	38	7-26	19	2 f.s.	Black sands
			26-38	12	---	Minor blk. sands
SP 81-5	SPUD #16	40	12-28	16	10 f.s.	Black sands
			28-40	12	10 f.s. & 1 colour	Black sands
SP 81-7	SPUD #22	24	0-24	24	1 f.s.	Minor blk. sands
SP 81-8	SPUD #22	44	12-30	18	1 colour	Minor blk. sands
			30-44	14	---	Minor blk. sands
SP 81-9	SPUD #22	54	12-26	14	3 f.s. & 1 colour	Black sands
			26-40	14	3 f.s. & 4 clrs	Black sands
			40-54	14	3 f.s.	Black sands
SP 81-10	SPUD #22	58	22-42	20	5 f.s.	Black sands
			42-52	10	1 lrg clr	Black sands
			52-58	6	---	Minor blk. sands

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Gold Colours/Drill Cuttings Summary - Continued

Drill Hole #	Location	Total Depth	Sample Footage	Sample Length	Colours	Remarks
SP 81-11	SPUD #25	20	7-20	13	9 f.s.	Black sands
SP 81-13	SPUD #25	56	22-46	24	6 f.s.	Minor blk. sands
			46-56	10	4 f.s.	Minor blk. sands
SP 81-15	SPUD #35	30	10-20	10	2 f.s.	Minor blk. sands
			20-30	10	1 colour & 6 f.s.	Minor blk. sands
SP 81-16	SPUD #35	40	12-26	14	1 colour & 6 f.s.	Black sands
			26-40	14	1 f.s.	Minor blk. sands
SP 81-17	SPUD #36	34	10-24	14	3 f.s.	Minor blk. sands
			24-34	10	---	Minor blk. sands
SP 81-18	SPUD #36	40	8-30	22	8 f.s.	Minor blk. sands
			30-40	10	10 f.s.	Minor blk. sands
SP 81-19	SPUD #36	44	12-24	12	10 f.s.	Minor blk. sands
			34-44	10	2 f.s.	Minor blk. sands
SP 81-20	SPUD #36	38	18-38	20	5 f.s.	Black sands

Note: f.s. = fine specks
clr = colour
clrs = colours

The gold recovered at the Matson Creek placer operation has an average fineness of 885 and varies to highs of 887 - 892. The North Ladue River tributaries Gemini-Soda and Spud creeks are located approximately six miles west of the Matson Creek placer mining operation. For calculation purposes the writer will assume that the Gemini-Soda and Spud creeks gold recovered in the drill cuttings during 1981 has a fineness similar to the Matson Creek gold. Therefore, the Gemini-Soda and Spud creeks gold has an inferred fineness of 875.

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Gold Color Classification Method

Gravel samples gathered from a placer prospect on drill cuttings are hand panned and checked for "colors" of gold per pan. Samples are usually collected from drill holes, test pits, shafts, or dug from creek beds or benches. The "pan factor" is the weight of gravels contained in the standard size pan and must be determined. The pan of gravels can then be related to a portion of a cubic yard of unconsolidated material tested. The gold color classification method, in a pan of gravels, is only an estimation of the value per cubic yard of material checked. A standard pan of gravels weighs approximately 25 pounds and there are 135 pans per cubic yard of bank measure gravels, with a weight of 3,300 - 3,400 pounds per cubic yard.

Placer drill hole volume of samples or core obtained is represented by a cylinder whose length is equal to the depth of hole and the diameter of the drill bit.

1) Value per cubic yard = $\frac{\text{mgs gold recovered X price per mg}}{\text{volume (in cubic yards)}}$

2) Classification of Colors:

No. 1 - particles over 4 mg (20 mesh particle 6.57 mg).

No. 2 - particles weighing between 1 - 4 mg (40 mesh particles 0.91 mg).

No. 3 - particles less than one mg (60 mesh particles 0.27 mg).

- one fly speck of gold is estimated to weigh one mg or 0.0001 gram or less.

Calculation Factors - Gemini/Soda/Spud Creeks

a) Inferred fineness 875.

b) Calculated value based on gold price of $575/per fine troy ounce Cdn.

c) 31.1035 grams - 1 oz. troy and 1,000 mg/gram.

d) Volume 0.0085355 cy per foot depth in a drill hole with a 6½ inch diameter cutting edge bit.

e) Gold Value: $18.49 gm X 0.875 - $16.19 per gram.
Gold Value: 1.619 cents per mg.

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INFERRED GRADE AND VALUE - Gemini/Soda/Spud Creeks

Drill Hole #	Gravel Footage	Sample Length Ft.	Gold Colors	Est. Weight Mg	Value Cy Yd	Inferred Grade
Gemini Creek						
G 81 - 1	13 - 30	17	#1 - 1 lg	25	$ 2.79	0.005 oz cy
	30 - 40	10	#1 - 22	154	$29.20	0.051
	(40 - 54)					
G 81 - 2	6 - 36	30	---	---	----	
	36 - 42	6	#1 - 50	350	$110.70	0.192
	(42 -)	BR				
Soda Creek						
S 81 - 1	12 - 36	24	#1 - 9	63	$ 4.98	0.009
	(28 - 36)	BR	----	---	----	
S 81 - 2	10 - 36	26	#1 - 8	56	$ 4.09	0.007
	36 - 48	12	----	---	----	
	(48 - 51)	BR				
S 81 - 3	4 - 36	32	#1 - 4	28	$ 1.70	0.003
	36 - 50	14	#1 - 15	105	$14.22	0.025
	(48 - 50)	BR				
Spud Creek						
SP 81 - 1	4 - 28	24	#1 - 29	203	$16.04	0.028
	28 - 36	8	----	---	----	
	(36 - 40)	BR				

Note - Drill holes on Gemini and Soda Creeks only indicate gold values on a single line within the creek valley. Further exploration and detail drilling is required to delineate a possible gravel payzone.

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CONCLUSIONS AND RECOMMENDATIONS

Conclusions

1) Sixtymile Gold District/North Ladue River Area

The Sixtymile gold district is situated east of the Alaska-Yukon boundary between latitude 63°15'N to 64°10'N. The area is bounded on the north by the divide between the Sixtymile and Forty Mile drainage system; on the east by the Sixtymile and Yukon Rivers; on the south by the White and Ladue Rivers, and on the west by the Alaska boundary. The general Sixtymile district that is referred to by the writer in this report encompasses an area of approximately 1,900 square miles. The area described is roughly 64 miles long between Moose Creek at the north limit and the Ladue River at the south end. The region is approximately 32 miles wide between the Alaska-Yukon boundary and east to the Sixtymile and Yukon Rivers. The Klondike gold district is within an area of approximately 800 square miles and is located about 48 miles east of Glacier Site.

2) The site of Glacier is accessible by vehicle from Dawson City via the Sixtymile Highway and by a secondary road to Glacier Creek. The road system is approximately 65 miles in length from Dawson City to Glacier Creek on the Sixtymile River. A tractor tote trail has been constructed south of Bedrock Creek and the Sixtymile River to the headwaters of the right fork of the North Ladue River. A tractor trail is located downstream on the North Ladue River to Cassidy Creek and then upstream on Cassidy Creek to the divide with Matson Creek. The tote road continues south of Cassidy Creek on the east side of the North Ladue River to Gemini, Soda and Spud Creeks. Within the North Ladue River tributary area, two airstrips are located on ridges adjacent to Cassidy and Gemini creeks approximately 65 airmiles west of Dawson City.

3) The Yukon Leases To Prospect Gemini PL7791, Soda PL7792 and Spud PL7802 are located on right-limit tributaries of the North Ladue River. The placer leases are recorded in the Dawson Mining District - Yukon Territory, and plotted on NTS Sheets 115-N-7 and 10. The leases are located approximately near Latitude 63°16'N and 63°46.8'N; Longitude 141°00'W and 140°35'W.

4) The North Ladue River and upper Matson Creek drainage system and tributaries are all situated in Klondike Schist bedrock. The Klondike Gold District is underlayed by Klondike Schist rock types. Gemini-Soda and Spud creeks contain Klondike Schist gravels that are similar to the pay gravels within the drainage system in the Klondike Gold District.

5) During the fall of 1981 an exploration placer drill program was conducted within the North Ladue River valley and tributaries system.

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6) The North Ladue River tributaries Gemini-Soda and Spud Creeks were placer drilled in September and October, 1981.

Gemini Creek

Hole Nos. G 81-1 & 2
Total of 2 holes
Total footage: 96 feet
(Excellent gold indications)

Spud Creek

Hole Nos. SP 81-1 to SP 81-20
Total of 20 holes
Total footage: 789 feet
(Favourable gold indications)

Soda Creek

Hole Nos. 581-1 to 581-3
Total of 3 holes
Total footage: 137 feet
(Excellent gold indications)

7) The average value of gravels within the Klondike and Sixtymile Gold Districts are:

a) Average Grade Total Gravel: 0.012 oz. per cy
Average Value Gravel ($575 Cdn.): $6.90 cy
Average Klondike Fineness is 800.

8) Matson Creek - During the time period of 1978 - 1985, a mining operator sluiced approximately 317,000 cy of gravels that contained a weighted average grade of 0.019 oz. cy gold.

a) Average Grade Production: 0.019 oz. cy
Average Value ($575 Cdn.): $10.92 cy
Average Matson Fineness is 885.

The Matson Creek operations indicated that high grade gold pockets or "glory holes" occur in select areas of creek gravels. The richest placer gravels discovered occurred within an ancient bend of Matson Creek and the mouth of Bow Pup. The "glory hole" produced a total of 4,515 ounces of gold valued at $2,596,000 Cdn. at a gold price of $575 oz. Cdn.

b) 1978 Matson Reported Production (Glory Hole)
- Inferred Grade: 0.035 oz. cy
- Possible Value ($575 Cdn.): $20.12 cy

c) 1979 Matson Reported Production (Glory Hole)
- Inferred Grade: 0.044 oz. cy
- Possible Value ($575 Cdn.): $25.30 cy

d) 1979 Matson Reported Production (Glory Hole)
- Inferred Grade: 0.142 oz. cy
- Possible Value ($575 Cdn.): $81.65 cy

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9) North Ladue River tributaries Gemini-Soda and Spud Creeks are located approximately 6 miles west of the Matson Creek placer gold production area. Placer drilling in 1981 indicated economic gold values in hole G81-2 located on Gemini Creek. The drilling was conducted in one limited area of the creek and suggests a "glory hole" window.

a) Gemini Creek drill hole G81-1
   - Inferred Grade: 0.051 oz. cy
   - Probable Value ($575 Cdn.): $29.20 cy

b) Gemini Creek drill hole G81-2
   - Inferred Grade: 0.192 oz. cy
   - Probable Value ($575 Cdn.): $110.70 cy
   - Inferred Gemini Fineness is 875.
   - Possible indication of "glory hole" pocket

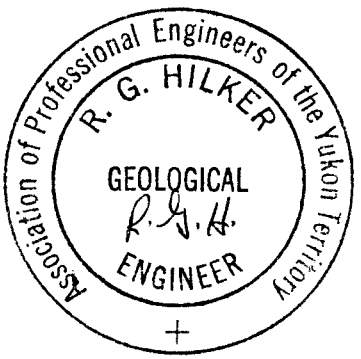
10) Leases To Prospect - North Ladue River Area

Creek	Lease Prospect	Length	Registered Owner	Anniversary Date
Gemini	PL #7791	3 miles	Roxanne Hilker	22 Sept. 1988
Soda	PL #7792	4 miles	R. G. Hilker	22 Sept. 1988
Spud	PL #7802	4 miles	G. W. Crawford	09 Oct. 1988

The reader is cautioned that the writer, R. G. Hilker, has a "direct interest" in the placer property and is the owner of the Soda Creek Lease To Prospect #7792.

11) The placer gold bearing gravels indicated on Gemini-Soda and Spud Creeks warrants exploration drilling and bulk sample testing.

12) Placer Mining Costs - The total operating costs on Gemini Creek should average between $8.00 - $10.00 per cubic yard. The operating costs would include black muck stripping, mining gravels, sluicing and all related costs. The mining operation would be based on 100,000 cubic yards of material per season, using two tractors, a front-end loader and sluice box. The operating expenditure based on $8.00 per cubic yard of material sluiced and 100,000 cubic yards handled would, therefore, be approximately $800,000. The greatest cost of mining may possibly be $10.00 per cubic yard of sluiced material.



R. G. Hilker, P. Eng.
Calgary, Alberta
August 29, 1988

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Recommendations

1) Placer drilling in 1981 has indicated potential possible pay gravels on Gemini-Soda and Spud Creeks. The writer recommends that further exploration placer drilling be concentrated on 'Soda' Creek in the area of drill hole S81-3.

   a) Exploration Drilling: When a few holes are drilled on a creek to discover indications of placer gold. The drill holes are located on a drill line perpendicular to the creek and holes are spaced 100 feet apart.

   b) Detail Drilling: After the initial exploration drilling has proven gold colours, then a broad spaced drill line pattern is required to establish the location of a possible "paystreak".

   c) Development Drilling: If detail drilling has indicated and broadly delineated a paystreak in a lateral direction, then further detail drilling is required. The development drilling would delineate the paystreak in detail to permit accurate calculation of gold grade and volume of gravels in cubic yards.

2) Placer Drill - The Model H-180 drill unit employs a diesel pile hammer for percussion drilling into overburden. The hammer drill has been used extensively and with unqualified success in permafrost, rubble, glacial tills and deposits of alluvials and tailings. Soft or broken bedrock formations can be penetrated rapidly and effectively by the H-180 Hammer Drill.

3) The North Ladue River placer property requires exploration drilling prior to any bulk sample testing in the creek gravels. The writer recommends that exploration drilling be conducted on Gemini Creek.

   a) Exploration Drilling: Placer drilling will be required to sample the creek gravels to determine the grade of gold and delineate the paystreak. The most cost efficient placer drill available is the Drill Systems - AP1000 (diesel hammer and reverse circulation drill). The drill utilizes dual tube rods and air to transfer the cuttings up the inner tube. The hammer-reverse circulation drill is a time proven placer gravel recovery system:

      - The cuttings are a representative sample when using 6 5/8" bit.

      - Fast and efficient method - the drill production would vary from 120 - 140 feet per 12 hour shift with holes 25 feet in depth.

      - Virtually uncontaminated samples are recovered in a "cyclone" each two feet.

      - Cost efficient method of drilling - approximately $150/hour or less on a large contract, plus mobilization, fuel and crew camp costs.

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b) The pre-production drilling information is necessary prior to planning a mining operation. Drilling exploration confirms gravel reserves, delineates paystreak and drill proven grade of gravels. The most cost efficient method of placer mining can then be planned for a continuous operation.

4) The drill program should be conducted during the early summer field season of April - May or June - July. The writer recommends that a Model H-180 diesel hammer drill manufactured by Drill Systems, Calgary, Alberta be used for the drill program.

5) The writer recommends that further exploration be concentrated on Gemini Creek for potential areas favourable for "glory hole" type of deposits.

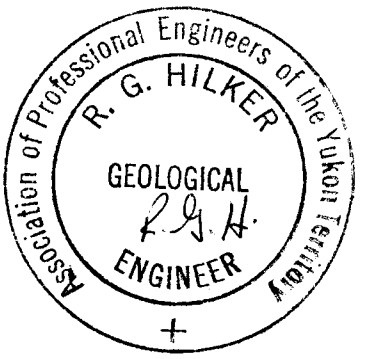
6) Pay gravel areas delineated by placer drilling are recommended to be bulk sample tested. A large 50,000 cubic yard gravel test sample processed in a sluice washing plant would indicate reliable gold grade values. The complete drill program data collected in an exploration area should be precisely documented and reported by placer engineering standards and methods. When the drill program is completed, in the four exploration areas, and contingent to favourable results in one or more areas, a second Stage-2 bulk sample operation is recommended.

a) Open-cut mining and washing plant recovery system for gold bearing placer gravels.

7) All placer exploration testing, drilling and sluicing programs should be designed and supervised by a placer engineer, to establish and certify gold values and delineated gravel reserves.

8) Special placer sample processing equipment is required to recover gold from heavy concentrate.

9) The Leases To Prospect PL7791, PL7792 and PL7802 are to be converted to "placer claims" prior to exploration work. The placer claims can then be grouped and all exploration expenditures applied for assessment work purposes.



R. G. Hilker, P. Eng.
Calgary, Alberta
August 29, 1988

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ESTIMATED COST OF PROGRAM

The estimated costs of a Stage-1 Drill Exploration Program and contingent Stage-2 Mining Operation is for the 'Soda' Property - North Ladue River

STAGE-1

1)	Track Mounted Contract Drill - AP-1000		$140,000
	- Drill Mobilization	$ 15,000	
	- Crew Mobilization	2,000	
	- Contract 2 months	100,000	
	- Demobilization	15,000	
	- Contingency	8,000	
2)	Nodwell 110 Carrier		25,000
	- Rental 2 months	$ 10,000	
	- Operator 2 months	10,000	
	- Misc. Expenses	5,000	
3)	Diesel Fuel and Flying		18,000
	- 5,000 gals. @ $3.25/gal.	$ 16,250	
4)	Placer Samplers		16,000
	- 2 samplers @ $4,000/m - 2 months		
5)	Placer Sampling Processing Equipment		10,000
6)	Placer Testing Camp Costs		27,000
	- 6 men for 60 days (360 days @ $75/day)		
7)	Flying Costs		25,000
	- Fixed Wing @ $15,000		
	- Rotary Blade @ 10,000		
8)	Field Travel Costs - Yukon		15,000
	- Pick-up truck, hotels, meals, etc.		
9)	Placer Engineer and Consultant Geologist		36,000
	- Monthly rate for summer field season $12,000/m (3 months)		
10)	Tractor Rental/Costs		30,000
11)	Contingency		38,000
	Total Estimated Stage-1 Program		$380,000

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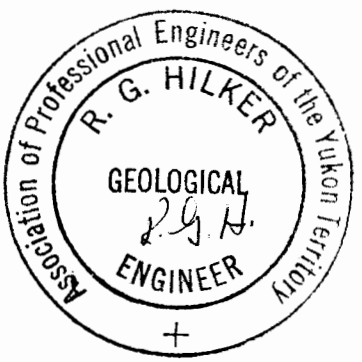
ESTIMATED COST OF PROGRAM (Con't)

STAGE-2

Contingent on favourable drill results that delineate drill proven gravel reserves and economic grade, the writer recommends that a mining operation be conducted in the area of proven gold bearing gravel reserves.

1)	Open-Cut Mining Operation ----------	$400,000.00
	a) 50,000 cubic yards @ $8.00 yd.^{3}	
2)	Continuation of Open-Cut Mining Operation ---------	400,000.00
	a) 50,000 cubic yards @ $8.00 yd.^{3}	
	Total Estimated Stage-2 Mining Operation ----	$800,000.00



R. G. Hilker, P. Eng.
Calgary, Alberta
August 29, 1988

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CERTIFICATION

I, ROBERT G. HILKER, of 324 Silver Valley Rise N.W., in the City of Calgary in the Province of Alberta, Canada, DO HEREBY CERTIFY:

1. THAT I am a Consulting Geologist, with an office located at 324 Silver Valley Rise N.W., in the City of Calgary, in the Province of Alberta.

2. THAT I am a graduate of the Michigan Technological University located at Houghton, Michigan, U.S.A., where I obtained a Bachelor of Science Degree in Geological Engineering (Exploration Option) in 1962.

3. THAT I am a registered Professional Engineer (Geological); in the Association of Professional Engineers, Geologists and Geophysicists of Alberta - #38356; The Association of Professional Engineers of the Yukon Territory - #98; The Association of Professional Engineers of British Columbia (non-residence license); Fellow of the Geological Association of Canada; and a Member of the Society of Mining Engineers of AIME - #1436600.

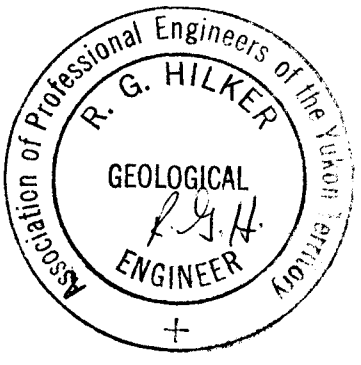
4. THAT I have practised my profession as an engineer and geologist for the past twenty-six years.

5. THAT I have personally examined the Lease To Prospect PL7792 located on Soda Creek during a property examination on August 26 and 28, 1988; I HAVE personally managed a placer drill program on the North Lady River and the left-limit tributaries Gemini, Soda and Spud Creeks during the summer field season of 1981; examined sections of Matson Creek and mining operations at Tenmile Creek and the Sixtymile River area in 1978, 1979, 1980 and 1981; THAT I have visited several other placer properties and mining operations located on several creeks in the Klondike, Sixtymile and Scroggie Districts, for the purpose of evaluation of placer gold exploration and development of placer properties during the time period of 1972 to the present.

6. THAT I have personally prepared the Placer Gold Evaluation Report on the Effective Date of August 29, 1988, on Soda Creek Lease To Prospect PL7792 located on NTS Sheet 115-N-10 and 7, Dawson Mining District by researching placer literature and data in the Sixtymile Gold District.

7. THAT I am the registered Owner and have a direct interest in PL7792 located on Soda Creek that is issued to Robert G. Hilker.

Dated this 24th day of November, 1988 (Effective Date of Report 29 August 1988), at the City of Calgary, in the Province of Alberta.



R. G. Hilker, P. Eng.

APPENDIX

TRON DUIK CONSULTANTS LTD.
324 Silver Valley Rise N.W.,
Calgary, Alberta T3B 4B2

Report Expenditures,
North Ladue River Property,
Gemini-Soda-Spud Creeks,
Dawson Mining District, Y.T.

November 18, 1988

INVOICE #856

Field travel Calgary/Whitehorse/Dawson - Whitehorse August 21-31, 1988. Property examination of PL7791 Gemini Creek, PL7792 Soda Creek and PL7802 Spud Creek, August 26 and 28, 1988; Placer Gold Evaluation Report Effective Dates - PL7791 and PL7792 August 29, 1988, and PL7802 September 6, 1988. Report costs are 1/3 pro-rated to each of the three properties.

1)	Field Travel - August 21-31/88 ----------		$1,375.00
	- Calgary-Whtse-Dawson-Whtse		
	- Vehicle Rental 11 days X $50 -----	$550.00	
	- Mileage 1900 miles X $0.25 -------	475.00	
	- Vehicle fuel ----------	350.00	
2)	Travel Expenses - August 25-31/88 ----------		1,143.45
	- Stratford Motel August 23 --------	$126.00	
	- Stratford Motel August 31 --------	255.00	
	- Midnight Sun Hotel - August 29 ---	512.45	
	- Misc. meals 10 days X $25 --------	250.00	
3)	R. G. Hilker, P. Eng. - Professional Fees ----------		5,600.00
	- Field Travel - Aug. ---- 4 days		
	- Field Examination - August 26/88 - 2 days		
	- Report Preparation - 8 days		
	- Professional Fees $400/day X 14 days - $5,600.00		
4)	Tron Duik Consultants ----------		450.00
	- Misc. office expenses - report - $450.00		
5)	Disbursements ----------		780.00
	- R. G. Salloway - Drafting ----	$518.00	
	- N. M. Patterson - Typing -----	154.00	
	- Report Duplication ----------	108.00	
	TOTAL INVOICE ----------		$9,348.45

Note - Report costs of $9,348.45 pro-rated on three creeks or $3,116.15.

R.G. HILKER, P. Eng. CONSULTING MINERAL/PLACER GEOLOGIST
324 SILVER VALLEY RISE N.W., CALGARY, ALBERTA T3B 4B2 (403) 288-0090

COUREUR DES BOIS
LTD./LTEE.

BOX 5301, WHITEHORSE, YUKON Y1A 4Z2
Telephone: (403) 668-2593

BILL TO: Robert Hilker
CALGARY ALBERTA

INVOICE № 046

Oct 11, 1988.

QUANTITY	JOB DESCRIPTION	PRICE PER	AMOUNT
	SODA CREEK		
4	miles B. Line.	$400.	$1600.00
	Paid [illegible] Jack Thank you		

INVOICE TOTAL 0

REMIT PAYMENT TO:

TRANS NORTH AIR

TRANS NORTH TURBO AIR LTD.
AIRPORT HANGAR "C" • WHITEHORSE • YUKON • Y1A 3E4
TELEPHONE (403) 668-2177 FAX (403) 668-3420

ACCOUNT NUMBER

INVOICE NUMBER 5076

INVOICE DATE

AREA: B.C. ☐ YUKON ☑ NWT ☐ ALTA. ☐

CHARTERER: R.G. Hilker

BILLING ADDRESS:

A/C TYPE: B-706

AIRCRAFT REGISTRATION C-

FLIGHT DATE: DAY / MONTH / YEAR

PURCHASE ORDER NO.

FUEL & OIL-X: TNTA ✓	CUST.	TNTA FUEL USED	HRS / LITRES	FROM
✓		J.P.4	210	Dawson

FROM	TO	MILES	HOURS	ZONE	REMARKS - NO. OF PASS - FREIGHT Kg
Dawson	N. Ladue				2 loads
60 mile			2.1		gear + pas.
					Paid cash 1114.

SUB	G.L	AMOUNT

	@		
2.1	@ 550	1155	00.
	@		
	@		
WAITING TIME	@ /HR.		
FUEL: 210L	@ .63 /LITRE	132	30
FUEL:	@ /LITRE		
MEALS & LODGING			
OTHER			
OTHER			
TOTAL	$	1287	30

TERMS: PAYABLE UPON RECEIPT OF INVOICE.
2% INTEREST PER MONTH (24% PER ANNUM) WILL BE CHARGED ON ALL OUTSTANDING AMOUNTS OVER 30 DAYS. IF INTEREST IS NOT PAID, FUTURE FLIGHTS WILL BE ON A CASH BASIS.

X R.G. Hilker
CHARTERER'S SIGNATURE

GEG — INITIALS
PILOT'S SIGNATURE
CO-PILOT'S NAME
ENGINEER'S NAME: D.H.H. Dave Hamblin
CYCLES

CARRIAGE SUBJECT TO TERMS OF PUBLISHED TARIFF.
TARIFF AVAILABLE TO PUBLIC VIEW AT TRANS NORTH OFFICE.

THIS IS YOUR ONLY INVOICE — PAY UPON RECEIPT

REMIT PAYMENT TO:

TRANS NORTH AIR

TRANS NORTH TURBO AIR LTD.
AIRPORT HANGAR "C" • WHITEHORSE • YUKON • Y1A 3E4
TELEPHONE (403) 668-2177 FAX (403) 668-3420

ACCOUNT NUMBER

INVOICE NUMBER 0[illegible]

INVOICE DATE

AREA: B.C. ☐ YUKON ☑ NWT ☐ ALTA. ☐

CHARTERER: R.G. Hilker

BILLING ADDRESS

A/C TYPE	AIRCRAFT REGISTRATION C.
BH06	F-D B Z

FLIGHT DATE	DAY	MONTH	YEAR
	28	08	88

PURCHASE ORDER NO.

FUEL & OIL-X TNTA	FUEL & OIL-X CUST.	TNTA FUEL USED	HRS / LITRES	FROM
✓		J.P.4	170	Dawson

FROM	TO	MILES	HOURS	ZONE	REMARKS - NO. OF PASS - FREIGHT Kg
Dawson	North Cadue River		1.7		pas: Roxanne Roberta RHonda R.G.
					Paid at #114.

SUB	G.L.	AMOUNT

		@		
1.7	@	550.	935	00
		@		
		@		

TERMS: PAYABLE UPON RECEIPT OF INVOICE.
2% INTEREST PER MONTH (24% PER ANNUM) WILL BE CHARGED ON ALL OUTSTANDING AMOUNTS OVER 30 DAYS. IF INTEREST IS NOT PAID, FUTURE FLIGHTS WILL BE ON A CASH BASIS.

X R. Hilker
CHARTERER'S SIGNATURE

INITIALS	
G.E.G	PILOT'S SIGNATURE
	CO-PILOT'S NAME
D.H.H	ENGINEER'S NAME Dave Hamblin
	CYCLES

WAITING TIME	@		/HR.	
FUEL: 170	@	.63	/LITRE	107 10
FUEL:	@		/LITRE	
MEALS & LODGING				
OTHER				
OTHER				
TOTAL	$			1042 10

CARRIAGE SUBJECT TO TERMS OF PUBLISHED TARIFF.
TARIFF AVAILABLE TO PUBLIC VIEW AT TRANS NORTH OFFICE.

THIS IS YOUR ONLY INVOICE — PAY UPON RECEIPT

Room No.	Name	Rate
301 In	R. HILKER	Out

05587

Address/City

Box 840
Dawson City Y.T.
Canada Y0B 1G0
Phone (403) 993-5495

Clerk | Company/Group

From 05559 | To

THE MIDNIGHT SUN HOTEL

1		1
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21		21
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23		23
24		24
25		25
26		26

< 301 > #004E4103-0001

201TB		413.25
ROOM	1	75.00
MEWBAL		480.25
SUBTTL		480.25

AUG28 '88 #004E4103

201TB		480.25
RESTAURANT	12	0.00
MEWBAL		480.25
SUBTTL		480.25

AUG29 '88 #00404200

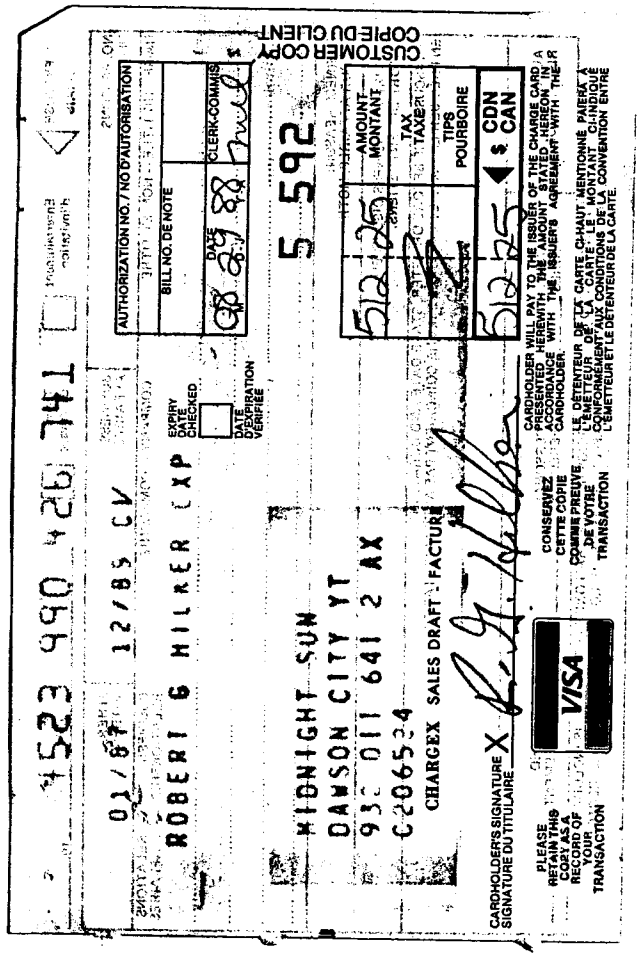
201TB		496.25
RESTAURANT	12	16.50
PAID OUT GUEST	14	[illegible]
MEWBAL		[illegible]
SUBTTL		[illegible]

AUG29 '88 #00404205

AUG29 '88 #00404220

$512.25

Visa EXP



ACCOUNT PAID BY

- CASH ☐
- CHEQUE ☐
- AMEX ☐
- VISA ☐
- MASTER CHG. ☐

Regardless of charge instructions the undersigned guest acknowledges the above as a personal indebtness.

CHARGE TO _____

ADDRESS _____

Credit Authorization

_____

Telephone Readings

Out _____

TELEX 036-8362

3N

ROOM NO. 46

Stratford MOTEL (Yukon) LIMITED

WHITEHORSE, YUKON
Y1A 2H4

NAME R. G. HILKER

ADDRESS 324 Silver Valley Rise N.W.

CITY Calgary PROVINCE OR STATE

ARRIVAL DATE	NO. IN PARTY	PETS
Aug 29/88	4	
CAR MAKE	**LICENSE NO.**	**PROV. OR STATE OF REG.**
Chev	BKP 829	Alta

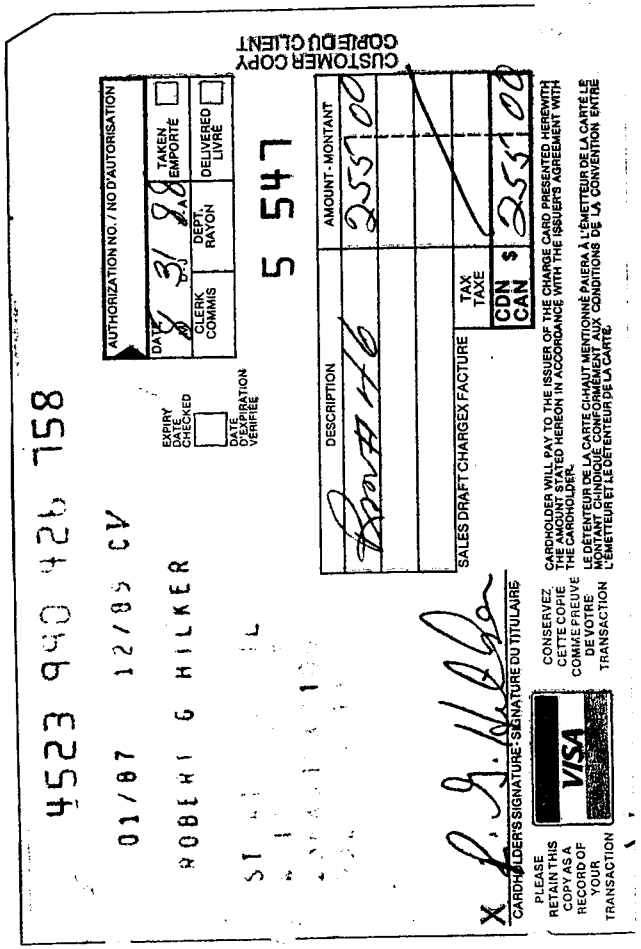
DATE	ROOM RATE	PHONE	MISC.	PAYMENT REC'D	BALANCE FORWARD
8-29	85.00				
8-30					
8.31				255.00	
TOTAL ▶					

F 9926
INVOICE NO.

BALANCE ▶ 0

11:00 A.M. IS CHECKING OUT TIME. GUESTS STAYING OVER PLEASE NOTIFY OFFICE. THE MANAGEMENT RESERVES THE RIGHT TO ASSIGN AND REASSIGN THE GUEST TO SUCH ACCOMMODATION AS THE MANAGEMENT SEES FIT.
WE OPERATE UNDER THE INNKEEPER'S ACT.

THIS PROPERTY IS PRIVATELY OWNED AND MANAGEMENT RESERVES THE RIGHT TO REFUSE SERVICE TO ANYONE, AND WILL NOT BE RESPONSIBLE FOR ACCIDENTS, OR INJURY TO GUESTS OR FOR LOSS OF MONEY, JEWELRY OR VALUABLES OF ANY KIND.



2N

401 - JARVIS ST.

PHONE 667-4243
TELEX 036-8362

ROOM NO. #57

Stratford MOTEL (Yukon) LIMITED

WHITEHORSE, YUKON
Y1A 2H4

NAME R. HILKER

ADDRESS 324 SILVER VALLEY RISE NW

CITY CALGARY PROVINCE OR STATE ALTA

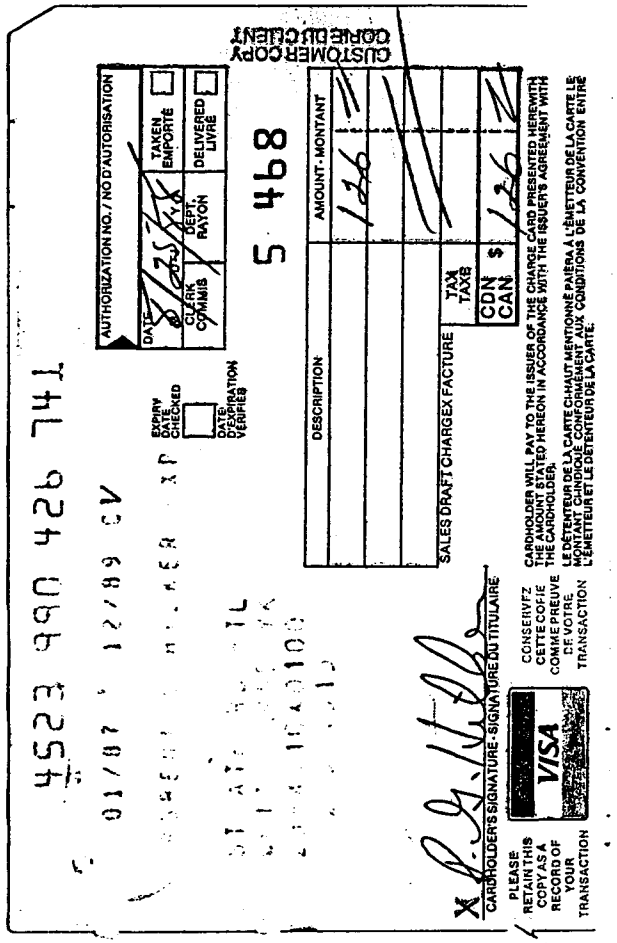
ARRIVAL DATE	NO. IN PARTY	PETS
Aug 23/88	1	—
CAR MAKE	LICENSE NO.	PROV. OR STATE OF REG.
CHEV.	BKP 829.	ALTA.

DATE	ROOM RATE	PHONE	MISC.	PAYMENT REC'D	BALANCE FORWARD
8/23/88	63.00				
8/24/88	63.00			126.00 Visa	
TOTAL					

F 9764
INVOICE NO.

BALANCE

11:00 A.M. IS CHECKING OUT TIME. GUESTS STAYING OVER PLEASE THIS PROPERTY IS PRIVATELY OWNED AND MANAGEMENT RE-



Invoice # 031

Date: November 18, 1988

To: R. G. HILKER

From: N. M. PATTERSON

Re: TYPING - TRON DUIK CONSULTANTS

Job: North Ladue River Properties

Typing for the above-mentioned properties - 7 hours.

7 Hrs. @ $22.00/hr. = $154.00.

N. Patterson

N. Patterson