

MAP No.

116-B-3

ASSESSMENT REPORT  
N. M. E. A. P.  
CONFIDENTIAL  
OPEN FILETYPE OF  
WORK:Dawson MD  
Prospectus  
Geology

REPORT FILED UNDER

Crescent Mines Ltd.

DOCUMENT NO.061714

DATE PERFORMED

March-April, 1978

DATE FILED: June 9, 1978

LOCATION - LAT.  
LONG.

64°04'N

AREA: Dawson City, Yukon

139°25'W

CLAIM NO.

KLONDIKE CITY PLACER LEASES

TAMMY 1 LEROY 1

JEAN 1 MARIETTE 1

VALUE \$

COLUMBIA 1 MARK 1

WORK DONE BY

E.P. Sheppard

WORK DONE FOR

Crescent Mines Ltd.

REMARKS

The placer leases are underlain by gravel which probably carries placer gold.

PROSPECTU-

JUNE 9, 197

061714

GEOLOGICAL REPORT  
KLONDIKE CITY PLACER CLAIMS

Dawson Area  
Yukon Territory

For  
Crescent Mines Ltd.

April 5, 1978  
Vancouver, B.C.

By: E. Percy Sheppard, P.Eng.  
Consulting Geologist

Klondike City Placer Claims

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MAPS

Location Map  
Claim Map

GEOLOGICAL REPORT  
KLONDIKE CITY PLACER CLAIMS  
Dawson Area, Y. T.

SUMMARY

Crescent Mines Ltd. holds under option six placer claims located on the Klondike River at Dawson City, Yukon Territory. This area was the centre of the famous Yukon gold rush of 1898. At that time the six claims now held by Crescent Mines Ltd. comprised the townsite of Klondike City, locally known as "Lousetown" and placer mining was carried out up to the boundary of the claims but not on them. The present staking is the first to be recorded on this ground.

The area surrounding the claims is regarded as the richest placer district in the world and supplied over half the placer gold produced in Western Canada.

CONCLUSIONS

In estimating the potential of the Crescent Mines Ltd. property, several significant factors must be considered: i.e., the ground has never been worked; it is easily accessible and adequate water is available; and at the present time there is a renewed interest in gold exploration, especially in the Yukon, as a result of the increase in price. The greatest profits have been derived by large outfits, such as Y.C.G.C., reworking old high-grade placer dumps along the Klondike River into which drains the gold-enriched Creeks, Eldorado, Bonanza, Hunker, etc.

In view of these and other factors, it is felt that this property is a prime target for exploration.

cont.....

Klondike City Placer Claims

RECOMMENDATIONS

It is recommended that Crescent Mines Ltd. carry out the exploration program proposed in this report.

It is further recommended that the Company allocate the sum of \$40,000 to implement the program.

*E. P. Sheppard*

E. Percy Sheppard, P. Eng.  
Consulting Geologist



April 5, 1978

GEOLOGICAL REPORT  
KLONDIKE CITY PLACER CLAIMS  
Dawson Area, Y. T.

INTRODUCTION

The following report was prepared at the request of the Directors of Crescent Mines Ltd. A study of numerous Government reports on the area has provided the data for this review. A visit to the property at this time of year, when snow and ice covers the ground, would be futile as it would not be possible to carry out the detailed grid-controlled sampling necessary to properly assess the value of the claims.

PROPERTY

The property consists of six staked placer claims, 150 metres x 300 metres each, the 150 metre side being along the Klondike River.

The claims are recorded as follows:

<u>Name</u>	<u>Grant No.</u>	<u>Expiry Date</u>
Tammy #1	P 4322	July 18/78
Jean #1	P 4338	Aug. 25/78
Columbia #1	P 4369	Sept. 22/78
Leroy #1	P 4321	July 18/78
Mariette #1	P 4317	July 27/78
Mark #1	P 4368	Sept. 22/78

LOCATION (64° 04'N, Latitude; 139° 25'W, Longitude).

The claims are situated on the western flank of the Ogilvie Mts., in the Tintina Trench, at the confluence of the Klondike and Yukon rivers, on the abandoned site of Klondike City. Elevation is 300-330 metres above sea level.

Whitehorse is the nearest large city, 530 km to the south on the Klondike Highway.

### ACCESS

Access is by 4-wheel drive vehicle over 4 klm of the abandoned Klondike City Mining Railway bed from the turn-off at the Klondike River bridge.

### OWNERSHIP

The claims are owned by Mr. Mike Elson, General Delivery, Bowen Island, British Columbia, and held under option by Crescent Mines Ltd. of Vancouver, B.C. A Mr. Cal Canadian of Vancouver staked the ground in 1976 and again in 1977, for Mr. Elson.

To the writer's knowledge, Mr. Canadian was the first person to stake the ground.

### TOPOGRAPHY & CLIMATE

The claim surface consists of level foreshore rising to a small hill partially covered with poplar and alder.

The area experiences extremely cold winters. Snowfalls are moderate. Spring begins in May and work can usually be carried out until October. Sufficient water is available to sustain mining operations.

### HISTORY

Gold placers were known to the fur traders and missionaries in the early 1860's, having been pointed out to them by the Indians. The finding of gold in the bars of the Big Salmon River by G. Langtry, P. McGlinchey and others in 1881 marked the first discovery of paying gold placers in the Yukon Territory.

Claims were originally worked by hand methods until the easily reached gold was exhausted, then hydraulic methods were used followed by bucket-line and suction dredges.

Major companies such as the Yukon Consolidated Gold Corporation (Y.C.G.C.) and the Guggenheim interests worked the Klondike River. the Y.C.G.C. until 1961. The

cont....

## HISTORY - cont.

recovery from the gravels averaged approximately \$1.00 per cubic metre, calculated at approximately \$18-\$35 U.S. per troy ounce of gold. At early gold prices the Dawson area produced \$250-\$500 millions of gold and was responsible for more than half the placer gold output of western Canada.

The claims discussed in this report were never opened for mining in the placer days as they comprised the Klondike City townsite.

A portion of the claim area was staked in 1976 but was not recorded because of a staking technicality and the belief that privately held lots were still in good standing within the townsite. A subsequent title search verified that no lots were thus held. The claims were then re-staked and accepted by the Mining Recorder at Dawson City.

## GEOLOGY

Large areas of the Yukon Plateau are underlain by metamorphosed rocks which comprise regionally metamorphosed sediments, metavolcanics and paragneisses. Along the boundary with Alaska these rocks are continuous with the Birch Creek Schist of Alaska. Where the metamorphic grade is high local names are applied.

In the Dawson and McQuesten areas the grade of metamorphism is significantly higher southwest of the Tintina Trench than to the northeast. Northeast of the Trench, in Mayo and McQuesten areas, there is a thick section of quartzites, micaceous quartzites and quartz-mica schists. Thus it appears that in the Dawson area two main sequences of rocks are involved in the regional metamorphism: a lower one of Hadrynian age, and an upper one, including the ultramafic bodies, greenstone, and basic intrusions of Paleozoic age, and possibly in large part Devonian and Mississippian.

cont...



GEOLOGY - cont.

The alluvial deposits were formed for the most part during the Tertiary. Deep decay of rocks under moderate to semitropical conditions occurred in the early Tertiary. Uplift in the late Tertiary led to concentration of gold in stream gravels along with such minerals as magnetite, pyrite, platinum, etc. Although glaciation destroyed many deposits, those in deep, narrow canyons escaped scouring by ice. Western Yukon, however, was not glaciated, partly due to the aridity of the climate during the Pleistocene, with the result that the Klondike district was one of the richest placer fields in the world.

Bedrock is mainly the Klondike schist of sedimentary origin, containing albite, quartz, chlorite, and calcite. Numerous quartz veins, mostly small, occur in the Klondike schist and contain pyrite, a little chalcopyrite, galena and free gold. Most gold is concentrated by erosion in the pre-Pleistocene creek channels, known as the "white channel". Subsequent stream action has reworked these auriferous gravels to form new placers in present stream beds, at various levels as much as 100 metres below the "white channel" paystreak.

The Klondike City claims cover a fluvial delta formed at the mouth of the Klondike River. Dawson City, adjacent to Klondike City, had to pass a by-law prohibiting "basement mining"; the same delta material underlies Klondike City.

A range of from 0 to 12 metres of gravel is expected on the claims, as indicated by the occurrence of outcrop near the East corner of the group and the fact that past dredging operations conducted along the NE boundary had a bottom limit of approximately 12 metres. It is conceivable that deeper or thinner occurrences of gravel may be encountered over some portions of the claims.

cont....

The gold recovered by previous operators is reported to have been coarse 1/2 "match head" or larger.

### GEOLOGICAL DISCUSSION

It should be emphasized that actual production records from the Klondike City claims as well as the adjacent areas while unrecorded in public documents are held in personal or private company files and are not available to the writer. However, the following factors strongly indicate the presence of gold on the Klondike City claims and substantiate the recommendation for an exploration program:

- 1) On the south side of the claims group there are old workings near a "white channel" gravel occurrence, which reportedly rendered gold values;
- 2) The staker of the ground (Mr. Canadian) has panned "colors" in a number of locations on the claims;
- 3) In the past dredging operations were carried out to the mouth of the Klondike River and up to the NE boundary of Klondike City; (See Claim Plan)
- 4) In 1975 or 1976 a major mining company undertook a winter Becker drilling program. It is reported that a hole was put down adjacent to the NW boundary of the Klondike City claims which recovered significant gold values;
- 5) The President of Crescent Mines Ltd. has had numerous discussions with well qualified persons who have actually panned "colors" from the property.

Permafrost is not considered to be a major factor at Klondike City. The claims area has very little or no "black muck", the permafrost insulator, and is influenced by the thermal effect of the two large rivers adjacent to the claims. Historically, some local residents of Dawson City have from time to time had vegetable gardens within the claims area which have produced such things as potatoes.

In view of the above considerations it is felt that an exploration program is warranted.

PROPOSED EXPLORATION PROGRAM

1. Bulk sampling.

The method of exploration of placer claims is by bulk sampling on a grid pattern (30 m x 30 m). Separation of gold from the samples can be done by the use of portable sluice boxes. Weights of samples are calculated by measuring the size of the bucket on the backhoe and recording the number of buckets taken from each point on a map of suitable scale. This will provide vertical profiles showing bedrock where encountered and from this information we can establish grade and volume.

A profile within the normal limits of bulldozer trenching and/or backhoe sampling will provide a vertical section of known values.

Any subsequent deepening of the trenches or utilization of other testing methods will be contingent on the values obtained from the above procedure.

2. Geological mapping of any outcrops that may be encountered will aid in constructing the sections across the claim surface.

ESTIMATED COST OF EXPLORATION PROGRAM

General transportation, 4 men ....	\$4,000.00
Bulk sampling:	
Testing equipment, backhoe loader, bulldozer, etc .....	5,000.00
2 Vehicles, 4-wheel drive, rental & gas .....	4,000.00
Board & lodgings .....	3,000.00
Sample analyses, Bags, etc. ....	6,000.00
Miscel. Field equipment & supplies ...	2,000.00
Personnel wages .....	10,000.00
Engineering & Reports .....	2,000.00
Contingency fund .....	4,000.00
	<hr/>
	\$40,000.00

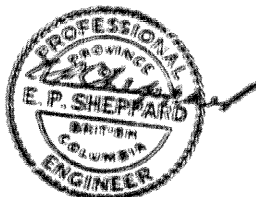
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It is estimated that one month will be required to complete the proposed exploration program.

*E. P. Sheppard*

E. Percy Sheppard, P.Eng.  
Consulting Geologist

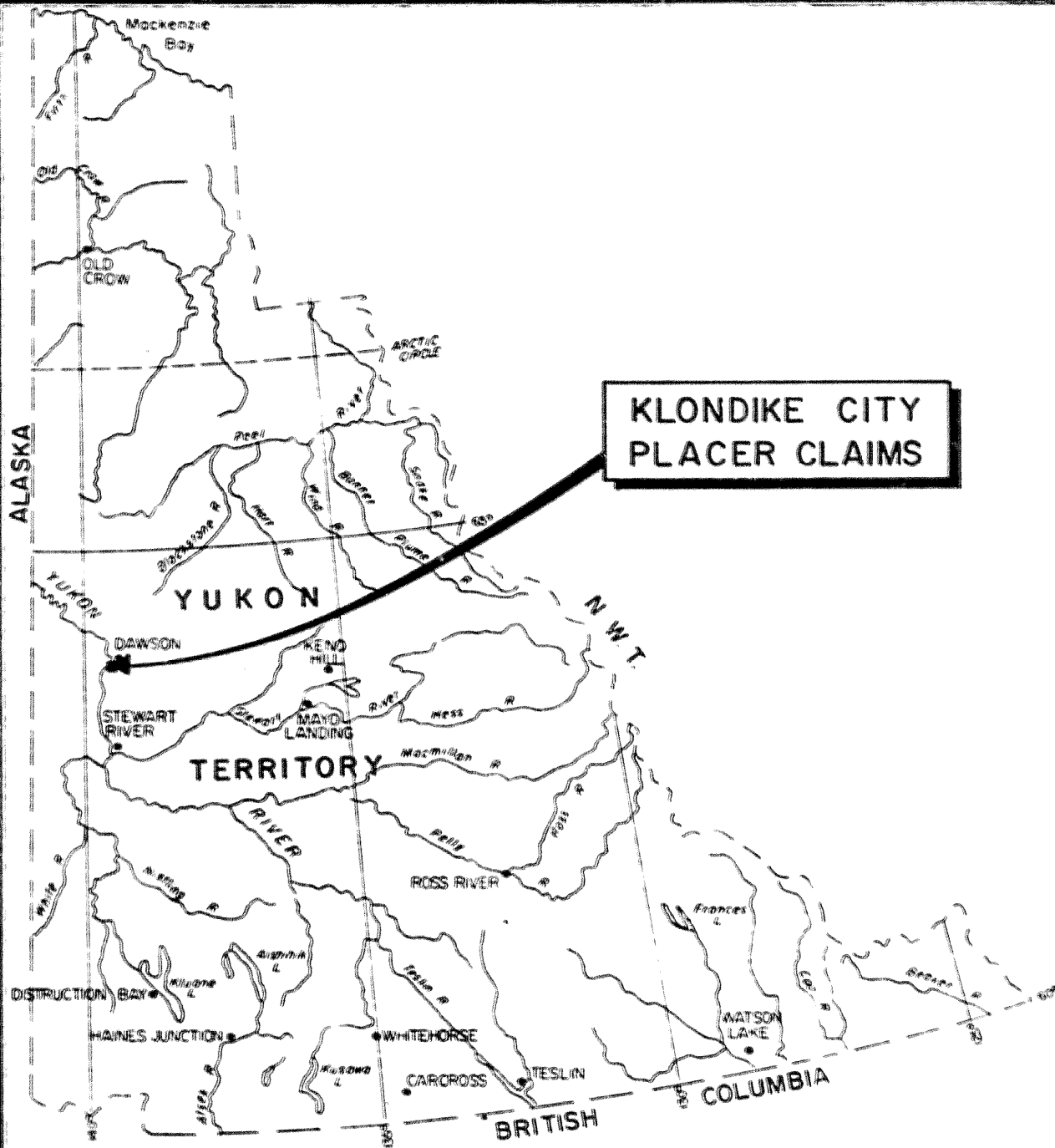
April 5, 1978  
Vancouver, B.C.



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**KLONDIKE CITY  
PLACER CLAIMS**

**CRESCENT MINES LTD.**

**KLONDIKE CITY PLACER CLAIMS**

DAWSON AREA, YUKON TERRITORY

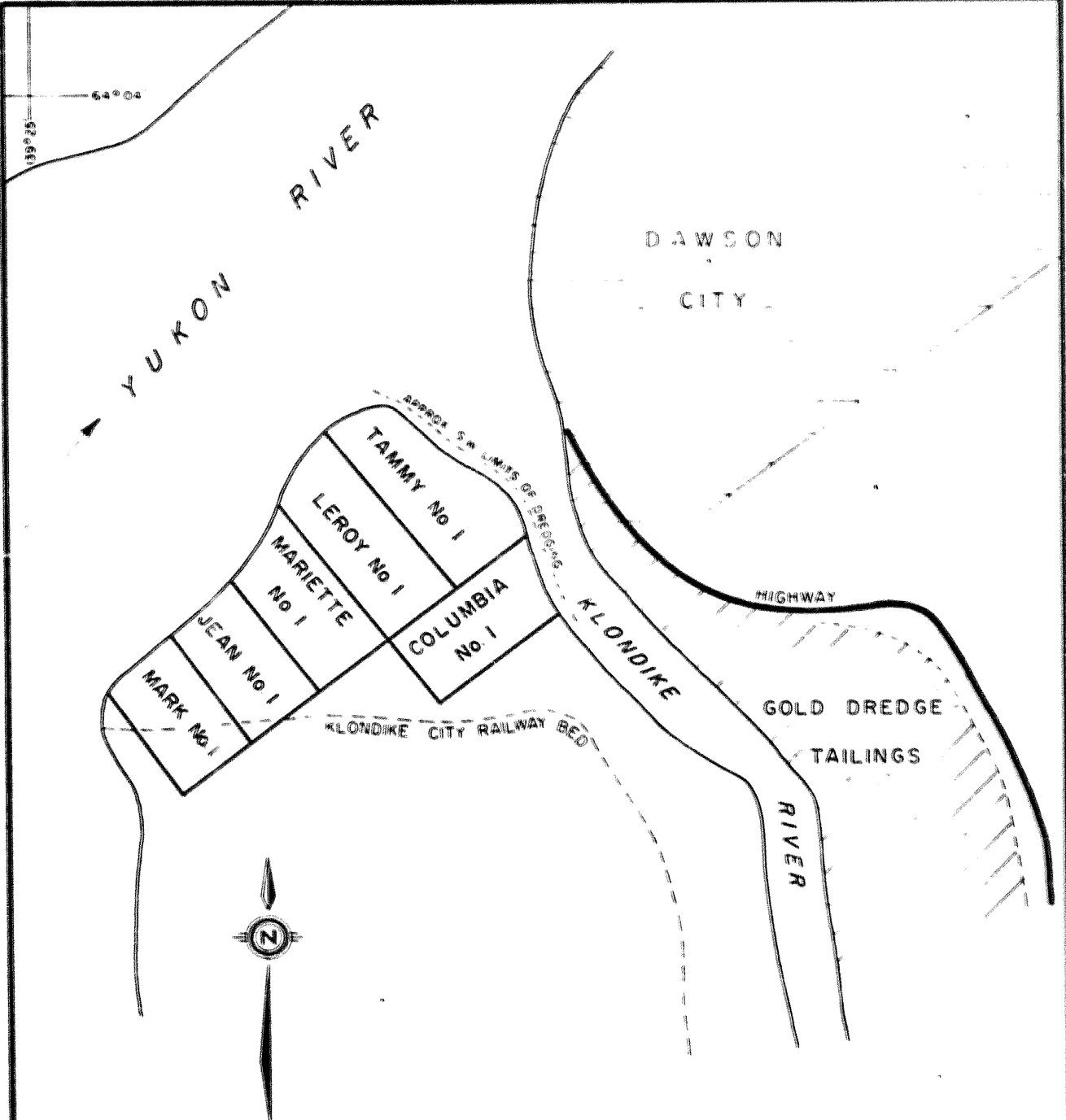
**LOCATION MAP**

KILOMETRES

100 50 0 100

MARCH 1978

E. P. SHEPPARD P. Eng



**CRESCENT MINES LTD.**

**KLONDIKE CITY PLACER CLAIMS**

DAWSON AREA, YUKON TERRITORY

**CLAIM PLAN**



SCALE 1:10,000 APPROX

MARCH 1978

E P SHEPPARD, P Eng