ML 3785

REPORT ON

LIARD RIVER GOLD PLACER PROPERTY

located at

60° 45' N 130° 20' W

in the

Watson Lake Mining Division

Yukon Territory

for

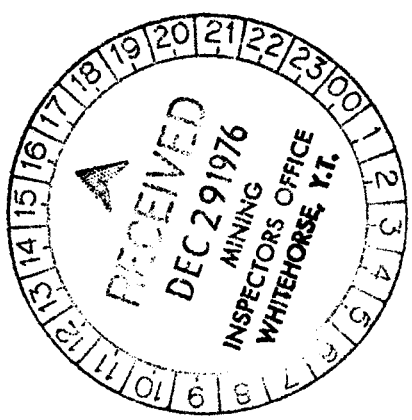
SAYYEA CREEK MINING COMPANY LIMITED

by

120132

PAUL PLICKA

November 1, 1976



I N D E X

LIARD RIVER GOLD PLACER PROPERTY

CLAIMS, OWNERSHIP, LOCATION

The property consists of three ten-mile dredging river leases and seven five-mile prospecting leases. The dredging leases are located on Liard River. The prospecting leases are distributed as follows: three leases on Cabin Creek, one lease on Sayyea Creek and three leases on Scurvy Creek. The eastern-most boundary is Post #2 on D/L 74/21 located two miles southeast of the mouth of Black River on the Liard River - for exact location, see Claim Map 105 B-9, B-10, B-15 and B-16. The claims are held by Sayyea Creek Mining Company Limited under option from Yukon Liard Placer.

ACCESS

The property is reached by land or by sea-plane from the community of Watson Lake. Watson Lake has a daily jet service to Vancouver, Whitehorse and Edmonton. The flight duration from Watson Lake to the property is about forty minutes. The property is also connected with the Alaska Highway at Mile 687 by a winter tote road, which is 65 miles long and is used for access by heavy equipment, fuel, etc. The possibility of an all-weather road has been discussed with government officials and approved in principal; government subsidy would be allocated in the event of construction of the all-weather road. The property can also be reached by boat; however, this is a time-consuming route but it could be considered for

bringing in dredges or barging heavy equipment.

GEOGRAPHY

The property is located in the foothills of the north reach of the Cassiar Mountains. The Creeks headwaters are located in narrow valleys which broaden towards the Liard River. The Sayyea Creek is an exception - before reaching Liard River, it runs the last three miles in a steep canyon. The Liard River flows in a broad valley. After Cabin Creek, the river enters the Liard Plain, where it flows towards Watson Lake.

GEOLOGY

The area consists of extensive outcroppings of Precambrian sediments. These sediments have been intruded by Cretaceous granitic rocks of the Cassiar Batholith. The area is also severely faulted. The Liard River follows the Twin Lake Valley fault in the property area. Quartz mica schist appears to be the gold-bearing rock. These schistous rocks are crosscut with quartz veins. It is not clear yet if the gold is carried by the quartz alone or if it is carried by the whole unit.

The area was worked over by Valley Glacier which is responsible for the thick bench gravel deposits. Rivers and creeks cut through glacial deposits, thus re-concentrating the placer gold in the area.

The creek benches also carry good gold values. Several clay beds are observed in the bench strata, acting as gold traps. Thus, the theory

of gold deposition in this area is not, as yet, clear; however, good ($4/yard) gold values exist in the benches and creek beds.

WORK DONE

The lower portion of the property has been sampled (in mid-February of this year); a cobra drill and dynamite were used for opening sample holes five feet deep on average. All samples showed gold and silver values. On the basis of this sampling and previous history, the 65 miles of winter road were opened and the heavy equipment and supplies were brought in before ice break-up. The sluice box was set up on a river bar approximately one mile upstream from Eckman Creek. The box was set at a $7\frac{1}{2}^{o}$ grade and an estimated 2,000 cubic yards of gravel were run through it. On-site modifications and testings slowed the job down but valuable information was obtained. The grade had to be doubled as the gold was very fine and in its initial setting it was being washed right out of the sluice box; consequently, more gold was laying around the box than in it.

From this river testing location, the sluice box was moved up to the Cabin Creek site. It was necessary to use a helicopter for transportation at this break-up time at the beginning of May. Due to high cost and small load, we had to look for alternative means of transportation, and the 3,000 foot airstrip was built to permit year-round operation. The strip is suitable for heavy machines such as DC-3's and the load cost is considerably reduced.

Stripping proceeded along Cabin Creek for an area of about five acres; the top four feet had to be stripped before entering into recoverable gold dirt.

The sluice box was set up along Cabin Creek at a 15^{o} grade. A sedimentary channel 300 feet long was built, allowing fine particles to settle. The operation proceeded with a D-6 cat dozer pushing and a 950 cat loader filling the sluice box. The water was supplied by a Pumpmaster pump and the flow used was between 2,500 and 3,000 gallons per minute.

The sluice box was tested with 500 yards. While panning the concentrate, small gold nuggets were recovered. Also, while panning the concentrates, all the fines were lost. This discovery directly indicates the necessity of a concentrating plant. Consequently, 1,600 yards were run through the box; this yielded four yards of concentrate after clean-up. Those four yards or six tons (approximately) were used in a trial run of the re-concentrating plant. The plant layout was changed many times before satisfactory recovery conditions were reached.

Prospecting parties were sent to Scurvy, Sayyea and Cabin Creeks. Hand-dug samples of approximately 1,000 lbs. each were treated on the spot in a small portable sluice box. The samples were taken from the creek beds and from benches. All panned concentrates were assayed. The operation was shut down in September. The small crew remaining on the property are scouting a road along Cabin Creek to Sayyea and Scurvy

Creeks, they are also hand-drilling and blasting in the pit proceeds to determine the grade close to and on bedrock.

VALUES OF WORK DONE PER CLAIM

The access road and airstrip are of benefit to all the claims. The cost of the road building was $1,500 per mile, and the cost of the airstrip was $7,500. The total expenditure for the road and airstrip was $105,000.

The expenditure per mile leased is shown as $1,615.

The test sluicing was run on lease Liard #3 - #74.21 at a cost of $18,650. Hand testing and sluicing was done on all claims at a cost of $530. per lease.

The sluicing operations were carried out on the 5-Mile lease #3789 on Cabin Creek, where a 5-acre open pit was stripped and test mined. The cost of this operation, which included building and testing of the reconcentrating plant, is $42,550.00.

COST SUMMARY PER LEASE

Lease #3789

Development cost	$ 42,550.00
Road and airstrip	8,075.00
TOTAL	$ 50,625.00

Dredging Lease #74/21

Development cost	$ 18,650.00
Road and airstrip	16,150.00
TOTAL	$ 34,800.00

Leases

#3784
#3785
#3786
#3787
#3788
#3790

Testing	$ 530.00
Road and airstrip	8,075.00
Total cost per lease	$ 8,605.00

Dredging Leases #74/18 #74/19

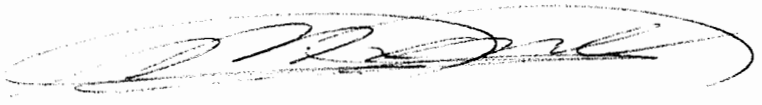
Testing	$ 530.00
Road and airstrip	16,150.00
Total cost per lease	$ 16,680.00

TOTAL EXPENDITURES

Lease #3789	$ 50,625.00
" #74/21	34,800.00
" #74/18 & 74/19	33,360.00
" #3784-#3787 and #3790	51,630.00
TOTAL PER GROUP	$ 170,415.00

The work on this property was carried out under the supervision of P. Plicka.

This report is respectfully submitted to the Department of Indian and Northern Affairs, Mining Recorder's Office, Watson Lake, Yukon Territory.



Paul Plicka