861576

# ARRASTRA CREEK PLACER PROPERTY

## PRINCETON AREA

## SOUTHERN BTITISH COLUMBIA

Agenda Item 4.1.1

Lat. 49°25'
Long 120°45'
92H/7

QUEENSTAKE RESOURCES LTD.

To: Directors

From: G. Gutrath

Date: March 7, 1979

Re: Estimated Costs - Arrastra Cr. Sampling Program

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Est. 10 days duration

Est. startup: May 15, 1979

| | | |
|---|---|---|
| a) | **Equipment** | |
| | - D-6 caterpillar (road repair & trenching) 20 hours @ $50.00/hr. | $1,000.00 |
| | - Skidder/backhoe - 50 hrs. @ $20.00/hr | 1,000.00 |
| | - Denver gold saver - 50 hrs @ $50.00/day | 250.00 |
| | - 4 x 4 truck 10 days @ $25.00/day (incl. mileage) | 250.00 |
| b) | **Crew** | |
| | - Technician - 10 days @ $150.00/day | $1,500.00 |
| | - Sampler - 10 days @ $ 5.00/day | 500.00 |
| c) | **Accommodation and food** | |
| | 20 man/days @ $25.00/day | $ 500.00 |
| d) | **Transportation** | |
| | - Freight - Caterpillar (local) | $ 240.00 |
| | - Freight - Skidder/backhoe One way, Vancouver - Princeton | 500.00 |
| e) | **Fuel** | |
| | - 100 gals. diesel @ 90¢ | $ 90.00 |
| | - 120 gals. gasoline @ $1.00 | 120.00 |
| f) | **Miscellaneous** | |
| | - Assaying, consulting, reports | $1,000.00 |
| | Total | $6,950.00 |
| | Overhead and contingencies | 695.00 |
| | | $7,645.00 |

QUEENSTAKE RESOURCES LTD.

To: Directors
From: G. Gutrath
Date: March 7, 1979
Re: Arrastra Creek Placer Property, B. C.

## Location and Access

The property is located in south-central British Columbia, nine air miles west of Princeton. There is a good logging road access throughout the length of the property.

## Property

Twelve-ten year placer leases covering 7.5 miles of Arrastra Creek were staked on January 22, 1979.

## History

The Princeton area has had a long erratic and somewhat infamous placer mining history. The placer properties in the Princeton area were first developed in 1885 and active production continued until 1897. Production declined sharply in 1898, but has never completely ceased. The known placer streams have always been staked and there has always been very limited production from a few small operations. The "infamous" portion of the Princeton area placer mining history is the dismal record of the numerous highly promotional mining company ventures based on new "black box" processes for recovering the "locked-in" precious metals from the black sands.

Arrastra Creek has been staked by different groups in the past but there is no recorded production.

Deposit

Placer gold and platinum have been found upstream from Princeton for thirty miles along the Similkameen River and twenty five miles along the Tulameen River

The source of the platinum is the Olivene Mountain ultrabasic instrusive. The gold is derived from numerous small quartz veins that occur in the general area.

Arrastra Creek is the east fork of Granite Creek, a major tributary stream of the Tulameen River. The richest placer deposits in the Princeton area were located on the lower reaches of Granite Creek. As the mining progressed upstream the valley narrowed to a canyon and the gravels deepened resulting in very difficult mining conditions for the early operators. The values are reported to have continued upstream but with an increase in the ratio of platinum to gold.

The 7.5 miles of placer leases start immediately above the Granite Creek Canyon and continue upstream to the headwaters of Arrastra Creek. In the central portion of the lease area, over a distance of five miles, the valley floor ranges from 400 to 1,000 feet in width with an approximate grade 1.75%. The depth of gravels is not known but it is expected to range from 25 feet to 50 feet.

The surface gravels are largely composed of rounded ultrabasic cobbles with lesser amounts of granite cobbles. There are boulders in the 1' to 2' range and they are estimated to make up 10% to 20% of the gravels. Bedrock is exposed on the northerly lease. There is extensive gravel bench development along the majority of the Creek that ranges from 50 to 200 feet in elevation above the present valley floor. These represent glacial deposits that have been subsequently eroded by the present stream.

There are gold bearing veins at the head of Granite Creek that join Arrastra Creek near the centre of the lease area. The Olivene Mountain ultrabasic intrusive extends to within one mile of Arrastra Creek. The general trend of glacial movement is in a southerly and south westerly direction in this area resulting in large amounts of ultrabasic material being moved from the north into the Granite Creek - Arrastra Creek basin. The drainage system during the glacial period flowed in a south and southwesterly direction.

The glacial movement and drainage pattern indicates that large amounts of potential platinum bearing gravels were deposited in the Granite-Arrastra Creek drainage system. The post glacial (present system) drainage system reworked the glacial deposits containing widely dispersed amounts of platinum and gold. In theory these values would have been concentrated by stream action in the low gradient portion of Arrastra and Granite Creek forming a classic gold-platinum bearing "pay-channel".

Mining

1. There is adequate water for a 200 to 500 $yd^3$/hr. plant. There should be no problem with flood control.
2. Depending on boulder content and depth of gravels the deposit may be suitable for dredging.
3. There is adequate room for settling ponds.
4. This is the only potential gold-platinum bearing stream in the Princeton area that is completely isolated from housing or agriculture developments.
5. The operating season would be seven to eight months.
6. The potential reserves are in the order of 10 to 20 million $yd^3$.

Comment

John Lusney, Queenstake's placer consultant has reviewed the project and recommended that Queenstake acquire the leases.

Conclusion and Recommendation

The property has exploration merit with reserve potential adequate to support a large scale placer mining operation.

It is recommended that Queenstake acquire the property at cost and carry out the Phase I exploration program.

A complete report will be compiled by the writer in conjunction with John Lusney for presentation to major companies.