

860093

MCCONNELL CREEK PLACER PROPERTY
NORTH CENTRAL BRITISH COLUMBIA

QUEENSTAKE RESOURCES

TO: Directors
From: G. Gutrath
DATE: March 7, 1979
RE: McConnell Creek platinum-gold placer property

*1976-1975
T-1000 - 150 miles
McC Creek Stand
1257 Skelton
Bromide*

1. Location

The property is located in north central B.C., 260 air miles north west of Prince George and 121 air miles northeast of Hazelton.

2. Access

Access to the property has been greatly improved in the last few years with the construction of a good gravel road to within 15 miles of the property. There is a trail into the property that could be upgraded to tote road standards and there is a possibility that the government may participate in the construction of this road (15 miles).

3. Deposit

The gold and platinum is concentrated with large amounts of black sand in loosely consolidated boulder gravels lying on a false bedrock composed of very compact lake silts.

The sampling to date on the low benches has indicated that the majority of the values are concentrated in the top 12 feet of the gravels and not on the false bedrock as would be expected in a typical placer deposit. The gravels and black sands in the bench are from reworked glacial debris that accumulated in the valley during the last glacial period. As this debris was removed from the valley, the black sands were concentrated in the remaining gravels and it would be normal to expect the majority of the black sands to be concentrated on the false bedrock. If there is not a

concentration of black sand on the false bedrock, it would indicate that the lower gravels were laid down prior to the introduction of the gold bearing black sands. The surface gold and black sand concentrations would have been brought in by flood conditions without enough continuous water action to move the gold down to the false bedrock.

The writer examined a placer deposit at Quesnel Forks that appears to be almost identical to the McConnell Creek deposit. The low benches at Quesnel Forks are from 9 feet to 12 feet deep and are underlain by lake silts. The gold is fine grained and is almost entirely concentrated on the false bedrock.

4. Operating Season & Mining

The elevation of the property is approximately 4,000 feet resulting in a production season similar to Dublin Gulch (100 to 150 days) without the benefit of 24 hours of daylight during most of the season.

The boulders will add to the mining cost but they should not be as difficult to handle as at Dublin Gulch where they can form a cobblestone surface requiring ripping. The McConnell Creek gravels are very loose and it may be possible to mine them directly with a front end loader.

The present reserves can be easily mined because they are surface deposits requiring no stripping. There is a good possibility that a bedrock drain will not be required to mine the low bench gravels.

The absence of permafrost is a great advantage over placer properties in the northern Yukon.

There is ample water for mining but it will have to be pumped from McConnell Creek.

5. Grade

The sampling data in the various reports is not reliable. The following sample data has the highest probability of being correct, but because of the sampling and analytical procedure it cannot be accepted at face value.

(a) Douglas Lay, B.C. Dept. of Mines Geologist, 1932

The weighted average grade of 6 working faces over an average depth of 5.7 feet is: gold \$7.12/yd³, platinum \$0.49/yd³ (total \$7.61/yd³).

(b) Jensen Production History

The grade of this production to a maximum depth of 10 feet should not have been less than \$4.24/yd³ and should have averaged \$8.47/yd³.

(c) 1965 Holbrooke Churn Drilling

These results should indicate the minimum grade:

	@ \$175/oz	@ \$200/oz
Jensen Bench (12 feet)	\$1.45/yd ³	\$1.65/yd ³
Dahl Bench (6 feet)	\$3.08/yd ³	\$3.52/yd ³
Leedy Bench (12 feet)	\$2.15/yd ³	\$2.46/yd ³

There may also be \$0.50/yd³ in platinum.

6. Reserves

Holbrooke, in his 1965 report, revised his original estimate for the 5 most extensively tested benches from 8,615,000 yds³ to 2,000,000 yds³ at \$7.35/yd³ (average depth of 9 feet).

In his December 1965 report he reduced the reserves and grade as follows:

Jensen Bench	300,000 yd ³ @ \$1.45/yd ³
Dahl Bench	200,000 yd ³ @ \$3.08/yd ³
Leedy Bench	200,000 yd ³ @ \$2.15/yd ³

These should represent the minimum reserves and grade.

The overall potential would appear to be much greater but Holbrooke's final report makes it impossible to speculate on additional reserves and better grade unless more sampling is done to either confirm or

disprove his conclusions.

7. Economics

A good equipment operator owning and maintaining his own equipment should be able to make a good living from the proven reserves on the McConnell Creek. If the reserves grade in the order of \$4 to \$7 per yd^3 as indicated by Lay's sampling it would be a very profitable operation.

If reserves in the order of 1 to 3 million yd^3 grading \$3/ yd^3 could be developed a larger scale operation (100 yd^3/hr - 200,000 yd^3/year) would be feasible.

8. Environmental Problem

The Wild Life Federation (W.L.F.) has been very critical of the B.C. Dept. of Mines for extending the Fort St. James-Manson Creek highway into the McConnell Creek area. It is assumed the W.L.F. simply want to keep people out of the country.

There appears to be ample room for settling ponds in the McConnell Creek valley. Normal environmental requirements should be fairly easy to comply with but the amount of time required to get a production permit is not known. The environmental requirements are being reviewed.

CONCLUSION & RECOMMENDATION

This property has the potential of larger reserves and better grade than indicated by Holbrooke in his final report.

The low benches are prime exploration targets with indicated reserves in excess of 2,000,000 yds³ grading in the order of \$3.00 to \$4.00/yd³. Potential reserves could be in the order of 10 to 15 million yards.

The sampling done to date indicates that the gold is concentrated in the surface gravels to a depth of 10 to 12 feet. These gravels could be quickly tested at low cost using a backhoe. However, in order to get a more comprehensive test it would be advisable to mine and process a bulk sample from a trench across one of the benches.

The gold from the concentrates would be recovered by amalgamation and samples of the black sand would be sent out for assay.

ESTIMATED COSTS

Phase I (to June 15)

- Map preparation, aerial photograph enlargements and interpretation	1,000	
- Consulting services re tote road access and government participation	500	
- Property examination, tote road survey, helicopter and/or fixed wing, John Lusney - G. Gutrath to property	<u>3,000</u>	4,500

Phase II (June to October)

(a) Equipment

- D-7 Caterpillar 600 hrs @ \$60/hr	36,000	
- Front end loader - backhoe 200 hrs @ \$50/hr	10,000	
- Pump 6" diesel pump (lease)	3,000	
- Sluice box, grizzly, riffles	5,000	
- Miscellaneous equipment	<u>2,000</u>	56,000

(b)	Crew		
	- Technician - 30 days @ \$150/day	4,500	
	- 2 samplers - 60 days @ \$100/man/day	<u>6,000</u>	10,500
(c)	Camp and Food		
	- 300 man days @\$25/day		7,500
(d)	Transportation		
	- Freight	10,000	
	- Truck \$ \$700/month	<u>2,100</u>	12,100
(e)	Fuel		
	- 2,000 gal. @ \$3.00/gal. into property		6,000
(d)	Miscellaneous		
	- Assaying, consulting, reports		<u>5,000</u>
			97,100

	Phase I	4,500
	Phase II	<u>97,100</u>
		101,600
Overhead and Contingencies 20%		<u>20,320</u>
		<u>\$121,920</u>

REFERENCES

- 1932 Douglas Lay, Resident Mining Engineer, B.C. Dept. of Mines
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- 1955 Loveseth, John, Homestake Enterprises
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- 1961 Cook, R.J.: Summary Report McConnell Creek
- 1963 Schmidt, Harold: Letter to M. Scoretz
- 1965 July - Holbrooke, G.L. Columbia Placers Ltd.,
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- 1965 December - Holbrooke, G.L. Columbia Placers Ltd.,
Supplemental Report
- 1972 Levelton, B.H.: Assays
- 1974 Levelton, Assay & Misc. B.C. Dept. of Mines Report
- 1976 Weymark Eng., McConnell Creek Placers

Queenstake Resources Ltd.

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(604) 684-4577

February 7, 1979

Mr. Ralph M. Brown
McConnell Creek Syndicate
1707 Angus Drive
Vancouver, B.C.

Dear Mr. Brown:

Re: McConnell Creek Placer Property

With reference to our meeting of January 9th, your comments regarding the McConnell Creek project have been reviewed by Queenstake's Executive Committee. We would like to propose an option agreement on the following terms:

1. On signing the agreement, Queenstake pays the Syndicate \$5,000.00.
2. Queenstake will, prior to March 1, 1980, carry out a preliminary evaluation of the property as assessment work, at a cost sufficient to maintain the property in good standing for at least one year and if the results of the evaluation, in the opinion of Queenstake so warrant, Queenstake will then proceed to conduct a bulk sampling program and will record at least two years' additional assessment work.
3. Queenstake will have the right to acquire an 80% interest in the property by paying to the Syndicate, the further sum of \$25,000.00 on or before March 1, 1980 whereupon Queenstake will, so long as it is economically viable, proceed diligently to place the property into production.
4. The cost of placing the property into production shall be born by Queenstake and Queenstake shall be entitled to receive 90% of the proceeds from the sale of minerals produced until all its preproduction costs have

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been repaid. The Syndicate will receive 10% of net proceeds during the pay back of the preproduction costs. Thereafter, the net proceeds from production and costs thereof shall be shared as to 80% by Queenstake and as to 20% by the Syndicate.

5. Queenstake will have the right to negotiate and enter into agreements for the development of the property and may for that purpose, assign its rights under this agreement to a financially responsible firm or corporation. Queenstake and the Syndicate shall contribute their pro rata interests in the property to such firm or corporation in proportion to their respective interests in the property.
6. We will enter into a formal agreement satisfactory to our respective solicitors, containing provisions relating to warranties of title, access to the claims, liability for damages, responsibility for development and other standard provisions.
7. The development and operation of the project will be carried out under the exclusive direction and control of Queenstake.

The final acceptance of an agreement is subject to approval by the Board of Directors, the Vancouver Stock Exchange and the B.C. Securities Commission.

Yours very truly,

QUEENSTAKE RESOURCES LTD.

Gordon C. Gutrath, P.Eng.
President

GCG:jd

Four potential coal mines in British

By ALBERT SIGURDSON

Columbia will require rail links, port

Four promising coal properties are strung out in northeastern British Columbia, ranging from the Sukunka mine site of Montreal-based BP Canada Inc. to the Quintette prospect of Denison Mines Ltd. of Toronto, about 75 miles from Chetwynd, B.C.

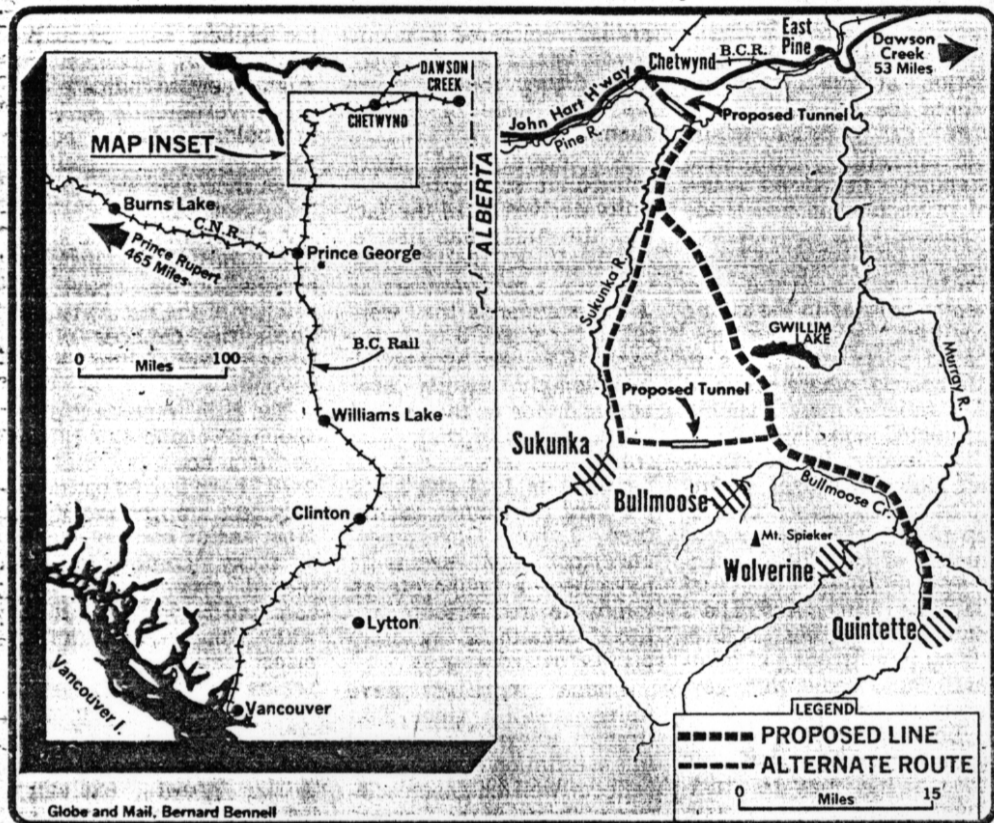
Denison is the only one with a contract. It has announced an agreement to supply 30 million tons of coal to Romania over 20 years. R. C. Hermann, the company's vice-president, coal operations, said "we need another contract of about the same size to pro-

ceed with the project." The detailed engineering is done. Getting a rail line in to the property to move the coal out would be another crucial factor and he said "we're in the midst of discussions now" with the British Columbia Government about how the rail line

close enough to the Teck property that coal could be trucked or taken by rail to meet it. "Undoubtedly if they do go into Quintette, we will go."

David Penner, manager of the minerals division of Ranger Oil, said Ranger is

still at the exploration stage on its property, "working on establishing reserves." However, he said that if one mine went ahead "it would enhance the whole outlook" for the other properties in that northeast row of deposits.



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could be provided.

Finding some way of dealing with the line construction cost of more than \$100-million makes this the largest difficulty for the Denison project. But Denison is also proposing the largest mine of the four — five million tons a year.

"There are pretty substantial reserves of thermal coal on the Quintette property," Mr. Hermann said. With demand for all energy resources rising, "we'd be crazy not to involve that in the total project."

There is yet another contingency to be met before Denison can start its mine, Mr. Hermann said — construction of a \$50-million coal export terminal in the Port of Prince Rupert. There is not enough capacity at the Port of Vancouver to handle the full production planned and "Prince Rupert is the logical place to export any amount of coal from north-central B.C."

As it happens, a federally sponsored committee is at work now at Prince Rupert examining two sites for a proposed \$125-million grain export terminal. One of them, federally owned Ridley Island, is large enough to provide for a coal terminal next to it. The prospect of Denison getting an export terminal to meet its needs would seem to be much more remote if the committee selecting the elevator location comes out in favor of the smaller site.

Mr. Hermann does not think that will happen. "It just doesn't make sense to build a port that is limited to one commodity."

There would be less business in the Quintette mine for B.C. Rail then, as it would carry the coal only about 270 miles to Prince George, where it would be switched to CN track for the 465 miles to Prince Rupert.

If it was decided to build the railway from Chetwynd to Quintette it would go right by the Bullmoose property of Teck Corp. of Vancouver and the Mount Spieker property in which Ranger Oil (Canada) Ltd. of Calgary has the leading interest.

Teck vice-president R. E. Hallbauer said the company has been having sales discussions with the Japanese. "As yet we are in the same position as everyone else... we don't have a contract."

As a way of getting around the expense of a railway, he said, Teck has programmed its prospect on the basis of using truck transport to the nearest rail line and has figured it is economic for one million tons a year. He said Teck is better off in its deposit than BP Canada, which has to make an underground

mine. "We have a very simple open pit." But in terms of reaching it with rail transport it is more difficult — "on the other side of the mountain" from Sukunka.

If a rail line went to Sukunka, continuing it to

Bullmoose would require a tunnel, estimated now to cost \$20-million, but by the nature of things that has to be an open-ended estimate. Yet, if the 75-mile line went in from Chetwynd to the Quintette deposit even without a tunnel it would go