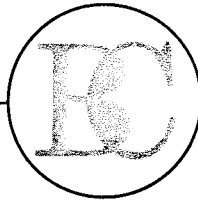


REPORT on *715 0/10,15*
LEISURE GOLD LTD.- KLONDIKE PROJECT

for: D. Clozza

by: J.J. Crowhurst

March 12/75



BACON & CROWHURST LTD.

1720-1055 West Hastings Street
Vancouver 1, B. C.

REPORT

on

LEISURE GOLD LTD.

KLONDIKE PROJECT

by

J.J. CROWHURST, B.A.Sc., P.Eng.

Vancouver, B.C.

March 12, 1975

BACON & CROWHURST LTD.
CONSULTING ENGINEERS

March 12th, 1975.

Mr. D. Clozza, President,
Leisure Gold Mines Ltd.,
Ste. 202 - 900 W. Pender St.,
Vancouver, B.C.

Dear Sir:

Pursuant to your request, I have examined various maps, records and cost projections supplied by Mr. Rae G. Jury of Alrae Engineering Ltd., Consulting Engineers, North Vancouver, British Columbia, concerning the Klondike area, Yukon Territory, gold placer properties owned by Leisure Gold Mines Ltd. of Vancouver, British Columbia. These are spread over about 32 air miles in a north-south direction, in four distinct locations connected by gravel roads with each other and with the City of Dawson. (See Map #1500-6a)

Mr. Jury personally has inspected the various claim groups and supplied engineering services and supervision during 1974.

I have checked the reported ore reserves by making my own detailed calculations, which conform closely to Mr. Jury's estimates. In excess of 6 million cu. yds. of gravel averaging from \$1.90 (cut) to \$2.15 (uncut) per cu. yd. in recoverable gold values, using a price for gold at \$150 per ounce, are indicated. At the present price of gold (\$180 per ounce), these values increase to \$2.28 and \$2.58 respectively.

I have examined Mr. Jury's projected production plans and cost estimates. For these purposes, I have made several assumptions of necessity (as noted elsewhere in this report) because a personal visit to the site is impractical at the present time. It should be noted, however, that our company is familiar with Yukon conditions and practices and, hence, we feel capable of reviewing the past work and commenting on future plans.

Mr. Jury states that equipment, owned by Leisure and used in 1974, valued at \$324,000 (on site original cost), is on location and is ready for 1975 work.

In our opinion, a new fifth tractor of the Caterpillar D-8 type should be obtained in 1975 to add to the present four used ones. This could be leased with an option to purchase, or purchased outright or rented. Capital requirements, assuming this tractor and other front end loader equipment required in future years are purchased outright, are estimated at \$303,000 for 1975, \$101,000 for 1976, and \$20,000 for 1977, or a total of \$424,000.

Operating profits, from which capital equipment costs, income taxes and financing charges must be deducted, are estimated as follows, for the first three years of operation:

	<u>Price of gold - \$170/oz.</u>		<u>Price of gold - \$180/oz.</u>	
	<u>Uncut Assays</u>	<u>Cut Assays</u>	<u>Uncut Assays</u>	<u>Cut Assays</u>
1975	\$48,470	(\$18,830)	\$94,670	\$23,420
1976	461,660	348,340	538,090	418,100
1977	<u>649,470</u>	<u>529,750</u>	<u>742,020</u>	<u>615,260</u>
Totals	\$1,159,600	\$859,260	\$1,374,780	\$1,056,780

Initial working capital required is of the order of \$600,000 for 1975. Fill-in churn drilling may be necessary at the Black Hills group in 1977; this cost has not been included.

Permafrost overburden would be prepared in advance by uncovering enough of the underlying frozen gravel each year to permit continuous extraction.

Amounts of gold-bearing gravel to be extracted and sluiced are estimated

as follows:

	1975	(Uncut assays) Revenue - gross @ \$170/oz.	1976	(Uncut assays) Revenue - gross @ \$170/oz.	1977	(Uncut assays) Revenue - gross @ \$170/oz.
<u>Creek</u>	<u>Cu. yds.</u>		<u>Cu. yds.</u>		<u>Cu. yds.</u>	
Eureka	136,800	334,890	136,800	390,700	136,800	390,700
Dominion	112,100	368,430	112,100	368,440	112,100	602,180
Black Hills	118,280	159,530	136,800	347,290	250,800	437,740
Dominion H	-	-	111,150	336,340	111,150	317,450
Plus clean-up (1974)	<u>-</u>	<u>9,410</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Totals	367,180	872,260	496,850	1,442,770	610,850	1,748,070

A total, therefore of 1,474,880 cu. yds. will be treated resulting in a gross revenue, before royalties, of \$4,063,100, or \$2.75 per cu. yd. using a price of gold of \$170 per ounce.

Approximately 4.9 million cu. yds. of gravel remaining after 1977, and averaging \$2.34 per cu. yd. (at \$170 per ounce for gold), will provide a further (approximate) eight years of production at the projected 1977 rate, with corresponding anticipated operating profits.

Leisure has made tentative option arrangements concerning a fifth gold-bearing placer claim group known as "Gold Run". Mr. Jury reports that approximately 10 million cu. yds. are present, averaging \$1.02 per cubic yard at a price of \$150 per ounce for gold. No study has been made by Bacon & Crowhurst concerning this group: it represents a plus factor to be evaluated.

CONCLUSIONS

Several attractive features are evident. Mr. Jury states that the overburden quantities, cubic yards of underlying gravel, and its gold content, are based on records obtained from Yukon Consolidated Gold Corporation Ltd. churn drilling programs. Complete detailed maps were supplied, and are attached to this report. These drill holes are spread over all of the claim groups; the figures reported can, in our opinion, be trusted as accurate and, hence, gold recoveries and revenues, as estimated, are felt to be firm.

The whole area involved is covered with permafrost but sufficient overburden has been stripped during 1974 to permit some early sluicing and consequent gold recovery from the underlying thawed gravel early in the 1975 season. By 1976, it should be possible to sluice thawed gravel continuously with corresponding economies.

Mr. Jury emphasizes that a skilled experienced crew, gathered during 1974, is available for 1975 work. These men are familiar with procedures used and the local requirements - hence performance estimates should be attained.

Although some repairs are necessary, most of the equipment required is on-site and production work can, therefore, be initiated soon after "break-up", i.e. in late May or early June.

Although my estimates are not as optimistic as Mr. Jury's, the property is an attractive one and is probably one of the best available in the Yukon.

Respectfully submitted,

BACON & CROWHURST LTD.


J.J. Crowhurst, P. Eng.

TABLE OF CONTENTS

	<u>Page</u>
Letter of Transmittal with Conclusions	
Table of Contents	
List of Illustrations	
PROPERTY AND TITLE	1
ACCESS	2
HISTORY	3
ORE RESERVES	5
OVERBURDEN	7
PROPOSED 1975 PROGRAM	13
(1) Eureka Creek	13
(2) Dominion Creek and Dominion 'H' Creek	13
(3) Black Hills Creek	14
(4) Revenue Estimates	14
(5) Operating Cost Estimates	18
(6) Operating Profit Estimates	19
<u>APPENDIX</u>	
CAPITAL REQUIREMENTS	1
LIST OF EQUIPMENT	2
ORE RESERVES	3
Eureka Creek	3 & 4
Dominion Creek	5 & 6
Black Hills Creek	7 & 8
Dominion 'H' Creek	9 & 10

LIST OF ILLUSTRATIONS

<u>Title</u>	<u>Map No.</u>	<u>Scale</u>	
Property Locations	1500-6a	1" = 4 miles	Following Page 1 of report
Dominion Creek	1500-1	1" = 200'	In pocket at back of report
	1500-2	"	"
Dominion "H" Creek	1500-3	"	"
	1500-8	"	"
Eureka Creek Drilling	1500-4	"	"
	1500-5	"	"
Black Hills Creek	1500-7	1" = 400'	"

PROPERTY AND TITLE

Leisure Gold Limited reportedly hold placer claims and leases at four locations in the Klondike area, Yukon Territory, as shown by Map No. 1500-6a (Alrae Engineering Ltd.) on the following page.

The claims cover about 4375' along Dominion Creek, a total of 4250' in four sections on Dominion H Creek, 6400' in a north section on Eureka Creek and 4550' in a south section, and about 11,210' along Black Hills Creek.

Details noted in a Progress Report dated February 3rd, 1975, by Alrae Engineering Limited are as follows:

"Claims - Placer claims and leases which comprise each of the company's projects are as follows:

Dominion: 16 claims

37894, 37895, 37897, 37898, 37910
37932, 37949, 37950, 38502
38665
42650 to 42655

Work Filing Due

October 1, 1975
October 1, 1975
May 8, 1976
June 27, 1975

Dominion H: 17 claims, 3 leases

38578, 38580, 42601
Leases 3191, 3192, 3322,
38727 to 38731 incl.
42366 to 42368 incl.
38706, 42133, 42193
42145, 42149, 42150

Eureka: 35 claims

42042 to 42073
42003, 42020, 42021

September 12, 1975

Black Hills: 82 claims

42473 to 42554 inclusive

May 22, 1976"

It is understood that a fifth group of claims, known as the "Gold Run" group, has been offered to Leisure Gold Ltd. and partial arrangements and payments made. This is located on Dominion Creek, approximately one mile downstream from the main Dominion group.

ACCESS

As shown on Map No. 1500-6a, access is by about 38 to 40 miles of gravel road from Dawson to the Dominion Creek properties. This road passes along the south bank of the Klondike River valley for a short way, and thence up Hunker Creek to its headwaters, over the divide and down Dominion Creek to the placer claims, Dominion Creek proper and the Dominion H property.

A further 16 to 18 miles of road link the Dominion Creek group of claims to the Eureka Creek group.

These roads and the general operations require the use of 4-wheel-drive equipment.

During the last three weeks of the 1974 field season (in October), fourteen miles of similar access road was built to the Black Hills property from the Eureka group location.

HISTORY

In early 1974, Leisure Gold Ltd. optioned claim groups on Dominion Creek, Eureka Creek and Black Hills Creek, all of which are in the Dawson area, Yukon Territory, from Black Creek Mining Ltd. under a royalty agreement. In September, 1974, a similar arrangement was made with Mr. W. Hackonsen of Dawson City concerning the Dominion "H" group.

Leisure then obtained a commitment on a fifth claim group, in the same area, called "Gold Run". It is understood a down payment has been made, but this group has not been considered for the purposes of this report. It may be noted, however, that the gold content in the gravel is low - \$1.02 per cu. yd.

For the 1974 season, Leisure Gold Ltd. purchased four Caterpillar D-8 type tractors and leased a fifth one for part of the season, bought several service vehicles, trailer type accommodation for two camps, three sluice boxes of modern steel design, plus ancillary equipment such as pumps.

One camp serviced a six-man crew at Dominion Creek, and the other provided facilities for ten men at Eureka Creek. These camps are still on location.

Clearing of bush and tree cover, and stripping of overburden, was carried on at Dominion Creek (one tractor - 48 acres) and at Eureka Creek (three tractors - 60 acres) as shown on the attached maps. In addition, about one half of one mile of the valley bottom on Black Hills Creek was stripped. About 40% of the 4914 hours logged as total operating time was required for this overburden work. A drain was partially opened on Black Hills Creek and must be finished prior to subsequent gravel sluicing.

For approximately another 45% of the total operating time, the tractors were used to push gold-bearing gravels into the sluice boxes and dispose of the tailings, as follows:

<u>Creek</u>	<u>Cu. yds. sluiced</u>	<u>Crude gold recovered - ozs.</u>	<u>Fine gold* recovered - ozs.</u>	<u>Value per cu. yd.</u>	<u>Revenue</u>
Dominion	34,495	821.5	677.53	\$2.95	\$101,600
Eureka	<u>60,600</u>	<u>590.6</u>	<u>460.70</u>	<u>1.06</u>	<u>64,260</u>
Totals	95,095	1,412.1	1,138.23	\$1.74	\$165,860

It was noted that the Eureka Creek gravel, in the particular location selected, had an unusually large content of fine material, which prohibited quick thawing of the permafrost by slowing drainage of the gravel. It is hoped that this condition will not persist in other sections along this creek.

The remaining approximate 15% of the available tractor operating time was used in road construction (three weeks to build fourteen miles of access to Black Hills), ditches and drain preparation.

* Dominion Creek average fineness - 825
Eureka Creek average fineness - 780

ORE RESERVES

At all of the four claim groups - Eureka, Dominion, Black Hills and Dominion H - detailed churn drilling results and maps have been obtained from the Yukon Consolidated Gold Corporation Ltd. records (see maps in folder attached).

This company, from 1923 to 1966, operated as many as 10 large gold recovery dredging units within a 50-mile radius of Dawson City, Y.T., and was the acknowledged expert in placer work in the district.

Mr. Jury recounts that he has seen a comparison of the churn drilling results and the actual gold recoveries from the operations of ten of the dredges over a period of ten years. The gold recovered amounted to six to ten per cent in excess of that indicated by the churn drilling programs.

It is assumed that the gold values shown were obtained by relating the amount of gold, recovered by panning churn drill samples, to the volume of gravel intersected. This was the method used by Yukon Consolidated.

In addition, Mr. Jury states that the gold values shown in cents per cubic yard have been adjusted for the fineness of the gold. It is, therefore, assumed that these can be used directly.

Bacon & Crowhurst have made calculations of cubic yards of overburden, cubic yards of gravel and the gold contained, by assuming the figures shown on the accompanying maps to be correct. These calculations do not include the Gold Run group.

Two reserve results have been obtained, one by applying no corrections and using a simple weighted average for each block of ground, and the other by re-averaging the values after cutting high assays to 1.5 times the first obtained simple average. This latter procedure is a standard method used to estimate the content of gold veins, zones or placer deposits, but its severeness may not be justified in view of the comments noted above referring to the previous Yukon Consolidated experience.

A comparison of the Bacon & Crowhurst results with the Alrae Engineering Ltd. figures follows. It can be seen that the 'uncut' Bacon & Crowhurst estimates compare almost exactly with Alrae. It would further be expected that Alrae's estimates of 2,322,000 cubic yards at \$1.02 per cu. yd. for the Gold Run group can be substantiated in a similar fashion.

ALRAE				BACON & CROWHURST				
				Cut Value to 1.5 x avge. \$ per Cu. yd.				
Creek	Cu. yds.	Value \$ per Cu. yd.	Amount	Cu. yds.	Value \$ per Cu. yd.	Cu. yds.	Value \$ per Cu. yd.	
Eureka	2,172,300	\$2.20	\$4,779,060	2,057,810	\$2.24	4,609,490	\$1.88	\$3,868,680
Dominion	707,200	3.13	2,213,540	624,760	3.15	1,967,990	2.82	1,761,820
Black Hills	1,428,000	2.34	3,341,520	1,454,610	2.60	3,781,990	2.34	3,403,790
Dominion H	<u>2,322,000</u>	<u>1.60</u>	<u>3,715,200</u>	<u>2,215,650</u>	<u>1.49</u>	<u>3,301,320</u>	<u>1.38</u>	<u>3,057,600</u>
Totals	6,629,500	2.12	14,049,320	6,352,830	2.15	13,660,790	1.90	12,091,890
						(97.2%)		(86.1%)
						of Alrae		of Alrae

OVERBURDEN

Bacon & Crowhurst have made calculations as to the overlying quantities of overburden present at the four claim groups, and the strip ratios involved. These are summarized as follows; it will be noted that permafrost is present in all locations.

<u>Creek Group</u>	<u>Cu. yds. Total</u>	<u>Cu. yds. stripped to date (in 1974)</u>	<u>Balance</u>	<u>Cu. yds. Gravel</u>	<u>Value per cu. yd. (uncut)</u>	<u>Strip Ratio</u>
Eureka	6,330,370	231,570	6,098,800	2,057,810	2.24	2.70
Dominion	1,584,300	49,910	1,534,390	624,760	3.15	2.46
Black Hills	1,562,570	24,000	1,538,570	1,454,610	2.34	1.06
Dominion H	<u>3,246,430</u>	<u>-</u>	<u>3,246,430</u>	<u>2,215,650</u>	<u>1.60</u>	<u>1.47</u>
	12,723,670	305,480	12,418,190	6,352,830	2.15	1.95

The individual calculations for blocks of gravel, each about 500' long, within each creek group, are available for study to determine which part of each group is the most attractive.

CUBIC YARDS OF OVERBURDEN

EUREKA CREEK

North Portion

<u>Block</u>	<u>Dimensions - ft.</u>	<u>Overburden Cu. yds.</u>	<u>Stripped now</u>	<u>Balance</u>	<u>Cu. yds. Gravel</u>	<u>Strip Ratio</u>
11	1400 x 800 x 211/11	795,690	-	795,690	456,300	1.74
9	1000 x 675 x 218/6	908,330	-	908,330	200,000	4.54
7	950 x 740 x 195/7	725,320	-	725,320	312,440	2.32
5	900 x 650 x 312/7	965,710	-	965,710	151,670	6.37
3	1000 x 600 x 237/5	1,053,330	-	1,053,330	133,330	7.90
1	1150 x 650 x 23/2	<u>318,380</u>	<u>127,350</u>	<u>191,030</u>	<u>249,170</u>	<u>0.77</u>
Totals		4,766,760	127,350	4,639,410	1,502,910	3.09
Minus Block 9		3,858,430	127,350	3,731,080	1,302,910	2.48

South Portion

27	600 x 500 x 97/6	179,630	-	179,630	100,000	1.80
23	1000 x 340 x 75/3	314,810	-	314,810	138,520	2.27
21	1050 x 550 x 198/6	705,830	-	705,830	149,720	4.71
19	1000 x 550 x 51/5	207,780	-	207,780	183,330	1.13
17	900 x 500 x 28/3	<u>155,560</u>	<u>104,220</u>	<u>51,340</u>	<u>183,330</u>	<u>0.28</u>
Totals		1,563,610	104,220	1,459,390	754,900	1.93
Grand Totals		6,330,370	231,570	6,098,800	2,257,810	2.70
Less Block 9				<u>908,330</u>	<u>200,000</u>	
				5,190,470	2,057,810	2.52

CU. YDS. OF OVERBURDEN (cont'd.)

DOMINION CREEK

<u>Block</u>	<u>Dimensions - ft.</u>	<u>Cu. yds. Overburden</u>	<u>Stripped now</u>	<u>Balance</u>	<u>Cu. yds. Gravel</u>	<u>Strip Ratio</u>
119-120	350 x 310 x 53/3	70,990	-	70,990	24,110	2.94
120-121	475 x 300 x 31/2	81,800	-	81,800	68,610	1.19
121-122	500 x 270 x 39/2	97,500	-	97,500	70,000	1.39
122-125	500 x 580 x 131/4	351,760	-	351,760	107,410	3.27
125-126	500 x 610 x 79/3	297,470	-	297,470	90,370	3.29
126-127	500 x 600 x 65/3	240,740	-	240,740	88,890	2.71
127-128	500 x 575 x 59/3	209,410	-	209,410	63,890	3.27
128-129	500 x 475 x 42/2	184,720	-	184,720	61,570	3.00
129-130	550 x 350 x 14/2	<u>49,910</u>	<u>49,910</u>	<u>-</u>	<u>49,910</u>	-
Totals		1,584,300	49,910	1,534,390	624,760	2.46

CU. YDS. OF OVERBURDEN (cont'd.)

BLACK HILLS CREEK

<u>Block</u>	<u>Dimensions - ft.</u>	<u>Cu. yds. Overburden</u>	<u>Stripped now</u>	<u>Balance</u>	<u>Cu. yds. Gravel</u>	<u>Strip Ratio</u>
2N	1760 x 250 x 60/9	108,640	12,000	96,640	179,260	0.54
Lower Disc.	1520 x 170 x 13/3	41,470	12,000	29,470	114,840	0.26
1S	1000 x 310 x 68/4	195,190	-	195,190	103,330	1.89
2S	1080 x 320 x 20/3	85,330	-	85,330	166,400	0.51
4S	1100 x 310 x 45/3	189,440	-	189,440	138,930	1.36
6S	1000 x 370 x 52/4	178,150	-	178,150	137,040	1.30
8S	1000 x 480 x 47/5	167,110	-	167,110	177,780	0.94
10S	1000 x 550 x 62/6	210,490	-	210,490	142,590	1.48
12S	1000 x 600 x 66/6	244,440	-	244,440	133,330	1.83
14S	750 x 580 x 53/6	<u>142,310</u>	<u>-</u>	<u>142,310</u>	<u>161,110</u>	<u>0.88</u>
Totals		1,562,570	24,000	1,538,570	1,454,610	1.06

CU. YDS. OF OVERBURDEN (cont'd.)

DOMINION 'H' CREEK

<u>Block</u>	<u>Dimensions - ft.</u>	<u>Cu. yds. - Overburden</u>	<u>Cu. yds. - Gravel</u>	<u>Strip Ratio</u>
<u>"A" Section</u>				
138	480 x 310 x 31/2	85,420	88,180	0.97
139	500 x 280 x 25/2	64,810	51,850	1.25
140	500 x 330 x 31/2	94,710	36,670	2.58
141	500 x 250 x 35/2	<u>81,020</u>	<u>41,670</u>	<u>1.94</u>
Totals		325,970	218,370	1.49
<u>"B" Section</u>				
146	500 x 230 x 26/2	55,370	55,370	1.00
147	500 x 460 x 24/2	102,220	110,740	0.92
148-149	700 x 500 x 46/3	<u>198,760</u>	<u>103,700</u>	<u>1.92</u>
Totals		356,350	269,810	1.32
<u>"C" Section</u>				
147	430 x 720 x 78/4	223,600	91,730	2.44
148-149	470 x 500 x 39/2	169,720	60,930	2.79
149-150	500 x 440 x 17	138,520	57,040	2.43
150	250 x 450 x 36/3	<u>50,000</u>	<u>50,000</u>	<u>1.00</u>
Totals		581,840	259,700	2.24
<u>"D" Section</u>				
175	250 x 700 x 77/4	124,770	58,330	2.14
176	500 x 630 x 42/3	163,330	163,330	1.00
177	500 x 650 x 43/3	172,530	120,370	1.43
179	500 x 890 x 81/5	267,000	148,330	1.80
180	500 x 990 x 81/5	297,000	165,000	1.80
181	500 x 930 x 69/4	297,080	241,110	1.23
183	500 x 790 x 63/4	230,420	160,930	1.43
184	500 x 700 x 45/3	194,440	155,560	1.25
185	500 x 860 x 74/5	<u>235,700</u>	<u>254,810</u>	<u>0.92</u>
Totals		1,982,270	1,467,770	1.35
Grand Totals		3,246,430	2,215,650	1.47

SUMMARY - STRIPPING REQUIREMENTS

Creek	1975			1976			1977		
	Cu. yds.	Tractor shifts	Cu. yds. per shift	Cu. yds.	Tractor shifts	Cu. yds. per shift	Cu. yds.	Tractor shifts	Cu. yds. per shift
Eureka	311,630	96	3246	210,190	107	1964	210,190	107	1964
Dominion	692,740*	236 (118x2)	2935	389,830	118	3304	351,760	118	2981
Black Hills	183,000	83	2204	217,880	96	2270	178,150	96	1856
Dominion H	-	-	-	<u>300,510</u>	<u>118</u>	<u>2546</u>	<u>81,660</u>	<u>35</u>	<u>2333</u>
Totals	1,187,370	415	2861	1,118,410	439	2548	821,760	356	2308

* Incl. Dominion "H"

It is planned to use water extensively by pumping, ditching and sprinkling in the stripping operations; this greatly increases the tractors' performance.

PROPOSED 1975 PROGRAM

Mr. Jury proposes that the following program be initiated in 1975.

(1) Eureka Creek (reference Map No. 1500-5 in pocket)

The overlying overburden has been stripped about 250' wide down to the gravel for 600' to 800' southerly from drill hole line #17. As noted, some of the gravel north of line #17 has been sluiced.

It is proposed to use one tractor throughout the whole season to put this thawed gravel through a sluice box on day shift, and continuously strip southerly in advance using the tractor on night shift. The overburden in the line 19 and 21 area is from 10 to 30' deep.

In addition, it is contemplated that stripping would be carried out southerly from line 1 to about line 5 (see Map No. 1500-4 in pocket) in advance of gravel sluicing. The same crew would be used as in the line 17 area, depending on results obtained. Depth of overburden varies from 11' at line 1 to 44' at line 5.

(2) Dominion Creek and Dominion 'H' Creek

Overburden has been stripped (as shown on Map No. 1500-2 in pocket) westward into block 129 to permit continued sluicing of the gravel westward from the 1974 mined area. Stripping would proceed in advance during 1975. Two tractors would be used; depth of overburden is about 20'.

The same crew would move to Dominion H later in the season, and strip overburden in the 139-140 and 140-141 area (see Map No. 1500-3 in pocket). Depth varies from 15' to 17'.

(3) Black Hills Creek

Overburden has been stripped (as shown on Map No. 1500-7 in pocket) at the junction of Larsen Creek and Black Hills Creek, between the Lower Discovery line of drill holes and line #2. A drain has been constructed downstream from the camp area to the bend in the creek near line #2.

It is planned to mine the stripped area and pass the gravel through a sluice box, progressing upstream or northward to about line #2 eventually, keeping the stripping in advance, using two tractors on day shift. Overburden is from 7 to 8' deep.

One of these tractors would be used on night shift to strip downstream from the drain. Overburden at line #2 is 7' deep, at line #6 averages 13', at line #10 is 10' average and at line #14 is 9' deep.

(4) Revenue Estimates

Mr. Jury states that in 1974, when treating partially frozen gravel, that from 65 cu. yds./hr. to 125 cu.yds./hr. was treated through each sluice box. The average amounted to 91.7 cu.yds./hr.

Assuming that this rate can be multiplied by 1.5 when thawed gravel is processed, 137 cu.yds./hour x 9.5 hours/day or 1300 cu. yds./day (approx.) can be contemplated as an average. This will vary by creeks, as shown, depending on water supply and the nature of the gravel.

1975 Revenue Estimates

<u>Creek</u>	<u>Operating period</u>	<u>Available days</u>	<u>Operating days (avail. x 90%)</u>	<u>Cu. yds. sluiced per day</u>	<u>Cu. yds. gravel sluiced (area)</u>	<u>Assays Uncut</u>		<u>Assays Cut</u>		
						<u>Value per cu. yd.</u>	<u>Revenue</u>	<u>Value per cu. yd.</u>	<u>Revenue</u>	
Eureka	15 June-30 Sept.	107	96	1425	136,800 (17 and 1)	\$2.16	\$295,490	\$1.85	\$253,080	
Dominion	23 May-30 Sept.	131	118	950	112,100 (126 to 130)	2.90	325,090	2.69	301,550	
Black Hills	1 July-30 Sept.	92	83	1425	118,280 (Larsen Cr. to Line 2)	1.19	140,750	1.19	140,750	
Totals		330	297	1236	367,180	\$2.07	\$761,330	\$1.89	\$695,380	
Plus clean-up at Eureka Creek - 1974 work - estimated								<u>8,300</u>		<u>8,300</u>
Total - Gold @ \$150/oz.								\$769,660		\$703,680
Totals - Gold @ \$170/oz.		330	297	1236	367,180	\$2.38	\$872,260	\$2.17	\$797,480	

Note - Calculations have been made at a price of gold of \$150/ounce to correlate with the values reported on the present maps, and adjusted to \$170/ounce as shown.

1976 Revenue Estimates

<u>Creek</u>	<u>Operating period</u>	<u>Available days</u>	<u>Operating days (avail. x 90%)</u>	<u>Cu. yds. sluiced per day</u>	<u>Cu. yds. gravel sluiced (area)</u>	<u>Assays Uncut</u>		<u>Assays Cut</u>	
						<u>Value per cu. yd.</u>	<u>Revenue</u>	<u>Value per cu. yd.</u>	<u>Revenue</u>
Eureka	15 June-30 Sept.	107	96	1425	136,800 (1,17 & 19)	\$2.52	\$ 344,740	\$1.88	\$ 257,180
Dominion	23 May-30 Sept.	131	118	950	112,100 (126 to 130)	\$2.90	325,090	2.69	301,550
Black Hills	15 June-30 Sept.	107	96	1425	136,800 (Larsen Cr. to Line 2 & 2S)	2.24	306,430	2.24	306,430
Dominion H	23 June-30 Sept.	100	90	950	111,150 (138 & 139)	2.67	296,770	2.67	296,770
Totals - Gold @ \$150/oz.		445	400	1242	496,850	\$2.56	\$1,273,030	\$2.34	\$1,161,930
Totals - Gold @ \$170/oz.		445	400	1242	496,850	\$2.90	\$1,442,720	\$2.65	\$1,316,810

1977 Revenue Estimates

<u>Creek</u>	<u>Operating period</u>	<u>Available days</u>	<u>Operating days (avail. x 90%)</u>	<u>Cu. yds. sluiced per day</u>	<u>Cu. yds. gravel sluiced (area)</u>	<u>Assays Uncut</u>		<u>Assays Cut</u>	
						<u>Value per cu. yd.</u>	<u>Revenue</u>	<u>Value per cu. yd.</u>	<u>Revenue</u>
Eureka	15 June-30 Sept.	107	96	1425	136,800 (1,17 & 19)	\$2.52	\$344,740	\$1.88	\$257,180
Dominion	23 May-30 Sept.	131	118	950	112,100 (125 to 130)	4.74	531,350	4.67	523,510
Black Hills (15 June-30Sept.	107	96	1425	136,800				
(Night shift		89	80	1425	<u>114,000</u> <u>250,800</u> (Larsen Cr. to Line 2, 2S & 4S)				
						1.54	386,230	1.51	378,710
Dominion H	24 May-30Sept.	130	117	950	111,150 (138,139,140, 141 & 175)	2.52	280,100	2.39	265,650
Totals - Gold @ \$150/oz.		563	506	1205	610,850	\$2.53	\$1,542,420	\$2.34	\$1,425,050
Totals - Gold @ \$170/oz.		563	506	1205	610,850	\$2.87	\$1,748,070	\$2.65	\$1,615,050

(5) Operating Cost Estimates

	<u>1975</u>	<u>1976</u>	<u>1977</u>
Labour	\$198,870	\$231,440	\$260,250
Tractor operation (fuel & repairs, etc.)	244,460	283,180	323,950
Pump operation	31,030	41,800	52,990
Pickup operation	24,000	24,000	24,000
Board & room	66,240	75,300	73,620
General camp operation	30,000	30,000	30,000
Supervision & administration incl. travel & engineering, office expense, etc.	<u>75,000</u>	<u>75,000</u>	<u>75,000</u>
	\$669,600	\$760,720	\$839,810
+ 10% contingencies	<u>66,960</u>	<u>76,070</u>	<u>83,980</u>
	\$736,560	\$836,790	\$923,790

(6) Operating Profit Estimates - First 3 Years
(Assumed price of gold - \$170/ounce)

	<u>1975</u>		<u>1976</u>		<u>1977</u>		<u>Totals</u>	
	<u>Uncut</u> <u>Assay</u> <u>Values</u>	<u>Cut</u> <u>Assay</u> <u>Values</u>	<u>Uncut</u> <u>Assay</u> <u>Values</u>	<u>Cut</u> <u>Assay</u> <u>Values</u>	<u>Uncut</u> <u>Assay</u> <u>Values</u>	<u>Cut</u> <u>Assay</u> <u>Values</u>	<u>Uncut</u> <u>Assay</u> <u>Values</u>	<u>Cut</u> <u>Assay</u> <u>Values</u>
Gross Revenue	\$872,260	\$797,480	\$1,442,720	\$1,316,810	\$1,748,070	\$1,615,050	\$4,063,050	\$3,729,340
Less Royalties @ 10%	<u>87,230</u>	<u>79,750</u>	<u>144,270</u>	<u>131,680</u>	<u>174,810</u>	<u>161,510</u>	<u>406,310</u>	<u>372,940</u>
Net Revenue	785,030	717,730	1,298,450	1,185,130	1,573,260	1,453,540	3,656,740	3,356,400
Operating Costs	<u>736,560</u>	<u>736,560</u>	<u>836,790</u>	<u>836,790</u>	<u>923,790</u>	<u>923,790</u>	<u>2,497,140</u>	<u>2,497,140</u>
Operating Profit (Loss)	48,470	(18,830)	461,660	348,340	649,470	529,750	1,159,600	859,260

Note: If the price of gold is assumed to be \$180/ounce, as per current quotations (March 1975)

	<u>1975</u>		<u>1976</u>		<u>1977</u>		<u>Totals</u>	
	<u>Uncut</u>	<u>Cut</u>	<u>Uncut</u>	<u>Cut</u>	<u>Uncut</u>	<u>Cut</u>	<u>Uncut</u>	<u>Cut</u>
Net Revenue	\$831,230	\$759,980	\$1,374,880	\$1,254,890	\$1,665,810	\$1,539,050	\$3,871,920	\$3,553,920
Operating Profit	94,670	23,420	538,090	418,100	742,020	615,260	1,374,780	1,056,780

APPENDIX

CAPITAL REQUIREMENTS

	<u>Amount - assuming purchase</u>
<u>1975</u>	
1 Tractor (D-8 Caterpillar type or equivalent) including freight	\$155,000
2 Pumps & pipe @ \$15,000 each - 671 GM, 12" size	30,000
3 3/4 ton and 1-ton, four-wheel-drive vehicles @ \$7000 each	21,000
1 Sluice box - large type - with freight - to replace present worn-out one	17,000
Camp facilities for Black Hills - trailer type	40,000
Parts for present 4 D-8 Caterpillar tractors	<u>40,000</u>
	\$303,000
<u>1976</u>	
1 Front-end loader - #966 Caterpillar type - used	\$60,000
1 Sluice box	16,000
1 Pump & pipe	15,000
Miscellaneous	<u>10,000</u>
	\$101,000
<u>1977</u>	
Miscellaneous	<u>\$20,000</u>
<u>Total</u>	\$424,000

LIST OF EQUIPMENT

		<u>On Site Value</u>
1	D8H 46A - 17213	\$64,500
1	D8H 46A - 10294	45,000
1	D8H 46A - 13468	58,000
1	D8H 46A - 5495	45,000
	Cat; parts inventory	22,000
1	Ford 5 ton flat deck truck & SKB crane	13,500
1	Ford 3/4 ton 4 x 4 F26YRT64023	6,000
1	Ford 3/4 ton 4 x 4 F26YRT85778	6,000
1	Ford 3/4 ton 4 x 4 crewcab	3,000
1	Chevrolet 4 x 4 1972	4,000
1	Fabco 10 x 52 Trailer 4252125	8,400
1	Atco 10 x 52 Trailer 15321827	10,800
2	Diesel light plants & electrical equipment	7,800
2	GM 6-71 Diesel pump engines	12,000
1	10 x 12 pump	2,000
2	4' x 44' sluice boxes	<u>16,000</u>
		\$324,000

ORE RESERVES

EUREKA CREEK

North Portion

<u>Block</u>	<u>Length</u>	<u>Width</u>	<u>Depth</u>	<u>Cu. ft.</u>	<u>Cu. yds.</u>	Avge. Value (uncut) \$/cu. yd. @ \$100/oz.	<u>Cu. yds.</u> <u>x Value</u>
11	1400'	800'	11'	12,320,000	456,300	\$0.91	\$415,230
9	1000	675	8	5,400,000	200,000	0.75	150,000
7	950	740	12	8,436,000	312,440	1.09	340,560
5	900	650	7	4,095,000	151,670	2.52	382,210
3	1000	600	6	3,600,000	133,330	1.66	221,330
1	<u>1150</u>	650	9	<u>6,727,500</u>	<u>249,170</u>	<u>1.66</u>	<u>413,620</u>
	6400			40,578,500	1,502,910	\$1.28	\$1,922,950

South Portion

27	600	500	9	2,700,000	100,000	\$1.30	\$130,000
23	1000	340	11	3,740,000	138,520	2.63	364,310
21	1050	550	7	4,042,500	149,720	1.20	179,660
19	1000	550	9	4,950,000	183,330	2.16	395,990
17	<u>900</u>	500	11	<u>4,950,000</u>	<u>183,330</u>	<u>1.22</u>	<u>223,660</u>
	4550			20,382,500	754,900	\$1.71	\$1,293,620

Totals 60,961,000 2,257,810 \$1.425 \$3,216,570

or @ \$150/ounce of Au = 1.425 x 1.5 = \$2.14/cu. yd.

Totals (delete Section #9) 2,057,810 \$1.490 \$3,066,570

or @ \$150/ounce of Au = \$2.235/cu. yd.

ORE RESERVES (cont'd.)

EUREKA CREEK

North Portion

<u>Block</u>	<u>Cu. yds.</u>	<u>Avg. Value (cut) @ \$100/oz. = \$/cu. yd.</u>	<u>Cu. yds. x Value</u>
11	456,300	\$0.77	351,350
9	200,000	0.59	118,000
7	312,440	0.95	296,820
5	151,670	1.88	285,140
3	133,330	1.48	197,330
1	<u>249,170</u>	<u>1.48</u>	<u>368,770</u>
	1,502,910	\$1.08	\$1,617,410

South Portion

27	100,000	\$1.17	117,000
23	138,520	2.63	364,310
21	149,720	1.19	178,170
19	183,330	1.29	236,500
17	<u>183,330</u>	<u>0.98</u>	<u>179,660</u>
	754,900	\$1.42	\$1,075,640

Totals	2,257,810	\$1.19	\$2,693,050
--------	-----------	--------	-------------

or @ \$150/ounce of Au = 1.19 x 1.5 = \$1.79/cu. yd.

Totals

(Delete Section 9)

2,057,810	\$1.25	\$2,575,050
-----------	--------	-------------

or 1.25 x 1.5 = \$1.88/cu. yd.

ORE RESERVES (cont'd.)

DOMINION CREEK

<u>Block</u>	<u>Length</u>	<u>Width</u>	<u>Depth</u>	<u>Cu. ft.</u>	<u>Cu. yds.</u>	Avge. Value (uncut) \$/cu. yd. @ \$100/oz.	<u>Cu. yds. x Value</u>
119-120	350'	310'	6'	651,000	24,110	\$2.30	\$55,450
120-121	475	300	13	1,852,500	68,610	1.13	77,530
121-122	500	270	14	1,890,000	70,000	1.56	109,200
122-125	500	580	10	2,900,000	107,410	1.98	212,670
125-126	500	610	8	2,440,000	90,370	3.84	347,020
126-127	500	600	8	2,400,000	88,890	2.41	214,220
127-128	500	575	6	1,725,000	63,890	2.69	171,860
128-129	500	475	7	1,662,500	61,570	1.65	101,590
129-130	<u>550</u>	350	7	<u>1,347,500</u>	<u>49,910</u>	<u>0.46</u>	<u>22,960</u>
	4375			16,868,500	624,760	\$2.10	\$1,312,500

or @ \$150/oz. Au = 2.10 x 1.50 = \$3.15/cu. yd.

ORE RESERVES (cont'd.)

DOMINION CREEK

<u>Block</u>	<u>Cu. yds.</u>	<u>Avge. Value (cut) @ \$100/oz. = \$/cu. yd.</u>	<u>Cu. yds. x Value</u>
119-120	24,110	\$2.11	\$50,870
120-121	68,610	0.91	62,430
121-122	70,000	1.20	84,000
122-125	107,410	1.49	160,040
125-126	90,370	3.84	347,020
126-127	88,890	2.04	181,340
127-128	63,890	2.61	166,750
128-129	61,570	1.65	101,590
129-130	<u>49,910</u>	<u>0.46</u>	<u>22,960</u>
	624,760	\$1.88	\$1,177,000

or @ \$150/oz. Au = 1.88 x 1.5 = \$2.82/cu. yd.

ORE RESERVES (cont'd.)

BLACK HILLS CREEK

North to South

<u>Block</u>	<u>Length</u>	<u>Width</u>	<u>Depth</u>	<u>Cu. ft.</u>	<u>Cu. yds.</u>	<u>Avge. Value (uncut) \$/cu. yd. @ \$100/oz.</u>	<u>Cu. yds. x Value</u>
5-N	880'	180'	12'	1,900,800	70,400	\$0.72	\$50,690
2-N	1760	250	11	4,840,000	179,260	0.79	141,620
Lower Discovery	1520	170	12	3,100,800	114,840	0.78	89,580
1-S	1000	310	9	2,790,000	103,330	1.03	106,430
2-S	1080	320	13	4,492,800	166,400	2.78	462,590
4-S	1100	310	11	3,751,000	138,930	1.69	234,790
6-S	1000	370	10	3,700,000	137,040	2.80	383,710
8-S	1000	480	10	4,800,000	177,780	0.87	154,670
10-S	1000	550	7	3,850,000	142,590	4.04	576,060
12-S	1000	600	6	3,600,000	133,330	1.21	161,330
14-S	<u>750</u>	<u>580</u>	<u>10</u>	<u>4,350,000</u>	<u>161,110</u>	<u>1.30</u>	<u>209,440</u>
Totals	12,090	(Av.) 375	(Av.) 10	41,175,400	1,525,010	\$1.686	\$2,570,910
Totals less 5-N	11,210				1,454,610	\$1.732	\$2,520,220

ORE RESERVES (cont'd.)

BLACK HILLS CREEK

<u>Block</u>	<u>Cu. yds.</u>	<u>Avg. Value (cut)</u> <u>@ \$100/oz. = \$/cu. yd.</u>	<u>Cu. yds.</u> <u>x Value</u>
2-N	179,260	\$0.79	\$141,610
Lower Discovery	114,840	0.72	82,680
1-S	103,330	0.87	89,900
2-S	166,400	2.78	462,590
4-S	138,930	1.66	230,620
6-S	137,040	2.80	383,710
8-S	177,780	0.71	126,220
10-S	142,590	2.93	417,790
12-S	133,330	1.18	157,330
14-S	<u>161,110</u>	<u>1.08</u>	<u>174,000</u>
Totals	1,454,610	\$1.558	\$2,266,450
or	1,454,610	\$2.337/cu. yd. @ \$150/ounce Au	

ORE RESERVES (cont'd.)

DOMINION 'H' CREEK

<u>Block</u>	<u>Length</u>	<u>Width</u>	<u>Depth</u>	<u>Cu. ft.</u>	<u>Cu. yds.</u>	Avge. Value (uncut) \$/cu. yd. @ \$100/oz.	<u>Cu. yds. x Value</u>
<u>"A" Section</u>							
138	480'	310'	16'	2,380,800	88,180	\$1.35	\$119,040
139	500	280	10	1,400,000	51,850	2.52	130,660
140	500	330	6	990,000	36,670	0.88	32,270
141	500	250	9	1,125,000	41,670	1.69	70,420
Totals	1980			5,895,800	218,370	1.61	352,390
<u>"B" Section</u>							
146	500	230	13	1,495,000	55,370	0.71	39,310
147	500	460	13	2,990,000	110,740	0.98	108,520
148-149	700	500	8	2,800,000	103,700	0.83	86,070
Totals	1700			7,285,000	269,810	0.87	233,900
<u>"C" Section</u>							
147	430	720	8	2,476,800	91,730	0.52	47,700
148-149	470	500	7	1,645,000	60,930	1.50	91,400
149-150	500	440	7	1,540,000	57,040	0.62	35,360
150	250	450	12	1,350,000	50,000	0.86	43,000
Totals	1650			7,011,800	259,700	0.84	217,460
<u>"D" Section</u>							
175	250	700	9	1,575,000	58,330	2.08	121,330
176	500	630	14	4,410,000	163,334	0.55	89,830
177	500	650	10	3,250,000	120,370	0.73	87,870
179	500	890	9	4,005,000	148,330	1.24	183,930
180	500	990	9	4,455,000	165,000	1.18	194,700
181	500	930	14	6,510,000	241,110	0.88	212,180
183	500	790	11	4,345,000	160,930	0.95	152,880
184	500	700	12	4,200,000	155,560	0.86	133,780
185	500	860	16	6,880,000	254,810	0.82	208,940
Totals	4250			39,630,000	1,467,770	0.94	1,385,440
Grand Totals				59,822,600	2,215,650	\$0.99	\$2,189,190

or (a) \$150/oz. for Au = 0.99 x 1.5 = \$1.485

ORE RESERVES (cont'd.)

DOMINION 'H' CREEK

<u>Block</u>	<u>Cu. yds.</u>	<u>Avg. Value (cut) @ \$100/oz. - \$/cu. yd.</u>	<u>Cu. yds. x Value</u>
<u>"A" Section</u>			
138	88,180	\$1.35	\$119,040
139	51,850	2.52	130,660
140	36,670	0.50	18,340
<u>141</u>	<u>41,670</u>	<u>1.69</u>	<u>70,420</u>
Totals	218,370	1.55	338,460
<u>"B" Section</u>			
146	55,370	0.65	35,990
147	110,740	0.98	108,520
<u>148-149</u>	<u>103,700</u>	<u>0.68</u>	<u>70,520</u>
Totals	269,810	0.80	215,030
<u>"C" Section</u>			
147	91,730	0.52	47,700
148-149	60,930	1.30	79,210
149-150	57,040	0.62	35,360
<u>150</u>	<u>50,000</u>	<u>0.75</u>	<u>37,500</u>
Totals	259,700	0.77	199,770
<u>"D" Section</u>			
175	58,330	2.06	120,160
176	163,330	0.45	73,500
177	120,370	0.73	87,870
179	148,330	1.12	166,130
180	165,000	1.12	184,800
181	241,110	0.85	204,940
183	160,930	0.90	144,840
184	155,560	0.59	91,780
<u>185</u>	<u>254,810</u>	<u>0.82</u>	<u>208,940</u>
Totals	1,467,770	0.87	1,282,960
Grand Totals	2,215,650	\$0.92	\$2,036,220

or @ \$150/oz. for Au = 0.92 x 1.5 = \$1.38