

YUKON TERRITORIAL GOVERNMENT  
Exploration Incentives Program  
PROJECT EIP87-015

PLACER EXPLORATION ON  
FORTY MILE RIVER:  
Prospecting & Trenching  
April 27 - December 31, 1987

PLACER CLAIMS:

P11173, P11174, P11189-P11193, P11200-P11203,  
P14400-P14410, P21204

DREDGING LEASES:

DL83/4, DL83/5

TRANSVERSE MERCATOR PROJECTION CO-ORDINATES

141°47' longitude - 64°21' latitude

PLACER CLAIM SHEET 116C-7

prepared by

W. CLAXTON & L. CHAPMAN, principals

FORTY MILE PLACERS

Box 460 Dawson City, Yukon Y0B-1G0

## TABLE OF CONTENTS

Overview	1.
GEOGRAPHY OF THE FORTYMILE RIVER	1.
PLACER PROFILE OF THE FORTYMILE RIVER	1.
HISTORY OF MINING ON THE FORTYMILE	2.
PREVIOUS MINING AND PROSPECTING BY FORTYMILE PLACERS	2.
Project Description	3.
AIMS AND OBJECTIVES	3.
PROJECT APPROACH	3.
PHASE ONE	3.
PHASE TWO	4.
EQUIPMENT USED	5.
SAMPLE TREATMENT PROCEDURE	6.
SAMPLE EVALUATION PROCEDURE	8.
Summary	10.
NOTES ON PROSPECTING	10.
NOTES ON BENCH TRENCHING	11.
NOTES ON BAR TRENCHING	11.
NOTES FOR INTERPRETING THE SUMMARY OF RESULTS	12.
SUMMARY OF RESULTS FROM BENCH DEPOSITS	13.
SUMMARY OF RESULTS FROM BAR DEPOSITS	15.
TOTAL ESTIMATED RESERVES & VALUES ON BENCHES & BARS	18.
List of Tables	
TABLE 1 RESULTS FROM PROSPECTING PHASE	19.
TABLE 2 RESULTS FROM BAR DEPOSIT "a"	25.
TABLE 3 RESULTS FROM BAR DEPOSIT "b"	28.
TABLE 4 RESULTS FROM BAR DEPOSIT "c"	29.
TABLE 5 RESULTS FROM BAR DEPOSIT "d"	31.
TABLE 6 RESULTS FROM BAR DEPOSIT "e"	32.
TABLE 7 RESULTS FROM BAR DEPOSIT "f"	34.
TABLE 8 RESULTS FROM BAR DEPOSIT "g"	35.
TABLE 9 RESULTS FROM BENCH DEPOSIT "A"	37.

## TABLE OF CONTENTS (continued)

TABLE 10	RESULTS FROM BENCH DEPOSIT "B"	39.
TABLE 11	RESULTS FROM BENCH DEPOSIT "C"	41.
TABLE 12	RESULTS FROM BENCH DEPOSIT "D"	42.
TABLE 13	RESULTS FROM BENCH DEPOSIT "E"	46.
TABLE 14	RESULTS FROM BENCH DEPOSIT "F"	48.
TABLE 15	RESULTS FROM BENCH DEPOSIT "G"	49.
TABLE 16	FINDING THE WEIGHT OF 1 COLOUR	50.
TABLE 17	DIMENSIONS & VOLUMES - TRENCHES/BARS	51.
TABLE 18	DIMENSIONS & VOLUMES - TRENCHES/BENCHES	52.
TABLE 19	AREAS & VOLUMES OF STRIPPING WORK	53.
Supplementary Information		54.
List of Maps		
Map 1	TOPOGRAPHIC	55.
Map 2	TOPOGRAPHIC	56.
Map 3	PROSPECTING - SAMPLE LOCATIONS	57.
Map 4	PIT LOCATIONS ON BARS	58.
Map 5	TRENCH LOCATIONS ON BENCHES	59.
Map 6	CLAIMS ON WHICH TRENCHING TOOK PLACE	60.

## Overview

### GEOGRAPHY OF THE FORTY MILE RIVER

The Fortymile is a swift flowing river with an average grade of 10 feet per mile. While most of the drainage is located in Alaska, the last 23 miles of the river flows through the Yukon, emptying into the Yukon River 46 miles downstream from Dawson City. The wetted perimeter averages 500 feet, with a main channel of approximately 200 feet at average flow. The rims defining the valley are steep and rugged; the valley width varies, averaging 2000 feet. The river channel meanders and has many bends. The area has not been glaciated. The water volume of the river fluctuates greatly, responding quickly to rainfall. The enclosed topographic Map 1 and 2 illustrate the character of the Canadian portion of the river, and its location in the territory.

### PLACER PROFILE OF THE FORTY MILE RIVER

The placer reserves of the Canadian section of the Fortymile are divided into two categories: dredging reserves which are found in the wetted perimeter of the river valley, and bench deposits which are found above and adjacent to the river channel. The dredging reserves are thawed and, by definition, the bedrock is submerged below the water table. Depth to bedrock averages 12 to 15 feet. In the bench reserves, bedrock is above the water table. The gravel is usually frozen but some pockets are thawed. The gravel is overlain with muck, usually frozen, with a depth of from 6 inches to 30 feet. Gravel depth is from 6 feet to 30 feet with 20 feet being average. While the Fortymile became famous as a coarse gold area, our experience on the Canadian section of the river is that there is extremely fine gold throughout the entire gravel section.

#### HISTORY OF MINING ON THE FORTY MILE RIVER

Gold was first discovered on the Fortymile River in 1886, precipitating the first major Yukon gold rush. In 1887 \$200,000 worth of gold, more than 14,000 ounces, were mined with pick, shovel, and rocker, by some 200 miners. The town of Fortymile was established at the confluence of the Fortymile and the Yukon Rivers. As well as fine bar gold, coarse nuggets were being found. The Fortymile district was the first area in which wood fires were used to thaw shafts in order to gain access to the rich gravel and coarse gold at bedrock depth.

Between 1906 and 1911, a dredge worked the Fortymile 8 miles upriver from the mouth. This project was abandoned with the advent of the First World War. In the early 1930's, another dredging operation was initiated 11 miles upriver from the mouth, at the confluence of Bruin Creek and the Fortymile River. On the American section of the river, mining has been continuous and extensive with numerous dredging and cat operations.

#### PREVIOUS MINING AND PROSPECTING BY FORTY MILE PLACERS

We have been prospecting and mining in the Fortymile area since 1974 when we staked placer ground on Marten Creek, a tributary of the Fortymile, approximately 14 miles upriver from the mouth of the river. In 1979 we acquired the Canadian section of the Fortymile.

We have completed six drill programs over the entire length of the river as well as on Boundary Creek, Marten Creek, Montgomery Creek, and Bruin Creek. We have used a 6 inch churn drill, 6 inch sonic drill, and a 2½ inch rotary drill on these projects. We have been mining on the river benches since 1980. Our current mining operation is located on a high bench situated on an oxbow of the river known as the "Kink", 13 miles upriver from the mouth of the Fortymile.

## Project Description

### AIMS AND OBJECTIVES

The goal of this exploration program was to identify and to evaluate placer gold deposits, in the benches and river bars, in the middle reach of the Fortymile River valley. The objective was to gain the following information:

- muck depth and gravel depth
- bedrock composition
- whether the ground was frozen or thawed
- nature and quantity of gold present in the deposits
- the volume of gravel available for mining

### PROJECT APPROACH

The exploration project consisted of two phases. The purpose of Phase One was to determine sites on bars and benches which warranted investigation using heavy equipment. We wanted to identify specific targets before using equipment in order to maximize efficiency and to avoid unnecessary environmental impact. Phase Two consisted of a trenching program using a back-hoe excavator to dig trenches in deposits identified by the first phase. A detailed description of the work performed follows.

### PHASE ONE

Phase One was conducted between April 27 and August 26, 1987. Preliminary samples were taken, with pick and shovel, on surface gravels of bars and in places on benches where gravel was easily obtained from cut banks and sluffs on bench rims. The locations where these samples were taken are plotted on Map 3. Samples were of a volume which fit in a 12 inch by 18 inch sample bag, or an average of 16 pounds.

The following criteria were used to determine deposits which were suitable for further examination by trenching:

- presence of gold in the preliminary samples obtained

- accessibility of deposit
- suitability of material for evaluation by trenching (would it be possible to excavate cost-effectively to obtain samples with the heavy equipment available?)

On the benches, the ground is usually thawed for approximately 30 feet back from the rim, making trenching possible. As well, there are pockets of gravel which are thawed to bedrock. One of our primary objectives was to delineate and evaluate these thawed deposits, since mining costs are much lower than the costs of mining frozen ground.

Because of the cursory nature of this prospecting phase, representative values of samples were not calculated. The purpose of the prospecting was to establish gold presence, not to evaluate gravel in the deposits.

For details on how the samples were processed, refer to the section SAMPLE TREATMENT PROCEDURE. Results from samples taken in Phase One are shown on Table 1.

#### PHASE TWO

Trenches were excavated on the bars and benches of the Fortymile between August 13 and November 4, 1987. The locations of these pits and trenches are plotted on the accompanying Maps 4 and 5. The bars and benches of the Fortymile consist of separate deposits as opposed to being a contiguous unit.

Each deposit was sampled as a unit and results have been tabulated this way. Each bench deposit tested has been designated by a capital letter. These bench deposits are labelled A, B, C, D, E, F, and G. Trenches excavated in each deposit have been assigned numbers; for example the third trench in deposit "A" is designated as trench "A3". Pits and trenches excavated on bar deposits have been assigned

lower case letters; they are deposits a, b, c, d, e, f, and g. Each bar trench is prefixed with the letter of the deposit, followed by the number of the trench; for example the fourth trench in bar deposit "b" is labeled trench "b4". On average, four samples of approximately 7 pounds each, were taken from each trench. Results from this sampling are shown on Tables 2 - 15.

#### EQUIPMENT USED

The following equipment was used in Phase Two of the exploration program:

- a Cat 213 hydraulic excavator, equipped with 36 inch rock bucket and long (9 foot 6 inch) stick. Maximum digging depth was 20 feet 6 inches.
- a D6C Cat dozer equipped with angle blade and ripper was used to pioneer for the hoe, and to strip pads where excavation was to be performed.
- a 920 Cat wheel loader was used occasionally to ford the river and to pack samples.
- a fuel truck and a welding service truck, were used to support the project.

Equipment used in the sample treatment and evaluation procedures is outlined below:

- Goldhound spiral gold wheel with four lead riffle pattern, 24 inch diameter, with water pump
- electrical power generator to provide power for the gold wheel and pump
- seive screens of 10 mesh, 40 mesh, and 100 mesh
- gold pans of various sizes of both regular steel and stainless steel (which is non-magnetic)
- magnets of varying strengths
- magnifying glass and 30x microscope
- various plates, bowls, and other vessels for drying and holding sample material
- R.C.B.S. powder scale

## SAMPLE TREATMENT PROCEDURE

Processing the gravel samples was complex and time consuming for the following reasons:

- gold in the Fortymile gravel is so fine that much of it is invisible without magnification. Tests performed by the Department of Energy, Mines and Resources have shown the Fortymile gravels to contain very fine gold. In the E.M.R. tests, over half of the gold was -400 mesh, and 93% was -100 mesh.
- the resultant concentrate from the gravel contained large amounts of black sand. This black sand was heavy and fine grained making it difficult to separate the gold.
- most of the gold was flakey and tended to float on the surface tension of the water.

The sample processing procedure is outlined as follows:

1. The sample was screened and rough panned through a grizzly pan with  $\frac{1}{4}$  inch holes, into a clean gold pan.
2. The resulting  $-\frac{1}{4}$  inch sand, which had been deslimed, was further reduced in size by screening through -10 mesh stainless steel screen, into another pan.
3. The +10 mesh material was hand panned to determine whether +10 mesh gold particles were present.
4. The -10 mesh sand was washed in clean water to which a deflocculant was added. We used Sunlight dish soap (the brand does make a difference, and we have found Sunlight to be the best). The purpose of the deflocculant was to reduce the surface tension of the water.
5. The -10 mesh sand was fed into the gold wheel, which was rotating at the low speed setting, and which was inclined at an angle of approximately 30 degrees from the vertical. The rate of feed was approximately 1 tablespoon every

5 seconds, although this was dependent on the amount of black sand present. The more black sand, the slower the feed. Water to the gold wheel was approximately 1 imperial gallon per minute, at approximately 8-10 p.s.i., although this also varied depending on composition and rate of feed. Water to the gold wheel was also mixed with Sunlight dish soap with 1-2 tablespoons of detergent to 5 gallons of water. Best results were obtained when feed rate, water volume, and water pressure were kept constant. The object of this run was to separate all of the black sand and save it. As a rule, if all of the black sand is saved, all of the gold will also be saved.

6. The black sand was dried over a slow heat in a stainless steel gold pan. Too much heat caused the water in the sample to boil and the concentrate to spatter, resulting in loss of material.
7. A magnet was used to pull the black sand (which is magnetic) out of the pan. The black sand was saved in a clean vessel.
8. The small amount of non-magnetic black sand and any gold colours present left in the pan were spread on a sheet of clean dark coloured paper and inspected with a magnifying glass. The number of colours were counted and logged.
9. The black sand which had been collected with the magnet was transferred onto a clean sheet of dark coloured paper. A second magnet of weaker strength was used to pull this black sand off the paper. The paper was checked with a magnifying glass to determine if any gold was present.
10. The tailings from the -10 mesh sand, which had been run through the gold wheel, were hand panned to determine if any gold colours were present.

#### SAMPLE EVALUATION PROCEDURE

We have developed a method to determine the value of Fortymile ground based upon the number of gold colours found in a gravel sample of known weight. This allowed us to do in-field grade estimates of samples simultaneously with the trenching work..

The first step was to find the weight and consequent value of an average gold colour. This procedure is outlined as follows:

1. We calculated the value of 1 troy ounce of Fortymile gold by dividing the U.S. spot price of gold by the value of the Canadian dollar, and then multiplying it by the purity of Fortymile gold. The following values were used for this calculation:

- New York spot price of gold = \$485.00
- the value of the Canadian dollar = \$.78U.S.
- assayed purity of Fortymile gold = 84.5%

Therefore, one troy ounce of Fortymile gold is:

$$\text{\$U.S.}485 \div \text{\$.78} \times 84.5\% = \text{\$525.42 (Canadian)}$$

2. We weighed a small quantity of colours of typical Fortymile gold on a scale capable of weighing to 1/10 grain, or 1/4800 of a troy ounce.
3. The resulting weight from #2, was divided by the number of colours weighed to obtain the weight of one colour.

We ran these calculations for seven different groups of colours (ranging in number from 60 to 190) and took an average, to obtain the weight and consequent value of a typical colour from the Fortymile gravel. These calculations indicate that, on average, one colour of typical Fortymile gold weighs 1/163,484 ounce, or that it takes 163,484 colours to make a troy ounce of gold. The data are shown in Table 16.

4. The value of one colour could then be obtained by dividing

the value of 1 troy ounce of Fortymile gold (in Canadian cents) by the number of colours required to make one ounce.

$$\$525.42 \times 100\text{¢} \div 163,484 = .321\text{¢}$$

The value of one colour is .321¢ Canadian.

The second part of determining the value of a cubic yard of Fortymile gravel outlined is as follows:

1. The gravel sample was weighed.
2. The number of colours were found in the sample using procedures as outlined in SAMPLE TREATMENT PROCEDURE.
3. The number of colours found in the sample was multiplied by the value of one colour, .321¢
4. The weight of one cubic yard of excavated gravel, generally accepted as 3,000 pounds, was divided by the weight of the sample, giving the number of samples per yard.
5. The number of samples per yard, found in step 4 was multiplied by the number of colours per sample, determined in step 2. This gave the total number of colours per yard.
6. The number of colours per yard, calculated in step 5, was multiplied by the estimated value of one colour, .321¢, to obtain the value of one loose yard of gravel. For example, if 3 colours were found in a sample of 7 pounds, the value of gravel represented by this sample can be found as follows:

$$3 \text{ colours} \times .321\text{¢} \times 3000 \text{ lb.} \div 7 \text{ lb.} = \$4.13 \text{ Can./yd.}$$

We used this method as a rule of thumb for projecting grade figures. We have checked the relative accuracy of this method by comparing samples taken from our production cut with cleanup results.

## Summary

The following summary outlines volumes and grades of the bars and benches tested. Approximately four miles of river bars and benches were covered. In the prospecting phase of the exploration program 182 samples were gathered and processed. In Phase Two, the trenching phase, 116 pits and trenches were excavated in fourteen separate deposits. Samples from each pit and trench were evaluated.

Our objective was to obtain average grades of entire deposits for the total gravel section, from top gravels to bedrock. While some high grade sections of deposits were defined, grade averages were determined for entire deposits only. Grades of samples varied greatly. Larger samples might have helped to reduce this difference; bulk samples would determine precise grade figures.

In a production operation a loss factor would have to be allowed for. Because of the fineness of the gold some loss would be inevitable. Fine gold recovery techniques and careful mining must be used to minimize loss of values.

## NOTES ON PROSPECTING

The prospecting phase was useful in determining areas which warranted further testing and in selecting sites where testing would be effective. Because samples were taken in locations where sampling was expedient using hand methods, for example the surface of bars and sluff at the rims of benches, these samples were not representative of the entire deposits being tested. Sections of deposits which were of high grade showed up in the prospecting phase, but in general this preliminary testing was not used to estimate grades. Colours found in the samples were counted but representative values per yard were not extrapolated.

## NOTES ON BENCH TRENCHING

We trenched on six benches along the river and one bench in the mouth of Marten Creek. We reached bedrock on three of the benches. Two of these benches had good pay grade; the third was barren. One of the benches with good pay was the one up Marten Creek; this gravel was creek gravel, not river gravel. More work further up the creek is warranted. On the remaining four benches we evaluated the top gravel depths, ranging from 5 to 18 feet. Gravel in the two high benches that were tested was too deep for the hoe to dig to bedrock, while on the other two benches, the ground was frozen below 12 to 15 feet. With these trenches opened up to summer thawing, the depths can be extended to complete the evaluation. We stripped sections of these frozen deposits to get them thawing to facilitate more testing. Detailed information on this bench trenching is given in the SUMMARY OF RESULTS FROM BENCH DEPOSITS.

## NOTES ON BAR TRENCHING

We consider grades on all bars tested so far to be mineable. The cost of mining these bars will be low due to lack of overburden, shallow depth to bedrock, thawed gravel, short distance to move material, and low reclamation costs. We found that the tail ends of bars generally had better values than the middle sections and heads of the bars, contrary to theory. As well, sections of bars on the inside bends of the river did not have as good grades as the sections on straight stretches of river. Bedrock depth on the bars was shallower than we had expected, running between 6 to 18 feet, with 10 to 12 feet being average. On the bars, sluffing of gravel into the hole, which filled with water as excavation took place, made digging bedrock difficult. Grade could increase with more effective bedrock excavation. Detailed information on the bar trenching is given in the SUMMARY OF RESULTS FROM BAR DEPOSITS.

## NOTES FOR INTERPRETING THE SUMMARY OF RESULTS

- dollar per yard values were taken from the tables included at the end of the report
- the price of gold at the time that this report was written was US\$485 per oz. To adjust values given for fluctuating gold price, the following formula can be used:  

$$\text{value/yd}(\$Can) = \frac{\$/yd \text{ given}(\$Can) \times \text{current gold price}(\$US)}{\$485(US)}$$
- gold weights are given in troy ounces
- raw oz/yd given in the following SUMMARY OF RESULTS were calculated as follows:  

$$\text{raw oz/yd} = \$/yd(Can) \div \$525.42(Can)$$
- fine oz of gold can be converted from raw oz by using the following formula:  

$$\text{fine oz} = \text{raw oz} \times .845 \text{ (purity factor)}$$
- all yardage volumes are given in bucket yards (bank yards multiplied by a swell factor of 1.25).
- width of bars used to calculate volumes is based on the width at mean water level.
- on the benches, grade of gravel has been determined for the gravel section; muck section has not been calculated into grade figures.

## SUMMARY OF RESULTS FROM BENCH DEPOSITS

## Bench Deposit "A"

Total Estimated Yardage:

- 500yd x 25yd x 5yd x 1.25(swell factor) = 78,125 bkt yd<sup>3</sup>

Grade:

- \$2.66/yd<sup>3</sup>

- .0051 raw oz/yd<sup>3</sup>

Total Projected Value of Deposit:

- \$2.66 x 78,125 yd<sup>3</sup> = \$207,813

- .0051 raw oz/yd<sup>3</sup> x 78,125 yd<sup>3</sup> = 398 raw oz

Comments:

This bench is long, narrow and has shallow depth to bedrock. The ground is thawed. The deposit has limited volume but will require several moves to mine out.

## Bench Deposit "B"

No gold was found in this deposit. Volume has not been estimated since the ground as tested to date is barren. More samples will be taken on and into bedrock out of the trenches to confirm lack of gold.

## Bench Deposit "C"

Total Estimated Yardage:

- 70yd x 50yd x 3yd x 1.25(swell factor) = 13,125 bkt yd<sup>3</sup>

Grade:

- \$8.02/yd<sup>3</sup>

- .0153 raw oz/yd<sup>3</sup>

Total Projected Value of Deposit:

- \$8.02 x 13,125 yd<sup>3</sup> = \$105,262

- .0153 raw oz/yd<sup>3</sup> x 13,125 yd<sup>3</sup> = 201 raw oz

Comments:

This bench was thawed to bedrock. The top 5 feet should be stripped and wasted. The lower gravels and 3 feet of bedrock should be stockpiled for sluicing. Further exploration work will be undertaken up the creek.

**Bench Deposit "D"**

Volume could not be estimated because bedrock was not reached in most trenches. However, the bench is approximately 1500 yards long and width should be considerable. We estimate the total volume to be well over half a million yards. Grade was good considering that lower gravel and bedrock were not averaged in. Trenches will be deepened to bedrock and the lower gravel will be evaluated. The deposit is frozen. Muck layers alternate with gravel layers.

**Bench Deposit "E"**

Volume could not be estimated since bedrock was not reached. This bench is located approximately 200 feet above river level. The ground is thawed. Grades are fair considering that this is top gravel. Bedrock was uncovered approximately 30 feet below gravel at one rim. The deposit should be trenched to bedrock to determine values of lower gravels and bedrock.

**Bench Deposit "F"**

Grade of top gravels was good. Gravel is generally sandy getting coarser with depth. The area should be stripped and a bulk sample taken in layers as gravel thaws. The size of the deposit is large, but not enough data was obtained to estimate volume.

**Bench Deposit "G"**

Grade of top gravel tested was good, considering that bedrock was not reached. We estimate bedrock to be at least 25 feet deep. The trenches should be completed to gain information on lower gravel and bedrock. Gravel is thawed for approximately 100 feet back from rim of bench. The bench has considerable volume, although we have not attempted to define limits.

## SUMMARY OF RESULTS FROM BAR DEPOSITS

## Bar Deposit "a"

Total Estimated Yardage:

- 3500yd x 50yd x 4yd x 1.25(swell factor)=875,000 bkt yd<sup>3</sup>

Grade:

- \$2.17/yd<sup>3</sup>

- .0041 raw oz/yd<sup>3</sup>

Total Projected Value of Deposit:

- \$2.17 x 875,000 yd<sup>3</sup> = \$1,898,750

- .0041 raw oz/ yd.<sup>3</sup> x 875,000 yd<sup>3</sup> = 3937.5 raw oz

Comments:

This is the largest contiguous deposit that we tested. Grades varied between 35¢ and \$6.68/yd<sup>3</sup>. More samples will be taken from the trenches before 1988 break-up to gain more information. Because of the size of the deposit, more trenching should be done to establish grades more accurately. Bulk sample runs would also help confirm mineability of this deposit.

## Bar Deposit "b"

Total Estimated Yardage:

- 1000yd x 30yd x 4yd x 1.25(swell factor)=150,000 bkt yd<sup>3</sup>

Grade:

- \$2.09/yd<sup>3</sup>

- .0043 raw oz/ yd<sup>3</sup>

Total Projected Value of Deposit:

- \$2.09 x 150,000 yd<sup>3</sup> = \$313,500

- .0043 raw oz/yd<sup>3</sup> x 150,000 yd<sup>3</sup> = 645 raw oz

Comments:

Grade figures range from \$0 to \$5.22/yd<sup>3</sup>. The upriver 1/3 of the deposit only was sampled. The downriver 2/3 of the bar should be trenched to obtain a more accurate grade for the entire deposit.

## Bar Deposit "c"

Total Estimated Yardage:

-  $1000\text{yd} \times 70\text{yd} \times 4\text{yd} \times 1.25(\text{swell factor}) = 350,000 \text{ bkt yd}^3$

Grade:

-  $\$2.38/\text{yd}^3$

-  $.0045 \text{ raw oz/ yd}^3$

Total Projected Value of the Deposit:

-  $\$2.38 \times 350,000 \text{ yd}^3 = \$833,000$

-  $.0045 \text{ raw oz/yd}^3 \times 350,000 \text{ yd}^3 = 1575 \text{ raw oz}$

Comments:

Values vary between  $\$0$  and  $\$5.53/\text{yd}^3$ . The area upriver from Marten Creek showed better grade, and one small nugget was found. This could have been because of the shallow bedrock depth so that sluffing didn't interfere with sampling bedrock. Small scale bulk samples ( $500 \text{ yd}^3$ ) would help to confirm grade. This bar is well above the water level so it can be mined at higher water levels. Volume of gravel is sufficient to sustain mining for several seasons.

## Bar Deposit "d"

Total Estimated Yardage:

-  $500\text{yd} \times 30\text{yd} \times 3.3\text{yd} \times 1.25(\text{swell factor}) = 61,875 \text{ bkt yd}^3$

Grade:

-  $\$1.00/\text{yd}^3$

-  $.0019 \text{ raw oz/yd}^3$ .

Total Projected Value of the Deposit:

-  $\$1.00 \times 61,875 \text{ yd}^3 = \$61,875$

-  $.0019 \text{ raw oz/yd}^3 \times 61,875 \text{ yd}^3 = 118 \text{ raw oz}$

Comments:

This is a small deposit, and had the lowest grade of the bar deposits tested. Only the upriver half of the bar was sampled. The downriver end of the bar should be trenched to gain grade figures for this section of the bar. Grade of gravel showed improvement further toward the downriver end of the bar.

## Bar Deposit "e"

Total Estimated Yardage:

-  $500\text{yd} \times 40\text{yd} \times 4\text{yd} \times 1.25(\text{swell factor}) = 100,000 \text{ bkt yd}^3$

Grade:

-  $\$5.62/\text{yd}^3$

-  $.011 \text{ raw oz}/\text{yd}^3$

Total Projected Value of Deposit:

-  $\$5.62 \times 100,000 \text{ yd}^3 = \$562,000$

-  $.011 \text{ raw oz}/\text{yd}^3 \times 100,000 \text{ yd}^3 = 1,100 \text{ raw oz}$

Comments:

This deposit had the best grade encountered, with one sample grading at  $\$44.45/\text{yd}^3$ . It has been scheduled for production in the 1988 mining season. Reserves are sufficient for one to two years of operations.

## Bar Deposit "f"

Total Estimated Yardage:

-  $500\text{yd} \times 15\text{yd} \times 5\text{yd} \times 1.25(\text{swell factor}) = 46,875 \text{ bkt yd}^3$

Grade:

-  $\$5.29/\text{yd}^3$

-  $.01 \text{ raw oz}/\text{yd}^3$

Total Projected Value of Deposit:

-  $\$5.29 \times 46,875 \text{ yd}^3 = \$247,969$

-  $.01 \text{ raw oz}/\text{yd}^3 \times 46,875 \text{ yd}^3 = 469 \text{ raw oz}$

Comments:

This deposit showed consistent grade figures. Grade is good. The deposit is relatively small, consisting of a long narrow bar adjacent to a cut bank. Mining will be undertaken when mining on bar "e" has been completed.

## Bar Deposit "g"

Total Estimated Yardage:

- 1000yd x 80yd x 4yd x 1.25(swell factor)=400,000 bkt yd<sup>3</sup>

Grade:

- \$1.97/yd<sup>3</sup>- .00375 raw oz/yd<sup>3</sup>

Total Projected Value of Deposit:

- \$1.97 x 400,000 yd<sup>3</sup> = \$788,000- .00375 raw oz/yd<sup>3</sup> x 400,000 yd<sup>3</sup> = 1,500 raw oz

Comments:

This deposit is large. More trenching should be done to provide more information on values. Bulk sampling would also help to confirm mineability.

## TOTAL ESTIMATED RESERVES &amp; VALUES ON BENCHES &amp; BARS:

BENCH RESERVES (for benches trenched to bedrock)

Total Estimated Bucket Yardage: 91,250 yd<sup>3</sup>Total Estimated Raw Oz of Gold: 599 ozTotal Value (\$ Canadian): \$313,075

BAR RESERVES

Total Estimated Bucket Yardage: 1,983,750 yd<sup>3</sup>Total Estimated Raw Oz of Gold: 8,955 ozTotal Value (\$ Canadian): \$4,705,094

## TOTAL AGGREGATE RESERVES &amp; VALUES (bars &amp; benches):

TOTAL ESTIMATED BUCKET YARDAGE: 2,075,000 yd<sup>3</sup>TOTAL ESTIMATED RAW OZ OF GOLD: 9,554 ozTOTAL VALUE (\$ CANADIAN): \$5,018,169

TABLE 1  
RESULTS FROM PRELIMINARY PROSPECTING

DEPOSIT	SAMPLE	WEIGHT	COMMENTS	COLOURS
Bench "A"	1	15 lb.	very fine colours	6
	2	16 lb.	off bedrock by road cut	3
	3	16 lb.		0
	4	17 lb.	bedrock, 1 flake, 8 colours	9
	5	15 lb.	3' down, 1 flake	2
	6	15 lb.	fine colour	1
	7	18 lb.	pea gravel	0
	8	16 lb.	fractured bedrock	0
	9	17 lb.	mixed with clay	1
	10	15 lb.	grey clay	0
	11	15 lb.	road sluff 5' down	0
	12	16 lb.	road sluff 6' down face	0
	13	18 lb.	fine colour	1
	14	15 lb.	crumbly bedrock	0
Bench "B"	1	16 lb.	angular gravel	0
	2	16 lb.	slatey bedrock	0
	3	15 lb.	fine colour	1
	4	15 lb.	angular gravel	0
	5	15 lb.	from just below overburden	0
	6	18 lb.	fine gravel	0
	7	15 lb.		0
Bench "C"	1	16 lb.	lots of black sand	0
	2	16 lb.	near surface	0
	3	17 lb.	coarse gravel, orange gravel	1
	4	18 lb.	1 flake 3 colours	4
	5	15 lb.	from bedrock in stream bank	0
Bench "D"	1	15 lb.	sluff gravel	0
	2	16 lb.	sluff gravel, fine colours	3
	3	18 lb.	sluff gravel	3
	4	15 lb.	sluff gravel	1

TABLE 1 continued  
RESULTS FROM PRELIMINARY PROSPECTING

DEPOSIT	SAMPLE	WEIGHT	COMMENTS	COLOURS
Bench "D" cont.	5	15 lb.	sluff gravel, garnet	0
	6	15 lb.	sluff gravel, lots black sand	0
	7	17 lb.	sluff gravel	0
	8	15 lb.	sluff gravel	1
	9	16 lb.	sluff gravel	0
Bench "F"	1	15 lb.	from ramp, lots of black sand	4
	2	16 lb.	from ramp	0
	3	16 lb.	from ramp, 2 flakes 7 colours	9
	4	15 lb.	from ramp	0
	5	17 lb.	from ramp, garnets	0
	6	18 lb.	from ramp, coarse sand	0
	7	15 lb.	river bank sluff, sandy gravel	0
	8	15 lb.	river bank sluff, fine colour	1
	9	16 lb.	river bank sluff	0
	10	15 lb.	river bank sluff	2
	11	17 lb.	river bank sluff, 1 flake	5
Bench "G"	1	15 lb.	bedrock river bluff	8
	2	14 lb.	sluff on river bluff	0
	3	15 lb.	sluff on river bluff, garnet	1
	4	15 lb.	off bedrock, river bluff	4
	5	16 <sup>1</sup> / <sub>2</sub> lb.	road sluff	0
	6	15 lb.	road sluff, reddish gravel	0
	7	16 lb.	sandy gravel	2
	8	16 lb.	road sluff, fine colours	1
	9	15 lb.	road sluff	0
	10	15 lb.	road sluff, 2 flakes, 1 colour	3
	11	15 lb.	road sluff	0
	12	17 lb.	small gravel	0
	13	15 lb.	road sluff, red sand	1

TABLE 1 continued  
RESULTS FROM PRELIMINARY PROSPECTING

DEPOSIT	SAMPLE	WEIGHT	COMMENTS	COLOURS
Bar "a"	1	18 lb.	end of bar, lots of black sand	5
	2	16 lb.	end of bar	0
	3	16 lb.	10' from bank, 2 flakes	8
	4	17 lb.	60' out from bank	2
	5	15 lb.	30' out from bank	4
	6	18 lb.	100' out from bank	0
	7	18 lb.	100' out from bank	0
	8	16 lb.	close in	1
	9	15 lb.	150' out from bank	5
	10	15 lb.	120' out from bank	0
	11	18 lb.	close in, large garnet	2
	12	19 lb.	close in	0
	13	18 lb.	100' out from bank	0
	14	17 lb.	100' out from bank	1
	15	16 lb.	small gravel	0
	16	16 lb.	close in	0
	17	16 lb.	close in, little black sand	0
	18	18 lb.	1 flake 5 colours	6
	19	15 lb.	100' out from bank	9
	20	16 lb.	close in	5
	21	16 lb.	close in, lots of black sand	3
	22	18 lb.	close in	0
	23	17 lb.	close in, fine colours	2
	24	16 lb.	close in	0
Bar "b"	1	18 lb.	50' out from bank	3
	2	17 lb.	80' out from bank, 1 flake	8
	3	16 lb.	40' out from bank,	0
	4	20 lb.		1
	5	16 lb.	close in	0
	6	16 lb.	little black sand	0

TABLE 1 continued  
RESULTS FROM PRELIMINARY PROSPECTING

DEPOSIT	SAMPLE	WEIGHT	COMMENTS	COLOURS
Bar	7	17 lb.	75' out from bank	0
"b"	8	16 lb.	75' out from bank	3
cont.	9	18 lb.	head of bar	6
	1	17 lb.	tail end bar, fine colours	5
	2	16 lb.	close in	0
	3	16 lb.	close in, 1 orange flake	3
	7	15 lb.	behind slough	2
	5	19 lb.	behind slough	0
	6	20 lb.	150' out from bank, garnet	0
	7	16 lb.	150' out from bank, green sand	1
	8	16 lb.	150' out from bank	0
Bar	9	15 lb.	behind slough, lots black sand	2
"c"	10	16 lb.	behind slough	0
	11	18 lb.	close in	0
	12	20 lb.	250' out from bank	0
	13	16 lb.	250' out from bank	0
	14	15 lb.	100' out from bank	1
	15	17 lb.	close in	0
	16	16 lb.	100' out from bank	0
	17	15 lb.	close in	3
	18	16 lb.	in front of creek mouth	0
	19	15 lb.	1 flake	1
	20	17 lb.	25' out from bank	0
	21	18 lb.	head of bar	3
	1	16 lb.	tail of bar	0
	2	15 lb.	close in	3
Bar	3	15 lb.	50' out from bank	1
"d"	4	17 lb.	mid-bar	0
	5	18 lb.	mid-bar, little black sand	0
	6	15 lb.	80' out	0

TABLE 1 continued  
RESULTS FROM PRELIMINARY PROSPECTING

DEPOSIT	SAMPLE	WEIGHT	COMMENTS	COLOURS
Bar	7	16 lb.	80' out from bank	0
"a"	8	17 lb.	mid-bar, fine colours	4
cont.	9	18 lb.	head of bar, 1 flake	2
	1	16 lb.	tail end of bar	2
	2	16 lb.	tail end of bar	0
	3	17 lb.	tail end of bar, 1 flake	8
	4	15 lb.	tail end of bar, 2 flakes	9
	5	15 lb.	50' from bank, lots black sand	6
	6	15 lb.	50' out from bank	3
	7	15 lb.	mid-bar, small garnets	6
	8	17 lb.	mid-bar	0
	9	16 lb.	100' out from bank	0
Bar	10	15 lb.	100' out from bank	1
"e"	11	18 lb.	100' out from bank	0
	12	15 lb.	close in, very fine colours	5
	13	15 lb.	close in, lots black sand	0
	14	16 lb.	close in, 2 flakes	3
	15	15 lb.	close in	1
	16	15 lb.	100' out from bank	0
	17	15 lb.	100' out from bank	1
	18	18 lb.	100' out from bank	0
	19	17 lb.	120' from bank, lots black sand	0
	20	16 lb.	head of bar	0
	21	17 lb.	head of bar, 1 flake	2
	22	15 lb.	head of bar, lots black sand	5
	23	18 lb.	head of bar	1
	1	15 lb.	tail of bar	0
	2	15 lb.	tail of bar, large rock	3
Bar	3	16 lb.	tail bar, extreme black sand	2
"f"	4	17 lb.	40' out from bank	0
	5	18 lb.	40' out from bank	0

TABLE 1 continued  
RESULTS FROM PRELIMINARY PROSPECTING

DEPOSIT	SAMPLE	WEIGHT	COMMENT	COLOURS	
Bar " f " cont.	6	17 lb.	close in	4	
	7	15 lb.	50' out from bank, 5 flakes	11	
	8	16 lb.	50' out, 1 large flake	0	
	9	15 lb.	50' out from bank	0	
	10	15 lb.	50' out from bank	0	
	11	17 lb.	opposite creek, fine colours	3	
	12	15 lb.	opposite creek	3	
	13	18 lb.	close in, 3 flakes	19	
	14	17 lb.	close in, garnets	4	
	15	16 lb.	close in	0	
	16	15 lb.	40' out from bank, fine colour	1	
	17	16 lb.	40' out from bank	1	
	18	17 lb.	40' out from bank	0	
	19	15 lb.	close in, 1 flake	3	
	Bar " g "	1	15 lb.	20' out from bank, fine colours	3
		2	15 lb.	50' from bank, lots black sand	4
		3	16 lb.	70' from bank, lots black sand	0
		4	17 lb.	close in	0
		5	16 lb.	close in, 1 small flake	2
6		18 lb.	100' out from bank	0	
7		15 lb.	100' out from bank	0	
8		17 lb.	close in	1	
9		15 lb.	75' out from bank	0	
10		16 lb.	close in	0	
11		16 lb.	outside corner	0	
12		18 lb.	150' out from bank	0	
13		15 lb.	200' from bank, fine colours	2	
14		17 lb.	200' out from bank	0	
15		15 lb.	mid-bar, 1 flake	6	
16		17 lb.	head of bar	1	
17		15 lb.	head of bar	1	

TABLE 2

RESULTS FROM BAR DEPOSIT "a"

PIT	SAMPLE NUMBER	WEIGHT	COLORS	VALUE PER YD.	COMMENTS	AVERAGE VALUE/YD.
a1	1	7 lb.	1	\$1.38	top	\$2.76
	2	6 lb.	3	\$4.82	middle, 2 flakes	
	3	6½ lb	0	0	middle	
	4	6 lb.	3	\$4.82	bottom, 12', 2 flakes	
a2	1	6 lb.	1	\$1.61	top, flake	\$ .75
	2	7 lb.	0	0	top	
	3	7 lb.	1	\$1.38	middle	
	4	5½ lb	0	0	bottom, 10'	
a3	1	6 lb.	0	0	top	\$ .80
	2	7 lb.	0	0	top	
	3	6 lb.	2	\$3.21	middle	
	4	7 lb.	0	0	bottom, 10'	
a4	1	7 lb.	0	0	top	\$ .40
	2	6 lb.	1	\$1.61	middle	
	3	6½ lb	0	0	middle	
	4	7 lb.	0	0	bottom, 12'	
a5	1	7 lb.	1	\$1.38	top, flake	\$4.70
	2	6 lb.	3	\$4.82	middle	
	3	6 lb.	6	\$9.63	middle, 2 colours 4 big flakes	
	4	6½ lb	2	\$2.96	bottom, 12'	
a6	1	6 lb.	7	\$11.24	top, 2 flakes	\$6.68
	2	6½ lb	3	\$4.45	top	
	3	5½ lb	0	0	bottom	
	4	7 lb.	8	\$11.01	bottom, 12', 4 flakes 4 colours	

TABLE 2 continued  
RESULTS FROM BAR DEPOSIT "a"

PIT	SAMPLE NUMBER	WEIGHT	COLORS	VALUE PER YD.	COMMENTS	AVERAGE VALUE/YD.
a7	1	6 lb.	0	0	top	\$ .37
	2	6 lb.	0	0	top	
	3	6½ lb	1	\$1.48	bottom, big flake	
	4	7 lb.	0	0	bottom, 10'	
a8	1	6 lb.	0	0	top	\$1.55
	2	6½ lb	2	\$2.96	top, big flakes	
	3	6 lb.	2	\$3.21	middle	
	4	7 lb.	0	0	bottom, 12'	
a9	1	6 lb.	2	\$3.21	top	\$ .80
	2	6 lb.	0	0	middle	
	3	7½ lb	0	0	middle	
	4	6 lb.	0	0	bottom, 10'	
a10	1	6 lb.	1	\$1.61	top, flake	\$1.14
	2	6½ lb	0	0	top	
	3	6½ lb	2	\$2.96	middle, big flakes	
	4	6½ lb	0	0	bottom, 10'	
a11	1	6½ lb	0	0	top	\$ .35
	2	6 lb.	0	0	top	
	3	6 lb.	0	0	middle	
	4	7 lb.	1	\$1.38	bottom, 12'	
a12	1	6½ lb	1	\$1.48	top, big flake	\$2.32
	2	7 lb.	0	0	middle	
	3	6 lb.	3	\$4.82	middle, 1 big flake	
	4	6½ lb	2	\$2.96	bottom, 10'	

TABLE 2 continued  
RESULTS FROM BAR DEPOSIT "a"

PIT	SAMPLE NUMBER	WEIGHT	COLORS	VALUE PER YD.	COMMENTS	AVERAGE VALUE/YD.
213	1	6½ lb	2	\$2.96	top	\$4.53
	2	7 lb.	3	\$4.13	middle	
	3	7 lb.	1	\$1.38	bottom	
	4	6 lb.	7	\$9.63	bottom, 8', 3 flakes 4 colours	
214	1	6 lb.	2	\$3.21	top	\$3.29
	2	6½ lb	3	\$4.45	middle	
	3	7 lb.	4	\$5.50	bottom, 2 flakes 2 colours	
	4	6½ lb	0	0	bottom, 8'	
TOTAL OF AVERAGES						\$30.44

Average value/yd. for BAR DEPOSIT "a" =  $\$30.44 \div 14 = \underline{\$2.17}$

TABLE 3  
RESULTS FROM BAR DEPOSIT "b"

PIT	SAMPLE NUMBER	WEIGHT	COLORS	VALUE PER YD.	COMMENTS	AVERAGE VALUE/YD
b1	1	6 lb.	2	\$3.21	top, 1 flake 1 colour	\$3.62
	2	6½ lb	3	\$4.45	middle, 3 flakes	
	3	6 lb.	1	\$1.61	bottom, 12', flake	
b2	1	6½ lb	0	0	top	\$0
	2	6½ lb	0	0	middle	
	3	6½ lb	0	0	middle	
	4	6 lb.	0	0	bottom, 12'	
b3	1	8	0	0	top	\$0
	2	6½ lb	0	0	middle	
	3	6 lb.	0	0	middle	
	4	6 lb.	0	0	bottom of hole 12'	
b4	1	6½ lb	0	0	top	\$1.61
	2	6 lb.	1	\$1.61	middle, 1 colour	
	3	6 lb.	1	\$1.61	middle, bag flake	
	4	6 lb.	2	\$3.21	bottom, 12'	
b5	1	6 lb.	4	\$6.42	top	\$5.22
	2	6 lb.	5	\$8.03	middle	
	3	6 lb.	3	\$4.82	bottom, 12'	
	4	6 lb.	1	\$1.61	bottom	
TOTAL OF AVERAGES						\$10.45

Average value/yd. for BAR DEPOSIT "b" =  $\$10.45 \div 5 = \underline{\$2.09}$

TABLE 4  
RESULTS FROM BAR DEPOSIT "C"

PT	SAMPLE NUMBER	WEIGHT	COLORS	VALUE PER YD.	COMMENTS	AVERAGE VALUE/YD
C1	1	7 lb.	2	\$2.75	top of hole	\$3.67
	2	7 lb.	1	\$1.37	middle of hole	
	3	7 lb.	1	\$1.37	8' depth, gold flakey	
	4	7 lb.	6	\$8.25	bedrock 10', silver/black clay, 5 flakes 1 chunk	
	5	7 lb.	3	\$4.13	bedrock, large flakes	
	6	7 lb.	3	\$4.13	bedrock, small colours	
C2	1	7 lb.	2	\$2.74	top of hole	\$2.11
	2	8 lb.	1	\$2.40	middle of hole	
	3	8 lb.	1	\$1.20	bottom of hole 10'	
C3	1	7 lb.	0	0	top of hole	\$ .50
	2	6½ lb	1	\$1.48	middle of hole	
	3	7 lb.	0	0	bottom of hole 12'	
C4	1	8 lb.	0	0	top of hole	\$3.40
	2	7 lb.	3	\$4.11	middle of hole	
	3	7 lb.	3	\$3.59	middle of hole	
	4	5 lb.	4	\$5.93	bottom of hole 12'	
C5	1	7 lb.	2	\$2.75	middle of hole	\$ 2.39
	2	8 lb.	0	0	middle of hole	
	3	6½ lb	3	\$4.44	bottom of hole 12'	
C6	1	7 lb.	3	\$4.11	top of hole, colours fine reddish	\$1.77
	2	7 lb.	0	0	middle of hole	
	3	8 lb.	1	\$1.20	bottom of hole 12'	

TABLE 4 continued  
RESULTS FROM BAR DEPOSIT "C"

PIT	SAMPLE NUMBER	WEIGHT	COLORS	VALUE PER YD.	COMMENTS	AVERAGE VALUE/YD
C7	1	8 lb.	0	0	top of hole	\$ .40
	2	8 lb.	0	0	middle of hole	
	3	8 lb.	1	\$1.20	middle of hole, lots of black sand	
	4	8 lb.	1	\$1.20	bottom of hole 12'	
C8	1	8 lb.	0	0	top of hole	\$ .69
	2	7 lb.	1	\$1.37	middle of hole	
C9	1	7 lb.	3	\$4.11	hole not complete	\$4.11
C10	1	7 lb.	0	0	top of hole	\$0
	2	7 lb.	0	0	bottom of hole 12', lots of garnet	
C11	1	8 lb.	5	\$6.02	top of hole	\$4.12
	2	8 lb.	3	\$3.60	middle of hole, reddish	
	3	7 lb.	4	\$5.50	bottom of hole 12' 4 flakes, garnets	
	4	7 lb.	1	\$1.37	bottom of hole 12', flake	
C12	1	8 lb.	1	\$1.20	top of hole	\$2.01
	2	7 lb.	3	\$4.11	middle of hole	
	3	7 lb.	1	\$1.37	middle of hole	
	4	7 lb.	1	\$1.37	bottom of hole 12'	
C13	1	8 lb.	0	0	top of hole	\$5.53
	2	8 lb.	1	\$1.20	middle of hole	
	3	7 lb.	3	\$4.11	middle of hole	
	4	8 lb.	14	\$16.80	bottom of hole 12'	
TOTAL OF AVERAGES						\$30.90

Average value/yd. for BAR DEPOSIT "C" =  $\$30.90 \div 13 = \underline{\$2.38}$

TABLE 5

RESULTS FROM BAR DEPOSIT "d"

PIT	SAMPLE NUMBER	WEIGHT	COLORS	VALUE PER YD.	COMMENTS	AVERAGE VALUE/YD.
01	1	7 lb.	0	0	top	\$0
	2	7 lb.	0	0	middle	
	3	6½ lb	0	0	bottom	
	4	7 lb.	0	0	bottom, 10'	
02	1	7 lb.	0	0	top	\$0
	2	6½ lb	0	0	middle	
	3	6½ lb	0	0	bottom, 10'	
03	1	6½ lb	0	0	top	\$ .94
	2	7 lb.	0	0	middle	
	3	7 lb.	2	\$2.75	bottom	
	4	7 lb.	1	\$1.38	bottom, 12'	
04	1	6½ lb	0	0	top	\$ .96
	2	6½ lb	0	0	middle	
	3	7 lb.	0	0	middle	
	4	7½ lb	3	\$3.85	bottom, 10'	
05	1	6½ lb	2	\$2.96	top	\$3.31
	2	6½ lb	3	\$4.45	middle	
	3	7 lb.	1	\$1.38	middle	
	4	6½ lb	3	\$4.45	bottom, 10', 2 big flakes 1 colour	
TOTAL OF AVERAGES						\$5.21

Average value/yd. for BAR DEPOSIT "d" =  $\$5.21 \div 5 = \underline{\$1.00}$

TABLE 6  
RESULTS FROM BAR DEPOSIT "e"

PIT	SAMPLE NUMBER	WEIGHT	COLORS	VALUE PER YD.	COMMENTS	AVERAGE VALUE/YD.
e1	1	7 lb.	3	\$4.13	top of hole	\$3.81
	2	7 lb.	1	\$1.38	middle of hole	
	3	6½ lb	4	\$5.93	bottom of hole 12' 1 flake 3 colours,	
e2	1	7 lb.	0	0	top of hole	\$1.83
	2	7 lb.	3	\$4.13	middle of hole	
	3	7 lb.	1	\$1.38	bottom of hole 12'	
e3	1	7 lb.	5	\$6.88	top of hole	\$5.52
	2	6½ lb	1	\$1.48	middle of hole	
	3	7 lb.	3	\$4.13	middle of hole	
	4	7 lb.	6	\$8.25	bottom of hole, 3 flakes 3 colours	
	5	7 lb.	5	\$6.88	bottom of hole 12'	
e4	1	7 lb.	18	\$24.76	top of hole	\$29.55
	2	7 lb.	29	\$39.90	middle of hole, 1 flake	
	3	6½ lb	23	\$34.08	middle of hole	
	4	6½ lb	30	\$44.45	bottom of hole, 5 flakes 25 colours	
	5	7 lb.	20	\$25.51	bottom of hole, 1 flake 19 colours	
	6	7 lb.	17	\$27.29	top of hole	
	7	7 lb.	11	\$15.13	middle of hole	
	8	7 lb.	21	\$25.28	bottom of hole 12'	
e5	1	7 lb.	1	\$1.38	top of hole, flake	\$1.75
	2	6½ lb	1	\$1.48	middle of hole	
	3	7 lb.	2	\$2.75	middle of hole, flakes	
	4	7 lb.	1	\$1.38	bottom of hole 12', flake	

TABLE 6 continued  
RESULTS FROM BAR DEPOSIT "e"

PIT	SAMPLE NUMBER	WEIGHT	COLORS	VALUE PER YD.	COMMENTS	AVERAGE VALUE/YD.
e6	1	7 lb.	1	\$1.38	top of hole	\$4.79
	2	6½ lb	12	\$17.78	middle of hole	
	3	8 lb.	0	0	middle of hole	
	4	6½ lb	4	\$5.93	bottom of hole 12' 1 flake 3 colours	
e7	1	7 lb.	1	\$1.38	top of hole, flake	\$ .79
	2	7 lb.	0	0	middle of hole	
	3	7 lb.	0	0	middle of hole	
	4	6½ lb	1	\$1.48	bottom of hole 12' flake	
e8	1	7 lb.	0	0	top of hole	\$1.85
	2	6½ lb	0	0	middle of hole	
	3	6½ lb	4	\$5.93	bottom of hole, 1 flake 3 colours	
	4	6½ lb	1	\$1.48	bottom of hole 12', flake	
e9	1	7 lb.	0	0	top of hole	\$ .72
	2	7 lb.	1	\$1.38	middle of hole	
	3	7 lb.	0	0	bottom of hole	
	4	6½ lb	1	\$1.48	bottom of hole 12', flake	
TOTAL OF AVERAGES						\$50.61

Average value/yd. for BAR DEPOSIT "e" =  $\$50.61 \div 9 = \underline{\$5.62}$

TABLE 7  
RESULTS FROM BAR DEPOSIT "F"

PIT	SAMPLE NUMBER	WEIGHT	COLORS	VALUE PER/YD.	COMMENTS	AVERAGE VALUE/YD
f1	1	7 lb.	5	\$6.88	top, big flakes	\$6.80
	2	6½ lb	5	\$7.41	middle, big flakes	
	3	7 lb.	4	\$5.50	middle, flakes	
	4	6½ lb	5	\$7.41	bottom 15' big flakes	
f2	1	7 lb.	3	\$4.13	top, flakes	\$4.13
	2	7 lb.	5	\$6.88	middle, flakes	
	3	6½ lb	0	0	middle	
	4	7 lb.	4	\$5.50	bottom 15', flakes	
f3	1	7 lb.	4	\$5.50	top, big flakes	\$5.24
	2	6½ lb	3	\$4.44	middle, big flakes	
	3	7 lb.	3	\$4.13	bottom, flakes	
	4	7 lb.	5	\$6.88	bottom 15', flakes	
f4	1	6½ lb	5	\$7.41	top, flakes	\$4.97
	2	7 lb.	4	\$5.50	middle, flakes	
	3	6½ lb	1	\$1.48	middle, flakes	
	4	7 lb.	4	\$5.50	bottom 15', flakes	
TOTAL OF AVERAGES						\$21.14

Average value/yd. for BAR DEPOSIT "F" =  $\$21.14 \div 4 = \underline{\$5.29}$

TABLE 8  
RESULTS FROM BAR DEPOSIT "g"

PIT	SAMPLE NUMBER	WEIGHT	COLORS	VALUE PER YD.	COMMENTS	AVERAGE VALUE/YD.
91	1	7 lb.	2	\$2.75	top, 1 flake 1 colour	\$1.38
	2	7 lb.	0	0	middle	
	3	7 lb.	1	\$1.38	middle	
	4	7 lb.	1	\$1.38	bottom, 12', big flake	
92	1	7 lb.	0	0	top	\$1.95
	2	7 lb.	0	0	top	
	3	6 lb.	3	\$4.82	middle	
	4	6½ lb.	2	\$2.96	bottom, 12'	
93	1	7 lb.	1	\$1.38	top	\$2.40
	2	7 lb.	0	0	middle	
	3	6½ lb.	3	\$4.45	middle	
	4	6 lb.	2	\$3.21	bottom, big flakes	
	5	6½ lb.	2	\$2.96	bottom, 12'	
94	1	7 lb.	1	\$1.38	top	\$2.41
	2	6½ lb.	0	0	middle	
	3	7 lb.	3	\$4.13	middle	
	4	7 lb.	3	\$4.13	bottom, 12'	
95	1	7 lb.	0	0	top	\$1.21
	2	6½ lb.	0	0	middle	
	3	6 lb.	0	0	middle	
	4	6 lb.	3	\$4.82	bottom 12' lots of black sand	

TABLE 8 continued  
RESULTS FROM BAR DEPOSIT "g"

PIT	SAMPLE NUMBER	WEIGHT	COLORS	VALUE PER YD.	COMMENTS	AVERAGE VALUE/YD.
96	1	7 lb.	0	0	top	\$0
	2	6½ lb	0	0	middle	
	3	7 lb.	0	0	middle	
	4	7 lb.	0	0	bottom, 12'	
97	1	7 lb.	0	0	top	\$4.45
	2	6½ lb	0	0	top	
	3	6½ lb	3	\$4.45	middle	
	4	6½ lb	6	\$8.89	middle	
	5	6½ lb	6	\$8.89	bottom, 10'	
TOTAL OF AVERAGES						\$13.80

Average value/yd. for BAR DEPOSIT "g" =  $\$13.80 \div 7 = \underline{\$1.97}$

TABLE 9

## RESULTS FROM BENCH DEPOSIT "A"

	SAMPLE	DEPTH TAKEN	WEIGHT	COLORS	VALUE PER YD.	DESCRIPTION OF TRENCH	AVERAGE VALUE/YD.
A1	1	2'	6½ lb.	3	\$4.45	MUCK: 1' GRAVEL: 7'	\$3.03
	2	4'	6½ lb.	0	0		
	3	5'	6 lb.	2	\$3.21		
	4	8'	6½ lb.	3	\$4.45		
A2	1	5'	7 lb.	1	\$1.38	MUCK: 5' GRAVEL: 5'	\$1.94
	2	7'	6 lb.	0	0		
	3	10'	6½ lb.	3	\$4.45		
A3	1	2'	7 lb.	1	\$1.38	MUCK: 6" GRAVEL: 5'	\$1.83
	2	3'	6½ lb.	2	\$2.96		
	3	5'	7 lb.	0	0		
	4	6'	6½ lb.	2	\$2.96		
A4	1	4'	7 lb.	0	0	MUCK: 3' GRAVEL: 7'	\$1.83
	2	5'	7 lb.	1	\$1.38		
	3	7'	7 lb.	0	0		
	4	7'	6½ lb.	4	\$5.93		
A5	1	2'	7 lb.	0	0	MUCK: 1' GRAVEL: 8'	\$3.95
	2	4'	6½ lb.	2	\$2.96		
	3	7'	6 lb.	3	\$4.82		
	4	9'	6 lb.	5	\$8.03		
A6	1	4'	7 lb.	0	0	MUCK: 4' GRAVEL: 3'	\$1.03
	2	5'	7 lb.	0	0		
	3	7'	7 lb.	2	\$2.75		
	4	7'	7 lb.	1	\$1.38		

TABLE 9 continued  
RESULTS FROM BENCH DEPOSIT "A"

TRENCH	SAMPLE	DEPTH TAKEN	WEIGHT	COLORS	VALUE PER YD.	DESCRIPTION OF TRENCH	AVERAGE VALUE/YD.
A7						MUCK: 6' no gravel bedrock slatey	
A8	1	3'	7 lb.	0	0	MUCK: 8' GRAVEL: 12'	\$0
	2	6'	7 lb.	0	0		
	3	9'	7 lb.	0	0		
	4	12'	7 lb.	0	0		
A9	1	2'	6½ lb.	1	\$1.48	MUCK: 1' GRAVEL: 11'	\$2.21
	2	4'	7 lb.	0	0		
	3	6'	7 lb.	1	\$1.38		
	4	8'	6½ lb.	3	\$4.45		
	5	10'	6½ lb.	0	0		
	6	12'	6½ lb.	4	\$5.93		
A10	1	5'	6½ lb.	0	0	MUCK: 4' GRAVEL: 10' bedrock samples taken in black crumbly slate bedrock	\$8.23
	2	8'	7 lb.	0	0		
	3	10'	7 lb.	0	0		
	4	12'	6½ lb.	12	\$17.78		
	5	14'	7 lb.	11	\$15.13		
A11	1	5'	6 lb.	0	0	MUCK: 4' GRAVEL: 11'	\$2.60
	2	7'	7 lb.	0	0		
	3	12'	6½ lb.	3	\$4.45		
	4	15'	6½ lb.	4	\$5.93		
TOTAL OF AVERAGES							\$26.65

Average value per yard for BENCH DEPOSIT "A"

$$\$26.65 \div 10 = \underline{\$2.66}$$

TABLE 10  
RESULTS FROM BENCH DEPOSIT "B"

TRENCH	SAMPLE TAKEN	DEPTH	WEIGHT	COLORS	VALUE PER YD.	DESCRIPTION OF TRENCH	AVERAGE VALUE/YD.
B1						MUCK: 20' black muck only no gravel, no samples	
B2	1	6'	6½ lb.	0	0	MUCK: 3' GRAVEL: 12' thawed ground soft bedrock	0
	2	4'	7 lb.	0	0		
	3	8'	7 lb.	0	0		
	4	12'	7 lb.	0	0		
B3	1	10'	7 lb.	0	0	MUCK: 2' GRAVEL: 15' thawed creek gravel in top layers	0
	2	6'	6½ lb.	0	0		
	3	14'	6 lb.	0	0		
	4	14'	6 lb.	0	0		
B4	1	10'	7 lb.	0	0	MUCK: 3' GRAVEL: 12' thawed creek gravel in top layers	0
	2	6'	7 lb.	0	0		
	3	14'	6½ lb.	0	0		
	4	15'	6 lb.	0	0		
B5	1	6'	7 lb.	0	0	MUCK: 4' GRAVEL: 12' thawed	0
	2	10'	7 lb.	0	0		
	3	14'	7½ lb.	0	0		
	4	10'	6 lb.	0	0		
B6	1	6'	6 lb.	0	0	MUCK: 5' GRAVEL: 12' thawed	0
	2	8'	6½ lb.	0	0		
	3	11'	6½ lb.	0	0		
	4	17'	6½ lb.	0	0		

TABLE 10 continued  
RESULTS FROM BENCH DEPOSIT "B"

TRENCH	SAMPLE	DEPTH TAKEN	WEIGHT	COLORS	VALUE PER YD.	DESCRIPTION OF TRENCH	AVERAGE VALUE/YD.
B7	1	4'	6½ lb.	0	0	MUCK: 3'	0
	2	5'	6½ lb.	0	0	GRAVEL: 2'	
	3	6'	7 lb.	0	0	dug 9' into bedrock	
	4	10'	6½ lb.	0	0	soft fractured bedrock	
B8	1	10'	7 lb.	0	0	MUCK: 9'	0
	2	12'	7 lb.	0	0	GRAVEL: 4'	
	3	14'	7 lb.	0	0	bedrock	
	4	14'	7 lb.	0	0	not much gravel soft fractured bedrock	
B9						MUCK: 10'	
						no gravel, no samples bedrock	
TOTAL OF AVERAGES							\$0

Average value per yard for BENCH DEPOSIT "B"

\$0

TABLE 11  
RESULTS FROM BENCH DEPOSIT "C"

TRENCH	SAMPLE	DEPTH TAKEN	WEIGHT	COLORS	VALUE PER YD.	DESCRIPTION OF TRENCH	AVERAGE VALUE/YD.
C1	1	4'	7 lb.	0	0	MUCK: 3'	\$9.97
	2	5'	7 lb.	6	\$8.25	GRAVEL: 6' loose gravel	
	3	8'	7 lb.	11	\$15.13	soft bedrock	
	4	8'	7 lb.	12	\$16.15	large orange flakes	
C2	1	4'	6½ lb.	0	0	MUCK: 2'	\$6.06
	2	6'	7 lb.	3	\$4.13	GRAVEL: 6' loose gravel	
	3	8'	7 lb.	6	\$8.25	soft bedrock	
	4	9'	6½ lb.	8	\$11.85	large orange flakes	
TOTAL OF AVERAGES							\$16.03

Average value per yard for BENCH DEPOSIT "C"

$$\$16.03 \div 2 = \underline{\underline{\$8.02}}$$

TABLE 12

## RESULTS FROM BENCH DEPOSIT "D"

TRENCH	SAMPLE	DEPTH TAKEN	WEIGHT	COLORS	VALUE PER YD.	DESCRIPTION OF TRENCH	AVERAGE VALUE/YD.
D1						MUCK: 6' no gravel, no bedrock trench abandond	
						MUCK: 5' no gravel, no bedrock trench abandond	
						MUCK: 10' a little fine gravel mixed in sand no bedrock trench abandond	
D4	1	7'	6 lb.	0	0	MUCK: 6'	
	2	10'	6½ lb.	4	\$5.93	GRAVEL: 5' layers of sand/gravel	\$2.97
D5						MUCK: 6' no gravel, no bedrock trench abandond	
D6	1	4'	6 lb.	1	\$1.61	MUCK: 3'	
	2	3'	7 lb.	0	0	GRAVEL: 6' sandy, no bedrock	
	3	6'	6½ lb.	3	\$4.45	lots of black sand in sample #1	\$2.16
	4	8'	7½ lb.	2	\$2.57		
D7	1	2'	8 lb.	1	\$1.20	MUCK: 2'	
	2	6'	8 lb.	0	0	GRAVEL: 7' no bedrock	
	3	9'	7 lb.	3	\$4.13	2 flakes in sample #3	\$1.33
	4	rim	6 lb.	0	0		
D8	1	2'	7 lb.	1	\$1.38	MUCK: 1'	
	2	4'	6½ lb.	2	\$2.96	GRAVEL: 9' layers of sand/gravel	
	3	5'	6½ lb.	0	0	no bedrock	\$2.12
	4	9'	7 lb.	3	\$4.13		

TABLE 12 continued  
RESULTS FROM BENCH DEPOSIT "D"

TRENCH	SAMPLE	DEPTH TAKEN	WEIGHT	COLORS	VALUE PER YD.	DESCRIPTION OF TRENCH	AVERAGE VALUE/YD.
D9	1	4'	6 lb.	2	\$3.21	MUCK: 3'	\$ .80
	2	6'	6 lb.	0	0	GRAVEL: 6'	
	3	rim	7½ lb.	0	0	at bench rim gravel is at surface	
	4	8'	6 lb.	0	0	no bedrock	
D10	1	2'	6½ lb.	3	\$4.45	MUCK: 1'	\$2.06
	2	4'	7 lb.	0	0	GRAVEL: 8'	
	3	5'	7 lb.	1	\$1.38	2' layer of sand between 3' and 8'	
	4	8'	7 lb.	2	\$2.41	fine colours no bedrock	
D11	1	6'	7½ lb.	1	\$1.28	MUCK: 2'	\$3.84
	2	3'	7 lb.	2	\$2.75	GRAVEL: 8'	
	3	5'	7 lb.	5	\$6.88	no bedrock exceptional amount black sand in samples #2 and #4	
	4	6'	6½ lb.	3	\$4.45		
D12	1	3'	7 lb.	2	\$2.75	MUCK: 2'	\$4.29
	2	6'	7 lb.	4	\$5.50	GRAVEL: 7'	
	3	7'	6½ lb.	3	\$4.45	no bedrock lots of black sand in sample #3	
	4	7'	6½ lb.	2	\$4.45		
D13	1	3'	7 lb.	0	0	MUCK: 2'	\$1.11
	2	6'	7 lb.	0	0	GRAVEL: 8'	
	3	8'	6½ lb.	1	\$1.48	3' pea gravel then larger gravel no bedrock	
	4	8'	6½ lb.	2	\$2.96	fine colour	
D14	1	2'	7 lb.	0	0	MUCK: 2'	\$1.99
	2	3'	7 lb.	1	\$1.38	GRAVEL: 5'	
	3	5'	6½ lb.	3	\$4.45	coarse gravel no bedrock	
	4	7'	6½ lb.	1	\$1.48		

TABLE 12 continued  
RESULTS FROM BENCH DEPOSIT "D"

TRENCH	SAMPLE	DEPTH TAKEN	WEIGHT	COLORS	VALUE PER YD.	DESCRIPTION OF TRENCH	AVERAGE VALUE/YD.
D15	1	2'	7 lb.	0	0	MUCK: 2'	\$2.49
	1	5'	7 lb.	1	\$1.38	GRAVEL: 7' fine colour	
	3	7'	6½ lb.	3	\$4.45	no bedrock fine colour	
	4	9'	7 lb.	3	\$4.13		
D16	1	4'	6 lb.	0	0	MUCK: 3'	\$ .74
	2	5'	6½ lb.	2	\$2.96	GRAVEL: 6' layers of clay/sand	
	3	6'	6 lb.	0	0	no bedrock	
	4	7'	7 lb.	0	0		
D17	1	3'	6½ lb.	0	0	MUCK: 3'	\$2.49
	2	6'	7 lb.	2	\$2.75	GRAVEL: 5' no bedrock	
	3	7'	7 lb.	2	\$2.75		
	4	8'	6½ lb.	3	\$4.45		
D18	1	2'	6 lb.	0	0	MUCK: 2'	\$0
	2	4'	7 lb.	0	0	GRAVEL: 8' sandy clay above	
	3	6'	6 lb.	0	0	gravel, layers of sand	
	4	9'	5½ lb.	0	0	no bedrock	
D19	1	2'	6½ lb.	0	0	MUCK: 2'	\$1.58
	2	4'	6½ lb.	0	0	GRAVEL: 9' no bedrock	
	3	7'	6½ lb.	1	\$1.48		
	4	9'	6 lb.	3	\$4.82		

TABLE 12 continued  
RESULTS FROM BENCH DEPOSIT "D"

TRENCH	SAMPLE	DEPTH TAKEN	WEIGHT	COLORS	VALUE PER YD.	DESCRIPTION OF TRENCH	AVERAGE VALUE/YD.
D20	1	3'	6½ lb.	0	0	MUCK: 3'	\$ .69
	2	5'	7 lb.	2	\$2.75	GRAVEL: 9'	
	3	7'	7 lb.	0	0	muck deepens toward centre of bench	
	4	10'	7 lb.	0	0	no bedrock	
TOTAL OF AVERAGES							\$30.66

Average value/yd for top gravels in BENCH DEPOSIT "D"

$$\$30.66 \div 16 = \underline{\$1.92}$$

TABLE 13

RESULTS FROM BENCH DEPOSIT "E"

TRENCH	SAMPLE	DEPTH TAKEN	WEIGHT	COLORS	VALUE PER YD.	DESCRIPTION OF TRENCH	AVERAGE VALUE/YD.
E1	1	2'	7 lb.	0	0	MUCK: 1'	\$1.10
	2	3'	7 lb.	0	0	GRAVEL: 5'	
	3	5'	7 lb.	1	\$1.38	fine gravel frost encountered no bedrock	
	4	7'	6½ lb.	2	\$2.96		
E2	1	2'	6 lb.	1	\$1.61	MUCK: 1'	\$ .40
	2	4'	6½ lb.	0	0	GRAVEL: 7'	
	3	5'	6 lb.	0	0	fine gravel frost encountered no bedrock	
	4	8'	6½ lb.	0	0		
E3	1	3'	7 lb.	0	0	MUCK: 2'	\$1.03
	2	6'	7½ lb.	0	0	GRAVEL: 7'	
	3	8'	7 lb.	1	\$1.38	frost encountered sandy gravel no bedrock	
	4	9'	7 lb.	2	\$2.75		
E4	1	2'	7 lb.	0	0	MUCK: 1'	\$1.58
	2	4'	6 lb.	2	\$3.21	GRAVEL: 12'	
	3	7'	6 lb.	1	\$1.61	no bedrock fine colours	
	4	12'	6½ lb.	1	\$1.48		
E5	1	2'	6½ lb.	0	0	MUCK: 2'	\$ .69
	2	5'	6½ lb.	0	0	GRAVEL: 11'	
	3	8'	7 lb.	1	\$1.38	no bedrock gravel size increases with depth	
	4	13'	7 lb.	1	\$1.38		
E6	1	5'	8 lb.	0	0	MUCK: 3'	\$1.03
	2	7'	7 lb.	1	\$1.38	GRAVEL: 9'	
	3	9'	6½ lb.	0	0	frost to east no bedrock lots black sand in sample #2	
	4	11'	7 lb.	2	\$2.75		

TABLE 13 continued  
RESULTS FROM BENCH DEPOSIT "E"

TRENCH	SAMPLE	DEPTH TAKEN	WEIGHT	COLORS	VALUE PER YD.	DESCRIPTION OF TRENCH	AVERAGE VALUE/YD.
E7	1	2'	7 lb.	1	\$1.30	MUCK: 0	\$ .72
	2	5'	7 lb.	0	0	GRAVEL: 11'	
	3	7'	7½ lb.	0	0	1' deep layer of sand starts at 6', sample #3 had little black sand	
	4	10'	6½ lb.	1	\$1.48		
E8	1	3'	6 lb.	2	\$3.21	MUCK: 3'	\$1.17
	2	4'	6½ lb.	1	\$1.48	GRAVEL: 6'	
	3	5'	6 lb.	0	0		
	4	6'	6½ lb.	0	0		
E9	1	3'	7 lb.	0	0	MUCK: 2'	\$ .74
	2	5'	6 lb.	0	0	GRAVEL: 10'	
	3	7'	7 lb.	0	0	top muck mixed with gravel, 2' sand layer 6'-8' down	
	4	10'	6½ lb.	2	\$2.96	no bedrock	
E10						MUCK: 4'	
						GRAVEL: -	
						shallow pit, no gravel encountered	
TOTAL OF AVERAGES							\$8.46

Average value/yd. for top gravels in BENCH DEPOSIT "E"

$$\$8.46 \div 9 = \underline{\$ .94}$$

TABLE 14

## RESULTS FROM BENCH DEPOSIT "F"

TRENCH	SAMPLE	DEPTH TAKEN	WEIGHT	COLORS	VALUE PER YD.	DESCRIPTION OF TRENCH	AVERAGE VALUE/YD.
F1	1	4'	8 lb.	2	\$2.41	MUCK: 3' GRAVEL: 5' didn't reach bedrock black muck	\$1.29
	2	5'	7½ lb.	0	0		
	3	7'	6½ lb.	0	0		
	4	7'	7 lb.	2	\$2.75		
F2	1	4'	8 lb.	2	\$2.41	MUCK: 3' GRAVEL: 5' coarse gravel 1 flake in sample #3	\$2.81
	2	5'	6 lb.	1	\$1.61		
	3	8'	7 lb.	2	\$2.75		
	4	8'	6½ lb.	3	\$4.45		
F3	1	3'	8 lb.	1	\$1.20	MUCK: 1' GRAVEL: 9' didn't reach bedrock 2 flakes in sample #2 1 flake in sample #3 thick flakes	\$4.21
	2	5'	7 lb.	5	\$6.88		
	3	9'	8 lb.	3	\$3.61		
	4	9'	7½ lb.	4	\$5.14		
TOTAL OF AVERAGES							\$8.31

Average value/yd. for top gravels in BENCH DEPOSIT "F"

$$\$8.31 \div 3 = \underline{\underline{\$2.77}}$$

TABLE 15  
RESULTS FROM BENCH "G"

TRENCH	SAMPLE	DEPTH TAKEN	WEIGHT	COLORS	VALUE PER YD.	DESCRIPTION OF TRENCH	AVERAGE VALUE/YD.
G1	1	4'	6½ lb.	1	\$1.48	MUCK: 2'	\$1.75
	2	6'	7 lb.	1	\$1.38	GRAVEL: 12'	
	3	9'	7 lb.	1	\$1.38	some gravel mixed in muck, larger gravel starts at about 8'	
	4	14'	7 lb.	2	\$2.75	didn't reach bedrock	
G2	1	4'	6 lb.	1	\$1.61	MUCK: 2'	\$ .77
	2	6'	7½ lb.	0	0	GRAVEL: 11'	
	3	9'	7 lb.	0	0	didn't reach bedrock	
	4	11'	6½ lb.	1	\$1.48		
G3	1	4'	7 lb.	0	0	MUCK: 2'	\$1.58
	2	2'	7 lb.	0	0	GRAVEL: 12'	
	3	9'	6½ lb.	1	\$1.48	sandy layers	
	4	14'	6 lb.	3	\$4.82	didn't reach bedrock	
G4	1	15'	8 lb.	1	\$1.20	MUCK: 1'	\$2.34
	2	10'	8 lb.	3	\$3.61	GRAVEL: 17'	
	3	5'	6 lb.	1	\$1.61	gravel becomes coarser at 10'	
	4	2'	6½ lb.	2	\$2.96	didn't reach bedrock	
TOTAL OF AVERAGES							\$6.44

Average value/yd. for top gravels in BENCH DEPOSIT "G"

$$\$6.44 \div 4 = \underline{\$1.61}$$

TABLE 16

FINDING THE WEIGHT OF 1 COLOUR OF FORTYMILE GOLD

BATCH NUMBER	NUMBER OF COLOURS	WEIGHT IN GRAINS	WEIGHT IN TR. OZ.	WT. 1 COLOR IN TR. OZ.	COLOURS/ 1 TR. OZ.
1.	70	.2	1/2400	1/168,000	168,000
2.	120	.33	1/1455	1/174,600	174,600
3.	60	.15	1/3200	1/192,000	192,000
4.	60	.2	1/2400	1/144,000	144,000
5.	100	.3	1/1600	1/160,000	160,000
6.	190	.5	1/960	1/182,400	182,400
7.	90	.35	1/1371	1/123,390	123,390
TOTAL					1,144,390

Therefore the average number of colours in 1 troy ounce is:

$$1,144,390 \text{ colours} \div 7 \text{ batches} = \underline{163,484}$$

**TABLE 17**  
**DIMENSIONS & VOLUMES OF PITS & TRENCHES ON BARS**

TRENCH	LENGTH	WIDTH	DEPTH	VOLUME	TRENCH	LENGTH	WIDTH	DEPTH	VOLUME
a1	12'	12'	12'	64yd <sup>3</sup>	c11	14'	12'	12'	75yd <sup>3</sup>
a2	50'	10'	10'	185yd <sup>3</sup>	c12	12'	12'	12'	64yd <sup>3</sup>
a3	70'	12'	10'	311yd <sup>3</sup>	c13	14'	12'	12'	75yd <sup>3</sup>
a4	50'	12'	12'	267yd <sup>3</sup>	d1	12'	10'	10'	44yd <sup>3</sup>
a5	50'	12'	12'	267yd <sup>3</sup>	d2	12'	12'	10'	53yd <sup>3</sup>
a6	50'	12'	12'	267yd <sup>3</sup>	d3	14'	12'	12'	75yd <sup>3</sup>
a7	60'	12'	10'	267yd <sup>3</sup>	d4	14'	10'	10'	52yd <sup>3</sup>
a8	50'	12'	12'	267yd <sup>3</sup>	d5	12'	12'	10'	53yd <sup>3</sup>
a9	12'	12'	10'	53yd <sup>3</sup>	e1	14'	12'	12'	75yd <sup>3</sup>
a10	40'	10'	10'	148yd <sup>3</sup>	e2	14'	12'	12'	75yd <sup>3</sup>
a11	50'	12'	12'	267yd <sup>3</sup>	e3	12'	12'	12'	64yd <sup>3</sup>
a12	70'	12'	10'	311yd <sup>3</sup>	e4	12'	12'	12'	64yd <sup>3</sup>
a13	70'	10'	8'	207yd <sup>3</sup>	e5	14'	12'	12'	75yd <sup>3</sup>
a14	12'	10'	8'	36yd <sup>3</sup>	e6	12'	12'	12'	64yd <sup>3</sup>
b1	14'	12'	12'	75yd <sup>3</sup>	e7	12'	12'	12'	64yd <sup>3</sup>
b2	14'	12'	12'	75yd <sup>3</sup>	e8	14'	12'	12'	75yd <sup>3</sup>
b3	12'	12'	12'	64yd <sup>3</sup>	e9	14'	12'	12'	75yd <sup>3</sup>
b4	12'	12'	12'	64yd <sup>3</sup>	f1	15'	15'	15'	125yd <sup>3</sup>
b5	12'	12'	12'	64yd <sup>3</sup>	f2	20'	15'	15'	167yd <sup>3</sup>
c1	14'	12'	10'	62yd <sup>3</sup>	f3	20'	15'	15'	167yd <sup>3</sup>
c2	12'	10'	10'	44yd <sup>3</sup>	f4	20'	15'	15'	167yd <sup>3</sup>
c3	12'	12'	12'	64yd <sup>3</sup>	g1	14'	12'	12'	75yd <sup>3</sup>
c4	14'	12'	12'	75yd <sup>3</sup>	g2	12'	12'	12'	64yd <sup>3</sup>
c5	14'	12'	12'	75yd <sup>3</sup>	g3	14'	12'	12'	75yd <sup>3</sup>
c6	14'	12'	12'	75yd <sup>3</sup>	g4	12'	12'	12'	64yd <sup>3</sup>
c7	12'	12'	12'	64yd <sup>3</sup>	g5	12'	12'	12'	64yd <sup>3</sup>
c8	12'	12'	10'	53yd <sup>3</sup>	g6	14'	12'	12'	75yd <sup>3</sup>
c9	6'	6'	5'	7yd <sup>3</sup>	g7	14'	12'	10'	75yd <sup>3</sup>
c10	12'	12'	12'	64yd <sup>3</sup>					

Total volume excavated on bars

6,018 bank yards

6,018 bank yards x 1.25(swell factor) = 7,523 bucket yards

**TABLE 18**  
**DIMENSIONS & VOLUMES OF PITS & TRENCHES ON BENCHES**

TRENCH	LENGTH	WIDTH	DEPTH	VOLUME
A1	20'	12'	8'	71yd <sup>3</sup>
A2	15'	15'	10'	83yd <sup>3</sup>
A3	15'	12'	5½'	37yd <sup>3</sup>
A4	10'	12'	10'	89yd <sup>3</sup>
A5	20'	15'	9'	100yd <sup>3</sup>
A6	35'	12'	7'	109yd <sup>3</sup>
A7	30'	15'	6'	100yd <sup>3</sup>
A8	25'	15'	20'	278yd <sup>3</sup>
A9	20'	15'	12'	133yd <sup>3</sup>
A10	25'	12'	14'	156yd <sup>3</sup>
A11	25'	15'	15'	208yd <sup>3</sup>
B1	20'	8'	20'	119yd <sup>3</sup>
B2	30'	15'	15'	250yd <sup>3</sup>
B3	70'	9'	17'	397yd <sup>3</sup>
B4	30'	9'	15'	150yd <sup>3</sup>
B5	40'	8'	16'	190yd <sup>3</sup>
B6	40'	8'	17'	202yd <sup>3</sup>
B7	35'	10'	14'	182yd <sup>3</sup>
B8	50'	12'	13'	289yd <sup>3</sup>
B9	35'	9'	10'	117yd <sup>3</sup>
C1	50'	9'	9'	150yd <sup>3</sup>
C2	40'	9'	8'	107yd <sup>3</sup>
D1	20'	8'	6'	36yd <sup>3</sup>
D2	12'	8'	5'	18yd <sup>3</sup>
D3	25'	9'	10'	83yd <sup>3</sup>
D4	20'	8'	11'	66yd <sup>3</sup>
D5	15'	8'	6'	27yd <sup>3</sup>
D6	25'	9'	9'	75yd <sup>3</sup>
D7	30'	8'	9'	80yd <sup>3</sup>

TRENCH	LENGTH	WIDTH	DEPTH	VOLUME
D8	25'	8'	10'	74yd <sup>3</sup>
D9	20'	8'	9'	53yd <sup>3</sup>
D10	30'	9'	9'	90yd <sup>3</sup>
D11	35'	9'	10'	117yd <sup>3</sup>
D12	25'	8'	9'	67yd <sup>3</sup>
D13	35'	9'	10'	117yd <sup>3</sup>
D14	20'	12'	7'	62yd <sup>3</sup>
D15	40'	9'	9'	120yd <sup>3</sup>
D16	60'	9'	9'	180yd <sup>3</sup>
D17	80'	10'	8'	237yd <sup>3</sup>
D18	120'	10'	10'	444yd <sup>3</sup>
D19	100'	10'	11'	407yd <sup>3</sup>
D20	60'	10'	12'	267yd <sup>3</sup>
E1	20'	12'	6'	53yd <sup>3</sup>
E2	60'	6'	8'	107yd <sup>3</sup>
E3	65'	15'	9'	325yd <sup>3</sup>
E4	20'	10'	13'	96yd <sup>3</sup>
E5	15'	15'	13'	108yd <sup>3</sup>
E6	130'	12'	12'	693yd <sup>3</sup>
E7	50'	15'	11'	305yd <sup>3</sup>
E8	100'	8'	9'	267yd <sup>3</sup>
E9	75'	20'	12'	667yd <sup>3</sup>
E10	15'	10'	4'	22yd <sup>3</sup>
F1	40'	10'	8'	119yd <sup>3</sup>
F2	70'	8'	8'	166yd <sup>3</sup>
F3	40'	8'	10'	119yd <sup>3</sup>
G1	65'	10'	14'	337yd <sup>3</sup>
G2	45'	8'	13'	173yd <sup>3</sup>
G3	45'	8'	14'	187yd <sup>3</sup>
G4	50'	10'	18'	259yd <sup>3</sup>

Total volume excavated on benches

10,141 bank yards

10,140 bank yards x 1.25 (swell factor) = 12,675 bucket yards

TABLE 19  
AREAS & VOLUMES OF STRIPPING WORK

## BENCH "C"

$$100' \times 50' = 5000 \text{ ft}^2$$

$$100' \times 50' \times 1\frac{1}{2}' \text{ (depth)} = 231 \text{ yd}^3$$

## BENCH "E"

$$150' \times 1500' = 225,000 \text{ ft}^2$$

$$150' \times 1500' \times 1\frac{1}{2}' \text{ (depth)} = 12,500 \text{ yd}^3$$

## BENCH "F"

$$150' \times 200' = 30,000 \text{ ft}^2$$

$$150' \times 200' \times 1\frac{1}{2}' \text{ (depth)} = 1667 \text{ yd}^3$$

## BENCH "G"

$$150' \times 200' = 30,000 \text{ ft}^2$$

$$150' \times 200' \times 1\frac{1}{2}' \text{ (depth)} = 1667 \text{ yd}^3$$

Total square feet stripped

290,000 ft<sup>2</sup>

Total volume stripped

16,065 yd<sup>3</sup>

## Supplementary Information

### PEOPLE WHO WORKED ON THE PROJECT

Bill Claxton	Marten Creek, Fortymile River, Yukon
Leslie Chapman	Marten Creek, Fortymile River, Yukon
Larry Remple	Dawson City, Yukon
Bob Keddie	Dawson City, Yukon

### PREPERATION OF REPORT

The report was prepared by L. Chapman and W. Claxton; 250 man-hours were spent compiling data and writing the report.

### CLAIMS AND LEASES INVESTIGATED

#### PLACER CLAIMS:

P11173, P11174, P11189-P11193, P11200-P11203,  
P14400-P14410, P21204

Held by Marten Creek Placers Ltd.

Principals: W. Claxton, L. Chapman

#### DREDGING LEASES:

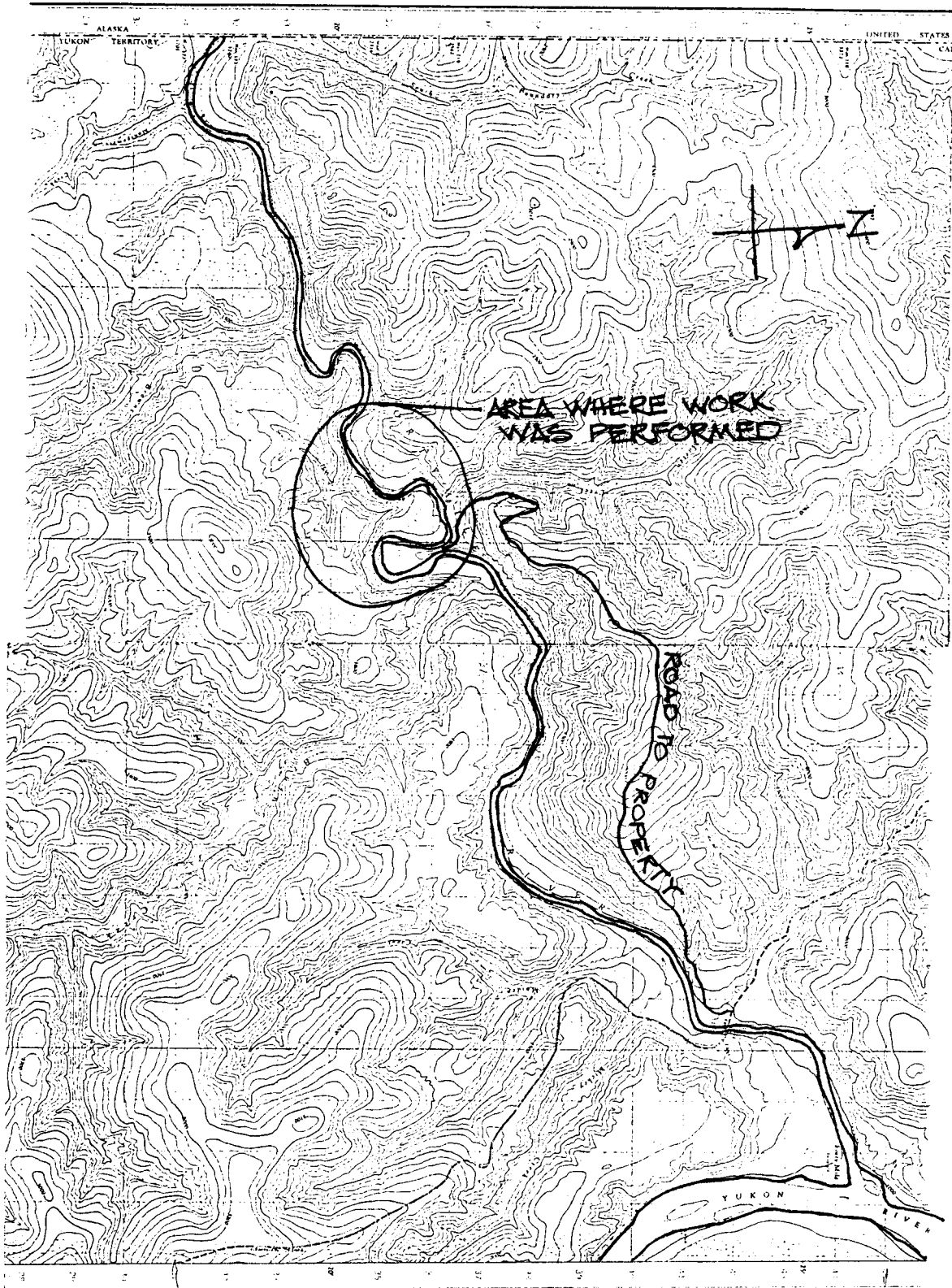
DL83/4 (upper ½ mile)

Held by W. Claxton

DL83/5 (lower 2 miles)

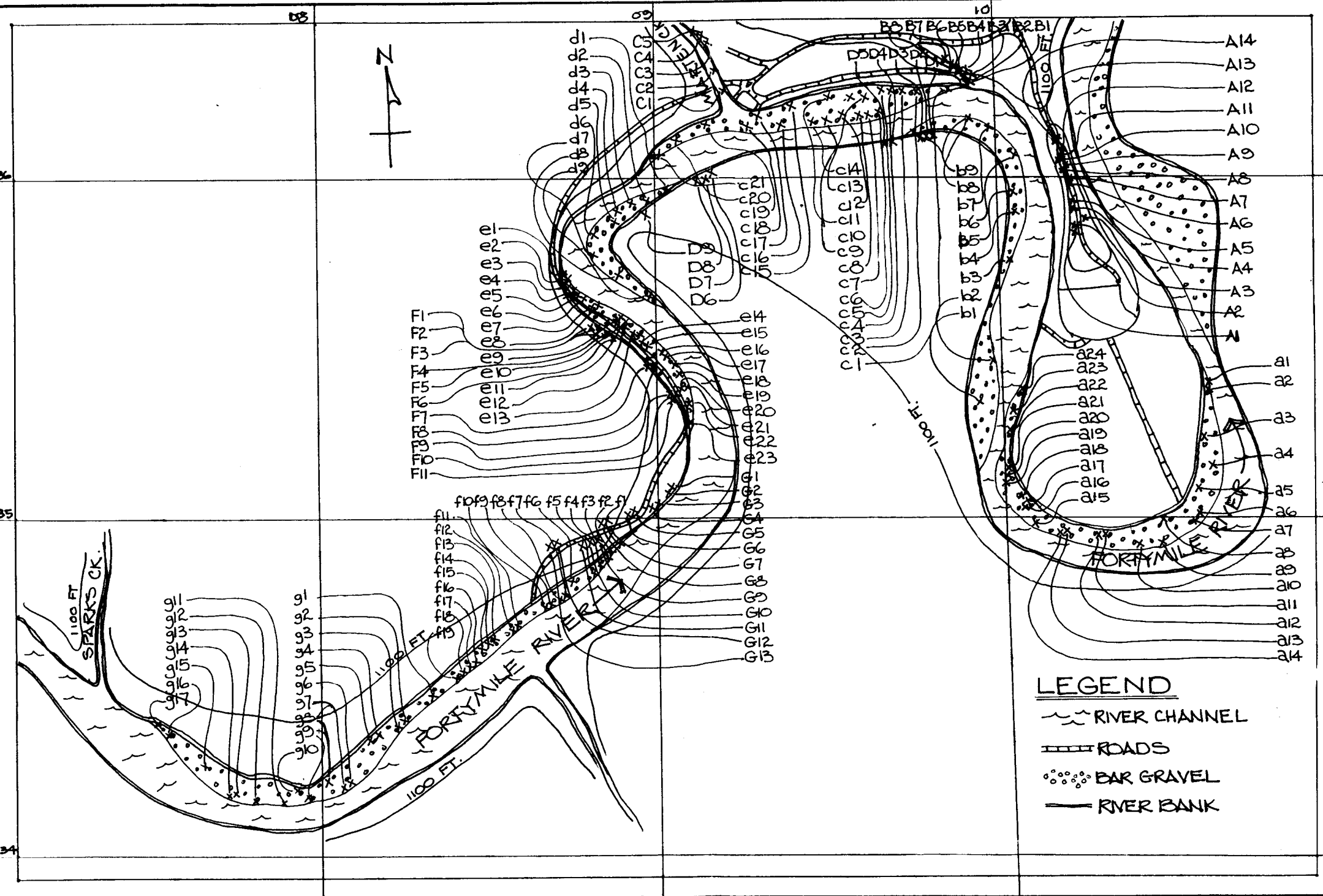
Held by L. Chapman



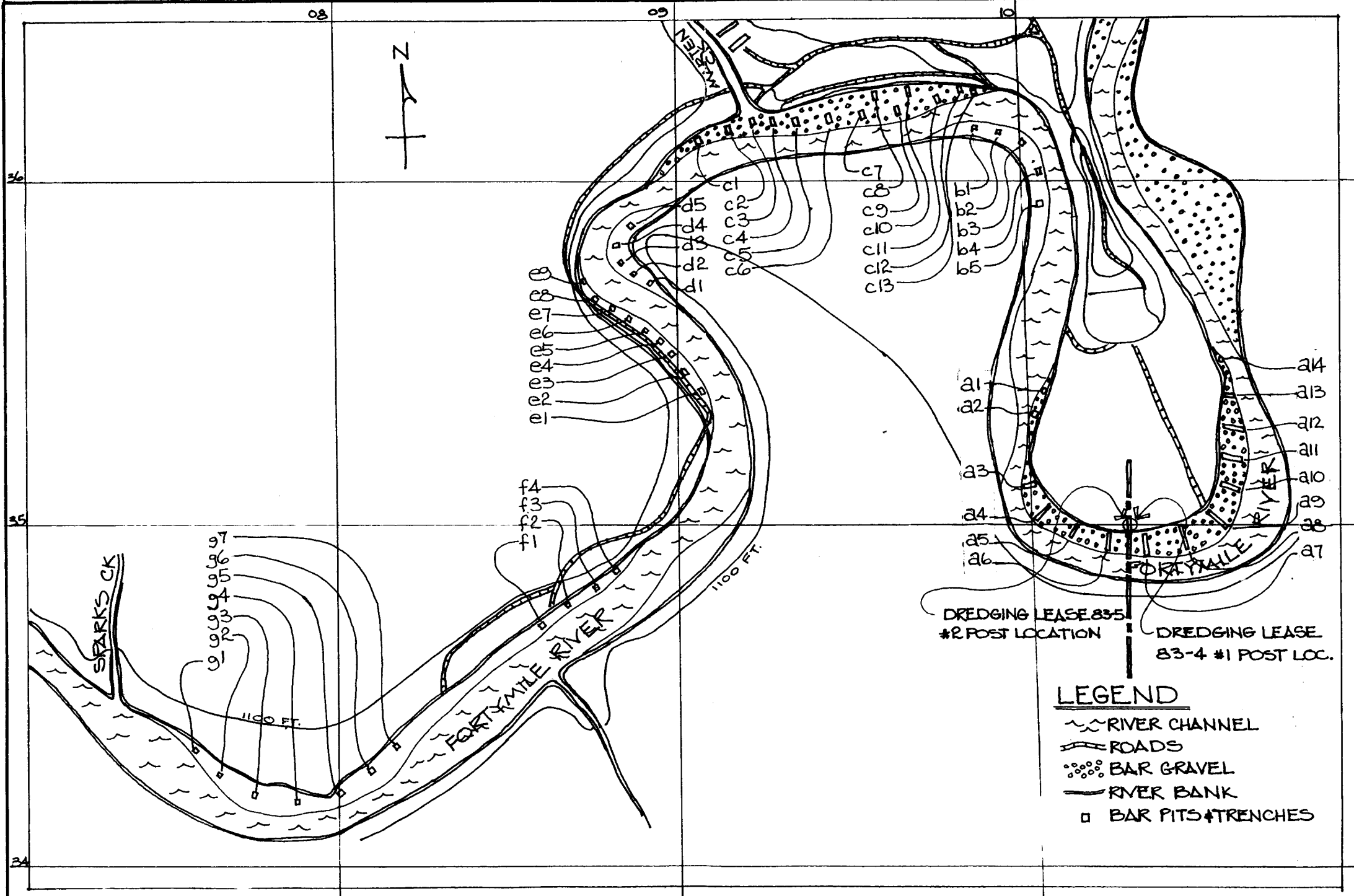


MAP 2

SCALE: 1" = 3 MI.

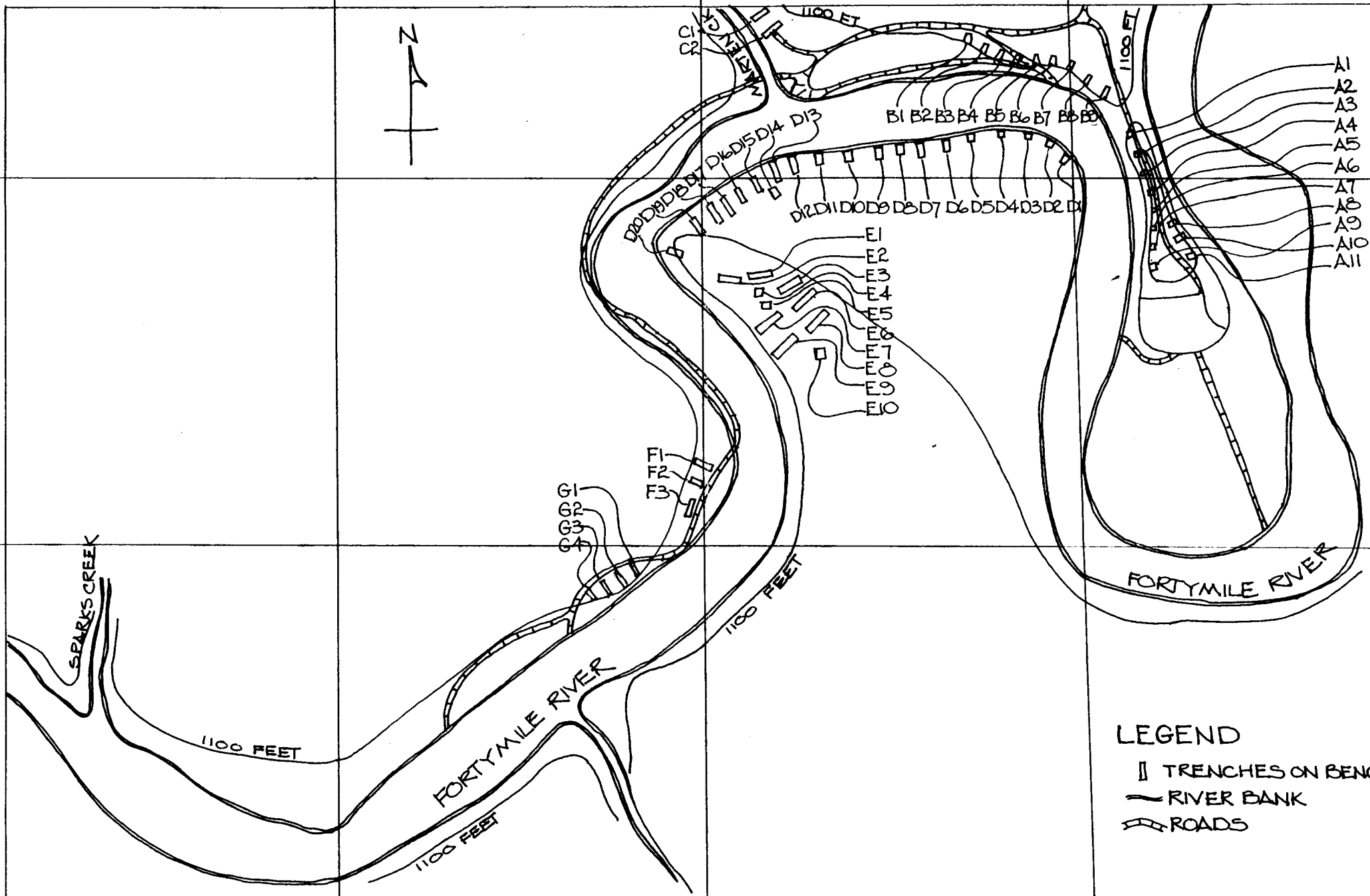


MAP 3 PROSPECTING SAMPLE LOCATIONS SCALE : 1" = 500'

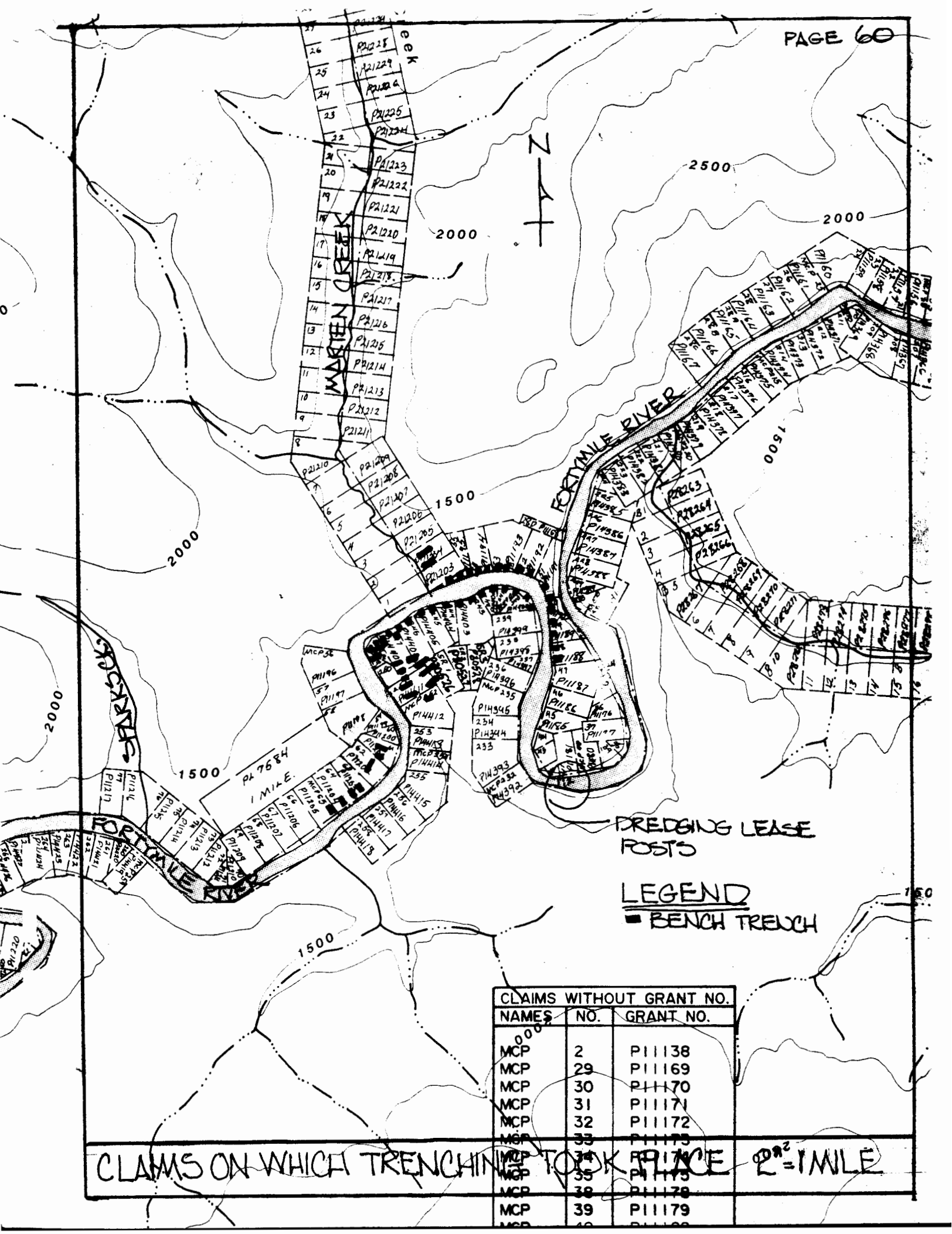


MAP 4 BAR PIT & TRENCH LOCATIONS

SCALE: 1"=500'



MAP 5 BENCH TRENCH LOCATIONS SCALE: 1"=500'



DREDGING LEASE POSTS

LEGEND  
 ■ BENCH TRENCH

CLAIMS WITHOUT GRANT NO.		
NAMES	NO.	GRANT NO.
MCP	2	PI1138
MCP	29	PI1169
MCP	30	PI1170
MCP	31	PI1171
MCP	32	PI1172
MCP	33	PI1173
MCP	34	PI1174
MCP	35	PI1175
MCP	38	PI1178
MCP	39	PI1179
MCP	40	PI1180

CLAIMS ON WHICH TRENCHING TOOK PLACE 2" = 1 MILE



BEST ATTAINABLE  
IMAGE

