

YMIP 07-032

**YEIP
2007
-032**

Yukon Territorial Government

Exploration Incentive Program

Target Exploration

Sulphur Creek
Dawson mining District
Bulk Placer Test

May 1, 2007 -- Nov. 1, 2007

138 deg 52 min W
63 deg 44 min N

Claim sheet 1150-10i+1150-15c

report
Prepared by Dan Klippert

2007 PLACER GOLD EXPLORATION: TARGET

LOCATION and ACCESS

The placer claims are accessible by 2 wheel drive and are located approximately 30 miles south of Dawson City Yukon down the Hunker creek and or Bonanza creek road (see fig 1)

INTRODUCTION

Extensive historic gold mining in the Dawson gold fields suggest that mineable placer gold deposits exist on the Sulphur Gold ltd. creek claims.

Gold production figures for Bonanza creek , Hunker creek , Quartz creek, Dominion creek, Sulphur creek and the Indian river documented hundreds of thousands of ounces of gold production, from hand mining, dredge mining and heavy equipment mining. Since 1978 to 2004 Sulphur creek produced 117,000 ozs. of gold. The Sulphur gold ltd claims are located in the mid to upper reaches of Sulphur creek drainage system. (see fig1,2, and 3)

GEOLOGY

The Lease lies within the Klondike Schist Subterrane: Metamorphosed upper Paleozoic arc volcanic (=Klondike Schist assemblage and plutonic (YTp) rocks YTp + Plutonic rocks superimposed on Nasina and Klondike Schist Subterrane. There are many Historic placer mines surrounding this area. Since their discovery over 100 years ago, the Klondike gold fields have produced an estimated 311 metric tonnes of gold primarily from creek and bench placers that are fluvial in origin and range from Pliocene (approximately 4 million years old) to recent in age. (see Placer gold and glaciation in the Dawson area by Grant Lowey fig 8)

WORK PERFORMED

The excavator and Bulldozer were mobilised and demobilised using a 4x4 pilot truck and a 500 hp truck and lowboy

Trenching and pit preparation commenced through June to October in sites located in the sulphur creek valley and left limit bench above the Sulphur Gold ltd. camp (see fig 5 and 6)

The test trenches and pits were excavated and sampled on the left limit of the Sulphur creek valley and bench using a 235 cat excavator a D8K cat bulldozer, 5yd rubber tired loader and a 12yd dump truck. Bulk testing was performed in the valley bottom and right limit bench area above the Sulphur gold camp. A six inch pressure pump and test plant were utilised in the one hundred cubic yard bulk samples. Overburden at this location consists of 2m to 4m mud over 2m to 4m of orange rock laden clay slide.

Three hundred feet upstream of the Sulphur Gold camp a test trench was excavated from valley bottom (left dredge limit) and on up through the left limit bench. The cross trench exposed three different ages or eras of gravel. The gravels were overlain with tailings, black mud over burden, and an orange clay matrix, heavily laden with broken bedrock. The rock in the clay matrix was not water worn. This orange clay matrix filled with broken country rock slid over the old stream gravels in a slurry when the left limit of the Sulphur creek valley was thrust upwards thousands if not millions of years

ago. (see fig 7)

Approximately 2km upstream of Sulphur Gold camp

Through September 2km upstream a test trench was excavated across the valley floor through a section of disturbed valley bottom where dredging and mechanical mining had occurred.

The test trench was excavated across the valley floor to see if any of the bedrock had been passed over by the #9 dredge.

Panning on the bedrock contact produced 3 to 7 colours per pan with a little black sand. Panning in the face of the trench did not produce any gold. The trench did not intersect any dredge tailings, black mud was encountered from top to bottom. This section of creek had been reworked and covered with stripped material. More extensive sampling further upstream will be necessary to intersect dredge limits and virgin ground to evaluate properly. The gold found in the bedrock pans is encouraging.

Results

Bench test trench left limit above Sulphur gold camp.

Overburden at this location consists of 2 to 7m of mud

The majority of gold recovered in the test sluice was very fine to several 3 mm. pieces.

The largest piece of gold recovered measured 3 mm wide x 1mm. thick. Ninety percent of the gold recovered was smaller than 1mm.

Pit 1

Dredge edge valley bottom some blocky virgin bedrock but mostly disturbed mud with scraps of gravel. An old drift was encountered which stopped at the base of the bench. The pit was surrounded by black mud overburden, waste from previous mining.

Placer Gold : .15 gr/yd

Black sand : very fine to .5cm.

Pit 2

The second bulk sample was processed after 6m of overburden and old mine tailings were excavated. This particular light grey seam of gravel was, very sandy, water worn and well sorted. The majority of gravel in this seam 1cm to 3cm with very few stones larger than 10 cm

Placer Gold : .1 gr./yd.

Black sand : very fine

Pit 3

8 meters of Overburden and old tailings were excavated to expose a 1m seam of well sorted tightly concentrated gravel. This is highest bench deposit which I believe to be the oldest. This was the most promising pit with the highest grades however the bulk sample consumed the remnants of this old channel. The well sorted gravel was a pocket deposited against a sharp rise in the bedrock.

The earth shifted upwards on the creeks left limit thousands or millions of years ago and a resulting slide cut and rearranged the valley bottom leaving channels and remnants of ancient channels raised upon the left limit. This gravel is mineable at this depth however it is interrupted downstream by bedrock rising sharply and cut off in all directions by the orange clay matrix slide rock. This is a good indication that other rich gold bearing channels exist upstream on the left limit. This seam of ancient gravel is 2m to 3m above the the reserent day creek channel

Placer Gold : .9 gr/yd

Black sand : ample fine and ample coarse as large as 1cm. round.

Pit 4

Bedrock exposed 2m of old tailings and 2m of black mud bedrock exposed

Placer Gold : 0

Black sand : fine and lean

Pit 5

Bedrock exposed at 4m 2m of old tailings and 2m of black mud bedrock exposed

Placer Gold : 0

Black sand : very fine and lean

Pit 6

5m mud to bedrock

Placer Gold : .05

Black sand : very fine and lean

Pit 7

5m mud to bedrock

Placer Gold : .05 gr/yd

Black sand : fine

Pit 8

5m mud to bedrock

Placer Gold : .05

Black sand : fine and lean

Pit 9

7m to bedrock

Placer Gold : .1 gr/yd

Black sand : fine

Pit 10

8m to bedrock

Placer Gold : .05 gr/yd

Black sand : fine

Test Trench 2km upstream of Sulphur Gold camp

A test trench was excavated across the valley floor through the section of disturbed valley bottom where dredging and mechanical mining had been performed.

Panning in the bedrock contact produced 3 to 7 colours per pan with a little black sand. Panning in the face of the trench did not produce any gold. The trench did not intersect any dredge tailings, black mud was encountered from top to bottom. This section of creek had been reworked and covered with stripped material. (see fig 5)

CONCLUSION

When the earth movement raised Sulphur creeks left limit thousands or millions of years ago an orange mud or clay full of broken rock slid out, cut, and rearranged the valley bottom leaving channels and remnants of ancient channels raised upon the left limit. This gravel in test 3 is mineable at this depth however it is interrupted downstream by bedrock rising sharply and cut off in all directions by the orange clay matrix slide rock. This is a good indication that other rich gold bearing channels exist upstream on the left limit.

The majority of gold recovered in the test sluice was very fine, to several 3 mm. pieces. The largest piece of gold recovered measured 3 mm wide x 3mm thick. Ninety percent of the gold recovered was smaller than 1mm. Gold recovered in these tests is very encouraging. Values from these three test pits indicate there may be mineable reserves in this area and upstream on Sulphur creek. More exploration in this area and upstream of Sulphur creeks will be necessary to determine this.

EQUIPMENT USED

Eagle 500 hp Tractor and 50 ton Low boy

D8K Cat bulldozer

235 Cat Excavator

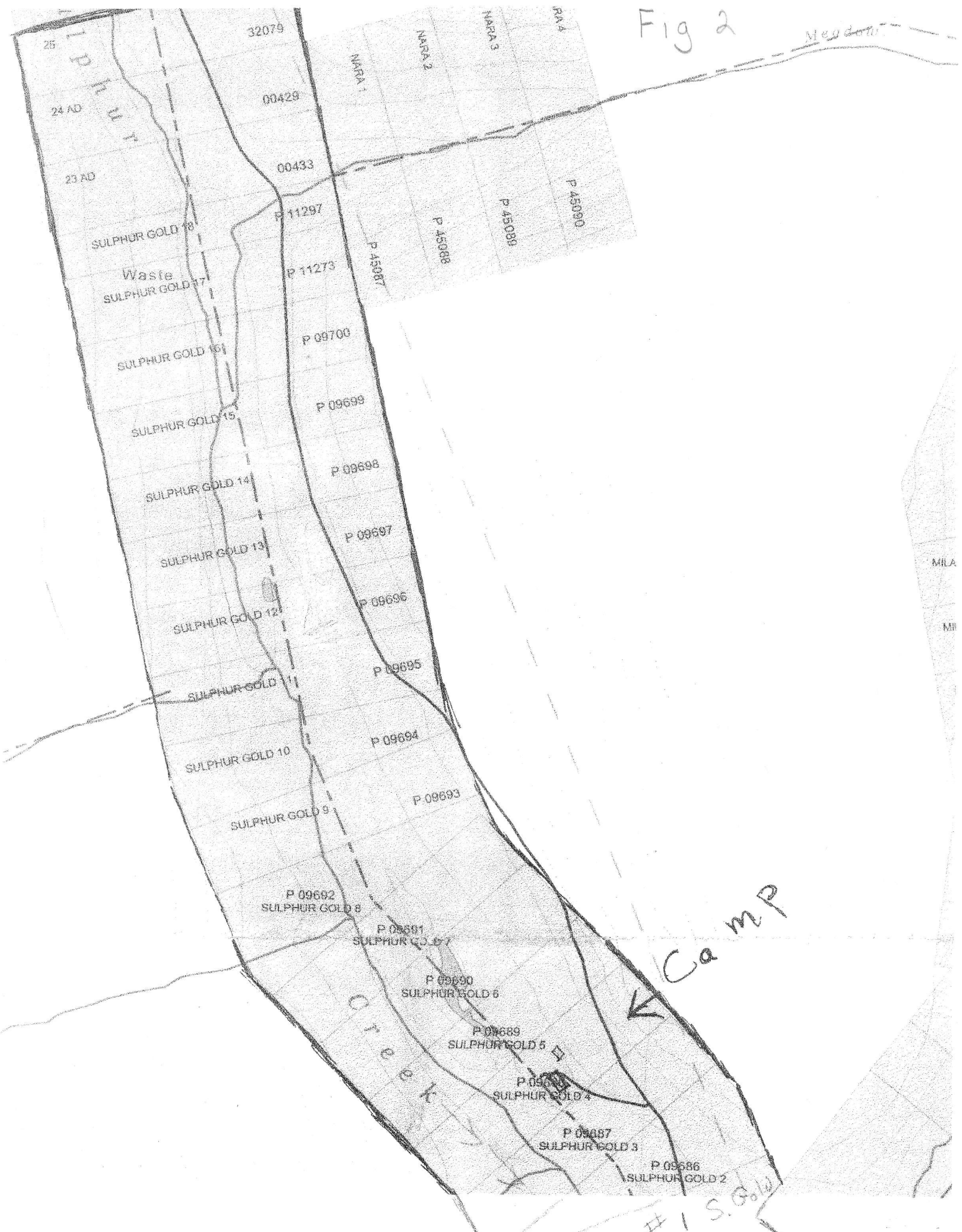
5yd Rubber tired loader

14yd Kenworth dump truck

4x4 Pickup

4x4 Quad

Fig 2



New dam

Camp

Creek

1 S. Gold

25
24 AD
23 AD

SULPHUR GOLD 18

Waste
SULPHUR GOLD 17

SULPHUR GOLD 16

SULPHUR GOLD 15

SULPHUR GOLD 14

SULPHUR GOLD 13

SULPHUR GOLD 12

SULPHUR GOLD 11

SULPHUR GOLD 10

SULPHUR GOLD 9

P 09692
SULPHUR GOLD 8

P 09691
SULPHUR GOLD 7

P 09690
SULPHUR GOLD 6

P 09689
SULPHUR GOLD 5

P 09688
SULPHUR GOLD 4

P 09687
SULPHUR GOLD 3

P 09686
SULPHUR GOLD 2

32079
00429

00433

P 11297

P 11273

P 09700

P 09699

P 09698

P 09697

P 09696

P 09695

P 09694

P 09693

NARRA 1

NARRA 2

NARRA 3

NARRA 4

P 45087

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P 45089

P 45090

MILA

MH

Fig 3



Fig 4

YTKS
Klondike Schist
Subterranean



2007 Exploration

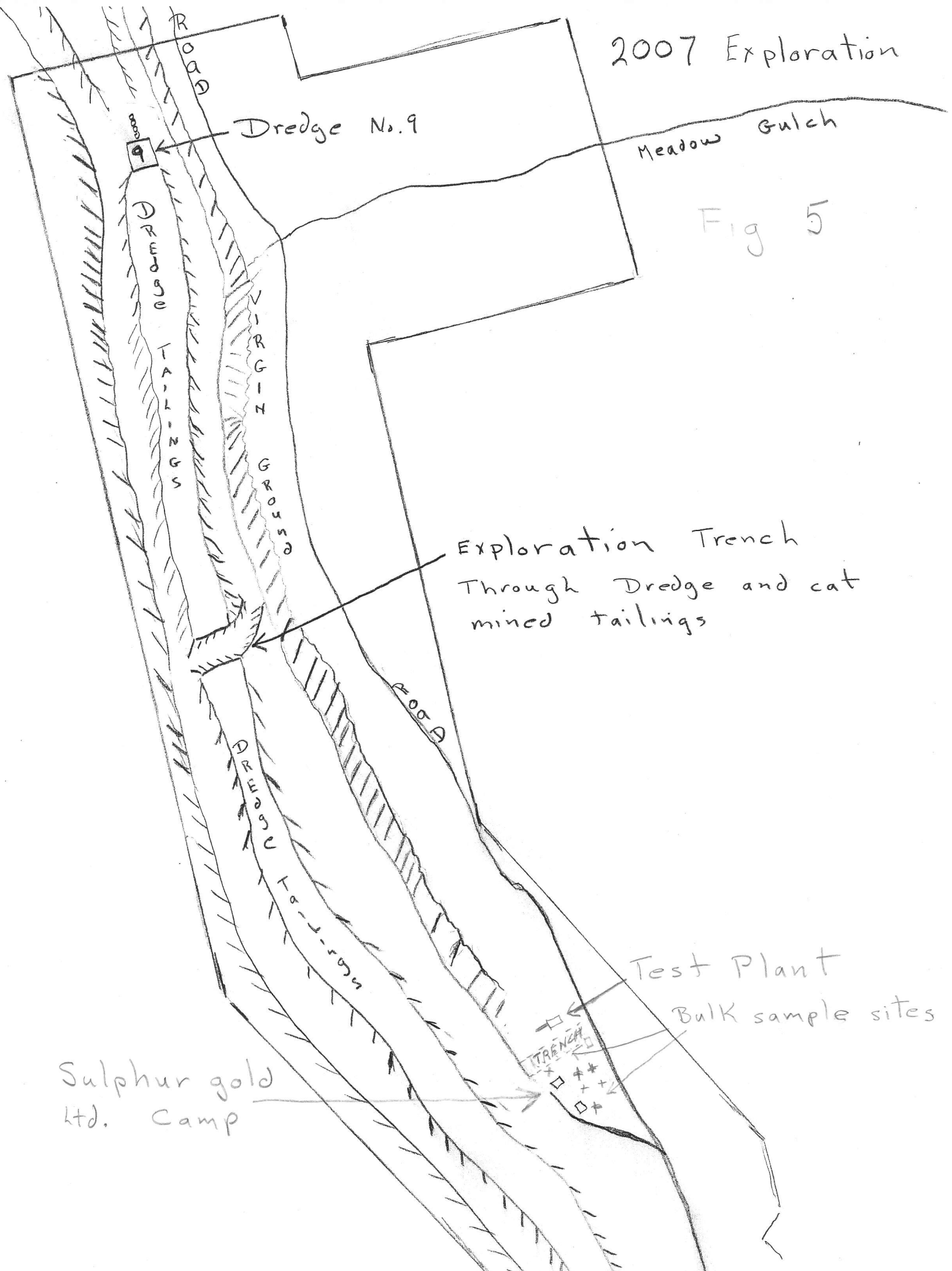


Fig 5

Sulphur gold Ltd. Camp

Test Plant Bulk sample sites

Dredge No. 9

Meadow Gulch

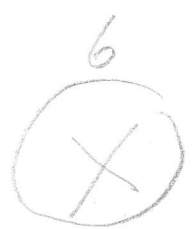
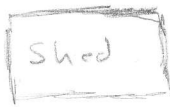
Exploration Trench Through Dredge and cat mined tailings

TRENCH

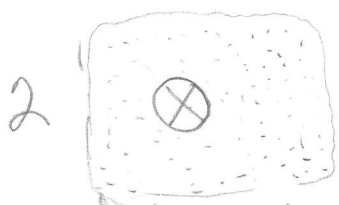
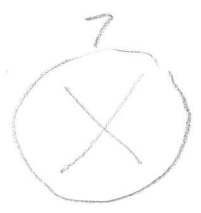
650'

⊗ = Test Site

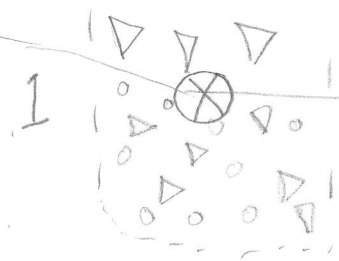
Fig 6



Bench

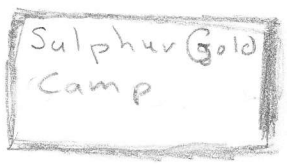


Bench ↑ rising up



Dredge

Limit



Valley Bottom

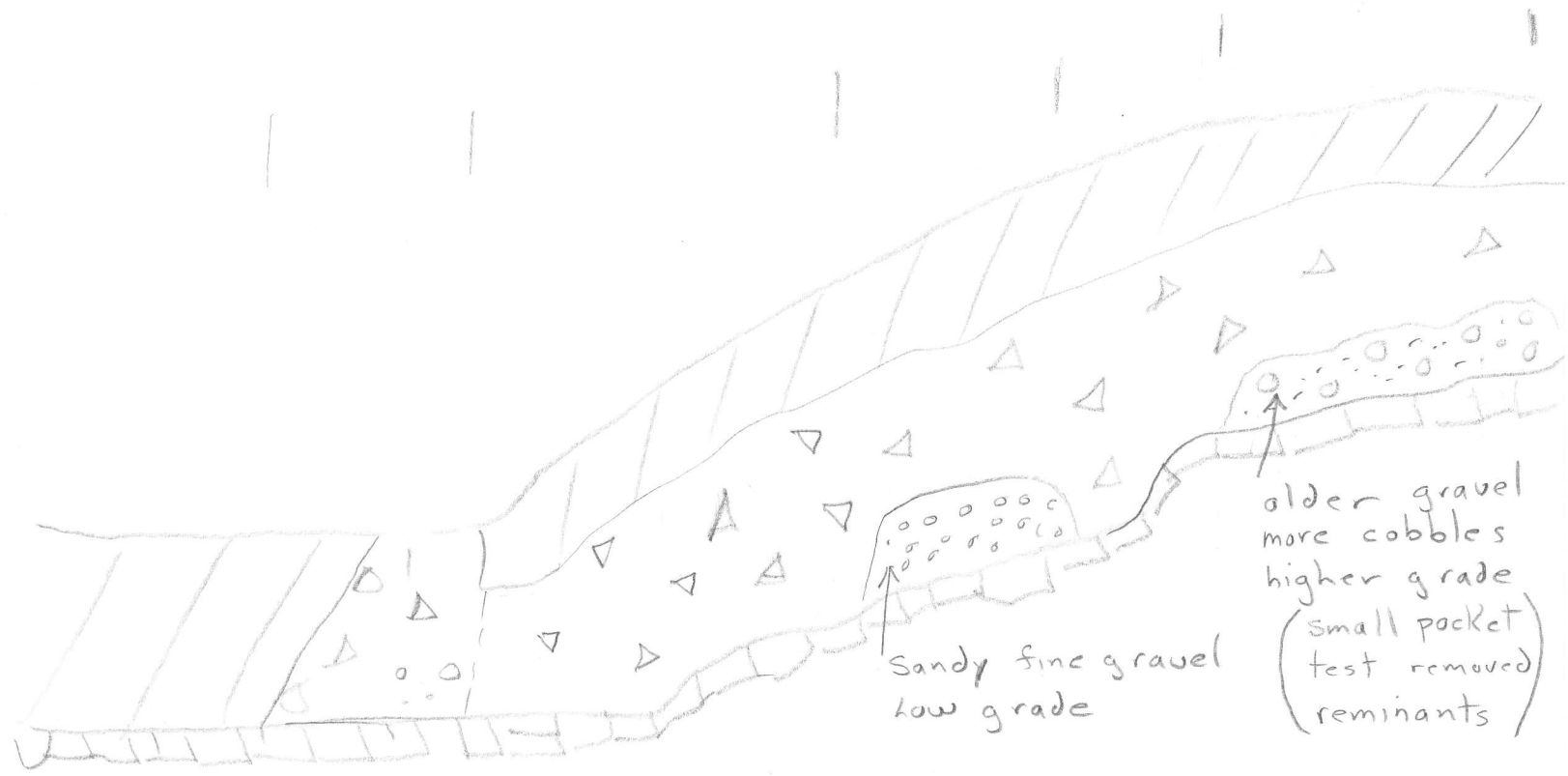
Creek Flow →

Downstream →

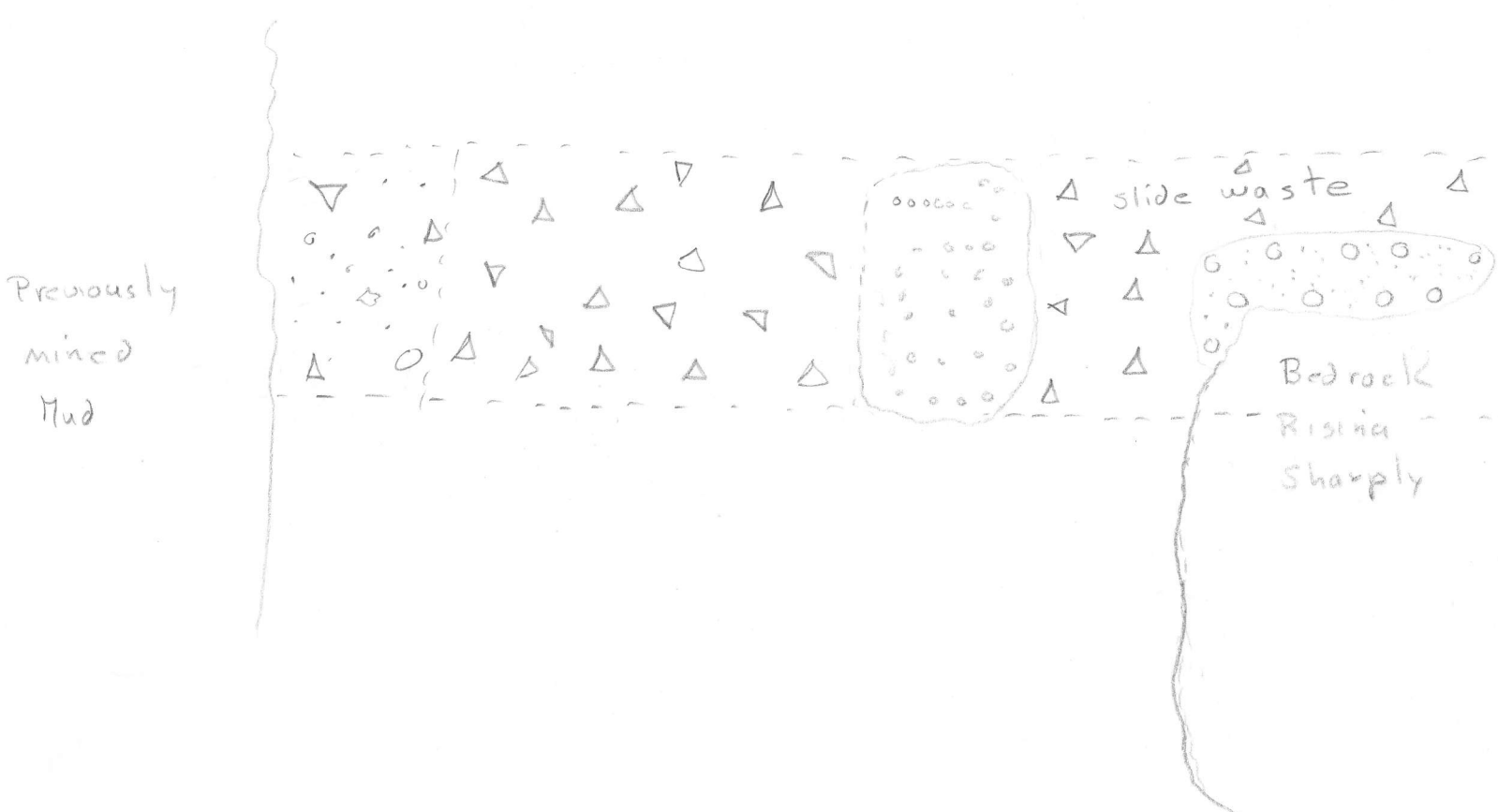
Left limit Bench
Trench Side View

Sulphur gold Camp Area
Exploration 2007

Fig. 7



Trench Top View



Placer deposits in the Dawson area are dominated by the Klondike goldfields which extend from the Klondike River south to the Indian River, and from the Yukon River east to Flat Creek. Since their discovery over 100 years ago, the Klondike goldfields have produced an estimated 311 metric tonnes of gold, primarily from bench and creek placers that are fluvial in origin and range from Pliocene (approximately 4 million years old) to recent in age. The placer deposits have historically been classified as high-level gravel (e.g., the White Channel Gravel), intermediate-level gravel (e.g., Midnight Dome and Archibald's Bench) and low-level gravel (e.g., Bonanza and Hunker creeks and the Klondike River). Other important placer deposits are located in the Sixty Mile River area and the Stewart River - Yukon River area (i.e., Black Hills, Scroggie and Thistle Creeks).

Most of the placer gold deposits in the Dawson area are located beyond the Cordilleran glacial limits. These limits are generally grouped into three main glacial episodes referred to as the pre-Reid (about 3 million years old), Reid (about 200,000 years old) and McConnell (about 22,000 years old). Only the pre-Reid glaciation directly affected placer deposits in the Dawson area by scouring creek and river bottoms and burying high-level placers with glaciofluvial outwash called the Klondike Gravel. However, the repeated glaciations had an indirect effect on the formation of placer deposits by bringing about climatic change and cycles of aggradation and incision. It is now thought that the change from a non-glacial period to the pre-Reid glacial episode resulted in aggradation and deposition of the high-level White Channel Gravel, whereas the change from the pre-Reid glacial episode to an interglacial phase resulted in incision and erosion of the gravel and the formation of the high-level terraces. Similar cycles of aggradation and deposition of auriferous gravel deposits, and their subsequent incision and erosion, may be due to climatic change related to the Reid glaciation and the McConnell glaciation (i.e., the deposition of low-level gravel along Bonanza and Hunker creeks and the Klondike River).

by Grant
Lowey

DATA SOURCES AND ACKNOWLEDGEMENTS:

Placer activity was compiled using the local knowledge of Yukon Geology Program placer geologists, G. Lowey & W. LeBerge; placer occurrence locations from 1 : 250 000 scale Yukon MINFILE 2001 maps; gold bearing streams reported on Gilbert's (1979) "treasure map"; and placer operation locations from the Indian and Northern Affairs Canada Placer MINFILE Database.

Glacial limits and deposits are from Duk-Rodkin's 1:250 000 scale compilation (1999b). Alternative Pre-Reid limits based on Bostock's work are also shown in the Stewart River area, as proposed by Jackson et al. (2001).

Topographic base provided by Natural Resources Canada in conjunction with Yukon Land Information Management System (LIMS). Roads and trails were modified by Department of Renewable Resources, Yukon Government.

REFERENCES:

Duk-Rodkin, A., 1999a. Glacial limits map of Yukon Territory. Geological Survey of Canada, Open File 3694, Exploration and Geological Services Division, Yukon Region, Indian and Northern Affairs Canada, Geoscience Map 1999-2, 1:1 000 000 scale.

Duk-Rodkin, A., 1999b. In Yukon Digital Geology, Gorday, S.P. and Makepeace, A.J. (comp.) Geological Survey of Canada Open File D3826 and Exploration and Geological Services Division, Yukon Region, Indian and Northern Affairs Canada, Open File 1999-1(D) (1:250 000 scale).

Gilbert, G.W., 1979. Yukon Placer 1979 "Treasure Map." Exploration and Geological Services Division, Yukon Region, Indian and Northern Affairs Canada.

Jackson, Jr., L.E., Shimamura, K., and Huscroft, C.A., 2001. Late Cenozoic geology, Ancient Pacific Margin NATMAP Project, Report 3: A re-evaluation of glacial limits in the Stewart River basin of Stewart River map area, Yukon Territory. Geological Survey of Canada, Current Research 2001-A3, 8 p.

Yukon MINFILE - Mineral Occurrence Maps (1:250 000 scale), 2001; Exploration and Geological Services Division, Yukon Region, Indian and Northern Affairs Canada.

Yukon Placer MINFILE Database. Unpublished database; Exploration and Geological Services Division, Yukon Region, Indian and Northern Affairs Canada.

RECOMMENDED CITATION:

Fig 8