

Yukon Placer Database Operations Report



Field Name: Nichols/Pfisterer, 1988-2003

Last Update: 21-Feb-2005

Status: Active Producer

Stream: Quill: a tributary of Kluane River

Map Sheet(s): 115G/11, 115G/6

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Operators

| Name | From (Date) | To (Date) | Comment |
|-----------------|-------------|------------|--|
| Robert Hanson | 2002/01/01 | 2003/12/31 | |
| Joe Nichols | 2002/01/01 | 2003/12/31 | |
| Willi Pfisterer | 1988/01/01 | 2001/12/31 | In 2002, Mr. Pfisterer sold his property to Joe Nichols. |

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| Robert Hanson | 2002/01/01 | 2003/12/31 | |
| Joe Nichols | 2002/01/01 | 2003/12/31 | |
| Willi Pfisterer | 1988/01/01 | 2001/12/31 | In 2002, Mr. Pfisterer sold his property to Joe Nichols. |

General Location

In 1988, the property was located at the lower reaches of Quill Creek, approximately four miles upstream from the Alaska Highway. During 1998-2002, this operation was located just below a canyon at Quill Creek, where the valley widens.

Location Details

| Date: | Latitude Deg : Min : Sec | Longitude Deg : Min : Sec | Elevation (feet) | Distance from Mouth (feet) |
|------------|-----------------------------|------------------------------|---------------------|-------------------------------|
| 2003/01/01 | 61 30 15 | 139 20 2 | | |
| 2000/01/01 | 61 31 0 | 139 20 0 | | |
| 1993/01/01 | 61 28 48 | 139 25 12 | 3,000 | |
| 1991/01/01 | 61 29 0 | 139 25 0 | | |
| 1988/01/01 | 61 29 0 | 139 25 0 | | |

Water Licence(s)

| Number | Comments |
|----------|-------------------------------------|
| PM99-042 | Issued in 2000. Expires: 2005/05/01 |
| PM96-033 | Expires: 2005/05/01 |
| PM93-036 | |
| PM90-049 | |
| PM87-151 | |

Work History

1988- Mr. Pfisterer did not sluice this season due to the high water and flooding. Some limited testing was carried out.

1989- Mr. Pfisterer carried out some limited sluicing.

1990- The operation was expanded slightly by adding new equipment. One cut was mined.

1991- A total of 8200 cubic yards were sluiced.

1993- Mr. Pfisterer worked by himself. Approximately 6,000 cubic yards were sluiced from 2 cuts on the left limit.

1994- Mr. Pfisterer continued to work by himself. Another 6,000 cubic yards were processed, mostly from 1 cut

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on the right limit of Quill Creek.

1995-97- Small selective cuts, in close proximity to each other, were mined over a three year period.

1998-2002 - Willi Pfisterer mined primarily on the left limit of Quill Creek from 1998 until 2001. Restoration work was done at the end of each season. The majority of mining cuts were located on the left limit. In 2002, Pfisterer sold his property to Joe Nichols and Robert Hanson who conducted stripping, testing and some limited sluicing on the right limit of Quill Creek.

2003 - Nichols continued mining operations on the left hand limit of Quill Creek this season.

Production

| Year | Stripped | Sluiced |
|-------------|-----------------|------------------|
| 1994 | Unknown | 6000 cubic yards |
| 1993 | Unknown | 6000 cubic yards |
| 1991 | Unknown | 8200 cubic yards |

Equipment

In 1988, a 426 Caterpillar rubber-tired excavator fed the small sluice with standard runs. A 3-inch gas pump supplied water to the wash plant at 350 igpm, which processed material at 12 to 15 cubic yards per hour.

In 1989, a Caterpillar 580 rubber-tired excavator fed the small sluice with standard runs.

In 1990, the operation was expanded to include a one cubic yard excavator, Caterpillar 977 loader, Case 580 backhoe, and a double run sluice box 20 inches by 30 feet. Processed material was increased to 40 cubic yards per hour.

1991/1992- One Case 850-crawler traxcavator with a 1 1/2-yard bucket was used to strip overburden and push up pay gravels. One Case 580 backhoe/loader was used to feed the sluice with pay gravels. The plant consisted of a 4 by 8 foot hopper with a 3 inch minus grizzly with spray bar. The washed gravels flowed into a single run sluice 21 inches wide by 14 feet long. About 20 cubic yards of loose pay gravels were processed using 400 igpm of water. Water supply was from an instream reservoir in Quill Creek. Wastewater was discharged into 4 out-of-stream settling ponds, approximately 80 square feet.

In 1993, a Case 850 track loader with a 1.5 yard bucket was used to strip overburden and push up pay. A Case 580 backhoe/loader fed the sluice box. Material was fed into a 4 foot by 8-foot hopper with a three inch minus grizzly and spray bar. The washed gravel flowed into a single run sluice 21 inches wide by 14 feet long. About 10 loose cubic yards of pay was processed per hour.

In 1994, water was delivered from an instream reservoir at a rate of 400 igpm, using a 3-inch Honda pump.

In 1995-97, the same equipment was used as in 1993-94.

1998-2001 - Equipment on-site was a 850 Case and a Link Belt 2800 excavator. Both pieces of equipment were used for testing, stripping and feeding the sluice box. A typical 4-foot by 8-foot grizzly with spray bar over a single run 12-foot sluice was used to process 1- loose cubic yards of material per hour. Water was obtained from Quill Creek with a pump that was equipped with two 3-inch suction hoses. The effluent was treated with a series of settling ponds that numbered between two and four ponds.

2003 - Three old settling ponds were recommissioned, and a fourth pond was constructed.

Environmental Work

Year Reclamation Work

2003 Reclamation occurred progressively on the left hand limit.

Landforms

Landform Comments

Alluvial Valley

Surficial Geology

1991/1992- The stratigraphic section consisted of 1 to 3 feet of black muck overlaying 3 to 6 inches of frozen clay,

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with another 4-foot layer of clay on top of a 2 to 3 foot mixture of gold bearing layer of yellow gravels to bedrock. All overburden was pushed to the side hill on the left limit.

Deposits are thawed and 12 feet deep and consist of mixed layers of sand, silt and gravel. The total depth where mining occurred on the left limit in 1993 was about eight feet. One foot of vegetation, muck and soil covered two feet of clay, which covered a layer of gold-bearing gravel with large rocks. Beneath this was a layer of gold-bearing gravel with clay and large rocks, then a layer of sandy gravel, above a band of gold-bearing brown clay and rock over bedrock.

1995-97 An average depth to bedrock was 12 feet. A 1-foot layer of clay with mixed washed gravel overlies a 1-foot layer of fine clay and a 6-inch layer of frozen vegetation and wood. 8 feet of gravel consisting of mixed gravel and sand were found beneath the vegetation layer. A 1 to 2 foot layer of gravels was found next over yellow homogenized clay. The bottom layer of gravels to bedrock comprised the pay zone.

1998-2001 - The valley width of Quill Creek in this area provided ample room for the construction of settling facilities. The ground was made up of gravel with a few small boulders. Glaciation was encountered each spring.

Bedrock Geology

Bedrock consists of Upper Triassic Mush Lake Group basalt and andesite, Permian and/or Triassic peridotite and gabbro, and Permian and earlier Cache Creek group argillite, sandstone, grit, limestone, conglomerate, propylitic basic lava, banded cherty tuff and volcanic breccia. The Denali fault intersects Quill Creek in the vicinity of the placer workings.

Gold Comments

In 1993 the gold was flat and smooth. Roughly half was coarse, and half was fine.

Gold recovered from the right limit in 1994 tended to be chunkier, with round, ball-like nuggets 3 to 5 grams in weight. Seventy percent of the gold was coarse, with red quartz rock attached to some pieces. Copper was found in the concentrate from cuts on either side of the stream. The copper recovered from the right limit was redder in color. Mr. Pfisterer noted that the increase in decomposed bedrock on the right limit might be related to the loss of fine gold. He recovered more fine gold where the bedrock was most solid.

1995-1997 The gold was flat and smooth with 90% fine and 10% coarse. Fineness was 870.

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Pictures

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Notes:

