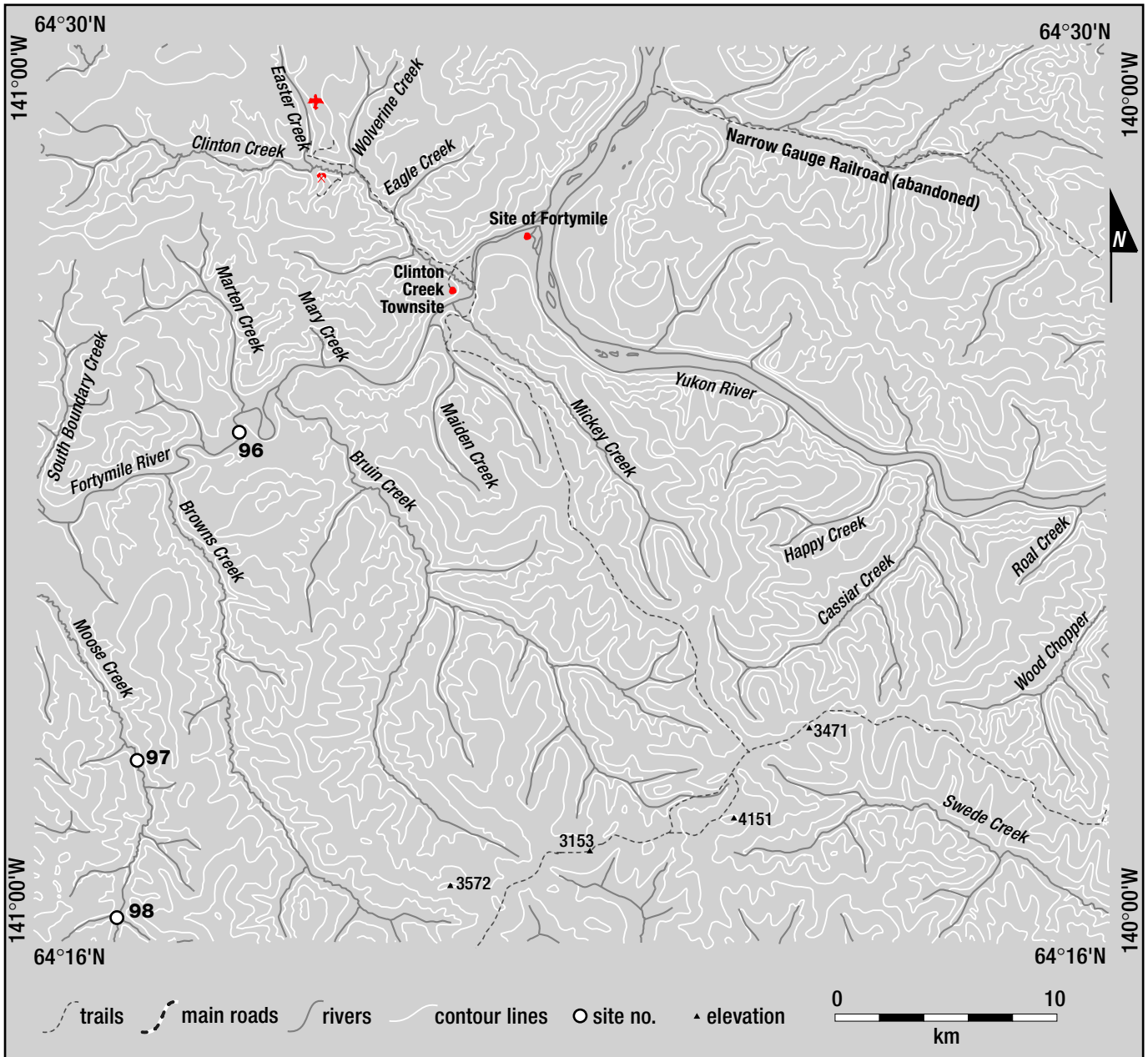


FORTYMILE PLACER AREA

SITES
96-98



LEGEND

- 96..... Fortymile Placers, Fortymile River
- 97..... Robert Young, Moose Creek
- 98..... Daniel Jones, Moose Creek

FORTYMILE RIVER**116C/2**

Fortymile Placers

64°21'N 140°49'W

Water Licence: PM97-072

1998, 1999, 2000, 2001, 2002

Fortymile Placer Area

Site no. 96

OPERATION/LOCATION Leslie Chapman and Bill Claxton ran a family mining operation at several locations along the Fortymile River, upstream from Marten Creek. Two bench deposits and one gravel bar were mined on the left limit of the river, about 10 miles upstream from its confluence with the Yukon River.

EQUIPMENT/FUNCTION A Caterpillar D6C bulldozer was used for ground preparation and for levelling tailing piles. An Hitachi UH10 excavator was used to excavate gravel and to feed the wash plant. A Caterpillar 920 loader was used as backup and to feed the wash plant.

WASH PLANT A 4-foot diameter trommel, 12-foot long, with 5/16-inch punch plate screen deck and two, 4 by 6-foot sluice runs with hydraulic riffles and a 30-foot long tailings stacker conveyor belt were mounted on a barge, 15 feet wide by 28 feet long, and floated within the mining cut. A 4-inch submersible electric pump recycled about 700 igpm from within the mining cut, which were used to sluice 90 cubic yards per hour. A 3-inch submersible electric pump provided about 300 igpm make up water when required.

GROUND DESCRIPTION The farthest upstream bench mining cut had less than 3 feet of overburden on top of 18 to 21 feet

of gravel. The downstream bench mining cut had 3 feet of overburden on top of 15 feet of gravel. Up to 3 feet of bedrock were also ripped and sluiced from bench cuts. The gravel bar mining cut was about 15 feet deep. All gravel, plus 2 to 3 feet of bedrock, were sluiced.

MINING CUTS The farthest upstream bench mining cut was about 450 feet long and was excavated in strips about 100 feet wide each season in 1998 and 1999. The downstream mining cut was about 200 feet long and was excavated about 120 feet wide each season in 2000 and 2001. In 1998, the gravel bar was mined about 120 feet wide by 400 feet long by 15 feet deep and in 1999 about 120 feet wide by 180 feet long by 15 feet deep.

WATER SUPPLY AND TREATMENT Make-up water for the bench operation was pumped from the Fortymile River using fish screen on the pump intake and processing water was recycled from within the mining cut using a submersible pump mounted on the floating barge with the wash plant. Discharge from the bench and gravel bar operations was by seepage only. In 2000, at the downstream bench operation, the effluent was treated in a series of three settling ponds and then discharged to the Fortymile River using a 4-inch syphon pipeline and diffuser mechanism to reduce the environmental impact.

GOLD Gold was mostly powder with about 5% coarse gold at plus 10 mesh, with a fineness of 840.



Fortymile Placers stripping on bench, 2001.



Leslie Chapman atop of Fortymile Placers' floating trommel while Bill Claxton feeds pay material.

COMMENTS Site specific operating conditions required gravel bar mining cuts to be separated from the river by protective berms. Mining was carried out during low-water periods only with no discharge of effluent other than by seepage. Restoration and stabilization of the gravel bar and bank was completed at the end of each season.

MOOSE CREEK

116C/2

Robert Young

64°08'N 140°55'W

Water Licence: PM97-067

1998, 1999, 2000

Fortymile Placer Area

Site no. 97

OPERATION/LOCATION Robert Young and Will Crayford ran a three-person operation in the valley bottom at the upstream end of Moose Creek about 3 miles east of the Alaska border. Robert Young started mining on Moose Creek in the fall of 1998; there was no mining activity at this site in 2001 or in 2002.

EQUIPMENT/FUNCTION One Caterpillar D9 bulldozer was used for stripping overburden and gravel. A Caterpillar 235 excavator was used to dig pay gravel and to feed the wash plant. A Caterpillar 988 loader was used to remove tailings

WASH PLANT A portable wash plant was mounted on large, rubber-tired wheels. An elevated 7 by 20-foot dump box fed into a single sluice run. The run was 3 feet wide by 18 feet long with 1½-inch punch plate over angle iron riffles. An 8 by 10-inch Cornell water pump, powered by a Detroit 871 diesel engine, supplied about 3000 igpm which was used to process about 200 cubic yards per hour.

GROUND DESCRIPTION Frozen overburden up to 12 feet deep was stripped from on top of gravel 8 to 10 feet deep. Gravel was frozen with layers separated by seams of sand and with large boulders up to 5 feet in diameter within the lower gravel layers. The bottom 5 feet of gravel, plus 3 feet of decomposed bedrock, were sluiced.

MINING CUTS Mining cuts extended from rim to rim across the valley bottom, from a minimum 50 feet wide up to about 100 feet wide, and averaging about half a mile in length each season in 1998, 1999 and 2000.

WATER SUPPLY AND TREATMENT The water supply pump was mounted on a truck, parked beside the creek, and the pump intake was suspended in the creek channel. There was a stream bypass channel on the right limit of the valley around

the mining area. Process water was directed through three out-of-stream settling ponds.

GOLD The fineness of the gold was 840 plus and its composition was coarse with round flakes and some nuggets with quartz attached.

COMMENTS Much of the area had been previously cat mined, leaving little overburden in many places.

MOOSE CREEK

116C/2

Daniel Jones

64°08'N 140°55'W

Water Licence: PM99-145

1998, 1999, 2000, 2001, 2002

Fortymile Placer Area

Site no. 98

OPERATION/LOCATION Daniel Jones ran a two-person operation at the upper end of Moose Creek, a trans-boundary tributary to the Fortymile River, close to the Alaska border. In 2002, there was one camp person and two miners.

EQUIPMENT/FUNCTION One Case 1187B excavator with a 1-yard bucket was used to dig pay gravel, feed the wash plant, and remove tailings. A TD20 International bulldozer was employed in various functions including contouring tailings and reclamation work.

WASH PLANT An iron bar grizzly was mounted over a shaking sluice box, 20 feet long by 5 feet wide, with angle iron riffles on moss matting. A 4-inch water pump supplied about 500 igpm which was used to process up to 40 cubic yards per hour.

GROUND DESCRIPTION Organic overburden was less than 3 feet deep, and most gravels were thawed and varied in depth from 4 to 8 feet. There was a great deal of fine sand and small gravels mixed together. Bedrock was soft, blue green in colour and about 90% clay. The remaining 10% was fragmented schist. Once exposed, the bedrock was extremely sticky and difficult to work with.

MINING CUTS Mining cuts located in the centre of the narrow valley bottom were 25 to 30 feet wide and 200 to 300 feet long per season. In 1998, about 3000 cubic yards were excavated and in 1999 and 2000, about 4000 cubic yards were mined. There was no mining in 2001. In 2002, the area worked had approximately 4 feet of overburden and 4 feet of gravels. All of the gravels plus 1 to 2 feet of bedrock were sluiced.

WATER SUPPLY AND TREATMENT Water was 80% recycled and effluent settled in a series of 3 in-stream ponds, each about 100 feet by 300 feet long.

GOLD Coarse gold with 50% larger than 10 mesh and some nuggets up to a quarter ounce were found. The larger-sized gold was dull-coloured and covered with a blackish coating which the operator thought might be manganese. The smaller particles contained a lot of magnetite but were bright coloured. Purity at Moose Creek is about 855.



Daniel Jones' operation on Moose Creek.