

Yukon Placer Database Operations Report



Field Name: Kohlman Explorations Ltd., 1983-2003

Last Update: 16-Feb-2005

Status: Active Producer

Stream: Bonanza: a tributary of Klondike

Map Sheet(s): 1150/14, 116B/3

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Operators

Name	From (Date)	To (Date)	Comment
Cam Arkenstall	2000/01/01	2002/12/31	
Tim Coles	2000/01/01	2001/12/31	
Leo Twordik	1991/01/01	2003/12/31	
Leo Twordik	1983/01/01	1987/12/31	

Owners

Name	From (Date)	To (Date)	Comment
Cam Arkenstall	2000/01/01	2002/12/31	
Tim Coles	2000/01/01	2001/12/31	
Leo Twordik	1991/01/01	2003/12/31	
Kohlman Explorations Ltd.	1991/01/01	2003/12/31	
Leo Twordik	1983/01/01	1987/12/31	
Kohlman Explorations Ltd.	1983/01/01	1987/12/31	

General Location

In 1983, the property was located along the left limit terrace of Bonanza Creek, on a terrace 50 feet above the creek level. It is approximately 2,500 feet upstream from the mouth of Sourdough Gulch.

In 1998, the operation was along the left limit of the valley bottom.

In 2000 and 2001 Tim Coles and Cam Arkenstall ran a three person operation on lower Bonanza Creek just upstream from Sourdough Gulch, along the left limit of the valley bottom.

Location Details

Date:	Latitude Deg : Min : Sec	Longitude Deg : Min : Sec	Elevation (feet)	Distance from Mouth (feet)
2003/01/01	63 59 26	139 21 52		
2001/01/01	63 59 0	139 22 0		
1993/01/01	63 59 0	139 22 0		
1983/01/01	63 59 0	139 22 0		

Water Licence(s)

Number	Comments
PM99-087	Expires: 2009/12/31
PM89-160	
PM95-042	
PM92-024	

Work History

From 1983-1987, the company mined on the property, but no production figures were given. In 1991, around 30000 cubic yards were processed from the old cut in the valley bottom. In 1992, Leo Twordik continued a 3 person operation mining a cut about 150 feet long by 30 feet wide. About 60,000 cubic yards were mined from the valley bottom in 1993 and 1994, along with 12,000 cubic yards mined from the left limit terrace in 1994. This was a two person operation in 1998 and there was no mining in 1999. The following years, the operation was run

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by three people. In 2000, a narrow cut about 10 feet wide by 400 feet long was removed from the left limit at the base of the hillside. In 2001, the cut moved into and up the hillside about 16 feet deep by 60 feet wide by 90 feet long. Mining continued on a smaller scale in 2002, and Tim Coles left the operation to mine on upper Dominion. Arkinstall and Twordik continued stripping a small cut along the left limit throughout the 2002-2003 seasons.

Production

Year	Stripped	Sluiced
1994	Unknown	42000 cubic yards
1993	Unknown	30000 cubic yards
1991	Unknown	30000 cubic yards

Equipment

In 1983, a monitor, which supplied water at a rate of 2,700 igpm by an 8 by 10 inch pump powered by a 6 cylinder Deutz diesel engine was used to wash the face down and condense the section. A Caterpillar D9G bulldozer was then used to push material from the face to within easy reach of the Caterpillar 980 loader, which fed the sluicing plant. A second Caterpillar 980 loader was used to remove tailings. Both loaders were equipped with 5 1/2 cubic yard buckets. The sluicing plant consisted of a "Derocker" screening deck powered by a Lister 3 cylinder diesel engine, and a single run sluice box. Material on the screening deck was washed by 2,100 igpm of water pumped by an 8 by 10 inch pump driven by a Caterpillar 4 cylinder diesel engine. The screening deck was set at a gradient of 1 1/2 inches to the foot. Pieces less than 2 inches in diameter passed through the deck and into the sluice box. The sluice box was 34 feet long, and was set at a gradient of 2 1/4 inches to the foot. The top 4 feet of the box were lined with 2-inch riffles, the next 10 feet were lined with punch plate with 3/4 inch holes set over expanded metal, and the last 20 feet were lined with riffles. A "shag" type of matting was used the full length of the box under the riffles and expanded metal. Effluent from the sluicing was settled in a pond slightly below the level of the terrace in an elevated pond along the extreme left limit of the Bonanza Creek Valley.

In 1985, the washing plant consisted of a 14 foot screening unit and single sluice tray measuring 5 by 26 feet. The rate of feed was 40 to 50 cubic yards per hour. Two thousand, seven hundred igpm sluice waster was pumped to the plant with an 8 by 10 inch pump powered by a Deutz 6 cylinder diesel engine.

In 1993/94, a Caterpillar 225 excavator was used to dig pay gravel. One Caterpillar 966 loader fed pay gravel into the wash plant, and one 950 loader hauled tailings. A Derocker and single sluice run with a boil box at the top of the sluice was used. The sluice was lined with one-inch angle iron riffles over the top half, and expanded metal over Nomad carpet in the bottom half. Sixty cubic yards per hour were processed using 2500 igpm of water delivered by a 6 inch by 8 inch Deutz pump.

In 1998-2001, a Fiat Allis 41 bulldozer was used for stripping waste gravel. A John Deere 890 excavator with 2 yard bucket and a Lieb Herr 981 excavator were used for digging pay gravel and stacking tailings. A Terex 50 ton rock truck was used to haul gravel and a Huff 120 loader with 5 yard bucket was used to feed the wash plant. A trommel, 6 1/2 feet diameter by 40 feet long, classified to 1/2 inch and fed onto 4 oscillating sluice runs, 16 feet wide. A Paco, 8 inch b 10 inch, water pump powered by a Cummins 195 diesel engine provided approximately 2500 igpm which were used to process from 150 up to 200 cubic yards per hour. Water was pumped directly from Bonanza Creek and was settled in two large out of stream ponds in old mining cuts with seepage discharge only. In 2003 sluicing continued in the out of stream recycle system as in past seasons.

Environmental Work

Year	Reclamation Work
2002	Straightened and armoured the creek channel to increase velocity to avoid glaciation.

Landforms

Landform	Comments
Alluvial Terrace	

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Surficial Geology

At the property located approximately 2,500 feet from the mouth of Sourdough Gulch, deposits are 35 feet thick, and consist of 16 feet of mixed gravel and organic matter with organic debris including sticks, overlying 5 feet of gravel, silt, and sand, 2 feet of silt, and 10 feet of brown sandy gravel. Pieces of slide bedrock are also present throughout the section.

The valley bottom had been dredged in the old days but pay gravels were recovered from below the dredge tailings, mixed with broken bedrock. A left limit terrace was mined, about 60 vertical feet above the creek level. Several ice filled shafts up to 40 feet long were exposed in the mixed gravel and slide bedrock.

In 1998, fifty feet of frozen overburden overlay 16 feet of pay gravel along the left limit of the Bonanza Valley bottom. The centre of the valley was covered with dredge tailings and the valley walls are very steep on both sides.

Bedrock Geology

Slide bedrock. The rocks along Bonanza Creek consist almost entirely of the light greyish and greenish sericite schists of the Klondike series, alternating in the upper bands of green chloritic schists. Narrow bands of dark graphitic schists cross the valley above the mouth at Adams Creek and at one or two points, and a wide porphyry dike forms a point about a mile below Boulder Creek. The light coloured schist, probably represents a crushed acid eruptive, and occurs in heavy beds, in hard flags, and as a finely foliated and soft rock. It is nearly everywhere more or less silicified and encloses numerous quartz veins, most of which run parallel to the schistose structure, although a few cut across it.

Gold Comments

Flakes and some small nuggets were recovered from the valley bottom, but only fines were found on the terrace with a fineness of 780. In 1998-2002, gold was fine with a few small flakes and fineness around 780.

References

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Pictures

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Title: Leo Twordike's Operation on Bonanza; 1997.

Notes:

