

# Yukon Placer Database Operations Report



**Field Name: Sawyer, 1980-2003**

**Last Update: 21-Feb-2005**

**Status: Active Producer**

**Stream: Kimberley: a tributary of Jarvis**

**Map Sheet(s): 115B/16**

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## Operators

Name	From (Date)	To (Date)	Comment
Pat Sawyer	1988/01/01	2002/12/31	
Claire Sawyer	1988/01/01	2003/12/31	
Claire Sawyer	1980/01/01	1982/12/31	

## Owners

Name	From (Date)	To (Date)	Comment
Pat Sawyer	1988/01/01	2002/12/31	
Claire Sawyer	1988/01/01	2003/12/31	
Claire Sawyer	1980/01/01	1982/12/31	

## General Location

The property is located along the right limit of Kimberley Creek, approximately 2 miles above its confluence with the Jarvis River.

## Location Details

Date:	Latitude Deg : Min : Sec			Longitude Deg : Min : Sec			Elevation (feet)	Distance from Mouth (feet)
2003/01/01	60	50	29	138	2	23		
2003/01/01	60	50	0	138	4	0		
1995/01/01	60	50	0	138	4	0		
1993/01/01	60	52	12	138	4	12		
1991/01/01	60	52	0	138	4	0		1,056
1988/01/01	60	52	0	138	4	0		
1980/01/01	60	50	0	138	2	0		12,500

## Water Licence(s)

Number	Comments
PM96-063	Expires: 2007/05/02
PM92-017	
PM87-155	

## Work History

1980- Testing was done by hand.

1981-1982- Mechanical mining was done. Only the lowermost 3 feet of gravel were sluiced. Gravel more than 3 feet above bedrock was stripped.

1988- Two miners worked on the property, but no production figures were given.

1990- The operation site was moved to the left hand limit of the creek, with an increase in gravel depth to 10 feet over two feet of mixed lay and gravel on bedrock. Three cuts were mined, but no production figures were given.

1991- The Sawyers worked single shifts in 1991 and 1992. A total of nine cuts were mined in 1991 and 1992.

1993- Three cuts averaging 4,000 cubic yards were mined.

1994- A 2,000 cubic yard cut was mined. in 1993, and in 1994.

1997- Two cuts were mined. The first was approximately 20 feet wide, 10 feet deep and 40 feet long. The second

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cut was approximately 8 feet wide, 12 feet deep and 150 feet long.

1998-2003 - Mining began on the left limit of Kimberley Creek, moving to the right limit towards the end of the 1998 season. The Sawyers have mined on the right limit since then. The personnel that have been employed at this mine consist of Claire and Pat Sawyer. A typical daily shift consisted of eight hours running at 200cu/yd per day. One cut was made in 2002 that was 30 feet wide by 300 feet long by 15 feet deep. Flash floods were encountered periodically in the Kimberley Creek Valley.

### **Production**

<b>Year</b>	<b>Stripped</b>	<b>Sluiced</b>
1997	Unknown	22400 cubic feet
1994	Unknown	2000 cubic yards
1993	Unknown	12000 cubic yards

### **Equipment**

In 1981, a John Deere 350 bulldozer, a D6 Caterpillar bulldozer, and a Drott backhoe with a 1/2 cubic yard bucket were used. A vibrating grizzly removed all material coarser than 1.5 inches in diameter prior to sluicing. In 1982, a 980C loader was added.

In 1988, two miners working a single shift used a D6 Cat bulldozer to stockpile pay, remove tailings and push gravel to the Drott Cruz-Air 40 rubber-tired hoe, which fed the plant. A skidmounted wobble feeder was used to process the gravels. This wash plant has a small wash box with spray bar. The material moves over five chain-driven elliptical shafts which screen the material to minus 1 inch. The gravels drop down to a second wash deck, which separates and moves 3/8-inch material to the sluice run and minus 3/8 inch into a jig. The wobble feeder was powered by a 9 HP Hatz diesel. The sluice run was 1 foot wide by 5 feet long with a nugget trap. Water was supplied from an instream reservoir by a 4 by 5 inch Allis Chalmers pump at 300 igpm. Tailings were stacked along the right limit of the creek and effluent was treated in an out-of-stream settling pond.

In 1993, a Drott Cruz Air 40 rubber tired hoe with a 1/2 cubic yard bucket fed the sluice box. A D6 Caterpillar bulldozer was used to stockpile pay, remove tailings, and build settling ponds. The sluice plant consisted of a 6 foot by 6-foot dump box with spray bar. Five chain driven elliptical shafts screened the gravel to 1/2 inch minus. The material dropped down to a second deck before proceeding to a jig. About 20 cubic yards of loose material per hour were processed using 400 igpm of water. Water was pumped from an out-of-stream reservoir using a 5 by 4 inch pump. The wastewater was treated in three out of stream settling ponds, with the discharge returning to Kimberley Creek.

In 1995-97, the equipment and its functions remained the same as previous years although they are currently looking for a larger bulldozer. The Trommel is 4 feet in diameter and is 14 feet long consisting of a 4 foot scrubber section. In 95 and 96, 4 feet of 1/2 inch screening was used and was later increased in 97 to 3/4 inches. The washed material entered a 2-foot by 6-foot jig. The excavator, operated by Pat Sawyer, fed a 6 by 8 foot hopper at a typical rate of 16 cubic yards per hour. Oversized material dropped onto a 3 foot by 25-foot stacker. Water was acquired from Kimberley Creek. An Allis Chalmers 4 by 5-inch gas powered pump delivered 350 igpm of water to the wash plant. Effluent was discharged into mined out areas. There was no discharge into Kimberley Creek.

1998-2002 - A D6C Caterpillar bulldozer was used to build road and push tailings. A 45-ton Linkbelt excavator was used to strip the overburden, mine and also feed the 4-foot trommel. The wash plant used was a 4-foot diameter by 14-foot long diesel-powered trommel and stacker. The minus 1-inch material went to a 24-inch by 24-inch hydraulic jig. Oversize tailings were disposed of by the stacker belt. Water was supplied by an AC 5-inch intake by 4-inch output pump, powered by a 4-cylinder gas engine capable of producing 350 imperial gallons of water per minute. Water was obtained from

Kimberley Creek. The main settling pond was proposed to be 30 feet wide by 30 feet long by 6 feet deep with 3 feet of freeboard. At times, several other smaller ponds were used to assist in the retention time.

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### **Environmental Work**

#### **Year            Reclamation Work**

2002	Tailings were pushed to a 2:1 slope.
1994	Waste water was treated in one large pond
1993	Waste water was treated in three small out-of-stream settling ponds

### **Landforms**

<b>Landform</b>	<b>Comments</b>
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Alluvial Valley	
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### **Surficial Geology**

1991- The section consisted of 6 to 10 feet of overburden, over a two-foot layer of pay gravels, on top of a decomposed bedrock floor.

In 1993 a loose layer of washed gravel 6 to 8 feet deep lay over the pay zone, which consisted of 6 inches to 4 feet of clay bearing gravel. This laid over 1 to 2 feet of fractured conglomerate and decomposed bedrock, which also contained gold. The clay bearing gravels and 1 to 2 feet of fractured bedrock were sluiced. In 1994 six to 12 feet of washed loose gravel was found over 1 to 3 feet of clay gravel with boulders, which lay over an undulating bedrock floor. The clay gravels and 6 inches to 2 feet of bedrock were sluiced. More gold was recovered when the boulders were large.

95-97 Generally there was a 4 to 14 foot gravel/boulder layer overlaying 1 to 4 feet of pay. The pay material had fairly high clay content. Higher gold values were found in areas of highest clay content. The bedrock consisted of 1 to 2 feet of fractured conglomerate and decomposed bedrock.

1998-2002 - The valley bottom of the area mined was approximately 120 feet wide with 90-foot wide by 10-foot high benches on both the right and left limits of Kimberley Creek. Soft clay gravel pay, 1 to 4 feet in thickness, was found overtop of wavy bedrock. Overburden ranged between 5 feet and 30 feet in thickness. Frost-free ground was found 10 feet above Kimberley Creek.

### **Bedrock Geology**

Bedrock is mapped as Pennsylvanian to lower Permian skolia volcanics succeeded up ward by clastic strata and including minor limestone, Micocene to pliocene and younger Wrangel lavas.

### **Gold Comments**

The gold was smooth, worn, round, and bright. Although nuggets were few, some were porous with quartz attached. Fineness averaged 850. Some platinum nuggets were recovered. 1991-The gold was chunky, bright and smooth, with some red staining. Ten percent was larger than 4 mesh, 50% greater than 8 mesh, 30% was caught by 40 mesh and 10% exceeds 60 mesh. Fineness averaged 860.

1995-1997 - The gold was mostly rough and chunky in nature. Approximately 20% was fine and the remaining 80% nuggets. Fineness was 850.

1998-2002 - The gold was angular and chunky with the largest nugget weighing 1.25 ounces. Thirty percent of the gold was fine. Fineness of the gold was 860.

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