

# Yukon Placer Database Operations Report



Field Name: Coulee Resources Ltd., 1995-2003

Last Update: 21-Mar-2005

Status: Active Producer

Stream: Black Hills: a tributary of Stewart

Map Sheet(s): 1150/7

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## Operators

Name	From (Date)	To (Date)	Comment
Dave Laurenson	2002/01/01	2002/12/31	
Joel White	1995/01/01	2003/12/31	
Coulee Resources Ltd.	1995/01/01	2003/12/31	

## Owners

Name	From (Date)	To (Date)	Comment
Dave Laurenson	2002/01/01	2002/12/31	
Joel White	1995/01/01	2003/12/31	
Coulee Resources Ltd.	1995/01/01	2003/12/31	

## General Location

Coulee Resources Ltd. started a large-scale operation on Black Hills Creek in 1995, just downstream from the mouth of Kernine Creek. The operation continued mining upstream in 1997 from where they finished in 1996 and a second operation was started on a left limit bench of Black Hills Creek Valley from 1998-2002.

## Location Details

Date:	Latitude			Longitude			Elevation (feet)	Distance from Mouth (feet)
	Deg	Min	Sec	Deg	Min	Sec		
2003/01/01	63	24	10	138	46	20		
1998/01/01	63	22	0	138	46	0		
1995/01/01	63	24	0	138	46	0		

## Water Licence(s)

Number	Comments
PM99-043	Expires: 2010/03/31
PM94-110	

## Work History

During 1995 three large pits (the third pit was not completed during 1995) measuring approximately 700 by 400 feet long were mined along with tailings at several locations. Tailings near the main camp at the mouth of Dome Creek were also processed during 1995. Mining during 1996 was confined to the lower claims near Kernine Creek. Ten smaller pits with an average size of 200 feet by 400 feet were sluiced. Eight pits roughly 350 feet wide by 500 feet long were mined in 1997, along with an area approximately 140 feet wide by 3000 feet long on the left limit bench. The number of employees varied but approximately 9 miners and 4 camp staff were employed at peak season. Five pits were excavated in 1998, averaging 300 by 325 feet in size, and six miners and one camp personnel, working a daily shift of 12 hours were employed. The following season, 10 pits were excavated averaging 200 by 400 feet, and 9 miners worked two 12 hour shifts. Nine pits, 300 by 325 feet were mined in 2000 which increased to 11 pits of a similar size in 2001 along with 13 miners. In 2002, only 1 cut was made, about 750 long by 250 feet wide along the left limit of Black Hills Creek. Overburden to bedrock ranged from 12 feet on the creek side of the bench to 40 feet deep. Dave Laurenson set up under this license until he got his own. Coulee Resources moved most of its operation to Sulphur Creek this season, although three miners, two mechanics and a cook remained at the site to complete one cut and perform some reclamation work. In 2003, Joel White sluiced at a new upstream location which had been stripped of vegetation a couple of years before.

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**Production**

<b>Year</b>	<b>Stripped</b>	<b>Sluiced</b>
1997	Unknown	1820000 square feet
1996	Unknown	800000 square feet
1995	Unknown	840000 square feet

**Equipment**

Mining began in 1995 with a Komatsu 455 bulldozer, a Caterpillar D9 bulldozer, a Caterpillar 8L bulldozer and a Komatsu PC400 excavator. A second Komatsu 455 bulldozer was added in 1996 and a third 455 Bulldozer was acquired in 1997. The bulldozers were used to stir and stockpile the pay gravels. The excavator fed the sluice plant. Two separate wash plants were used during 1995, '96, and '97. A super sluice was used for most of the mining in 1995. It was refitted in 1996 and used at the bench operation in 1997. The plant initially had two runs divided into 2 sections. The upper section was 3 feet wide by 6 feet long and used 1-inch angle iron riffles and matting. The lower section opened up to 6 feet wide was 16 feet long. Expanded metal and matting was used in the lower section. This setup was limited to approximately 90 cubic yards per hour. Two runs were replaced with four 4 feet by 20 foot sluice runs in 1996 which doubled the production to approximately 180 cubic yards per hour. A "land dredge" was used to process tailings in 1995. It was moved to the lower operation on Black Hills Creek for 1996 and 1997. The plant consisted of a grizzly hopper and 80-foot conveyor feeding a Clemroll double screen deck. The 1/2-inch minus classified pay was sluiced in four 5 feet by 20 foot runs lined with expanded metal and matting. The oversized gravels were stacked with another 80-foot conveyor. This plant was capable of processing approximately 270 cubic yards per hour. A 10-inch pump powered by a Caterpillar 3406 engine supplied the water for sluicing. Water was pumped from instream reservoirs in Black Hills Creek to the sluice plant and then settled in a series of settling ponds. The settling ponds located at the bottom operation were used for final effluent treatment for all locations mined.

A 455 Komatsu and Caterpillar D9H bulldozers were used in 1998, along with a PC400 Komatsu excavator, to strip black muck, stockpile pay gravels and feed the sluice plant. A 455 Komatsu bulldozer and PC200 excavator were added in 1999. By 2000, another D8L Caterpillar bulldozer was put into play. The fleet increased in 2001 comprising of three 455 Komatsu bulldozers, a PC200, a PC400 and a PC300 Komatsu excavator, plus a D8L and a D9H Caterpillar bulldozer. Most of the equipment was sent over to Sulphur Creek in 2002. During 1998 to 2002, a 6 by 20-foot Clemroe screening plant with a 42-inch hydraulic feeder, a 36-inch hoist conveyor and a 36-inch electric stacking conveyor were attached to six 5 by 20-foot sluice runs which were sloped at 1½ -inch per foot. The pump was a 12 by 14-inch Worthington, powered by a Caterpillar D9G diesel engine, capable of processing between 250 and 320 cubic yards per hour at 5000 igm. Final cleanups were performed with a jig and a Diester table. A 10,000-foot compensation channel, following the original Blackhills Creek channel for half its length, allowed the diversion of the creek to the right limit of the valley. Water was acquired from an intake ditch accessing the creek, and effluent was discharged into a primary settling facility which, using the creek as a conduit, joined a secondary facility downstream. The settling facilities were constructed in Queenstake's old valley mine cuts. All mine works were out-of-stream during spring freshet. In 2003, sluicing occurred at the upstream mining location with a primary out of stream settling pond.

**Environmental Work**

<b>Year</b>	<b>Reclamation Work</b>
2003	Stream channel was built up.
2002	Contouring of disturbed areas was carried out each fall with some black muck redistributed over the sloped tailings.

**Landforms**

<b>Landform</b>	<b>Comments</b>
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## **Landforms**

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

Joel White mined intermediate-level gravel from a left-limit terrace located near the middle part of Black Hills Creek. The terrace is approximately 10 meters above the present day creek level and is incised into muscovite schist to quartzite. It is capped with 2.5 meters of sandy fine-cobble gravel that was deposited on the floodplain of paleo- Black Hills Creek, which is overlain by overbank fines and muck. Placer gold recovered from the gravel is coarse grained, with numerous nuggets, and has a fineness of 840.

The ground in the valley bottom averaged 14 feet deep with 5 feet of frozen black muck and 9 feet of gravel. The bedrock was hard and came out in large chunks when ripped. Most of the gravels and a couple of feet of bedrock were sluiced. The bench operation varied in depth from a couple of feet deep at the toe of the bench approximately 30 feet deep at the back of the cut. The reddish upper gravels were wasted and the more compacted lower gravels were sluiced.

## **Gold Comments**

The gold recovered from the bench was fine and had a purity of 820. The creek gold was more coarse with a purity of 800. In 1998 to 2002, fineness ranged from 770 to 810. Gold was generally coarse, with smooth rounded nuggets. In an average cleanup of 340 ounces, 67.05 raw ounces were -30 mesh; 122.50 oz were -20 mesh, 67.30 ounces were -10 mesh, 46.15 ounces were +10 mesh and 36.50 ounces were +20 mesh.

## **References**

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Nowosad, M. Placer Mining Year End Summary, 2003. Client Services and Inspections Division, Yukon Energy Mines and Resources, 2004.: p. 24-25

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## **Pictures**

**Title:** Coulee Resources Ltd., on Black Hills Creek

**Notes:**

