

# POTENTIAL OF THE BONANZA PLACER PROPERTY

## 22 CLAIMS

### BONANZA CREEK, YUKON TERRITORY

By:

I. MITCHELL, D. TRUDEAU AND R. BERGLUND

OCTOBER, 2014

THE FOLLOWING CLAIM GROUPS:

DAX 1, DAX 2 CLAIM 1, CLAIM 2, CLAIM 3, TAGISH 2, 21BLD, TANASA, SANDY, HANDY, DANDY, 1 B MAGNET, 3 BENCH, JOCK'S KINGDOM, LUGS, 2 BD, 4 BD, 5 BD, 7 B/D, 13 BD, 14 BD, AND BREWSTERS

AS DETAILED ON PAGE 4 IN TABLE 1

CLAIM OWNERS:

ROLAND BERGLUND 50%, DANIEL B. TRUDEAU 50%

CENTRE OF CLAIM BLOCK: 63°52'N, 139°15'W

ON NTS MAP SHEET 115O14

## EXECUTIVE SUMMARY: POTENTIAL OF THE BONANZA PLACER PROPERTY

The Bonanza Placer Property claims are located on the prolific Bonanza Creek drainage, 16 kilometers by road from Dawson City. The property consists of 21 contiguous placer claims and 1 outlying placer claim.

The claims are located in the Dawson Mining District and are all co-owned by Dan Trudeau (50%) and Roland Berglund (50%) who have profitably mined the property since 2003.

Title is registered with the Dawson City Mining Recorder and is granted under the Yukon Placer Mining Act. There are no overriding royalties on the property and no disputes regarding property ownership. The claims earliest expiry is in 2024.

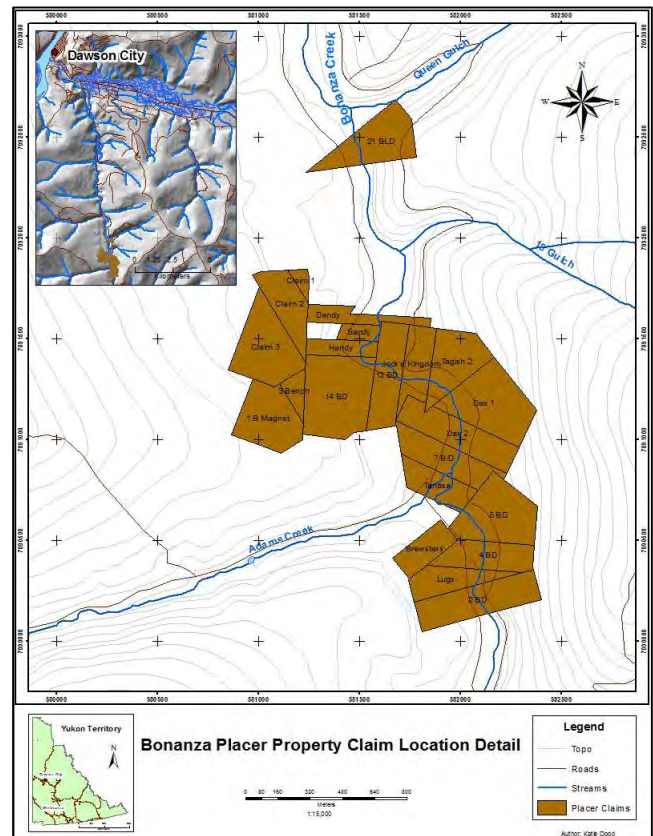
The Bonanza Placer Property Claim Group is fully permitted under Placer Land Use Permit LP00919, Water License Number PM13-051, and the Yukon Environmental and Socio-economic Assessment Board (YESAB) Consolidated Decision Document 2013-0137-040-1.

The claims have already been significant gold producers with rich Bonanza Creek deposits and high bench White Channel gravel deposits, sidehill bedrock, and hydraulic fans available for mining. Recent operation has focused on the easily accessible bench gravels, and sidehill bedrock.

The owners believe that this property is capable of supporting a large bulk mining operation with investment in larger equipment and infrastructure. Of particular importance when considering the large scale mining potential of this property is:

- 1) Only the small dredges were in operation on the claims and they did not mine to bedrock on portions of the property allowing the possibility of significant pay gravel at depths below 26 feet in Bonanza Creek. Exploration drilling and geophysics as well as a test mining cut into Bonanza Creek prove that there are still gold bearing gravels on bedrock in the creek bed.
- 2) Tailings fans deposited at the left limit of Bonanza Creek by hydraulic mining in the early 1900s likely shielded portions of the Bonanza Creek bed from later dredging operations. The owners of the property consider testing this target a priority which will likely occur in the 2015 mining season.
- 3) The Property contains significant White Channel deposits on Adams Hill, Magnet Hill, and American Hill. A rough estimate of the total volume of White Channel material on the Bonanza Placer Property is 2.8 million cubic meters (note this is not a resource or reserve estimate). Mining cuts at the base of the White Channel gravel have shown that they contain gold with Adams Hill and Magnet Hill being on the White Channel gravel's "coarse gold pay streak".

Questions regarding this placer mining opportunity should be directed to Roland Berglund and Dan Trudeau and visitation of the property can be arranged for serious enquiries. Testing of the property by interested parties is encouraged with prior agreement to be negotiated with the owners of the Bonanza Placer Property.



# TABLE OF CONTENTS

EXECUTIVE SUMMARY: POTENTIAL OF THE BONANZA PLACER PROPERTY.....	I
1.0 INTRODUCTION.....	3
2.0 BONANZA PLACER PROPERTY CLAIMS AND LOCATION .....	4
3.0 AGREEMENTS .....	7
4.0 PERMITTING .....	7
5.0 HISTORY OF THE BONANZA CREEK CLAIMS .....	7
5.1 HAND WORKINGS .....	8
5.2 DREDGING .....	8
5.3 HYDRAULIC MINING .....	9
5.4 MODERN MECHANIZED MINING .....	10
6.0 ACCESSIBILITY, INFRASTRUCTURE, CLIMATE, AND PHYSIOGRAPHY .....	11
7.0 GEOLOGICAL SETTING .....	11
7.1 SURFICIAL GEOLOGY AND GEOMORPHOLOGY .....	11
7.2 BEDROCK AND REGIONAL GEOLOGY .....	12
7.3 PLACER DEPOSITS TYPES ON THE BONANZA PLACER CLAIMS.....	14
7.3.1 BONANZA CREEK PLACER DEPOSITS .....	14
7.3.2 WHITE CHANNEL DEPOSITS .....	15
7.3.3 SIDEHILL BEDROCK AND REGOLITH .....	17
7.3.4 HISTORIC TAILINGS .....	17
8.0 EXPLORATION ON THE BONANZA PLACER PROPERTY CLAIMS .....	17
8.1 STRIPPING, PITTING, TESTING AND AUGER DRILLING.....	17
8.2 AUGER DRILLING.....	18
8.3 REVERSE CIRCULATION DRILLING.....	18
8.4 RESISTIVITY (DEPTH TO BEDROCK) SURVEY RESULTS .....	18
8.5 INTERPRETATION OF DRILLING AND RESISTIVITY RESULTS.....	19
9.0 CURRENT MINING 2003 TO 2014.....	21
9.1 BONANZA CREEK CUTS .....	21
9.2 WHITE CHANNEL GRAVEL MINING.....	21
9.2.1 ADAMS HILL WHITE CHANNEL MINING .....	21
9.2.2 MAGNET HILL WHITE CHANNEL MINING.....	22
9.2.3 AMERICAN HILL WHITE CHANNEL MINING .....	22
9.3 SIDEHILL BEDROCK MINING .....	22
9.4 TAILINGS FAN MINING .....	23
10.0 TERMS OF SALE .....	25
11.0 CONCLUSIONS .....	25
REFERENCES .....	26

## LIST OF FIGURES

FIGURE 1: BONANZA PLACER PROPERTY YUKON LOCATION MAP .....	5
FIGURE 2: BONANZA PLACER PROPERTY DETAIL LOCATION AND CLAIMS MAP .....	6
FIGURE 3: CLAIM OWNERS AT THEIR PLANT ON BONANZA CREEK .....	7
FIGURE 4: HAND SHAFTING AND DRIFTING IN BONANZA CREEK ON CLAIM 44 BELOW, 1901 .....	8
FIGURE 5 TAILINGS FAN OFF AMERICAN HILL AND DREDGE NO. 5 .....	9
FIGURE 6: HYDRAULIC MINING ON BONANZA CREEK .....	10
FIGURE 7: YUKON TERRAINS MAP .....	13
FIGURE 8: GENERALISED CROSS SECTION OF BONANZA CREEK.....	14
FIGURE 9: VIEW OF CHEECHAKO HILL HYDRAULIC TAILINGS LOOKING SOUTH.....	15
FIGURE 10: RESISTIVITY PROFILE 03 ON CLAIM 14 BD.....	19
FIGURE 11: VIEW OF BONANZA PLACER PROPERTY LOOKING NORTH FROM ADAMS HILL .....	20
FIGURE 12: SIDEHILL BEDROCK CUT ABOVE CENTRAL PROCESSING PLANT.....	22
FIGURE 13: SIDEHILL BEDROCK AND OVERLYING GRAVEL ON CLAIM NO. 2 BELOW.....	23
FIGURE 14: MINING OF CHEECHAKO HILL ON JUNE 10, 2014.....	24
FIGURE 15: EXAMPLES OF GOLD RECOVERED ON JUNE 10, 2014 .....	24

## LIST OF TABLES

TABLE 1: CLAIMS OF THE BONANZA PLACER PROPERTY GROUP .....	4
TABLE 2: VOLUME ESTIMATION OF WHITE CHANNEL DEPOSITS ON THE BONANZA PLACER PROPERTY .....	16
TABLE 3: EXPLORATION ACTIVITIES .....	17
TABLE 4: REVERSE CIRCULATION HOLE RESULTS .....	18

## APPENDICES

I	STATEMENTS OF QUALIFICATIONS
II	RESISTIVITY SURVEY REPORT
III	WHITE CHANNEL VOLUME ESTIMATE CALCULATIONS
IV	PLACER LAND USE PERMIT LP00919
V	WATER LICENSE NUMBER PM13-051
VI	YESAB DECISION DOCUMENT RELATED TO FILE 2013-0137

## 1.0 INTRODUCTION

The Bonanza Placer Property claims are located on the prolific Bonanza Creek drainage. Originally staked in 1897 the claims are at the centre of the historic Klondike gold rush and have been intermittently mined since that time. The most recent mining operations from 2003 through 2014 have been conducted by Roland Berglund and Daniel Trudeau who are the co-owners of the claims.

The claims have already been significant gold producers with rich Bonanza Creek deposits and high bench White Channel gravels, sidehill bedrock, and hydraulic fans available for mining. Recent operations have focused on the easily accessible bench gravels, and sidehill bedrock which have been profitably mined since 2003.

The owners believe that this property is capable of supporting a large bulk mining operation with investment in larger equipment and infrastructure. Of particular importance when considering the potential of this property is that:

- 1) Historic dredge mining records show that only the small dredges were in operation on these claims and they did not mine to bedrock leaving the possibility of significant pay gravel at depths below 26 feet in Bonanza Creek. Exploration drilling and geophysics as well as a test mining cut into Bonanza prove that there are still gold bearing gravels in the creek bed.
- 2) Tailings fans deposited at the left limit of Bonanza Creek by hydraulic mining in the early 1900s likely shielded significant portions of the Bonanza Creek bed from later dredging operations. Further testing of this exciting possibility is required and is a priority of the owners of the Property.
- 3) The Property also contains part of the significant White Channel deposits on Adams Hill, Magnet Hill, and American Hill. A rough estimate of the total volume of White Channel material on the Bonanza Placer Property is 2.8 million cubic meters. Mining cuts at the base of the White Channel Hills have shown that they contain gold with Adams Hill and Magnet Hill being on the White Channel gravel's "coarse gold pay streak".

For further information regarding this placer mining opportunity please contact Roland Berglund and Dan Trudeau. Visitation of the property can be arranged for serious enquiries. Testing of the property by interested parties is encouraged with prior agreement to be negotiated with the owners of the Bonanza Placer Property.

## 2.0 BONANZA PLACER PROPERTY CLAIMS AND LOCATION

The Bonanza Placer Property is located on Bonanza Creek just below the confluence of Eldorado and Bonanza Creek in the Klondike Goldfields. The Property is centered on 63°52'N, 139°15'W on NTS Map Sheet 115O14 within the Dawson Mining District (Figure 1). The property consists of 21 contiguous claims and 1 outlying placer claim as shown in figure 2 and are all co-owned by Dan Trudeau (50%) and Roland Berglund (50%). The earliest expiry on any claim in 2024 and the claims have 843 excess credits of “banked work” on them. The claims are surrounded by other staked ground in which the owners have no business interest.

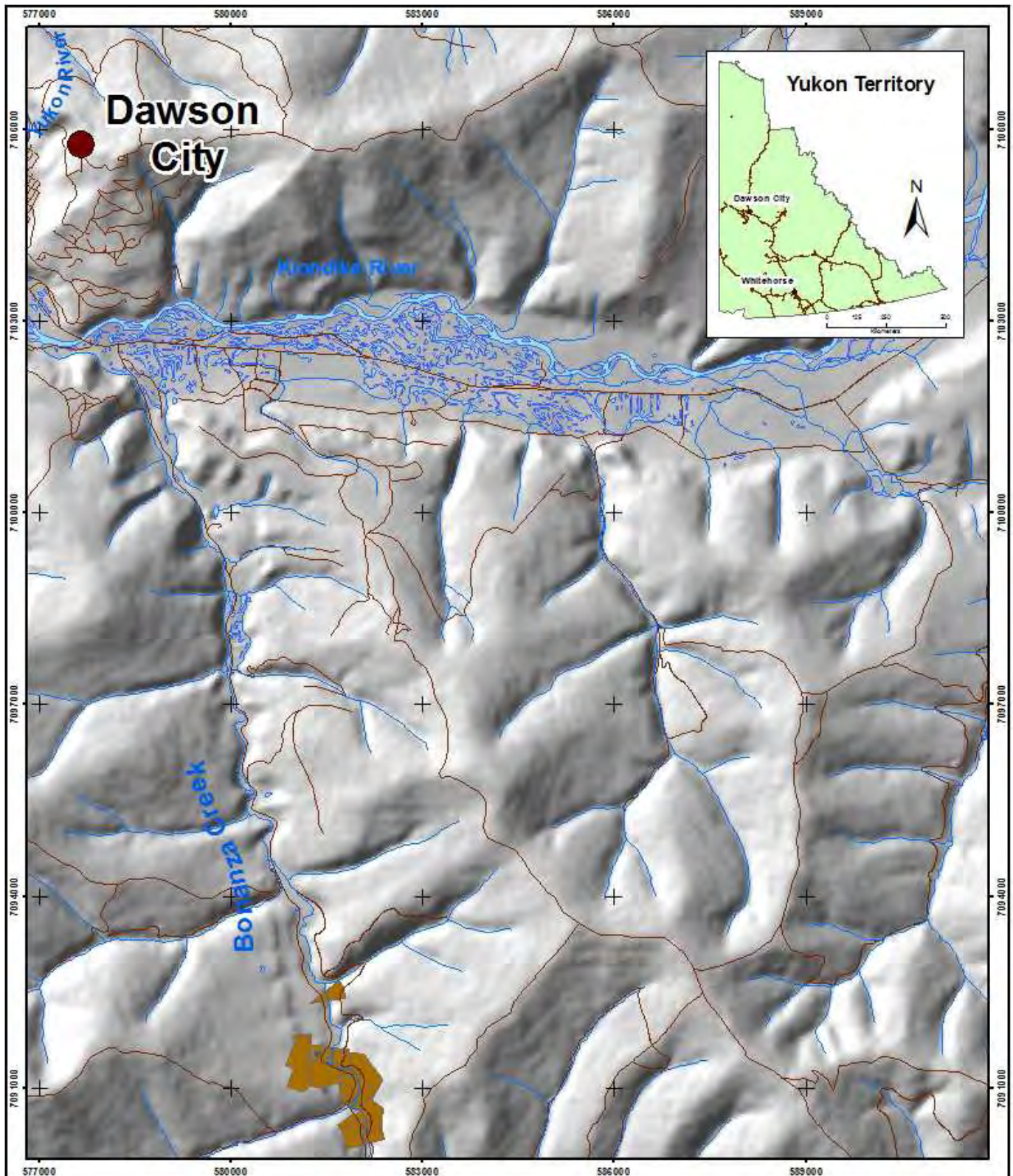
Details of claims are as follows:

TABLE 1: CLAIMS OF THE BONANZA PLACER PROPERTY GROUP

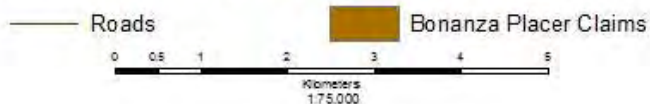
Grant Number	Reg Type	Claim Name	Claim No	Operation Recording Date	Staking Date	Claim Expiry Date	Status	NTS Map Number	Ops Number
<b>P 00403</b>	Placer	Dax	1	21/07/1975	20/07/1975	17/10/2024	Active	115O14i	34837
<b>37729</b>	Placer	Claim	1	19/08/1964	18/08/1964	30/11/2024	Active	115O14i	1077
<b>29452</b>	Placer	Claim	2	15/07/1964	15/07/1964	30/11/2024	Active	115O14i	922
<b>P 00402</b>	Placer	Tagish	2	21/07/1975	20/07/1975	17/10/2024	Active	115O14h	34836
<b>P 00404</b>	Placer	Dax	2	21/07/1975	20/07/1975	17/10/2024	Active	115O14i	34838
<b>P 07789</b>	Placer	Claim	3	30/07/1979	30/07/1979	30/11/2024	Active	115O14i	37079
<b>311</b>	Placer	21 BLD		1896-10-26	1896-08-20	30/11/2029	Active	115O14h	104
<b>P 31049</b>	Placer	Tanasa		26/06/1987	19/06/1987	26/06/2024	Active	115O14i	45298
<b>37904</b>	Placer	5 BD		24/02/1966	23/02/1966	30/11/2024	Active	115O14h	1142
<b>42389</b>	Placer	7 B/D		17/10/1973	17/10/1973	17/10/2024	Active	115O14i	1520
<b>P 43241</b>	Placer	Sandy		04/12/1996	28/11/1996	04/12/2024	Active	115O14i	54266
<b>P 38413</b>	Placer	Handy		06/12/1991	01/12/1991	17/10/2024	Active	115O14h	51039
<b>P 38412</b>	Placer	Dandy		06/12/1991	01/12/1991	17/10/2024	Active	115O14i	51038
<b>P 14603</b>	Placer	1 B Magnet		18/09/1981	17/09/1981	30/11/2024	Active	115O14i	39367
<b>P 07790</b>	Placer	3 Bench		30/07/1979	29/07/1979	30/11/2024	Active	115O14i	37080
<b>P 01496</b>	Placer	Jock's Kingdom		23/06/1976	23/06/1976	17/10/2024	Active	115O14i	35679
<b>42617</b>	Placer	Lugs		04/06/1974	03/06/1974	30/11/2024	Active	115O14h	1686
<b>37912</b>	Placer	13 BD		18/04/1966	16/04/1966	17/10/2024	Active	115O14h	1149
<b>37907</b>	Placer	4 BD		04/03/1966	04/03/1966	30/11/2024	Active	115O14h	1145
<b>37902</b>	Placer	2 BD		21/02/1966	19/02/1966	30/11/2024	Active	115O14h	1140
<b>29121</b>	Placer	Brewsters		15/09/1950	15/09/1950	30/11/2024	Active	115O14i	898
<b>37896</b>	Placer	14 BD		03/02/1966	31/01/1966	17/10/2024	Active	115O14i	1137



FIGURE 1: BONANZA PLACER PROPERTY YUKON LOCATION MAP



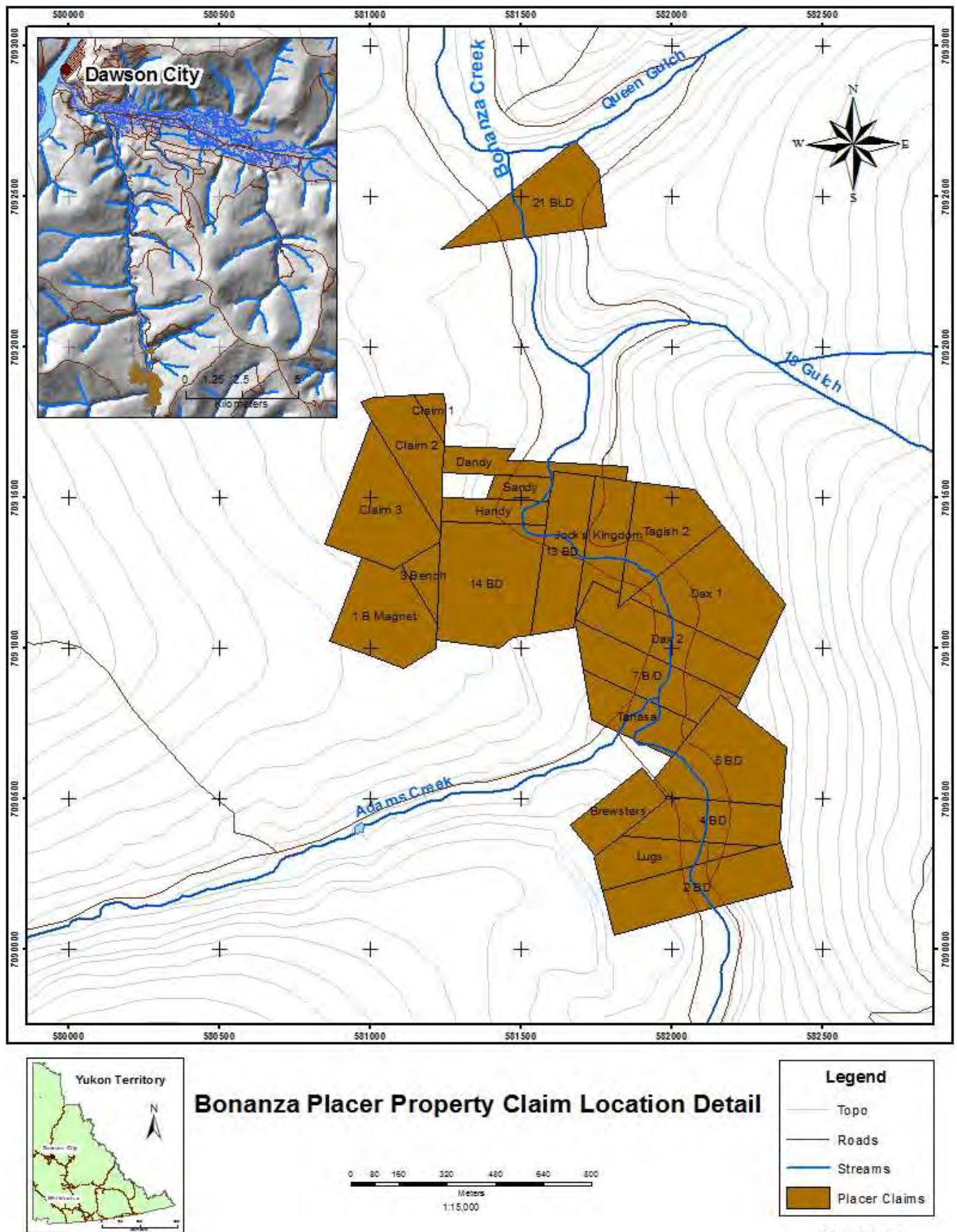
## Bonanza Placer Property Claim Location



Author: Katie Dodd



FIGURE 2: BONANZA PLACER PROPERTY DETAIL LOCATION AND CLAIMS MAP





### 3.0 AGREEMENTS

The Bonanza Placer Property claims are co-owned and operated by Dan Trudeau and Roland Berglund. There are no overriding royalties on the property and no disputes regarding property ownership. Title is registered with the Dawson City Mining Recorder and is granted under the Yukon Placer Mining Act. Figure 3 shows claim owners by their centralized plant on Bonanza Creek on June 10, 2014.

FIGURE 3: CLAIM OWNERS AT THEIR PLANT ON BONANZA CREEK



### 4.0 PERMITTING

The Bonanza Placer Property Claim Group is fully permitted. A Class 4 Placer Land Use Permit was obtained on April 16, 2014 and expires on April 16, 2024. A copy of this Placer Land Use Permit LP00919 can be found in Appendix IV. Water License Number PM13-051 is currently valid and is available in Appendix V. The Yukon Environmental and Socio-economic Assessment Board (YESAB) file on the property is number 2013-0137 and the Consolidated Decision Document 2013-0137-040-1 can be found in Appendix VI.

### 5.0 HISTORY OF THE BONANZA CREEK CLAIMS

In 1896 the discovery of rich placer gold in Rabbit Creek, which was renamed Bonanza, sparked the Klondike gold rush. Immediately after prospecting and staking of the placer claims on Bonanza and Eldorado Creeks mining commenced and continues to this day. To present, the Yukon Government conservatively estimates that 13.5 million ounces of gold have been produced from the Klondike Gold Fields with Bonanza Creek among its richest.

By 1898, communities had developed on many of the major gold bearing streams in the Klondike. One such community was Grand Forks, located 1 kilometer southeast of the Bonanza Placer Property, which boasted a population of around 5000 at its height around 1900. Grand Forks declined with the end of the Klondike gold rush

and was almost completely obliterated when dredges mined through the town site in 1911. (Canada Department of the Interior, 1907 and Johnson, 1997)

## 5.1 HAND WORKINGS

The rich Bonanza and Eldorado Creeks were completely staked by 1897. The majority of the gold in this area was contained in the lowest 2 to 4 feet above bedrock with varying amount of overlying frozen ground.

Early mining encountered many difficulties and was generally an inefficient and labor intensive affair. Mining was accomplished by either open cut methods where the depth to bedrock was less than 15 feet or shafting through 10 to 60 feet of overlying frozen material to reach the rich pay gravels and decomposed gold bearing bedrock below. The shafting and drifting occurred year round with pay gravels stockpiled for panning and sluicing in summer months. Evidence of these early activities can be found on the Bonanza Placer Property with shafts and drifts encountered in recent mining cuts. Figure 4 shows underground mining in 1901 on Claims 44 Below.

FIGURE 4: HAND SHAFTING AND DRIFTING IN BONANZA CREEK ON CLAIM 44 BELOW, 1901



Canada Department of the Interior, 1907

## 5.2 DREDGING

In general only the richest ground was profitable to mine by hand methods and it was recognized that larger scale mechanized operations would be required to mine the abundant lower grade ground. The first dredge in the Klondike came in to operation on Bonanza Creek in 1902. This dredge was capable of mining 700 cubic yards per day and it was said that this dredge with three operators replaced the hand labour of 156 men. Several companies secured larger blocks of ground and water rights that enabled them to operate large scale operations on lower grade ground.

By 1913 there were 12 dredges in operation in the Klondike under the Yukon Gold Company and the Canadian Klondike Mining Company. Problems in operation and financing led larger Klondike mining companies into debt problems during and after World War I and they were reorganized into the Yukon Consolidated Gold Corporation in 1923. The Yukon Consolidated Gold Corporation continued dredge mining operations until 1966.

The legacy of dredging operations is easily visible from the Bonanza Placer property as seen by dredge tailings piles and the Dredge No.4 National Historic Site of Canada that is located just downstream of the claims. It is important to note that this dredge which could mine to a depth of 48 feet below water level did not reach the Bonanza Placer Property claims. Only smaller dredges (Figure 5) mined on the Bonanza Placer Property claims to a maximum depth of 26 feet leaving considerable lower gravels untouched by mechanized mining and only subjecting them to the relatively inefficient recovery methods of hand shafting and drifting.

FIGURE 5: TAILINGS FAN OFF AMERICAN HILL AND DREDGE NO. 5



1912 photograph. Schellinger Collection, 5952.

### 5.3 HYDRAULIC MINING

Hydraulic Mining, utilizing high pressure water to move gravels and pay, was used extensively on the Bonanza Placer Property and across the Klondike (Figure 6 below). The first significant use of this method was on Cheechako Hill after significant gold was recognized in the bench gravels above Bonanza Creek. A pumping station was established which brought water up from Bonanza Creek under enough pressure to hydraulic the White Channel gravels on the hill. Several operators attempted this method until around 1905, however, inefficient and expensive pumps made these early ventures unprofitable.

Regardless of profitability this early Hydraulic mining on Cheechako Hill had the effect of covering the left limit of Bonanza Creek below Cheechako Hill with hydraulic tailings. With respect to the Bonanza Placer property this had the important effect of discouraging later dredging on the left limit of Bonanza Creek in this location. The tailings fans also preserved and possibly enriched sidehill bedrock of Cheechako Hill, some of which was mined in 2014.

By 1907 several dams had been constructed on upper Bonanza and Adams Creeks which piped water at sufficient pressure to allow hydraulic operations on hillsides. Notably for the Bonanza Placer Property was that the Adams



Creek dam which supplied water for hydraulic operation on Adams and American Hills (Figure 5 above) that produced large tailings fans like those on neighboring Cheechako Hill, which discouraged dredging operations and likely preserved Bonanza Creek gravels that were only subject to hand mining methods.

**FIGURE 6: HYDRAULIC MINING ON BONANZA CREEK**



Canada Department of the Interior, 1907

Hydraulic mining continues to be an effective method of mining to this day in the Klondike especially with the advantage of efficient modern pumps. Operations on the Bonanza Placer property are not currently using hydraulic mining; however, the property is permitted to do so.

## 5.4 MODERN MECHANIZED MINING

Modern mechanized mining utilizing versatile heavy equipment (e.g. excavator, bulldozer, and dump truck) and efficient recovery processes have reinvigorated placer mining in the Klondike. In contrast to large scale dredge operations which ended in 1966, modern methods have allowed small companies and individuals to profitably mine in many locations in the Klondike. The main advantage of this method is relatively low capital costs and the ability of the operation to enact grade control and easily move equipment. This has allowed relatively small enterprises to mine areas that were inaccessible to dredges (e.g. sidehill bedrock, smaller creeks) or were simply disregarded (e.g. corners of dredge operations, frozen ground at creek margins that was not thawed by dredge steaming crew).

Examples of such profitable operations are previous owners of the Bonanza Placer Property Bob Cattermole and Art Fry as well as the current owners Roland Berglund and Dan Trudeau. The current owners utilize versatility and grade control to their advantage resulting in profitability over 11 years of operation since they acquired the Bonanza Placer Property in 2003.



## 6.0 ACCESSIBILITY, INFRASTRUCTURE, CLIMATE AND PHYSIOGRAPHY

The Bonanza Placer Property located 16 kilometers by road from Dawson City and is easily accessible year round. The property is accessed along the Bonanza Creek Road, 13 kilometers from the Klondike highway, just past Dredge No. 4 National Historic Site of Canada. The property can be travelled to in about 20 minutes by 2 wheel drive vehicle from Dawson City. The location of the property is shown in Figure 1: Bonanza Placer Property Yukon Location Map

Dawson City is on the Yukon River at 320 meters elevation. Dawson City is approximately 480 kilometers from Whitehorse along the Klondike Highway which is a completely sealed two lane highway. A 5000 foot by 100 foot gravel surface, lighted Yukon Government airfield serves Dawson City. Dawson is served by a scheduled service of aircraft from Whitehorse and by highway with regular freight services. Dawson City is a full service town and offers a variety of facilities such as hotels, restaurants, grocery, clothing and hardware stores, several garages and heavy equipment shops, engineering supplies and has two bulk fuel depots.

The climate is subarctic, with relatively low annual precipitation. The workable summer season extends from late May until mid October, by which time nightly temperatures are below freezing. Winter temperatures may drop to -40°C for up to six weeks in January and February. Summer rainfall is highly variable and unpredictable, with some years being sufficiently dry to cause water supply problems for placer mining operations in high drainages, however the Bonanza Placer Property has never experienced any significant shortages of water for operation, due to its relatively downstream location and availability of ponds on claims.

Physiography of the Klondike region consists of rugged topography with rounded hills and “V” shaped valleys. This region was not recently glaciated; therefore the hills have a more subdued or “rounded” profile (known as inverted topography) than the eastern Yukon with cliffs being only prominent along the Yukon River valley. The immediate area of the claims have been historically logged of large timber to supply mines and fuel boilers and is now covered by re-growth of spruce, poplar, birch and alder. Only the very highest ridges are covered by dwarf willow and birch buck brush.

## 7.0 GEOLOGICAL SETTING

### 7.1 SURFICIAL GEOLOGY AND GEOMORPHOLOGY

Much of the Klondike plateau was free of significant glaciation during the last three million years. This unglaciated period has had a profound impact on the region and the Bonanza Placer Property claims. This ice-free period allowed for the evolution and preservation of a well-developed landscape, with rounded summits and valley systems and their contained placer deposits. Elsewhere glaciated portion of the western cordillera were scoured into their current landforms of U-shaped valleys, alpine cirques and tarns more characteristic of glaciated mountain terrain.

Of particular relevance to placer gold deposition is the deposition and evolution of the White Channel gravel which are extensively present on the Bonanza Placer property. Various methods of geologic dating (Glass-fission track, magneto-stratigraphic,  $^{40}\text{Ar}/^{39}\text{Ar}$  age data) place a Late Pliocene age, or 2.6-3.3 million year ago (Ma) on the upper White Channel gravel (sometimes referred to as “brown” or “red” channel) in the Klondike district. The deposition of the lower and generally gold bearing portions of the White Channel gravel is loosely confined in geologic time to a post-Miocene and pre-Late Pliocene age or 3.3 to 5.3 million years ago. (Westgate et. al., 2003).

Evolution of drainages of the region resulted in some reworking and redistribution White Channel gold bearing sediments, concentrating placer gold in pay streaks along valley bottoms, alluvial side-fans and bedrock terraces. The Bonanza Creek pay streak and sidehill bed rock pay represents a reworking of the White Channel pay streak. Significant White Channel deposits are preserved on the Bonanza Placer Property in the bench, or high channel,

locations of American Hill, Magnet Hill, and Adams Hill although Cheechako Hill White Channel deposits were completely mined in the early 1900s.

Surficial materials in unglaciated regions of the Klondike plateau and wider Yukon consist largely of weathered bedrock, colluvium, retransported loess (wind-blown silt), organic, and fluvial deposits. This holds true on the Bonanza Placer Property claim group with examples of loess and organic deposits (“black muck”), alluvial creek deposits, bench White Channel deposits, and sidehill regolith of unglaciated terrain. Surficial geology on the claims has been significantly disturbed by historic and recent mining related activities.

The Klondike plateau is in a zone of widespread discontinuous permafrost, with permafrost generally present on north and east facing slopes and thicker packages of stream beds. Disturbance partially accounts for the reduced presence of permafrost (80% thawed) on claims, especially in the creek bed, as reported by the owner’s observations and interpreted from the resistivity profile (see section 8.4 Resistivity (Depth to Bedrock) Survey Results).

## 7.2 BEDROCK AND REGIONAL GEOLOGY

The overall Bonanza-Eldorado-Hunker region is underlain by the Klondike schist. The Klondike schist is correlated with units of the Yukon-Tanana terrane which extends from Alaska to the southern Yukon and B.C. (Figure 7: Yukon Terrains Map). The Yukon-Tanana terrane is now considered to include those Devonian-Mississippian strata of continental affinity which are overlain by volcanic arc successions that include back arc and island arc tectonic settings (e.g.: Colpron, 2001; Piercey et al., 1999). These units are now polydeformed and, over a regional scale, show a range of metamorphic grade from lower greenschist to amphibolite facies (e.g., Mortensen et al., 1992; Roots et al., 2003) and have been intruded by Mississippian to Permian granitoids (e.g., Nelson et al., 2000, Liverton et al., 2005).

The mid Permian Klondike schist that dominates the northwestern Klondike area can be divided into three recognizable thrust fault bounded assemblages (Rushton et al., 1993). Thrust faults are in part marked by slivers of serpentinised ultramafics. These dominant assemblages are:

- 1) Assemblage I consists of three units: quartz augen schist; the Sulphur Creek orthogneiss; and intercalated chloritic schist, metagabbro, amphibolite, quartzite and felsic schist. The Sulphur Creek orthogneiss and the latter sequence are found in the Eldorado-Bonanza area.
- 2) Assemblage II of micaceous and chloritic quartzite, feldspathic quartzite, marble and calcareous schists which is intruded by the Mt. Burnham orthogneiss, found in the east of the Klondike.
- 3) Assemblage III of carbonaceous quartz muscovite phyllite, schist and marble that crops out southwest of the Indian River and also to the northeast of Hunker Creek.

The immediate area of the claims is dominated by quartz-mica Klondike schist with a notable local of rusty carbonaceous Klondike schist. The Klondike schist (and contained orogenic quartz veins) is interpreted to be the major source rock of the Klondike gold field’s placer deposits. There are overlapping Quartz claims (with rights to bedrock and below) on the property which are unrelated to placer claims that have been intermittently explored by various parties. No significant hard rock gold occurrence has been discovered within the boundaries of the Bonanza Placer Property.

Potential of the Bonanza Placer Property, 22 Claims, Bonanza Creek, Yukon Territory. October, 2014

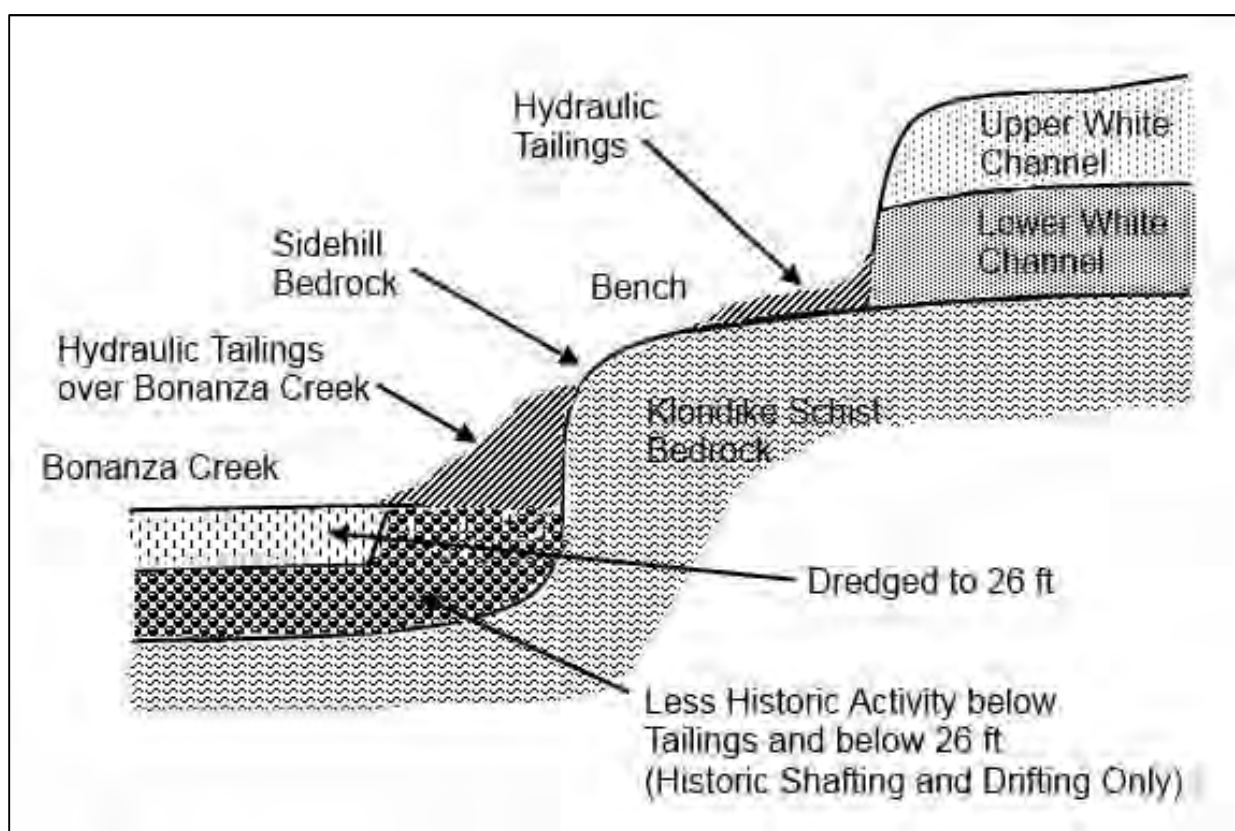


### 7.3 PLACER DEPOSITS TYPES ON THE BONANZA PLACER CLAIMS

The Bonanza Placer Property claims contain four sub-types of placer deposits, all of which have been mined profitably during the claims long history and recently by the current owners. The four subtypes of placer deposits on the property are listed below and a generalized diagram of deposit types is shown in Figure 8.

- 1) Bonanza Creek Placer Deposits
- 2) High Channel Deposits
- 3) Sidehill Bedrock Deposits
- 4) Historic Tailing (most notably hydraulic fans)

FIGURE 8: GENERALISED CROSS SECTION OF BONANZA CREEK



#### 7.3.1 BONANZA CREEK PLACER DEPOSITS

The Bonanza Placer property claim block encompasses approximately one kilometer of Bonanza Creek. Depth to bedrock varies from 20 feet on the sides to 50 to 60 feet in the main channel. The width of Bonanza Creek deposits varies from 150 to 300 feet. RC drilling, auger exploration, resistivity surveys, and locations of previous disturbance give the owners the impression that the creek is 80 to 90 percent thawed. Of particular importance when considering the potential of Bonanza Creek deposits are:

- 1) Dredging did not reach bedrock in many areas of the Bonanza Placer Property claims.
- 2) Portions of Bonanza Creek deposits below Cheechako, Adams, and American Hills were protected from dredging by tailings fans produced by hydraulic mining of bench gravels in the earliest 1900s.



Previous mining has certainly occurred in the area with record of the small dredges active in the area reaching a maximum depth of 26 feet. Significant gold values are thought to exist below the 26 foot level through to bedrock, and this assumption is supported by limited RC drilling in the main channel on Claim 14 BD. It is important to note that the large dredge which is visible from claims (National Historic Site Dredge Number 4) is located downstream and did not mine the claims with its deeper penetrating depth. There is also evidence of late 1800s and early 1900s “Old Timer” shafting and drifting in the creek bed but the exact location and extent these activities was undocumented. The situation is best visualized in Figure 11: View of Bonanza Placer Property looking North from Adams Hill.

As outlined in section 5.3 significant portions of the left limit of Bonanza Creek were covered by hydraulic tailings brought down from Cheechako (Figure 9), Adams, Magnet, and American Hills. This had the effect of protecting some of the left limit creek bed below these hills from dredging and may be a significant exploration target. Further testing is required to confirm the presence and grade of creek deposits below the tailings fans which were likely only subject to early hand mining methods of extraction.

FIGURE 9: VIEW OF CHEECHAKO HILL HYDRAULIC TAILINGS LOOKING SOUTH



The upper disturbed Bonanza Creek bed materials consist of gravel with mud seams. Where mud seams are present their depth varies from 2 to 20 feet. The distribution of these materials is indicative of the way that processed gravel and fines were distributed by dredging activities.

### 7.3.2 WHITE CHANNEL DEPOSITS

The White Channel gravels on the Bonanza Placer Property are located to the west of Bonanza Creek on adjacent bedrock benches. There are three hills on claims that contain extensive White Channel deposits and these are (from north to south) American Hill, Magnet Hill, and Adams Hill. Cheechako Hill White Channel deposits on the Bonanza Placer Property were completely mined in the early 1900s and now only the large tailings fan remains. Some White Channel deposits of Cheechako Hill are still present to the east of the property. The White Channel deposits described in this section encompass the both the upper (“brown” or “red”) channel and the older lower White Channel as described in section 7.1 Surficial Geology and Geomorphology.

The White Channel deposits have been mined back from their original extent at the crest of the sidehills by hydraulic mining (monitored with water cannons). This mining method produced hydraulic tailings fans that surround the lower portion of these hills (see section 7.3.4 Historic Tailings). There is also evidence and record of shafting and drifting in these White Channel deposits. The following is a rough estimation of the volume of various

White Channel deposits on Bonanza Placer Property claims with calculations available in Appendix III. The total estimated volume of the White Channel deposits is around 2.8 million cubic meters. It is important to note this is not a reporting of any type of gold reserve or resource.

TABLE 2: VOLUME ESTIMATION OF WHITE CHANNEL DEPOSITS ON THE BONANZA PLACER PROPERTY

White Channel Deposit	Volume of White Channel Deposits (m3)	Volume of Lower Gravel and Bedrock of Deposit (m3)
American Hill	213000	23000
Magnet Hill	587000	121000
Adams Hill	1999000	183000
Cheechako Hill	none remaining on property	none remaining on property
Total Volume	2799000	327000

Notes: See Appendix III for calculations. Estimation of volume was created by on site measurements, estimates, and evaluation of available satellite imagery. Rounded to nearest thousand cubic meters. This is not an assumption or reporting of any type of gold reserve or resource. This is intended as a rough volume statistic with an unknown margin of error due to limited measurement information in the interior of the White Channel unit.

#### AMERICAN HILL WHITE CHANNEL DEPOSITS

The American Hill White Channel is approximately 100 feet high. The top 30 to 50 feet is the upper Brown Channel gravel cap commonly observed in the wider area. The lower 50 to 70 feet is older White Channel that rests on Klondike schist bedrock. Typically it is the lower White Channel that contains placer gold and within this unit the gold is concentrated in the bottom 6 to 10 feet of gravel and the underlying 2 to 4 feet of weathered Klondike schist bedrock.

There are seams of gold containing gravels above the basal 10 feet of the American Hill White Channel unit, however these are generally of a lower grade and are difficult to identify and isolate.

#### MAGNET HILL WHITE CHANNEL DEPOSITS

The Magnet Hill White Channel deposit is approximately 35 feet at maximum thickness in its central portion and tapers to 10 feet as it descends into Magnet Gulch. The deposits on the hill are all lower White Channel with interlaced seams of red gravel that likely represents oxidation or lower flow rates in the ancient stream environment and not inclusion of the younger overlying Brown Channel unit. The Brown Channel cap appears to have been completely eroded or not deposited at this location. Gold values in the Magnet Hill White Channel deposits are highest in the lower 6 to 8 feet of the deposit and the underlying 2 to 4 feet of Klondike schist bedrock.

It is noted that between Magnet Hill and American Hill there is a deposit of White Channel that has not been tested as to its depth, material present, or gold content by the owners of the Bonanza Placer Claims.

#### ADAMS HILL WHITE CHANNEL DEPOSITS

Adams Hill White Channel is approximately 120 feet high. The upper portion is of a 40 to 60 foot Brown Channel cap with the lower 60 to 80 feet comprised of White Channel deposits. The claim block covers the southern portion of this hill (approximately 1000 feet). Adams Hill White Channel placer gold is concentrated in the bottom 6 to 10 feet of gravel and the underlying 2 to 4 feet of weathered Klondike schist bedrock.

#### CHEECHAKO HILL WHITE CHANNEL DEPOSITS

The Cheechako Hill White Channel has been completely mined on the Bonanza Placer Property. The hill is now visible as a large hydraulic tailings fan of White Channel material which was monitored down in the early 1900s. Part of this tailings fan and sidehill bedrock was mined in 2014 (see section 9.4 Tailings Fan Mining). The tailings fan may also cover significant area of Bonanza Creek deposits which were covered before the introduction of dredges to the Klondike.

### 7.3.3 SIDEHILL BEDROCK AND REGOLITH

Sidehill placer deposits occur on both sides of Bonanza Creek. The sidehill consist of weathered fractured Klondike schist bedrock, regolith (soils), and some gravels. The fluvial process of Bonanza Creek eroded down the ancient overlying White Channel gravels and sidehill regolith to give the creek its current level. During this process some of the contained gold was left trapped in the fractured bedrock and remaining overlying material. In some sidehill areas additional gold was likely deposited by hydraulic mining.

### 7.3.4 HISTORIC TAILINGS

There are significant historical tailings on the Bonanza Placer Property and some of these still contain significant quantities of placer gold. The most important of these are hydraulic fans that were created by hydraulic mining of the White Channel deposits. Water cannons were used to monitor down portion of White Channel deposits to recover gold. Hydraulic mining methods used were generally efficient at moving large volumes of White Channel material but were not always efficient in recovering gold.

There are three significant tailings fans present below Cheechako Hill, Adams Hill, and Magnet Hill. The tailing fans blanket much of the sidehills to the west of Bonanza Creek and in some locations into the creek itself. The tailings fans consist of all the material that was monitored off the above White Channel deposits. Due to relatively inefficient gold recovery and the ease of access to these materials there are some tailings fans which have been profitably mined by the owners. There are also significant dredge tailing in Bonanza Creek, however generally these do not contain enough gold to be profitably re-mined.

## 8.0 EXPLORATION ON THE BONANZA PLACER PROPERTY CLAIMS

Several types of placer exploration have been conducted on the Bonanza Placer Property claims and these have increased the knowledge of the placer gold deposits and confidence in the ability to economically recover gold from claims. The main types of exploration have been stripping and pitting, auger drilling, reverse circulation (RC) drilling, and resistivity surveys.

TABLE 3: EXPLORATION ACTIVITIES

Location	Work Type	Details
Various	Bulk Testing (Stripping / Trenching / Pitting)	Extensive and unrecorded: this activity was usually integrated with bulk testing and mining (see Section 7.1 and Mining Section 8.0)
Various	Auger Drilling)	Extensive and mostly unrecorded: This activity was usually undertaken to get specific ground information in advance of bulk testing and mining (see Section 7.1 and Mining Section 8.0)
Claim 14 BD	RC	5 RC holes drilled to test presence of creek deposits below 26 ft dredge recovery
Claim 14 BD	Resistivity Survey	3 Profile lines to test depth to bedrock and creek deposits below 26 ft dredge recovery

### 8.1 STRIPPING, PITTING, TESTING AND AUGER DRILLING

The main exploration activity on the claims that has allowed the operators to continue to run a profitable operation since 2003 has been bulk testing. This activity has been seamlessly integrated with mining, and as such is largely unrecorded. The common practice of the owners of the project is to access potential pay gravels through stripping and then immediately initiate bulk testing using centralized (on claims) full scale mining equipment processing 60 to 80 cubic yards per hour. Where these sites are profitable mining is seamlessly continued and at any given time the operators usually have several sites accessible where profitable gold pay gravels can be extracted and processed.

Main pay locations are discussed in further detail in section 9.0 Current Mining 2003 to 2014.

## 8.2 AUGER DRILLING

Auger drilling has been used extensively on the claims as an exploration tool. The operators generally reserve the use of auger drilling to locations not amenable to testing by excavator without extensive stripping such as the interior of the thick White Channel deposits on Adams, Magnet, and American Hills. Auger drilling has generally been used by the claim owners as a tool to obtain specific information for mining.

It is estimated by the owners that 25 to 30 auger holes have been drilled on the property, using their own drilling equipment since 2003. Auger hole information was generally not recorded although some drill observations are referenced in section 9.0 Current Mining 2003 to 2014 where relevant.

## 8.3 REVERSE CIRCULATION DRILLING

Reverse circulation drilling was undertaken in 2007 to test the depth of bedrock and for the presence of gold. Five RC drill holes, H1 to H5, were completed in a fence on Claim 14 BD in the area known as Poverty Bar. The location was selected as the owners believed that there could be depths to bedrock greater than the maximum depth of recovery reached by the small dredge that historically mined the area. This assumption proved to be correct and depth to bedrock across the fence was ascertained and gold was recovered from all but one hole. Later mining in a creek cut in the Poverty Bar area was profitable (see section 9.1 Bonanza Creek Cuts).

TABLE 4: REVERSE CIRCULATION HOLE RESULTS

Hole #	UTM East (Approximate)	UTM North (Approximate)	Depth to bedrock (ft)	End of Hole (ft)	Recovered Gold (mg)
H1	581510	7091327	36 to 49 <sup>(*)</sup>	49	96
H2	581463	7091324	41 to 45 <sup>(*)</sup>	45	51
H3	581422	7091321	49	52	(one colour)
H4	581384	7091315	54	56	67
H5	581347	7091311	56	59	nil

Notes: Holes were driven vertically from surface. Elevations were not recorded. Drill summary logs are located in Appendix II. “\*” denotes where bedrock was difficult to distinguish and a range of depth to bedrock intersection was recorded.

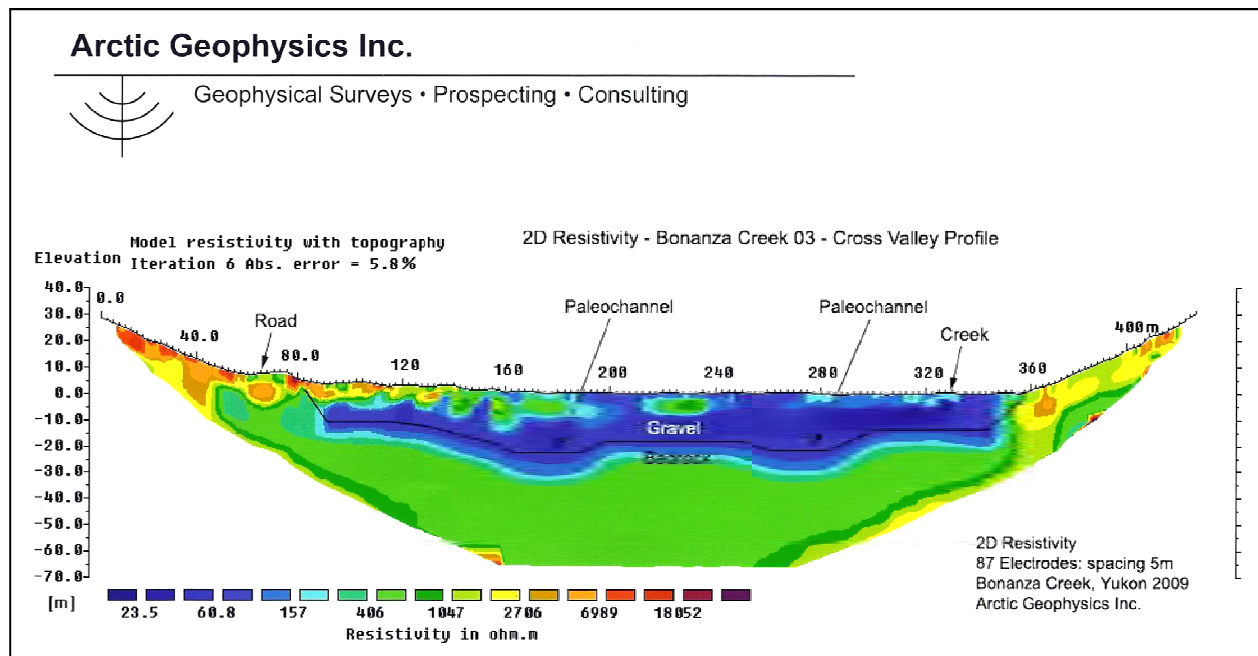
## 8.4 RESISTIVITY (DEPTH TO BEDROCK) SURVEY RESULTS

Three resistivity profiles were conducted on the Bonanza Placer Property. The first two were conducted in August 2007 with a third in August 2009 (Figure 10: Resistivity Profile 03 on Claim 14 BD). The conclusions of this August 2009 resistivity survey are:

1. Bedrock lies variably 14 to 20 meters below surface (which agrees with RC drilling)
2. Gravels lie under varying upper materials
3. The ground is not frozen
4. The profile defines two possible paleochannels crossing the survey profile.



FIGURE 10: RESISTIVITY PROFILE 03 ON CLAIM 14 BD



## 8.5 INTERPRETATION OF DRILLING AND RESISTIVITY RESULTS

The drilling and resistivity profile line 03 results agree that the depth to bedrock is in the range of 40 to 65 feet and that gravels undisturbed by dredging still lie on bedrock. Gold recovered from RC holes show that there is gold in these gravels and that the majority of the ground is not frozen.

One mining cut was placed by the operators in this area on Claim 14 BD (see below Figure 11 and section 9.1 Bonanza Creek Cuts) and this showed the above to be correct with gold recovered from basal gravels. Note that the area of this cut is very small in relation to the area of possible pay gravels that lie on bedrock below the recovery depth (around 26 feet) of the Dredge No.5 on the Bonanza Placer Property.

FIGURE 11: VIEW OF BONANZA PLACER PROPERTY LOOKING NORTH FROM ADAMS HILL



## 9.0 CURRENT MINING 2003 TO 2014

The Owners of the Bonanza Placer Property have profitably operated the project since 2003. The operators have a versatile operation which has extracted pay material from all the types of placer gold deposits on the property.

### 9.1 BONANZA CREEK CUTS

Three cuts in Bonanza Creek have been completed by the owners of the property; these were located on Claim 14 BD (Grant No. 37896), Tanasa (Grant No. P31049) and on Claim 4 BD (Grant No. 37902).

The cut on 14 BD was taken in the general area of the RC drill holes know as Poverty Bar (Figure 11) described in section 8.3. Dimensions of the cut were 200 by 250 feet with a depth of 30 feet descending to a maximum depth of 50 feet (to the west). The materials encountered were gravels from surface to 10 feet deep underlain by mud, silts, and gravel for the next 15 to 30 feet. Usually there was then a basal layer of 5 to 10 feet of gravel on bedrock; however in some locations the basal gravel was not present. The basal layer of gravels and the lower 3 to 4 feet of bedrock were sluiced and this cut was profitable. After mining the cut was converted into a large pond.

The Tanasa Claim cut in Bonanza Creek began where sidehill bedrock met creek gravels and extended out into the center of Bonanza Creek to a maximum depth of 18 feet. The dimensions of the cut were 400 feet long by 80 feet wide. This area had been previously dredged and the materials encountered were nearly all gravel with minor mud seams. All gravel and mud were sluiced along with 3 to 4 feet of bedrock.

The Claim No. 4 BD cut was drilled in summer 2014 with active stripping continuing into October 2014. A grid of ten auger drill holes was completed in the area with an approximate spacing between holes of 40 feet. Auger drilling results showed depths to bedrock varying from 35 to 45 feet deep with some gold recovered even though the holes were wet (which usually washes gold off auger rods). The area was selected as the owners believed that it was in a corner that was not thawed by ground crews in advance of the dredge and therefore was not exploited by historical dredge mining activities. The cut is now stripped and will be mined in the 2015 season.

### 9.2 WHITE CHANNEL GRAVEL MINING

White Channel gravel mining has occurred on Adams Hill, Magnet Hill, and American Hill. On Cheechako Hill there is no significant White Channel gravel remaining on the property, however there is still productive tailings fans and sidehill bedrock on and below where Cheechako Hill previously existed before extensive historical hydraulic mining (see section 9.4 Tailings Fan Mining).

#### 9.2.1 ADAMS HILL WHITE CHANNEL MINING

The owners exposed a 200 foot pay zone at the north end of Adams Hill. The mined gold bearing material consists of the lowest 6 to 10 feet of White Channel gravel sitting on 2 to 4 feet decomposed Klondike schist bedrock.

This placer cut is on the recognized coarse gold White Channel pay streak as several large (¾ ounce size) nuggets were recovered. Generally the coarse gold pay streak in the White Channel gravel on the benches runs north-south. The width and extent of this coarse gold pay streak is unknown to the owners.

Several old time shafts were found during mining excavation and these generally are not present in any significant frequency if there is not significant grade. The extent of historical mining and disturbance in the area is unknown, however that there was gold recovered suggests that the area was not completely mined by old timer hand methods.



### 9.2.2 MAGNET HILL WHITE CHANNEL MINING

At Magnet Hill 150 feet of the pay zone was exposed and mined. The coarseness of the gold at this placer cut led the owners to believe they were mining the White Channel gravel's recognized "coarse gold pay streak" As the owners worked into the hill they encountered a clay seam from bedrock up to 25 feet in the White Channel gravel, and gold recovery declined. To test if this clay seam was very extensive auger drilling on the hill behind the cut was conducted and encouragingly no evidence of clay was encountered.

### 9.2.3 AMERICAN HILL WHITE CHANNEL MINING

The owners exposed a 150 foot section of the pay zone on this hill and stripped top gravel back 60 feet. The bottom 8 to 10 feet of White Channel gravel and the below 2 to 4 feet of decomposed Klondike schist bedrock were sluiced. Gold values were lower than the cuts at Adams Hill and American Hill. The explanation of the lower grade could be that the cut location was off the coarse gold pay streak or it could be that the area was just locally lower in gold. Owners consider testing further into the hill an exploration priority to ascertain whether or not the gold grades improve.

## 9.3 SIDEHILL BEDROCK MINING

In general sidehill bedrock and bedrock mining is conducted in association with mining other material. The Klondike schist bedrock in the area of claims has a deep weathering profile and it is generally easy to excavate the top 2 to 4 feet of bedrock where most of the trapped placer gold occurs. As such where creek, White Channel, or tailing mining occurs it is practice of the owners to recover and process this material which generally has economic grade.

Sidehill bedrock was the primary target at a location above the owner's central plant. The bedrock was stripped to a depth of 2 to 4 feet and sluiced. Figure 12 below shows this sidehill bedrock cut with a heritage cabin that was left in place during mining.

FIGURE 12: SIDEHILL BEDROCK CUT ABOVE CENTRAL PROCESSING PLANT





Sidehill bedrock and gravel were also mined in the 2014 season (Figure 13) in the area of the right limit of Bonanza Creek on Claim No. 2 Below. The gravels and bedrock were stripped and sluiced in the area immediately above the Bonanza Creek road.

FIGURE 13: SIDEHILL BEDROCK AND OVERLYING GRAVEL ON CLAIM NO. 2 BELOW DURING THE 2014 SEASON



## 9.4 TAILINGS FAN MINING

The owners of the Bonanza Placer Property spent 3 seasons sluicing hydraulic tailings from the north end of Adams Hill. This material had been hydraulically moved and mined from White Channel gravel deposits atop Adams Hill. As the tailings were mined sidehill bedrock was exposed and 3 to 4 feet was simultaneously mined. Processing was conducted at a rate of 60 cubic yards per hour.

The site of mining in June 2014 was at the tailings and sidehill bedrock on Cheechako Hill where White Channel deposits had originally been present before historical mining on the claims. The site is being excavated, with Cheechako Hill hydraulic tailing and sidehill bedrock being processed at a rate of around 60 yards per hour. Figure 14 shows the Cheechako Hill site and Figure 15 shows examples of gold recovered on June 10, 2014 after approximately 6 hours of sluicing.



FIGURE 14: MINING OF CHEECHAKO HILL ON JUNE 10, 2014



FIGURE 15: EXAMPLES OF GOLD RECOVERED ON JUNE 10, 2014 AFTER 6 HOURS OPERATION AT 60 YARDS PER HOUR



## 10.0 TERMS OF SALE

Terms of sale of the claims are to be completed by negotiation with the co owners Roland Berglund and Dan Trudeau. The co owners will be pleased to entertain serious enquiries and independent testing of the property by interested parties is encouraged with prior agreement to be negotiated with the owners of the Bonanza Placer Property. Inclusion in sale of existing equipment and infrastructure may be negotiated.

Enquiries regarding this placer mining opportunity should be directed to Roland Berglund and Dan Trudeau and visitation of the property can be arranged.

### **Contact Information:**

**Roland Berglund/Dan Trudeau  
Bonanza Creek Mining  
#1 Bonanza Creek Road,  
PO Box 653,  
Dawson City, YT  
Y0B 1G0**

**Phone: 867-993-6551.**

**Email: roland@berglund.tv.**

## 11.0 CONCLUSIONS

The Bonanza Placer Property represents a unique opportunity where there are still significant Bonanza Creek lower pay gravels and White Channel pay gravels available for mining on claims that have clear title of ownership and are fully permitted.

The Bonanza Placer Property is prospective for bulk extraction of the largest placer gold targets on the property which are:

- 1) Bonanza Creek bed below 26 feet Dredge No. 5 level
- 2) Bonanza Creek bed covered under hydraulic tailings
- 3) Extensive White Channel deposits with a volume of around 2.8 million cubic meters

The owners of the property have conducted over ten years of profitable mining with a small crew (generally three persons on a day shift) on relatively easily accessible pay dirt and believe that the property could profitably support a bulk mining operation with investment in larger equipment and infrastructure.

## REFERENCES

- Canada Department of the Interior, 1907. The Yukon Territory, Its History and Resources. Government Printing Bureau, Ottawa.
- Colpron, M. 2001. Geochemical characterization of Carboniferous volcanic successions from Yukon-Tanana terrane, Glenlyon map area (105L), central Yukon. *In: Yukon Exploration and Geology 2000*, D.S. Emond and L.H. Weston (eds.), Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, p. 111-136.
- Johnson, E.L., 1997. The Banaza Narrow Gauge Railway, The Story of the Klondike Mines Railway. D.W. Friesen Inc, Altona, Manitoba.
- Liverton, T., Mortensen, J.K. and Roots, C.F. 2005. Character and metallogeny of Permian, Jurassic and Cretaceous plutons in the southern Yukon-Tanana Terrane. *In: Yukon Exploration and Geology 2004*. D.S. Emond, L.L. Lewis and G.D. Bradshaw L.H. (eds.). Yukon Geological Survey, p. 147-165.
- Mortensen, J.K., Nesbitt, B.E. and Rushton, R. 1992. Preliminary observations on the geology and geochemistry of quartz veins in the Klondike district, west-central Yukon. *In: Bremner, T.J. (ed.): Yukon Geology*, Vol. 3. Exploration and Geological Services Division, Indian and Northern Affairs Canada, p. 260-270.
- Nelson, J., Mihalynuk, M., Murphy, D.C., Colpron, M., Roots, C.F., Mortensen, J.K. and Friedman, R.M. 2000. Ancient Pacific Margin: A preliminary comparison of potential VMS-hosting successions of the Yukon-Tanana Terrane, from Finlayson Lake district to northern British Columbia. *In: Emond, D.S. and Weston, L.H. (eds.): Yukon Exploration and Geology 1999*. Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, p. 79-86.
- Piercey, S.J., Hunt, J.A. and Murphy, D.C. 1999. Lithogeochemistry of meta-volcanic rocks from Yukon-Tanana terrane, Finlayson Lake region, Yukon: preliminary results. *In: Roots, C.F. and Emond, D.S. (eds.): Yukon Exploration and Geology 1998*. Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, p. 125-138.
- Roots, C.F., Liverton, T. and Heaman, L. 2003. Geology and U-Pb zircon geochronology of Upper Dorsey assemblage near the TBMB claims, upper Swift River area, southern Yukon. *In: Emond, D.S. and Lewis, L.L. (eds.): Yukon Exploration and Geology 2002*. Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, p. 199-212.
- Rushton, R.W., Nesbitt, B.E. and Mortensen, J.K. 1993. A fluid inclusion and stable isotope study of Au quartz veins in the Klondike district, Yukon Territory, Canada: A section through a mesothermal vein system. *Economic Geology*, **88**: 647-678.
- Westgate, J.A., Sandhu, A.S., Preece, S.J. and Froese, D.G., 2003. Age of the gold-bearing White Channel Gravel, Klondike district, Yukon. *In: Yukon Exploration and Geology 2002*, D.S. Emond and L.L. Lewis (eds.), Exploration and Geological Services Division, Yukon Region, Indian and Northern Affairs Canada, p. 241-250.