

**YEIP
2018
-012**

Alluvium 2018
Yukon Mineral Exploration Program
Final Report
Alluvium Gold Mining Inc.

YUKON ENERGY, MINES
& RESOURCES LIBRARY
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DMS Location: 63° 38' 42.45833" N 138° 40' 25.15873" W

NTS Map: 1150/10

Date: November 7, 2018

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Introduction

This is the final report submitted under Grant Number YMEP 18-012, under the Target Evaluation Module of the Yukon Minerals Exploration Program for Alluvium Gold Mining Inc. The exploration target is placer gold (known to be approx 84% pure on adjacent placer claims). Additional known minerals found on adjacent placer claims include visible magnetite, pyrite and garnet ; also trace amounts of silver, zinc and lead. The Exploration target area is located on the Indian River baseline, at claims #P45395 named Liz 91 and #P00687 named Lucky Lady 14. These claims are just 2 kilometers away from the early 1900's gold rush townsite of Dominion and has been mined extensively by dredge #6 in the mid 1900's, then again by means of placer mining in the late 1980's. Government royalty records show that the Indian River drainage produced 49% of all placer gold mined in the Yukon during 2016, totaling over 45 million dollars. The closest active placer mine downstream from the Alluvium properties is Little Flake Mining (Parker Schnabel), which produced over 6000 ounces of raw gold in 2017 and over 11,000 ounces of raw gold between 2013 and 2016.

This project shall determine whether or not there is any remaining pay gravels along the edges of, or beneath the historic mining cuts on claim #P00687.

Test trench #1 excavation commenced on June 15th, 2018. An 80 foot long by 5 foot wide trench was excavated along the NE border of claim #P00687 beginning at the eastern edge of the known placer cut from the 1980's and continuing East towards the known dredge cut. Virgin placer red gravels were encountered for a width of 30 feet where the two cuts met and excavated to a depth of 10 feet before ground water from the dredge cut became too much to deal with using a Hitachi Ex 200 excavator. Test Trench #1 was revisited on September 23rd 2018 using a 4 inch diesel trash pump to remove the ground water and a Hitachi Ex 450 to excavate the sloughing previously disturbed overburden and ground water from the dredge tailings in order to retrieve a representative sample at the bedrock/gravel interface. Test Trench #1 reclamation work was performed and completed on September 24th 2018. Test Holes #1, #2, and #3 along with Test Trench #2 were excavated and reclaimed to the surrounding landscape between the dates of September 25th 2018 and October 2nd, 2018.

Personnel

Richard Nagle

-Employed by two placer mining operations on Dominion Creek in 2016, duties included operating a front end loader to feed paydirt and clean up tailings for a 100 yard per hour washplant, as well as operate a 40 tonne rock truck.

-Part owner/operator of Alluvium Gold Mining Inc since May 2017.

-Worked in multiple industries such as commercial fishing on the Atlantic Ocean and as an apprentice electrician in the Alberta oilfield.

Personnel cont.

Marshal Thompson

- Master Electrician with much experience in industrial applications
- Previous drilling exploration experience in the Alberta oilfield
- Part owner/operator of Alluvium Gold Mining Inc since May 2017

Location and Access

The Alluvium 2018 property is located approx. 65 kilometers Southeast of Dawson City, YT. Access is via two wheel drive vehicles on Hunker Creek and Sulphur Creek Roads during the summer months and OHV's during winter. An alternative route to Hunker Creek Road is the shorter, but more narrow Upper Bonanza Creek Road. Claims #P00687 and #P45395 (Lucky Lady 14 and Liz 91) are the target exploration areas and are located in the Dawson Mining District on NTS Map 115O/10 at 63°38'42.45833 N and 138°40'25.15873 W.

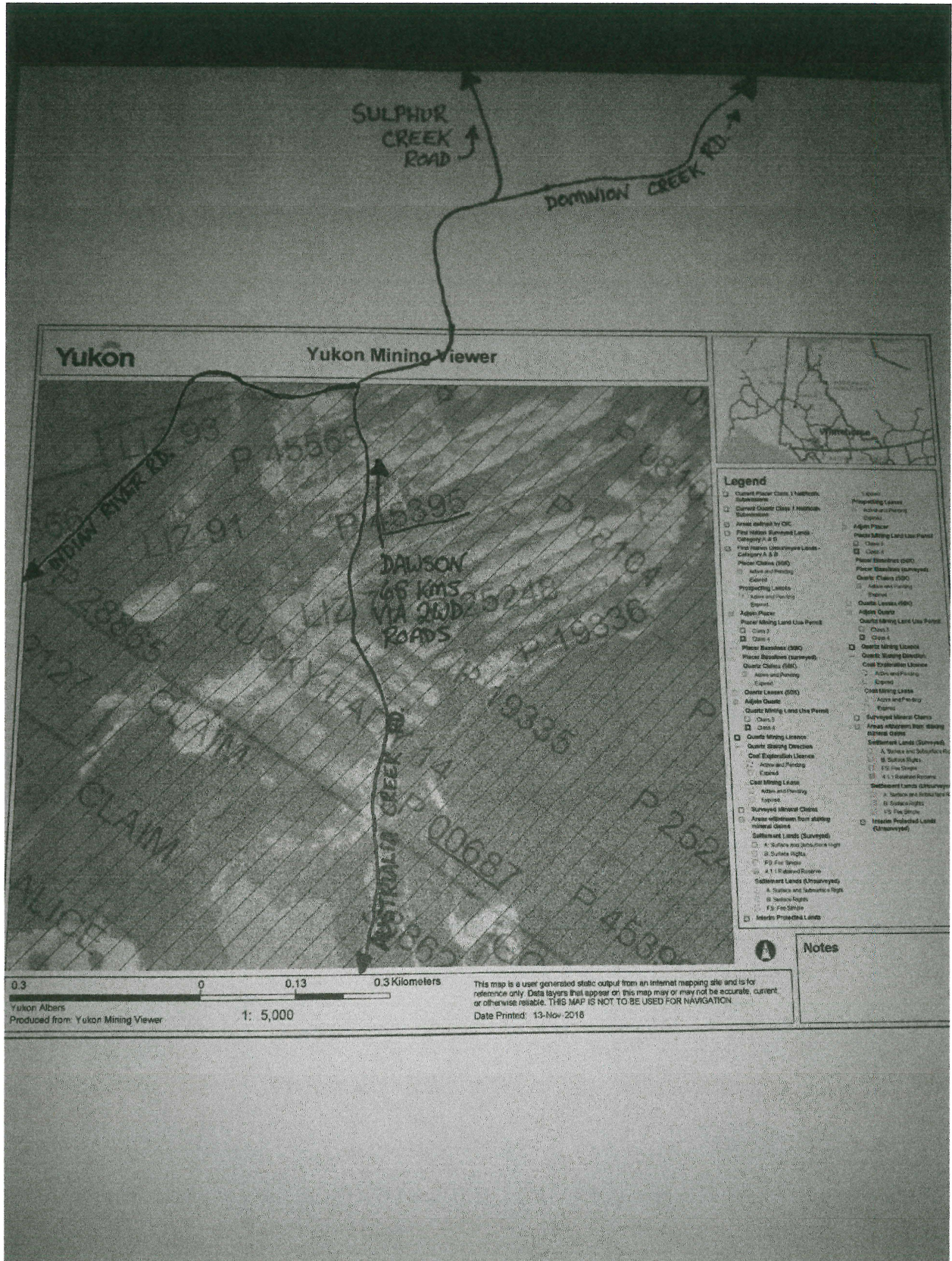


figure 1

Placer Tenure

The Alluvium 2018 exploration target is located on placer claims #P00687 (Lucky Lady 14) and #P45395 (Liz 91). Both of these claims are in good standing until May 2025 under permit number LP00993 and water license number PM14-046, YESAB project number 2014-0160.

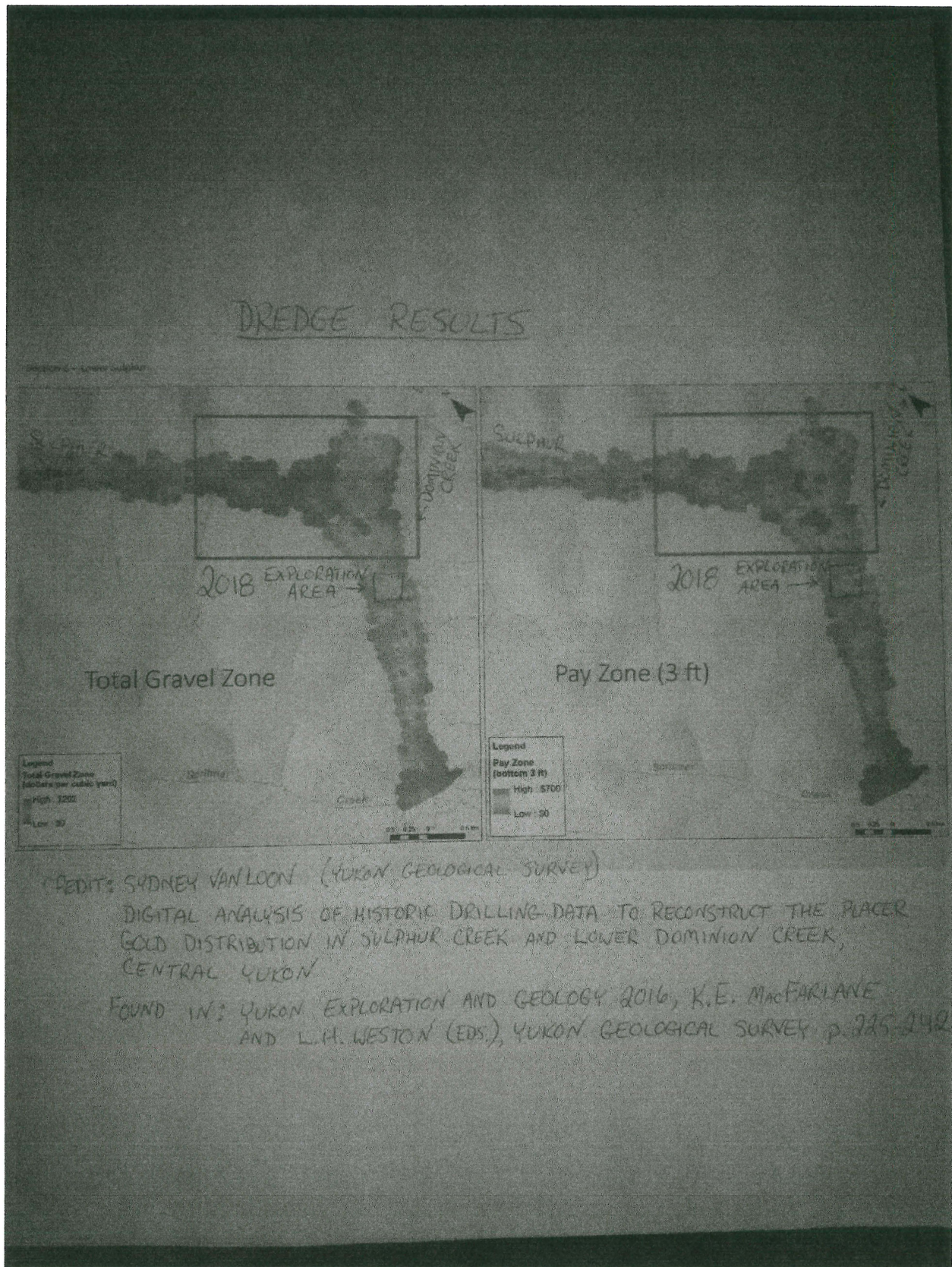
Quartz Tenure

The Alluvium 2018 exploration target is also located on quartz claims with the notification number C1Q00102 and is valid until July 2018.

Mining History

The workings of dredge #6 near the Alluvium 2018 target location are very evident in the 1977 aerial photo #180 of reel A24706. Later aerial photos taken in the 1990's (#191 reel A27664 and #53 reel A28227) show the more modern placer cuts surrounding the historic dredge tailings, excavated in the late 1980's by Mr. John Brown. Figure 2 shows gold recovery from dredge #6 in the Alluvium 2018 target area.

figure 2



2018 Exploration Program

The Alluvium 2018 exploration program was performed using a 1988 Hitachi Ex 200 for overburden removal and reclamation work ; and a 1998 Hitachi Ex 450 to dig into bedrock and overcome ground water inundation from the dredge tailings. Testing on each trench or hole was done periodically using a gold pan and if quantities of gold were found to be substantial, then one cubic yard of gravel ore was hand shoveled into a highbanker sluicebox (with a 2 inch water supply) and results recorded.

As mentioned on page 4 in Dates of Work, Test Trench #1 revealed a virgin strip of Red gravels that were 10 feet deep and 30 feet wide between the dredge #6 cut and Mr. John Brown's cut from the 1980's. Under this layer was found to be a two foot layer of white channel gravels, followed by one foot of heavily decomposed bedrock, then small fractured bedrock which contained very little gold (one to three very small pieces of gold per pan). One cubic yard of the red gravel/ white channel interface from Test Trench #1, hand shoveled into a highbanker yielded .782 Grams of fine gold averaging ~25 mesh in size. While one cubic yard of the decomposed/ fractured bedrock interface, hand shoveled through the same highbanker yielded only .042 Grams of much finer gold. In both tests, visible magnetite, pyrite and garnets were found but just like the gold, much more was found above the decomposed bedrock layer than below it.

figures 3 and 4



Course dredge tailings were encountered 10 feet below previously disturbed sand overburden in Test Hole #1. These dredge tailings were found to be getting finer as the hole was excavated down another 15 feet until solid bedrock was reached. Periodic test panning of the dredge



tailings was performed during excavation, yielding some visible magnetite, pyrite and garnets but zero to one

small pieces of gold per pan. Because of these negative results, no additional highbanker testing was performed. Test Hole #1 measured 40 feet in diameter and was a total of 25 feet deep.

Figure 7



Test Hole #2 saw 10 feet of previously disturbed red gravels (Mr. John Brown's overburden) on top of 12 feet of dredge tailings that got finer as the excavation went deeper until solid bedrock was reached. The previously disturbed red gravels were panned at various levels and although magnetite, pyrite and garnets were evident, only two to three small flecks of gold were found in

each pan. The dredge tailings were also panned periodically, again showing visible magnetite, pyrite and garnets, but very little or no visible gold. Because of these negative results, no further highbanker testing was performed. Test Hole #2 measured 35 feet in diameter and 22 feet deep.

Test Trench #2 was excavated beginning at the Eastern side of Mr. John Brown's 1980's known cut, heading East for 80 feet into known dredge tailings from the mid 1900's. Mr. John Brown's historic cut was composed of silt, which had filled the cut after his mining was complete. The remainder of the trench was composed of 8 feet of Mr. John Brown's organic overburden on top of 12 feet of strictly fine dredge tailings, and then solid bedrock. Again, test panning was performed throughout the duration of trenching and magnetite, pyrite and garnets were present, but only one fleck of gold was found for every two pans tested in the dredge tailings.

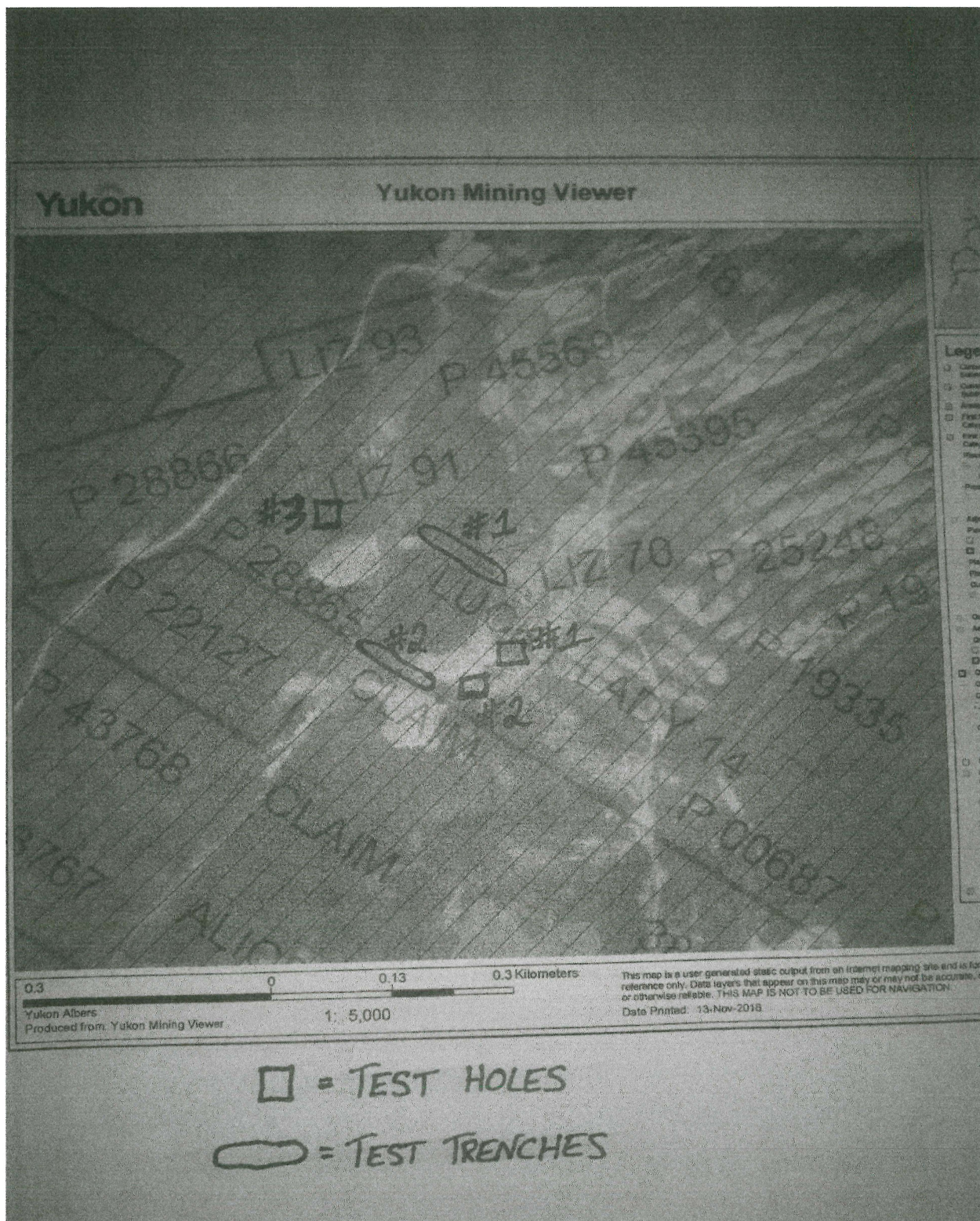


Test Hole #3 was the only 2018 exploration target outside of claim #P00687. It was excavated 300 feet West of Test Trench #1, on the bench claim #P45395. This hole was located on the West side of Mr. John Brown's 1980's known cut and approx. 400 feet away from any known dredge tailings, resulting in very little ground water. This location had 8 feet of undisturbed sand overburden followed by 10 feet of Red gravels, down to a 1 foot layer of decomposed bedrock then finally highly fractured bedrock. Further to the West and up the bench lies virgin gravels with an additional 40 feet of undisturbed sand overburden on top. After panning with good results, one cubic yard from the red gravel/bedrock interface was hand shoveled into a highbanker yielding .327 Grams of fine gold with magnetite, pyrite and garnets prevalent.

Figures 9 and 10



Figure 11



Tables

Table 1

Depth Table

Excavation	Overburden Depth	Dredge Tailings Depth	Red Gravel Depth	White Channel Depth
Trench #1	10'	10'	10'	2'
Hole #1	10'	15'	N/A	N/A
Hole #2	10'	12'	N/A	N/A
Trench #2	8'	12'	N/A	N/A
Hole #3	8'	N/A	10'	N/A

Table 2

Gold grade

Excavation	Gold Per Pan	Gold Per Cubic Yard
Trench #1	20 to 25 colours	.782 Grams
Hole #1	0 to 1 colour	N/A
Hole #2	2 to 3 colours	N/A
Trench #2	0 to 1 colour	N/A
Hole #3	15 to 20 colours	.327 Grams

Table 3

Statement of Costs for Alluvium 2018 Exploration Program

2018 Exploration Program	Rate	Total
Hitachi EX450 Excavator	\$262.50/Hour x 12 Hours	\$3150.00
Hitachi EX200 Excavator	\$150.00/Hour x 66 Hours	\$9900.00
Diesel Fuel for Excavators	\$1.48/Litre x 960 Litres	\$1377.60
Excavator Operators	\$100/Day x 10 Days	\$1000.00
Sampling Person	\$100/Day x 6 Days	\$600.00
4000w Diesel Generator	\$13/Day x 3 Days	\$39.00
2" Gasoline Trash Pump	\$10/Day x 3 Days	\$30.00
Gasoline for Trash Pump	\$10/Day x 3 Days	\$30.00
Writing of Final Report	5% of Exploration Program cost	\$806.33
2018 Alluvium Exploration Program Cost Total		\$16932.93

Conclusion and Recommendations

The Alluvium 2018 Exploration Program proved to be successful in locating remaining untouched placer gold deposits left behind, or missed by both dredge #6 in the mid 1900's and Mr. John Brown's placer operation in the 1980's. This success was attributed solely to the efforts put forth by the Yukon Government over the years via aerial photos being made available to the public online. Although only two of the five test sites were economically viable for modern placer mining operations, the theory of missed placer deposits was proven correct, thus more exploration of the area should be warranted to determine the extent and volume of these gold rich deposits. If in fact the 30 foot wide strip of virgin white channel gravels found in Test Trench #1 is a dam or barrier between the dredge cuts and Mr. John Brown's cuts, then more modern and economical placer methods such as using tracked conveyor systems may be lucrative in this area.

References

Figure 1 – Target area access Credit: Yukon Government Mining Map Viewer

Figure 2 – Credit: Sidney VanLoon (Yukon Geological Survey)

Digital Analysis of Historical Drilling Data to Reconstruct the Placer Gold
Distribution in Sulphur Creek and Lower Dominion Creek, Central Yukon.

Found In: Yukon Exploration and Geology 2016, K.E. MacFarlane and
L.H Weston(Eds.), Yukon Geological Survey p.225-242

Figure 3 – Test Trench #1 virgin red gravel/ white channel.

Figure 4 – Test Trench #1 highbanker with virgin placer gravels

Figure 5 – Reclamation completed on Test Trench #1

Figure 6 – Reclamation completed on Test Hole #1

Figure 7 – Test Hole #1 quickly filled with water after reaching bedrock

Figure 8 – Fractured Bedrock sample from Test Hole #3

Figure 9 – Fine dredge tailings in Test Trench #2

Figure 10 – Test Trench #2 reclamation completed

Figure 11 – Test locations Credit: Yukon Government Mining Map Viewer