

CALDER CREEK PLACER PROJECT

SHAFTING AND TRENCHING

Property Description – Placer Claims	
PM 1-12	P508672 – P508683
PM 13	P515146
DG	P516177
Slide 1-13	P519077-519089
DG 2-3	P517111-517112
DG4-5	P517141-517142
DG-6	P517636
DG 7-9	P517616-517618
DG 10-12	P517637-517639
DG-13,14,15	P519672,520435,520724
Hope 1-3	P518097-518099
Hope 4	P519376

Report By:
Gary Lee
Whitehorse, Yukon
April 2019

Location: 63° 48' N, 139° 10' W
NTS: 115 O 14a
Mining District: Dawson, Yukon
Commodity: Placer Gold

GPS-NAD 83 Zone 7

Shaft Locations: CC-2 590724E, 7075487N
CC-3 590460E, 7075730N
CC-4 590298E, 7075662N
CC-5 590225E, 7075790N
CC-6 590660E, 7077564N
CC-7 590720E, 7077469N

CC-8 590158E 7079273N
CC-9 590241E 7079119N
CC 10 589600E 7075920N
CC 11 590504E 7075479N
CC 12 590335E 7075730N

SUMMARY

Calder Creek is an under-explored placer creek in the Klondike gold fields located 40 km south of Dawson City, Yukon. To date there has been no commercial production from the creek,

Two shafts by Panarc Resources Ltd, yielded insignificant gold returns. Eight separate shafting locations by Gary Lee also yielded insignificant results. Results are inconclusive since one site bottomed out in gravel(CC-4) and could not be deepened due to flooding. Shaft CC-7 needs to be deepened since its present bottom is in black muck at 25 feet 2 inches.

Shafts CC- 3,5,6,8,9,and 11 all bottomed in bedrock with no washed gravels or gold encountered.

Also, sites CC-10 and CC-12 were collared in March 2018. CC-10 was advanced to a depth of 16 feet in black muck. CC-10 was advanced in bedrock from 16 to 20 feet (March 2019) and abandoned. No economical gold values were encountered. Trench-Portal Face CC-12 was advanced on bedrock to a length of 23 feet and a height of 6 feet at the face. It needs to be advanced on bedrock(Klondike Schist) in hopes of encountering washed gravels. No gold was panned.

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1.0 INTRODUCTION

This report describes exploration work for placer gold on Calder Creek (See Figures 1, 2, 3a and 4 and 5 for location)

The program began in April of 2014 with timbering of the top of shaft CC-2. This shaft had reached a depth of 23 feet the year before. However, after studying the muck pile on August 11, with Jeff Bond (YTG Geologist), it was determined that shaft CC-2 had bottomed out in weathered transported bedrock. With no sign of any gravel in the 45 foot deep auger hole 60 feet upstream (CC13-01), it was decided that this location was of low priority.

Shaft CC-3 was collared on June 15, 2014 by Gary Lee and Dimitri Spassov, both from Whitehorse. A TE1500 Hilti electric jack hammer was used to break up the permafrost. It was hauled out by hand with buckets. At the 12 foot mark a tripod and pulley was installed. Buckets were then hauled out by winch. Due to underground water flow the walls began thawing and caving. Consequently, the shaft was timbered with plywood to the 12 foot level.

Mike Power arrived from Whitehorse on June 28. A drill blast operation deepened the shaft(CC-3) to the 23 foot level. Excessive rainfall caused an accelerated deterioration of the walls. At this point the shaft was timbered to the 14 ft. 9 in. level. It was too narrow to timber any further, so it was temporarily abandoned. Figures 2 and 5 show the test site locations. Photographs are in Appendix 3. This was completed and abandoned when the shaft bottomed out in final bedrock at 27 feet.

CC-4 was collared to test the bottom of an old existing cat trench. Bedrock was observed on the lower part of this trench. A total depth of 27 feet (8 ft. high trench plus new 19 ft. deep trench and shaft) was tested before flooding out. After a couple of attempts to deepen it was abandoned in March 2018 due to flooding.

CC-5 was collared on August 9, 2014. This shaft was sunk to a 20 foot depth with no water problems. It is on the northeast exposure in stunted spruce and can be excavated in summer, since the area is permanently frozen to surface immediately under the moss. It ended in bedrock at 24 feet 4 inches and was abandoned.

Shafts CC-6,8,9, and 11 all ended in bedrock and were abandoned.

Shaft CC-7 needs to be deepened since it is in black muck at 25 ft. 2 ins.

Sites CC-10 and 12 were collared in March 2018. Shaft CC-10 was advanced to 16 feet deep and is in black muck. C-10 was advanced in bedrock from 16 to 20 feet (March 2019) and abandoned. Trench-portal face(CC-12) was advanced on bedrock(Klondike Schist) to a length of 23 feet by 3 feet by 6 feet deep. No gold was panned.

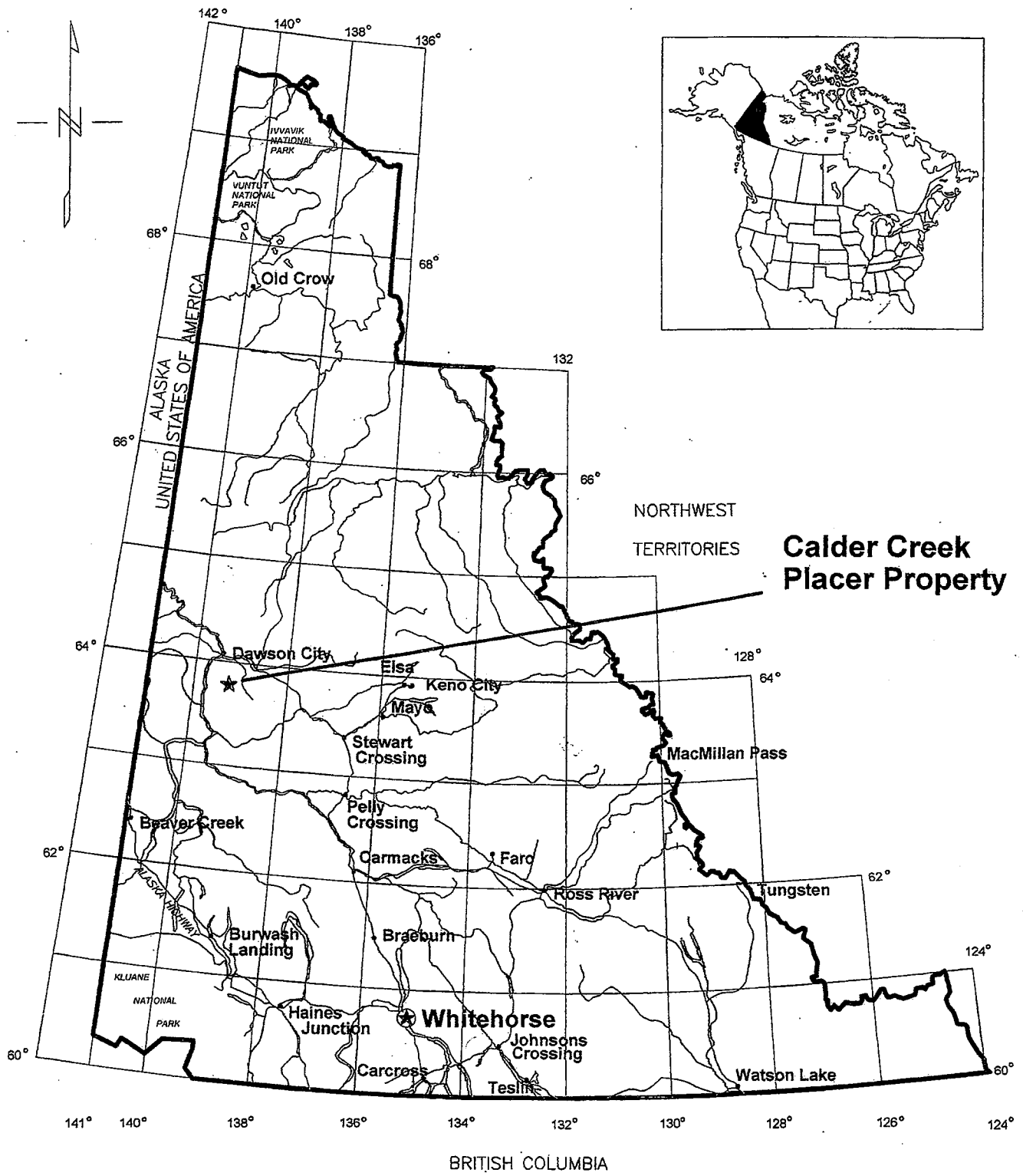
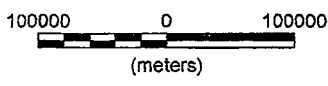


Figure 1
Page 2



CALDER CREEK PLACER PROPERTY	
Figure 1. Property Location Map	
NTS: 115014	Mining District: Dawson
Datum: NAD83	Projection: UTM Zone 7N
Job: PRL-11503-YT	Date: 2015
TO 2018	

Calder Creek Placer Claims Proposed and Existing Shaft Locations

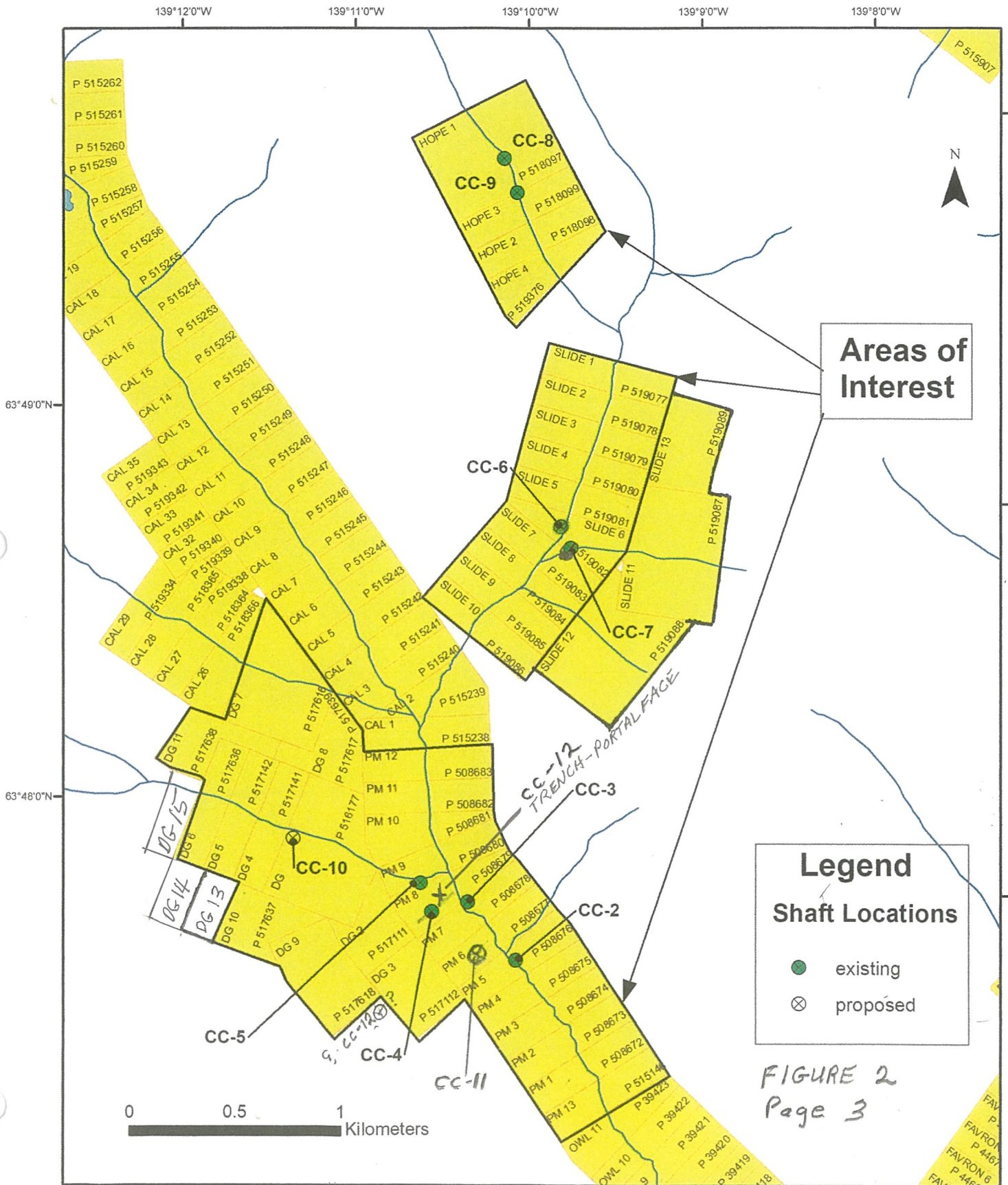
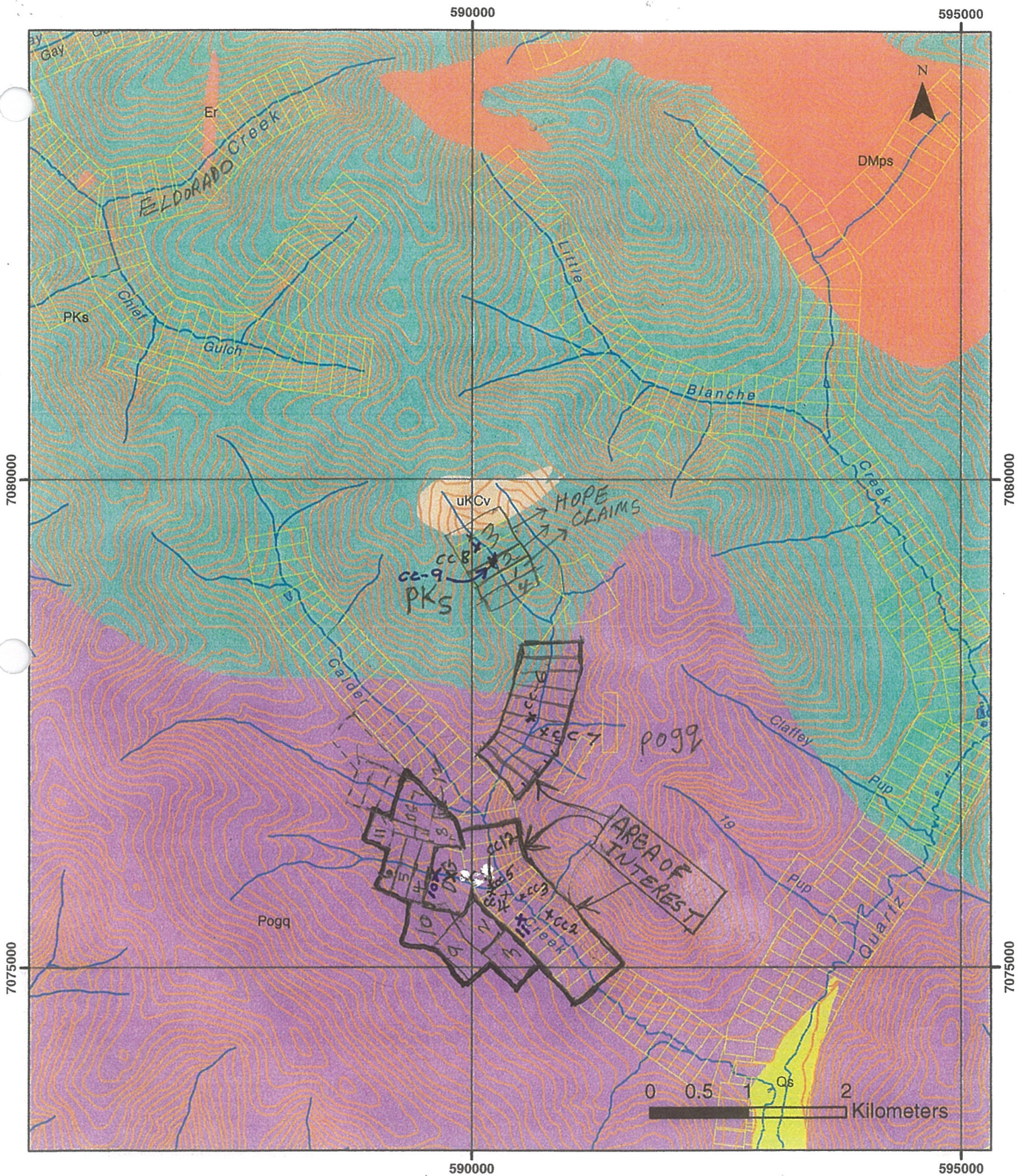


FIGURE 2
Page 3



GORDEY, RYAN 2002 MAP OPEN FILE # 4970

FIGURE 3a
Page 4

Bedrock Geology of Calder Creek area
UTM Zone 7, Nad 83
1:50,000 scale
NTS 115014

Bedrock Geology – Calder Creek area







-  Qs Quaternary: fluvial silt, sand and gravel
-  Er Eocene porphyry: Smokey quartz and K-feldspar phyric rhyolite
to rhyodacite stocks and dykes, and possible rare flows
-  Pogq Permian Orthogneiss: orthogneiss derived from quartz monzonite; refers to highly strained, mafic poor Sulphur Creek orthogneiss
-  PKs Permian Klondike Schist: muscovite-chlorite-quartz-feldspar schist, chlorite schist, chlorite phyllonite; local cleaved lapilli tuff with preserved primary texture
-  uKCv Upper Cretaceous Carmacks Group: rhyodacite and dacite, commonly biotite and hornblende phyric, dominated by lesser andesite and basalt; minor rhyolite
-  DMps Devonian-Mississippian quartz-mica schist: undivided metasedimentary rocks dominated by metapsammite, semipelite and metapelite; commonly quartz-garnet-biotite-muscovite schist possibly derived from siliceous siltstone; commonly finely interlayered with garnet metapelite; commonly contains members of micaceous quartzite; rare conglomerate; grades locally to paragneiss

Figure 3b

Page 5

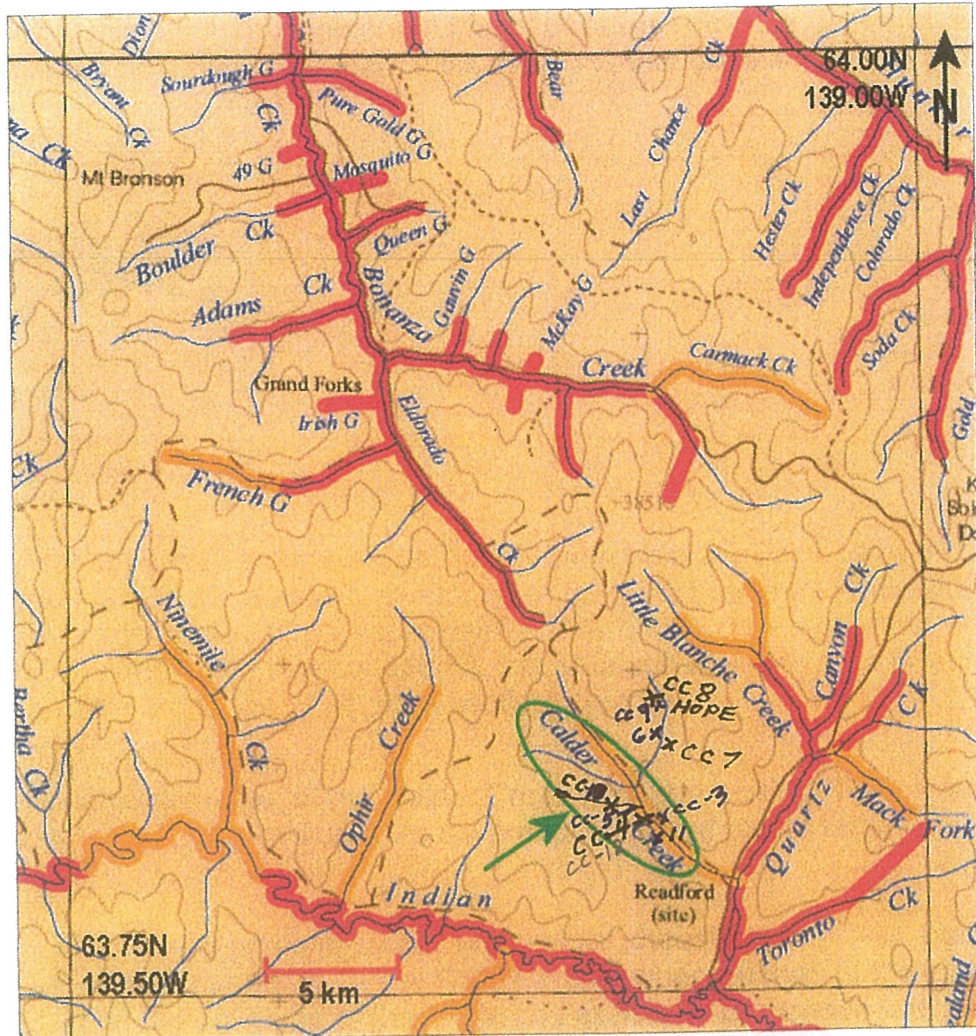


Figure 4. Extract from Lowey *et. al.* (2001) showing placer producing creeks (red) and creeks with known placer occurrences (orange).

FIGURE 4

Page 6

Surficial Geology of Calder Creek

- Ca\Ft: Colluvial apron of loess (muck) over a pre-Pleistocene fluvial terrace
- Cav\Ft: Colluvial apron veneer of loess (muck) over a pre-Pleistocene fluvial terrace (thinner overburden than Ca)
- Cb\Fv: Colluvial blanket of loess and weathered bedrock over a fluvial gravel
- Ca.F\F: Colluvial apron of loess and fluvial fan debris over a fluvial gravel
- F\F: Fluvial fan debris over a fluvial gravel
- Cbv\F: Colluvial blanket/veneer of loess and weathered bedrock (thinner than Cb) over a fluvial gravel

old workings

SHIPPING

CC-7 PROPOSED

Ca\Ft

Ca\Ft

CC-12
CC-11
CC-10
CC-9
CC-8
CC-7
CC-6
CC-5
CC-4
CC-3
CC-2
CC-1

Ca.F\F
F\F
Cb\F

Cbv\F
(BLUE)
PREDICTED
PRE-PLEISTOCENE
CALDER CREEK



CALDER CREEK
PLACER PROJECT
GOOGLE EARTH MAP
NTS 115014 REVISED
NOV. 2014 MAR. 2017
FIGURE 5
SCALE 1:20,000 Page 1



2.0 LOCATION AND ACCESS

The Calder Creek Property is located on Calder Creek, a tributary of Quartz Creek in the southern portion of the Klondike Placer District in the Dawson Mining District, Yukon. The property is centered at approximately 63° 48' N 39° 10' W (Figure 1). The property is 62 km by road from Dawson City with a 4x4 truck. The road route to the property is as follows:

From	Distance (km)	Remarks
Dawson – Hunker Road	14.7	Highway
Hunker Road to Summit	25.6	Maintained gravel road
Hunker Summit to Quartz Creek Road turnoff	7.5	Maintained gravel road
Quartz Creek Road turnoff to Calder Creek road	11.4	Miner's road
Calder Creek Road junction to southern property boundary	3.1	Miner's road

There are open areas on the property which would serve as landing zones for light helicopters. The nearest helicopter charter bases are in Dawson City.

3.0 PROPERTY DESCRIPTION

The Calder Creek Property consists of 45 un-surveyed Placer Claims(Figure 2). :

Table 1: Claim Information

Claim Name	Grant Number	Expiry Date Mar. 2018
PM 1-12	P508672 – P508683	July 3 2031-2034
PM 13	P515146	July 3 2034
DG	P516177	July 3, 2028
Slide 1-13	P519077-519089	June 2 2021
DG 2-3	P517111-517112	July 3 2027
DG 4-5	P517141-517142	July 3 2027
DG 6	P517636	July 3 2027
DG 7-9	P517616-517618	July 3 2027
DG 10-11	P517637-517638	July 3 2027
DG-12	P517639	July 3 2024
DG-13,14,15	P519672,520435,520724	Sept. 15 2019,20
Hope 1-3	P518097-518099	July 20 2023
Hope 4	P519376	Aug. 1 2022

4.0 EXPLORATION HISTORY

The Calder Creek Property is located on Calder Creek, a tributary of Quartz Creek in the Klondike District. The creek has been explored in a cursory and intermittent manner since the discovery of gold in the Klondike, most recently in the 1980's (Laberge, 2002). There is no recorded production in the portion of the creek covered by the claims. G. Lee stated that the last extensive exploration in the area occurred in the 1980's. J Simcox drilled on the upper reaches of Calder Creek above the currently staked claims but reported no significant results. On the lower reaches of Calder Creek, there is a large cleared area and a trench in the upper (red) gravels on the right limit of Calder Creek on the Calder Creek Placer Property. This trench was sited to test an apparent bench gravel southwest of the main channel of Calder Creek. In addition, one old shaft near the main channel of the creek at the upper (upstream) end of the Calder Creek Placer Property was located during the 2012 exploration program. It likely dates from the 1970's based on the artifacts found there. It had no significant muck pile and likely was quite shallow. Eleven shafts were collared between 2012 and 2018 by Panarc and Gary Lee.

GPS-NAD 83 Zone 7

Shaft Locations:	CC-2 590724E, 7075487N	CC-8 590158E 7079273N
	CC-3 590460E, 7075730N	CC-9 590241E 7079119N
	CC-4 590298E, 7075662N	CC-10 589600E 7075920N
	CC-5 590225E, 7075790N	CC-11 590504E 7075479N
	CC-6 590660E, 7077564N	CC-12 590335E 7075730N
	cc-7 590720E, 7077469N	

5.0 PHYSIOGRAPHY AND CLIMATE

The Calder Creek Property is located in the Yukon Plateau on the south flank of King Solomon's Dome. Topography in the area consists of convex, rounded hills and steep, incised creeks at elevations above 500 m and with broader valleys and more gentle creek gradients below this elevation. Elevation on the property ranges from 900 m on the surrounding hills and ridges to 450 m in the lower reaches of Calder Creek. Outcrop is very sparse and bedrock exposures are limited largely to cuts along the access road. Permafrost is common on north facing slopes; no depth to the base of permafrost has been documented in the area.

The property area is covered by black spruce on north facing slopes and a mixture of black spruce and poplars on south facing slopes. Large areas of thick willows and alders are found in the creek bottoms in burned over areas. The property is below tree line which occurs at about 1000m in this area.

The climate in the property area consists of long, cold winters, short hot dry summers and short spring and fall seasons. At Dawson City, the closest nearby community, average monthly temperatures range from -22.5C in January to +23.1C in July. The area receives annual precipitation of 32.4 cm of rain and snow (rain equivalent) (Environment Canada, 2011).

6.0 REGIONAL BEDROCK GEOLOGY

The regional geology in the property area is summarized by Gordey and Ryan map - open File #4970. The property lies in the Yukon-Tanana Terrane of the Cordillera, south of the Tintina Fault. The following surficial units and bedrock formations are mapped in the property area: Figures 3a and 3b describe the bedrock geology. Regional map (open file #4970) shows area of interest consisting of Permian Orthogneiss: orthogneiss derived from quartz monzonite; refers to highly strained mafic poor Sulphur Creek orthogneiss (Pogq). Outcrops are few and far between. The above description applies to area (in old trench) below target CC-4 where bedrock (orthogneiss) was observed. However, the weathered transported (weathering rinds) bedrock on bottom of shaft CC-2 is possibly a rhyolitic type of rock. This could either be an Eocene porphyry (...K-feldspar) phyrlic rhyolite (Er) or an Upper Cretaceous Carmacks Group: rhyodacite and dacite commonly brotite and hornblende phyrlic, dominated by lesser andesite and basalt; minor rhyolite (ukCv) – Derek Torgerson and Lara Lewis (YTG geologists – 2014 pers. Comm.). Transported weathered bedrock (Jeff Bond-YTG geologist pers. Comm.) consisting of muscovite schist was noted on the bottom of shaft CC-3. The corresponding geological unit to this on Figure 3b & 3a is Permian Klondike Schist (PKs). Obviously the last two units have not been mapped on the Gordey map (open file #4970) at the shaft locations due to lack of outcrops in the area. It is unknown as how these varying bedrock units are related to the possibility of placer gold deposition. Shaft locations can be found on Figures 2 and 5.

7.0 PLACER EXCAVATIONS AND SURFICIAL GEOLOGY

Figure 4 on page 6 (Lowey's map) shows the producing placer gold creeks surrounding Calder Creek. Calder Creek is shown to have gold occurrences. However, it has never seen commercial production. It also shows its headwaters with Eldorado Creek which was the richest gold producer in the Klondike. Calder Creek is under explored (reconnaissance has shown large areas with no sign of past exploration such as old shaft dumps).

Figure 5 on page 7 shows surficial geology of Calder Creek area overlain on a google earth map (Jeff Bond-YTG Geologist). Most of shaft CC-2 encountered a colluvial apron of loess and fluvial fan debris (Ca Ff/F). Rounded fluvial gravel seems to be absent from shaft CC-2 (Power, Mar 14, 2013-shaft log). Also, no gravel was encountered in the two auger holes 60 ft. (CC13-01) and 120 ft. (CC 13-02) upstream from CC-2. CC13-01 was 45 feet deep and CC13-02 was 21 feet deep. It is speculated that CC13-02 could not penetrate the hard bedrock at the depth of 21 feet.

Shaft CC3 did hit some sandy rounded gravels as indicated by the excellent aquifers the gravels made causing flooding problems. This shaft hit weathered transported bedrock (Jeff Bond-YTG Geologist) composed of muscovite schist(2015-see CC-3 log in appendix). The muscovite schists contained sub-

rounded clasts of schist(20-23feet) indicating this rock unit is not in place. This shaft was deepened in order to hit final bedrock between 23 to 27 feet consisting of muscovite schist bearing Az,117° dipping 80°E(see photos). This is considered final bedrock.

The predicted Pre-Pleistocene Calder Creek centre line (in blue) is shown on J. Bond's map on page 7 figure 5. Shaft CC-5 "is perhaps the most important location because this is where a Calder Creek tributary has incised through the entire width of the bench. If there is a pay streak located near the Pre-Pleistocene centre-line on the bench, this tributary would have concentrated the pay streak as it cut through the bench" (Bond, J.). This bench is described as Ca\Ft in Figure 5. Shaft CC-5 hit rusty red gravels at 19 feet 3 inches and was deepened. Shaft CC-5 is permanently frozen to surface, hence can be sunk in summer provided efforts are made to insulate the collar. Photographs in appendix 3 show CC-5 located in an area of stunted spruce on the northeast exposure. In 2016 CC-5 hit final bedrock between 22 feet 5 inches and 24 feet 4 inches with a bedding plane of Az. 130 (310) dipping 78-82 W. It was abandoned with no gold encountered.

Site CC-4 was excavated in the bottom of an existing old cat trench. Parts of this trench are visible on the google earth map on page 7 Figure 5. CC-4 consists of an old cat trench 8 feet deep, combined with new hand dug trench (2014) to a total depth of 12 ft. 6 inches. It was then reduced to shaft size (36 in. x 42 in.) and deepened from 12 ft. 6 in. to 27 ft. before becoming flooded (2015). Being an old stripped area, the permafrost thawed down and acted like a big funnel (see pictures in appendix) channeling the water into the shaft via an aquifer (silty sand gravels). Appendix 1 has the log for site CC-4. Two significant gold colours were panned at the 4 foot to six foot six inch level. A bulk test was then taken with a "high banker" sluice box and pump. The above results could not be repeated. Testing in various places along the existing cat trench should be repeated. Very, very small colours (too small to measure or weigh) were encountered in gravels continuously from the 10 ft. to 15 ft. level. It was deepened and was abandoned due to caving and flooding!!

Shaft CC-6 was located in order to test the 1 Mile Lease(Slide 1-10 claims) at its midpoint. It encountered black muck with high water content 0-9 feet., angular chunks of orthogneiss to 11 feet and from 11 to 17 feet hit final bedrock. It was abandoned with no gold found.

Shafts CC-6 to CC-9 were sunk on the left limit tributaries of Calder Creek. Shaft CC-6 ending in bedrock at 17 feet during the summer of 2016. No gold was panned. Shaft CC-7 was sunk to 25 feet 2 inches in 2017. It is still in black muck with no sign of final bedrock. It needs to be deepened. No gold was panned thus far. Shaft CC-8 was sunk to 6.0 feet during the summer of 2017. It bottomed in hard bedrock. No gold was panned. Shaft CC-9 was sunk to 9 feet 2 inches in 2017 and also bottomed out in hard bedrock. No gold was panned. Shaft CC-11 also bottomed out in bedrock with no gold found. See Figure 2 and appendix 1-3 for locations,technical logs,crew logs and photos.

Shaft CC-10 was sunk to 16 feet in black muck with occasional large rounded boulder(see photo in appendix). It was advanced in bedrock from 16 to 20 feet (March 2019) and abandoned. No economical gold values or washed gravels were encountered. Some bedrock samples have quartz veinlets with pyrite and should be assayed for gold.

Trench- Portal Face CC-12 was excavated on the top edge of the rim down from abandoned shaft CC-4(see Figures 2&5) and is near an old Cat Cut. CC-12 was excavated on soft Klondike Schist bedrock and is being driven southwest into the hill side following on bedrock. The location for CC-12 was chosen since CC-4 had to be abandoned due to flooding before reaching bedrock. Panning on bedrock has yielded no washed gravels or gold thus far. See photos in appendix.

All work was done with hand held tools.

8.0 SAMPLING AND TESTING FOR PLACER GOLD

Ten litre (1/2 a 20 litre pail) samples were taken at intervals every one-to- one and a half foot depth in each shaft. These samples were washed and screened down to a minus 1 eighth of an inch screen. Oversize was inspected for any coarse gold. Undersize was panned down to a point where heavies such as black sand and fine colours could be distinguished. All gold would be counted, measured, and weighed; if sufficient size and quantity was encountered.

9.0 CONCLUSIONS AND RECOMMENDATIONS

- 1) Shaft CC-3 bottomed out (27 ft. level) in muscovite schist bedrock. It hit final bedrock between 23 and 27 feet. No gold was encountered and it was abandoned.
- 2) Shaft CC-4 is presently in gravel and was abandoned due to caving and flooding. The upper 4 ft. to 6 ft. 6 in. level of the old trench (CC-4) should be retested for placer gold. Trench-portal face CC-12 nearby and to the north was collared in March in order follow along and test bedrock bench.
- 3) Shaft CC-5 was a good target and hit gravels at approximately the 20 foot level. This shaft hit final bedrock between 22.5 and 24.4 feet. No gold was panned and was abandoned.
- 4) Shaft CC-6 was collared at 590660E, 7077564N in order to test the mid-point of the Slide 1-10 claims. Orthogneiss final bedrock was encountered between 11 to 17 feet. No gold was panned and it was abandoned.
- 5) Shaft CC-7 was proposed to test the opposite bench(left limit) from the Above CC-6 shaft location. It was sunk to 25 feet 2 inches. It is still in black muck and should be deepened to final bedrock. No gold has been panned thus far.
- 6) Shaft CC8 and CC-9 tested the upper head waters on the left limit tributary of Calder Creek. They both hit hard bedrock. No washed gravels or gold was encountered. They were abandoned.
- 7) CC11 hit bedrock at the 8 feet 8 inch level and was abandoned. No washed gravels or gold was panned.
- 8) Test Site CC-12 on the right limit bench of Calder Creek was collared in March (2018) and should continue to be advanced. CC-10 needs rock assays.

10.0 REFERENCES CITED

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Tyrell, J.B. 1912. The law of the pay-streak in placer deposits. Institution of Mining and Metallurgy Transactions Vol. 21. Pp593-613.

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Power, Mike March 14, 2013 Placer Exploration Program at the Calder Creek Property, Klondike Area, Yukon Territory.

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Lee, Gary April 2015 Calder Creek Placer Project
Shafting and Trenching

Lee, Gary July 2018 Calder Creek Placer Project
Shafting and Trenching

APPENDIX I

TRENCH AND SHAFT LOGS

APPENDIX 1

CALDER CREEK PROJECT – Shaft CC-3 NAD 83
 Log of Shaft CC-3 GPS 590460E, 7075730N ZONE 7

To July 10, 2014 (Depth 23 ft.) → MAY 12, 2016 DEPTH 27 ft.

DEPTH FT.-IN. FROM - TO	MATERIALS DESCRIPTION (SHAFT CC-3)	GOLD	NOTES
0 - 0'3"	Organics – Humous, Moss	Nil	
0'3" – 1'6"	Yellow-brown sticky clay ('gobs') with 30% up to 1 inch rounded and subangular micaceous pebbles, occasional rounded " quartz pebble	Nil	
1'6" – 2'0"	Black muck (root matter) with small wood pieces	Nil	
2'0" – 2'6"	Brownish yellow gravel with clay matrix, has rounded pebbles	Nil	
2'6" – 4'0"	Brown clay soil – all fines no rock or wood	Nil	
4'0" – 6'0"	Fine brown semi-dry clay soil (no rocks)	Nil	
6'0" – 9'0"	Grey fine semi-dry soil – all fines – no rocks, no wood	Nil	
9'0" – 10'9"	Brown gravel with coarse sandy matrix on Jun 19 made a little water; up to 4in. angular rocks plus some 4 in. rounded quartz rocks, up to 10% old splintered wood	Nil	Thawed
10'9" – 11'5"	Medium to coarse sandy matrix with up to 2 in. rounded quartz pebbles and sub-rounded other rocks, 30% old splintered wood, on June 20 made about 5 litres water	Nil	Thawed
11'5" – 12'2"	Brown sandy gravel with 20% rounded (2" to 6") pebbles; making water	Nil	Thawed
12'2" – 13'0"	Black root mass (black muck) with 10% wood chunks	Nil	?
13'0" – 14'9"	Brown sandy silty gravel with 10-20% rounded flat pebbles (2 in. to 3 in.0)	Nil	?
14'9" – 19'0" Permafrost	Brown fine silty sandy matrix (occasionally a little wood), 15-20% rounded and angular rocks roughly 3-4 in., 1-2% rounded quartz pebbles, at 16 ft., flow direction towards creek	Nil	September – August Walls started freezing back when flooded PERMAFROST
19'0" – 19'8" Permafrost	50% large (up to 10' x 12") rounded boulders, matrix is coarse sand and small pebbles	Nil	
19'8" – 23'0" Permafrost	Fine soft weathered muscovite schist, ie: transported weathered bedrock colluvium (Klondike Schist) with the large boulders sitting on top (19'0"-19'8") of this schist unit, it could be confused with bedrock; it is best described as a grey-brown very poorly sorted fine matrix supported gravel (?). Clasts consist of soft crumbly sub-rounded to sub-angular flat muscovite schist, <i>BLASTING LEFT RUBBLE PILE-MATRIX COULD BE START OF FINAL BEDROCK</i>	Nil	
<i>BEDROCK-FROZEN 23'0" - 27' BEDROCK PLANE AZ 117° DIP 80°E</i>	<i>GREY TO SILVERY MUSCOVITE SCHIST SOFT, FLAKY - CRUMBLES TO MUSH WHEN THAWED. WHEN FROZEN HAS CONSISTANT SCHISTOSITY PLANE OF 117° DIP 80°E → Large 1/8" Py CUBES PANNED SEE PHOTOS-APPENDIX</i>	<i>Nil</i>	<i>PERMAFROST FINAL BEDROCK</i>

APPENDIX 1

**CALDER CREEK PROJECT
Log of CC-4 (Trenching with Shaft in Bottom)
GPS (NAD 83, Zone 7) 590298E, 7075662N**

DEPTH FT.- IN. INTERVAL	MATERIALS DESCRPTION	GOLD	NOTES
0 to 4 ft.	Colluviated fluvial gravel with long transported weathered bedrock (gneiss) and loess, 50% matrix (silt and sand), 50% clasts – pebble cobble gravel largest clasts in rafting near surface say at 20 cm immediately under the humous, matrix gets silty up towards top ie. Gets sandier as one goes down	Nil	Part of existing trench wall
4 ft. to 6 ft. 6 in.	Pebble cobble gravel clasts sub-angular to sub-rounded, 70% clasts, 30% matrix is coarse sand and gravels moderate to well sorted, well oxidized (rusty red) clasts are gneiss, quartz and schist	2 Colours .6mmx.7mmx 2mm .2mmx.2mmx.1mm	Part of existing trench wall, bulk sample yielded no colours
6 ft. 6 in to 10 ft.	Organics plus slide material from existing trench walls, consists of mixture of above gravels; in situ gravel is untested	Nil	New hand dug trench 4ft.x3ft. at bottom of old trench
10 ft. to 10 ft. 6 in.	Brownish sandy gravel minor silt, up to 4 in. rounded cobbles. Upper contact of this moderately well sorted layer indicates start of virgin material.	Nil	New hand dug trench 4ft.x 3ft. at bottom of old trench
10 ft.6 in. to 11 ft. 6 in.	Brown sandy gravels, minor silt, up to 6 in. rounded cobbles	1 very, very small colour (could only be seen with 10x lens)	New hand dug trench 4ft.x 3ft. at bottom of old trench
11 ft. 6 in. to 12 ft. 6 in.	Tan colour silty sandy gravel with up to 3 in. diameter rounded pebbles	1 very small colour plus garnet and black sand	New hand dug trench 4ft.x 3ft. at bottom of old trench
12 ft. 6 in. to 13 ft. 6 in.	Brown silty sandy gravels, 20% rounded rocks up to 10 in. in diameter, sticky silty clay stuck to some of the rocks	2 very, very small colours plus garnets and black sand	Reduced to shaft size (36 in. x 42 in.)
13 ft. 6 in. to 15 ft.	Wet sandy silty rusty brown gravel 20-30% rounded clasts up to 4 inches in diameter, one rounded boulder was 15 in. in diameter	2 very, very small colours plus black sand	Reduced to shaft size (36 in. x 42 in.)

APPENDIX 1

**CALDER CREEK PROJECT
Log of CC-4 (March 2015)
GPS (NAD 83, Zone 7) 590298E, 7075662N**

DEPTH FT.-IN. INTERVAL	MATERIALS DESCRIPTION	GOLD	NOTES
15 ft 0in. to 15 Ft 10 in.	Rusty brown silty sand with 10% rounded 2-5in. orthogneiss rocks + 7in rounded quartz cobbles 20% angular to sub angular orthogneiss rocks (1-4in in diameter)	1 colour Thin 1mm in diameter	Quarter size area of black sand
15 ft. 10in. to 17 ft. 0 in.	Brown rusty sandy silt with 30% rounded orthogneiss rocks up to 4in in diameter. 10% angular to subangular (1to 4in) orthogneiss rocks. Sticky clay on pebbles and cobbles Two large (15in long) rounded boulders (granitic??)	Nil	Dime size area of black sand
17 ft. 0 in to 18 ft. 6 in.	Brown silty sand 20-30% rounded and angular orthogneiss rocks (1/2 to 4in), 4 large (up to 15in) boulders both quartz and orthogneiss	1 colour Thin 1/4mm in diameter	Dime size area of black san
18 ft. 6in to 19 ft. 1 in.	Brown silty sand, more sand than upper levels, 20% rounded to sub angular 1-4 in. corks (orthogneiss) no boulders.	3 colours Less than 1/5 mm in diameter, thin	Dime size area of black san
19 ft.1 in. to 20 ft. 4 in.	Brown silty sand with 20% rounded to sub-rounded rocks (orthogneiss) 1 to 4 in diameter	Nil	Quarter size area of black sand
20 ft. 4 in. to 21 ft. 11 in.	Brown silty sand with some rusty brown areas. 20% rounded to subrounded 1-4in. diameter orthogeniss rocks. 4 rounded 5-7 in diameter quartz cobbles.	1 colour thin 1/5mm in diameter	Quarter size area of black sand
21 ft. 11 in. to 22 ft. 7 in.	Brown silty sand with small rusty brown areas. 20% round and sub-rounded orthogneiss rocks (.1 to 4in diameter), 2 flat 6-7in. sub angular orthogneiss rocks	1 very small colour	Almost no black sand
22 ft. 7 in. to 24 ft. 0 in.	Brown silty sand with occasional rusty area. 20% rounded to sub-rounded 1-4 in. orthogneiss rocks. 1 round 4in quartz rock.	Nil	Very little black sand, thawed
24 ft. 0in To 24 ft. 8 in.	Wet brown silty sand, some rusty areas, 30% round to sub-rounded and sub 1-5 in. orthogneiss rocks 1 round 4 in. quartz rock	Nil	Thawed wet 1/2 Dime size black sand
24 ft. 8 in. To 25 ft. 3 in.	Brown silty sand with 20% 1-3 in. diameter rounded and sub-angular orthogneiss rocks (less rock over 1in. diameter)	Nil	Thawed water in bottom 1/2 dime black sand
25 ft. 3 in. To 25 ft. 8 in.	Brown silty sand 30% round to sub-round 1-3 in. diametr orthogneiss rocks + 1-3 in. round quartz rocks	1 very small colour	Thawed wet 1/2 dime size black sand

APPENDIX 1

CALDER CREEK PROJECT
Log of CC-4 (March 2015)
GPS (NAD 83, Zone 7) 590298E, 7075662N

DEPTH FT.-IN. INTERVAL	MATERIALS DESCRIPTION	GOLD	NOTES
25 ft. 8 in. To 26 ft. 3 in.	Brown silty sand 30% rounded to sub-rounded 1-4 in. diameter orthogneiss rocks	Nil	Thawed wet 1/2 dime size black sand
26 ft. 3 in. To 27 ft. 0 in.	Brown silty sand 30% rounded to sub-rounded 1-4 in. diameter orthogneiss rocks	Nil	Thawed wet 1/2 dime size black sand

NO SIGN OF BEDROCK WHEN FLOODING OCCURRED - CAVE

ABANDONED

APPENDIX 1

CALDER CREEK PROJECT
 Log of Shaft CC-5
 GPS (NAD 83, Zone 7) 590225E, 7075790N

DEPTH FT.-IN. INTERVAL	MATERIALS DESCRIPTION	GOLD	NOTES
0 ft. 0 in. to 6 in.	Moss and roots	Nil	Northeast exposure stunted spruce shaft collar 46in. x 40in.
6 in. to 2 ft.	Brownish grey clayey silt, no rocks	Nil	
2 ft. to 3 ft. 6 in.	Brown silty sandy gravel both small angular and rounded pebbles and clasts up to 8 inches in diameter 1-2% rounded quartz	Nil	
3 ft. 6 in. to 4 ft. 10 in.	Deep rusty red sandy, silty gravel; lots of both rounded and angular pebbles; occasional rounded quartz cobbles up to 5 in.	Nil	
4 ft. 10 in. to 12 ft.	"Black muck" grey-black silty clayey muck, not rocks	Nil	
12 ft. to 15 ft. 6 in.	"Black muck" grey-black silty clayey muck, 50% water (ice), 5% pebbles sub-rounded to angular	Nil	
15 ft. 6 in. to 19 ft. 3 in.	Grey-black muck very fine matrix (clay) no sand or silt, pans to 10% pebbles less than 1/2 in. diameter; most pebbles angular with some sub-angular; occasional sub-rounded quartz pebble and minor rounded wood under 2 in. High water content (30-50% by volume) when thawed.	Nil	
19 ft. 3 in. to 20 ft. 1 in.	Rusty red sandy silty gravel, 30% small pebbles both angular and sub-angular, occasional rounded quartz pebbles and large cobbles up to 5 in. diameter, occasional round wood fragment under 2 in. diameter. Pebbles and cobbles consist of gneiss, schist and quartz. It is classed as an immature gravel.	Nil	
20ft. 1in. to 22ft. 5in.	<i>90% angular orthogneiss, less than 10% under 2 in. pebbles some quartz 1 large rounded orthogneiss boulder (12") Matrix is grey brown silty gravel.</i>	<i>NIL</i>	
22ft. 5in to 24ft. 4in	<i>Grey angular orthogneiss bedrock no rounded foreign rocks Bedding Plane (orthogneiss) = $A \approx 130^\circ (310^\circ)$ DIP $78-82^\circ$ W. End</i>	<i>NIL</i>	

APPENDIX 1
 CALDER CREEK PROJECT
 LOG OF SHAFT CC-6 (ON 1 MILE LEASE)
 GPS (NAD 83, ZONE 7) 590660E, 7077564N

DEPTH INTERVAL Ft. in.	MATERIALS DESCRIPTION (SHAFT CC-6)	GOLD
0 to 9ft	Black Muck, clay size, high water (dec) content, 99% does not settle when panned.	NIL
9ft. #0 9ft. 6in.	30% angular orthogneiss 2% angular quartz Matrix-high ice content and unsettleable fines when panned	NIL
9ft. 6in to 10ft. 6in.	70% angular orthogneiss 5% - 6 in. diameter angular rocks matrix-ice and unsettleable fines	NIL
10ft. 6in. to 11ft. 0 in	80% over 1/8 in. angular orthogneiss matrix-tan colour, high ice content (5-10%) - fines are nonsettleable	NIL
11ft. 0 in to 17ft. 0 in.	Orthogneiss final bedrock BOTTOM OF SHAFT CC-6 17.0 FT.	NIL

APPENDIX 1
 Calder Creek Project
 Log of Shaft CC-7 (Page 1 of 3)
 GPS (NAD 83, ZONE 7) 590720E, 7077469N

DEPTH-FT.-IN. INTERVAL	MATERIAL DESCRIPTION CC-7 (PANNING)	GOLD	NOTES
0-1 ft.	all % listed is per cent of the total sample remaining on pan Organics (thick moss), roots with small amount of soil	NIL	2017
1 ft. to 7 ft.	Black muck → 1-5% organics (sticks, roots etc.) on + 1/8" in. screen; - 1/8" screen 5 to 10% fine grained sand (.85-90% dissolved and floats away)	NIL	2017 Trace of Black Sand
7 ft. to 7 1/2 ft.	Black muck with chunks ranging from 3-10 in. of soft rotten orthogneiss rock + 1/8" screen 30% root matter and orthogne. rock (sub angular); - 1/8" screen 50% sub angular orthogneiss rock a few round qtz. pebbles (< 1 in.)	NIL	2017 Trace of Black Sand
7 1/2 ft. to 9 ft.	Black muck same as 1 ft to 7 ft.	NIL	
9 ft to 10 ft.	mixture of soft rotten chunks of orthogneiss rock (< 1 ft. ⌀) plus black muck plus root matter 30% of total volume retained on 1/8 in. screen. 50% passes 1/8 in screen (rest floats away) most sub, angular orthogneiss rock	NIL	2017 Minor Black Sand
10 ft to 11 ft.	10% retained on 1/8" screen consists of angular orthogneiss (< 1") and a few sub-angular qtz. pebbles (< 1/2") 40% passes 1/8" scr. consist of < 1/4" angular orthogneiss + sub ang qtz pebbles (< 1") rest dissolves and floats away	NIL	2017 MINOR BLACK SAND

APPENDIX 1
 Calder Creek Project
 Log of shaft CC-7 (Page 2 of 3 cont'd)

DEPTH INTERVAL ft. - inches	MATERIAL DESCRIPTION (PANNING) CC-7 (Cont'd)	GOLD	NOTES
11 ft to 12 ft.	+ 1/8 in. screen = 10% < 1 in. chunks of angular orthogneiss (< 1 in) + root matter - 1/8 in. screen panned to 20% of total sample consisting angular sand size orthogneiss remaining 70% dissolves and floats away (black muck)	NIL	2017 1/4 teaspoon Black sand
12 ft to 13 ft.	+ 1/8 in. = 20% chunks (< 6 in.) of soft weathered orthogneiss in black muck plus 5% root matter, sticks etc. - 1/8 in. = 20% angular orthogneiss over 50% in pan dissolves and floats away (Black Muck)	NIL	2017 Very little Black sand
13 ft to 14 1/2 ft.	Soft weathered chunks (6 in) of orthogneiss in black muck. + 1/8 in = 10% angular rock and root matter + 1 sub round gtz (3 in.) - 1/8 in = 10% angular orthogneiss 80% pan dissolves & floats away (Black Muck)	NIL	2017 Little Black sand
14 1/2 ft to 15 ft.	+ 1/8 in = 5-10% angular orthogneiss rock + root matter. - 1/8 in. = angular rock	NIL	2017 Little Black sand
15 ft. to 15 ft. 8 in	Large (10 in.) angular chunks of orthogneiss rock + 1 in. rock (20%) 10% root matter - 1/8 in. 30% sand + angular orthogneiss high % dissolves and floats away (Black Muck)	NIL	2017 Little Black sand
15 ft 8" to 16 ft. 1"	+ 1/8" = 20% angular orthogneiss plus root matter. - 1/8" = 50% sand with up to 1" angular rock. 30% dissolves in pan and floats away (black muck)	NIL	2017 a little black sand
16 ft 1" to 17 ft 1"	+ 1/8" = 15% angular orthogneiss plus minor root matter (< 5%) - 1/8" = 50% sand plus angular rock remaining dissolves and floats away (Black Muck)	NIL	2017 little black sand

APPENDIX 1
Calder Creek Project
Log of shaft CC-7 (Page 3 of 3)

DEPTH INTERVAL FT. - INS.	MATERIAL DESCRIPTION (PANNING) CC-7 (Cont'd)	GOLD	NOTES
17ft. 1" to 17ft. 8in.	+1/8 in. screen = 5% root matter plus 10% angular orthogneiss rock up to 1" dia. -1/8" screen = 50% sand + angular orthogn. rock	NIL	2017 MINOR BLACK SAND
17ft. 8" to 18' 4"	+1/8" = 10% root matter plus angular orth. rock -1/8" = 30% sand + orthogn rock + black muck	NIL	MINOR BLACK SAND
18ft. 4ins. to 19' 8"	+1/8" = 20% root matter + 5% angular ortho. rock; -1/8" = 40% sand + angular ortho. rock + Black Muck	NIL	MINOR BLACK SAND
19' 8" to 20' 10"	North side - hard junks (1ft.) of orthogn. rock; +1/8" = 50% 4" dia. pieces of orthogn. rock (angular) + 5% root matter -1/8" screen = 40% sand + angular rock	NIL	2017 Minor Black sand
20' 10" to 22ft.	+1/8" screen = 50% 4" dia angular orthogn. + 5% root matter; -1/8" screen = sand plus angular orthogn. rock + Black Muck	NIL	2017 Minor Black sand
22ft. to 22' 8"	+1/8" = 50% large (6in. ϕ) chunks of angular orthogn. rock + 10% root matter -1/8" = 30% sand and angular rock + 10% Black Muck	NIL	2017 a little Black sand
22ft. 8" to 23' 1"	+1/8" = 70% up to 5" ϕ angular orthogn. rock; -1/8" sand + angular rock	NIL	a little Black sand
23' 1" to 25ft. 2"	Black Muck with some angular orthogneiss rock + root matter; +1/8 in. screen = 20% of equal angular rock and root matter; -1/8" = 50% sand and angular orthogn. rock. 30% floats away (Black Muck)	NIL	2017 Trace of Black sand
	SHAFT CC-7 NEEDS TO BE SUNK DEEPER		

APPENDIX 1
 Calder Creek Project
 Log. of shaft CC-8
 GPS (NAD 83, ZONE 7) 590158, 7079273N

DEPTH INTERVAL FT. - INS.	MATERIALS DESCRIPTION (PANNING) CC-8	GOLD	NOTES
0 to 1ft 1ft to 3.0ft	Organics, (moss, roots) Black Muck 70% + 1/8" screen 20% root matter and orthogneiss rocks up 2 in diameter 50% disches & floats away - 1/8 in. screen mostly disches and floats away minor angular rock and sand	NIL	2017
3.0 to 4 1/2 ft.	+ 1/8" - 75% angular orthogneiss rock up 5 in dia. - 1/8 in. angular schistic rock fragments, sand and mica	NIL	almost no black sand
4 1/2 to 6.0 ft.	Fresh hard angular orthogneiss bedrock. Too hard to penetrate with Hilti Jackhammer. - BNO	NIL	

APPENDIX 1
 Calder Creek Project
 Log. of shaft CC-9
 GPS (NAO 83, ZONE 7) 590241, 7079119N

DEPTH INTERVAL FT. - INS.	MATERIALS DESCRIPTION CC-9 (PANNING)	GOLD	NOTES
0 to 1ft. 6in	Organics, roots, thick moss old dead fall	NIL	2017 no black sand
1ft. 6in to 4ft 0in	70% + 1/8 in screen up to 2 in angular schistic rocks plus 2 2 in sub-angular quartz rocks plus root matter (sticks) - 1/8" screen colour (Py?, biotite) angular rock + sand	NIL	NO black sand
4ft to 6ft	50% retained on 1/8 in screen angular schistic rock with Py? and/or biotite 1-1" subangular quartz pebble. - 1/8" angular schistic rock and sand colourful (fine grained Py? or biotite)	NIL	almost no black sand
6ft to 7ft. 6in	old 4 in. tree trunk at 7 ft. + 1/8" angular rocks up to 5 in dia. with Py? + mica 2 pieces qty subround (2 in dia.) - 1/8" small pieces (< 1/8") of sub- rounded rock Pyrite + sand	nil	very little black sand
7ft. 6 in to 8ft 4 in	+ 1/8 in 75% 4 in dia chunks of angular orthogneiss schistic bedrock. - 1/8 in sand + angular schistic rock (mica) no gravel	NIL (no colours)	a little black sand
8ft. 4 in to 9ft 2 in	+ 1/8 sieve angular orthogneiss rock up to 4 in diameter. 1 angular 2 in qty piece. - 1/8 in sand plus angular pieces of bedrock Hard bedrock End	NIL (no colours)	minor black sand

LEGEND

Φ = diameter
 SC = screen
 " = inches
 ' = feet
 ang. = angular

APPENDIX 1

Calder Creek Project
 Log. of shaft CC-10
 GPS (NAO 83, ZONE 7) 589600E, 7075920N

Shaft CC-10
 Page 1 of 2

DEPTH INTERVAL FT. - INS.	MATERIALS DESCRIPTION SHAFT CC-10	GOLD	NOTES
0 - 1 1/2 ft.	moss and root matter	NIL	
1 1/2 - 3 ft.	black muck - 30% ice	NIL	
3 - 5 1/2 ft.	50% wood up 2 in dia. plus black muck 20% ice	NIL	
5 1/2 ft to 7 ft.	20% ice + 1/8" sc. all fine root matter - 1/8" sc. pan almost all unseparable and dissolves 5% ang. schistic rock	NIL	NO Black sand
7 ft - 10 ft.	50% Black Muck and root matter (unseparable i.e. floats away when panned - high ice content) + 1/8" screen angular orthogneiss and schist up to 2 inch diameter) - 1/8" screen panned - sandy angular schist & orthogneiss	NIL	trace black sand
10 ft to 11 ft. 6 in	50% Black Muck unseparable (high ice content - floats away when panned) + 1/8 in. screen 50% angular orthogneiss & schist up 2 in. dia.) - 1/8 inch screen pan sandy schistic orthogneiss	NIL	no black sand
11' 6" to 13 ft	Large rounded boulders up to 18" x 10" Φ + 1/8" sc. 60% ang. orthogneiss and minor schist - 1/8" sc. 40% sandy ang. orthogneiss and schist	NIL	trace Black sand

Continued next page

DEPTH INTERVAL FT. - INS.	MATERIALS DESCRIPTION CC-10	GOLD	NOTES
Legend	ϕ = diameter, SC. = screen, " = inches ' = feet, ang. = angular, ortho = orthogneiss % = by volume		
13' to 14' 6"	+ 1/8" sc. 50% up to 3" ortho ang. rocks + schistic rock - 1/8" sc pan ang. schistic rock plus minor pyrite	NIL	no black sand
14' 6" to 16' 0"	30% black muck - unattainable - floats away i.e. high ice content + 1/8" sc. ang. flat rocks $\leq 3"$ ϕ - 1/8" sc pan ang. schistic rock plus mica and pyrite CC-10 needs to be deepened.	NIL	no black sand
16' 0" to 17' 0"	Schistic rock (bedrock?) with narrow quartz veins + py. 70% + 1/8" sc. ^{needs} assay 30% $\leq 1/8"$ sc. panned ang. rock + py 3 ^{very, very} small ^{colours}	NIL	panned + up to 1mm py cubes
17' 0" to 17' 8"	60% $> 1/8"$ sc. ang. schistic gray rock with qty + py needs gold assay 40% $\leq 1/8"$ sc. panned ang. rock occasional sub-ang. quartz + py 3 ^{very, very} fine ^{colours}	NIL	panned up to 1mm PY w. PY.
17' 8" to 18' 9"	60% $> 1/8"$ sc. crumbly ang yellowish rock. 40% $\leq 1/8"$ sc. ang. rock type unknown	NIL	Panned PY cubes
18' 9" to 20' 3"	60% $> 1/8"$ sc. ang. schistic rock yellowish + minor rust occasional sub. ang. qty pebble (1" ϕ) 40% $\leq 1/8"$ sc. sub ang schist type of rock, sandy panning with 1/4 teaspoon PY needs assay End - bedrock - rock type unknown	NIL	Panning 1/4 teaspoon py cubes END

APPENDIX 1

Calder Creek Project
Technical Log of shaft CC-11

GPS (NAO 83, ZONE 7) 590504E, 7075480N

DEPTH INTERVAL FT. - INS.	MATERIALS DESCRIPTION SHAFT CC-11	GOLD	NOTES
FEET (')	gr. - grain med. - medium	PANNING	
INCH (")	ang. = angular, dia. = diameter		
0' to 0'6"	Pan = panning, 1/8" sc. = 1/8 in. dia screen qty = quartz ortho - orthogneiss rock organics (moss and sticks)	NIL	
0'6" to 2'0"	Muck (no organics) + 1/8" sc. ang. - sub ang. qty and ortho pebbles less than 1/8" dia less than 1% of total sample is +1/8sc Pan - 1/8" sc 95% unsettleable (dissolves and stays in solution) clay size - 2-4% ang. ortho qty.	NIL	No black sand
2'0" to 3'4"	Frozen brownish grey muck high ice content (when thawed 40% water) Remaining - 3/4 + 1/8" sc is ang. ortho plus minor ang. qty < 1/8" dia. Pan - 1/8" sc < 1% ang. ortho. (almost all is unsettleable and stays in solution)	NIL	Trace Black sand
3'4" to 4'0"	Brown hard pan at 3'6" to 4'0" (slow going with jack hammer) no ice + 1/8" sc 70% ortho up to 2" dia. occasional rounded qty (1" to 5" dia.) Pan - 1/8" sc. 30% clayey silty matrix with 1% ang. ortho	NIL	Trace black sand
4'0" to 5'0"	dn brown hardpan with rocks + 1/8" sc (60% of total sample) ang. ortho up to 3" dia occasional sub rounded qty. (one - 5 in dia) - 1/8" sc pan (remaining 40%) ang ortho in silty sand matrix	NIL	Trace of Black sand

Cont'd next page

Calder Creek Project
 Technical Log. of shaft CC-11

GPS (NAO 83, ZONE 7) 590504E, 7075480N

DEPTH INTERVAL FT. - INS.	MATERIALS DESCRIPTION SHAFT CC - 11	GOLD	NOTES
	Continued from Page 1	↑ PANNING	
5'0" to 5'11"	Brown goosy clay with many rocks (one was 1ft. in dia.) (4" sand seam on north side of shaft) { +1/8 50% up to 4" dia sub-round (qty and ang. ortho. -1/8" sc pan is med. gr. sand with ruby colored garnets. Remaining 5'0" to 5'11" brown goosy clay material with rocks up to 1ft. dia. +1/8" sc. 70% up to 2" rocks (ang. ortho) with occasional 3" dia subround qty -1/8" sc pan ang. sand ortho	NIL	minor black sand
5'11" to 7'0"	Brown goosy clay matrix with 50% boulders up to 2ft dia (rounded) Remaining 50% +1/8 sc. ang ortho rocks up to 2" dia -1/8" sc pan clay- silt with a little sand	NIL	No Black Sand
7'0" to 7'4"	+1/8" sc (3/4 of total sample) up to 4" dia ang. ortho with 2 pieces of sub. rounded qty (4" dia.) -1/8" sc pan most stays in solution ~ 5% ang. ortho.	NIL	Trace of Black Sand
7'4" to 7'8"	1/2 of sample +1/8" sc up to 2" dia ang. ortho rocks. -1/8" sc pan ang. ortho rocks (no round gravel)	NIL	NO BLACK SAND
7'8" to 8'3"	80% of sample size +1/8" sc. 3 rocks are 1 to 2ft long x 6" wide x 4" thick - ang. to sub-round -1/8" sc. ang. ortho pan in clayey silty matrix. Large rocks (boulders)	NIL	No Black Sand
8'3" to 8'8"	Hard flat rocks - could not penetrate with jackhammer - bedrock - abandoned!!	NIL	NO GOLD

Calder Creek Project

Log. of PORTAL FACE CC - 12

GPS (NAD 83, ZONE 7) 590335, 7075730N

ADVANCE INTERVAL FT. - INS.	MATERIALS DESCRIPTION CC - 11 (TRENCH - PORTAL FACE)	GOLD	NOTES
	70% of total sample, ortho = orthoquartzites S.C. = screen, " = inches, ' = ft. ^{ang.} - angular		
TRENCH 5-10 ft. Az. 240°	+1/8" sc. 70% angular decomposed crumbly ortho, rock with some 6" x 3" + 1/2" angular rocks. Panned - 1/8" sc. 70% of angular ortho. bedrock	NIL	No black sand
TRENCH 10-12 ft. 3 Az. 240°	30% +1/8" sc crumbly soft micaceous (K. lodeite schist ???) Panned - 1/8" sc. micaceous sand size	NIL	No black sand
TRENCH 12 ft 3 in to 13 ft 3 in. x 4 ft wide x 3 ft 3 in high	+1/8" sc. 50% soft crumbly schistic rock -1/8" sc Panned - ang. flat schistic particles	NIL	No Black sand
TRENCH 13 ft 3 in to 14 ft 4 in x 4 ft wide x 3 ft 8 in high	+1/8" sc. 50% crumbly soft schistic rock, occasional sub- round hard rock (2" diameter) -1/8" sc pan. angular schistic rock (flat)	NIL	No Black sand
TRENCH EXTENDED to 23 feet long from 14 ft 4 in x 4 ft x 3 ft deep.	at 15 ft mark strike of schist Az 350° DIP 70° W at 13 ft. strike is Az 320° +1/8" sc 60% ang. schistic rock, some flat pieces 1/2" x 4" & -1/8" sc. pan 40% angular schistic rock, muscovite mica.	NIL	NO Black sand
21 ft - 22 ft. 1 in layer at 2 ft deep	Rusty gravelly sandy 1 inch seam +1/8" sc 50% ang rocks (2 2" φ) with some sub round 1-2" quartz pebbles -1/8" sc. pan; sandy	NIL	1/2" trail of Black Sand

LEGEND

∅ = diameter
 SC = screen
 " = inches
 ' = feet
 ang. = angular

APPENDIX 1

Calder Creek Project Page 2 of 2
 Log. of PORTAL FACE CC-12
 GPS (NAD 83, ZONE 7) 590335, 7075730N

ADVANCE INTERVAL FT. - INS.	MATERIALS DESCRIPTION CC-12 (TRENCH-PORTAL FACE)	GOLD	NOTES
Legend ⇒	ang. = angular, ortho = orthogneiss, " = inches ' = feet, SC = screen, pan = panning % → percent of total sample ∅ = diameter		
Deepen Trench 15 to 21 ft. width from 3 ft to 4 ft deep	Bedrock - soft crumbly schist with angular hard rocks up to 4" ∅ on top (float)	NIL	No Black Sand
Deepen to 5' x 3' wide at 17' point	Rusty quartz pebble (< 2" ∅) vein in muscovite schist + 1/8" SC 50% dry volume is up to 1" ∅ ang. schist and ortho pebbles + 5% semi rounded qty. pebbles (< 1") - 1/8" SC pan, sandy schist & ortho plus qty.	NIL	no black sand
17' - 18' point	Hard orthogneiss dyke? or reef? from 3 ft to 5 ft. depth interval maybe intruding into schistic bedrock	NIL	
16 - 17' point	+ 1/8" SC 60% ang. ortho (< 5") and schist - 1/8" SC pan 40% ang. schist & ortho. no washed gravel - sample on schistic bedrock	NIL	No Black Sand
22 - 23' point	sample taken on Klondike schist bedrock at bottom of portal face (end point) + 1/8" SC 50% ang. ortho (< 4" ∅) - 1/8" SC pan, sandy ang. ortho and muscovite schist	NIL	Trace Black Sand
	Portal face needs to be advanced underground taking 1 foot of bedrock (soft) and panned		

APPENDIX 2

CREW LOGS

2018 Y.M.I.P - TARGET EVALUATION PROJECT

CALDER CREEK PROJECT
DAILY LOG - SUMMARY

DATE 2018	ACTIVITY	NUMBER OF DAYS											
		WAGES		EQUIPMENT									MISC.
		GARY	HELPER	ATV	CHAIN SAW	GENERATOR	SPUR MOBILE	TRUCK	TRAILER	COMP. RESERVOIR	DRILLS		
APR. 1	Electric jackhammer ^{7ft. 8in to 8ft. 3in.} permit foot & excavate shaft CC-11	1				1	1				1		
" 3	Finish Y.M.I.P logs & pass to Derek T. - Dawson	1							1			100K	
" 7	Cut & haul firewood start Burn CC-11 + reclaim CC-4	1			1		1						
" 8	Excavate CC-11 to 8ft. 8in. Hard bedrock too hard to electric jackhammer - abandon	1				1					1		
" 9	Demol. - haul gear from CC-11 to camp reclaim shaft CC-11 (baricade with timber)	1			1		1						
" 11	Camp duties - cut & haul firewood reclaim CC-4	1			1		1						
" 12	Continue clearing and jackhammering & excavating portion trench - portal face (CC-12) following bedrock at Az 240°	1			1	1	1				1		
" 13	Electric jackhammer permit foot & excavate CC-12	1				1	1				1		
" 14	" " " " " CC-12	1				1	1				1		
" 16	" " " 5-10ft " " CC-12	1				1	1				1		
" 17	" " " & advance CC-12 to 12ft 3in	1				1	1				1		
" 18	" " " CC-12 Trench Portal face from 12ft 3in to 13ft 3in x 4ft wide x 3ft high	1				1	1				1		
" 19	CC-12 trench-portal face advance to 14ft 4in x 4ft. wide x 3ft. 8in high	1				1	1				1		
" 23	Cut & clear ATV trail (old snow trail) to CC-10	1		1	1								
" 24	Continue to cut & clear old snowmobile trail former ATV trail	1		1	1								
" 25	Advance CC-12 strip moss & root matter & black muck to 21ft. mark (@ 240°)	1		1	1	1					1		
" 30	Extend CC-12 (trench-portal face) with jackhammer to 23ft mark	1		1	1	1					1		
MAY 1	jackhammer CC-12, 15-23ft down to ^{3ft deep} x 4ft wide	1		1	1	1					1		
" 4	Cut existing snowmobile trail down for ATV & CC-10	1		1	1								
" 6	CC-10 haul gear + jackhammers from 15ft to 2ft 9in	1		1	1	1					1		
" 7	Excavate CC-12 deeper from 15ft to 2ft mark	1		1	1	1					1		
" 10	CC-10 Electric jackhammer & excavate to 4-foot deep	1		1	1	1					1		
" 11	CC-10 " " " & " to 5ft. 8in deep	1		1	1	1					1		
" 12	CC-10 " " " " to 7ft. deep	1		1	1	1					1		
	Sub-totals	24		11	8	16	11	1			16		

PLACER-TARGET EVALUATION PROJECT 18-043
CALDER CREEK
Page 2 of 2

DAILY LOG - SUMMARY

DATE 2018	ACTIVITY	NUMBER OF DAYS										MILES
		WAGES		EQUIPMENT								
		GARY	NEPER	ATV	CHAIN SAW	GENERATOR	SHOVEL	TRUCK	TAMPER	EXCAVATOR		
	Sub totals from Page 1	24		11	8	16	11	1			16	100km
MAY 13	Shift CC-10 Electric jackhammer and excavate to 8ft	1		1	1						1	
" 14	" CC-10 Timbers to 8ft. & pack with moss	1		1								
" 15	Demol. Dawson to Whitehorse	1										600km
JULY 27-31	MOB TO CALDER FROM W/WHITEHORSE - REPAIRS TO CABIN ROOF	1		1				1				650km
AUG 2	Haul gear to CC-10, repairs to ATV Trail	1		1								
" 3	Install electric pump and pump out shift CC-10											
" "	Jack hammer and excavate from 8ft to 8ft 6"	1		1	1						1	
" 5	" " " " from 8ft 6in to 9' 3"	1		1	1						1	
" 6	" " " " " " 9' 3" to 10'	1		1	1						1	
" 7	Stake DG 15 placer claim & tag existing claims	1		1				1				50km
" 10	Record claims, expedite & buy supplies	1						1				
" 12	Drive from Dawson to Calder & tag claim	1		1				1				50km
" 15	Install headframe & winching pulley CC-10	1		1	1							
" 17	Deepen CC-12 at 17 foot point to 5ft 3in + sample	1		1								
" 18	Advance CC-12 from 17ft to 19ft & deepen to 6ft + Pan	1		1								
" 19	Electric jackhammer & excavate CC-10 to 10ft 8in + winch	1		1	1						1	
" 20	" " " " CC-10 to 11ft 5in	1		1	1						1	
" 21	" " " " CC-10 to 12ft 3in	1		1	1						1	
" 22	CC-12 advance past hard dyke from 18-23ft x 5ft high	1		1								
" 23	Electric jackhammer & excavate CC-10 to 12ft 10in	1		1	1						1	
" 29	CC-10 pump out shift jackhammer & excavate to 13ft 1in	1		1	1						1	
" 30	Electric jackhammer & excavate CC-10 to 13ft 7in	1		1	1						1	
" 31	" " " " CC-10 to 14ft 1in	1		1	1						1	
SEPT. 1	" " " " CC-10 to 14ft 6in											
" 3	CC-12 advance on bedrock both sides of Dyke	1		1								
" 4	Electric jackhammer & excavate CC-10 to 15ft 4in	1		1	1						1	
" 5	" " " " CC-10 to 16ft. (Plus sampling spanning all of above)	1		1	1						1	
" 6	Haul gear to Camp store + sample pan CC-12	1		1								
" 7	Demol to Whitehorse	1						1	1			650km
TOTALS		51		35	9	29	11	6	1	29		2100 km

PLACER-TARGET EVALUATION PROJECT CALDER CREEK

Page 1 of 1

DAILY LOG - SUMMARY

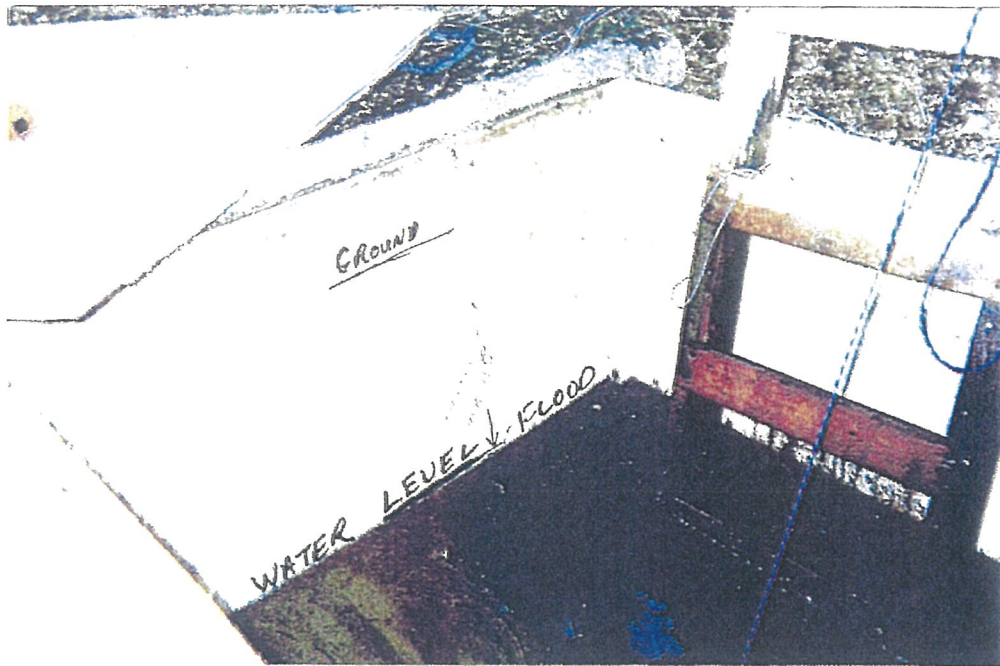
DATE 2019	ACTIVITY	NUMBER OF DAYS										
		WAGES		EQUIPMENT								MILES
		GARY	HELPER	ATV	CHAIN SAW	GENER- ATOR	SNOW- MOBILE	TRUCK	TRAILER	ELECTRIC CABLE-POWERED		
Mar. 20	Mob. Whitehorse to Dawson	1							1	1		530km
" 21	Purchase groceries, supplies plus expedite	1										
" 22	Mob Dawson to Calder Creek plus haul gear to camp + break trails (Snowmobile)	1						1	1	1		60km
" 23	Jackhammer & excavate ice from flooded shaft (10ft to 15ft depth)	1				1	1			1		
" 24	Jackhammer & excavate ice (to 16ft)	1				1	1			1		
" 25	Jackhammer & excavate frozen mud to 16ft 3in	1				1	1			1		
" 26	Jackhammer hard bedrock (slow penetration) and excavate shaft to 17ft 5in	1				1	1			1		
" 27	same as above to depth of 17ft 10"	1				1	1			1		
" 28	same as above to depth of 18ft 7"	1				1	1			1		
" 29	Jackhammer and excavate shaft to 19'4"	1				1	1			1		
" 30	" " " " to 20ft	1				1	1			1		
" 31	" " " " to 25'3" Demob to Camp	1				1	1			1		
" 31	Pack up camp, Haul gear, haul Snowmobile to truck + Demob	1						1	1	1		590km
Totals		12				8	10	3	3	8		1180 Kms

APPENDIX 3

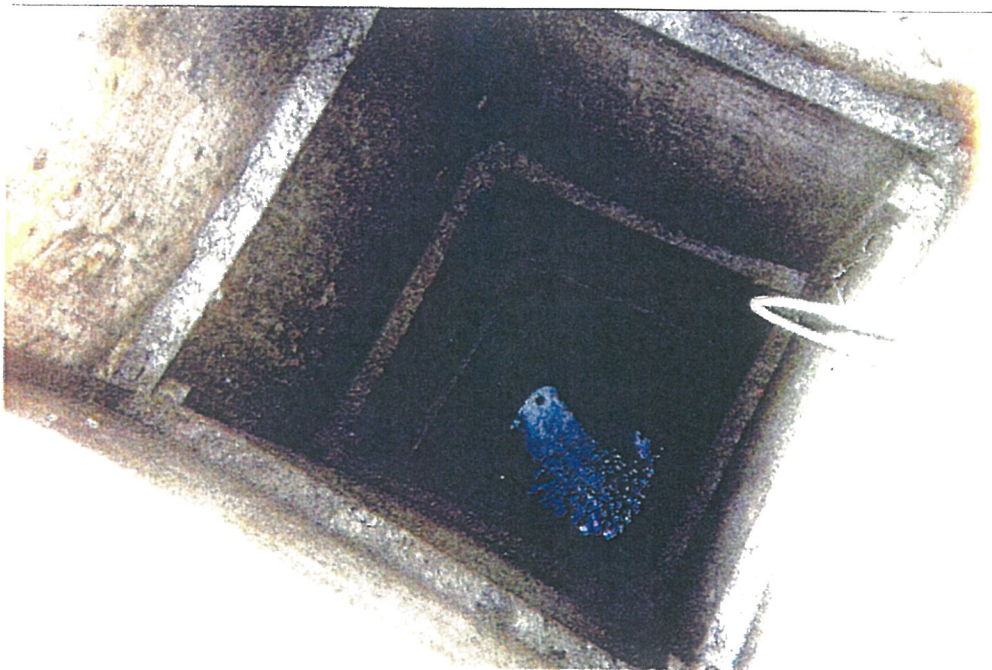
PHOTOGRAPHS

SHAFT CC-3

CALDER CREEK

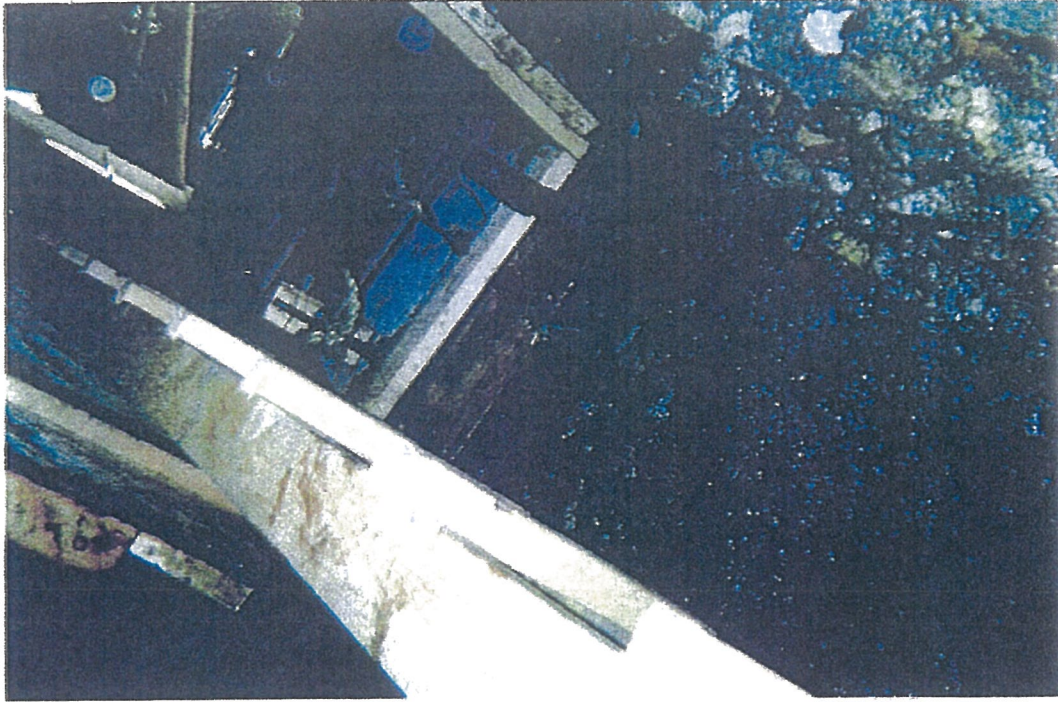


SHAFT CC-3 FLOODED

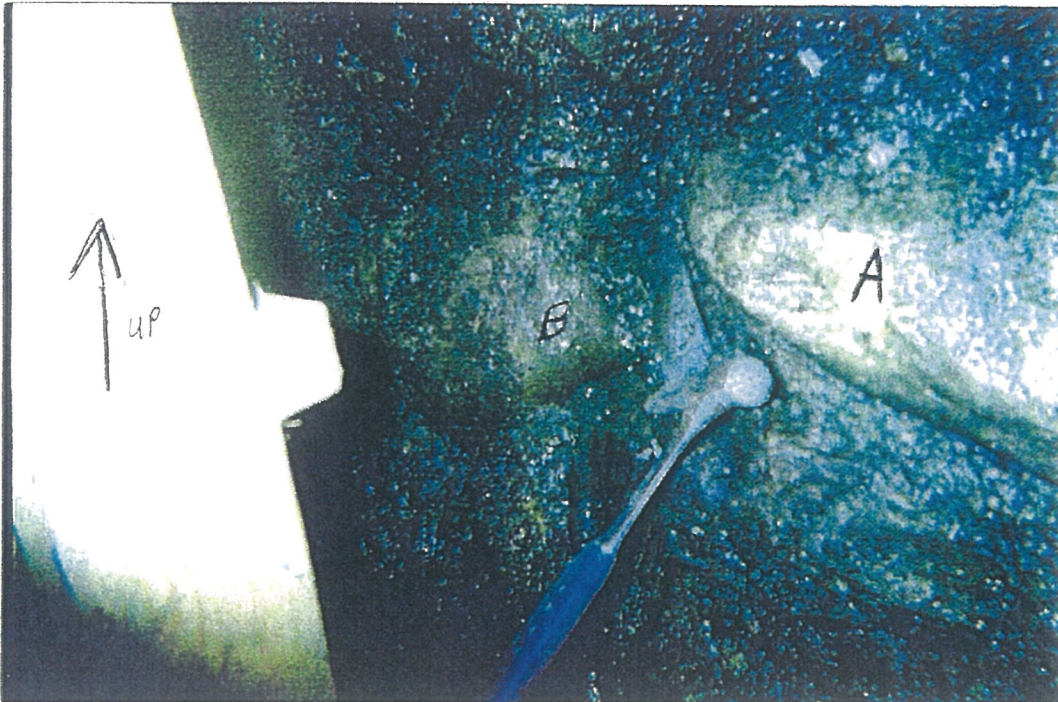


SHAFT CC-3 PUMPED OUT ON SEPT 23, 2014
NOTE: FOAM-WATER HAS INCREASED FROM
DRIPPING TO FLOWING (RATE 4 FT. DEPTH/DAY)
PUMPED OUT 22 FOOT LEVEL

SHAFT CC-3



SHAFT CC-3 LOOKING UP TO TIMBER
ON JULY 7, 2014 TIMBERED TO 14 FT. 9 in.



SHAFT CC-3

A & B UP TO 12 INCH ROUNDED BOULDERS
SITTING ON WEATHERED MUSCOVITE SCHIST
FROM 19 FT. 0 in. TO 19 FT. 8 in.



SHAFT CC-3

SHAFT
CC-3



SHAFT CC-3 NOTE DIRECTION OF BEDROCK SCHISTOSITY

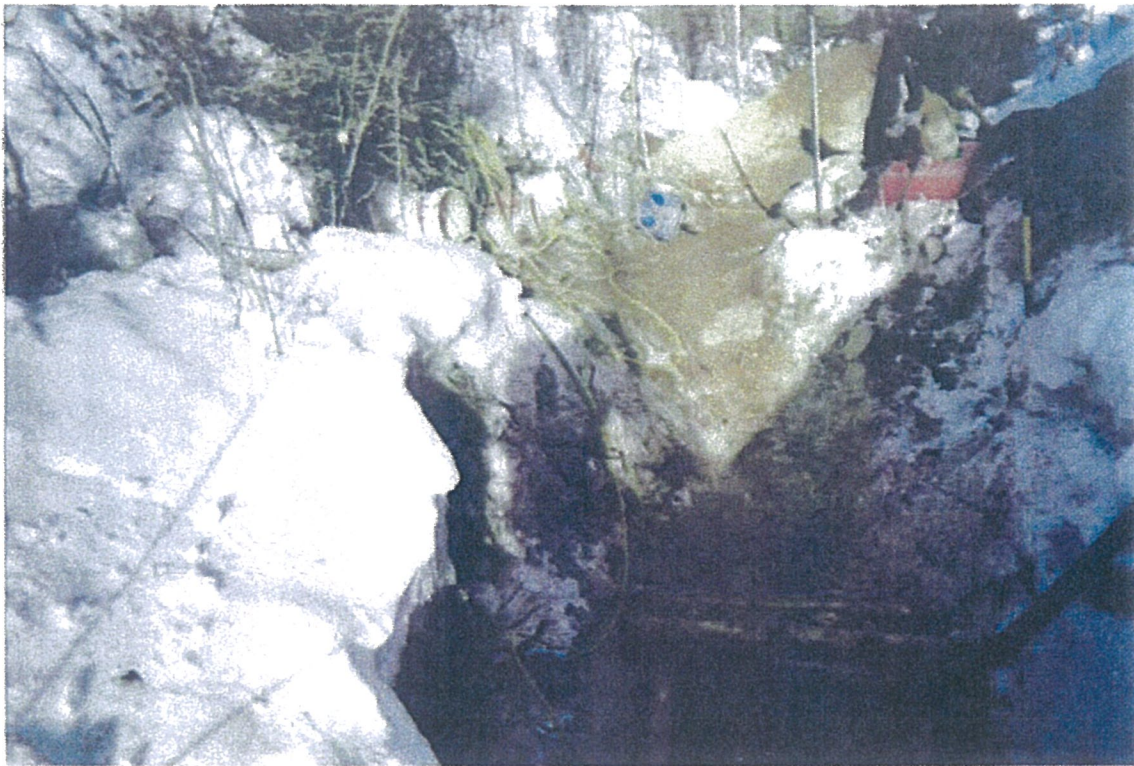
KLONDIKE SCHIST
26 FOOT LEVEL
SHAFT CC-3 STRIKE DIRECTION
LINES SHOW SCHISTOSITY
OF BEDROCK SCHISTOSITY
AZ 117° DIP 80° E



SHAFT CC-4
BEFORE TIMBERING



BOTTOM OF SHAFT CC-4
PRIOR TO FLOODING



SHAFT CC-4



THAWED WET AT BOTTOM CC-4 (FLOODING)
MARCH 27, 2015

SHAFT CC-5

CALDER CREEK

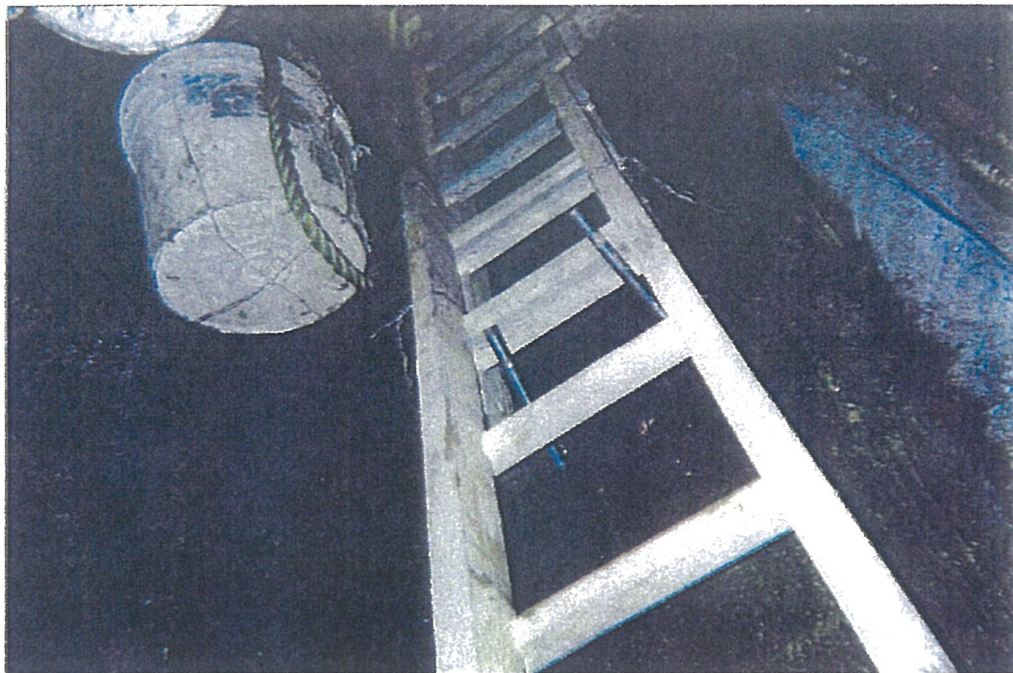


SHAFT CC-5 APPROX. 250 METRES NORTHWEST AND
ACROSS CREEK FROM CC-3
NOTE: STUNTED SPRUCE (NORTH EAST EXPOSURE)
PERMAFROST IS PERMANENTLY FROZEN TO
WITHIN ONE FOOT OF SURFACE UNDER THE MOSS



SHAFT CC-5 GARY STANDING AT THE 19 FOOT LEVEL
TIMBERED TO 8 FEET

SHAFT CC-5



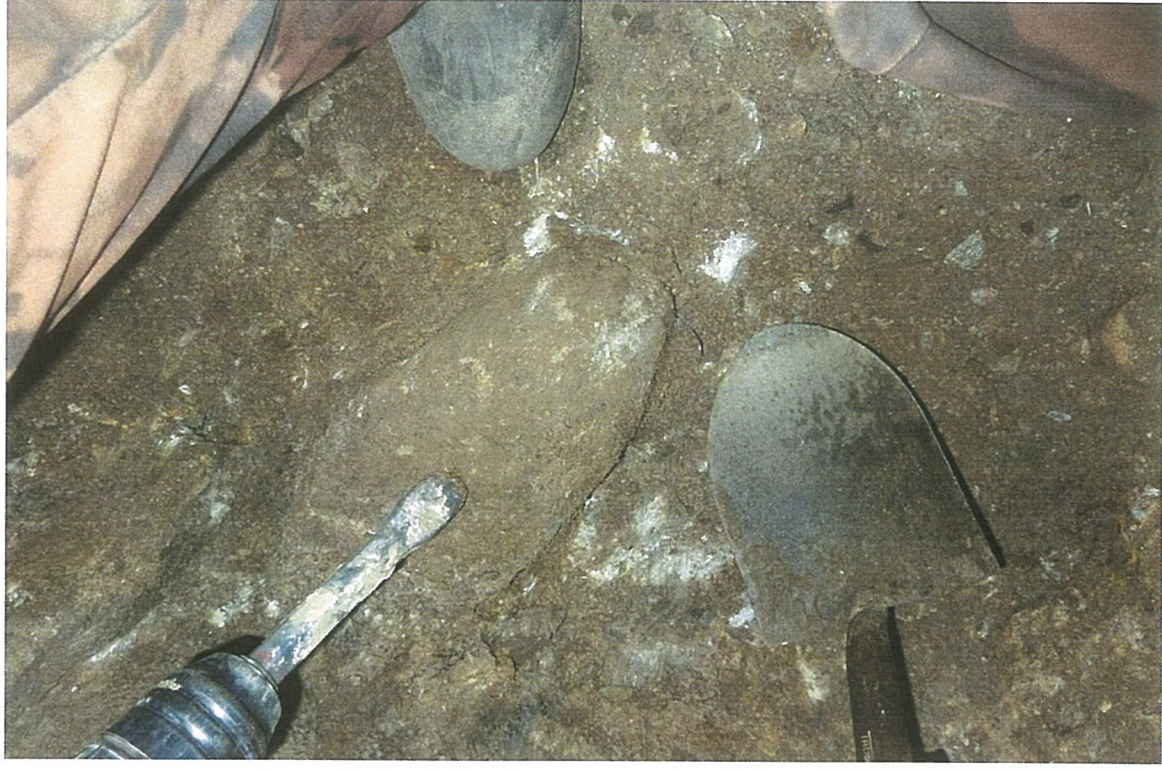
SHAFT CC-5 NOTE ICE ON SHAFT WALL. DURING EXCAVATION, ICE ON WALLS WILL PARTIALLY THAW, FLOW DOWN AND REFREEZE SIMILAR TO STALAGMITES.



CC-5 GRAVELS AT 19 TO 20 FOOT LEVEL
NOTE: NO WATER AT BOTTOM OF SHAFT

SHAFT CC-5

21.5 foot level (Large angular chunks of bedrock)
CC-5



20.5 foot level CC-5
1-12 in diameter orthogneiss boulders



CC-5 21.5 foot level - Large chunks of bedrock



CC-6 1 MILE LEASE



SHAFT CC-6



CC-6 1 MILE LEASE





25 FOOT LEVEL - ELECTRIC LIGHT
AT BOTTOM
SHAFT CC-7



SURFACE AREA

SHAFT CC-7



CC-8 SURFACE AREA



6 FOOT LEVEL

NOTE: HARD BLOCKY
BEDROCK ON RIGHT

SHAFT CC-8



9 FOOT LEVEL



SHAFT CC-9

LOOKING DOWNSTREAM



SURFACE
CC-9



SHAFT CC-10
AT 12 FOOT DEPTH

LARGE
BOULDER
AT
12-13 FOOT
DEPTH
IN BLACK
MUCK
(SEE LOG)

REMOTE CONTROL
FOR HOIST
(ELECTRIC)

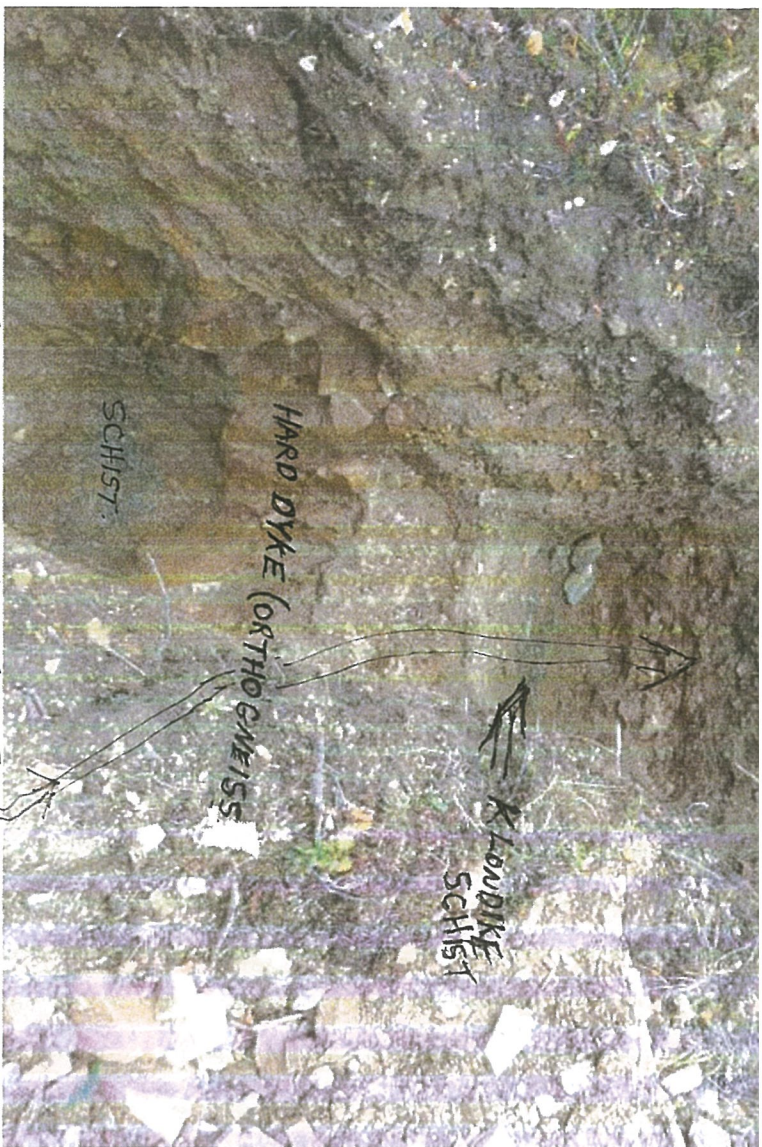
SHAFT CC-10



SHAFT
← CC-10
WITH
ELECTRIC
HOIST
(4 BUCKETS
OF MUCK)



TRENCH - POTENTIAL FACE CC-12



CC-12

CC-12, NOTE HARD REEF OR DYKE? ON TOP OR INTRUDING ?? SOFT KLONDIKE SCHIST BEDROCK

00