Geophysical and Drilling Report

Yukon Mineral Exploration Program (YMEP)
Hunker Creek Placer Exploration Program

Dawson Mining District

NTS: 115O/14
Latitude: 63º 59’8 N   Longitude: -139 º 5’40 W

Claim List:

DAG 1-12	P517265-276
Predo 1-14	517251 -264
Nugget 1-12	P517278 – 289
Colorado 1-6	P517290 – 295

Work Performed:

Resistivity/IP Survey:	5-7 June, 2016
RAB Drilling:	11-13 August 2016
RESOLVE Airborne:	12-13,19 November 2016
Xcam Aerial Imagery:	12 October 2016

Prepared for Shawn Ryan.
By GroundTruth Exploration Inc.

Written by: Chad Cote   January 15, 2017

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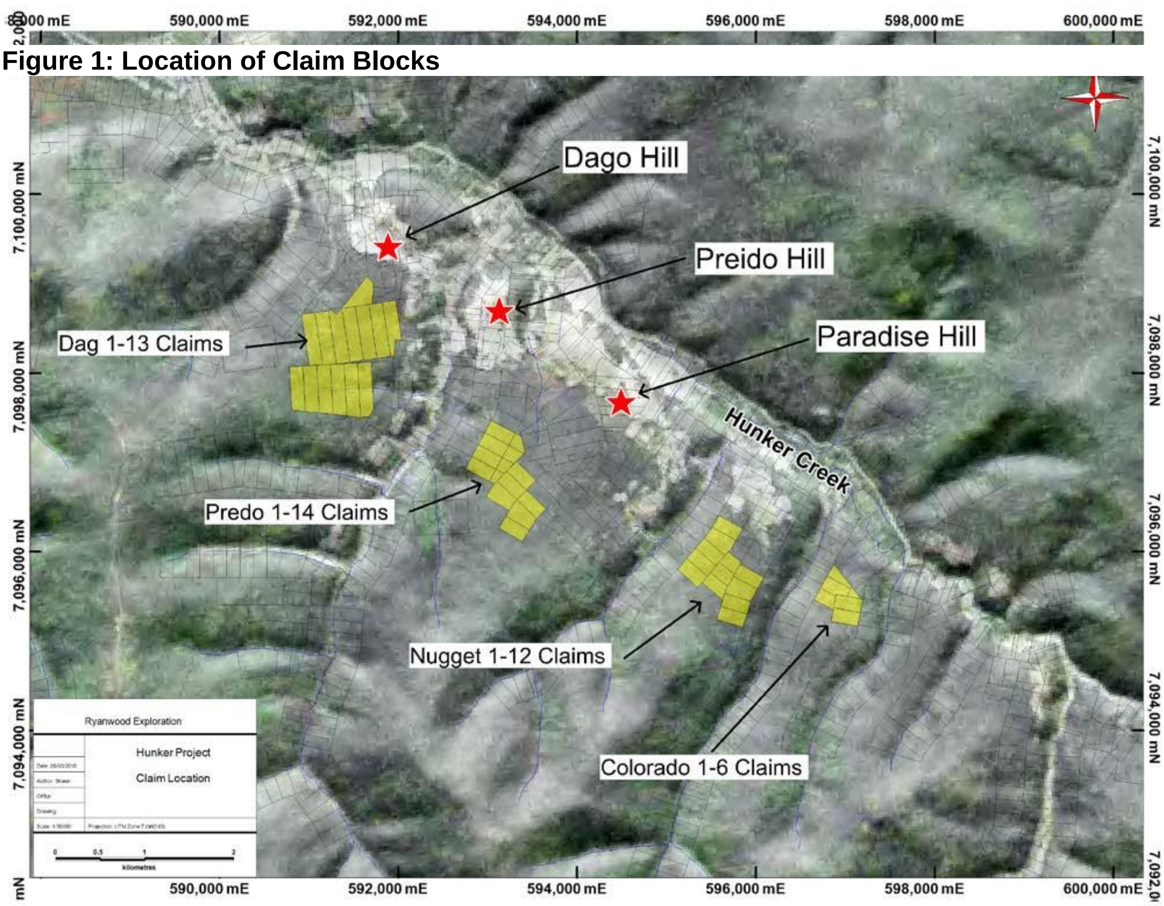
1 Introduction

Shawn Ryan's Hunker Creek project is a placer gold project inspired by Jeff Bond's presentation on the Paradise Gravels. The target is theorized to be deposited on the south benches of the lower Hunker Valley, up to 1500m from the current day creek bed. Four bench claim blocks targeting this feature were staked on DAGO Hill, Preido Hill, Paradise Hill and Colorado Hill.

The unique characteristics of this gold bearing deposit, as outlined by Bond, make it a potential deposit type to be investigated using low impact airborne geophysical methods. A multi stage approach was used to outline the thickness, buried depth, and extent of the Paradise Gravels:

A 1250m long, high resolution Resistivity and Induced Polarization traverse was surveyed on DAGO to act as a groundtruth reference point with the addition of RAB Drill holes. This traverse line was interpreted for potential targets to be drill tested for material type and depths. The whole area was then surveyed using the RESOLVE AEM airborne

Figure 1: Location of Claim Blocks



survey. By comparing the groundtruthed section with the airborne survey, the distribution of the Paradise Gravels is hoped to be defined. Aerial Photogrammetry was also collected over the whole region to aid in the interpretation as a visual cue as well as a Digital Elevation Model to create the standardized field to regulate the datasets appropriately.

2 Property Description and Access

The claim blocks are located on benches on the lower left limit of Hunker Creek (Figure 1). Hunker Creek is located 15 kilometers east of the community of Dawson City (figure 2). The Hunker project is easily accessible along the Lower Hunker Creek government maintained gravel road.

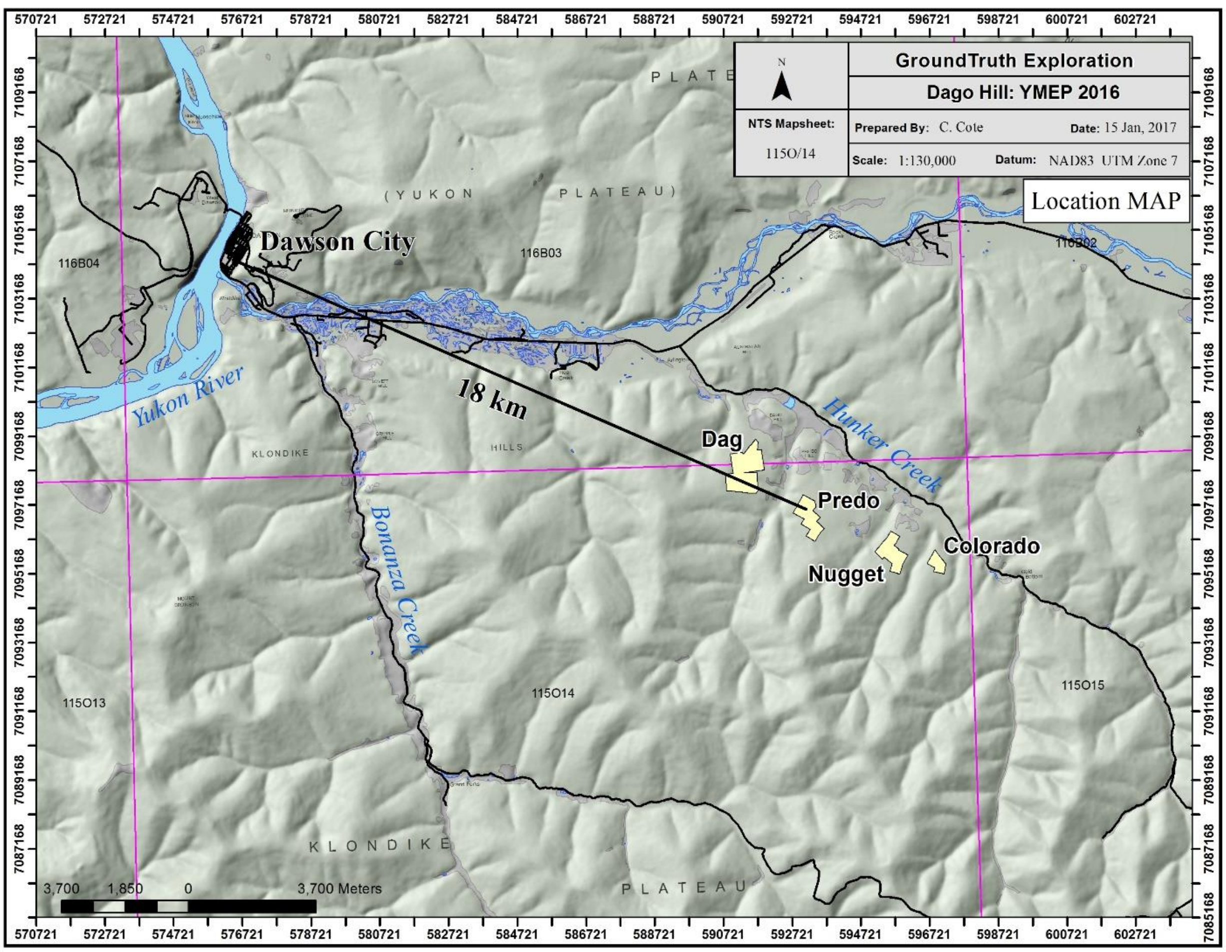


Figure 2: Location Map

3 Physiography

The Hunker Creek placer property is in an unglaciated, west flowing creek valley located in the Klondike Plateau region of Canada's Boreal Cordillera ecozone. Due to its location in Canada's discontinuous permafrost zone, permafrost is distributed unevenly throughout the property. The valley bottoms and northern slopes have thick moss mats, black spruce, and alder thickets over ice rich permafrost, while southern slopes are generally more sparsely vegetated with ground leaf cover and white spruce, aspen and birch forests.

4 Climate

The interior intermontane plateau receive about 400 mm of annual precipitation. Snowfall accounts for 35 to 60% of all precipitation. Winters are long and cold, with January mean temperatures between -15°C and -27°C. Summers are warm but short, with July mean temperatures between 12°C and 15°C.
(http://www.emr.gov.yk.ca/oilandgas/pdf/bmp_boreal_cordillera_ecozone.pdf)

5 Geology

5.1 Bedrock Geology

The Hunker group of placer claim are covering mainly Paleozoic Yukon – Tanana terrain group of quartzite to mafic, chlorite schist known as the Nasina Formation (**DMF3**). The second major group in the area is metamorphic, Klondike schist comprising of quartzite, cl schist, gneiss and amphibolites (**PK2**). The third major unit is a suite renamed the Snowcap assemblage, upper Devonian quartzite,qt-ms-cl schist/gneiss/ amphibolite (**PDS1**).

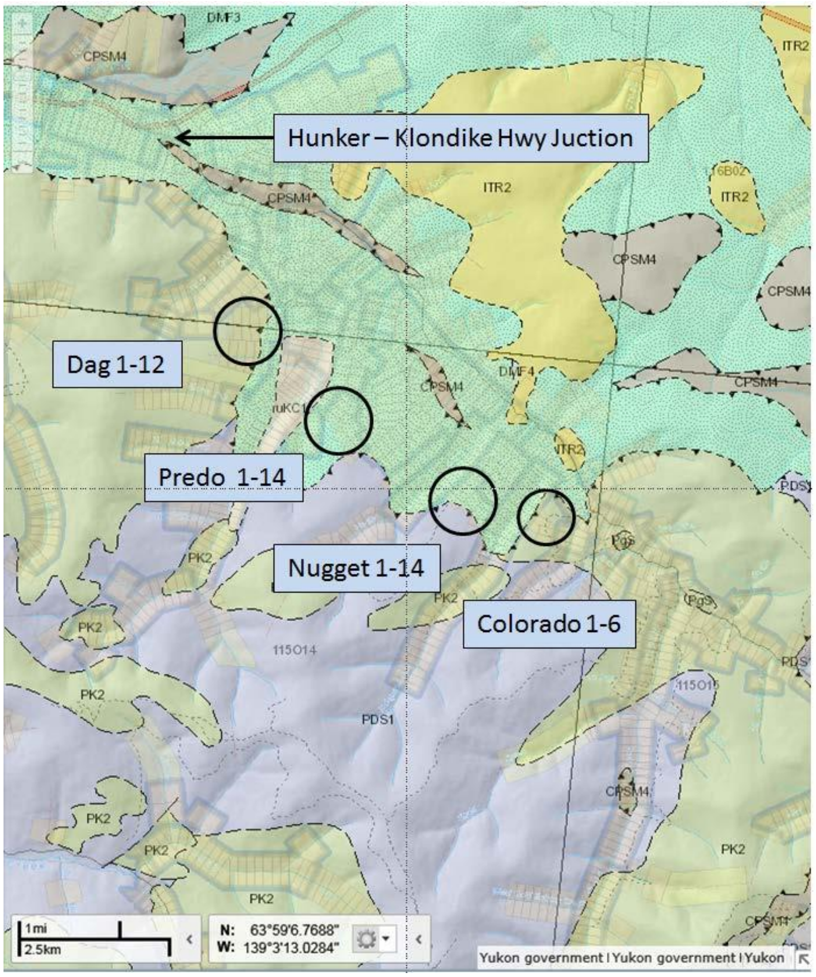


Figure 3: Bedrock Geology

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5.2 Surficial Geology

The real geological reason is based not on the bedrock lithology, but the potential that the old paleo gravel bed channel might be located up to 1500 meters inland from the valley bench rim (Jeff Bond figures) this would cover 70 % of the target area. The Iron Zone is the clay altered placer bearing gold gravel unit that Jeff is calling the Paradise Gravel. The following five images taken from Jeff Bonds presentation (figures 4-8) show the evolution, stratigraphy and composition of the Paradise Gravel.

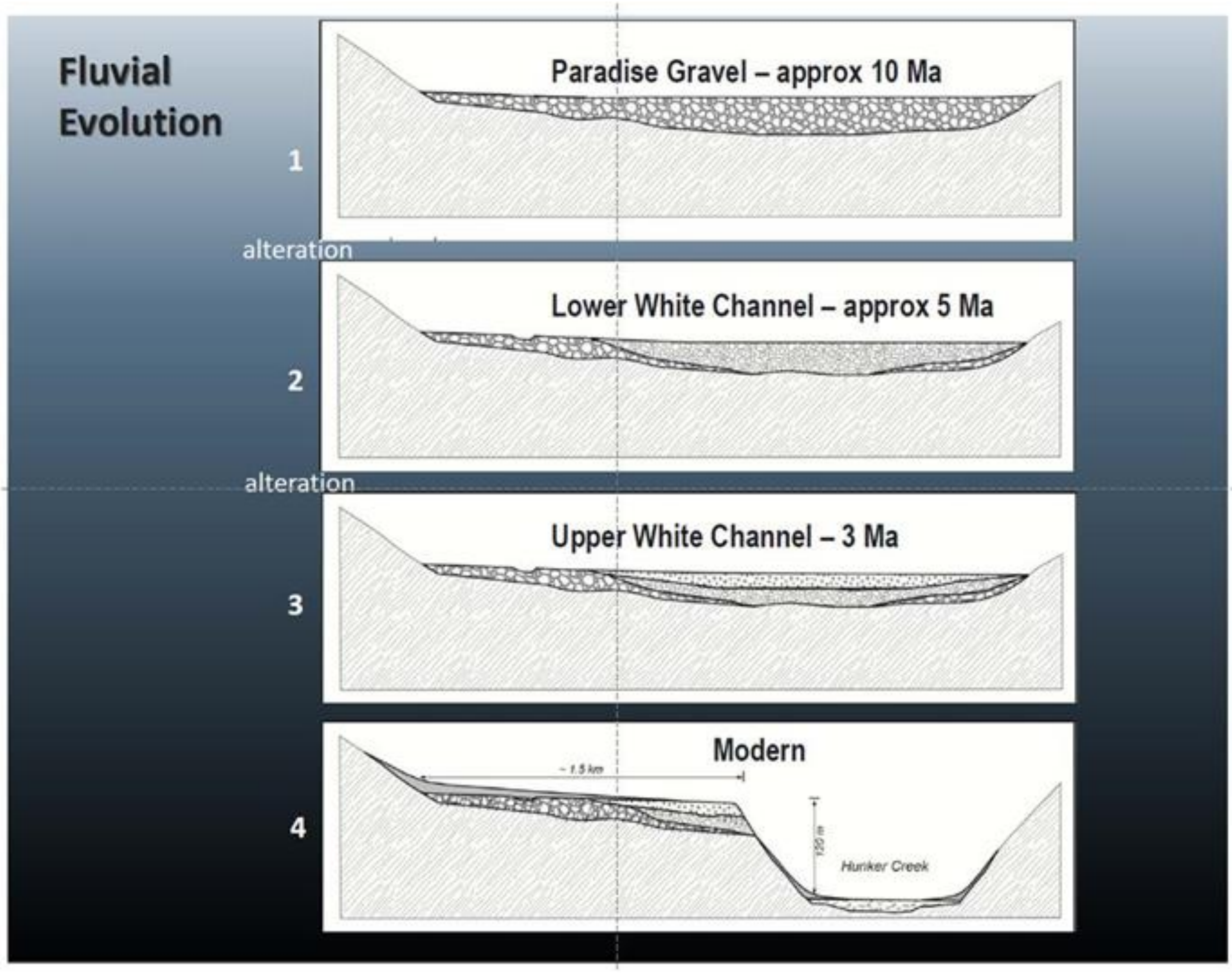

Figure 4: Stratigraphic development of Paradise Gravels (Jeff Bond, 2015)

Figure 4 shows how Jeff interpreted the formation of the Paradise Gravels. Note how far back he proposed the gravel beds to lie: up to 1500 m from the edge of the Hunker Creek bench rim.

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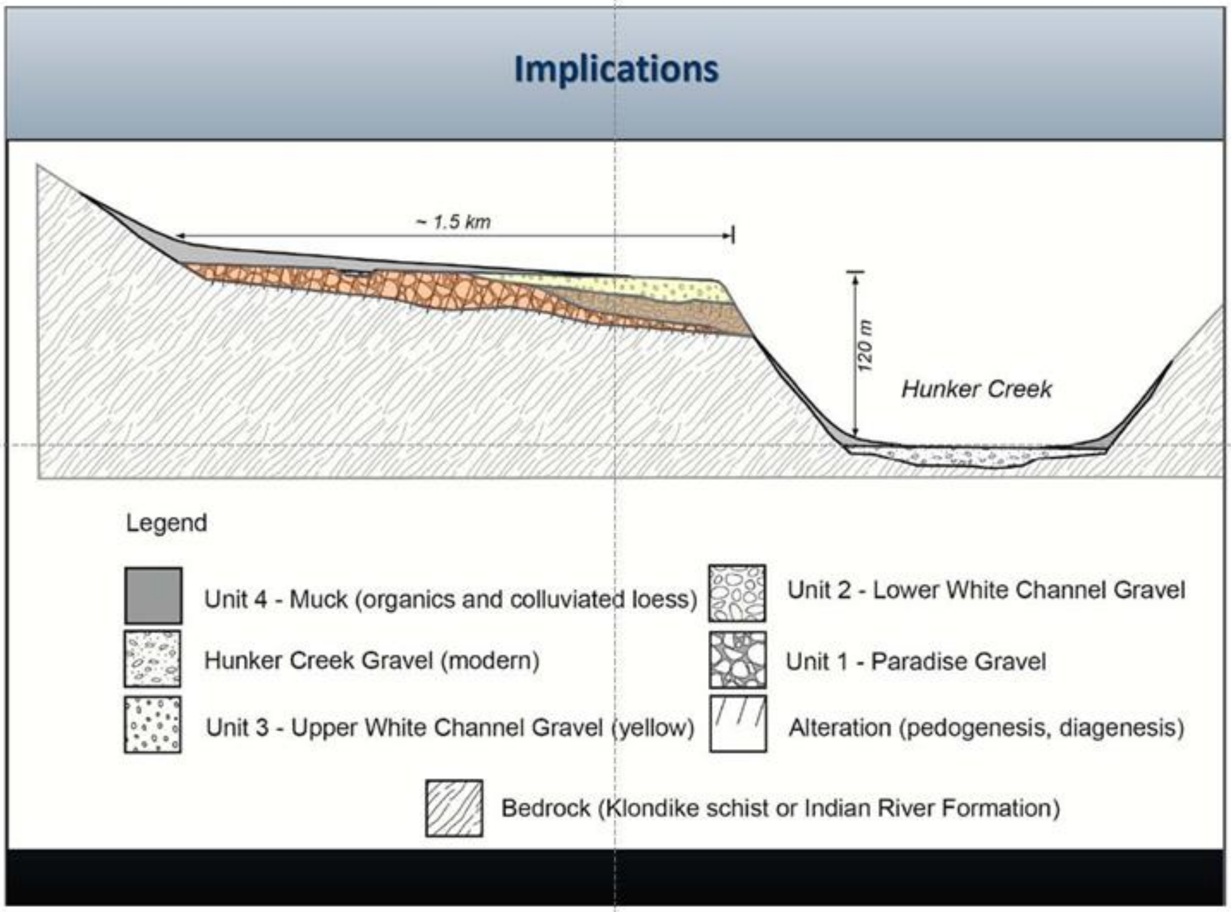

Figure 5: Current theorized stratigraphy of benches (Jeff Bond, 2015)

Figure 5 shows Jeff's current theory on the stratigraphy of these benches.

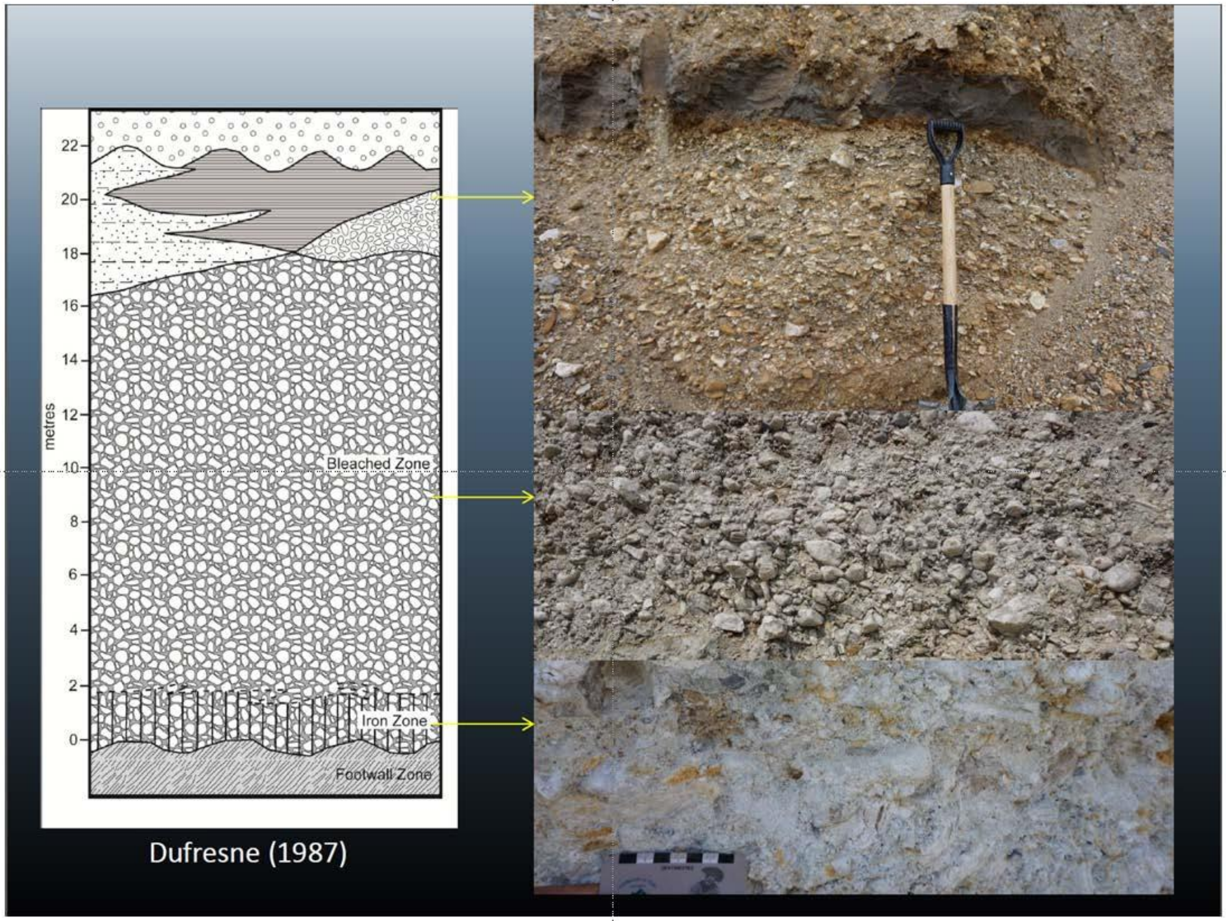

Figure 6: Example 1 of Paradise Gravel Formation (Jeff Bond, 2015)

The Iron Zone is the clay altered placer bearing gold gravel unit that Jeff is calling the Paradise Gravel.

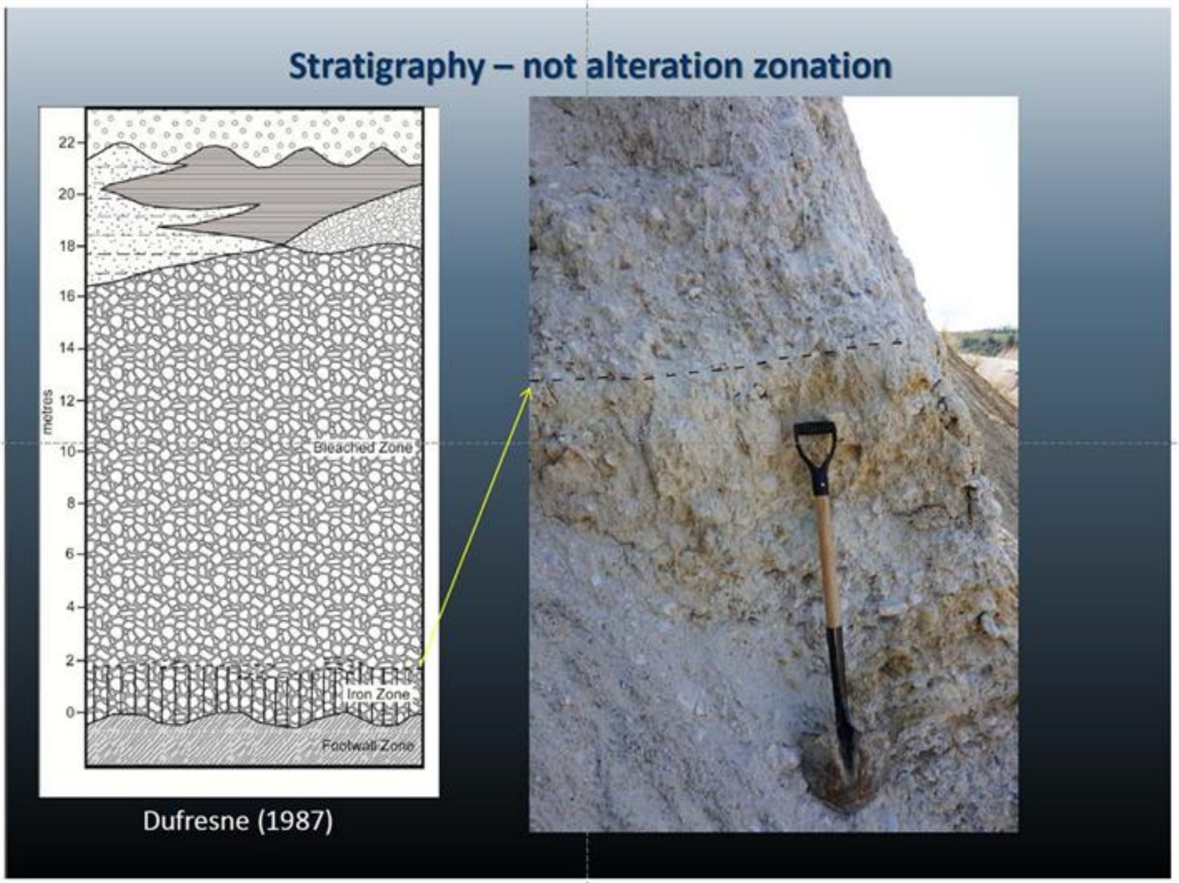

Figure 7: Example 2 of Paradise Gravel Formation (Jeff Bond, 2015)

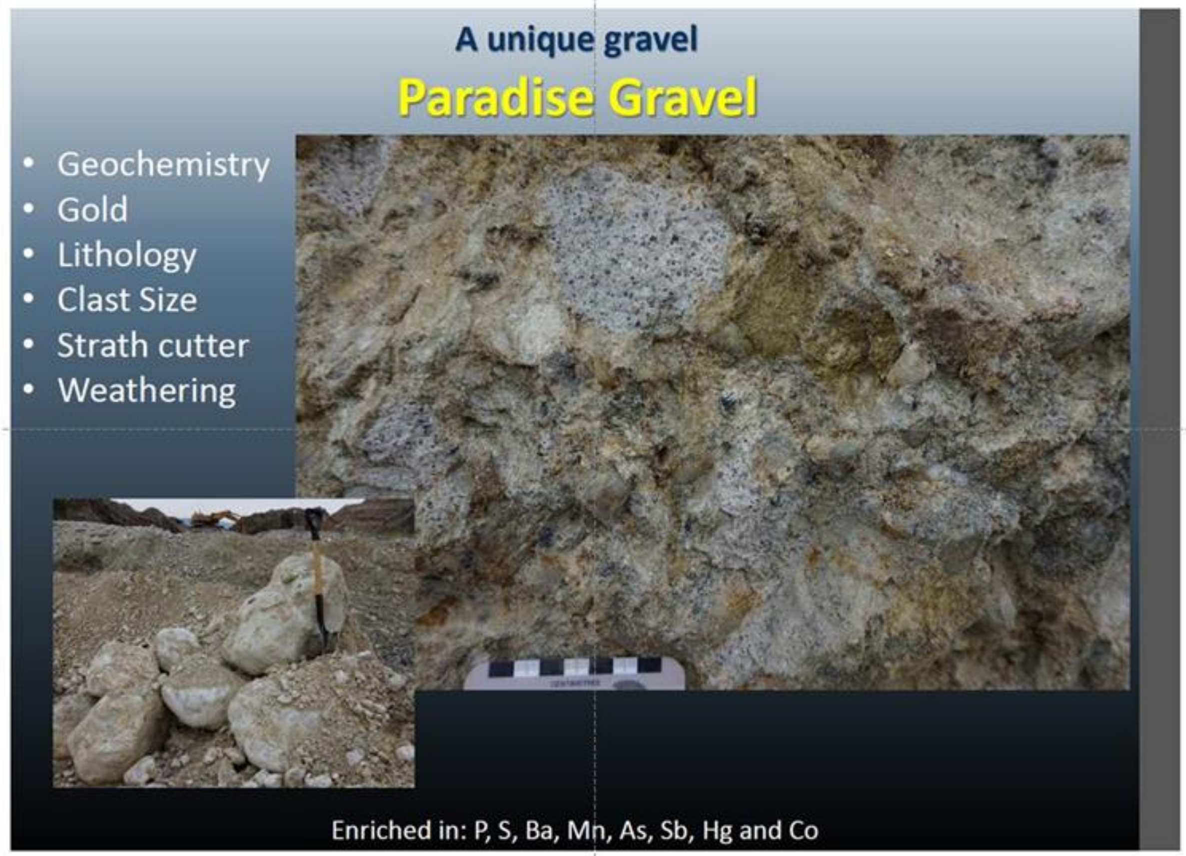

Figure 8: Detail of the Paradise Gravel Composition (Jeff Bond, 2015)

The Paradise Gravel is a unique gravel that appears to be rich in clay and iron. These two factors make it an ideal target for the proposed geophysical targeting techniques.

6 Resistivity and Induced Polarization Survey

6.1 Personnel

The survey was conducted by the following GroundTruth Exploration personnel:

1. Chad Cote	Project Manager
2. Jennifer Hanlon	Foreman
3. Patrick Dunbar	Field Technician
4. Luke Severinsen	Field Technician
5. Peter Leith	Field Technician
6. Norbert Kappa	Field Technician

6.2 Work Performed

The line-brushing and High Resolution DC Resistivity (Res) and Induced Polarization (IP) survey was conducted from 5-7 June, 2016 on Placer Claim P517271-74 & P517266-68.

The line was surveyed using the Schlumberger Inverse array. This array is a sounding array optimized to delineate horizontal structures and has the best overall signal-to-noise ratio and the most lateral coverage. It is an ideal array for finding depths to stratigraphic layers such as muck, sand, gravel and bedrock.

The traverse was surveyed using Advanced Geosciences SuperSting Resistivity Meter: A high resolution system consisting of 84 electrodes.

This survey consisted of an initial reading with the 84 electrodes, and four 42 electrode roll-alongs to extend the survey a total length of 1255 ground meters (figure 10). Electrodes were spaced at 5m, giving a horizontal resolution of 2.5m, a potential depth of investigation of 79m at the deepest and 40m at the shallowest parts of the array (figure 09).

The traverse location was surveyed with a ProMark3 differential GPS units and post processed using GNSS Solutions to obtain accurate horizontal and vertical position.

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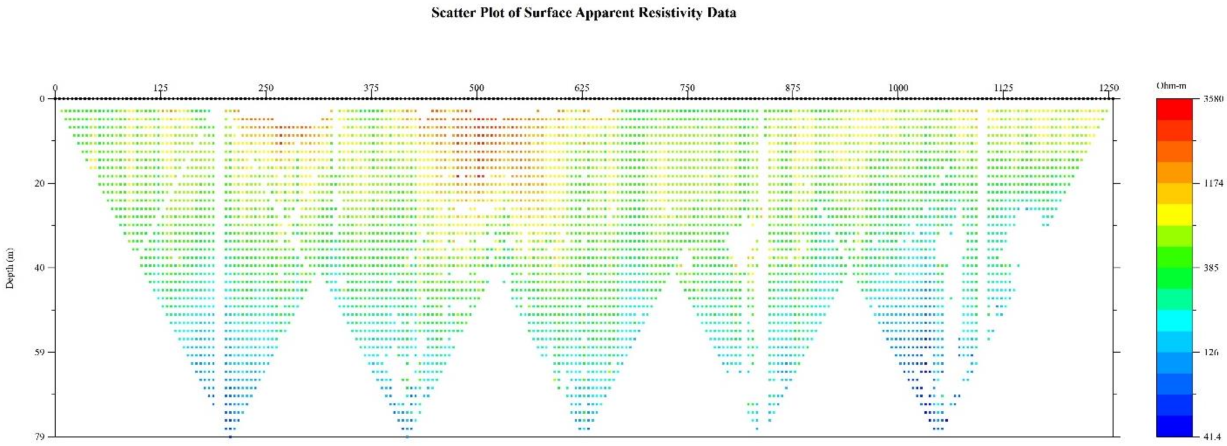

Figure 9: Distribution of resistivity data points

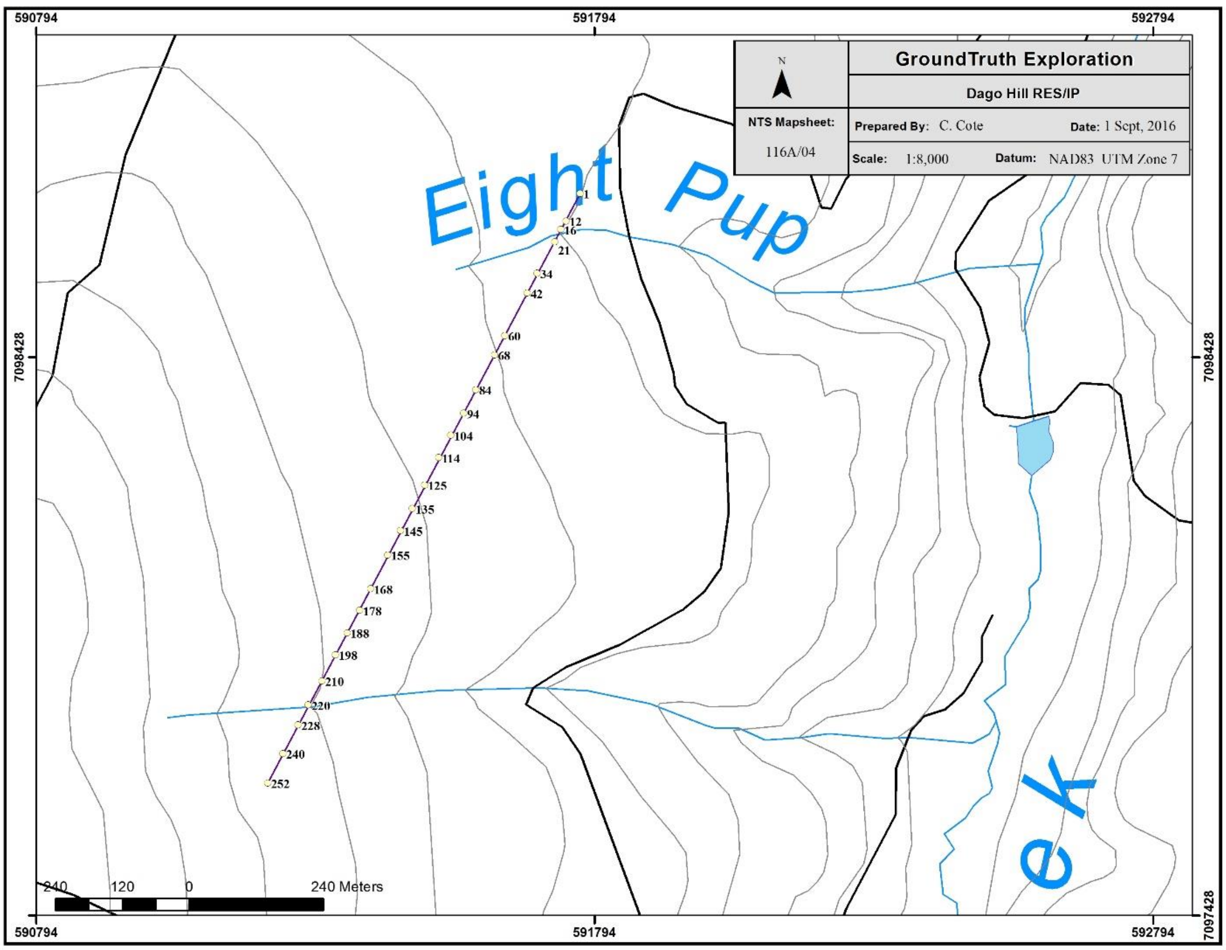

Figure 10: Overview of Resistivity/IP traverse

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6.3 Field Survey Operating Procedures:

- A crew of 5 is utilized to run survey.
- The midpoint of a traverse is located and the line is sighted-in using a DGPS.
- Minimal brush is cut along line to sight pickets and lay cables
- Crew places electrode at 5m spacing with measuring tape
- Electrodes are hammered to a depth of 30cm (10% of electrode spacing)
- Cables are laid and attached to the electrodes
- Contact resistance test is conducted
- Calcium Chloride (25% solution) added to all electrodes >2k ohms. CRT reread.
- Extra electrodes added to high CR electrodes. CRT reread.
- With satisfactory Contact Resistance, Survey is Read.
- Operator surveys the traverse using DGPS and marks the traverse with pickets every 10 electrodes.

6.4 Data Processing

The collected data is downloaded in the field after every array and checked for integrity. This allows any field errors to be identified before moving the equipment. The RES data is processed daily by the lead operator using EarthImager2D software provided by Advanced Geosciences Inc. Resistivity data-misfits are removed and the cleaned data-set is inverted. Terrain corrections collected using a differential GPS are applied to the inversions. The DGPS data is processed using GNSS Solutions software. A .csv is created containing the DGPS traverse points collected. All instrument raw data from the DGPS and SuperSting are archived.

A .csv file is created containing the traverse points collected.

6.5 Survey Results

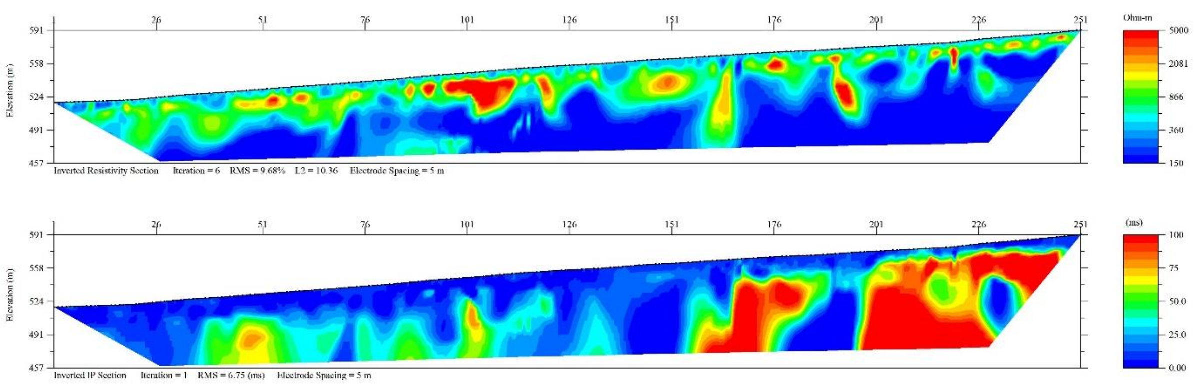

Figure 11: Resistivity and IP Inversions

6.6 Initial Interpretation

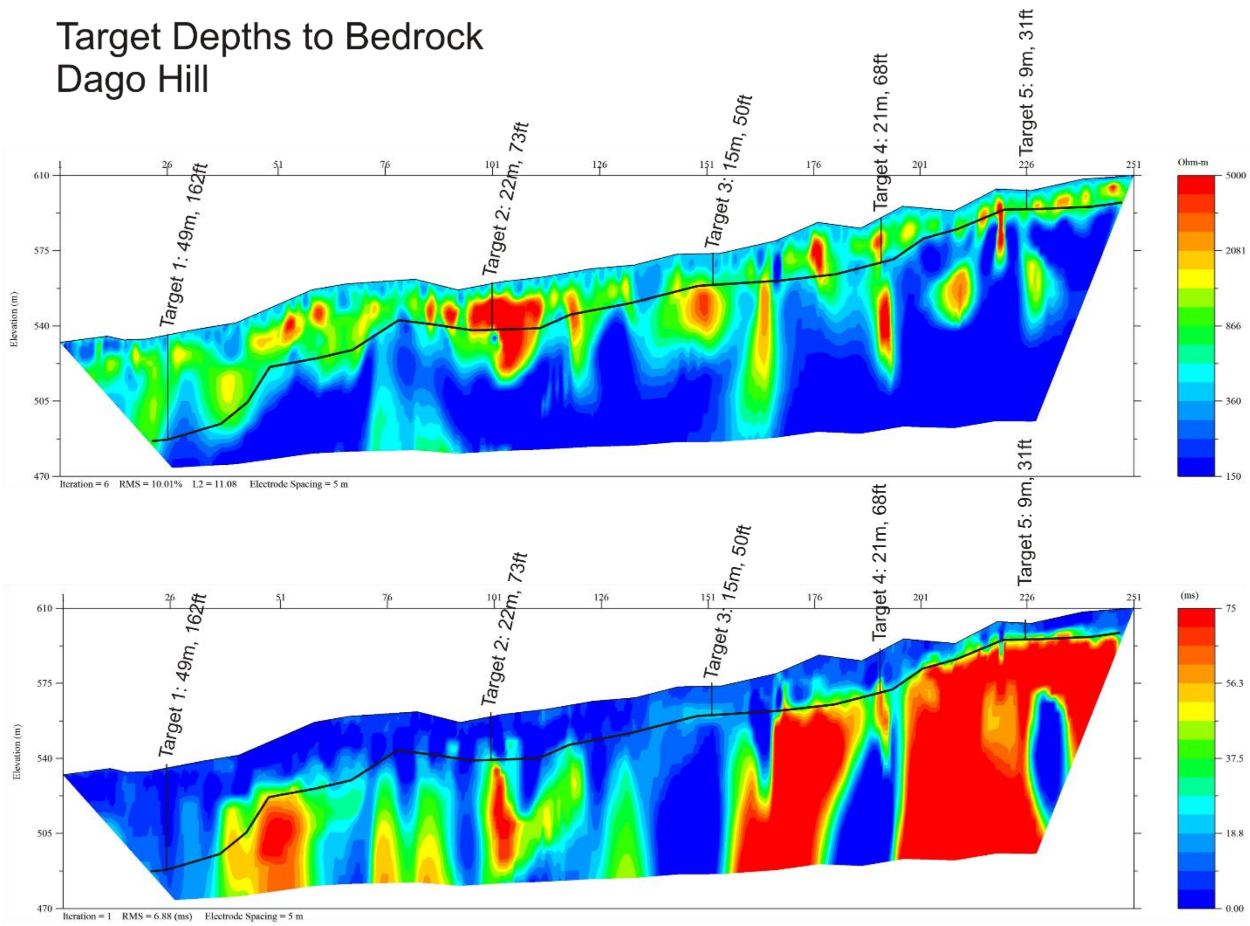

Figure 12: Interpreted Depths

By comparing the RES and IP inversions a bedrock interface was interpreted, as seen in figure 12. 5 drill targets were identified along this line. The targets were designed to interrogate the major features found along both the IP and RES inversions, to test the accuracy of the interpreted bedrock depth, and to determine sediment and bedrock composition and characteristics.

7 Rotary Air Blast (RAB) Drilling

7.1 Personnel

The drilling was conducted by the following GroundTruth Exploration personnel:

1. Tom Griffis	Lead Driller
2. Chris Miller	Drill Helper

7.2 Work Performed

The 2016 Drill program on the Hunker project consists of two holes: DAGRAB16-01 and -02. DAGRAB16-01 was positioned to investigate RES/IP target 2, with a total depth of 27.4m (figure 12 & 13).

DAGRAB16-02 was positioned to investigate RES/IP target 3 with a total depth of 15.2m (figure 12 & 13).

7.3 Field Survey Operating Procedures:

The GT RAB Drill is a light weight rotary percussion drill rig mounted on a set of rubber tracks. The drill itself is powered by a 44.2 hp turbo charged Kubota diesel engine. It has a hydraulically operated tilting mast capable of drilling angles from 55 – 90 degrees and uses 1.5m drill rods. There are 4 hydraulically operated vertical outriggers on the drill for self-leveling on drill sites. The GT RAB Drill is also equipped with a wireless remote control system used to drive it between drill sites. The rubber tracked platform on the GT RAB Drill has 2400sq inches of track coverage area giving it 1.8psi ground pressure allowing it to be extremely versatile and low impact in the field.

The GT RAB Drill is a grassroots exploration drill rig that involves the use of DTH rotary percussion drilling equipment using compressed air from a stationary air compressor which is connected to the drill using air hose. The drill uses a pneumatic reciprocating piston driven ‘hammer’ to energetically drive a drill bit into the rock. The drill bit, which is tungsten carbide tipped, is inserted into the end of the hammer which is then threaded to the end of a drill rod string. Compressed air is fed through the drill rod string to the DTH hammer and with rotation from the top drive; cuttings are then returned to the surface through the annulus under pressurized exhaust air. Cuttings then pass through

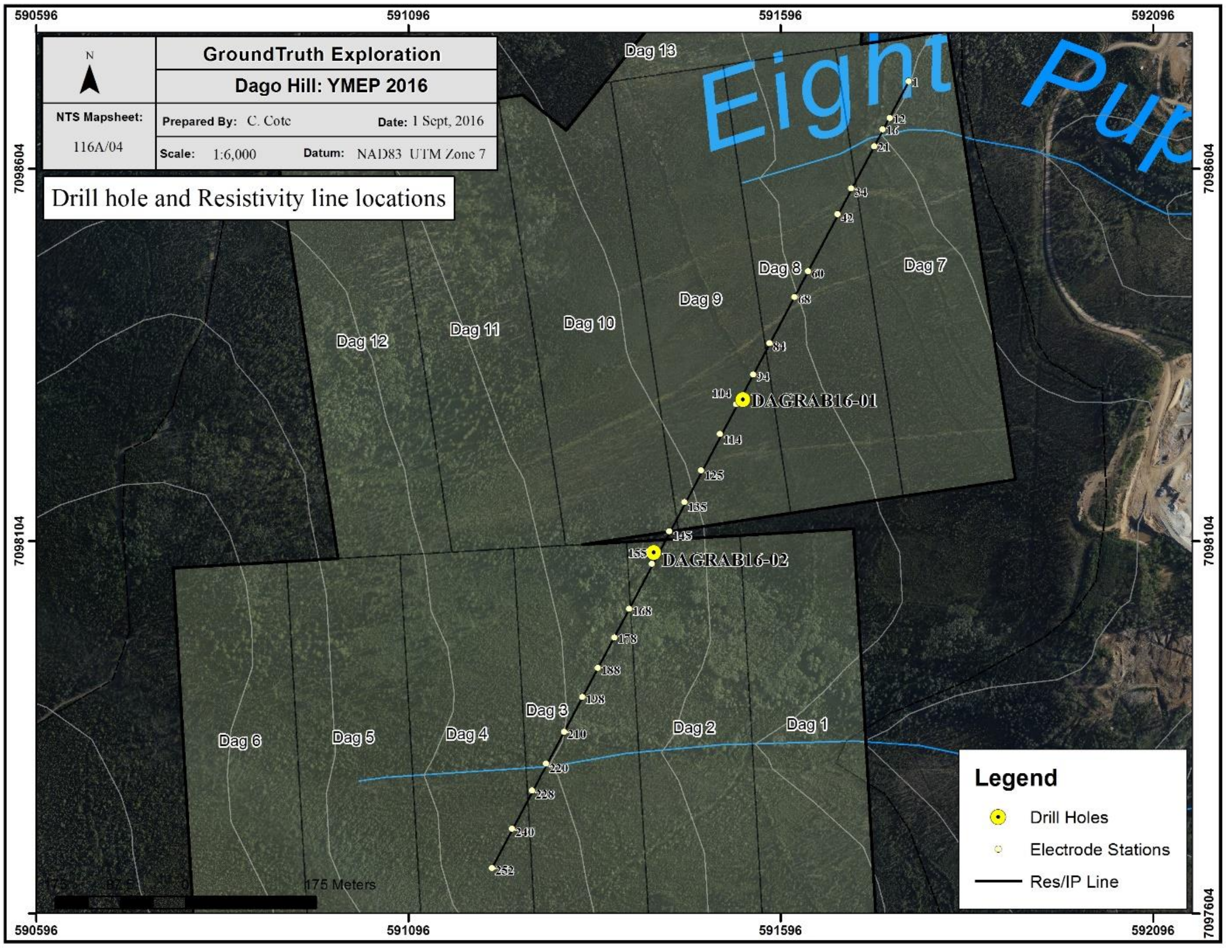

Figure 13: RAB Drill Hole Locations

the diverter/BOP and continue to the cyclone and are collected in the 20L container at the bottom of the cyclone. The cuttings are then put through an 8:1 splitter and split, the homogenous sample is then logged and chips inserted into a chip tray indicating depth.

7.4 Drill Results

The folowing tables outlines the results from the two drill holes:

Table 1: Results from DAGRAB16-01

Depth_From_m	Depth_to_m	Description	Unit
0.0	18.3		Overburden
18.3	19.8	White Gravel	White Channel Gravel
19.8	22.9	Rusty Gravel	Paradise Gravel
22.9	24.4	Deteriorated Bedrock	Bedrock
24.4	27.4	Compotent Bedrock	Bedrock

Table 2: Results from DAGRAB16-02

Depth_From_m	Depth_to_m	Description	Unit
0.0	10.7		Overburden
10.7	15.2	Rusty Gravel	Paradise Gravel

8 RESOLVE Survey

8.1 Personnel

The survey was conducted by CGG, based out of their Calgary office (1108-55th Avenue NE, Calgary, AB. Ph: 403.275.3544)

8.2 Work Performed

The RESOLVE survey flew 129 line km over the lower Hunker Creek targets, covering all claims within the grouping on November 13th, 2016.

8.3 Survey Equipment

The RESOLVE airborne EM system is a frequency-domain EM system flown by CGG. It consists of a towed bird flown at a height of 30 m above the ground (Figure 14) . The helicopter is flown approximately 30 m higher than the bird for safety. The bird contains 6 transmitter-receiver pairs, with 5 pairs oriented in the horizontal or coplanar configuration and one pair oriented in the vertical or coaxial configuration (Figure 15). The frequencies used for this survey were 400 Hz, 1800 Hz, 8200 Hs, 40 kHz and 140 kHz for the 5 coplanar configuration. The coaxial pair and the magnetic channels, although they were recorded, were not used for this investigation.

The electromagnetic receivers measure the voltage using Faraday's Law. i.e. the voltage is proportional to the time rate of change of the magnetic field. For each transmitter-receiver pair, the RESOLVE system measures the ***normalized*** voltage (V_N) in parts per million (ppm) which is the ratio of the secondary voltage (V_S) caused by conductors within the subsurface divided by the primary or free space voltage (V_P) which is the voltage that comes directly from the transmitter, i.e. when there are no conductors present. Therefore the normalized voltage is: $V_N = V_S/V_P$. The voltage measured in the receiver is produced through the process of electromagnetic induction (eddy currents in

Figure 14: Pictures of the RESOLVE bird on the ground and in flight.

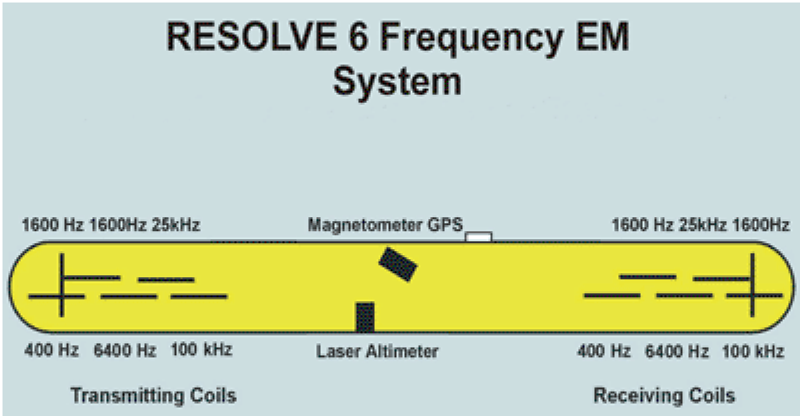

Figure 15: Schematic diagram showing location of 5 transmitter-receiver coil pairs for the coplanar configuration and the single transmitter-receiver pair for the coaxial configuration.

the sub surface) which produces a phase shift between the transmitter current and the measured receiver voltage. That part of the normalized voltage that is in-phase with the transmitted current is called the in-phase voltage and that part of the normalized voltage that is exactly 90 degrees out of phase with the transmitted voltage is called the quadrature voltage. These two voltages are measured in ppm because the primary voltage, which is the voltage coming directly from the transmitter to the receiver, is significantly larger than the secondary voltage that emanates from the subsurface

8.4 Data Processing

The normalized voltages are converted to resistivity profiles and resistivity depth slices using the in-phase and quadrature values for all the frequencies. The simplest way is to generate differential resistivity sections (Sengpiel, 1988; Huang and Fraser,1996. Although not a true inversion, they provide a fairly accurate representation of resistivity versus depth. One dimensional multilayer inversions are possible using the same set of data as well. Figure 16 is a comparison of a 4 layer 1D resistivity cross section and differential resistivity cross section for RESOLVE data from a gravel mapping study carried out in NE BC (Best et al. 2006). The two methods generate nearly identical results. The differential resistivity sections can be generated much faster and cheaper than layered earth inversions. Consequently, differential resistivity sections are used for this study.

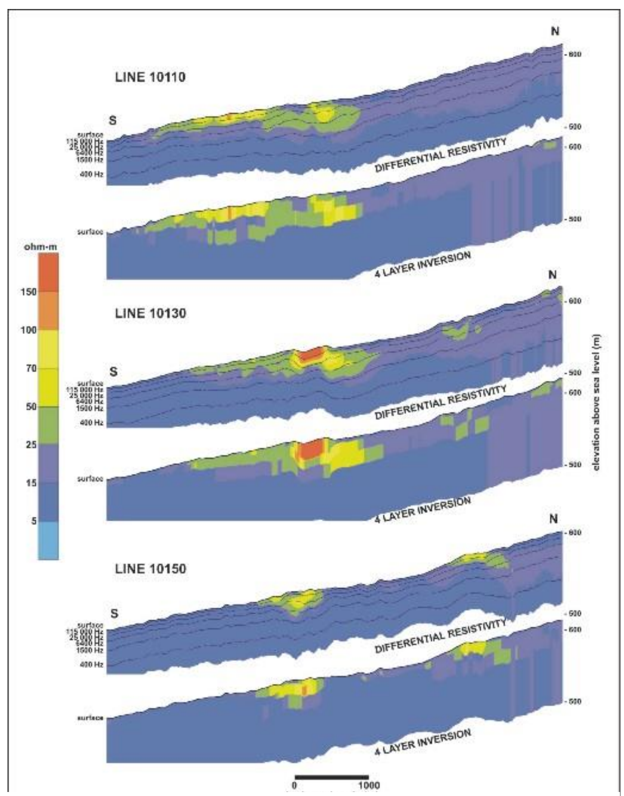

Figure 16: Comparison of diferential resistivity and a four layer one dimensional inversion for RESOLVE data (Best et al, 2006)

8.5 Survey Results

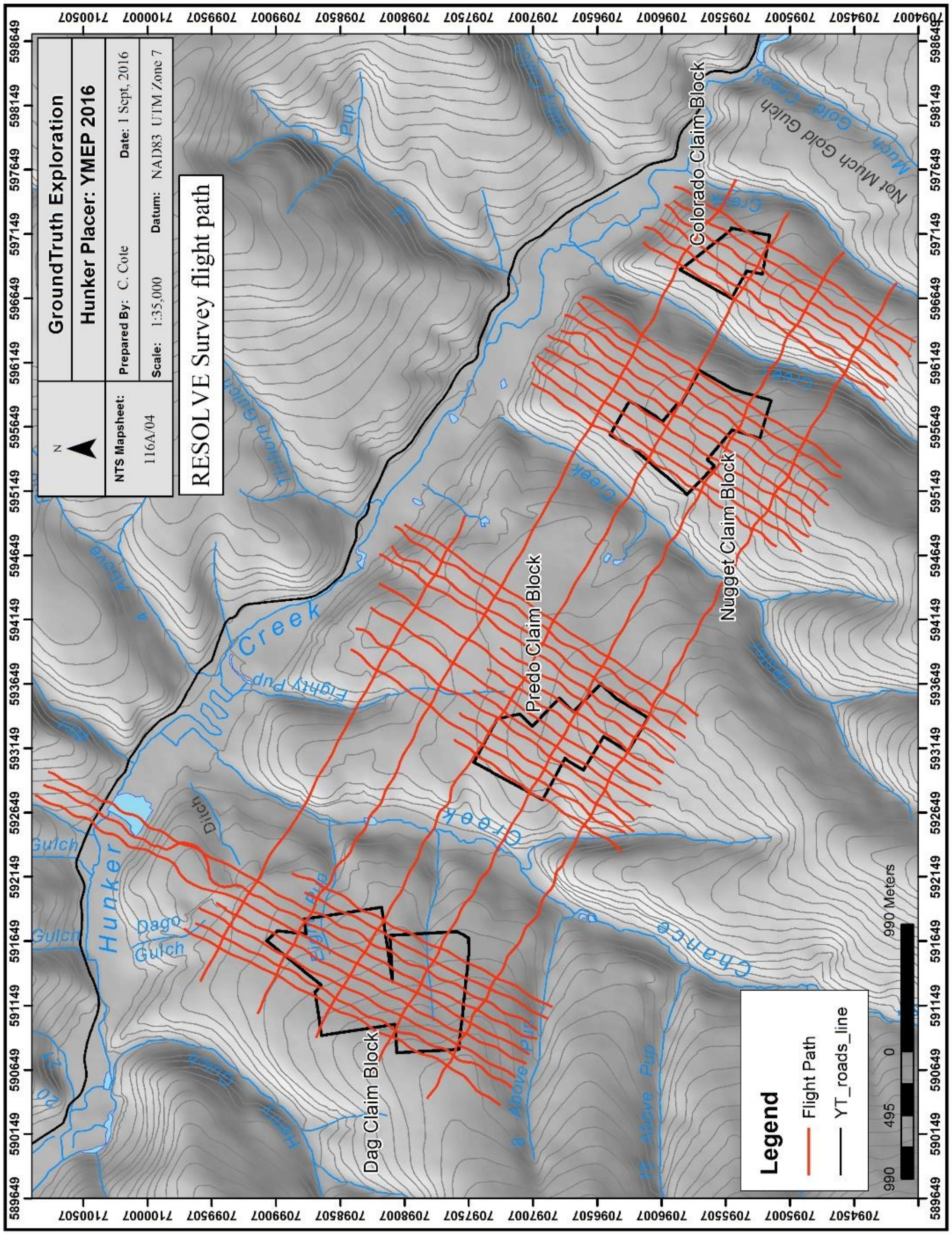

Figure 17: Flight path of RESOLVE survey showing NE-SW primary flight lines and tie lines perpendicular to the primary lines.

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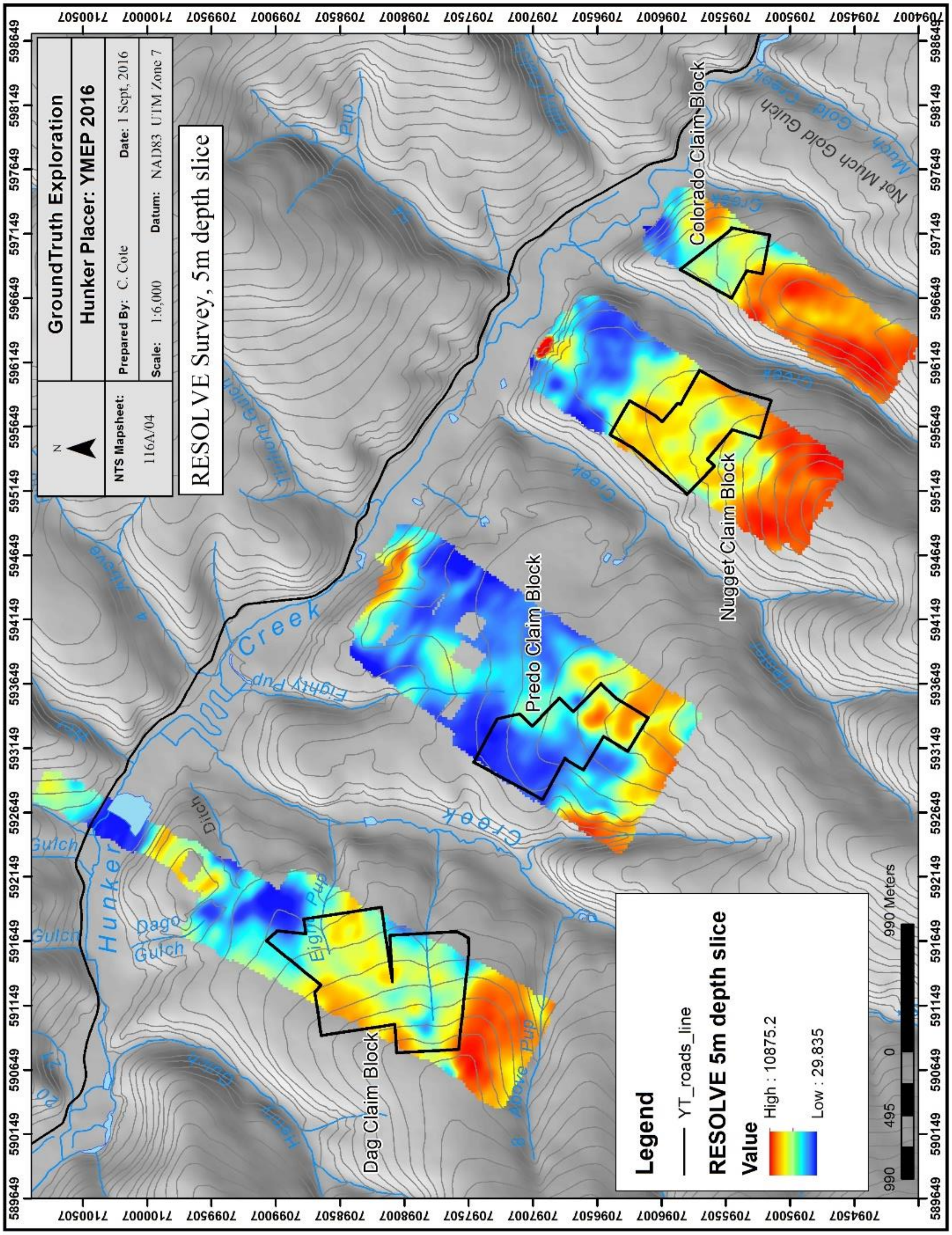

Figure 18: RESOLVE Plan Map showing extent of survey with a 5m resistivity depth slice in Ohm-m

9 X Cam Survey

9.1 Personnel

The survey was conducted by GroundTruth personnel, Quang Ngo, and Alpine Aviation of Whitehorse, Yukon.

9.2 Work Performed

The XCam flew the lower Hunker Creek target with an hour flight on October 25th, 2016. The survey covered approximately 150 km^2 at an altitude of 3000m. This produces a georeferenced orthoimage, point cloud, and digital elevation model with 28cm resolution.

All claims within the grouping were covered by the survey.

9.3 Survey Equipment

The XCam pod is a plastic pod created by Waldo Air containing two cameras set to capture a panoramic shot. The pod is mounted onto bar attached a strut on the plane (figure 19). The bar is parallel to the wing, which will be parallel to ground in flight, but angled slightly upwards on the ground since the plane is a tail-dragger. The pod is attached with two ring to a curved metal plate on the bar.

Inside the pod are two Canon cameras and a single usb hub. The cameras are both connected to the hub which is connected to a microcontroller to the rear ports.

Figure 19:The pod secured the bar attached to the strut.

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These ports connect cables (usb and coaxial) to the external GPS unit mounted to the top of the wing, the external batter, and the tablet: the latter two situated inside the plane. The GPS is connected to the microcontroller first to provide location data for the photo metadata.

Inside the plane is the tablet, two external camera batteries, and in inverter. The pod does not have an internal power source and can not run off power from the plane, instead custom batteries are used. The tablet itself also runs out of power fast during a survey. It is charged with the plane through an inverter.

On the tablet will be software to create and view missions live as they are being surveyed. It has software to utilize the external GPS and provide heading corrections to ensure correct coverage and overlap of photos. It is also possible to view the camera image live via the tablet and Canon software. All the mission parameters (ie. target area, elevation, flight lines) are chosen with mission creation and can not be changed during a mission. The only settings that can be altered without creating a new mission are camera settings (ie. shutter speed, f-stop, and ISO).

9.3.1 Notable configurations for the Yukon.

Due to the high latitude of the Yukon, there is a much lower sun angle: and exacerbated during fall and winter. Thus higher light settings than normal are recommended. The typical settings are shutter speed of 1/4000, ISO1600, and fStop 4.5. In even darker conditions the fStop can be lowered to 4.0 and the shutter increased to 1/2000. Alternatively, in high snow glare, the shutter and ISO can be lowered to 1/8000 and 800 alternatively.

9.4 Data Processing

The collected data is downloaded in the field after every flight and checked for integrity. This allows any low quality imagery to be identified and resurveyed while onsite. The drone imagery data is processed every evening by the lead operator in the field using Postflight Terra 3D software provided by Sensefly. The initial orthorectified image product is generated by an automated process. This image is then cleaned up manually within the Postflight software by visually checking for low quality portions of the image and selecting another overlapping image for that location. The final cleaned image and DEM product is the result of this manual QC process. The final Image and DEM are georeferenced to NAD83 UTM projection. A final QC report is generated automatically with the final cleaned product.

9.4.1 Standard data output:

Imagery:	Georeferenced Orthoimage (.geotiff format)
Digital Elevation Model:	Gridded Elevation model (geotiff format)
Automated Quality Report:	Report with survey statistics (.pdf format)

9.5 Survey Results

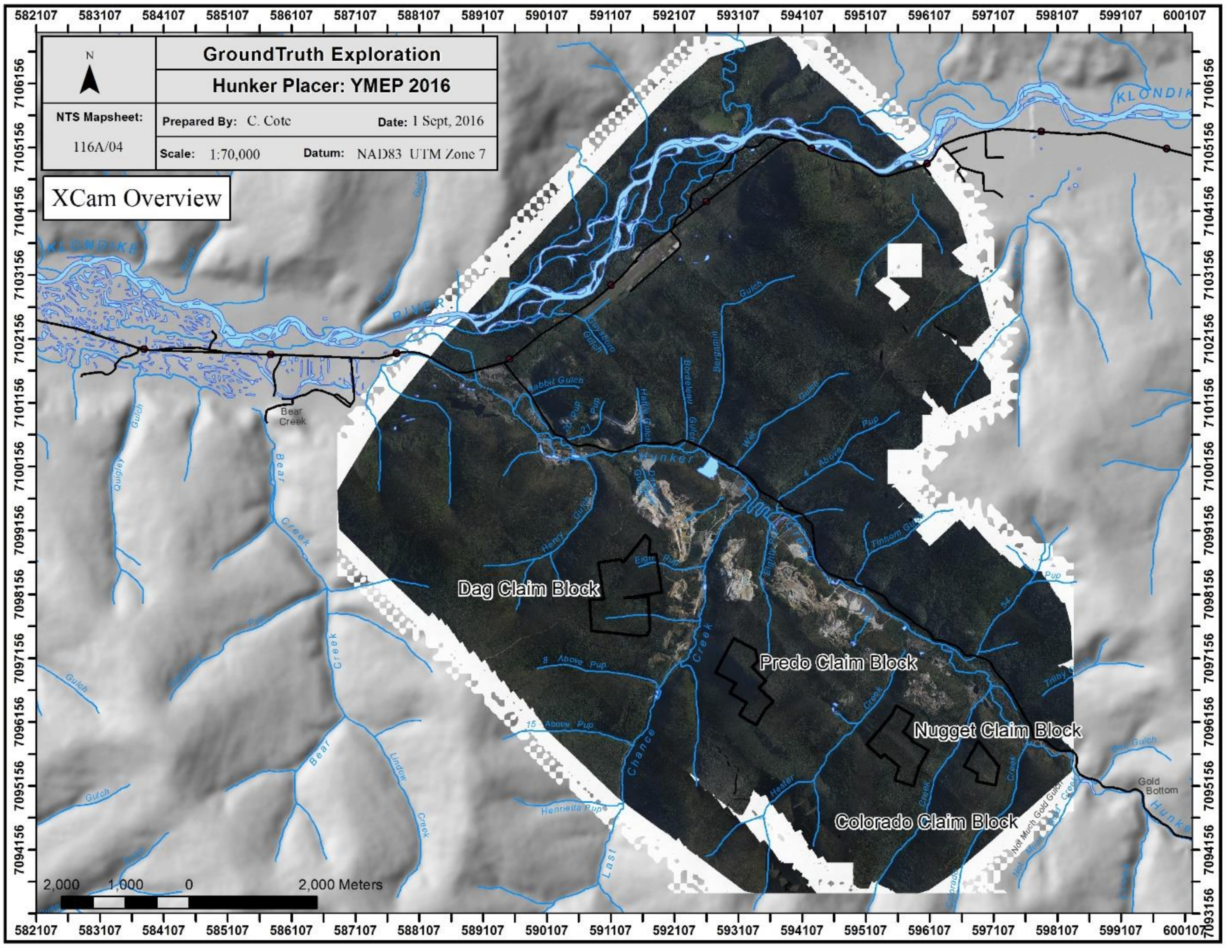

Figure 20: XCam Overview

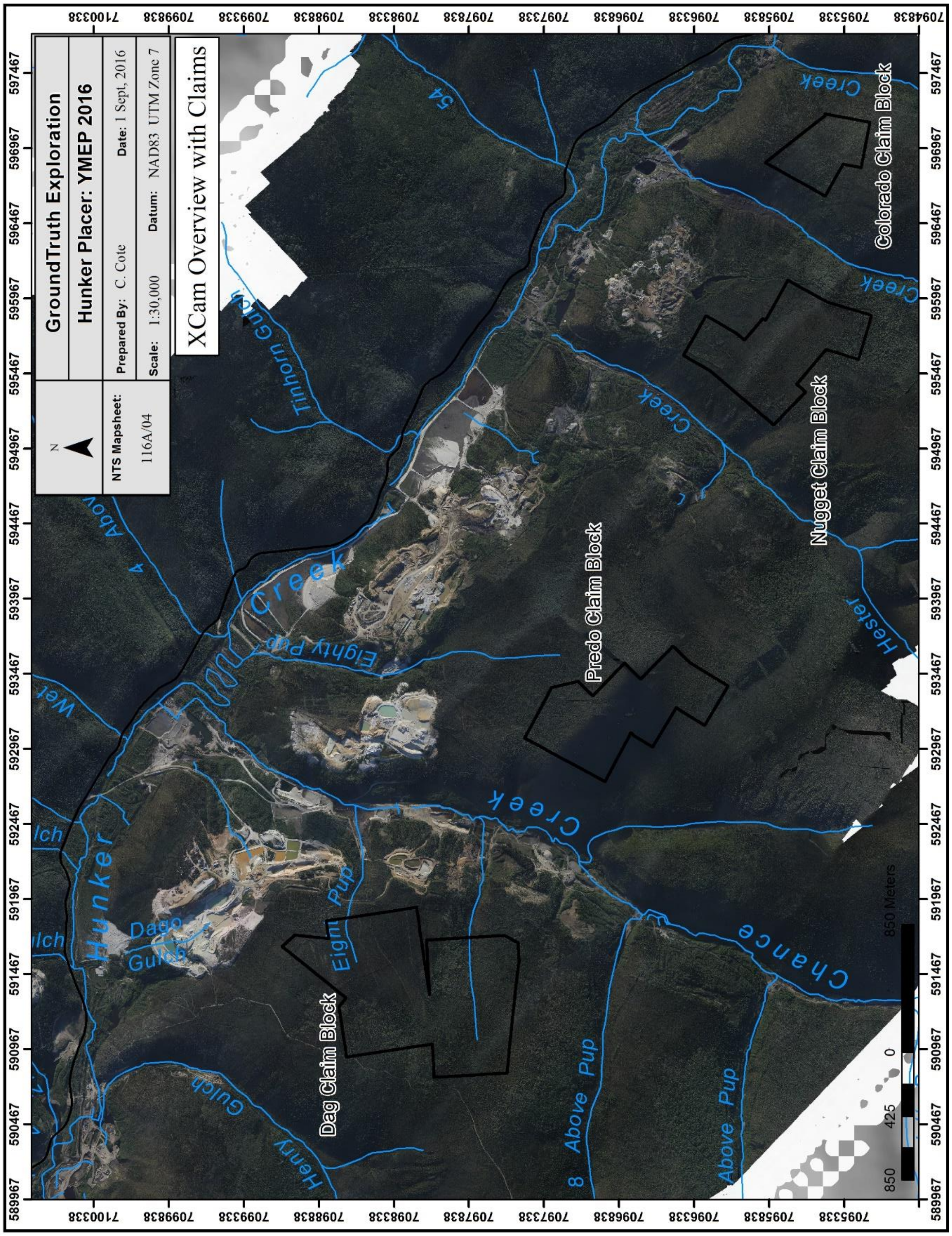

Figure 21: XCam Detail

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10 Discussion

A huge amount and diversity of data was collected over this project in the 2016 field season. The RESOLVE AEM survey completely covers the four claim blocks and the surrounding area to encompass the whole landform hosting the paradise gravels. This is necessary to understand and interpret the data accurately and in perspective with its surroundings.

The XCam photogrammetry also covers a massive swath extending far beyond the borders of the claims to give a broad perspective of the region and act as a good base for 3D modelling and mapping.

The ground based activities focused on the northernmost “Dag” claim block on Dago Hill (figure 22). The Resistivity survey is over an area of near surface, mid-high resistivity range RESOLVE data, and the two drill holes are also located in this same RESOLVE feature.

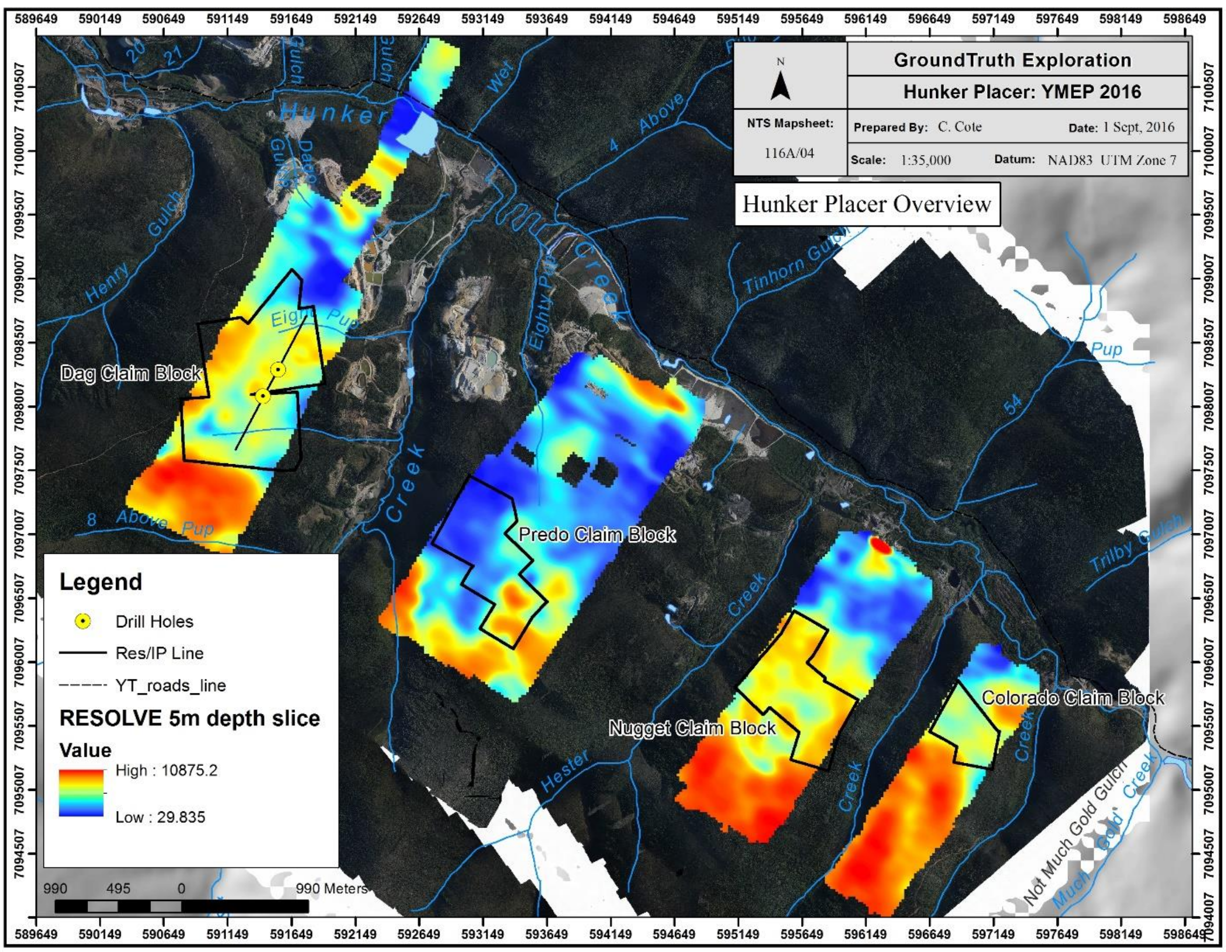

Figure 22: 2016 Work Overview

Figure 23, shows that drill hole 1 (the northern drill hole), is within the quartzite/schist DMN unit, while drill hole 2 is in the more mafic quartzite/schist/gneiss/amphibolite CPK unit. The DC Resistivity survey also crosses this boundary at electrode 127, or 630m.

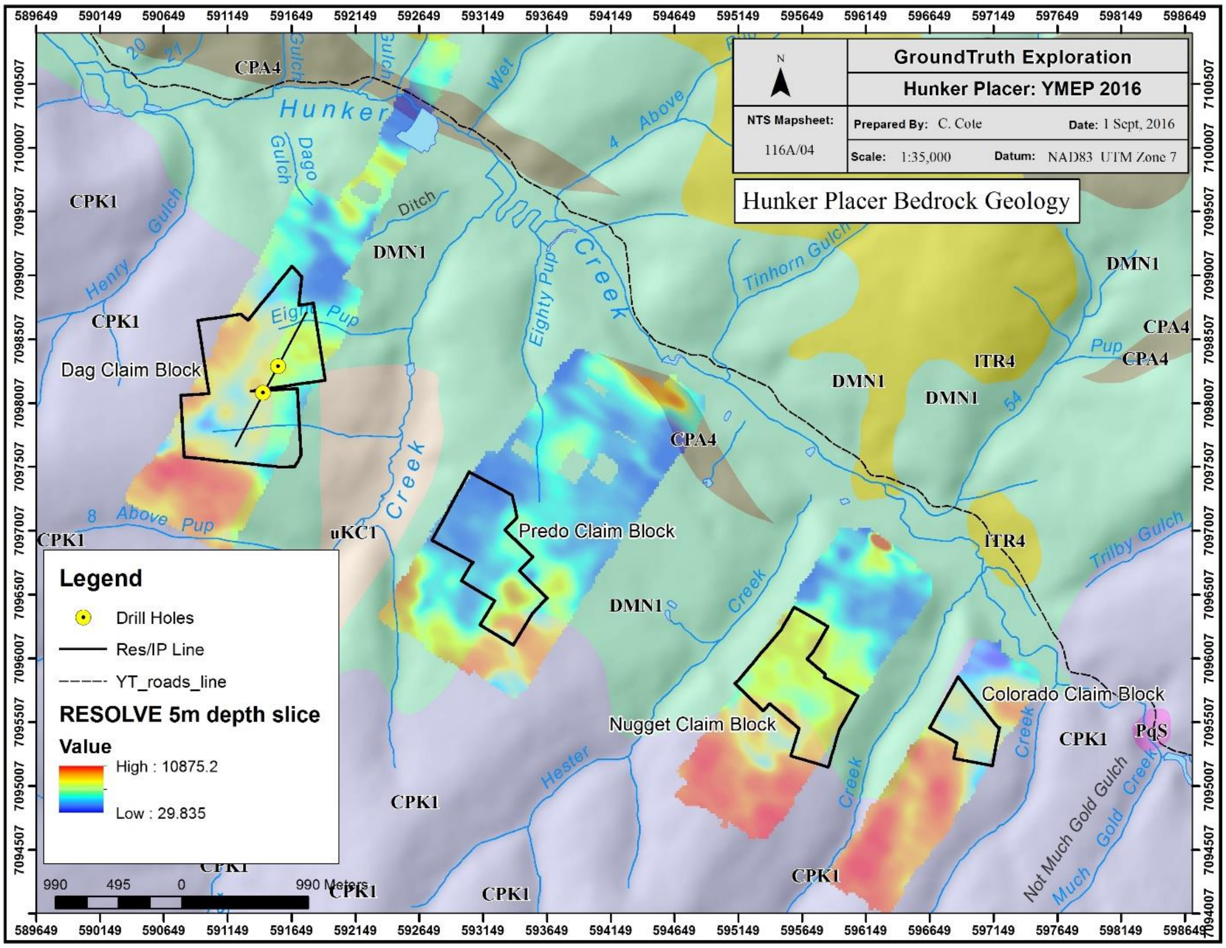

Figure 23: All data overlying regional geology

The target of this investigation is the Paradise Gravels. The 2 key features of the Paradise Gravel that make it a good target for this project are:

1. Its composition (figure 8)
2. Its location (figures 4 and 5)

The Paradise gravels have been reported to be gold bearing, and rich in both clay and iron. Clay and iron both have strong signatures in resistivity and Induced Polarization surveys. They have very low resistivity, and produce a high IP effect. This should contrast well with the overlying white channel gravels and solid bedrock, which contain less clay and so should have higher resistivity and lower IP effect. Mucky overlying overburden may show a similar geophysical signature, as will decomposing bedrock below this layer, making the exact boundaries hard to define.

Paradise gravel is theorized to be deposited on the bedrock surface. This is beneficial because this boundary should be more significant and thus easier to identify with the RESOLVE survey. This can then be used to define the depth to the target zone and zones of increased accumulation (paleochannels) can be theorized and tested.

There are two other complications to this project that make the interpretation difficult. The first problem is characteristic of the region being in the discontinuous permafrost zone. Figure 24 is a plot of different sediment types showing approximate ranges of resistivity values associated with frozen versus unfrozen zones (Hoekstra et al, 1975, Palacky, 1987, Minsley et al., 2012). If the resistivity values of sand and gravel are above 500 ohm-m they are typically frozen within a permafrost area whereas for clay the resistivity values above 200 ohm-m tend to be frozen.

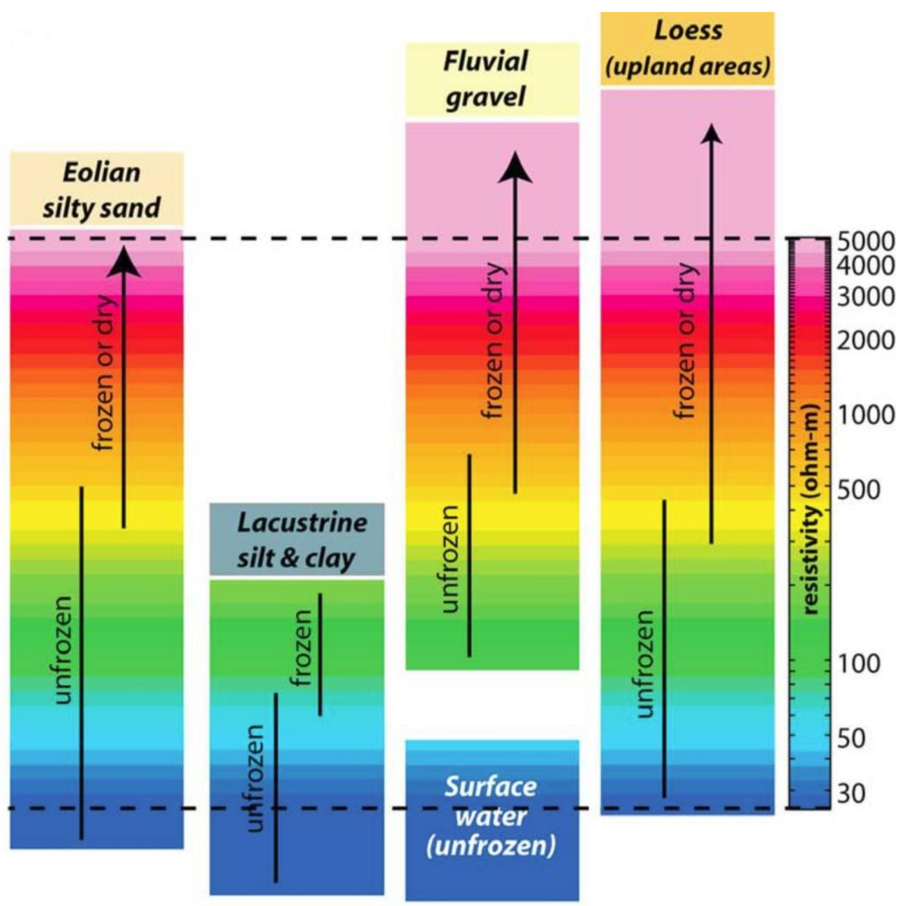

Figure 24: Plot of resistivity values in ohm-m versus frozen versus unfrozen sediment types (Minsley et al, 2012).

Partially and unfrozen sand and gravel can be seen to have resistivity values that can overlap those of frozen resistivity values depending on water content of these sediments. Therefore the interpretation of frozen versus unfrozen permafrost is not an exact science.

11 Interpretation

For the interpretation we will compare the RESOLVE AEM resistivity values against the ground DC resistivity and IP results. We will examine how the drill results matched with our initial bedrock depth interpretations and see if the drill results help to differentiate between sediment types and define the bedrock interface.

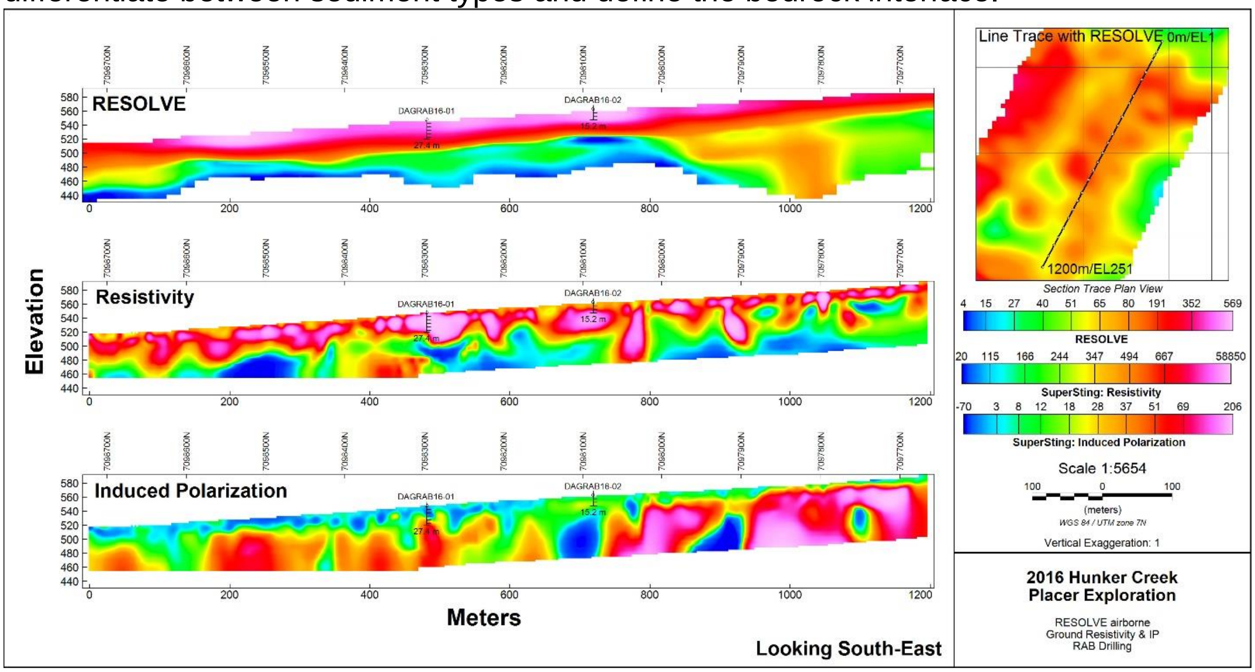

Figure 25: Concurrent RESOLVE, DC Resistivity and IP Results

Figure 25 compares the ground DC Resistivity and IP sections with a slice taken from the RESOLVE data at the same location. The drill holes are also displayed here with total depths and locations.

The RESOLVE data has a resolution of 20m cells compared to the ground surveys 2.5m resolution. This is apparent in its much smoother boundaries and blockier surface. By comparing the scale bars, we can see that the high end of the RESOLVE data is also 2 orders of magnitude smaller, with the highest value at 569 Ohm-m compared with the DC Resistivity's 58850 Ohm-m. This is common with EM surveys since EM is an inductive process which has difficulty distinguishing different higher resistivity values. Despite this, the main boundary formed between res high and low values from both surveys, as well as the IP high/low boundary, are very comparable in depths and form.

Figures 26 to 28 show the drill holes plotted over the three surveys. Hole DAGRAB16-02 went to a depth of 15.2 meters and did not end in bedrock. The last five meters is interpreted to be in the Paradise Gravels, however this interval does not correspond with a unique identifier in either the RESOLVE, RES, or IP datasets so is an inconclusive result for identifying the Bedrock interface or the Paradise Gravels.

The sediment intervals from hole DAGRAB16-01 match very well with the IP section. The top 18m of overburden is associated with an IP low ranging from 0-8msec. The gravels start at 18m, with 1.5m of white channel gravel, (which is not in the scale of the surveys resolution) and 3m of rusty gravel with clay that is interpreted as the Paradise Gravels. The 4.5m of gravel overlay the bedrock, and occupy a transition zone in the IP data from 8 to 20msec. The bedrock is characterized by a very high IP effect ranging from 20 to 70msec.

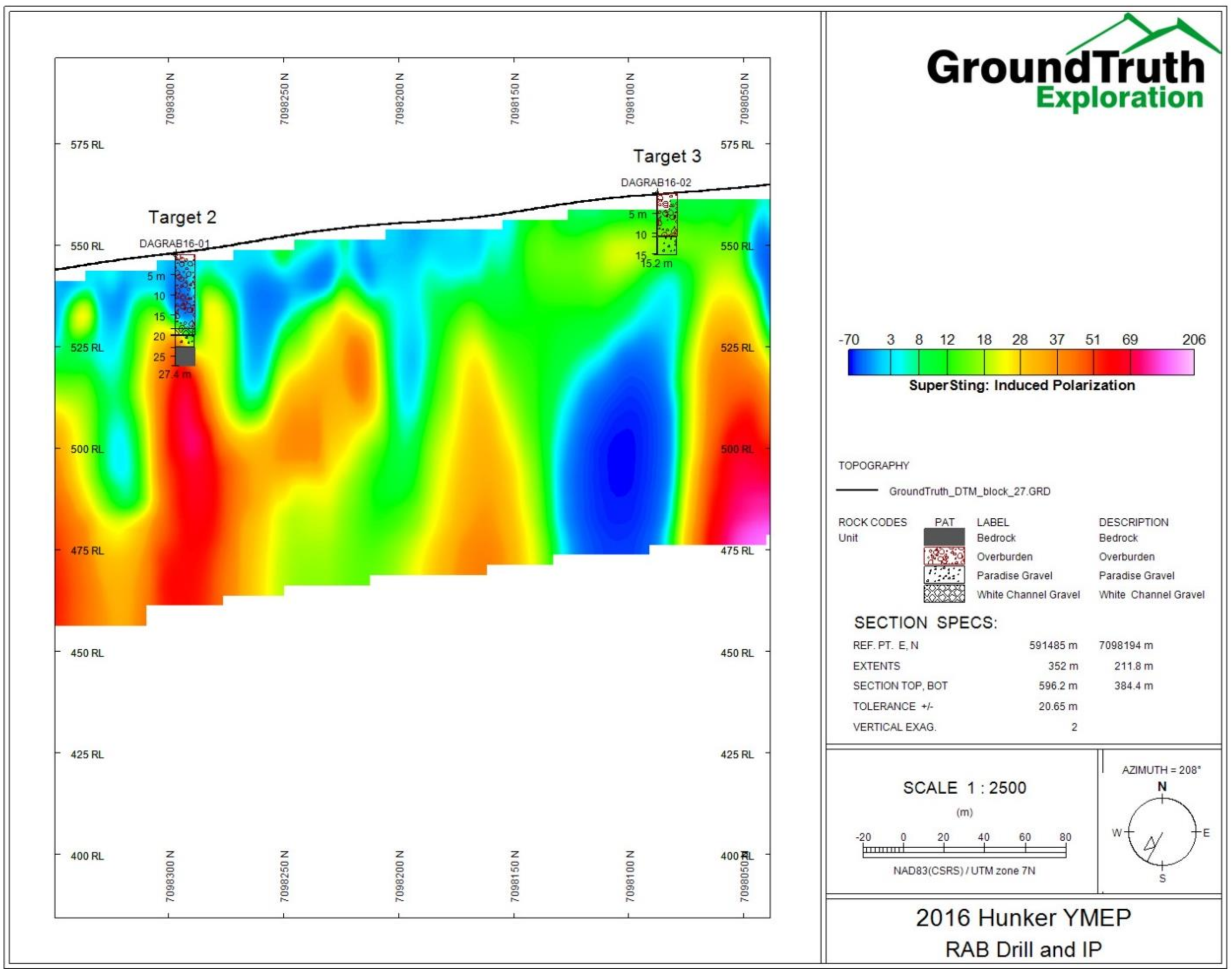

Figure 26: Drill Holes with IP

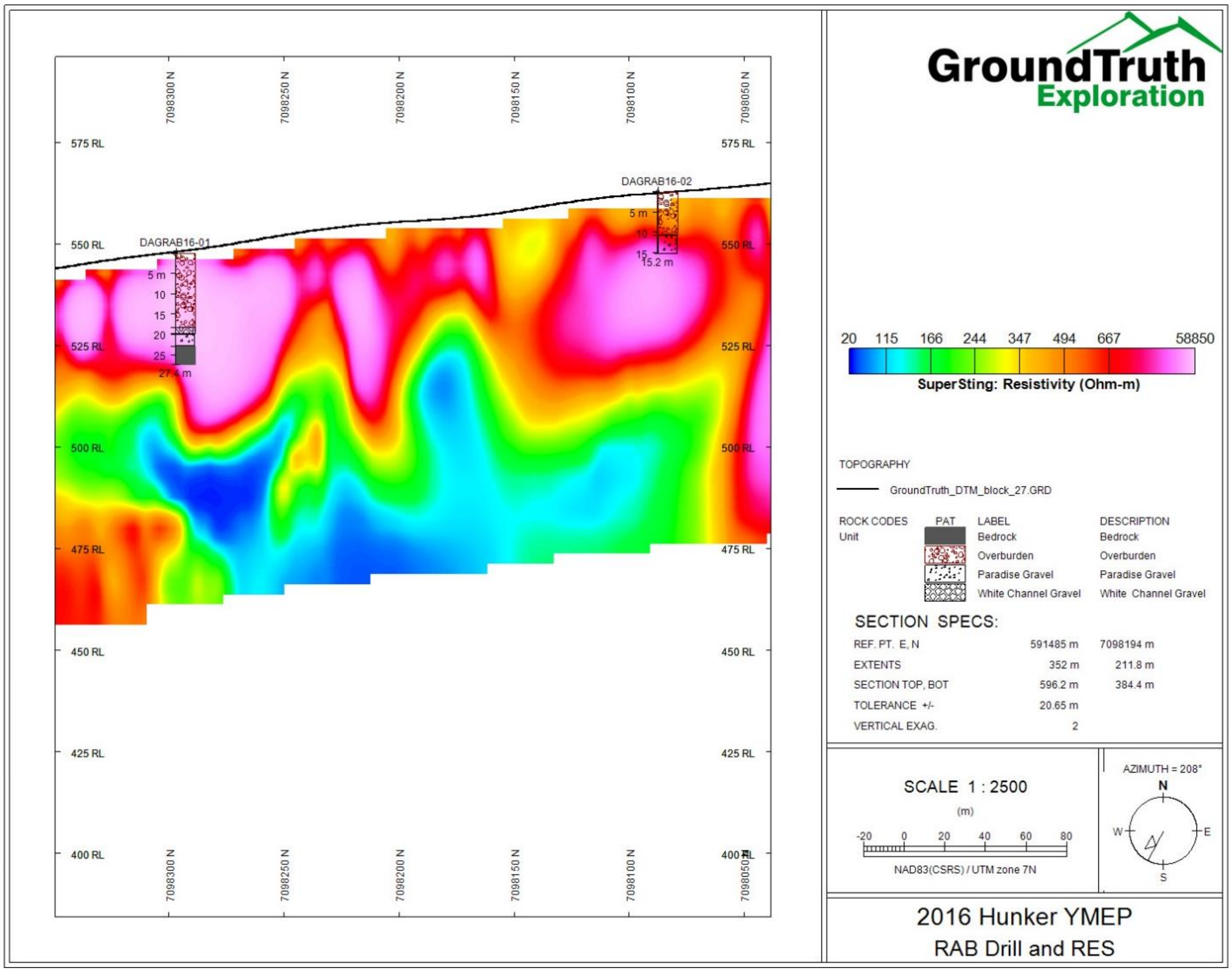

Figure 27: Drill Holes with DC Resistivity

The DC Resistivity data offers no definition of the sediment layers identified in DAGRAB16-01. This drill hole goes through a very resistive interval within the section. Taking experience from previous surveys in the region, and taking into consideration this drill hole goes through permafrost laden spruce bog, it still offers valuable data that can be used to estimate the depth to bedrock along the profile, as seen in figure 28. We have seen that the high resistivity values represent ice rich permafrost, and that the depth of this permafrost is slightly exaggerated by this survey.

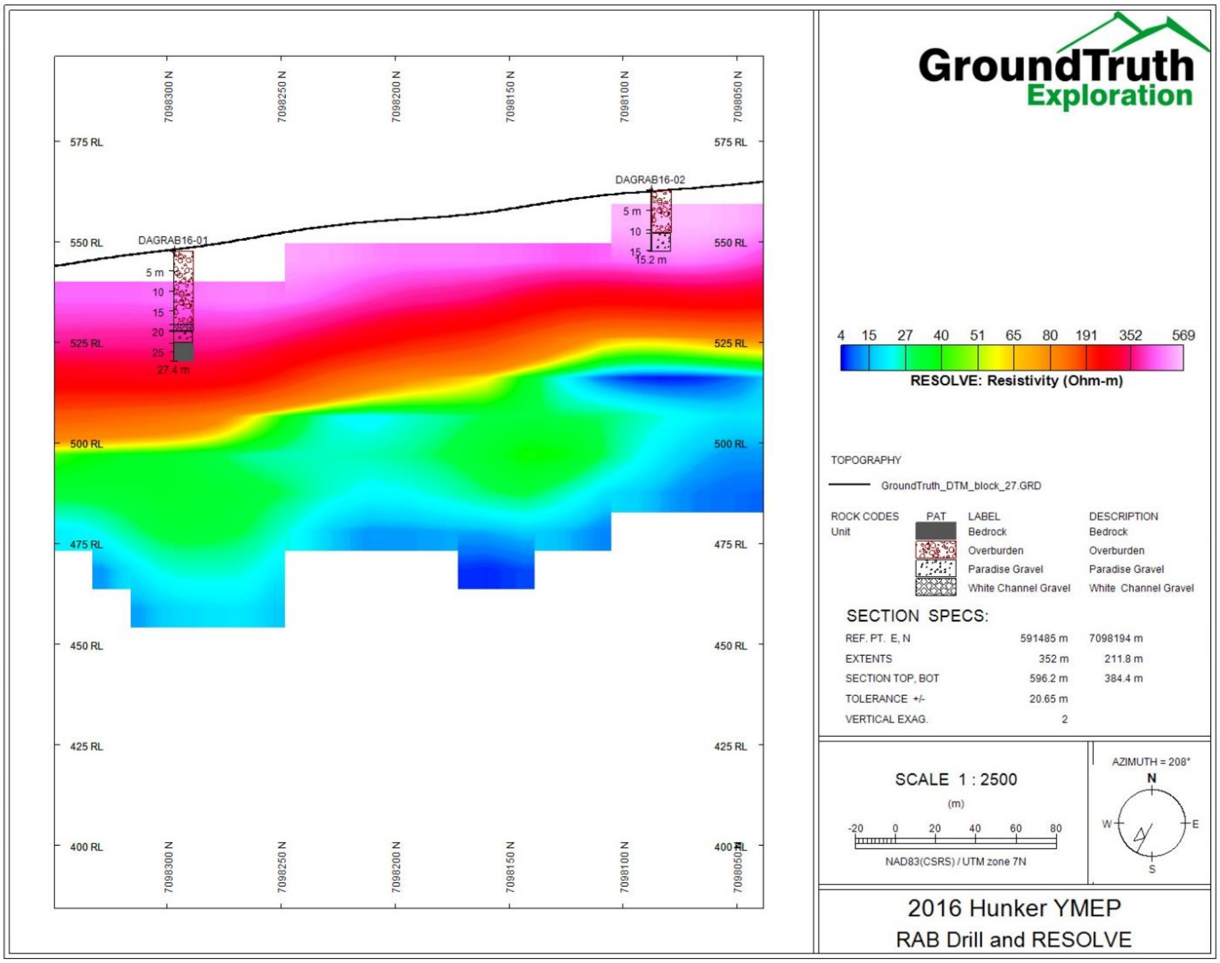

Figure 28: Drill Holes with RESOLVE resistivity

The RESOLVE data also offers no definition of the sediment layers identified in DAGRAB16-01, however it does give the general trend of the depth to bedrock, with the frozen permafrost identified as the highest resistivity ranging from 300-569ohm-m.

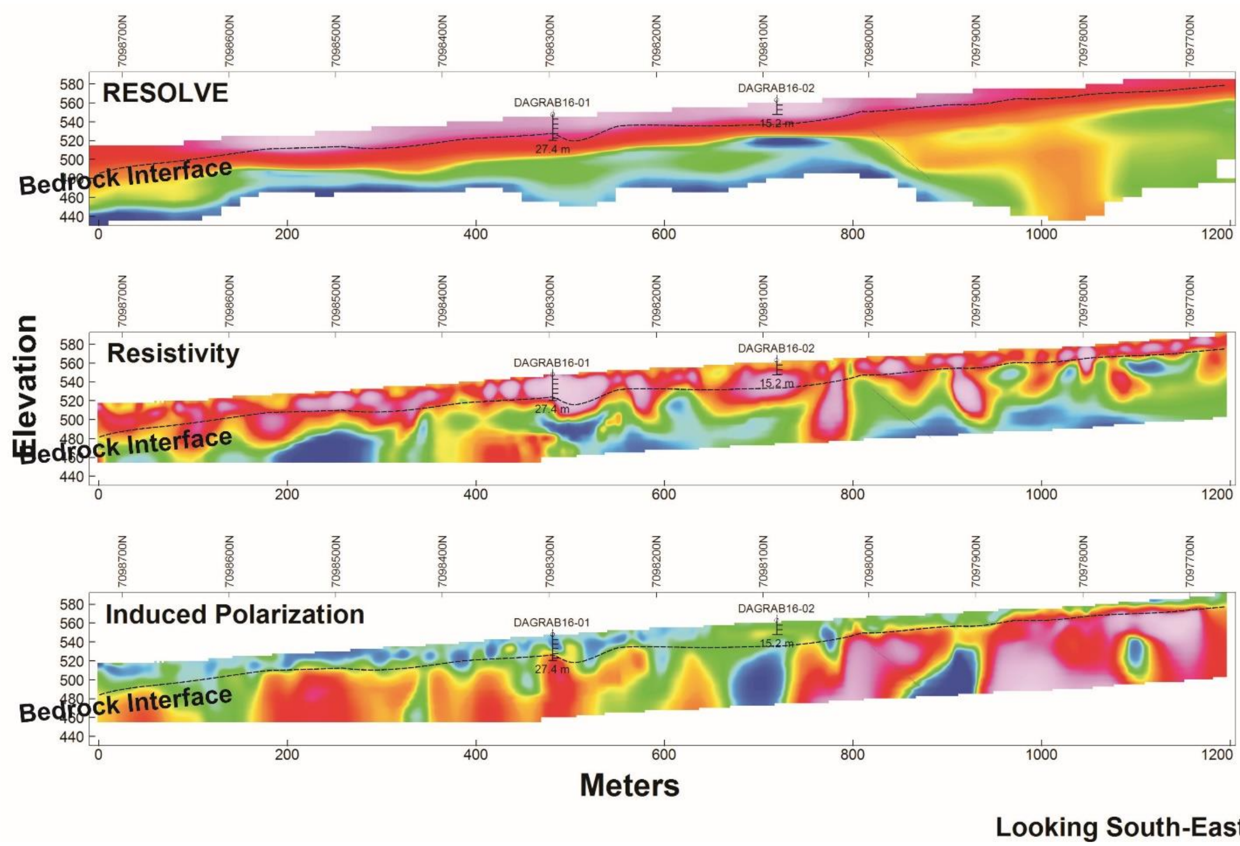

Figure 29: Bedrock Interface interpretation. Note: resistivity values have different scales. Refer to figure 25 for scale bar.

The interpreted bedrock interface, which was correctly estimated to be 22m depth at drill hole DAGRAB16-01 in figure 12 from the initial DC RES/IP survey, ranges from 40m at the most downhill side of the section closest to the valley center, to 10m depth on the upslope side of the section (figure 29). No inference is given about the location or thickness of the paradise gravels, however it is expected that they would be accumulated directly on the bedrock, with especially prospective zones in any bedrock depressions such as the one beside drill hole -01.

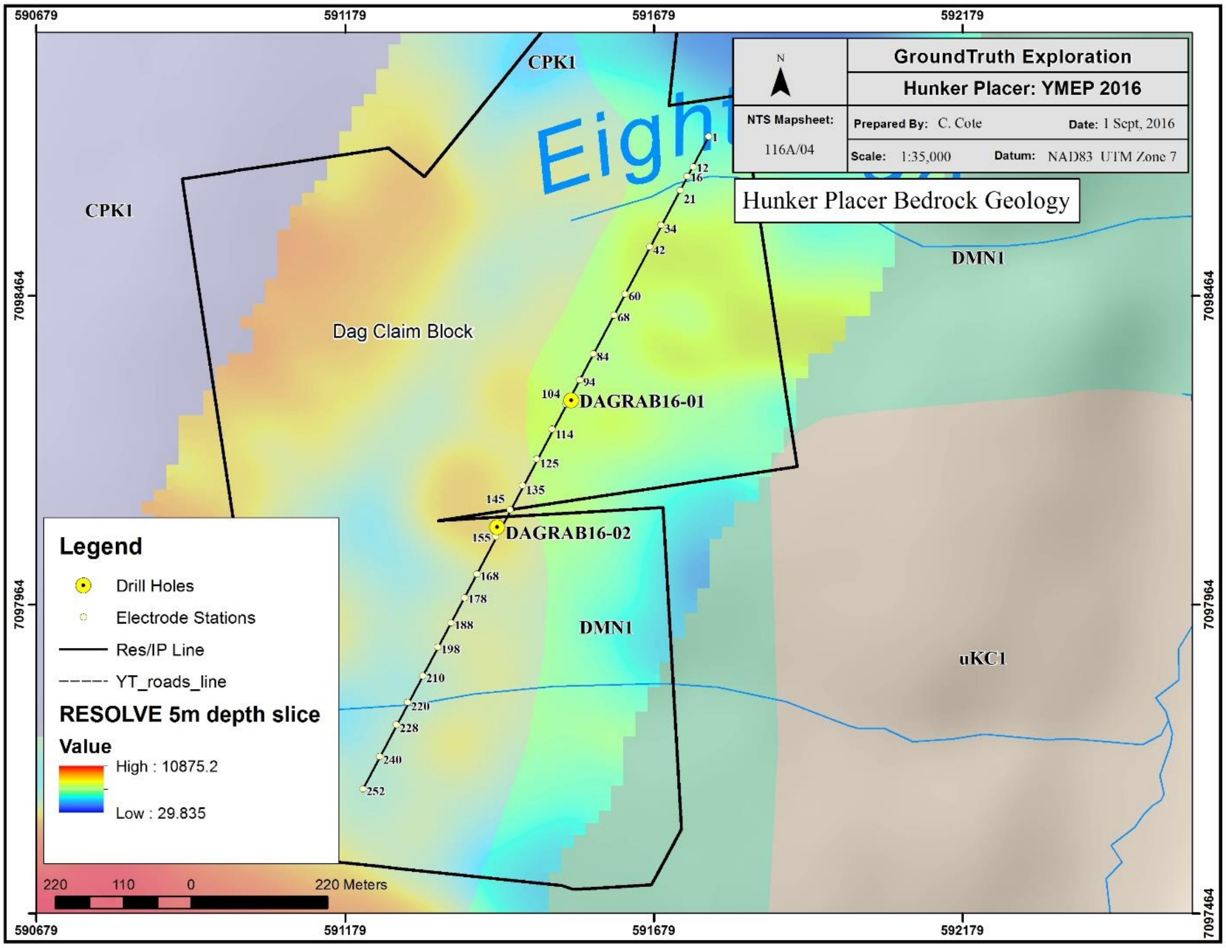

Figure 30: DC Resistivity survey over RESOLVE data and Geology

12 Recommendations

More ground based DC Resistivity and IP surveys and concurrent drilling are required to positively identify the geophysical properties and depositional environment of the Paradise Gravels. The RESOLVE dataset appears to be good at defining the rough depth to bedrock, so is ideal for use as a targeting tool for future ground surveys and drilling. Once the geophysical traits of the Paradise Gravels are more thoroughly understood, we may be able refine the search parameters within the RESOLVE database to be able to identify the extent and thickness of these deposits.

The MAG data collected over this area should be examined and interpreted for use as a detailed bedrock geology map.

13 Expenditures:

Hunker Creek Placer Target Evaluation
Shawn Ryan
Box 213
Dawson City YT Y0B1G0
sryan@ryanwoodexploration.com
June 5-7, Aug 11-13, Oct 25, Nov 12, 13,19, 2016

GroundTruth Exploration
Invoice Summary
Invoice #s
GT-SRY2016-10,11,12

Resolve/Digem Expense Breakdown		
Expense	**Amount**	
CH Helicopter	$	18,326.03
CH Accom/Internet Eldo	$	517.18
Helicopter Fuel	$	3,850.00
CGG Resolve Survey ($3,950 * 2 days)	$	7,900.00
CGG Mobe (share of mobe costs)	$	6,857.60
Bemex Consulting (site visit/EM QC/interpretation)	$	4,000.00
Total Resolve/Digem	**$**	**41,450.81**

GT RAB Drill Breakdown		
Expense	**Amount**	
Mobilization (mobe-demobe)	$	3,362.50
GT RAB Drill Equipment and Wages	$	12,105.00
Fuel	$	792.00
Transportation	$	1,320.00
Sample processing	$	1,000.00
Total GT RAB Drill	**$**	**18,579.50**

DC Resistivity Breakdown		
Expense	**Amount**	
Mobilization (mobe-demobe, prep cutting)	$	3,517.50
IP-Resisitvity Equipment and Wages	$	9,960.00
Consumables	$	405.00
Transportation	$	520.00
Total DC Resistivity	**$**	**14,402.50**

XCAM Survey Breakdown		
Expense	**Amount**	
Equipment and Wages	$	1,350.00
Processing	$	1,000.00
Total XCAM Survey	**$**	**2,350.00**

Combined Resolve/DC Resistivity/Drillhole/Xcam Interpretation and Plotting	$	2,500.00
Final Report	**$**	**1,000.00**
Total Project Expenditures	**$**	**80,282.81**

14 Qualification

I, Chad Cote, located in Dawson City, Yukon work as a Geophysical Project Manager for GroundTruth Exploration Inc.

I have worked in the mineral exploration field since 2007. From 2007 to 2010 I worked the summer field seasons as a soil sampling crew boss, MAG operator, and prospector. I joined GroundTruth Exploration for full time employment when it formed in 2010, expanding my role into GIS mapping and data management, and leading the expansion of our geophysics branch to include high resolution DC resistivity/IP and GPR surveys.

I graduated from the University of Victoria in December of 2010 with Bachelor of Science in Geography, specializing in physical systems and GIS.

Dated this 20 of January 2016 in Dawson City, YT.

Respectfully submitted

Chad Cote

Appendix A: Invoice

Hunker Creek Placer Target Evaluation
Shawn Ryan
Box 213
Dawson City YT Y0B1G0
sryan@ryanwoodexploration.com
June 5-7, Aug 11-13, Oct 25, Nov 12, 13,19, 2016

GroundTruth Exploration
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Processing	$	1,000.00
Total XCAM Survey	**$**	**2,350.00**
Combined Resolve/DC Resistivity/Drillhole/Xcam Interpretation and Plotting	$	2,500.00
Final Report	**$**	**1,000.00**
Total Project Expenditures	**$**	**80,282.81**

Appendix B: Data Package Included with report

The following data is included with this report:

- 2016_DAGO_RES
  - Contains all raw instrument data, Inverted data, figures, GPS points, site photographs, and terrain files
- 2016_HunkerPlacer_Drilling
  - Contains an excel table that contains the collar survey and downhole survey
- 2016_HunkerPlacer_RESOLVE
  - Contains the GDB of all data, GRID products, Voxel products and figures

References:

Bense, V. F., Ferguson, G., and Kooi H., 2009, Evolution of shallow groundwater flow systems in areas of degrading permafrost: Geophys Res. Lett., 36.

Best, M.E., Levson, V.M., Ferbey, T., and McConnell, D., 2006, Airborne electromagnetic mapping for buried Quaternary sands and gravels in northeast British Columbia, Canada: Journal of Environmental and Engineering Geophysics, 11, 17-26.

Bond, J. 2015 Presentation on Paradise Gravels from Geoscience Forum. Yukon Geological Society. http://www.geology.gov.yk.ca/pdf/Bond_Paradise_Gravel.pdf

Golder Associates report number 12-1348-0013, 2013, Shakwak highway project: North Alaska highway geophysical data acquisition, processing and interpretation: for the Government of Yukon Highways and Public Works.

Hoekstra, P., P. V. Sellmann, and A. Delaney (1975), Ground and airborne resistivity surveys of permafrost near Fairbanks, Alaska, Geophysics, 40(4), 641–656.

Huang, H., and Fraser, D. C., 1996, The differential parameter method for multifrequency airborne resistivity mapping: Geophysics, 61, 100–109.

Minsley, B.J., Abraham, J.D., . Smith, B.D.,. Cannia, J.C., Voss, C.I., Torre Jorgenson, M., Walvoord, M.A., Wylie, B.K., Anderson, L., Ball, L.B., Deszcz-Pan, M., Wellman, T.P., and Ager, T.A., 2012, Airborne electromagnetic imaging of discontinuous permafrost: Geophysical Research Letters, Vol. 39, 8 pages.

Oldenberger, G.A., Le Blanc, A-M., Stevens, C.W., Chartrand, J., and Loranger, B., 2015, Geophysical surveys, permafrost conditions and infrastructure damage along the northern Yukon Alaska Highway: Geological Survey of Canada, Open file 7875, 61 pages.

Palacky, G. J. (1987), Resistivity characteristics of geologic targets, in ElectromagneticMethods in Applied Geophysics, vol. 1, Theory, edited by M. N. Nabighian, p. 53–129, Soc. of Explor. Geophys., Tulsa, Okla.

Sengpiel, 1988,

Walvoord, M. A., and Striegl, R.G., 2007, Increased groundwater to stream discharge from permafrost thawing in the Yukon River basin: Potential impacts on lateral export of carbon and nitrogen: Geophys. Res. Lett., 34.