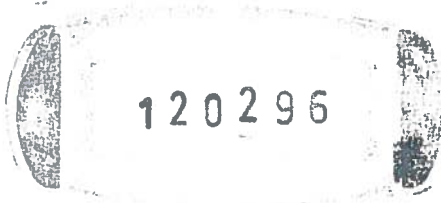


AD05937

**KRYOTEK**



**Geophysical Survey of Subsurface Conditions for Placer Exploration**

Candace Creek  
Yukon

PLACER CLAIMS P-508833-508842 AD05937  
LEASE ID 00934  
LEASE ID 01054  
LEASE ID 01050

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**June 20, 2013**



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## **1.0 General**

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### ***1.1 Introduction***

The following report has been prepared by Kryotek Arctic Innovation Inc. (Kryotek Inc.) for Bud Davis of Candace Creek Mining Inc. The objective of the surveys was to use resistivity geophysics to determine the likely locations of gold-bearing gravels, depths to bedrock and thicknesses of overburden.

Fieldwork took place from June 7 to 10, 2013. Personnel on site included James Coates and Astrid Grawehr of Kryotek Inc.

A total of seven (7) sites were selected for the study of which six (6) are included in this report. Survey CC2 on Lease 01054 requires more data cleanup and interpretation due to thick surface ice presence.

### ***1.2 Setting***

The local geography consists of rolling hills extending to alpine ridges, cut by v-shaped, erosion-formed valleys. The area is un-glaciated except for isolated local valley glaciers and is underlain by extensive discontinuous permafrost. Hill slopes are covered in one to two meters of colluvium over degraded schist bedrock. Valley bottoms are infilled with fluvial gravels and windblown loess deposits. Often there is a significant organic percentage to the loess, and valley deposits may be covered with a colluvial apron at the base of steeper slopes. Gold is located at the base of the fluvial gravels and may extend several meters into bedrock. Abandoned creek channels containing alluvial gold may be found perched on hill slopes several hundred meters upslope of the current stream level.

## 2.0 Methodology

### **2.1 Overview**

#### *Geophysics*

Resistivity was selected for this area as the electrical properties of silt, gravel and schist bedrock are distinct and easily definable.

A Lippmann 4-point Resistivity System was used. This system allowed up to 20 m of depth penetration. Data was collected and inverted using AGI Earth Imager 2D software. Noisy data points and electrodes with poor contact resistance were removed and data was filtered for spikes or depressions in resistivity. The software produced two-dimensional tomograms using a smoothed, least squares damped and robust inversion parameters. Preliminary interpretations were conducted.

#### *DC Electrical Resistivity Tomography*

This technique injects a direct electrical current into the ground surface, and then measures the voltage that remains at a number of distances from the injection point. As different soils have different resistances to electrical current, a tomogram (subsurface diagram) of resistivities can be produced. This technique is useful for displaying the high-resistance regions of bedrock and ground-ice.

#### *Earth Imager 2D Software*

Earth Imager 2D software by Advanced Geosciences Inc. was used to invert and process the geophysics data. This software produced two-dimensional tomograms of resistivity data. The images were processed using both smoothed and robust inversion parameters in order to clarify transitions between material types as well as resistivity properties of those materials.

The images were interpreted by James Coates and features such as thawed regions, ice-rich permafrost, competent schist bedrock, degraded schist bedrock and top of bedrock contours were identified.

The images are included in this report (refer to section 3.0). Rough text interpretation is also included.

## ***2.2 Geophysical Disclaimer***

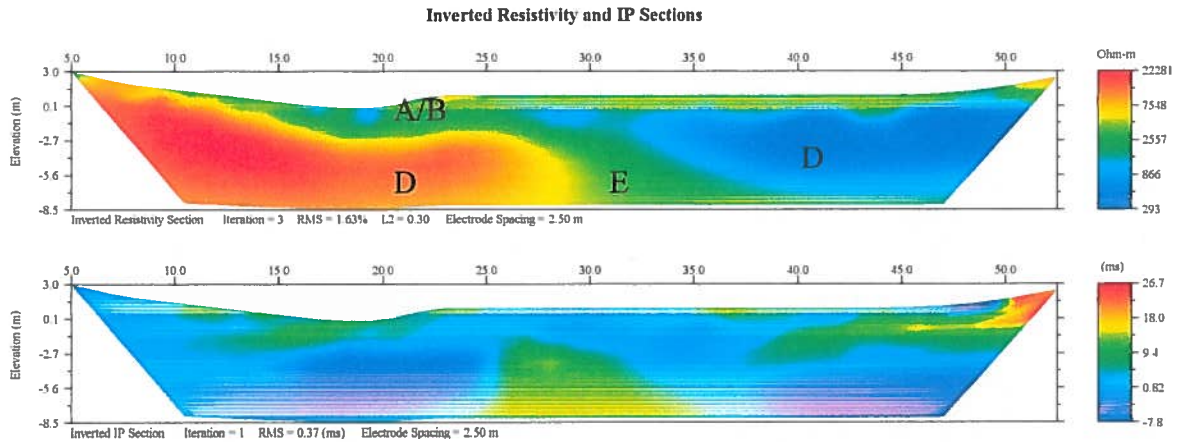
Subsurface information shown on these drawings was obtained solely for use in establishing design controls for the project. The accuracy of this information is not guaranteed and it is not to be construed as part of the plans governing construction of the project. It is the bidder's responsibility to inquire of the owner if additional information is available, to make arrangements to review the same prior to bidding, to conduct whatever site investigation or testing may be required, and to make his own determinations as to all subsurface conditions. James Coates and Kryotek Arctic Innovation Inc. accept no liability whatsoever for any use or application of this information by any and all authorized or unauthorized parties.

This is a preliminary report with limited analysis. A more detailed report will be forthcoming once borehole or test pit data is available to ground-truth geophysics data.

### 3.0 Interpreted Resistivity Tomograms

#### 3.1 Placer Lease 00934

Line CC3

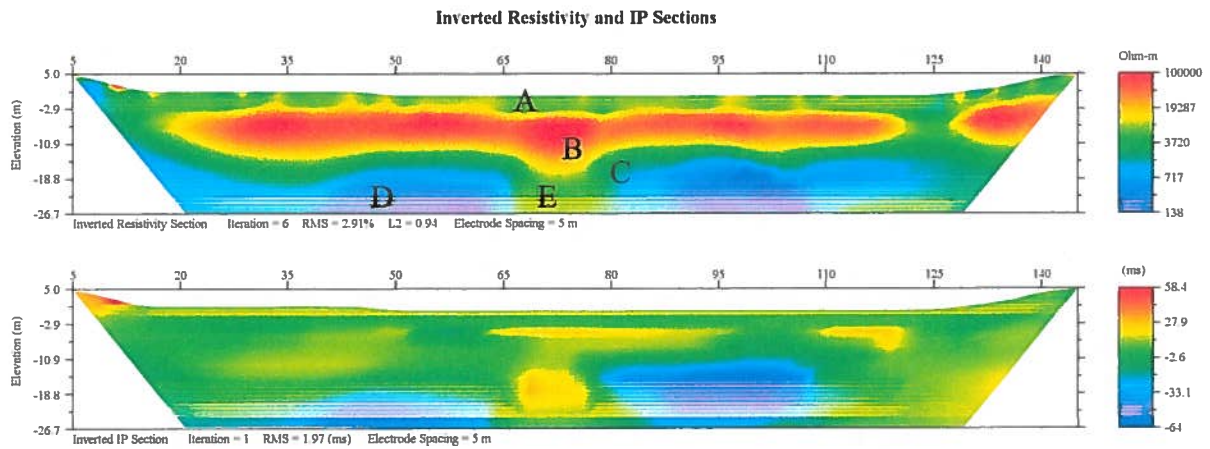


- A- Frozen silt and organics
- B- Frozen sands and gravels
- C- Decayed and fractured bedrock
- D- Bedrock
- E- Fault material

This image shows gravel to approximately 3.0 m depth. Permafrost and a fault structure obscure some of the detail in this image. However, a significant difference in the bedrock resistivity appears to exist, as well as an IP and resistivity signature consistent with faulting at (E). In this location, depths to bedrock may be up to 5.0 m deep. As this may be deep weathering of fault material, the location is a good drill target.

### 3.2 Van 1 Claim, Candace Creek

Line CC7

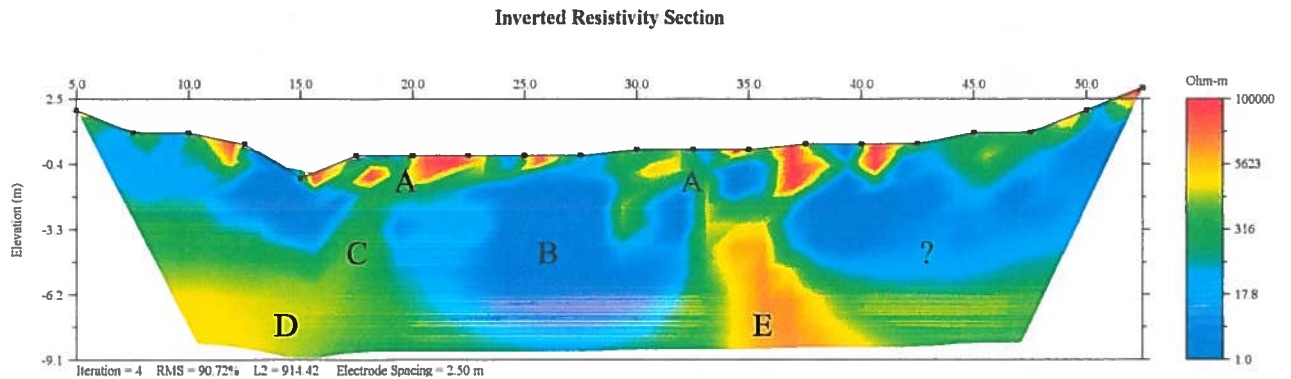


- A- Frozen silt and organics
- B- Frozen sands and gravels
- C- Decayed and fractured bedrock
- D- Bedrock
- E- Fault material

This cross-valley image shows decomposed bedrock at 10 m depths, gravel at 3.0 m depths and a possible fault structure at 70 m horizontal that corresponds with a deepening of the gravel. Low RMS error and clear, continuous boundaries give this image a high degree of confidence. A drill target at 75 m horizontal is suggested.

### 3.2 Van 4 Claim

Line CC1



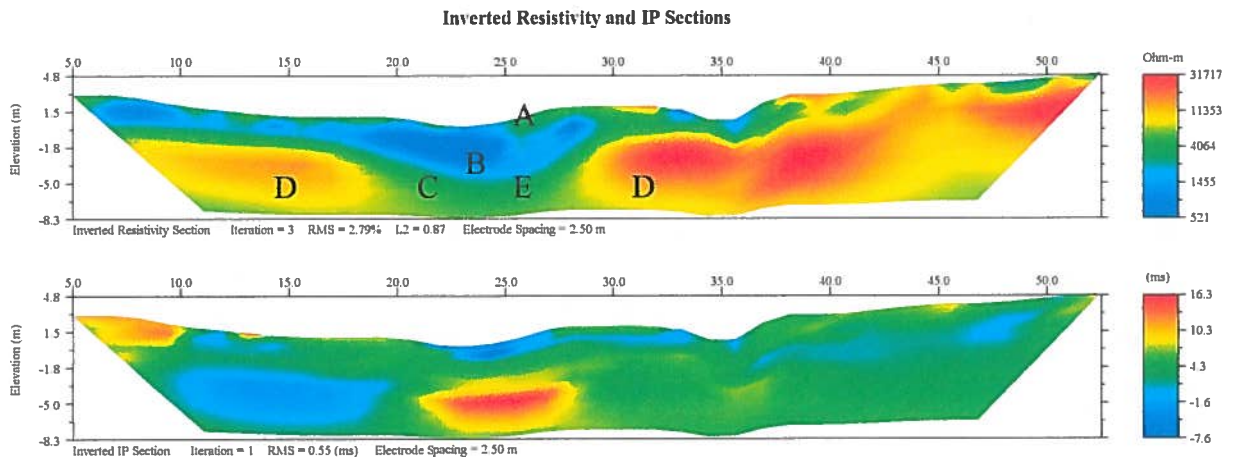
- A- Frozen silt and organics
- B- Thawed sands and gravels
- C- Decayed and fractured bedrock
- D- Bedrock
- E- Fault material

This image was taken through thick surface icing, and the data needs to be verified before an analysis can be conclusively conducted. A deep channel of thawed material to 9.0 m appears to be present. However, a high RMS error makes this data unreliable. Further geophysics and drilling are required.



### 3.3 Lease 01050

#### Line CC4

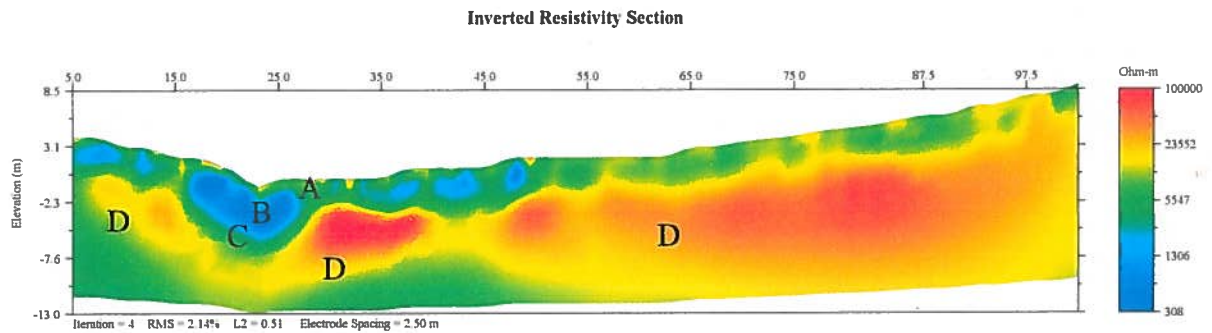


- A- Frozen silt and organics
- B- Frozen sands and gravels
- C- Decayed and fractured bedrock
- D- Bedrock
- E- Fault

This image crosses the Candace Creek valley at the lower end of Lease 01050. The transect cuts diagonally across the valley. At (B), an area of sands and gravels appears to extend to 4-5.0 m depth, overlain by up to one meter of silt and sand. There may be a fault structure in the valley bottom at (E).

### Lease 10050

#### Line CC5



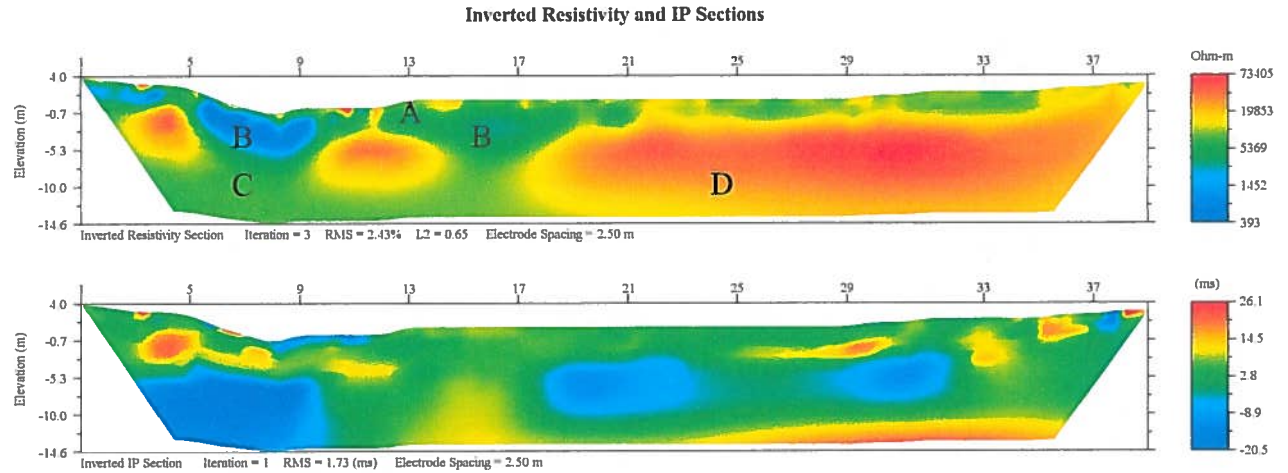
- A- Frozen silt and organics
- B- Frozen/thawed sands and gravels
- C- Decayed and fractured bedrock
- D- Bedrock

This image extends across the valley diagonally downstream of the previous image, but extends further up the hillslope to determine the presence or absence of perched bench

deposits, none of which were apparent. As with the previous image, gravels appear to be present at (B) to 4-5.0 m depths. Scales are different between the two images.

## Lease 01054

Line CC6



- A- Frozen silt and organics
- B- Frozen sands and gravels
- C- Decayed and fractured bedrock
- D- Bedrock
- E- Fault

This image extends perpendicularly across the valley bottom on Lease 01054. Two potential channels with gravel infill likely occur at (B), which extend to 5.0 m depth. The channel to the left of the image is the most promising drill target.

#### **4.1 Line Locations**

Geophysical surveys were conducted by Kryotek Inc. using a Lippmann 4-point Resistivity System, for Bud Davis of Candace Creek Mining.

<b>Geophysics Survey Line</b>	<b>UTM (start of line)</b>	<b>UTM (end of line)</b>	<b>Notes</b>
CC1	N 63.18.56.0 W 138.55.50.6	N 63.18.57.0 W 138.55.49.5	
CC2	N 63.18.55.3 W 138.55.17.0	N 63.18.56.0 W 138.55.15.0	
CC3	N 63.18.54.4 W 138.55.10.6	N 63.18.55.1 W 138.55.08.1	
CC4	N 63.20.17.3 W 138.55.59.7	N 63.20.18.3 W 138.56.05.0	
CC5	N 63.20.17.2 W 138.55.59.9	N 63.20.15.3 W 138.56.02.8	
CC6	N 68.19.50.2 W 138.55.40.6	N 68.19.50.2 W 138.55.45.4	
CC7	N 63.18.47.9 W 138.56.18.7	N 63.18.46.0 W 138.56.10.6	

