Arctic Geophysics Inc.

Geophysical Surveys • Prospecting • Consulting

Geophysical Survey with 2D Resistivity
Haggart Creek, Yukon

N63 58 32.8 W135 53 51.0

FOR

Troy Taylor
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FROM

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WORK PERFORMED

8th and 13th - 17th May 2012

DATE OF REPORT

16th Sept 2012

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1. Introduction

This geophysical investigation was done for Frank and Troy Taylor, Duncan Creek Golddusters Ltd..

The survey, using 2D Resistivity /IP, was conducted to prospect the ground for placer mining interests. The geophysical prospecting program was focussed on measuring and interpreting the following placer-related subsurface characteristics:

1. Depth and topography of bedrock
   Paleochannels, terraces
2. Sedimentary stratification
3. Groundwater, permafrost
4. Mining/prospecting history

The ground was tested with four measuring lines with a length of up to 480m and a depth of 90m. The fieldwork was done at 8th and 13th - 17th May 2012

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2. Crew

Survey Leader:	Stefan Ostermaier
Documentation:	Philipp Moll

3. Claims

Grant Number	Tenure	#	Owner
IM00169	Prospecting Lease	-	Duncan Creek Golddusters LTD.

4. Haggart Creek

Haggart Creek is one of the principal tributaries of the McQuesten. It has a length of over 20 miles; and flows in a southerly to southwesterly direction to join the South McQuesten about 13 miles above its confluence with the north fork.

5. Access

The mining area was reached via mining road.

6. Gold

The gold from Haggart Creek is typically coarse and well worn but with smaller, fewer, and much

smoother nuggets than the gold from Dublin Gulch. Haggart Creek gold production from 1898 to 2000 is recorded as 50,574 ounces of crude gold, having a fineness between 885 and 895. Other heavy minerals include rutile, pyrite, scheelite, magnetite, hematite, garnet, zircon, galena, and ferberite.[1]

7. Geophysical Method

Resistivity is not a time domain geophysical method such as Ground Penetrating Radar or Seismic. Resistivity measures a material property. In the Resistivity model the different underground zones are material-dependently differentiated according to their electrical conductivity. Thus, Resistivity promises good chances in respect of measuring the kind and character of the subsurface materials as well as the groundwater distribution, which would be of interest for placer mining. The equipment used (see below) allows for measuring of layer interfaces in depths from 0.5m to 100m by varying the electrode spacing. – Therefore, this prospecting concept is based on the use of 2D Resistivity.

Figure 1: 2D Resistivity/IP measurement, Stefan Ostermaier,
Arctic Geophysics Inc., Yukon 2009 (Moll)

[1] Yukon Placer Database

8. Use of Geophysical Method

8.1. Instrumentation

For this survey a lightweight, custom-built 2D RESISTIVITY and INDUCED POLARIZATION (IP) imaging system with rapid data acquisition was used. The system includes:

- "4 POINT LIGHT" EARTH RESISTIVITY METER[2]
- 80 ELECTRODE CONTROL MODULES[3]
- 100 STAINLESS STEEL ELECTRODES[4]
- 500m MULTICORE CABLE: CONNECTOR SPACING: 5m[5]

This system weighs approximately 120 kg which is about one third of regular standard equipment. It can be run with a 12V lead battery. The equipment facilitates high mobility and rapid data acquisition with a small crew.

8.2. Data Acquisition

Resistivity

The data acquisition is carried out by the automatic activation of 4-point-electrodes. Thus several thousand measurements are taken, one every 1-2 seconds. The AC transmitter current of 0.26 to 30 Hz is amplified by the electrode control modules, up to a maximum of 100mA and 400V peak to peak. The voltage measured at the receiver electrodes (M, N) is also amplified.
In this geoelectrical survey the **Schlumberger-array** was used. This array is appropriate to image horizontally running layers as is needed for placer prospecting.

The 2D Resistivity imaging system, used for this survey, allows measurements with a depth of up to 100m. With a depth to bedrock of more than 6m, an electrode spacing of 5m can be used for placer surveys. This allows the measuring of large profile lengths in short time with a horizontal measuring resolution of 2.5m. This quantification has proven itself to be reliable in the determination of the bedrock topography and sedimentary arrangement for placer investigation at the most environmental conditions.

The Schlumberger array, used in this geoelectrical survey, is appropriate to measure subsurface conditions predominantly showing a horizontal zoning of the ground materials.

8.3. Processing

Resistivity

The measured Resistivity/IP data were processed with the **RES2DINV** inversion program[6].

[2] Constructed and produced by LGM (Germany)
[3] Ditto
[4] Constructed and produced by GEOANALYSIS.DE (Germany)
[5] Ditto

8.4. Interpretation

The resistivity profile is the basic source for the interpretation of placer-related subsurface aspects of overburden and bedrock. The IP model supports the interpretation of the resistivity profile.

The interpretation of the data should be verified by physical prospecting methods such as drilling, trenching, or test pitting, or shafting since this information about the subsurface cannot be guaranteed.

9. Profile image

In the **Resistivity profile** the interpreted layer interfaces are marked with a black line. The profiles show ground-layers approximately 15% thicker than they are in reality. The thickening of the model layers is caused by the inversion software. The **correction factor** of 0.85 for the determination of the true layer thickness has been established by the Arctic Geophysics Inc. team on the basis of numerous geoelectrical profiles verified by drilling, trenching, and mining done by our customers.[7]

The **graphical markings** showing the interpreted layer interfaces in the profiles (using a black line) are done according to the data structure in the profile itself. This means: the layers there will also show up approximately 15% thicker than they are expected in reality. In the interpretation text, the layer thicknesses and depths have been recalculated to the expected real values.

10. Line Arrangement

The **line locations** were discussed and decided upon by Stefan Ostermaier from Arctic Geophysics Inc. and Troy Taylor.

[6] Produced by GEOTOMO SOFTWARE (Malaysia)

[7] Program settings in RES2DINV for modifying the layer thickness do frequently not work well for our use and could falsify the profile. That's why this mode was not used.

11. Bedrock Map[8]

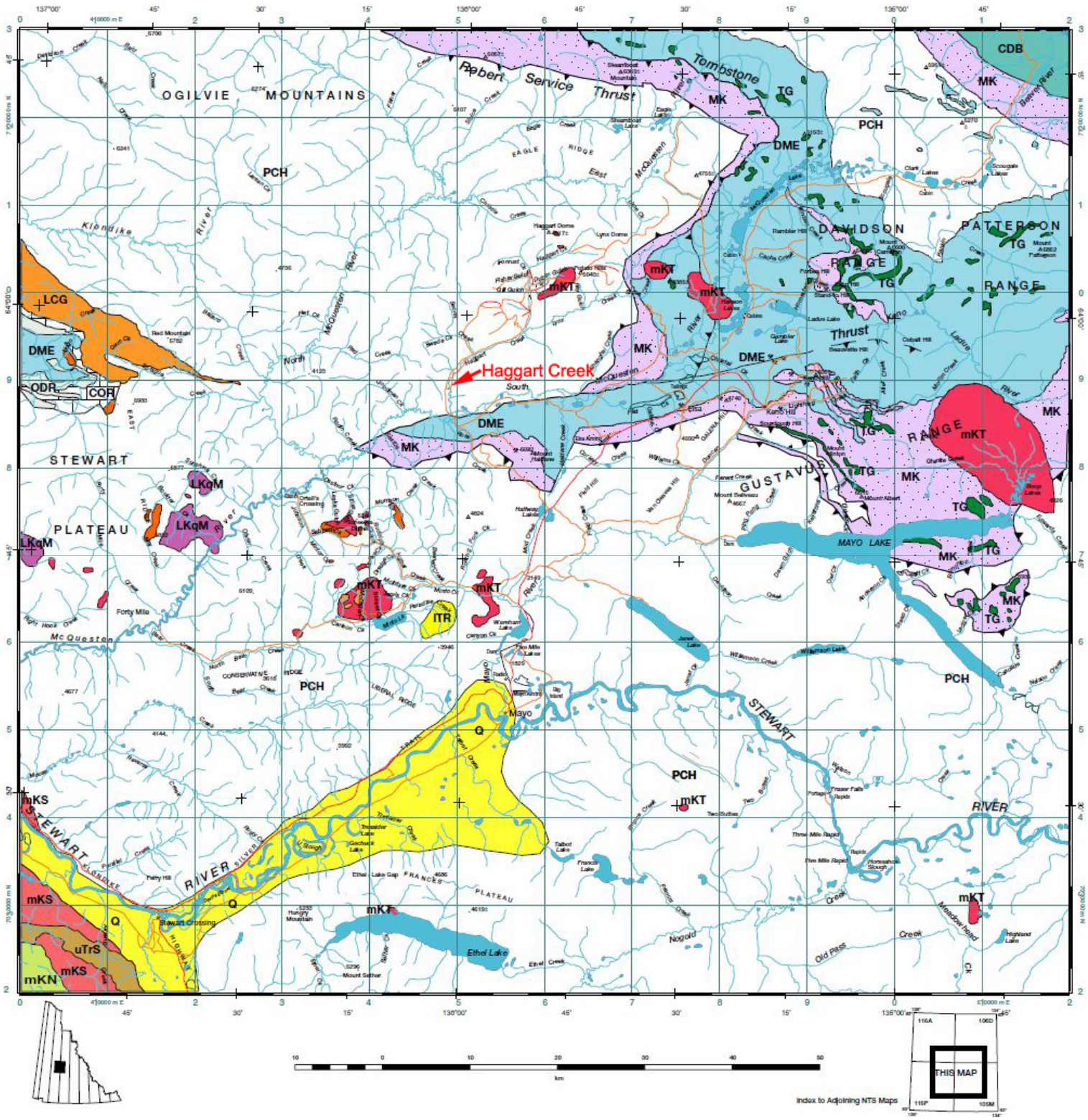


Figure 2: Bedrock Map, Mayo area

[8] W.P. LeBarge, J.D. Bond, and F.J. Hein, Bulletin 13: "Placer gold deposits of the Mayo area, central Yukon (2002) , Page 8

Legend

Quaternary

Q — unconsolidated glacial, glaciofluvial and glaciolacustrine deposits, fluviatile sediments and local volcanic ash.

Tertiary

ITR — Ross
mixed basalt and rhyolite and terrestrial local shale, sandstone and conglomerate, dominantly along or near Tintina Fault.

Cretaceous

LKqM — McQuesten Suite
biotite ± muscovite granite and quartz monzonite.

mKN — Mount Nansen
andesite to dacite flows, breccia and tuff; felsic lapilli tuff; rhyolite and quartz-feldspar porphyry plugs, dykes, sills and breccia.

mKS — Selwyn Suite
plutonic suite of intermediate to more felsic composition (quartz monzonite, granodiorite and granite) and rarely syenitic.

MKT — Tombstone Suite
syenite, quartz syenite; minor granite, monzogranite, diorite.

Triassic

uTrS — Synorogenic clastic rocks
conglomerate with clasts of basalt, chert, mylonite, limestone, foliated hornblende granodiorite and quartz monzonite.

TG — Galena Suite
diorite dykes.

Mississippian

MK — Keno Hill Quartzite
quartz arenite with minor black shale or carbonaceous phyllite.

Devonian-Mississippian

DME — Earn Group
black siliceous shale and chert with minor felsic volcanic rocks, chert-pebble conglomerate, barite and many occurrences of stratiform Pb-Zn.

Ordovician-Devonian

ODR — Road River - Selwyn
black graptolitic shale and chert overlain by argillite and dolomitic siltstone or buff platy limestone.

Cambrian-Devonian

CDB — Bouvette Formation
dolomite and limestone, minor argillaceous limestone, limestone conglomerate, and black shale.

Cambrian-Ordovician

COR — Rabbitkettle Formation
silty limestone and calcareous phyllite and limestone conglomerate; local mafic flows, breccia and tuff.

LCG — Gull Lake Formation
dominantly shale, siltstone and mudstone with minor quartz sandstone; basal limestones (conglomerate); phyllite to quartz-muscovite-biotite schist.

Proterozoic

PCH — Hyland Group
coarse turbiditic clastics, limestone and maroon and green shale; layered micaceous quartzose rock; gritty phyllite; quartzite and metaconglomerate; rare calc-silicate rock.

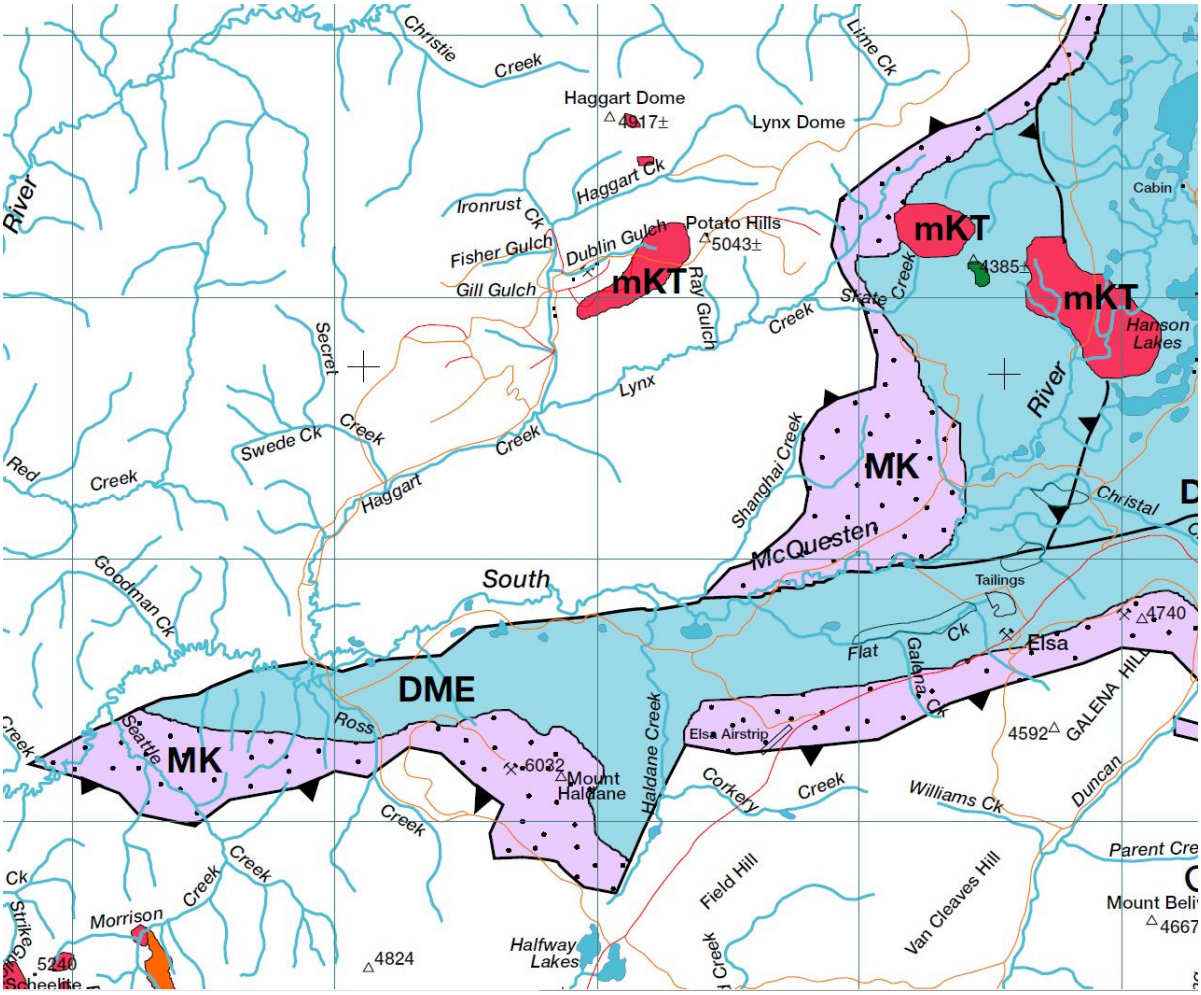


Figure 3: Bedrock Map, Haggart Creek

12. Geology[9]

The Haggart valley was influenced by three major glacial periods: Pre-Reid, Reid and McConnell.

Lower amounts of **Pre-Reid** sediments could have been preserved near the bedrock. The overburden is largely dominated by sediments of **Reid** age. Moderate amounts of **McConnell** deposits occur at the mouth of tributaries and have been transported by Haggart Creek; they are located on the top overburden unit on the valley sides. Of course the **modern gravel** would have reworked and cut down through these to a large extent.

The Haggart valley shows a multi-periodic, glacial deposition history which created a pattern of various deposits: Pre-glacial, glacial, inter-/postglacial and peri-glacial sediments exist, layered or neighbored. The deposits were reworked and/or buried by glacial, fluvial, lacustrine, or colluvial mechanisms. The components of the sediment mosaic in the Haggart valley are described in Figure 4.

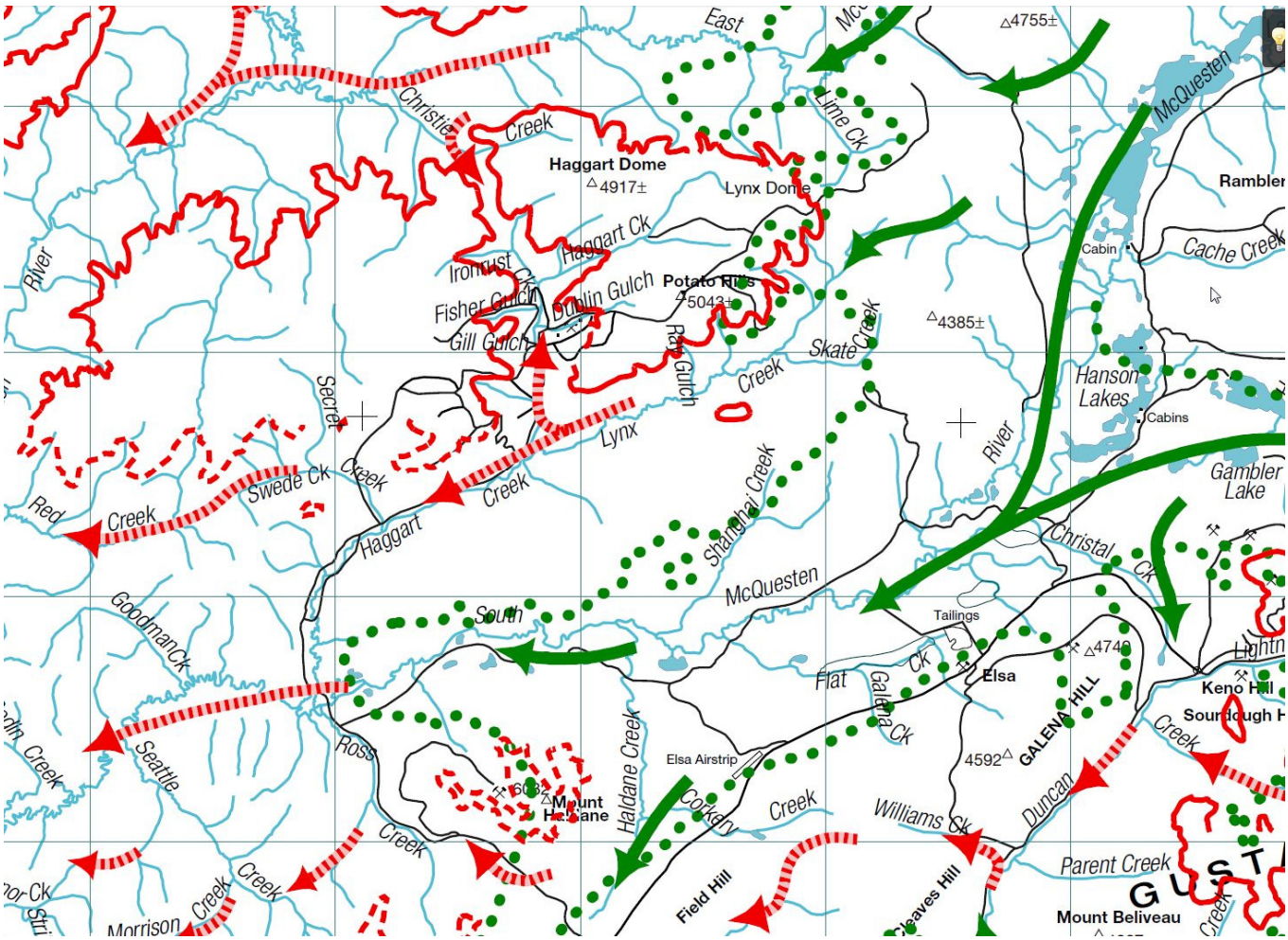
[9] Discussion between William LeBarge and Philipp Moll

Period	Deposits
Pre-Reid 2.58 Ma – 300 000a	interglacial sediments: gulch and alluvial fan sediments variably reworked and/or buried. alluvial gulch, valley, overbank colluvial veneer, felsenmeer, rock fall, talus, blanket, and complexes glacial sediments: glaciofluvial and glacial deposits, alluvial outwash valley, plain, terrace, moraine (till) ridges, morainal blanket, and complexes
Reid 300 000 a – 30 000 a Early and Middle Late	glaciofluvial, glacial and periglacial sediments, glaciolacustrine silts, overlain by diamict being till glaciofluvial, glaciolacustrine, glacial and periglacial sediments alluvial outwash valley, plain, terrace, fans, eskers, fan-deltas, and complexes, moraine till occuring as remnant terraces on both sides of Haggart Creek. It is likely that some of these terraces formed during the retreat (late) phase of the Reid glaciation, depositing glacial, glaciofluvial and periglacial sediments in the valley centre, which were later dissected and reworked by subsequent processes. hummocky stagnation moraine, veneer, blankets, and complexes
McConnell 30 000 – 11 000 a Early and Middle Late	periglacial sediments commonly containing reworked elements, including organic material; as periglacial fans on the valley side and as valley fill deposits along the main Haggart Creek valley. periglacial alluvial fan sediments noted along Haggart Creek; these fans were probably deposited continuously throughout the McConnell glaciation
Holocene after 11 000 a	alluvial, colluvial and eolian sediments alluvial gravels are found against the bedrock rim (right limit), low terrace of alluvial gravels (paleo-Haggart Creek) covered by colluvium derived from reworked loess and organics.

Figure 4: Sediment types at Haggart Creek

The ice-flow did mainly run in south-western direction (see Figure 5). Sections of Haggart valley running parallel to the ice-flow (between confluence of Secret Creek and Lynx Creek) are u-shaped and show a bowl-shaped bedrock topography mainly produced by glacial erosion.[10] Downstream from the confluence with Secret Creek (at Lease IM 00162) the ice-flow seems to have run across the valley. Thus the surface and subsurface are less eroded by the ice.

[10] This interpretation is based on another Resistivity survey carried out by Arctic Geophysics.



LEGEND

McConnell ice flow direction.....

McConnell glacial limit (>23 000 BP) (approximate).....

Reid ice flow direction.....

Reid glacial limit (>200 000 BP) (defined, approximate).....

Figue 4: Hypothetic ice flow; LeBarge,

Today, downstream from the confluence with Secret Creek, at the section of Lease IM 00162, the subsurface might show about 50% of permafrost.

13. Geophysical Implications

The different components of the overburden (till, glaciofluvial/-lacustrine sediments, non-glacial alluvium, and colluvium) can hardly be differentiated in the Resistivity profiles, because they show quite similar resistivity data and are sometimes too thin to be measured. The reason for the similar resistivity of the overburden materials is the relatively high amount of fine material such as silt and clay (matrix) of the sediments. The rock components of the gravels, clasts, or boulders show low resistivity itself and support the similarity of the resistivity.

However, interfaces between different overburden materials can sometimes be detected anyway: Permafrost zones sometimes show a thawed interlayer penetrated by mobile groundwater running on top of a seal-layer (usually clay). This phenomenon can exist in two ways: First, the seal layer can be a thicker clay-rich layer. Second, the seal layer could be a thin clay layer (too thin to be measured) sealing two gravel-rich layers from each other.

Frequently, the limit of a permafrost zone (which normally produces a strong data contrast in the profile) is representing the transition between two different ground materials as well.

The interface between overburden and bedrock was clearly measured and realistically interpreted in the most parts of the resistivity images.

14. Placer Targets[11]

Both kinds of seal-layers (consisting of clay) described in the “Geophysical Implications, could act as “false bedrock”: The upper part of the clay-layer itself and the material closely on top of it could contain concentrations of placer gold. The interpreted "false bedrock" layers in the profiles are not too likely - but the data structures in the resistivity models indicate its possible existence - so it seems to be reasonable to check the existence of the "false bedrock" since it would be a nice prospecting target for placer gold, laying shallower than bedrock sources.

Clay layers can also protect the deposits underneath from glacial erosion. So, the material below a clay-rich layer could have preserved older placers.

Normally, glaciofluvial gravels have higher potential for placer gold deposits than till, especially if they are reworking pre-existing placers or eroding and re-depositing gold-bearing bedrock.

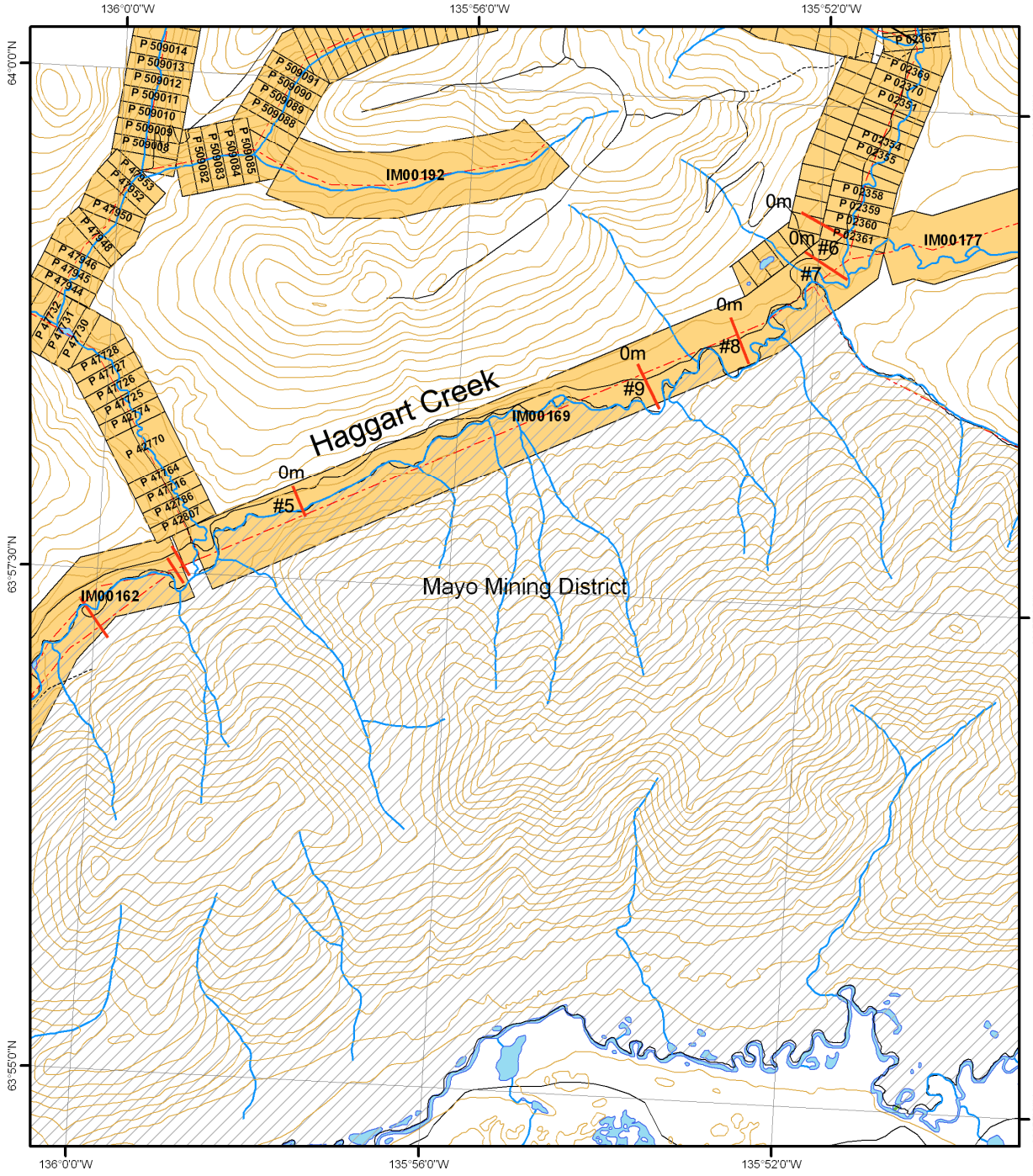
The general case is that glacial till will incorporate placer gold into it and dilute rich paystreaks into a larger volume lower grade deposit which may be uneconomic. So placer gold in till is actually fairly rare

[11] Discussion between William LeBarge and Philipp Moll

in most settings, and usually only occurs when the glacial activity is right on top of a bedrock gold source. But this actually may be the case in Haggart Creek (and especially Dublin Gulch).

All of the sandy and gravelly sediments at Haggart valley can potentially contain placer gold. Each new sediment discovered when doing physical prospecting would be worth sampling.

15. Survey Map



Legend

- measuring line
- contour line
- water course
- water body
- road

placer_claims

- Active
- placer baseline

FN settlement land

- A

Survey Map

105M13

1:50,000

0 375 750 1,500 2,250 3,000 Meters

17. Profiles: Interpretation

Haggart Creek_05
2D Resistivity, Schlumberger array
64 Electrodes: spacing 5m, Horizontal resolution 2.5m
Horizontal and vertical measure in [meter], Iteration error in [%]
The profile might show the layers up to 15% thicker than in reality.

Data acquisition: Stefan Ostermaier, 13th May 2012
Processing: Philipp Moll, 22nd May 2012
This interpretation of geophysical data should be verified with physical prospecting methods such as drilling, trenching, test pitting, or shafting.

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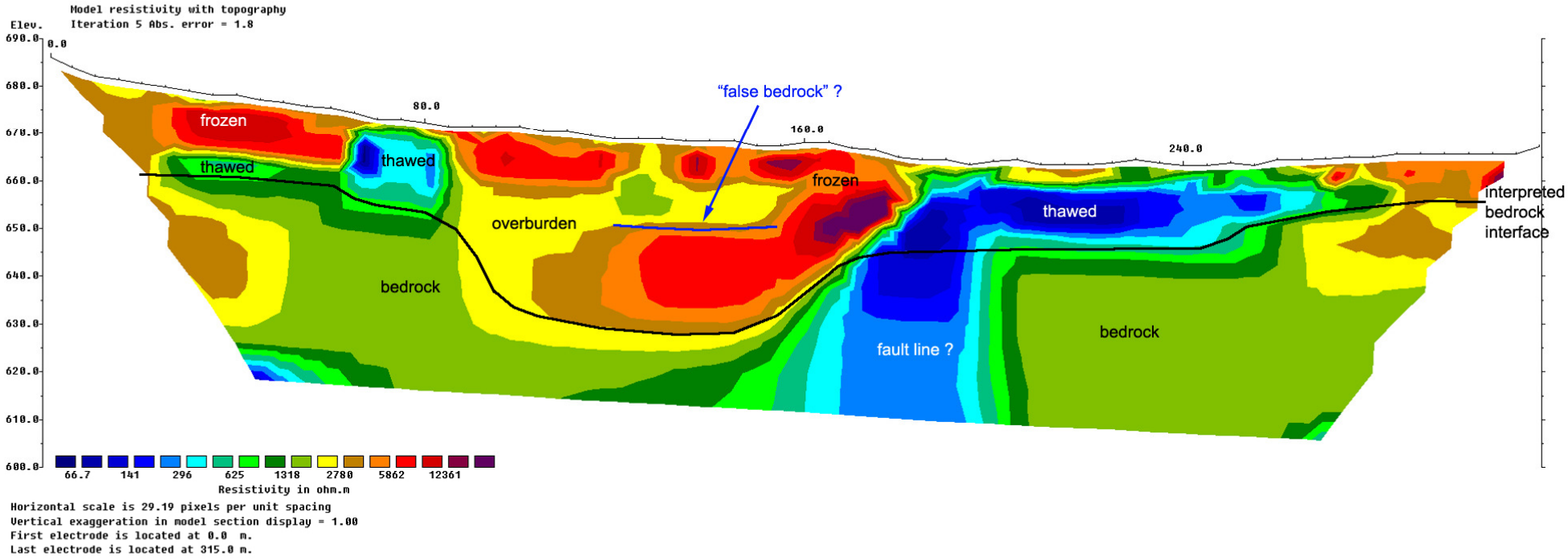
Interpretation



Interpretation

Resistivity profile_05 might show 9-35m of overburden on top of bedrock.

At 0-70m a low conducting layer (red), 10m thick, is sitting on top of a high conducting layer (green), 5m thick. This double-layer most likely indicates frozen material on top of thawed material. The material could be glacial till, with possible inter-layers of glacio-fluvial gravel, below non-glacial alluvium. The border of the frost frequently indicates the interface between two different sediment types.

At 75-85m the resistivity model shows a quite well conducting mono-layer (blue). The data point to a silt- or clay-rich deposit which would indicate a glacio-lacustrine origin. Alternatively, there could be a gravel layer with a fine matrix (silt, clay) well saturated with water (till or glacio-fluvial sediment).

At 85-170m a bowl-shaped paleochannel (main channel), approx. 35m deep at 135m in the profile, should be located. Here the bedrock seems to be much deeper than downstream after the confluence with Secret Creek.[12] The reason for the deeper bedrock upstream seems to be the orientation of the valley coinciding with the main direction of the former ice flow.[13] The glacial erosion and subsequent deposition must have been more extensive in this section of the valley.[14]

The deposits on top of the channel a triply layered: we see a better conducting layer (yellow) between two less well conducting layers (red). The yellow inter-layer could be a partly thawed layer penetrated by mobile groundwater.[15] This groundwater could be sealed by a clay-layer underneath acting as "false bedrock". The deposit is most likely dominated by glacial till with possible inter-layers of glacio-fluvial or even glacio-lacustrine sediments and non-glacial alluvium on top. The interface between the yellow layer and the red layer underneath could divide deposits from different glacial cycles: possibly the Pre-Reid and the Reid period.[16]

At 170-250m the bedrock seems to rise to a bench covered with approx. 15m of area-typical, thawed overburden (material dominated by glacial till with possible inter-layers of glacio-fluvial or even glacio-lacustrine sediments and non-glacial alluvium on top).

After 250m the bedrock is getting higher forming another bench which might be covered with about 9m of low conducting overburden: it could be frozen area-typical overburden or colluvium.

The bedrock shows the typical resistivity data of frozen schist. Around 200m this possible schist could be fractured, weathered and penetrated with water - as the result of a possible fault.

[12] Compare Resistivity profiles at prospecting lease IM00162.

[13] W.P. LeBarge, J.D. Bond, and F.J. Hein: Bulletin 13: “Placer gold deposits of the Mayo area, central Yukon (2002).

[14] Note: Shortly after the confluence of Haggart Creek and Secret Creek (at resistivity profiles 03 and 04 at lease IM00162) the bedrock is shallower, although the direction of the stream is still coinciding with the main direction of the ice flow. The shallower bedrock there seems to be caused by material from the alluvial fan of Secret Creek coming into Haggart Creek which might have been deposited shortly after the confluence.

[15] This scenario is common in the Yukon.

[16] W.P. LeBarge, J.D. Bond, and F.J. Hein: Bulletin 13: “Placer gold deposits of the Mayo area, central Yukon (2002).

Haggart Creek_09

2D Resistivity, Schlumberger array
96 Electrodes: spacing 5m, Horizontal resolution 2.5m
Horizontal and vertical measure in [meter], Iteration error in [%]
The profile might show the layers up to 15% thicker than in reality.

Data acquisition: Stefan Ostermaier, 17th May 2012
Processing: Philipp Moll, 22nd May 2012
This interpretation of geophysical data should be verified with physical prospecting methods such as drilling, trenching, test pitting, or shafting.

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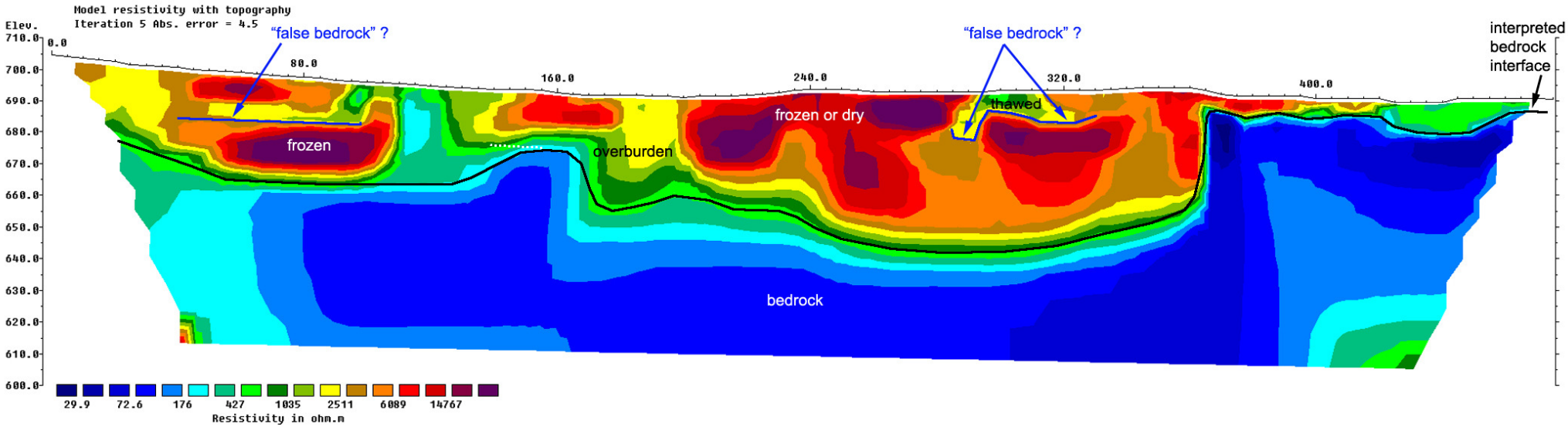
Interpretation



Interpretation

Resistivity profile_09 might show 5-41m of overburden on top of bedrock.

At 0-150m there could be a secondary channel, 27m deep at 80m, filled with three different resistivity layers showing the same data structure like in the main channel at profile_05: a better conducting, likely water-saturated inter-layer possibly sitting on a "false bedrock" layer, between two frozen layers. The material is again most likely dominated by glacial till with possible inter-layers of glacio-fluvial/-lacustrine sediments and non-glacial alluvium on top. The interface between the yellow layer and the red layer underneath could divide deposits from different glacial cycles: possibly the Pre-Reid and the Reid period.
At 110-125m the frozen overburden is interrupted by thawed material again representing a silt- or clay-rich deposit which would indicate a glacio-lacustrine origin. Alternatively, there could be a gravel layer with a fine matrix (silt, clay) well saturated with water (till or glacio-fluvial sediment).

At 165-230m the bedrock drops down into a bench possibly having a channel, 30m deep at 180m, filled with the area-typical overburden complex.

At 240-350m the main channel, 40m deep at 280m, filled with frozen overburden consisting of the local overburden complex, seems to be located. The triple-layer structure is not seen in this channel; it might be covered by the continuity of the frost. Most likely this deep channel is filled with deposits of different types/periods which are not differentiated in the resistivity profile. Just between 285 and 320m a small zone of thawed overburden (yellow/green) was detected: This material zone could be underlain by "false bedrock".

At 350-420m the bedrock rises promptly up to just 5-6m depth.
At 420-460m, a channel, 9m deep at 440m, must be located. It should be filled with thawed material: gravel indicating a glacio-fluvial channel, or silt/clay referring to a glacio-lacustrine sediment.

Same as in profile_05, the bedrock shows a cascaded topography across the valley having its deepest level in the main channel. This shape implicates a multi-periodic, glacial deposition history. The bedrock benches and channels were mainly formed by the ice move. However, the melt water flow has likely modeled especially the higher bedrock on the valley sides producing auriferous, glacio-fluvial deposits. In the area of the deep main channels, those glacio-fluvial channel deposits could sit in till instead of bedrock, especially on top of clay-rich layers. The main channel itself most likely carries richer placer gold deposits on the bottom near and in the bedrock.

The bedrock seems to be thawed schist.

Haggart Creek_08
2D Resistivity, Schlumberger array
96 Electrodes: spacing 5m, Horizontal resolution 2.5m
Horizontal and vertical measure in [meter], Iteration error in [%]
The profile might show the layers up to 15% thicker than in reality.

Data acquisition: Stefan Ostermaier, 16th May 2012
Processing: Philipp Moll, 22nd May 2012
This interpretation of geophysical data should be verified with physical prospecting methods such as drilling, trenching, test pitting, or shafting.

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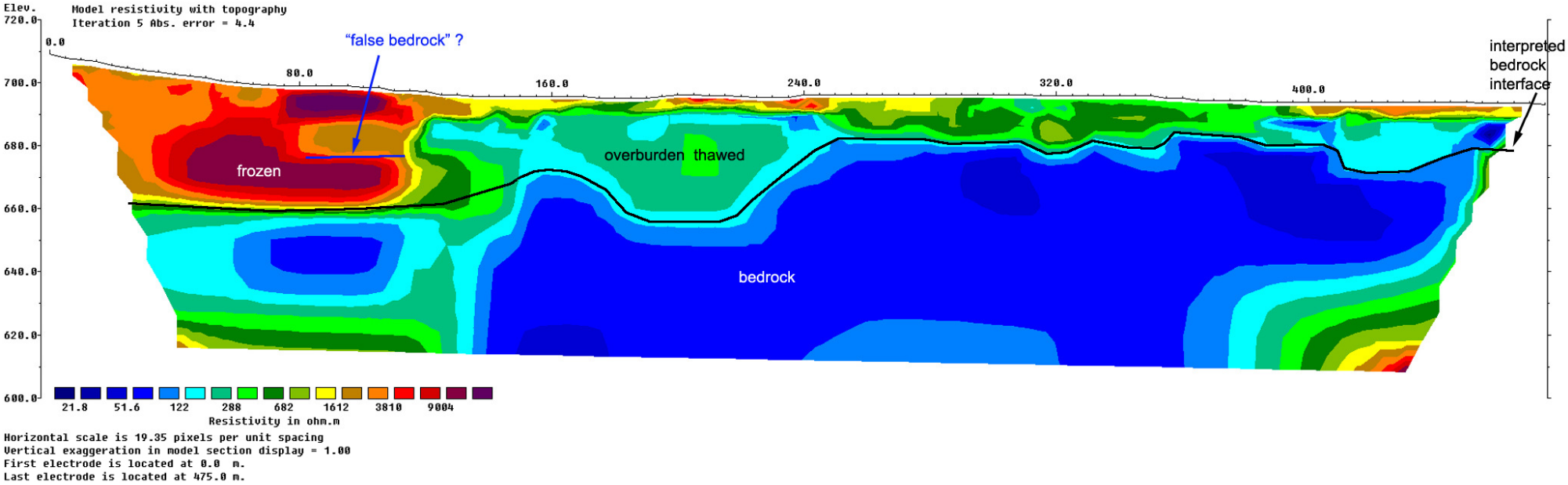
Interpretation



Interpretation

Resistivity profile_08 might show 12-32m of overburden on top of bedrock.

At 0-120m the main channel, 32m deep at 100m, might be located. Its overburden seems to show the same three-layer scenario as described above.[17]

At 160-240m a secondary channel of the same depth seems to be located. Its overburden shows three different resistivity layers likely consisting of another material composition than at the described three-layer system along the survey area. This three-layer structure here is likely indicating a thawed silt-/clay-rich deposit with a glacio-fluvial origin. Alternatively, it could be a gravel deposit with a voluminous matrix of silt/clay (till with glacio-fluvial interlayers. The thin low conducting layer on the surface (red/brown) seems to be gravel (modern alluvium?) showing winter frost.

At 240-400m the overburden seems to consist of 12-15m of glacial till. At 320m a small channel, 15m deep, possibly filled with glacio-fluvial gravel, seems to be measured.

At 410-450m a side channel, 19m deep at 420m, must be located. This channel is quite similar to the channel at the right end of neighbour profile_09 (see above). It is also filled with thawed material: likely gravel indicating a glacio-fluvial channel, or silt/clay referring to a glacio-lacustrine sediment. The lower conducting material on the surface (brown) could indicate winter frost.

The bedrock seems again to be thawed schist.

[17] If this three-layer scenario is dug up at one place, the chance is estimated to be high, that the same (or very similar) subsurface conditions exist at all other places where the resistivity model indicates the three-layer system.

Haggart Creek_07

2D Resistivity, Schlumberger array
96 Electrodes: spacing 5m, Horizontal resolution 2.5m
Horizontal and vertical measure in [meter], Iteration error in [%]
The profile might show the layers up to 15% thicker than in reality.

Data acquisition: Stefan Ostermaier, 15th May 2012
Processing: Philipp Moll, 22nd May 2012
This interpretation of geophysical data should be verified with physical prospecting methods such as drilling, trenching, test pitting, or shafting.

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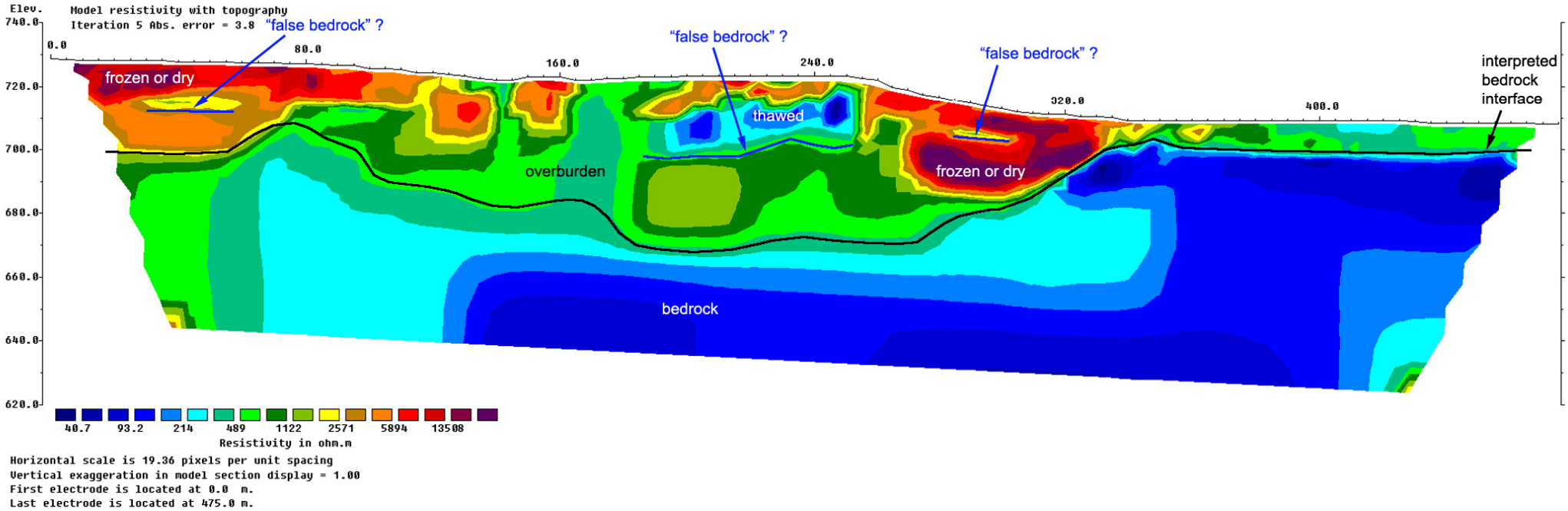
Interpretation



Horizontal scale is 19.36 pixels per unit spacing
Vertical exaggeration in model section display = 1.00
First electrode is located at 0.0 m.
Last electrode is located at 475.0 m.

Interpretation

Resistivity profile_07 might show 6-46m of overburden on top of bedrock.

The profile shows again the cascaded bedrock topography descending into the main channel from both sides. The repeated three-layer system along the stream is again found, we see it at three sections across the valley.

At 0-70m a secondary channel, 25m deep at 45m, was detected. It is filled with the area-typical three-layer overburden.

At 80-330m the cascaded bedrock structure was again detected.
Around 160m a bedrock bench, 34m deep, covered with discontinuously frozen area-typical overburden, could be located.
Around 200m the main channel, 46m deep, filled with the local three-layer overburden, might be located.
Around 255m a bedrock bench, 45m deep, covered with discontinuously frozen standard overburden complex was measured.
Around 295m a bedrock bench, 28m deep, covered with frozen area-typical overburden, could be deposited.

After 340m discontinuously frozen till is interpreted.

The bedrock seems again to be thawed schist. Around 80m there could be a fault.

Haggart Creek_06

2D Resistivity, Schlumberger array
96 Electrodes: spacing 5m, Horizontal resolution 2.5m
Horizontal and vertical measure in [meter], Iteration error in [%]
The profile might show the layers up to 15% thicker than in reality.

Data acquisition: Stefan Ostermaier, 14th May 2012
Processing: Philipp Moll, 22nd May 2012
This interpretation of geophysical data should be verified with physical prospecting methods such as drilling, trenching, test pitting, or shafting.

Arctic Geophysics Inc.
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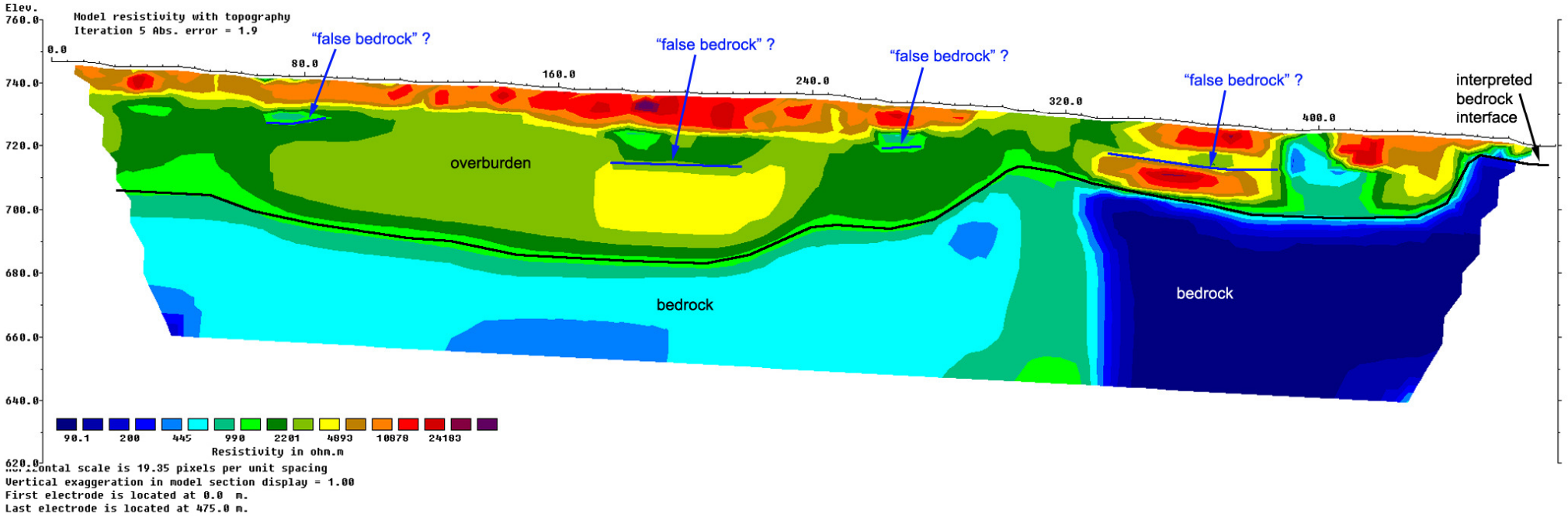
Interpretation



Interpretation

Resistivity profile_06 might show 6-46m of overburden on top of bedrock.

The profile shows again the cascaded bedrock topography descending into the main channel from both sides. The three-layer system is again found at three sections across the valley.

At 0-50m a bedrock bench, 33m deep at 40m, covered with frozen overburden on top of thawed material, was detected.

At 50-240m the main channel, 45m deep at 200m, seems to be located. It is filled with two or three layers of the standard overburden complex.

At 250-280m a small bedrock bench is shown. At 265m the overburden should be approx. 33m thick and represents the three-layer scenario, as explained above.

After 320m a prominent bedrock bench including a channel is located. Around 365m it is covered with the three-layer overburden: 21m depth at 365m.
At 400m the overburden represents a well conducting mono-layer, depth 22m.

The bedrock seems again to be thawed schist. Around 310m there could be a fault.

18. Qualifications

Philipp Moll
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01149 (0)781 970 5893 (Germany)
Email: philipp.moll@arctic-geophysics.com

- Study of geology, University of Freiburg, Germany

- Visit of geophysical field courses, University of Karlsruhe and University of Stuttgart, Germany

- Working for Arctic Geophysics Inc. since June 2007 (foundation)

Geophysical field surveys using 2D Resistivity, Induced Polarization, Magnetics: Data acquisition, processing, interpretation, documentation

- Geophysical surveying for Mining Exploration in the Yukon since 2005

- Geological Prospecting for precious metals and minerals in the Yukon, NWTs, and Alaska since 1989

- Publications:

A) Numerous Assessment Reports about geophysical surveys done for Yukon mining companies, filedat Yukon Mining Recorder

B) Geophysical survey (45 field days) for Yukon Government: Yukon Geological Survey, Publication:
http://www.geology.gov.yk.ca/recent.html Open Files: Moll, P., &Ostermaier, S., 2010. 2D Resistivity/IP Data Release for Placer Mining and shallow Quartz Mining - Yukon 2010.Yukon Geological Survey Miscellaneous Report MR-4.PDF Report [10.3 MB] &Data Profiles [45.4 MB]

Philipp Moll

19. Appendix
Literature

Location-specific

LeBarge William, Yukon Placer Database

W.P. LeBarge, J.D. Bond, and F.J. Hein
Bulletin 13: “Placer gold deposits of the Mayo area, central Yukon (2002)

Literature – Background

Chesterman W. Ch. and Lowe K.E. Field Guide to Rocks and Minerals - North America, Chanticleer Press Inc. New York 2007

Evans A.M. Erzlagerstättenkunde, Ferdinand Enke Verlag Stuttgart (1992)

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Griffiths, D.H. and Barker, R.D. Two-dimensional resistivity imaging and modeling in areas of complex geology. Journal of Applied Geophysics 29 : 211 - 226. (1993)

Keller, G.V.and Frischknecht, F.C. Electrical methods in geophysical prospecting. Oxford: Pergamon Press Inc. (1966)

Loke M.H. and Barker R.D. Rapid least-squares inversion of apparent resistivity pseudosections by a quasi-Newton method. Geophysical Prospecting 44: 131-152 (1996)

Ostensoe Eric A. “Report on the Gladstone Creek, Placer Gold Property, Kluane Area” (Feb 1984), for: CATEAR RESOURCES LTD.

Press F., Siever R., Grotzinger J., Thomas H.J. Understanding Earth, W.H. Freeman and Company, New York (2004)

Robb L. Introducing to Ore-Forming Processes, Backwell Science Ltd., 2005

Maps

Energy, Mines and Resources: CSW_MINING.PLACER_LANDUSE_PERMIT_POLY_50K

Government of Canada, Natural Resources Canada, Centre for Topographic Information: 105OM13

Geophysical Data Table

Rock type	Resistivity range (Ωm)
Granite porphyry	4.5×10^3 (wet) – 1.3×10^6 (dry)
Feldspar porphyry	4×10^3 (wet)
Syenite	$10^2 - 10^6$
Diorite porphyry	1.9×10^3 (wet) – 2.8×10^4 (dry)
Porphyrite	$10 - 5 \times 10^4$ (wet) – 3.3×10^3 (dry)
Carbonatized porphyry	2.5×10^3 (wet) – 6×10^4 (dry)
Quartz diorite	$2 \times 10^4 - 2 \times 10^6$ (wet) -1.8×10^5 (dry)
Porphyry (various)	$60 - 10^4$
Dacite	2×10^4 (wet)
Andesite	4.5×10^4 (wet) – 1.7×10^2 (dry)
Diabase (various)	$20 - 5 \times 10^7$
Lavas	$10^2 - 5 \times 10^4$
Gabbro	$10^3 - 10^6$
Basalt	$10 - 1.3 \times 10^7$ (dry)
Olivine norite	$10^3 - 6 \times 10^4$ (wet)
Peridotite	3×10^3 (wet) – 6.5×10^3 (dry)
Hornfels	8×10^3 (wet) – 6×10^7 (dry)
Schists (calcareous and mica)	$20 - 10^4$
Tuffs	2×10^3 (wet) – 10^5 (dry)
Graphite schist	$10 - 10^2$
Slates (various)	$6 \times 10^2 - 4 \times 10^7$
Gneiss (various)	6.8×10^4 (wet) – 3×10^6 (dry)
Marble	$10^2 - 2.5 \times 10^8$ (dry)
Skarn	2.5×10^2 (wet) – 2.5×10^8 (dry)
Quartzites (various)	$10 - 2 \times 10^8$
Consolidated shales	$20 - 2 \times 10^3$
Argillites	$10 - 8 \times 10^2$
Conglomerates	$2 \times 10^3 - 10^4$
Sandstones	$1 - 6.4 \times 10^8$
Limestones	$50 - 10^7$
Dolomite	$3.5 \times 10^2 - 5 \times 10^3$
Unconsolidated wet clay	20
Marls	3 – 70
Clays	1 – 100
Oil sands	4 – 800

Costs

Arctic Geophysics Inc.

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Dawson City, Yukon
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info@arctic-geophysics.com
www.arctic-geophysics.com

Survey Location, Haggart Creek, Prospecting Lease IM00169, 8th and 13th-17th May 2012

Invoice # 20120518

Date: 18th May, 2012

Quantity	Description	Amount $CAN
Mob/Demob		
5.5 days	Vehicle 70.--/ day	385.--
624 Km	$ 0.55/km [50%]	171.60
	Dawson - Haggart Creek - Dawson	
¼ day	Driving, 300.--/day	75.--
¼ day	Inspection of survey area, 350.--/day	87.50
Geophysical Survey		
5 days	Geoelectrical 2D-Resistivity Imaging System: 96 electrodes, 480m multi-core cable, PC, software, GPS, altimeter etc., 880.--/day	4 400.--
1 day	Satellite phone 25.-- / day	25.--
10 min	1.99 / min	19.90
1 day	Working data, First Documentation, 350.-- /day	350.--
	NET Amount	$ 5 514.--
GST Number 846363216RT0001	**G.S.T. (5%)**	$ 275.70
Total Due		**$ 5 789.70**

Arctic Geophysics Inc.

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Y0B1M0, Canada

Resistivity Survey, Haggart Creek, Prospecting Lease IM00169, at 8th and 13th - 17th May 2012 - REPORT

Invoice # 20120915R

Date: 15th Sept, 2012

Quantity	Description	Amount $CAN
2 1/2 days	Writing report $ 350.-- / day	875.--
	Printing / Binding /Shipping	70.--
	NET Amount	$ 945.--
GST Number 846363216RT0001	**G.S.T. (5%)**	$ 47.25
Total Due		**$ 992.25**

GPS-Data

Haggart Creek 05

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/ Longitude hddd° mm' ss.s"	GPS-Accuracy [m]	Post [*]
1	0.0	N63 57 57.4 W135 57 50.2	3	*
2	5.0	N63 57 57.3 W135 57 50.1	3	
3	10.0	N63 57 57.2 W135 57 50.0	3	
4	15.0	N63 57 57.0 W135 57 49.8	3	
5	20.0	N63 57 56.9 W135 57 49.7	3	
6	25.0	N63 57 56.7 W135 57 49.5	3	
7	30.0	N63 57 56.6 W135 57 49.5	3	
8	35.0	N63 57 56.5 W135 57 49.3	3	
9	40.0	N63 57 56.3 W135 57 49.1	3	
10	45.0	N63 57 56.1 W135 57 49.0	3	
11	50.0	N63 57 56.0 W135 57 48.8	3	
12	55.0	N63 57 55.9 W135 57 48.7	3	
13	60.0	N63 57 55.8 W135 57 48.5	3	
14	65.0	N63 57 55.6 W135 57 48.3	3	
15	70.0	N63 57 55.5 W135 57 48.3	3	
16	75.0	N63 57 55.3 W135 57 48.1	3	
17	80.0	N63 57 55.2 W135 57 48.0	3	
18	85.0	N63 57 55.0 W135 57 47.9	3	
19	90.0	N63 57 55.0 W135 57 47.7	3	
20	95.0	N63 57 54.8 W135 57 47.6	3	
21	100.0	N63 57 54.7 W135 57 47.4	3	
22	105.0	N63 57 54.6 W135 57 47.2	3	
23	110.0	N63 57 54.6 W135 57 47.2	3	
24	115.0	N63 57 54.3 W135 57 46.9	3	
25	120.0	N63 57 54.2 W135 57 46.7	3	
26	125.0	N63 57 54.0 W135 57 46.5	3	
27	130.0	N63 57 53.9 W135 57 46.4	3	
28	135.0	N63 57 53.7 W135 57 46.3	3	
29	140.0	N63 57 53.5 W135 57 46.1	3	
30	145.0	N63 57 53.4 W135 57 45.9	3	
31	150.0	N63 57 53.3 W135 57 45.8	3	
32	155.0	N63 57 53.1 W135 57 45.6	3	
33	160.0	N63 57 53.0 W135 57 45.3	3	
34	165.0	N63 57 52.9 W135 57 45.2	3	
35	170.0	N63 57 52.7 W135 57 45.1	3	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/ Longitude hddd° mm' ss.s''	GPS-Accuracy [m]	Post [*]
36	175.0	N63 57 52.6 W135 57 44.9	3	
37	180.0	N63 57 52.5 W135 57 44.8	3	
38	185.0	N63 57 52.3 W135 57 44.6	3	
39	190.0	N63 57 52.1 W135 57 44.4	3	
40	195.0	N63 57 51.9 W135 57 44.2	3	
41	200.0	N63 57 51.8 W135 57 44.0	3	
42	205.0	N63 57 51.6 W135 57 43.8	3	
43	210.0	N63 57 51.5 W135 57 43.7	3	
44	215.0	N63 57 51.3 W135 57 43.7	3	
45	220.0	N63 57 51.3 W135 57 43.6	3	
46	225.0	N63 57 51.2 W135 57 43.4	3	
47	230.0	N63 57 51.0 W135 57 43.2	3	
48	235.0	N63 57 50.9 W135 57 43.1	3	
49	240.0	N63 57 50.8 W135 57 43.0	3	
50	245.0	N63 57 50.6 W135 57 42.8	3	
51	250.0	N63 57 50.5 W135 57 42.6	3	
52	255.0	N63 57 50.3 W135 57 42.4	3	
53	260.0	N63 57 50.1 W135 57 42.2	3	
54	265.0	N63 57 49.9 W135 57 41.9	3	
55	270.0	N63 57 49.8 W135 57 41.8	3	
56	275.0	N63 57 49.6 W135 57 41.7	3	
57	280.0	N63 57 49.5 W135 57 41.5	3	
58	285.0	N63 57 49.3 W135 57 41.4	3	
59	290.0	N63 57 49.2 W135 57 41.1	3	
60	295.0	N63 57 49.1 W135 57 41.1	3	
61	300.0	N63 57 48.9 W135 57 40.9	3	
62	305.0	N63 57 48.7 W135 57 40.6	3	
63	310.0	N63 57 48.6 W135 57 40.6	3	
64	315.0	N63 57 48.5 W135 57 40.4	3	*

Haggart Creek 06

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/ Longitude hddd° mm' ss.s''	GPS-Accuracy [m]	Post [*]
1	0.0	N63 59 27.7 W135 52 13.5	3	*
2	5.0	N63 59 27.5 W135 52 13.1	3	
3	10.0	N63 59 27.4 W135 52 12.9	3	
4	15.0	N63 59 27.4 W135 52 12.6	3	
5	20.0	N63 59 27.3 W135 52 12.2	3	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/ Longitude hddd° mm' ss.s''	GPS-Accuracy [m]	Post [*]
6	25.0	N63 59 27.2 W135 52 11.9	3	
7	30.0	N63 59 27.1 W135 52 11.6	3	
8	35.0	N63 59 27.1 W135 52 11.3	3	
9	40.0	N63 59 27.0 W135 52 10.9	3	
10	45.0	N63 59 26.9 W135 52 10.7	3	
11	50.0	N63 59 26.9 W135 52 10.4	3	
12	55.0	N63 59 26.8 W135 52 10.1	3	
13	60.0	N63 59 26.7 W135 52 09.7	3	
14	65.0	N63 59 26.6 W135 52 09.3	3	
15	70.0	N63 59 26.5 W135 52 09.0	3	
16	75.0	N63 59 26.5 W135 52 08.7	3	
17	80.0	N63 59 26.4 W135 52 08.3	3	
18	85.0	N63 59 26.3 W135 52 08.1	3	
19	90.0	N63 59 26.3 W135 52 07.8	3	
20	95.0	N63 59 26.2 W135 52 07.5	3	
21	100.0	N63 59 26.1 W135 52 07.0	3	
22	105.0	N63 59 26.0 W135 52 06.7	3	
23	110.0	N63 59 26.0 W135 52 06.4	3	
24	115.0	N63 59 25.9 W135 52 06.1	3	
25	120.0	N63 59 25.8 W135 52 05.8	3	
26	125.0	N63 59 25.7 W135 52 05.5	3	
27	130.0	N63 59 25.7 W135 52 05.1	3	
28	135.0	N63 59 25.6 W135 52 04.9	3	
29	140.0	N63 59 25.5 W135 52 04.6	3	
30	145.0	N63 59 25.5 W135 52 04.3	3	
31	150.0	N63 59 25.4 W135 52 04.0	3	
32	155.0	N63 59 25.4 W135 52 03.7	3	
33	160.0	N63 59 25.3 W135 52 03.4	3	
34	165.0	N63 59 25.2 W135 52 03.0	3	
35	170.0	N63 59 25.2 W135 52 02.7	3	
36	175.0	N63 59 25.1 W135 52 02.4	3	
37	180.0	N63 59 25.1 W135 52 02.1	3	
38	185.0	N63 59 25.0 W135 52 01.8	3	
39	190.0	N63 59 24.9 W135 52 01.5	3	
40	195.0	N63 59 24.9 W135 52 01.1	3	
41	200.0	N63 59 24.8 W135 52 00.7	3	*
42	205.0	N63 59 24.7 W135 52 00.6	3	
43	210.0	N63 59 24.6 W135 52 00.2	3	
44	215.0	N63 59 24.6 W135 51 59.8	3	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/ Longitude hddd° mm' ss.s''	GPS-Accuracy [m]	Post [*]
45	220.0	N63 59 24.5 W135 51 59.5	3	
46	225.0	N63 59 24.5 W135 51 59.1	3	
47	230.0	N63 59 24.4 W135 51 58.8	3	
48	235.0	N63 59 24.3 W135 51 58.4	3	
49	240.0	N63 59 24.3 W135 51 58.3	3	
50	245.0	N63 59 24.2 #W135 51 57.9	3	
51	250.0	N63 59 24.1 W135 51 57.8	3	
52	255.0	N63 59 24.1 W135 51 57.5	3	
53	260.0	N63 59 24.0 W135 51 57.2	3	
54	265.0	N63 59 23.9 W135 51 56.8	3	
55	270.0	N63 59 23.8 W135 51 56.6	3	
56	275.0	N63 59 23.8 W135 51 56.2	3	
57	280.0	N63 59 23.7 W135 51 55.9	3	
58	285.0	N63 59 23.6 W135 51 55.6	3	
59	290.0	N63 59 23.6 W135 51 55.3	3	
60	295.0	N63 59 23.5 W135 51 54.8	3	
61	300.0	N63 59 23.4 W135 51 54.6	3	
62	305.0	N63 59 23.4 W135 51 54.4	3	
63	310.0	N63 59 23.3 W135 51 53.9	3	
64	315.0	N63 59 23.2 W135 51 53.6	3	
65	320.0	N63 59 23.2 W135 51 53.2	3	
66	325.0	N63 59 23.1 W135 51 52.9	3	
67	330.0	N63 59 23.0 W135 51 52.4	3	
68	335.0	N63 59 22.9 W135 51 52.2	3	
69	340.0	N63 59 22.9 W135 51 51.8	3	
70	345.0	N63 59 22.8 W135 51 51.4	3	
71	350.0	N63 59 22.7 W135 51 51.0	3	
72	355.0	N63 59 22.6 W135 51 50.7	3	
73	360.0	N63 59 22.6 W135 51 50.4	3	
74	365.0	N63 59 22.5 W135 51 50.1	3	
75	370.0	N63 59 22.4 W135 51 49.8	3	
76	375.0	N63 59 22.4 W135 51 49.6	3	
77	380.0	N63 59 22.3 W135 51 49.3	3	
78	385.0	N63 59 22.2 W135 51 48.8	3	
79	390.0	N63 59 22.2 W135 51 48.5	3	
80	395.0	N63 59 22.1 W135 51 48.1	3	
81	400.0	N63 59 22.0 W135 51 47.7	3	
82	405.0	N63 59 22.0 W135 51 47.1	3	
83	410.0	N63 59 21.9 W135 51 46.7	3	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/ Longitude hddd° mm' ss.s"	GPS-Accuracy [m]	Post [*]
84	415.0	N63 59 21.8 W135 51 46.4	3	
85	420.0	N63 59 21.8 W135 51 46.2	3	
86	425.0	N63 59 21.7 W135 51 45.8	3	
87	430.0	N63 59 21.6 W135 51 45.5	3	
88	435.0	N63 59 21.6 W135 51 45.3	3	
89	440.0	N63 59 21.5 W135 51 44.9	3	
90	445.0	N63 59 21.4 W135 51 44.7	3	
91	450.0	N63 59 21.4 W135 51 44.3	3	
92	455.0	N63 59 21.3 W135 51 44.0	3	
93	460.0	N63 59 21.3 W135 51 43.7	3	
94	465.0	N63 59 21.2 W135 51 43.2	3	
95	470.0	N63 59 21.1 W135 51 42.9	3	
96	475.0	N63 59 21.0 W135 51 42.6	3	*

Haggart Creek 07

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/ Longitude hddd° mm' ss.s"	GPS-Accuracy [m]	Post [*]
1	0.0	N63 59 16.0 W135 52 09.5	3	*
2	5.0	N63 59 15.9 W135 52 09.2	3	
3	10.0	N63 59 15.8 W135 52 08.8	3	
4	15.0	N63 59 15.7 W135 52 08.5	3	
5	20.0	N63 59 15.7 W135 52 08.2	3	
6	25.0	N63 59 15.6 W135 52 07.9	3	
7	30.0	N63 59 15.5 W135 52 07.5	3	
8	35.0	N63 59 15.4 W135 52 07.2	3	
9	40.0	N63 59 15.3 W135 52 07.0	3	
10	45.0	N63 59 15.3 W135 52 06.7	3	
11	50.0	N63 59 15.2 W135 52 06.4	3	
12	55.0	N63 59 15.1 W135 52 06.1	3	
13	60.0	N63 59 15.0 W135 52 05.7	3	
14	65.0	N63 59 14.9 W135 52 05.4	3	
15	70.0	N63 59 14.9 W135 52 05.1	3	
16	75.0	N63 59 14.8 W135 52 04.8	3	
17	80.0	N63 59 14.7 W135 52 04.5	3	
18	85.0	N63 59 14.7 W135 52 04.2	3	
19	90.0	N63 59 14.6 W135 52 03.9	3	
20	95.0	N63 59 14.5 W135 52 03.6	3	
21	100.0	N63 59 14.4 W135 52 03.3	3	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/ Longitude hddd° mm' ss.s"	GPS-Accuracy [m]	Post [*]
22	105.0	N63 59 14.3 W135 52 03.0	3	
23	110.0	N63 59 14.2 W135 52 02.7	3	
24	115.0	N63 59 14.2 W135 52 02.4	3	
25	120.0	N63 59 14.1 W135 52 02.1	3	
26	125.0	N63 59 14.0 W135 52 01.8	3	
27	130.0	N63 59 13.9 W135 52 01.5	3	
28	135.0	N63 59 13.8 W135 52 01.1	3	
29	140.0	N63 59 13.7 W135 52 00.8	3	
30	145.0	N63 59 13.7 W135 52 00.6	3	
31	150.0	N63 59 13.6 W135 52 00.2	3	
32	155.0	N63 59 13.5 W135 51 59.9	3	
33	160.0	N63 59 13.4 W135 51 59.6	3	
34	165.0	N63 59 13.3 W135 51 59.2	3	
35	170.0	N63 59 13.3 W135 51 59.0	3	
36	175.0	N63 59 13.2 W135 51 58.5	3	
37	180.0	N63 59 13.1 W135 51 58.2	3	
38	185.0	N63 59 13.0 W135 51 57.9	3	
39	190.0	N63 59 12.9 W135 51 57.6	3	
40	195.0	N63 59 12.9 W135 51 57.3	3	
41	200.0	N63 59 12.8 W135 51 57.0	3	*
42	205.0	N63 59 12.7 W135 51 56.6	3	
43	210.0	N63 59 12.6 W135 51 56.3	3	
44	215.0	N63 59 12.5 W135 51 55.9	3	
45	220.0	N63 59 12.4 W135 51 55.7	3	
46	225.0	N63 59 12.4 W135 51 55.4	3	
47	230.0	N63 59 12.3 W135 51 55.1	3	
48	235.0	N63 59 12.2 W135 51 54.8	3	
49	240.0	N63 59 12.1 W135 51 54.4	3	
50	245.0	N63 59 12.1 W135 51 54.1	3	
51	250.0	N63 59 12.0 W135 51 53.8	3	
52	255.0	N63 59 11.9 W135 51 53.5	3	
53	260.0	N63 59 11.8 W135 51 53.1	3	
54	265.0	N63 59 11.8 W135 51 52.9	3	
55	270.0	N63 59 11.7 W135 51 52.6	3	
56	275.0	N63 59 11.6 W135 51 52.3	3	
57	280.0	N63 59 11.5 W135 51 51.9	3	
58	285.0	N63 59 11.4 W135 51 51.6	3	
59	290.0	N63 59 11.3 W135 51 51.3	3	
60	295.0	N63 59 11.2 W135 51 51.0	3	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/ Longitude hddd° mm' ss.s''	GPS-Accuracy [m]	Post [*]
61	300.0	N63 59 11.1 W135 51 50.7	3	
62	305.0	N63 59 11.1 W135 51 50.4	3	
63	310.0	N63 59 11.0 W135 51 50.1	3	
64	315.0	N63 59 10.9 W135 51 49.8	3	
65	320.0	N63 59 10.8 W135 51 49.5	3	
66	325.0	N63 59 10.7 W135 51 49.2	3	
67	330.0	N63 59 10.6 W135 51 48.9	3	
68	335.0	N63 59 10.6 W135 51 48.6	3	
69	340.0	N63 59 10.5 W135 51 48.3	3	
70	345.0	N63 59 10.4 W135 51 48.0	3	
71	350.0	N63 59 10.3 W135 51 47.6	3	
72	355.0	N63 59 10.3 W135 51 47.3	3	
73	360.0	N63 59 10.3 W135 51 47.1	3	
74	365.0	N63 59 10.1 W135 51 46.7	3	
75	370.0	N63 59 10.0 W135 51 46.3	3	
76	375.0	N63 59 09.9 W135 51 46.0	3	
77	380.0	N63 59 09.8 W135 51 45.6	3	
78	385.0	N63 59 09.8 W135 51 45.4	3	
79	390.0	N63 59 09.7 W135 51 45.1	3	
80	395.0	N63 59 09.7 W135 51 44.7	3	
81	400.0	N63 59 09.6 W135 51 44.5	3	
82	405.0	N63 59 09.5 W135 51 44.1	3	
83	410.0	N63 59 09.4 W135 51 43.8	3	
84	415.0	N63 59 09.3 W135 51 43.5	3	
85	420.0	N63 59 09.2 W135 51 43.1	3	
86	425.0	N63 59 09.1 W135 51 42.8	3	
87	430.0	N63 59 09.1 W135 51 42.5	3	
88	435.0	N63 59 09.0 W135 51 42.2	3	
89	440.0	N63 59 09.0 W135 51 41.9	3	
90	445.0	N63 59 08.9 W135 51 41.5	3	
91	450.0	N63 59 08.8 W135 51 41.3	3	
92	455.0	N63 59 08.7 W135 51 40.9	3	
93	460.0	N63 59 08.6 W135 51 40.5	3	
94	465.0	N63 59 08.6 W135 51 40.2	3	
95	470.0	N63 59 08.5 W135 51 39.9	3	
96	475.0	N63 59 08.5 W135 51 39.7	3	*

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Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/ Longitude hddd° mm' ss.s''	GPS-Accuracy [m]	Post [*]
1	0.0	N63 58 55.1 W135 52 57.8	3	*
2	5.0	N63 58 55.1 W135 52 57.7	3	
3	10.0	N63 58 54.9 W135 52 57.6	3	
4	15.0	N63 58 54.8 W135 52 57.5	3	
5	20.0	N63 58 54.6 W135 52 57.3	3	
6	25.0	N63 58 54.4 W135 52 57.1	3	
7	30.0	N63 58 54.3 W135 52 56.9	3	
8	35.0	N63 58 54.2 W135 52 56.9	3	
9	40.0	N63 58 54.1 W135 52 56.8	3	
10	45.0	N63 58 53.9 W135 52 56.6	3	
11	50.0	N63 58 53.8 W135 52 56.5	3	
12	55.0	N63 58 53.6 W135 52 56.4	3	
13	60.0	N63 58 53.5 W135 52 56.3	3	
14	65.0	N63 58 53.4 W135 52 56.1	3	
15	70.0	N63 58 53.3 W135 52 56.0	3	
16	75.0	N63 58 53.1 W135 52 55.8	3	
17	80.0	N63 58 52.9 W135 52 55.6	3	
18	85.0	N63 58 52.8 W135 52 55.4	3	
19	90.0	N63 58 52.6 W135 52 55.3	3	
20	95.0	N63 58 52.5 W135 52 55.1	3	
21	100.0	N63 58 52.3 W135 52 54.9	3	
22	105.0	N63 58 52.2 W135 52 54.8	3	
23	110.0	N63 58 52.0 W135 52 54.6	3	
24	115.0	N63 58 51.9 W135 52 54.5	3	
25	120.0	N63 58 51.8 W135 52 54.3	3	
26	125.0	N63 58 51.6 W135 52 54.2	3	
27	130.0	N63 58 51.4 W135 52 54.0	3	
28	135.0	N63 58 51.3 W135 52 53.9	3	
29	140.0	N63 58 51.2 W135 52 53.7	3	
30	145.0	N63 58 51.0 W135 52 53.6	3	
31	150.0	N63 58 50.9 W135 52 53.4	3	
32	155.0	N63 58 50.7 W135 52 53.2	3	
33	160.0	N63 58 50.6 W135 52 53.1	3	
34	165.0	N63 58 50.5 W135 52 52.9	3	
35	170.0	N63 58 50.3 W135 52 52.7	3	
36	175.0	N63 58 50.2 W135 52 52.6	3	
37	180.0	N63 58 50.0 W135 52 52.5	3	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/ Longitude hddd° mm' ss.s''	GPS-Accuracy [m]	Post [*]
38	185.0	N63 58 49.9 W135 52 52.4	3	
39	190.0	N63 58 49.7 W135 52 52.2	3	
40	195.0	N63 58 49.5 W135 52 52.1	3	*
41	200.0	N63 58 49.4 W135 52 51.9	3	
42	205.0	N63 58 49.3 W135 52 51.7	3	
43	210.0	N63 58 49.1 W135 52 51.5	3	
44	215.0	N63 58 49.0 W135 52 51.4	3	
45	220.0	N63 58 48.9 W135 52 51.3	3	
46	225.0	N63 58 48.7 W135 52 51.1	3	
47	230.0	N63 58 48.6 W135 52 50.9	3	
48	235.0	N63 58 48.5 W135 52 50.8	3	
49	240.0	N63 58 48.3 W135 52 50.7	3	
50	245.0	N63 58 48.3 W135 52 50.6	3	
51	250.0	N63 58 48.1 W135 52 50.4	3	
52	255.0	N63 58 47.9 W135 52 50.3	3	
53	260.0	N63 58 47.7 W135 52 50.1	3	
54	265.0	N63 58 47.6 W135 52 49.9	3	
55	270.0	N63 58 47.5 W135 52 49.9	3	
56	275.0	N63 58 47.3 W135 52 49.6	3	
57	280.0	N63 58 47.1 W135 52 49.5	3	
58	285.0	N63 58 47.1 W135 52 49.5	3	
59	290.0	N63 58 46.9 W135 52 49.3	3	
60	295.0	N63 58 46.8 W135 52 49.1	3	
61	300.0	N63 58 46.6 W135 52 48.9	3	
62	305.0	N63 58 46.5 W135 52 48.8	3	
63	310.0	N63 58 46.3 W135 52 48.6	3	
64	315.0	N63 58 46.1 W135 52 48.5	3	
65	320.0	N63 58 46.0 W135 52 48.3	3	
66	325.0	N63 58 45.8 W135 52 48.1	3	
67	330.0	N63 58 45.7 W135 52 48.0	3	
68	335.0	N63 58 45.6 W135 52 47.9	3	
69	340.0	N63 58 45.5 W135 52 47.7	3	
70	345.0	N63 58 45.3 W135 52 47.7	3	
71	350.0	N63 58 45.2 W135 52 47.5	3	
72	355.0	N63 58 45.0 W135 52 47.3	3	
73	360.0	N63 58 45.0 W135 52 47.3	3	
74	365.0	N63 58 44.8 W135 52 47.1	3	
75	370.0	N63 58 44.7 W135 52 46.9	3	
76	375.0	N63 58 44.5 W135 52 46.7	3	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/ Longitude hddd° mm' ss.s''	GPS-Accuracy [m]	Post [*]
77	380.0	N63 58 44.3 W135 52 46.6	3	
78	385.0	N63 58 44.1 W135 52 46.4	3	
79	390.0	N63 58 44.0 W135 52 46.2	3	
80	395.0	N63 58 43.8 W135 52 46.1	3	
81	400.0	N63 58 43.7 W135 52 45.9	3	
82	405.0	N63 58 43.6 W135 52 45.8	3	
83	410.0	N63 58 43.4 W135 52 45.6	3	
84	415.0	N63 58 43.3 W135 52 45.5	3	
85	420.0	N63 58 43.2 W135 52 45.5	3	
86	425.0	N63 58 43.1 W135 52 45.4	3	
87	430.0	N63 58 43.1 W135 52 45.4	3	
88	435.0	N63 58 43.1 W135 52 45.4	3	
89	440.0	N63 58 43.0 W135 52 45.2	3	
90	445.0	N63 58 42.8 W135 52 45.0	3	
91	450.0	N63 58 42.5 W135 52 44.8	3	
92	455.0	N63 58 42.3 W135 52 44.5	3	
93	460.0	N63 58 42.2 W135 52 44.3	3	
94	465.0	N63 58 41.9 W135 52 44.0	3	
95	470.0	N63 58 41.7 W135 52 43.8	3	
96	475.0	N63 58 41.5 W135 52 43.7	3	*

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Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/ Longitude hddd° mm' ss.s''	GPS-Accuracy [m]	Post [*]
1	0.0	N63 58 39.7 W135 53 59.6	3	*
2	5.0	N63 58 39.5 W135 53 59.5	3	
3	10.0	N63 58 39.3 W135 53 59.3	3	
4	15.0	N63 58 39.2 W135 53 59.1	3	
5	20.0	N63 58 39.0 W135 53 58.9	3	
6	25.0	N63 58 38.9 W135 53 58.8	3	
7	30.0	N63 58 38.8 W135 53 58.6	3	
8	35.0	N63 58 38.6 W135 53 58.5	3	
9	40.0	N63 58 38.5 W135 53 58.3	3	
10	45.0	N63 58 38.4 W135 53 58.1	3	
11	50.0	N63 58 38.2 W135 53 58.0	3	
12	55.0	N63 58 38.0 W135 53 57.7	3	
13	60.0	N63 58 37.9 W135 53 57.6	3	
14	65.0	N63 58 37.8 W135 53 57.4	3	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/ Longitude hddd° mm' ss.s''	GPS-Accuracy [m]	Post [*]
15	70.0	N63 58 37.6 W135 53 57.2	3	
16	75.0	N63 58 37.5 W135 53 57.0	3	
17	80.0	N63 58 37.4 W135 53 56.8	3	
18	85.0	N63 58 37.2 W135 53 56.6	3	
19	90.0	N63 58 37.1 W135 53 56.5	3	
20	95.0	N63 58 36.9 W135 53 56.3	3	
21	100.0	N63 58 36.8 W135 53 56.1	3	
22	105.0	N63 58 36.7 W135 53 55.9	3	
23	110.0	N63 58 36.6 W135 53 55.8	3	
24	115.0	N63 58 36.5 W135 53 55.7	3	
25	120.0	N63 58 36.3 W135 53 55.4	3	
26	125.0	N63 58 36.1 W135 53 55.3	3	
27	130.0	N63 58 36.0 W135 53 55.1	3	
28	135.0	N63 58 35.9 W135 53 54.9	3	
29	140.0	N63 58 35.8 W135 53 54.8	3	
30	145.0	N63 58 35.6 W135 53 54.6	3	
31	150.0	N63 58 35.4 W135 53 54.4	3	
32	155.0	N63 58 35.3 W135 53 54.3	3	
33	160.0	N63 58 35.2 W135 53 54.1	3	
34	165.0	N63 58 35.0 W135 53 53.9	3	
35	170.0	N63 58 34.9 W135 53 53.7	3	
36	175.0	N63 58 34.7 W135 53 53.5	3	
37	180.0	N63 58 34.6 W135 53 53.4	3	
38	185.0	N63 58 34.5 W135 53 53.2	3	
39	190.0	N63 58 34.3 W135 53 53.1	3	
40	195.0	N63 58 34.2 W135 53 52.9	3	*
41	200.0	N63 58 34.0 W135 53 52.7	3	
42	205.0	N63 58 33.8 W135 53 52.5	3	
43	210.0	N63 58 33.8 W135 53 52.3	3	
44	215.0	N63 58 33.6 W135 53 52.2	3	
45	220.0	N63 58 33.5 W135 53 52.0	3	
46	225.0	N63 58 33.3 W135 53 51.8	3	
47	230.0	N63 58 33.2 W135 53 51.6	3	
48	235.0	N63 58 33.1 W135 53 51.4	3	
49	240.0	N63 58 32.9 W135 53 51.2	3	
50	245.0	N63 58 32.8 W135 53 51.0	3	
51	250.0	N63 58 32.6 W135 53 50.9	3	
52	255.0	N63 58 32.5 W135 53 50.6	3	
53	260.0	N63 58 32.3 W135 53 50.5	3	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/ Longitude hddd° mm' ss.s''	GPS-Accuracy [m]	Post [*]
54	265.0	N63 58 32.2 W135 53 50.4	3	
55	270.0	N63 58 32.0 W135 53 50.2	3	
56	275.0	N63 58 31.9 W135 53 50.0	3	
57	280.0	N63 58 31.7 W135 53 49.8	3	
58	285.0	N63 58 31.6 W135 53 49.6	3	
59	290.0	N63 58 31.5 W135 53 49.4	3	
60	295.0	N63 58 31.4 W135 53 49.3	3	
61	300.0	N63 58 31.2 W135 53 49.2	3	
62	305.0	N63 58 31.1 W135 53 49.1	3	
63	310.0	N63 58 31.0 W135 53 48.9	3	
64	315.0	N63 58 30.8 W135 53 48.7	3	
65	320.0	N63 58 30.7 W135 53 48.6	3	
66	325.0	N63 58 30.5 W135 53 48.3	3	
67	330.0	N63 58 30.4 W135 53 48.2	3	
68	335.0	N63 58 30.3 W135 53 48.0	3	
69	340.0	N63 58 30.1 W135 53 47.8	3	
70	345.0	N63 58 30.0 W135 53 47.6	3	
71	350.0	N63 58 29.9 W135 53 47.4	3	
72	355.0	N63 58 29.7 W135 53 47.2	3	
73	360.0	N63 58 29.6 W135 53 47.1	3	
74	365.0	N63 58 29.4 W135 53 46.9	3	
75	370.0	N63 58 29.4 W135 53 46.8	3	
76	375.0	N63 58 29.2 W135 53 46.6	3	
77	380.0	N63 58 29.0 W135 53 46.3	3	
78	385.0	N63 58 28.9 W135 53 46.2	3	
79	390.0	N63 58 28.7 W135 53 45.9	3	
80	395.0	N63 58 28.6 W135 53 45.8	3	
81	400.0	N63 58 28.5 W135 53 45.6	3	
82	405.0	N63 58 28.3 W135 53 45.5	3	
83	410.0	N63 58 28.2 W135 53 45.3	3	
84	415.0	N63 58 28.1 W135 53 45.2	3	
85	420.0	N63 58 28.1 W135 53 45.2	3	
86	425.0	N63 58 28.0 W135 53 44.9	3	
87	430.0	N63 58 27.9 W135 53 44.8	3	
88	435.0	N63 58 27.7 W135 53 44.5	3	
89	440.0	N63 58 27.7 W135 53 44.5	3	
90	445.0	N63 58 27.6 W135 53 44.5	3	
91	450.0	N63 58 27.4 W135 53 44.2	3	
92	455.0	N63 58 27.2 W135 53 44.0	3	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/ Longitude hddd° mm' ss.s''	GPS-Accuracy [m]	Post [*]
93	460.0	N63 58 27.1 W135 53 43.8	3	
94	465.0	N63 58 26.8 W135 53 43.5	3	
95	470.0	N63 58 26.7 W135 53 43.3	3	
96	475.0	N63 58 26.6 W135 53 43.2	3	*