



Geophysical Survey with 2D Resistivity Haggart Creek, Yukon

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FOR

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WORK PERFORMED

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DATE OF REPORT

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Table of Contents

1. Introduction	3
2. Crew	3
3. Claims	3
4. Haggart Creek	3
5. Access.....	3
6. Gold.....	3
7. Geophysical Methods	4
8. Use of Geophysical Methods	5
8.1. Instrumentation	5
8.2. Data Acquisition	5
8.3. Processing	6
8.4. Interpretation	6
9. Profile image	6
10. Line Arrangement	6
11. Bedrock Map.....	7
12. Geology	9
13. Geophysical Implications	12
14. Placer Targets.....	12
15. Survey Map	13
16. Profiles: Interpretation	14
17. Qualifications	22
18. Appendix	23
Literature	23
Geophysical Data Table.....	24
Costs.....	25
GPS-Data	26

1. Introduction

This geophysical investigation was done for Frank and Troy Taylor, Duncan Creek Goldbusters 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 from August 8th - 12th May 2012.

2. Crew

Survey Leader: Stefan Ostermaier
Documentation: Philipp Moll

3. Claims

Grant Number	Tenure	#	Owner
IM00162	Prospecting Lease	-	Frank Taylor

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 Methods

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 Methods

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 METER²
- 80 ELECTRODE CONTROL MODULES³
- 80 STAINLESS STEEL ELECTRODES⁴
- 480m MULTICORE CABLE: CONNECTOR SPACING: 5m⁵

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.

² Constructed and produced by LGM (Germany)

³ Ditto

⁴ Constructed and produced by GEOANALYSIS.DE (Germany)

⁵ Ditto

8.3. Processing

Resistivity

The measured Resistivity/IP data were processed with the **RES2DINV** inversion program⁶.

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 Map⁸

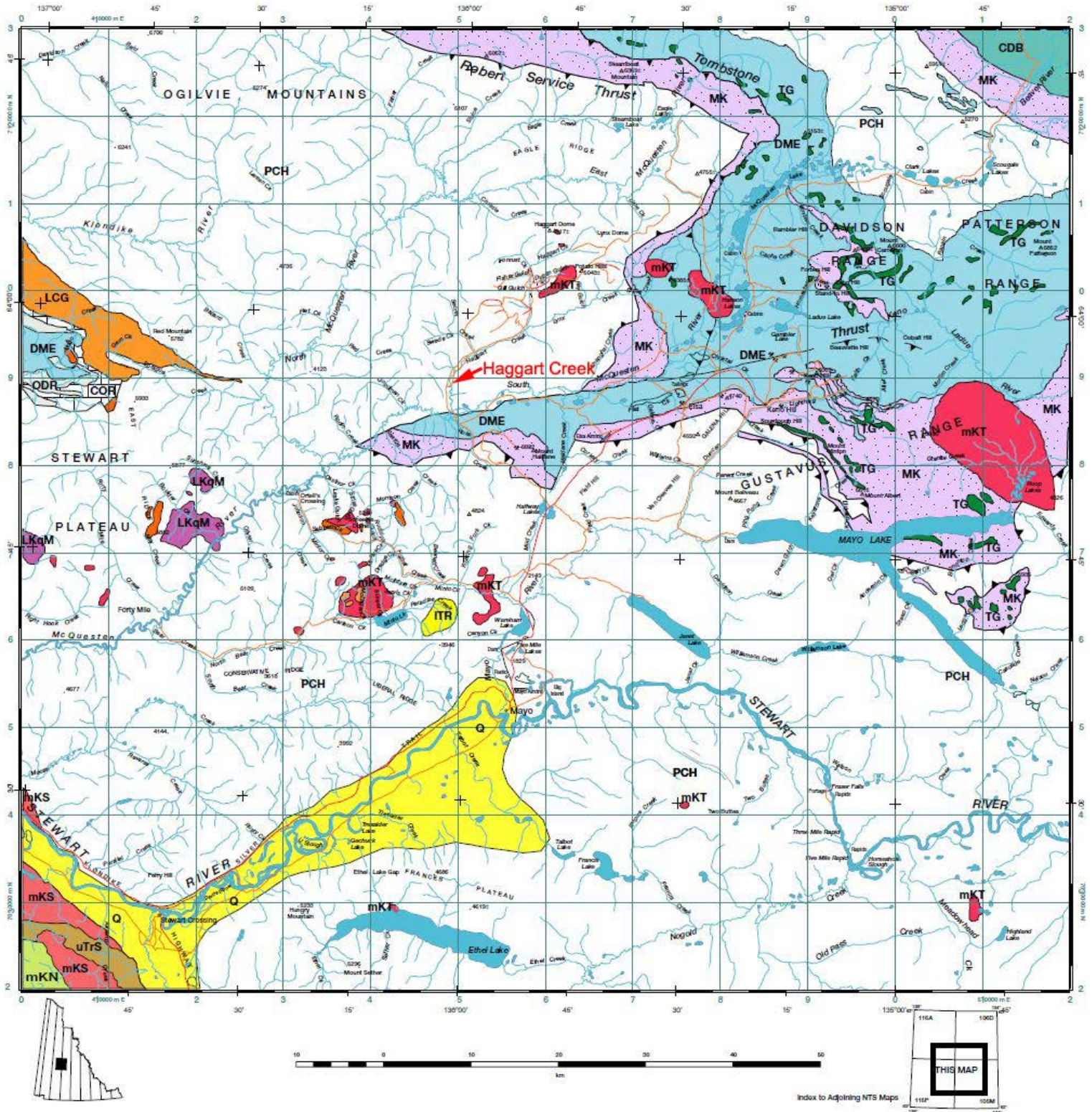


Figure 2: Bedrock Map, Mayo area

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, fluvial sediments and local volcanic ash.

Tertiary

TR 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

uTS 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

ICOR 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.

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 occurring 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

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

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.

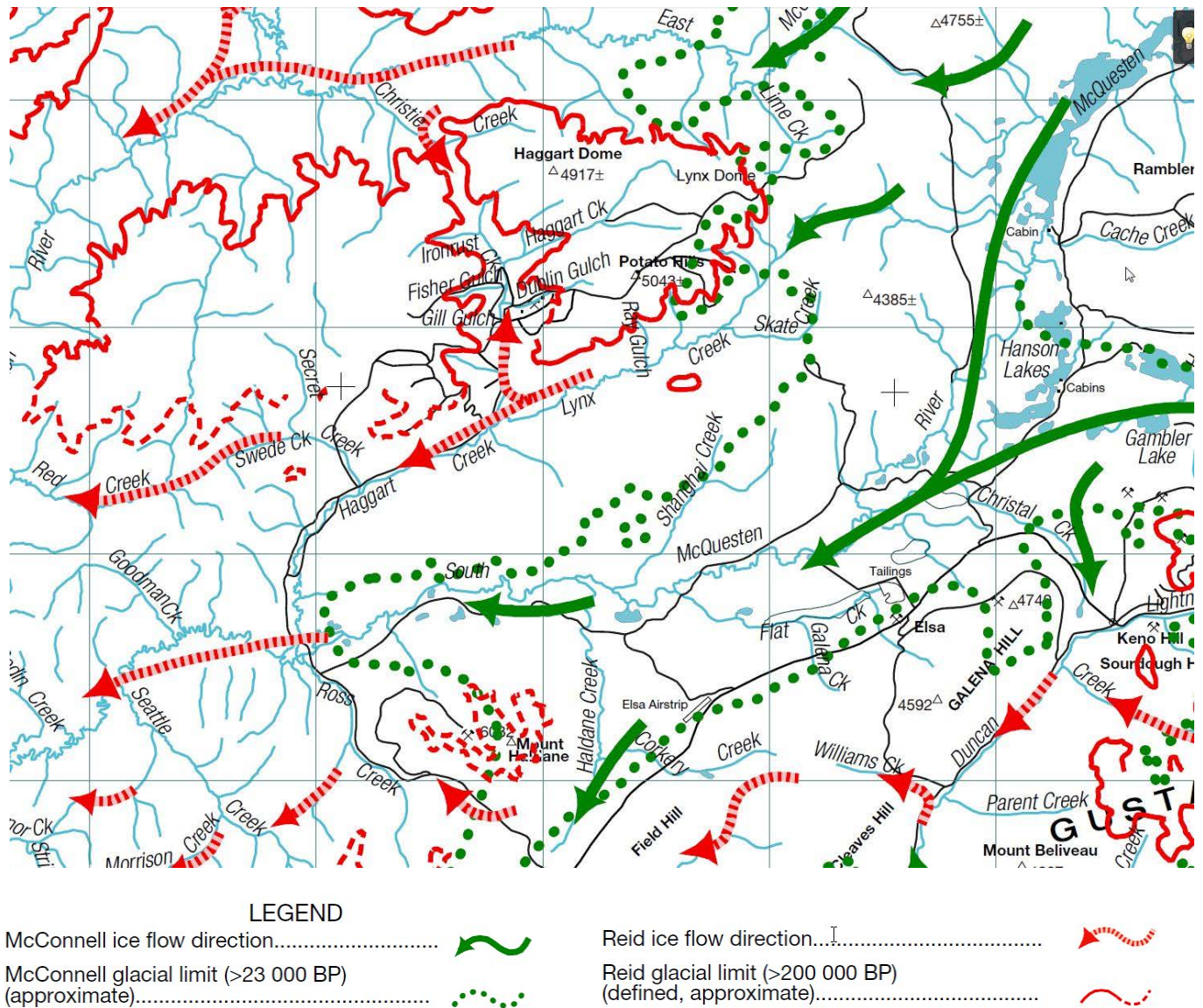


Figure 5: Ice-flow around Haggart Creek¹¹

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

¹¹ W.P. LeBarge, J.D. Bond, and F.J. Hein, Bulletin 13: "Placer gold deposits of the Mayo area, central Yukon (2002) , Page 4

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 Targets¹²

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.

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

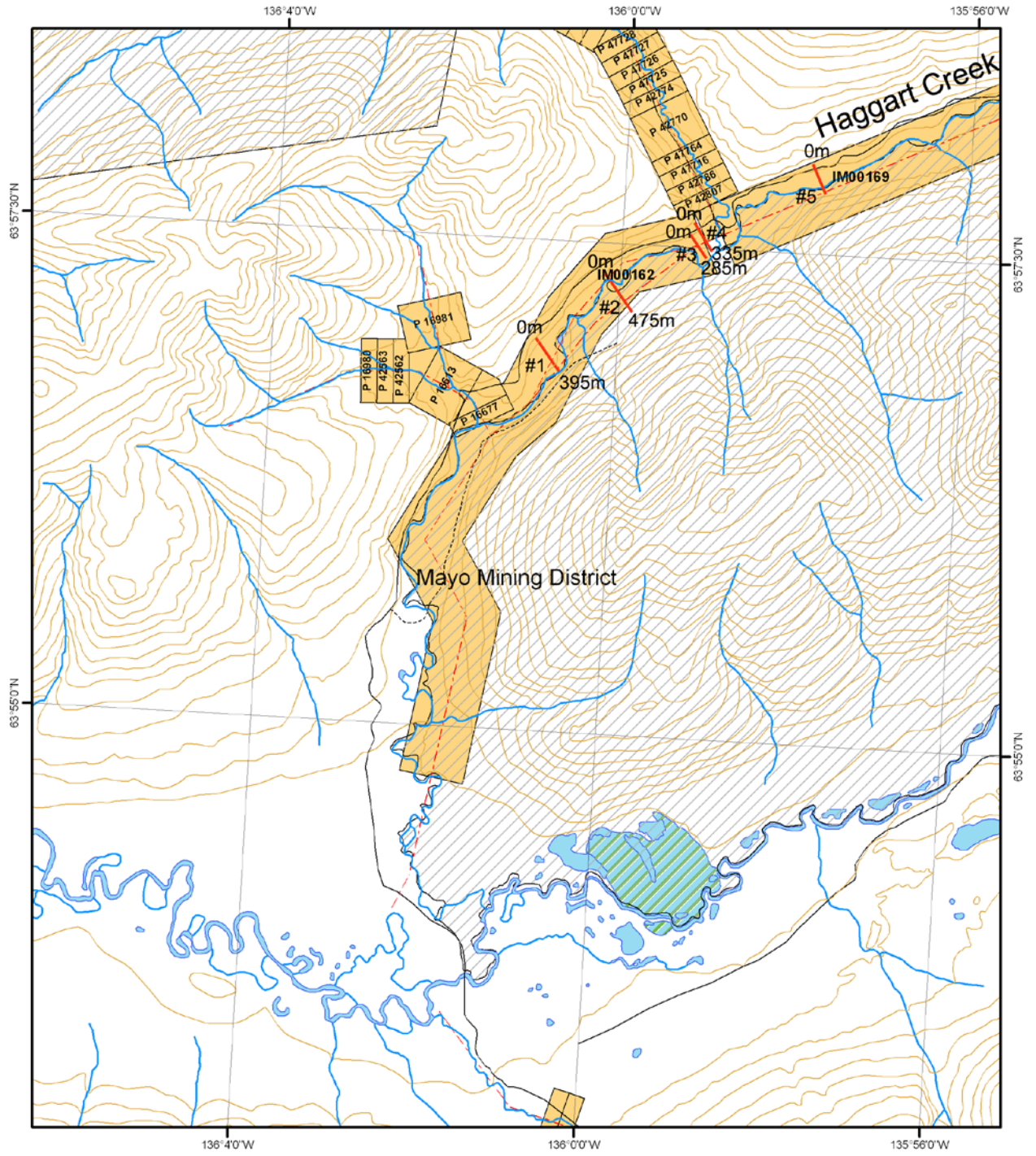
Normally, glaciofluvial gravels have higher potential for placer gold deposits than till, especially if they are reworking pre-existing placers or eroding and re-depositing gold-bearing bedrock.

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 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.

¹² Discussion between William LeBarge and Philipp Moll

15. Survey Map



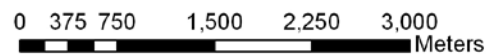
Legend

- measuring line
- contour line
- water course
- water body
- road
- placer_claims Active
- placer baseline
- FN settlement land A

Survey Map

105M13

1:50,000



16. Profiles: Interpretation

Haggart Creek_01

2D Resistivity, Schlumberger array

80 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, 9th May 2012

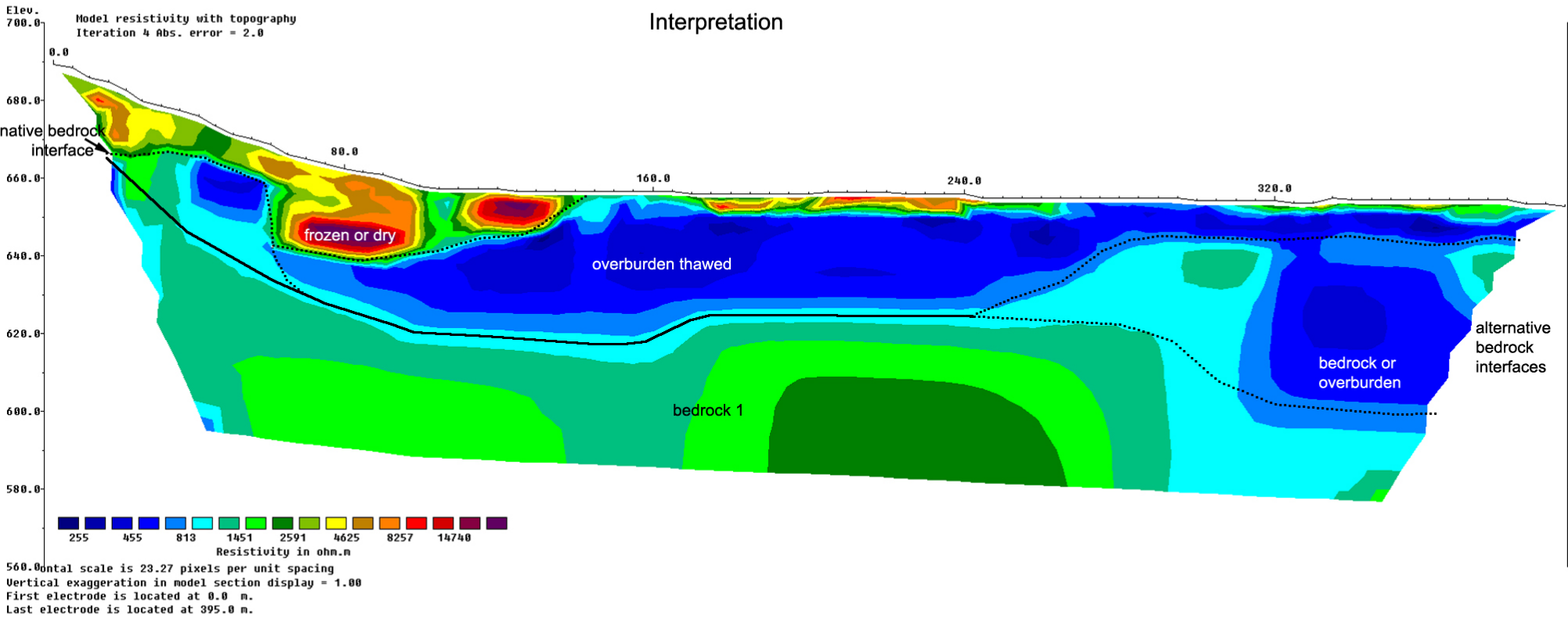
Processing: Philipp Moll, 22nd May 2012

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

Resistivity profile_01 might show 8-45m of overburden on top of bedrock.

At 0-40m in the profile a bedrock terrace, about 14m deep, covered with mainly glaciofluvial gravel below colluvium could be located. However, this interpretation is vague because of a lack of data measured at the fringe.

At 60-140m we see a low conducting zone, roughly representing a higher conducting layer (green) between two lower conducting layers (brown/orange/violet). This three-layer-system could be the deposit of a glaciofluvial channel, sitting in till, consisting of with frozen sediment layers of different types. At 80m the channel would be 19m deep. – Alternatively, this low conducting zone could indicate discontinuously frozen till or colluvium.

At 60-290m the bedrock is deeply eroded by the glacier. The overburden in this zone is almost 100% thawed and shows relatively homogeneous resistivity; however it could consist of plenty of different sediment types: mainly till, and possibly glaciofluvial/-lacustrine sediments, and non-glacial alluvium – all potentially including several clay-interlayers (“false bedrock”) not seen in the profile. At 80-160m the main channel is located; at 145m it should be 32m deep. Between 170 and 240m the low conducting material on the surface could be winter-frost, permafrost, or dry material.

After 320m the bedrock could drop to a depth of 45m. If this would be true, the main channel would be located there. This interpretation is supported by the profile_02 showing a channels-shaped bedrock interface on the right side of the profile.

The bedrock is interpreted as frozen schist.

Haggart Creek_02

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, 10th May 2012

Processing: Philipp Moll, 22nd May 2012

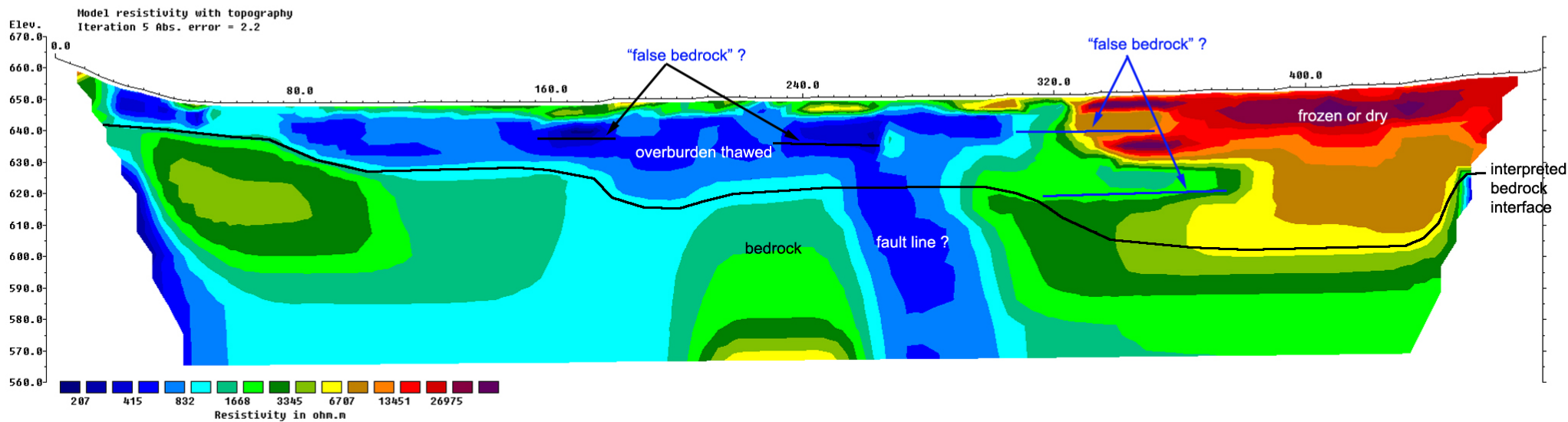
This interpretation of geophysical data should be verified with physical prospecting methods such as drilling, trenching, test pitting, or shafting.

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Interpretation



Horizontal scale is 19.24 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_02 might show 8-44m of overburden on top of bedrock.

At 0-70 the bedrock seems to stay at 8-10m depth. The overburden could contain a higher amount of colluvium.

At 80-160m the bedrock interface drops down forming a bench about 18m deep. Again there should be the standard overburden complex mainly consisting of till, and possibly glaciofluvial/-lacustrine sediments, and non-glacial alluvium – all potentially including several clay-interlayers (“false bedrock”) not seen in the profile. It should be almost 100% thawed.

At 160-180m there could be a false “bedrock layer” about 10m deep.

Around 190m there could be a channel, 29m deep, covered with thawed standard overburden complex. The low conducting material on the surface could be winter-frost, permafrost, or dry material.

At 220-300m we interpret the same stratigraphy showing bedrock at around 25m. At 240-260m there could be a false “bedrock layer” about 13m deep.

After 320m the bedrock seems to drop into the main channel, about 44m deep. At the upper 15m the standard overburden complex is frozen or dry. From there it loses frost downwards. Around 340m there could be two interlayers having less frost, sitting on “false bedrock”, 11m and 38m deep. These interlayers could consist of a different material.

The bedrock is interpreted as frozen schist. Around 280m there could be a fault line.

Haggart Creek_03

2D Resistivity, Schlumberger array
58 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.

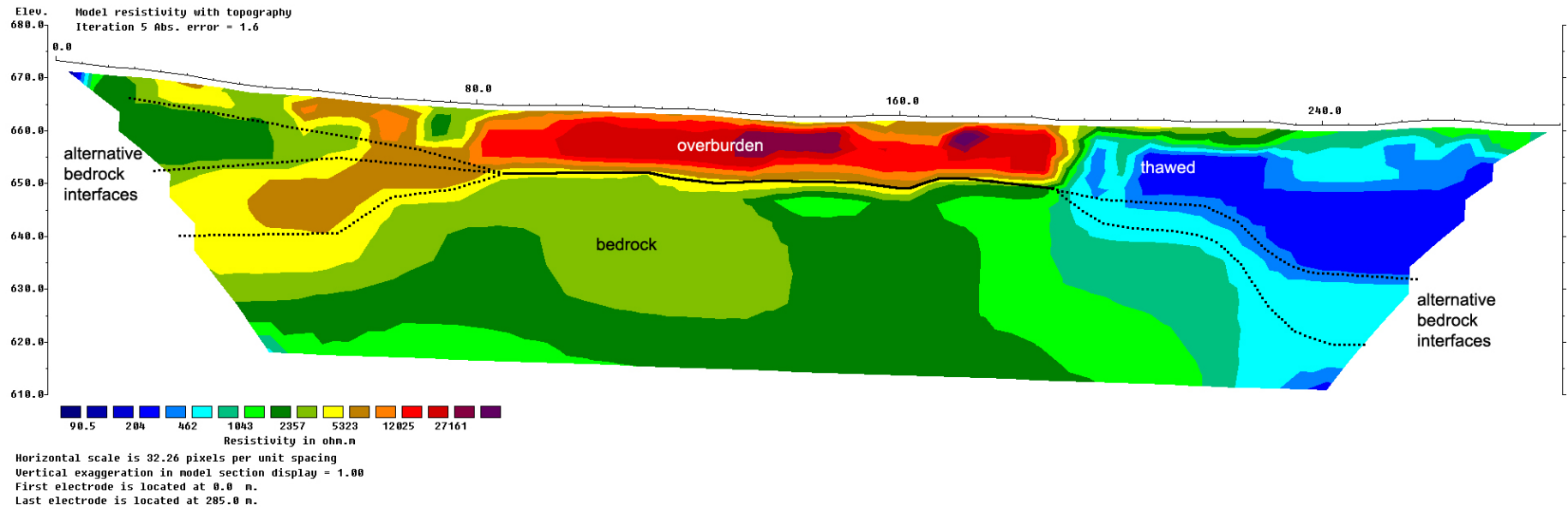
Data acquisition: Stefan Ostermaier, 11th May 2012
Processing: Philipp Moll, 22nd May 2012
This interpretation of geophysical data should be verified with physical prospecting methods such as drilling, trenching, test pitting, or shafting.

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Interpretation



Interpretation

Resistivity profile_03 might show 11-37m of overburden on top of bedrock.

At 80-220m the bedrock seems to be constantly around 11m deep. The standard overburden complex is frozen; at 190m the overburden starts to become thawed.

Left from 80m the bedrock depth is hard to interpret. Comparison with neighbor profile_04 would suggest shallow bedrock of 6-8m depth.

Right from 220m the bedrock seems to drop down into the main channel being between 25 and 38m deep. The channel is covered with the local specific overburden complex as well; it is almost 100% thawed.

The bedrock is interpreted as frozen schist.

Haggart Creek_04

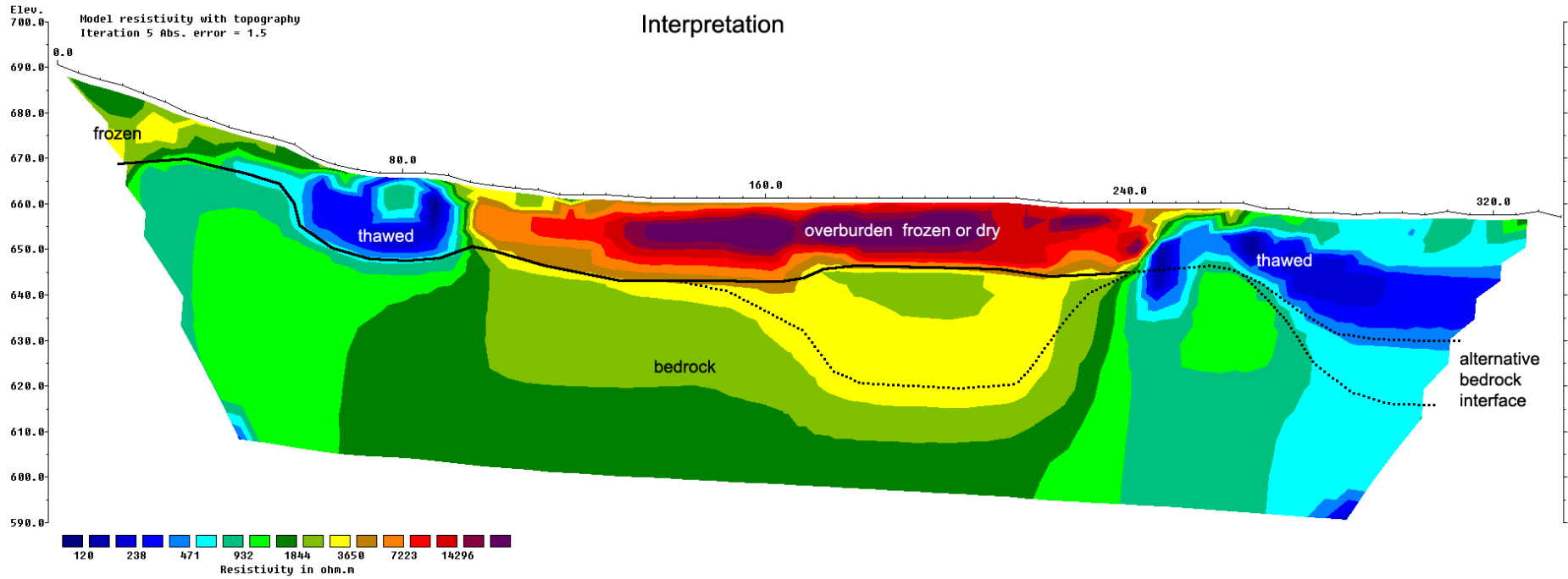
2D Resistivity, Schlumberger array
68 Electrodes: spacing 5m, Horizontal resolution 2.5m
Horizontal and vertical measure in [meter], Iteration error in [%]
The profile might show the layers up to 15% thicker than in reality.

Data acquisition: Stefan Ostermaier, 12th 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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Horizontal scale is 27.28 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 335.0 m.

Interpretation

Resistivity profile_04 might show 8-37m of overburden on top of bedrock.

At 95-260m the bedrock seems to be 13-16m deep. The standard overburden complex is frozen; at 245m the overburden starts to become thawed. At 120-165m there could be a channel, 16m deep.

Around 80m there could be a channel, 16m deep, filled with thawed overburden.

Left from 25m there could start a bedrock terrace, 14m deep. However, this interpretation is vague because of a lack of data measured at the fringe.

Right from 260m the bedrock seems to drop down into the main channel being between 25 and 38m deep. The channel is covered with the local specific overburden complex as well; it is almost 100% thawed.

The bedrock is interpreted as frozen schist.

17. Qualifications



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- 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, filed at 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

18. 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

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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 – 5×10^4 (wet)– 3.3×10^3 (dry)
Carbonatized porphyry	2.5×10^3 (wet) – 6×10^4 (dry)
Quartz diorite	2×10^4 – 2×10^6 (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 – 5×10^7
Lavas	10^2 – 5×10^4
Gabbro	10^3 – 10^6
Basalt	10 – 1.3×10^7 (dry)
Olivine norite	10^3 – 6×10^4 (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) – 10^9 (dry)
Graphite schist	10 – 10^2
Slates (various)	6×10^2 – 4×10^7
Gneiss (various)	6.8×10^4 (wet) – 3×10^6 (dry)
Marble	10^2 – 2.5×10^8 (dry)
Skarn	2.5×10^2 (wet) – 2.5×10^8 (dry)
Quartzites (various)	10 – 2×10^8
Consolidated shales	20 – 2×10^3
Argillites	10 – 8×10^2
Conglomerates	2×10^3 – 10^4
Sandstones	1 – 6.4×10^8
Limestones	50 – 10^7
Dolomite	3.5×10^2 – 5×10^3
Unconsolidated wet clay	20
Marls	3–70
Clays	1–100
Oil sands	4–800

Costs

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www.arctic-geophysics.com

Resistivity Survey, Haggart Creek, Prospecting Lease IM00162, 8th-12th May 2012

Invoice # 20120516

Date: 16th May, 2012

Quantity	Description	Amount \$CAN
Mob/Demob		
4.5 days	Vehicle 70.--/ day	315.--
624 Km	\$ 0.55/km [50%] Dawson - Haggart Creek - Dawson	171.60
¼ day	Driving, 300.--/day	75.--
¼ day	Inspection of survey area, 350.--/day	87.50
Geophysical Survey		
4 days	Geoelectrical 2D-Resistivity Imaging System: 96 electrodes, 480m multi-core cable, PC, software, GPS, altimeter etc., 880.--/day	3 520.--
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 \$ 4 564.--
GST Number 846363216RT0001		G.S.T. (5%) \$ 228.20
Total Due		\$ 4 792.20

Arctic Geophysics Inc.



Geophysical Surveys • Prospecting • Consulting

Troy Taylor
Duncan Creek Goldbusters LTD.
P.O. Box 174
Mayo, Yukon
Y0B1M0, Canada

Resistivity Survey, Haggart Creek, Prospecting Lease IM00162, 8th-12th May 2012 - REPORT

Invoice # 20120516R

Date: 16th May, 2012

Quantity	Description	Amount \$CAN
2 days	Writing report \$ 350.-- / day	700.--
	Printing / Binding /Shipping	70.--
		NET Amount \$ 770.--
GST Number 846363216RT0001		G.S.T. (5%) \$ 38.50
Total Due		\$ 808.50

GPS-Data

Haggart Creek 01

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/ Longitude hddd° mm' ss.s"	GPS-Accuracy [m]	Post [*]
1	0.0	N63 56 59.9 W136 00 56.7	3	*
2	5.0	N63 56 59.7 W136 00 56.4	3	
3	10.0	N63 56 59.6 W136 00 56.2	3	
4	15.0	N63 56 59.5 W136 00 56.0	3	
5	20.0	N63 56 59.4 W136 00 55.8	3	
6	25.0	N63 56 59.3 W136 00 55.6	3	
7	30.0	N63 56 59.2 W136 00 55.4	3	
8	35.0	N63 56 59.1 W136 00 55.2	3	
9	40.0	N63 56 59.0 W136 00 55.1	3	
10	45.0	N63 56 58.9 W136 00 54.9	3	
11	50.0	N63 56 58.8 W136 00 54.7	3	
12	55.0	N63 56 58.7 W136 00 54.4	3	
13	60.0	N63 56 58.6 W136 00 54.2	3	
14	65.0	N63 56 58.4 W136 00 54.0	3	
15	70.0	N63 56 58.3 W136 00 53.7	3	
16	75.0	N63 56 58.2 W136 00 53.5	3	
17	80.0	N63 56 58.1 W136 00 53.3	3	
18	85.0	N63 56 58.0 W136 00 53.1	3	
19	90.0	N63 56 57.9 W136 00 52.8	3	
20	95.0	N63 56 57.7 W136 00 52.6	3	
21	100.0	N63 56 57.6 W136 00 52.4	3	
22	105.0	N63 56 57.5 W136 00 52.2	3	
23	110.0	N63 56 57.3 W136 00 51.9	3	
24	115.0	N63 56 57.2 W136 00 51.6	3	
25	120.0	N63 56 57.1 W136 00 51.4	3	
26	125.0	N63 56 57.0 W136 00 51.2	3	
27	130.0	N63 56 56.8 W136 00 50.8	3	
28	135.0	N63 56 56.7 W136 00 50.7	3	
29	140.0	N63 56 56.6 W136 00 50.4	3	
30	145.0	N63 56 56.5 W136 00 50.3	3	
31	150.0	N63 56 56.4 W136 00 50.0	3	
32	155.0	N63 56 56.3 W136 00 49.8	3	
33	160.0	N63 56 56.2 W136 00 49.6	3	
34	165.0	N63 56 56.1 W136 00 49.4	3	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/ Longitude hddd° mm' ss.s"	GPS-Accuracy [m]	Post [*]
35	170.0	N63 56 56.0 W136 00 49.2	3	
36	175.0	N63 56 55.9 W136 00 49.2	3	
37	180.0	N63 56 55.9 W136 00 48.9	3	
38	185.0	N63 56 55.7 W136 00 48.7	3	
39	190.0	N63 56 55.5 W136 00 48.4	3	
40	195.0	N63 56 55.5 W136 00 48.2	3	
41	200.0	N63 56 55.3 W136 00 47.9	3	
42	205.0	N63 56 55.1 W136 00 47.6	3	
43	210.0	N63 56 55.0 W136 00 47.4	3	
44	215.0	N63 56 54.9 W136 00 47.1	3	
45	220.0	N63 56 54.8 W136 00 46.9	3	
46	225.0	N63 56 54.7 W136 00 46.6	3	
47	230.0	N63 56 54.5 W136 00 46.3	3	
48	235.0	N63 56 54.3 W136 00 46.0	3	
49	240.0	N63 56 54.2 W136 00 45.7	3	
50	245.0	N63 56 54.1 W136 00 45.5	3	
51	250.0	N63 56 54.1 W136 00 45.4	3	
52	255.0	N63 56 53.9 W136 00 45.2	3	
53	260.0	N63 56 53.8 W136 00 45.0	3	
54	265.0	N63 56 53.7 W136 00 44.8	3	
55	270.0	N63 56 53.4 W136 00 44.6	3	
56	275.0	N63 56 53.3 W136 00 44.2	3	
57	280.0	N63 56 53.1 W136 00 44.1	3	
58	285.0	N63 56 53.0 W136 00 43.9	3	
59	290.0	N63 56 52.9 W136 00 43.7	3	
60	295.0	N63 56 52.8 W136 00 43.5	3	
61	300.0	N63 56 52.6 W136 00 43.3	3	
62	305.0	N63 56 52.5 W136 00 43.1	3	
63	310.0	N63 56 52.4 W136 00 43.0	3	
64	315.0	N63 56 52.3 W136 00 42.7	3	
65	320.0	N63 56 52.1 W136 00 42.5	3	
66	325.0	N63 56 52.0 W136 00 42.4	3	
67	330.0	N63 56 51.8 W136 00 42.2	3	
68	335.0	N63 56 51.7 W136 00 41.9	3	
69	340.0	N63 56 51.5 W136 00 41.7	3	
70	345.0	N63 56 51.5 W136 00 41.6	3	
71	350.0	N63 56 51.3 W136 00 41.4	3	
72	355.0	N63 56 51.1 W136 00 41.1	3	
73	360.0	N63 56 51.0 W136 00 40.8	3	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/ Longitude hddd° mm' ss.s''	GPS-Accuracy [m]	Post [*]
74	365.0	N63 56 50.9 W136 00 40.6	3	
75	370.0	N63 56 50.7 W136 00 40.5	3	
76	375.0	N63 56 50.6 W136 00 40.3	3	
77	380.0	N63 56 50.4 W136 00 40.1	3	
78	385.0	N63 56 50.3 W136 00 39.8	3	
79	390.0	N63 56 50.2 W136 00 39.5	3	
80	395.0	N63 56 50.1 W136 00 39.3	3	*

Haggart Creek 02

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/ Longitude hddd° mm' ss.s''	GPS-Accuracy [m]	Post [*]
1	0.0	N63 57 21.0 W136 00 11.2	3	*
2	5.0	N63 57 20.9 W136 00 11.1	3	
3	10.0	N63 57 20.8 W136 00 11.1	3	
4	15.0	N63 57 20.7 W136 00 11.0	3	
5	20.0	N63 57 20.7 W136 00 10.8	3	
6	25.0	N63 57 20.5 W136 00 10.5	3	
7	30.0	N63 57 20.4 W136 00 10.3	3	
8	35.0	N63 57 20.3 W136 00 10.1	3	
9	40.0	N63 57 20.1 W136 00 09.9	3	
10	45.0	N63 57 20.1 W136 00 09.7	3	
11	50.0	N63 57 20.0 W136 00 09.6	3	
12	55.0	N63 57 19.8 W136 00 09.2	3	
13	60.0	N63 57 19.7 W136 00 09.1	3	
14	65.0	N63 57 19.6 W136 00 08.8	3	
15	70.0	N63 57 19.4 W136 00 08.6	3	
16	75.0	N63 57 19.3 W136 00 08.3	3	
17	80.0	N63 57 19.2 W136 00 08.1	3	
18	85.0	N63 57 19.1 W136 00 07.9	3	
19	90.0	N63 57 18.9 W136 00 07.7	3	
20	95.0	N63 57 18.8 W136 00 07.5	3	
21	100.0	N63 57 18.7 W136 00 07.3	3	
22	105.0	N63 57 18.6 W136 00 07.1	3	
23	110.0	N63 57 18.5 W136 00 06.8	3	
24	115.0	N63 57 18.3 W136 00 06.6	3	
25	120.0	N63 57 18.2 W136 00 06.4	3	
26	125.0	N63 57 18.0 W136 00 06.2	3	
27	130.0	N63 57 17.9 W136 00 05.9	3	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/ Longitude hddd° mm' ss.s"	GPS-Accuracy [m]	Post [*]
28	135.0	N63 57 17.7 W136 00 05.7	3	
29	140.0	N63 57 17.6 W136 00 05.5	3	
30	145.0	N63 57 17.5 W136 00 05.2	3	
31	150.0	N63 57 17.4 W136 00 05.0	3	
32	155.0	N63 57 17.3 W136 00 04.9	3	
33	160.0	N63 57 17.2 W136 00 04.7	3	
34	165.0	N63 57 17.2 W136 00 04.6	3	
35	170.0	N63 57 17.0 W136 00 04.4	3	
36	175.0	N63 57 16.9 W136 00 04.0	3	
37	180.0	N63 57 16.8 W136 00 03.8	3	
38	185.0	N63 57 16.6 W136 00 03.5	3	
39	190.0	N63 57 16.5 W136 00 03.3	3	
40	195.0	N63 57 16.3 W136 00 03.0	3	
41	200.0	N63 57 16.3 W136 00 02.8	3	
42	205.0	N63 57 16.1 W136 00 02.6	3	
43	210.0	N63 57 16.0 W136 00 02.2	3	
44	215.0	N63 57 15.9 W136 00 02.1	3	
45	220.0	N63 57 15.8 W136 00 01.8	3	
46	225.0	N63 57 15.6 W136 00 01.6	3	
47	230.0	N63 57 15.5 W136 00 01.4	3	
48	235.0	N63 57 15.4 W136 00 01.2	3	
49	240.0	N63 57 15.2 W136 00 01.0	3	
50	245.0	N63 57 15.2 W136 00 00.9	3	
51	250.0	N63 57 15.1 W136 00 00.7	3	
52	255.0	N63 57 15.0 W136 00 00.5	3	
53	260.0	N63 57 14.8 W136 00 00.2	3	
54	265.0	N63 57 14.7 W135 59 59.9	3	
55	270.0	N63 57 14.6 W135 59 59.8	3	
56	275.0	N63 57 14.4 W135 59 59.6	3	
57	280.0	N63 57 14.2 W135 59 59.2	3	
58	285.0	N63 57 14.1 W135 59 59.1	3	
59	290.0	N63 57 13.9 W135 59 58.7	3	
60	295.0	N63 57 13.9 W135 59 58.5	3	
61	300.0	N63 57 13.8 W135 59 58.4	3	
62	305.0	N63 57 13.6 W135 59 58.2	3	
63	310.0	N63 57 13.4 W135 59 57.8	3	
64	315.0	N63 57 13.3 W135 59 57.6	3	
65	320.0	N63 57 13.2 W135 59 57.3	3	
66	325.0	N63 57 13.0 W135 59 57.1	3	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/ Longitude hddd° mm' ss.s"	GPS-Accuracy [m]	Post [*]
67	330.0	N63 57 12.9 W135 59 56.9	3	
68	335.0	N63 57 12.8 W135 59 56.7	3	
69	340.0	N63 57 12.7 W135 59 56.5	3	
70	345.0	N63 57 12.5 W135 59 56.2	3	
71	350.0	N63 57 12.4 W135 59 56.0	3	
72	355.0	N63 57 12.4 W135 59 55.8	3	
73	360.0	N63 57 12.2 W135 59 55.6	3	
74	365.0	N63 57 12.1 W135 59 55.4	3	
75	370.0	N63 57 11.9 W135 59 55.2	3	
76	375.0	N63 57 11.8 W135 59 54.9	3	
77	380.0	N63 57 11.7 W135 59 54.7	3	
78	385.0	N63 57 11.5 W135 59 54.5	3	
79	390.0	N63 57 11.4 W135 59 54.3	3	
80	395.0	N63 57 11.3 W135 59 54.0	3	
81	400.0	N63 57 11.2 W135 59 53.8	3	
82	405.0	N63 57 11.0 W135 59 53.5	3	
83	410.0	N63 57 10.9 W135 59 53.4	3	
84	415.0	N63 57 10.9 W135 59 53.3	3	
85	420.0	N63 57 10.7 W135 59 53.0	3	
86	425.0	N63 57 10.6 W135 59 52.8	3	
87	430.0	N63 57 10.5 W135 59 52.5	3	
88	435.0	N63 57 10.3 W135 59 52.3	3	
89	440.0	N63 57 10.2 W135 59 52.1	3	
90	445.0	N63 57 10.1 W135 59 51.9	3	
91	450.0	N63 57 09.9 W135 59 51.5	3	
92	455.0	N63 57 09.8 W135 59 51.4	3	
93	460.0	N63 57 09.7 W135 59 51.2	3	
94	465.0	N63 57 09.6 W135 59 51.0	3	
95	470.0	N63 57 09.5 W135 59 50.8	3	
96	475.0	N63 57 09.3 W135 59 50.5	3	*

Haggart Creek 03

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/ Longitude hddd° mm' ss.s"	GPS-Accuracy [m]	Post [*]
1	0.0	N63 57 34.0 W135 59 13.0	3	*
2	5.0	N63 57 34.0 W135 59 12.8	3	
3	10.0	N63 57 33.9 W135 59 12.6	3	
4	15.0	N63 57 33.7 W135 59 12.4	3	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/ Longitude hddd° mm' ss.s"	GPS-Accuracy [m]	Post [*]
5	20.0	N63 57 33.6 W135 59 12.2	3	
6	25.0	N63 57 33.5 W135 59 12.0	3	
7	30.0	N63 57 33.4 W135 59 11.8	3	
8	35.0	N63 57 33.3 W135 59 11.6	3	
9	40.0	N63 57 33.1 W135 59 11.3	3	
10	45.0	N63 57 33.0 W135 59 11.1	3	
11	50.0	N63 57 32.8 W135 59 10.8	3	
12	55.0	N63 57 32.7 W135 59 10.6	3	
13	60.0	N63 57 32.6 W135 59 10.5	3	
14	65.0	N63 57 32.5 W135 59 10.3	3	
15	70.0	N63 57 32.4 W135 59 10.1	3	
16	75.0	N63 57 32.2 W135 59 09.8	3	
17	80.0	N63 57 32.1 W135 59 09.6	3	
18	85.0	N63 57 32.0 W135 59 09.4	3	
19	90.0	N63 57 31.8 W135 59 09.1	3	
20	95.0	N63 57 31.7 W135 59 09.0	3	
21	100.0	N63 57 31.6 W135 59 08.8	3	
22	105.0	N63 57 31.4 W135 59 08.5	3	
23	110.0	N63 57 31.3 W135 59 08.3	3	
24	115.0	N63 57 31.2 W135 59 08.1	3	
25	120.0	N63 57 31.0 W135 59 07.9	3	
26	125.0	N63 57 30.9 W135 59 07.7	3	
27	130.0	N63 57 30.8 W135 59 07.6	3	
28	135.0	N63 57 30.7 W135 59 07.3	3	
29	140.0	N63 57 30.5 W135 59 07.0	3	
30	145.0	N63 57 30.4 W135 59 06.8	3	
31	150.0	N63 57 30.3 W135 59 06.7	3	
32	155.0	N63 57 30.1 W135 59 06.3	3	
33	160.0	N63 57 29.9 W135 59 06.1	3	
34	165.0	N63 57 29.9 W135 59 06.0	3	
35	170.0	N63 57 29.8 W135 59 05.8	3	
36	175.0	N63 57 29.6 W135 59 05.6	3	
37	180.0	N63 57 29.5 W135 59 05.3	3	
38	185.0	N63 57 29.4 W135 59 05.1	3	
39	190.0	N63 57 29.2 W135 59 04.8	3	
40	195.0	N63 57 29.1 W135 59 04.7	3	
41	200.0	N63 57 28.9 W135 59 04.4	3	
42	205.0	N63 57 28.8 W135 59 04.1	3	
43	210.0	N63 57 28.7 W135 59 03.9	3	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/ Longitude hddd° mm' ss.s"	GPS-Accuracy [m]	Post [*]
44	215.0	N63 57 28.5 W135 59 03.7	3	
45	220.0	N63 57 28.4 W135 59 03.4	3	
46	225.0	N63 57 28.3 W135 59 03.3	3	
47	230.0	N63 57 28.2 W135 59 03.1	3	
48	235.0	N63 57 28.1 W135 59 02.9	3	
49	240.0	N63 57 27.9 W135 59 02.7	3	
50	245.0	N63 57 27.8 W135 59 02.4	3	
51	250.0	N63 57 27.7 W135 59 02.3	3	
52	255.0	N63 57 27.6 W135 59 02.0	3	
53	260.0	N63 57 27.4 W135 59 01.9	3	
54	265.0	N63 57 27.3 W135 59 01.6	3	
55	270.0	N63 57 27.2 W135 59 01.4	3	
56	275.0	N63 57 27.1 W135 59 01.3	3	
57	280.0	N63 57 26.9 W135 59 01.0	3	
58	285.0	N63 57 26.8 W135 59 00.9	3	*

Haggart Creek 04

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/ Longitude hddd° mm' ss.s"	GPS-Accuracy [m]	Post [*]
1	0.0	N63 57 37.6 W135 59 10.4	3	*
2	5.0	N63 57 37.6 W135 59 10.3	3	
3	10.0	N63 57 37.5 W135 59 10.1	3	
4	15.0	N63 57 37.4 W135 59 09.8	3	
5	20.0	N63 57 37.3 W135 59 09.6	3	
6	25.0	N63 57 37.2 W135 59 09.4	3	
7	30.0	N63 57 37.2 W135 59 09.2	3	
8	35.0	N63 57 37.1 W135 59 09.0	3	
9	40.0	N63 57 37.0 W135 59 08.9	3	
10	45.0	N63 57 36.9 W135 59 08.7	3	
11	50.0	N63 57 36.9 W135 59 08.7	3	
12	55.0	N63 57 36.7 W135 59 08.3	3	
13	60.0	N63 57 36.5 W135 59 08.1	3	
14	65.0	N63 57 36.3 W135 59 07.9	3	
15	70.0	N63 57 36.2 W135 59 07.7	3	
16	75.0	N63 57 36.0 W135 59 07.5	3	
17	80.0	N63 57 35.8 W135 59 07.3	3	
18	85.0	N63 57 35.7 W135 59 07.1	3	
19	90.0	N63 57 35.6 W135 59 07.0	3	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/ Longitude hddd° mm' ss.s"	GPS-Accuracy [m]	Post [*]
20	95.0	N63 57 35.4 W135 59 06.7	3	
21	100.0	N63 57 35.3 W135 59 06.6	3	
22	105.0	N63 57 35.1 W135 59 06.3	3	
23	110.0	N63 57 35.0 W135 59 06.1	3	
24	115.0	N63 57 34.9 W135 59 05.9	3	
25	120.0	N63 57 34.7 W135 59 05.7	3	
26	125.0	N63 57 34.6 W135 59 05.5	3	
27	130.0	N63 57 34.5 W135 59 05.3	3	
28	135.0	N63 57 34.4 W135 59 05.2	3	
29	140.0	N63 57 34.2 W135 59 05.0	3	
30	145.0	N63 57 34.1 W135 59 04.8	3	
31	150.0	N63 57 34.0 W135 59 04.6	3	
32	155.0	N63 57 33.8 W135 59 04.3	3	
33	160.0	N63 57 33.6 W135 59 04.2	3	
34	165.0	N63 57 33.5 W135 59 03.9	3	
35	170.0	N63 57 33.4 W135 59 03.7	3	
36	175.0	N63 57 33.2 W135 59 03.5	3	
37	180.0	N63 57 33.1 W135 59 03.2	3	
38	185.0	N63 57 33.0 W135 59 03.0	3	
39	190.0	N63 57 32.8 W135 59 02.9	3	
40	195.0	N63 57 32.7 W135 59 02.7	3	
41	200.0	N63 57 32.6 W135 59 02.5	3	
42	205.0	N63 57 32.5 W135 59 02.3	3	
43	210.0	N63 57 32.3 W135 59 02.1	3	
44	215.0	N63 57 32.2 W135 59 01.9	3	
45	220.0	N63 57 32.1 W135 59 01.7	3	
46	225.0	N63 57 32.0 W135 59 01.5	3	
47	230.0	N63 57 31.8 W135 59 01.4	3	
48	235.0	N63 57 31.7 W135 59 01.2	3	
49	240.0	N63 57 31.6 W135 59 01.0	3	
50	245.0	N63 57 31.4 W135 59 00.8	3	
51	250.0	N63 57 31.3 W135 59 00.6	3	
52	255.0	N63 57 31.1 W135 59 00.4	3	
53	260.0	N63 57 31.0 W135 59 00.1	3	
54	265.0	N63 57 30.8 W135 58 59.9	3	
55	270.0	N63 57 30.7 W135 58 59.8	3	
56	275.0	N63 57 30.6 W135 58 59.6	3	
57	280.0	N63 57 30.5 W135 58 59.4	3	
58	285.0	N63 57 30.4 W135 58 59.2	3	

Electrode No.	Location in Profile [m]	GPS-Coordinates Latitude/ Longitude hddd° mm' ss.s''	GPS-Accuracy [m]	Post [*]
59	290.0	N63 57 30.2 W135 58 58.9	3	
60	295.0	N63 57 30.1 W135 58 58.8	3	
61	300.0	N63 57 29.9 W135 58 58.5	3	
62	305.0	N63 57 29.8 W135 58 58.4	3	
63	310.0	N63 57 29.7 W135 58 58.2	3	
64	315.0	N63 57 29.6 W135 58 58.0	3	
65	320.0	N63 57 29.5 W135 58 57.9	3	
66	325.0	N63 57 29.4 W135 58 57.6	3	
67	330.0	N63 57 29.2 W135 58 57.4	3	
68	335.0	N63 57 29.0 W135 58 57.1	3	*