BC Geological Survey Assessment Report 39568



## ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TITLE OF REPORT: ASSESSMENT REPORT ON THE McCONNELL CREEK PROPERTY 2020 Ground Geophysical Survey

TOTAL COST: \$121,420.53

AUTHOR(S): David Kelsch

All.

SIGNATURE(S):

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): Mine Number 1300296; Permit NumberMX-13-165 STATEMENT OF WORK EVENT NUMBER(S)/DATE(S ): 5848533 2021/Oct/24

YEAR OF WORK: 2020 PROPERTY NAME: McConnell Creek Property CLAIM NAME(S) (on which work was done): McConnell Cr Property (507737), COPPER (521609), KING GEORGE 2 (1057567)

COMMODITIES SOUGHT: Copper, Gold

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:

MINING DIVISION: Omineca NTS / BCGS: 94D/16 LATITUDE: \_56\_\_\_\_\_°\_\_\_51\_\_\_\_'\_\_7\_\_\_" LONGITUDE: \_\_\_\_126\_\_\_\_°\_\_29\_\_\_\_'\_\_15\_\_\_\_" (at centre of work) UTM Zone: Nad83 Z9 EASTING: 653200 NORTHING: 6303750

OWNER(S): GGL Resources Corp.

MAILING ADDRESS: 1016 – 510 West Hastings Street, Vancouver, BC, V6B 1L8 davidk@gglresourcescorp.com

OPERATOR(S) [who paid for the work]: GGL Resources Corp. MAILING ADDRESS: 1016 – 510 West Hastings Street, Vancouver, BC, V6B 1L8 davidk@gglresourcescorp.com

REPORT KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude. **Do not use abbreviations or codes**)

McConnell Creek, Omineca, Gold, Copper, Kemess, Pinchi Lake - Ingenika Fault, Amphibolite, Jurassic Fleet Peak Pluton Monzodiorite and Diorite, Cretaceous Jensen Peak Batholith Quartz Monzodiorite, Ground Geophysics, Induced Polarization, Ground Magentics. REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:

See Report References.

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (in metric units)	ON WHICH CLAIMS		PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)				
Ground, mapping				
Photo interpretation				
GEOPHYSICAL (line-kilometres)				
Ground				
Magnetic	12.85 LKM	McConnell Cr Property COPPER King George 2	57.4% 27.8% 14.8%	\$ 1,476.00 \$ 714.00 \$ 380.00
Electromagnetic				<b>A TA A A A A A A A A A</b>
Induced Polarization	11.7 LKM	McConnell Cr Property COPPER King George 2	59.7% 25.6% 14.7%	\$ 70,903.99 \$ 30,372.91 \$17,573.63
Radiometric				
Seismic				
Other				
Airborne				
GEOCHEMICAL (number of sample	es analysed for)			
Soil				
Silt				
Rock				
Other				
DRILLING (total metres, number of location)	holes, size, storage			
Core				
Non-core				
RELATED TECHNICAL				
Sampling / Assaying				
Petrographic				
Mineralographic				
PROSPECTING (scale/area)				
PREPATORY / PHYSICAL				
Line/grid (km)				
Topo/Photogrammetric (sca	ale, area)			
Legal Surveys (scale, area)				
Road, local access (km)/tra	il			
Trench (number/metres)				
Underground development	(metres)			
			TOTAL COST	\$ 121,420.53

**GGL** Resources Corp.

# ASSESSMENT REPORT ON THE McCONNELL CREEK PROPERTY

# 2020 GROUND GEOPHYSICAL SURVEY

Claims: McConnell Cr Property (507737), Copper (521609), King George 1 (1057566), King George 2 (1057567), MCC2020 (1077957)

Longitude 126° 29' Latitude 56° 52'

**OMINECA MINING DIVISION, BRITISH COLUMBIA** 

NTS 1:50,000: 094 D 15 & 16

David Kelsch, P.Geo

October 29, 2021

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		Magnetics Surveys
Appendix	II	Big Sky Geophysics: Interpretation Report: Resistivity/IP Surveys
		McConnell Copper Showing, British Columbia

#### 1: INTRODUCTION

In 1981, the predecessor company to GGL Resources Corp. (GGL), Gerle Gold Ltd., was formed to acquire a hard-rock gold prospect that was discovered by Messrs. Gerlitzki and Leontowich in 1947 near McConnell Creek (Figure 1). Placer gold has, for many years, and still is being mined in McConnell Creek 3.5 km southwest of and down slope from this gold-bearing quartz vein system. Gold has also been panned from the creeks that flow west across the property near the gold zone. It is reasonable to assume that at least part of the gold in the McConnell Creek placers is locally derived.

The acquired property was named the McConnell Creek property for its proximity to McConnell Creek. It is currently 100% owned by GGL and is located in north-central British Columbia approximately 12 kilometers southeast of the Kemess Mine (Figure 1).

Exploration by Gerle Gold Ltd. began with geological, geophysical and geochemical surveys along the amphibolite gneiss tectonic sliver that extends over part of the property. The emphasis of earlier exploration programs was focused on the gold target because of the remoteness of the area and the consequently high transportation costs of base metal concentrates. Soil samples from the first soil survey were analyzed for Au only. Soil samples from a later soil survey done in 1987 by Placer Dome were analyzed for six elements including Ag, As, Au, Cu, Pb and Zn. One copper-in-soil geochemical anomaly that overlaps the gold zone extends over an area of 200 by 800 meters and has not been closed off. Other copper-in-soil anomalies occur to the NW and SE along a well-defined shear zone. Several detailed soil surveys over the main gold zone over selected small areas were done in 1989.

In 1991, the property was expanded westward to protect the high-grade copper showings that outcrop in several locations along McConnell Creek (Figures 2 and 3). Hypogene and supergene minerals are structurally controlled and occur in a series of multi-directional, chalcopyrite-pyrite veinlets that cross-cut potassic altered monzonite as well as exploit centerlines to earlier milky quartz-iron carbonate veins. Crosscutting pyrite-dominant copper-gold hydrothermal breccias are common. Samples taken from these mineralized areas are highly anomalous in copper, gold, silver with elevated indium, tin, tellurium and bismuth. Other copper-in-soil anomalies occur around the gold showing and to the southeast along the amphibolite gneiss contact. Most of the area between the soil anomalies and the copper showing on McConnell Creek has not been explored and is heavily overburden-covered.

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Since 1991 the property claim boundaries have expanded and contracted based on results and exploration budgets. In January 2018, two additional claim blocks were added on the west and south sides of the historic property to further protect the McConnell Creek copper prospect(s). An additional claim was added to the south in August 2020. The property now consists of 5 contiguous claim blocks encompassing 8,699.63 hectares (Figure 2, Table A).

The 2020 exploration program consisted of a property field visit in July to assess access and better design and define the pending ground geophysical surveys which were later conducted in August-September. The surveys consisted of magnetics and induced polarization (IP).

## 2: PROPERTY DESCRIPTION, LOCATION AND ACCESS

The McConnell Creek property is in the Omineca Mining Division, British Columbia, at Latitude 56°52' N and Longitude 126°29' W within the 1:50,000 scale National Topographic System (NTS) map areas 94D/15 and 94D/16 (Figure's 1 and 2). The property is located 780km N of Vancouver and 400 km NW of Prince George. The McConnell Creek claims lie approximately 12 km southeast of the Kemess Copper-Gold Mine. Access from Vancouver is by paved highway to Fort St. James and then by the 'Road to Resources' gravel road, which goes north from Fort St. James to Manson Creek, Germansen Landing and then to the Kemess mine area (Figure 1). The McConnell Creek road branches off the 'Road to Resources' 30km west of Johannsson Lake. From the placer area on McConnell Creek, a 4x4 road gives access to the old camp location on Snowslide Creek in the east-center of the claims (Figure 3). Rough drill trails give some additional access to the northern part of the property.

Soon after the property was acquired by Gerle Gold Ltd. (now GGL Resources Corp.), a 12 km transit baseline was cut along its entire length in order to give survey control for the exploration work. Geological, geophysical and geochemical surveys were done in 1983 (Belik, 1983), and several widely spaced diamond drill holes were drilled to the NW and SE along the strike extensions of the shear zone. The present outline of the property covers all the known areas of interest and beyond.

The property consists of a total 5 contiguous claim blocks encompassing 8,699.63hectares. It is a generally elongate north-south block with the eastern side running NW-SE in a stepped fashion. Refer to Table A for claim statistics and Figure 2 for an overview of land tenure.

The 2020 field exploration program was conducted from a "fly camp" style setup erected central to the geophysical survey area. Four-wheel drive pick-up trucks were utilized for mobilization, demobilization and daily access was by foot.

Title Number	Claim Name	Hectares	NTS Sheet	Issue Date	New Good to Date*	Claim Holder Name
507737	McConnell Cr Property	4,453.84	94D15/16	2005/Feb/23	2022/Dec/12	GGL Resources Corp
521609	COPPER	424.38	94D16	2005/Oct/28	2022/Dec/12	GGL Resources Corp
1057566	KING GEORGE 1	1,768.14	94D15	2018/Jan/10	2022/Dec/12	GGL Resources Corp
1057567	KING GEORGE 2	902.54	94D15/16	2018/Jan/10	2022/Dec/12	GGL Resources Corp
1077957	MCC2020	1,150.73	94D16	2020/Aug/12	2022/Dec/12	GGL Resources Corp
TOTAL	5	8,699.63				

Table A: McConnell Creek Claims Statistics

\*New Good to Date assumes acceptance of Assessment Report and Statement of Work.

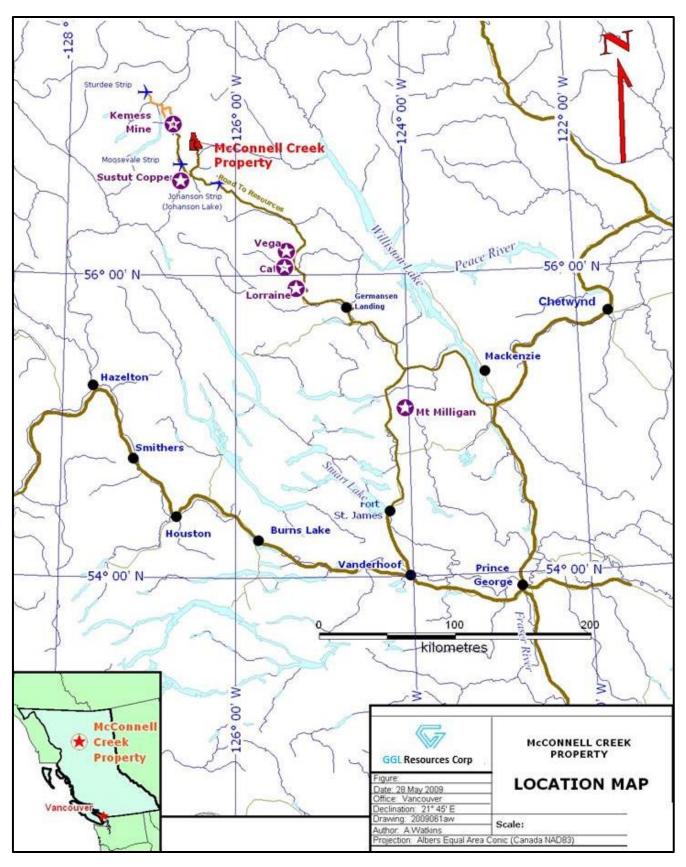


Figure 1: McConnell Creek Property Location Map

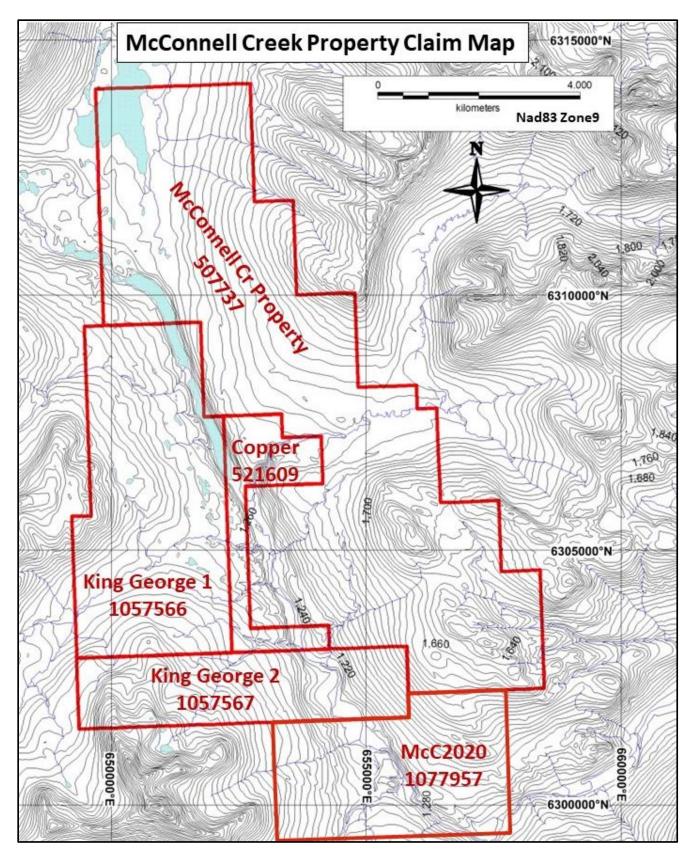


Figure 2: McConnell Creek Property Land Tenure

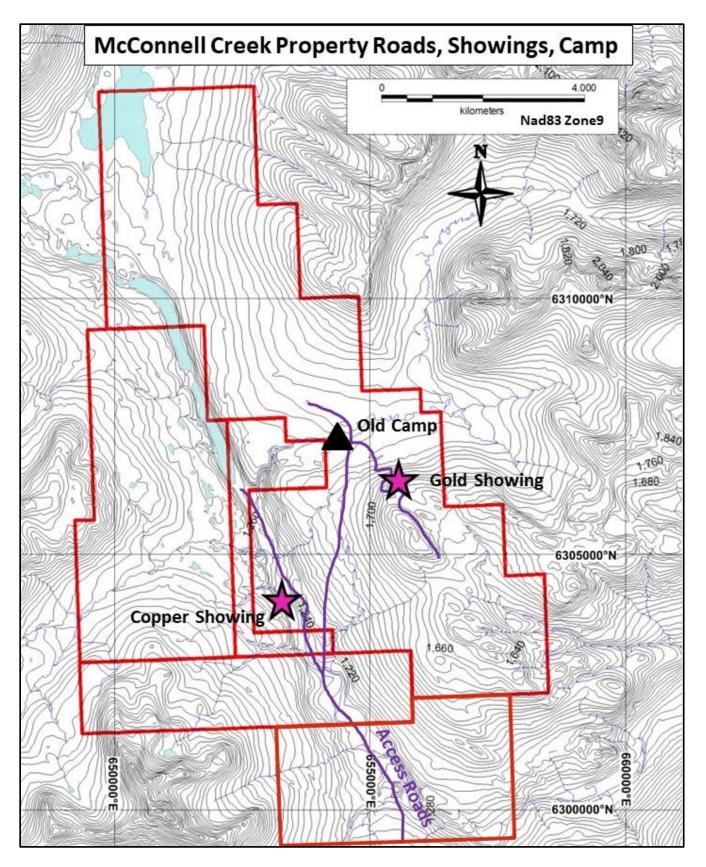


Figure 3: McConnell Creek Property Roads, Showings, Camp

## 3: CLIMATE AND PHYSIOGRAPHY

The topography within the McConnell Creek property is moderate with alpine to sub-alpine vegetation on hill tops and an open, boreal forest in the valleys. The mean elevation through the property and historic camp area is 1,500 meters with the highest ridges reaching 1,840 meters and McConnell Creek at a low of 1,1600 meters on the southeastern property boundary.

The ground is swampy in some of the higher flat areas and high topography displays general glacial scouring present as an elongate domal hill and on ridge tops. An apparent till blanket has been deposited over much of the intermediate elevations on the northern portion of the property. Sub-crop and outcrop can be found on higher exposures in the southern half of the property and on some of the incised valley walls. McConnell Creek itself is infilled with fluvial gravels of variable thickness as is apparent with the placer gold workings.

The climate is typical of north central mountainous British Columbia with winter lows of - 40C and summer highs reaching 20 Celsius (C). Snow water equivalent for the Pulpit Lake automated snow weather station peaks annually in late April, at an annual average of approximately 450 mm. Snow pack disappears in early June with some north face slopes persisting until late June to early July. Snow returns intermittently to the property slopes in mid-September and provides permanent cover by mid-October.

During late spring and early summer melt McConnell Creek water flow becomes high and aggressive with vehicle crossings not recommended. By late August and September McConnell Creek is at its seasonal low and crossings become easier.

#### 4: HISTORY

From 1983 to 2006, GGL Resources Corp. concentrated its efforts on the gold potential of the property for the following reasons: a) the remoteness of the area made it more favorable to mine gold deposits rather than base metal deposits, b) the low prices of base metals at the time and c) gold was the type of mineralization known in this area with its many years of placer gold production. The exploration results to date show that the main gold zone is one of several gold-bearing quartz veins in a complex, branching shear-hosted quartz vein system that can be traced up to a distance of 12 km. The vein system was investigated by outlining conductors using a very low frequency electromagnetic system (VLF-EM), by prospecting, and by doing a geochemical survey. The pattern of the complex, anastomosing brittle-ductile shear zone

system has multi-directional milky quartz, iron carbonate and pyrite veins in a deformed amphibolite tectonic silver between two massive intrusive bodies, similar to many well-known intrusion-related gold systems around the world. Localized structural dilation zones and quartziron carbonate veins occur as Riedel' and P veins that are oriented between 5° to up to 15° degrees from the main foliation, as fault-fill veins subparallel to foliation (e.g. 165° Azimuth), and as minor extension fractures oriented at high angles to the shear zone boundary (e.g. 100° Azimuth and 060° Azimuth). The shear zone may be a reactivated reverse fault created during the reactivation of the Ingenika-Finlay dextral strike-slip deformation zone centered along McConnell Creek.

With the successful development and production at the Kemess mine based on two largetonnage, copper-gold porphyry deposits lying 7 km apart and 12 km to the northwest of the McConnell Creek property, road access to the area has been greatly improved and a power line has been built which passes 8 km west of the McConnell Creek property. With this new infrastructure, the increase in the prices of both precious and base metals, and the proximity to known major copper-gold deposits, the copper mineralization outcropping along McConnell Creek together with the copper-in-soil geochemical anomalies discovered while exploring the gold-bearing quartz vein system indicate that the McConnell Creek property is a copper-gold porphyry target area.

To the NW and SE of the main gold zone, projections of the zone have been investigated by prospecting, geological, geophysical and geochemical surveys and by widely-spaced diamond drill holes. The area to the NW of the main gold zone is obscured by almost continuous overburden, and prospecting was ineffective except for the mapping of rare quartz-iron carbonate-pyrite float, however the magnetic and VLF-EM and a small area of induced polarization (IP) surveying were successful in outlining the contacts of the main shear zone trace, lithologic contacts and define isolated chargeability anomalies (Deschenes, 1991). The IP survey outlined a chargeability target that was partly tested by two diamond drill holes 200m NW of the GGL camp. One of these holes, DDH 90-5, intersected fine-grained chloritic "gneiss" assaying 5.25 grams/tonne gold (0.153 oz/ton) across 2.25m (7.4 ft). The gold mineralization was in quartz-filled fractures with up to 5% sulphides. South of this successful drill hole, anomalous gold-in-stream-sediment were obtained from tributaries flowing from the north into Snowslide Creek opposite the camp. Other gold-bearing veins were intersected in the widely spaced diamond drill holes.

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Scattered anomalous gold-in-soil, one-station-samples, are coincident with the amphibole gneiss over a distance of several kilometers, mostly NW of the main gold zone. Some detailed geochemical surveying was done along and adjacent to the main gold zone. These samples revealed the presence of copper-in-soil geochemical anomalies which are spatially related to the main gold zone, and may extend to the SW and down-hill toward the copper showing on McConnell Creek.

Along and near McConnell Creek, high grade copper showings are characterized by chalcopyrite and pyrite in centerlines to earlier veins, along dry fractures and within quartz veins cutting quartz monzonite and quartz diorite described in previous reports collectively as granodiorite. In addition, a previously unknown showing of bornite in mafic rocks was discovered in a poorly accessible part of Snowslide Creek. The rocks are intensely altered within the mineralized zones. Very little systematic exploration work has been done at these showings.

There are extensive overburden-covered areas on parts of the property that occur both west of the known copper showing along McConnell Creek and east towards the main gold zone. In several places the copper geochemical soil anomalies are open at the limits of the areas of soil sampling, in deeper overburden covered areas.

Summarized Exploration History on the McConnell Creek Property by date from 1899 to 2012

- 1899: Placer Au-Pt discovered at McConnell Creek
- 1931 to 1941: Second placer gold rush
- 1947 to 1948: GSC Lord field mapping McConnell Sheet
- 1947: 6 ft of 0.65 oz/T Au staked, 700m of trenching
- 1953: Optioned to Canex/Placer
- 1958: Centennial Mining Co. 11 short Xray holes (297m)
- 1966: Copper discovered in McConnell Creek
- 1968: Recon EM, geology, bulldozer trenching
- 1969: Geo-X Surveys, Recon IP survey (400 ft spacing)
- 1972: Zone A DDH 72-1 at -60 to SE 270 ft cp; DDH 72-2, 170 ft SE of 72-1 (-60 along 000° Az) parallel veins
- 1973: Church DWG Cu (QFP, mal, cp, cc, bo)

- 1974: J. Caufield discovered copper on top of hill
- 1975: P. Eng sample 12 ft,10.96 % Cu, 0.136 oz/T Au
- 1981: Gerle Gold Ltd. (R. Hrkac) acquires property, 114 line/km VLF/Mag
- 1983: GGL collected 1409 soils (for gold)
- 1984 -1985: Lornex 48 DDH (2471m) along 235Az over 5.5 km on 25m-centres
- 1987-1988: GGL 1039 soils (20% analyzed for Au), 12 DDH, 67 trenches
- 1989-1990: Placer Gold 3980 soils, 30 trenches,10 DDH
- 1991: Granduc south soils; mapping Zones A, B, C
- 2005: Re-analysis of 1983-1988 south soils (1605)
- 2006: Re-analysis of north grid soil samples (1713)
- 2008: GGL sampled Zones D, E (19.3 % Cu, 1325 ppb Au, 74 ppm Ag), King George, Bornite zones
- 2008: IP pole-dipole (19.7 line/km), (3 MC-series DDH)
- 2012: Recon soils (99); 14 rocks from 3 NE-veins (Zone E, D)
- 2018: Soils (72), rocks (32), historic core (11)

## 5: GEOLOGIC SETTING

The property lies in a region of large monzonitic and dioritic intrusions intruding a metavolcanic amphibolite gneiss with the whole assemblage cut by the Pinchi Lake-Ingenika Fault System (Figure 4). The fault system is tens of kilometres in length. Ultramafic rocks are associated with the fault system west and south of the property and also reported to occur in the north part of the property. One branch of the regional fault system lies along McConnell Creek between the two-principal known mineralized areas including the copper showing and the gold zone (Figure 4). Another branch of the fault system lies along the NE side of the gold zone which occurs along the NE boundary of the gneiss. The NW-trending amphibolite gneiss zone forms a belt about 600 metres wide. Several conformable schistose zones (shears) and narrow undeformed monzonite dykes occur within the amphibolite gneiss. The principal gold-bearing shear consists of buff to light green, carbonate-rich amphibolite schist. The schist is pyritic and within the main gold zone, contains up to 50% quartz with iron carbonate as anastomosing veins and lenses. Locally up to 10% coarse-grained cubic pyrite and minor chalcopyrite, malachite and tenorite are associated with the quartz veins and narrow pyrite-limonite dominant breccias cut these earlier veins. The silver content of the quartz veins is minor. There is black tourmaline present in the quartz veins, indicating a high temperature, deep seated origin for the mineralization is likely related to an unexposed intrusion, hence an intrusion-related gold system.

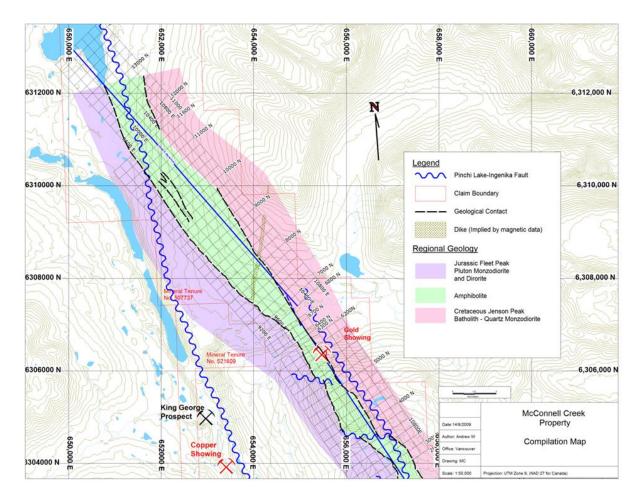


Figure 4: McConnell Creek Property Geology

## 6. GROUND GEOPHYSICAL SURVEY PROGRAM

#### 6.1: Introduction

The McConnell Creek Project is located 400 km northwest of Prince George and 12 km southeast of the Kemess open pit copper-gold mine in British Columbia. The property is comprised of 8,688.63 hectares of mineral claims encompassing a 12 km long brittle-ductile shear-zone hosting gold mineralization. In addition, a porphyry copper-gold target has been identified in the McConnell Creek valley.

In the third quarter (Q3) of 2020, the Company conducted an Induced Polarization (IP) survey and ground magnetics in the area of the porphyry copper-gold target (Figure 5).

#### 6.2: Work Performed

The field crew consisting of one senior geologist and one geo-assistant mobilized to the McConnell Creek property in July 2020 utilizing a four-wheel drive truck and 2 ATVs. A temporary pup-tent camp was set up for the three-day property visit. The purpose of this scout trip was to assess and establish orientation for the ground geophysical program which was to commence the following month.

In August the Company contracted Scott Geophysics Ltd. of Vancouver, BC to conduct a ground geophysical program consisting of IP and ground magnetics. A total of 11.7 kilometers of IP data was collected along with coincident line coverage of ground magnetics totaling 12.85 (Figure 5). The program operated from August 14<sup>th</sup> to September 8<sup>th</sup>. Scott Geophysics utilized 2 four-wheel drive trucks to access the property.

Russell Transfer Ltd. of Fort St. James, BC was contracted to mobilize, establish and support a temporary fly camp in the immediate vicinity of the survey area. The camp was mobilized to the property immediately prior to the commencement of the survey utilizing a four-wheel drive truck and trailer. The camp was subsequently removed in its entirety upon completion of the geophysical surveys.

A complete technical report discussing the survey parameters as well as containing the survey results in section and map form can be found in Appendix I.

Big Sky Geophysics of Bozeman, Montana was contracted in September 2020 to complete inversions and interpretation on the IP survey. The full report with color plates can be found in Appendix II.

## 6.3: Discussion – Induced Polarization (IP) Survey

Production rates during the ground geophysical survey were hampered by poor weather and excessive rain. Local steep terrane also affected production.

The IP survey has defined 2 areas of higher chargeability, one centered at Line 4100E, station 4700 and the second centered at Line 4000E, station 4400. The second, weaker anomaly, is semi-coincident with surface showings of copper-gold mineralization while the first, stronger northern anomaly has no surface expression or exposed mineralization. It is possible that these anomalies and associated mineralization are structurally controlled.

## 6.4: Conclusions and Recommendations

The IP survey was successful in identifying 2 areas of moderate chargeability. One of these anomalies is semi-coincident with known mineralized exposures. Based on the success of the survey in identifying an anomaly associated with exposed mineralization and also generating an unexposed anomaly it is recommended that the IP survey be further expanded in anticipation of generating additional unexposed targets.

It is also recommended that the two anomalies be tested with excavator trenching to fully evaluate their mineralized potential and better understand the local geology of which there is little surface exposure.

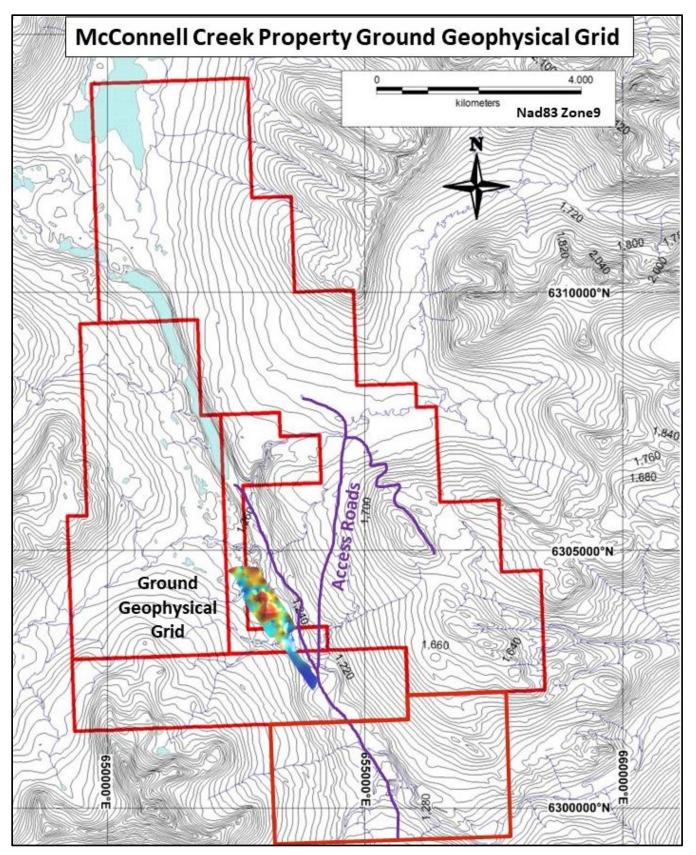


Figure 5: McConnell Creek Property Ground Geophysical Grid Location

#### **Table B: Personnel and Contractors**

## **Big Sky Geophysics**

P.O. Box 353, Bozeman, Montana, USA. 59771

#### **4** Point Aviation

108 Mile Ranch, BC, V0K 2E1

#### **David Kelsch**

#1016 - 510 West Hastings Street Vancouver, B.C., V6B 1L8

## Russell Transfer Ltd.

P.O. Box 910, Fort St. James, BC. V0J 1P0

#### Scott Geophysics Ltd.

4013 West 14<sup>th</sup> Avenue, Vancouver, BC. V6R 2X3

#### 7: **REFERENCES**

- Ball, C.W., 1958 Gerle Gold Centennial Mineral Claims, McConnell Creek. Unpublished company report, Canex Aerial Exploration Ltd.
- Belik, G.D. 1983 Geophysical and Geochemical Report on the Fredrikson Lake Property,
   G.G.1 and G.G.3-6 Claims, Omineca Mining Division; Unpublished report, G. Belik and
   Associates, Ltd., for Gerle Gold Ltd., 21 pages, maps, appendices.
- Church, B.C., 1974 DWG Copper; in Geology, Exploration and Mining in British Columbia 1973, B.C. Department of Mines and Petroleum Resources, pages 447-455.
- Deschenes, Marc, 1991 Property and Assessment Report for the 1990 Work Program, McConnell Creek Property - Report prepared by Placer Dome Inc. on behalf of Gerle Gold Ltd.; B.C. Ministry of Energy, Mines and Petroleum Resources, Assessment Report, 57 pages, maps, appendices.
- Hoffman, S.J., 1991a Geochemical Interpretation Report on the McConnell Creek Property; Unpublished report, Prime Geochemical Methods Ltd., for Gerle Gold Ltd., 22 pages, appendices.
- Hoffman, S., 1991b Atlas of Geology, Terrain Analysis, Geophysical and Geochemical Maps for various surveys, McConnell Creek Property; Unpublished volume, Prime Geochemical Methods Ltd., for Gerle Gold Ltd.
- Ostensoe, Erik and Hrkac, C.A., 1992 Geology of the Mc Claim, McConnell Creek, Omineca M.D., B.C.; Unpublished report, Gerle Gold Ltd., 11 pages, maps, appendices.
- Payne, John G., 1975 The Gerle Gold Property Summary report; Unpublished report, John G. Payne, 5 pages, appendix.
- Peatfield, G.R., 1993 Review of Technical Reports on the McConnell Creek Gold Property, Omineca Mining Division, British Columbia. Unpublished company report, Gerle Gold Ltd.
- Richardson, Paul W., 1988 Exploration to Date and Proposals for Future Work on the McConnell Creek Property, Omineca Mining Division, British Columbia. Unpublished company report, Gerle Gold Ltd., 23 pages, maps, appendices.
- Richardson, Paul W., 2001 Summary Report on the McConnell Creek Property, Omineka Mining Division, British Columbia. Unpublished company report, for GGL Diamond Corp., 10 pages, maps, appendices.
- Richardson, Paul W., 2005 Geochemical Assessment Report on the McConnell Creek Property, Omineca Mining Division. Unpublished company report, for GGL Diamond Corp., 12 pages, maps, appendices.
- Richardson, Paul W. 2006 The 2006 Soil Geochemical Analysis Program on the McConnell Creek Property, Omineca Mining Division. Unpublished company report, for GGL Diamond Corp., 12 pages, maps, appendices.

- Richardson, Paul W. 2007 The McConnell Creek Property, Omineca Mining Division. Technical Report 43-101F1.
- Richardson, P.W., and McLean, K., 2008 Assessment Report; The 2008 Line Cutting and Diamond Drill Programs on the McConnell Creek Property. Omineca Mining Division, British Columbia.
- Serack, M.L., 1985 Diamond Drill Report to the Gerle Gold Property, Omineca Mining Division; Unpublished report, Lornex Mining Corporation Ltd., for Gerle Gold Ltd.
- Smitheringale, W.G., 1988 Report on the 1987 Exploration Program, McConnell Creek Property, Omineca Mining Division, British Columbia, conducted by Gerle Gold Ltd.; Unpublished report, W.G. Smitheringale & Associates Ltd., for Gerle Gold Ltd.
- Smitheringale, W.G., 1989 Summary Report on the 1988 Exploration Program, McConnell Creek Property, Omineca Mining Division, British Columbia, conducted by Gerle Gold Ltd.; Unpublished report, W.G. Smitheringale & Associates Ltd., for Gerle Gold Ltd., 40 pages, maps, appendices.
- Smitheringale, W.G., 1990a Report on the 1989 Exploration Program, McConnell Creek property, Omenica Mining Division, British Columbia, conducted by Placer Dome Inc.; Unpublished report, Smitheringale Geological Ltd., for Placer Dome Inc., 48 pages, maps, appendices.
- Smitheringale, W.G., 1990b Summary Report on the 1990 Exploration Program at McConnell Creek, B.C.; Unpublished report, Smitheringale Geological Ltd., for Gerle Gold Ltd., 12 pages.
- White, W.H., 1948 Gerle Gold; Minister of Mines of British Columbia, Annual Report for 1947, pages A109-A111.

## 8: Certificate of Professional Qualifications

I, David Kelsch, with a business address of #1016 - 510 West Hastings Street Vancouver, B.C., V6B 1L8, hereby certify that:

- I am a graduate of the University of British Columbia, with a Bachelor of Science degree in Geological Sciences.
- I am a registered member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia, #39894.
- I am a registered member in good standing of the Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists, #L3735.
- I have practiced my profession continuously for over twenty five years in Canada, United States of America, Botswana, Brazil, Colombia, Greenland, Finland, Papua New Guinea, South Africa and United Kingdom.
- I, David Kelsch, am the author of this report.

Dated this day October 29, 2021 in Vancouver, British Columbia.

SIGNATURE

**STAMP** 





David Kelsch, P.Geo.

This report represents the conclusions of the author based on an interpretation of the information at the time of writing. There may be other information not available to the author that could change these conclusions and recommendations.

## 9: STATEMENT OF EXPENDITURE – McConnell Creek Program 2020/2021

Scott Geophysics Ltd.		
IP Survey	\$ 31 <i>,</i> 325.00	
Vehicle and Expenses	\$ 13 <i>,</i> 959.16	
Assistants/Labour	\$ 30 <i>,</i> 400.00	
Line Establishment	\$ 1,032.00	
Mag Survey	\$ 1,566.00	
Total		\$ 78,282.16
Big Sky Geophysics (interpretation)		\$ 3,038.00
4 Point Aviation (geo-assistant July 24-	26)	\$ 1,500.00
Senior Geologist (July 24-26)		\$ 2,550.00
Truck rental and fuel (July 24-26)		\$ 701.48
Senior Geologist (program planning, m	ianagement)	
( 5 days x \$ 850/day)		\$ 4,250.00
Land rental – Takla First Nation		\$ 750.00

Russell Transfer Ltd. (camp establishment, rental and support)

\$ 27,798.89

Report writing – Sr geologist 3 days / \$850/d Oct 2021) \$2	\$ 2,550.00
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Total

\$ 121,420.53

# Appendix I

Scott Geophysics Ltd.: Report on Induced Polarization and Ground Magnetics Surveys

#### LOGISTICAL REPORT

#### INDUCED POLARIZATION AND MAGNETOMETER SURVEYS

#### McCONNELL CREEK PROJECT, KEMESS AREA, BC

on behalf of

GGL RESOURCES CORP. 1016 – 510 West Hastings Street Vancouver, BC V6B 1L8

Survey performed: August 14-September 8, 2020

by

Brad Scott, Geologist (GIT) SCOTT GEOPHYSICS LTD. 4013 West 14<sup>th</sup> Avenue Vancouver, BC V6R 2X3

September 21, 2020

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1	Introduction	page 1
2	Survey coverage and procedures	1
3.	Personnel	2
4.	Instrumentation	2

# Appendix

Statement of Qualifications	rear of report
Accompanying Maps (1:10,000 scale)	
Chargeability/resistivity pseudosections:	
Lines 3800E, 3900Ea, 3900Eb, 4000E, 4100E, 4200E, 4300E, 4400	)E
Chargeability contour plan – first separation (UTM coordinates)	
Resistivity contour plan – first separation (UTM coordinates)	
Total field magnetometer survey contour plan (UTM coordinates)	

Total field magnetometer survey contour plan (UTM coordinates) Total field magnetometer survey stacked profiles (idealized grid coordinates)

Accompanying Data Files

All survey data and plots in Surfer and pdf formats

#### 1. INTRODUCTION

Induced Polarization (IP) and total field magnetometer (mag) surveys were performed at the McConnell Creek Property, Kemess area, BC within the period August 14-September 8, 2020. In addition, GPS readings were taken at each electrode location, subject to satellite reception.

The surveys were performed by Scott Geophysics Ltd. on behalf of GGL Resources Corp. This report describes the instrumentation and procedures, and presents the results of the survey.

#### 2. SURVEY COVERAGE AND PROCEDURES

The pole-dipole array was used for the IP survey with an "a" spacing of 100 metres at "n" separations of 1 to 6 (100/1-6).

The on line current electrode was located to the south of the potential electrodes.

Total field magnetometer readings were taken at 10 metre intervals and corrected for diurnal variation against a fixed base station cycling at 10 second intervals.

GPS readings were taken at each station and at the remote ("infinite") electrode locations, subject to satellite reception. Elevation measurements are barometric altimeter readings, calibrated to GPS altitude at the end of each line.

A total of 11.7 kilometres of IP and 12.85 kilometres of mag survey were performed.

The results are presented on the accompanying pseudosections and plans. All survey data are archived to the accompanying digital folders.

#### 3. PERSONNEL

Brad Scott was the crew chief on the survey on behalf of Scott Geophysics Ltd. David Kelsch was the representative on behalf of GGL Resources Corp.

#### 4. INSTRUMENTATION

A GDD GRx8-32 receiver and GDD TxII transmitter (5000 watts) were used for the survey. Readings were taken in the time domain using a 2 second on/2 second off alternating square wave. The chargeability values plotted on the accompanying pseudosections and plans are for the interval 80-1840 msec after shutoff.

A GEM GSM-19 Overhauser magnetometer was used as the field unit, and a Scintrex ENVI proton precession magnetometer was used as the base unit for the magnetometer survey.

GPS readings were taken with a Garmin GPSMap GPS receiver.

Respectfully Submitted,

kg

Brad Scott, Geologist (GIT)

#### Statement of Qualifications

for

Brad Scott, Geologist (GIT)

of

#### 1230 Harrison Way, Gabriola, BC V0R 1X2

I, Brad Scott, hereby certify the following statements regarding my qualifications and involvement in the program of work on behalf of GGL Resources Corp. at the McConnell Creek Property, Kemess area, BC as presented in this report.

The work was performed by individuals trained and qualified for its performance.

I have no material interest in the property under consideration in this report.

I graduated from the University of British Columbia with a Bachelor of Science degree (Geology) in 2000.

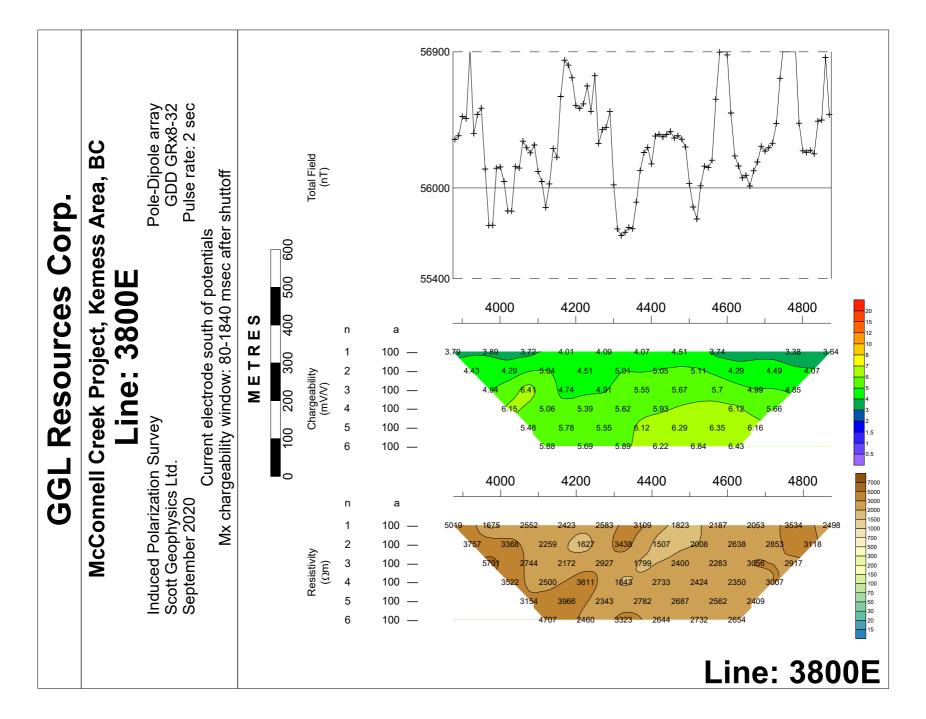
I am a member-in-training of the Association of Professional Engineers and Geoscientists of the Province of British Columbia.

I have been practising my profession in the field of Mineral Exploration since 2000.

Respectfully submitted,

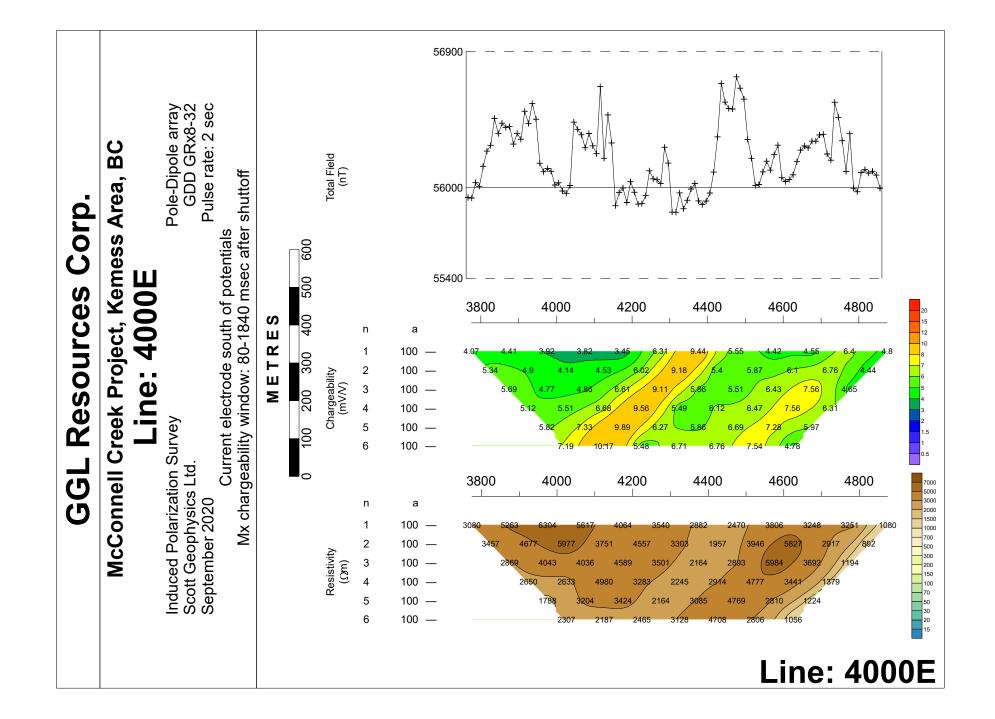
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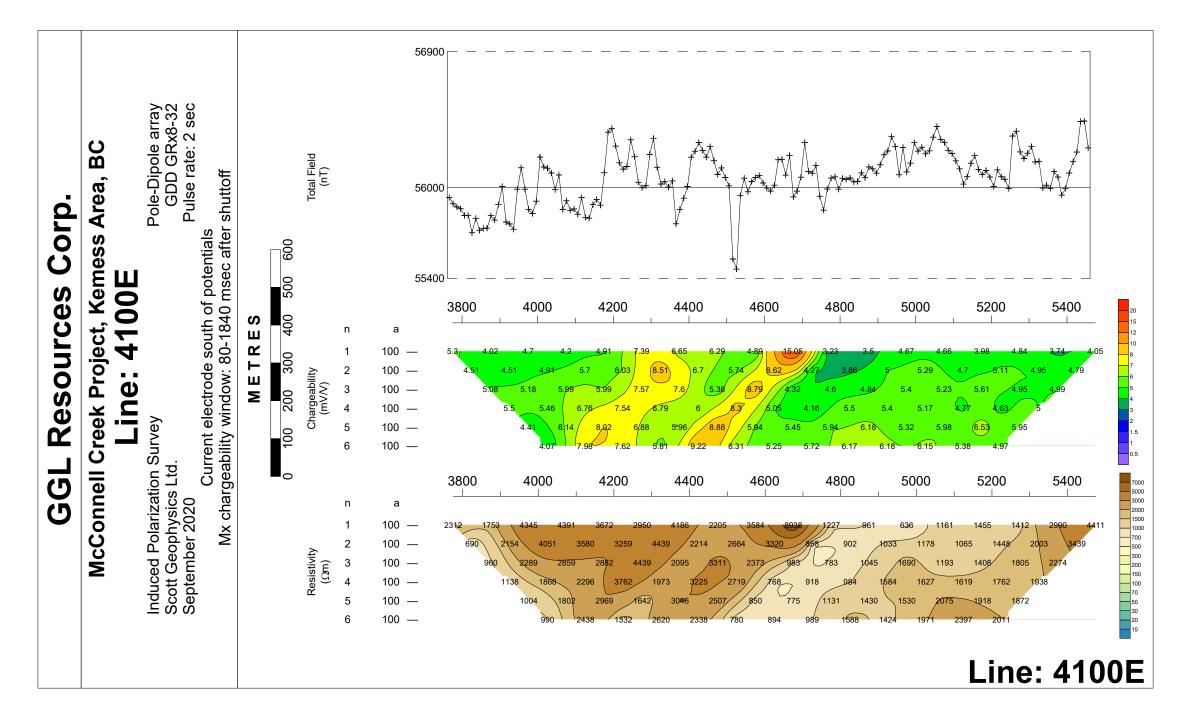
Brad Scott



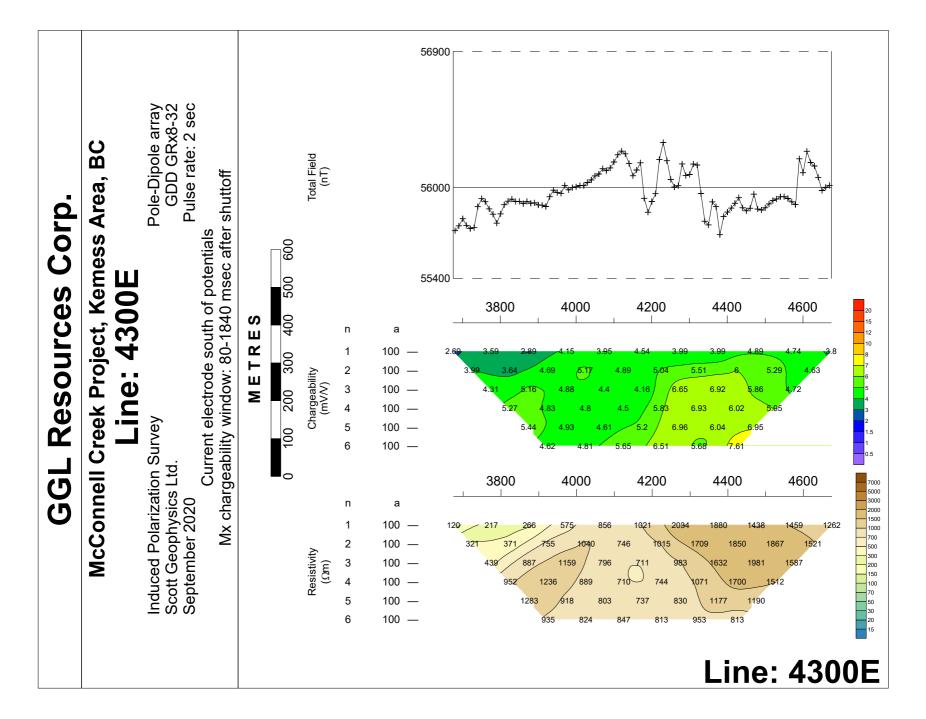
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<b>GGL</b> Resources (	McConnell Creek Project, Kemess Area, Line: 3900E	Pole-Dip physics Ltd. Pulse ra Pulse ra Current electrode south of potentials Mx chargeability window: 80-1840 msec after shuttoff	METRES 0 100 200 300 400 500 Chargeability (mV/V)	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
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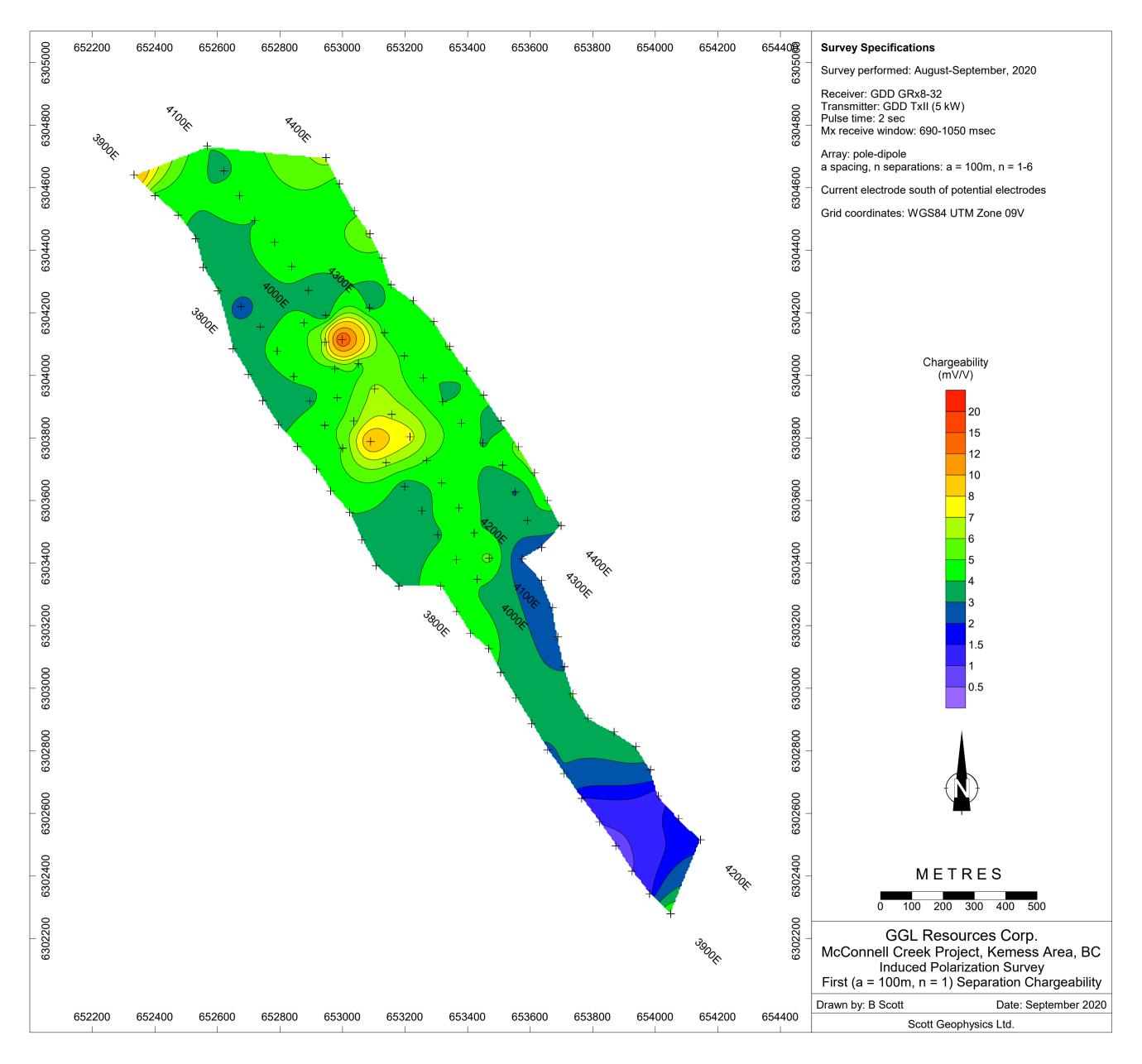


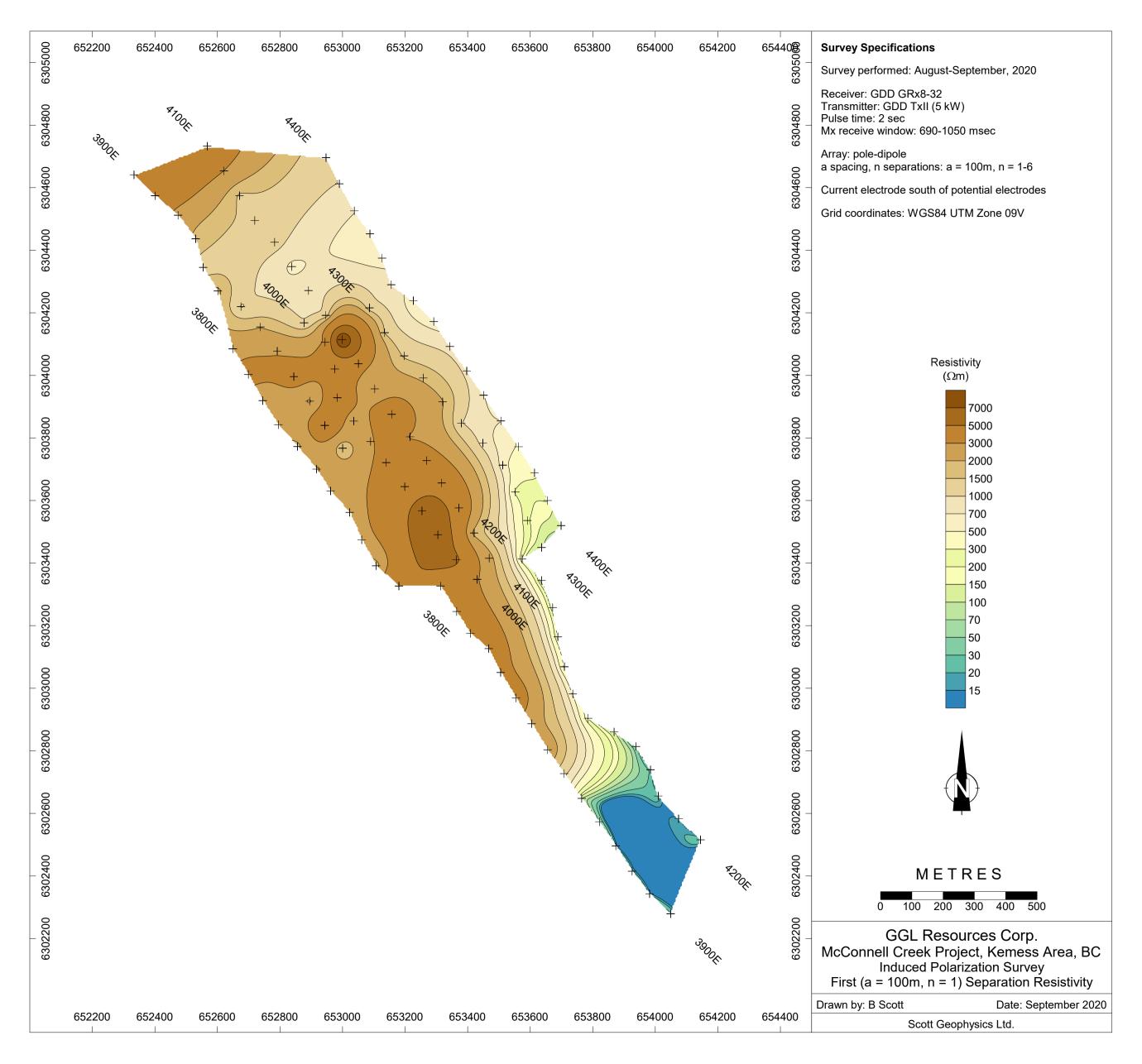


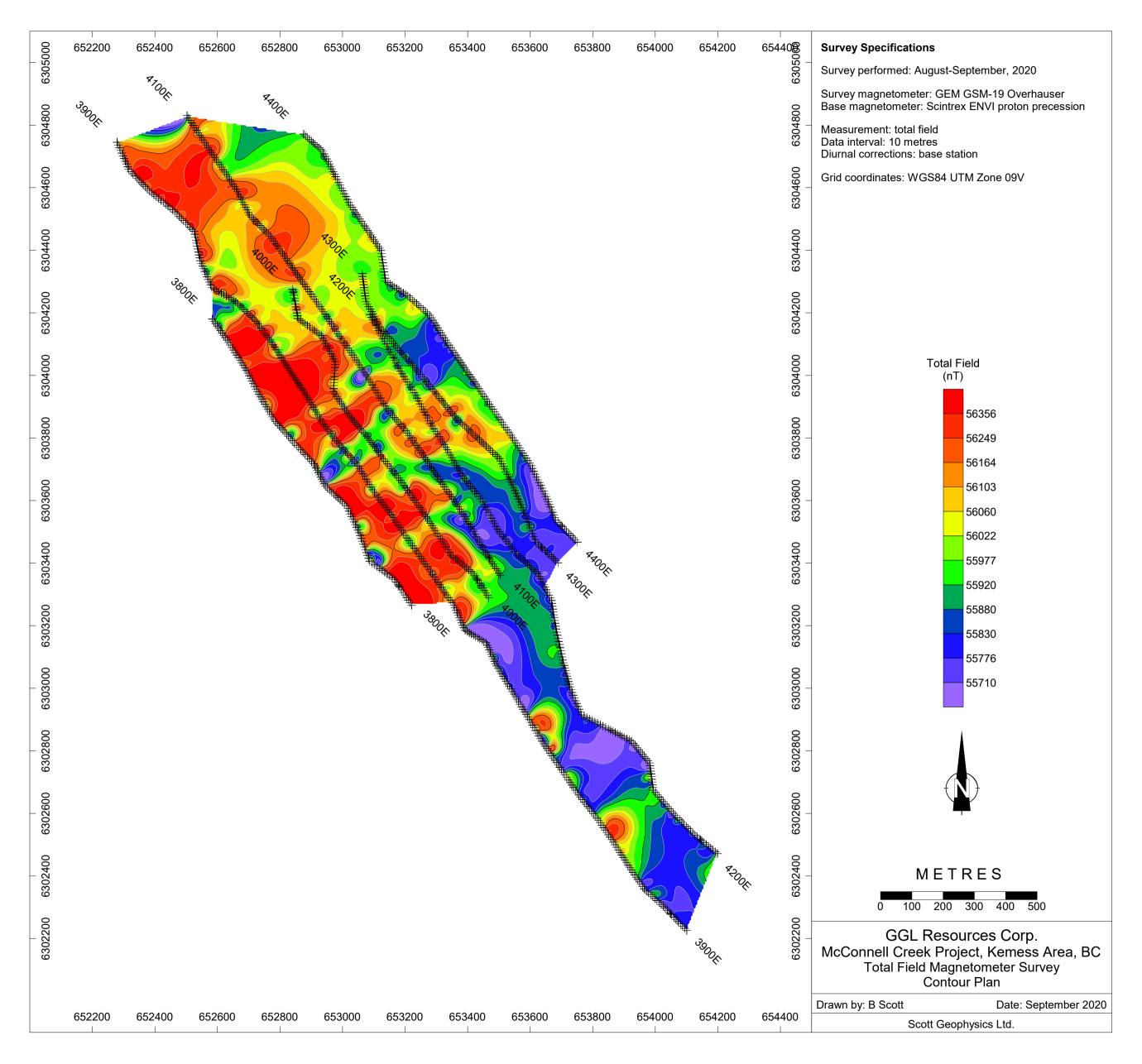
Line: 4200E	GGL Resources Corp.	McConnell Creek Project, Kemess Area, BC Line: 4200E	Induced Polarization Survey Pole-Dipole array Scott Geophysics Ltd. GDD GRx8-32 September 2020 Pulse rate: 2 sec	Current electrode south of potentials Mx chargeability window: 80-1840 msec after shuttoff	METRES	0 100 200 300 400 500 600 Resistivity Chargeability Total Field	n 1 2 3 4 5 6 n 1 2	569 560 554 a 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100		$ \begin{array}{c}         \\         \\         \\         $		0.68 0.82 0.76 1.50 1.61 1.68 3200 182 472 53 121 131 79 118	4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 +		20 15 12 9 9 86 7 6 5 4 3 2 1.5 1 0.5 7 700 500 200 150 100 70 500 200 150 100 100 100 100 100 100 100 100 1
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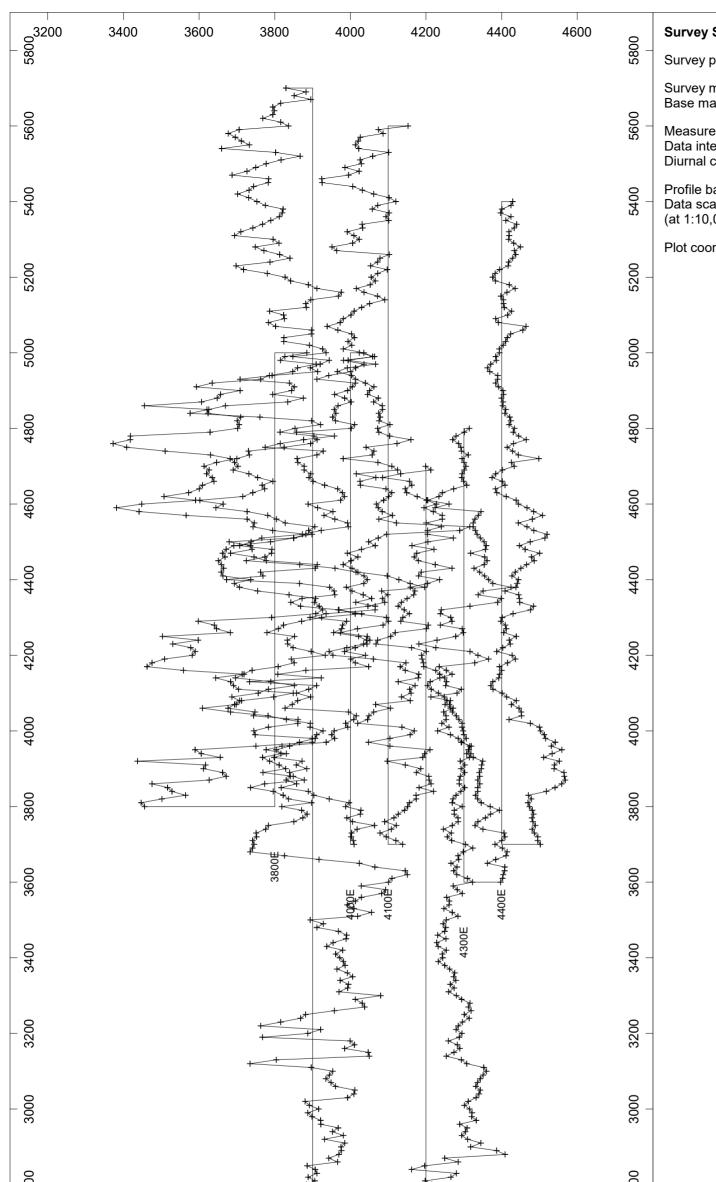


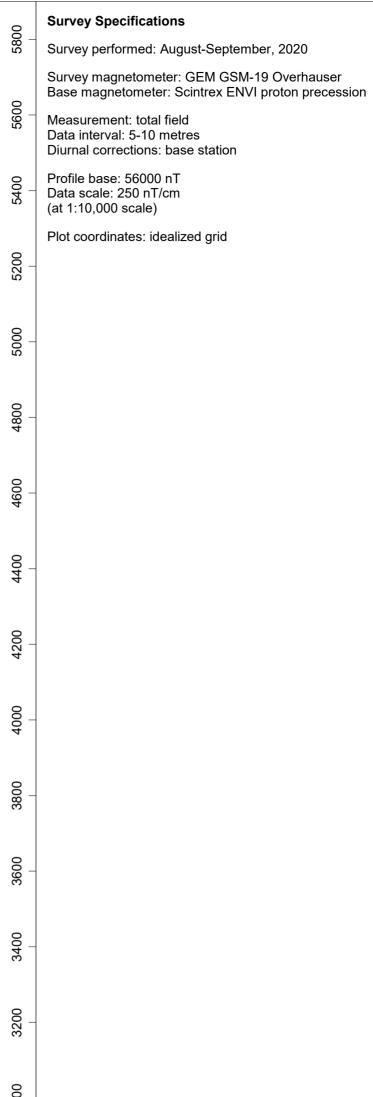
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							Line: 4400E











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# Appendix II

Big Sky Geophysics: Interpretation Report: Resistivity/IP Surveys McConnell Copper Showing, British Columbia

## Interpretation Report: Resistivity/IP Surveys McConnell Copper Showing, British Columbia

October 20, 2020

GGL Resources Corp. 1016-510 West Hastings Street Vancouver, BC V6B 1L8 CANADA

Dear GGL Resources Corp,

The following is a summary and interpretation for the resistivity/induced polarization (IP) surveys conducted at the McConnell Copper Showing prospect in northern British Columbia. Four lines of modified dipole-dipole IP data were collected in 2008 by Aurora Geosciences (lines 1-4) and seven lines of pole-dipole IP data were collected by Scott Geophysics (lines 3800-4400) in 2020. Both surveys used 100 meter receiver dipoles but the Aurora survey used a 200 meter transmitter dipole. L4400 was a repeat and an extension of L2, and lines 3900 and 4200 were extensions of L4 and L3.

### **Resistivity/IP Interpretation**

Figure 1 shows the location of the resistivity/IP survey lines with interpretation markings. The 2008 survey lines are shown in blue and the 2020 survey lines are shown in black. Any place where the resistivity exceeded 1500 ohm-m at any depth is indicated by a red bar. Any place where the IP response exceeded 7 mV/V at any depth is indicated by a yellow bar. These zones are marked to indicate the stronger relative responses for the survey area. The area marked with cyan colored stripe pattern indicates the location of a near surface conductive zone (less than 1000 ohm-m). This anomaly is probably caused by the glacial tills. The approximate locations of the high grade copper samples are shown by the blue circles. Black hash marks indicated the location of IP anomalies indicated on the section profiles. There are good IP targets relatively close to the southern zone grab samples, but there really aren't any good responses near the northern grab samples.

The 2008 lines were run from north to south and inverted using the UBC software while the 2020 lines were run from south to north and inverted using Loke's RES2DINV program. Lines were merged as best as possible for interpretation. I believe the RES2DINV program is a better inversion program, but the inversion results are generally similar where the lines overlap. The surveys were done using different transmitter setups. Both used larger dipoles for deeper depth penetration. I have merged the inverted sections so they could be more directly compared to each other. Figure 2 shows the inversion results for L3800. The IP response is shown in the upper panel and the resistivity results are shown in the lower panel. Station numbers increase from south to north. High chargeabilities and high resistivities are shown in shown in red and low values are shown in blue.

Figure 3 shows the inverted IP and resistivity sections for L3900/L4. The data have been approximately merged together for comparison. A mirror image of L4 is shown so that it will match the south to north orientation. Also note, the resistor color scale is reversed for the 2008 data (resistors are blue and conductors are red). Two near surface conductive zones are outlined in black. These near surface conductors correspond with the cyan zone in the plan map (fig. 1). One deep IP target is indicated.

Figure 4 shows the inverted IP and resistivity data for L4000. There is a near surface conductive zone at the very northern end of the line. Two possible IP targets are indicated. The southern zone is probably the best IP anomaly present in the data. Figure 5 shows the inverted IP and resistivity data for L4100. Two possible IP targets are indicated. The southern target is weaker, but is broader and has greater depth extent. It also lines up with the anomalies on lines 4000 and 3900. One near surface conductive zone is indicated.

Figure 6 shows the inverted IP and resistivity data for L4200/L3. L3 has been approximately registered relative to L4200 and displayed as a mirror image. Remember the color scale for resistivity is reversed for L3. Most of the line is covered by conductive till. Two IP targets are indicated. Figure 7 shows the inversion results for the IP and resistivity data for L4300. Conductive overburden is present on the southern end of the line and one weak IP target is indicated. The inversion results for the IP and resistivity data for L4400 are shown in figure 8. Most of the line appears to be covered with conductive till and there is one deep IP target underneath. There is a possible IP target at the northern end of the line. Unfortunately, the field crew didn't have enough wire to extend the line and define this anomaly. The line could be extended, but the anomaly is outside of the main target zone. Figure 9 shows inverted IP and resistivity data for L1 (reverse image). There is a strong chargeability anomaly present but it is associated with the conductive overburden rather than with a resistor so it was not picked as a target.

#### **Regional Interpretation**

Figures 10 and 11 show the regional GSC magnetic data. Both maps show the total magnetic intensity images. Figure 11 superimposes the location of the claim block and regional geology. The magnetic highs appear to be caused by the ultramafic intrusives and there are no magnetic anomalies in the valleys. The geologic map indicates a regional fault on the eastern end of the IP survey lines. Clay alteration associated with this fault may be the source of the IP response on L1. Scott Geophysics also collected ground magnetic data along the IP profile lines but didn't show much except a regional gradient from west to east.

Figures 12 and 13 show the regional satellite gravity data for the area. The gravity data show the complete Bouguer anomaly (includes terrain corrections) reduced at a density of 2.67 g/cm<sup>3</sup>. These data are derived from the twin GRACE satellites that flew in tandem in low orbit over the planet for several years. I have used these data before and found them to be very useful for regional interpretations. Figure 13 shows the claim block and the regional geology superimposed upon the gravity image. The location of the IP lines are shown in magneta.

All of the valley bottoms appear as gravity highs, which should be expected because being at lower elevations; they are closer to the denser asthenosphere. The strongest anomaly in the regional data is a gravity high immediately south of the IP profile lines. It is possible this gravity high represents an intrusive. The IP highs in the profiles cluster near the middle of the survey lines. It is possible the IP highs are caused by contact metamorphism associated with this possible intrusive.

#### **Summary**

The IP responses are not particularly strong. I would expect IP values of approximately 15 mV/V or greater for a porphyry system. Most high values for the survey are in the 7-10 mV/V range. It is possible it is a low sulfide system, but higher values would be more indicative of a porphyry system. All of the IP anomalies are associated with resistors. It seems more likely that the system is structurally controlled or might be a skarn system associated with contact metamorphism with an intrusive. The area of mineralization does not appear to be very large, but the IP anomalies do continue with depth.

Drill holes can be planned directly from the inverted sections, because the sections are plotted at a 1:1 vertical/horizontal scale. I circled three IP anomalies (fig. 1) as the main target zone. These occur near the southern copper zone. No anomalies exist near the northern copper zone

If you have any questions or comments, don't hesitate to contact me.

Sincerely,

Clark Jorgensen

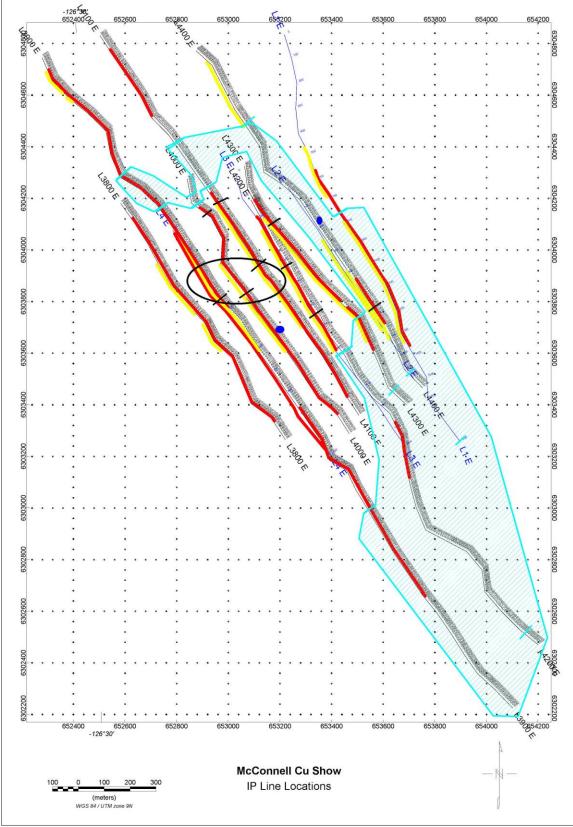


Figure 1: Plan map of IP line locations with 2008 lines shown in blue and 2020 lines shown in black. Near surface conductive zone (< 1000 ohm-m) are shown in cyan, resistors (> 1500 ohm-m) are shown in red, and IP zones (> 7 mV/V) are shown in yellow. Black hash marks indicate the best IP anomalies for follow up work. The best area is circled in black. Approximate locations of the southern and northern copper grab samples are shown as blue circles on lines 4000 and 4400.

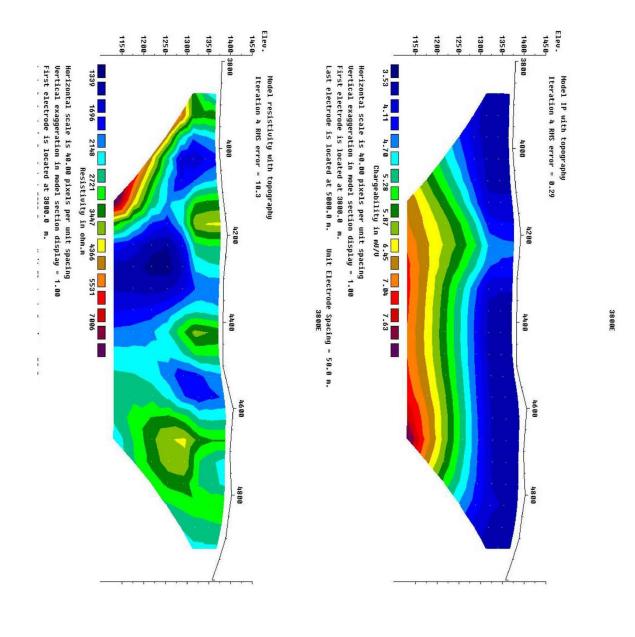


Figure 2: Inverted IP and resistivity data for L3800. IP results are shown in the top panel and resistivity results are shown in the lower panel. The southern end of the line is shown on the left. No significant anomalies were observed.

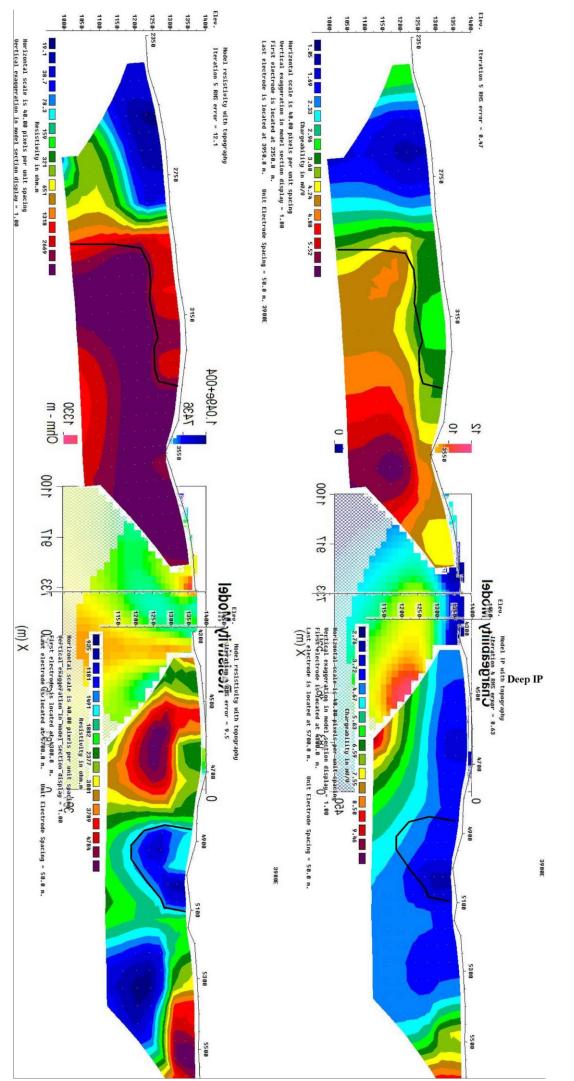


Figure 3: Inverted IP and resistivity data for L3900/L4 with the data approximately merged together. Near surface conductors are outlined in black. One deep IP target is indicated.

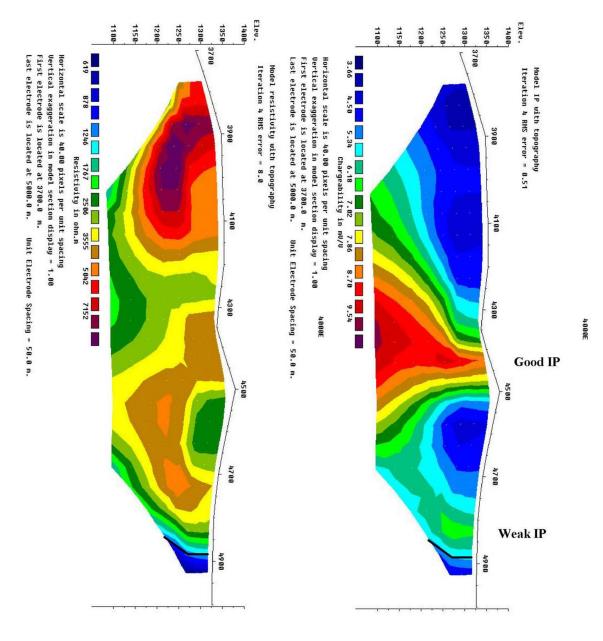


Figure 4: Inverted IP and resistivity data for L4000. Two possible IP targets are indicated. A near surface conductive zone is indicated on the northern end of the line.

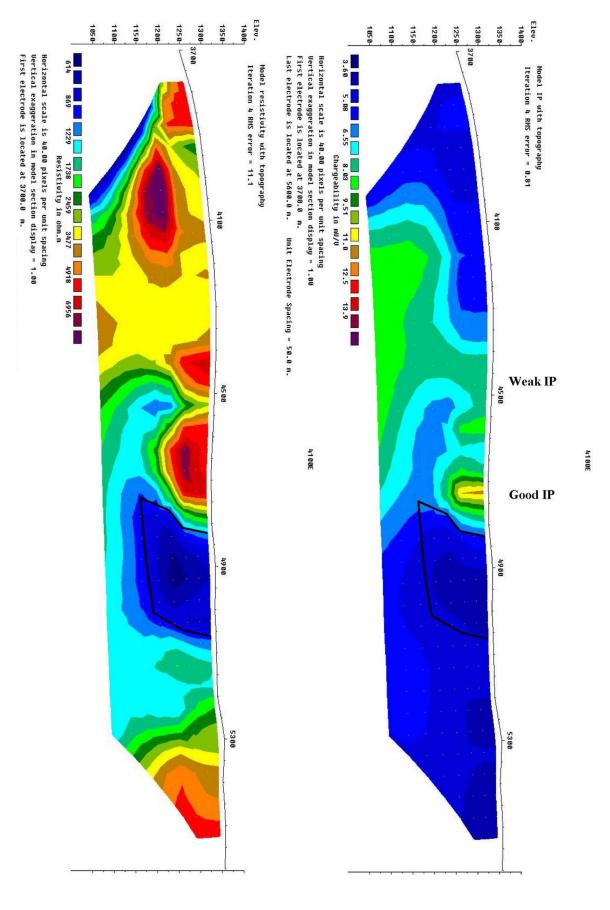


Figure 5: Inverted IP and resistivity data for L4100. Two possible IP targets are indicted. While the northern target is stronger, the weaker target has better width and depth extents indicated.

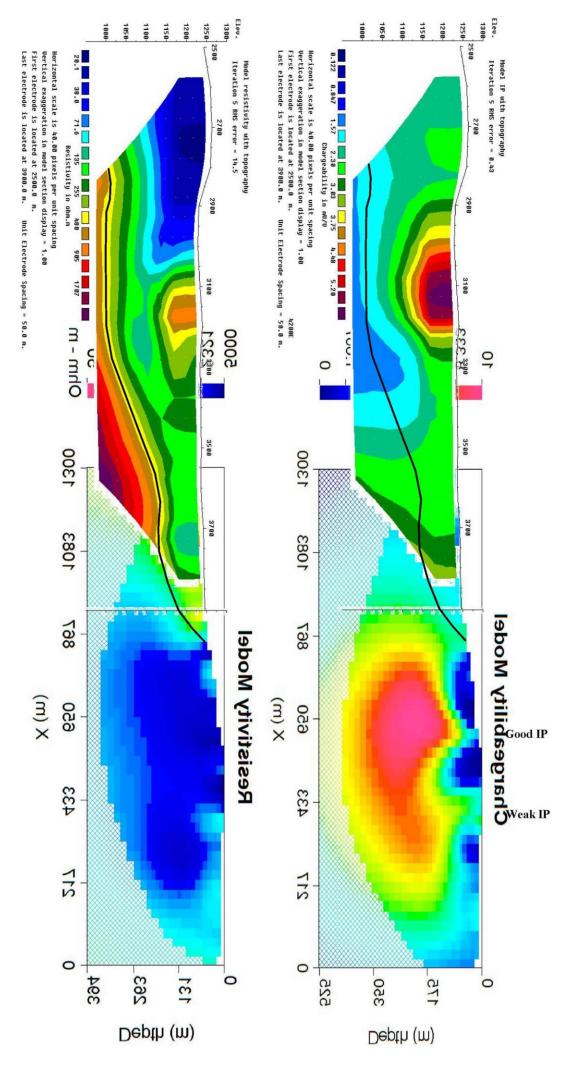


Figure 6: Inverted IP and resistivity data for L4200/L3. Mirror images of the L3 inversion are displayed so they are oriented properly from south to north. Two IP targets are indicated and most of the line is covered by conductive overburden.

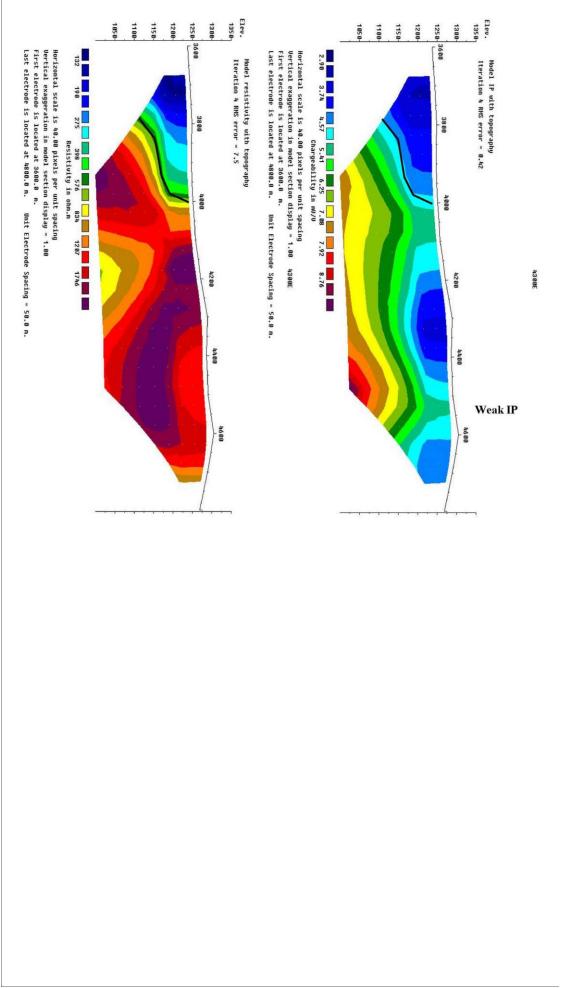


Figure 7: Inversion results for the IP and resistivity data for L4300. Conductive overburden is present on the southern end of the line and one weak IP target is indicated.

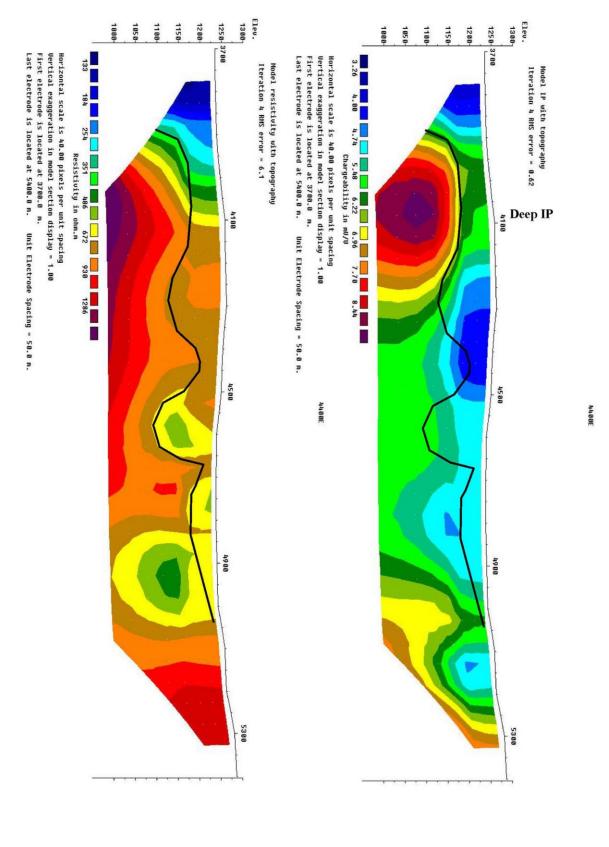


Figure 8: Inversion results for the IP and resistivity data for L4400. There is one deep IP target underneath the overburden. There is a possible IP target at the northern end of the line.

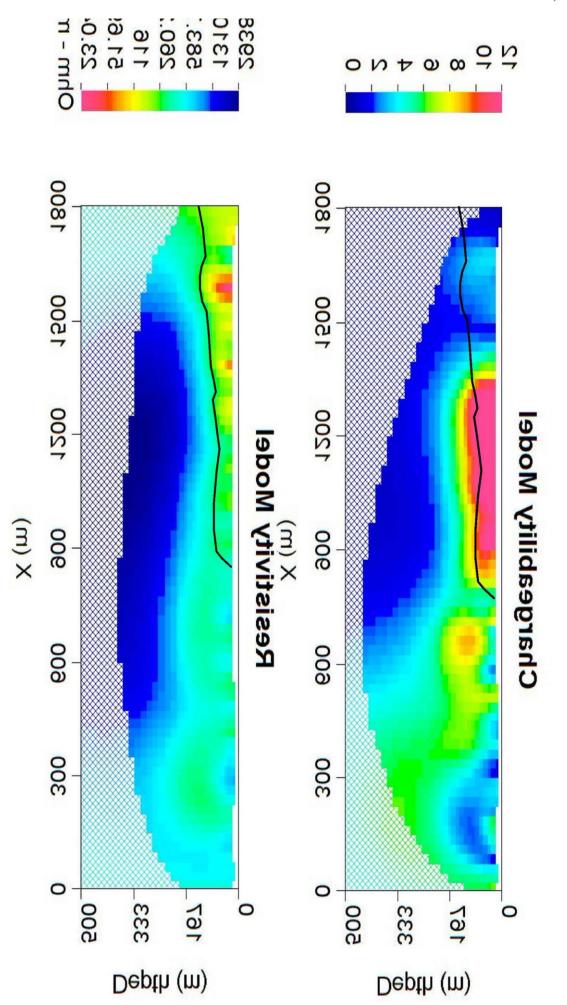


Figure 9: Inverted IP and resistivity data for L1. There is a strong chargeability anomaly present but it is associated with the conductive overburden rather than with a resistor so it was not picked as a target.

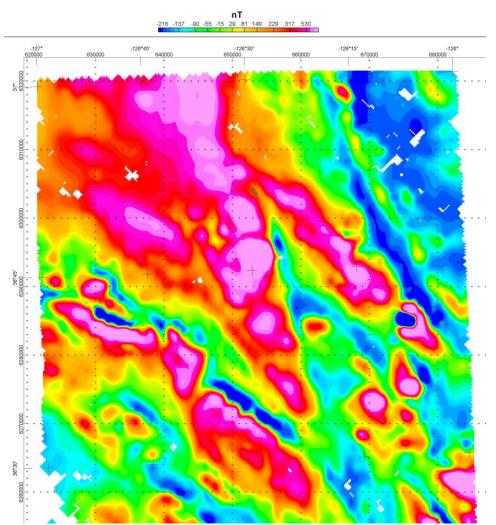


Figure 10: Regional GSC magnetic data (total magnetic intensity) for the region.

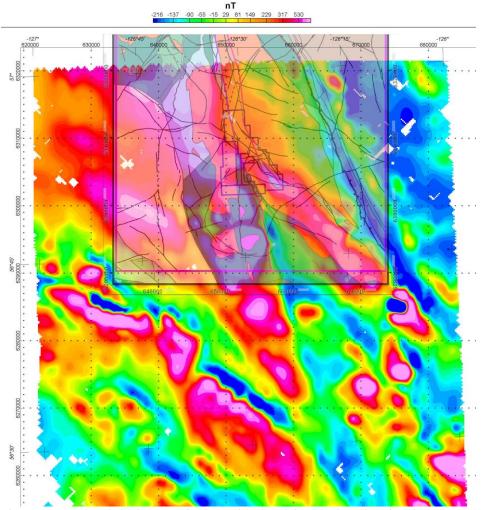


Figure 11: Regional GSC magnetic data with the claim block and regional geology superimposed. The intense magnetic highs are associated with ultramafics in the mountains. No significant magnetic anomalies are present in the valleys.

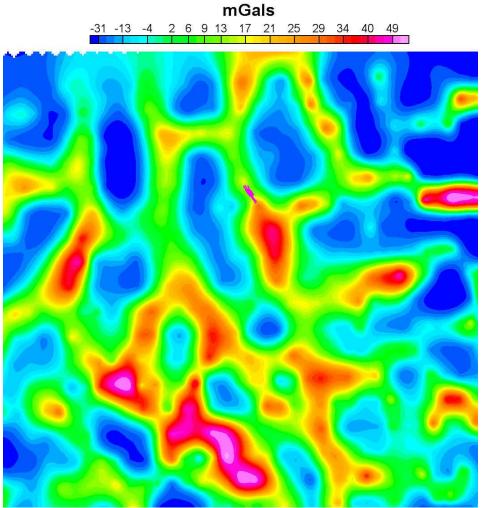


Figure 12: Satellite gravity data (complete Bouguer anomaly) for the area with IP line locations shown in magneta. A strong gravity high exists immediately south of the lines.

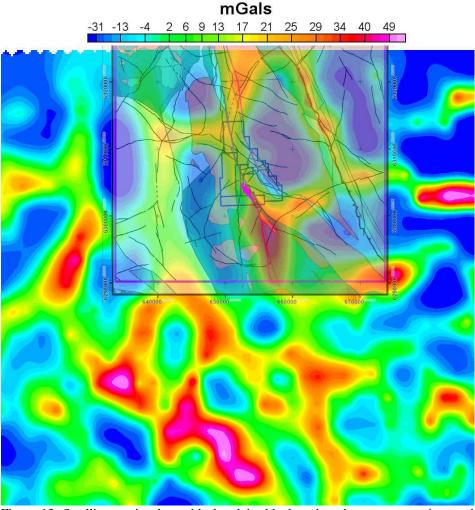


Figure 13: Satellite gravity data with the claim block and geology map superimposed. Note the gravity highs occur in the valleys. IP line locations are shown in magenta.