



GroundTruth Exploration Inc.

Box 70, Dawson YT, Y0B 1G0 (867) 993-5612

GEOPHYSICAL REPORT on the Halfway Creek Placer Prospecting Lease

Whitehorse, Yukon Territory



120283

Lease No.: IW00382 – Owner: Jonathan Singh 100%

NTS # 115J/14

Latitude: 62° 55.7 Longitude: 139° 18.2 W

Whitehorse Mining District

WORK PERFORMED: September 21th, 2013
DATE OF REPORT: October 20th, 2013



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Summary

A High Resolution Resistivity survey and coincident detailed Total Magnetic Field ground survey was conducted on the Halfway Creek placer lease to map bedrock profile and classify overburden material. The lease is located 120km South of Dawson on Halfway Creek which flows directly into the Yukon River (figure 1).

The survey was conducted by Groundtruth Exploration on September 21th, 2013. The property was accessed by helicopter based at the mouth of Coffee Creek. One resistivity profile was set up and read using 3 separate arrays. A detailed ground magnetic survey was ran for one day over the resistivity profiles at 25m line spacing parallel to the resistivity profile. The Resistivity Survey was read using a Supersting R8 resistivity meter with 84 electrodes spaced at 5m. The Magnetic survey was conducted using a GEM Systems GSM-19T Proton Magnetometer in 'walk mode', with a GPS tagged reading being recorded every 0.5 of a second.

The resistivity survey was successful in profiling bedrock depth and detecting permafrost depth interval. The detail mag survey was successful in focusing magnetic placer channel interpreted location over resistivity profile.

1.0 Location and Access

The prospecting lease is located 120km South of Dawson City within the Yukon River drainage system in west-central Yukon Territory. It is centered at 62° 55.7 N, 139° 18.2 W, on NTS mapsheet 115J/14 (Figure 1). It is accessible in winter on the Yukon river via snowmobile, and accessible by helicopter year round. Neighbouring Kaminak Coffee Camp is has a developed airstrip that can be utilized year round and is accessed seasonally by Barge from Minto Landing. Thistle Creek (~15km to the northwest) has active placer mines which are currently accessed from Dawson City by barge on the Yukon River to the mouth of Thistle creek.

2.0 Property

The Halfway Creek Placer Prospecting lease Tenure:

Location: Halfway Creek, IW0382

Length: 5 miles

Expiry: September 28/2013 (renewed)

(Figure 2)

140°0'0"W

130°0'0"W

120°0'0"W



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Placer Lease Locator

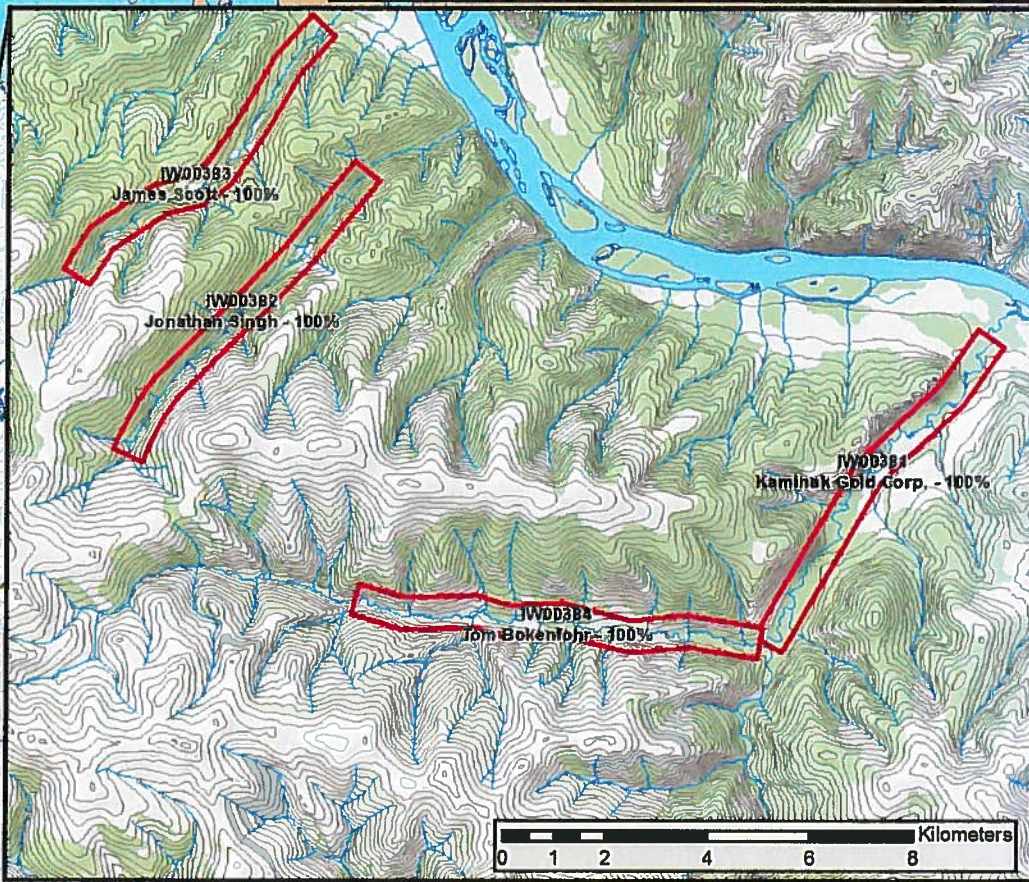
**Figure:
Figure 1**

Prepared By: I. Fage

Date: Sept 25/13

Scale: 1 : 5,000,000

Datum: NAD83, Albers



Dawson

Mayo

Beaver Creek

Carmacks

Ross River

Haines Junction

Whitehorse

Watson Lake

0 100 200 400 Kilometers

140°0'0"W

130°0'0"W

70°0'0"N

70°0'0"N

65°0'0"N

65°0'0"N

60°0'0"N

60°0'0"N


 NTS Mapsheet: 115J/14	Ground Truth Exploration Inc.	
	Placer Lease: IW00382, work location	Date: Sept 27/13
Prepared By: I. Fage	Scale: 1 : 30,000 Datum: NAD83 UTM Zone 7V	

Figure 2

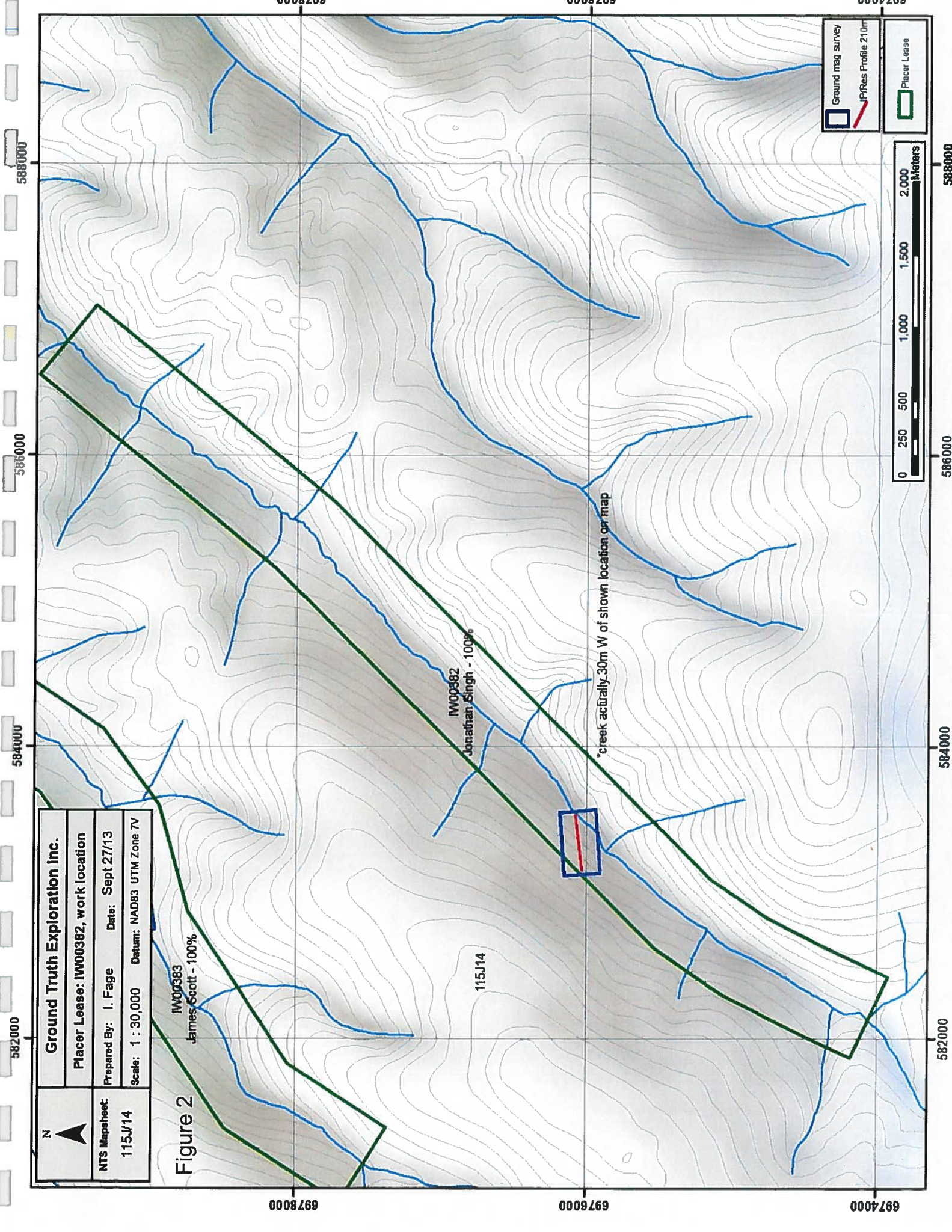
IW00383
James Scott - 100%

IW00382
Jonathan Singh - 100%

115J/14

*creek actually .30m W of shown location on map

	Ground mag survey
	IPRes Profile 21.0m
	Placer Lease





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3.0 Physiology and Geology

The Halfway Creek placer prospecting lease is located within the Yukon-Tanana Terrane. The landscape is composed broad valleys bordered by moderately sloped, tree covered hills ranging in elevations from 1200 to 5000 feet. The area experiences typical climatic conditions for central Yukon Territory with short, warm and dry summers and cold winters. Temperatures range from -20°C to -60°C in the winter and +10°C to +30°C in the summer.

The Halfway Creek placer lease is underlain by a Devonian-Mississippian metamorphic unit (See Figure 3).

Legend for Figure 3: Regional Geology:

Devonian-Mississippian

DMN3	DMN3: NASINA: quartzite, micaceous quartzite, quartz muscovite (chlorite; feldspar augen) schist, and minor metaconglomerate and metagrit as in (1), but may locally include significant Nisling Assemblage
-------------	--

Early Jurassic

EJgA	EJgA: AISHIHK SUITE: medium- to coarse- grained, foliated biotite-hornblende granodiorite; biotite-rich screens and gneissic schlieren; foliated hornblende diorite to monzodiorite with local K-feldspar megacrysts; may include unfoliated monzonite of the Long Lake Suite (Aishihik Suite)
-------------	---

EJqL	EJqL: LONG LAKE SUITE: massive to weakly foliated, fine to coarse grained biotite, biotite-muscovite and biotite-hornblende quartz monzonite to granite, including abundant pegmatite and aplite phases; commonly K-feldspar megacrystic (Long Lake Suite)
-------------	---

Upper Cretaceous

uKC1	uKC1: CARMACKS: augite olivine basalt and breccia; hornblende feldspar porphyry andesite and dacite flows; vesicular, augite phyric andesite and trachyte; minor sandy tuff, granite boulder conglomerate, agglomerate and associated epiclastic rocks (Carmacks Gp., Little Ridge Volcanics, Casino Volcanics)
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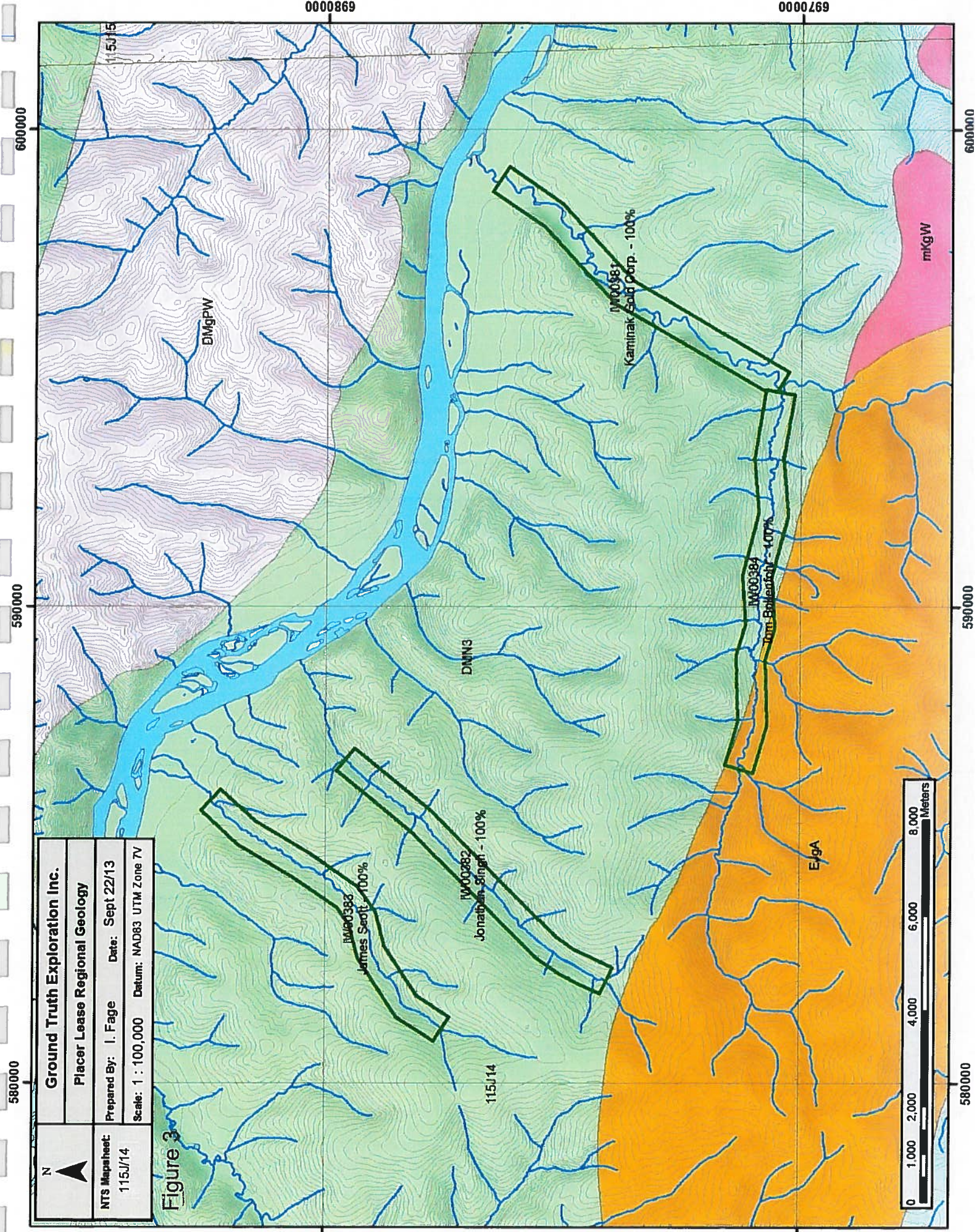
 N	Ground Truth Exploration Inc.	
	Placer Lease Regional Geology	
NTS Mapsheet: 115J/14	Prepared By: I. Fage	Date: Sept 22/13
Scale: 1 : 100,000		Datum: NAD83 UTM Zone 7V

Figure 3





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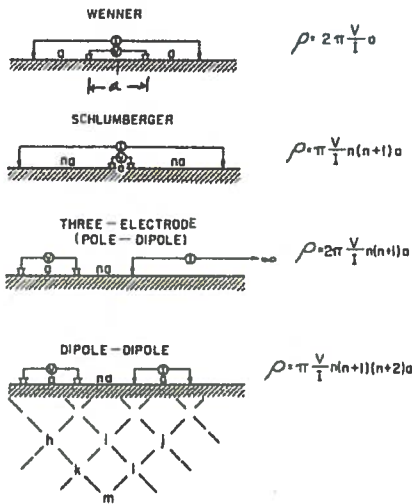
4.0 Resistivity Survey Procedure(s)

Ground Truth crews used a 206-L helicopter based out of the Coffee Project camp to gain access to the placer lease surveyed. The pre-arranged traverses were located using Ashtech GPS, then cut & chained at 5M, for the 420m traverse.

The DC Resistivity survey was completed using Advanced Geoscience Inc., Supersting instrument (Instr. specs. Addendum). The instrument is placed at a center point of the traverse; referred to as **electrode #42**, with 42 electrodes on either side. The Supersting gathered apparent Resistivity component only, using the -following arrays:

1. Schlumberger Inverted **Si3 Array** (with expanding AB and MN dipoles)
2. Dipole Dipole **DD Array** (with expanding AB and MN)
3. Strong Gradient **sG Array**

The equipment comprises; Supersting (combined transmitter/ receiver), switch box, motor generator with 6 x 14 electrode cable= 84 electrodes.



When doing small A spacings <3M, the stainless electrodes are put into the ground at a lesser depth to help avoid coupling.

Contact Resistances (CRS) are the governing factor for collecting good data, giving high Signal/Noise ratio.

CRS are taken before survey, and attempts always put forward to keep them below the 2 kohm threshold when doing IP effects simultaneously.

The traverse is also surveyed using differential GPS to produce an accurate terrain file, for post processing.

The survey result is presented here-in using Earth Imager, and Surfer software.

4.1 Resistivity Survey Theory Applied to Placer Exploration

High Resolution DC Resistivity surveys can be applied to placer exploration by exploiting unique petrophysical properties of overburden and bedrock material. Measurement of the apparent resistivity at depth on continuous profiles provides a method to discriminate between overburden (muck/gravel) and bedrock interface. The results are mapped in symbolized section figures and interpreted. Ideally these interpretations should be validated by drilling or test pits to confirm the resistivity based interpretation.



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5.0 Magnetic Survey Procedure

The Equipment necessary to complete the survey consisted of:

Magnetometer Field Unit:	GEM Systems GSM-19T Proton Magnetometer
Base Station:	GEM Systems GSM-19T Proton Magnetometer
Data Processing	Laptop Computer
Software:	GEM Systems proprietary magnetometer upload, download software, MapInfo mapping software, Oziexplorer for grid planning and GPS interface.
Grid Establishment:	Garmin map76cx GPS (x3) Machete, Flagging, Marker

The magnetometer survey was conducted according to the following specifications:

Field Magnetometer Observation Frequency: 1 reading per 0.5 of a second.

Base Station Magnetometer: Set to record an observation every 20 seconds for the duration of the survey.

Levelling: None required

5.1 Magnetic Field Theory Applied to Placer Exploration

In a placer setting, magnetite derived from bedrock weathering is concentrated in the main channel of a creek or river where the water flow has the highest velocity and the greatest turbulence. As a result, minerals with high specific gravity (magnetite, ilmenite, gold, etc.) are preferentially concentrated in this region of the stream, while material with lower specific gravity is winnowed from the sediment. High concentrations of "black sand" (magnetite, ilmenite, chromite) are often recorded in auriferous pay streaks where the stream bed has remained relatively immobile from some period, permitting hydraulic concentration to build up a significant volume of these materials.

The materials comprising black sand are magnetically susceptible. Magnetite has a very high magnetic susceptibility of $1200-19200 \times 10^{-3}$ SI units, ilmenite ranges from $300-3500 \times 10^{-3}$ SI units, and chromite measures from $3-1100 \times 10^{-3}$ SI units. Average magnetic susceptibilities for sedimentary, igneous (excluding ultramafic) and metamorphic rocks are: 0-10, 3-160 and $0-70 \times 10^{-3}$ SI units respectively.



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Fluvial sediments register magnetic susceptibility in the range of $0-2 \times 10^{-3}$ SI units. There is consequently a significant susceptibility contrast between gravels enriched with black sand and average gravels/ underlying bedrock.

6.0 Resistivity and Magnetic RESULTS

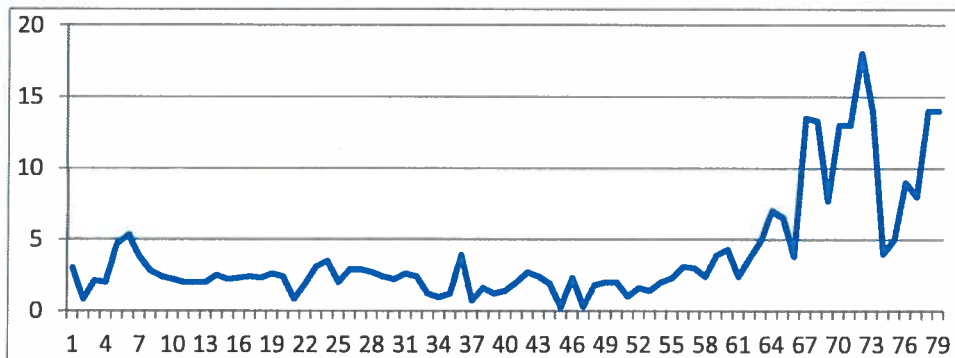
DC Resistivity Surveys:

Survey 1: 84 Electrodes spaced at 5, 420m horizontal length

Arrays Read:

- (1) Inverse Schlumberger (Si3A),
- (2) Dipole-Dipole (DD)
- (3) Strong Gradient (SG)

Contact Resistance: Halfway Creek Resistivity Survey



CONTACT RESISTANCES (CRS) in Kohm's/ (measured by electrode # 1-84)

No difficulties encountered placing electrodes on the north side of the creek.

Much higher CRS encountered south of the creek partially over a bolder run-off.

Electrodes 1,2, and 4 were removed due to noise. The peak CRS above 5Kohm were supplemented with a saline solution.



Photos from Field survey on Halfway Creek Resistivity survey.

6.1 DC Resistivity Results and Interpretation:

From field notes: Extra effort was made by crew to locate a suitable traverse trying to avoid bolder run-off south of the creek. Being situated higher up the valley ensured a lesser amount of underlying permafrost. It should also be noted that the canvec topo utilized on plan maps here is not accurate. Plan maps show traverse not crossing creek, however valley was crossed on survey with creek being situated at 325m along W-E traverse. See above photo #2.

Three arrays were surveyed. The Strong Gradient (SG) array produced the coarsest definition of near surface overburden on the Western hillside zone of the survey. It did not discriminate in detail between soil-weathered bedrock-intact bedrock. There is a strong contrasting resistivity high-low in the creek valley. This interpreted as permafrost in res High and water saturated ground near creek as resistivity low.

The Si3 and DD arrays produced interesting results, illustrating the contrast in ground condition between the SW facing slope and the creek valley. The DD is chosen as the best representation of actual ground conditions. The hill slope (0m-300m) in this situation is characterized by a thin resistivity low horizon (~2m) at surface representing thawed soil. Below this additional resistivity lows parallel to ground surface to a depth of ~30m should represent fractured bedrock. No placer potential is identified on the slope. The creek valley is contrasted by highly resistive ground near surface that is interpreted to be resistive permafrost. It is shown to be at a depth of ~15-20m. Also note the contact resistance histogram showing where the survey entered creek valley and average CRS rose from an average of 3k Kohms up to >10k ohms in the permafrost.



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IP effects (chargeability) were also gathered on this traverse using the Dipole Dipole Array. See figure 5.

(See interpretation Figures 4-7)

6.2 Magnetic Survey Results and interpretation:

The survey is comprised of a total of 3,804 geo-referenced magnetometer readings. The detail survey largely reflected underlying bedrock features. The West side of mag survey shows a mag high in contrast to the East. This is expected to result from bedrock conditions as no placer gravel or significant depth of overburden was identified on the slope in the resistivity survey. (See Figure 8)

6.3 Combined Interpretation:

DD Resistivity Array with Magnetics: The DD array combined with profile of magnetic survey shows higher mag over the western slope and relative mag low in creek valley. No placer related channels were observed in mag survey. See figure 9 for interpretation with Inverted DD Resistivity.

7.0 Conclusion/ Recommendations

Additional work is left to the client's discretion. Interpreted results need to be proofed by follow-up. Multiple arrays are useful for comparison and interpretation of overburden and underlying bedrock. The DD array proved to be most useful for discriminating between permafrost and overburden. This creek valley is quite narrow in area surveyed. Topo profile from GPS survey shows width to be <50m. Drilling or hand shafting could verify interpreted depth from Resistivity survey.

Figure 4

DC Resistivity Imaging
Dipole Dipole Array
AB=expanding MN=expanding

Placer Lease IW 00382 (Halfway Creek)

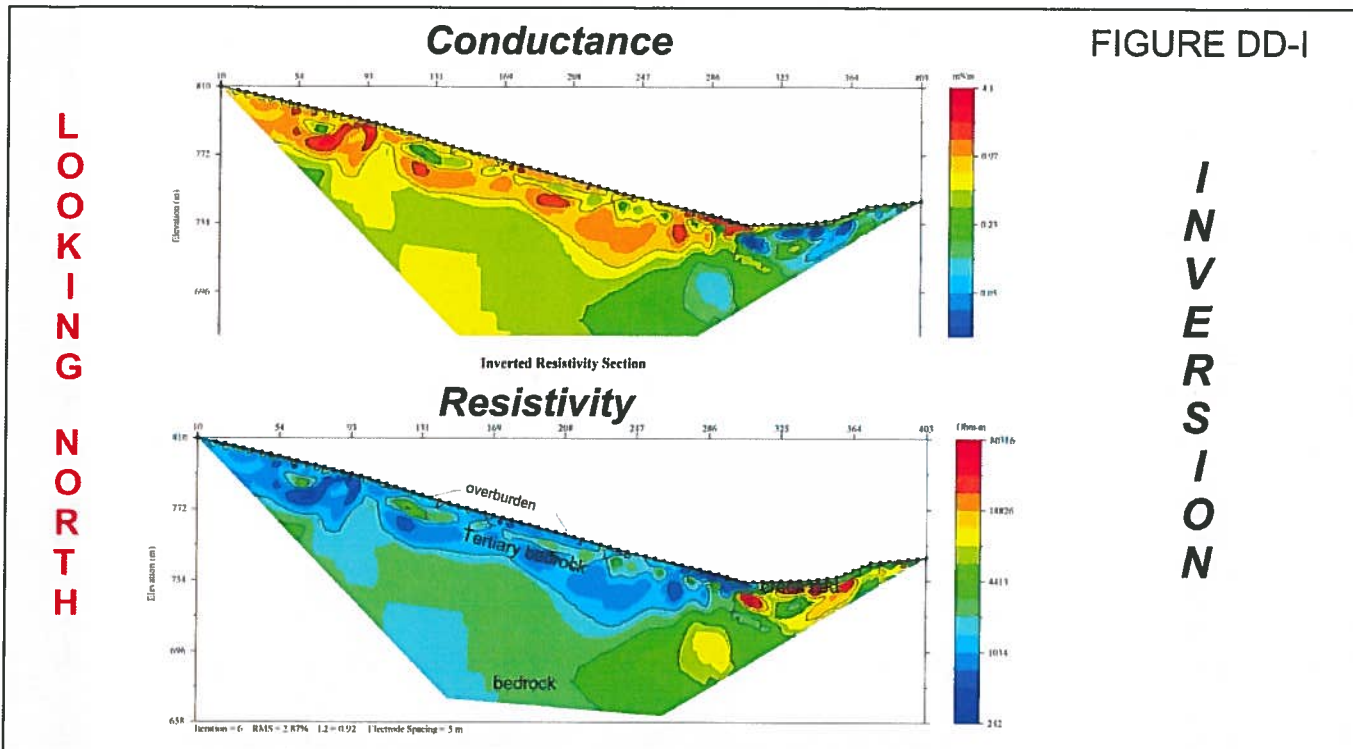


FIGURE DD-I

INVERSION

LOOKING NORTH

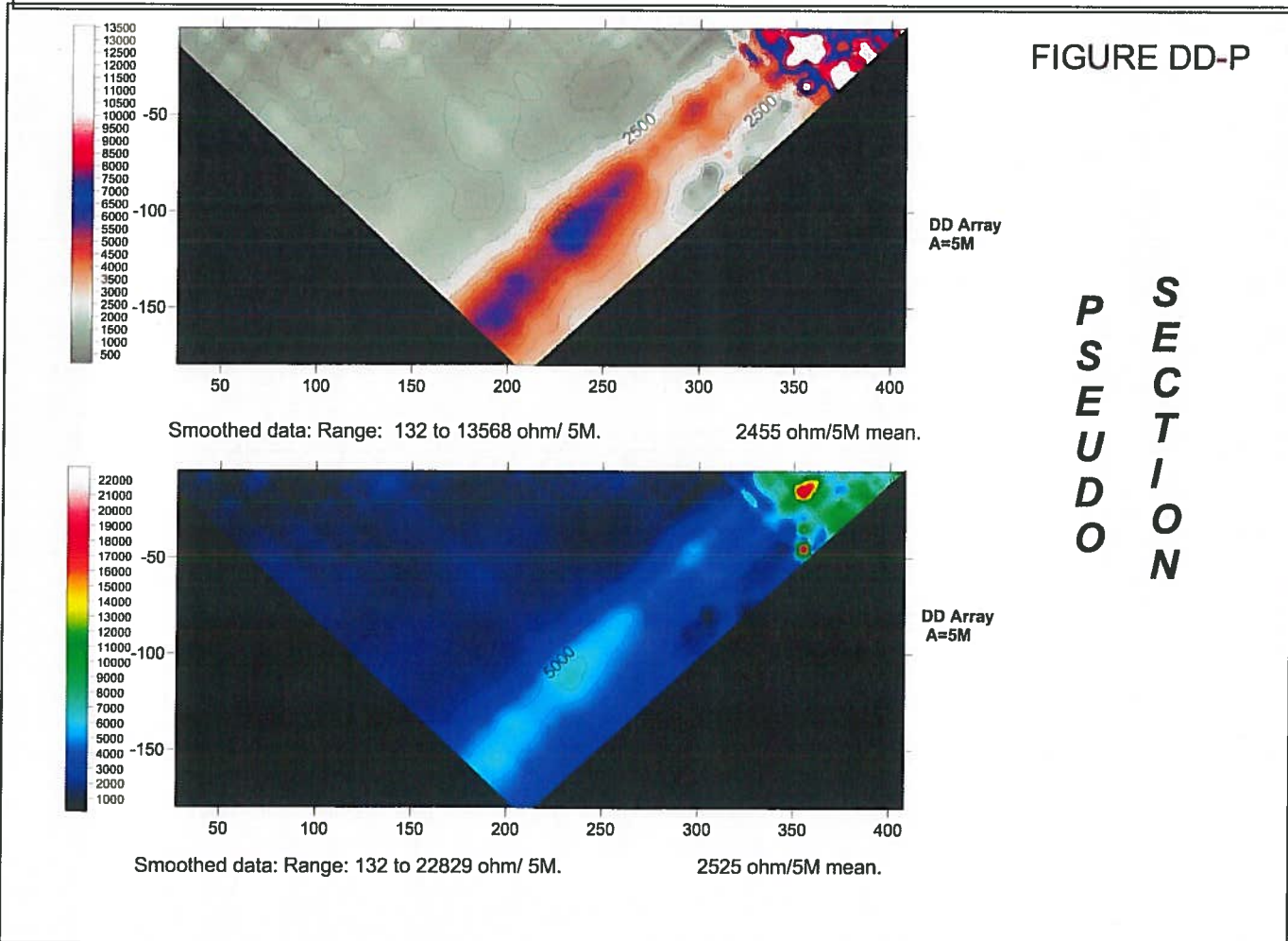


FIGURE DD-P

PSEUDO SECTION

Figure 5

DC Resistivity Imaging
Dipole Dipole Array
AB=expanding MN=expanding

Placer Lease IW 00382 (Halfway Creek)

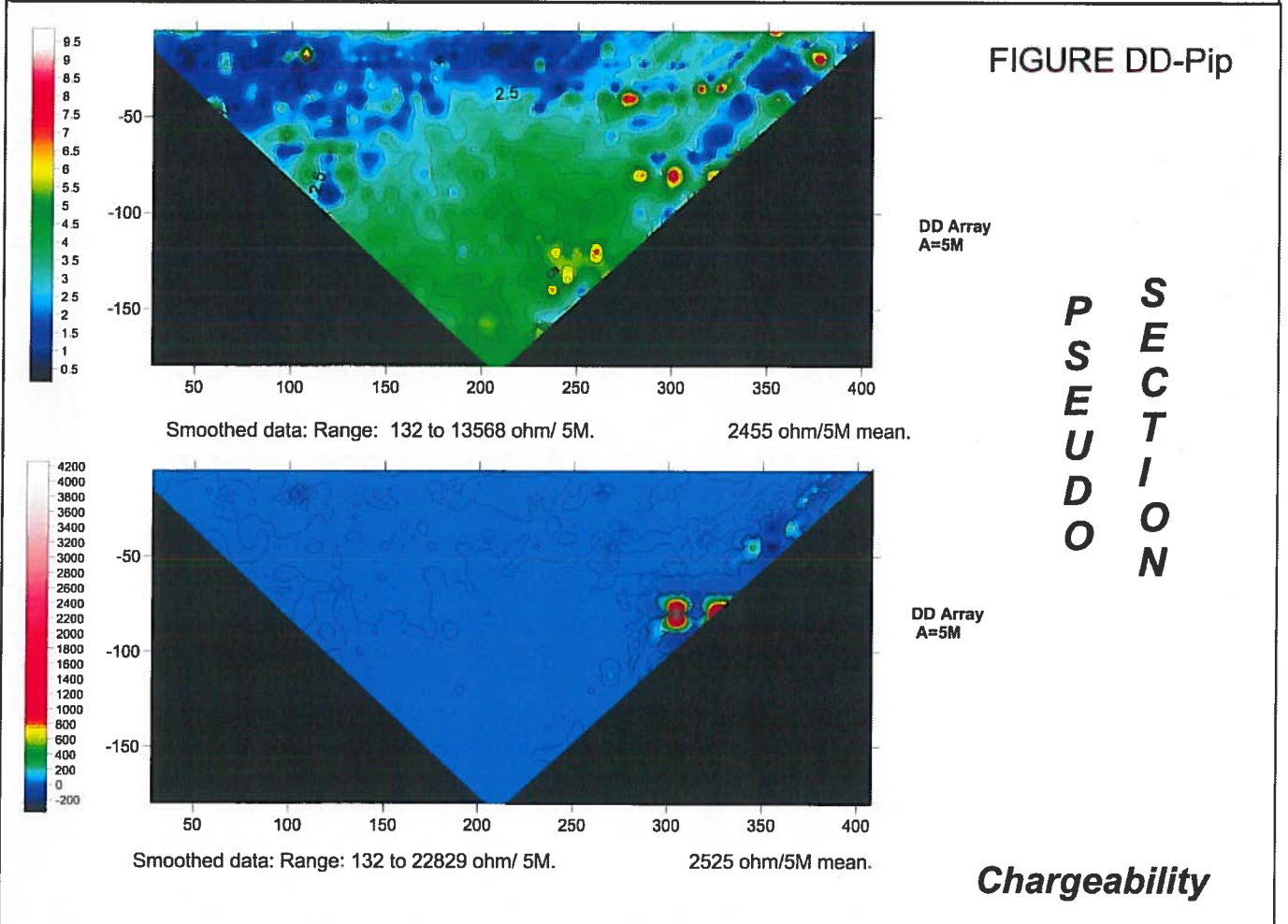
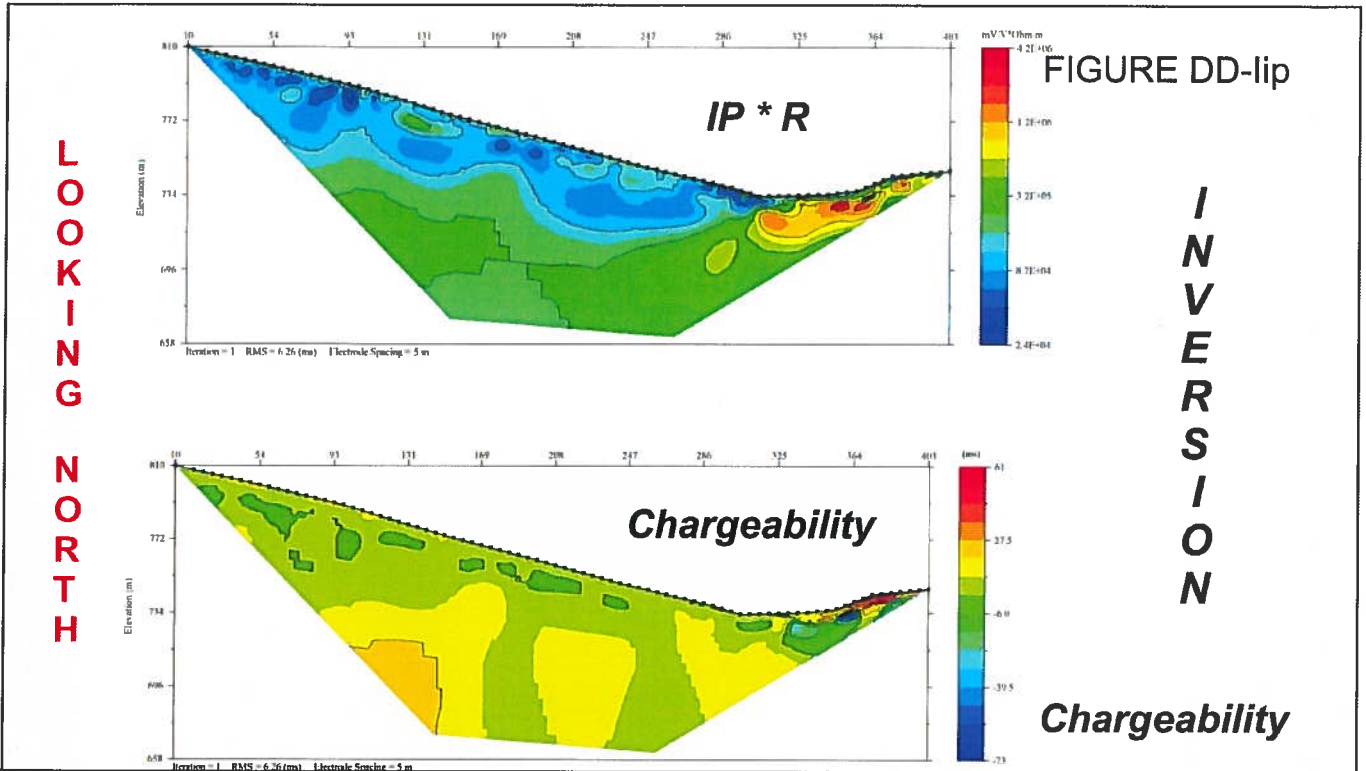


Figure 6

KAMINAK Gold Corporation

DC Resistivity Imaging
Schlumberger Inverted Array- SI-3
AB=expanding MN=expanding

Placer Lease IW 00382 (Halfway Creek)

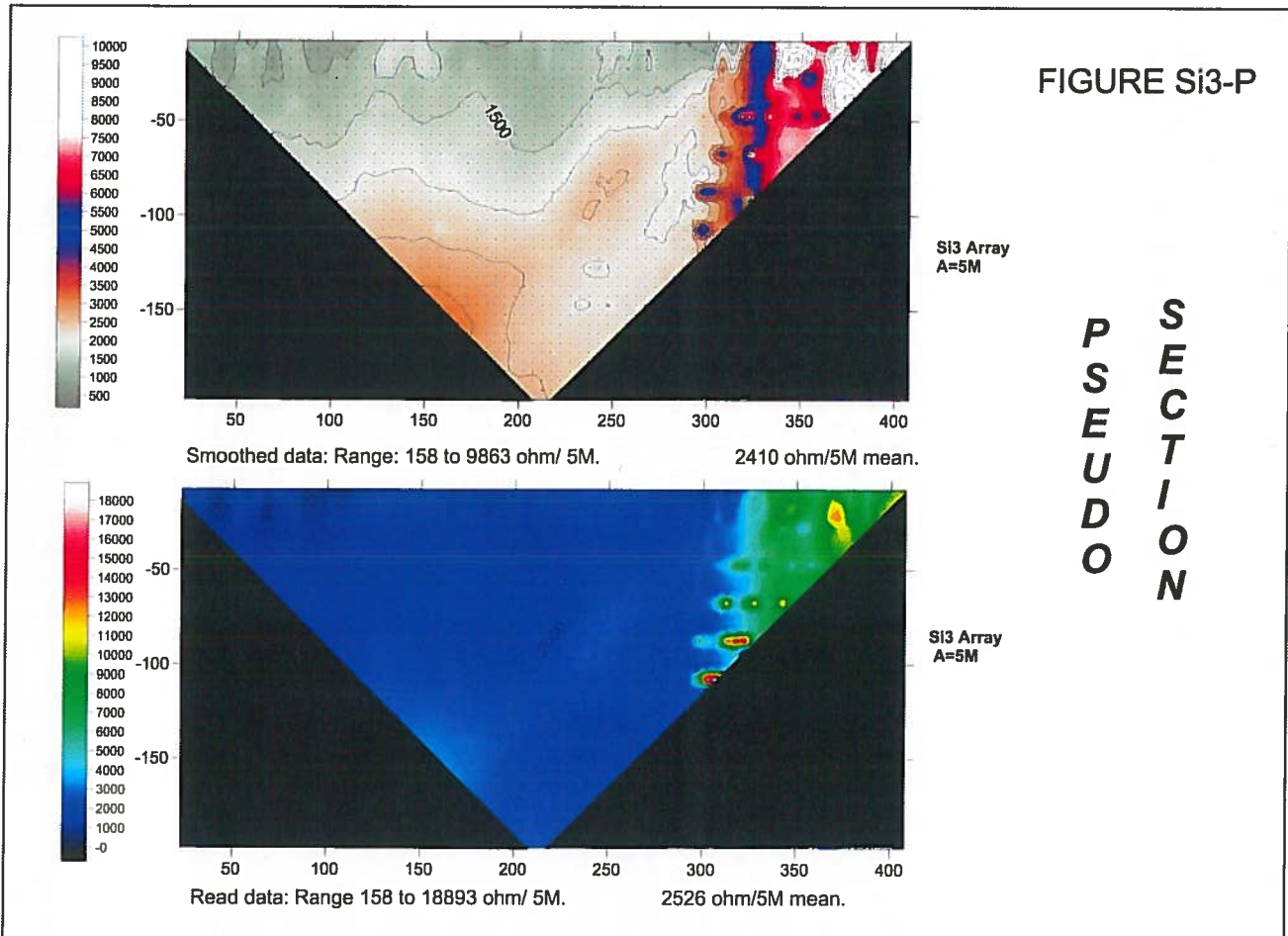
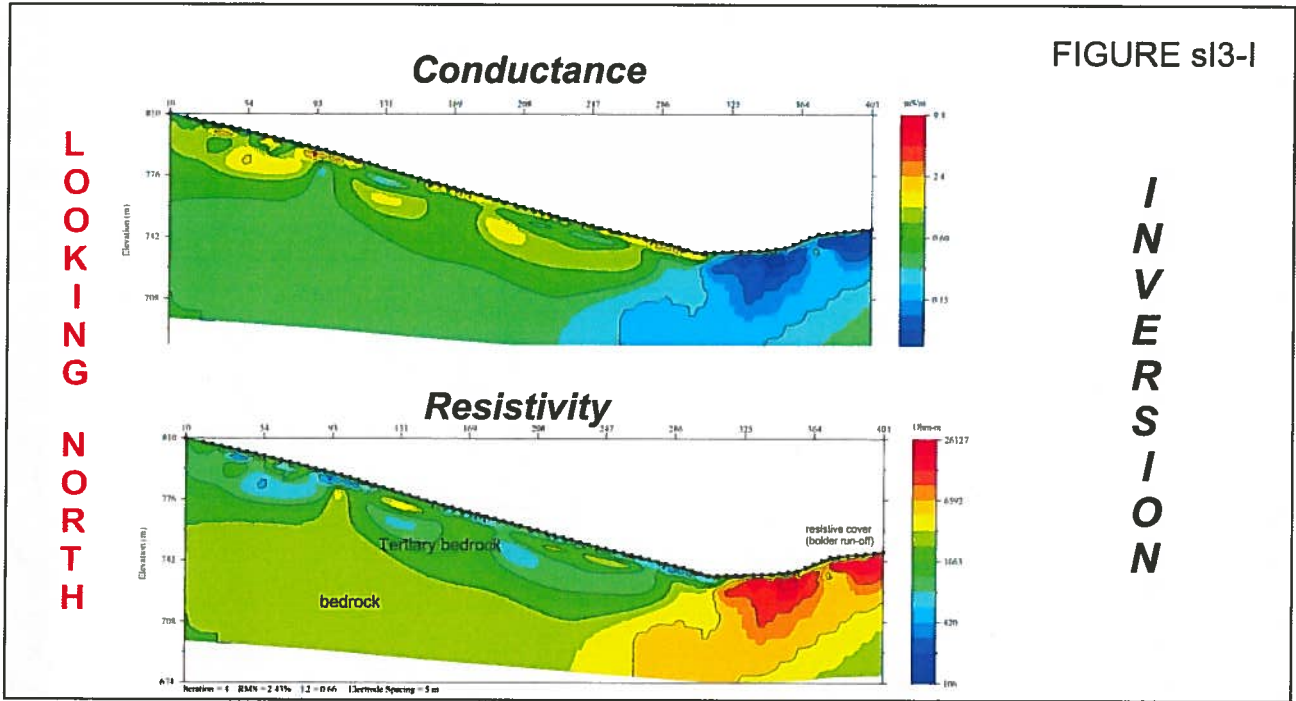
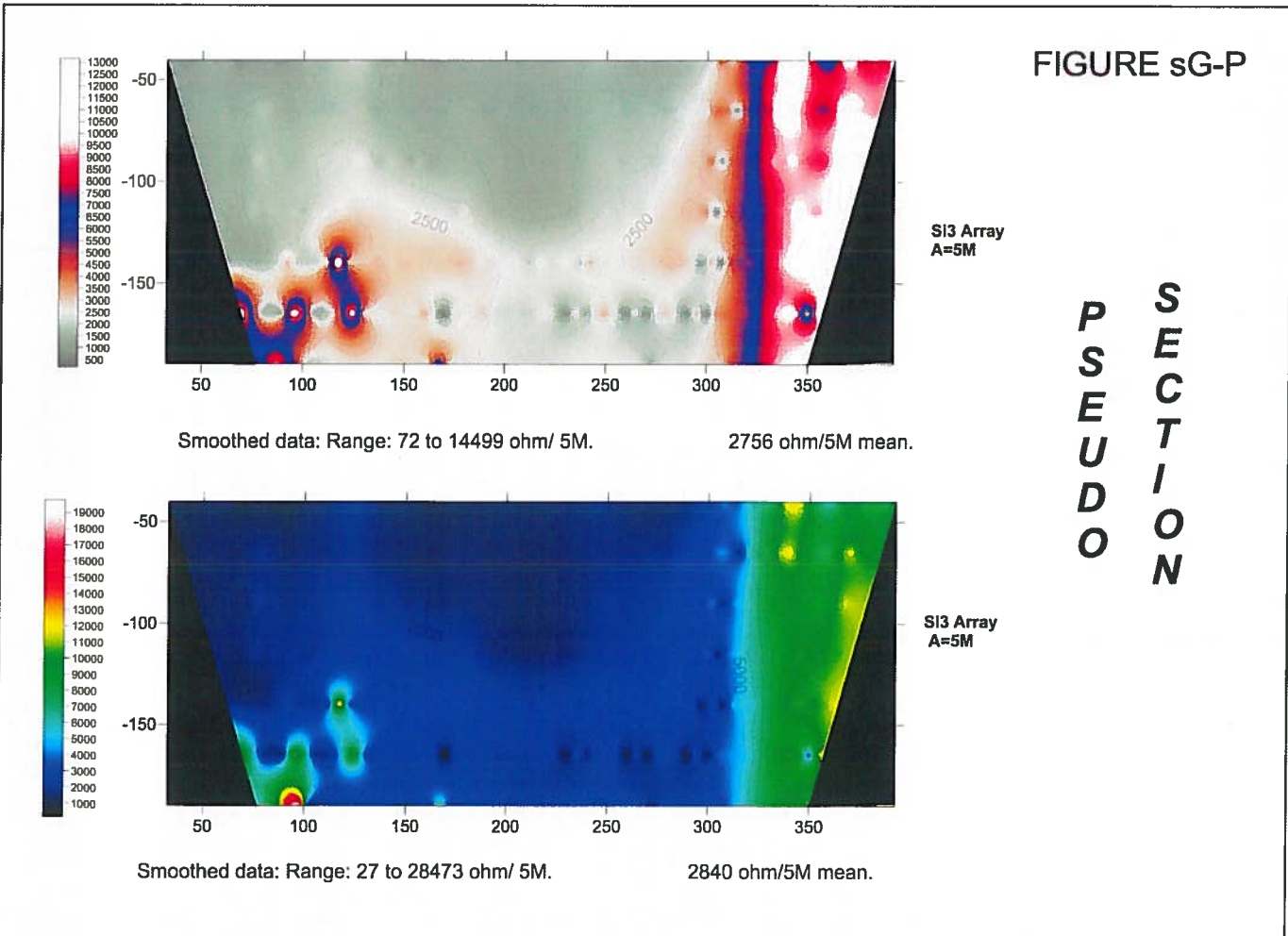
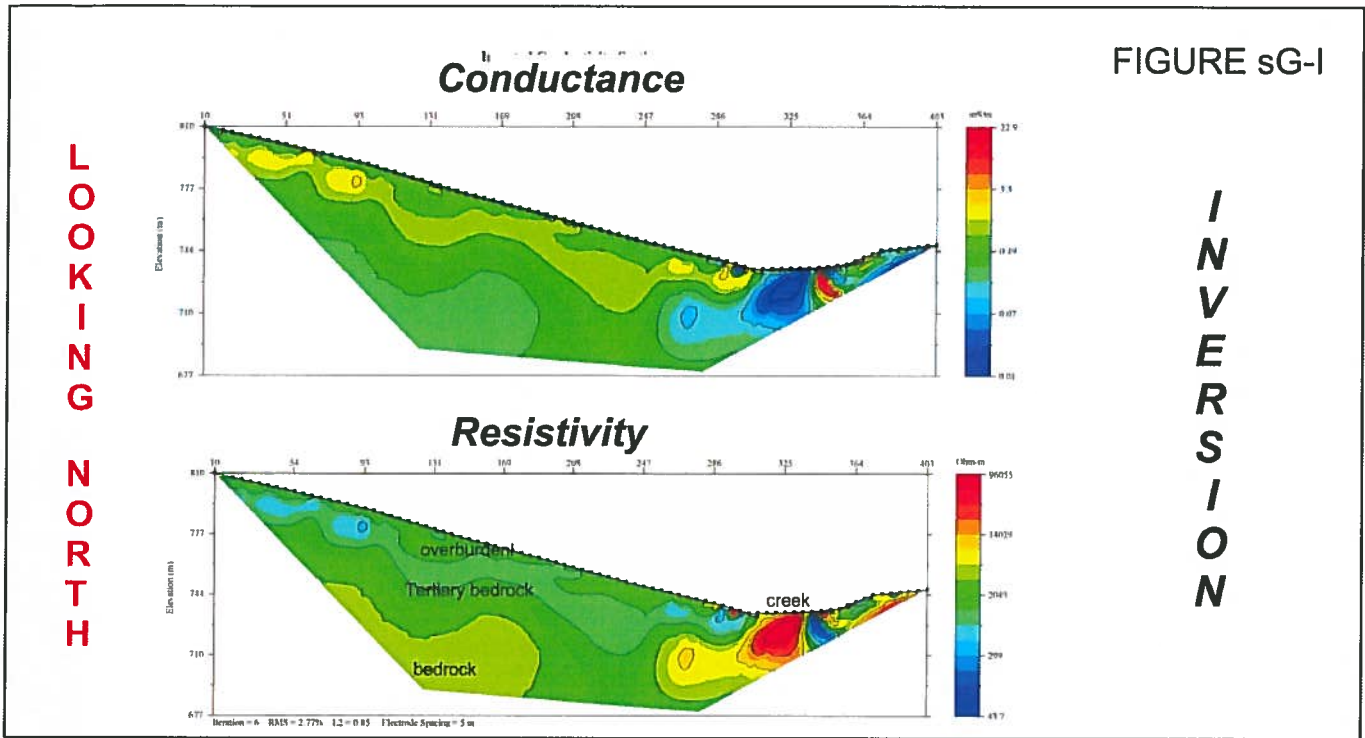
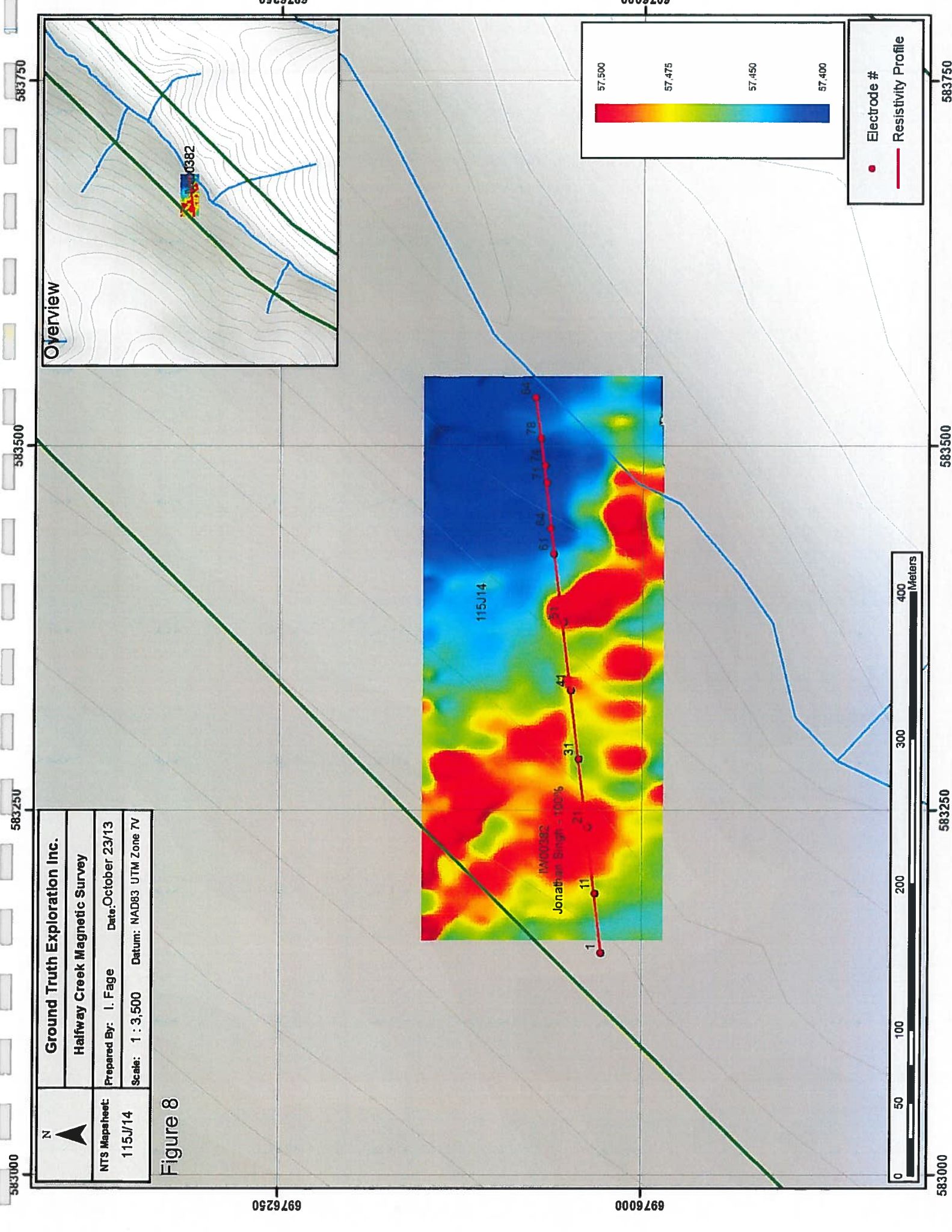


Figure 7

DC Resistivity Imaging
Strong Gradient Array
AB=expanding MN=expanding

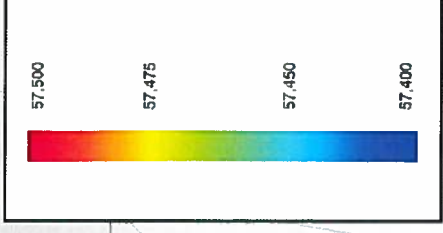
Placer Lease IW 00382 (Halfway Creek)





Ground Truth Exploration Inc.
 Halfway Creek Magnetic Survey
 Prepared By: I. Fage Date: October 23/13
 Scale: 1 : 3,500 Datum: NAD83 UTM Zone 7V
 NTS Mapsheet:
 115J/14

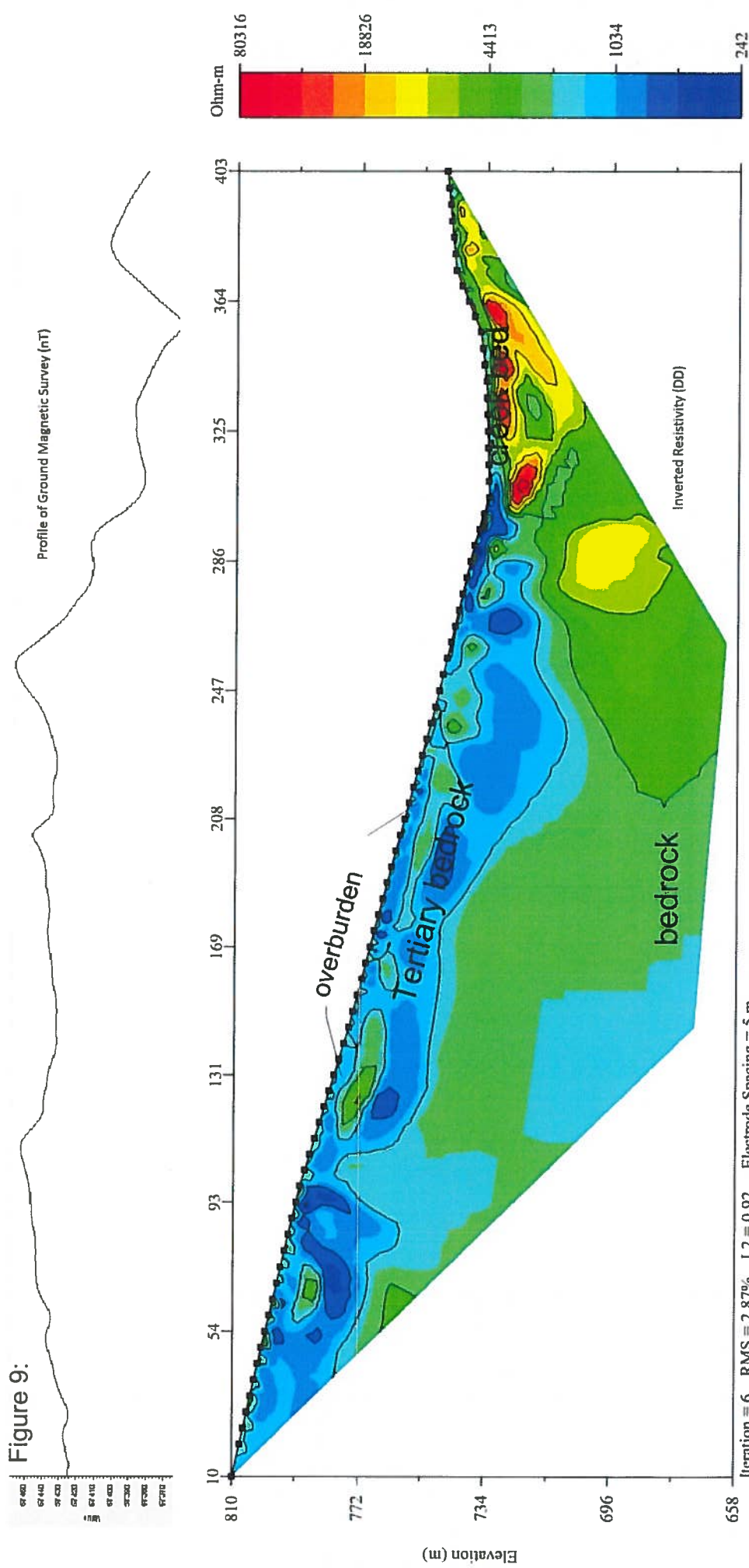
Figure 8



• Electrode #
 — Resistivity Profile



Figure 9:





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8.0 Statement of Expenditures

IP/Resistivity Survey: On 5 mile Placer Lease: IW00382

Survey Date: September 21, 2013

Work Performed:

1 IP/Resistivity line set up and read plus one day of ground magnetic survey on IW00382 lease.

Survey 1: 84 electrodes spaced at 5m, 420m horizontal length.

Inverse Schlumberger, Strong Gradient and Dipole-Dipole arrays read for IP and Resistivity.

Survey 2: Ground magnetic survey over IP profile line plus 8 mag lines ran at 25m line spacing on either side of IP profile

Survey Operation Daily Cost:

Wages:	
1 Geophysical Operator * \$450/day	\$450
4 Field Assistants * \$350/day	\$1,400
Daily Data Processing: 1h*\$60/h	
Download survey, DGPS, QC Field Data, Package and email to Client/Geophysicist	\$60
Food/Camp:	
Food: Crew of 5 * \$50/day	\$250
Camp: Crew of 5* \$35/day	\$175
Survey Equipment:	
IP/Resistivity Meter: Supersting 8 Channel meter w/cables, electrodes	\$600
Precision GPS: Ashtech Promark 100 differential GPS	\$75
Laptop w/Inversion and Mag processing software for nightly dowload and review	\$50
Iridium Sat Phone	\$35
Chainsaw	\$50
Radios \$5/day * 5	\$25
Consumable Supplies:	
Electrodes: wear & tear- 2 per profile, \$6 ea	\$12
Calcium Chloride: 4kg per profile, \$2/kg	\$8
Pickets every 50m: 9 per profile, \$1/picket	\$9
Spray paint: 1 can per profile, \$10/can	\$10
Total Cost:	\$3,209

Ground Magnetic Survey: Operator \$400, Walk Mag \$200, Base \$100, Camp \$35, Food \$50	\$785
Processing of Magnetic Data: 2 hours @ \$60/hour	\$120
Assessment Report for Placer Lease: \$1000	\$1,000

Total Expenditures for Assessment on Lease:	\$5,114
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[Handwritten Signature]
 Sept 27/13



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9.0 Certification

I, Richard Daigle of Thorold, Ontario certify that I am a graduate Certified Electronic Technologist. I have been practicing Geophysics since 1980.

R. J Daigle

October 2013

I, Isaac Fage of Dawson, Yukon Territory certify that I hold an Advanced Diploma in GIS/Remote Sensing from the Centre of Geographic Sciences (COGS). I am an owner and President of GroundTruth Exploration Inc. I have been working in the Mineral Exploration continuously since 2004.

I. Fage

October 2013

10.0 List of Figures

1. Property Location
2. Tenure
3. Geology
- 4-7. Resistivity/IP Survey
8. Magnetic Survey
9. Combined Survey Interpretation



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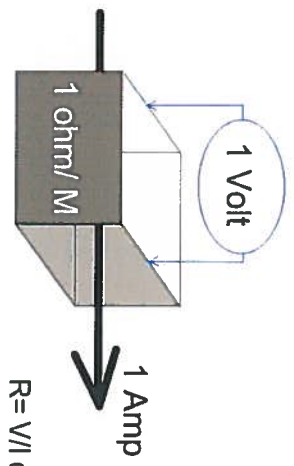
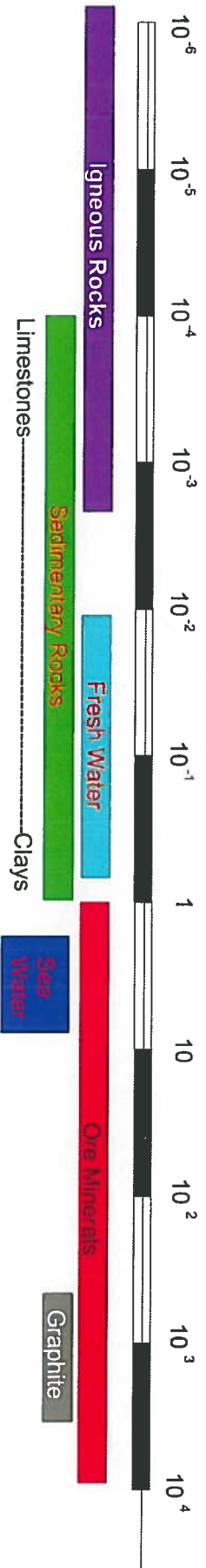
Box 70, Dawson YT, Y0B 1G0 (867) 993-5612

11.0 Supersting R8 IP Technical Specifications

from www.agiusa.com

Measurement modes	Apparent resistivity, resistance, induced polarization (IP), battery voltage.
Measurement range	+/- 10V.
Measuring resolution	Max 30 nV, depends on voltage level.
Output current intensity	1mA - 2000 mA continuous, measured to high accuracy.
Output voltage	800 Vp-p, actual electrode voltage depends on transmitted current and ground resistivity.
Output power	200W.
Input channels	Eight channels.
Input gain ranging	Automatic, always uses full dynamic range of receiver.
Input impedance	>150 MOhm.
Input voltage	Max 10 V.
SP compensation	Automatic cancellation of SP voltages during resistivity measurement. Constant and linearly varying SP cancels completely (VI and IP measurements).
Type of IP measurement	Time domain chargeability (M), six time slots measured and stored in memory.
IP current transmission	ON+, OFF, ON-, OFF.
IP cycle times	0.5, 1, 2, 4 and 8 s.
Noise suppression	Better than 100 dB at $f > 20$ Hz.
Powerline noise suppression	Better than 120 dB at power line frequencies (16 2/3, 20, 50 & 60 Hz) for measurement cycles of 1.2 s and above.
Total accuracy	Better than 1% of reading in most cases (lab measurements). Field measurement accuracy depends on ground noise and resistivity. Instrument will calculate and display running estimate of measuring accuracy.

Crude apparent CONDUCTIVITY/ RESISTIVITY classification



Resistance Voltage (V) / Current (I) in ohms Ω (ohm)
 Resistivity Resistance per unit volume in ohms ρ (rho)
 Conductivity $1/R$ σ (siemens)

