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GEOPHYSICAL REPORT FOR INTERNATIONAL EXPLORERS AND PROSPECTORS INC. ON THE JAMIESON TOWNSHIP PORCUPINE MINING DIVISION NORTHEASTERN, ONTARIO

Prepared by: J. C. Grant, February 5th, 2020

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ABSTRACT

In the Kamiskotia area (northwest of Timmins) the structural setting is one of a steep-dipping sequence of volcanic flows, and pyroclastic and sedimentary rocks forming what appears to be the east portion of a broad north- to northwest-trending flexure. The regional magnetic data suggests the area is on the eastern portion of a broad arch or possible dome.

The Jameland orebody is on strike with the Kam-Kotia and about 4,000 feet to the southeast. It forms a diametrically opposed deposit to the Kam-Kotia in that it consists of a series of en echelon lenses (Middleton 1969b) that plunge 30 degrees SE (vs. northwest for the Kam-Kotia). Individual lenses have a 100- to 300-foot vertical extent, 100- to 400-foot strike length, an average width of 25 feet, and are confined to a zone about 1,500 feet long and 200 feet wide (Wagenknecht 1970). Like the Kam-Kotia, stringer type copper-rich ore is confined to the upper lenses, and massive zinc-rich ore to the lower lenses. The host rocks are mainly chloritized and brecciated andesitic flows and tuffs, flanked by a dominantly rhyolitic tuffaceous zone. Pyrite mineralization persists for several feet beyond the ore zones. A zone of non-mineralized, massive pyrite occurs between the Kam-Kotia and Jameland Mines.

INTRODUCTION:

The services of Exsics Exploration Limited were retained by Mr. Bonhomme, on behalf of the Company, International Explorers and Prospectors Inc., to complete a down hole Mise a la Masse (IP), survey across a portion of their claim holdings in Robb Townships, the Jameland Property. Two drill holes were selected by the client that had returned multiple intersections of base metal bearing sulphide. Drill Hole #1 was read at 5 and 10 meter intervals from just below the casing to the bottom of the hole to confirm where best injection point were located. These peak current points would then be used as injection points to then read down Drill Hole #2 to confirm which sulphide intersection in hole #1 would line up with sulphide intersection in hole#2. Once these points were determined the stainless steel electrode was then set at these peaks and a second stainless steel electrode would then be sent down drill hole #2 recording voltage potentials at 5 and 10 meter intervals. The following is a brief description of the method.

PROPERTY LOCATION AND ACCESS:

The Jameland Property is situated approximately 22 kilometers to the northwest of the City of Timmins. The area that was covered by the Mise a la Masse survey is located in the west central section of the Township about 1 kilometers east of Kamiskotia Lake and about 2 kilometers southeast of the Kam-Kotia Mine site.

Access to the grid area is straight forward by truck, west of the City to the junction of Highway 101 and the Kamiskotia access road. Then continue northwest up the kamiskotia highway for approximately 28 kilometers to the Kam kotia Mine site. The drill site was easily reached by truck along a series of good gravel roads that run from the mine site to the old workings of the Jameland site.

Travelling time form Timmins to the site is about 50 minutes. Refer to Figures 1 and 2.



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FIGURE 1 LOCATION MAP



CLAIM BLOCK:

The claim numbers that were covered by the present survey and represent a portion of International Explorers and Prospector's Inc., (IEP), holdings in the Jamieson Township are listed below.

Refer to Figure 3 copied from MNDM Plan Map of Jamieson Township for the positioning of the Drill hole collars and the claim numbers within the Township.

CLAIM BLOCK DDH COLLAR LOCATIONS, FIGURE 3



PERSONNEL:

The field crew directly responsible for the collection of all the raw data were as follows:

J. Francoeur	Timmins, Ontario
G. Martin	Timmins, Ontario
D. Poirier	Timmins, Ontario

The program was completed under the direct supervision of J. Grant and the plotting and report was completed by J. C. Grant of Exsics.

GROUND PROGRAM:

The Mise a la Masse survey was completed in two phases. Initially Drill Hole #1 located at 456976E and 5380875N was to be surveyed. This hole was drilled at an azimuth of 220 degrees at a dip of -60 degrees and to a depth of 290 meters. A current electrode is sent down the drill hole with readings take at 5 and 10 meter intervals once the electrode has cleared the casing. The survey is designed to test the hole for the best current injection point which should coincide with the most predominant sulphide rich section intersected within the hole. Once this spot is determined the electrode, called C1 is left at that spot. This same procedure was then done for Drill Hole #2 located at 457042E and 5381125N. This hole was also drilled at an azimuth of 220 degrees and with a dip of 55 degrees and to a depth of 260 meters. Again readings of current peaks were recorded in that drill hole. Upon completion of reading drill hole #2 all electrodes were removed from the hole.

The reading of Drill hole # 1 resulted in the location of four significant current peaks. These were noted at -130 meters, -150 and -160 meters and -240 meters. Each of the three stronger peaks, -150, -160 and -240 meters were then used as injection points for the reading down drill hole #2.

The first setup was at -150 meters and Drill hole was read, the electrode was then moved to -160 meters and Drill hole #2 was read again and the electrode was moved to -240 meters and Drill hole#2 was read a third time. Recordings from each injection point were recoded as separate lines.

A brief explanation of the Mise a la Masse survey follows.

The method of down hole Mise a la Masse is that multiple sulphide rich zones have been encountered by drilling in several drill holes across a geological structure in a defined area. The down hole survey is conducted down each of the drill holes to locate the strongest current peaks which should coincide with the sulphide rich zones located by drilling. The theory of the survey is to energize each of the sulphide lenses located in one hole separately and any response in surrounding holes should only light up if the two zones are connected. This would suggest that the current being applied to one zone in hole #1 would only react to the same zone in hole #2 if the current can run from one source to the same source in the second hole.

Mise a la Masse IP SURVEY:

Station spacing	5 and 10 meters
Reading intervals	5 and 10 meters
Values recorded	Voltage potentials, (Vp)

Once the Mise a la Masse survey was completed for each of the three injection points the Voltage Potential data was then plotted onto individual lines sections at a scale of 1:2500, one section for each injection point. The results of down hole surveys of each hole were also presented as individual sections. Copies of these section maps are included in this report.

The IP survey was completed between June 12th and the 15th of 2018 using the Instrumentation G. D. D. IP system and specifications for these units can be found as Appendix A of this report. The following parameters were kept constant throughout the ground program.

PROPERTY GEOLOGY, FIGURE 4

The ore is contained in approximately 10 irregularly shaped pods that plunge 30-35°SE within a sheared sequence of basalt, andesite and felsic welded tuff. The host rocks are chloritized and brecciated.

At the extreme west end of the zone, the sulphide body is one single compact mass having a horizontal width of about 50 feet while 900 feet to the east, near the centre of the zone, sulphide bodies are spread over a horizontal width of 300 feet. Individual lenses have a 100- to 300-foot vertical extent, 100- to 400-foot strike length and an average width of 25 feet. They are confined to a zone about 1500 feet long and 200 feet wide. Stringer type, copper ore is confined to the upper lenses and massive zinc rich ore to the lower lenses. The massive sulphide ore has a combined sulphide content that ranges from 60 to 90% with copper values in excess of 1% and zinc values from 5-10%. Assay values of 0.17 oz/t Au, 0.46% Zn and 1.57% Cu over 2 feet were recovered from sections of andesite in drill core. Additional assays from early diamond drilling intersected: 6.40% Cu and 0.17 oz/t Au over 5.2 feet; and 3.64% Zn over 2.5 feet.



SURVEY RESULTS:

DRILL HOLE#1 and #2:

The survey results of Hole #1 returned four current peaks of 1000 milliamp at -130 meters, 1550 milliamps at -150, 1500 milliamps at -160 meters and 1550 milliamps at -240 meters.

The survey results of Hole #2 returned a very large and broad current peak between -170 meters and -260 meters that is still increasing at the bottom of the hole.

The first injection point of -150 meters in hole #1 was then energized with a current of 2600 milliamps and drill hole #2 was read from -50 meters to -260 meters with a broad zone defined between -150 meters and the end of the hole with a peak of 9318 VP at -200 meters.

The electrode was the dropped to -160 meters in hole #1 and this injection point was energized with a current of 2400 milliamps and hole #2 was read again from -50 meters to -260 meters. Again there was a good strong broad zone outlined between -170 meters and the end of the hole with a peak of 7251 Vp which is still increasing at the bottom of the hole.

The electrode was then dropped to -240 meters in Hole # 1 and this injection point was energized with 2000 milliamps and Hole #2 was read once more. Again a good broad zone albeit not quite as strong as the voltage potentials from the previous two injection sites. The zone starts to build at -200 meters and continues to the end of the hole with a peak of 4015 Vp that is still building.











CONCLUSIONS AND RECOMMENDATIONS:

The Jameland deposit comprised of individual lenses have a 100- to 300-foot vertical extent, 100- to 400-foot strike length, an average width of 25 feet, and are confined to a zone about 1,500 feet long and 200 feet wide (Wagenknecht 1970). Like the Kam-Kotia, stringer type copper-rich ore is confined to the upper lenses, and massive zinc-rich ore to the lower lenses.

Pyrite mineralization persists for several feet beyond the ore zones. Which may be contributing to the broad highs outlined by the two upper injection points at -150 and -160 meters that are showing up strongly between -150 and -170 meters and the end of the #2 hole. The strong responses may relate to the ore chalcopyrite rich units. In any event it would appear that the zones in hole #1 correlate to a strong zone lying between -150 and -260 meters in hole #2 which generally correlates to the Mise a la masse survey of hole #2 which showed reading build up in hole #2 from -180 meters to the end of the hole.

It would seem that hole #2 may have stopped in a sulphide rich unit that extends beyond the current depth of the hole. The zones encountered by the down hole,

Mise a la masse survey in both holes do appear to represent the same conductive unit.

Respectfully submitted

J. C. Grant, CET, FGAC February 5th 2020.

CERTIFICATION

I, John Charles Grant, of 108 Kay Crescent, in the City of Timmins, Province of Ontario, hereby certify that:

 I am a graduate of Cambrian College of Applied Arts and Technology, 1975, Sudbury Ontario Campus, with a 3 year Honors Diploma in Geological and Geophysical Technology.

 I have worked subsequently as an Exploration Geophysicist for Teck Exploration Limited, (5 years, 1975 to 1980), and currently as Exploration Manager and Chief Geophysicist for Exsics Exploration Limited, since May, 1980.

- 3). I am a member in good standing of the Certified Engineering Technologist Association, (CET), since 1984.
- 4). I am in good standing as a Fellow of the Geological Association of Canada, (FGAC), since 1986.
- 5). I have been actively engaged in my profession since the 15th day of May, 1975, in all aspects of ground exploration programs including the planning and execution of field programs, project supervision, data compilation, interpretations and reports.
- 6). I have no specific or special interest nor do I expect to receive any such interest in the herein described property. I have been retained by the property holders and or their Agents as a Geological and Geophysical Consultant and Contract Manager.

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JOHN GRAM

ELLOW

John Charles Grant, CET., FGAC.

APPENDIX A



IP Receiver Model GRx8-32

«Field users have reported that the GDD IP Receiver provided more reliable readings than any other time domain IP receiver and it reads a few additional dipoles. »



FEATURES

- 8 channels expandable to 16, 24 or 32
- Reads up to 32 ch. simultaneously in poles or dipoles
- PDA menu-driven software / simple to use
- 32 channels configuration allows 3D Survey: 4 lines X 8 channels - 2 lines X 16 channels 1 line X 32 channels
- Link to a PDA by wireless communication or a serial cable
- Real-time data and automatic data stacking (Full Wave)
- Screen-graphics: decay curves, resistivity, chargeability
- Automatic SP compensation and gain setting
- 20 programmable chargeability windows
- Survey capabilities: Resistivity and Time domain IP
- One 24 bit A/D converter per channel
- Gain from 1 to 1,000,000,000 (10⁹)
- · Shock resistant, portable and environmentally sealed

GRx8-32: This new receiver is a compact and low consumption unit designed for high productivity Resistivity and Induced Polarization surveys. Its high ruggedness allows it to work under any field conditions.

User modes available: Arithmetic, logarithmic, semi-logarithmic, Cole-Cole, IPR-12 and user defined.

IP display: Chargeability values, Resistivity values and IP decay curves can be displayed in real time. The GRx8-32 can be used for monitoring the noise level and checking the primary voltage waveform.

Internal memory: A 4 Go (or more) Compact Flash memory card is used to store the readings. Each reading includes the full set of parameters characterizing the measurements for all channels; the full wave signal for post-treatment processing. The data is stored in flash type memory not requiring any battery power for safekeeping.



Manufactured in Canada by Instrumentation GDD Inc.

New IP Receiver Model GRx8-32 with PDA

GRX8-32: This new receiver is a compact and low consumption unit designed for high productivity Resistivity and Induced Polarization surveys. It features high ruggedness allowing to work in any field conditions

Reception poles/dipoles: 8 simultaneous channels expandable to 16, 24 or 32,

for dipole-dipole, pole-dipole or pole-pole arrays.

Programmable windows: The GRX8-32 offers twenty fully programmable windows for a higher flexibility in the definition of the IP decay curve.

User modes available: Arithmetic, logarithmic, semi-logarithmic, Cole-Cole and user define.

IP display: Chargeability values, Resistivity values and IP decay curves can be displayed in real time. The GRX8-32 can be used for monitoring the noise level and checking the primary voltage waveform.

Internal memory: The memory of 64 megabytes can store 64,000 readings. Each reading totalizes one kilobyte and includes the full set of parameters characterizing the measurements on 8 channels. The data is stored in flash memories not requiring any lithium battery for safeguard. The memory can hold many days worth of data. It also stores fullwave form of the signal at each electrode for post-treatment.

Features:

- 8 channels expandable to 16, 24 or 32
- Reads up to 32 ch. simultaneously in poles or dipoles configuration
- PDA menu-driven software / simple to use
- 32 channels configuration allows 3D Survey: 4 lines X 8 channels, 2 lines X 16 channels or 1 line X 32 channels
- Link to a PDA by Bluetooth or RS-232 port
- Real-time data and automatic data stacking
- Self-test diagnostic

- Screen-graphics: decay curves, resistivity, chargeability
- Automatic SP compensation and gain setting
- 20 programmable chargeability windows
- Survey capabilities: Resistivity and Time domain IP
- One 24 bit A/D converter per channel
- Gain from 1 to 1,000,000,000 (10⁸)
- Shock resistant, portable and environmentally sealed



GDD IP Receiver model GRx8-32







Components included with GDD IP Receiver GRx8-32

IP Transmitter

Model TxII 5000W-2400V-15A

Instruction Manual





860 boul. de la Chaudière, suite 200 Québec (Qc), Canada, G1X 4B7 Tel.: +1 (418) 877-4249 Fax: +1 (418) 877-4054 E-Mail: gdd@gdd.ca Web site: www.gdd.ca

6. MASTER / SLAVE MODE

Here are the basic steps for a Master/Slave operation of the TxII:

- 1. Connect the yellow synchronization cable (Master/Slave) to the transmitters. The Master/Slave cable terminations are different: one is labeled *MASTER* and the other one *SLAVE*. The transmitter is *MASTER* or *SLAVE* according to the termination of the cable connected on its interface. The *MASTER* and *SLAVE* LEDs indicate the mode of each transmitter. (see figure 2, yellow line)
- 2. Connect an insulated wire between the terminal (A) of one transmitter and the terminal (B) of the other one. (see figure 2, blue line)
- 3. Connect the two power cables from the transmitters to the generator. (see figure 2, red lines)
- 4. Drive the electrodes into the ground and connect them to the unused terminals (A) and (B) by using insulated wires. (see figure 2, blue lines)



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9. SPECIFICATIONS

Size :	TxII-5000W with a blue carrying case: 34 x 52 x 76 cm TxII-5000W only: 26 x 45 x 55 cm
Weight :	TxII-5000W with a blue carrying case: ~ 58 kg TxII-5000W only: ~ 40 kg
Operating Temperature :	-40°C to 65°C (-40°F to 150°F)
Time Base:	2 s ON+, 2 s OFF, 2 s ON- DC, 1, 2, 4, 8 or 16 s
Output current :	0.030A to 15A (normal operation) 0.0A to 15A (cancel open loop) Maximum of 7.5A in DC mode
Rated Output Voltage :	150V to 2400V Up to 4800V in a master/slave configuration
LCD Display :	Output current, 0.001A resolution Output power Ground resistance (when the transmitter is turned off)
Power source :	220-240V / 50-60Hz

Instrumentation GDD Inc.

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International Explorers & Porspectors Inc Survey on holes IJJ18-1,2 June 12-15 2018

Exsics inv 1808 L Bonhomme	Mise a.la.Masse Sı 1. day	cost 10,850 500	
	_	11,350	
Hole length and costs pe	r cell		
	129870	279161	total depth
IJJ18-01	96	183	279
IJJ18-02	268	0	268
	364	183	
	66.5%	33.5%	
work done on claim #	amount surveyed	\$ per claim	

547

work done on cla	im #	amount surveyed	\$ per claim
	129870 279161	66.5% 33.5%	7,553 3,797
check totals		1	11,350