Appendix 3

ClearView Geophysics Report on Phase 2 Induced Polarization and Magnetometer Survey

Report on

Spectral IP / Resistivity & Magnetics Surveys

at the

Merico-Ethel Grid, Merico-Ethel Project James & Tudhope Townships, Northeastern Ontario

Spring 2005

2.30793



ClearView Geophysics Inc.

Report on

Spectral IP / Resistivity and Magnetics Surveys at the

Merico-Ethel Grid, Merico-Ethel Project James & Tudhope Townships, Northeastern Ontario Spring 2005

On behalf of:

Temex Resources Corp.

1000-141 Adelaide Street West Toronto, Ontario M5H 3L5

telephone: (416) 862-2246 facsimile: (416) 862-2244

E-mail:

Contact: Mr. Ian Campbell

By:

ClearView Geophysics Inc.

12 Twisted Oak Street Brampton, Ontario L6R 1T1

telephone: 905.458.1883 facsimile: 905.792.1884 cellular: 416.617.1884

E-mail: clearview@geophysics.ca

Contact: Mr. Joe Mihelcic

ClearView Ref: J0323

TABLE of CONTENTS

1.	INTRODUCTION
2.	SURVEY LOGISTICS
2.1	Survey Personnel
2.2	Survey Specifications
2.3	Survey Methodology
2.4	Data Processing & Presentation
2.5	Daily IP Log & Coverage
2.6	Daily Mag Log & Coverage
3.	STATEMENT OF QUALIFICATIONS, JOE MIHELCIC
	APPENDIX A – Instrument Specifications APPENDIX B – Transmitter Operator Field Notes APPENDIX C – Plates
	LIST of FIGURES
	Figure 1 – Grid Location Map
	LIST of PLATES
Appe	ndix C
Plate : Plate : Plate :	Pseudos 1:2500 1
Plate:	5Magnetics Profiles with Postings Map, Total Field; 1:5000



1. Introduction

ClearView Geophysics Inc. carried out Spectral Induced Polarization Surveys for Temex Resources Corp. at their Merico-Ethel Grid, Merico-Ethel Project, James and Tudhope Townships, Northeastern Ontario. The fieldwork was carried out between April 15, 2005 and April 26, 2005. The work was done in order to complement coverage from work completed by ClearView in November/December 2004 (CV Ref.I1130), for the ongoing exploration programme.

The Merico-Ethel Grid is located approximately 4 km east-northeast of Elk Lake, Ontario. Its position relative to Elk Lake, bush roads, lakes and streams is indicated below (supplied by GeoVector Management Inc.).

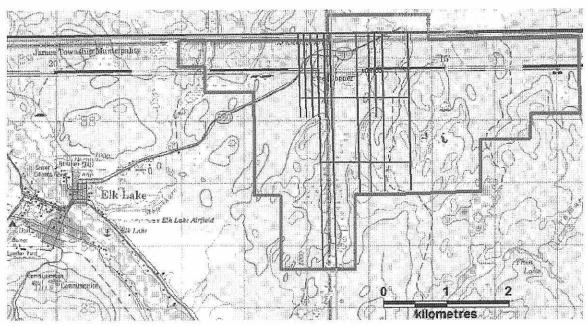


Figure 1 – Grid Location Map

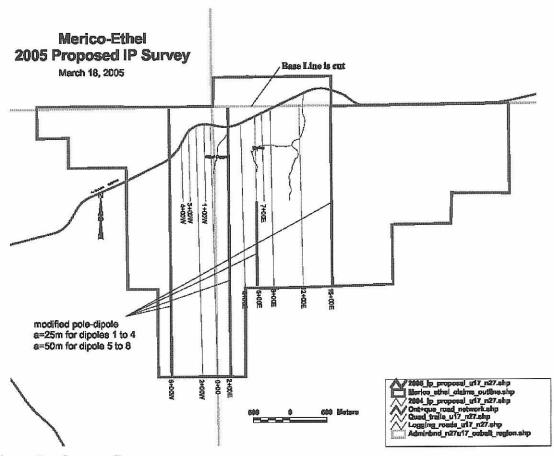


Figure 2 – Survey Coverage

2. SURVEY LOGISTICS

2.1 SURVEY PERSONNEL

The following personnel were employed to carry out the work at the Merico-Ethel Grid. The attached calendars indicate field dates worked for each crew member:

Mr. Jason Flood; Party Chief (IP):

Mr. Flood carried out the IP/resistivity fieldwork. He operated the IP receiver and was responsible for all members of the crew. He also edited and emailed the data presented in this report.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
April 10	April 11	April 12	April 13	April 14	April 15	April 16
April 17 🗸	April 18	April 19	April 20	April 21	April 22	April 23
April 24	April 25	April 26	April 27	April 28	April 29	April 30

Mr. Gord Hume; Sr. Technician (IP):

Mr. Hume carried out the IP/resistivity fieldwork. He also supported Mr. Flood with daily field operations.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
April 10	April 11	April 12	April 13	April 14	April 15	April 16
April 17 🗸	April 18 🗸	April 19	April 20	April 21	April 22	April 23
April 24	April 25	April 26	April 27	April 28	April 29	April 30

Field Assistants:

Several field assistants were employed to carry out field operations.

Mr. Bill Hume (IP):

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
April 10	April 11	April 12	April 13	April 14	April 15	April 16
April 17 🗸	April 18 🗸	April 19 🗸	April 20	April 21	April 22	April 23
April 24	April 25	April 26	April 27	April 28	April 29	April 30

Mr. David Lauzon (IP):

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
April 10	April 11	April 12	April 13	April 14	April 15	April 16
April 17 🗸	April 18	April 19 🗸	April 20 🗸	April 21	April 22 🗸	April 23
April 24	April 25	April 26	April 27	April 28	April 29	April 30

Mr. Jonathon Savard (IP):

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
April 10	April 11	April 12	April 13	April 14	April 15	April 16
April 17	April 18 🗸	April 19	April 20	April 21 ✓	April 22 ✔	April 23
April 24 ✓	April 25	April 26	April 27	April 28	April 29	April 30

Mr. Richard Brett (IP):

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
April 10	April 11	April 12	April 13	April 14	April 15	April 16
April 17 🗸	April 18	April 19	April 20	April 21	April 22	April 23
April 24	April 25	April 26	April 27	April 28	April 29	April 30

Mr. Graham Stone; Sr. Technician (IP):

Mr. Stone provided crew logistics/support and assisted in the preparation of this report.

Mr. Joe Mihelcic:

Mr. Mihelcic provided overall supervision. He also processed and plotted the data, and prepared this report.

2.2 SURVEY SPECIFICATIONS

Details for the IP survey and equipment are provided as follows:

Pole-Dipole Array (combination)	n=1-4, "a"=25 m; n=5-8, "a"=50m
Station interval	25 metres
Receiver	Scintrex IPR12, time domain
Transmitter	Phoenix IPT-1, 3 kW
Total Coverage	10 550 m

Details for the Mag survey and equipment are provided as follows:

Base Station Magnetometer	Gem Systems GSM-19 Proton Precession Mag
Field Magnetometer	Gem Systems GSM-19 Overhauser Mag
Base Station Cycle Time	5 seconds
Field Mag Station Spacing	5 meters
Total Coverage	15 095 meters

Refer to Appendix A for Instrument Specifications.

2.3 SURVEY METHODOLOGY

The <u>IP survey</u> consisted of injecting an electrical current into the ground for two seconds. The transmitter current was then turned off for two seconds, during which time a receiver recorded the decaying voltage at pre-defined intervals. The transmitter consisted of a current electrode placed at "infinity", which was sufficiently distant from the receiver array so that the line electrode acts as a "pole".

The line current electrode was moved along the survey line and maintained a distance of 50 metres from the nearest receiver electrode for the 1st reading. For the second reading, the current electrode was moved forward 25 metres and a reading recorded with the same potential electrode positions. There were nine receiver electrodes placed at 25-metre and 50-metre intervals. The first four dipoles are at 25-metre intervals. The second group of four dipoles is at 50-metre intervals. The potential receiver electrode, which is nearest the transmitter current electrode, is called "P1". The furthest electrode down the

line is called "P9". Eight dipoles were read for every position except at the end of the survey line where dipoles were dropped.

Voltage drops are measured between adjacent receiver electrode pairs, also called "dipoles". As the dipoles increase in distance from the transmitter current electrode, they will obtain decay information from deeper features. Therefore, the results are displayed as "pseudosections" (Appendix C). The transmitter operator measured the contact resistance and electric current passing through the current electrodes during the readings. These current measurements were relayed to the receiver operator and entered into the IPR12 instrument for subsequent apparent resistivity calculations.

The transmitter operator also wrote down field notes relayed by the line workers. These notes are related to topography and obstacles encountered along the survey line (e.g., cliffs, swamps, hydro lines, etc.) that could be relevant to interpretation of the data. A photocopy of the notes is presented in Appendix B of this report.

The Magnetometer Survey was carried out using two GSM-19 mag units. The base station mag was a proton precession magnetometer and recorded base station readings at 5 second intervals throughout each day. It was located in an area of low magnetic relief. The field mag used was an Overhauser magnetometer and the operator recorded readings at 5 meter intervals along the survey lines. At the end of each survey day, the base station readings were used to correct the field mag for diurnal drift.

2.4 DATA PROCESSING & PRESENTATION

The IP pseudosections presented in Appendix C contain the apparent resistivity, chargeability and spectral parameter panels. The selected slice of 690 ms to 1050 ms is the industry standard slice used by the *Scintrex* IPR-11 receiver. This was done so that experience gained by IP interpreters during the past decades could be applied more readily to the modern data. Spectral data for *Tau*, *M-IP* and 'c' are calculated from a modified version of *Scintrex' Spectrum* software. This software mathes the IP data to a suite of master curves. Readings with poor matches are not plotted/presented.

The magnetics data are also presented in Appendix C (Plate 5) as profile maps with postings. Magnetic diurnal corrections were done using in-house software. Colour contour maps were not prepared due to the relatively large and irregular line-spacing.

All plots were output to an HP Designjet 800PS 42" colour plotter or Panasonic KX-P7105 laser printer.

2.5 DAILY IP LOG & COVERAGE

	IP Line	IP Coverage (C1 to last Potential)	IP Distance	Survey Activity
April 15	N/A	N/A	N/A	 Crew mobilizes Setup infinity
April 16	L200E	C1=0S to P1=950S	950 m	 IP Survey Finish setup and laying out wire Problems with swamp and highway traffic
April 17	L200E	Continue to P1=2700S	1750m	IP Survey
April 18	L200E L600E	Continue to Rx=3250S C1=925S to P1=1425S	550m 500m	 IP Survey Move and start L600E
April 19	L600E	Continue to Rx=2525S	1100m	IP SurveySetup on L600W
April 20	L600W	C1=0S to P1=1900S	1900m	IP Survey
April 21	L600W	Continue to Rx=3600S	1700m	IP Survey
April 22	L1600E	C1=0S to P1=1350S	1350m	Big Line change to L1600E
				Read up to pond then set up on other side
A 11.00	I 1600E	G 4 2 2400C	750	IP Survey
April 23	L1600E	Continue to Rx=2400S	750m	 IP Survey Picked up wire
April 24	N/A	N/A	N/A	Packed gear, 5 men demob

2.6 DAILY MAG LOG & COVERAGE

Date (2005)	Mag Line	Mag Coverage	Mag Distance	Survey Activity
April 24	BL 0S	100E – 150E	50m	Mag Survey
-	L200E	0S - 3250S	3250m	
	L600W	0S - 3575S	3575m	
April 25	LOS	1050E – 2000E	950m	Mag Survey
	L400E	0S - 300S	300m	2
	L600E	1300S - 2525S	1225m	
	L1000E	1250S - 2400S	1150m	
	L1600E	0S - 1425S & 1630S -2400S	2195m	
	L2000E	0S - 2375S	2375m	
April 26	N/A	N/A	N/A	1 man demob

There were a few minor problems encountered during the survey. Since the survey was conducted during the spring melt, there were a few instances where water levels made it difficult for the crew to work without getting soaked, so production was slowed in order for them to negotiate these watercourses. Traffic also played a role in slowing production at the beginning of L200E.

If there are any questions about the surveys, please do not hesitate to contact the undersigned.

Sincerely,

ClearView Geophysics Inc.

Joe Mihelcic, P.Eng., M.B.A. Geophysicist/President



3. STATEMENT OF QUALIFICATIONS, JOE MIHELCIC

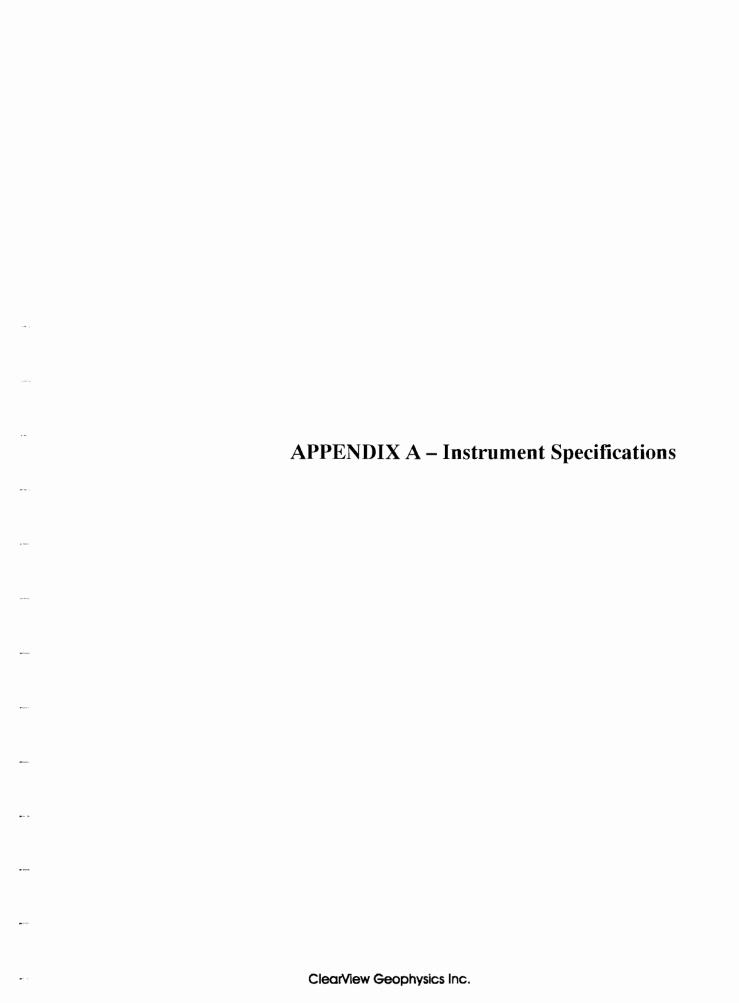
I, Joe Mihelcic, Hereby certify that:

- 1) I am a geophysicist with business office at 12 Twisted Oak Street, Brampton, Ontario L6R 1T1.
- 2) I am a principle of ClearView Geophysics Inc., a company performing geophysical services.
- 3) I am a graduate of Queen's University in Applied Science, Geological Engineering (B.Sc. 1988) and of Ivey Business School (M.B.A. 1995).
- 4) I am a member of the Professional Engineers of Ontario (PEO).
- 5) I have practiced by profession for over 15 years.
- 6) I do not have a direct or indirect interest in Temex Resources Corp. securities.

Signed

Joe Mihelcic, P.Eng., M.B.A. Brampton, Ontario

June 10, 2005



Internal Power Madules

SPS-1 DRY CELL BATTERY POWER MODULE

Qutput Voltage 90V. 180V and 360V.

Output Current I mA to 1A maximum.

Output Power Recommended maximum output power is 30 watts. Absolute maximum output power is 100 watts.

Power Supply Uxx5V dry cell batteries (Eveready 482, Mellary 202 or equivalent). Normal field operation, with low output power. results in an average battery life expectancy of one month. Operation with the absolute maximum output power

casults in much sharter battery life.

Control Supply 4 x 6V lantern batteries (Eveready 409, Mallary 908 or uquivalant) connected in series/parallal arm used to provide

the 40 to 70 mA at 12V required for the control circuitry. Average battery life expectancy is six months

Operating Temperature :

DPS-2 MACHARGEADLE DATTERY POWER MODIFIE

Output Voltage 50V, 106V, 212V, 425V, and 850V,

Output Current 3 mA to 3A.

Output Power Maximum output power is 300 worts. Above this output power a protective cut-out is engaged to prevent battery and

circuit domago.

4 x 12V rechargueble gall call batteries connected in series/parallel have a capacity of 9 A-hr. External batteries (such Batteries

as car or materization barteries) may also be used. A special cord and plug are provided for this mode of operation. An

adaptor cord connects the 32V battaries in parallel with the 12V charging unit.

Operating Temperature : -40°C to +60°C. Below 0°C the copacity of the batteries is significantly reduced (by 70% at -40°C).

AC DOOD TRANSFORMER MOMER MIGHOUR. LINGON, BEWOR BLAND REMARKS GROVER, WODING

Output Voltage 75V, 150V, 300V, 600V and 1200V.

Output Current 3 mA to 10A

Output Power Maximum continuous output power is 3KW with MG-3 motor generator,

2KW with MG-2 motor generator and 1KW with MG-1 motor generator.

Input Power Three phase, 400 Hz (350 to 1000 Hz),

60V (50V to 80V) is standard. Three phase, 400 Hz (350 to 1000 Hz), 120V (100V to 160V) is optional.

Current Regulation Achieved by landback to the alternator

of the motor generator unit.

Operating Temperature -40°C to 1-60°C.

Thermal Protection Thermostat turns off at 65°C and turns

back on at 55°C internal temperature,

Bonorai

Dimensions $20 \times 40 \times 55$ cm (9 x 16 x 22 in).

Weight 13 kg (29 lb! with BPS I.

13 kg (29 lb) with BPS-2. 17 kg (37 lb) with AC 3000. III kg (40 lb) with AC-3003.

Standard Accessories Pack frame, manual, Al loost one of the

four possible power modules is required. The transformer power modules in turn coquire one of the three external FKVA, 2KVA, 3KVA, motor generators and a

connecting cable.

Same as AC 3000 except for:

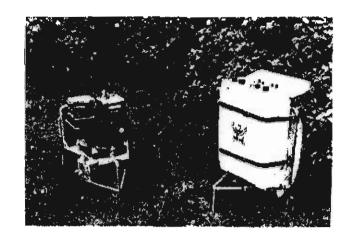
Output Voltage 1 44V, 87V, 175V, 350V and 700V.

Frequency Range

: DC to 3000 Hz under external drivin (all other power modules have a

maximum frequency of 5 Hz),

:Note: AC 3003 is not Intended for (apironapi illamot sonit behnetxe



SPECIFICATIONS

Inputs

1 to 8 dipoles are measured simultaneously.

Input Impedance

16 Megohms

SP Bucking

± 10 volt range. Automatic linear correction operating on a cycle by cycle basis.

Input Voltage (Vp) Range

50 µvolt to 14 volt

Chargeability (M) Range

0 to 300 millivolt/volt

Tau Range

60 microseconds to 2000 seconds

Reading Resolution of Vp, SP and M

Vp, 10 microvolt; SP, 1 millivolt; M, 0.01 millivolt/volt

Absolute Accuracy of Vp, SP and M Better than 1%

Common Mode Rejection

At input more than 100db

Vp Integration Time

10% to 80% of the current on time.

IP Transient Program

Total measuring time keyboard selectable at 1, 2, 4, 8, 16 or 32 seconds. Normally 14 windows except that the first four are not measured on the 1 second timing, the first three are not measured on the 2 second timing and the first is not measured on the 4 second timing. An additional transient slice of minimum 10 ms width, and 10ms steps, with delay of at least 40 ms is keyboard selectable. Programmable windows also available.

Transmitter Timing

Equal on and off times with polarity change each half cycle. On/off times of 1, 2, 4, 8, 16 or 32 seconds. Timing accuracy of ±100 ppm or better is required.

External Circuit Test

All dipoles are measured individually in sequence, using a 10 Hz square wave. The range is 0 to 2 Mohm with 0.1 kohm resolution. Circuit resistances are displayed and recorded.

Synchronization

Self synchronization on the signal received at a keyboard selectable dipole. Limited to avoid mistriggering.

Filtering

RF filter, 10 Hz 6 pole low pass filter, statistical noise spike removal.

Internal Test Generator

1200 mV of SP; 807 mV of Vp and 30.28 mV/V of M.

Analog Meter

For monitoring input signals; switchable to any dipole via keyboard.

Kevboard

17 key keypad with direct one key access to the most frequently used functions.

16 lines by 40 characters, 128 x 240 dots, Backlit SuperTwist Liquid Crystal Display. Displays instrument status and data during and after reading. Alphanumeric and graphic displays.

Display Heater

Available for below -15°C operation.

Memory Capacity

Stores approximately 400 dipoles of information when 8 dipoles are measured simultaneously.

Real Time Clock

Data is recorded with year, month, day, hour, minute and second.

Digital Data Output

Formatted serial data output for printer and PC etc. Data output in 7 or 8 bit ASCII, one start, one stop bit, no parity format. Baud rate is keyboard selectable for standard rates between 300 band and 57.6 kBand. Selectable carriage return delay to accommodate slow peripherals. Hand-shaking is done by X-on/X-off.

Standard Rechargeable Batteries

Eight rechargeable Ni-Cad D cells. Supplied with a charger, suitable for 110/230V, 50 to 60 Hz, 10W. More than 20 hours service at +25°C, more than 8 hours at -30°C.

Ancillary Rechargeable Batteries

An additional eight rechargeable Ni-Cad D cells may be installed in the console along with the Standard Rechargeable Batteries. Used to power the Display Heater or as backup power. Supplied with a second charger. More than 6 hours service at -30°C.

Use of Non-Rechargeable Batteries

Can be powered by D size Alkaline batteries, but rechargeable batteries are recommended for lower cost over time.

Operating Temperature Range

-30°C to +50°C

Storage Temperature Range

-30°C to +50°C

Dimensions

Console: 355 x 270 x 165 mm Charger: 120 x 95 x 55 mm

Weights

Console: 5.8 kg Batteries: 1.3 kg

Charger: 1.1 kg

Transmitters Available

IPC-9 200 W TSQ-2E 750 W TSQ-3 3 kW TSQ-4 10 kW

VERSA TX



SCINTREX

Earth Science Instrumentation



Head Office SCINTREX Limited

222 Snidercroft Road Concord, Ontario, Canada L4K 1B5 Telephone: (905) 669-2280 Fax: (905) 669-6403 e-mail: scintrex@scintrexitd.com

website: www.scintrexltd.com

In the U.S.A. SCINTREX Inc.

900 Woodrow Lane, Suite #100 Denton, Texas 76205 U.S.A.

Telephone: (940) 591-7755 Fax: (940) 591-1968

e-mail: richardj@scintrexusa.com

In S.E. Asia

SCINTREX/AUSLOG

P.O. BOX 125 Summer Park 83 Jijaws Street, Brisbane Telephone: +61-7-3376-5188 Fax: +61-7-3376-6626

e-mail: auslog@auslog.com.au website: www.auslog.com.au

Proton Precession Theory of Operation

In a typical proton magnetometer, current is passed through a coil wound around a sensor containing a proton rich fiquid. The auxiliary DC field **B** created by the coil (>100 Gauss) polarizes the protons in the liquid which build up to a higher thermal equilibrium with the auxiliary magnetic field. The current and hence the field is abruptly terminated, allowing the polarized protons to precess around the Earth's magnetic field direction with a frequency **f**, which is strictly proportional to the applied field value:

f = 42.5763751 MHz/T

The scalar component of the Earth's field is derived from the frequency of the precession signal which decays exponentially and lasts till the protons return to steady state. The quality of the measurement can be derived from the signal amplitude and its decay characteristics and is averaged over the sampling period and recorded.

The light weight and variable cycling speed (1 reading per 3 to 60 second - 0.5 sec for walking option) and exceptionally low power consumption over a wide temperature range and low noise levels combine to make possible a superior magnetic field measuring device. An option for low field measurement is accomplished by creating a small auxiliary magnetic flux density while polarizing.

Optional Omnidirectional VLF

With GEM Systems' omnidirectional VLF option, up to three transmitter stations of VLF data can be acquired without orienting the sensor. Moreover, the operator is able to record both magnetic and VLF data with a single operation on the key pad.

Frequency Range: 15 - 30.0 kHz

Parameters Measured: Vertical in-phase & outof-phase components as

% of total field.

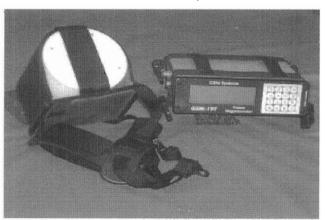
2 relative components of

the horizontal field.
The absolute amplitude

of the total field.

Resolution: 0.1%

Number of Stations: Up to 3 at a time.





Data editing, processing, compiling and interpreting software options available with GSM-19T series

GSM-19T Sensor Specifications

 Sensitivity:
 0.2 nT/√Hz

 Resolution:
 0.01 nT

 Absolute Accuracy:
 1.0 nT

Dynamic Range: 20,000 to 100,000 nT Gradient Tolerance: >7,000 nT/meter

Sampling Rate: 1 reading per 3 to 60 seconds
Console: 223 x 69 x 240 mm, 2.1 kg
Sensor: 140 x 75 mm diameter cyl.
Sensor and Staff Assembly: (1) 2.0 kg, (2) 3.0 kg

VLF Sensor: 160 x 150 x 150 mm, 1.3 kg

Environmental:

Storage Temperature: -70°C to 60°C. Operating Temperature: -40°C to 60°C. Humidity: 0 to 100%, splashproof console.

Power Requirements:

 $12\,V\,2.2\,\text{Ah}$ battery will operate continuously for 45 hours on standby

Power Consumption:

12 watt-seconds per reading typical at 20 degrees C.

Outputs:

Direct readings of the Earth's magnetic field in ascii format at selectable baud rates and optional analog 200-step voltages for chart recorders.

About GEM Systems Inc.

GEM Systems has provided its clients with quality instrumentation for magnetic measurements of the Earth's magnetic field since 1980. A commitment to high performance, small size and weight and low power consumption has been the GEM Systems' philosophy since the introduction of its first instrument.

52 West Beaver Creek Rd. #14 Richmond Hill, ON L4B 1L9 Canada Tel (905) 764 8008 Fax (905) 764 2949 http://www.GEMSys.on.ca email: info@GEMSys.on.ca



Revsion 12/00

Key System Components

Key components that differentiate the GSM-19 from other systems on the market include the sensor and data acquisition console. Specifications for components are provided on the right side of this page.

Sensor Technology

GEM's sensors represent a proprietary innovation that combines advances in electronics design and quantum magnetometer chemistry.

Electronically, the detection assembly includes dual pick-up coils connected in series opposition to suppress far-source electrical interference, such as atmospheric noise. Chemically, the sensor head houses a proprietary hydrogen-rich

About GEM Advanced Magnetometers

GEM Systems, Inc. delivers the world's only magnetometers and gradiometers with built-in GPS for accurately-positioned ground, airborne and stationary data acquisition. The company serves customers in many fields including mineral exploration, hydrocarbon exploration, environmental and engineering, Unexploded Ordnance Detection, archeology, earthquake hazard prediction and observatory research.

Key products include the QuickTrackerTM
Proton Precession, Overhauser and
SuperSenserTM Optically-Pumped
Potassium instruments. Each system
offers unique benefits in terms of
sensitivity, sampling, and acquisition of
high-quality data. These core benefits are
complemented by GPS technologies that
provide metre to sub-metre positioning.

With customers in more than 50 countries globally and more than 20 years of continuous technology R&D, GEM is known as the only geophysical instrument manufacturer that focuses exclusively on magnetic technology advancement.

"Our World is Magnetic"

liquid solvent with free electrons (free radicals) added to increase the signal intensity under RF polarization.

From a physical perspective, the sensor is a small size, light-weight assembly that houses the Overhauser detection system and fluid. A rugged plastic housing protects the internal components during operation and transport.

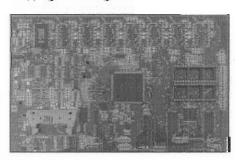
All sensor components are designed from carefully screened non-magnetic materials to assist in maximization of signal-to-noise. Heading errors are also minimized by ensuring that there are no magnetic inclusions or other defects that could result in variable readings for different orientations of the sensor.

Optional omni-directional sensors are available for operating in regions where the magnetic field is near-horizontal (i.e. equatorial regions). These sensors maximize signal strength regardless of field direction.

Data Acquisition Console Technology

Console technology comprises an external keypad / display interface with internal firmware for frequency counting, system control and data storage / retrieval. For operator convenience, the display provides both monochrome text as well as real-time profile data with an easy-to-use interactive menu for performing all survey functions.

The firmware provides the convenience of upgrades over the Internet via the GEMLinkW software. The benefit is that instrumentation can be enhanced with the latest technology without returning the system to GEM — resulting in both timely implementation of updates and reduced shipping / servicing costs.



GEM Systems, Inc. 52 West Beaver Creek Road, 14 Richmond Hill, ON Canada L4B 1L9 Email: info@gemsys.on.ca

:maii: info@gemsys.on.ca - Web: www.gemsys.ca

Specifications

Performance

Sensitivity: < 0.015 nT / √Hz

Resolution: 0.01 n

Range: 10,000 to 120,000 nT

Gradient Tolerance: > 10,000 nT/m

Samples at: 60+ 5 3 2 1 0 5 0 2 se

Operating Temperature: -40C to +55C

Operating Modes

Manual: Coordinates, time, date and reading stored automatically at minimum 3 second interval.

Base Station: Time, date and reading stored at 3 to 60 second intervals

Remote Control: Optional remote control using RS-232 interface.

Input / Output: RS-232 or analog (optional) output using 6-pin weatherproof connector

Storage - 4Mbytes (# of Readings)

 Mobile:
 209.715

 Base Station:
 699.050

 Gradiometer:
 174,762

 Walking Mag:
 299.593

Dimensions

Console: 223 x 69 x 240 mm

Weights

Console with Belt: 2.1 kg
Sensor and Staff Assembly 1.0 kg

Standard Components

GSM-19 console, GEMLinkW software, batteries, harness, charger, sensor with cable, RS-232 cable, staff, instruction manual and shipping case.

Optional VLF

Frequency Range: Up to 3 stations between 15 to 30.0 kHz

Parameters: Vertical in-phase and out-of-phase components as % of total field. 2 components of horizontal field amplitude and total field strength in p.T.

Resolution: 0.1% of total field



Represented By:



Project Name / Grid Area : Temex - Merico-Ethel

Transmitter Operator : Date : April 16, 2005			Bill Hume	LINE #:	2E		
	•						
C1	P1	Res	Volts	lma	Remarks		
08	50S		2	190	0S - Start of swamp		
			5	540	250S - End of swamp / Road		
25S			5	440			
50S			5	570			
75S			5	625			
100S			5	550			
125S			5	510	_		
150S			5	590			
175S			4	250			
200S			4	285			
225S	250S		4	355			
			5	720	_		
250S			5	740			
275S			5	430			
300S			5	215	_		
325S	350S		5	555			
350S			5	360			
375S	400S		5	210			
400S			5	700			
425S	450S		4	340	425S - Start of swamp		
450S	500S		4	330			
			5	900			
475S	500S		4	890			
500S	550S		4	890			
525S	550S		4	890			
550S	600S		4	890			
575S	600S		4	890			
600S	650S		4	890			
625S			4	890			
650S	700S		4	875	650S - End of marsh swamp / Start of		
675S	700S		4	790	spruce swamp		
700S	750S		5	680			
			5	700			
725S	750S		5	520			
750S	800S		5	420			
			5	440			
			5	460			
775S	800S		5	390	<u> </u>		
				COMMENT	'C		

Project Name / Grid Area : Temex - Merico-Ethel

Fransmitter Operator : Bill For Date : April 16, 2005			Bill Hume	TI INE #	IOF.
				LINE #:	2E
C1	P1	Res	Volts	lma	Remarks
800S	850S		5	360	
			5	400	
			5	410	
825S			5	870	
850S			4	1010	
875S	900S		5	430	865S - End of spruce swamp
			5	460	
900S	950S		4	600	
			4	620	
			4	640	
925S	950S		4	980	
ate :	April 17, 200)5			
950S			4	850	Swamp
975S			4	670	
1000S			4	930	
1025S			4	600	
1050S			4	820	
1075S			4	630	
1100S			4	900	
1125S			4	890	
1150S	1200S		4	590	
11000	12000		4	610	
1175S	1200S		4	980	
1200S			4	930	
1225S			4	950	
1250S			4	950	
1275S			4	930	
1300S			4	830	
	10000		4	840	
1325S	1350S		4	890	
1350S			4	810	1350S - Start of alder swamp
1375S			4	880	Todoo Start of alder Swallip
1400S			4	690	
1425S			4	690	
1425S			4	680	
1450S			4	870	
1500S			4	850	1475S - End of alder swamp / Start of
			4	840	spruce swamp
1525S			. 4	■ 04U	• SUILLE SWALLD

Project Name / Grid Area : Temex - Merico-Ethel

Transmitte	er Operator	:	Bill Hume		
Date :	April 17, 20			LINE #:	200E
C1	P1	Res	Volts	lma	Remarks
2450S	2500S		5	680	
2475S			5	690	
2500S	2550S		5	730	
2525S	2550S		5	730	
2550S	2600S		5	690	
2575S	2600S		5	730	
2600S	2650S		5	730	
2625S	2650S		5	720	
2650S	2700S		5	700	
2675S	2700S		5	740	
Date :	April 18, 20	05			
2700S			4	810	
2725S	2750S		4	780	
2750S	2800S		4	830	
2775S	2800S		4	840	
2800S	2850S		5	780	
2825S	2850S		5	410	
2850S	2900S		5	270	2850S - End of swamp / Start of hill
2875S	2900S		5	90	
2900S	2950S		5MAX	270	
2925S	2950S		5MAX	270	
2950S	3000S		5MAX	130	
2975S	3000S		5MAX	260	
3000S	3050S		5MAX	270	
3025S	3050S		5MAX	270	
3050S	3100S		5MAX	180	
			5MAX	190	
3075S	3100S		5MAX	260	
3100S	3150S		5MAX	190	
31258	3150S		5MAX	270	
3150S	3200S		5MAX	270	
3175S	3200S		5MAX	270	3270S - Pond
				COMMENT	S

Project Name / Grid Area : Temex - Merico-Ethel

	er Operator :		Bill Hume		
Date :	April 18, 200)5		LINE #:	600E
C1	P1	Res	Volts	lma	Remarks
925S	975S		5	360	
950S	975S		5	170	
			5	270	
975S	1025S		5	270	
1000S	1025S		5	260	
1025S	1075S		5	410	
1050S	1075S		5	520	
1075S	1125S		5	460	Sloppy chaining off by 10m because of hill
1100S	1125S		5	440	1100S - End of swamp / Bottom of hill
1125S	1175S		5	110	
1150S			5	200	
1175S			5	140	Realigning snake with pickets
1200S			5	110	
1225S			5	140	1275S - Top of hill
1250S			5	170	<u>'</u>
1275S			5	220	
1300S			5	180	
1325S			5	160	
1350S			5	190	
1375S	1425S		5	170	
			5MAX	530	
1400S	1425S		5MAX	560	
			-	 	
ate :	April 19, 200)5		+	
1400S			5	620	
1425S			5	410	
1450S			5	550	
1475S	1525S		5	620	
			4	390	
1500S	1525S		4	370	
1525S	1575S		4	340	
1550S	1575S		5-	500	
1575S	1625S		3	320	
1600S	1625S		4	400	
1625S	1675S		5	490	
	- 3,00		4	260	
1650S	1675S		4	200	
100000	1725S		4	190	1875S - Some outcrop
				.00	10.00 Conto Catorop
1675S 1700S	1725S		3	180	

Project Name / Grid Area : Temex - Merico-Ethel

Transmitter Operator :			Bill Hume		
Date :	April 19, 200)5		LINE #:	6E
C1	P1	Res	Volts	lma	Remarks
1725S	1775S		5	420	
1750S	1775S		4	410	
1775S	1825S		4	380	
1800S	1825S		4	230	
1825S	1875S		5	320	
1850S	1875S		5	450	
1875S	1925S		5	380	
1900S	1925S		5	380	
1925S	1975S		5	380	
1950S	1975S		5	390	
			3	170	
1975S	20258		4	240	2100S - Top of hill
2000S	2025S		4	230	
2025S	2075S		5	330	
			5	350	2225S - Bottom of hill
			5	360	2250S - Bottom of next hill
2050S	2075S		5	350	
2075S	2125S		5	410	
2100S	2125S		5	410	
2125S	2175S		4	350	2275S - Exposed outcrop
2150S	2175S		5	390	2325S - Exposed outcrop
2175S	2225S		5	340	2350S - Top of hill
			5	350	
2200S	2225S		5	370	-
2225S	2275S		5	400	
2250S	2275S		5	410	
2275S	2325S		5	320	
2300S	2325S		5	400	
2325S	2375S		5	380	
2350S			5	400	
2375S			5	410	
2400S			5	400	
2425S			3	95	
2450S	2475S		3	130	
				COMMENT	S
					

Project Name / Grid Area : Temex - Merico-Ethel

te:	April 20, 2005			LINE #:	600W
C1	P1	Res	Volts	lma	Remarks
05	50S		3	440	0S - Start of spruce swamp
_			4	870	
259	50S		5	880	
508	100S		4	780	
			4	790	
758	100S		5	660	
			5	700	
1005	150S		4	680	
			4	690	
1259	150S		4	890	
1508	200S		4	940	
			4	950	
1759	200S		4	820	
2008			4	980	
2258	250S		4	930	
2508	300S		4	930	
2758	300S		4	800	
3008	350S		4	1000	
3258	350S		4	920	
3508	400S		4	810	
3758			4	660	
4008			4	810	
4258	450S		4	700	
4508			4	820	700S - Start of road / Chaining error
475			4	710	between 650S - 700S
5008			4	810	650S - End of spruce swamp
5258	550S		4	750	675S - Start of swamp
			3	400	
5508			3	380	
5758			3	470	
6005			3	480	
6255			4	280	Pickets 625S,675S - NO 650S picket
6505			3	470	650S - Edge of hwy
6755			3	500	- UTM 553774E 5288642 - Correct
7005	750S		3	530	Chainage
			4	820	
			4-	600	
7255			5-	660	
7505			4	760	
7755	800S		4	760	
				COMMENT	S

Project Name / Grid Area : Temex - Merico-Ethel

Date : April 20, 2005				LINE #:	600W
C1	P1	Res	Volts	lma	Remarks
8008	850S		4	760	
8255			4	770	
8508			4	780	
			3	480	
8758	9008		3	480	
9005			3	540	
9258			3	500	
9508			3	490	900S - End of spruce swamp / Start of
9758			3	430	cedar swamp
10008			3	400	
10258			3	410	1035S - End of cedar swamp / Start of
10508			5	420	spruce swamp
10759			4	430	1050S - Big bend in line swinging to SW
11005			3	390	UTM - 553778E 5288253N
11259			3	380	
11508			3	440	
11758			3	420	
12008			3	410	
12258			3	370	
12508			5	340	1250S - Outcrop
12758			5	400	<u> </u>
13005			5	410	1500S - Bottom of hill
			5	440	1300S - UTM 553800E 5287983N
13258	1350S		5	380	
13508			5	320	
13758			5	380	
14008			5	300	
14258			5	240	
14508			5	330	
14758			5	330	
15008	1550S		5	310	
15258			5	270	
15508			5	180	
15758			5	220	1600S - Visible outcrop / 5m rockface
16008			5	70	
16258			5	110	
16508			5	150	1675S - Top of hill
1675S			5	130	
17008			5	120	
1725S	1750S		5	70	
				COMMENT	S

Clearview Geophysics

Project Name / Grid Area : Temex - Merico-Ethel

Line D	ata &	Comments
--------	-------	----------

Tronomitt	ou On out to		Dill Lives -		
	er Operator		Bill Hume	Libie "	Tooling
	April 20, 20			LINE#:	600W
C1	P1	Res	Volts	lma	Remarks
1750S			5	100	
1775S			5	70	1775S - Top of hill
1800S			5	120	1800S - Bottom of hill
1825S			5	160	
1850S			5	150	
1875S	1900S		5	90	
Date :	April 21, 20	005			
1875S	1900S		5	190	
1900S	1950Š		5	200	
1925S	1950S		5	190	1950S - Visible outcrop
1950S	2000S		5	195	·
1975S	2000S		5	190	
2000S	2050S	_	5	190	2000S - UTM 553822E 5287297N
2025S	2050S		5	190	
2050S	2100S		5	190	
2075S	2100S		5	160	
2100S	2150S		3	400	C1 in water
2125S	2150S		5	300	2125S - Bottom of hill
2150S	2200S		5	220	
2175S	2200S		5	260	
2200S	2250S		5	280	2200S - Top of hill
2225S	2250S		5	330	2300S - 35m move (10m jump ahead to
2250S	2300\$	_	5	350	realign snake with pickets)
		_	5	370	
2275S	2300S		5	330	
2300S	2350S		5	260	
2325S	2350S		5	380	
			4	210	
2350S	2400S		5	190	
2375S	2400S		4	250	
2400S	2450S		4	220	
2425S	2450S		5	180	
2450S	2500S		5	230	
2475S	2500S		5	230	
2500S	2550S		5	190	2535S - Top of hill
			5	200	
2525S	2550S		5	230	
2550S	2600S		5	210	
2575S	2600S		5	260	C1 in water
			4	310	
				OMMENT	S

Project Name / Grid Area : Temex - Merico-Ethel

Pate: April 21, 2005		LINE #:		600W	
C1	P1	Res	Volts	Ima	Remarks
2600S		1100	3	320	2575S - Bottom of hill / start of swamp
2625S			5	180	2625S - End of swamp / bottom of hill
2650S			5	290	26255 - Elid of swarip / bottom of filli
2675S			5	250	-
2700S			5	220	
2700S 2725S			5	260	
2750S			4	190	2760S - Top of hill
2775S			5	250	27003 - 100 0111111
2800S			3	220	
2825S			4	200	
2850S			4	210	
2875S			4	250	
2900S		_	4	200	Chainage error between 2700S-2800S
2925S			5	230	(Now out by 50m)
2950S			2	180	2900S - Top of hill
2975S			3	310	2950S - Bottom of hill
3000\$			5	360	Realigned snake with pickets
3025S			5	340	2950S - 2985S - Swamp
3050S	3100S		5	280	2985S - Bottom of hill
	1 31333		5	300	3025S - Top of hill
3075S	3100S		5	280	
3100S			5	330	
3125S			5	230	
3150S			5	150	
3175S			5	150	
3200S			4	210	
3225S			5	160	
3250S			5	110	
3275S			5	140	
3300S			4	360	
3325S			4	240	
3350S	3400S		5	220	
3375S	3400S		5	240	
3400S	3450S		5	160	
3425S	3450S	_	5	340	
3450S	3500S		5	440	
3475S	3500S		5	450	
3500S	3550S		5	420	3550S - End of cut line (UTM = Zone 17
3525S	3550S		5	340	553833E 5285769N)
				COMMENT	S

Project Name / Grid Area : Temex - Merico-Ethel

ate :	April 17, 2005			LINE #:	2E
C1	P1	Res	Volts	lma	Remarks
1550S	1600S		4	750	
1575S			4	640	
1600S			4	620	
1625S			5	630	
10200	10000		5	650	
1650S	1700S		5	950	
1675S			5	950	
1700S			5	880	
17000	17300		5	900	
1725S	1750S		5	950	
1750S			5	960	
1750S					
1800S			5	960	
			5	960	
1825S			5	960	
1850S			5	940	
1875S			5	960	
1900S			5	950	
1925S			5	720	
1950S			5	760	
1975S			5	760	TL2000 Crosses 1977S
2000S			5	760	(2175S - 2200S) - Old mine shaft
20258			5	760	
2050S	2100S		5	760	
2075S	2100S		5	780	
2100S	2150S		5	800	
2125S	2150S		5	790	
2150S	2200S		5	790	
2175S	2200S		5	790	
2200S	2250S		5	790	
2225S	2250S		5	790	
2250S	2300S		5	790	
2275S	2300S		5	620	
			5	730	
2300S	2350S		5	670	
2325S	2350S		5	710	
2350S	2400S		5	670	
2375S	2400S		5	710	
2400S	2450S		5	680	
2425S	2450S		5	670	
				OMMENT	S

Project Name / Grid Area : Temex - Merico-Ethel

Date : April 22, 2005					1600E
C1	P1	Res	Volts	lma	Remarks
08			5	470	UTM - Baseline 0, 1600E
258			5	500	555934E 5289297N
50S			5	470	100S - Start of alder swamp
75S			5	510	
1008			5	530	
1258			5	550	125S - End of alder swamp / start of sprud
1508			5	520	swamp
175S			5	510	
2008			5	520	
2258			5	520	260S - End of spruce swamp
2508			5	540	
2758	300S		5	260	
			5	300	
3008			5	360	
325S			5	230	
3508			5	360	
375S			5	360	370S - Bottom of hill
4008	450S		5	350	
			5	360	
425S		_	5	300	
4508			5	220	
475S		_	5	220	475S - Exposed outcrop
500S			5	250	500S - Top of hill
525S			5	250	
550S			5	260	
575S			5	230	
600S			5	230	
625S			5	180	
650S			5	230	
675S			5	230	
700S			5	230	
725S			5	230	
750S			5	230	
775S			5	230	
800S			5	220	
825S			5	230	-
850S 875S			5	190	
900S			5	190	
900S 925S			5	300 260	
====	3000			COMMENT	

Project Name / Grid Area : Temex - Merico-Ethel

Transmitt	er Operator	<u>: </u>	Bill Hume		
Date :	April 22, 200)5		LINE #:	1600E
C1	P1	Res	Volts	lma	Remarks
950S	1000S		5	230	
975S	1000S		5	210	
1000S	1050S		5	190	
1025S			5	190	
1050S			5	250	
1075S	1100S		5	130	1075S - Top of hill
1100S	1150S		5	380	1125S - Bottom of hill
1125S	1150S		5	360	
1150S			5	210	
1175S	1200S		5	220	
1200S	1250S		5	240	
1225S	1250S		5	210	
1250S	1300S		5	240	
1275S	1300S		5	240	
1300S	1350S		5	240	
1325S	1350S		5	220	1425S - Pond (UTM 555926E 5287906N)
Date :	April 23, 200)5			
1650S	1700S		5	360	1630S - Pond / Bottom of hill
1675S	1700S		5	70	1650S - UTM 555909E 5287678N
1700S	1750S		5	140	
1725S	1750S		5	140	
1750S	1800S		5	210	
1775S	1800S		5	210	1775S - Top of hill
1800S	1850S		5	160	
1825S	1850S		5	160	
1850S	1900S		5	210	
1875S	1900S		5	150	
1900S			5	210	
1925S	1950S		5	210	
1950S	2000S		5	210	
1975S	2000S		5	230	
2000S	2050S		5	210	
2025S	2050S		5	210	
2050S	2100S		5	230	
2075S	2100S		5	210	
2100S	2150S		5	210	
2125S	2150S		5	210	
2150S	2200S		5	210	
2175S	2200S		5	210	

Clearview Geophysics

Project Name / Grid Area : Temex - Merico-Ethel

	er Operator		Bill Hume		
Date :	April 23, 20	05		LINE #:	1600E
C1	P1	Res	Volts	lma	Remarks
2200S	2250S		3	250	
2225S	2250S		5	300	
2250S	2300S		5	210	
2275S	2300S		5	210	
2300S	2350S		5	260	2300S - Start of spruce swamp
2325S	2350S		3	220	
			-	COMMENT	'S
nfinity UTN	√ 554492E 5	290426N			
	-			_	

APPENDIX C – Plates

