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Quantec Geoscience Inc.

Geophysical Survey
Summary Interpretation Report

Regarding the
SURFACE TRANSIENT EM SURVEY
over the WHITNEY LAKE PROPERTY,
near Latchford, ON,
on behalf of
Sanford Exploration (Canada) Inc.
Vancouver, BC

QGI QGI QGI QGI QGI QGI QGI

S.T. Coulson
September 2005
Project QG-393

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1. INTRODUCTION

- **QGI Project No:** QG-393
- **Client:** SANFORD EXPLORATION CANADA INC.
- **Client Address** 1303-1323 Homer Street
  Vancouver, BC V6B 5T1
- **Project Names:** QG-393
- **Survey Period:** September 8th - 10th, 2005
- **Survey Type**: Surface Transient Electromagnetic (TEM)
- **Representatives:** Polymet Resources Inc., Gino Chitaroni
- **Objectives:**

  The objective of the surface TEM survey was to ground truth conductive targets, outlined by previous geophysical surveys.
- **Survey Type:** Summary Interpretation

2. GENERAL SURVEY DETAILS

2.1 LOCATION

- **Townships:** Gillies Limit
- **Province:** Ontario
- **Country:** Canada
- **Nearest Settlement:** Latchford, ON
- **Nearest Highway:** Hwy 11S
- **NTS Map Reference #:** 32

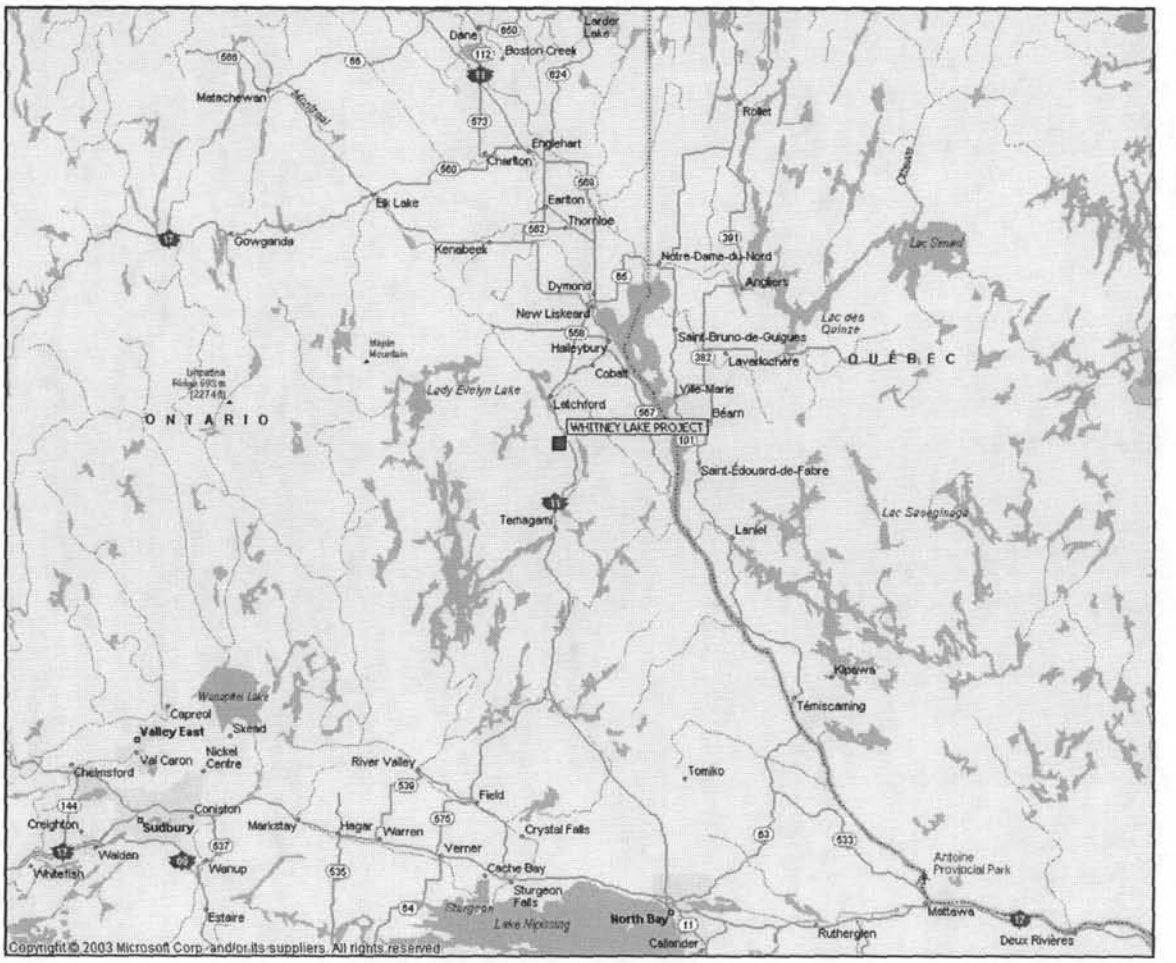


Figure 1: General Location of the Property

2.2 Access

- **Base of Operations:** Latchford, ON
- **Distance by Land to Property:** South 14.2 Km on Hwy 11S, West 1.5 Km on Three Sisters Road into the property
- **Mode of Access to Property:** 4x4 Truck
- **Mode of Access to Grid:** ATV

2.3 Survey Grid

- **Coordinate Reference System:** Local exploration grid (UTM referenced to NAD27)
- **Established:** prior to survey execution
- **Baseline Direction:** 90°
- **Line Separation:** 200 meters
- **Station Interval:** 25 meters
- **Method of Chaining:** Metric, slope distance
- **Claims Surveyed:** 1221576

3. SURVEY WORK UNDERTAKEN

3.1 GENERALITIES

- **Survey Dates:** September 8th - 10th, 2005
- **Survey Period:** 3 days
- **Survey Days:** 3 days
- **Survey Coverage:** 4.65 kms (see Table I)

3.2 PERSONNEL

- **Project Supervisor:** Woody Coulson, Porcupine, ON
- **Crew Chief:** Claude Chiasson, Bathurst, NB
- **Technicians:** Graeme Lillie, Timmins. ON

3.3 SURVEY SPECIFICATIONS

- **Configuration:** Off-loop profiling
- **Output Power Stage:** Low Power (2.8 kW)
- **Dimension:** 3 Component (X, Y and Z)
- **Loop Sizes and Locations:** 400m x 600m (See Appendix F)
- **Line Interval:** 200 meters
- **Sampling Interval:** 25 meters

3.4 SURVEY COVERAGE

Line	Min Extent	Max Extent	Total Survey (m)
1500 W	700 S	475 N	1175
1700 W	700 S	475 N	1175
1900 W	675 S	475 N	1150
2100 W	675 S	475 N	1150

Table I: Survey Coverage for Surface TEM Survey

3.5 INSTRUMENTATION

- **Receiver:** Geonics Digital Protem 20 channel capability
- **Coils:** Geonics 3D-3 coil (200m^2 effective area)
- **Transmitter:** Geonics EM-37 (2.8 kW output)
- **Power Supply:** Geonics GPU 2000 motor generator

3.6 SURVEY PARAMETERS

Pulse repetition frequency:	30Hz
Gain:	2-6
Integration number:	15 sec
Loop Sizes:	400m x 600m
Current:	13.0 amps (see Appendix F)
Turn-off time:	235-240µs (see Appendix F)
Gate positions	80-6136 µs (see Appendix C)
Synchronization mode:	Crystal

Table II: System Parameters for Surface TEM Survey

- **Coil Conventions:** (see Appendix C)

COMPONENT	COIL ORIENTATION
Z	Positive Up
X	Positive away from the loop along the line
Y	Positive 90° counterclockwise from X

Table III: Coil Conventions for Surface TEM Survey

- **Measured Parameters:** dB/dt, mV
- **Data Reduction**[1]**:** nanoVolts/Ampere-metre^2 (nV/Am^2)

3.7 MEASUREMENT ACCURACY AND REPEATABILITY

- **Number of Repeats per Station:** 0-1
- **Number of Repeats per Day:** 0-3
- **Average Repeatability:** 1-2% in early channels
- **Worst Repeatability:** 3% in early channels

3.8 DATA PRESENTATION

- **Profiles:** X, Y, Z components, and Total EM Field @ 1:5000 with variable vertical (profile) scales to best display data.

[1] Equivalent to Crone units of nanoTesla/second normalized to a unit current.

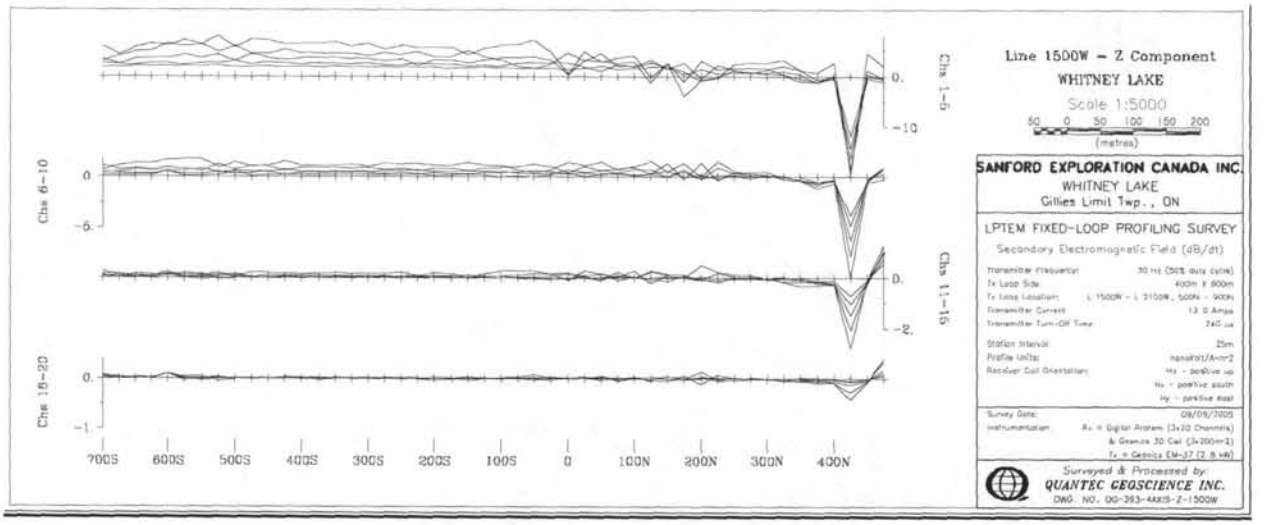


Figure 2: 4-Axis Surface TEM Profile Format

- **Digital Data:** Daily raw files and processed data (Geosoft .XYZ format) on CD

a) raw data dump files, according to acquisition date, (DDMMYY.RAW, i.e. 050604.raw). Geonics Digital Protem format (refer to Protem manual)

b) reduced XYZ ASCII data files, according to line number and component (i.e. l300ek.xyz where, k=component – Z, X, Y or T for Total Field).

Column 1: N-S Line/E-W Station number
Column 2: E-W Station/N-S Line number
Column 3: Primary pulse (nanoVolt/ampere*m^2)
Column 4: Channel 1 secondary rate of decay of TEM field (nanoVolt/ampere*m^2)
Column 5: Channel 2
⇓
Column 23: Channel 20 secondary rate of decay of TEM field (nanoVolt/ampere*m^2)

4. SURVEY RESULTS

The objective of the surface TEM survey was to confirm conductors detected in previous ground geophysical surveys (type unknown). Details concerning the bedrock geology and the full extent of exploration on the property are not known by the present author and, as such, the present interpretation is based solely on the TEM survey results.

A large off-loop style of survey was used to provide optimum coupling with steeply dipping geology. Typically, a survey of this type is capable of defining conductors to depths exceeding 200m. The sources can range from weakly mineralized contacts or structures, to stringer or massive sulphide and/or graphitic mineralization.

The results of the survey indicate the area has little or no overburden effects. As a result, the data is of very low signal level and consequently quite noisy. The noise is variable along the lines and may be attributed to strong magnetic activity recorded during this time period (NRCAN recorded data).

The only significant response detected is located on line 1500W at 450N. The source is interpreted as a near surface (<25m), small surface area (<50m), moderate strength conductor. There is no evidence of the conductor on line 1700W indicating it is terminated just west of line 1500W however, it may continue to the east. No other conductors were defined by the survey.

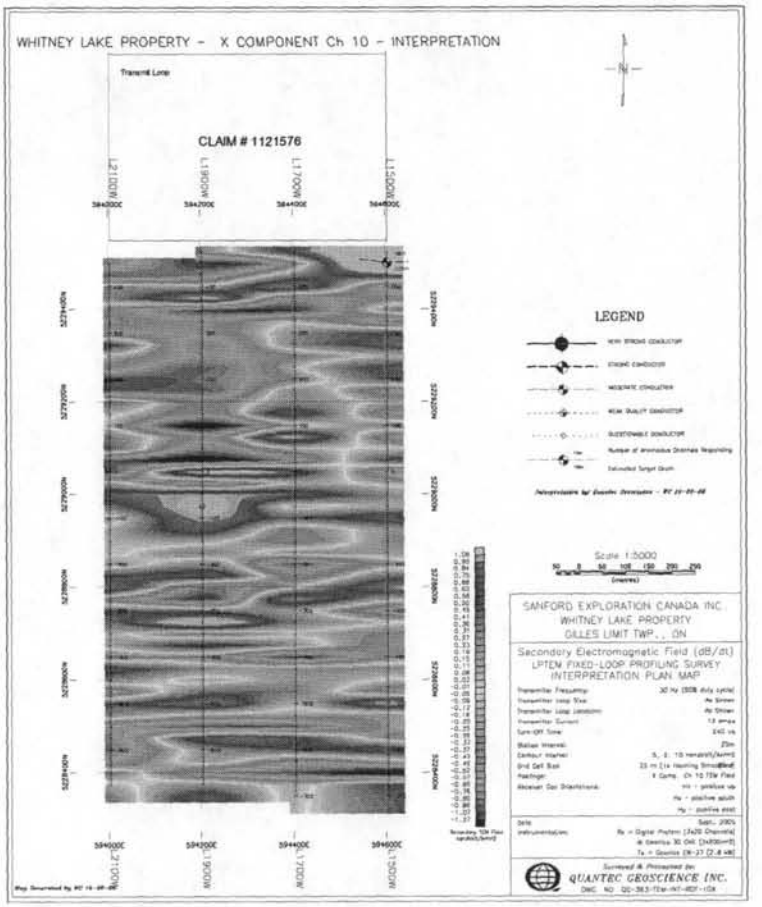


Figure 3: TEM Interpretation Plan Map

5. CONCLUSIONS AND RECOMMENDATIONS

The TEM survey over the Whitney Lake grid did not define continuous conductors as indicated in previous geophysical surveys. Only one, single line feature was outlined in the survey at 1500W, 450N. A review of geological and geophysical data east of the survey area should be performed to determine its possible source. Based on these results, there are no other conductors consisting of massive or stringer style mineralization on the property. Therefore, the source of the previous conductors is unknown and maybe related to fractures or other weakly conductive features not detectable by the TEM method. If further geophysical surveys are considered on the property, these should be restricted to induced polarization to determine if any disseminated sulphides related to gold mineralization may exist.

RESPECTFULLY SUBMITTED
QUANTEC GEOSCIENCE INC.

S. T. Coulson, P.Geo.
Senior Geophysicist

APPENDIX A

STATEMENT OF QUALIFICATIONS

I, Sherwood T. Coulson, hereby declare that:

1. I am a consulting geophysicist with residence in Porcupine, Ontario and am presently employed in this capacity with Quantec Geoscience Inc. of Porcupine, Ontario.

2. I am a graduate of Cambrian College, Sudbury, Ontario in 1974 with an Honours Diploma in Geophysical Engineering Technology.

3. I am a practicing member of the Association of Professional Geoscientists of Ontario (Member #0944) since 2003.

4. I have practiced my profession in Europe and North and South America continuously since graduation.

5. I am a member of the Canadian Society of Exploration Geophysicists and the Prospectors and Developers Association.

6. I have no interest nor do I expect to receive any interest, direct or indirect, in the properties or securities of **SANFORD EXPLORATION (CANADA) INC.**

7. I supervised the survey execution and reviewed the data as it was collected. I am the author of this report and the statements made by me represent my best opinion and judgment based on the information available to me at the time of the writing.

PROFESSIONAL GEOSCIENTIST
SHERWOOD COULSON
PRACTISING MEMBER
0944
ONTARIO

Porcupine, ON
September 2005

S. T. Coulson, P.Geo.
Senior Geophysicist

APPENDIX B

THEORETICAL BASIS AND SURVEY PROCEDURES

TEM SURFACE AND BOREHOLE PROFILING

TEM profiling is conducted on lines either adjacent to (Off-Loop mode) or surrounded by (In-Loop mode) a large fixed rectangular transmit loop. Current is passed through the loop which following the Turn-Off, produces a primary magnetic field (H) both inside and outside (Figure B1). This primary field induces vortex current patterns, which energize conductors and which in turn create their own secondary magnetic field (Bs). The rate of change of the decaying secondary magnetic flux (dBs/dt) is measured as the vertical (**Hz**), in-line horizontal (**Hx**) and/or cross line horizontal (**Hy**) vector components on surface using an air-core sensor coil. These measurements of the TEM decay (20 log-time slices) are taken during the "Off-Time", using a 30 cycle/sec, base repetition rate.

In keeping with the industry standard, the primary field is always considered positive up inside the loop and negative down outside. Similarly, for secondary EM fields, the receiver coil is oriented positive vertical up for the **Hz** component. The convention for In-Loop surveys, has the in-line component, **Hx** oriented either positive east (for grid EW lines) or north (for grid NS lines). The Off-Loop survey convention differs, with the receiver coil orientation for **Hx** pointing positive away from the transmit loop (for EW or NS lines). Finally, the sign convention in all cases, has the **Hy** component pointing positive orthogonal to the left of the **Hx**, according to the right-hand-rule.

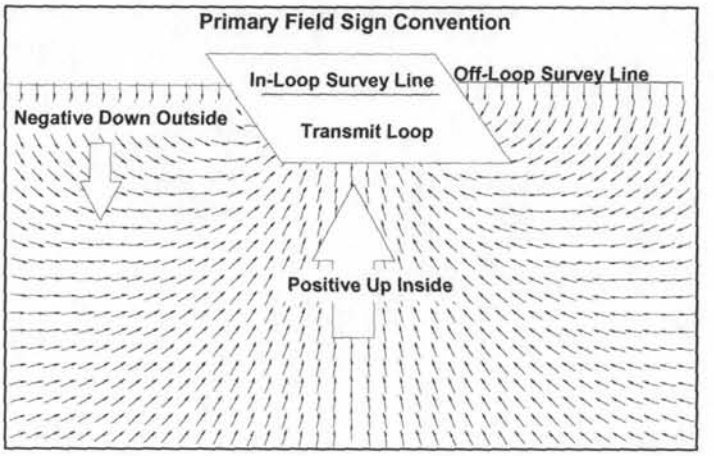


Figure B1: Primary field sign convention for TEM surveys.

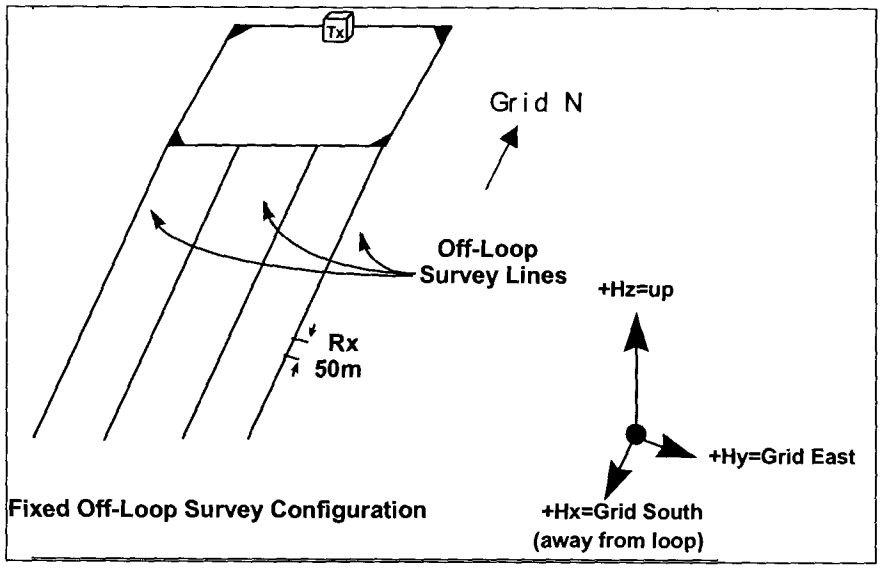


Figure B2: Loop Configuration and Polarity Conventions for Off-Loop Profiling Surveys

The borehole survey is particularly useful to determine the geometrical relationship between a conductor or a complex swarm of conductors around the drill hole. Of particular importance is its application in cases where the drilling is believed to have missed the target of interest. A 3-D borehole survey can effectively determine the direction and distance from the drill hole to the conductor by measuring two orthogonal secondary field components in addition to the axial component. Additionally, conductors located below the end of a drill hole, which either may be too deep and/or have gone previously undetected from surface, may be discovered during the course of a borehole survey.

The probe is manually lowered down the borehole at the end of a cable and, at successive depths, measurements of three (3-D) orthogonal components of the TEM field (Hx, Hy, Hz) are individually obtained in succession by electronically switching the sensor coils in the borehole antenna through the use of a relay/switching system from surface, via the borehole-cable shield. As the probe is free to rotate on its vertical axis, a correction is later applied to the 3-D data in order to rotate the components into their respective coordinate axis.

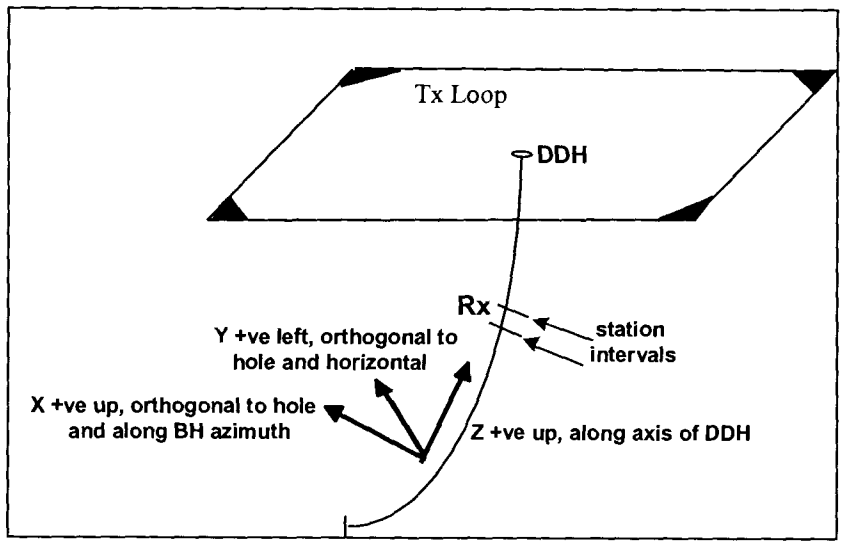


Figure B3: Loop Configuration and Polarity Conventions for 3-D Borehole Surveys

The secondary fields induced decay at a rate proportional to the conductivity-thickness and are then measured and profiled by the borehole sensor-probe.

a) Hz is positive up along the axis of borehole,

b) Hx is positive perpendicular to the borehole axis and pointing upward, in a vertical plane, in the direction of the azimuth of the hole,
c) Hy is positive 90° counterclockwise to Hx and horizontal, according to the right-hand rule.

At the end of each survey day, the stored data are transferred to a microcomputer where they corrected for the turn-off time, loop area, system gain and current, and converted from millivolts to nanoVolts per ampere meter squared or nanoVolts per meter squared. The data are then transferred to disk for storage and processing. Report quality field plots are generated on site, using a 24-pin printer in order to monitor the data characteristics and to provide a preliminary interpretation capability.

The following equations govern the transient EM response for buried plate-like conductive bodies[1]

$$emf = \frac{1}{\tau} e^{-t/\tau}$$

Target Response to Transmitter Current Waveform: *where:* t = *fixed time*
e = *exponential decay*
τ = *time constant of conductor*

Equation 1: Conductor Response to the Transient EM Waveform

The time constant of the response is alternatively defined as the slope of the lin-log decay curve (Geonics) or, more exactly, as the time channel where the amplitude of the decay collapses to 37% (1/e) of its maximum value. Both τ and the analogous decay strength (i.e., the number of anomalous channels above background), are commonly used as indicators of conductor quality. This relationship between decay-strength and the conductivity-thickness can easily be demonstrated in the following equation for a vertically dipping conductive sheet:

$$\tau = \frac{\sigma\mu th}{\pi^2} \quad \textit{for a thin plate}$$

where σ = *conductivity of target*
μ = *magnetic susceptibility*
t = *thickness of plate*
h = *vertical extension of plate*

Equation 2: Transient EM Decay Time Constant

[1] From Geonics Limited, EM-37 TEM System Design Parameter, Mississauga, Ont., 1982.

thereby giving, for an infinite vertical sheet:

$$\sigma t = \frac{\pi^2}{\mu h}\tau \approx \tau/_{0.31} \; mhos / metre \; (siemens)$$

Equation 3 Conductivity Thickness

From these equations and relationships, it therefore becomes obvious of the common use of the anomaly strength of decay as a simple, rule-of thumb indicator of the relative conductivity-thickness product for TEM surveys.

In addition, the total secondary field is calculated using the three components (Hx, Hy and Hz) in the following formula

$$Htot = \sqrt{Hx^2 + Hy^2 + Hz^2}\, nanoVolt / Am^2.$$

Equation 4: Transient EM Total Secondary Field

APPENDIX C

INSTRUMENT SPECIFICATIONS

GEONICS LIMITED
Digital Protem Receiver System
Technical Specifications

Measured Quantity: Time rate of decay of magnetic flux along 3 axes

Sensors:

1. (L.F.): Air-cored coil of bandwidth 60 kHz; 100 cm diameter
2. (H.F.):Air-cored coil of bandwidth 850 kHz; 100 cm diameter
3. (3D-3): Three orthogonal component sensor; simultaneous operation
4. (3D-1): Three orthogonal component sensor; sequential operation

Time channels: 20 geometrically spaced time gates for each base frequency gives range from 6 μsec to 800 msec.

Repetition Rate: 0.3 Hz, 0.75, 3, 7.4, 30, 75 or 285 Hz for 60 Hz power-line networks (Base Frequency)

Synchronization: 1) reference cable.
2) high stability (oven controlled) quartz crystals. (Switch selectable)

Integration time: 2, 4, 8, 15, 30, 60, 120, 240 sec.

Calibration: Internal self-calibration
External Q coil calibration (optional)

Keyboards: Two 3 x 4 matrix sealed key pads with positive tactile feedback

Gain: Automatic or manual control

Dynamic Range: 23 bits (132 dB)

Display Quantity:

(1) Table of time rate of decay of magnetic flux (dB/dt)
(2) Curve of rate of decay of magnetic flux (dB/dt)
(3) Table of apparent resistivity (ρ_a)
(4) Curve of apparent resistivity (ρ_a)
(5) Profile of dB/dt
(6) Real time noise monitor
(7) Calibration curve
(8) Data acquisition statistics (real time)

Storage: Solid state memory with capacity for over 3000 data sets

Display: 8 lines by 40 character (240 x 64 dot) graphic LCD

Data Transfer: Standard RS-232 communications port.

Processor: CMOS 68HC000 8 MHz CPU

Receiver Battery: 12 volts rechargeable battery for 8 hours continuous operation. 6 hours in XTAL mode

Receiver Size: 34 x 38 x 27 cm

Receiver Weight: 15 kg

Operating Temp.: -40°C to +50°C

Transmitters: (1) Geonics TEM47
(2) Geonics TEM57
(3) Geonics TEM37

	30/25Hz			7.5/6.25Hz			3/2.5Hz		
30 gate mode	start	center	width	start	center	width	start	center	width
1	5.800	6.800	2.000	32.00	36.00	8.000	80.00	90.00	20.00
2	7.800	9.110	2.625	40.00	45.25	10.50	100.0	113.1	26.25
3	10.40	12.00	3.250	50.50	57.00	13.00	126.3	142.5	32.50
4	13.70	15.90	4.375	63.50	72.25	17.50	158.8	180.6	43.75
5	18.00	20.80	5.500	81.00	92.00	22.00	202.5	230.0	55.00
6	23.50	27.00	7.000	103.0	117.0	28.00	257.5	292.5	70.00
7	30.50	34.80	8.500	131.0	148.0	34.00	327.5	370.0	85.00
8	39.00	44.40	10.75	165.0	186.5	43.00	412.5	466.3	107.5
9	49.80	56.30	13.00	208.0	234.0	52.00	520.0	585.0	130.0
10	62.80	70.30	15.00	260.0	290.0	60.00	650.0	725.0	150.0
11	77.80	85.90	16.25	320.0	352.5	65.00	800.0	881.3	162.5
12	94.10	104.7	21.25	385.0	427.5	85.00	963.0	1069	212.5
13	115.3	129.1	27.50	470.0	525.0	110.0	1175	1313	275.0
14	142.8	159.7	33.75	580.0	647.5	135.0	1450	1619	337.5
15	176.6	198.4	43.75	715.0	802.5	175.0	1788	2006	437.5
16	220.3	248.6	56.25	890.0	1002.5	225.0	2225	2506	562.5
17	276.6	312.3	71.25	1115	1257.5	285.0	2790	3144	712.5
18	347.8	393.5	91.25	1400	1582.5	365.0	3500	3957	912.5
19	439.0	497.1	116.2	1765	1997.5	465.0	4413	4994	1162
20	555.3	629.0	147.5	2230	2525.0	590.0	5575	6313	1475
21	702.8	797.3	188.7	2820	3197.5	755.0	7050	7994	1887
22	891.5	1012	240.0	3575	4055.0	960.0	8940	10138	2400
23	1131	1285	306.2	4535	5147.5	1225	11338	12870	3062
24	1438	1634	391.2	5760	6542.5	1565	14400	16350	3913
25	1829	2079	498.7	7325	8322.5	1995	18310	20806	4987
26	2328	2645	636.2	9320	10592	2545	23300	26475	6363
27	2964	3370	812.5	11865	13490	3250	29663	33725	8125
28	3776	4295	1036	15115	17187	4145	37800	42975	10362
29	4813	5473	1321	19260	21902	5285	48150	54750	13212
30	6134	6978	1685	24545	27915	6740	61360	69800	16850
	7819			31285			78200		

Note: All times in microseconds

Table C1: Digital Protem 30 Channel Gate Locations

GATE	285/237.5 Hz			75/62.5 Hz			30/25 Hz			GATE
1	6.000	6.813	1.625	32.00	35.25	6.500	80.00	88.13	16.25	1
2	7.625	8.688	2.125	38.50	42.75	8.500	96.25	106.9	21.25	2
3	9.750	11.13	2.750	47.00	52.5	11.00	117.5	131.3	27.5	3
4	12.50	14.19	3.375	58.00	64.75	13.50	145.0	161.9	33.75	4
5	15.88	18.07	4.375	71.5	80.25	17.50	178.8	200.6	43.75	5
6	20.25	23.06	5.625	89.00	100.3	22.50	222.5	250.6	56.25	6
7	25.88	29.44	7.125	111.5	125.8	28.50	278.8	314.4	71.25	7
8	33.00	37.56	9.125	140.0	158.3	36.50	350.0	395.6	91.25	8
9	42.13	47.94	11.63	176.5	199.8	46.50	441.3	499.4	116.3	9
10	53.75	61.13	14.75	223.0	252.5	59.00	557.5	631.3	147.5	10
11	68.50	77.94	18.88	282.0	319.8	75.50	705.0	799.4	188.8	11
12	87.38	99.38	24.00	357.5	405.5	96.00	893.8	1014	240.0	12
13	111.4	126.7	30.63	453.5	514.8	122.5	1134	1287	306.3	13
14	151.7**	166.4	29.38	576.0	654.3	156.5	1440	1636	391.3	14
15	181.1	206.0	49.88	732.5	832.3	199.5	1831	2081	498.8	15
16	231.0	262.8	62.63	932.0	1059	254.5	2330	2648	636.3	16
17	294.6	335.2	81.25	1187	1349	325.0	2966	3373	812.5	17
18	375.9	427.7	103.6	1512	1719	414.5	3779	4297	1036	18
19	479.5	545.6	132.1	1926	2190	528.5	4815	5475	1321	19
20	611.6	695.9	168.5	2455	2792	674.0	6136	6978	1685	20
21*	780.1			3129			7821			21*

Table C2: Digital Protem 20 Channel Gate Locations

* End of Gate 20

** A Gap of 9.7 μsec exists between Gate 13 and Gate 14 in the micro-frequency range/

This Table applies to both synchronization modes regardless of which of TEM37, TEM47 and TEM57 transmitters is used, provided that correct Tx model is selected in Header (2.4).

Note: 7.5/6.25 and 0.75/0.625 Hz proportional to 75/62.5 Hz
3/2.5 and 0.3/0.25 Hz proportional to 30/25 Hz

GEONICS LIMITED
EM-37 Transient Electromagnetic Transmitter
Technical Specifications

Current Wave form: bipolar square wave.

Repetition Rate: 3Hz, 7.5Hz or 30Hz in countries using 60Hz power line frequency; 2.5Hz, 6.25Hz or 25Hz in countries using 50Hz power line frequency; all six base frequencies are switch selectable.

Turn-off Time(t): fast linear turn-off maximum of 450 μsec. at 30 amps into a 300x600 meter loop. Decreases proportionally with current and the root of the loop area to a maximum of 20 μ sec. Actual value of t read on front panel meter.

Transmitter Loop: any dimensions from 40x40 meters to 300x600 meters maximum at 30 amps. Larger dimensions at reduced current. Transmitter output voltage switch adjustable for smaller loops. Value of loop resistance read from front panel meter; resistance must be greater than 1 ohm on lowest setting to prevent overload.

Protection: circuit breaker protection against input over voltage; instantaneous solid state protection against output short circuit; automatically resets on removal of short circuit. Input voltage output voltage and current indicated on front panel meter.

Output voltage: 24 to 160 volts (zero to peak) maximum

Output power: 2800 watt maximum

Motor generator: 5 HP Honda gasoline engine coupled to a 120 volt, three phase, 400 Hz alternator. Approximately 8 hours continuous operation from built-in fuel tank.

Component Dimensions and Weights

Transmitter Console : 20 by 42 by 32 cm, 20 kg

GPU: 44 by 32 by 21 cm, 65 kg

APPENDIX D

PRODUCTION LOG
WHITNEY LAKE PROPERTY
SURFACE TEM SURVEY

Date	Description	Line	Start	End	Coverage
08-Sep-05	Mob in equipment, access to only 1 loop corner at base of very high cliff, loop lines not cut, only flagged and very badly positioned (crooked), lay out 600m x 400m loop as accurately as possible under less than ideal conditions due to rugged terrain & thick bush				
09-Sep-05	400m x 600m tx loop, V=150v, I=13.0a, To=240us				
	noisy data, ran tests on L 1500W to verify equipment	L 1500 W	475 N	700S	1175
		L 1700 W	475 N	700S	1175
		L 1900 W	475 N	675S	1150
10-Sep-05	400m x 600m tx loop, V=150v, I=13.0a, To=235us				
	start survey, open tx loop, repair loop, lost 4 hrs, re-survey	L 2100 W	475 N	675 S	1150
	visually check stn L 1500W-425N for culture to verify anomaly				
	Pull out Tx. Loop & equipment				

APPENDIX E

LIST OF MAPS

- **LPTEM Surface Profiles:** **Multi-Channel 4-Axis Profile Plots:** showing time rate of decay of the secondary electromagnetic field, for X, Y , Z and Total Field components, 1:5000 scale, ch. 1-20 divided according to 4 vertical (linear) axes, nanoVolts per Ampere-meter^2

  Drawing #s=**QG-393-4AXIS-K-Line#**, where K=Z, X, Y, TF (Total Field).

GRID	LINES	# PROFILES
Whitney Lake	1500 W – 2100 W	16

Total Profiles: 16

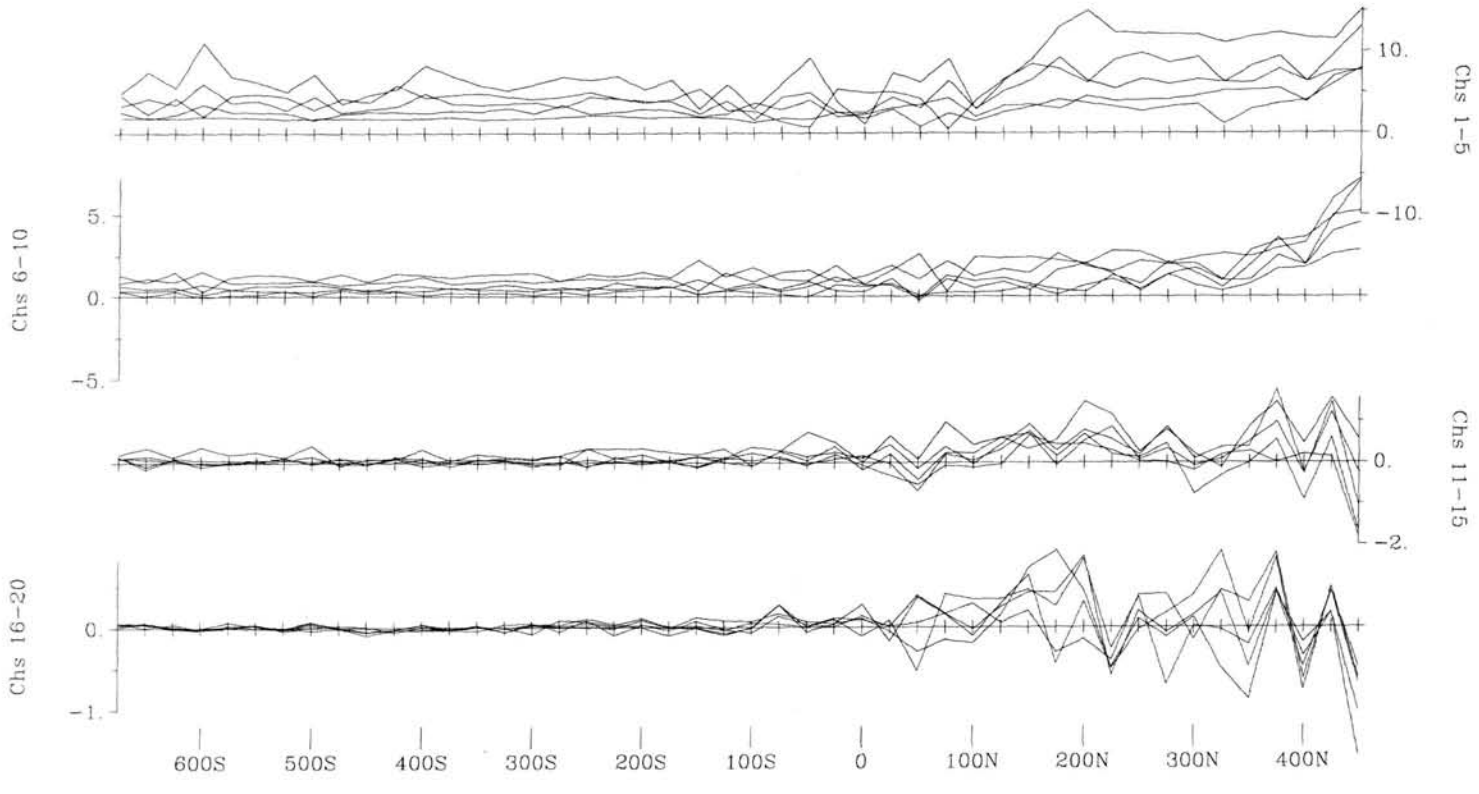
- **Plan Maps:** **Contour Plan** – Colour contour plan map of Channel 10 Hx Component (posted) at a scale of 1:5000

  Interpretation Plan – Conductor axis map overlying channel 10 Hx colour grid at a scale of 1:5000

Total Plan Maps: 2

APPENDIX F

PROFILES AND PLAN MAPS



Line 2100W - Z Component

WHITNEY LAKE

Scale 1:5000

50 0 50 100 150 200

(metres)

SANFORD EXPLORATION CANADA INC.

WHITNEY LAKE

Gillies Limit Twp., ON

LPTEM FIXED-LOOP PROFILING SURVEY

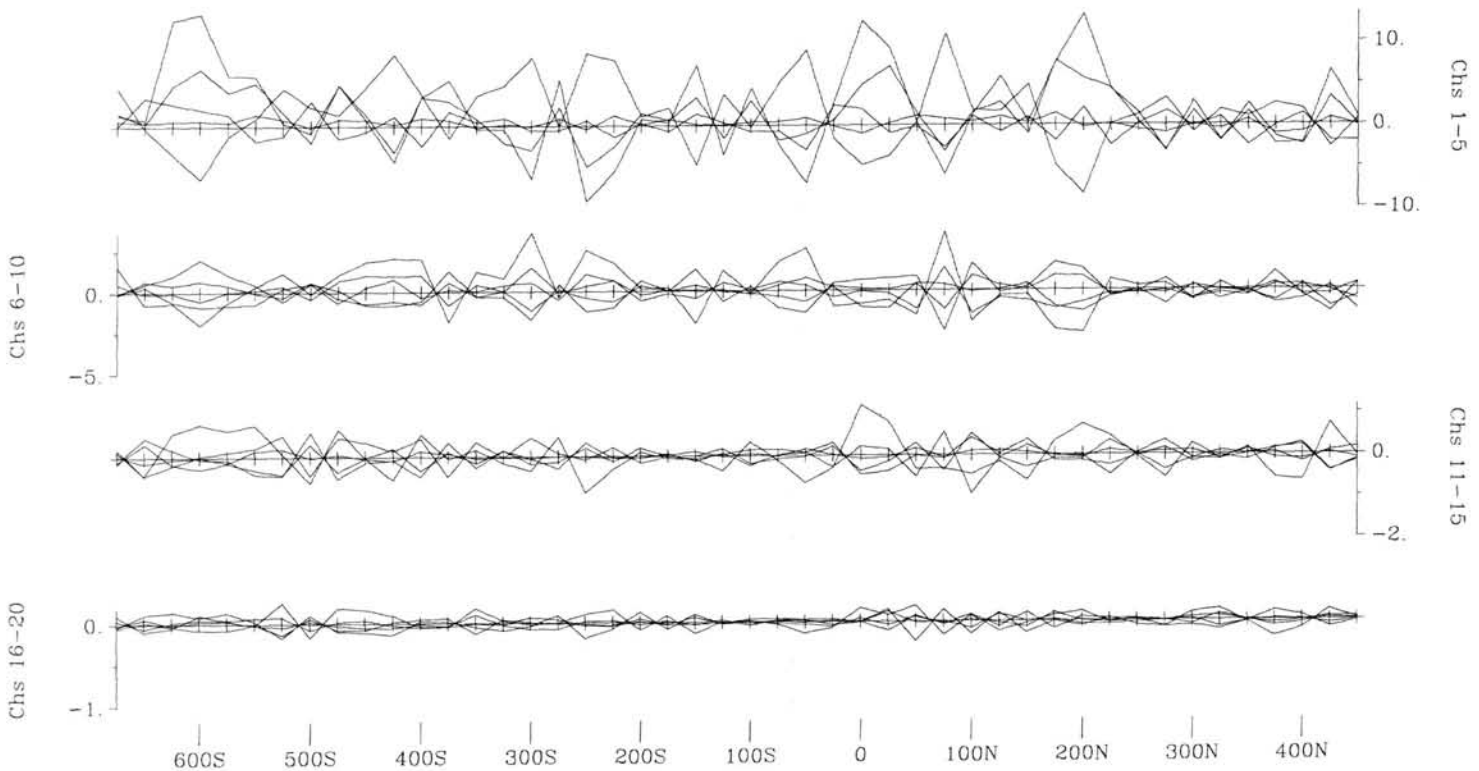
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency:	30 Hz (50% duty cycle)
Tx Loop Size:	400m X 600m
Tx Loop Location:	L 1500W - L 2100W, 500N - 900N
Transmitter Current:	13.0 Amps
Transmitter Turn-Off Time:	235 us
Station Interval:	25m
Profile Units:	nanoVolt/A•m^2
Receiver Coil Orientation:	Hz - positive up Hx - positive south Hy - positive east
Survey Date:	09/10/2005
Instrumentation:	Rx = Digital Protem (3x20 Channels) & Geonics 3D Coil (3x200m^2) Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:

QUANTEC GEOSCIENCE INC.

DWG. NO. QG-393-4AXIS-Z-2100W



Line 2100W – X Component

WHITNEY LAKE

Scale 1:5000

50 0 50 100 150 200

(metres)

SANFORD EXPLORATION CANADA INC.

WHITNEY LAKE

Gillies Limit Twp., ON

LPTEM FIXED-LOOP PROFILING SURVEY

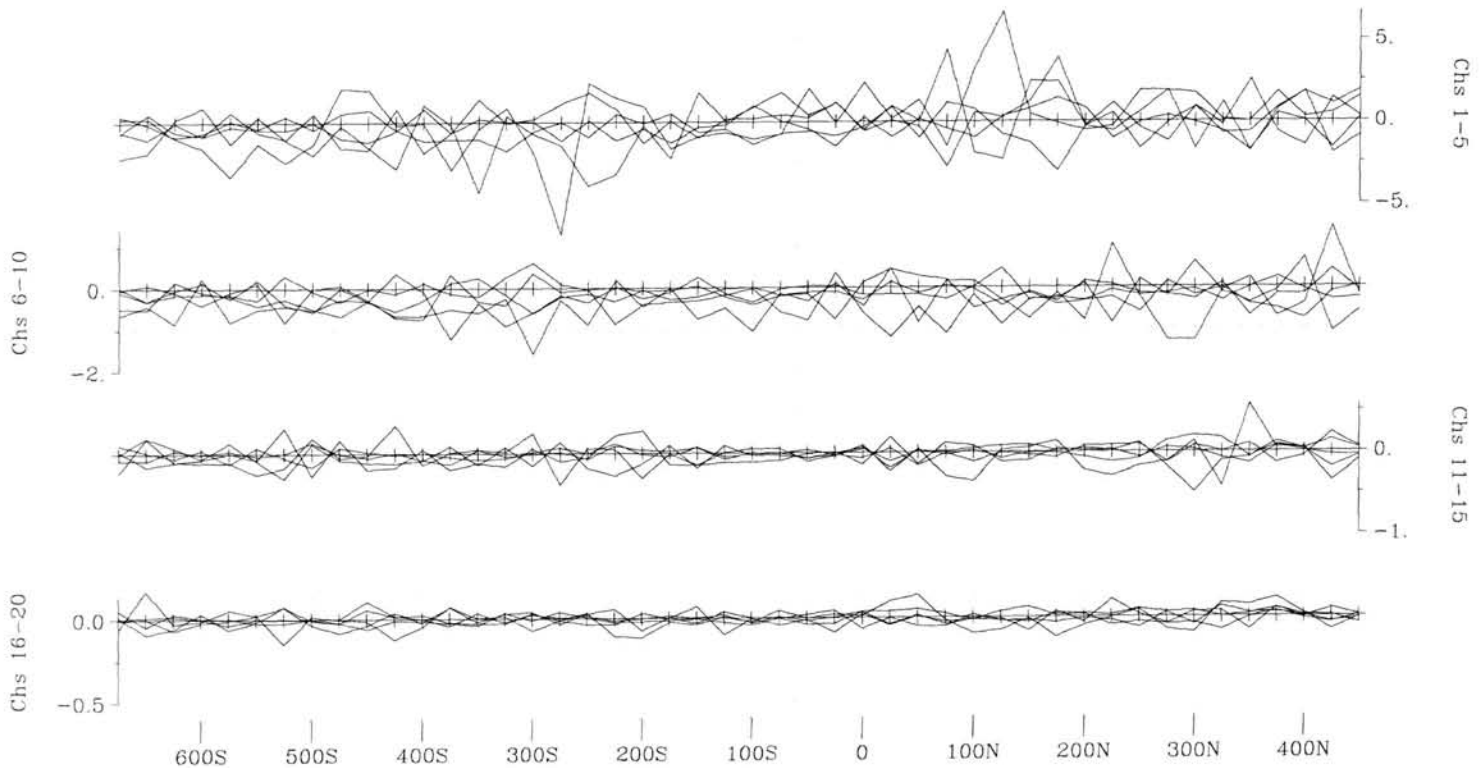
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency:	30 Hz (50% duty cycle)
Tx Loop Size:	400m X 600m
Tx Loop Location:	L 1500W - L 2100W, 500N - 900N
Transmitter Current:	13.0 Amps
Transmitter Turn-Off Time:	235 us
Station Interval:	25m
Profile Units:	nanoVolt/A•m^2
Receiver Coil Orientation:	Hz - positive up
	Hx - positive south
	Hy - positive east
Survey Date:	09/10/2005
Instrumentation:	Rx = Digital Protem (3x20 Channels)
	& Geonics 3D Coil (3x200m^2)
	Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:

QUANTEC GEOSCIENCE INC.

DWG. NO. QG-393-4AXIS-X-2100W



Line 2100W – Y Component

WHITNEY LAKE

Scale 1:5000

50 0 50 100 150 200

(metres)

SANFORD EXPLORATION CANADA INC.

WHITNEY LAKE

Gillies Limit Twp., ON

LPTEM FIXED-LOOP PROFILING SURVEY

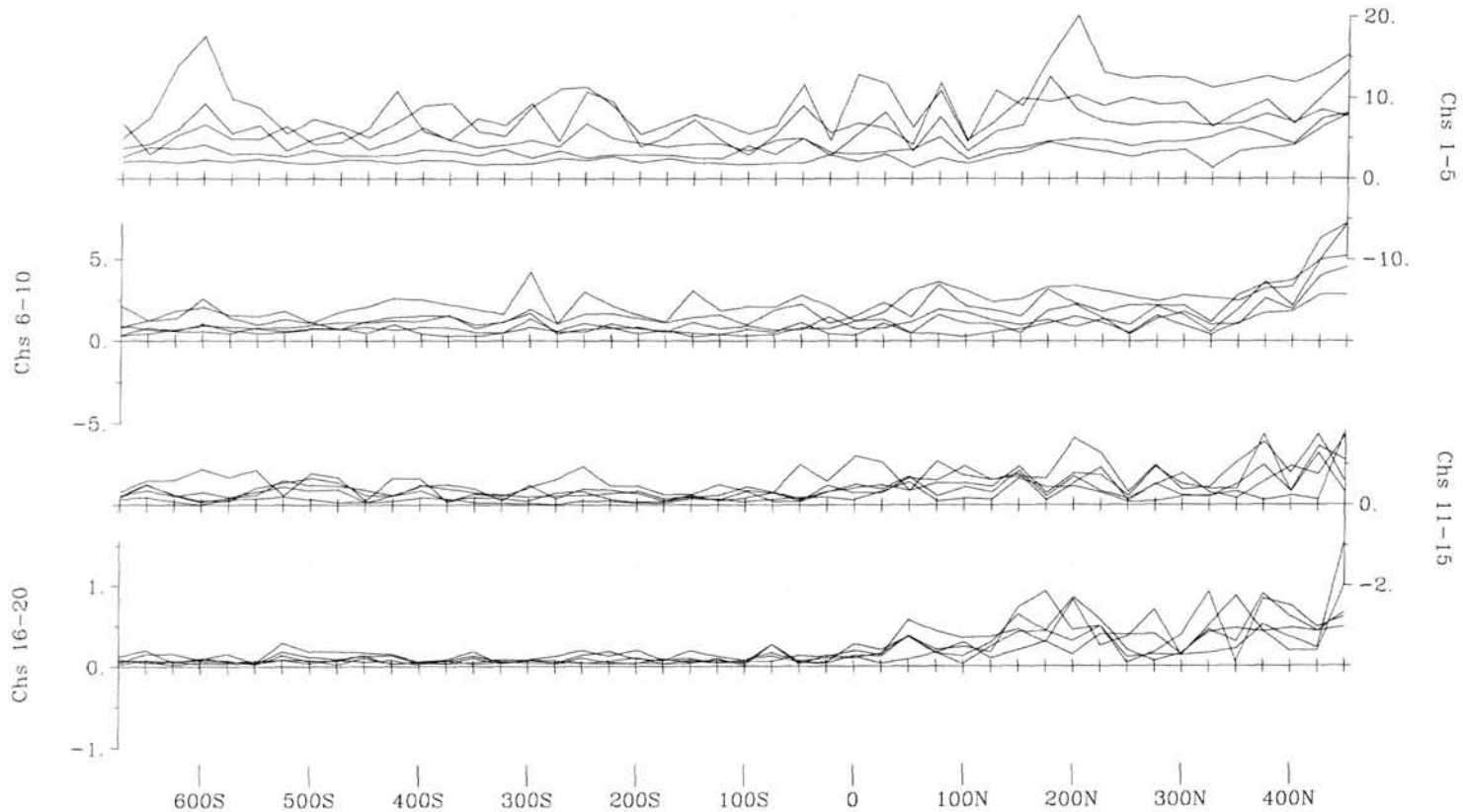
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency:	30 Hz (50% duty cycle)
Tx Loop Size:	400m X 600m
Tx Loop Location:	L 1500W - L 2100W, 500N - 900N
Transmitter Current:	13.0 Amps
Transmitter Turn-Off Time:	235 us
Station Interval:	25m
Profile Units:	nanoVolt/A•m^2
Receiver Coil Orientation:	Hz - positive up Hx - positive south Hy - positive east
Survey Date:	09/10/2005
Instrumentation:	Rx = Digital Protem (3x20 Channels) & Geonics 3D Coil (3x200m^2) Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:

QUANTEC GEOSCIENCE INC.

DWG. NO. QG-393-4AXIS-Y-2100W



Line 2100W - Total Field

WHITNEY LAKE

Scale 1:5000

50 0 50 100 150 200

(metres)

SANFORD EXPLORATION CANADA INC.

WHITNEY LAKE

Gillies Limit Twp., ON

LPTEM FIXED-LOOP PROFILING SURVEY

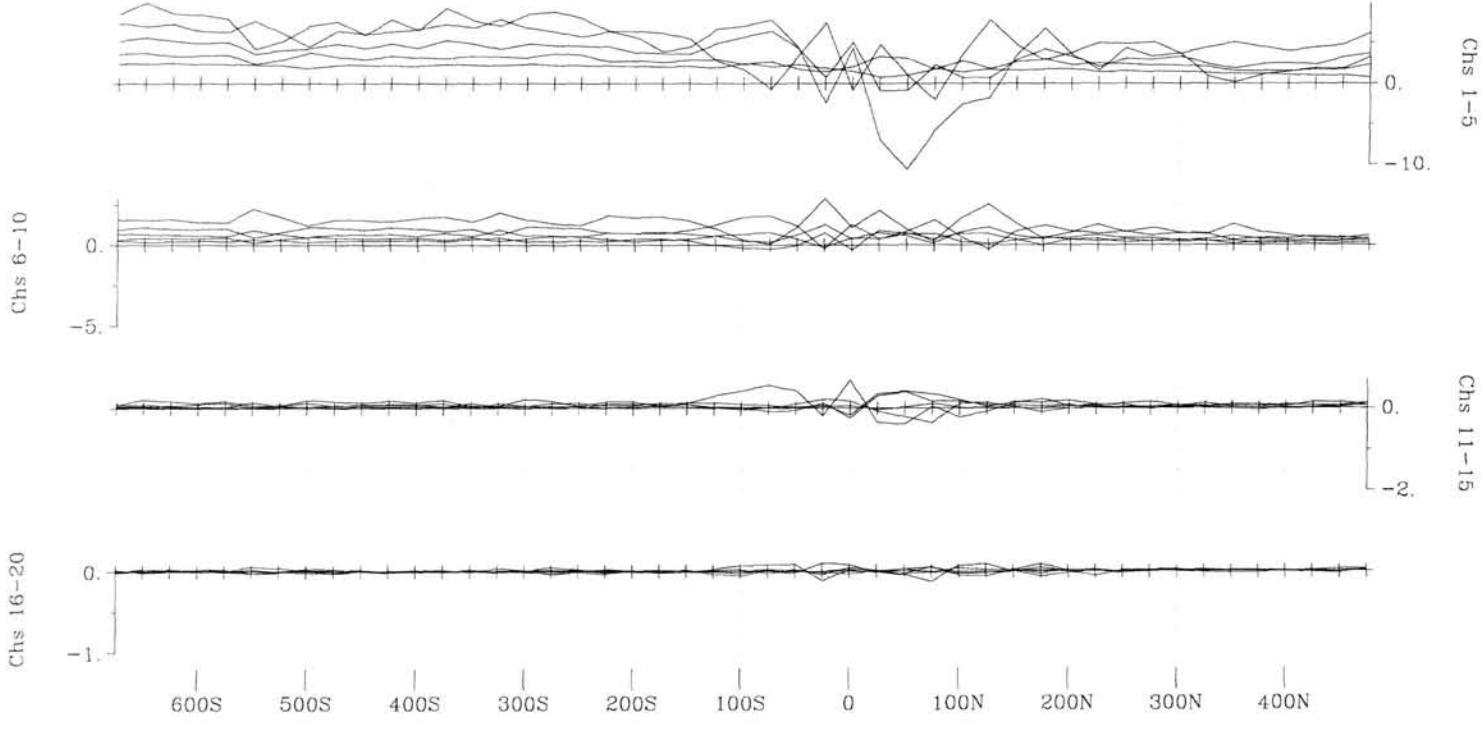
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency:	30 Hz (50% duty cycle)
Tx Loop Size:	400m X 600m
Tx Loop Location:	L 1500W - L 2100W, 500N - 900N
Transmitter Current:	13.0 Amps
Transmitter Turn-Off Time:	235 us
Station Interval:	25m
Profile Units:	nanoVolt/A•m^2
Receiver Coil Orientation:	Hz - positive up
	Hx - positive south
	Hy - positive east
Survey Date:	09/10/2005
Instrumentation:	Rx = Digital Protem (3x20 Channels)
	& Geonics 3D Coil (3x200m^2)
	Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:

QUANTEC GEOSCIENCE INC.

DWG. NO. QG-393-4AXIS-TF-2100W



Line 1900W - Z Component

WHITNEY LAKE

Scale 1:5000

50 0 50 100 150 200

(metres)

SANFORD EXPLORATION CANADA INC.

WHITNEY LAKE

Gillies Limit Twp., ON

LPTEM FIXED-LOOP PROFILING SURVEY

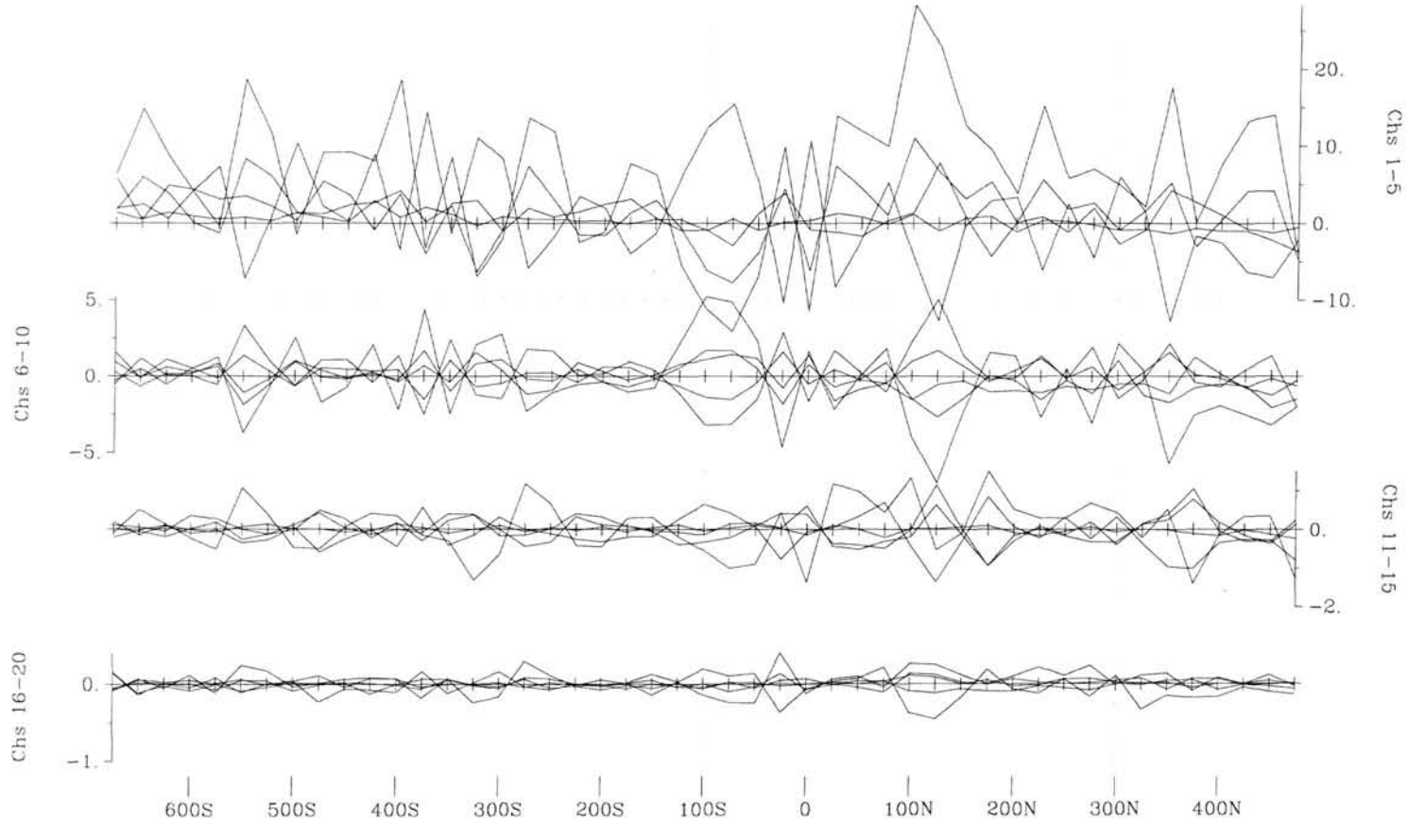
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency:	30 Hz (50% duty cycle)
Tx Loop Size:	400m X 600m
Tx Loop Location:	L 1500W - L 2100W, 500N - 900N
Transmitter Current:	13.0 Amps
Transmitter Turn-Off Time:	240 us
Station Interval:	25m
Profile Units:	nanoVolt/A•m^2
Receiver Coil Orientation:	Hz - positive up Hx - positive south Hy - positive east
Survey Date:	09/09/2005
Instrumentation:	Rx = Digital Protem (3x20 Channels) & Geonics 3D Coil (3x200m^2) Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:

QUANTEC GEOSCIENCE INC.

DWG. NO. QG-393-4AXIS-Z-1900W



Line 1900W – X Component

WHITNEY LAKE

Scale 1:5000

50 0 50 100 150 200

(metres)

SANFORD EXPLORATION CANADA INC.

WHITNEY LAKE

Gillies Limit Twp., ON

LPTEM FIXED-LOOP PROFILING SURVEY

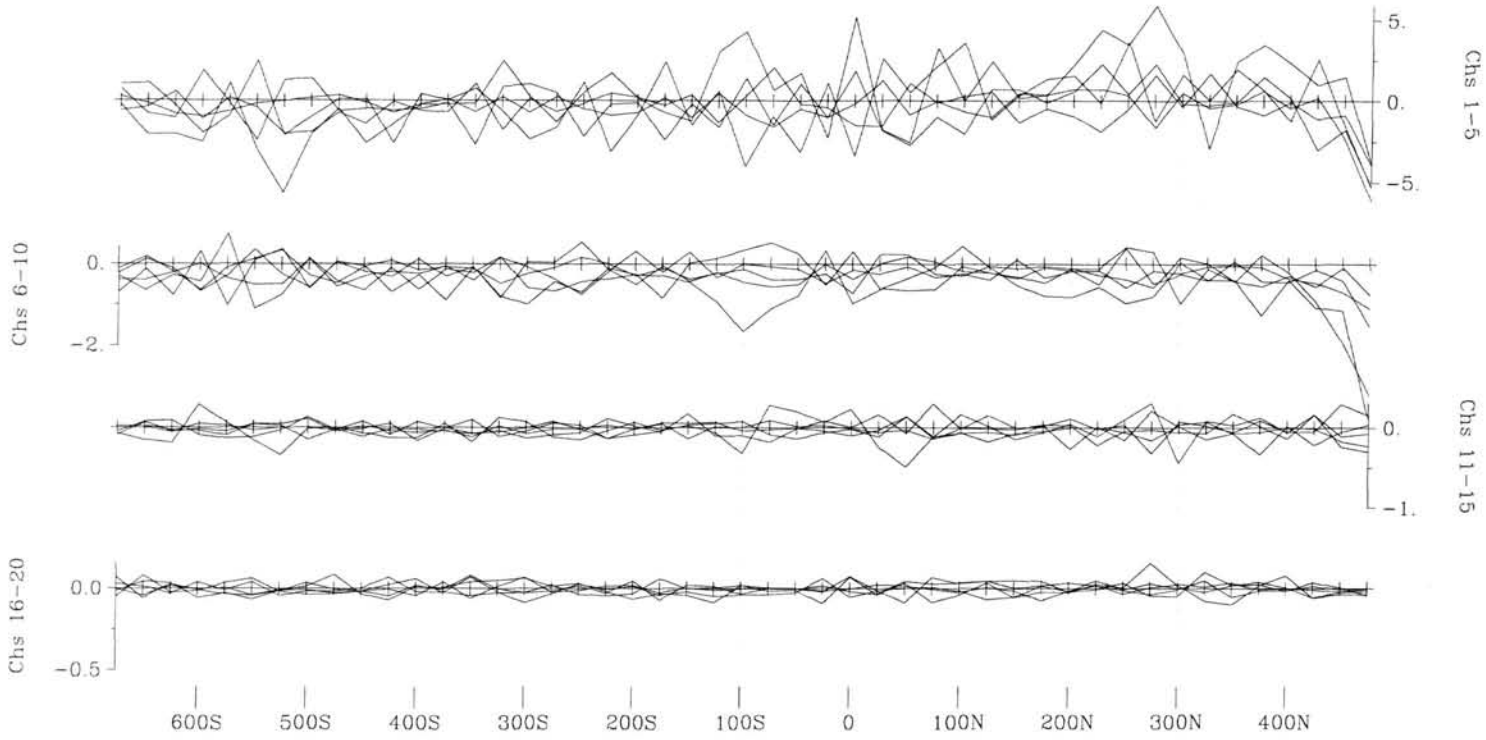
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency:	30 Hz (50% duty cycle)
Tx Loop Size:	400m X 600m
Tx Loop Location:	L 1500W - L 2100W, 500N - 900N
Transmitter Current:	13.0 Amps
Transmitter Turn-Off Time:	240 us
Station Interval:	25m
Profile Units:	nanoVolt/A•m^2
Receiver Coil Orientation:	Hz - positive up Hx - positive south Hy - positive east
Survey Date:	09/09/2005
Instrumentation:	Rx = Digital Protem (3x20 Channels) & Geonics 3D Coil (3x200m^2) Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:

QUANTEC GEOSCIENCE INC.

DWG. NO. QG-393-4AXIS-X-1900W



Line 1900W – Y Component

WHITNEY LAKE

Scale 1:5000

50 0 50 100 150 200

(metres)

SANFORD EXPLORATION CANADA INC.

WHITNEY LAKE

Gillies Limit Twp., ON

LPTEM FIXED-LOOP PROFILING SURVEY

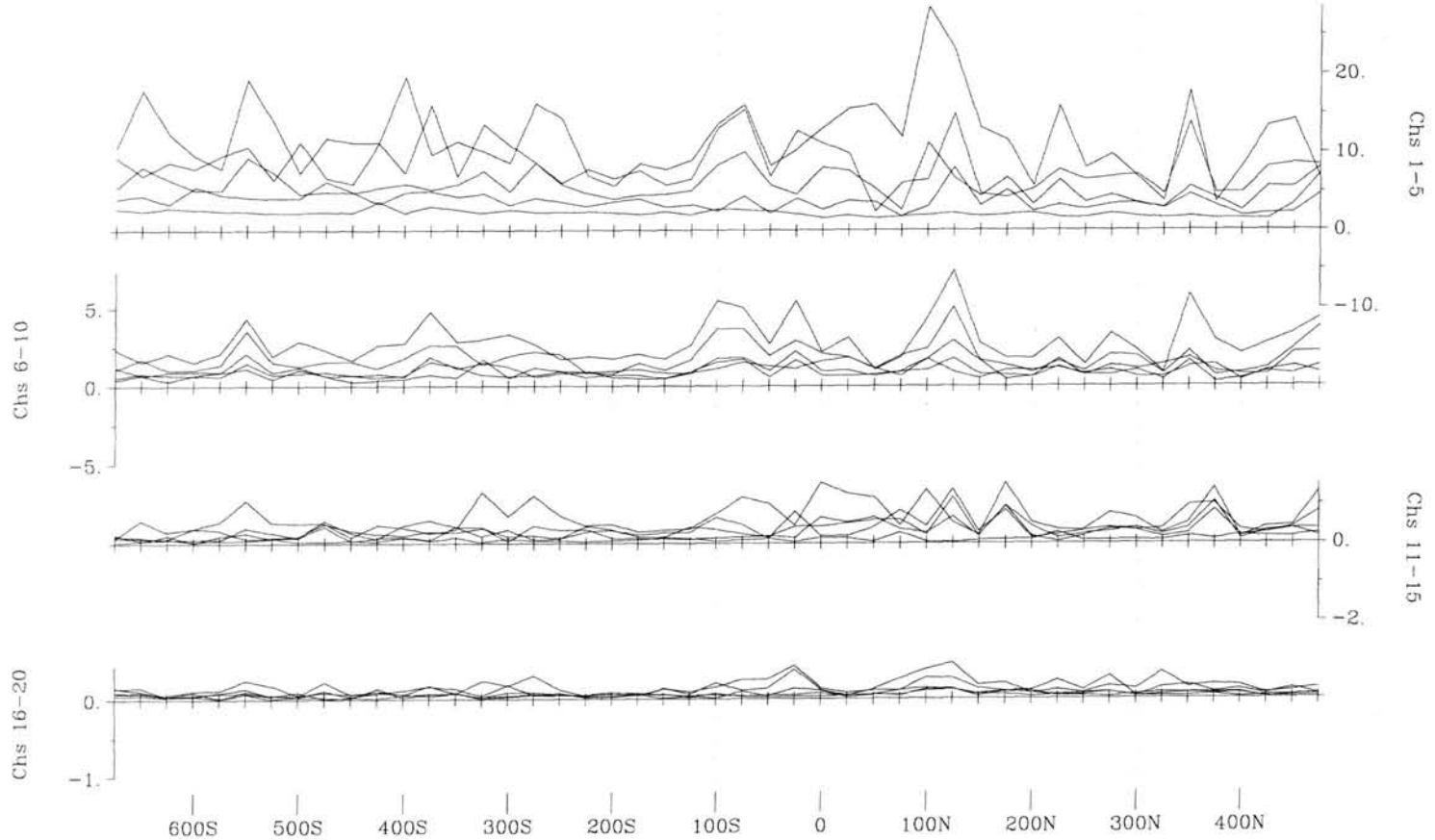
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency:	30 Hz (50% duty cycle)
Tx Loop Size:	400m X 600m
Tx Loop Location:	L 1500W - L 2100W, 500N - 900N
Transmitter Current:	13.0 Amps
Transmitter Turn-Off Time:	240 us
Station Interval:	25m
Profile Units:	nanoVolt/A*m^2
Receiver Coil Orientation:	Hz - positive up
	Hx - positive south
	Hy - positive east
Survey Date:	09/09/2005
Instrumentation:	Rx = Digital Protem (3x20 Channels)
	& Geonics 3D Coil (3x200m^2)
	Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:

QUANTEC GEOSCIENCE INC.

DWG. NO. QG-393-4AXIS-Y-1900W



Line 1900W – Total Field

WHITNEY LAKE

Scale 1:5000

50 0 50 100 150 200

(metres)

SANFORD EXPLORATION CANADA INC.

WHITNEY LAKE

Gillies Limit Twp., ON

LPTEM FIXED-LOOP PROFILING SURVEY

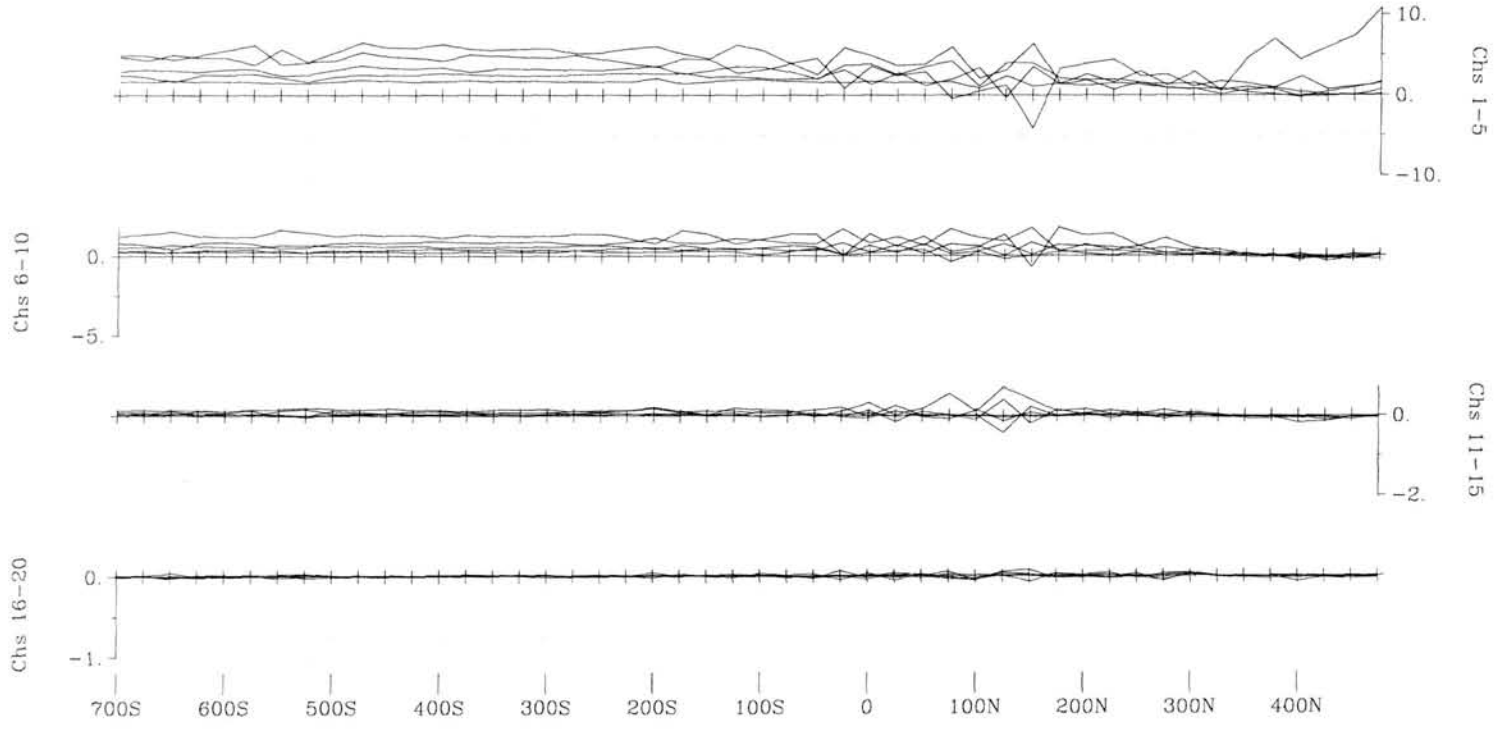
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency:	30 Hz (50% duty cycle)
Tx Loop Size:	400m X 600m
Tx Loop Location:	L 1500W - L 2100W, 500N - 900N
Transmitter Current:	13.0 Amps
Transmitter Turn-Off Time:	240 us
Station Interval:	25m
Profile Units:	nanoVolt/A•m^2
Receiver Coil Orientation:	Hz - positive up
	Hx - positive south
	Hy - positive east
Survey Date:	09/09/2005
Instrumentation:	Rx = Digital Protem (3x20 Channels)
	& Geonics 3D Coil (3x200m^2)
	Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:

QUANTEC GEOSCIENCE INC.

DWG. NO. QG-393-4AXIS-TF-1900W



Line 1700W – Z Component

WHITNEY LAKE

Scale 1:5000

50 0 50 100 150 200

(metres)

SANFORD EXPLORATION CANADA INC.

WHITNEY LAKE

Gillies Limit Twp., ON

LPTEM FIXED-LOOP PROFILING SURVEY

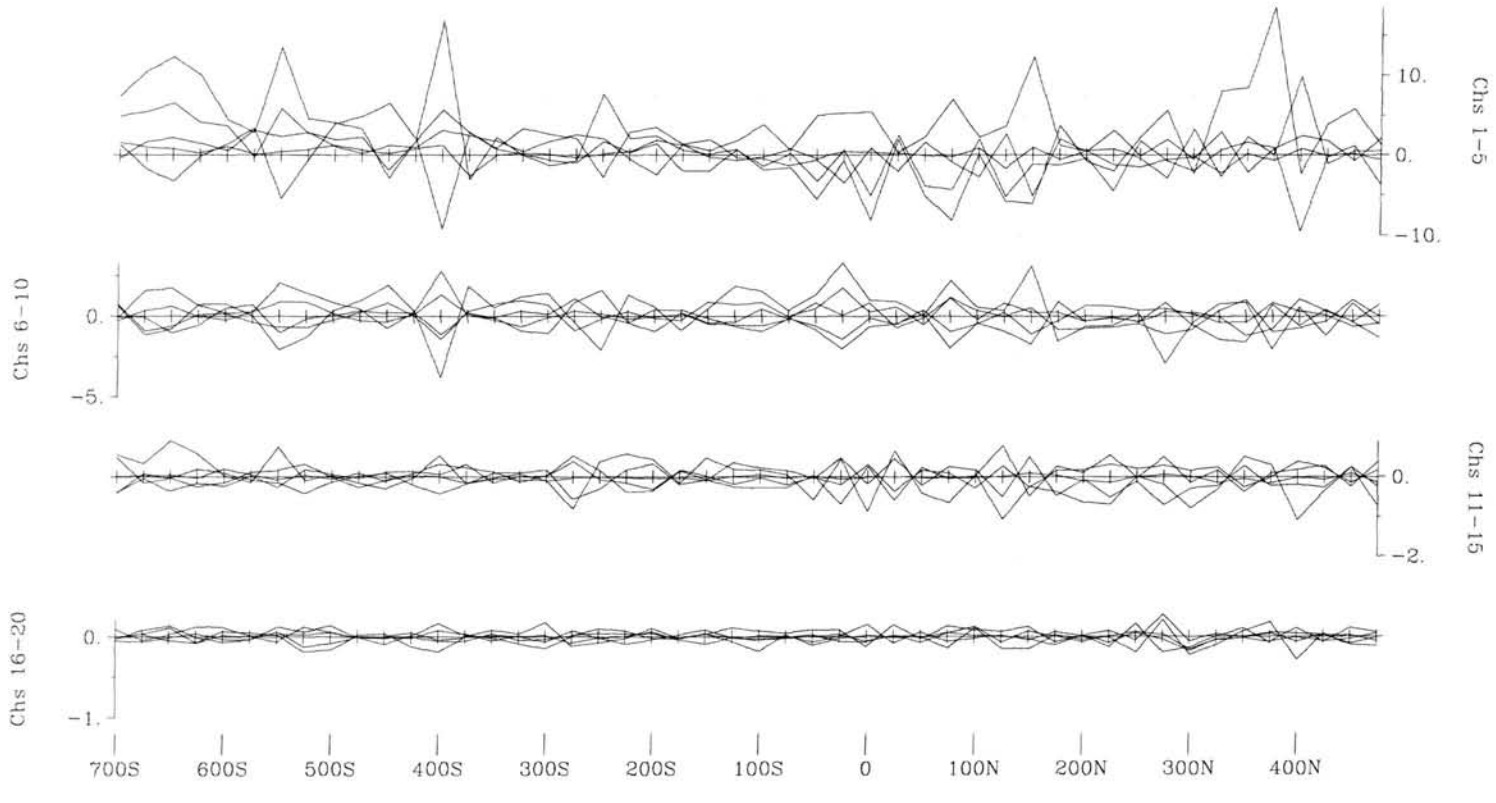
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency:	30 Hz (50% duty cycle)
Tx Loop Size:	400m X 600m
Tx Loop Location:	L 1500W - L 2100W, 500N - 900N
Transmitter Current:	13.0 Amps
Transmitter Turn-Off Time:	240 us
Station Interval:	25m
Profile Units:	nanoVolt/A•m^2
Receiver Coil Orientation:	Hz - positive up Hx - positive south Hy - positive east
Survey Date:	09/09/2005
Instrumentation:	Rx = Digital Protem (3x20 Channels) & Geonics 3D Coil (3x200m^2) Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:

QUANTEC GEOSCIENCE INC.

DWG. NO. QG-393-4AXIS-Z-1700W



Line 1700W – X Component

WHITNEY LAKE

Scale 1:5000

50 0 50 100 150 200

(metres)

SANFORD EXPLORATION CANADA INC.

WHITNEY LAKE

Gillies Limit Twp., ON

LPTEM FIXED-LOOP PROFILING SURVEY

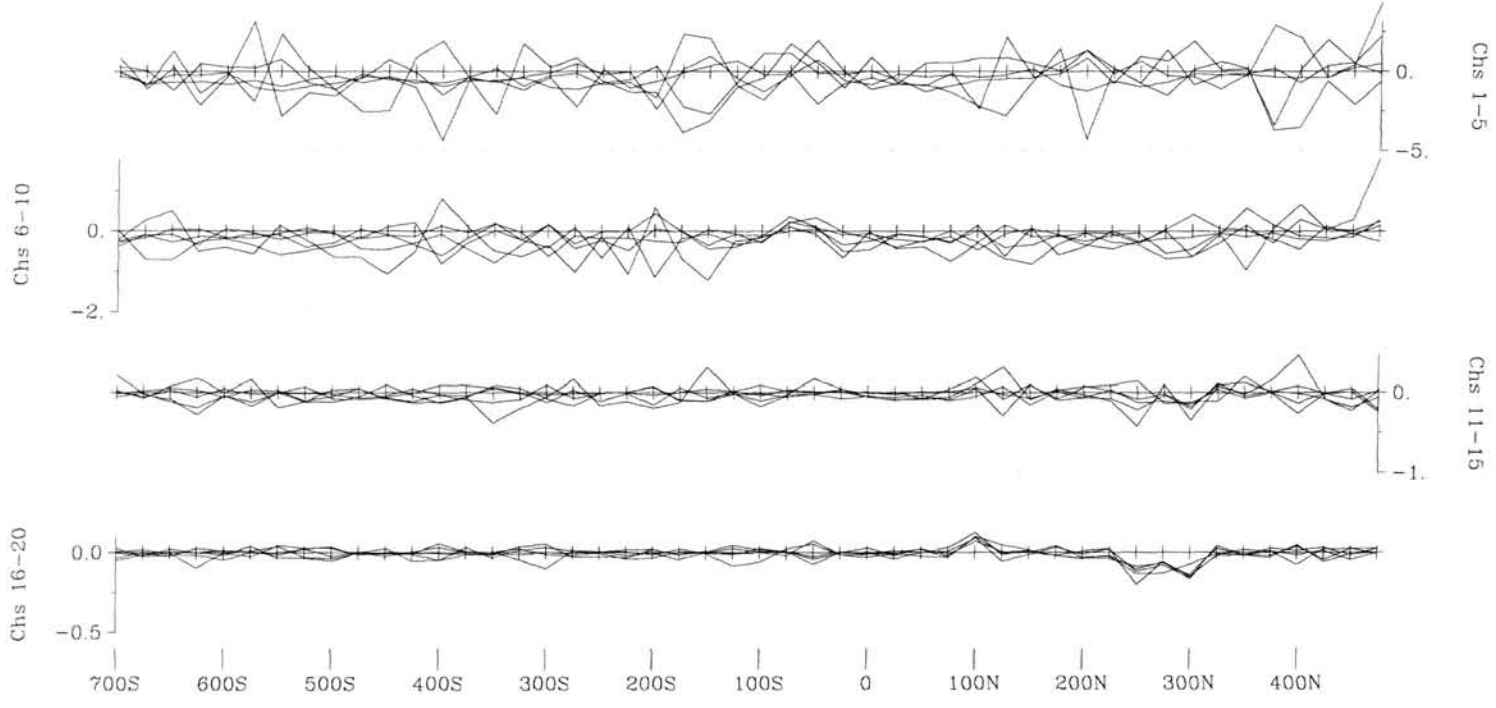
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency:	30 Hz (50% duty cycle)
Tx Loop Size:	400m X 600m
Tx Loop Location:	L 1500W - L 2100W, 500N - 900N
Transmitter Current:	13.0 Amps
Transmitter Turn-Off Time:	240 us
Station Interval:	25m
Profile Units:	nanoVolt/A•m^2
Receiver Coil Orientation:	Hz - positive up Hx - positive south Hy - positive east
Survey Date:	09/09/2005
Instrumentation:	Rx = Digital Protem (3x20 Channels) & Geonics 3D Coil (3x200m^2) Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:

QUANTEC GEOSCIENCE INC.

DWG. NO. QG-393-4AXIS-X-1700W



Line 1700W – Y Component

WHITNEY LAKE

Scale 1:5000

50 0 50 100 150 200

(metres)

SANFORD EXPLORATION CANADA INC.

WHITNEY LAKE

Gillies Limit Twp., ON

LPTEM FIXED-LOOP PROFILING SURVEY

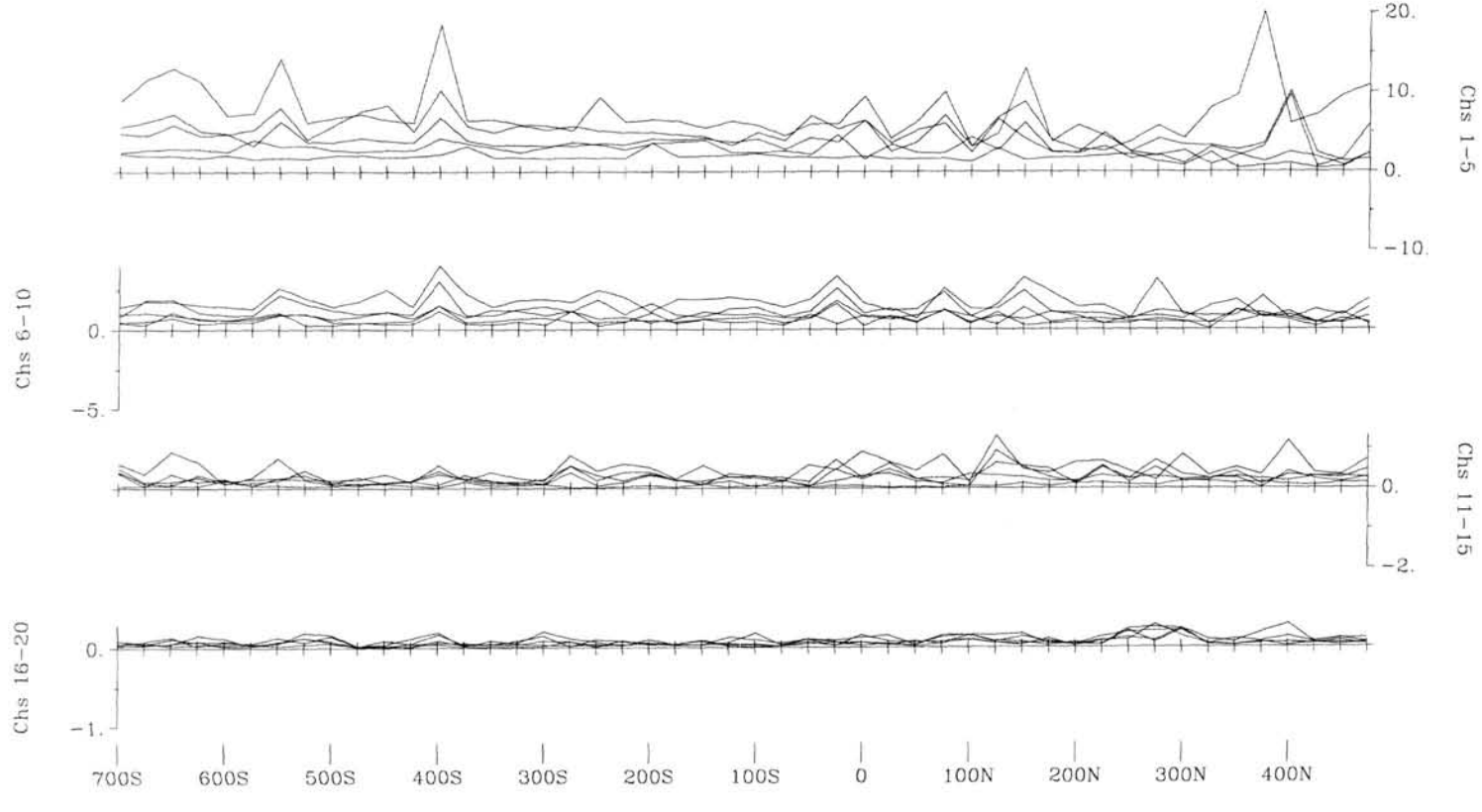
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency:	30 Hz (50% duty cycle)
Tx Loop Size:	400m X 600m
Tx Loop Location:	L 1500W - L 2100W, 500N - 900N
Transmitter Current:	13.0 Amps
Transmitter Turn-Off Time:	240 us
Station Interval:	25m
Profile Units:	nanoVolt/A•m^2
Receiver Coil Orientation:	Hz - positive up Hx - positive south Hy - positive east
Survey Date:	09/09/2005
Instrumentation:	Rx = Digital Protem (3x20 Channels) & Geonics 3D Coil (3x200m^2) Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:

QUANTEC GEOSCIENCE INC.

DWG. NO. QG-393-4AXIS-Y-1700W



Line 1700W - Total Field

WHITNEY LAKE

Scale 1:5000

50 0 50 100 150 200

(metres)

SANFORD EXPLORATION CANADA INC.

WHITNEY LAKE

Gillies Limit Twp., ON

LPTEM FIXED-LOOP PROFILING SURVEY

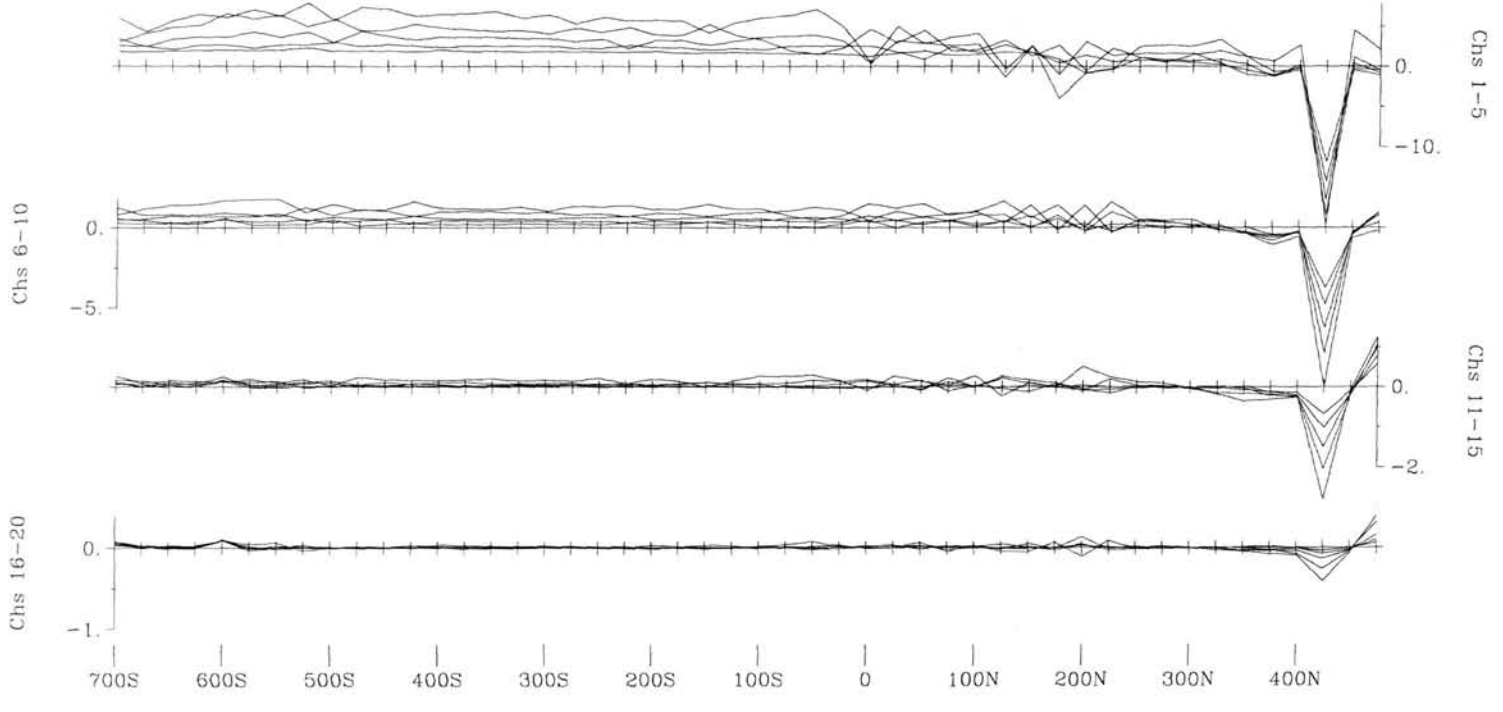
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency:	30 Hz (50% duty cycle)
Tx Loop Size:	400m X 600m
Tx Loop Location:	L 1500W - L 2100W, 500N - 900N
Transmitter Current:	13.0 Amps
Transmitter Turn-Off Time:	240 us
Station Interval:	25m
Profile Units:	nanoVolt/A•m^2
Receiver Coil Orientation:	Hz - positive up Hx - positive south Hy - positive east
Survey Date:	09/09/2005
Instrumentation:	Rx = Digital Protem (3x20 Channels) & Geonics 3D Coil (3x200m^2) Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:

QUANTEC GEOSCIENCE INC.

DWG. NO. QG-393-4AXIS-TF-1700W



Line 1500W – Z Component

WHITNEY LAKE

Scale 1:5000

50 0 50 100 150 200

(metres)

SANFORD EXPLORATION CANADA INC.

WHITNEY LAKE

Gillies Limit Twp., ON

LPTEM FIXED-LOOP PROFILING SURVEY

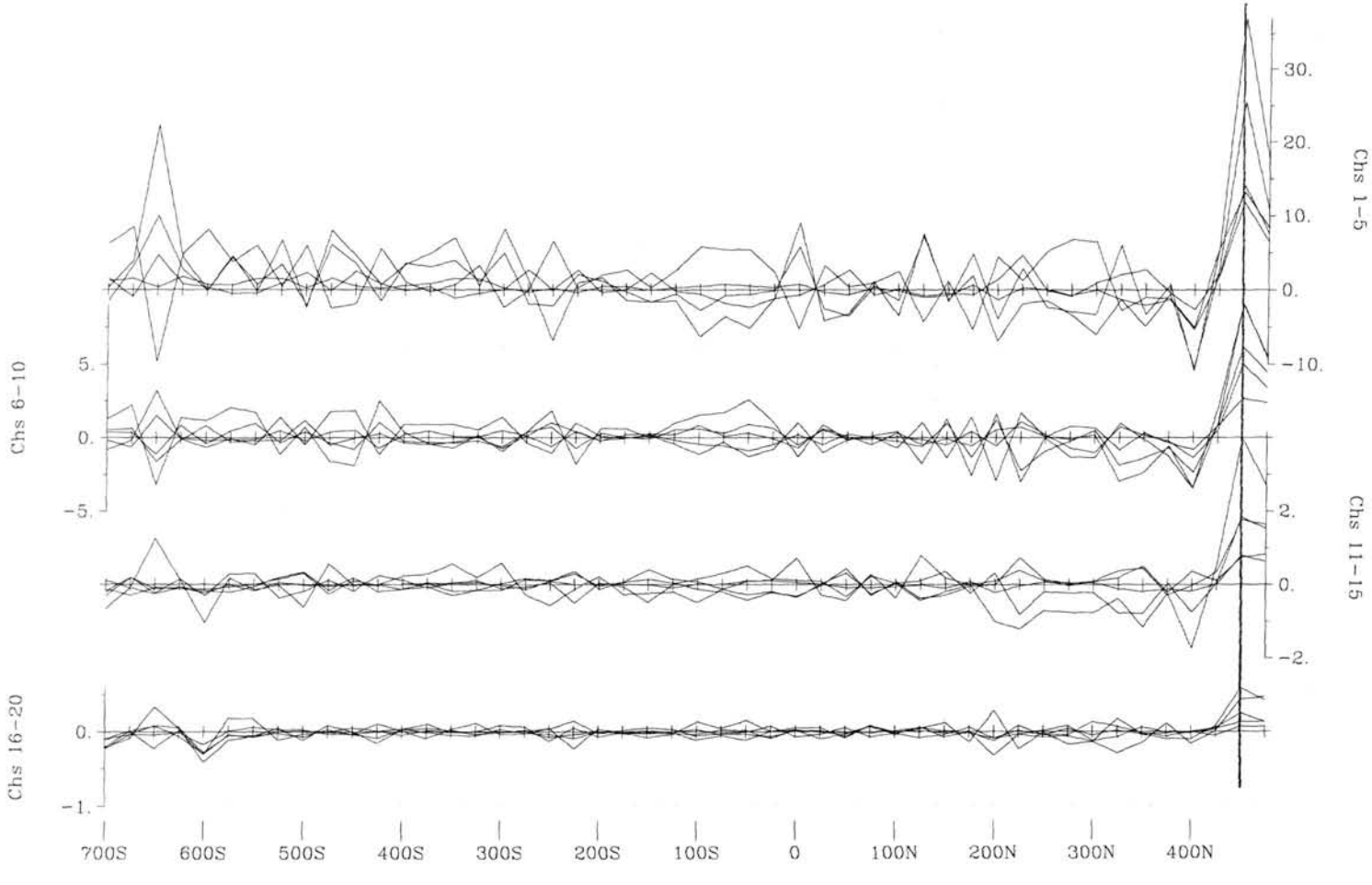
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency:	30 Hz (50% duty cycle)
Tx Loop Size:	400m X 600m
Tx Loop Location:	L 1500W - L 2100W, 500N - 900N
Transmitter Current:	13.0 Amps
Transmitter Turn-Off Time:	240 us
Station Interval:	25m
Profile Units:	nanoVolt/A•m^2
Receiver Coil Orientation:	Hz - positive up Hx - positive south Hy - positive east
Survey Date:	09/09/2005
Instrumentation:	Rx = Digital Protem (3x20 Channels) & Geonics 3D Coil (3x200m^2) Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:

QUANTEC GEOSCIENCE INC.

DWG. NO. QG-393-4AXIS-Z-1500W



Line 1500W – X Component

WHITNEY LAKE

Scale 1:5000

50 0 50 100 150 200

(metres)

SANFORD EXPLORATION CANADA INC.

WHITNEY LAKE

Gillies Limit Twp., ON

LPTEM FIXED-LOOP PROFILING SURVEY

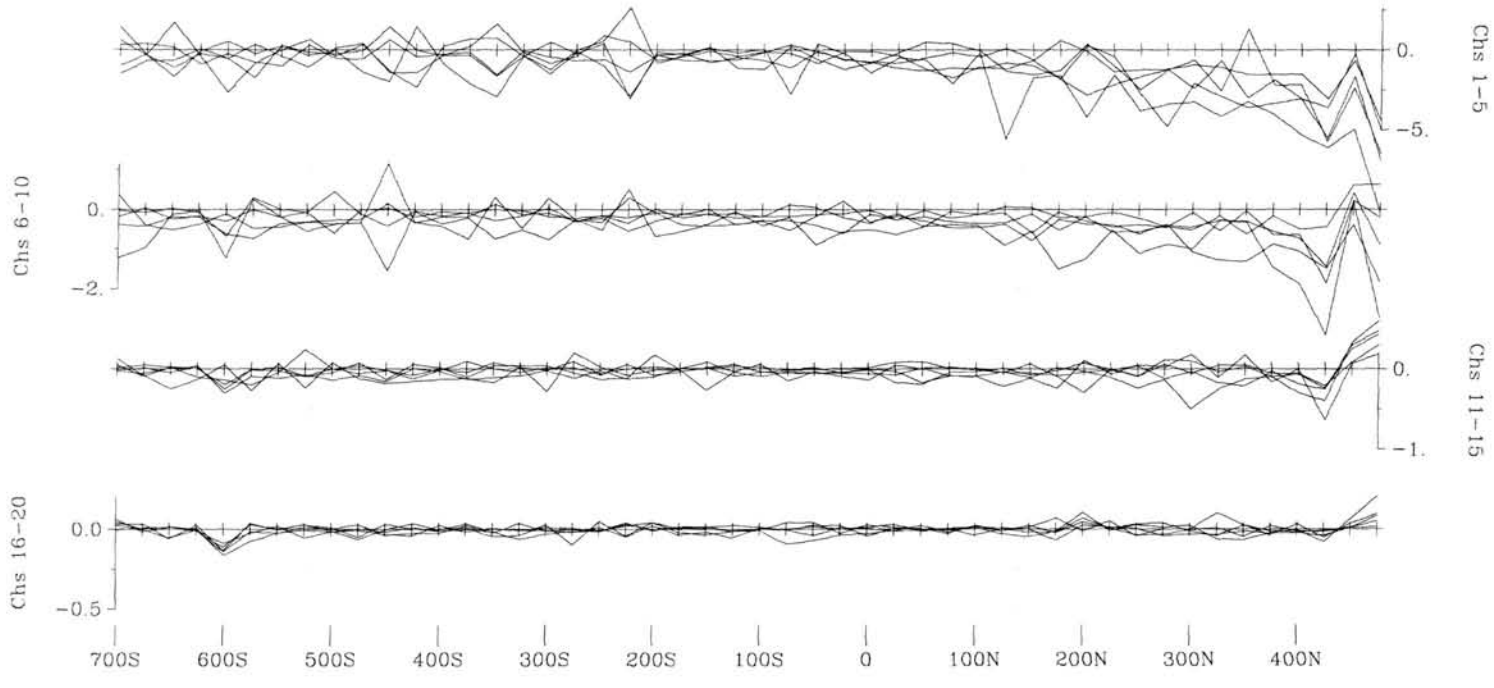
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency:	30 Hz (50% duty cycle)
Tx Loop Size:	400m X 600m
Tx Loop Location:	L 1500W - L 2100W, 500N - 900N
Transmitter Current:	13.0 Amps
Transmitter Turn-Off Time:	240 us
Station Interval:	25m
Profile Units:	nanoVolt/A•m^2
Receiver Coil Orientation:	Hz - positive up Hx - positive south Hy - positive east
Survey Date:	09/09/2005
Instrumentation:	Rx = Digital Protem (3x20 Channels) & Geonics 3D Coil (3x200m^2) Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:

QUANTEC GEOSCIENCE INC.

DWG. NO. QG-393-4AXIS-X-1500W



Line 1500W – Y Component

WHITNEY LAKE

Scale 1:5000

50 0 50 100 150 200

(metres)

SANFORD EXPLORATION CANADA INC.

WHITNEY LAKE

Gillies Limit Twp., ON

LPTEM FIXED-LOOP PROFILING SURVEY

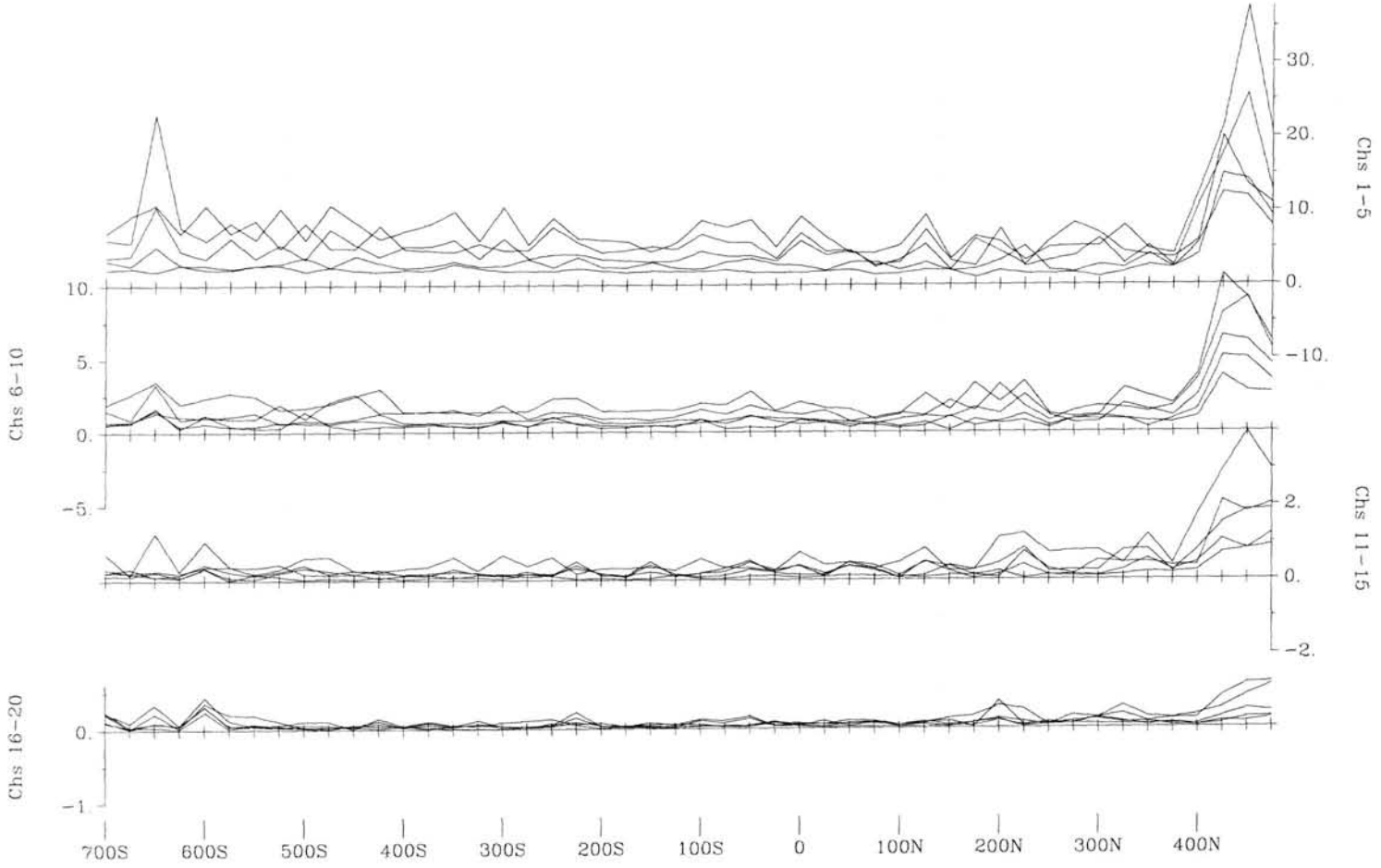
Secondary Electromagnetic Field (dB/dt)

Transmitter Frequency:	30 Hz (50% duty cycle)
Tx Loop Size:	400m X 600m
Tx Loop Location:	L 1500W - L 2100W, 500N - 900N
Transmitter Current:	13.0 Amps
Transmitter Turn-Off Time:	240 us
Station Interval:	25m
Profile Units:	nanoVolt/A•m^2
Receiver Coil Orientation:	Hz - positive up Hx - positive south Hy - positive east
Survey Date:	09/09/2005
Instrumentation:	Rx = Digital Protem (3x20 Channels) & Geonics 3D Coil (3x200m^2) Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:

QUANTEC GEOSCIENCE INC.

DWG. NO. QG-393-4AXIS-Y-1500W



Line 1500W – Total Field

WHITNEY LAKE

Scale 1:5000

50 0 50 100 150 200

(metres)

SANFORD EXPLORATION CANADA INC.

WHITNEY LAKE

Gillies Limit Twp., ON

LPTEM FIXED-LOOP PROFILING SURVEY

Secondary Electromagnetic Field (dB/dt)

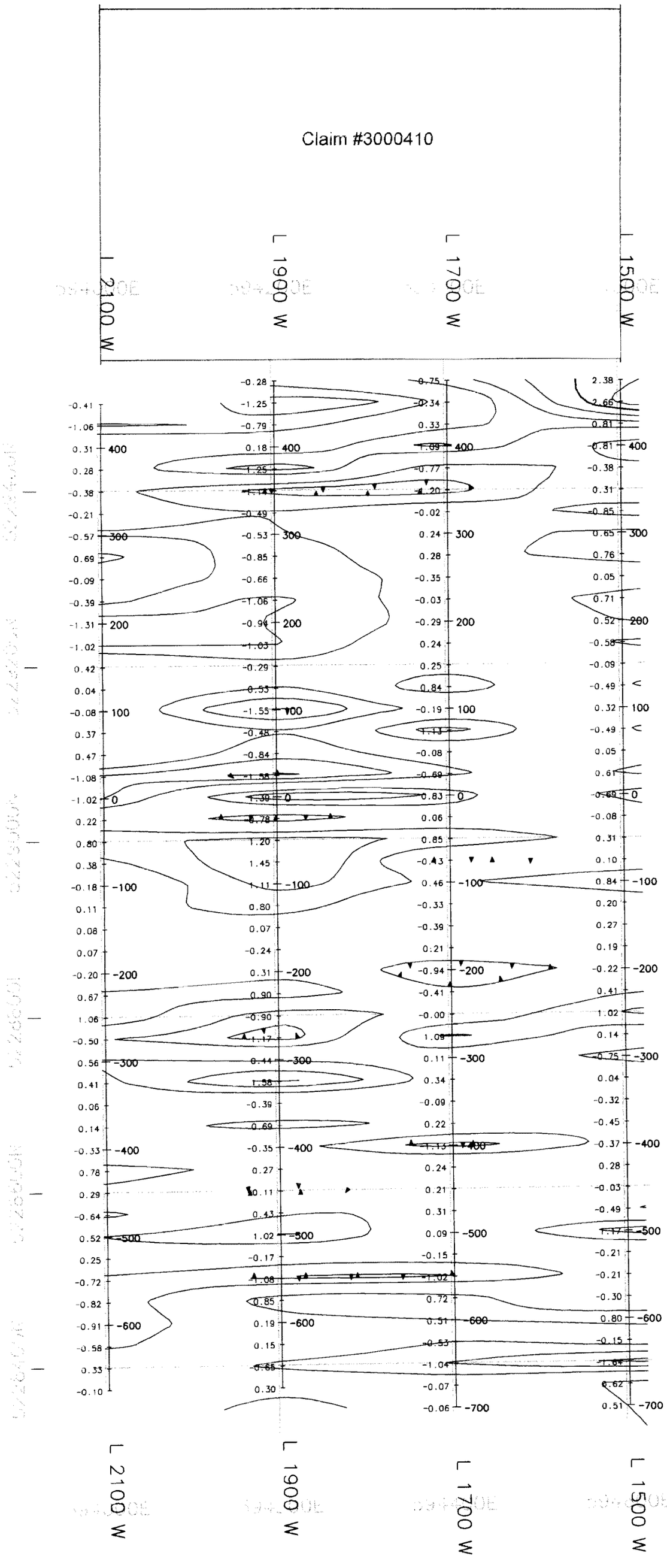
Transmitter Frequency:	30 Hz (50% duty cycle)
Tx Loop Size:	400m X 600m
Tx Loop Location:	L 1500W - L 2100W, 500N - 900N
Transmitter Current:	13.0 Amps
Transmitter Turn-Off Time:	240 us
Station Interval:	25m
Profile Units:	nanoVolt/A•m^2
Receiver Coil Orientation:	Hz - positive up Hx - positive south Hy - positive east
Survey Date:	09/09/2005
Instrumentation:	Rx = Digital Protem (3x20 Channels) & Geonics 3D Coil (3x200m^2) Tx = Geonics EM-37 (2.8 kW)

Surveyed & Processed by:

QUANTEC GEOSCIENCE INC.

DWG. NO. QG-393-4AXIS-TF-1500W

WHITNEY LAKE PROPERTY - X COMPONENT - CHANNEL 10



WHITNEY LAKE PROPERTY
X COMPONENT - CHANNEL 10

Scale 1:5000

50 0 50 100 150 200 250
(metres)

SANFORD EXPLORATION CANADA INC.
WHITNEY LAKE PROPERTY
GILLES LIMIT TWP., ON

LPTEM FIXED-LOOP PROFILING SURVEY
X Component Contour Map - Ch 10
Secondary Electromagnetic Field (dB/dt)

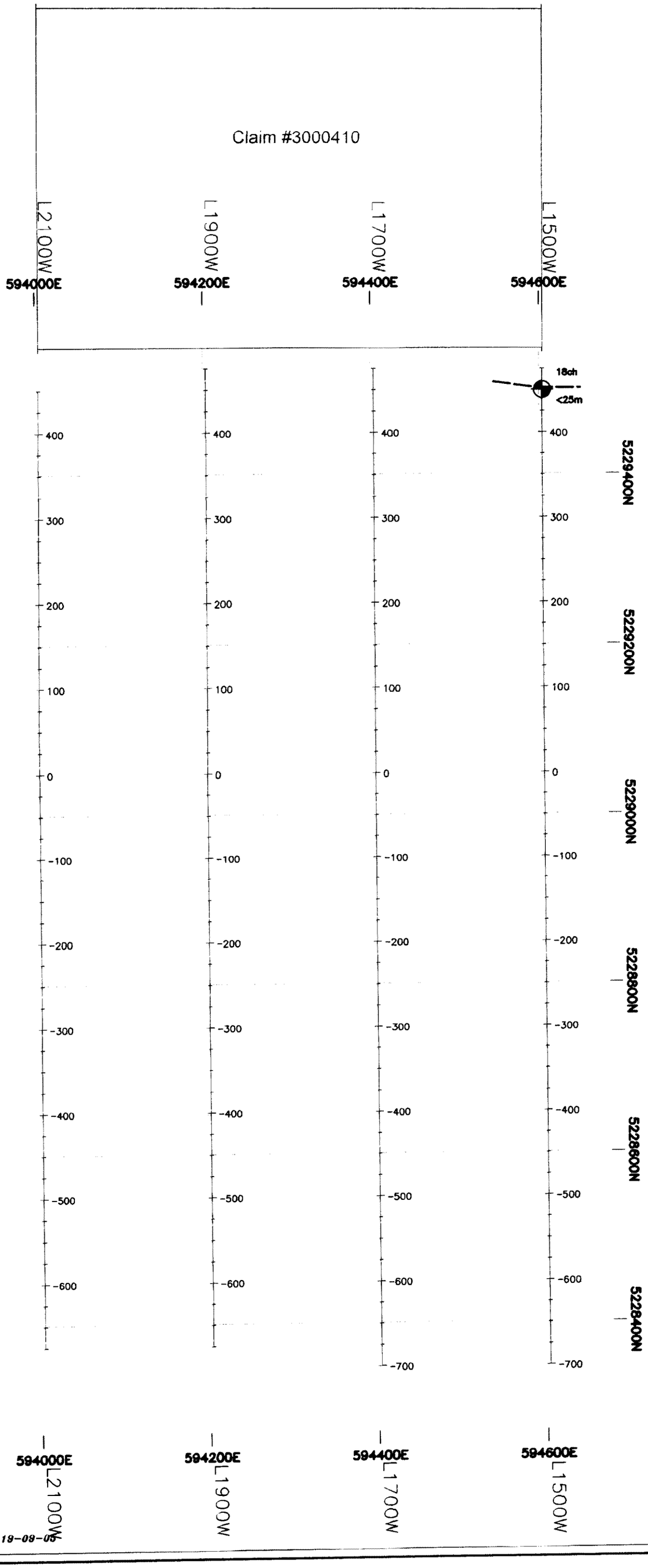
Transmitter Frequency:	30 Hz (50% duty cycle)
Transmitter Loop Size:	As Shown
Transmitter Loop Location:	As Shown
Transmitter Current:	13 Amps
Turn-Off Time:	240 us
Station Interval:	25m
Contour Interval:	.5, 2, 10 nanoVolt/A*m^2
Grid Cell Size:	25 m
Postings:	X Comp, Ch 10 TEM Field
Receiver Coil Orientations:	Hz - positive up Hx - positive south Hy - positive east
Survey Date:	Sept. 2005
Instrumentation:	Rx = Digital Protem (3x20 Channels) & Geonics 3D Coil (3x200m^2) Tx = Geonics EM-37 (2.8 kW)

2.30625

Surveyed & Processed by:
QUANTEC GEOSCIENCE INC.
DWG. NO. QG-393-TEM-CONT-ROT-10X

Map Generated by WC 19-09-06

WHITNEY LAKE PROPERTY - X COMPONENT Ch 10 - INTERPRETATION



Map Generated by WC 19-09-05

LEGEND

- VERY STRONG CONDUCTOR
- STRONG CONDUCTOR
- MODERATE CONDUCTOR
- WEAK QUALITY CONDUCTOR
- QUESTIONABLE CONDUCTOR
- Number of Anomalous Channels Responding
- Estimated Target Depth

Interpretation by: Quantec Geoscience - WC 19-09-05

Scale 1:5000

50 0 50 100 150 200 250

(metres)

SANFORD EXPLORATION CANADA INC.
WHITNEY LAKE PROPERTY
GILLES LIMIT TWP., ON

Secondary Electromagnetic Field (dB/dt)
LPTEM FIXED-LOOP PROFILING SURVEY
INTERPRETATION PLAN MAP

Transmitter Frequency:	30 Hz (50% duty cycle)
Transmitter Loop Size:	As Shown
Transmitter Loop Locotion:	As Shown
Transmitter Current:	13 Amps
Turn-Off Time:	240 us
Station Interval:	25m
Contour Interval:	.5, 2, 10 nanoVolt/A•m^2
Grid Cell Size:	25 m (1x Hanning Smoothed)
Postings:	X Comp, Ch 10 TEM Field
Receiver Coil Orientotions:	Hz - positive up
	Hx - positive south
	Hy - positive east

2.30625

Date:	Sept. 2005
Instrumentation:	Rx = Digital Protem (3x20 Channels)
	& Geonics 3D Coil (3x200m^2)
	Tx = Geanics EM-37 (2.8 kW)

Surveyed & Processed by:

QUANTEC GEOSCIENCE INC.

DWG. NO. QG-393-TEM-INT-ROT-10X

WHITNEY LAKE PROPERTY - CLAIMS AND GRID LOCATION

Map Revised From:
EMPORD EXPLORATIONS CORPORATION
WHITNEY LAKE PROPERTY
TIME DOMAIN IP SURVEY
CHARGEABILITY and INTERPRETATION
November, 2001
DWG. #: QC-207-PLAN-CHG-INT-1

Scale 1:5000
(metres)

SANFORD EXPLORATION CANADA INC.
WHITNEY LAKE PROPERTY
Gillies Limit Twp., ON

LPTEM FIXED-LOOP PROFILING SURVEY
CLAIMS and GRID LOCATION MAP

2.30625

SANFORD EXPLORATION CANADA INC.
1303-1323 Homer Street
Vancouver, BC V6B 5T1

Survey Date: September, 2005

performed & processed by:
QUANTEC GEOSCIENCE INC
DWG. #: QC-207-PLAN-LOC-1

Map Generated by DL (04/12/01)
Map Revised by JW (18/01/06)