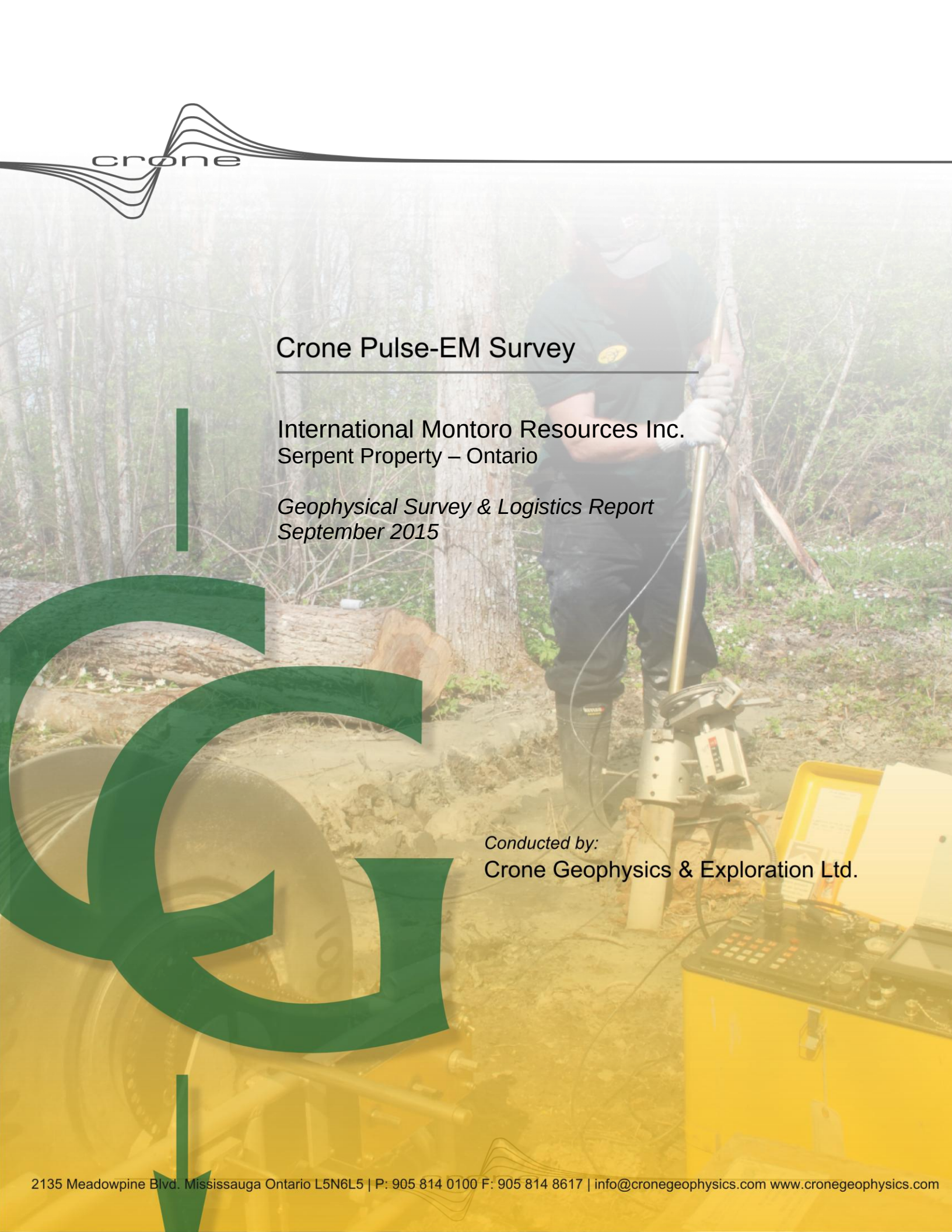

Crone Pulse-EM Survey

International Montoro Resources Inc.
Serpent Property – Ontario

Geophysical Survey & Logistics Report
September 2015

Conducted by:
Crone Geophysics & Exploration Ltd.

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Contents

List of Figures

List of Tables

Appendices

Introduction

Crone Geophysics & Exploration Limited was contracted by International Montoro Resources Inc. to conduct a Borehole Pulse Electromagnetic Survey on its Serpent property located near Sudbury, Ontario. This report summarizes the geophysical work carried out during August 20th – August 27th, 2015.

One (1) hole covered from one (1) transmitting loop was surveyed during this period. The appendices to this report contain plan and section maps, PEM profiles (linear 5-axis and logarithmic scale), and the Step response profiles.

Property Location & Access

The Serpent property is located approximately 60km west of Sudbury. The property can be accessed in several different ways. The Algom – Nordic Mine road joins highway 108 south of Elliot Lake and it traverses the entire claim group ending at Whiskey Lake. A secondary road known as the Massey Tote Road branches northward from highway 17 in the village of Massey. This road passes by Whiskey Lake and the lake can be accessed by a public boat launch. The claims can be reached by a short boat trip across the lake. A logging road starts at highway 17 in the village of Spanish and it stops within about 100 metres of a power line road that crosses the claims and connects with the Algom – Nordic road. The portion of the property north of Pecors lake and the Serpent river can be accessed by helicopter.

Figure 1: Location of the Serpent property, located west of Sudbury.

Personnel

The personnel involved in this project during the reporting period include:

Survey Operator: Jordan Wilson, Tristan Rice

Data Processing: Mark Hunter

Report: Eric Meunier

Equipment

Pulse-EM CDR2 Receiver

- 26-Bit equivalent A/D resolution
- Programmable gate configurations and optional full waveform
- Crone *Smartstacking* algorithm
- Sampling Rate: 250K samples/second | Sampling Interval: 4µsec
- Precision crystal oscillator or cable synchronization

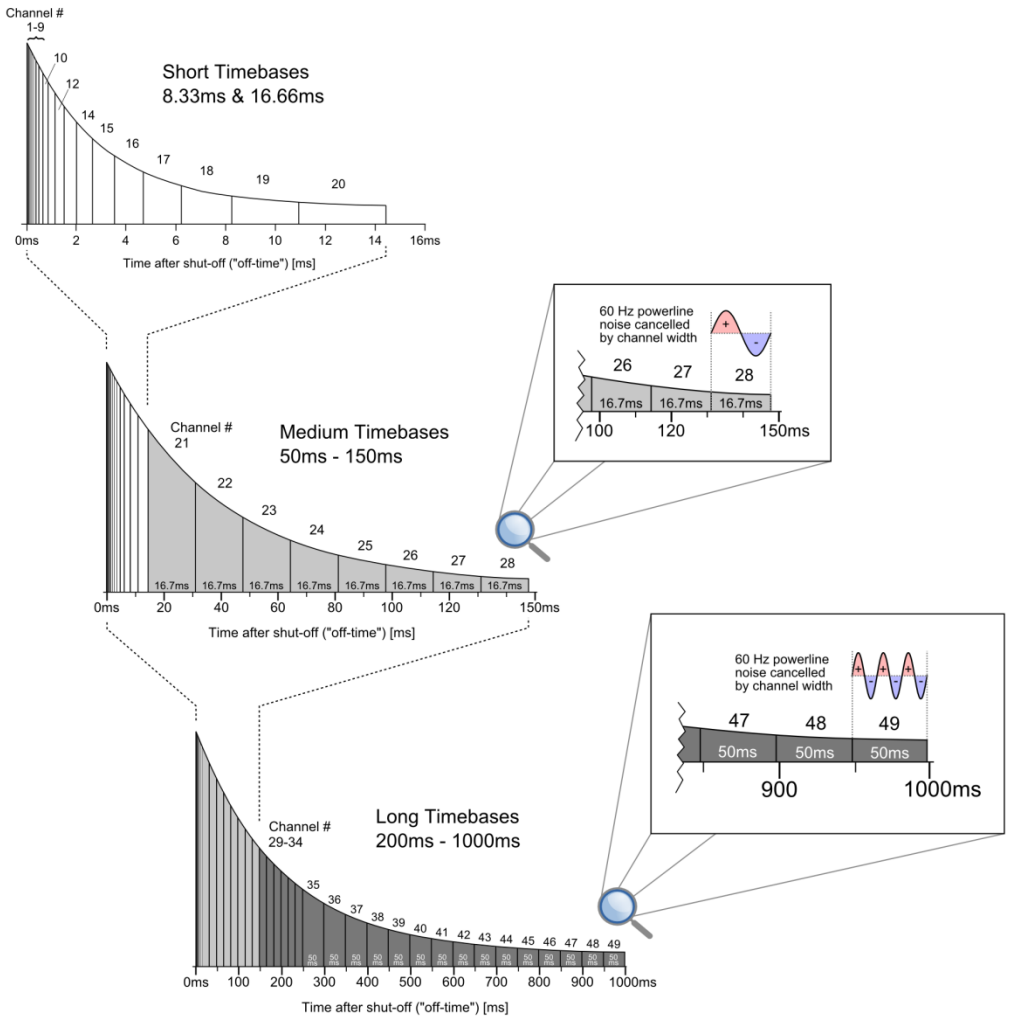


Figure 2: Standard Channel Configurations

Pulse-EM Transmitter

- 4.8kW for up to 30 amps in single or 60 amps in dual modes
- Timebases: 8.33ms to 2000ms
- Ramp Settings: Fast Ramp, 0.5ms, 1.0ms or 1.5ms
- Powered by Standard Motor Generator
- Current control and monitoring with optional loop damping
- Auto Shutdown and grounded case for safety

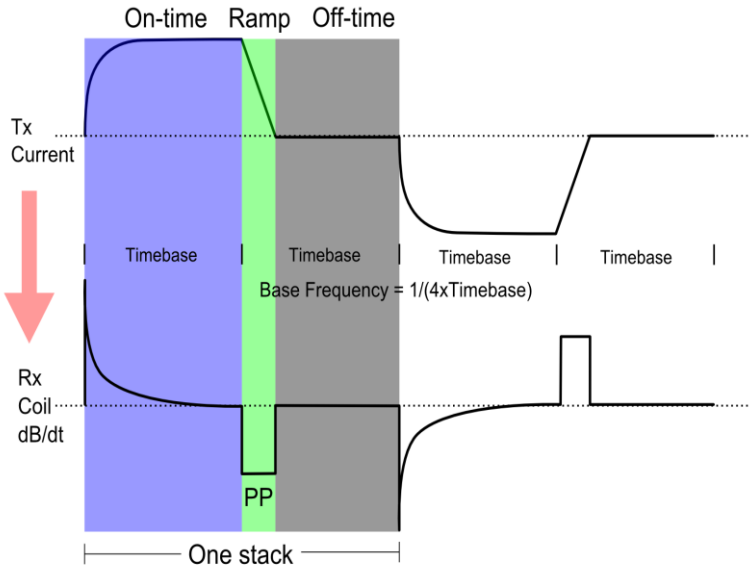


Figure 3: Standard Crone Pulse-EM Waveform

Pulse-EM Induction Coil Probes

- Measures dB/dt in 3 Components
- Ferrite Cored Induction Sensor
- Pressure tested to 2800m
- RAD Tool Orientation with 3-Axis Magnetometer and 3-Axis Accelerometer

Survey Methods

Crone Pulse EM is a time domain electromagnetic method in which a precise pulse of current with a controlled linear shut off is transmitted through a large loop of wire on the ground and the rate of decay (dB/dt) of the induced secondary field is measured across a series of time windows during the off-time. The electromotive force (EMF) created by the sudden turn-off of the current induces eddy currents in nearby conductive material, generating a secondary electromagnetic field. When the primary field is terminated, this

electromagnetic field will decay with time. The amplitude of the secondary field and the decay rate are dependent on the quality and size of the conductor.

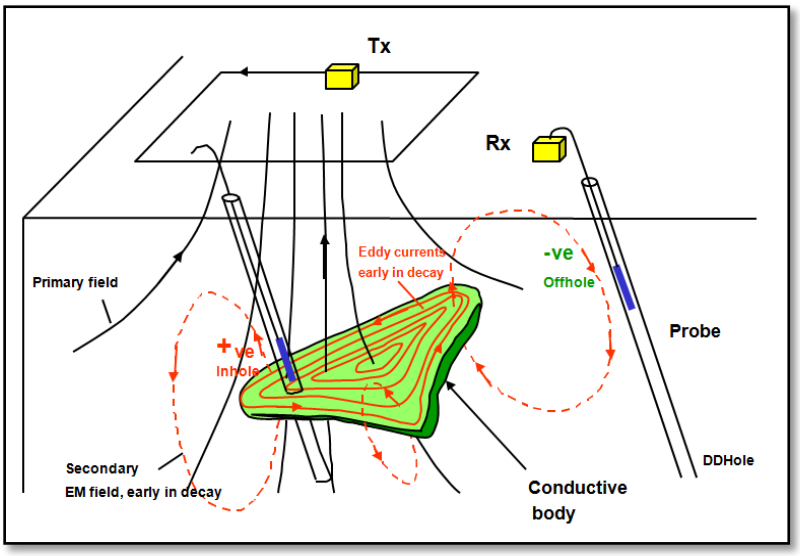


Figure 4: General EM theory of a borehole survey

A 3D Borehole Pulse EM system was assembled in which an axial component (Z) probe and a cross component (XY) probe were used to measure the three components of the induced secondary field. The first pass with the 'Z' probe detects any in-hole or off-hole anomalies and gives information on size, conductivity, and distances to the edge of conductors. The second pass with the 'XY' probe measures two orthogonal components of the EM field in a plane orientated at right angles to the borehole. These results give directional information to the center of the conductive body. Data is usually collected at a nominal sample interval of 10m.

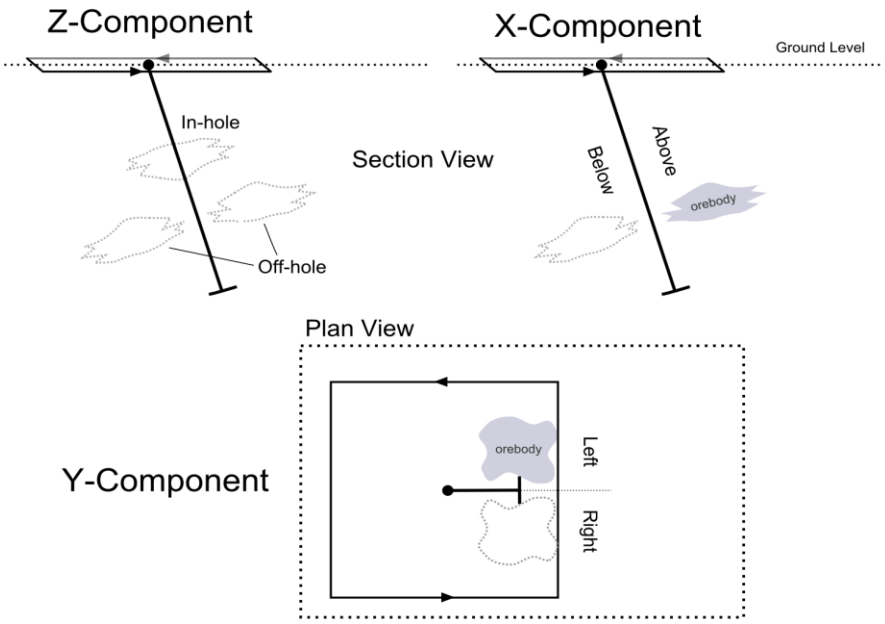


Figure 5: Representation of the spatial components measured by the 3D Borehole Pulse EM probe

In addition to measuring the standard Primary Pulse channel in the Tx shut-off ramp and the off-time channels, the Step Response was also calculated. The Step Response is widely regarded as a very important tool in the search for high conductance massive sulphides. It requires accurate geometrical control in which the loop position and the hole geometry are accurately determined. Positional information was collected by Crone using a sub-meter capable GPS and regional base station. Positional information is provided in the UTM projection, Zone 17N, utilizing the NAD 1983 (Canada) datum.

The borehole surveys were carried out using time base of 50.00 ms with 1.5 ms shut-off ramp time. The primary inducing field is defined as positive up inside the transmitter loop.

Data units are nT/s.

Data Acquisition Parameters

Table 1: 22-Channel Configuration for the 50.00 ms time base

Channel	Start (s)	Finish (s)	Channel	Start (s)	Finish (s)
PP	-0.0002	-0.0001			
1	4.8e-05	6.4e-05	**2**	6.4e-05	8.4e-05
3	8.4e-05	0.000112	**4**	0.000112	0.000152
5	0.000152	0.000204	**6**	0.000204	0.000268
7	0.000268	0.00036	**8**	0.00036	0.00048
9	0.00048	0.00064	**10**	0.00064	0.000848
11	0.000848	0.001128	**12**	0.001128	0.001496
13	0.001496	0.001992	**14**	0.001992	0.002644
15	0.002644	0.003512	**16**	0.003512	0.004664
17	0.004664	0.006192	**18**	0.006192	0.00822
19	0.00822	0.010916	**20**	0.010916	0.0144
21	0.0144	0.031068	**22**	0.031068	0.047736

Table 2: Borehole Survey Transmitter Loop Coverage

Tx Loop	Property / Target	Size (m)	Corner Coordinates UTM NAD1983 (Canada) Zone 17N
P01	Serpent River	~ 800 x 950	388298E, 5138379N 389114E, 5138373N 389134E, 5138984N 389250E, 5138928N 389272E, 5138971N 389131E, 5139163N 388383E, 5139172N 388319E, 5138541N 388361E, 5138534N

Table 3: Borehole Survey Coverage

Hole	Area	Tx loop	Timebase (ms)	Off Time Channels	Ramp (ms)	Current (A)	Station (m)		Length (m)	Component
							From	To		
P-15-23	Serpent River	P01	50.00	22	1.5	12	10	1320	1310	X,Y,Z

Production Summary

Table 4: Production Summary

Date (d.m.y)	Type of Day	Comments
20-Aug-15	MOB	Mississauga to Elliot Lake.
21-Aug-15	Survey	Laid the transmitter loop.
22-Aug-15	Survey	Dummied the hole and surveyed the Z-component.
23-Aug-15	Survey	Dummied the hole and began surveying the XY-component. Encountered a problem with the receiver which corrupted the survey file, resulting in losing the data. Returned to the hotel to try to dump the data unsuccessfully. Wiped the memory of the receiver with a RAM test and returned to the drill then re-surveyed the XY-component.
24-Aug-15	Survey	Faulty receiver caused the data to unsuccessfully dump. Re-surveyed the XY-component. Again, receiver problems caused the unsuccessful dumping of the data, however data of stations 660m to 880m was successfully recovered.
25-Aug-15	Survey	Dummied the hole again. Re-surveyed XY-component and successfully dumped the data.
26-Aug-15	Survey	Picked up the transmitter loop.
27-Aug-15	DEMOB	Elliot Lake to Mississauga.

Interpretation and Discussion

There are two distinct anomalies present. The dominant response observed is an off-hole source located at a depth of approximately 580m to 590m. This depth coincides with minor pyrite within a conglomerate unit. It is uncertain if the anomaly is caused by the conglomerate unit itself or by the contact between conglomerate and the mafic-volcanics at 592m. Presumably, a strong conductive response near this contact may be a potential target. The second anomaly is another, much weaker, off-hole anomaly located at a depth of approximately 900m to 1100m. This depth coincides with a large gabbro unit.

The results of the borehole survey were imported into the computer modelling program Maxwell. Two separate pairs of plates were modelled and found to closely fit the data. They are presented in the following figures.

The anomalies observed in the survey results can be represented by two pairs of plate-sources. A summary of all the properties of the plate models is presented in Table 5. Plates A-1 and A-2 represent the large off-hole anomaly. Both plates are sub-horizontal plate located at approximately 578m of depth. Plate A-1 dips 11° with a dip direction of 256° and rotation of -60°. The plate's dimensions are 155m x 333m. The conductance is 106S, and the plate's closest edge is approximately 75m from the hole. Plate A-2 is situated at the same depth and location as Plate A-1. It has a similar dip of 10°, dip direction of 260°, and rotation of -72°. The plate's dimensions are 125m x 333m with a conductance of 151S. The nearest edge is 75m from the hole.

Plates B-1 and B-2 represent the weaker off-hole anomaly. Plate B-1 is located at depth of approximately 975m, and dips 22° with a dip direction of 58° and rotation of 64°. The dimensions are 257m x 153m with a conductance of 142S. The closest edge is located about 40m from the borehole. Plate B-2 is located at a depth of approximately 1021m, with a dip of 68°, dip direction of 60°, and rotation of 64°. The plate's dimensions are 353m x 222m. The conductance of the plate is 134S, and the closest edge is located about 70m from the borehole.

Modelling does not always produce unique solutions; there can be many possible configurations that can provide the same results. The ambiguity of plates B-1 and B-2 is a result of this. They have significant differences in size and orientation, but provide similar responses.

The calculated forward model results of these plates can be compared with the survey results in Figure 10 (using plates A-1 and B-1) and Figure 11 (using plates A-2 and B-2). Both pairs provide very similar results and are almost indistinguishable. The biggest visible difference lies in the X-component, where pair 1 (A-1 and B-1) appears to have a slightly better fit near stations 600 to 900 then pair 2.

Table 5: Summary of the properties of the two pairs of plate models.

Property	Plate			
	A-1	A-2	B-1	B-2
Depth (m)	577	577	975	1022
Dip	11°	11°	22°	68°
Dip Direction	256°	260°	58°	60°
Rotation	-60°	-72°	63°	64°
Strike Length (m)	155	125	258	354
Depth Extent (m)	333	333	154	222
Conductance (S)	106	151	143	134
Distance of nearest edge to hole (m)	75	75	40	70

Table 6 shows the potential drill hole locations in the event one or both off-hole sources represent potential drill target areas.

Table 6: Suggested drill hole locations to test off-hole sources.

Hole	Easting (m)	Northing (m)	Azimuth	Dip	Length (m)
DH-01	388675	5138899	225°	85°	650
DH-02	388875	5139100	225°	85°	1200

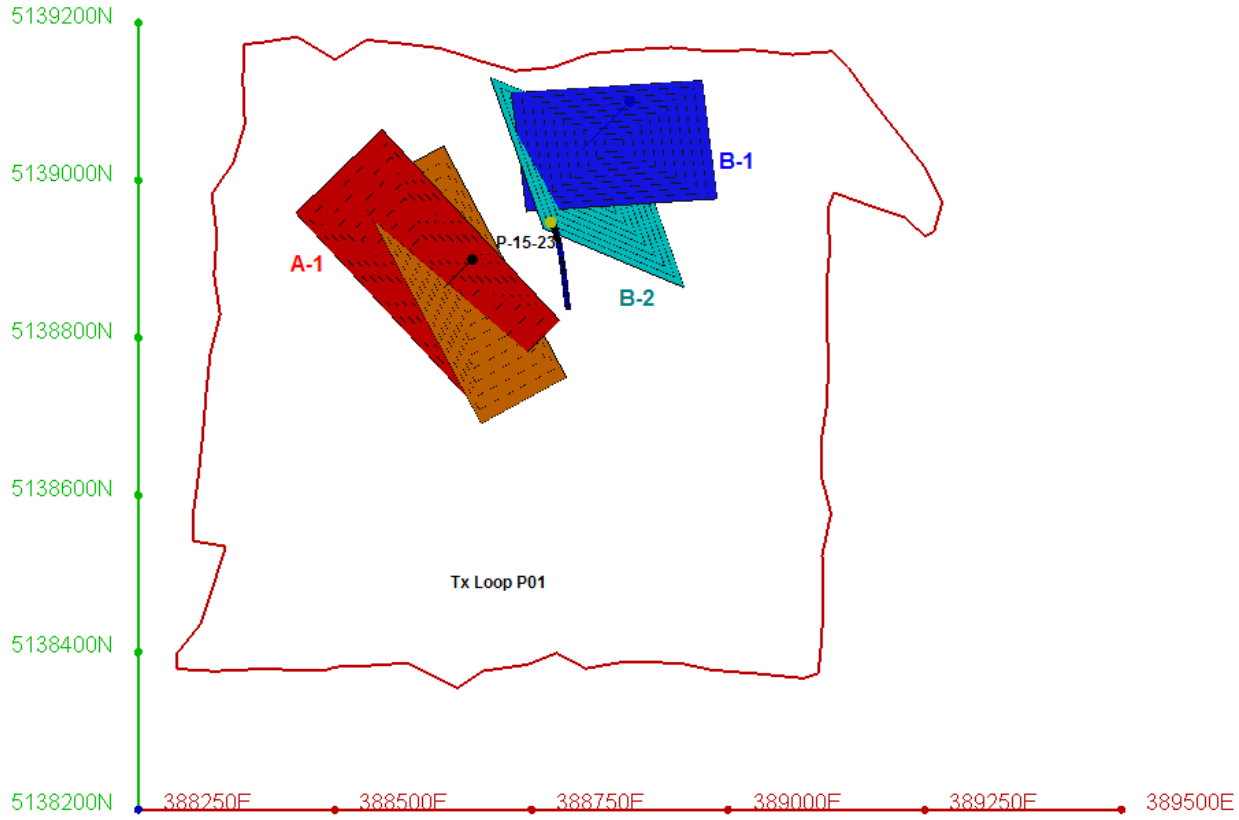


Figure 6: Plan view of two possible plate models that fit the survey data. The blue and black lines extending from the plate to the surface represent suggested boreholes for these targets.

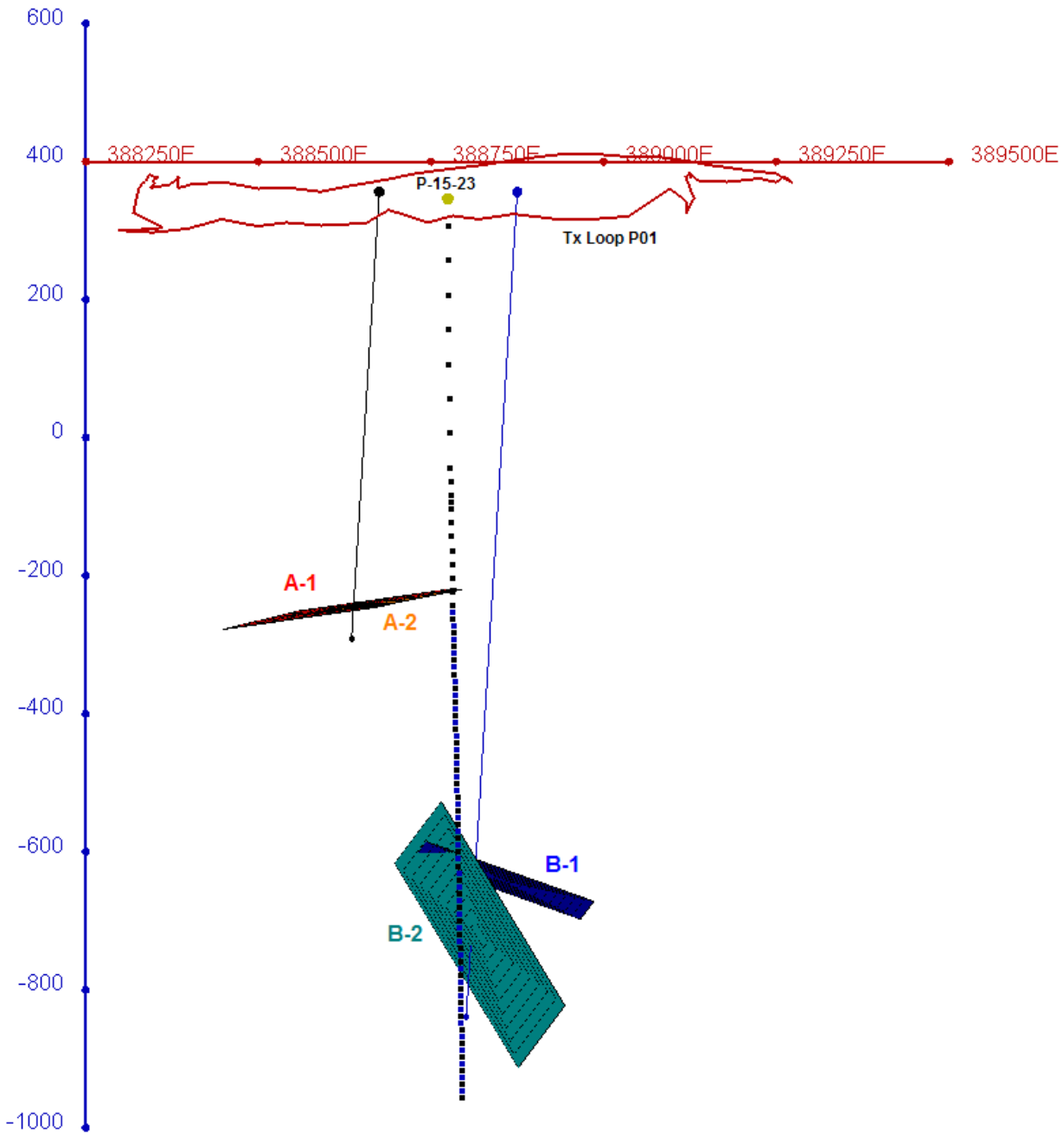


Figure 7: View facing North of two possible plate configurations that fit the survey data. The blue and black lines extending from the plate to the surface represent suggested boreholes for these targets.

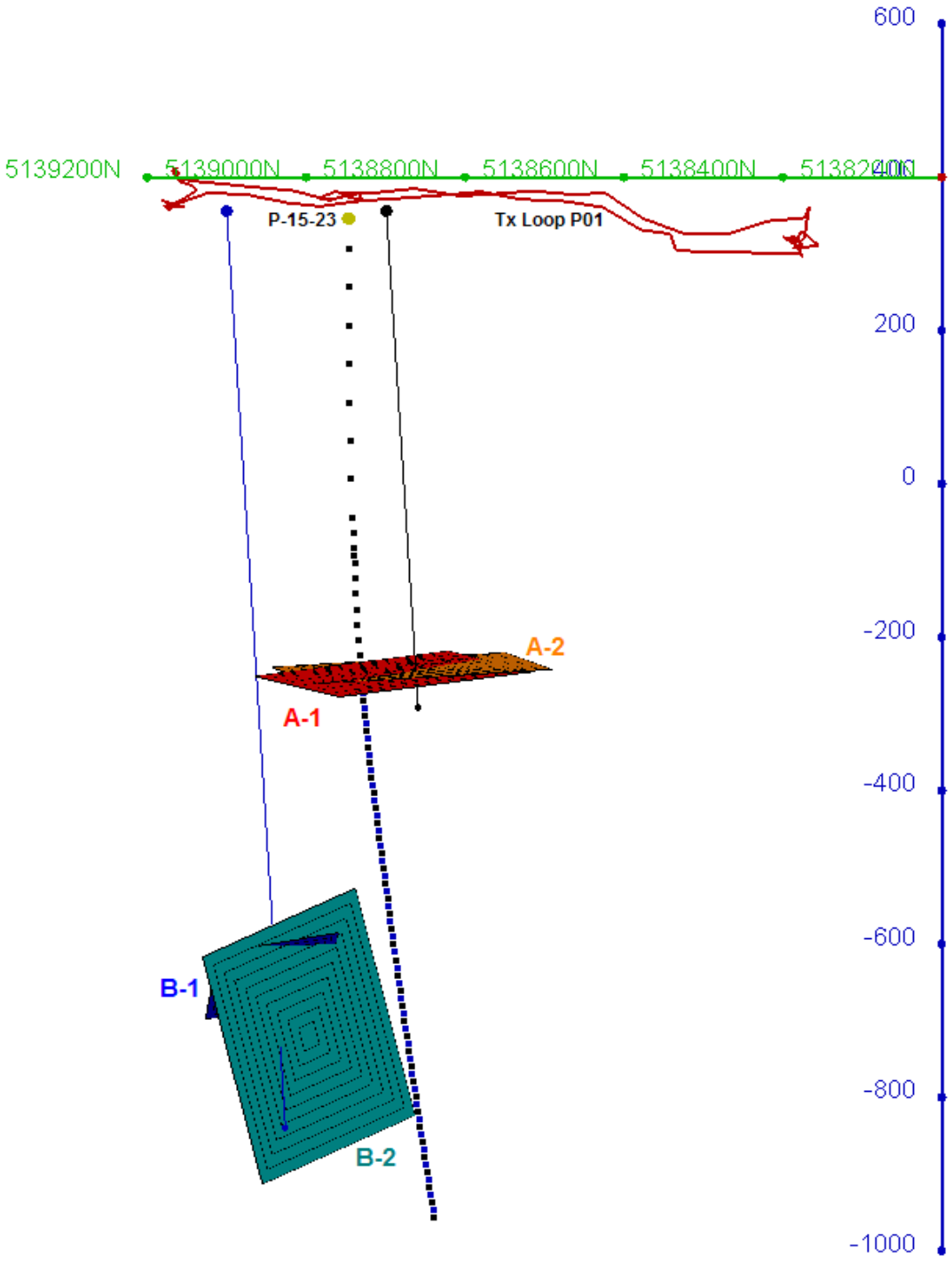


Figure 8: View facing East of two possible plate models that fit the survey data. The blue and black lines extending from the plate to the surface represent suggested boreholes for these targets.

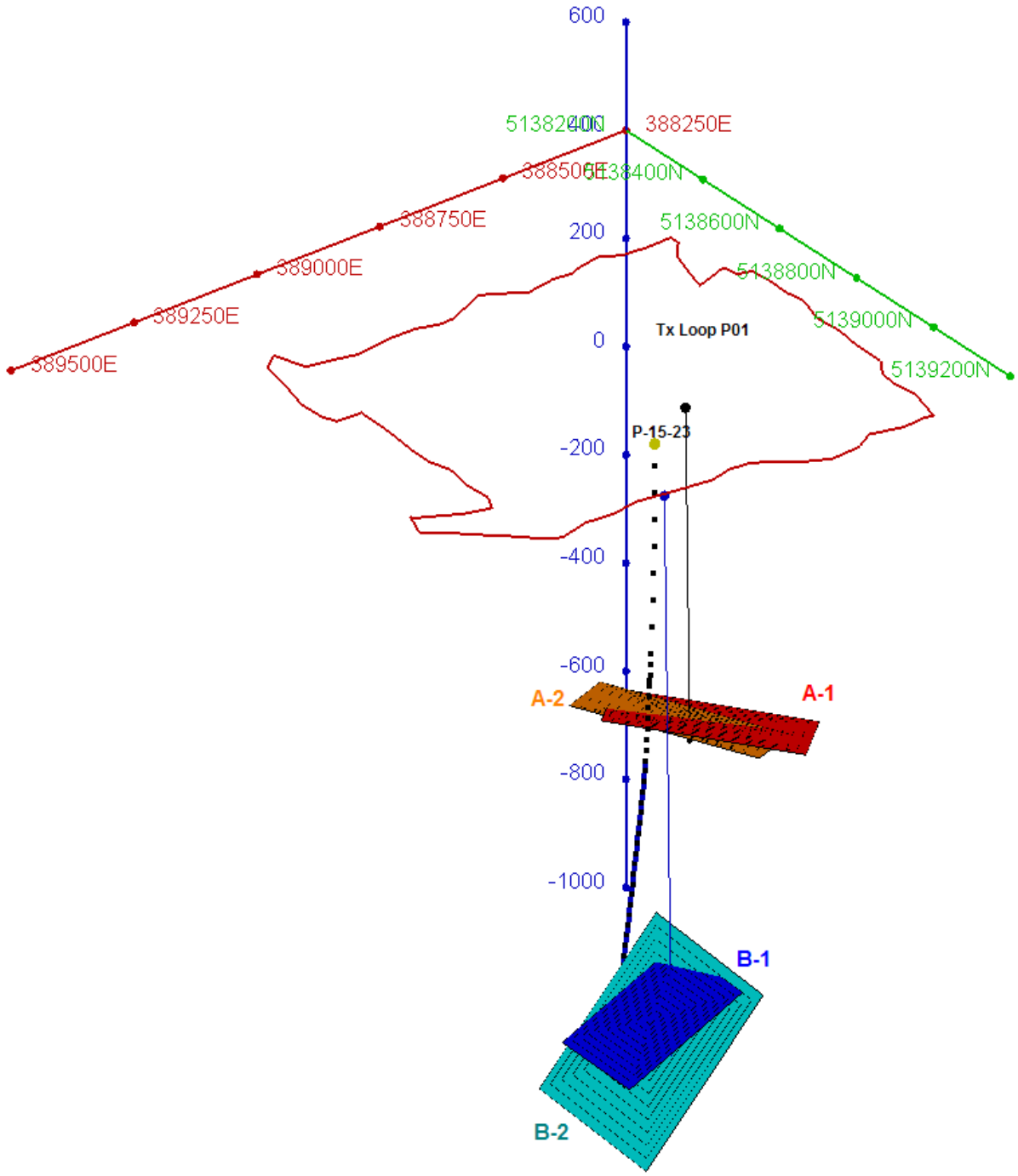


Figure 9: Isometric view of two possible plate models that fit the survey data. The blue and black lines extending from the plate to the surface represent suggested boreholes for these targets.

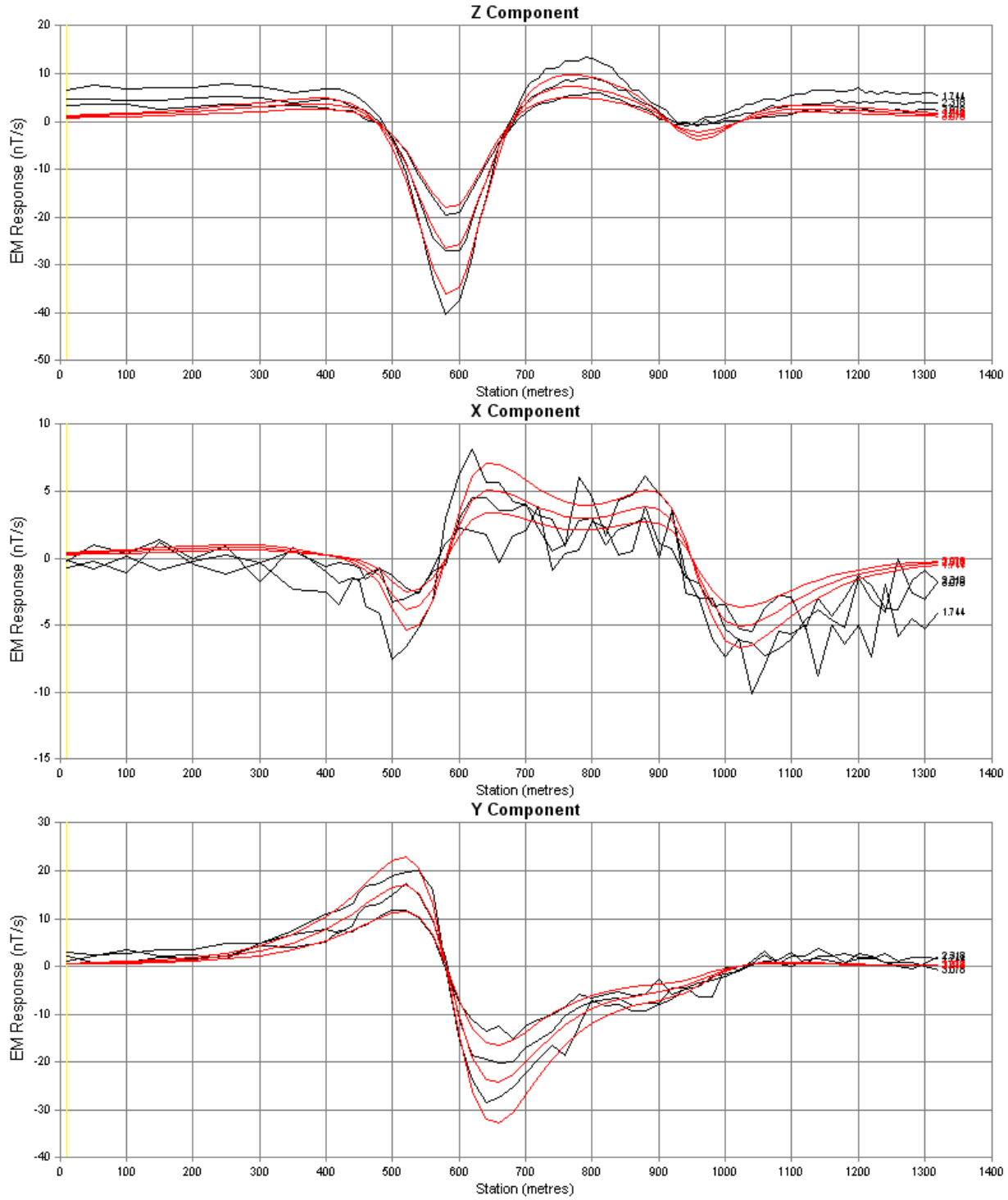


Figure 10: Survey results compared to modelling results of plates A-1 and B-1, channels 14-16. The black lines represent the response of the survey, and red lines represent the response of the model.

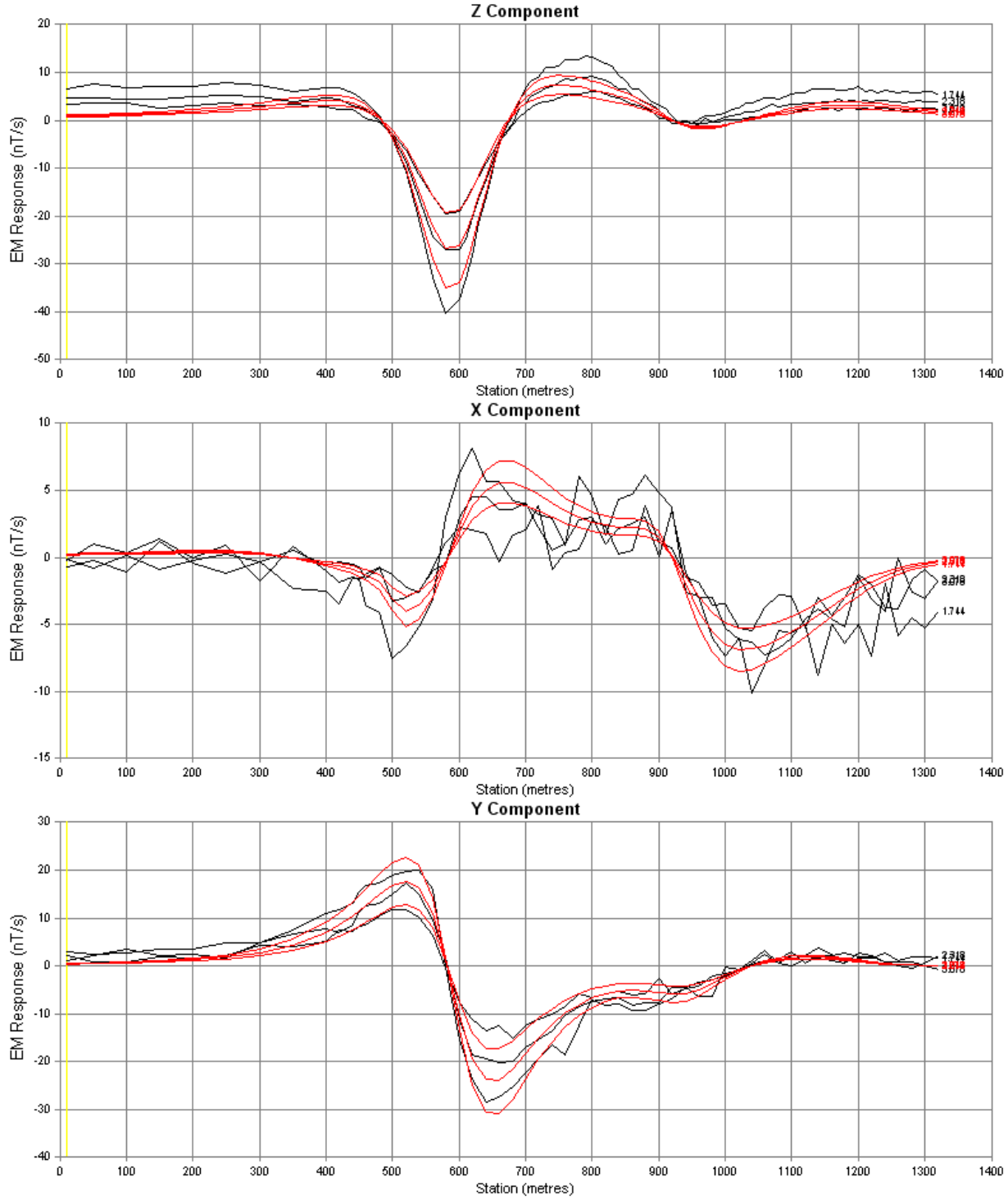


Figure 11: Survey results compared to modelling results of plates A-2 and B-2, channels 14-16. The black lines represent the response of the survey, and red lines represent the response of the model.

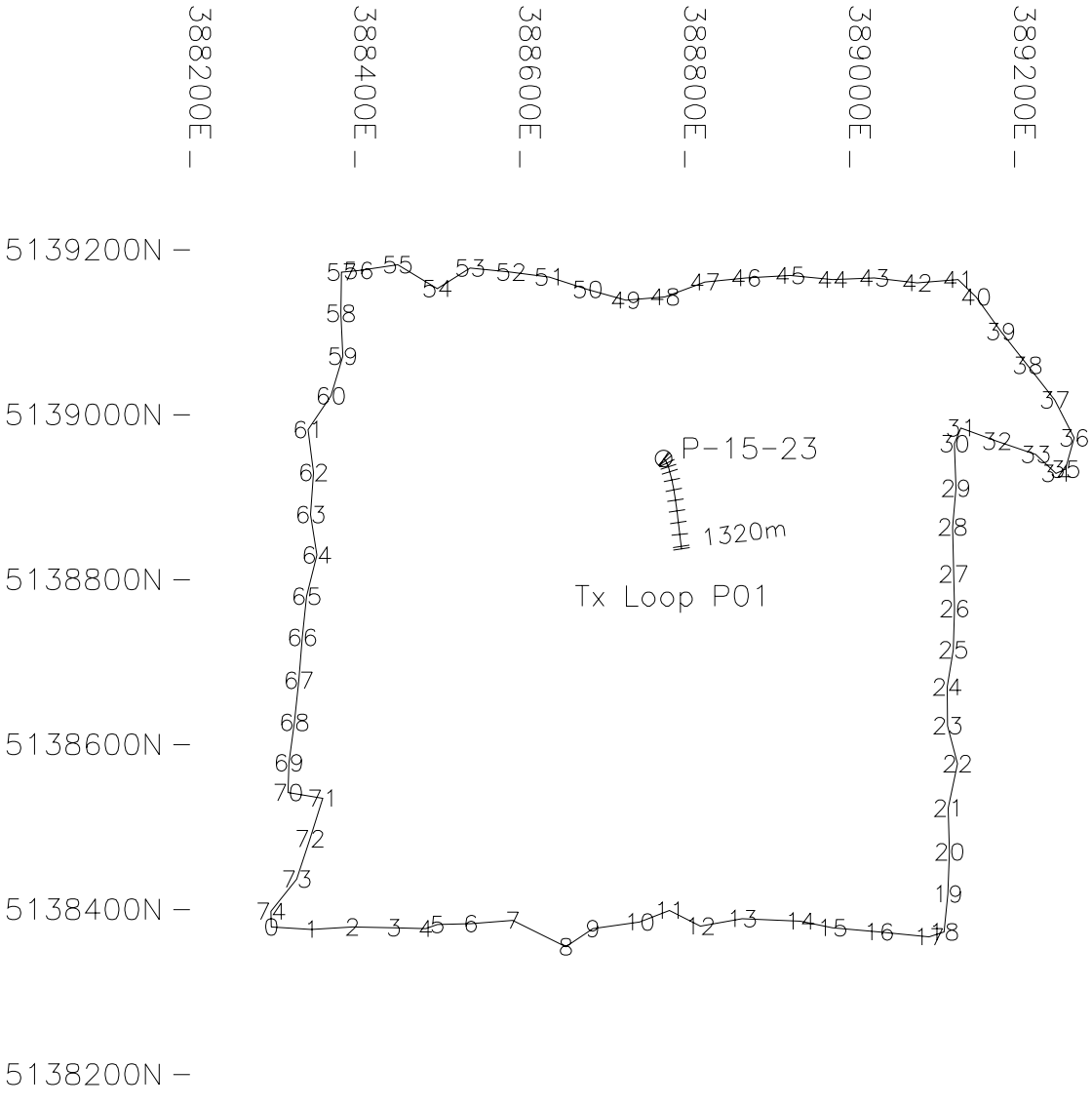
Respectfully submitted,

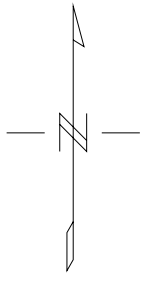
Eric Meunier, M.Sc.

Project Geophysicist

Crone Geophysics & Exploration Ltd.

Appendix 1: Plan and Section Maps



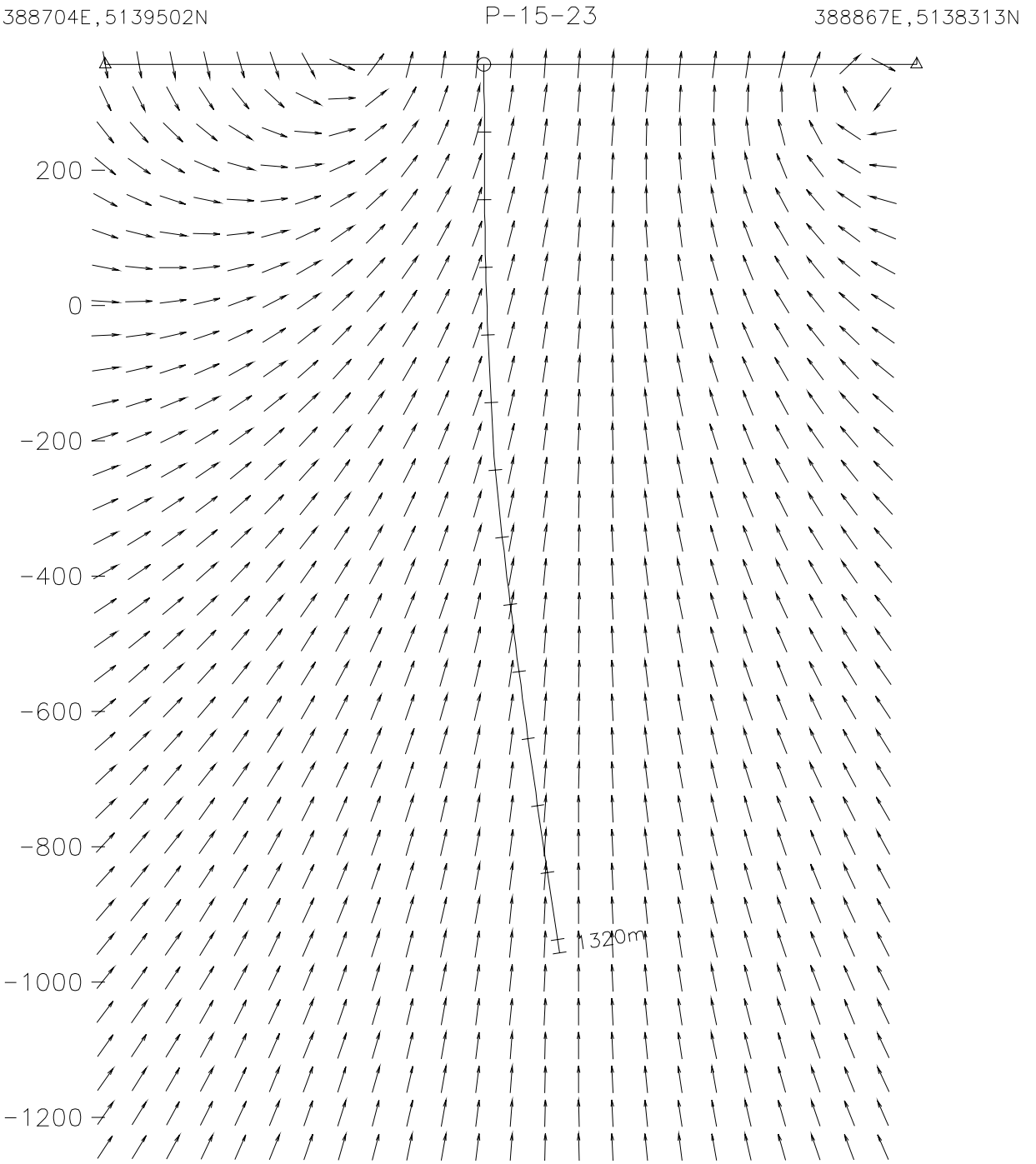


Scale 1:10000

100 0 100 200

(meters)

International Montoro Resources
Serpent Property
3-D Borehole Pulse EM Survey
Borehole & Loop Location Map
Hole: P-15-23 Loop: P01
Survey Date: August 22 - 25, 2015
Crone Geophysics & Exploration Ltd.



Scale 1:10000

100 0 100 200

(meters)

International Montoro Resources

Serpent Property

3-D Borehole Pulse EM Survey

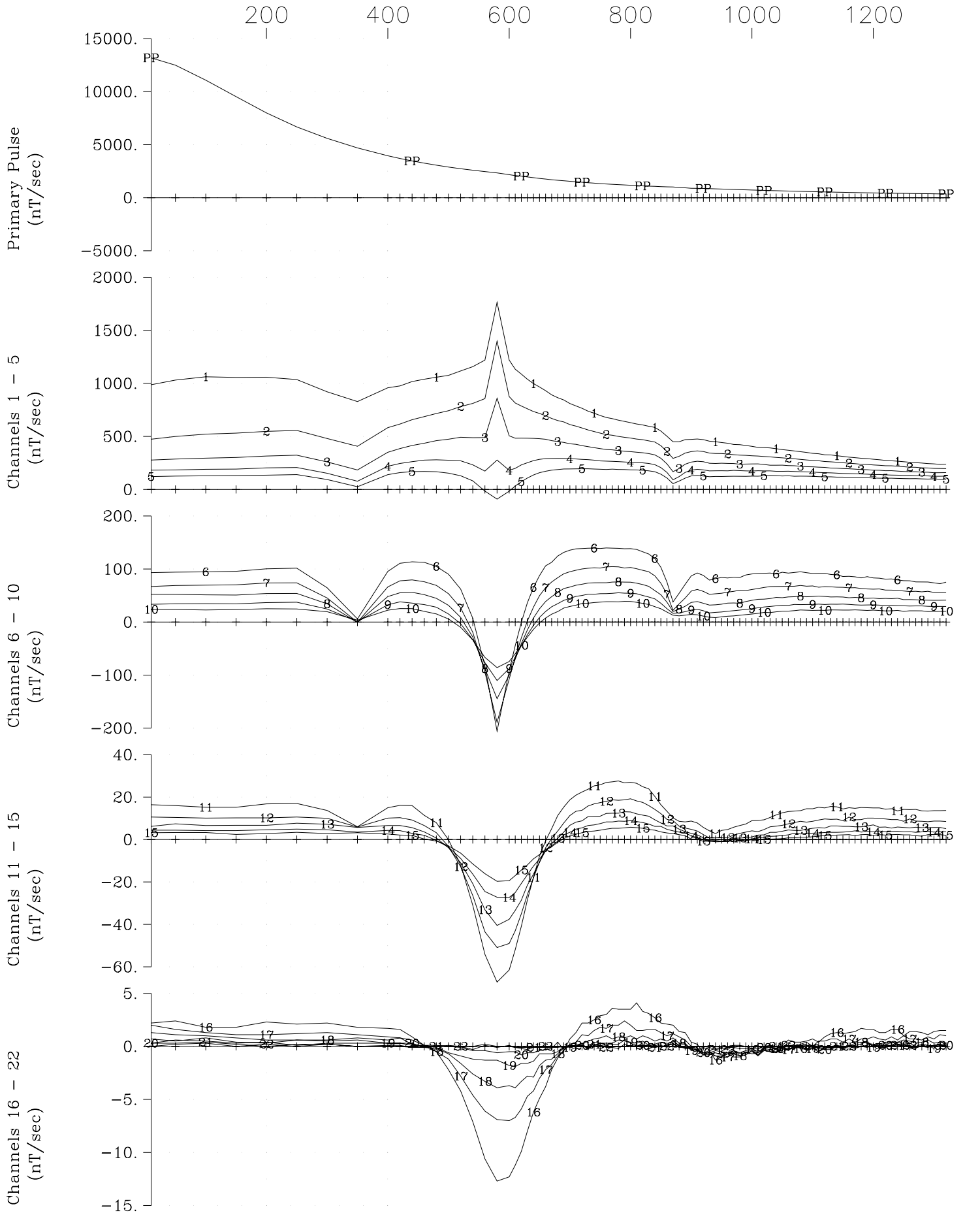
Hole Section with Primary Field

Hole: P-15-23 Loop: P01

Survey Date: August 22 - 25, 2015

Crone Geophysics & Exploration Ltd.

Appendix 2: Linear (5-Axis) Pulse-EM Data Profiles



International Montoro Resources Serpent Property

Loop: P01 Hole: P-15-23 Z Component

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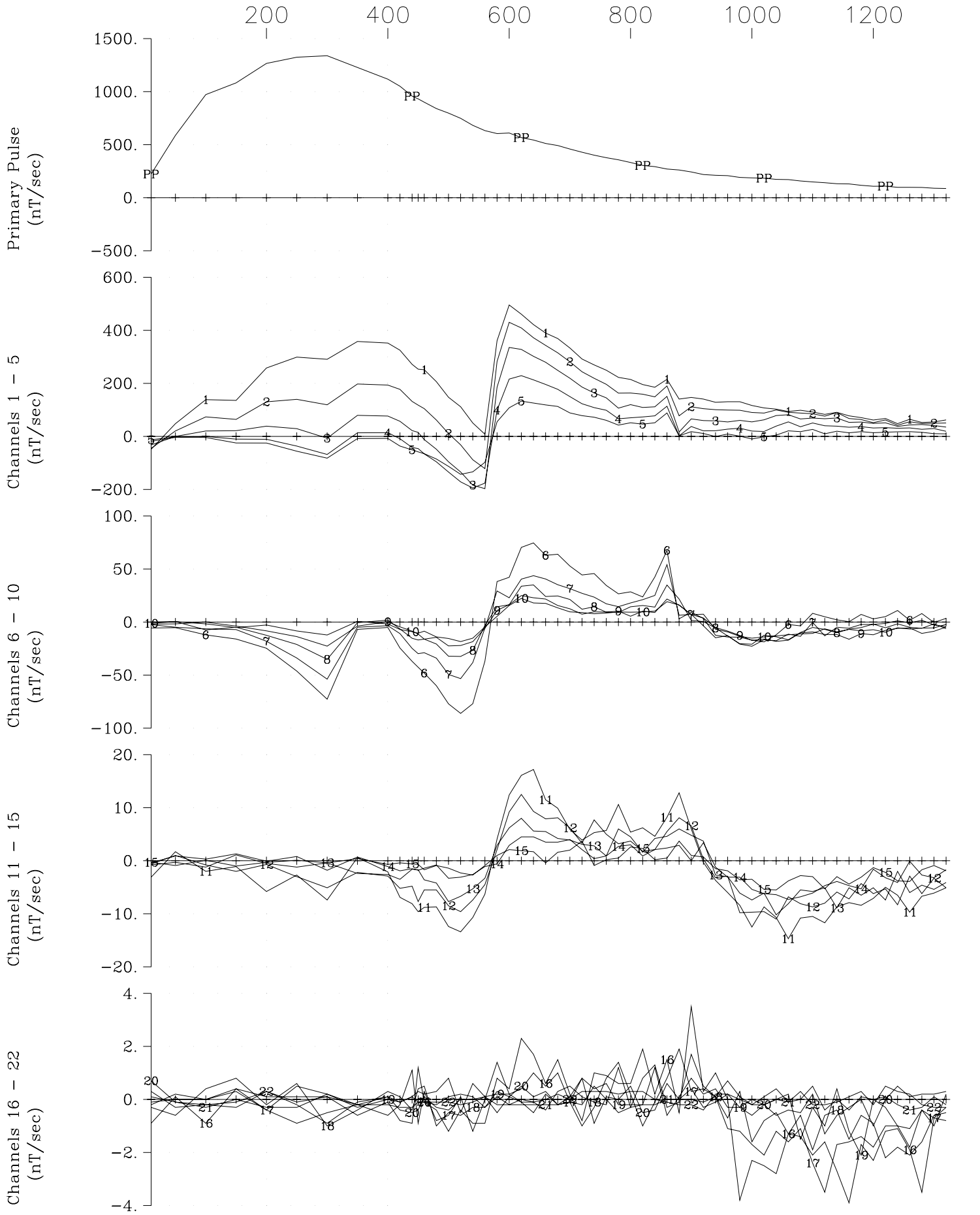
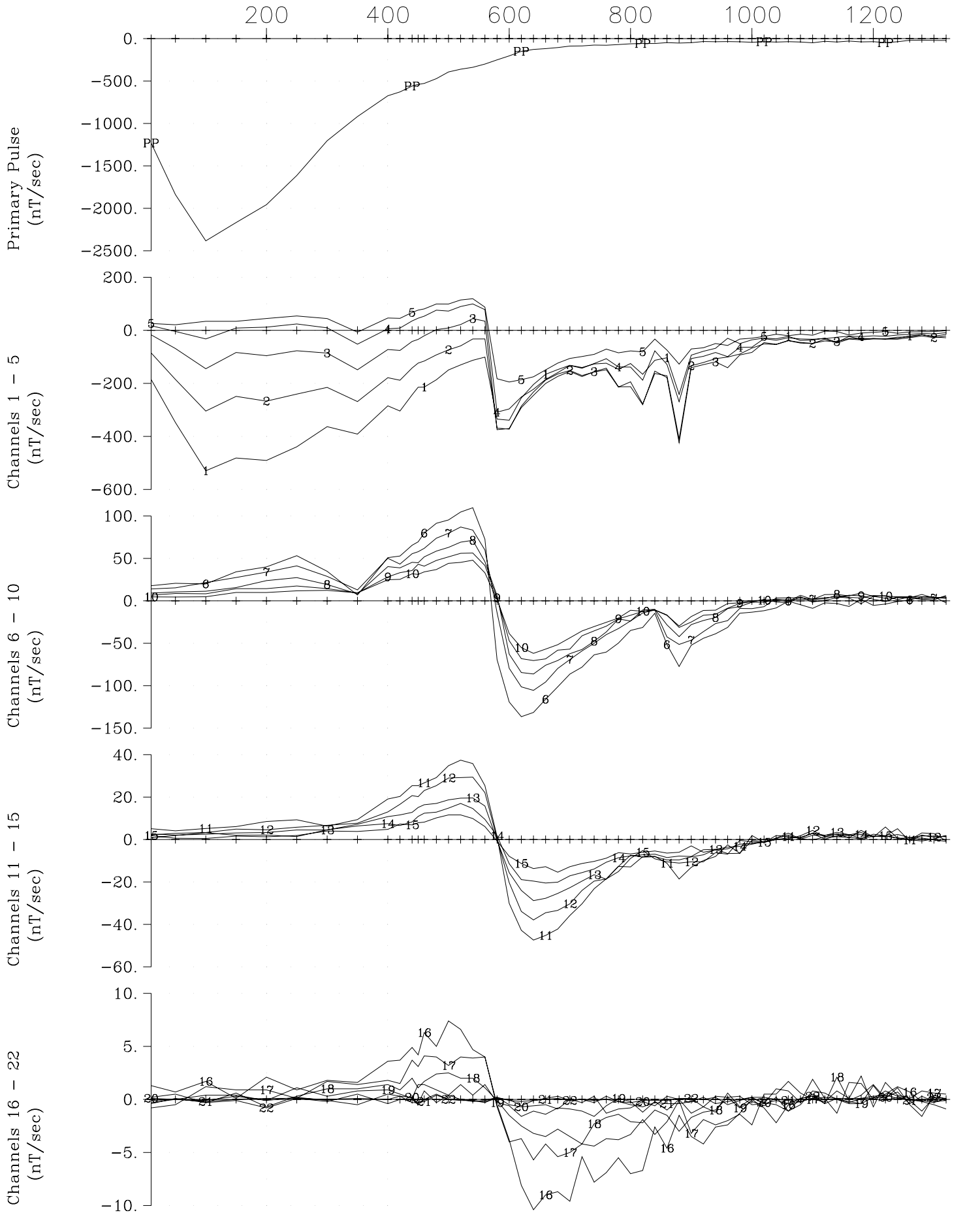


International Montoro Resources Serpent Property

Loop: P01 Hole: P-15-23 X Component

Crone Geophysics & Exploration Ltd.

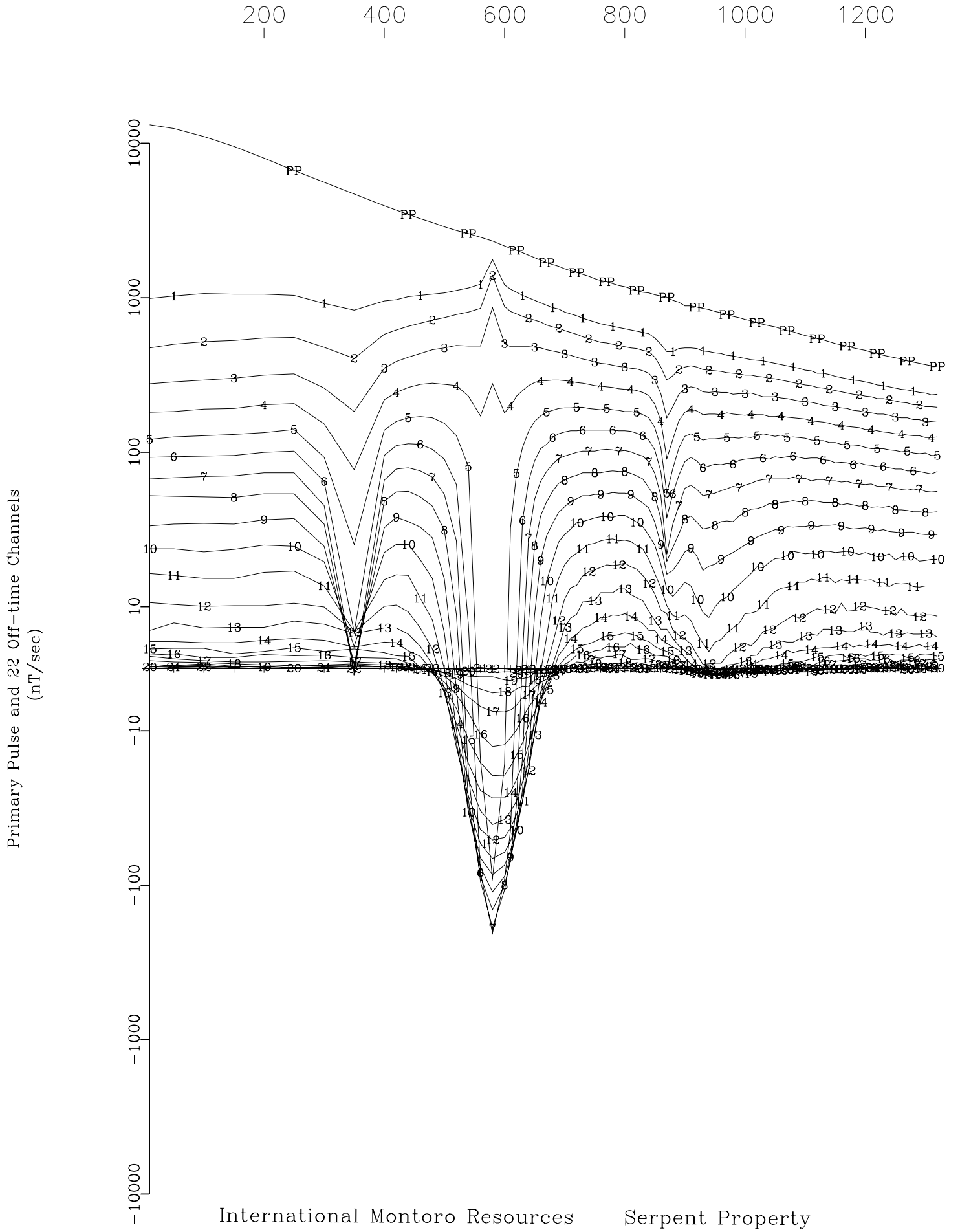


International Montoro Resources Serpent Property

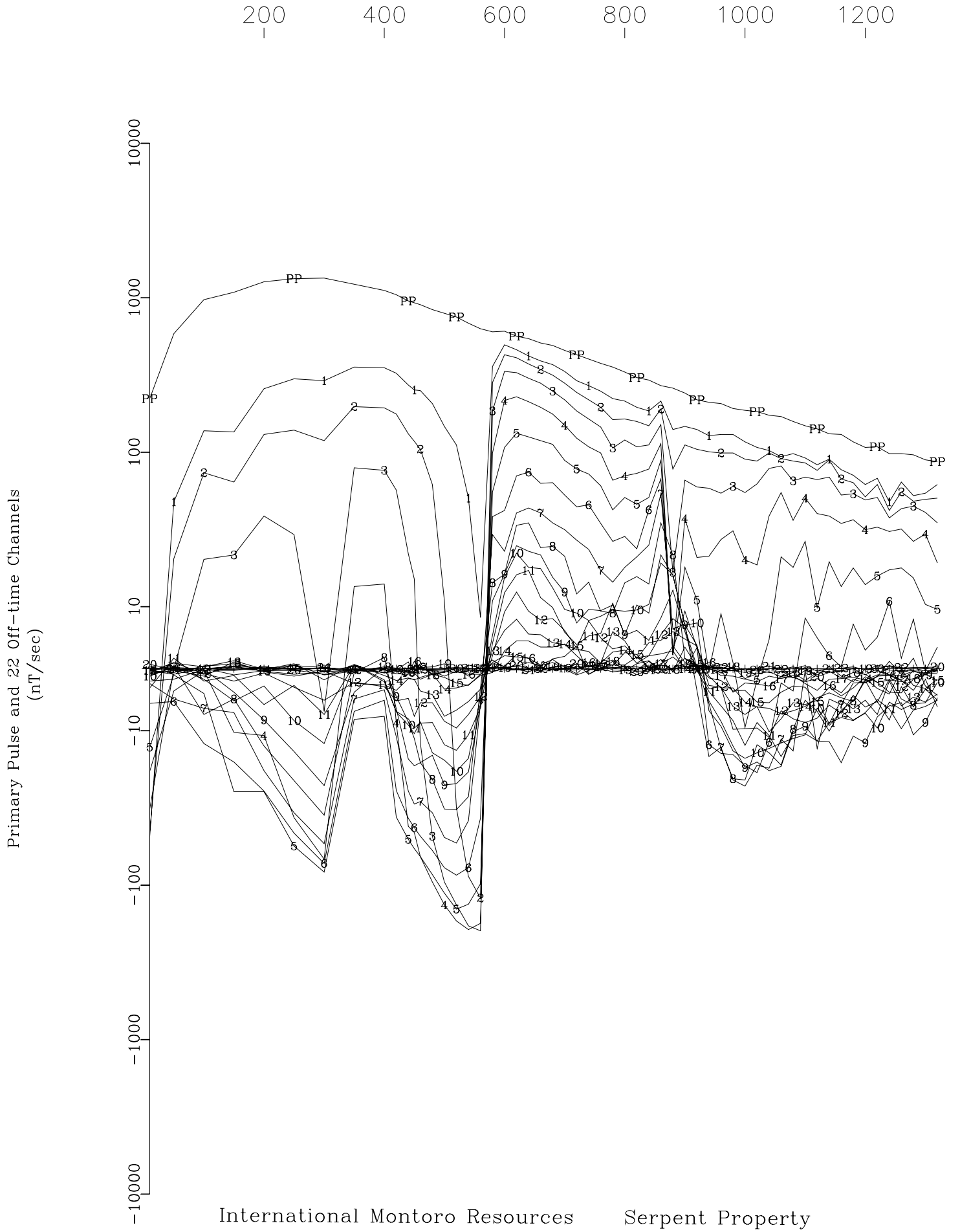
Loop: P01 Hole: P-15-23 Y Component

Crone Geophysics & Exploration Ltd.

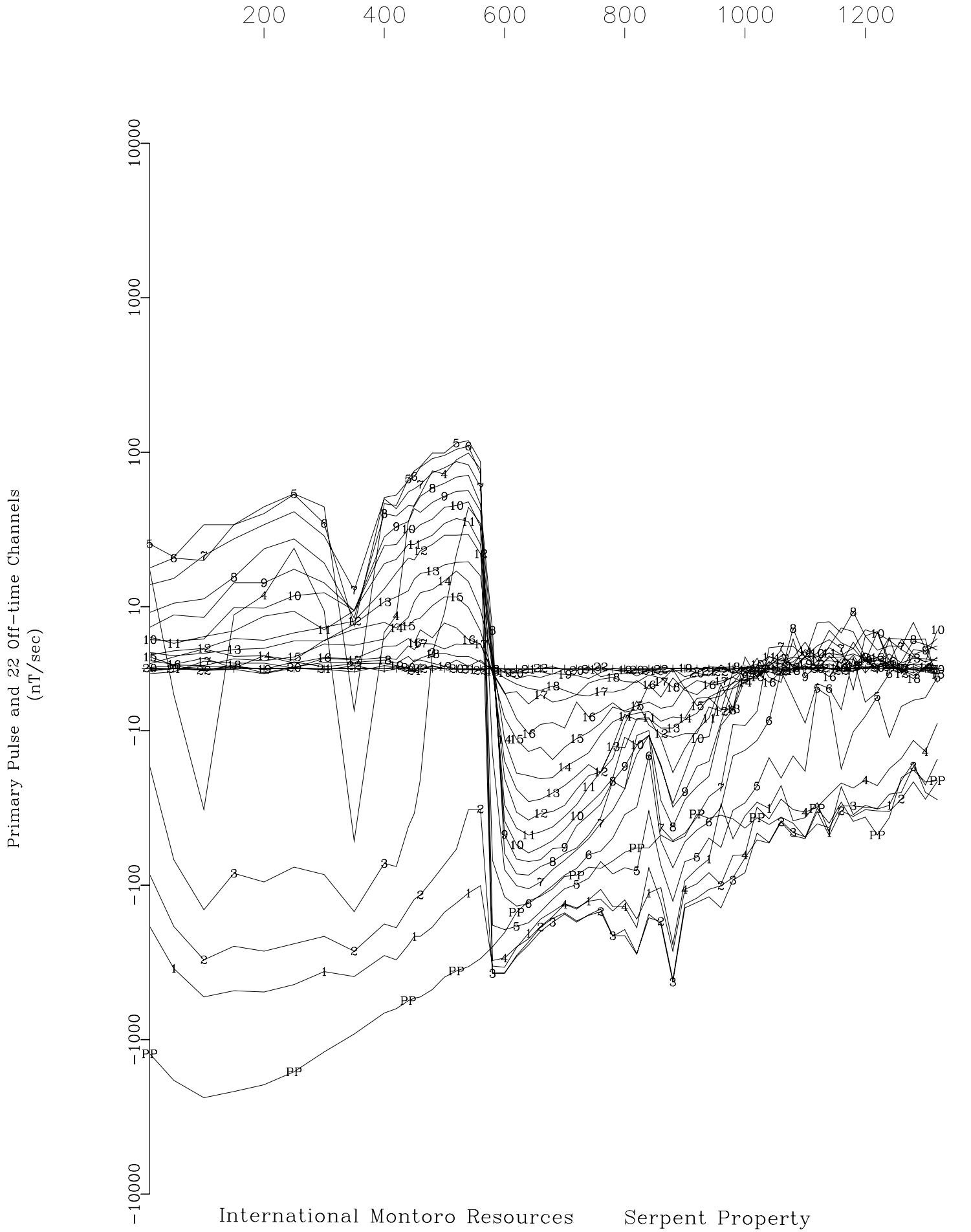
Appendix 3: Pulse-EM Data Profiles (Lin-Log) Scale



International Montoro Resources Serpent Property
Loop: P01 Hole: P-15-23 Z Component
Crone Geophysics & Exploration Ltd.



International Montoro Resources Serpent Property
Loop: P01 Hole: P-15-23 X Component
Crone Geophysics & Exploration Ltd.



International Montoro Resources Serpent Property
Loop: P01 Hole: P-15-23 Y Component
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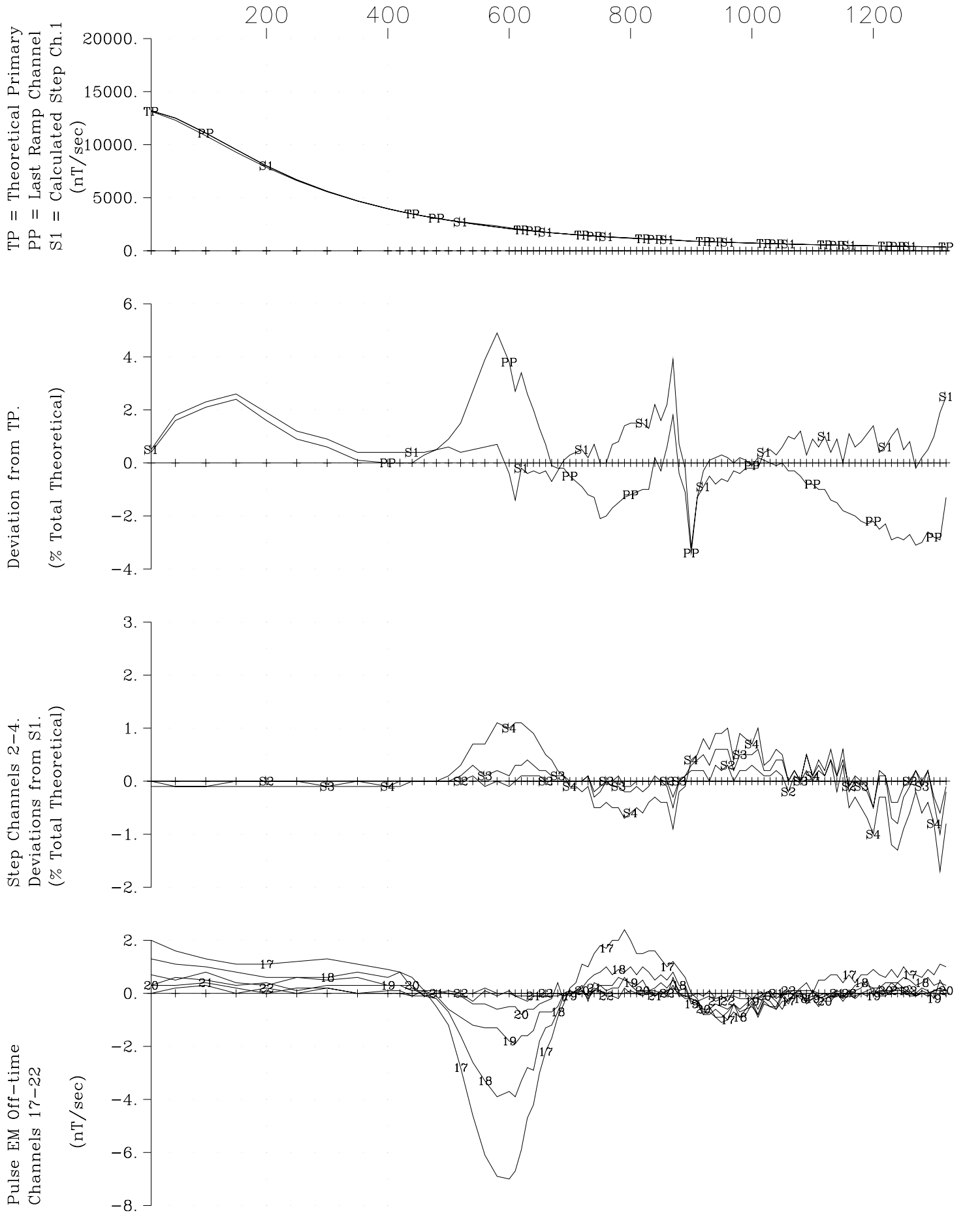
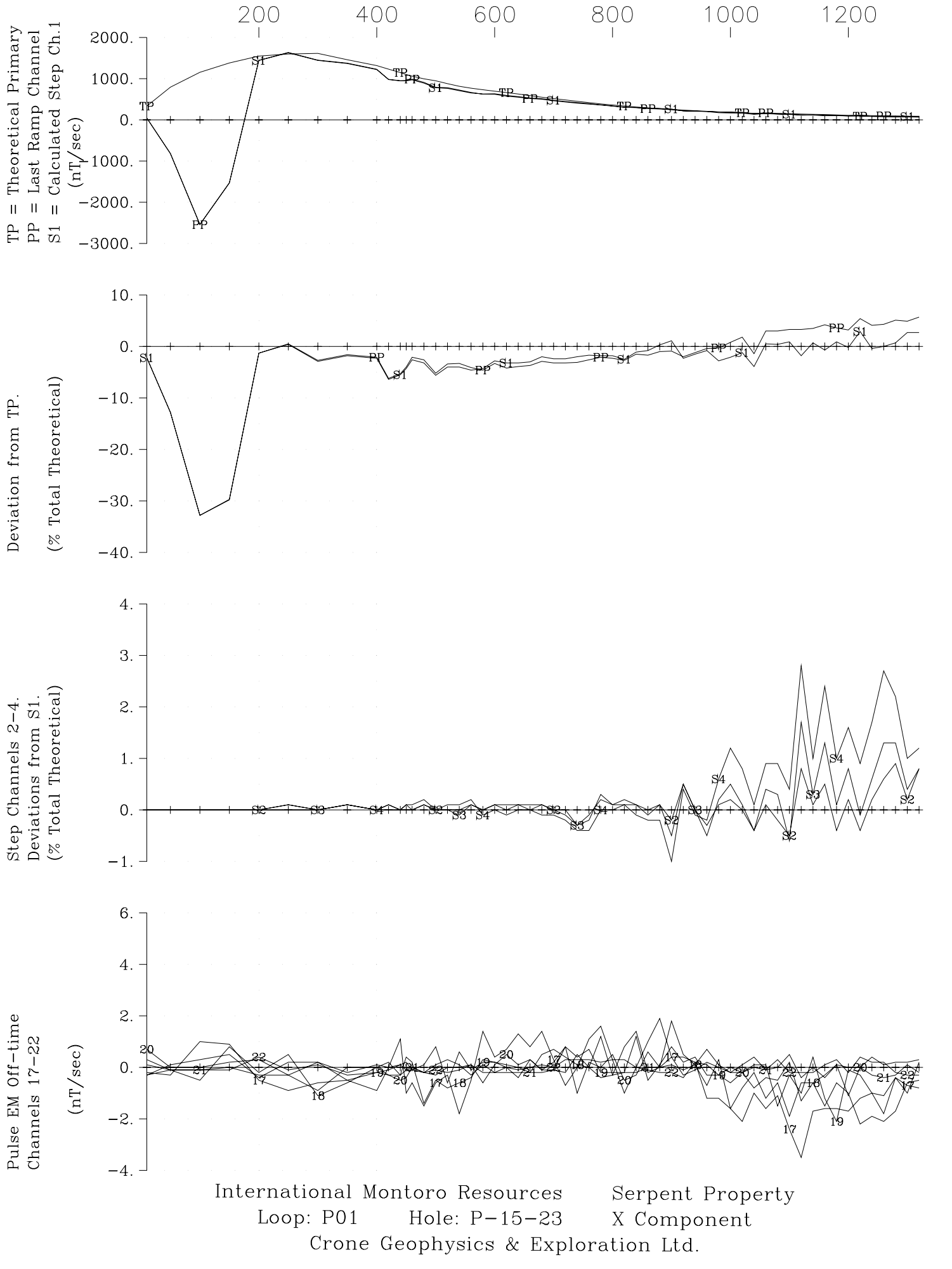
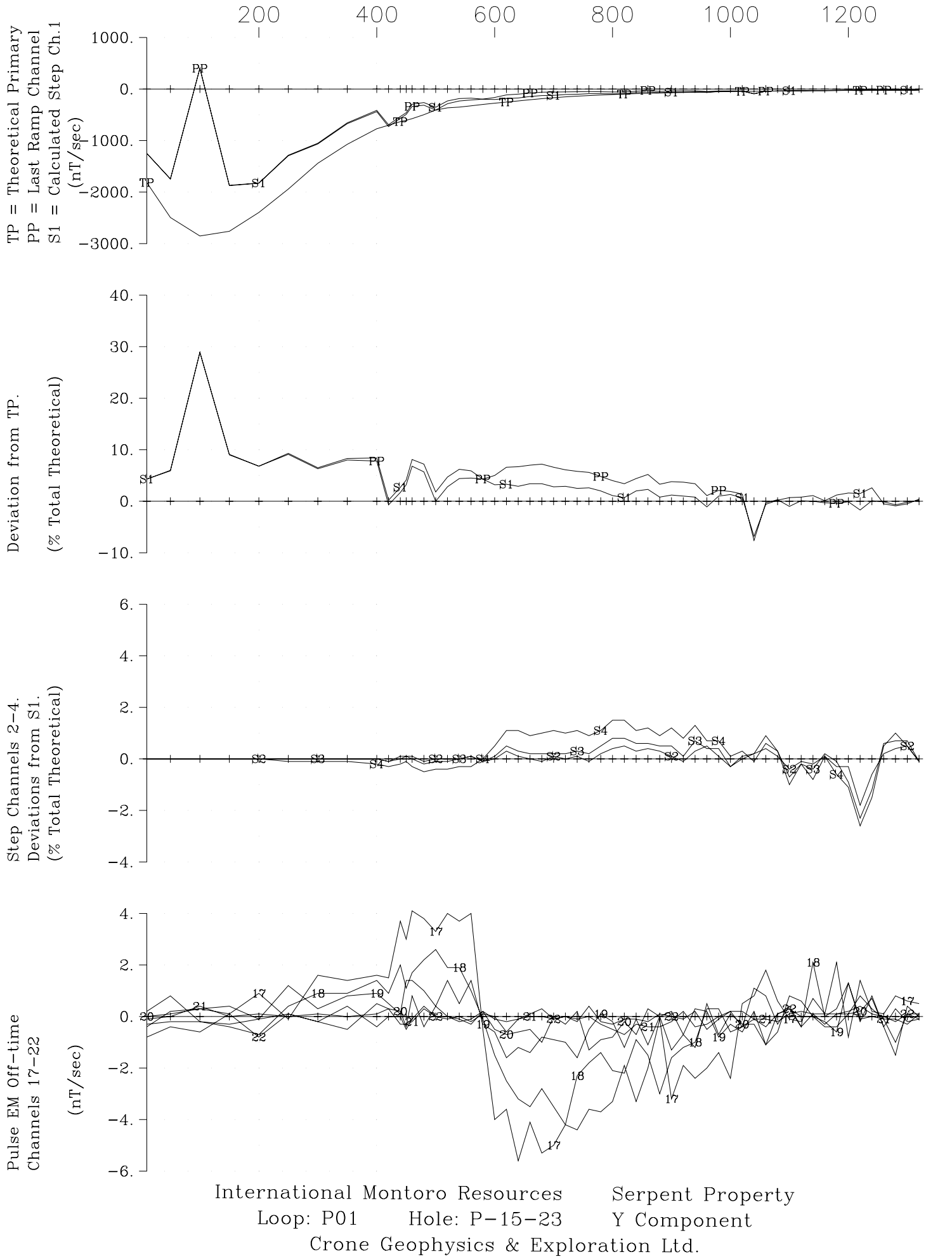
Appendix 4: Step Response Data Profiles



International Montoro Resources Serpent Property
Loop: P01 Hole: P-15-23 Z Component
Crone Geophysics & Exploration Ltd.


TP = Theoretical Primary
PP = Last Ramp Channel
S1 = Calculated Step Ch.1
(nT/sec)
Deviation from TP.
(% Total Theoretical)
Step Channels 2-4.
Deviations from S1.
(% Total Theoretical)
Pulse EM Off-time
Channels 17-22
(nT/sec)
200
400
600
800
1000
1200
International Montoro Resources
Serpent Property
Loop: P01
Hole: P-15-23
X Component
Crone Geophysics & Exploration Ltd.


TP = Theoretical Primary
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(nT/sec)
Deviation from TP.
(% Total Theoretical)
Step Channels 2-4.
Deviations from S1.
(% Total Theoretical)
Pulse EM Off-time
Channels 17-22
(nT/sec)
200
400
600
800
1000
1200
International Montoro Resources
Serpent Property
Loop: P01
Hole: P-15-23
Y Component
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