Geophysical Survey Report

covering

Borehole & Surface Pulse EM Surveys

over the

Discovery Lake Property

for

Pro Minerals Inc.

during
February – March 2010
by

CRONE GEOPHYSICS & EXPLORATION LTD.

Survey Area:	**Discovery Lake Property**
Survey Type:	**Surface & Borehole Pulse EM Surveys**
Survey Operator:	**AJ Saul**
Surface Surveys:	**Loop 1: 2000E, 2100E, 2200E, 2300E, 2400E, 2500E, 2600E, 2700E, 2800E, 2900E, 3000E, 3100E** **Loop 2: 2600E, 2700E, 2800E, 2900E, 3000E, 3100E, 3200E, 3300E**
Borehole Surveys:	**Loop 1: Hole, PO-01, PO-15** **Loop 2: Hole, PO-15**
Survey Period:	**February – March 2010**
Report By:	**Kevin Ralph, Colin Kennedy**
Report Date:	**September, 2011**

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PULSE ELECTROMAGNETIC SURVEY

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1.0 INTRODUCTION

Crone Geophysics & Exploration Limited was contracted by Pro Minerals Inc. to conduct Borehole & Surface Pulse Electromagnetic Surveys on its Discovery Lake Property. This report summarizes the geophysical work carried out during February 18th – March 17th 2010.

Twenty (20) surface lines utilizing two (2) surface loops and two (2) hole were surveyed from two transmitter loop during this survey period. The appendices to this report contain page size profile plan maps, section maps, the PEM profiles (linear 5-axis and logarithmic scale) and a description of the Crone Instrument Specifications.

2.0 PROPERTY LOCATION & ACCESS

The Discovery Lake Project is located in the East Uchi – Petawanga Lake Area, near Fort Hope Ontario, Canada. It consists of 34 claims, or 11,944 Acres, spanning roughly 16.2 kilometers North to South and 12.4 kilometers East to West.

A tent base camp was established very close to the property. Access to the Property was through use of snowmobiles.

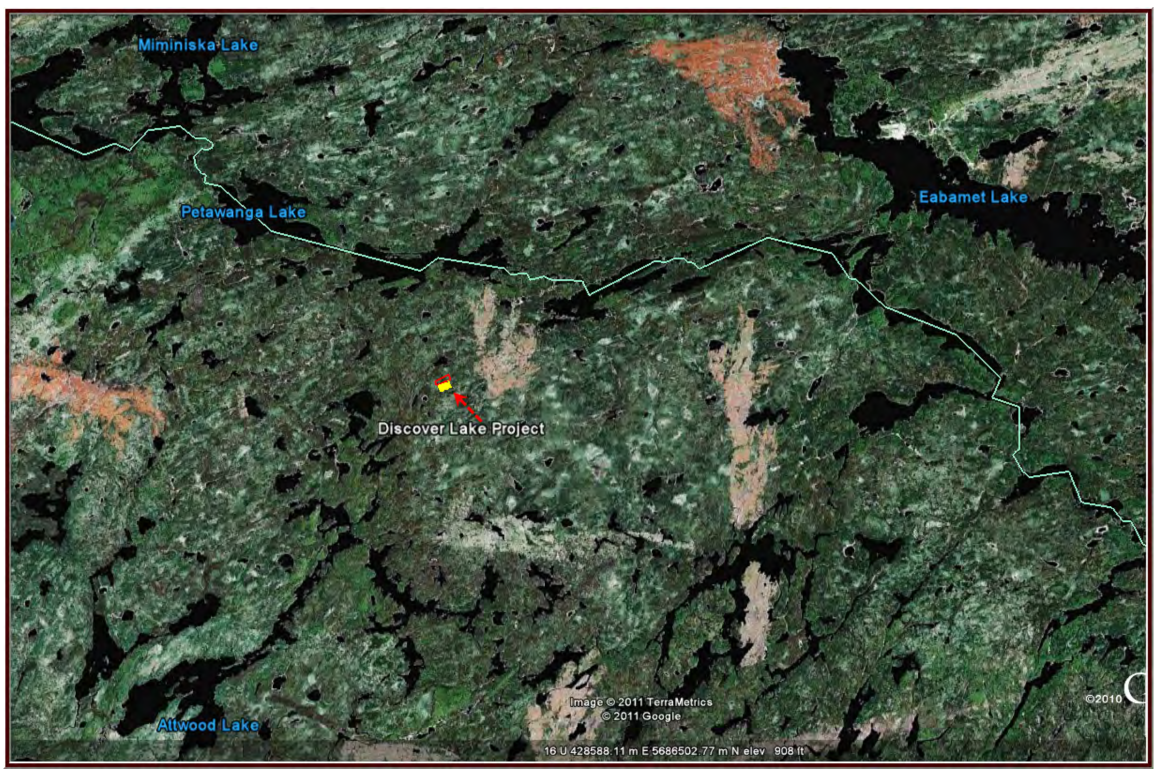


Figure: 1: Discovery Lake Project Location Google Map

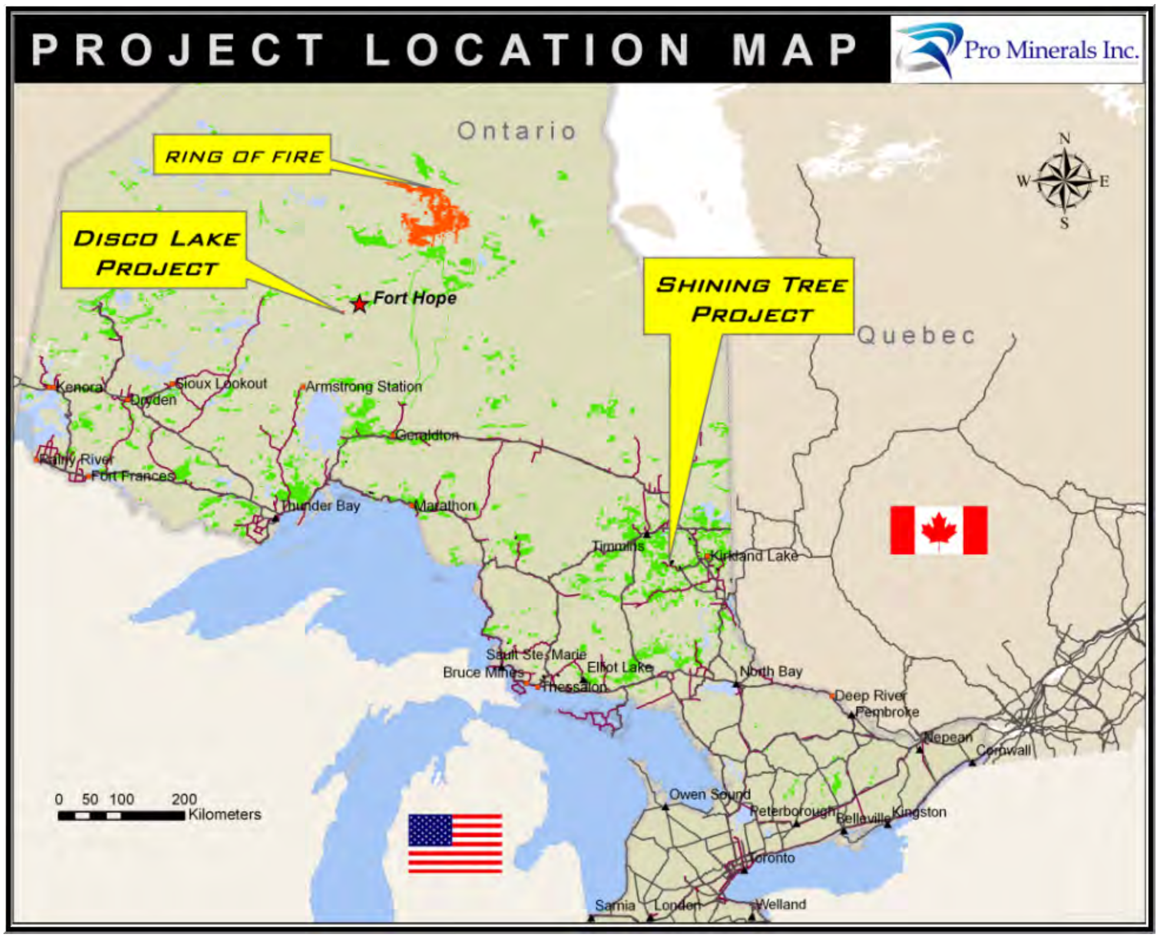


Figure: 2: *Project Location & Access Map*

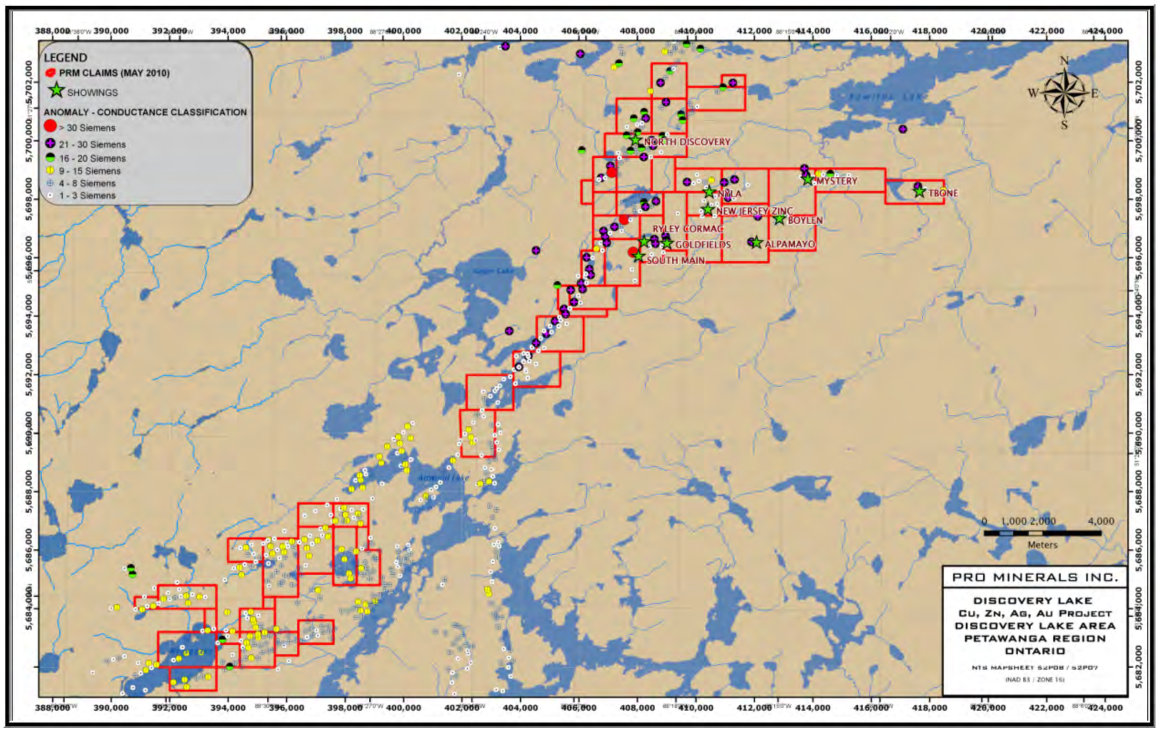


Figure 3: Property Claim Map

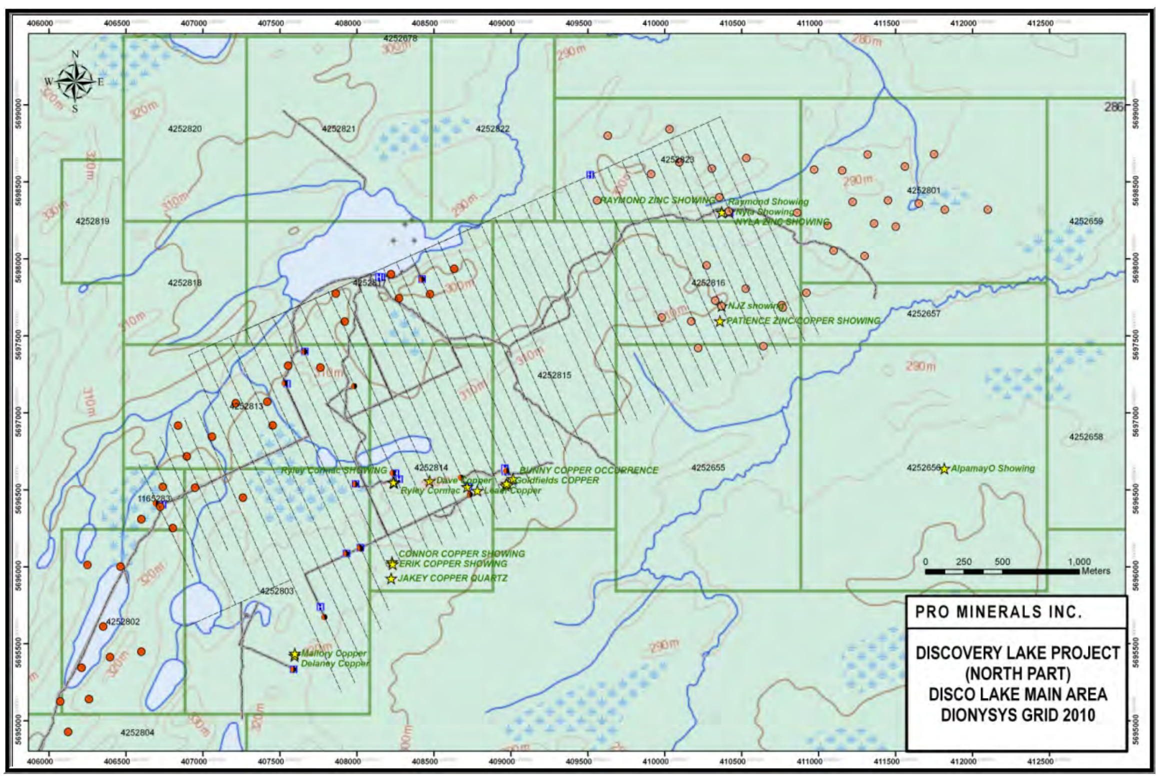


Figure 4: Discovery Lake Grid Map

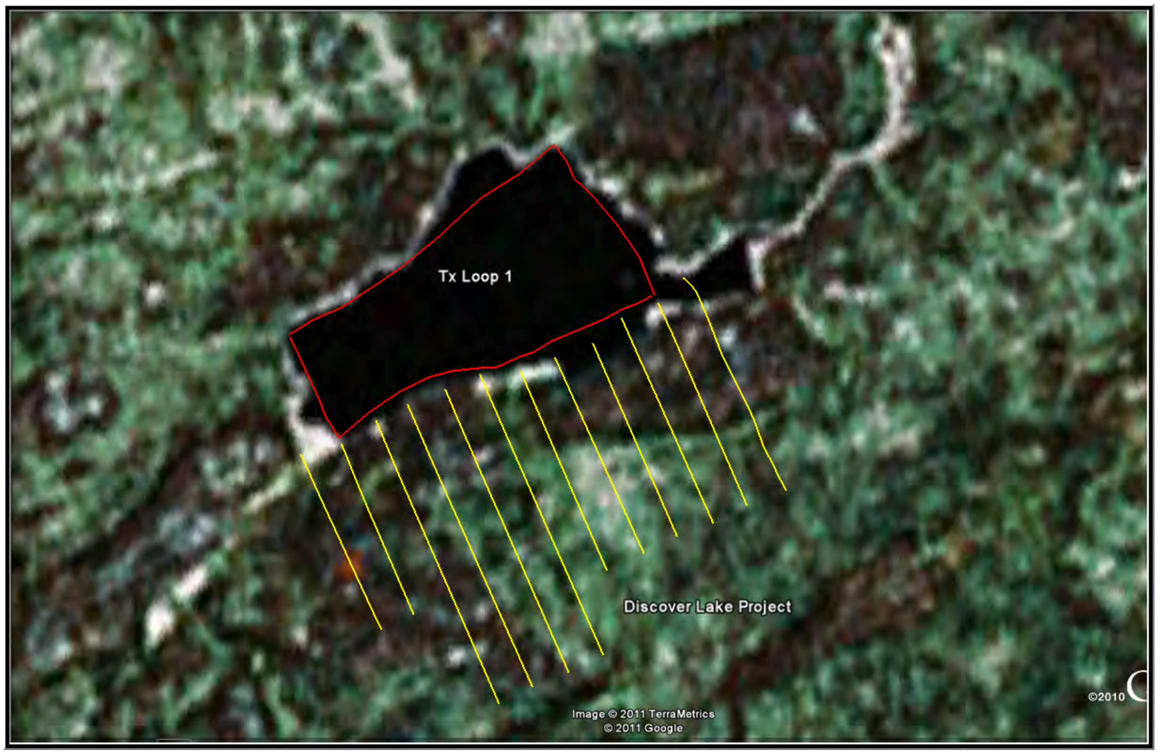


Figure 5: Tx Loop 1and TDEM Survey Line location Map

Figure 6: Tx Loop 2 and TDEM Survey Line location Map

Figure 7: Tx Loop 1, hole PO-01 and PO-15Location Map

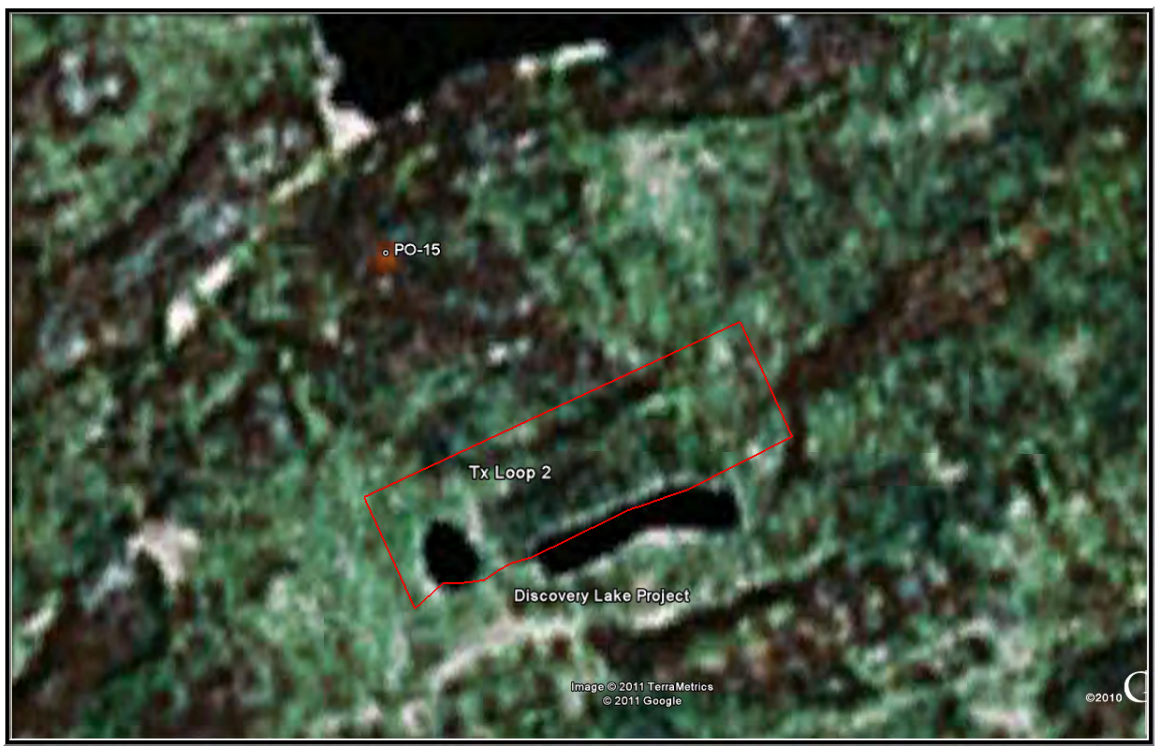


Figure 8: Tx Loop 2, hole PO-15Location Map

3.0 PERSONNEL

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

Survey Operator:	AJ Saul
Data Processing:	Kevin Ralph
Report:	Kevin Ralph, Colin Kennedy

6.0 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 of the induced secondary field is measured across a series of time windows during the off-time. The EMF created by the shutting-off of the current induces eddy currents in nearby conductive material thus setting-up a secondary magnetic field. When the primary field is terminated, this magnetic 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.

On this project, 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.

The surface survey was carried out using a time base of 50.00ms (5 Hz), with a 1.5 ms shut-off ramp time (*Table V*). Vertical (Z-component) and in-line (X-component) data was collected at a nominal survey interval of 25 meters.

The borehole surveys were carried out using a time base of 50.00 ms (5 Hz) with a 1.5 ms shut-off ramp time (*Table V*). The primary inducing field is defined as positive up inside the transmitter loop.

The equipment used on this project was a Crone Pulse EM Borehole system. This includes a 4.8 kW transmitter with a 220V voltage regulator which is powered by an 11 hp motor generator. The Crone Digital Receiver was used to collect the field data. The synchronization between the Transmitter and the Receiver was maintained by direct cable link.

Data units are nT/s.

7.0 SURVEY PARAMETERS

Table I: Surface Transmitter Loop Coverage

Loop	Property	Size (meters)	Corner Coordinates UTM NAD83 Canada Zone 16N
Loop 1	Discovery Lake	~1000x400	407505E, 5697960N 407625E, 5697701N 408438E, 5698071N 408178E, 5698437N
Loop 2	Discovery Lake	~1000x300	407599E, 5696809N 407718E, 5696550N 408620E, 5696949N 408498E, 5697221N

Table II: Surface Survey Coverage

Line	TX loop	Timebase (ms)	Ramp (ms)	Current (Amps)	Station From	Station To	Length (m)	Comp
2000E	Loop 1	50	1.5	15	800N	200N	600	ZX
2100E	Loop 1	50	1.5	15	775N	200N	575	ZX
2200E	Loop 1	50	1.5	15	775N	200N	57	ZX
2300E	Loop 1	50	1.5	15	725N	200N	525	ZX
2400E	Loop 1	50	1.5	15	750N	200N	550	ZX
2500E	Loop 1	50	1.5	15	750N	200N	550	ZX
2600E	Loop 1	50	1.5	15	775N	0N	775	ZX
2700E	Loop 1	50	1.5	15	800N	0N	800	ZX
2800E	Loop 1	50	1.5	15	800N	0N	800	ZX
2900E	Loop 1	50	1.5	15	800N	0N	800	ZX
3000E	Loop 1	50	1.5	15	775N	300N	475	ZX
3100E	Loop 1	50	1.5	15	800N	300N	500	ZX
2600E	Loop 2	50	1.5	13	400S	800S	400	ZX
2700E	Loop 2	50	1.5	13	325S	800S	475	ZX
2800E	Loop 2	50	1.5	13	350S	800S	450	ZX
2900E	Loop 2	50	1.5	13	375S	800S	425	ZX
3000E	Loop 2	50	1.5	13	350S	800S	450	ZX
3100E	Loop 2	50	1.5	13	325S	800S	475	ZX
3200E	Loop 2	50	1.5	13	325S	800S	475	ZX
3300E	Loop 2	50	1.5	13	300S	800S	500	ZX

Table III: Borehole Transmitter Loop Coverage

Loop	Property	Size (meters)	Corner Coordinates UTM NAD83 Canada Zone 16N
Loop 1	Discovery Lake	~1000x400	407505E, 5697957N 407627E, 5697697N 408436E, 5698073N 408179E, 5698443N
Loop 2	Discovery Lake	~1000x300	407599E, 5696809N 407718E, 5696550N 408620E, 5696949N 408498E, 5697221N

Table IV: Borehole Survey Coverage

Hole	TX loop	Timebase (ms)	Ramp (ms)	Current (Amps)	Station		Length (m)	Comp
					From	To		
PO1	Loop 1	50	1.5	15	10	140	130	XYZ
PO15	Loop 1	50	1.5	15	10	200	190	XYZ
PO15	Loop 2	50	1.5	13	10	200	190	XYZ

The following table shows the various time gates that constitute the channel configurations set up in the Crone PEM Receiver used in the surveys discussed in this report The 50 ms time-base uses off-time channels 1 – 24.

Table V: Channel Configuration

Channel	Start	Finish	Channel	Start	Finish
PP	-200 µs	-100 µs			
1	48 µs	64 µs	**2**	64 µs	84 µs
3	84 µs	112 µs	**4**	112 µs	152 µs
5	152 µs	204 µs	**6**	204 µs	268 µs
7	268 µs	360 µs	**8**	360 µs	480 µs
9	480 µs	640 µs	**10**	640 µs	848 µs
11	848 µs	1.128 ms	**12**	1.128 ms	1.496 ms
13	1.496 ms	1.992 ms	**14**	1.992 ms	2.644 ms
15	2.644 ms	3.512 ms	**16**	3.512 ms	4.664 ms
17	4.664 ms	6.192 ms	**18**	6.192 ms	8.22 ms
19	8.22 ms	10.92 ms	**20**	10.92 ms	14.4 ms
21	14.4 ms	17.7 ms	**22**	17.7 ms	27.7 ms
23	27.7 ms	37.7 ms	**24**	37.7 ms	47.7 ms

8.0 PRODUCTION SUMMARY

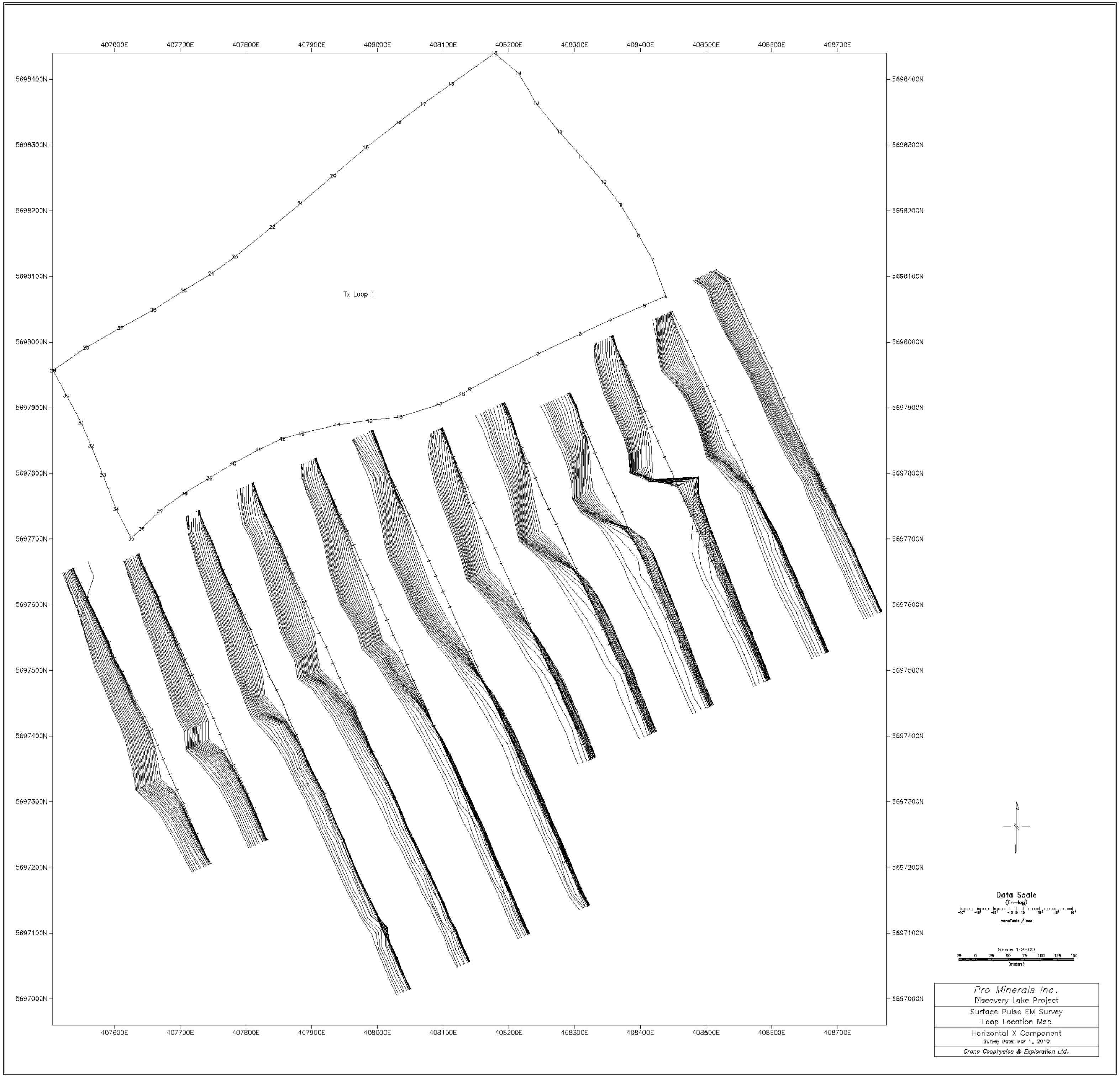
Table VI: Production Summary

18-Feb-2010	MOB.
19-Feb-2010	MOB.
20-Feb-2010	MOB.
21-Feb-2010	Set up gear.
22-Feb-2010	Laid loop 1.
23-Feb-2010	Dummied hole po1 150m.
24-Feb-2010	Surveyed po1 zxy 10m-150m, 140m, moved gear to hole PO15.
25-Feb-2010	Surveyed hole po15 zxy 10m-200m, 190m.
26-Feb-2010	Surveyed lines 3100E zx 800N-300N,500m & 3000E zx 800N-300N,500m.
27-Feb-2010	Surveyed lines 2900E zx 800N-0N,800m & 2800E zx 800N-0N,800m.
28-Feb-2010	Surveyed lines 2700E zx 800N-0N,800m & 2600E zx 800N-0N,800m.
1-Mar-2010	Surveyed lines 2500E zx 800N-200N,600m , 2400E zx 800N-200N,600m & 2300E zx 800N-200N,600m.
2-Mar-2010	Surveyed lines 2200E zx 800N-200N,600m , 2100E zx 800N-200N,600m & 2000E zx 800N-200N,600m.
3-Mar-2010	Lay loop 2, brought gear to L3100E, surveyed hole po15 zxy 10m-200m, 190m.
4-Mar-2010	Skidoos broken, had to bring equipment in by sleigh, generator blew a gasket, had to bring all equipment back to camp by sleigh.
5-Mar-2010	Picked up loop, plane brought in new generato.r
6-Mar-2010	Brought gear in with sleigh, surveyed lines 2900E zx 800N-300N,500m & 2800E zx 800N-300N,500m.
7-Mar-2010	Got all data ready to send to office
8-Mar-2010	Surveyed lines 2700E zx 800N-300N,500m & 2800E zx 800N-300N,500m.
9-Mar-2010	Surveyed lines 3100E zx 800N-300N,500m & 3000E zx 800N-300N,500m
10-Mar-2010	Weather Day - Bad Rain.
11-Mar-2010	Weather Day - Bad Rain.
12-Mar-2010	Surveyed lines 3300E zx 800N-300N,500m & 3200E zx 800N-300N,500m.
13-Mar-2010	Start pulling out gear by sleigh, no skidoos.
14-Mar-2010	Finished pulling out gear, start picking up loop.
15-Mar-2010	Finished pulling loop, walked all loop out to camp, packed all gear and brought to the lake for plane to pick up.
16-Mar-2010	Loaded plane, DEMOB.
17-Mar-2010	DEMOB.

Respectfully submitted,

Kevin Ralph, Colin Kennedy
Crone Geophysics & Exploration Ltd.

APPENDIX I: PROFILE PLAN AND SECTION MAPS



407600E
407700E
407800E
407900E
408000E
408100E
408200E
408300E
408400E
408500E
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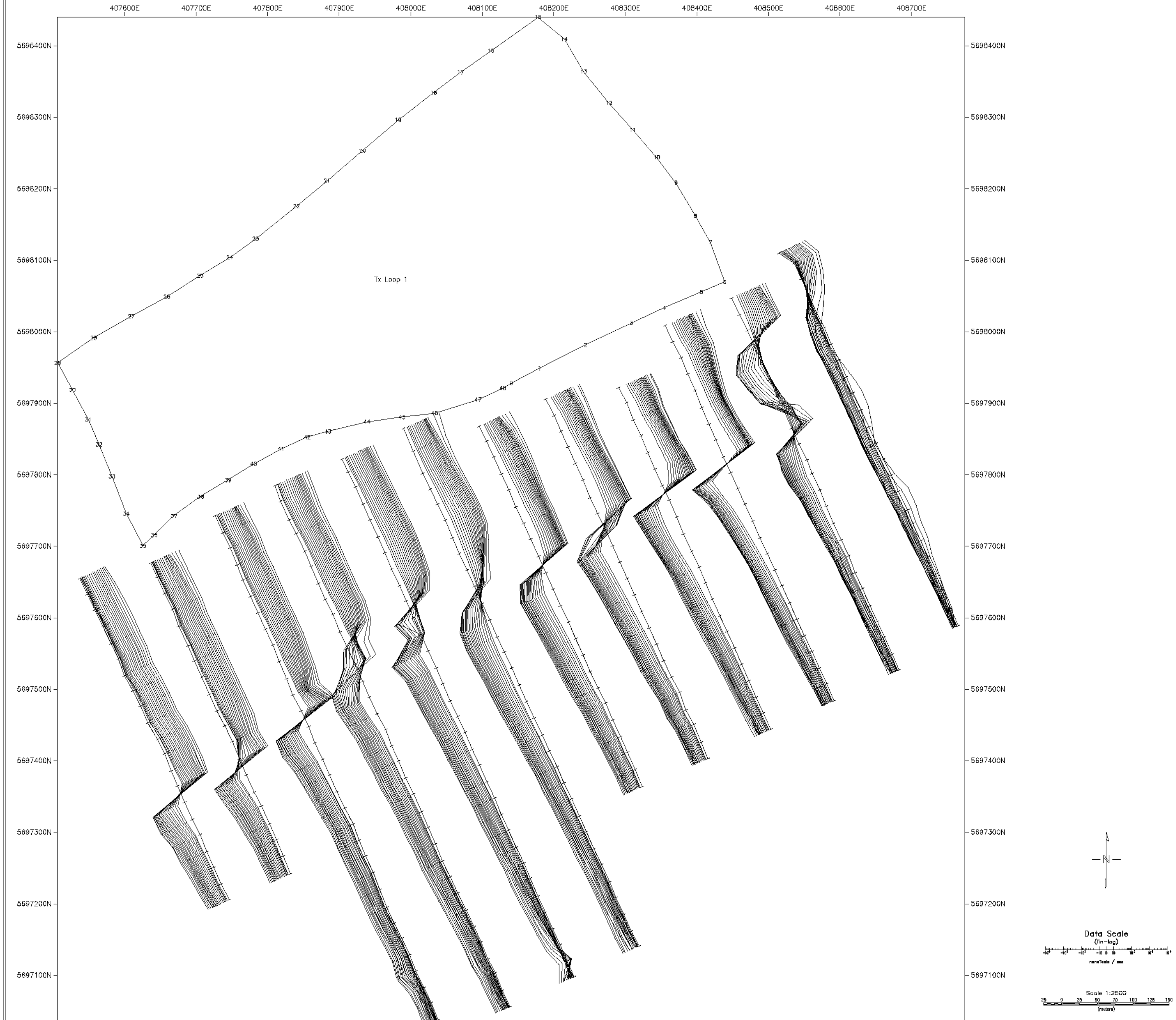
408700E
5698400N
5698300N
5698200N
5698100N
5698000N
5697900N
5697800N
5697700N
5697600N
5697500N
5697400N
5697300N
5697200N
5697100N
5697000N
Tx Loop 1
N
Data Scale
(lin-log)
nanoTesla / sec
Scale 1:2500
(meters)
Pro Minerals Inc.
Discovery Lake Project
Surface Pulse EM Survey
Loop Location Map
Horizontal X Component
Survey Date: Mar 1, 2010
Crone Geophysics & Exploration Ltd.

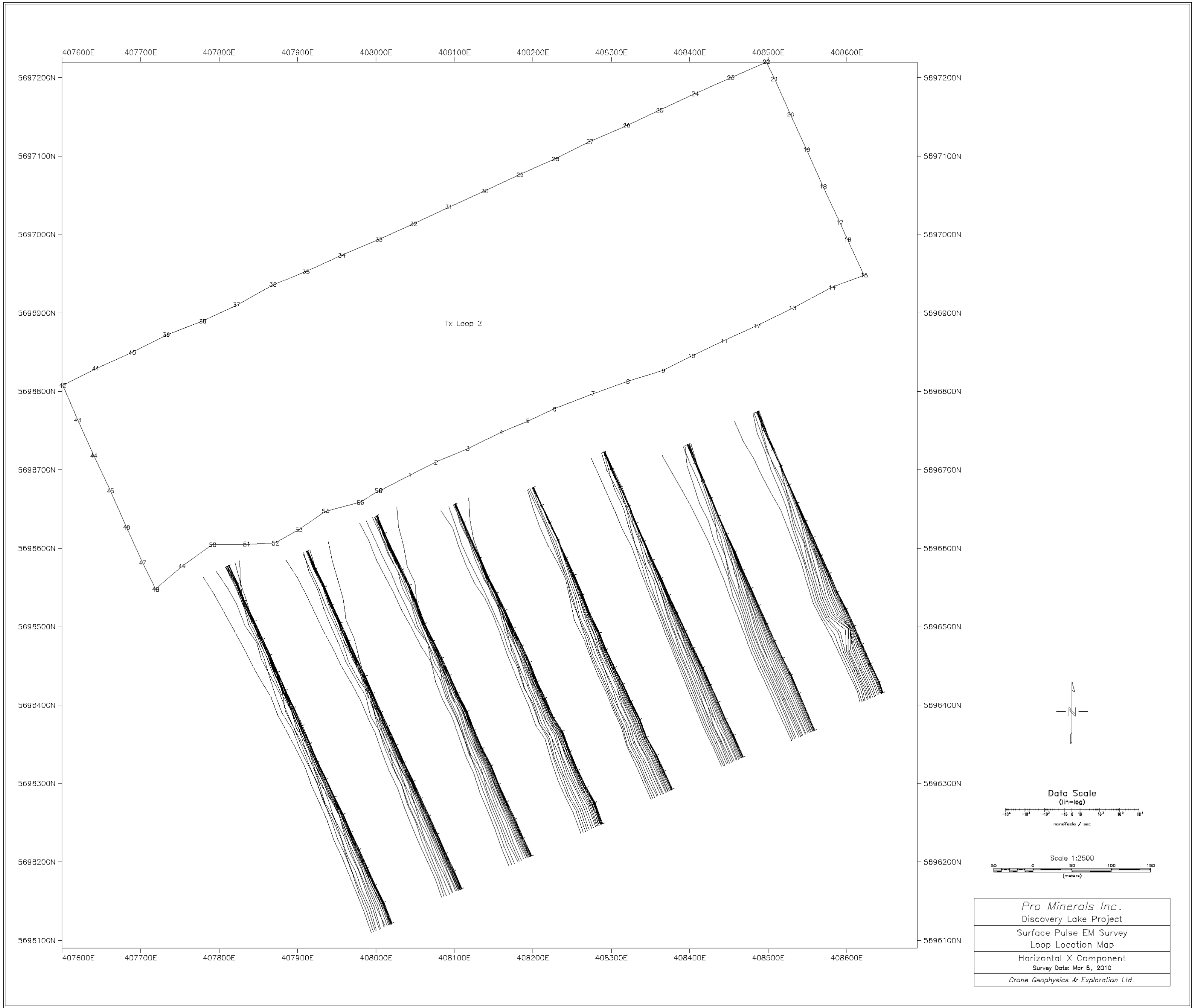


Pro Minerals Inc.
Discovery Lake Project

Surface Pulse EM Survey
Loop Location Map

Vertical Z Component
Survey Date: Mar 1, 2010

Crone Geophysics & Exploration Ltd.



407600E
407700E
407800E
407900E
408000E
408100E
408200E
408300E
408400E
408500E
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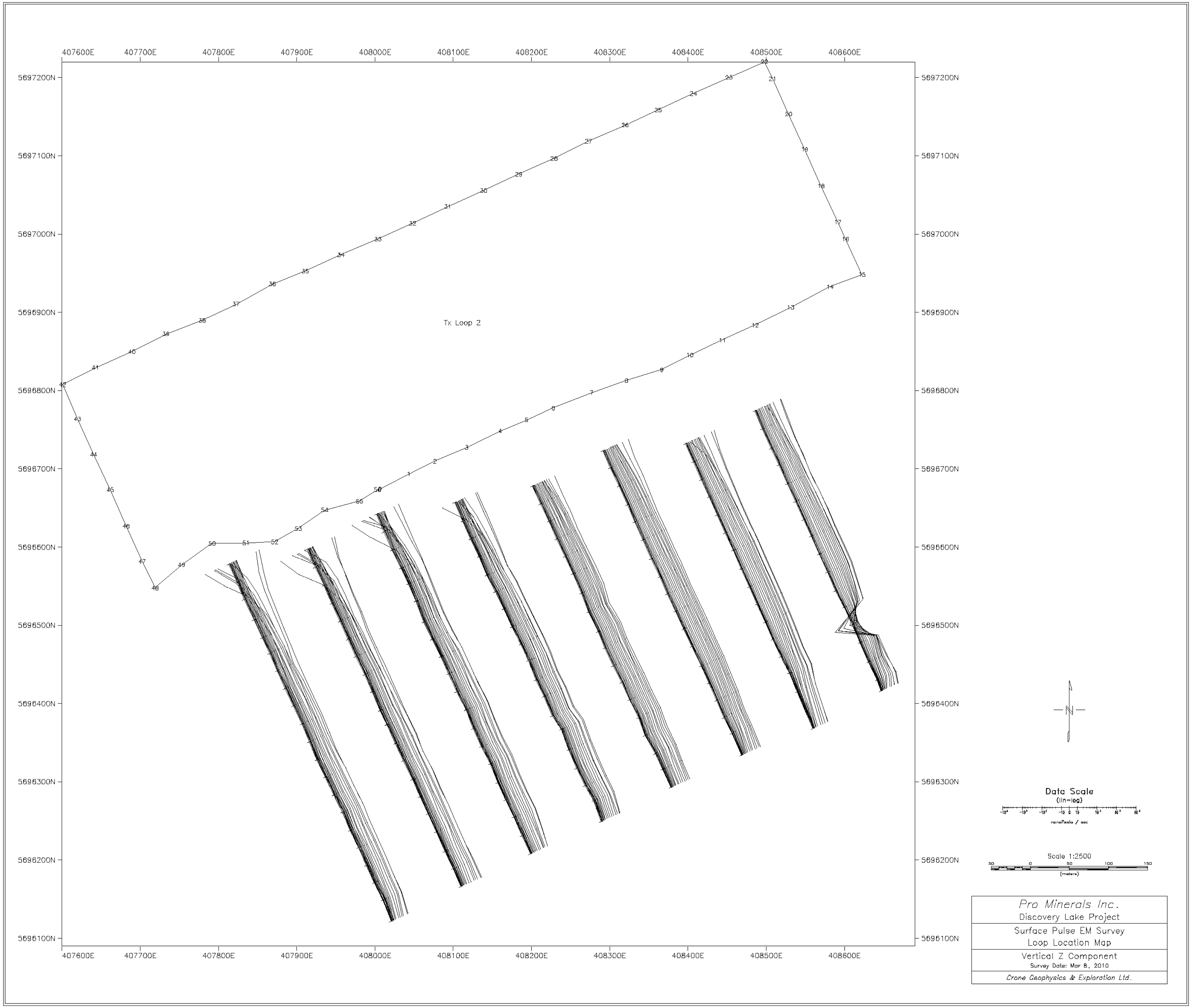
5697200N
5697100N
5697000N
5696900N
5696800N
5696700N
5696600N
5696500N
5696400N
5696300N
5696200N
5696100N
Tx Loop 2
Data Scale
(lin-log)
nanoTesla / sec
Scale 1:2500
(meters)
Pro Minerals Inc.
Discovery Lake Project
Surface Pulse EM Survey
Loop Location Map
Horizontal X Component
Survey Date: Mar 8, 2010
Crone Geophysics & Exploration Ltd.


407600E
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407800E
407900E
408000E
408100E
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408300E
408400E
408500E
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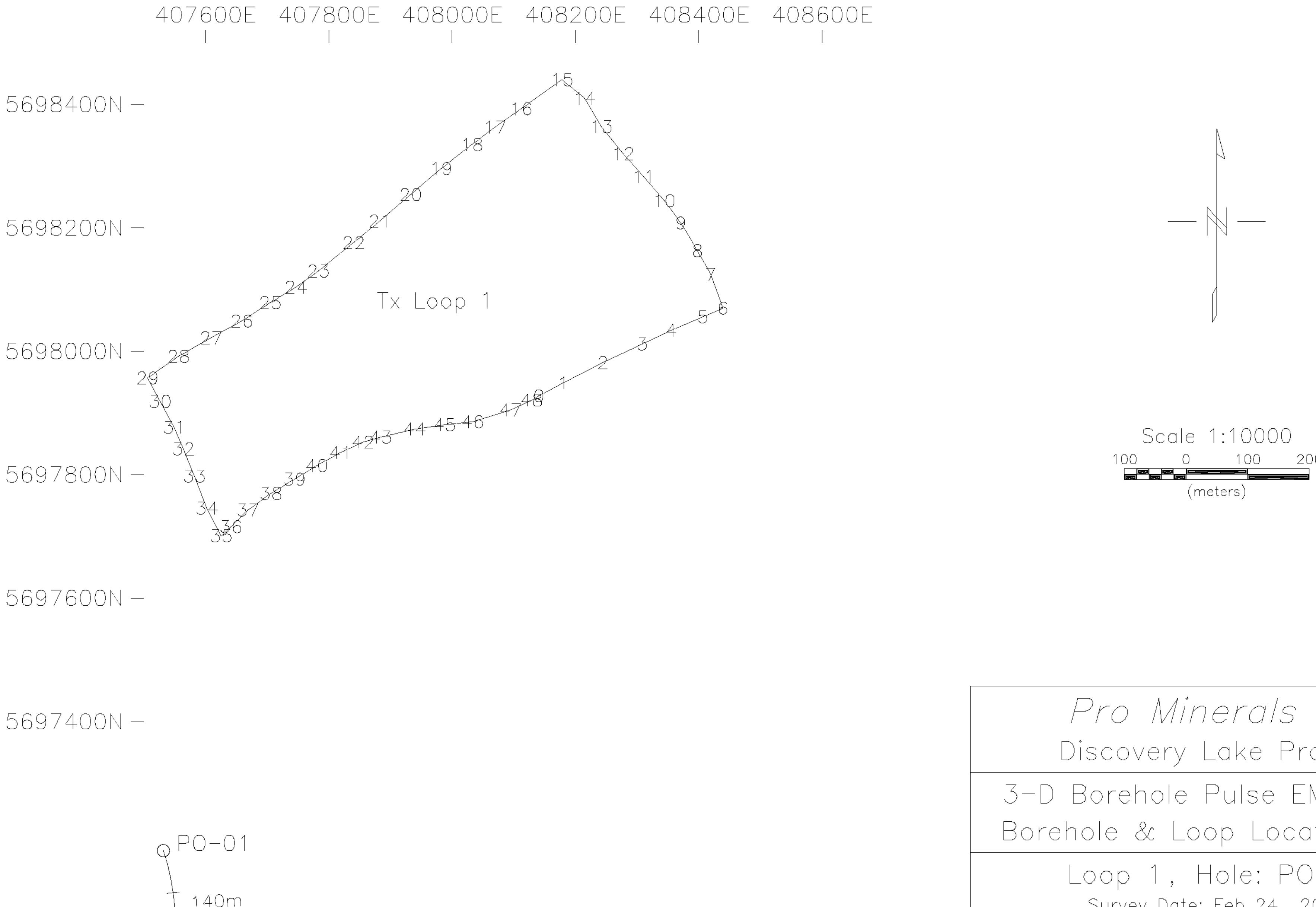
5697200N
5697100N
5697000N
5696900N
5696800N
5696700N
5696600N
5696500N
5696400N
5696300N
5696200N
5696100N
Tx Loop 2
Data Scale
(lin-log)
nanoTesla / sec
Scale 1:2500
(meters)
Pro Minerals Inc.
Discovery Lake Project
Surface Pulse EM Survey
Loop Location Map
Vertical Z Component
Survey Date: Mar 8, 2010
Crone Geophysics & Exploration Ltd.



Pro Minerals Inc

Discovery Lake Project

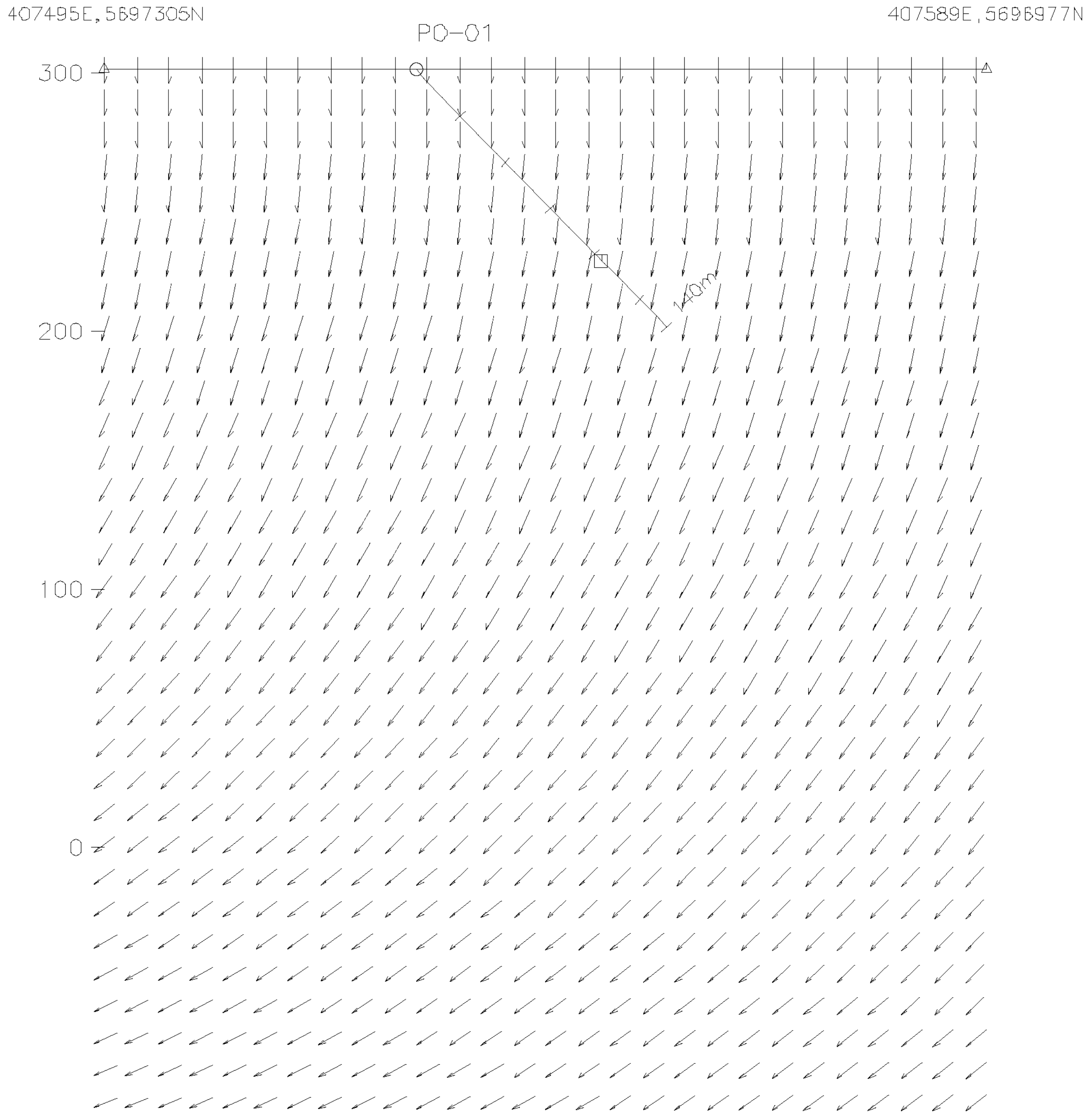
3-D Borehole Pulse EM Survey

Borehole & Loop Location Map

Loop 1, Hole: PO-01

Survey Date: Feb 24, 2010

Crone Geophysics & Exploration Ltd.



Scale 1:2500

25 0 25 50

(meters)

Pro Minerals Inc.

Discovery Lake Project

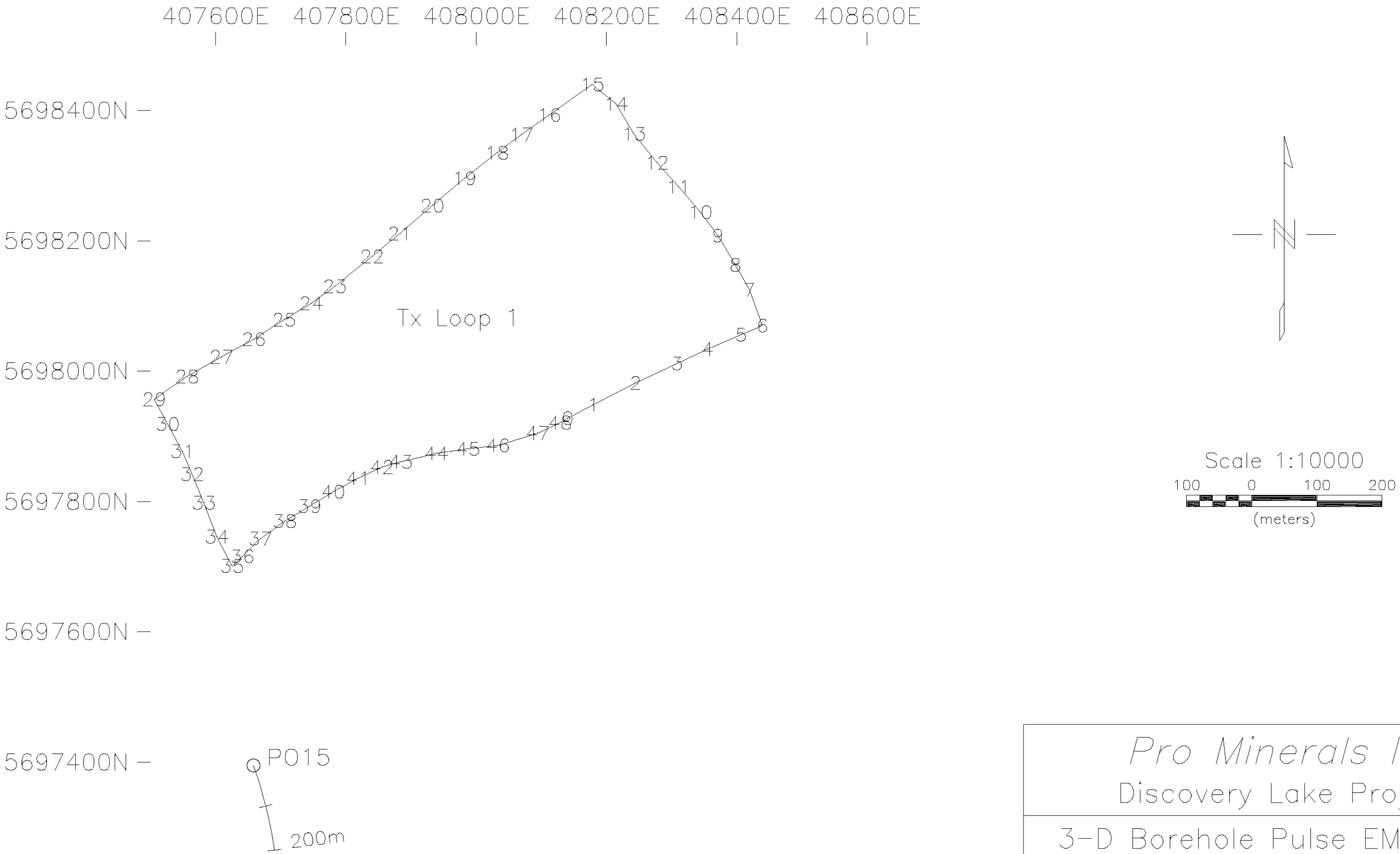
3-D Borehole Pulse EM Survey

Hole Section with Primary Field

Loop 1, Hole: PO-01

Survey Date: Feb 24, 2010

Crone Geophysics & Exploration Ltd.



Pro Minerals Inc

Discovery Lake Project

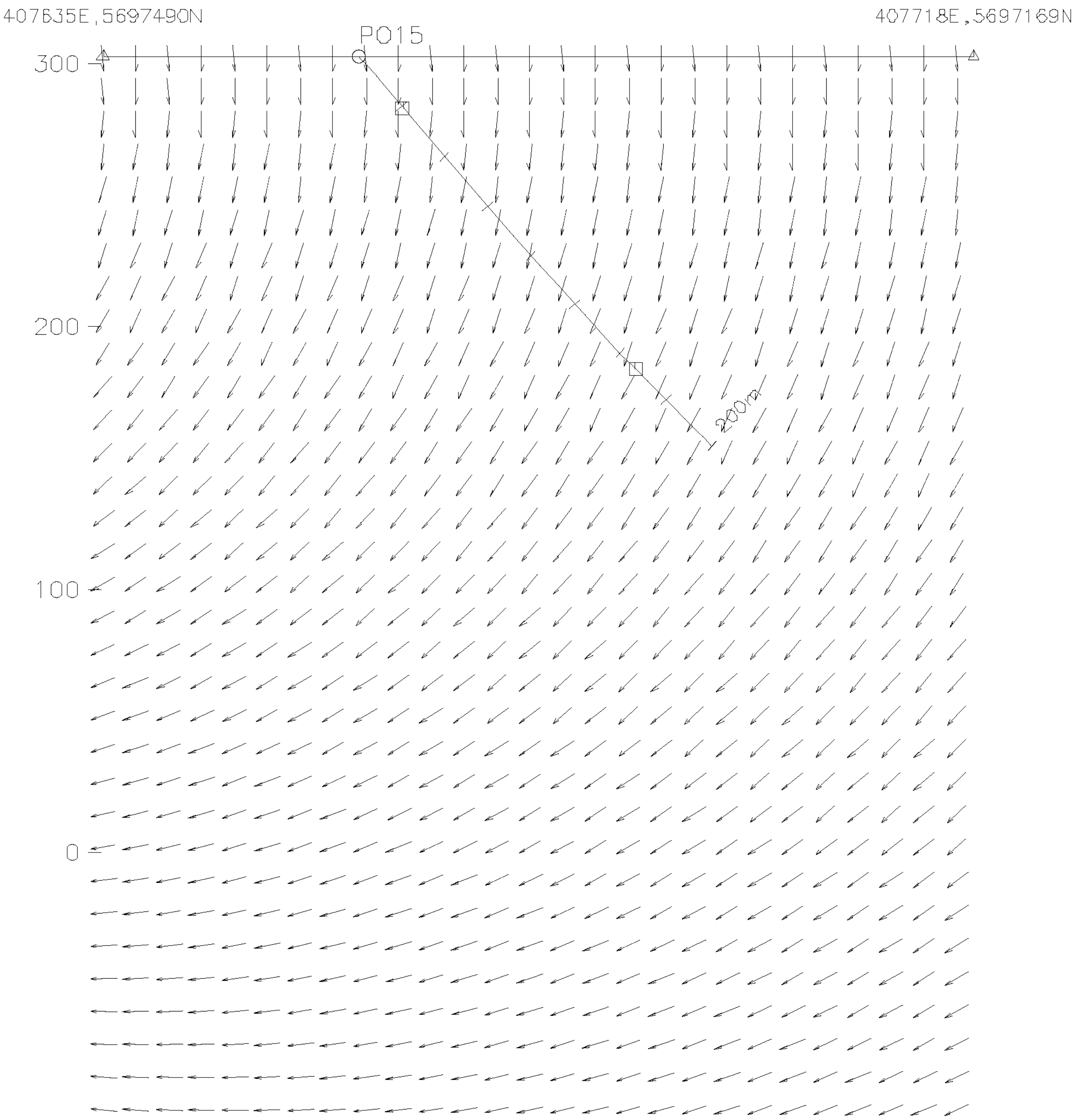
3-D Borehole Pulse EM Survey

Borehole & Loop Location Map

Loop 1, Hole: P015

Survey Date: Feb 25, 2010

Crone Geophysics & Exploration Ltd.



Scale 1:2500

25 0 25 50

(meters)

Pro Minerals Inc

Discovery Lake Project

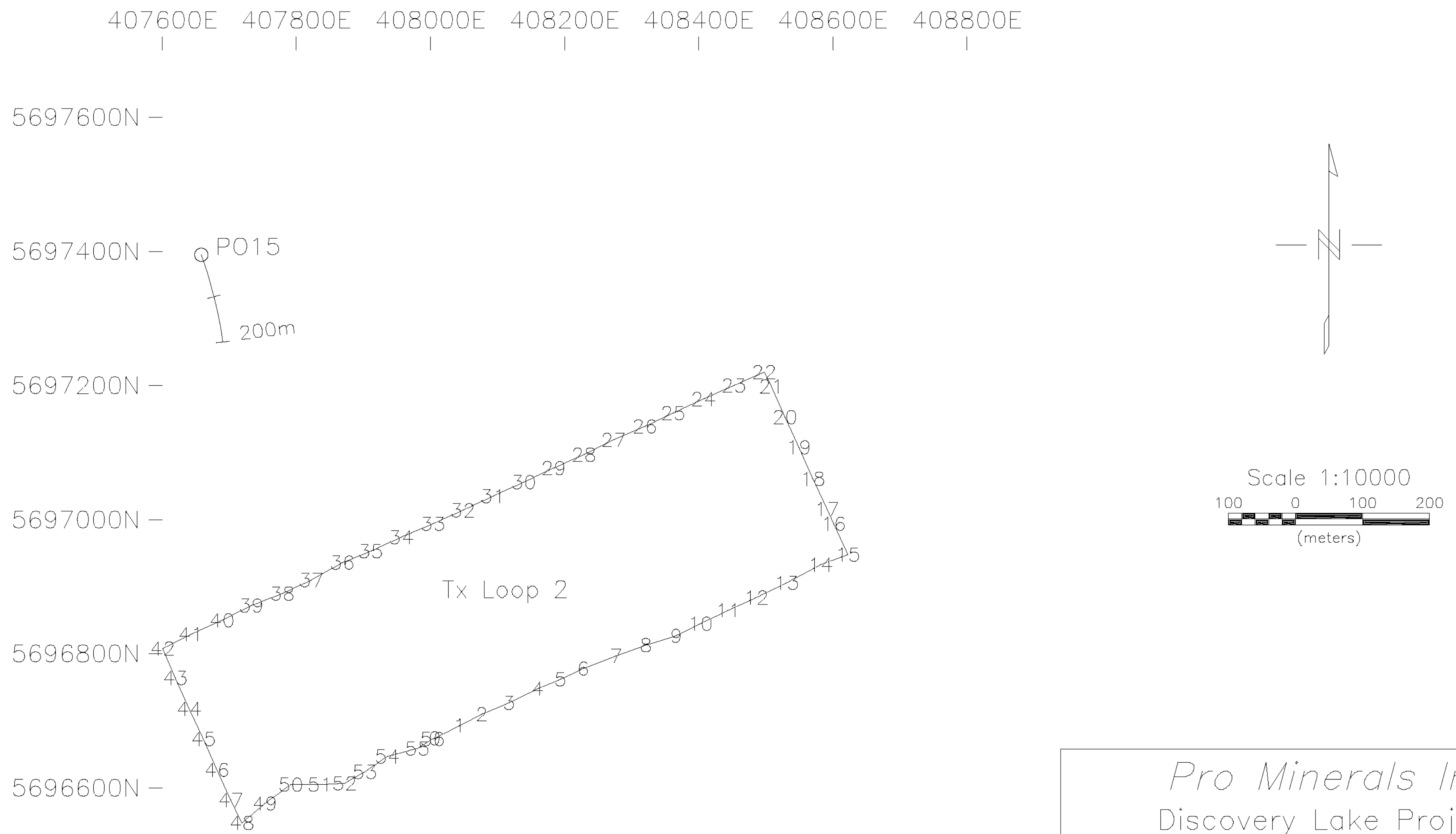
3-D Borehole Pulse EM Survey

Hole Section with Primary Field

Loop 1, Hole: P015

Survey Date: Feb 25, 2010

Crane Geophysics & Exploration Ltd.



Pro Minerals Inc

Discovery Lake Project

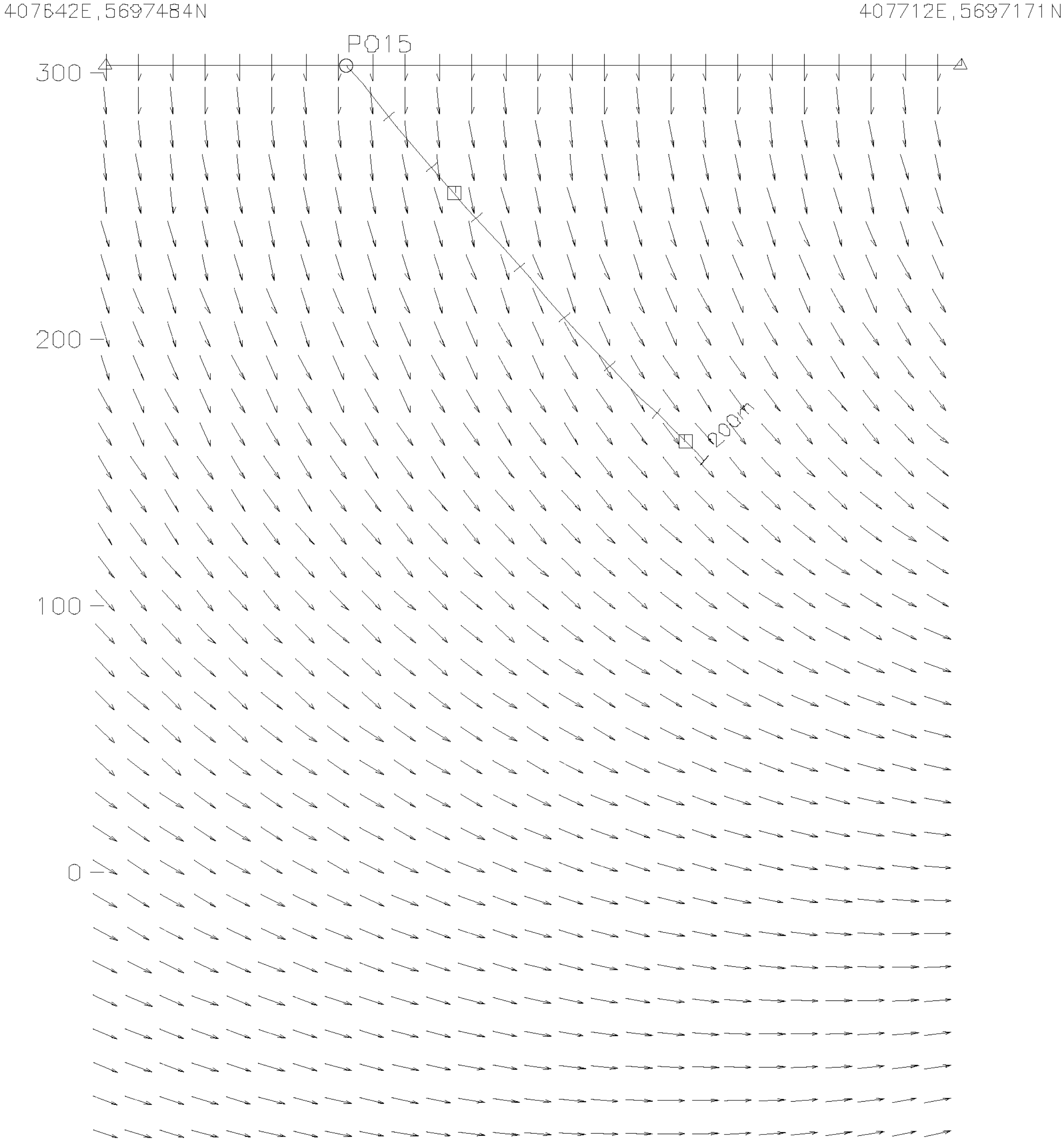
3-D Borehole Pulse EM Survey

Borehole & Loop Location Map

Loop 2, Hole: PO15

Survey Date: Mar 3, 2010

Crone Geophysics & Exploration Ltd.



Scale 1:2500

25 0 25 50

(meters)

Pro Minerals Inc

Discovery Lake Project

3-D Borehole Pulse EM Survey

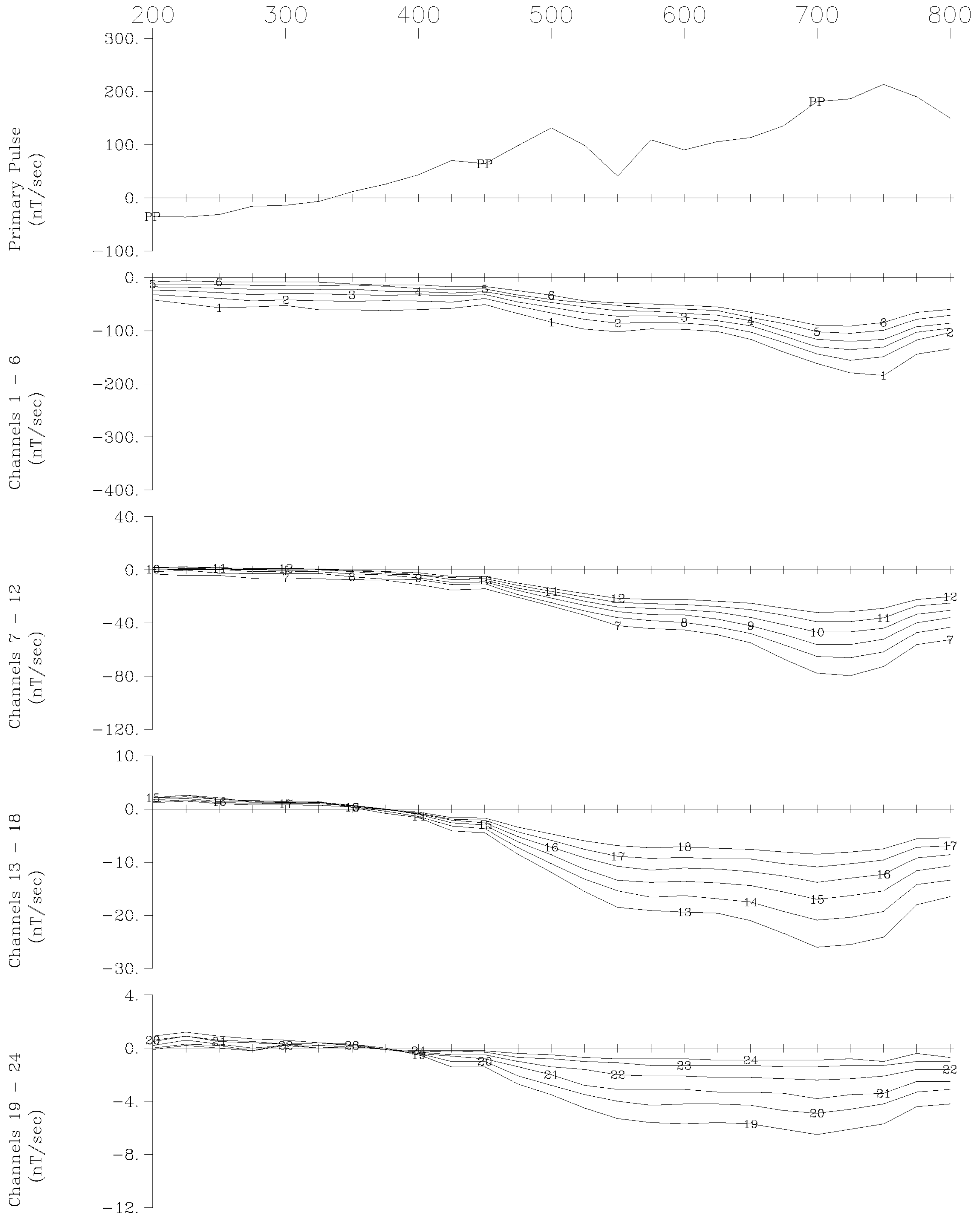
Hole Section with Primary Field

Loop 2, Hole: PO15

Survey Date: Mar 3, 2010

Crone Geophysics & Exploration Ltd.

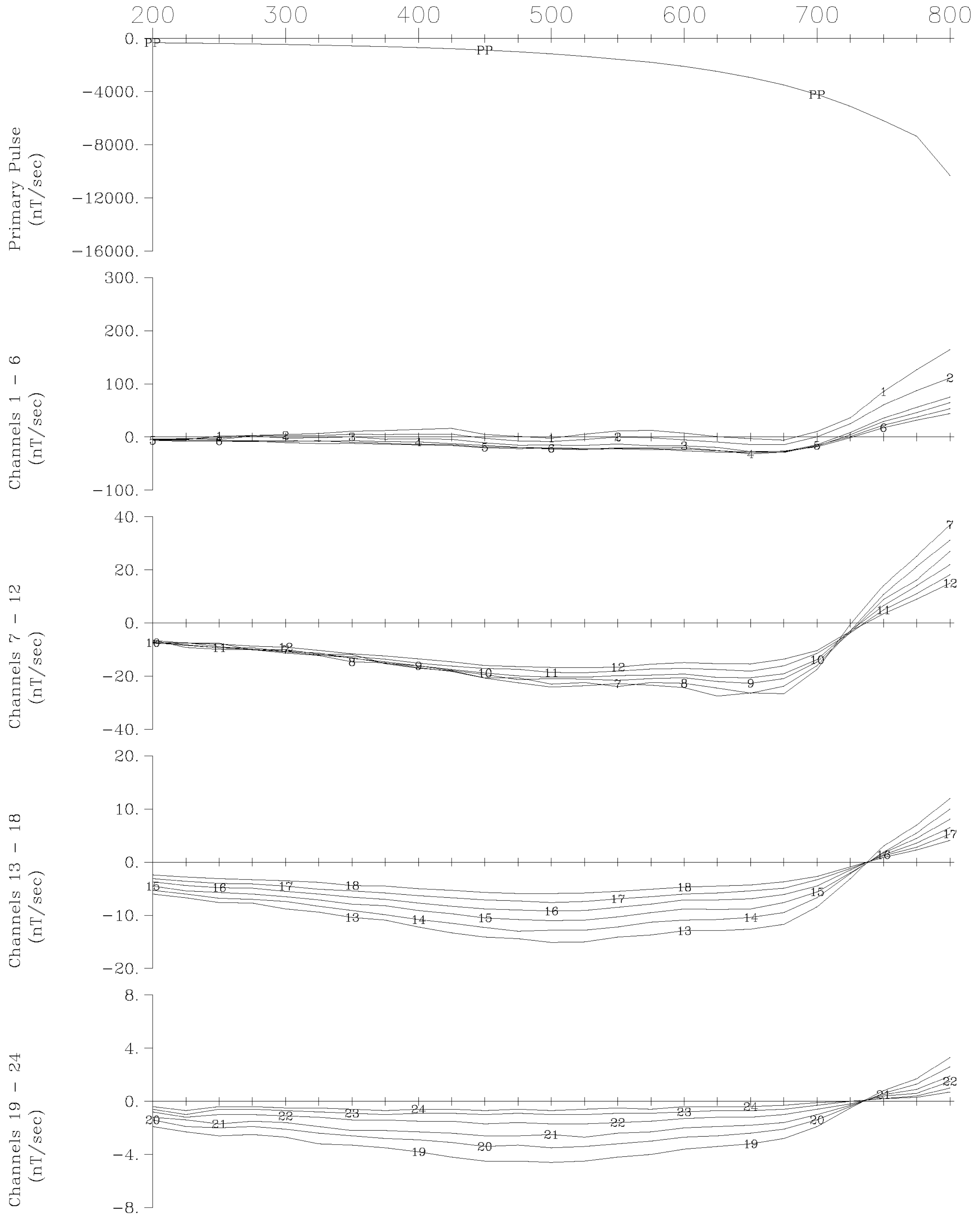
APPENDIX II:
LINEAR (5-AXIS) PULSE EM DATA PROFILES



Pro Minerals Inc. Discovery Lake Project

Loop1, Line 2000E X Component

Crone Geophysics & Exploration Ltd.



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Loop1, Line 2000E Z Component

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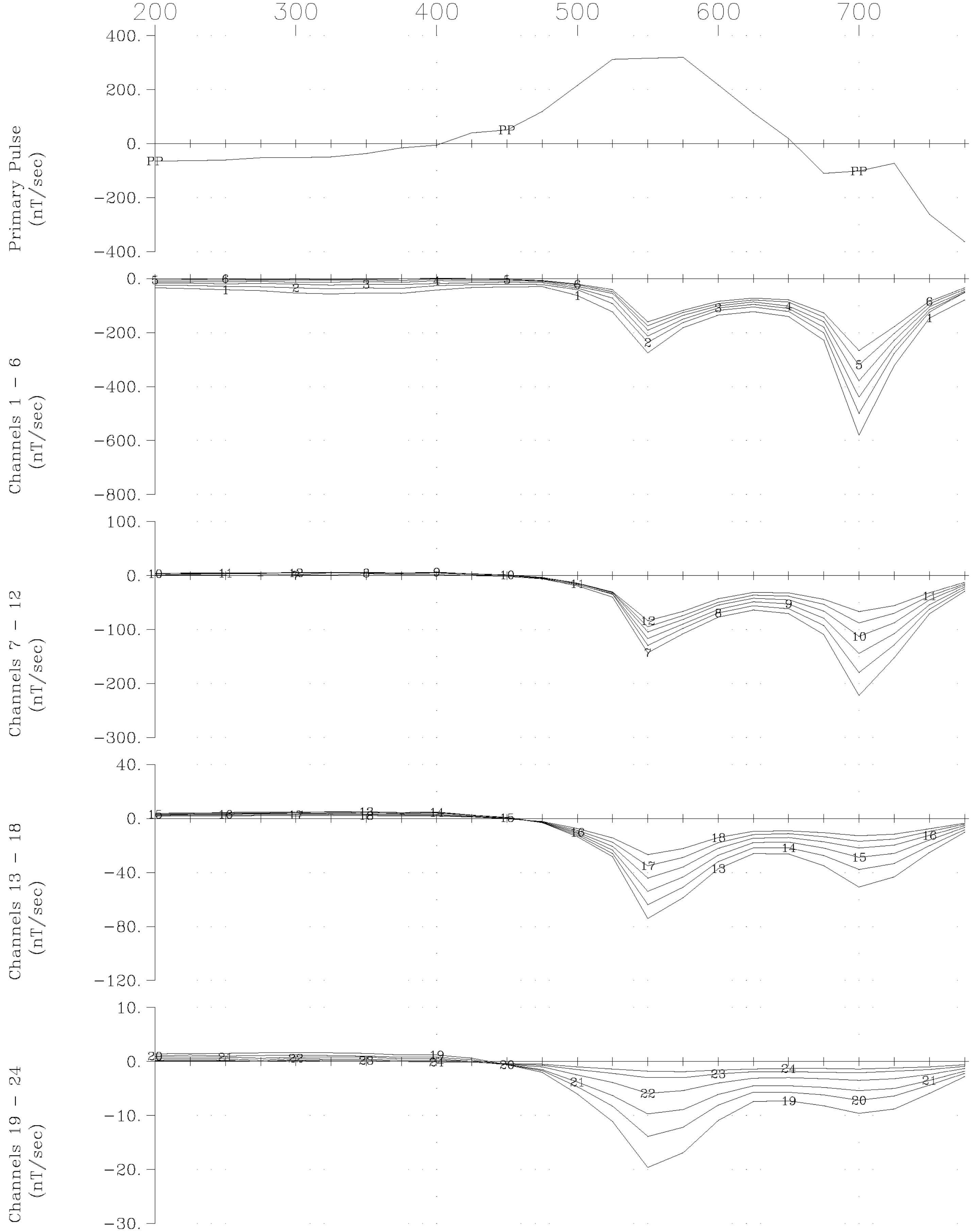
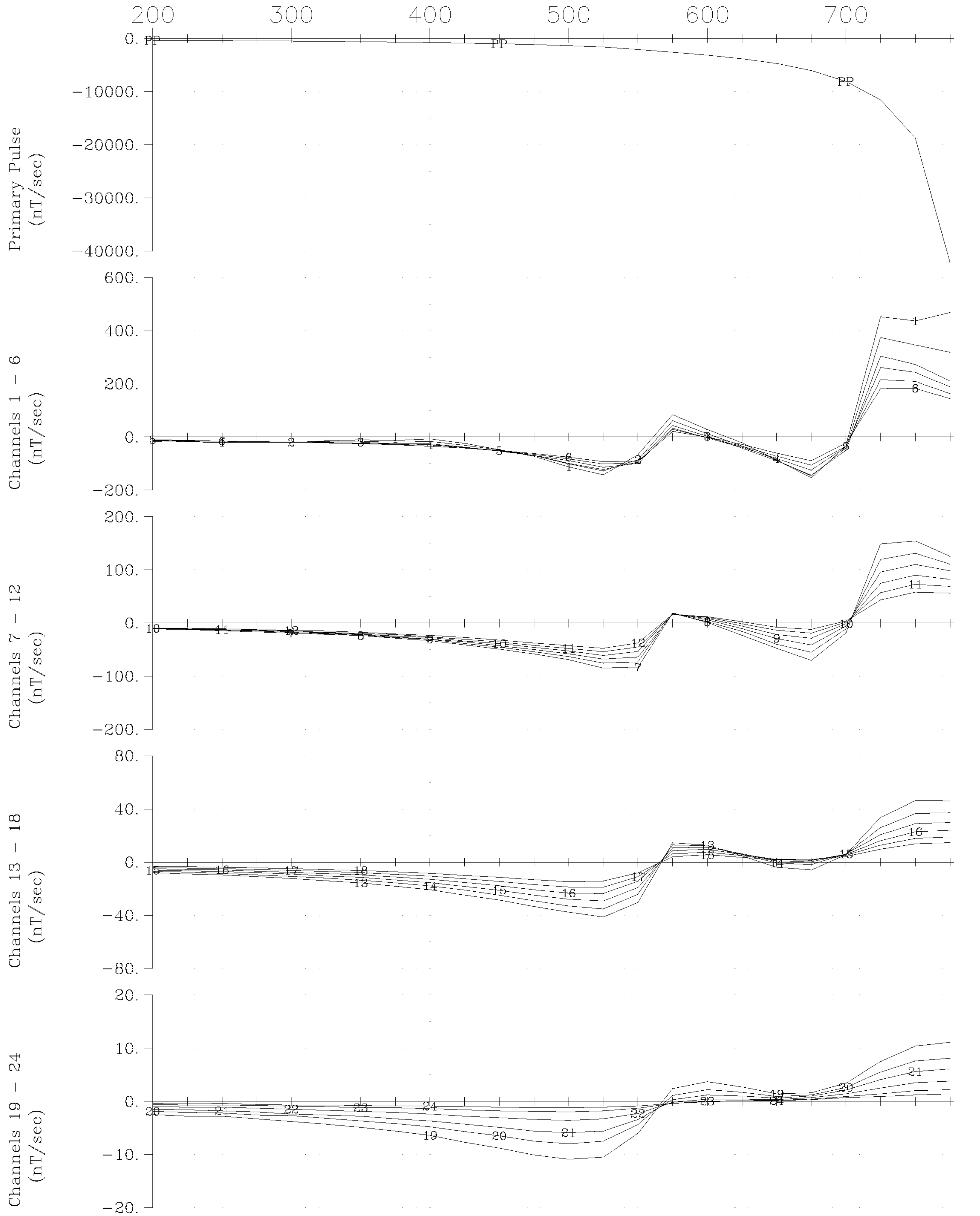


Pro Minerals Inc. Discovery Lake Project
Loop1, Line 2100E X Component
Crone Geophysics & Exploration Ltd.



Pro Minerals Inc. Discovery Lake Project

Loop1, Line 2100E Z Component

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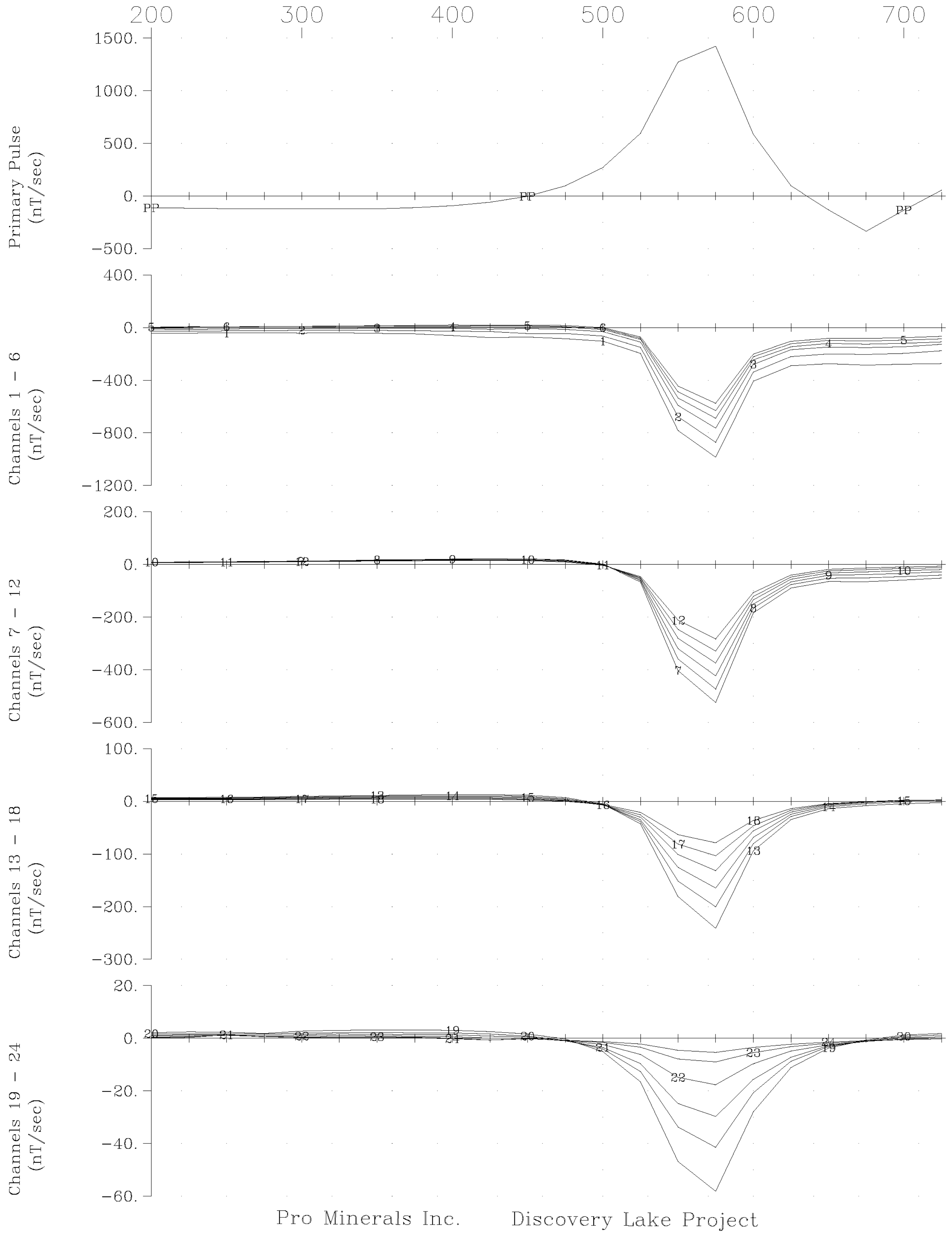
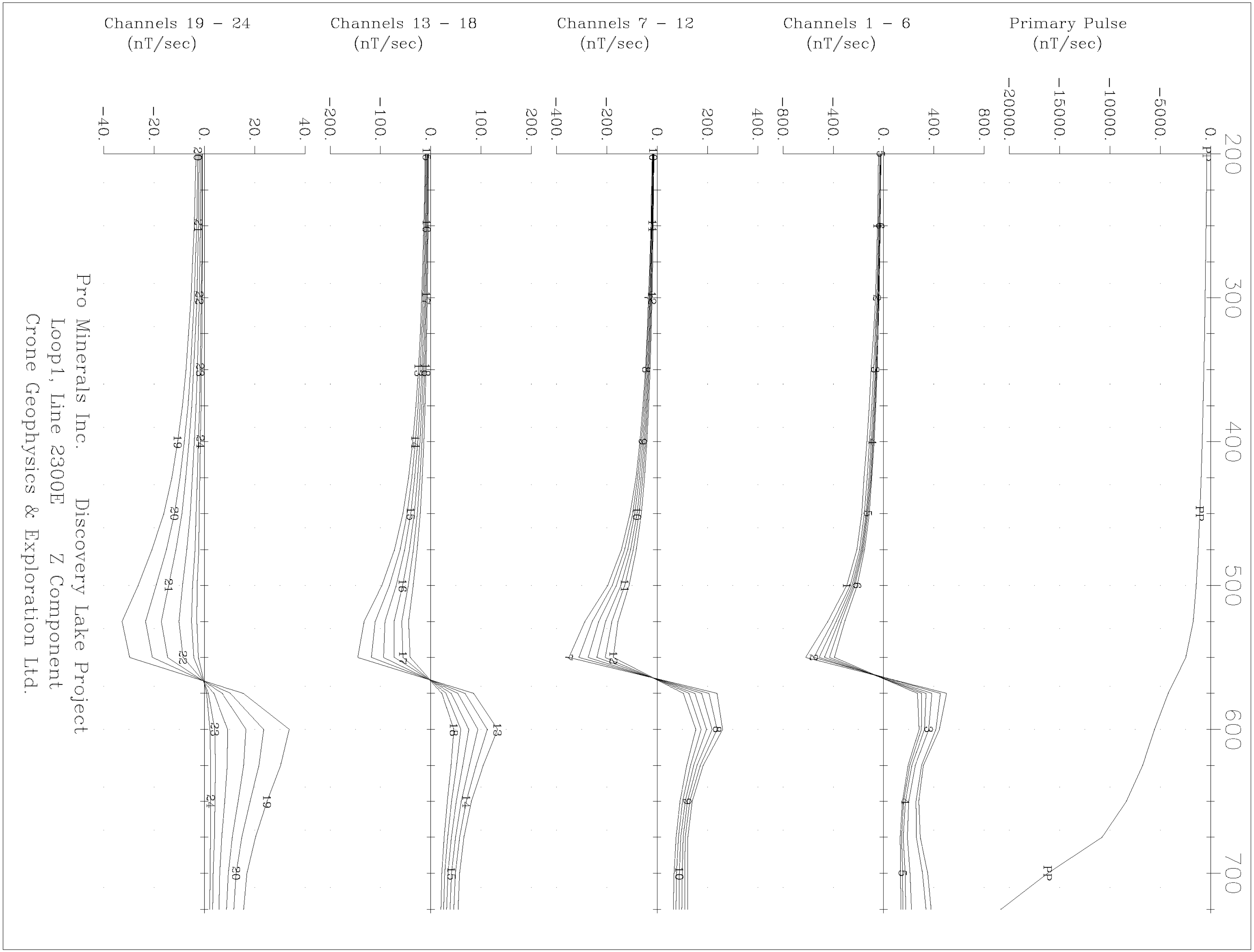


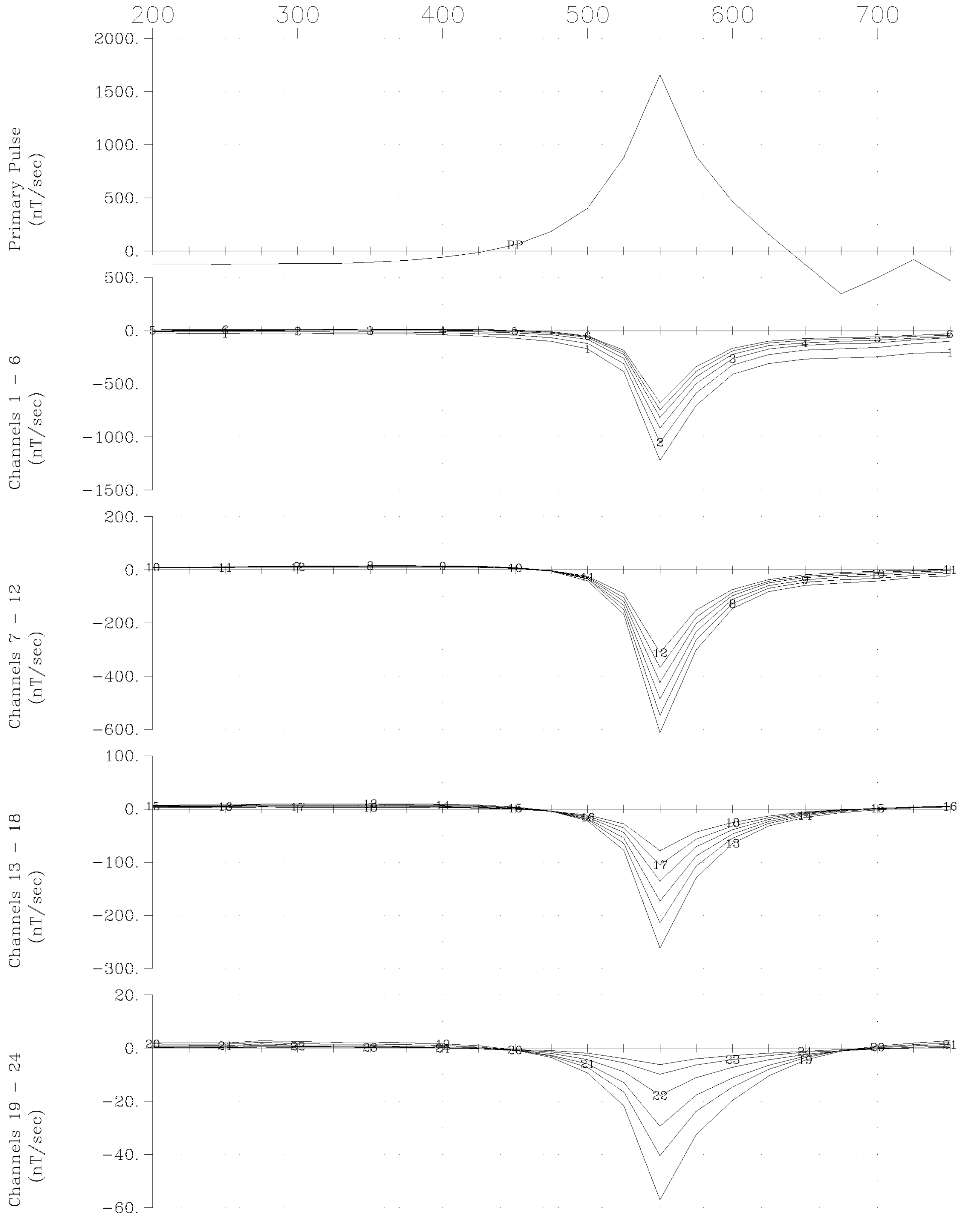
Pro Minerals Inc. Discovery Lake Project

Loop1, Line 2300E X Component

Crone Geophysics & Exploration Ltd.



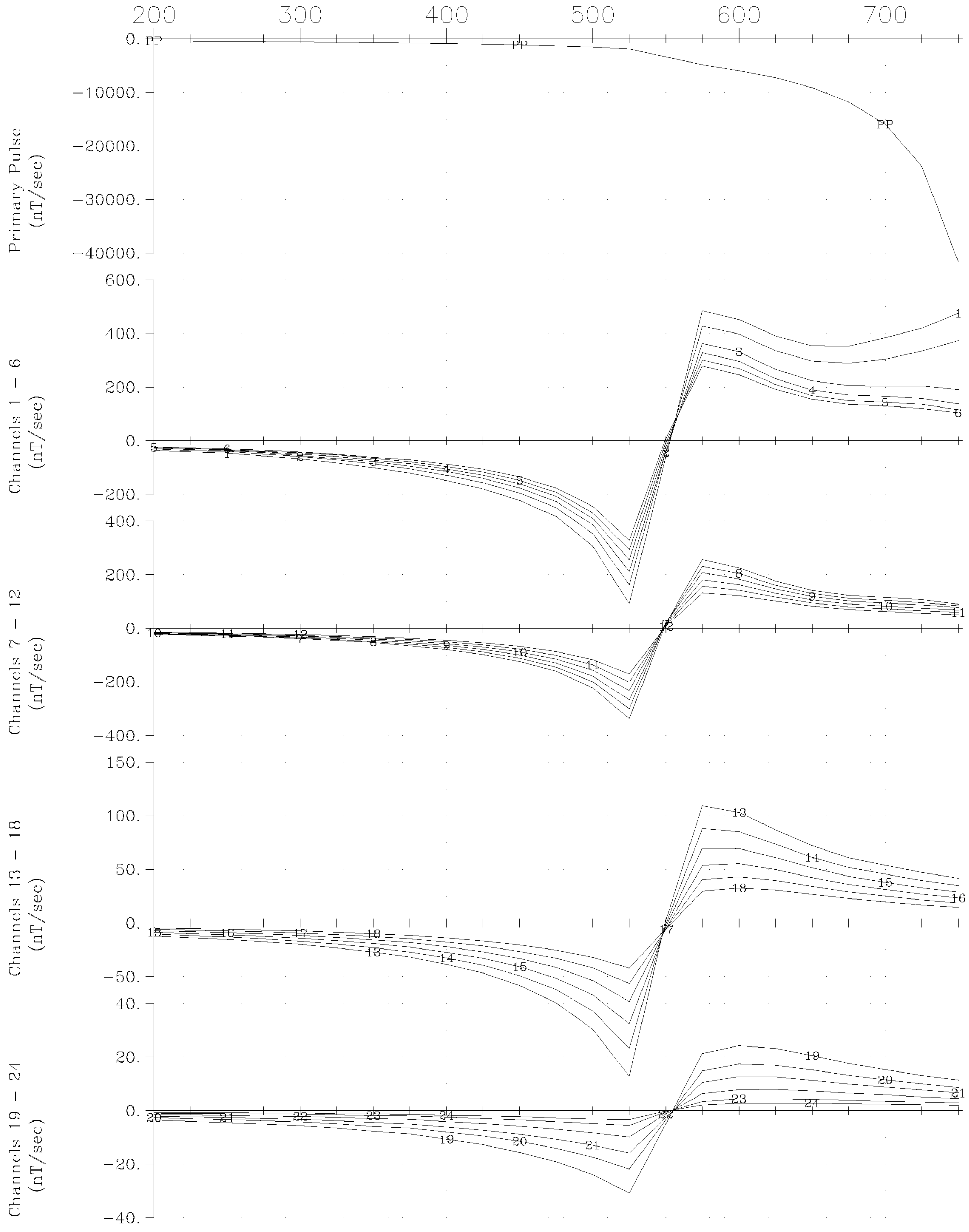
Primary Pulse (nT/sec)
Channels 1 - 6 (nT/sec)
Channels 7 - 12 (nT/sec)
Channels 13 - 18 (nT/sec)
Channels 19 - 24 (nT/sec)
-20000. -15000. -10000. -5000. 0.
-800. -400. 0. 400. 800.
-400. -200. 0. 200. 400.
-200. -100. 0. 100. 200.
-40. -20. 0. 20. 40.
200 300 400 500 600 700
PP
Pro Minerals Inc. Discovery Lake Project
Loop1, Line 2300E Z Component
Crone Geophysics & Exploration Ltd.



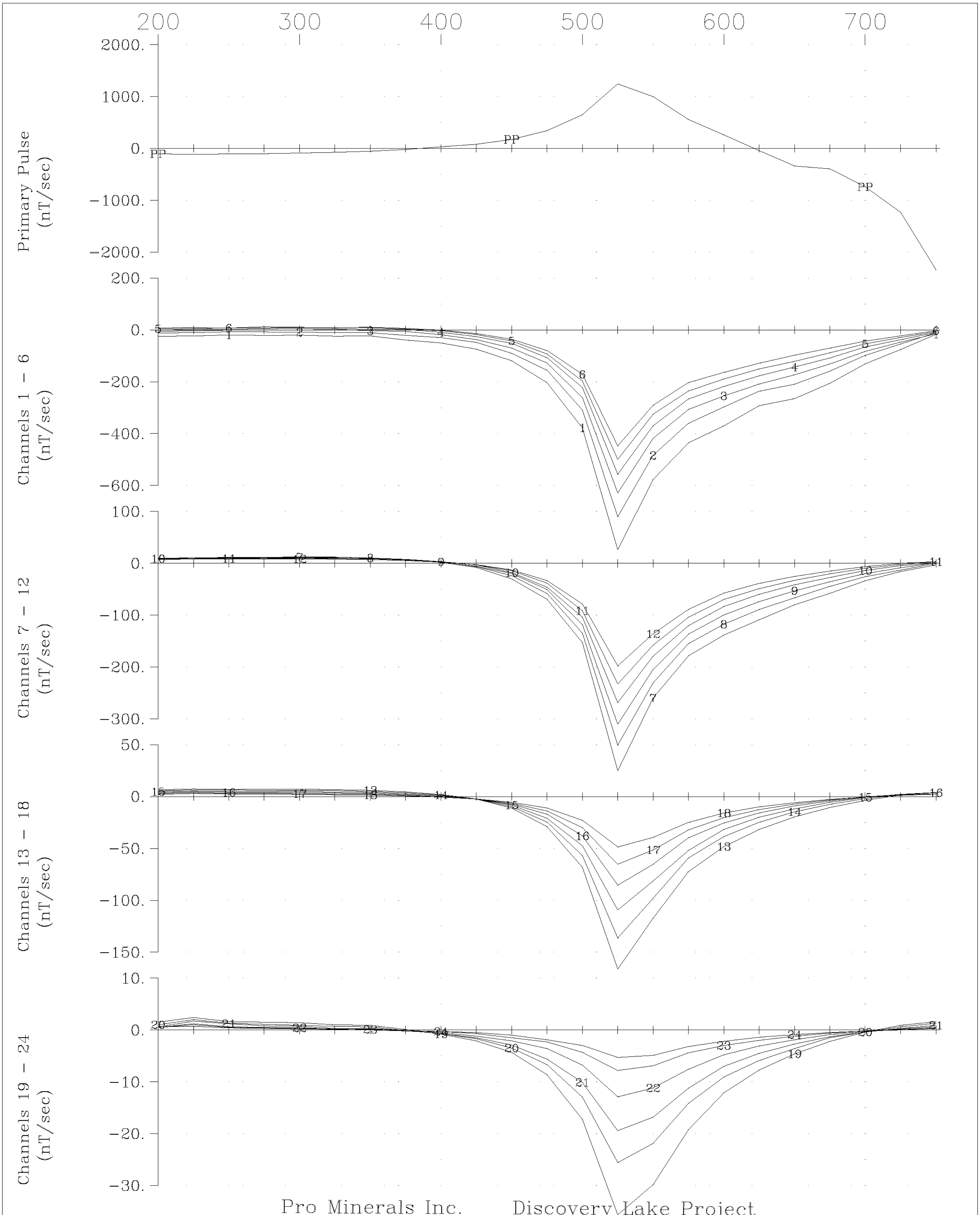
Pro Minerals Inc. Discovery Lake Project

Loop1, Line L2400E X Component

Crone Geophysics & Exploration Ltd.



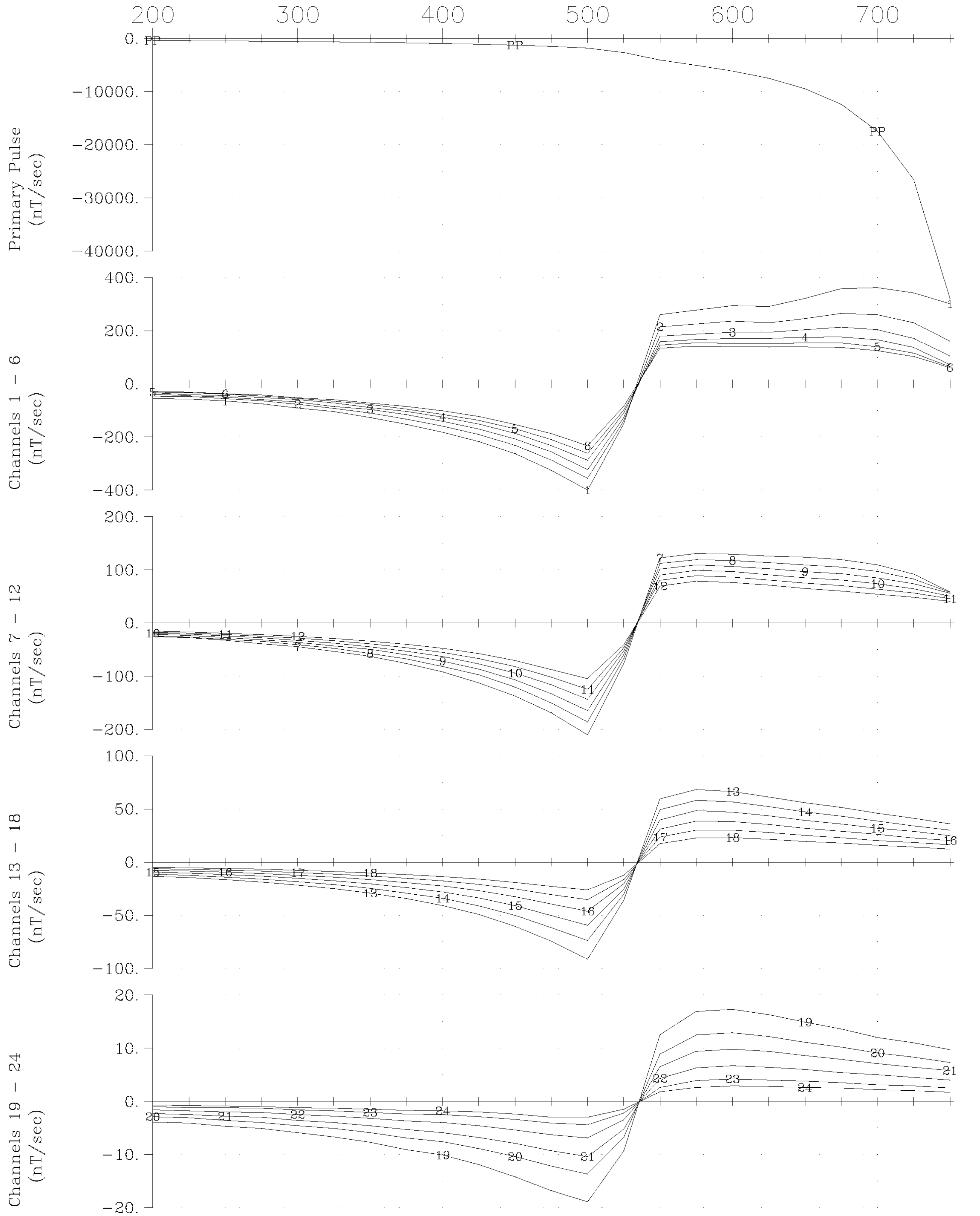
Pro Minerals Inc. Discovery Lake Project
Loop1, Line L2400E Z Component
Crone Geophysics & Exploration Ltd.



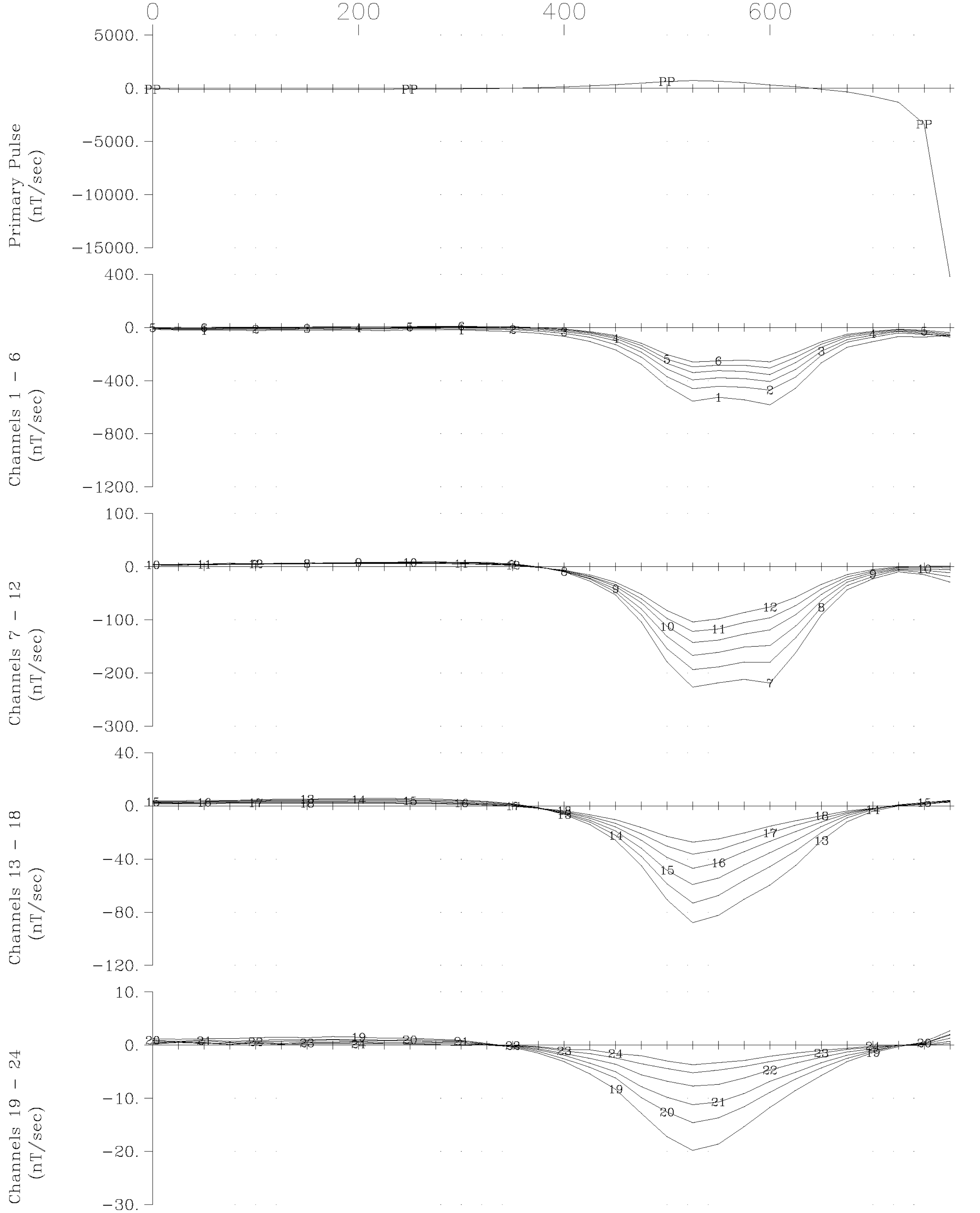
Pro Minerals Inc. Discovery Lake Project

Loop1, Line L2500E X Component

Crone Geophysics & Exploration Ltd.



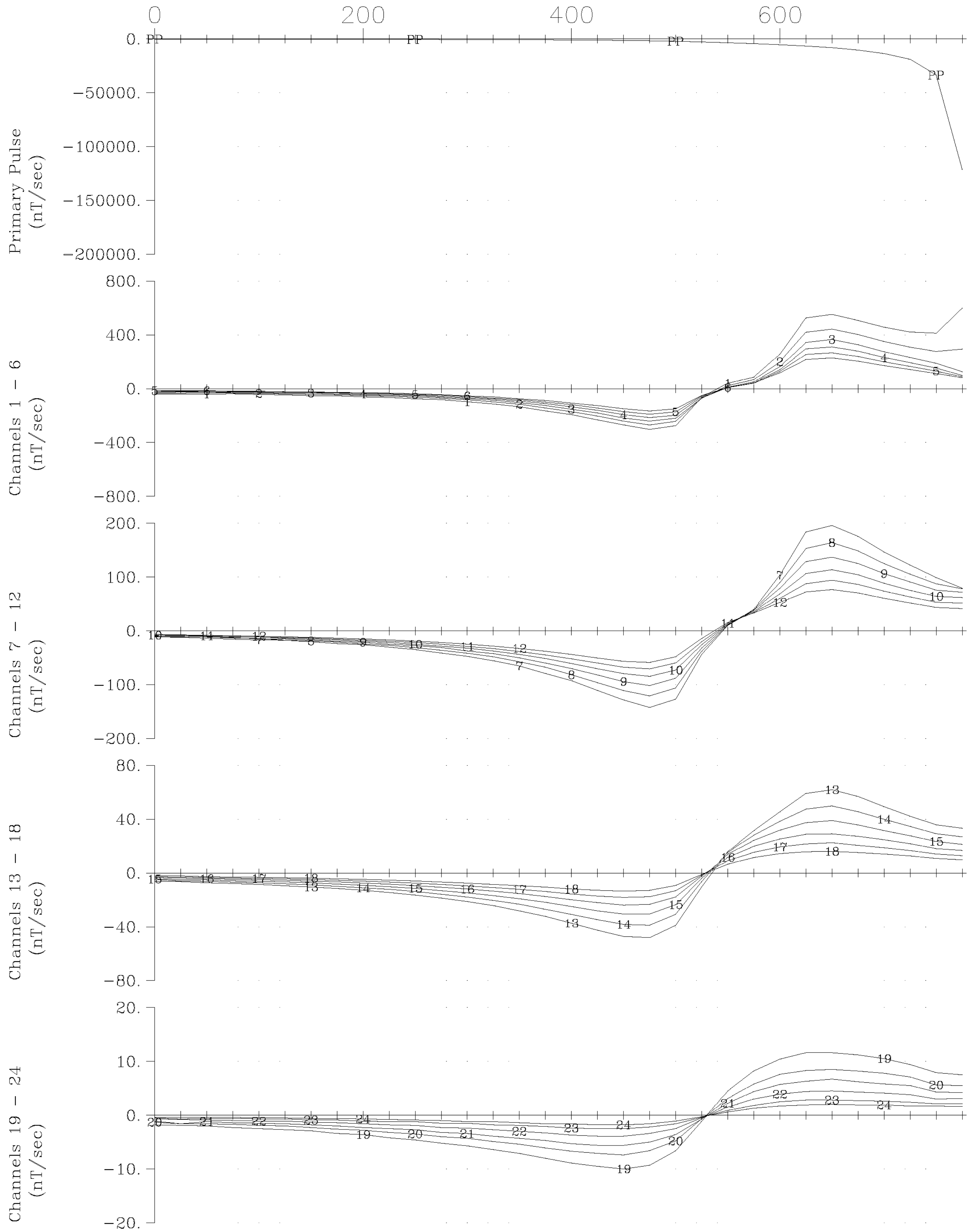
Pro Minerals Inc. Discovery Lake Project
Loop1, Line L2500E Z Component
Crone Geophysics & Exploration Ltd.



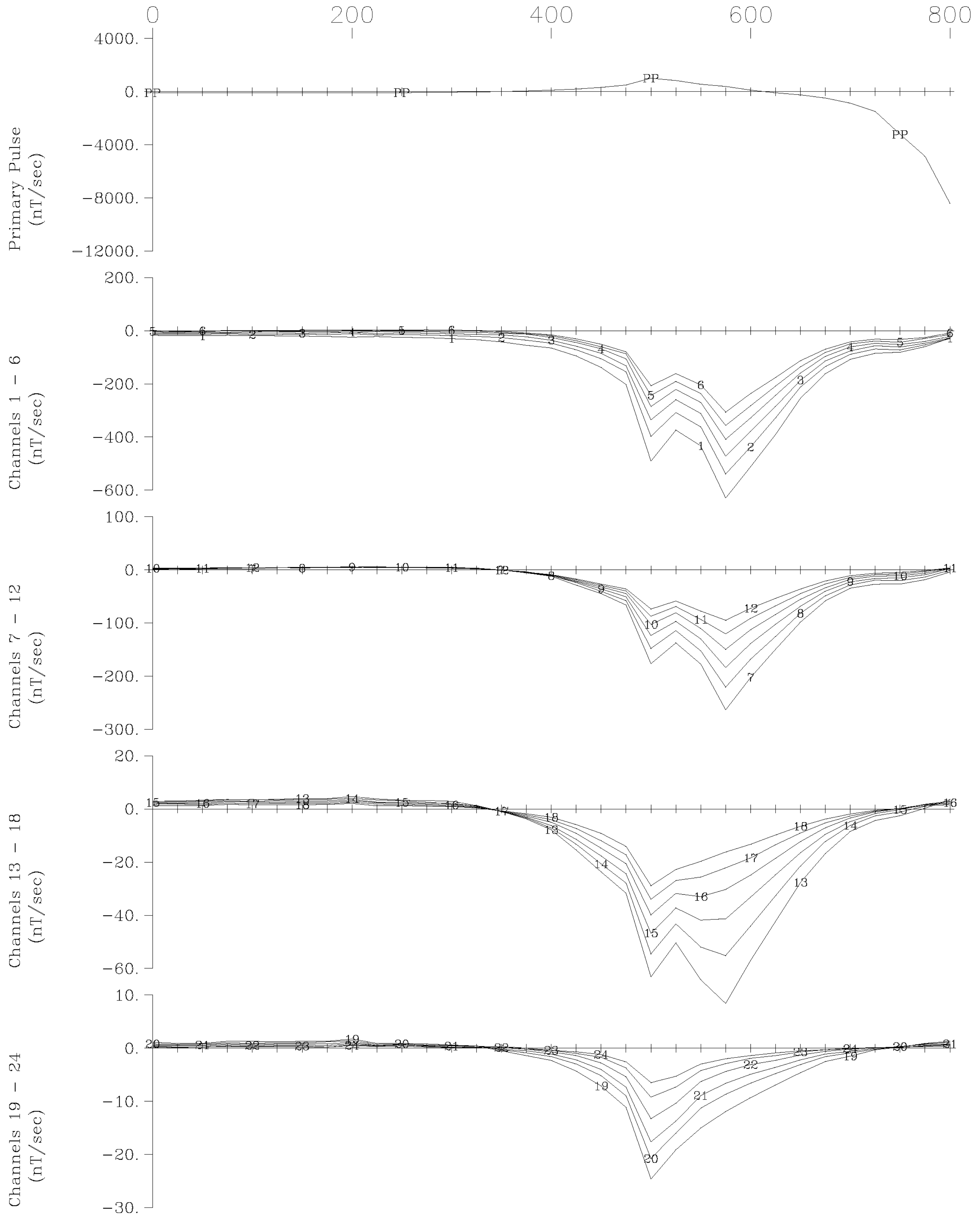
Pro Minerals Inc. Discovery Lake Project

Loop1, Line 2600E X Component

Crone Geophysics & Exploration Ltd.



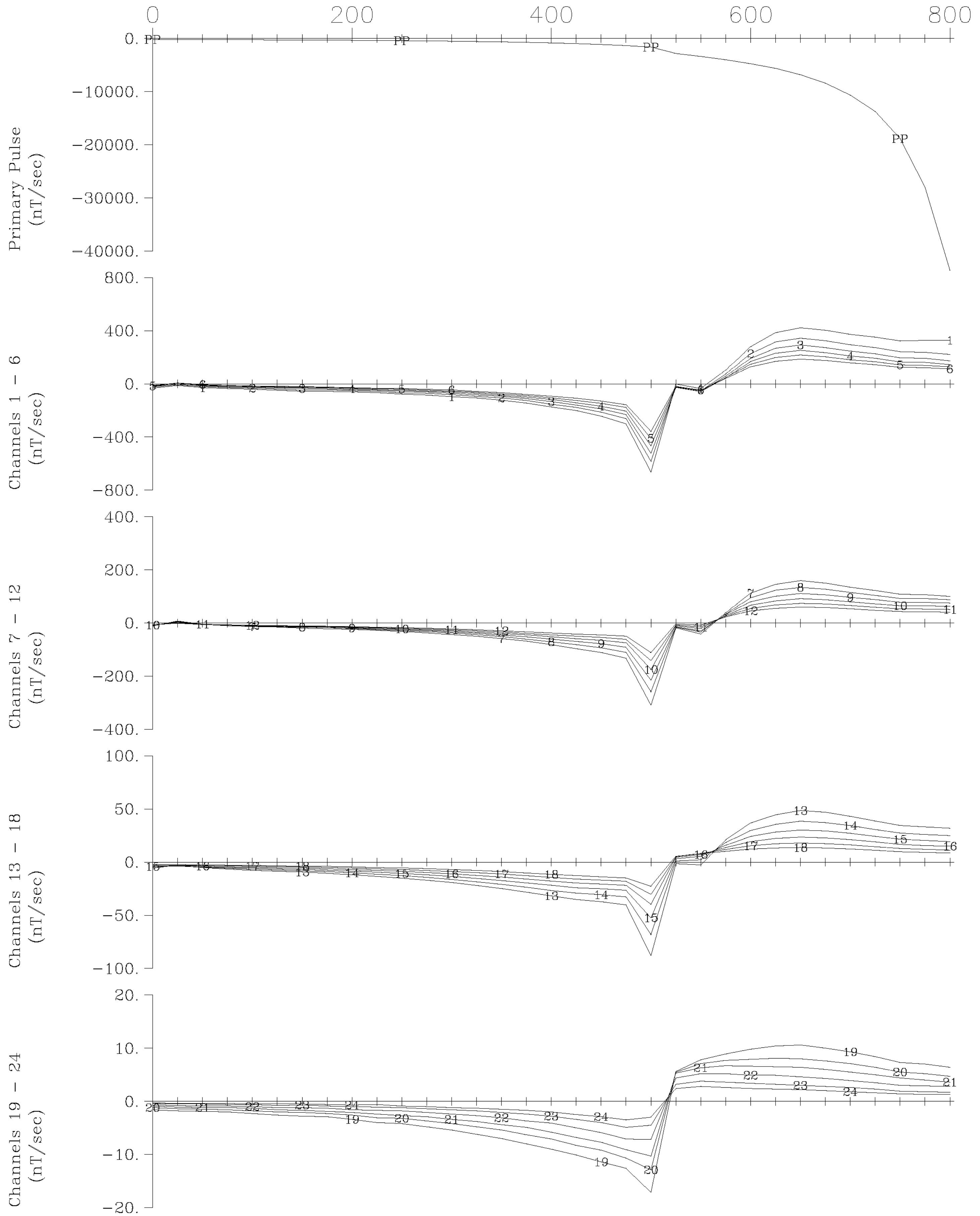
Pro Minerals Inc. Discovery Lake Project
Loop1, Line 2600E Z Component
Crone Geophysics & Exploration Ltd.



Pro Minerals Inc. Discovery Lake Project

Loop1, Line 2700E X Component

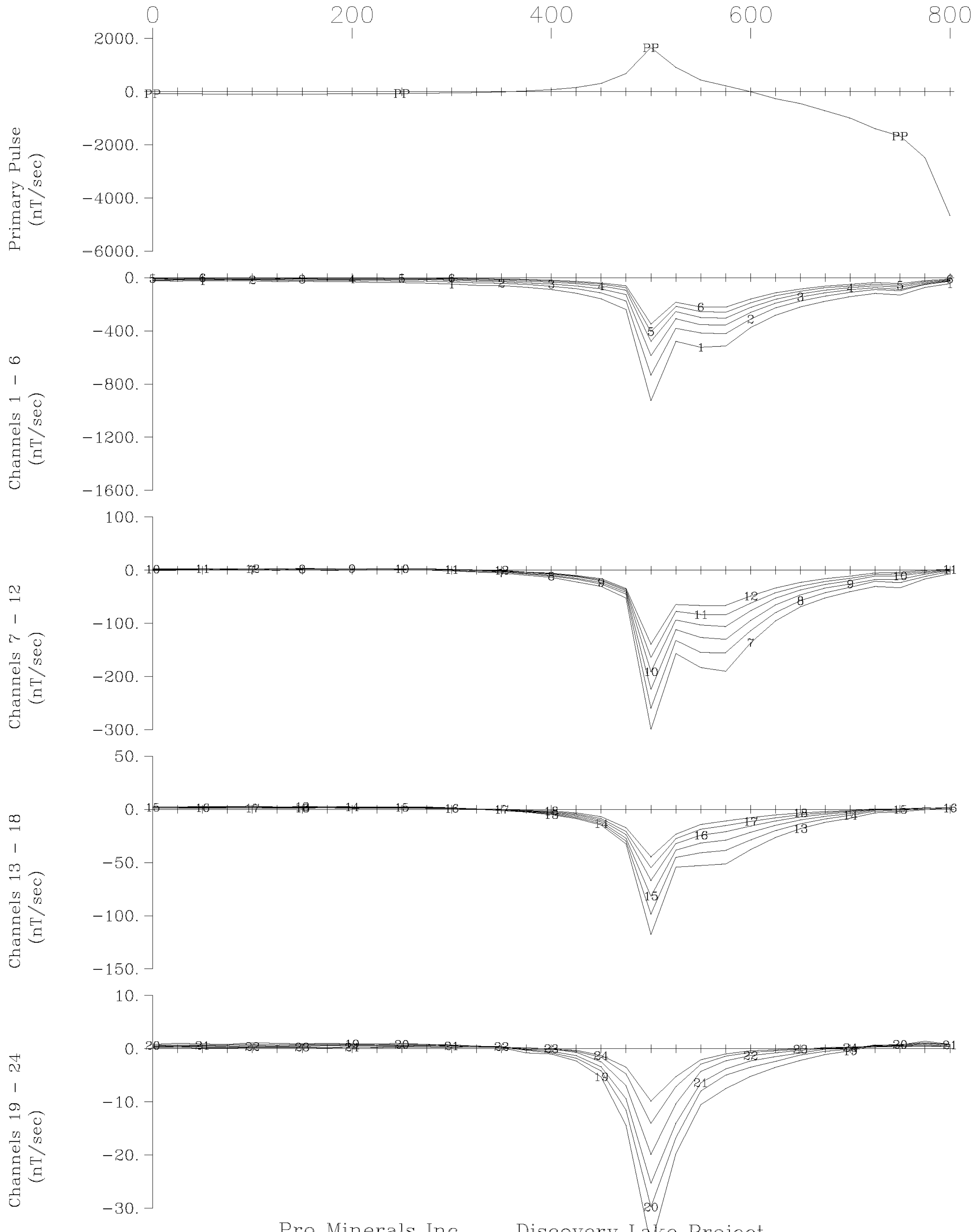
Crone Geophysics & Exploration Ltd.



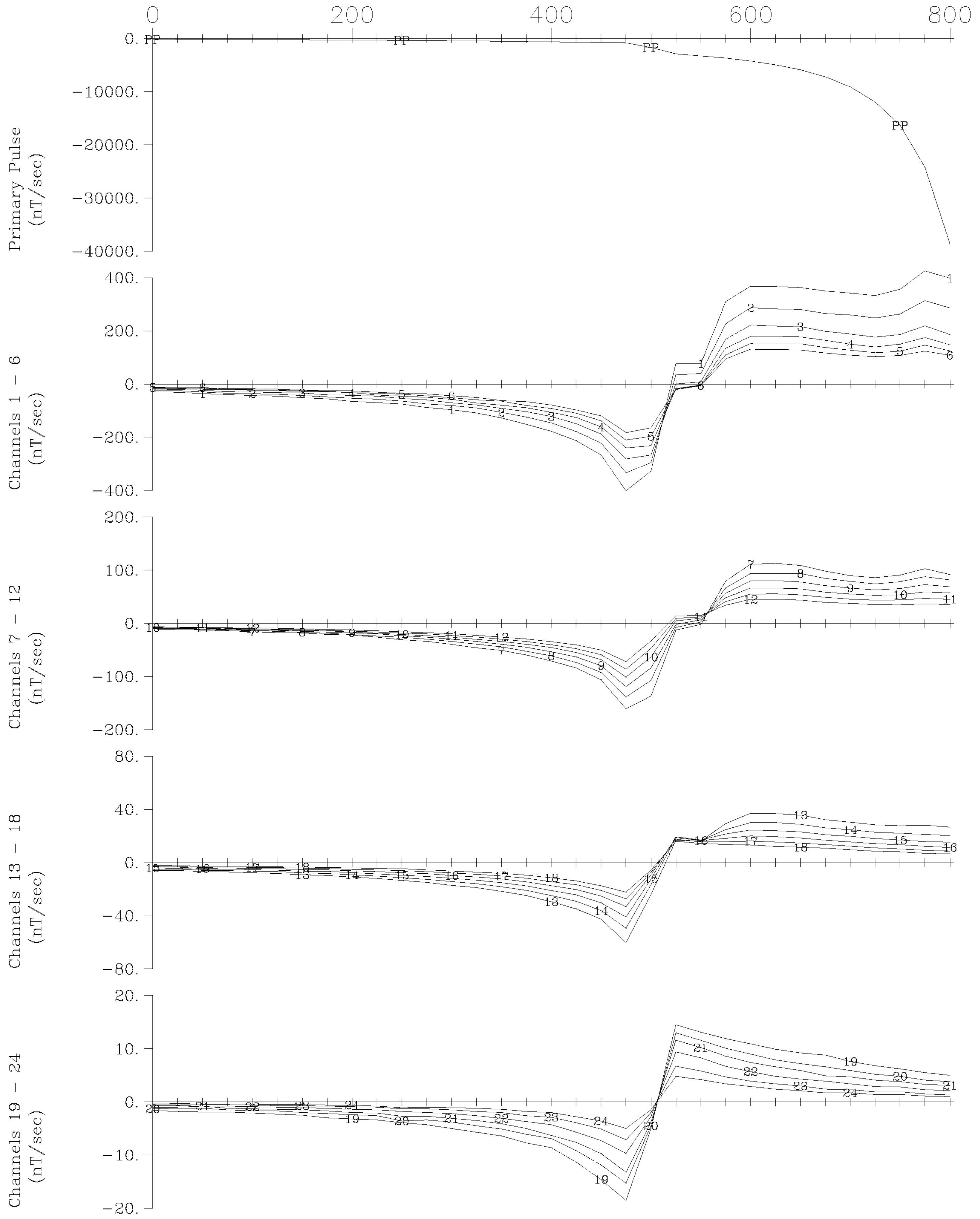
Pro Minerals Inc. Discovery Lake Project

Loop1, Line 2700E Z Component

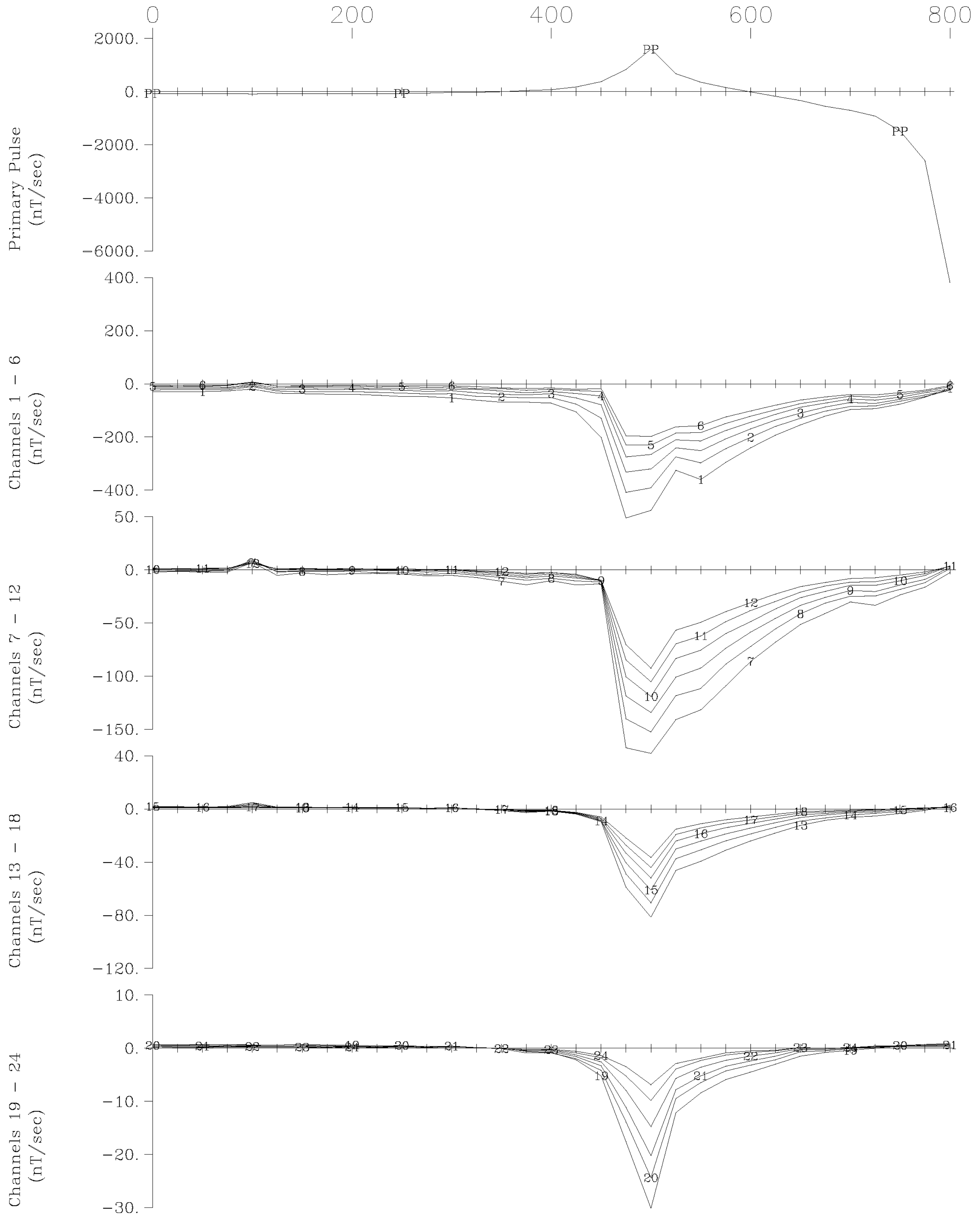
Crone Geophysics & Exploration Ltd.



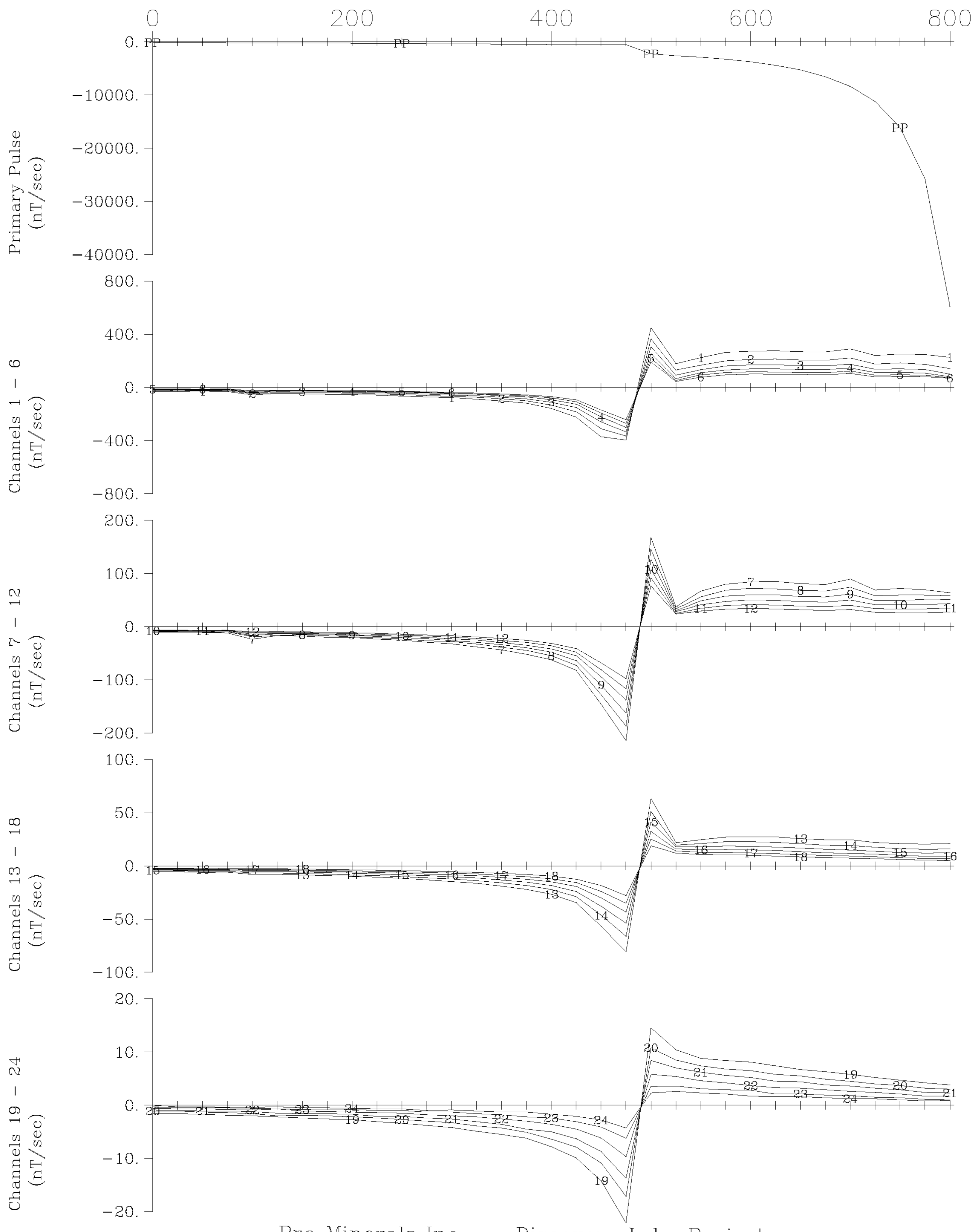
Pro Minerals Inc. Discovery Lake Project
Loop1, Line 2800E X Component
Crone Geophysics & Exploration Ltd.



Pro Minerals Inc. Discovery Lake Project
Loop1, Line 2800E Z Component
Crone Geophysics & Exploration Ltd.



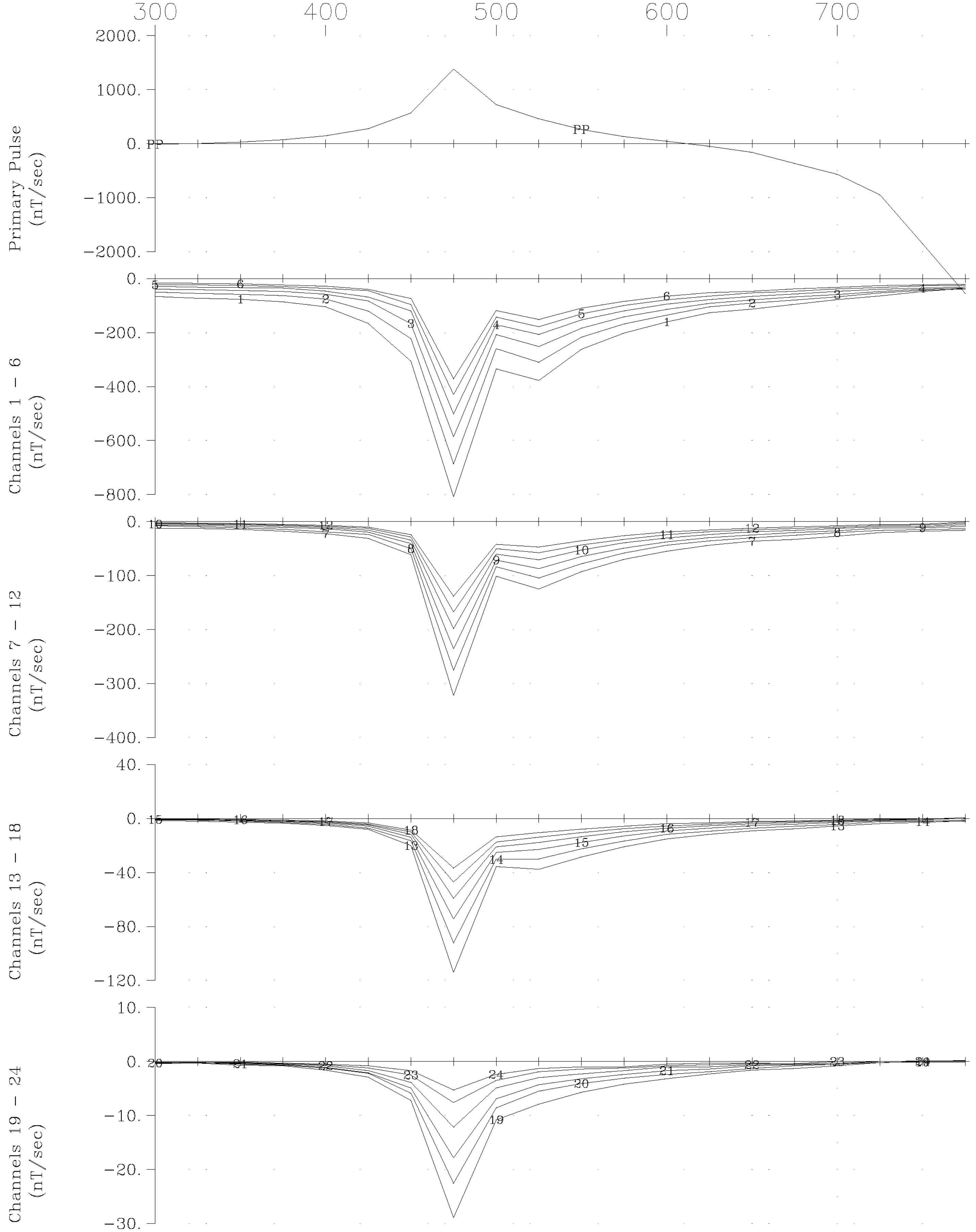
Pro Minerals Inc. Discovery Lake Project
Loop1, Line 2900E X Component
Crone Geophysics & Exploration Ltd.



Pro Minerals Inc. Discovery Lake Project

Loop1, Line 2900E Z Component

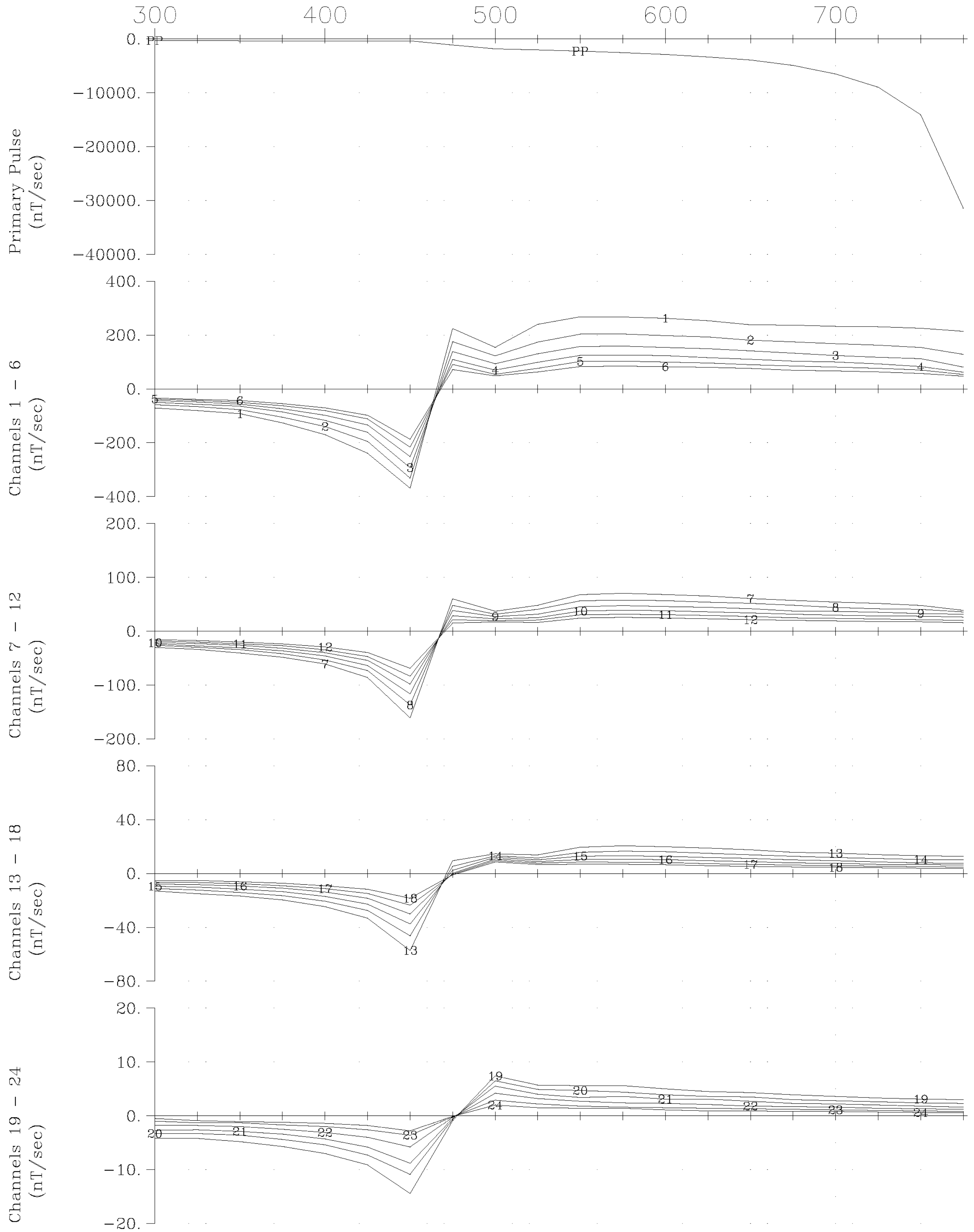
Crone Geophysics & Exploration Ltd.



Pro Minerals Inc. Discovery Lake Project

Loop1, Line 3000E X Component

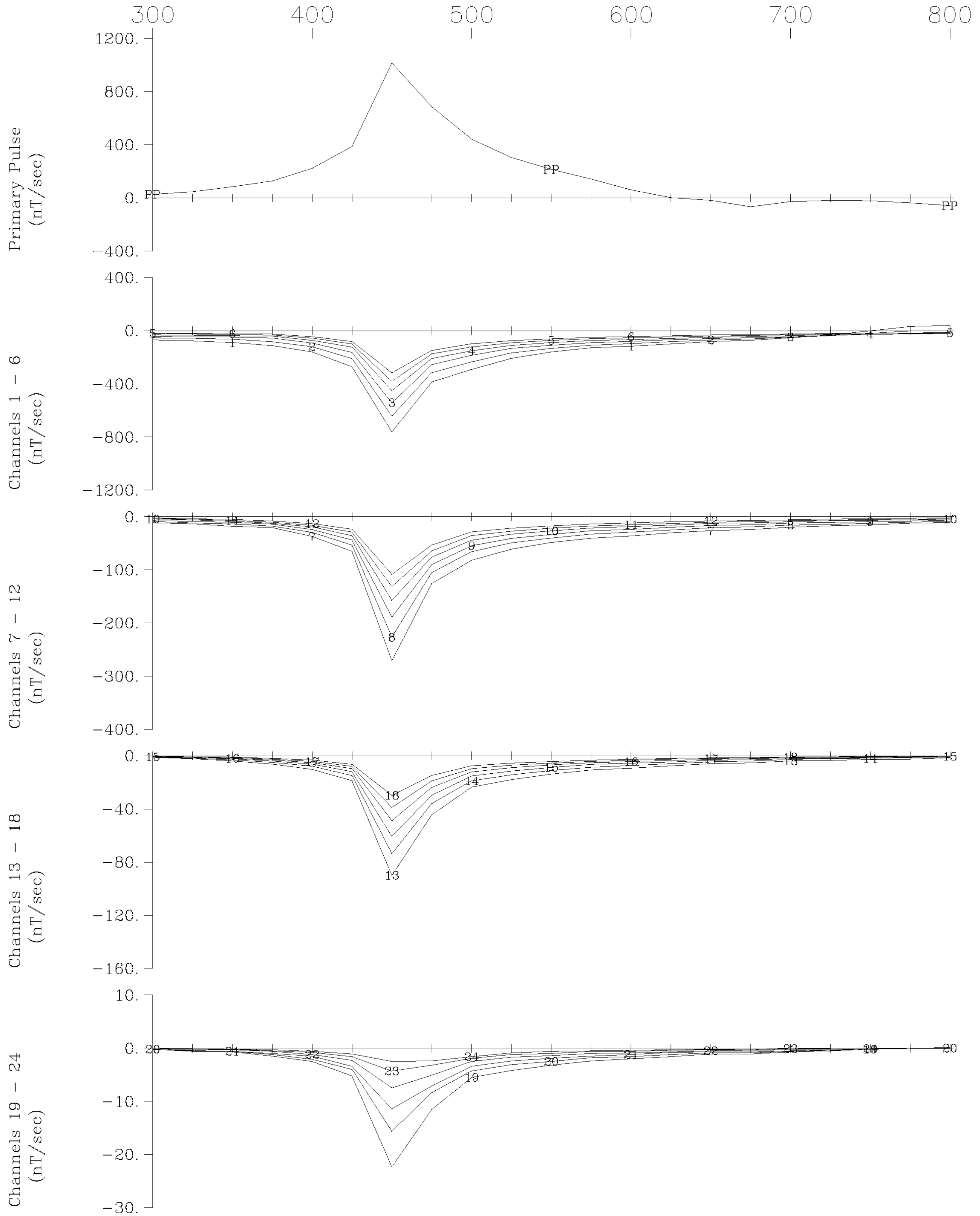
Crone Geophysics & Exploration Ltd.



Pro Minerals Inc. Discovery Lake Project

Loop1, Line 3000E Z Component

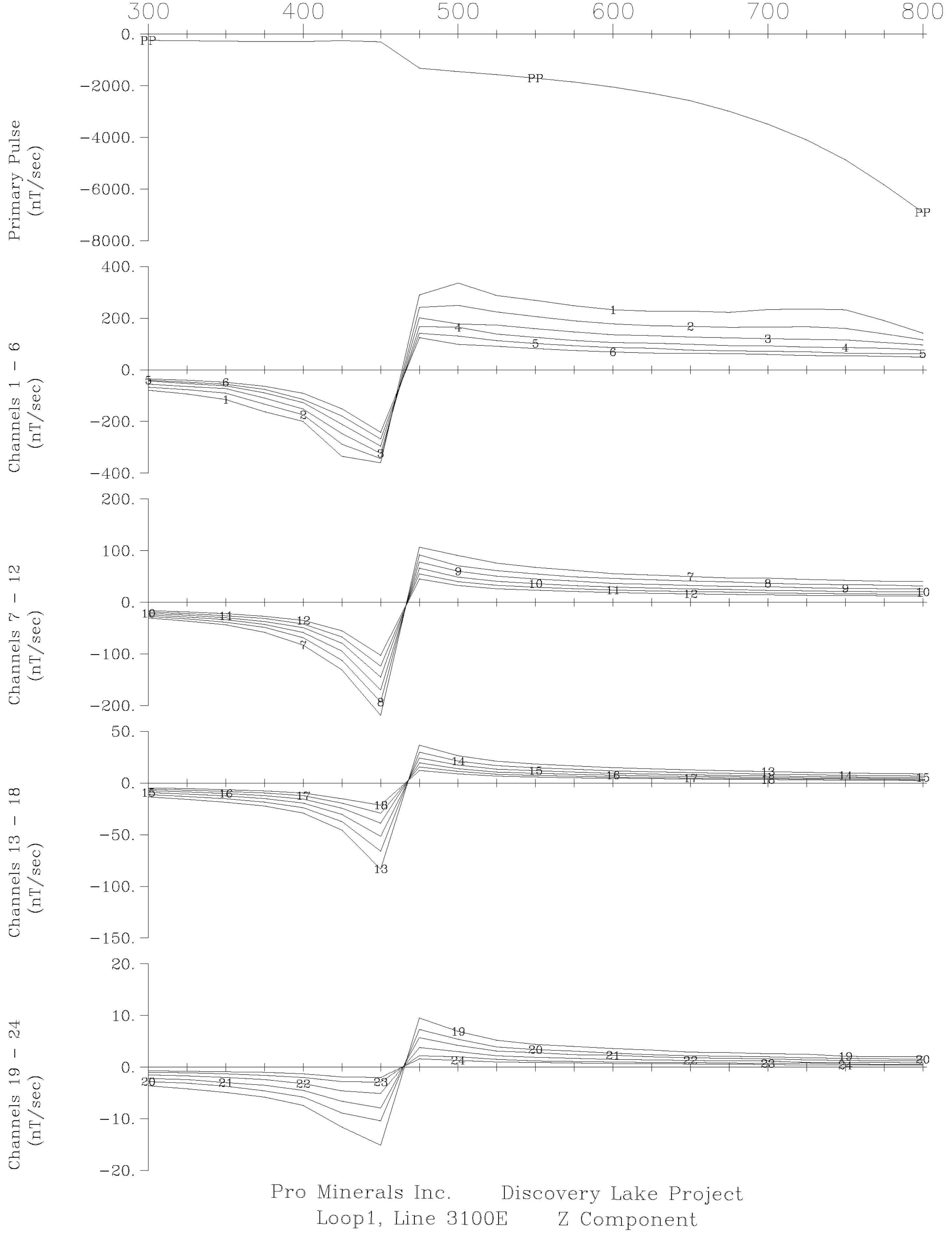
Crone Geophysics & Exploration Ltd.



Pro Minerals Inc. Discovery Lake Project

Loop1, Line 3100E X Component

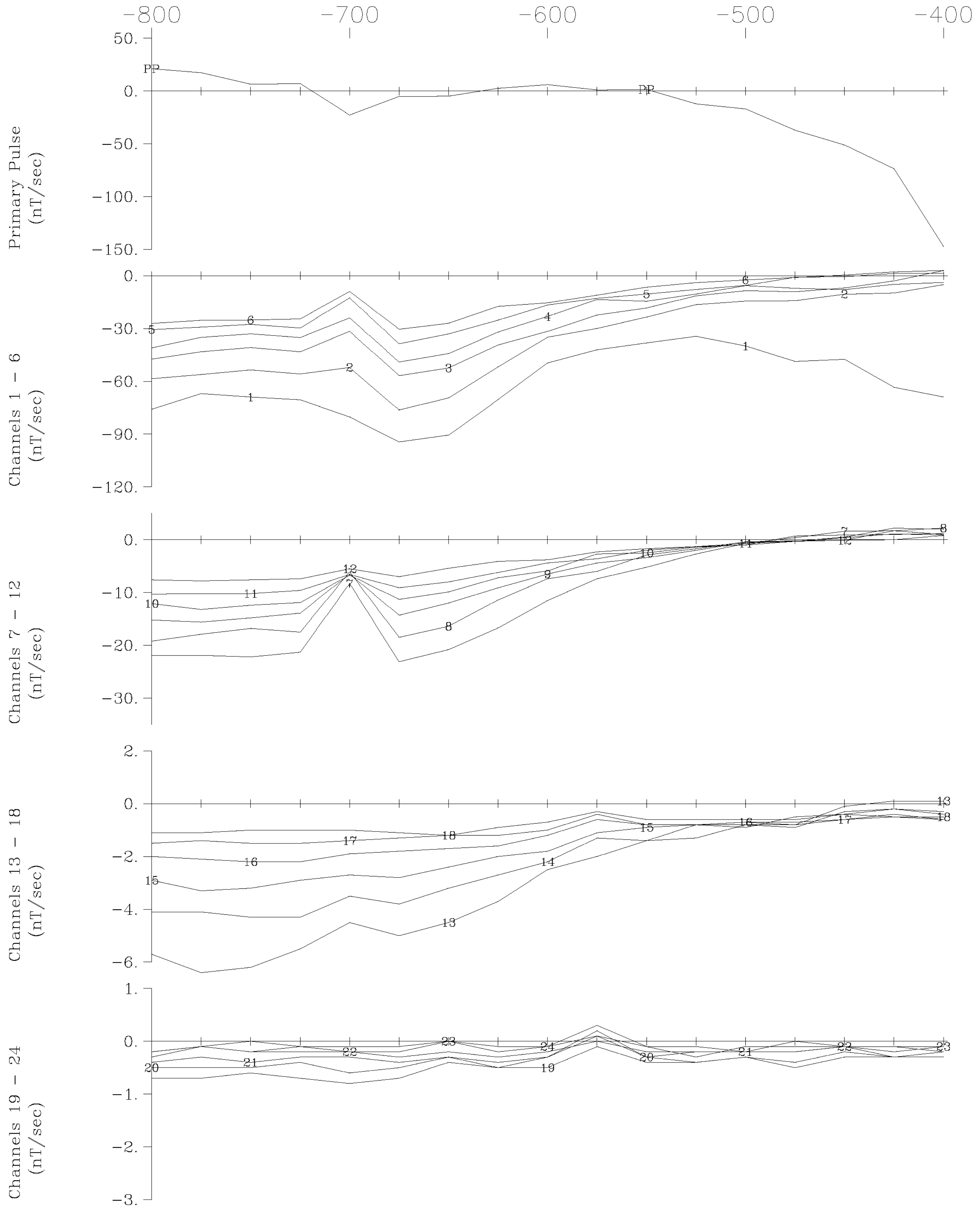
Crone Geophysics & Exploration Ltd.



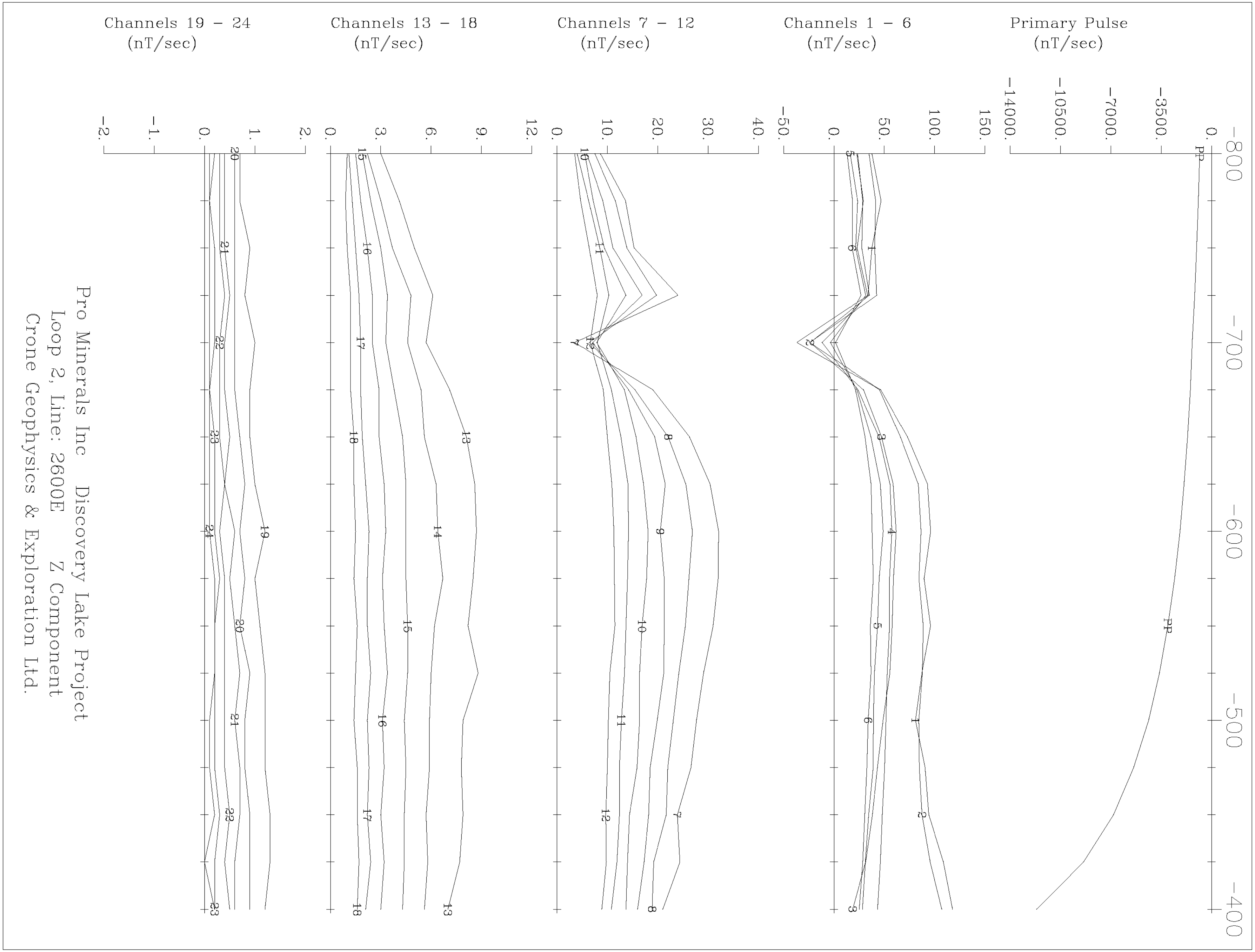
Pro Minerals Inc. Discovery Lake Project

Loop1, Line 3100E Z Component

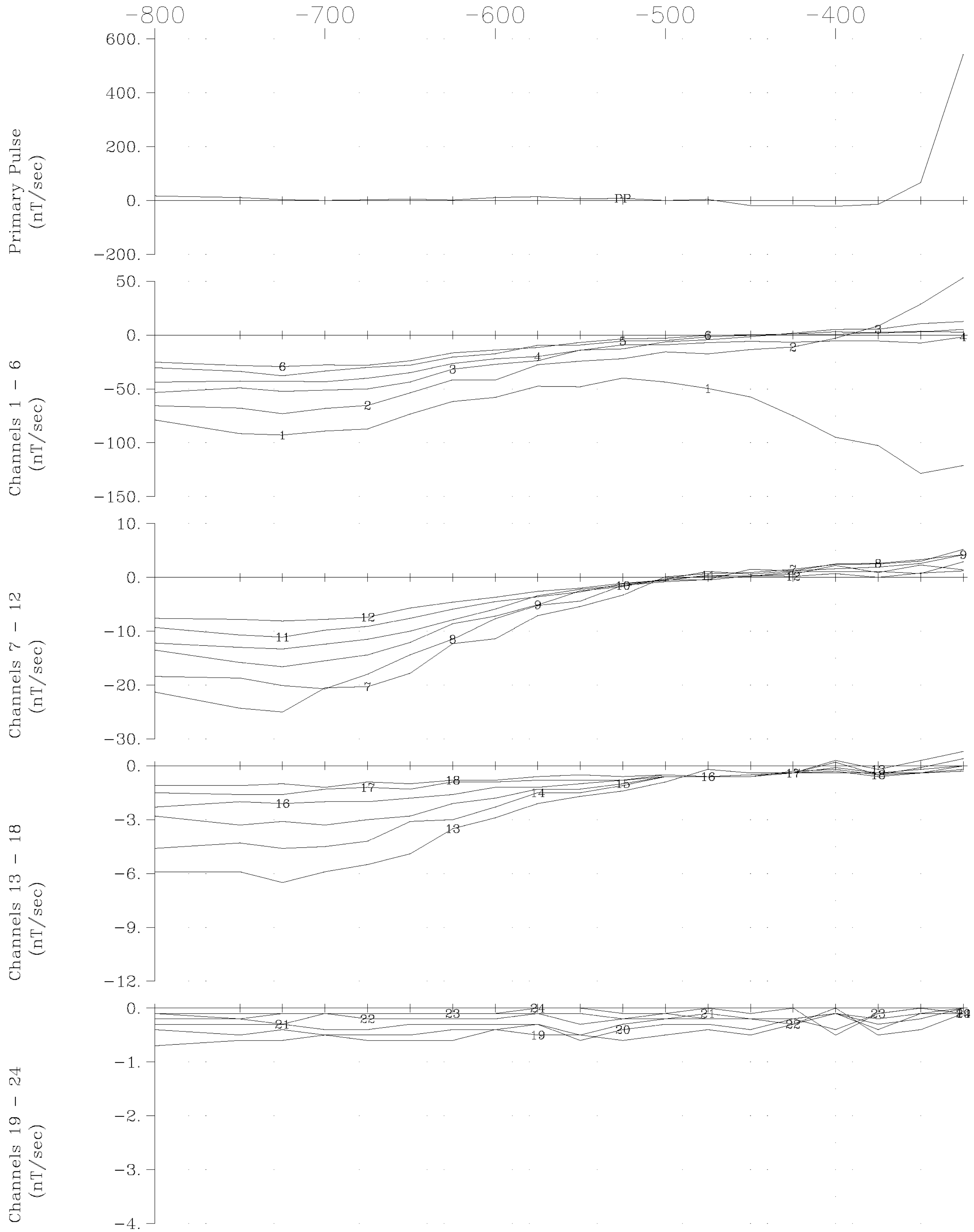
Crone Geophysics & Exploration Ltd.



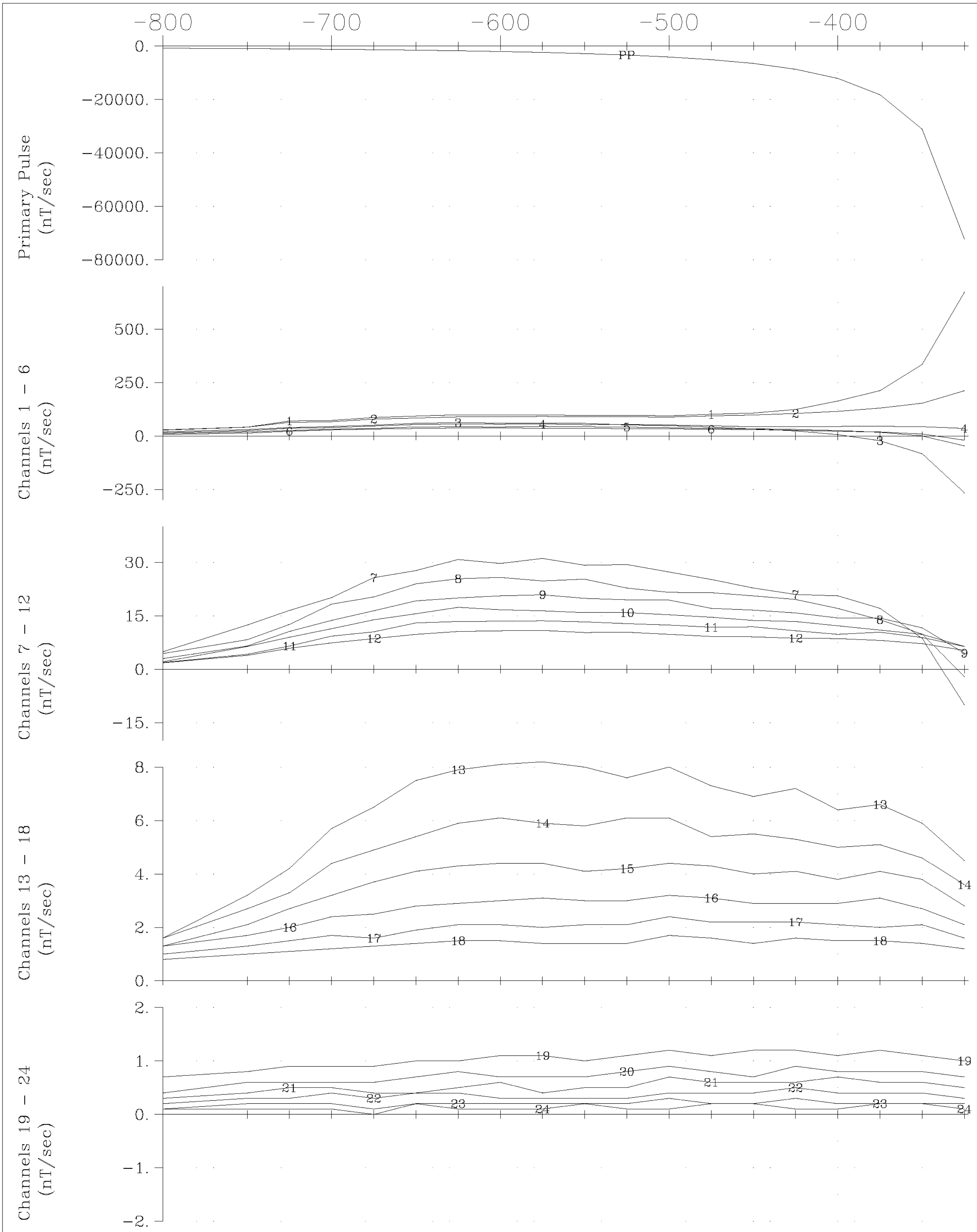
Pro Minerals Inc Discovery Lake Project
Loop 2, Line: 2600E X Component
Crone Geophysics & Exploration Ltd.



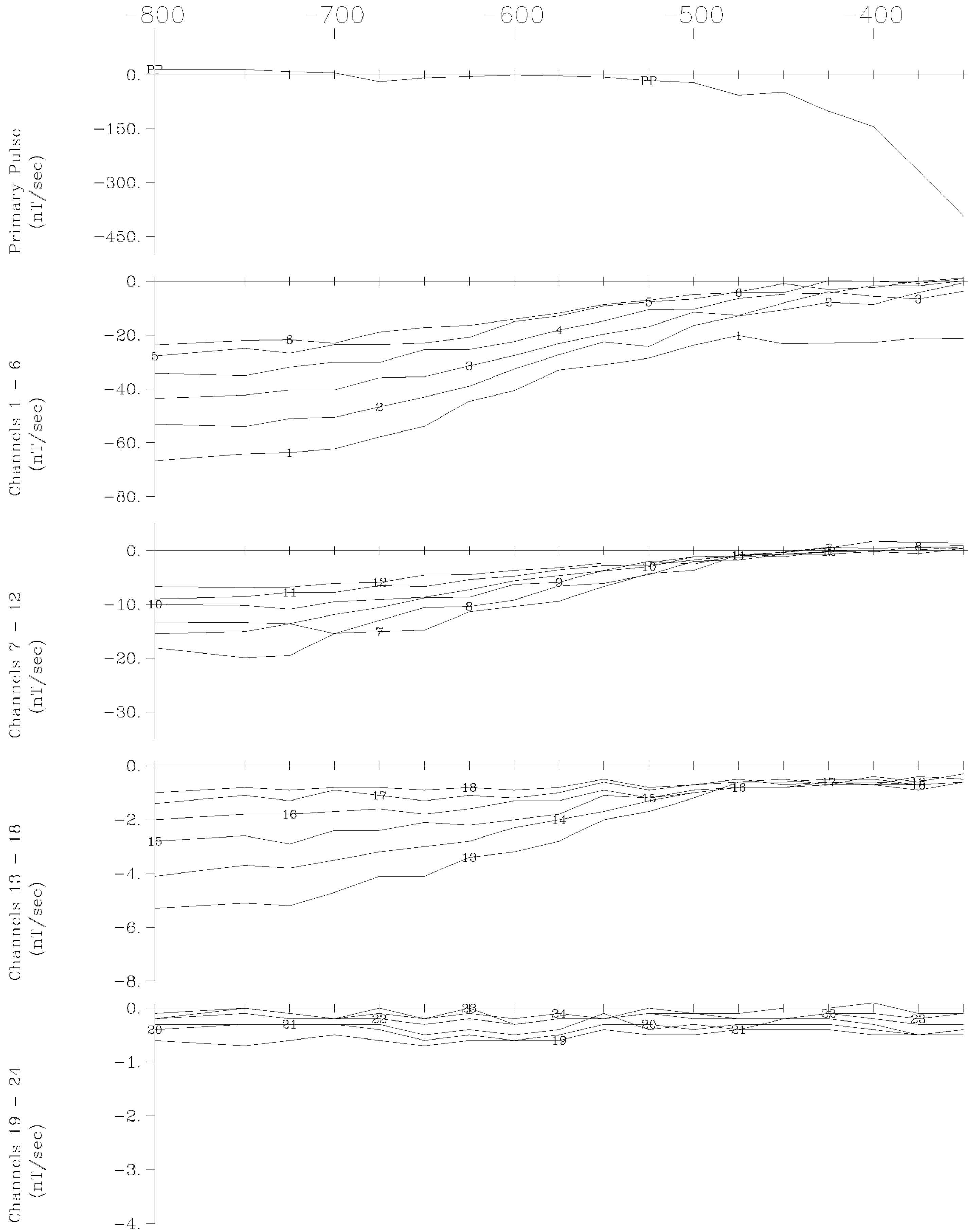
Primary Pulse (nT/sec)
Channels 1 - 6 (nT/sec)
Channels 7 - 12 (nT/sec)
Channels 13 - 18 (nT/sec)
Channels 19 - 24 (nT/sec)
0.
-3500.
-7000.
-10500.
-14000.
-50.
0.
50.
100.
150.
0.
10.
20.
30.
40.
0.
3.
6.
9.
12.
-2.
-1.
0.
1.
2.
-800
-700
-600
-500
-400
PP
Pro Minerals Inc Discovery Lake Project
Loop 2, Line: 2600E Z Component
Crone Geophysics & Exploration Ltd.



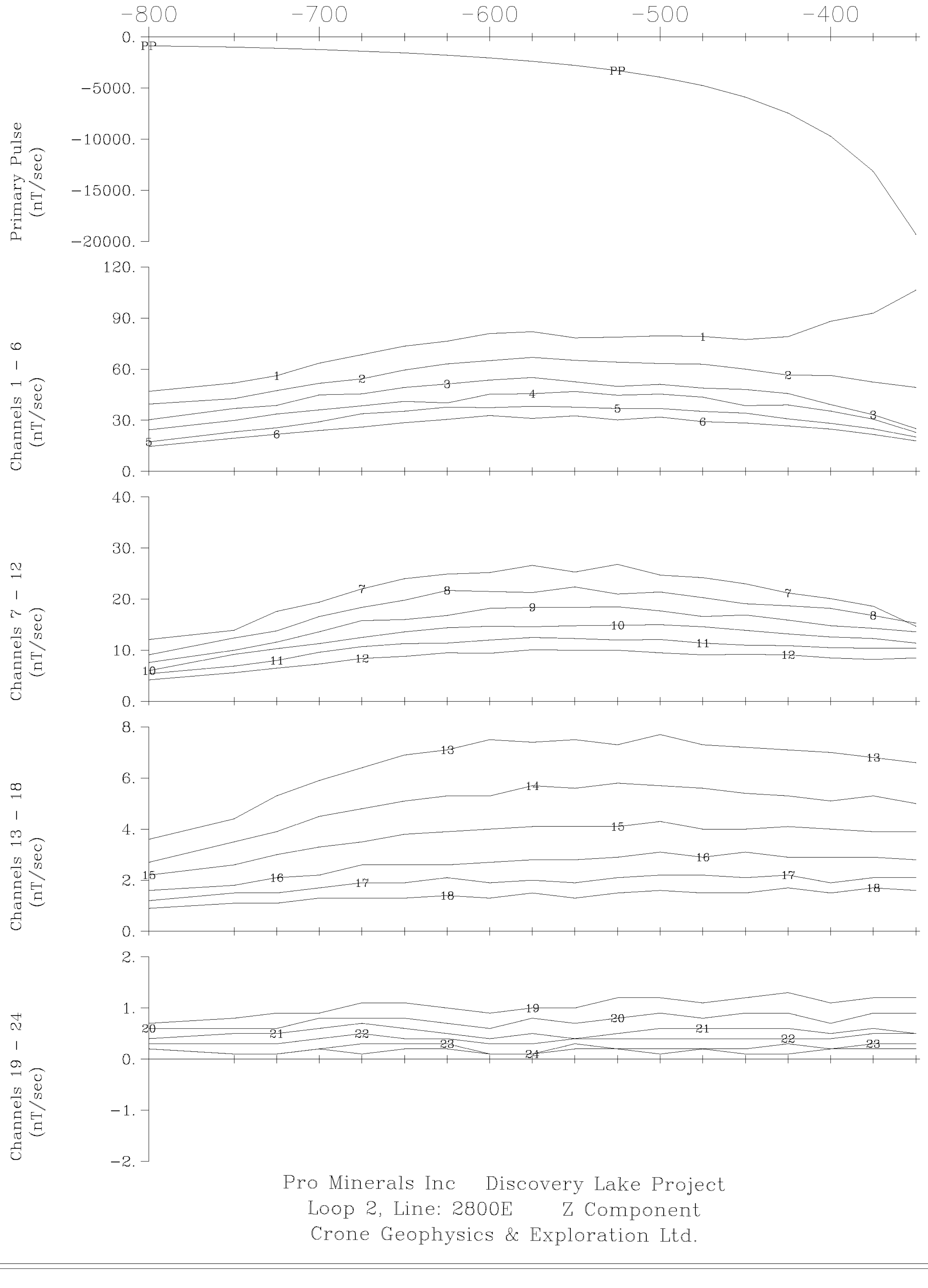
Pro Minerals Inc   Discovery Lake Project
Loop 2, Line: 2700E   X Component
Crone Geophysics & Exploration Ltd.



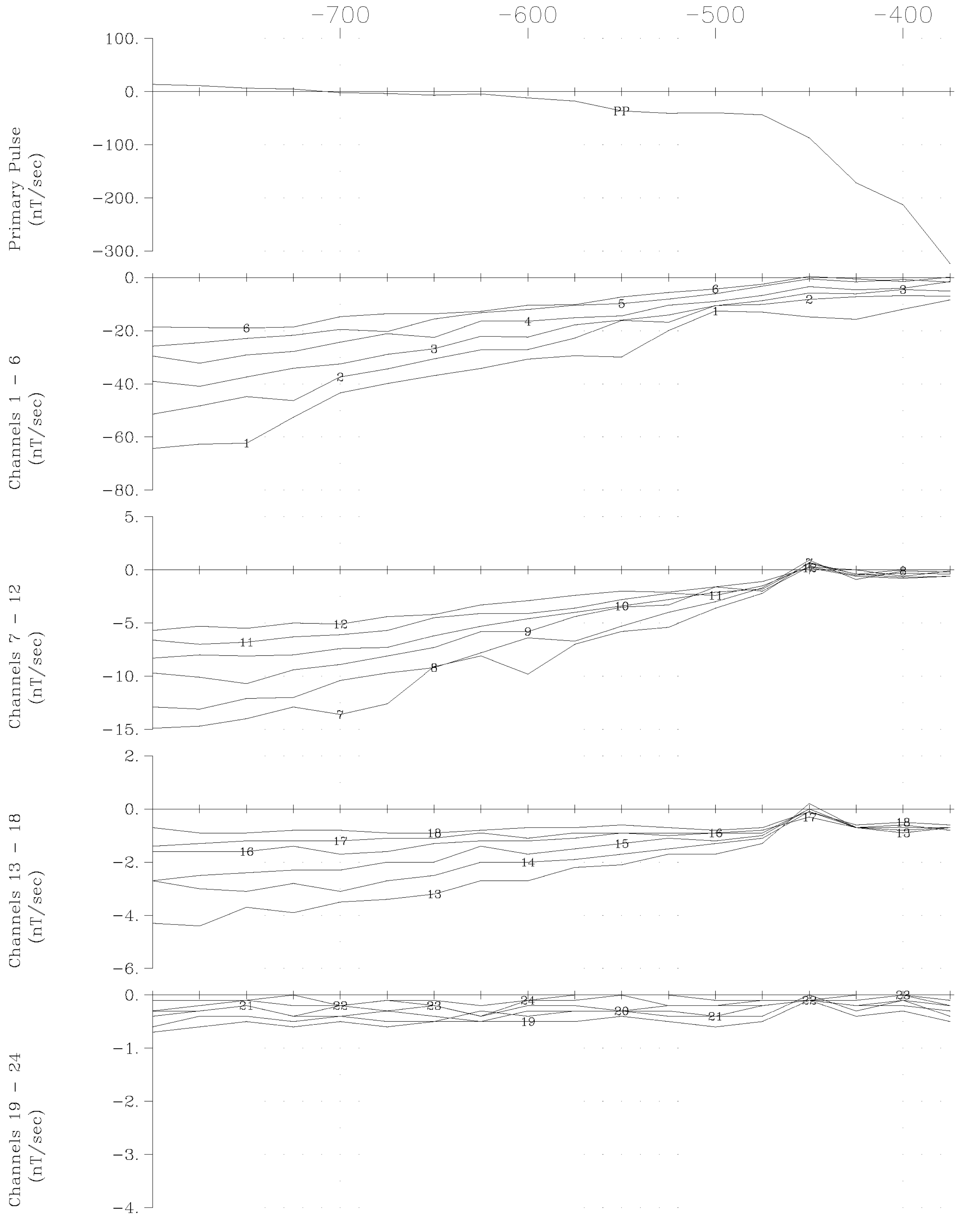
Pro Minerals Inc Discovery Lake Project
Loop 2, Line: 2700E Z Component
Crone Geophysics & Exploration Ltd.



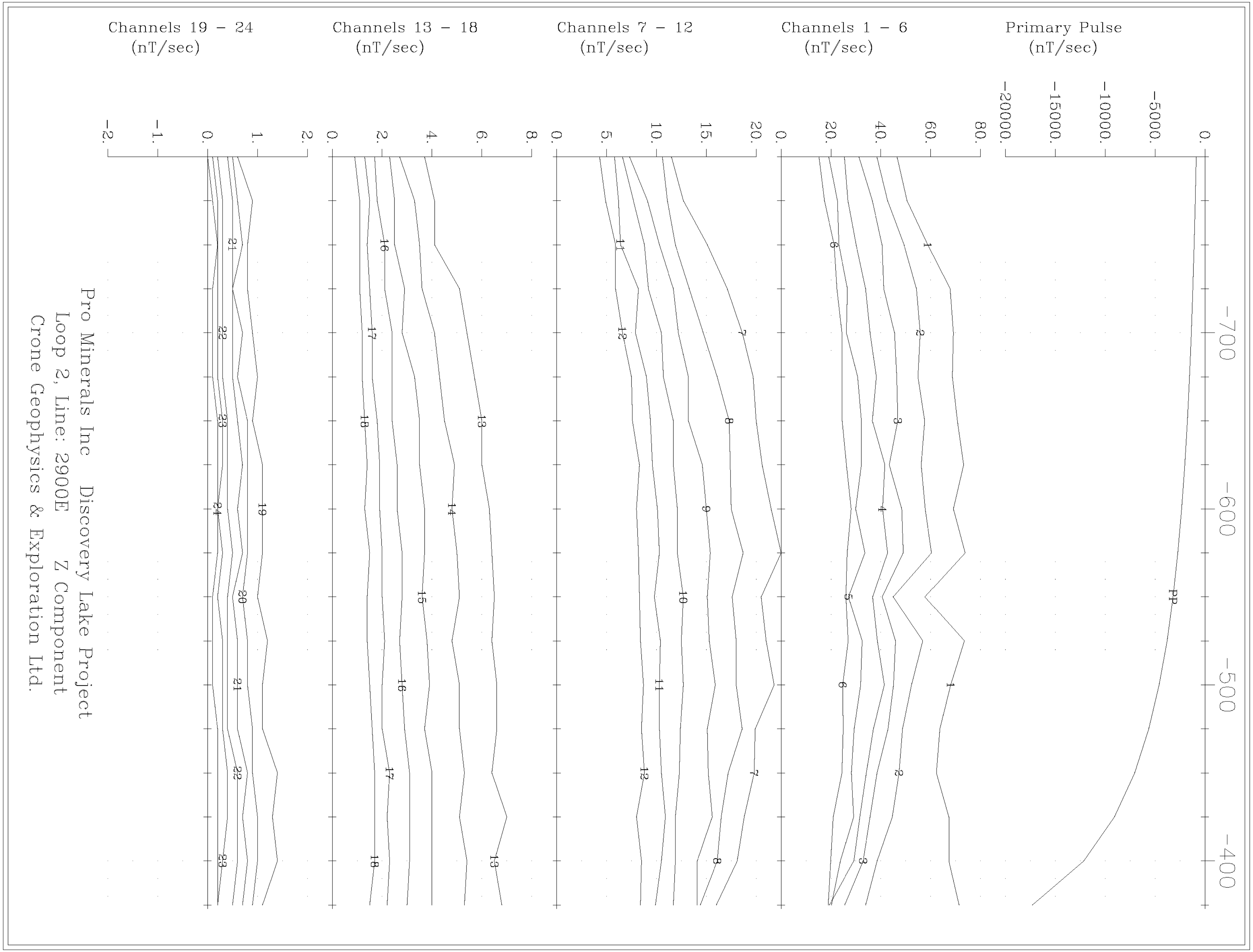
Pro Minerals Inc Discovery Lake Project
Loop 2, Line: 2800E X Component
Crone Geophysics & Exploration Ltd.

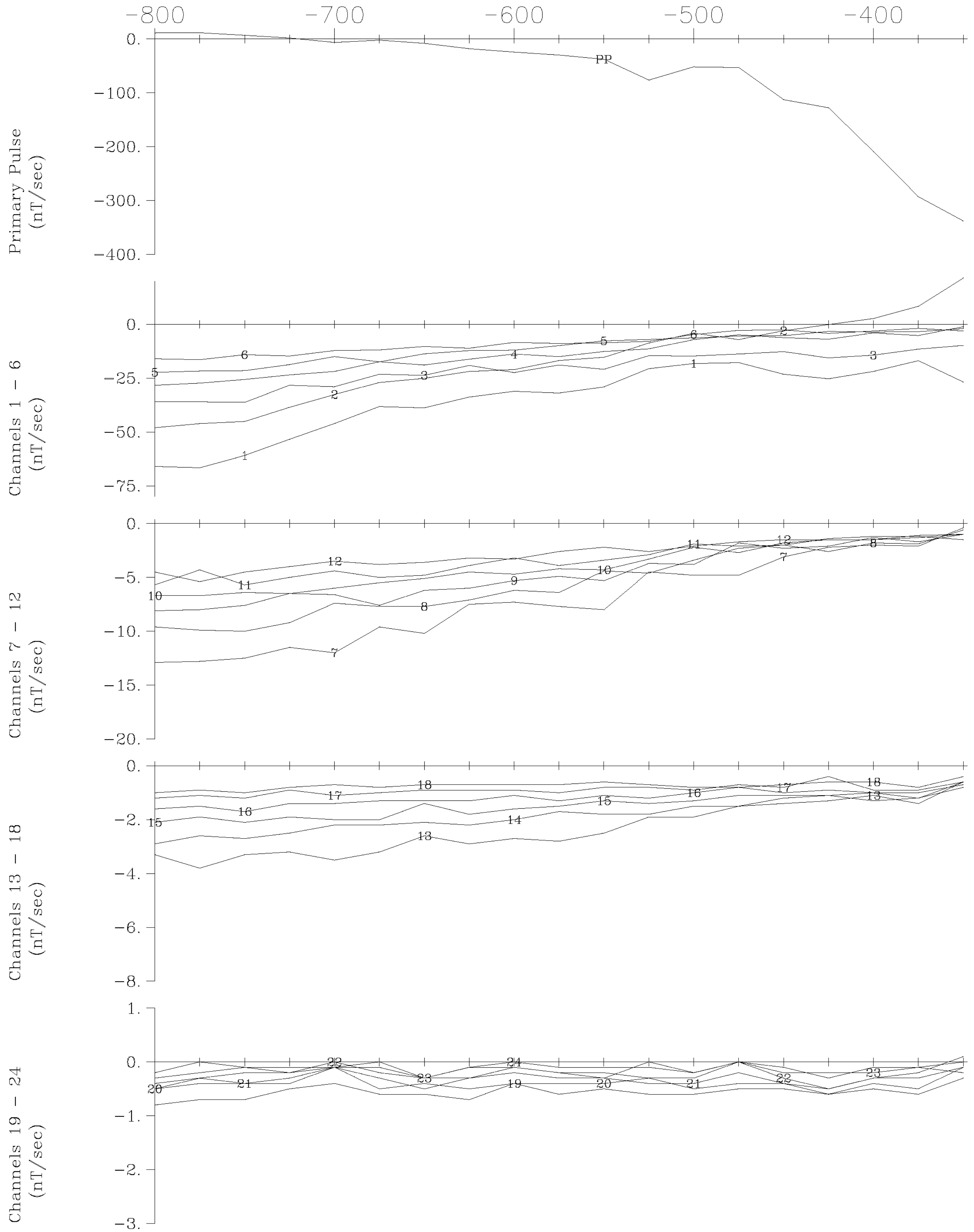


Pro Minerals Inc Discovery Lake Project
Loop 2, Line: 2800E Z Component
Crone Geophysics & Exploration Ltd.



Pro Minerals Inc   Discovery Lake Project
Loop 2, Line: 2900E   X Component
Crone Geophysics & Exploration Ltd.

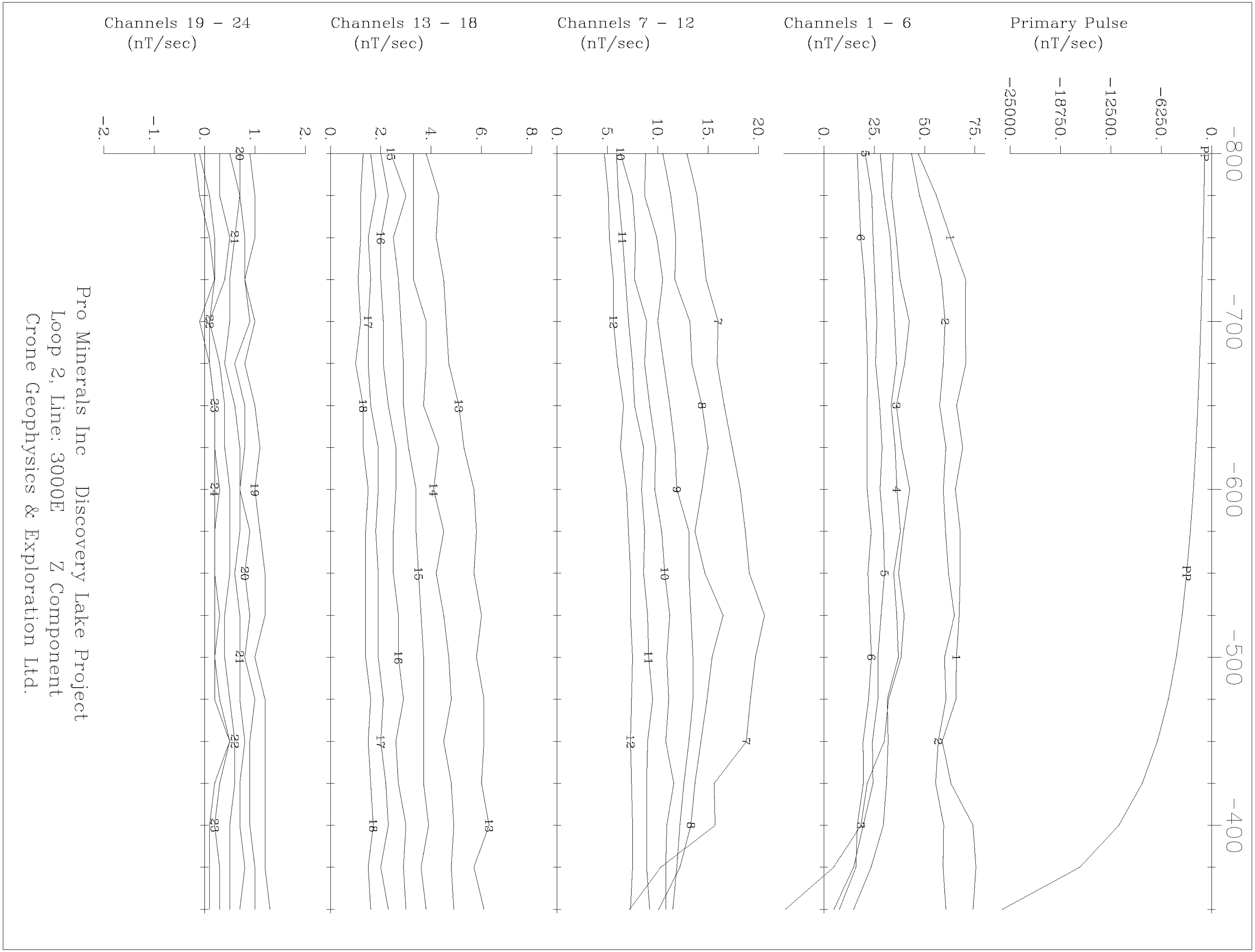

Primary Pulse
(nT/sec)
Channels 1 - 6
(nT/sec)
Channels 7 - 12
(nT/sec)
Channels 13 - 18
(nT/sec)
Channels 19 - 24
(nT/sec)
-700
-600
-500
-400
PP
Pro Minerals Inc Discovery Lake Project
Loop 2, Line: 2900E Z Component
Crone Geophysics & Exploration Ltd.



Pro Minerals Inc Discovery Lake Project

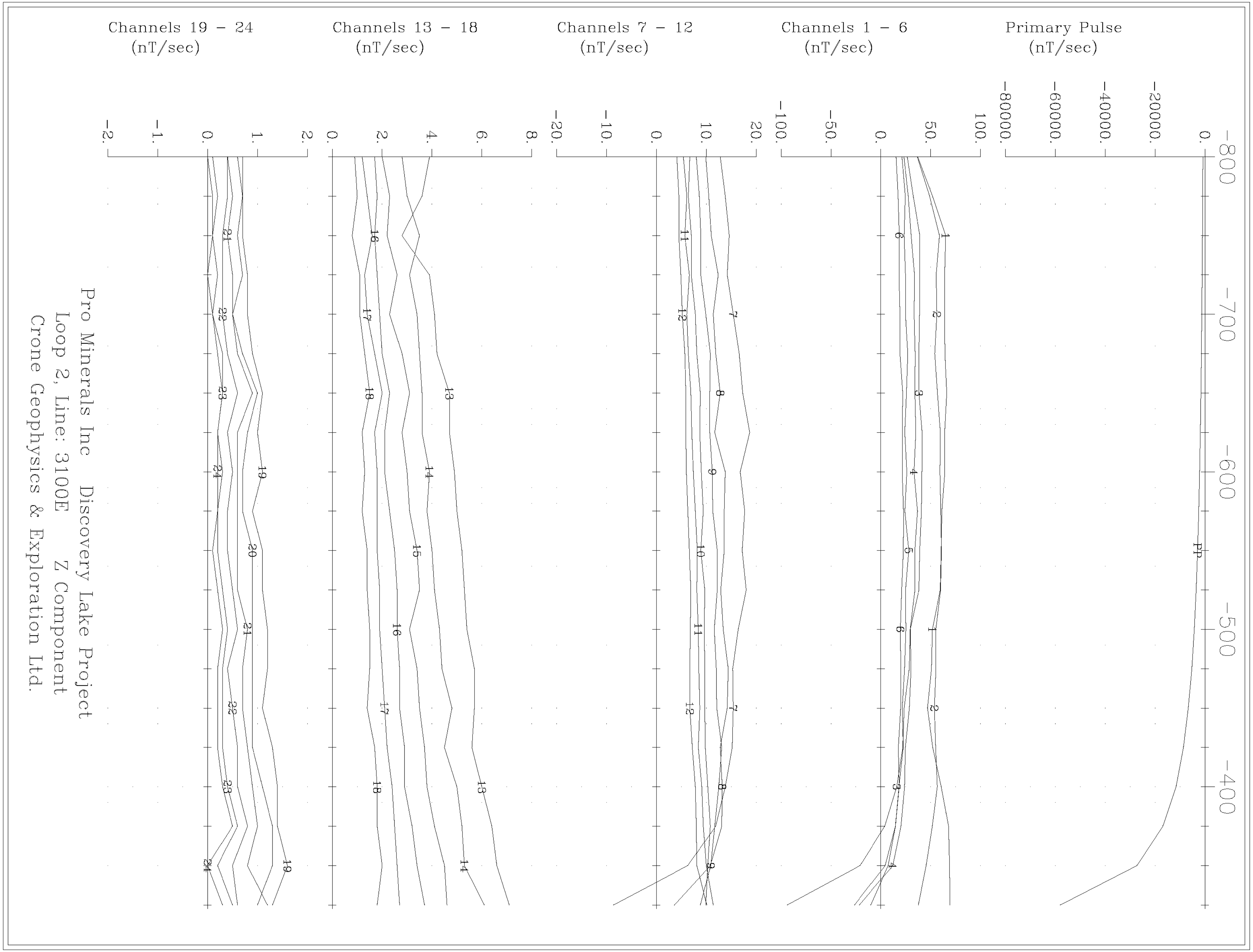
Loop 2, Line: 3000E X Component

Crone Geophysics & Exploration Ltd.

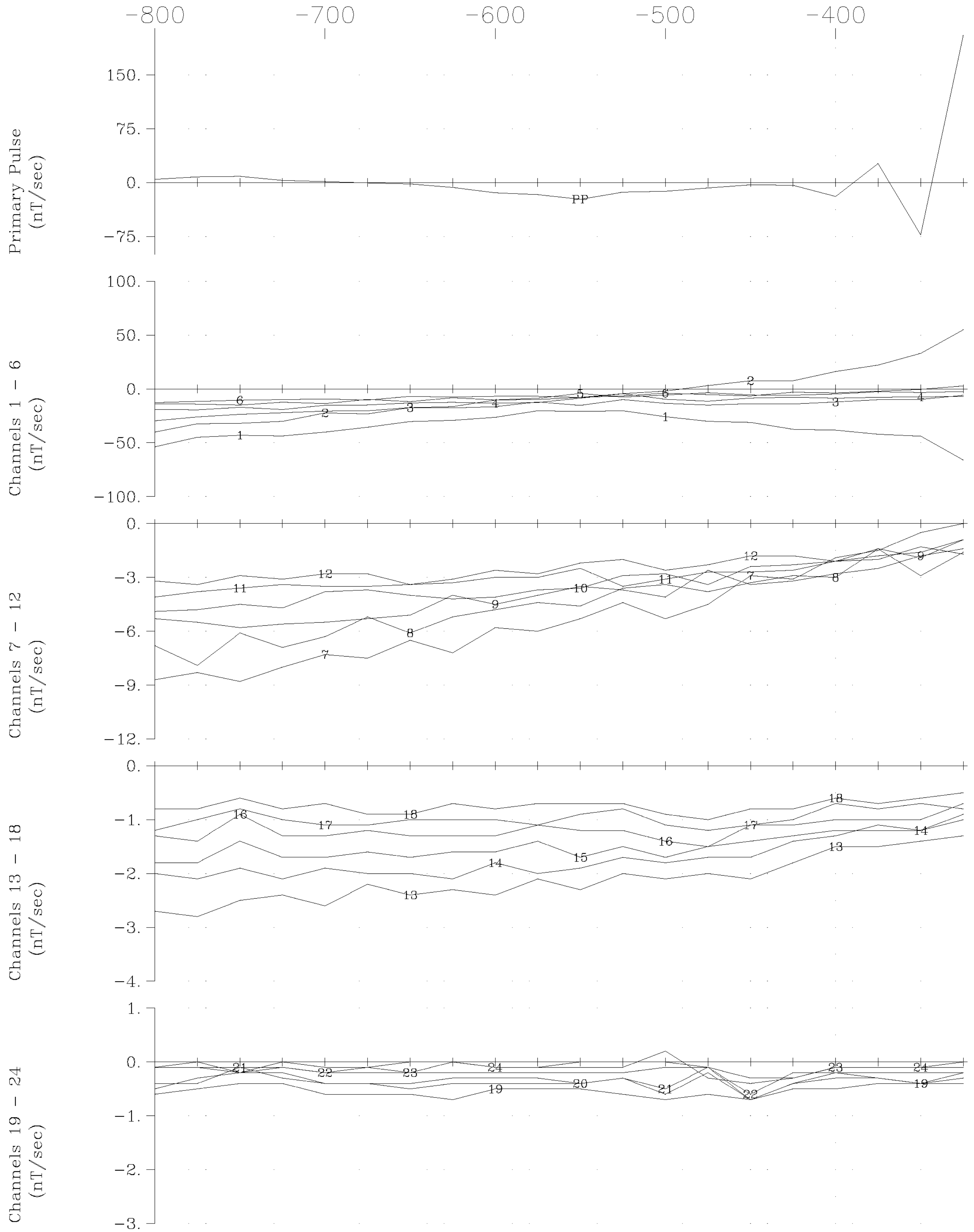


Primary Pulse (nT/sec)
Channels 1 - 6 (nT/sec)
Channels 7 - 12 (nT/sec)
Channels 13 - 18 (nT/sec)
Channels 19 - 24 (nT/sec)
0.
-6250.
-12500.
-18750.
-25000.
75.
50.
25.
0.
20.
15.
10.
5.
0.
8.
6.
4.
2.
0.
2.
1.
0.
-1.
-2.
-800
-700
-600
-500
-400
PP
Pro Minerals Inc Discovery Lake Project
Loop 2, Line: 3000E Z Component
Crone Geophysics & Exploration Ltd.

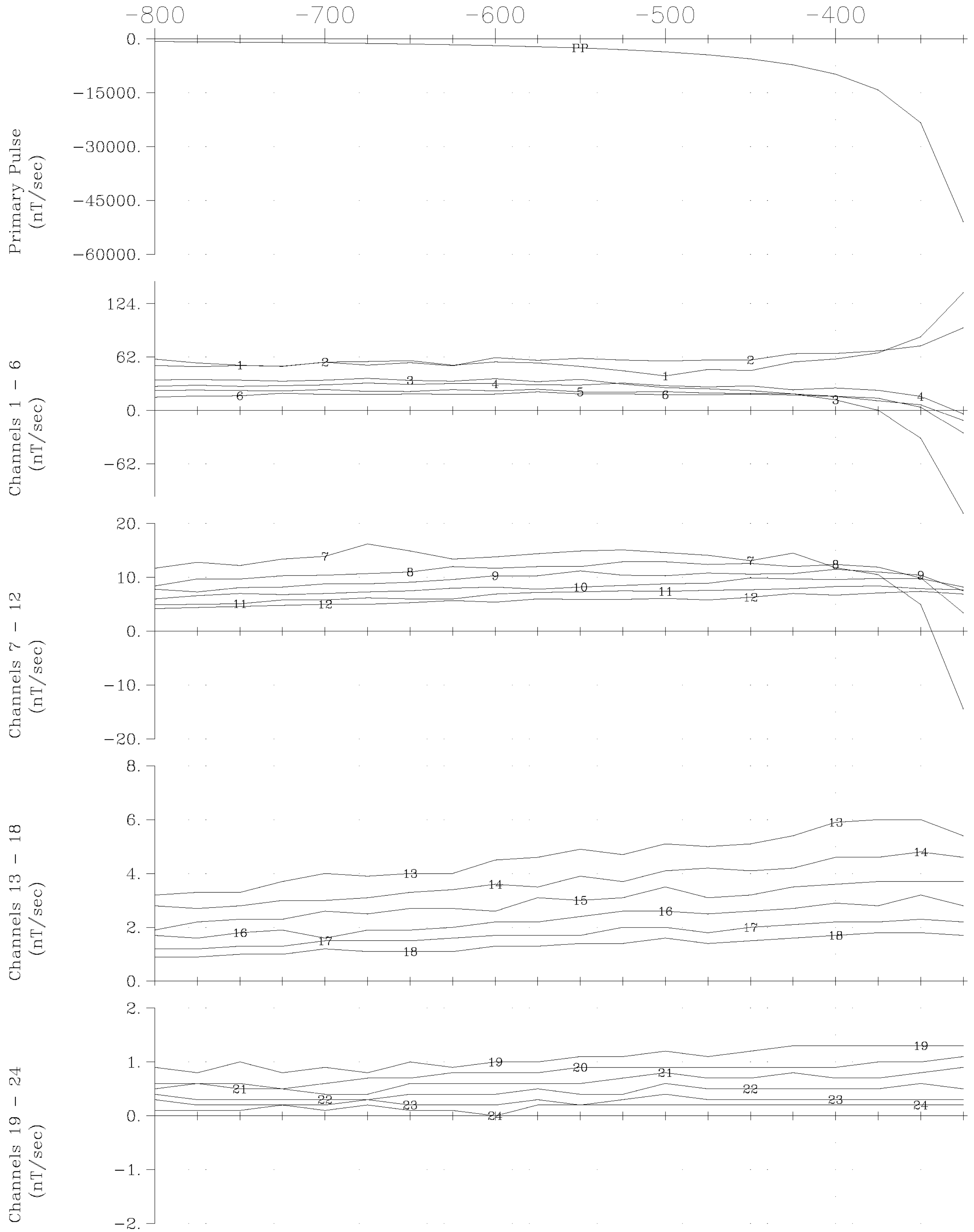
Primary Pulse
(nT/sec)
Channels 1 - 6
(nT/sec)
Channels 7 - 12
(nT/sec)
Channels 13 - 18
(nT/sec)
Channels 19 - 24
(nT/sec)
-800
-700
-600
-500
-400
Pro Minerals Inc Discovery Lake Project
Loop 2, Line: 3100E X Component
Crone Geophysics & Exploration Ltd.



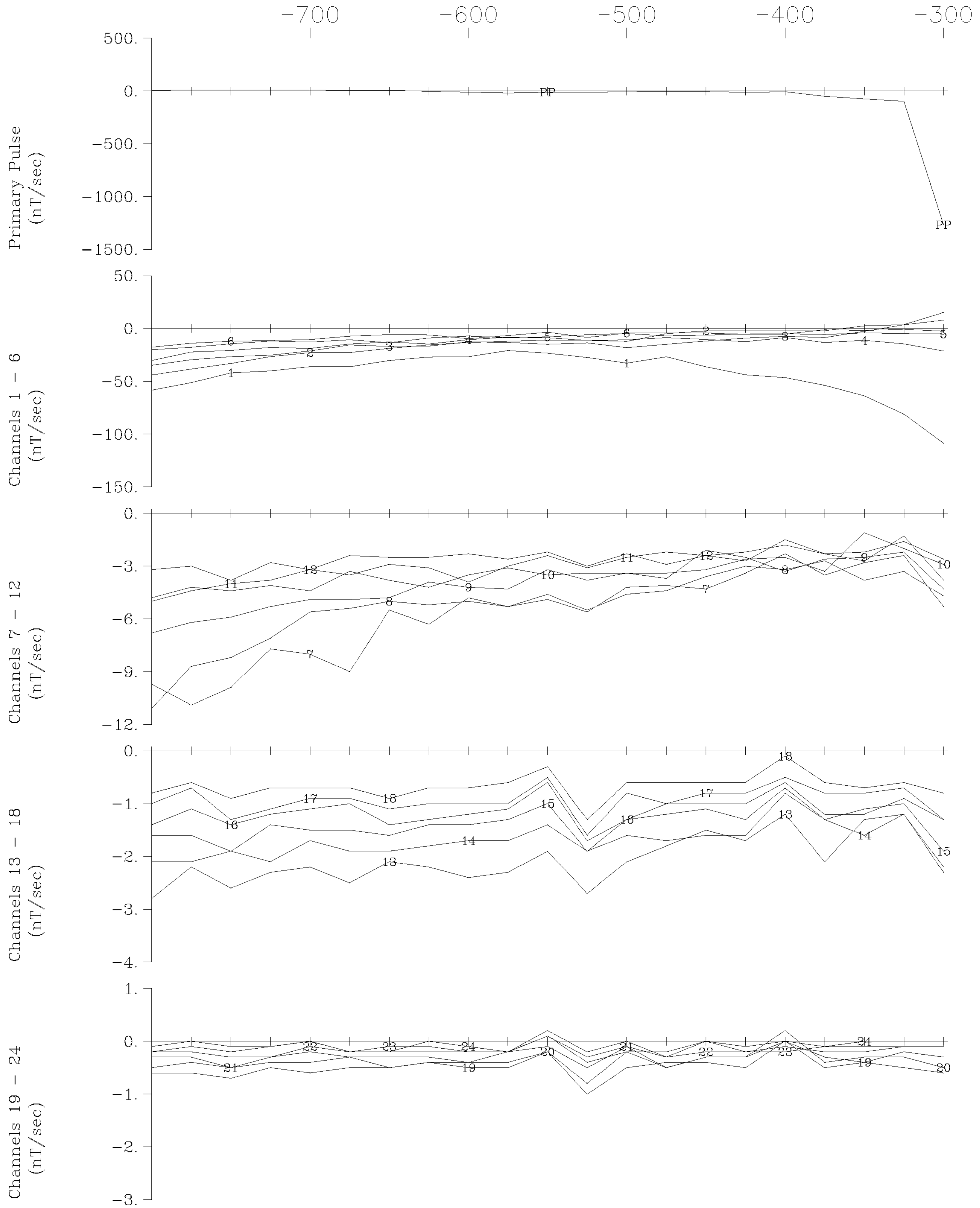
Channels 19 - 24 (nT/sec)
Channels 13 - 18 (nT/sec)
Channels 7 - 12 (nT/sec)
Channels 1 - 6 (nT/sec)
Primary Pulse (nT/sec)
-800
-700
-600
-500
-400
Pro Minerals Inc Discovery Lake Project
Loop 2, Line: 3100E Z Component
Crone Geophysics & Exploration Ltd.



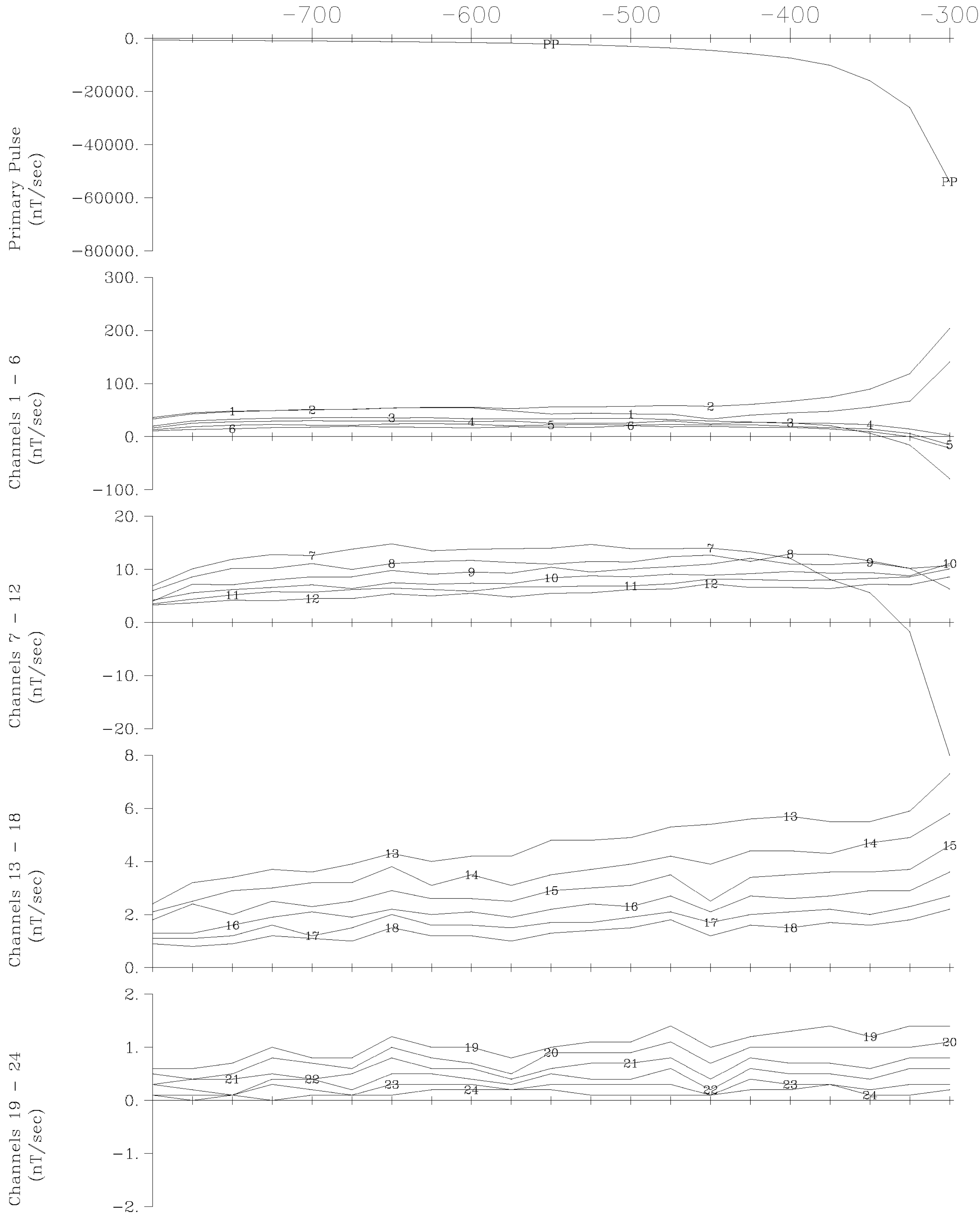
Pro Minerals Inc   Discovery Lake Project
Loop 2, Line: 3200E   X Component
Crone Geophysics & Exploration Ltd.



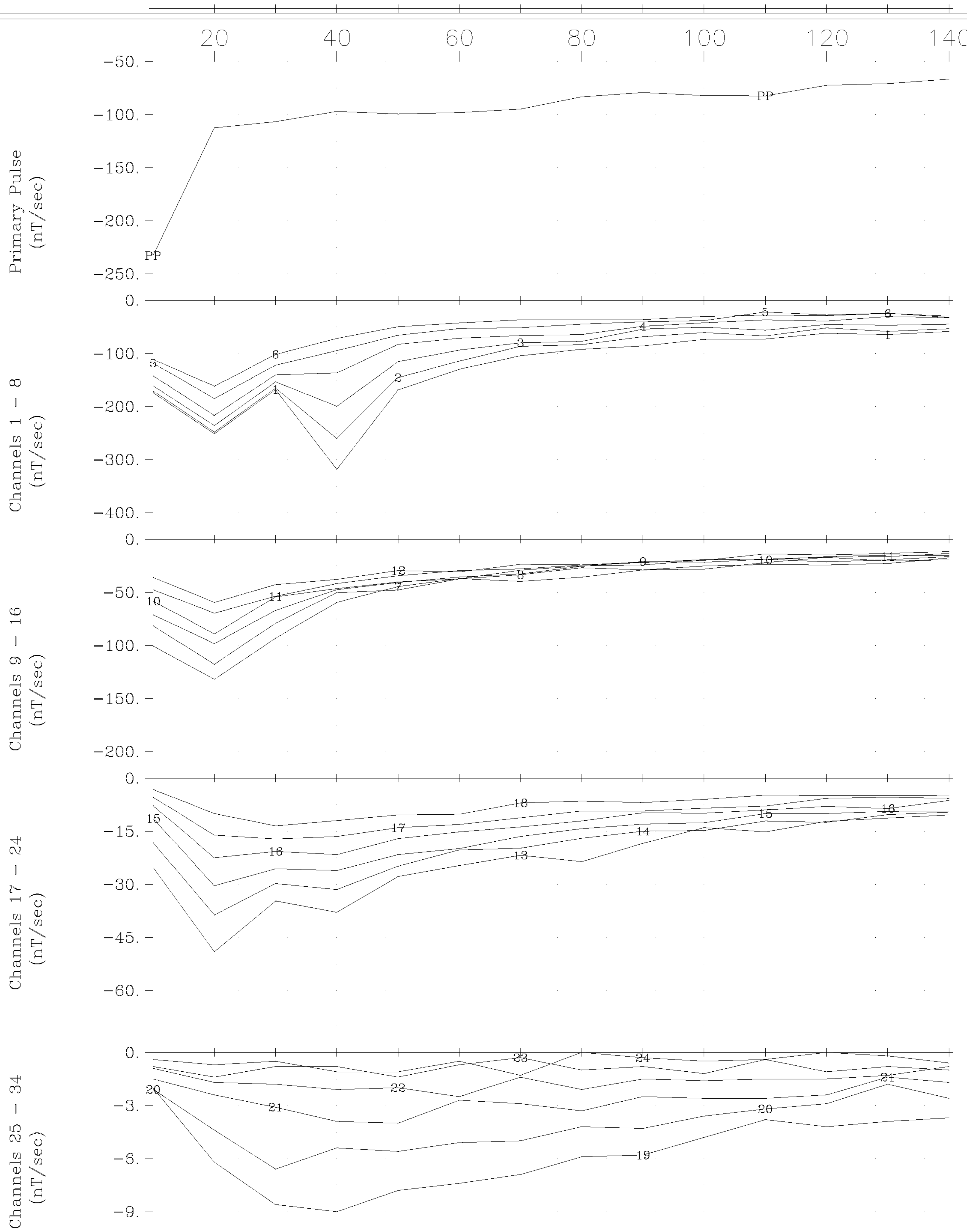
Pro Minerals Inc Discovery Lake Project
Loop 2, Line: 3200E Z Component
Crone Geophysics & Exploration Ltd.



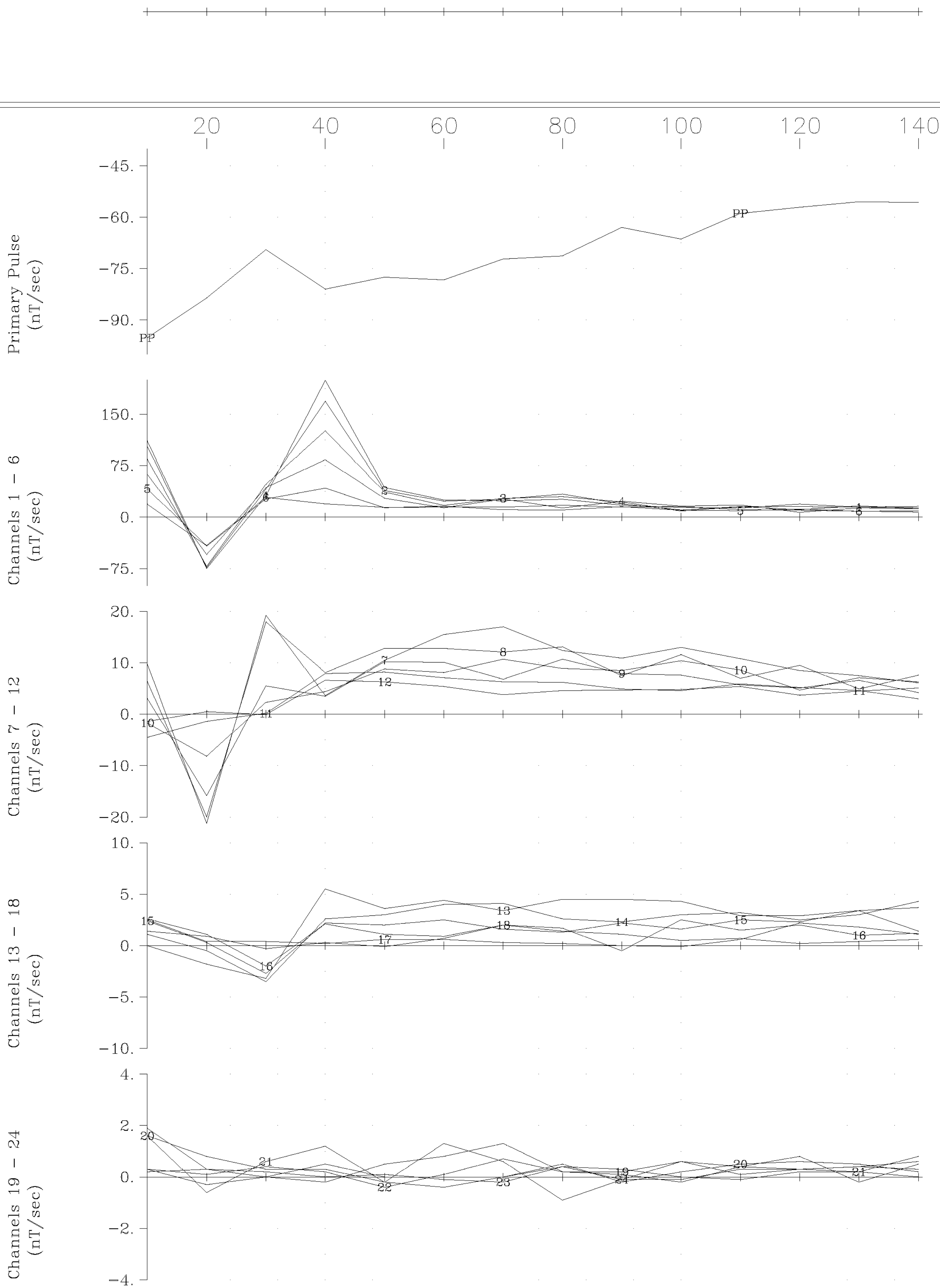
Pro Minerals Inc Discovery Lake Project
Loop 2, Line: 3300E X Component
Crone Geophysics & Exploration Ltd.



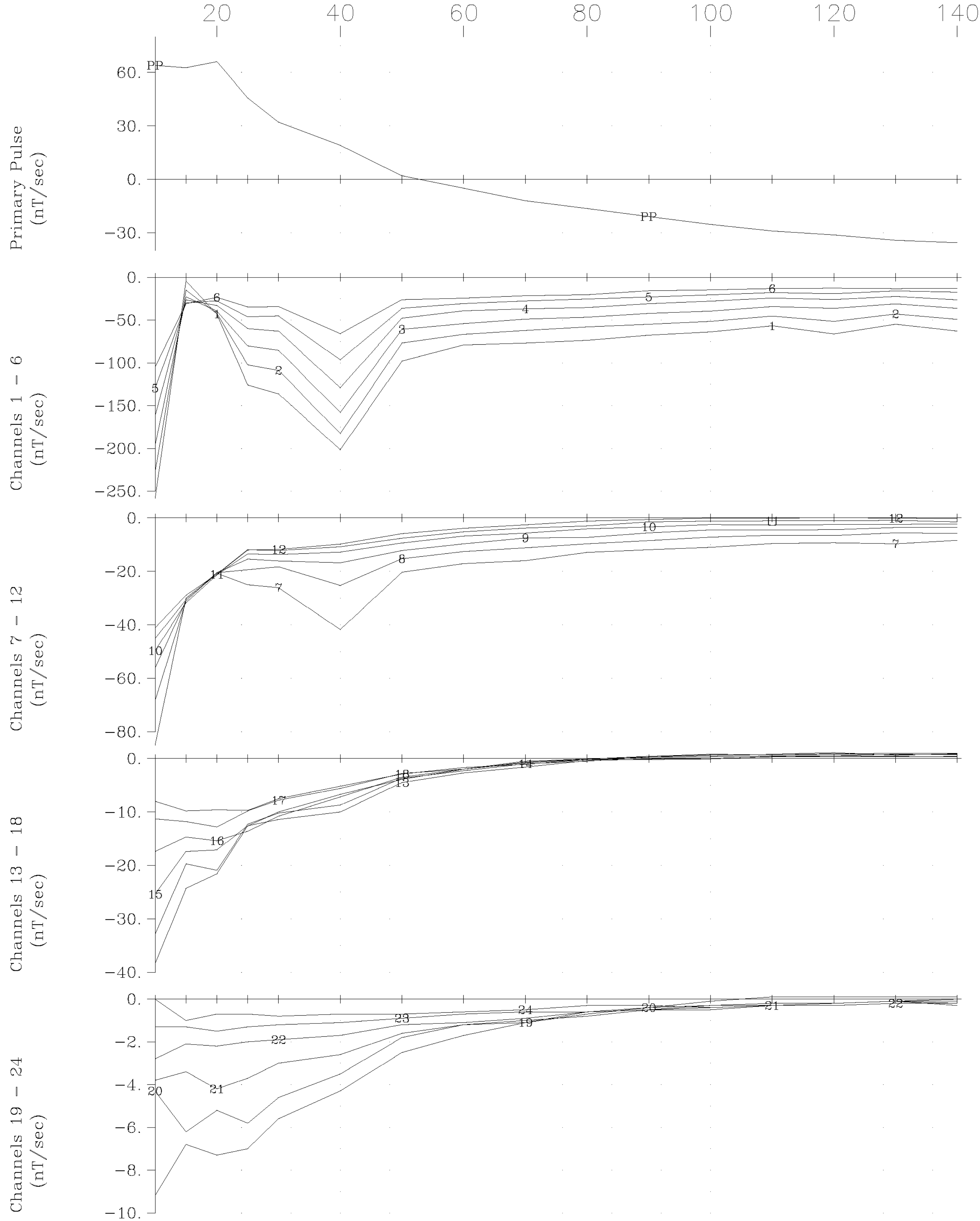
Pro Minerals Inc   Discovery Lake Project
Loop 2, Line: 3300E   Z Component
Crone Geophysics & Exploration Ltd.



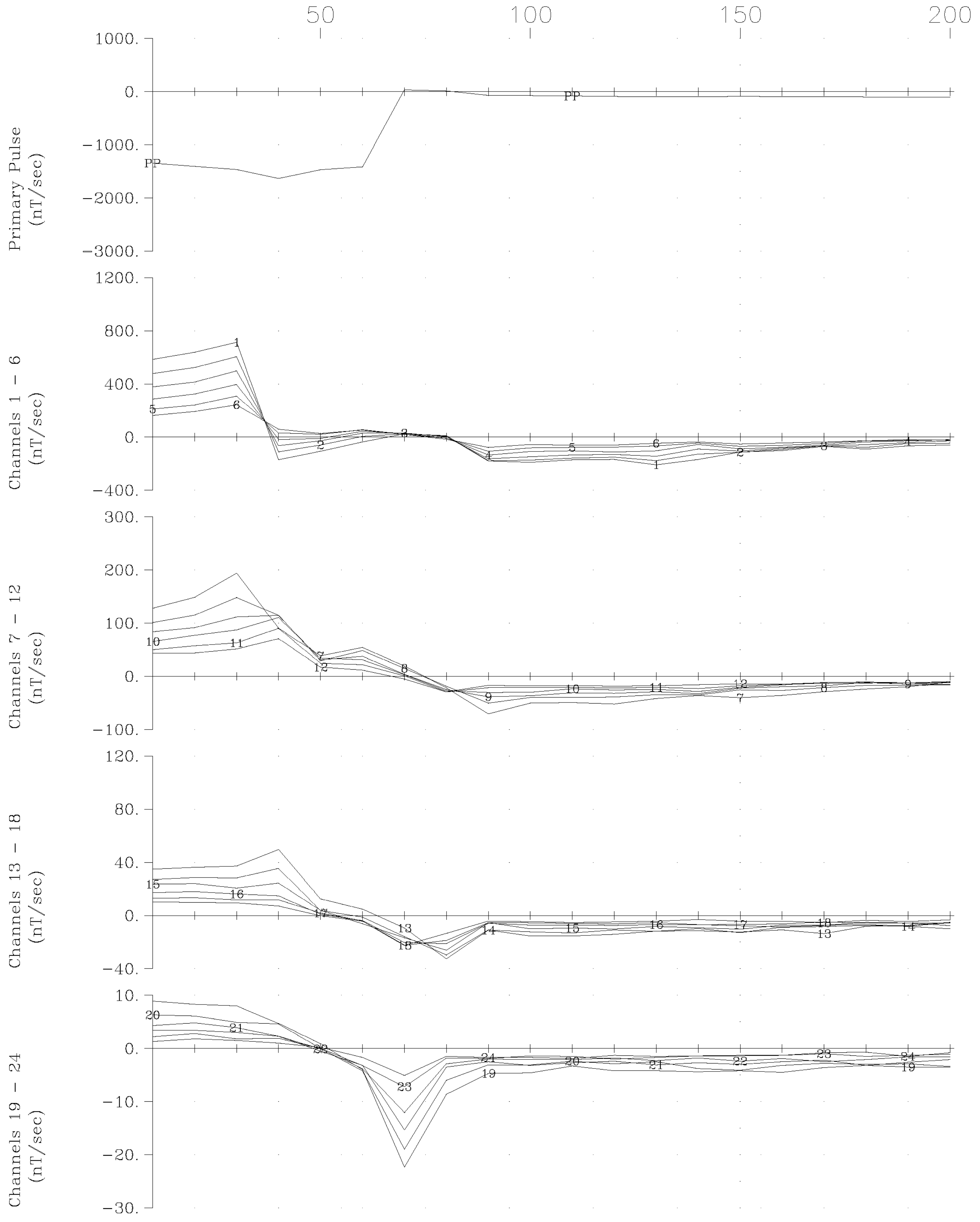
Pro Minerals Inc Discovery Lake Project
Loop 1, Hole PO-01   X Component
Crone Geophysics & Exploration Ltd.



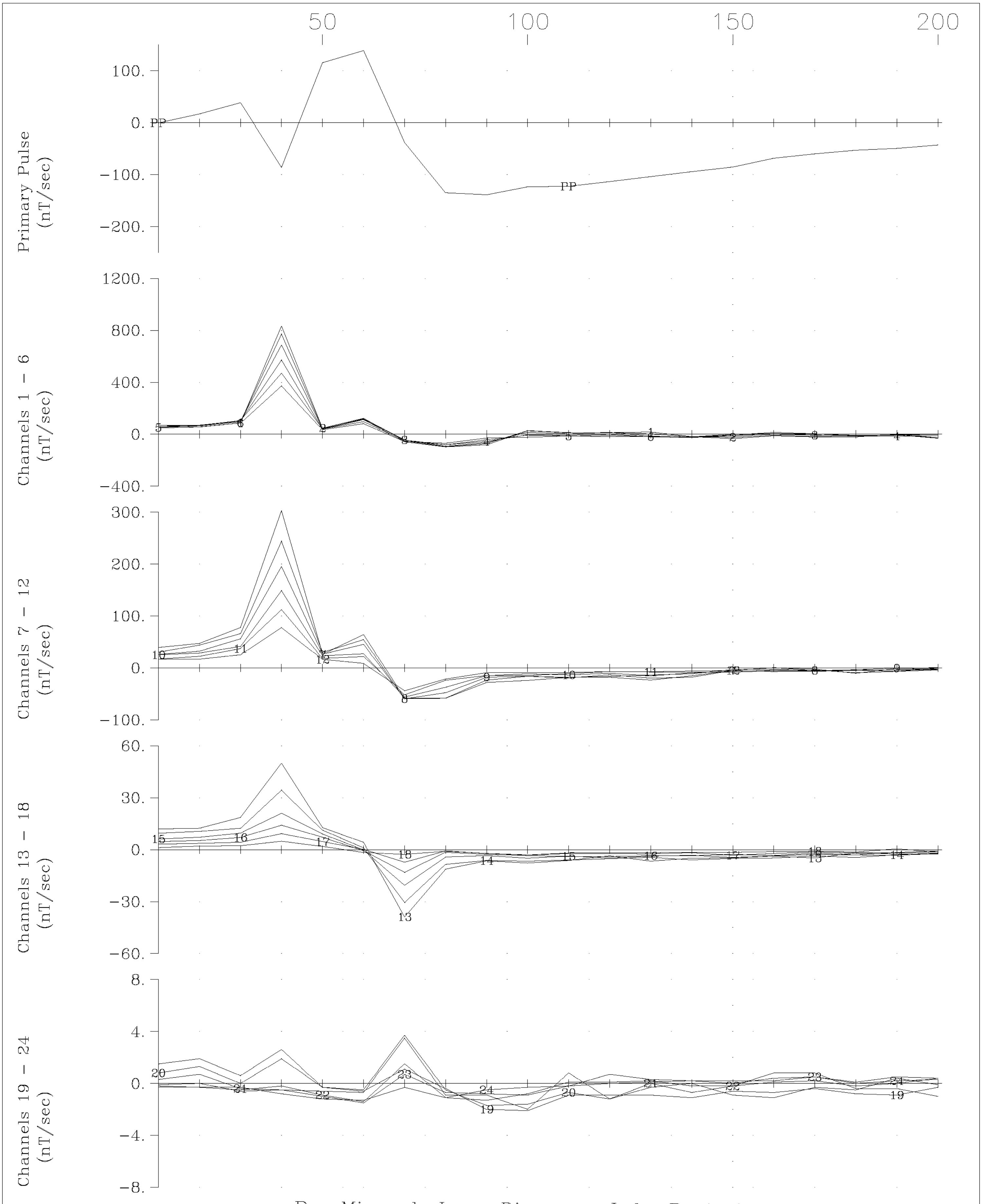
Pro Minerals Inc   Discovery Lake Project
Loop 1, Hole PO-01   Y Component
Crone Geophysics & Exploration Ltd.



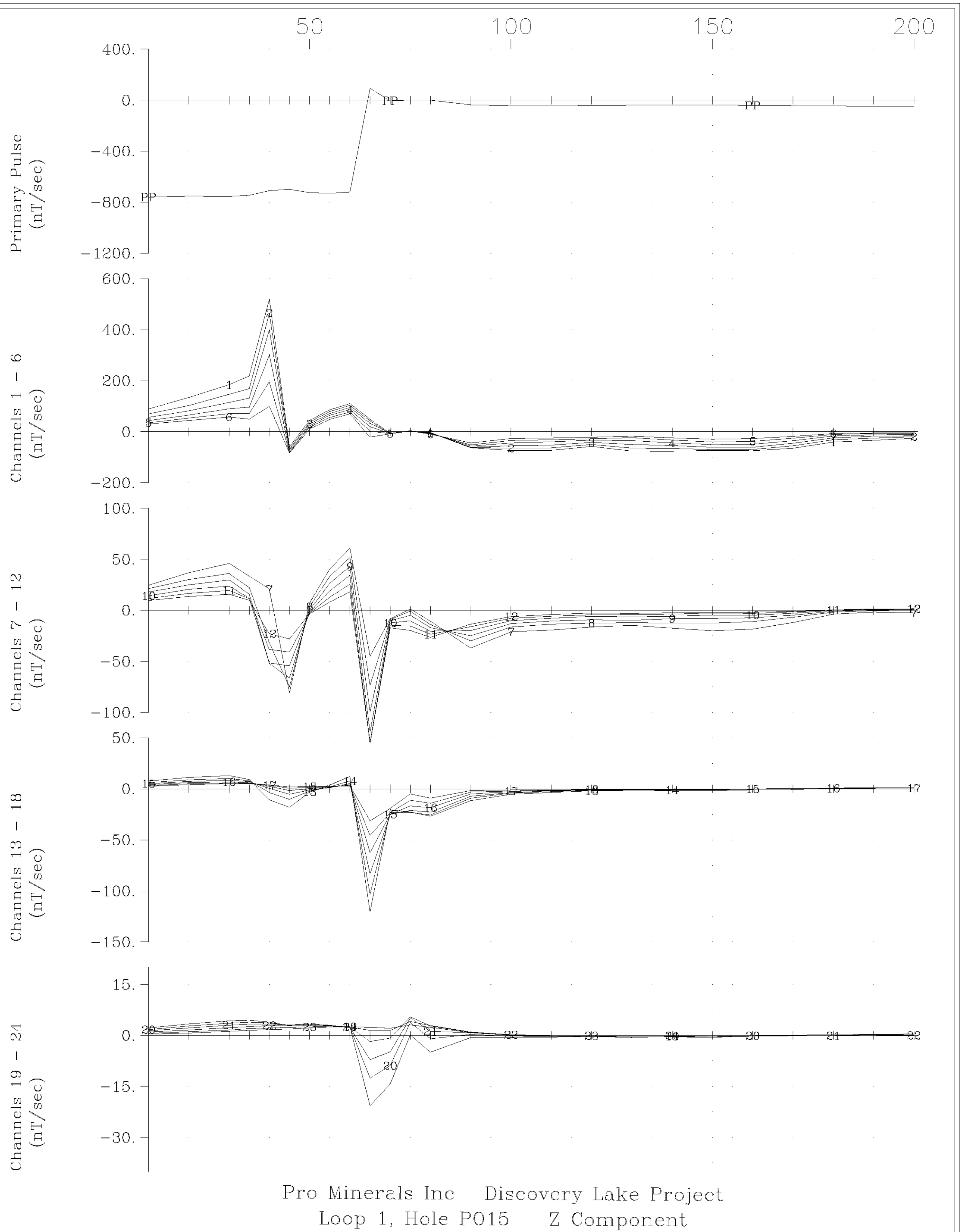
Pro Minerals Inc   Discovery Lake Project
Loop 1, Hole PO-01   Z Component
Crone Geophysics & Exploration Ltd.



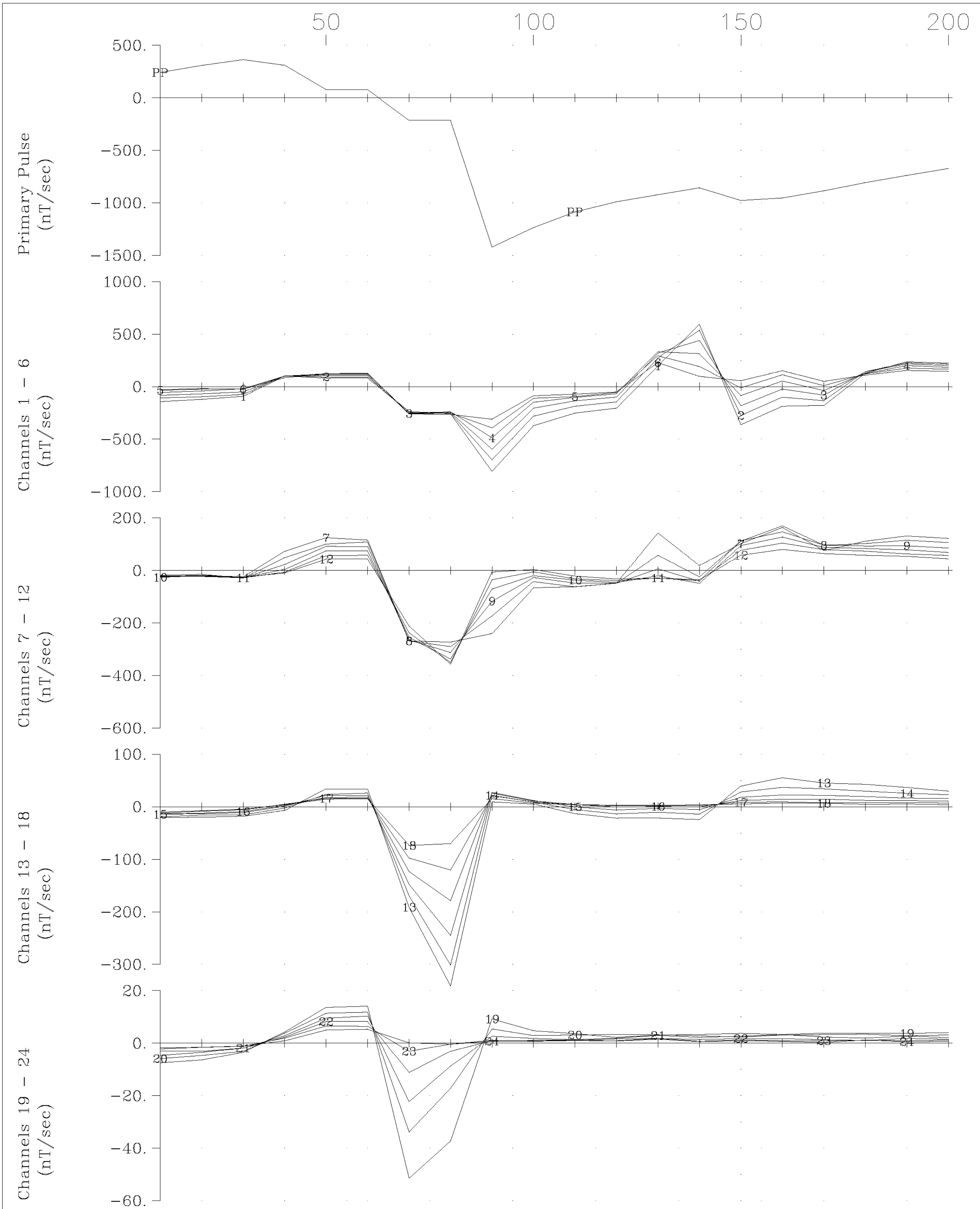
Pro Minerals Inc Discovery Lake Project
Loop 1, Hole P015 X Component
Crone Geophysics & Exploration Ltd.



Pro Minerals Inc Discovery Lake Project
Loop 1, Hole P015 Y Component
Crone Geophysics & Exploration Ltd.



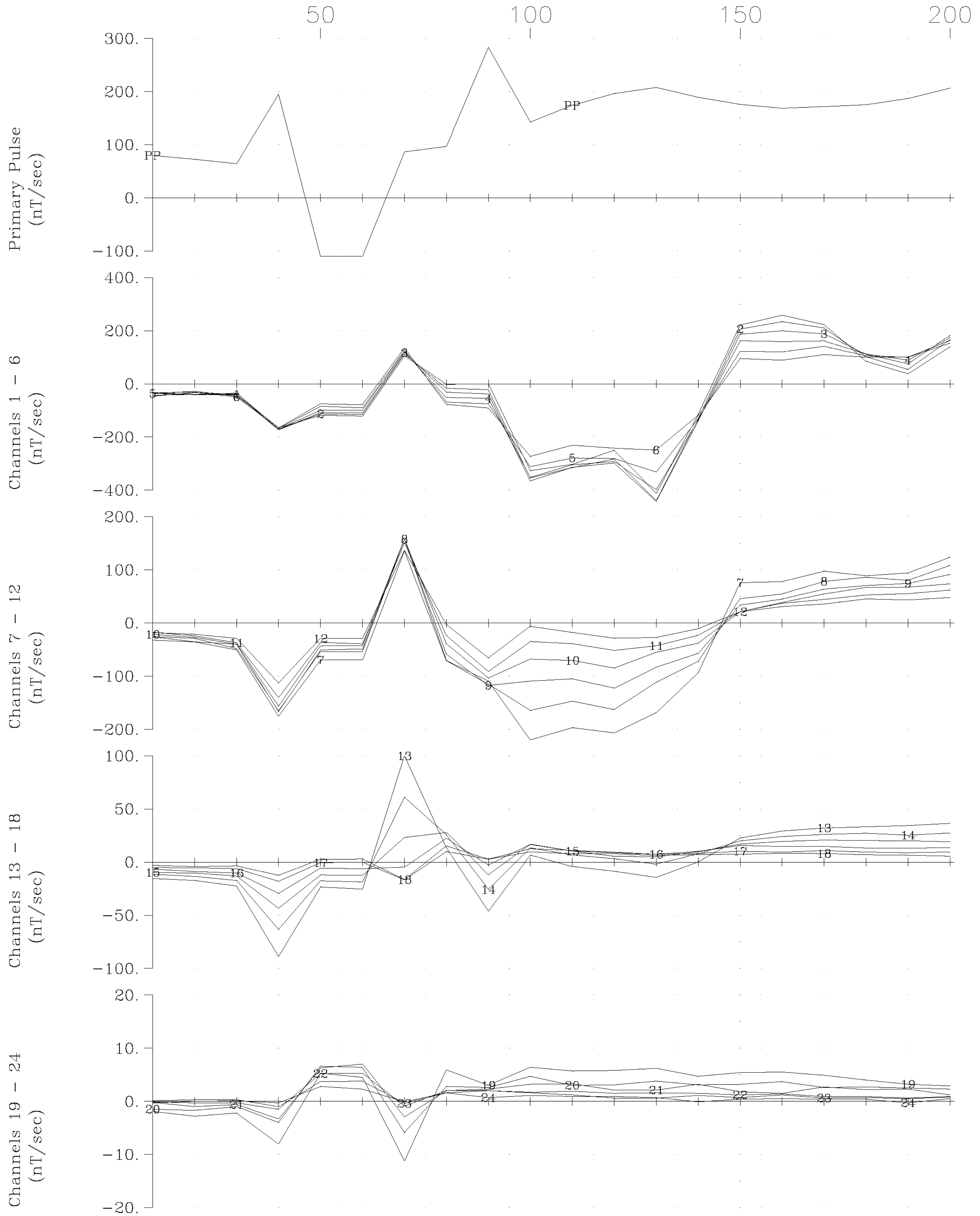
Pro Minerals Inc   Discovery Lake Project
Loop 1, Hole P015   Z Component
Crone Geophysics & Exploration Ltd.



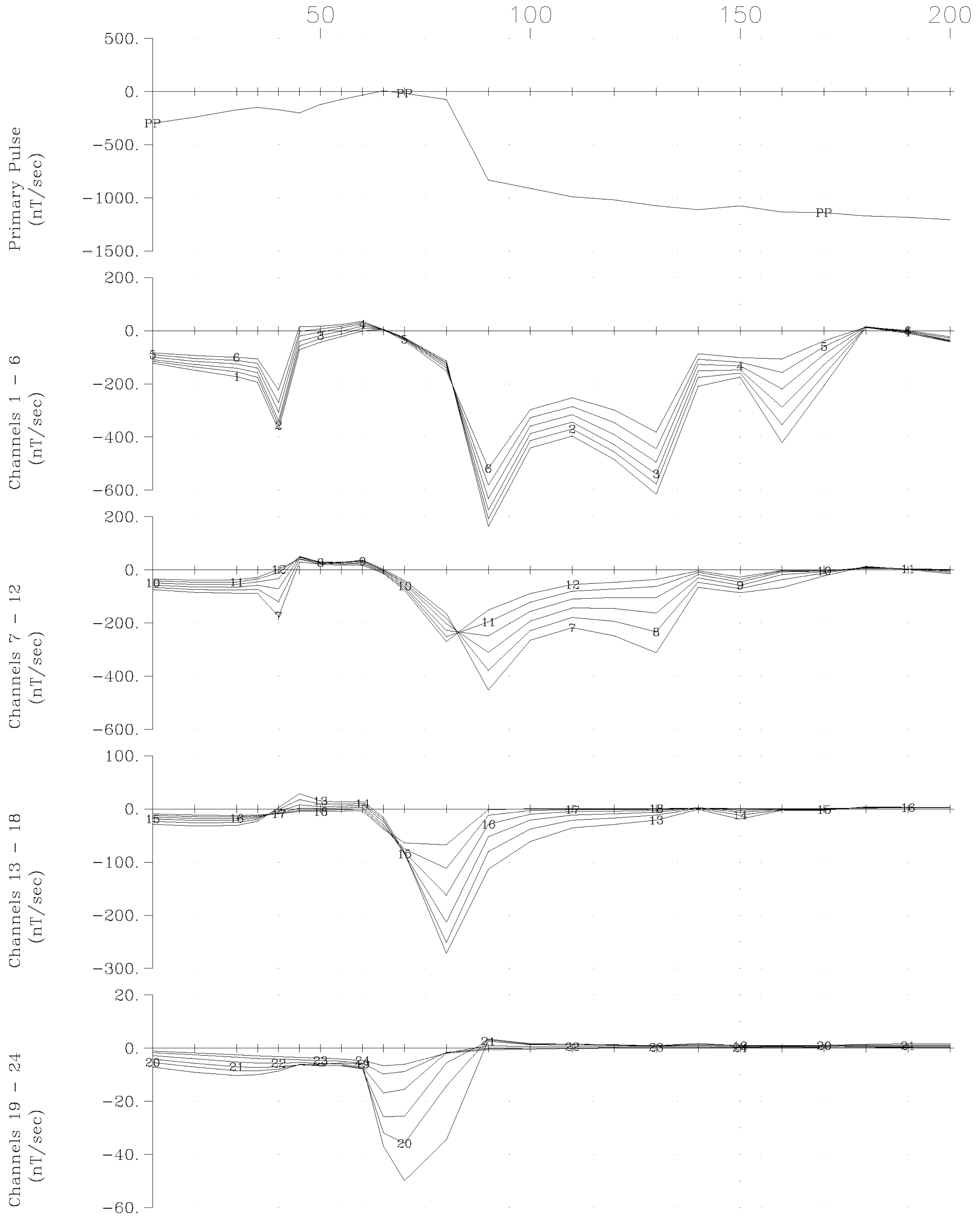
Pro Minerals Inc Discovery Lake Project

Loop 2, Hole P015 X Component

Crone Geophysics & Exploration Ltd.

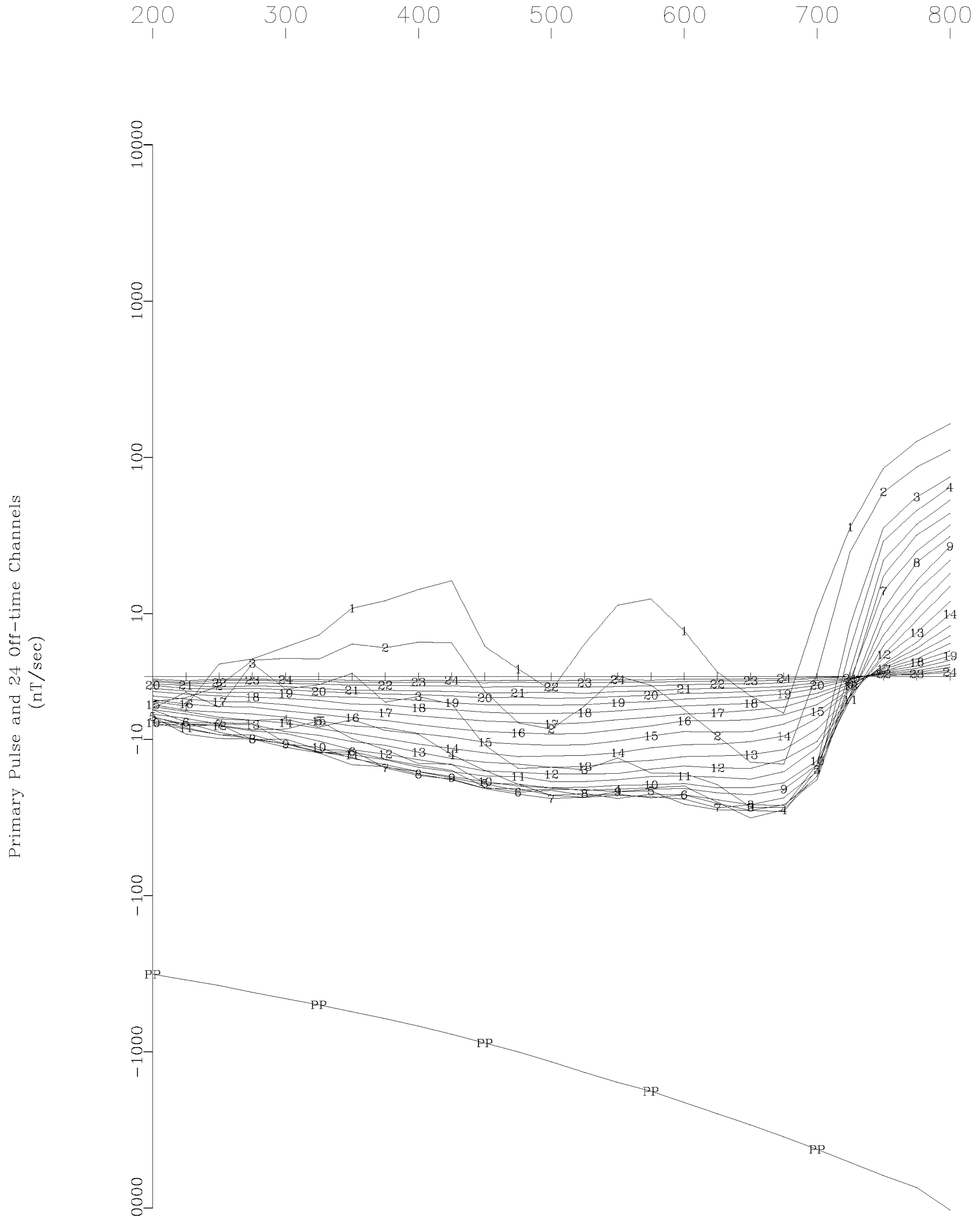


Pro Minerals Inc   Discovery Lake Project
Loop 2, Hole P015   Y Component
Crone Geophysics & Exploration Ltd.

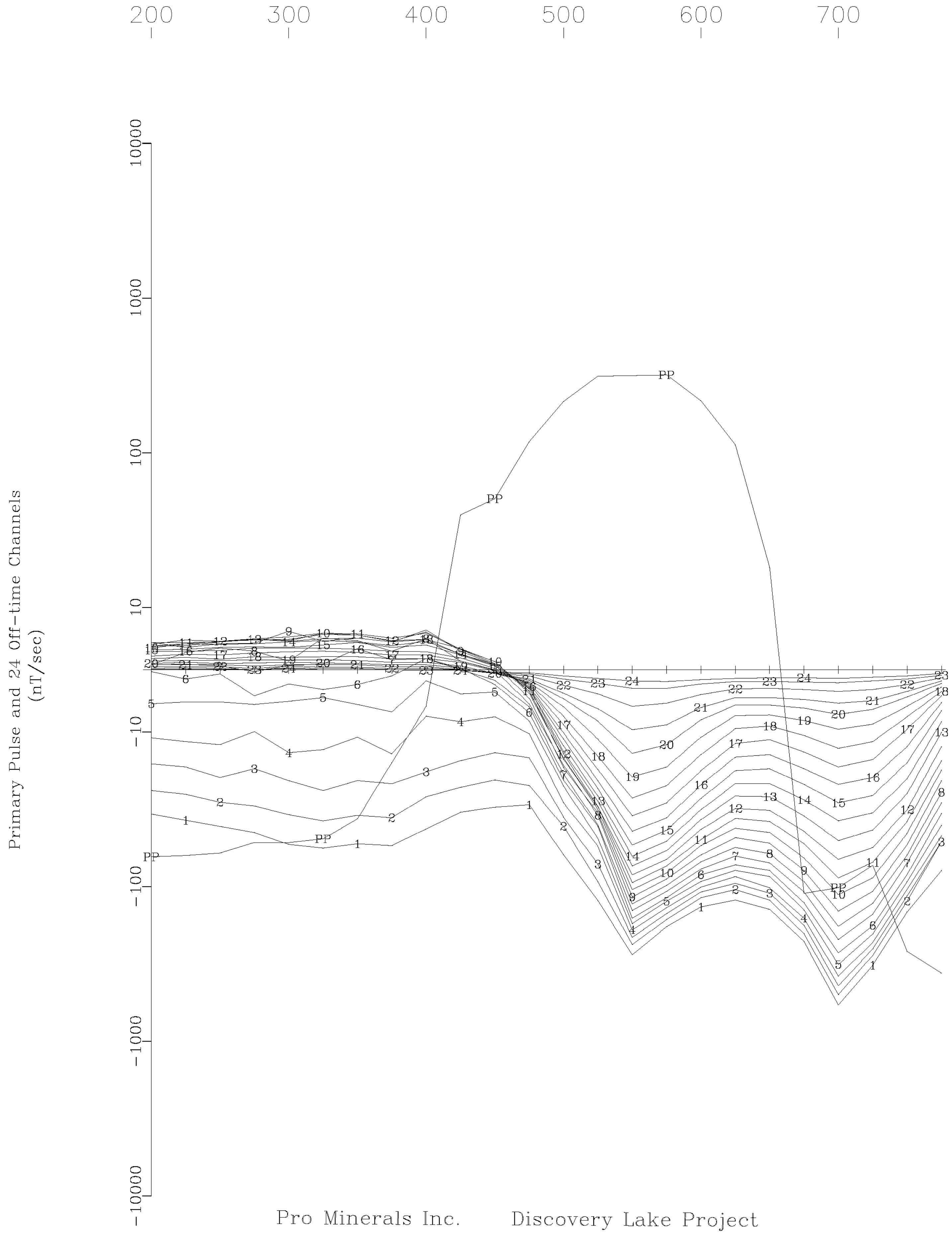


Pro Minerals Inc   Discovery Lake Project
Loop 2, Hole P015   Z Component
Crone Geophysics & Exploration Ltd.

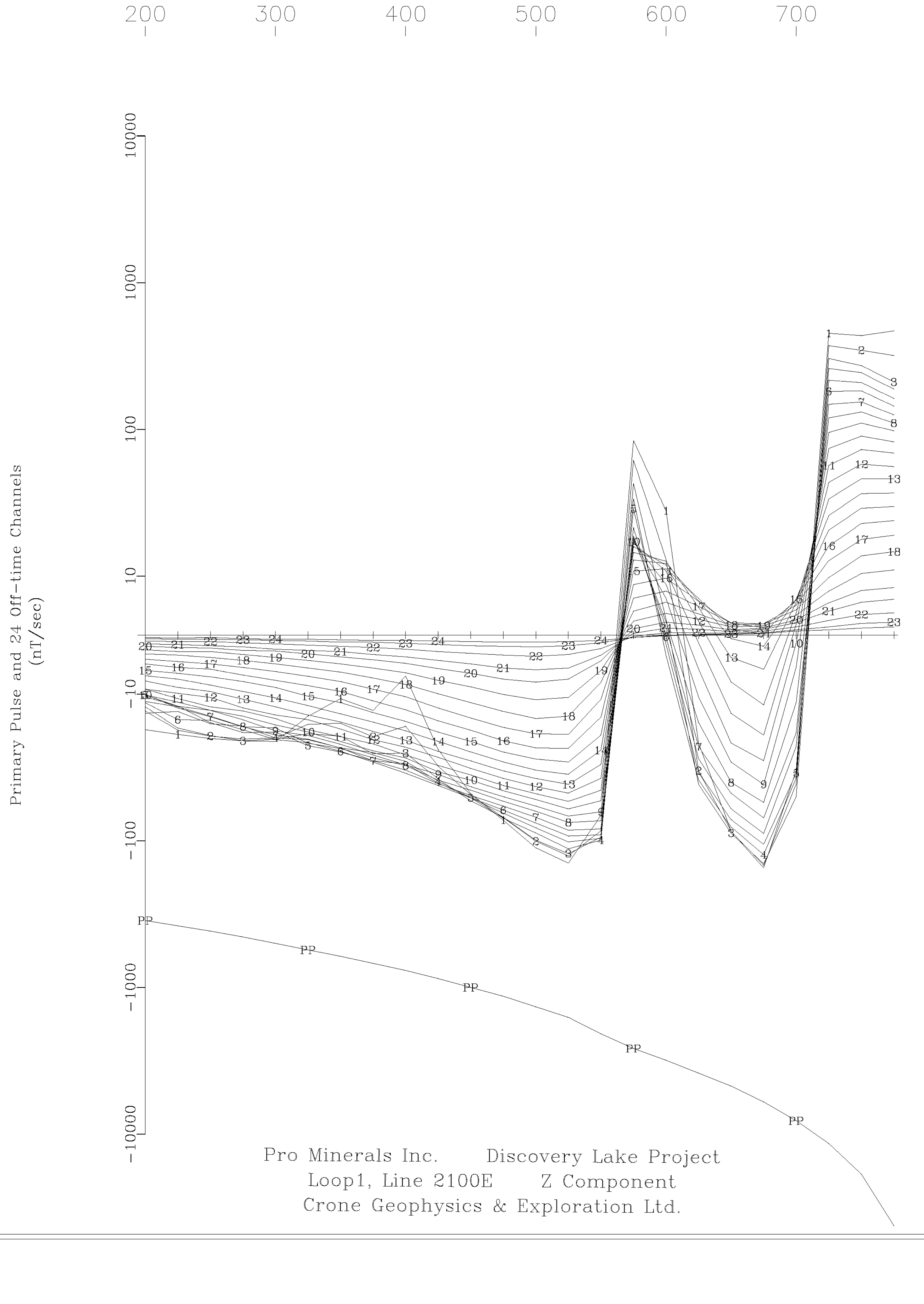
APPENDIX III:
PULSE EM DATA PROFILES (LIN-LOG SCALE)



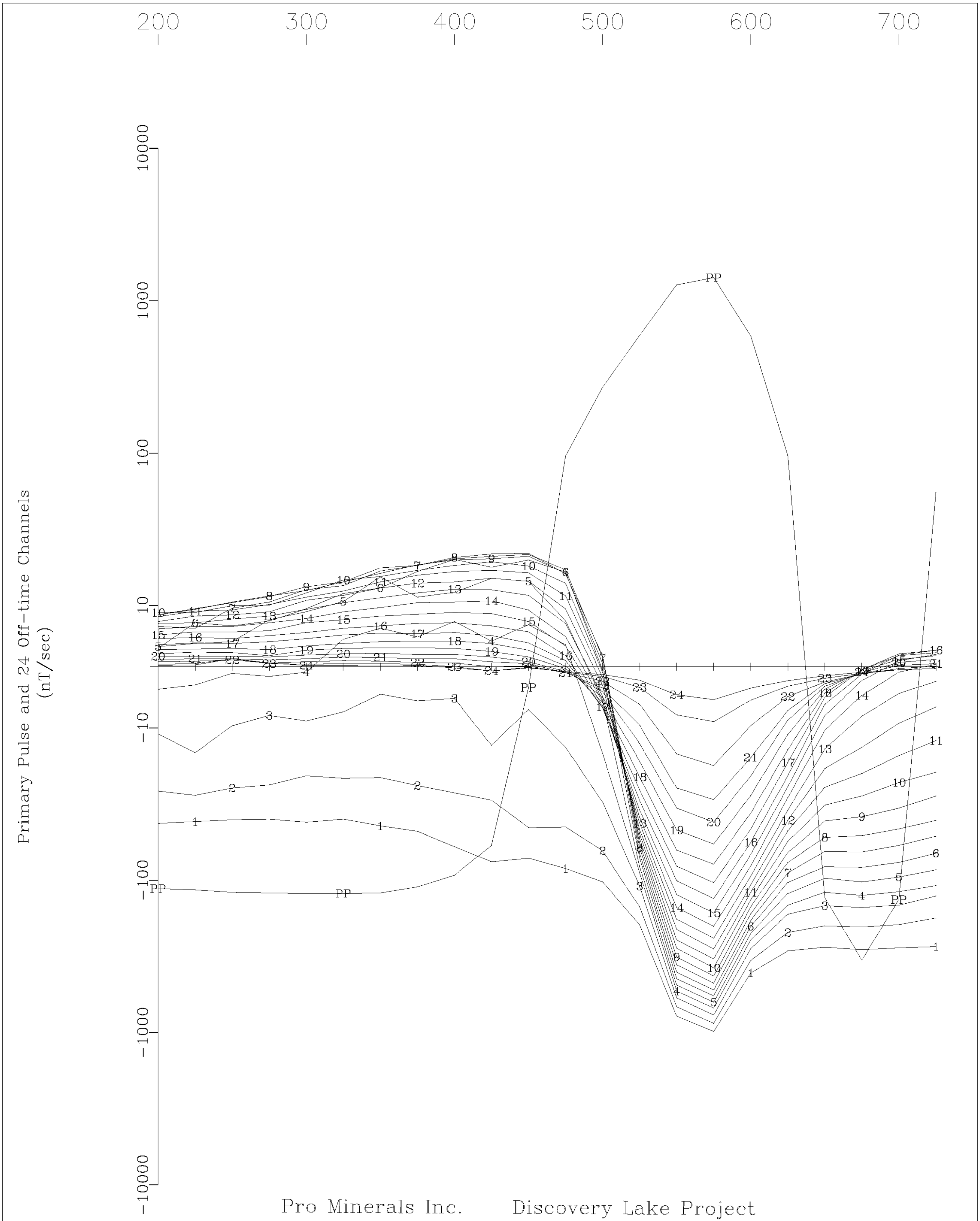
Pro Minerals Inc. Discovery Lake Project
Loop1, Line 2000E Z Component
Crone Geophysics & Exploration Ltd.



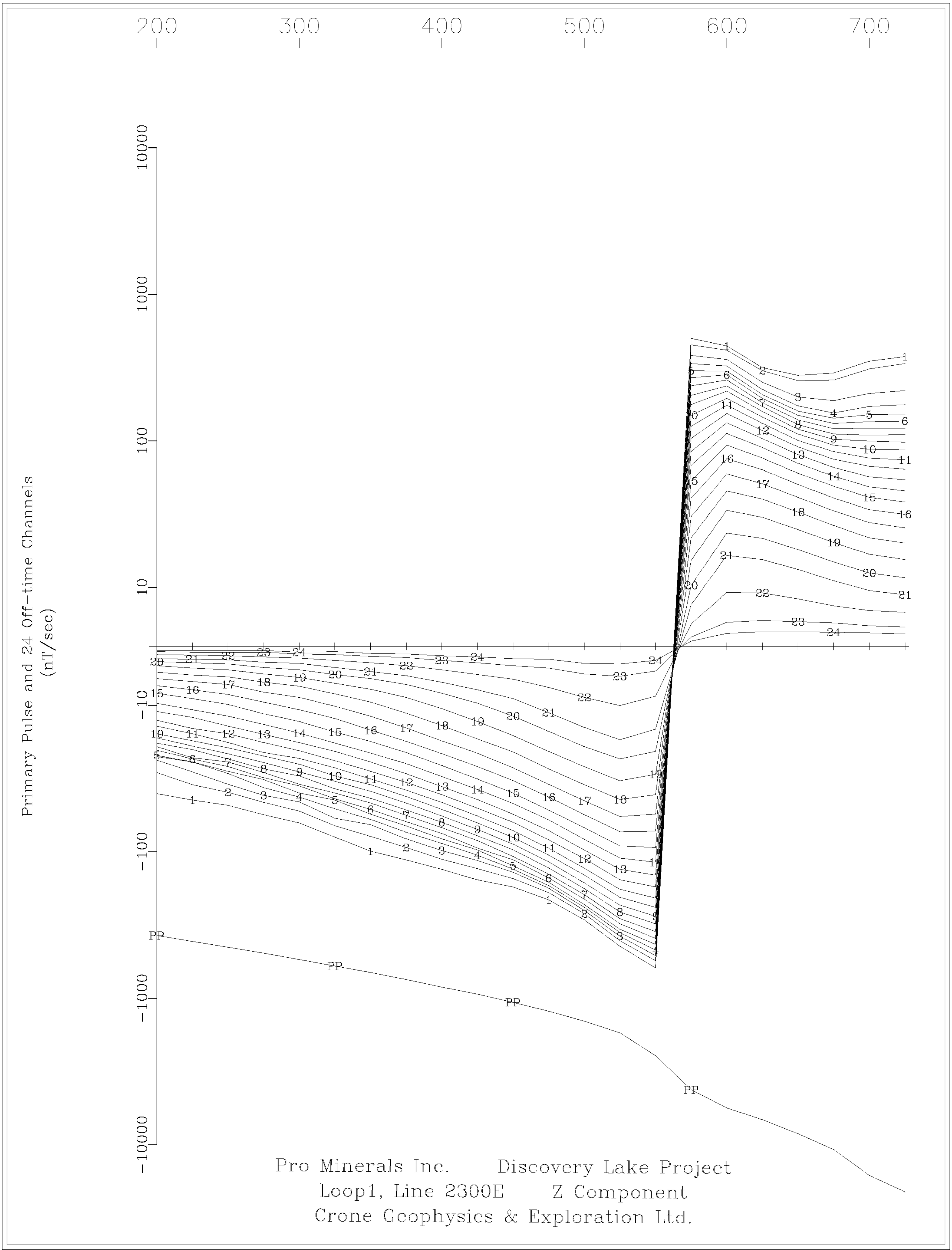
Pro Minerals Inc. Discovery Lake Project
Loop1, Line 2100E X Component
Crone Geophysics & Exploration Ltd.



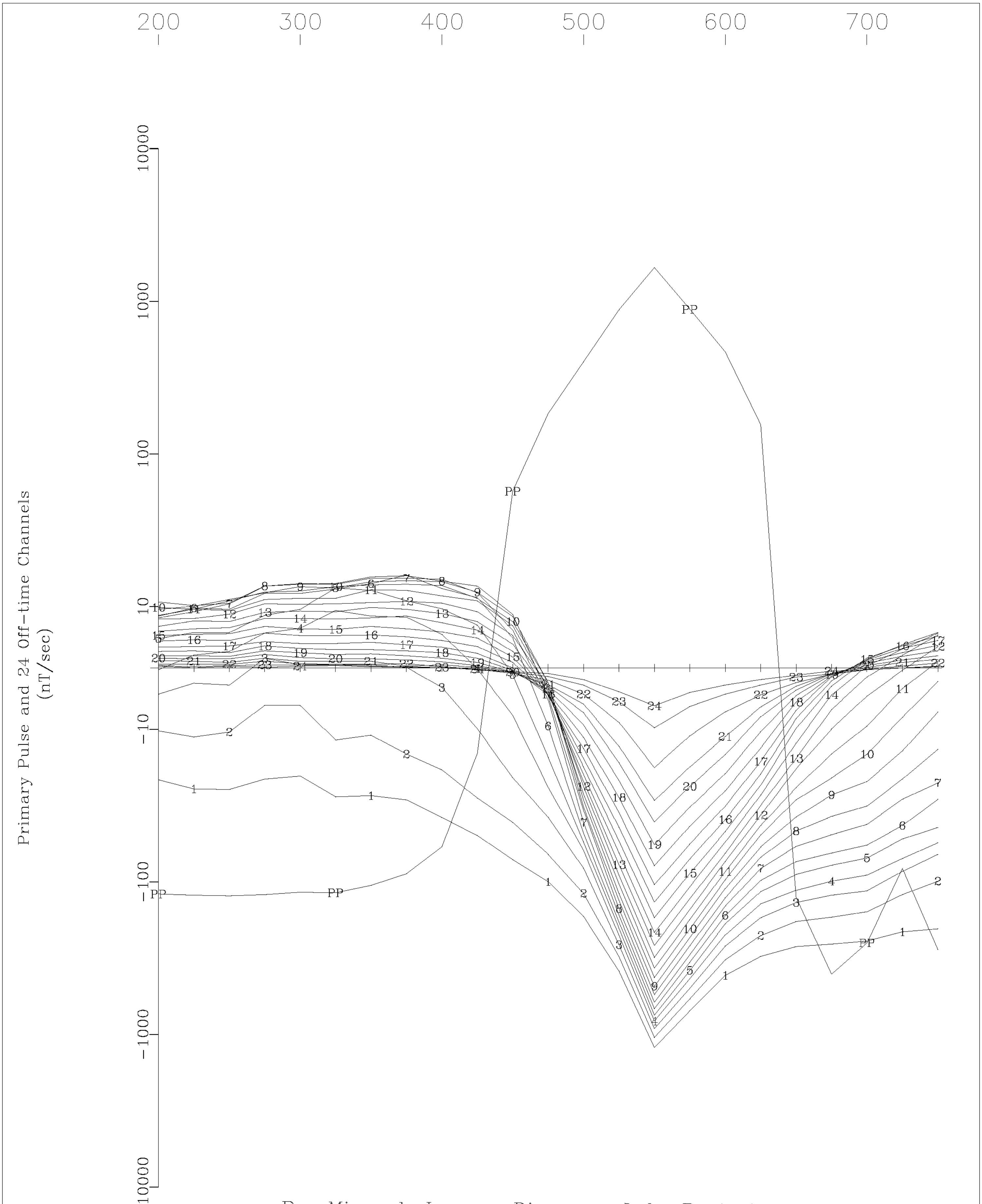
Pro Minerals Inc. Discovery Lake Project
Loop1, Line 2100E Z Component
Crone Geophysics & Exploration Ltd.



Pro Minerals Inc. Discovery Lake Project
Loop1, Line 2300E X Component
Crone Geophysics & Exploration Ltd.



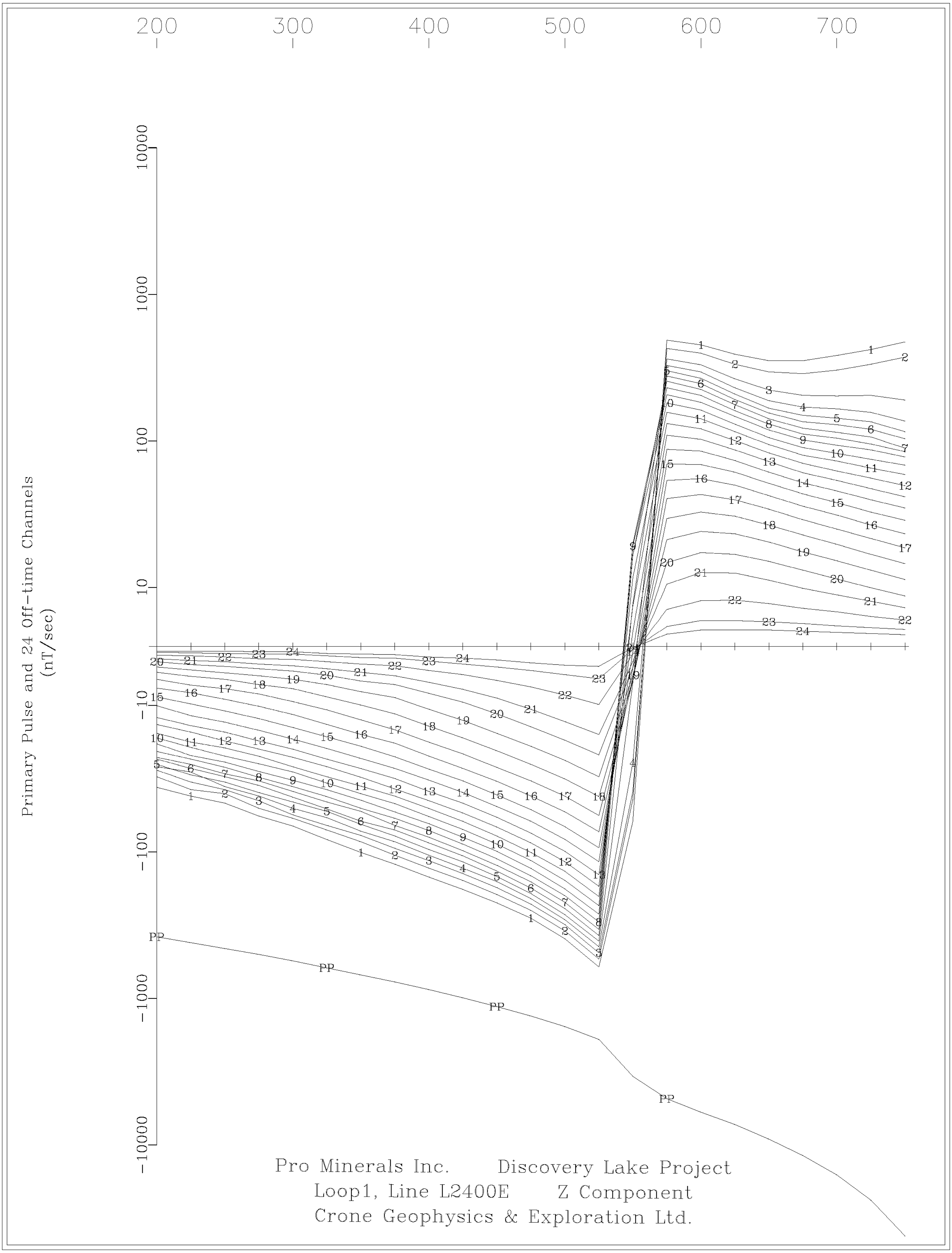
200
300
400
500
600
700
Primary Pulse and 24 Off-time Channels
(nT/sec)
10000
1000
100
10
-10
-100
-1000
-10000
PP
Pro Minerals Inc. Discovery Lake Project
Loop1, Line 2300E Z Component
Crone Geophysics & Exploration Ltd.



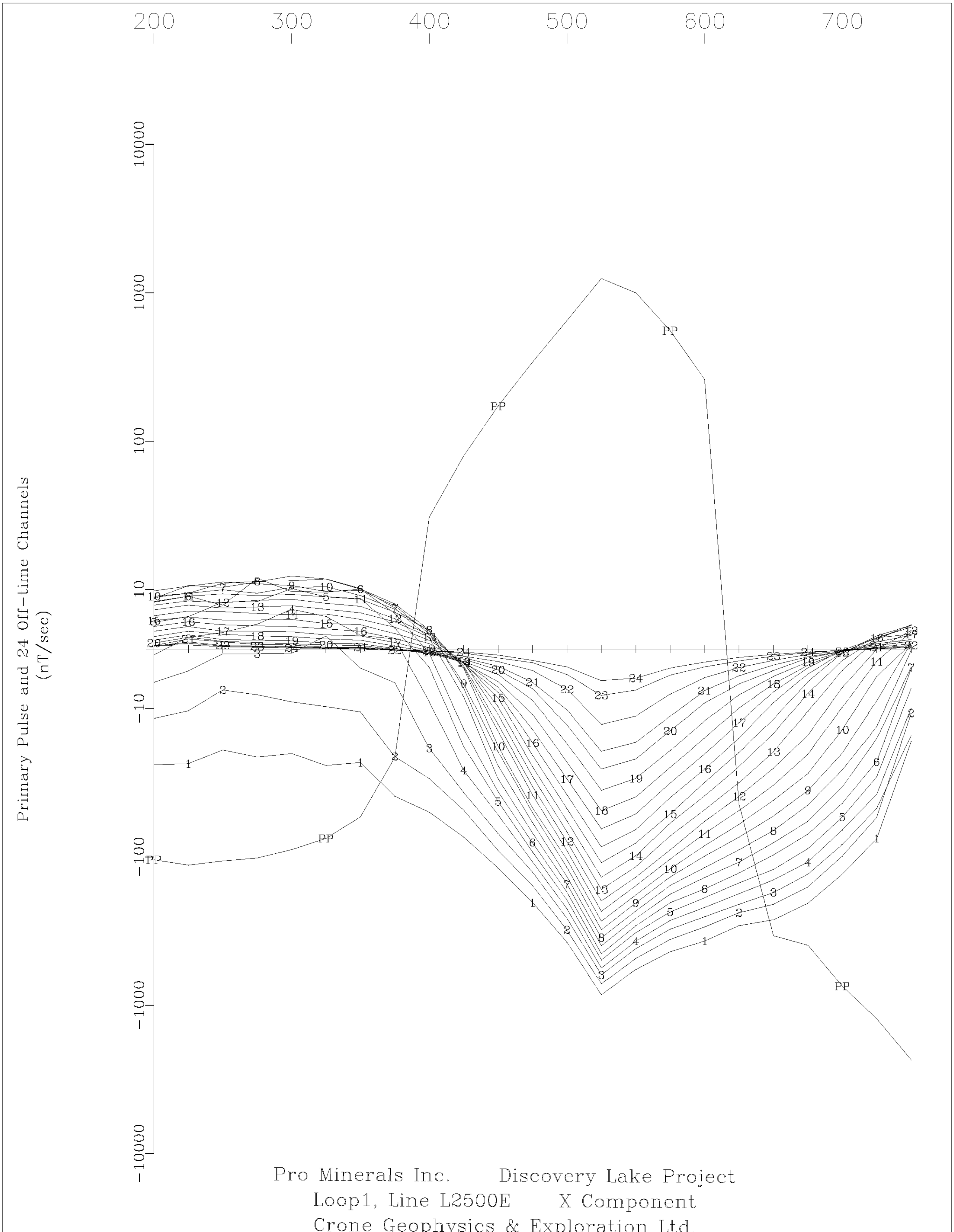
Pro Minerals Inc. Discovery Lake Project

Loop1, Line L2400E X Component

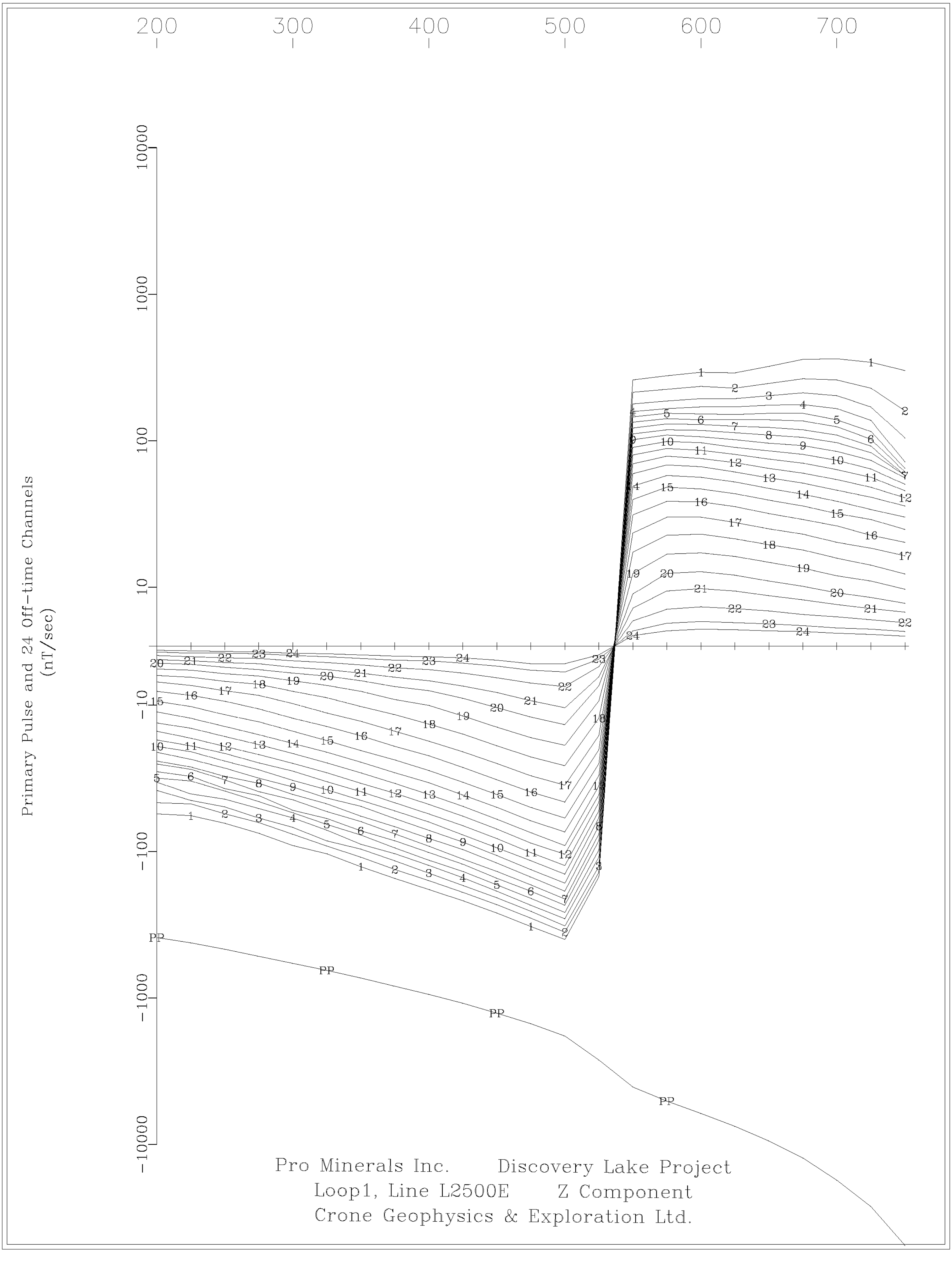
Crone Geophysics & Exploration Ltd.



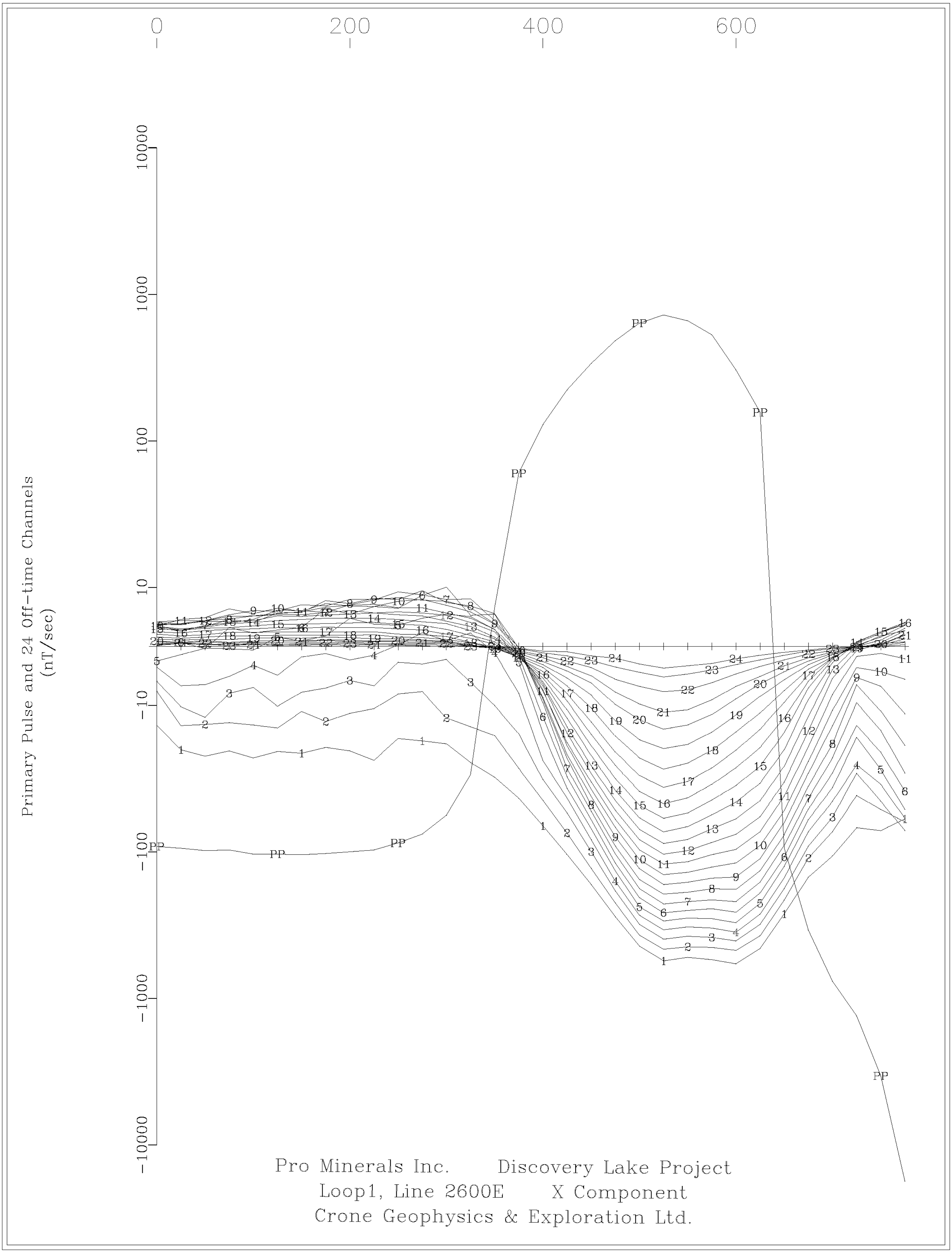
Pro Minerals Inc. Discovery Lake Project
Loop1, Line L2400E Z Component
Crone Geophysics & Exploration Ltd.

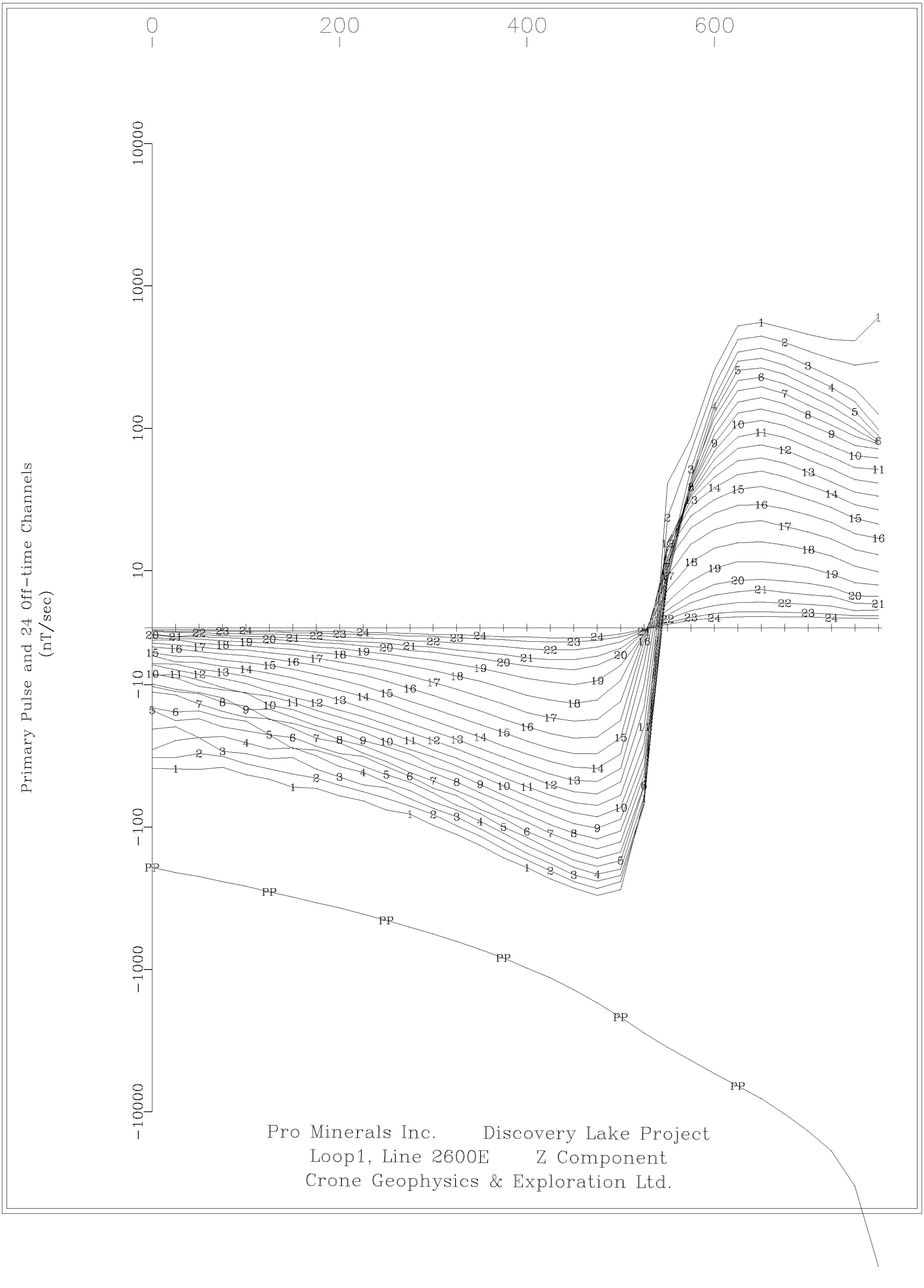


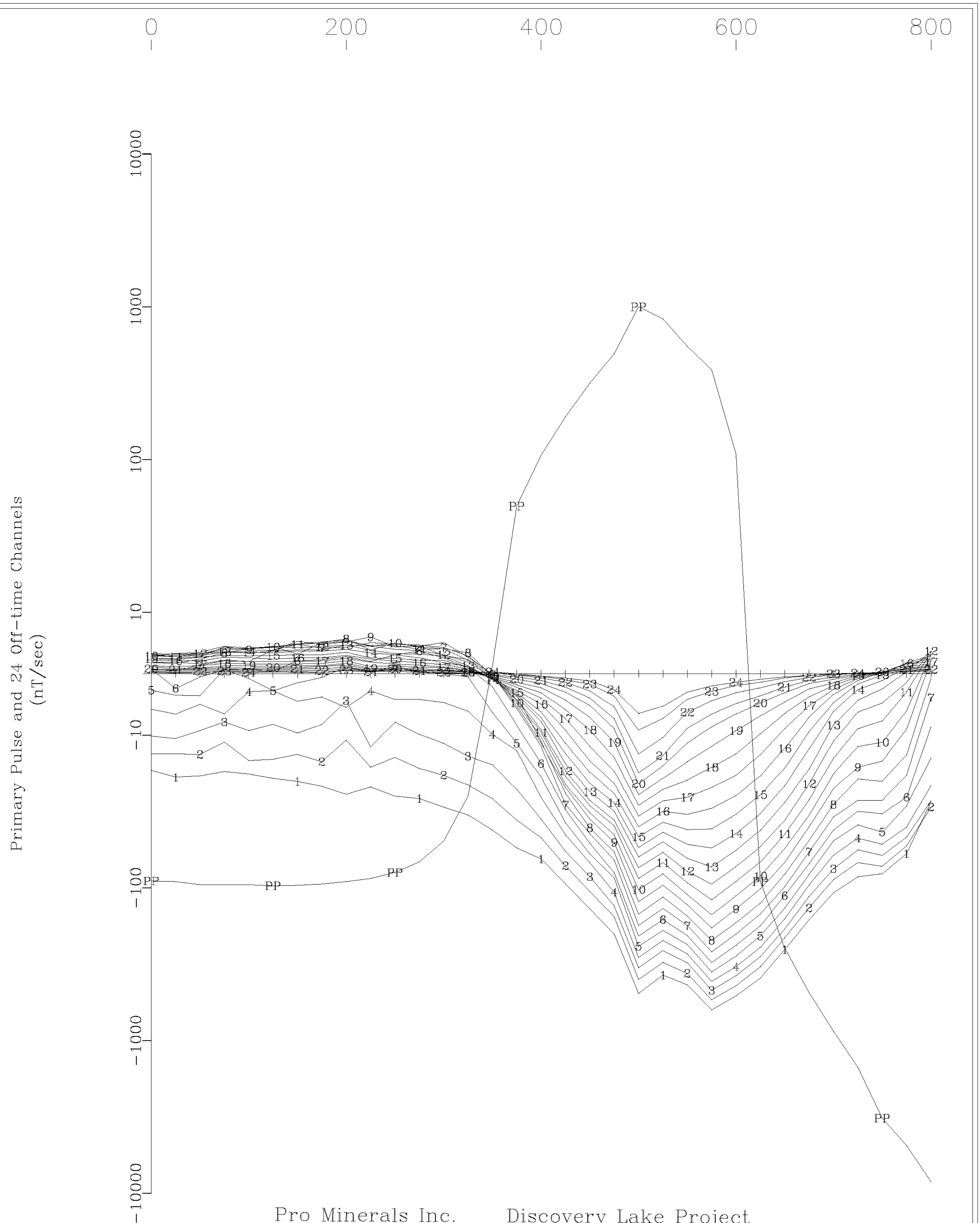
Pro Minerals Inc. Discovery Lake Project
Loop1, Line L2500E X Component
Crone Geophysics & Exploration Ltd.



Pro Minerals Inc. Discovery Lake Project
Loop1, Line L2500E Z Component
Crone Geophysics & Exploration Ltd.


0
200
400
600
10000
1000
100
10
-10
-100
-1000
-10000
Primary Pulse and 24 Off-time Channels
(nT/sec)
PP
Pro Minerals Inc.   Discovery Lake Project
Loop1, Line 2600E   X Component
Crone Geophysics & Exploration Ltd.

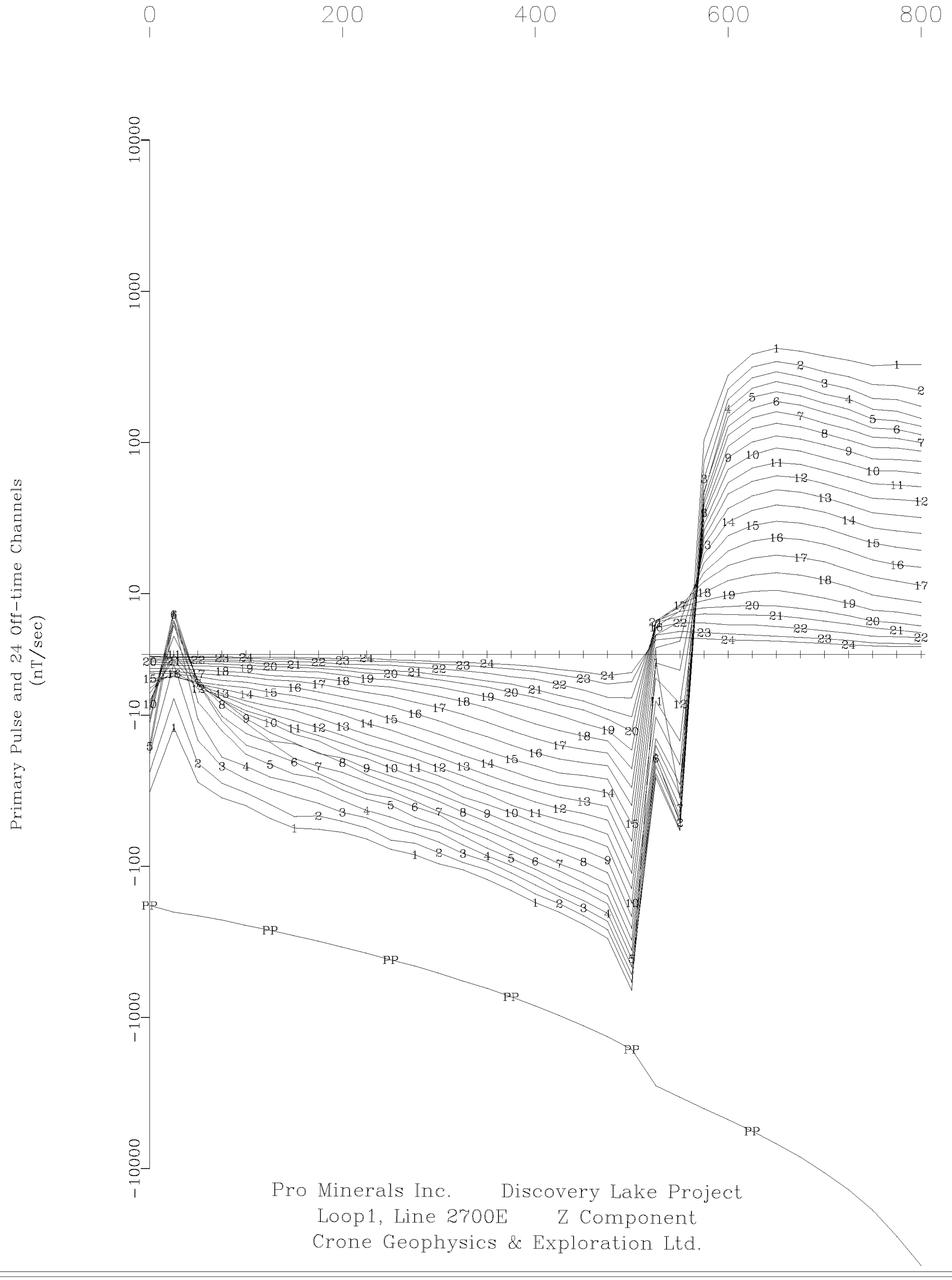

0
200
400
600
10000
1000
100
10
-10
-100
-1000
-10000
Primary Pulse and 24 Off-time Channels
(nT/sec)
Pro Minerals Inc.
Discovery Lake Project
Loop1, Line 2600E
Z Component
Crone Geophysics & Exploration Ltd.



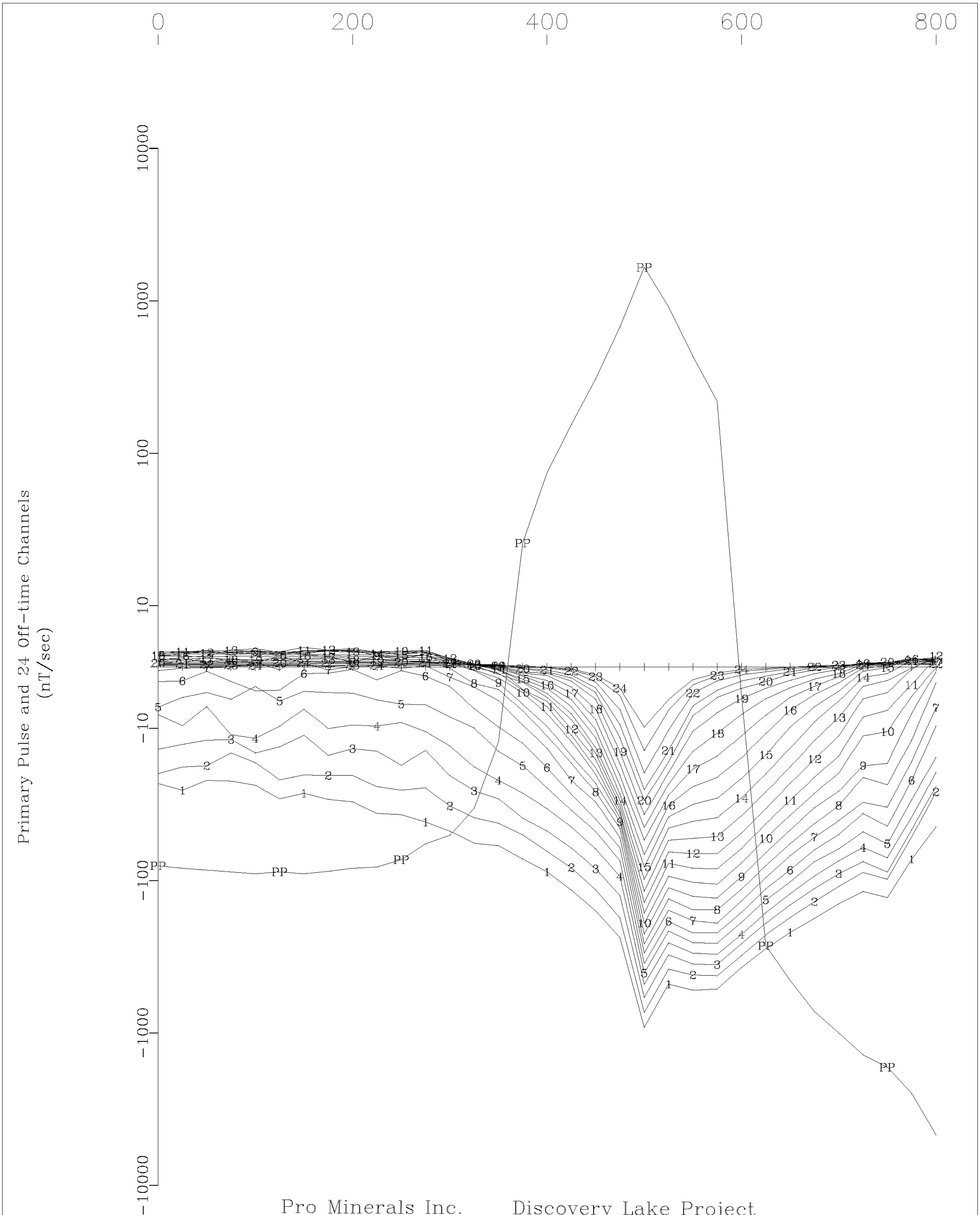
Pro Minerals Inc. Discovery Lake Project

Loop1, Line 2700E X Component

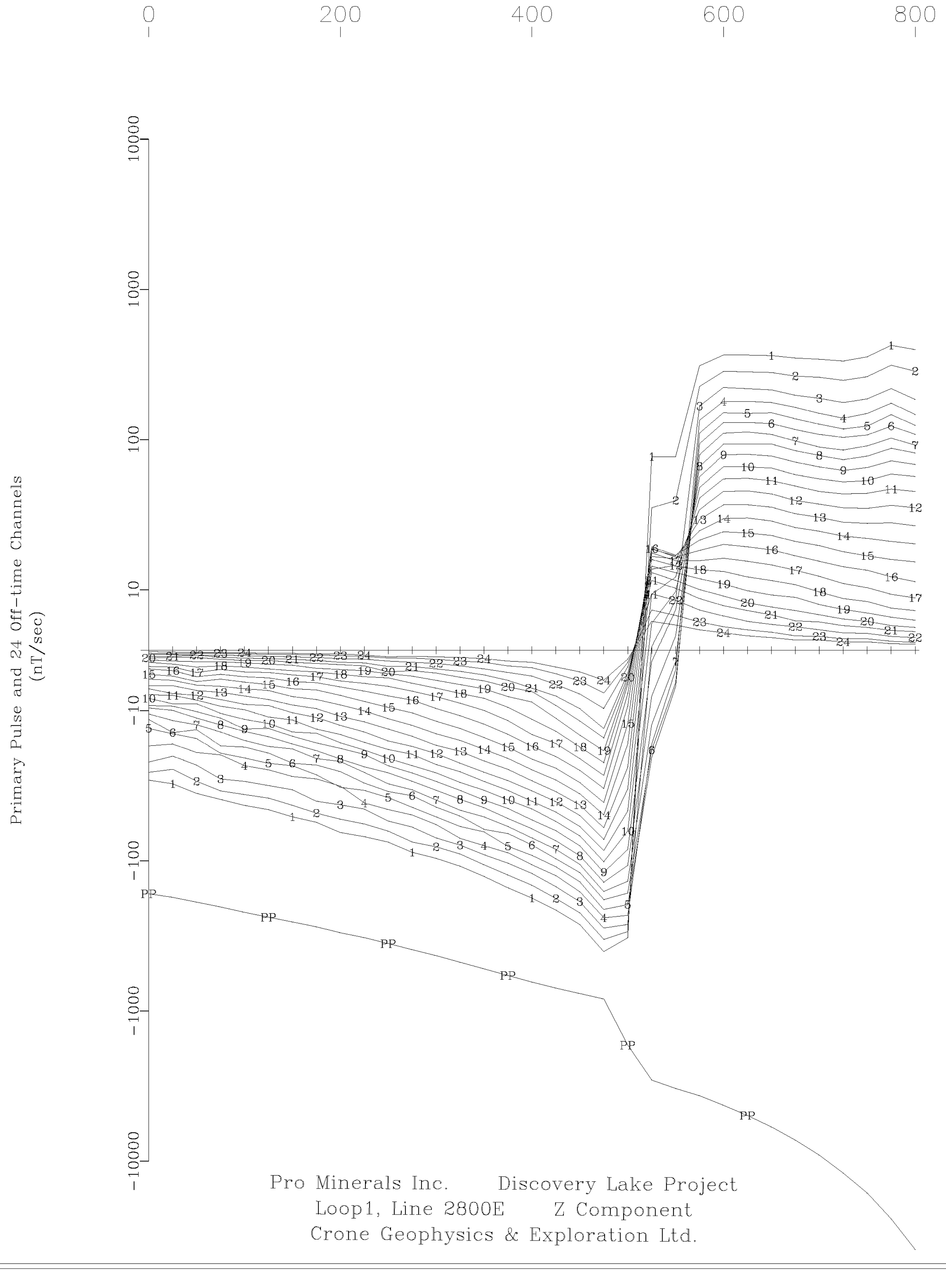
Crone Geophysics & Exploration Ltd.



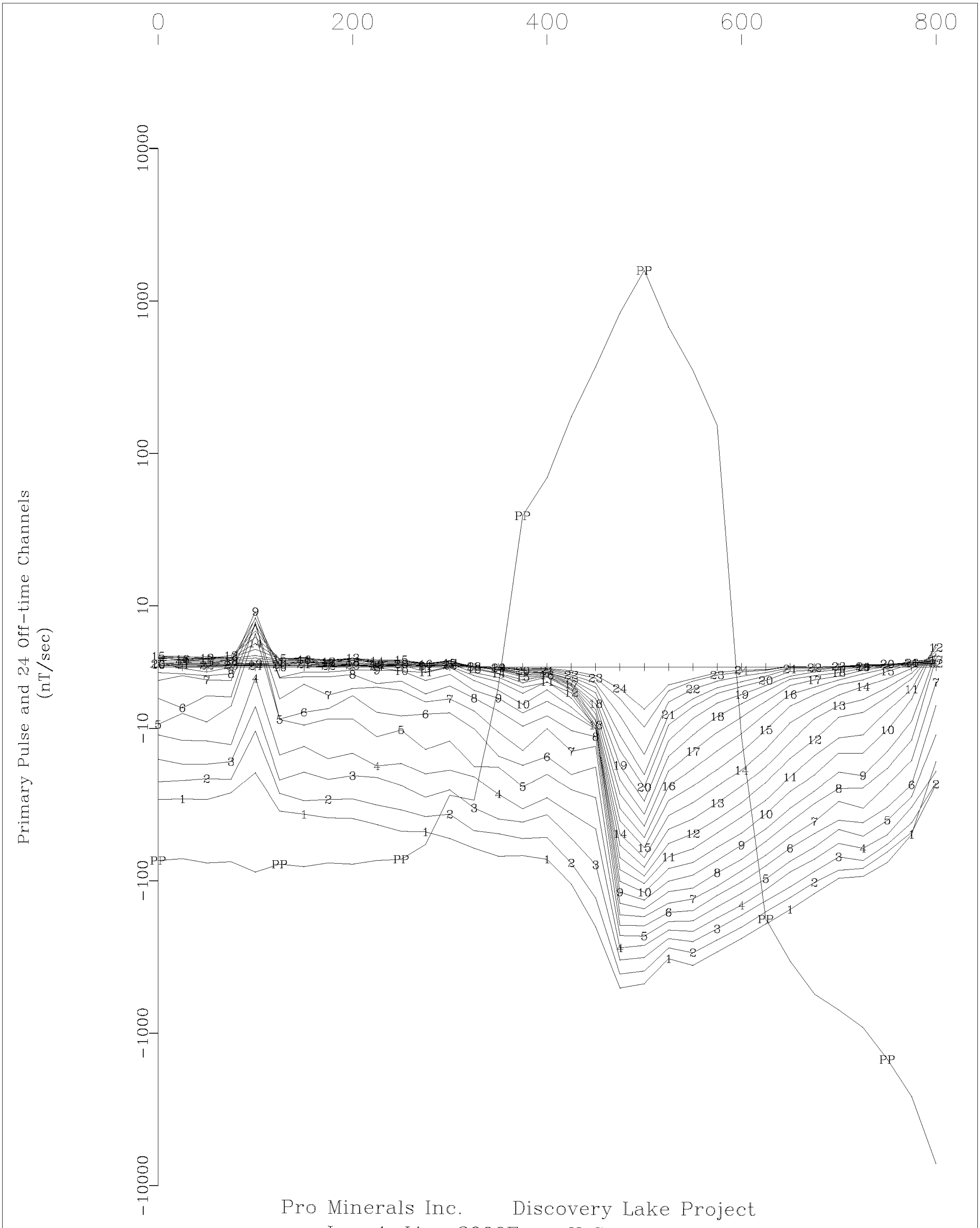
Pro Minerals Inc. Discovery Lake Project
Loop1, Line 2700E Z Component
Crone Geophysics & Exploration Ltd.



Pro Minerals Inc. Discovery Lake Project
Loop1, Line 2800E X Component
Crone Geophysics & Exploration Ltd.



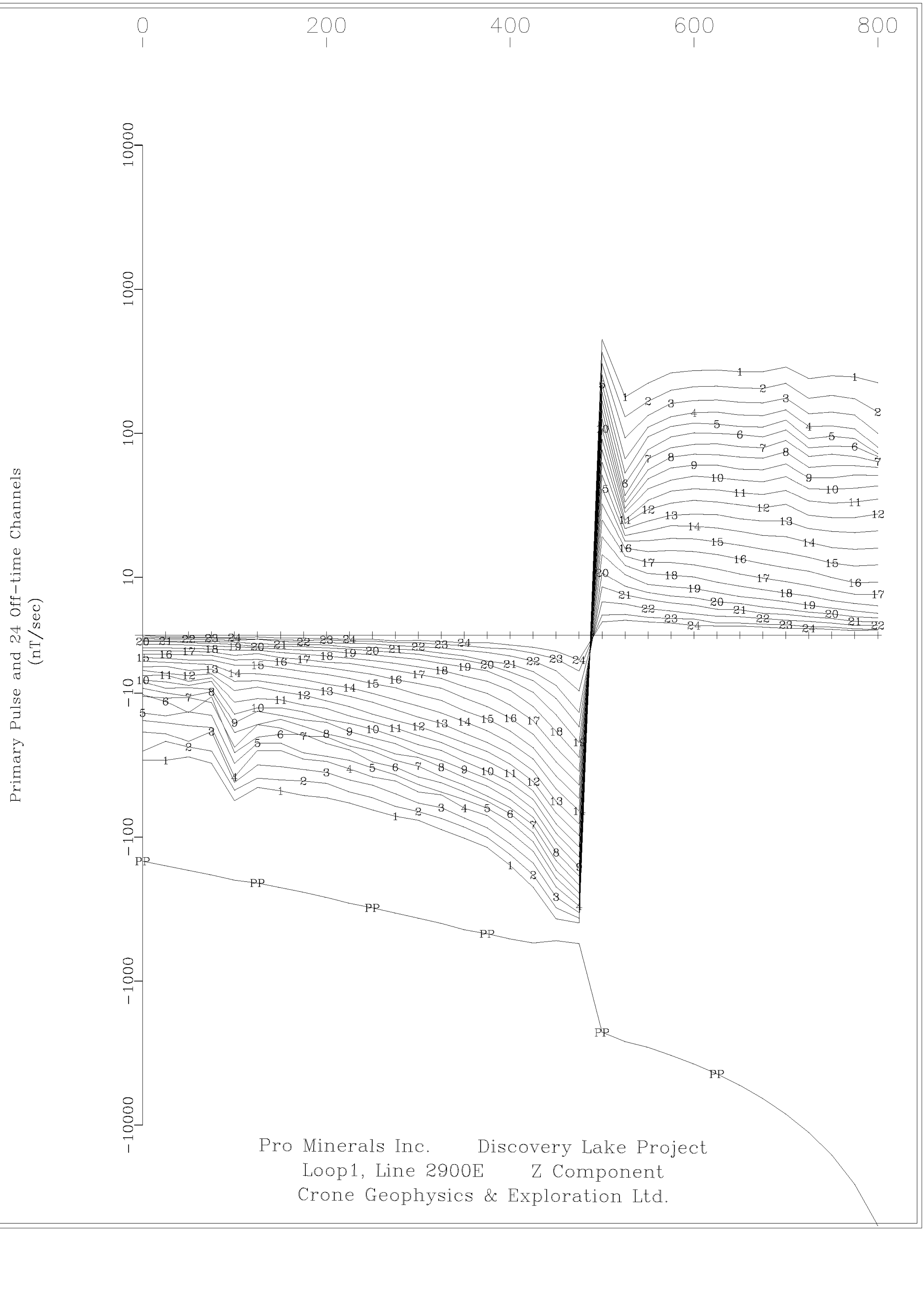
Pro Minerals Inc. Discovery Lake Project
Loop1, Line 2800E Z Component
Crone Geophysics & Exploration Ltd.



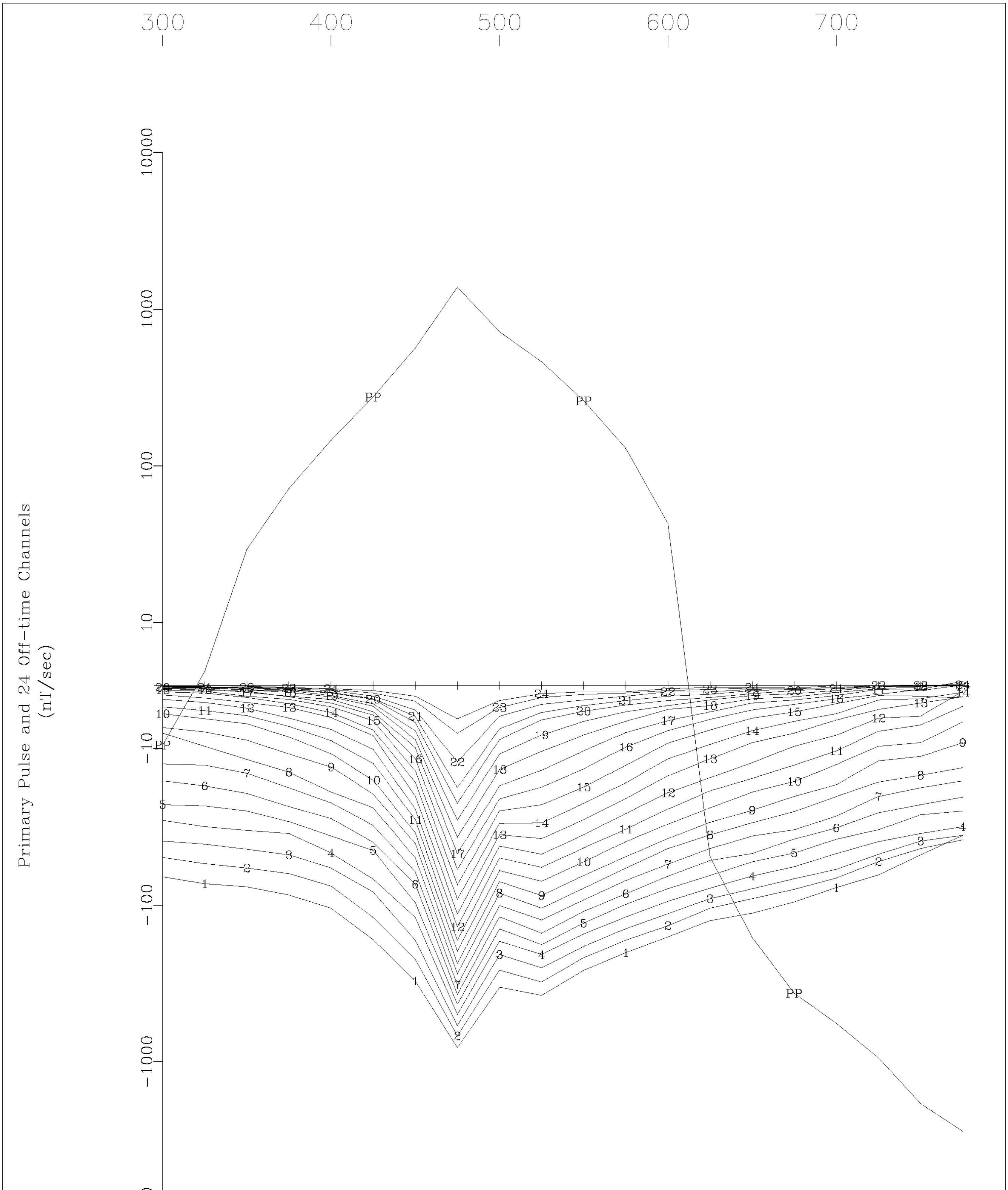
Pro Minerals Inc. Discovery Lake Project

Loop1, Line 2900E X Component

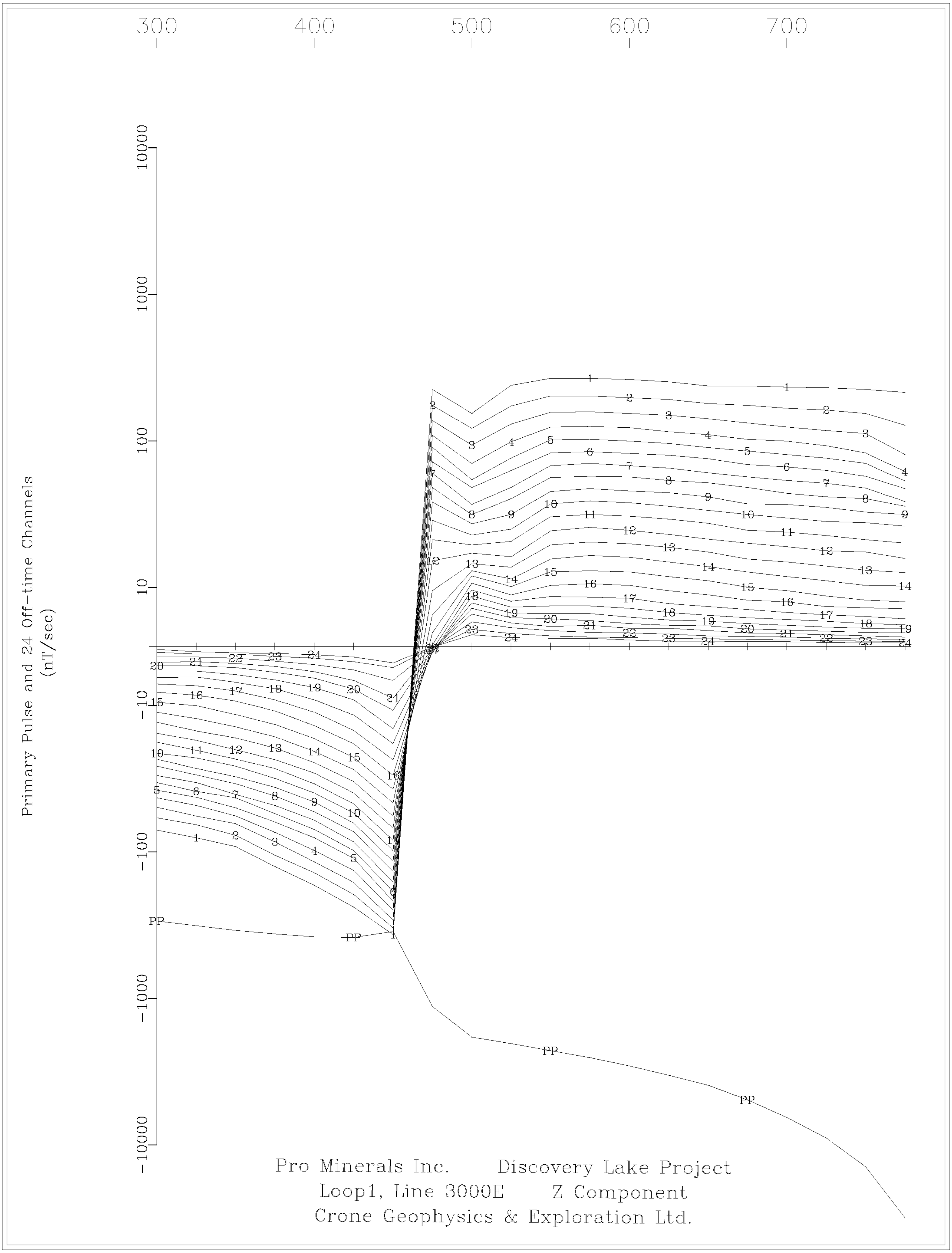
Crone Geophysics & Exploration Ltd.

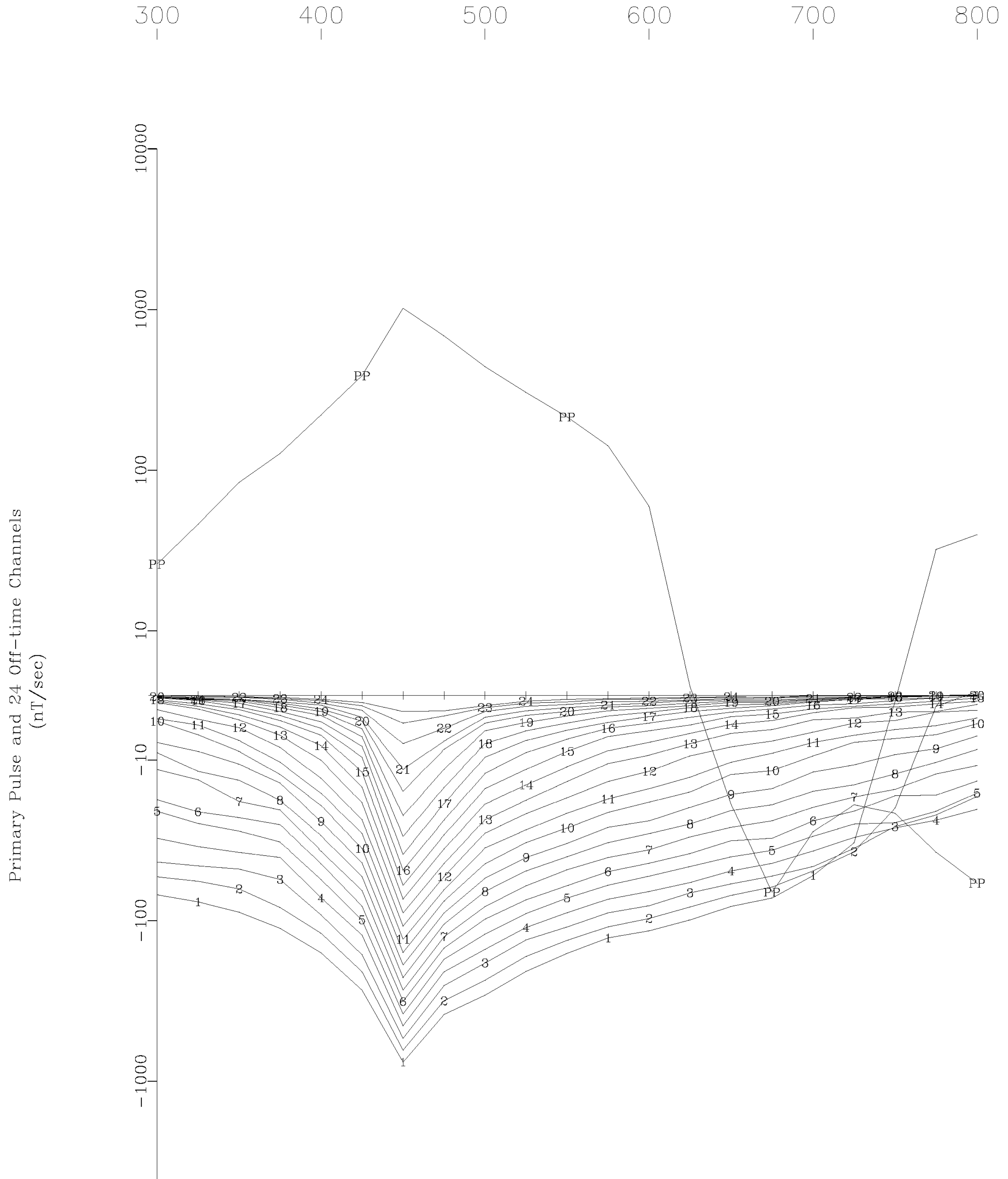


Pro Minerals Inc. Discovery Lake Project
Loop1, Line 2900E Z Component
Crone Geophysics & Exploration Ltd.

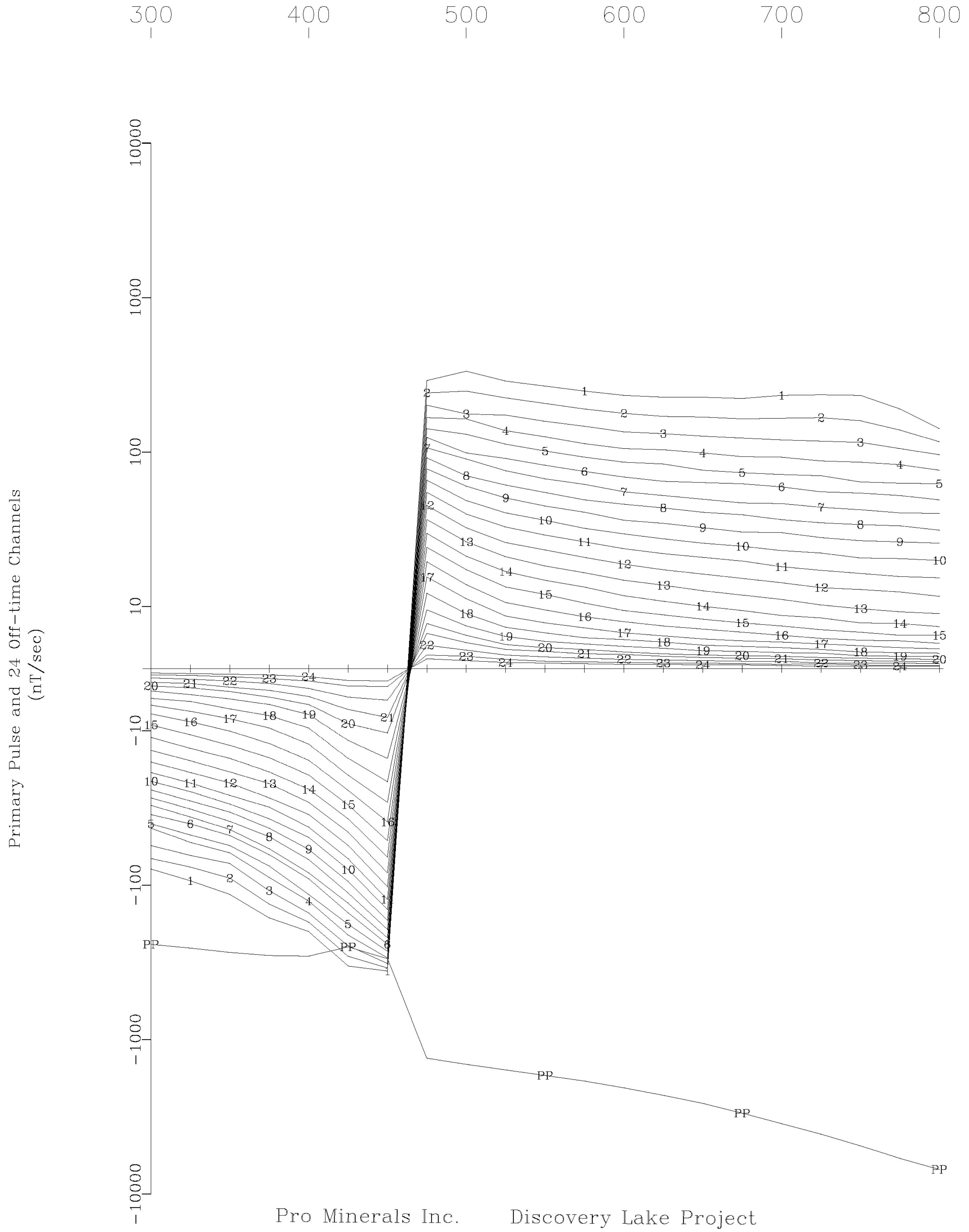


Pro Minerals Inc. Discovery Lake Project
Loop1, Line 3000E X Component
Crone Geophysics & Exploration Ltd.


300
400
500
600
700
10000
1000
100
10
-10
-100
-1000
-10000
Primary Pulse and 24 Off-time Channels
(nT/sec)
PP
Pro Minerals Inc.
Discovery Lake Project
Loop1, Line 3000E
Z Component
Crone Geophysics & Exploration Ltd.



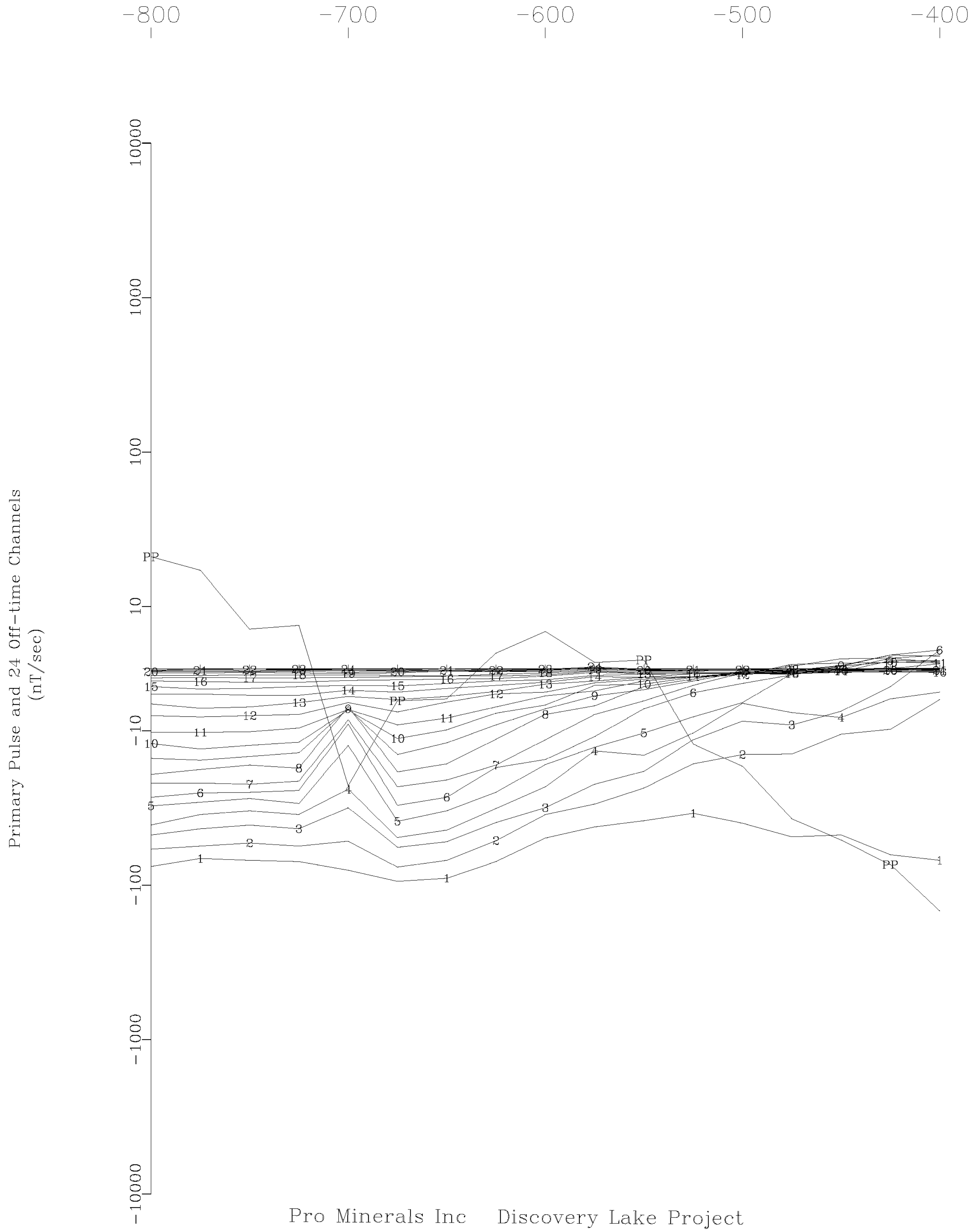
Pro Minerals Inc. Discovery Lake Project
Loop1, Line 3100E X Component
Crone Geophysics & Exploration Ltd.



Pro Minerals Inc. Discovery Lake Project

Loop1, Line 3100E Z Component

Crone Geophysics & Exploration Ltd.



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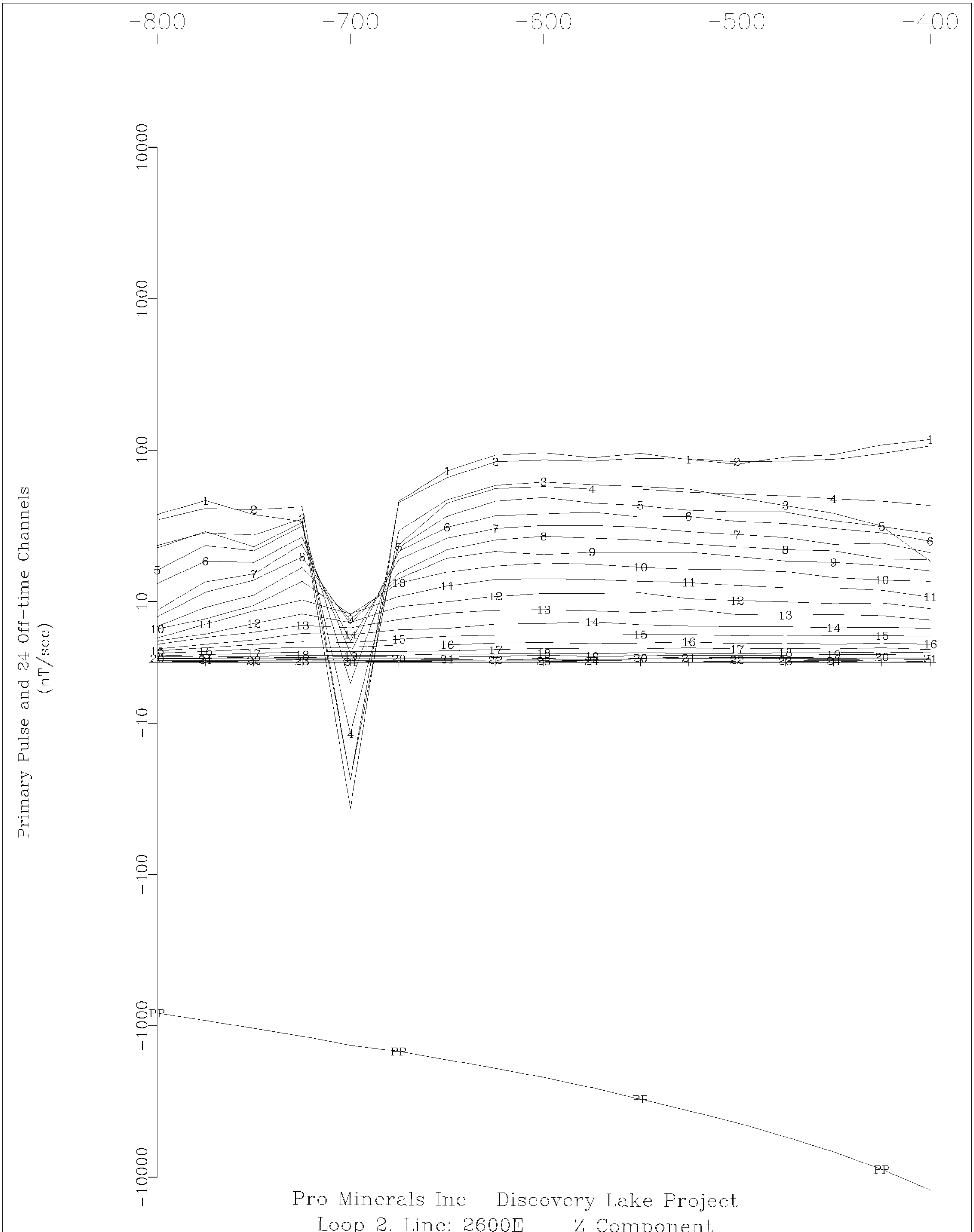
Crone Geophysics & Exploration Ltd.



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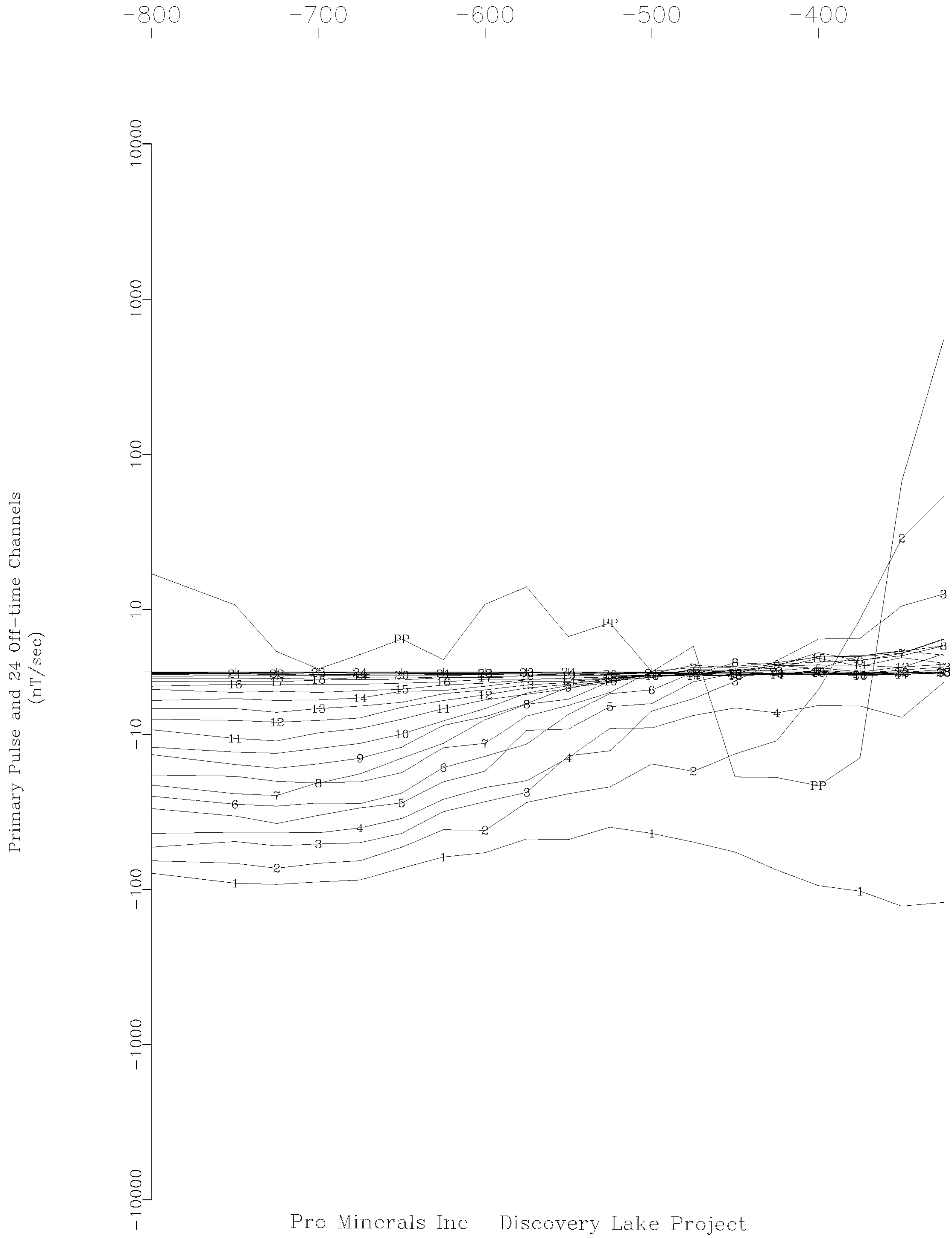

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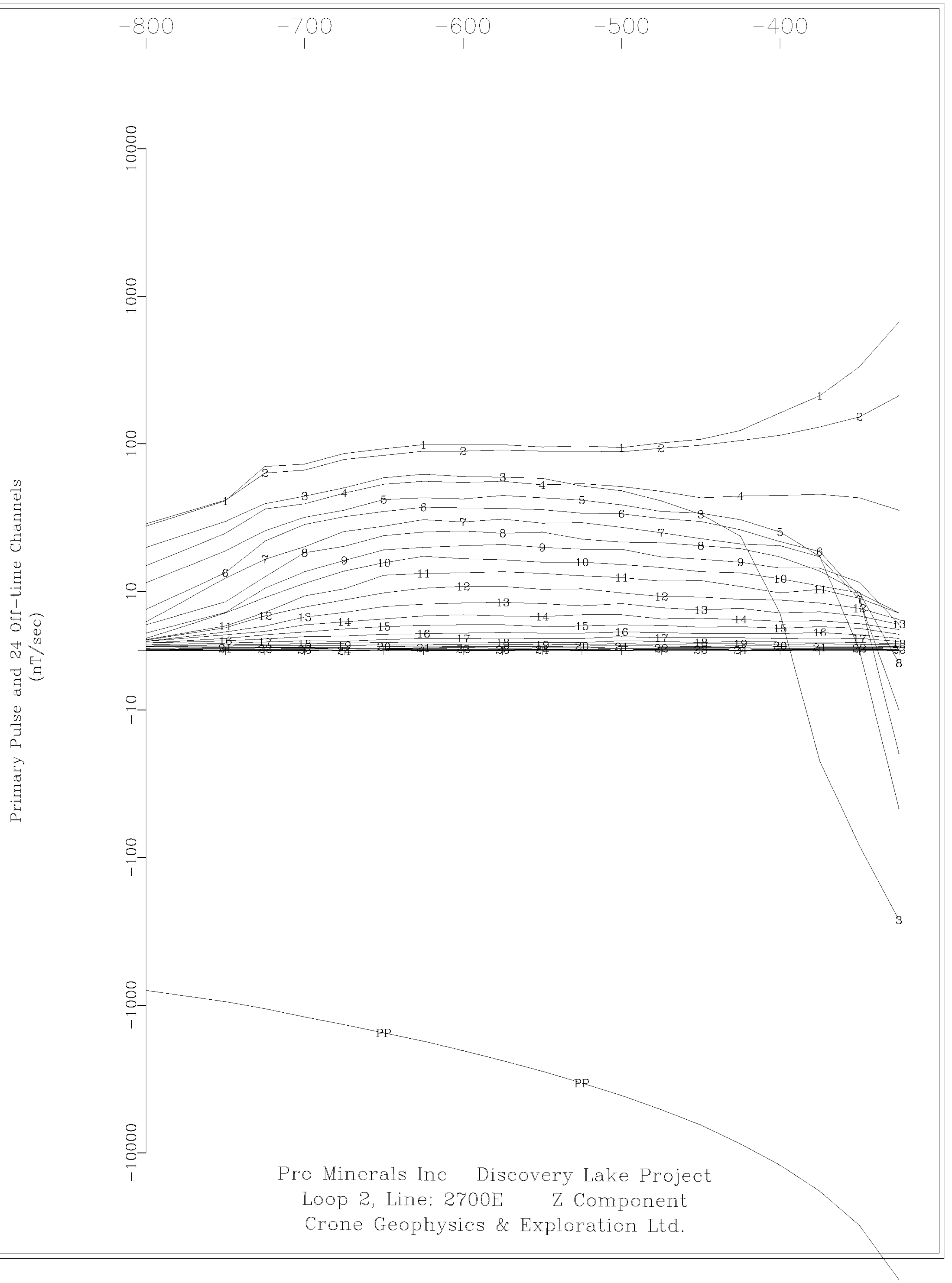
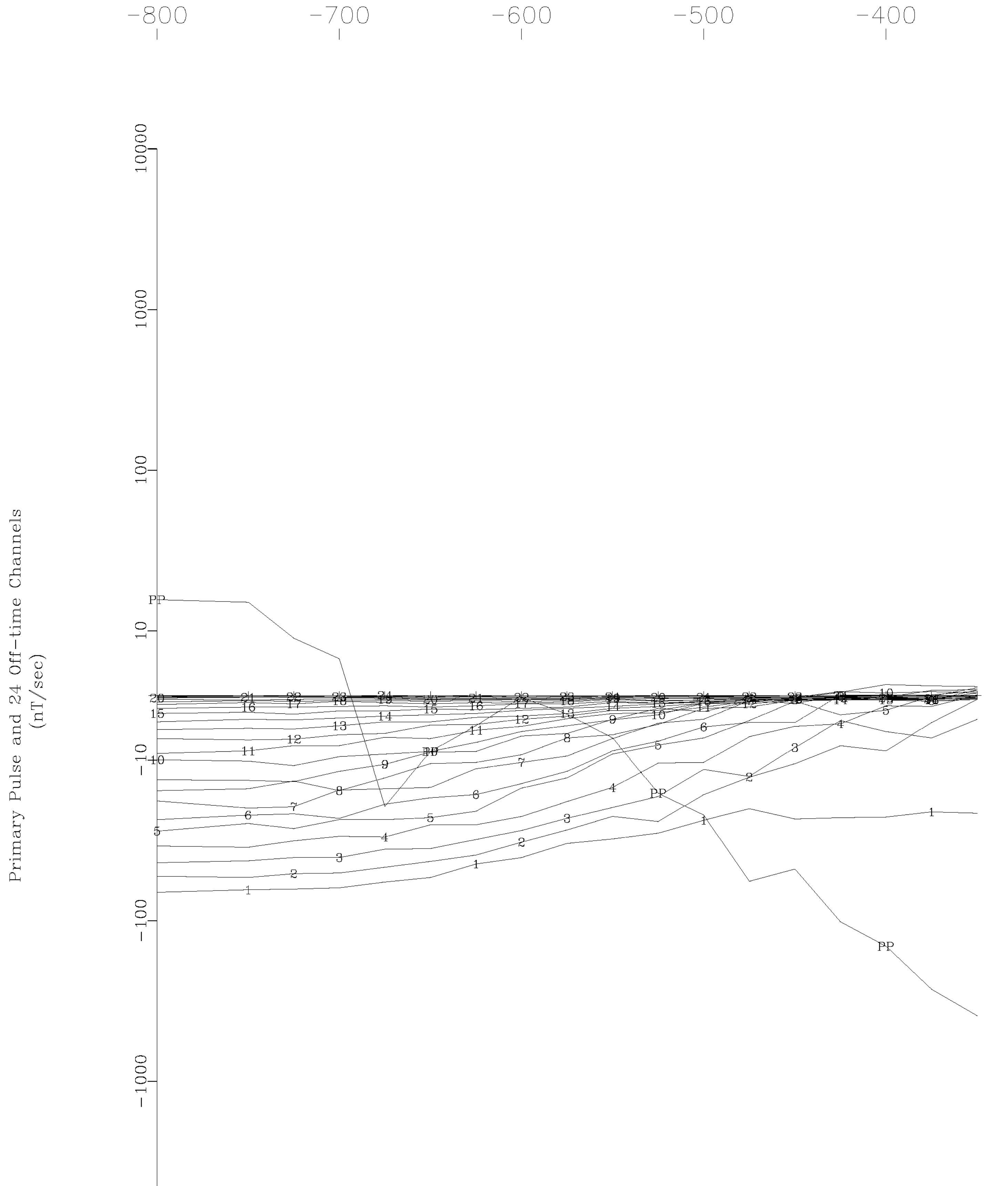

-800
-700
-600
-500
-400
10000
1000
100
10
-10
-100
-1000
-10000
Primary Pulse and 24 Off-time Channels
(nT/sec)
PP
Pro Minerals Inc   Discovery Lake Project
Loop 2, Line: 2700E   Z Component
Crone Geophysics & Exploration Ltd.



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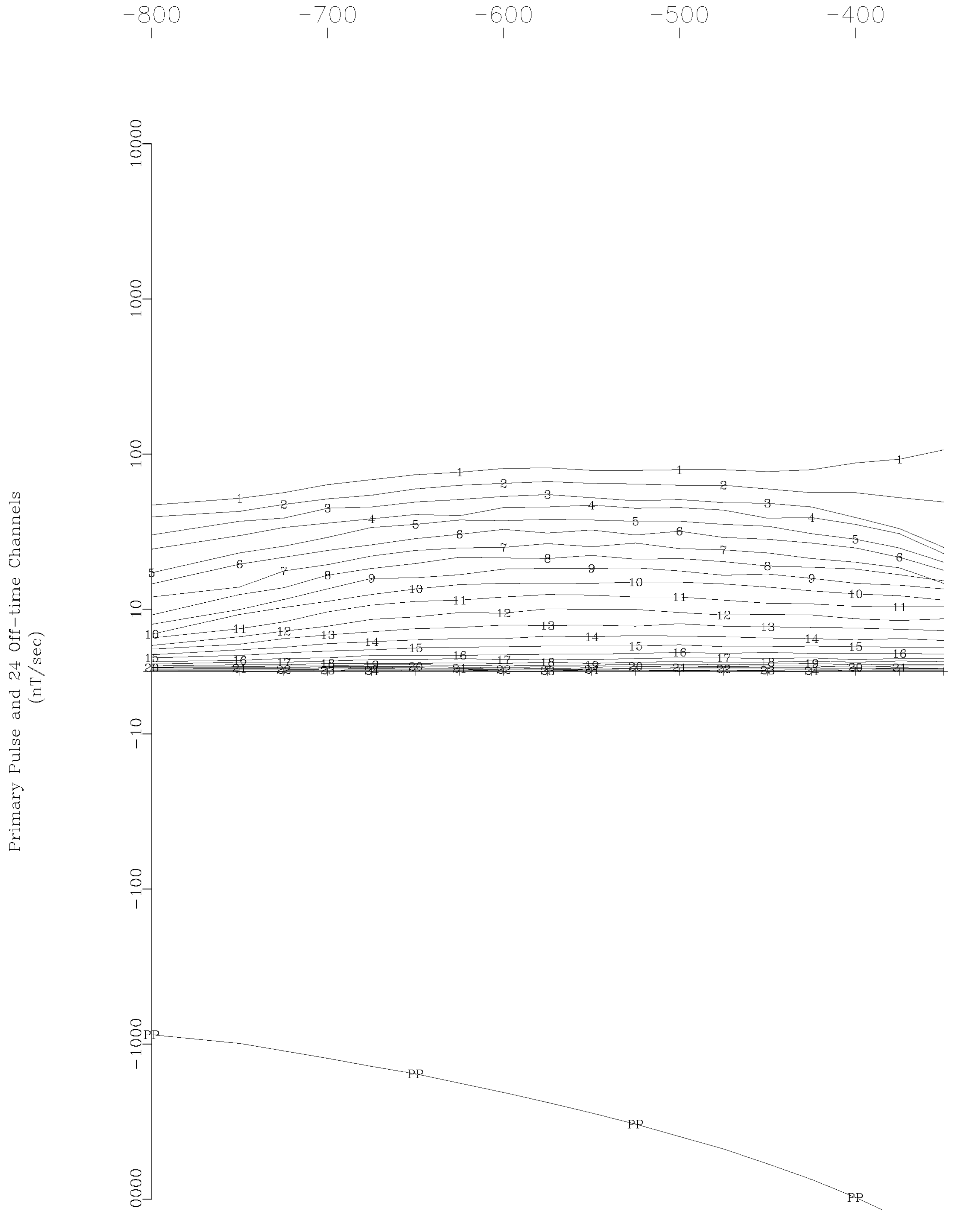
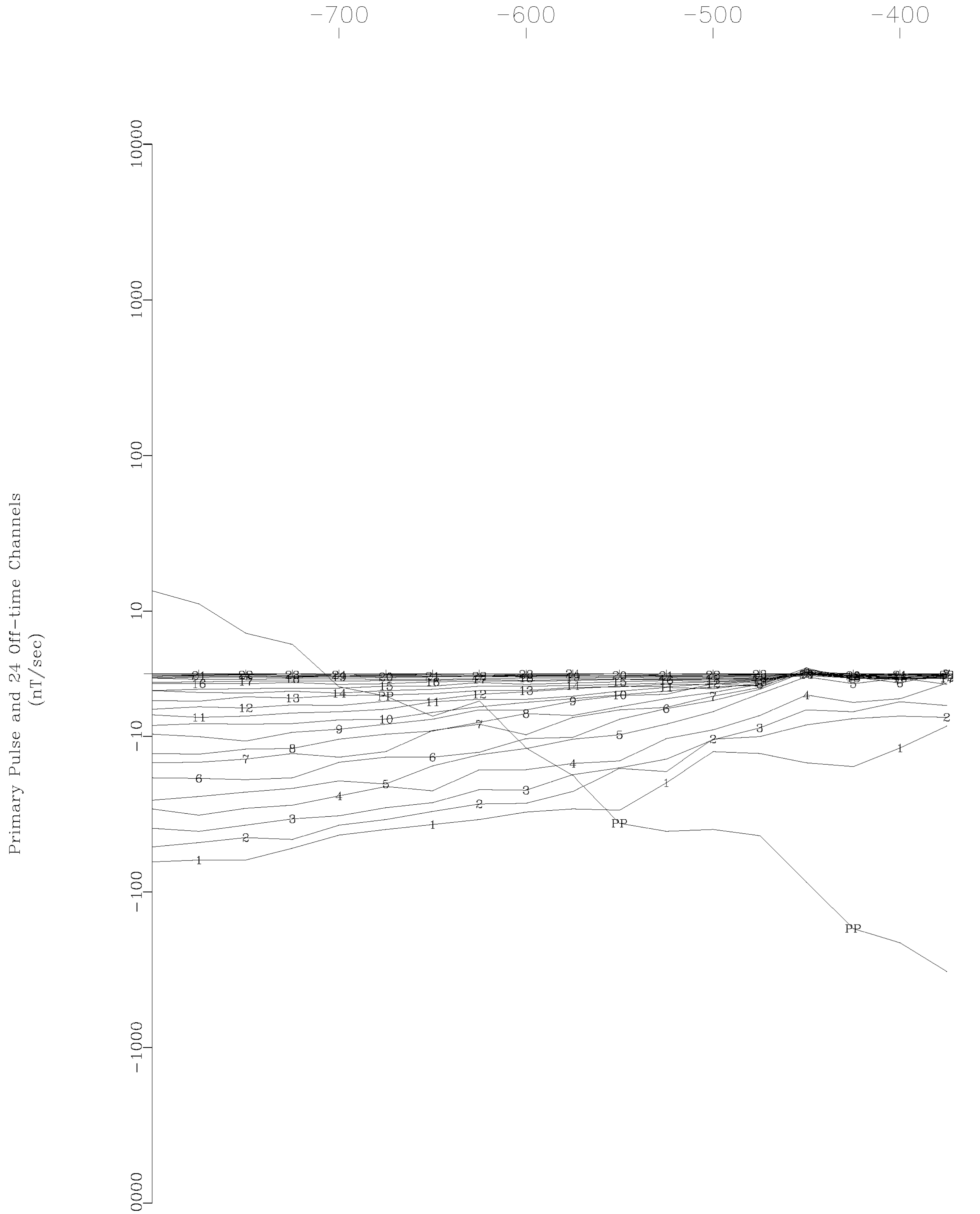
Crone Geophysics & Exploration Ltd.



Pro Minerals Inc   Discovery Lake Project

Loop 2, Line: 2800E   Z Component

Crone Geophysics & Exploration Ltd.



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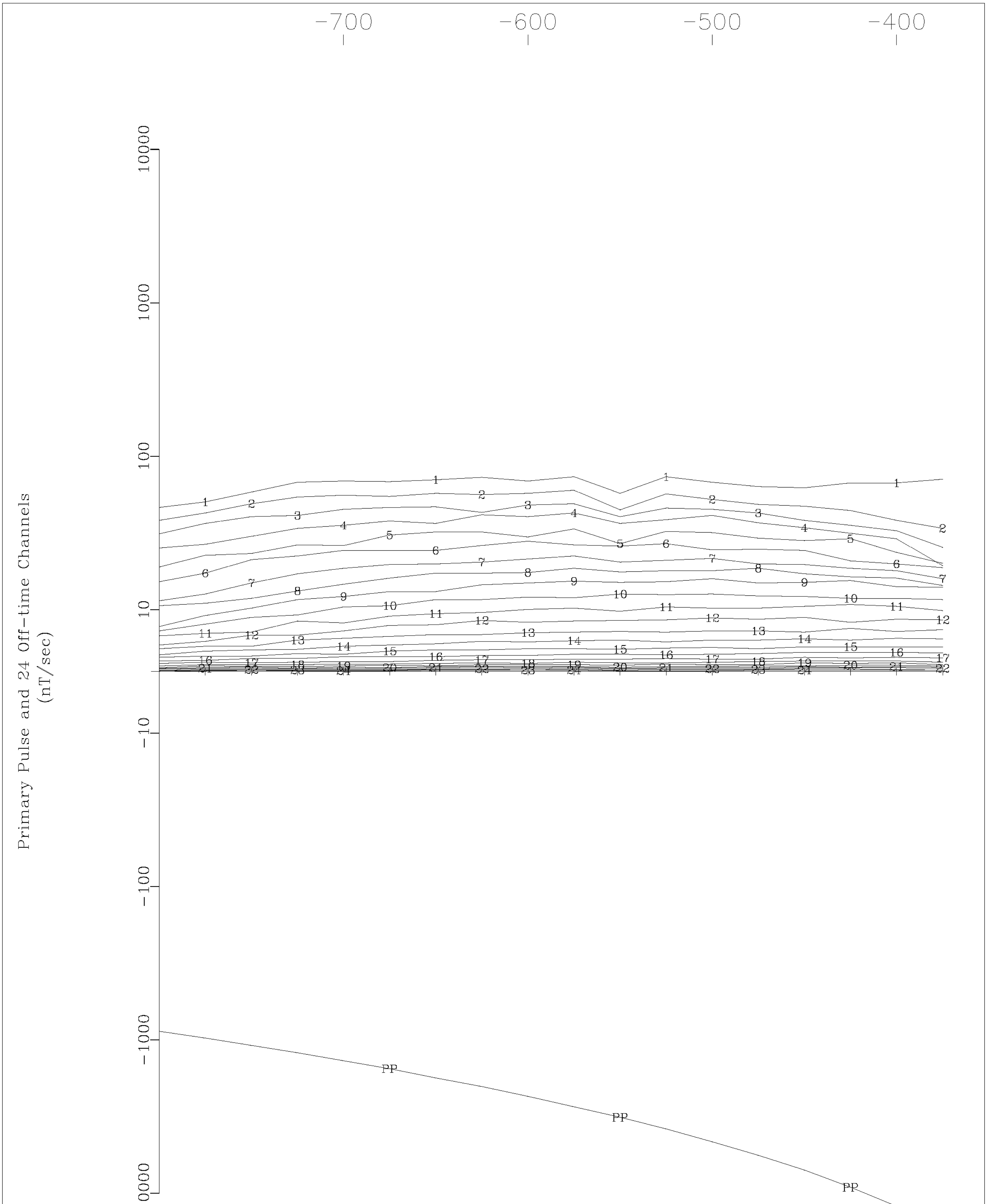
Crone Geophysics & Exploration Ltd.



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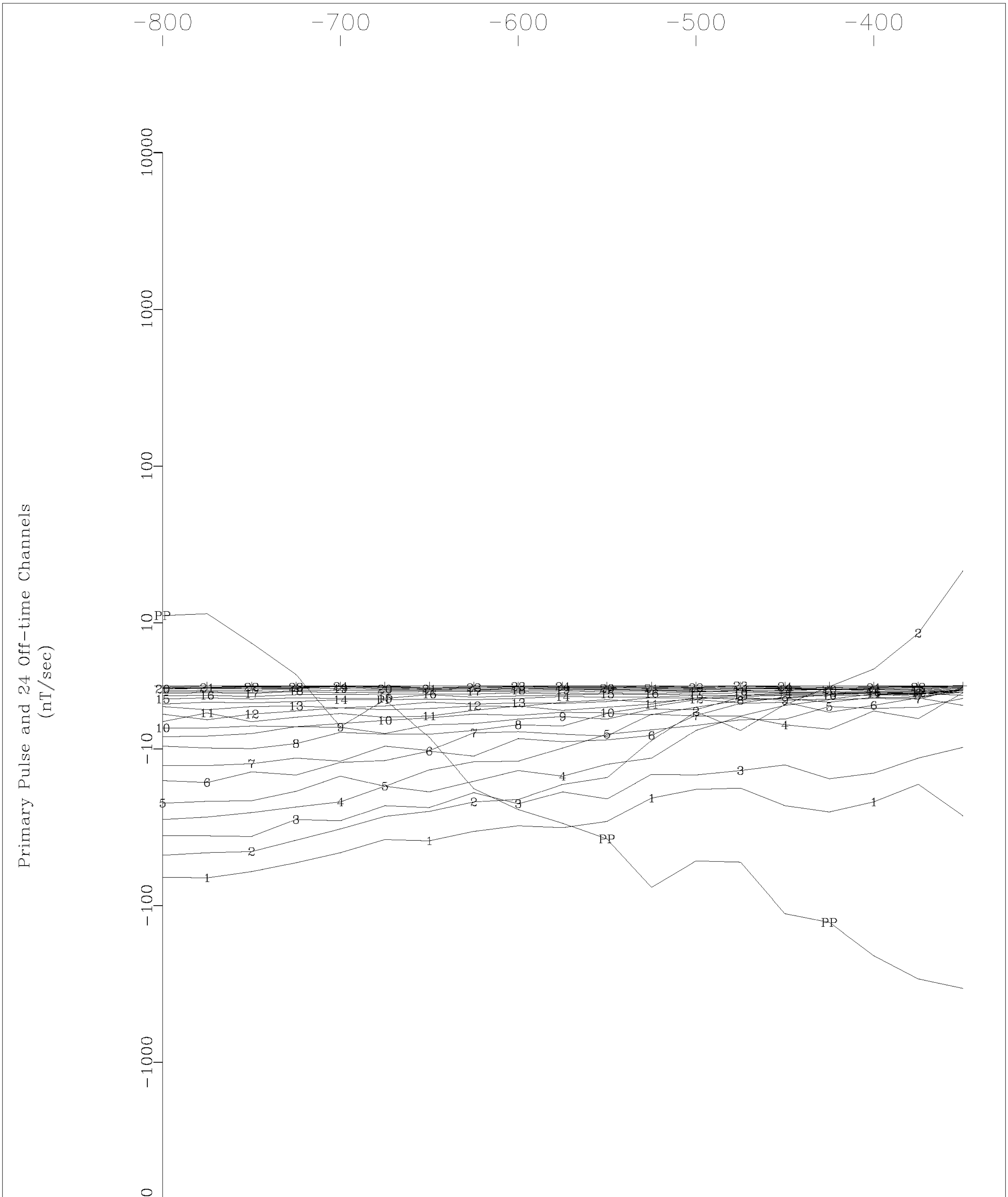

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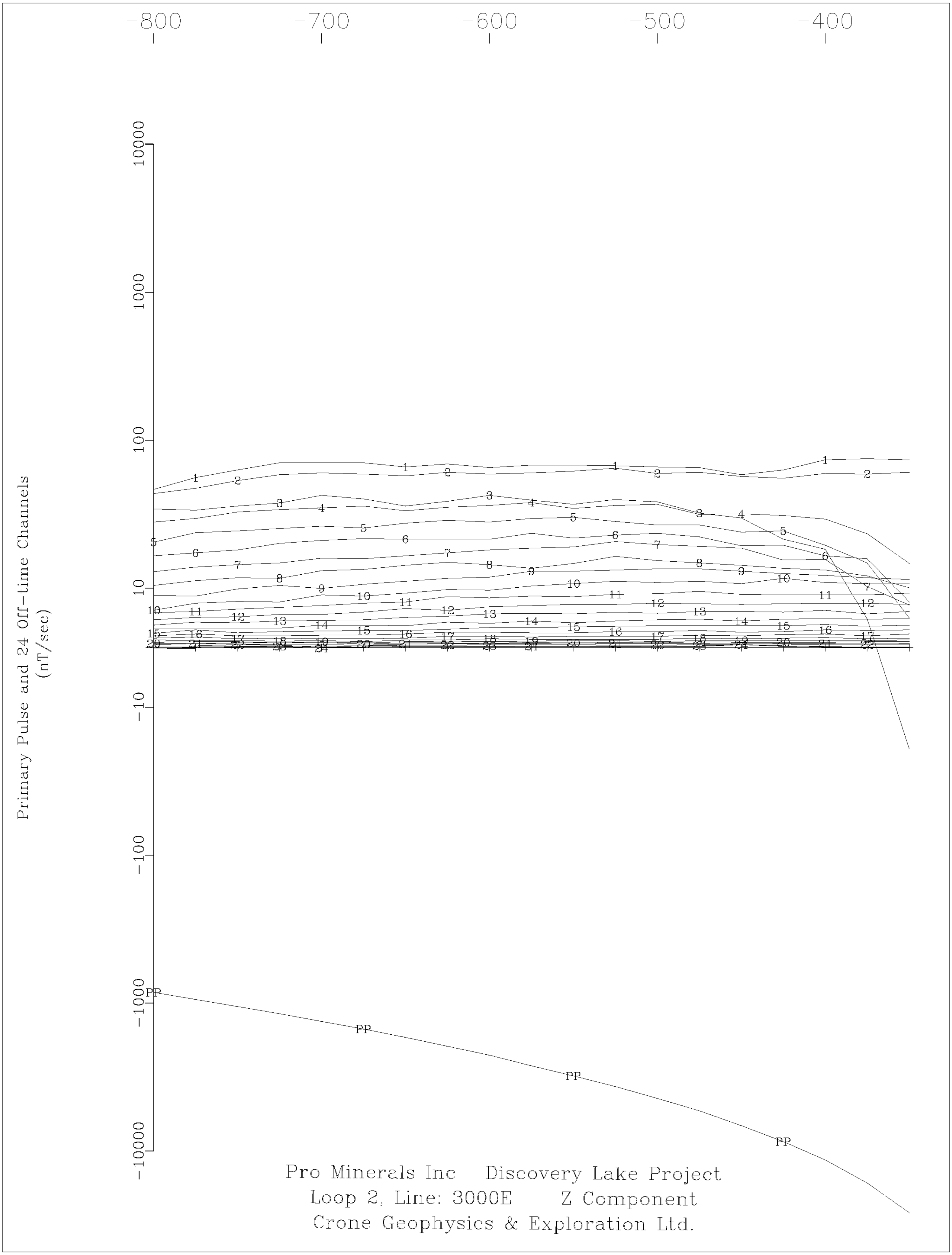
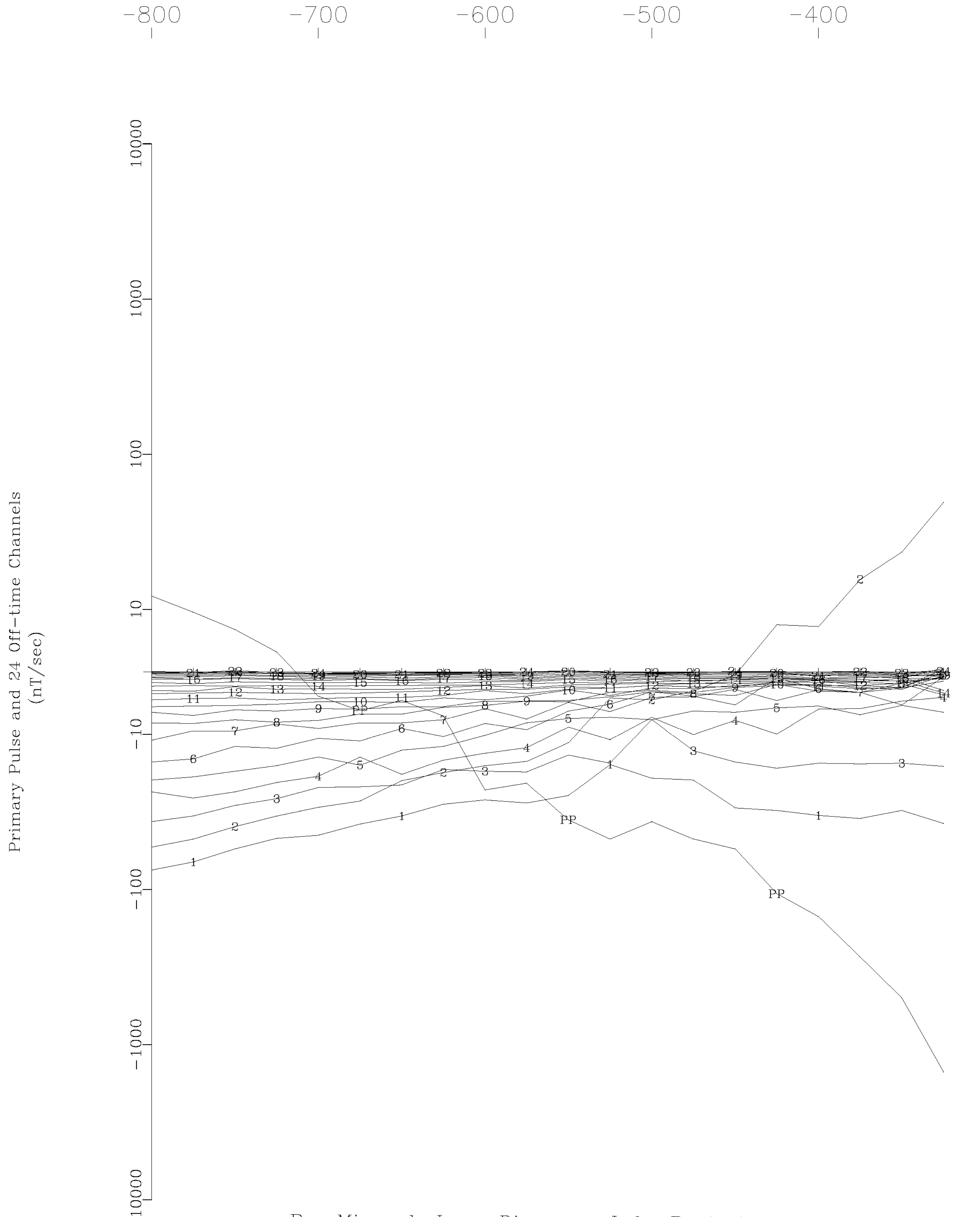
Crone Geophysics & Exploration Ltd.



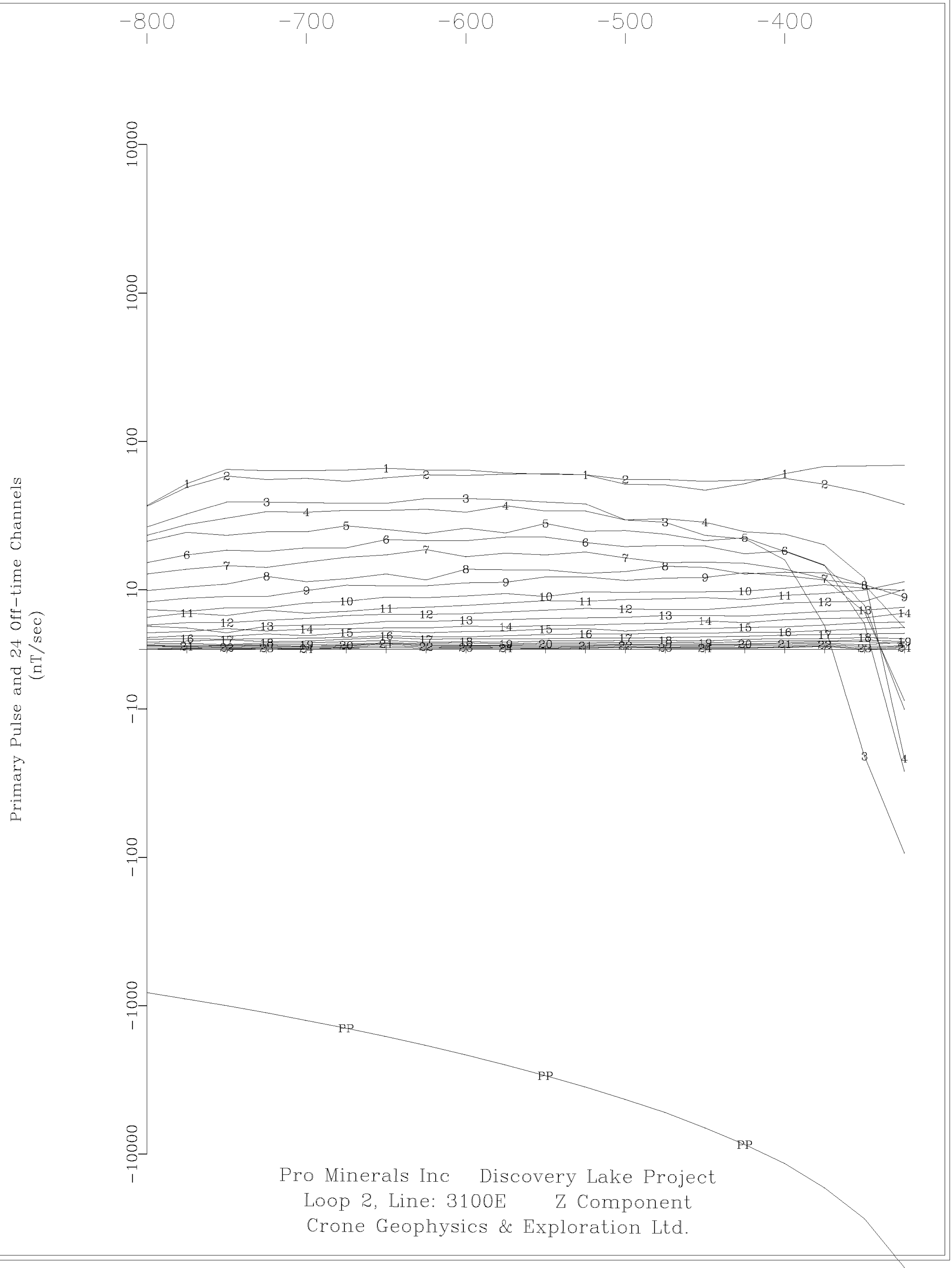
Pro Minerals Inc Discovery Lake Project
Loop 2, Line: 3000E Z Component
Crone Geophysics & Exploration Ltd.



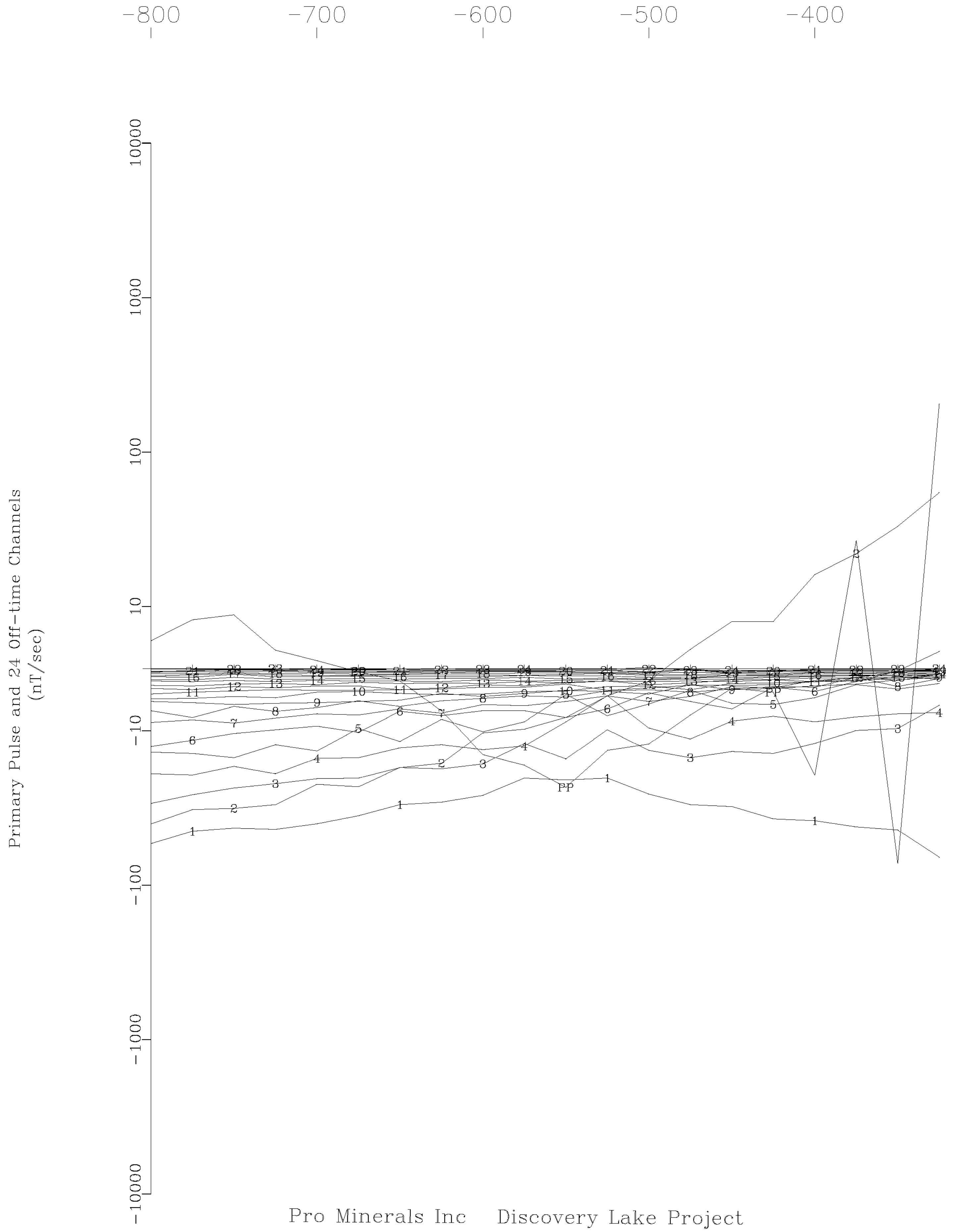
Pro Minerals Inc   Discovery Lake Project

Loop 2, Line: 3100E   X Component

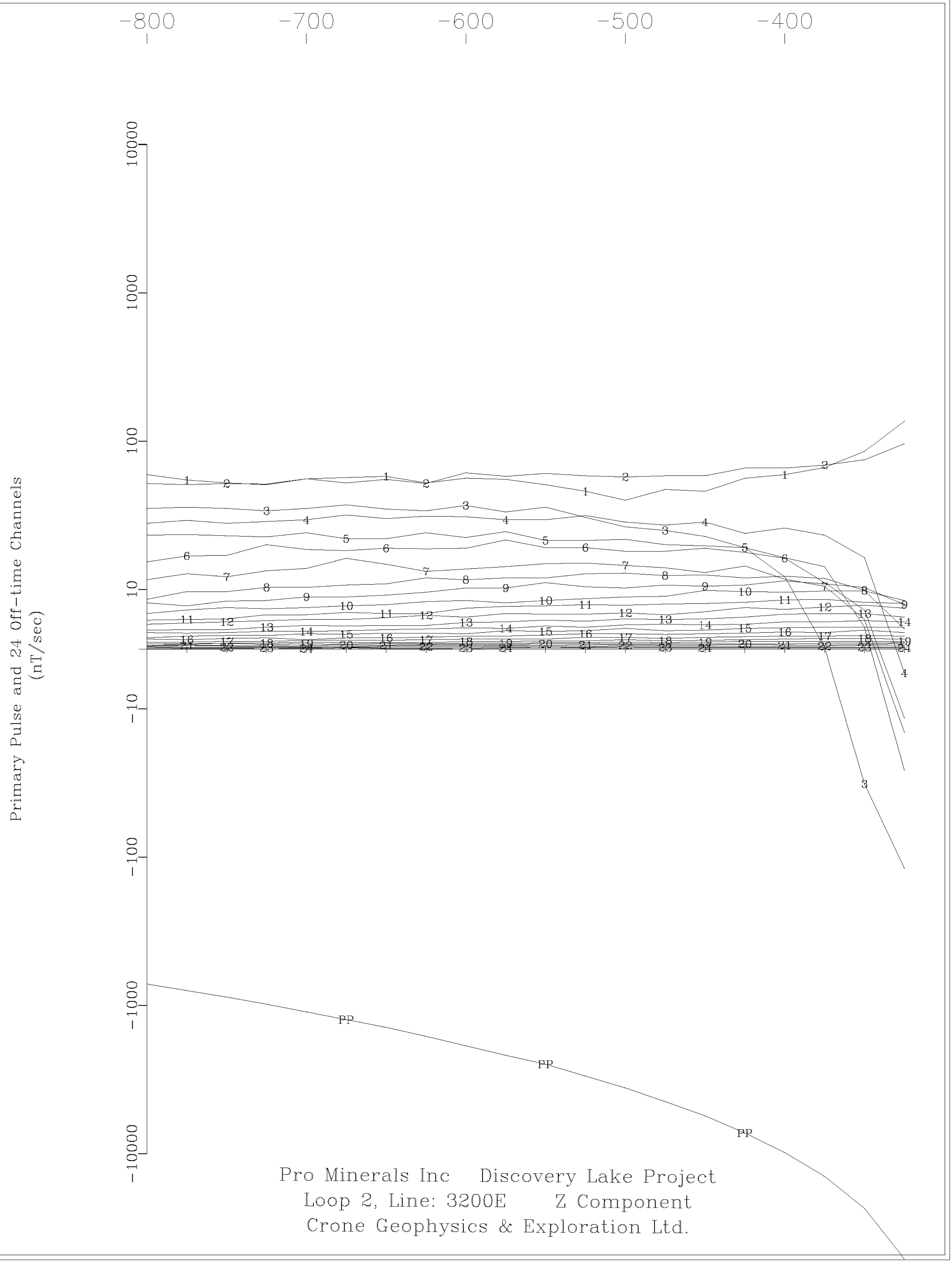
Crone Geophysics & Exploration Ltd.



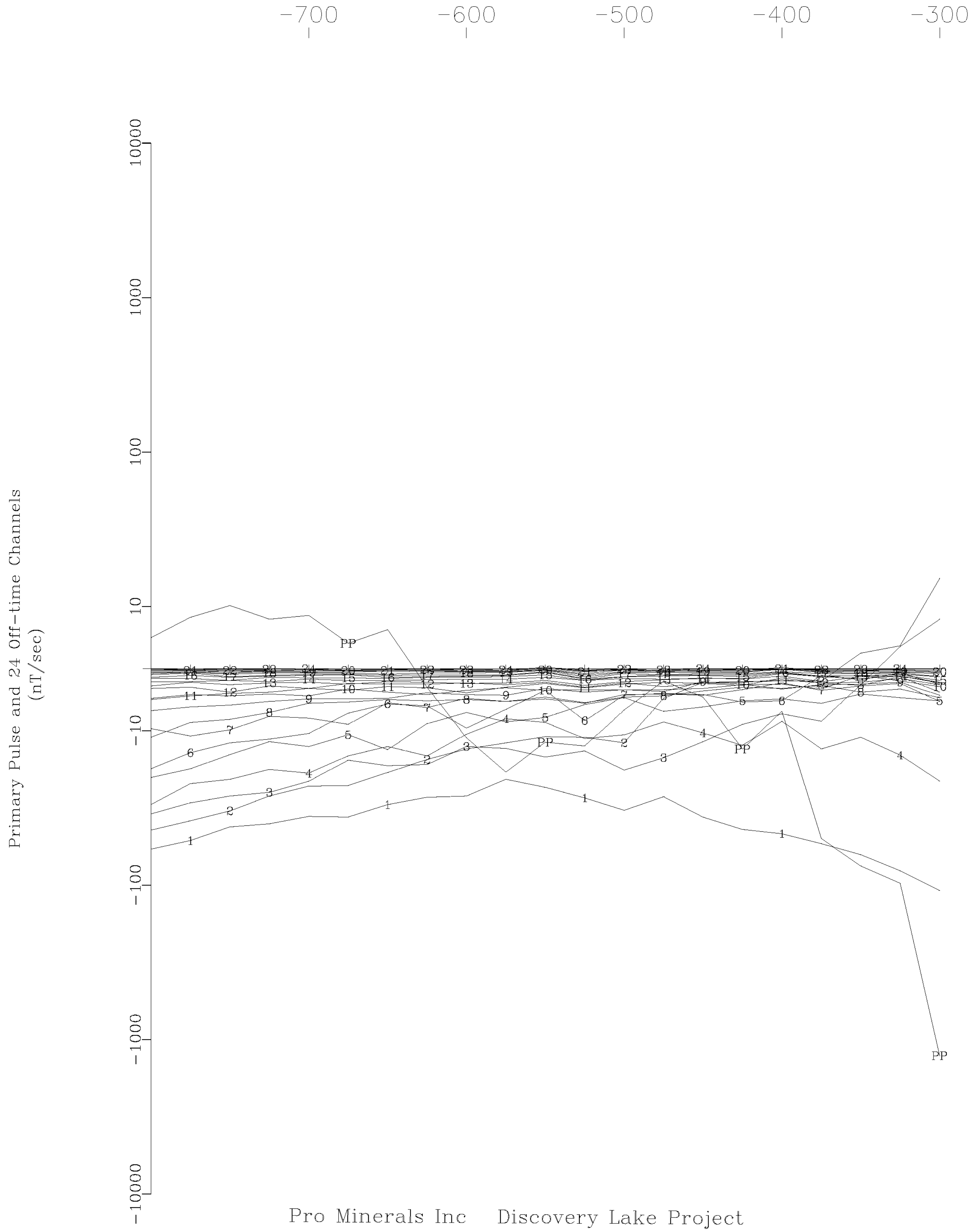
Pro Minerals Inc Discovery Lake Project
Loop 2, Line: 3100E Z Component
Crone Geophysics & Exploration Ltd.



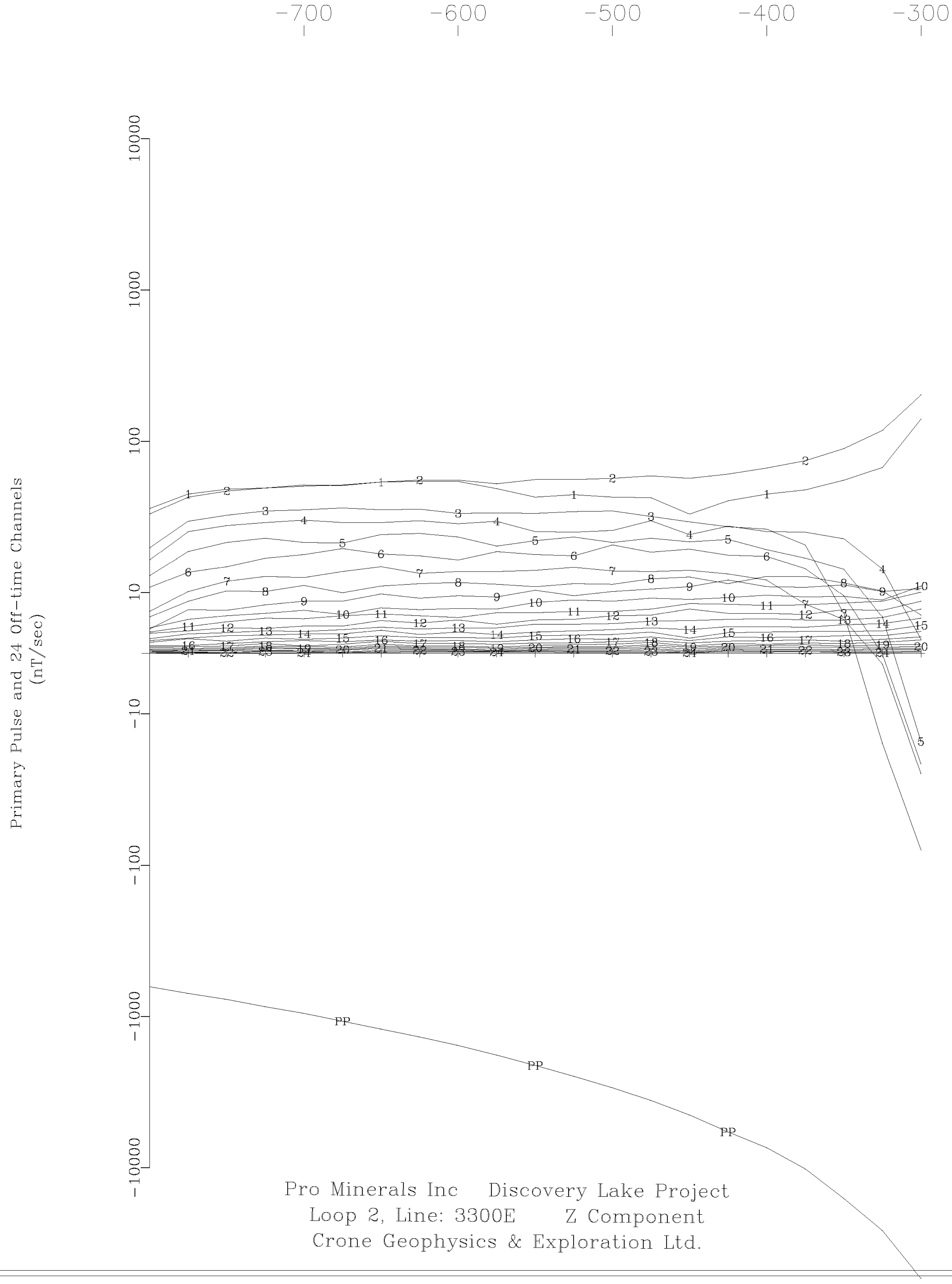
Pro Minerals Inc   Discovery Lake Project
Loop 2, Line: 3200E   X Component
Crone Geophysics & Exploration Ltd.



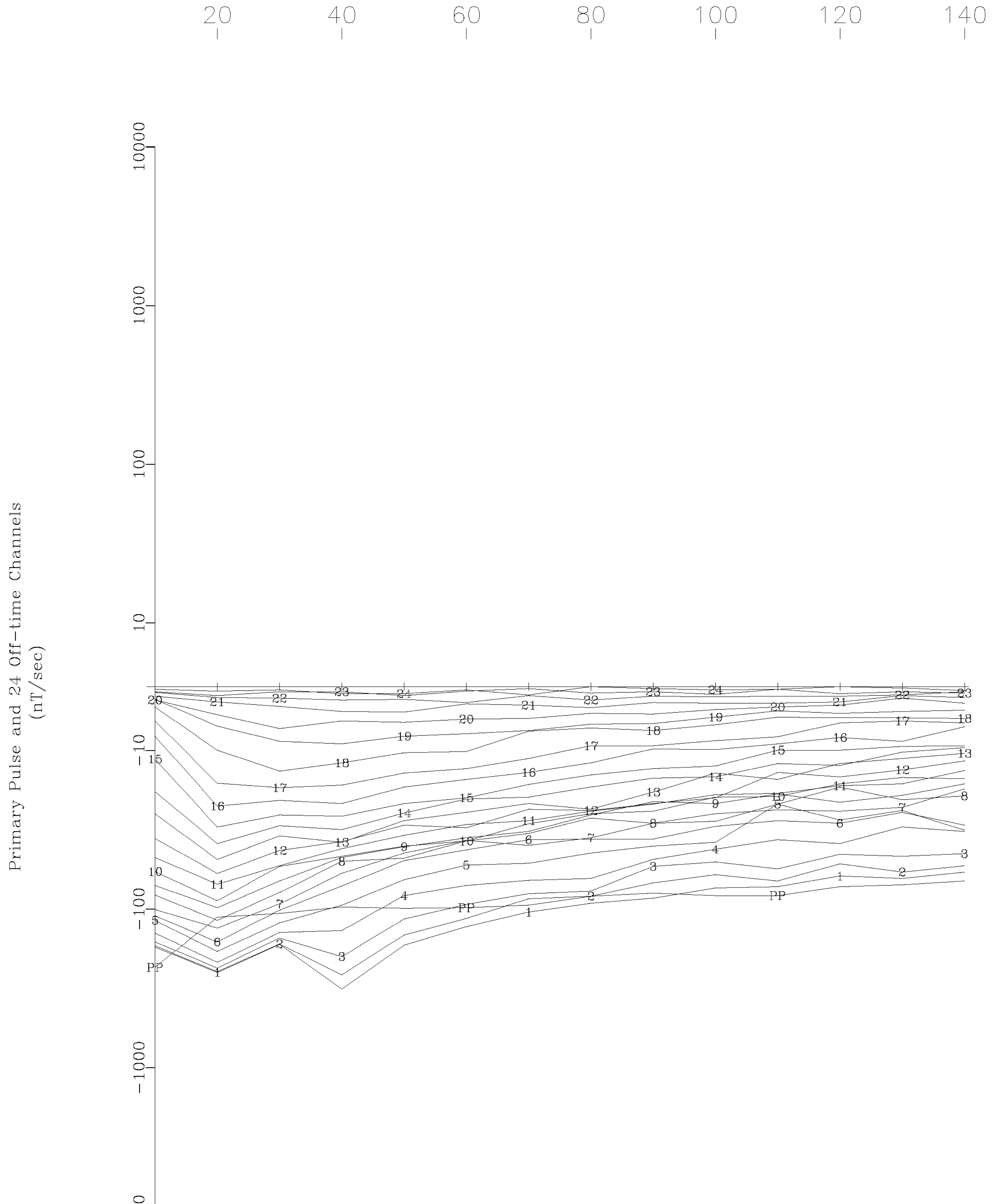
Pro Minerals Inc   Discovery Lake Project
Loop 2, Line: 3200E   Z Component
Crone Geophysics & Exploration Ltd.



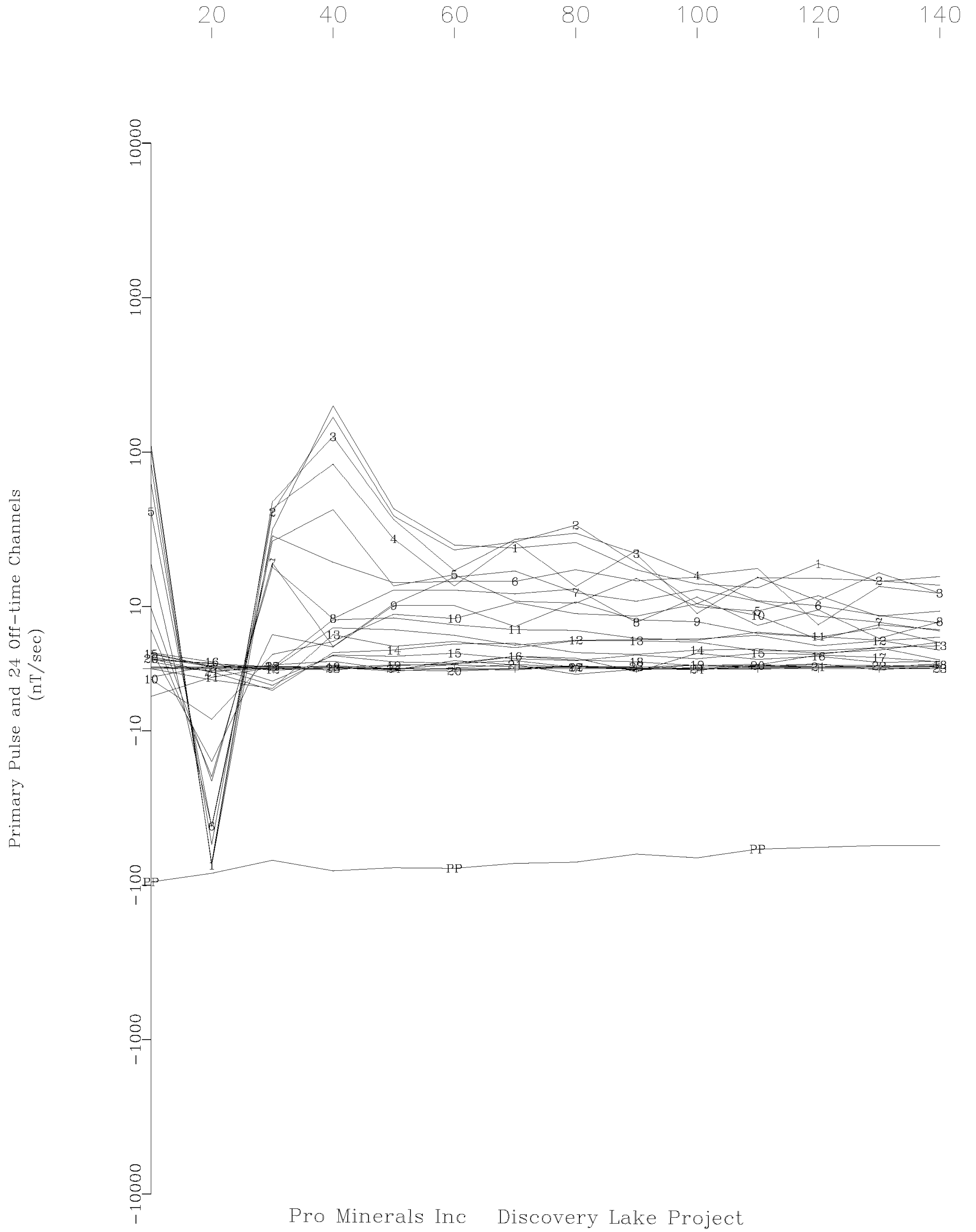
Pro Minerals Inc Discovery Lake Project
Loop 2, Line: 3300E X Component
Crone Geophysics & Exploration Ltd.



Pro Minerals Inc   Discovery Lake Project
Loop 2, Line: 3300E   Z Component
Crone Geophysics & Exploration Ltd.



Pro Minerals Inc   Discovery Lake Project
Loop 1, Hole PO-01   X Component
Crone Geophysics & Exploration Ltd.



Pro Minerals Inc Discovery Lake Project
Loop 1, Hole PO-01 Y Component
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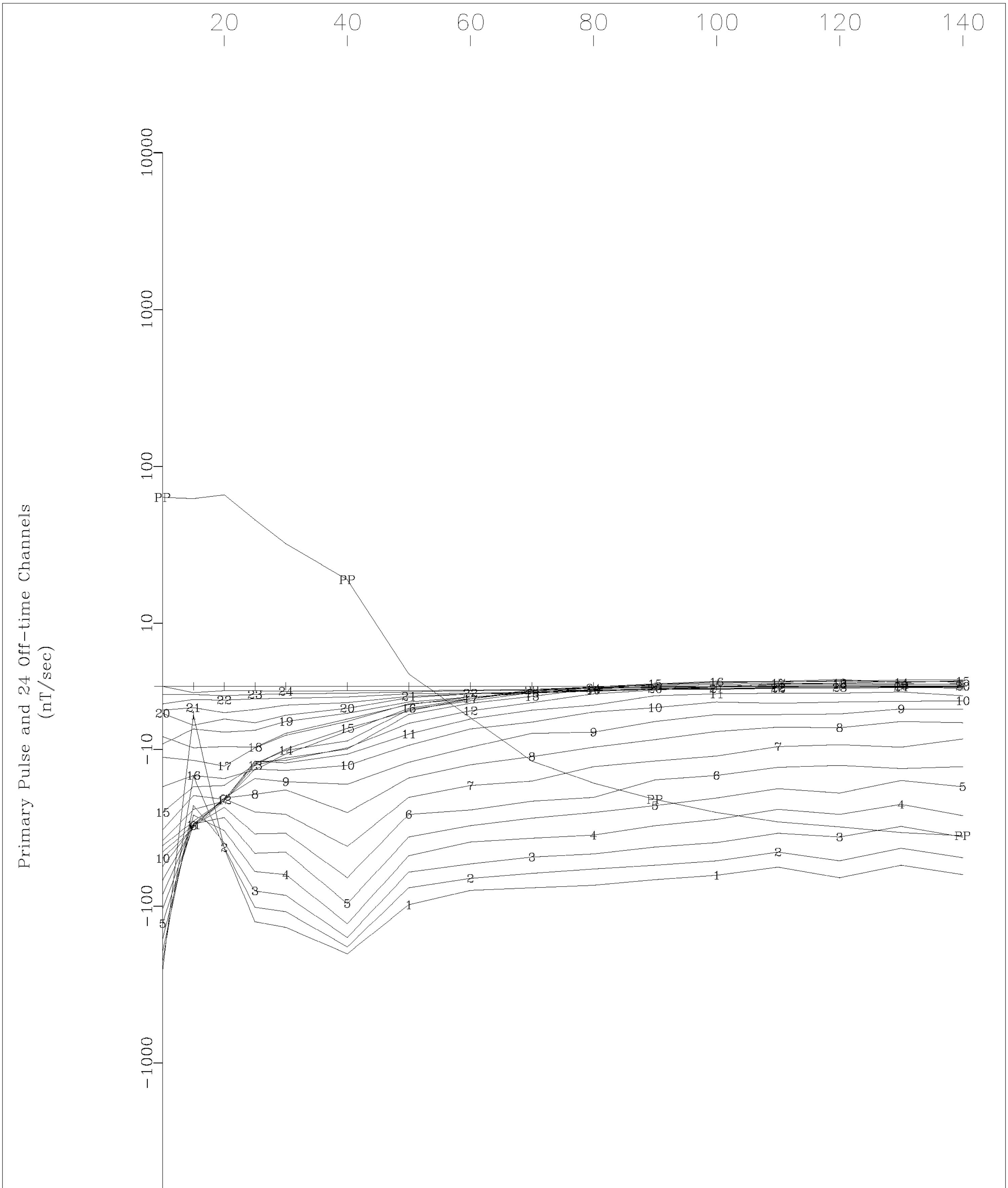
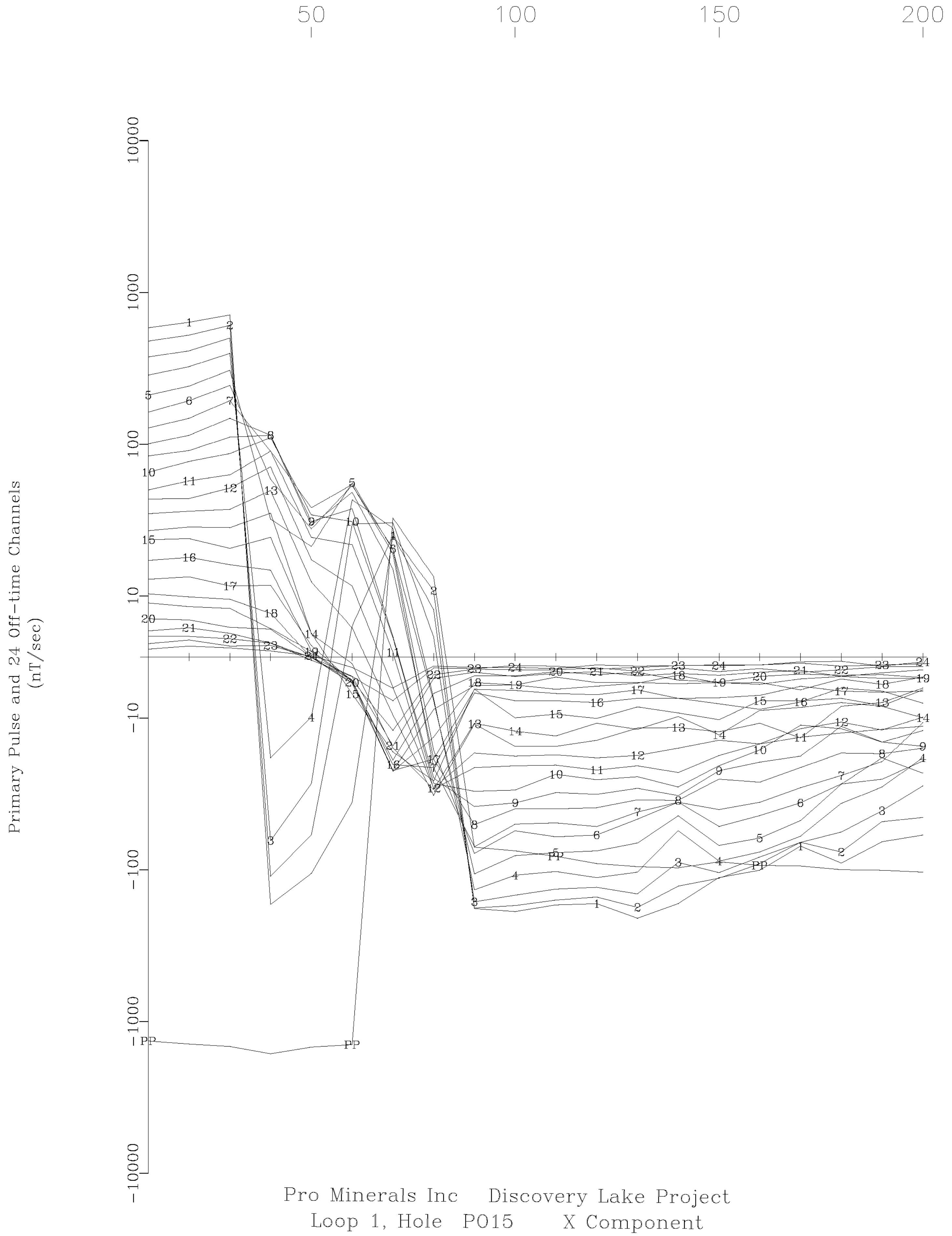
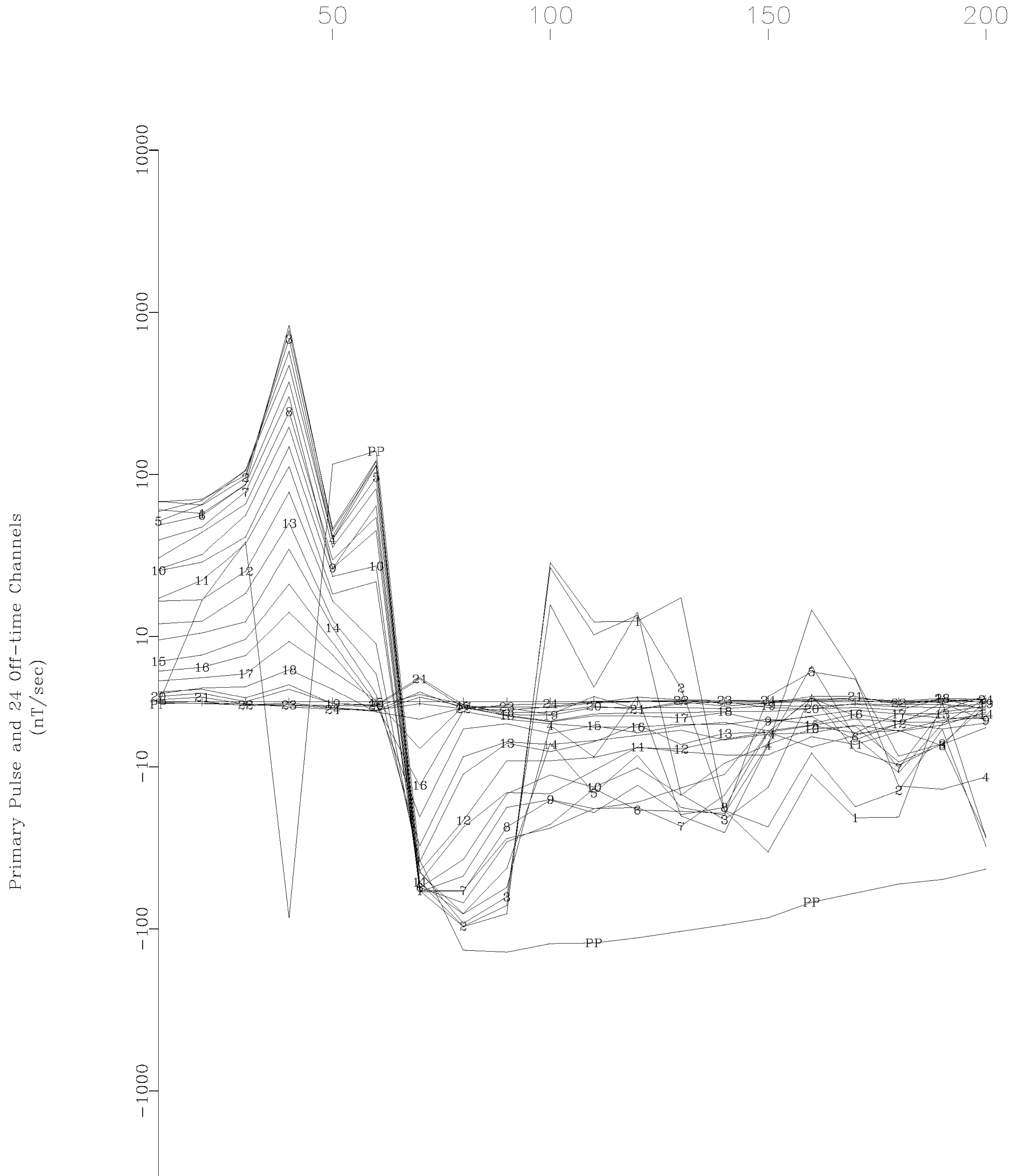


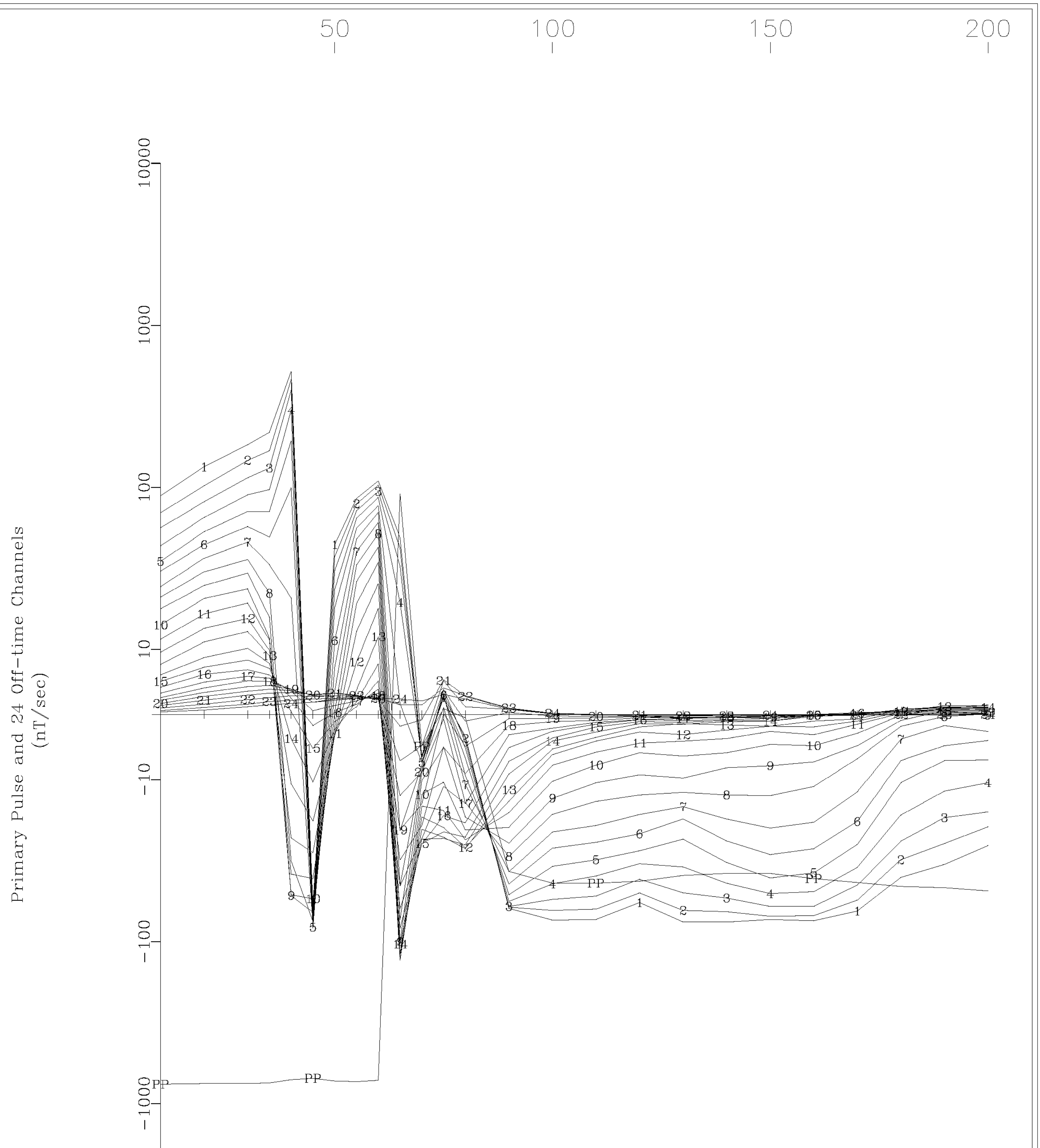
Pro Minerals Inc   Discovery Lake Project
Loop 1, Hole PO-01   Z Component
Crone Geophysics & Exploration Ltd.



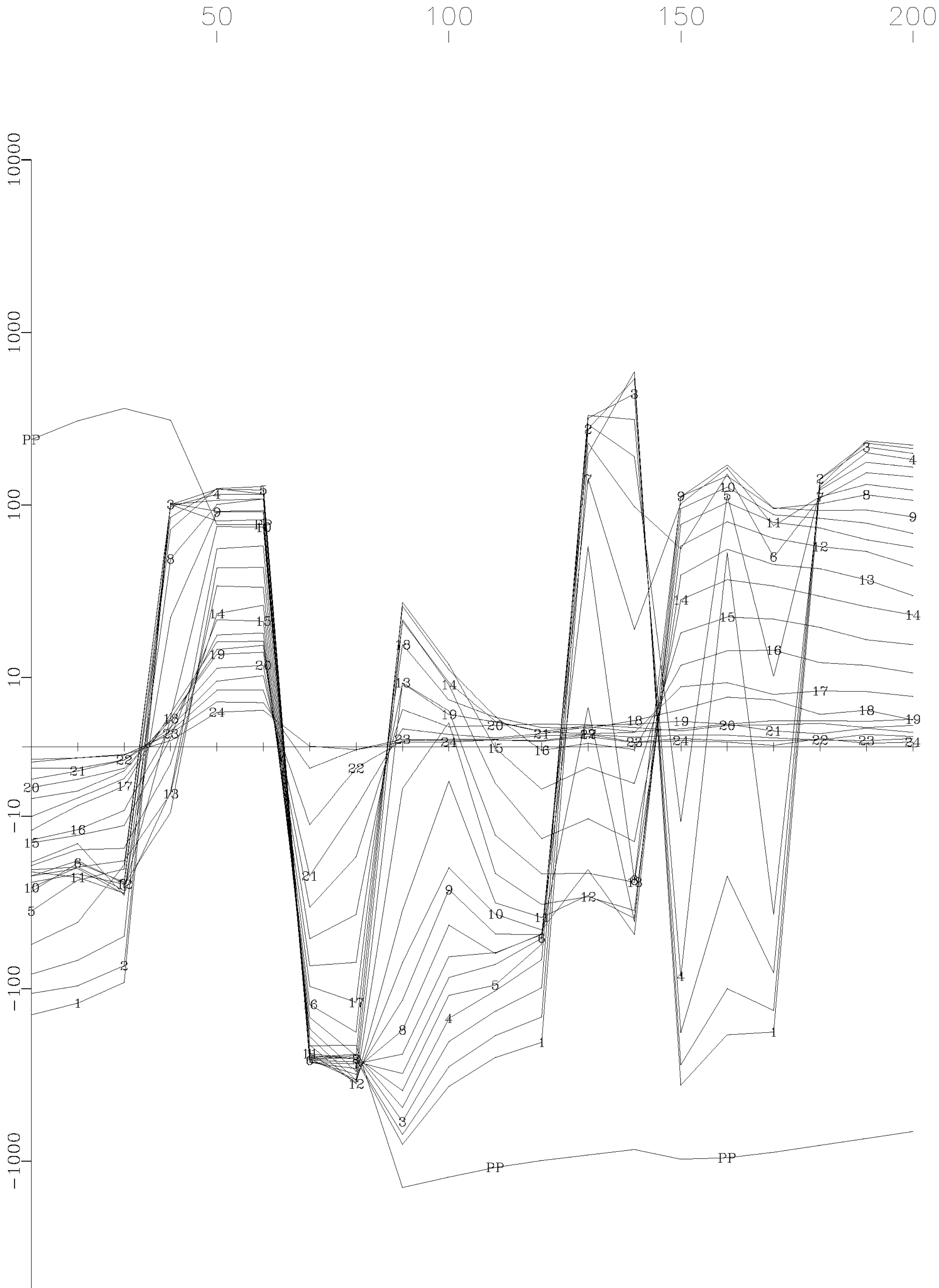
Pro Minerals Inc   Discovery Lake Project
Loop 1, Hole P015   X Component
Crone Geophysics & Exploration Ltd.



Pro Minerals Inc Discovery Lake Project
Loop 1, Hole P015 Y Component
Crone Geophysics & Exploration Ltd.



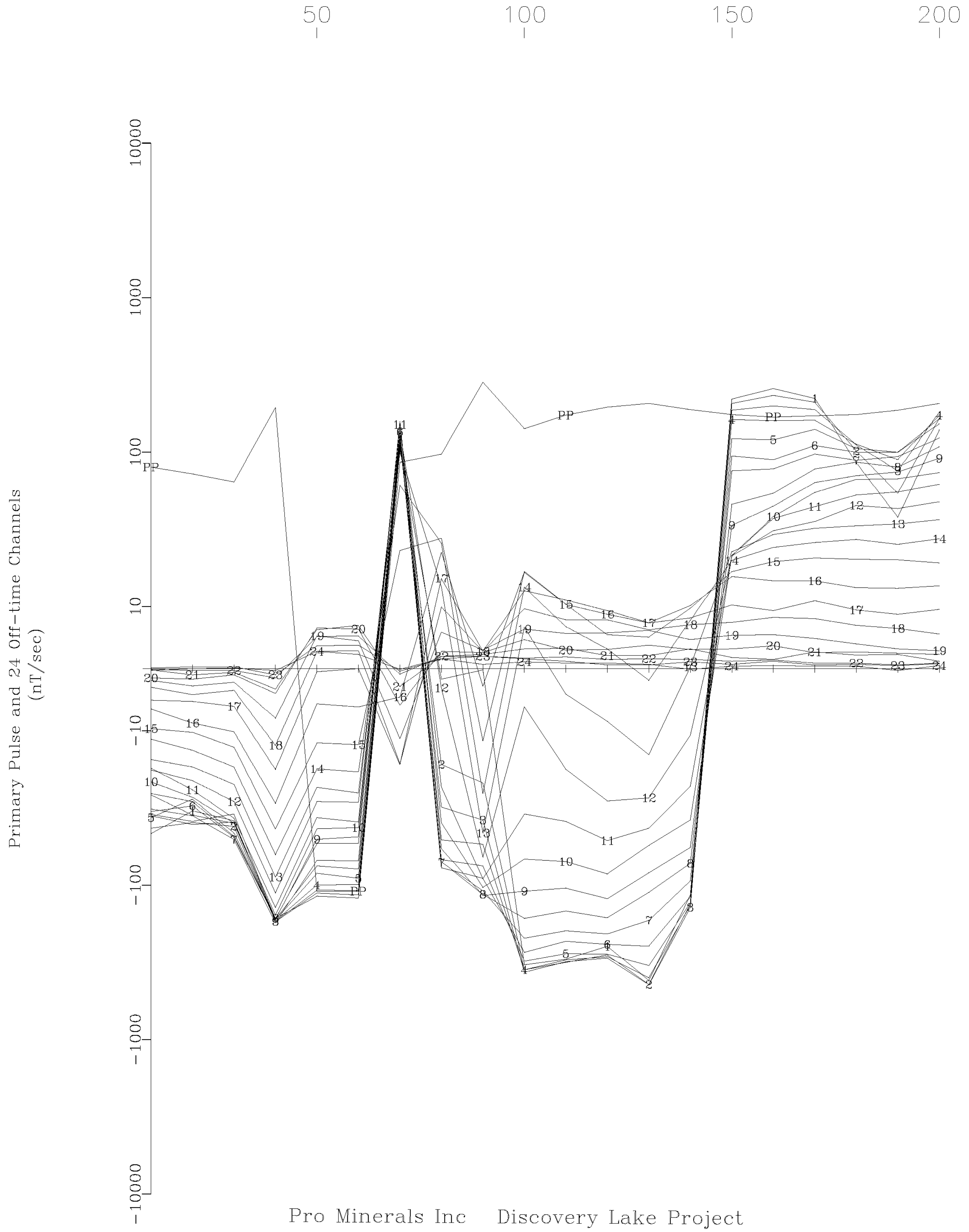
Pro Minerals Inc   Discovery Lake Project
Loop 1, Hole P015   Z Component
Crone Geophysics & Exploration Ltd.



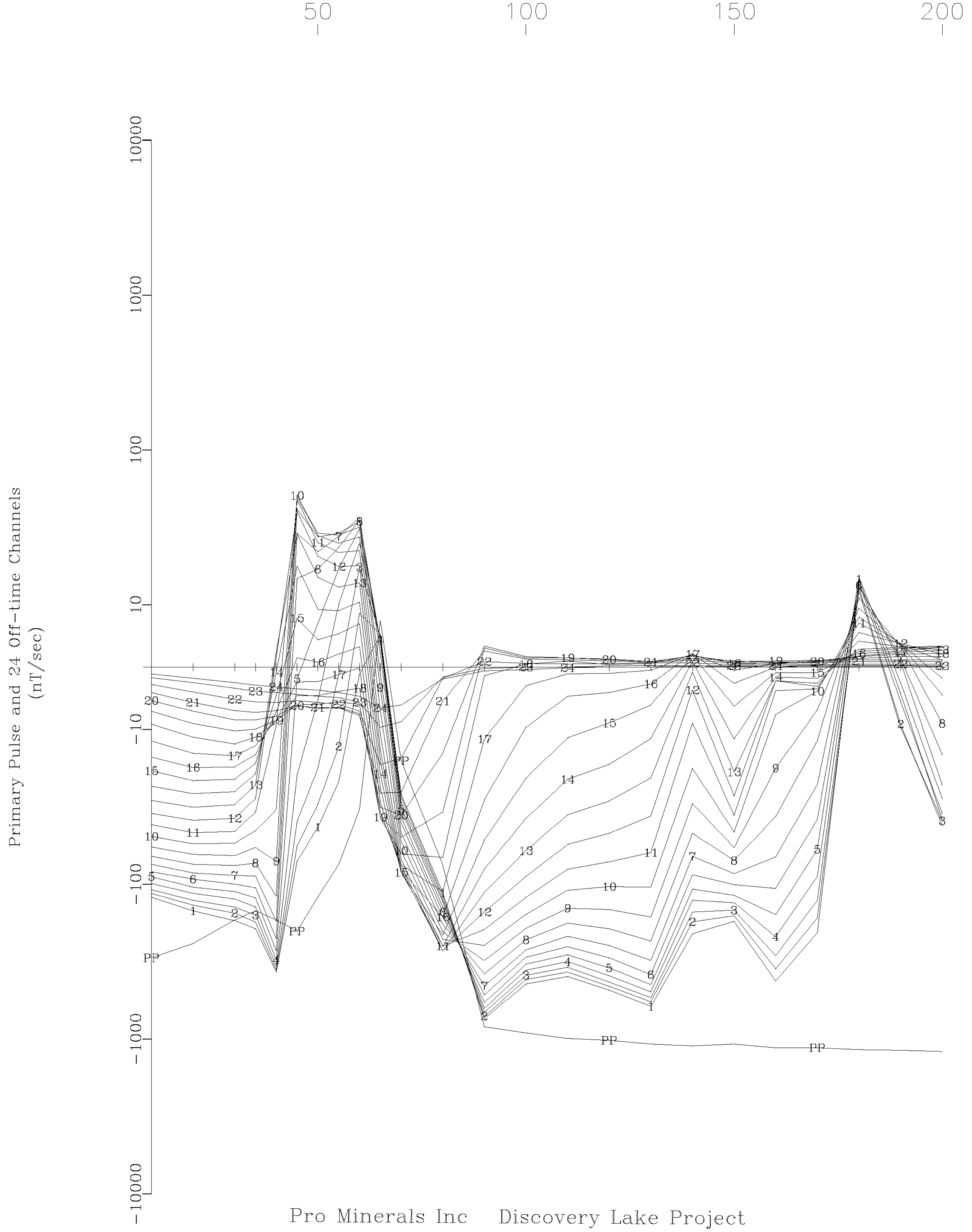
Pro Minerals Inc Discovery Lake Project

Loop 2, Hole P015 X Component

Crone Geophysics & Exploration Ltd.



Pro Minerals Inc   Discovery Lake Project
Loop 2, Hole P015   Y Component
Crone Geophysics & Exploration Ltd.



Pro Minerals Inc   Discovery Lake Project
Loop 2, Hole P015   Z Component
Crone Geophysics & Exploration Ltd.

APPENDIX IV:
CRONE INSTRUMENT SPECIFICATIONS

Crone Pulse EM

System Description

SYSTEM DESCRIPTION

The Crone Pulse EM system is a time domain electromagnetic method (TDEM) that utilizes an alternating pulsed primary current with a controlled shut-off and measures the rate of decay of the induced secondary field across a series of time windows during the off-time. The system uses a transmit loop of any size or shape. A portable power source feeds a transmitter which provides a precise current waveform through the loop. The receiver apparatus is moved along surface lines or down boreholes.

The transmitter cycle consists of slowly increasing the current over a few milliseconds, a constant current, abrupt linear termination of the current, and finally zero current for a selected length of time in milliseconds. The EMF created by the shutting-off of the current induces eddy currents in nearby conductive material thus setting-up a secondary magnetic field. When the primary field is terminated, this magnetic 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. The receiver, which is synchronized to the off-time of the transmitter, measures this transient magnetic field where it cuts the surface coil or borehole probe. These readings are across fixed time windows or "channels".

SYSTEM TERMINOLOGY

Ramp Time

"Ramp time" refers to the controlled shut-off of the transmitter current. Three ramp times are selectable by the operator; 0.5ms, 1.0ms, and 1.5ms. By controlling the shut-off rather than having it depend on the loop size and current ensures that the same waveform is maintained for different loops so data can be properly compared.

The 1.5ms ramp is the normally used setting for good conductors. It keeps the early channel responses on scale and decreases the chance of overload. The faster ramp times of 1.0ms and 0.5ms will enhance the early time responses. This can be useful for weak conductors when data from the higher end of the frequency spectrum is desired.

Time Base

Time base is the length of time the transmitter current is off (it includes the ramp time). This also equals the on time of the current. Time bases are available for both 60Hz and 50Hz noise rejection respectively:

- 8.33ms (30Hz), 16.66ms (15Hz), 50ms (5Hz), 100ms (2.5Hz), 150ms (1.67Hz), 300ms (0.833Hz), 500ms (0.5Hz), 750ms (0.33Hz), 1000ms (0.25Hz)
- 10ms (25Hz), 20ms (12.5Hz), 50ms (5Hz), 100ms (2.5Hz), 150ms (1.67Hz), 300ms (0.833Hz), 500ms (0.5Hz), 750ms (0.33Hz), 1000ms (0.25Hz)

Since readings are taken during the off cycles, the time base will have an effect on the receiver channels. Normally, a standard time base is selected for the type of system and survey being used, but this can be changed to suit a particular situation. A longer time base is preferred for conductors of greater time constants, and in surveys such as resistive soundings where more channels are desired.

Zero Time Set

The term "zero time set" or "ZTS" refers to the starting point for the receiver channel measurements. It is manually set on the receiver by the operator thus allowing adjustments for the ramp times and fine tuning for any fluctuations in the transmitter signal.

Receiver Channels

The rate of decay of the secondary field is measured across fixed time windows which occupy most of the off-time of the transmitter. These time windows are referred to as "channels". These channels are numbered in sequence with "1" being the earliest. The analog and datalogger receivers measured eight fixed channels. The digital receiver, being under software control, offers more flexibility in the channel positioning, channel width, and number of channels.

PP Channel

The PEM system monitors the primary field by taking a measurement during the current ramp and storing this information in a "PP channel". This means that data can be presented in either normalized or normalized formats, and additional information is available during interpretation. The PP channel data can provide useful diagnostic information and helps avoid critical errors in field polarity.

Synchronization

Since the PEM system measures the secondary field in the absence of the primary field, the receiver must be in "sync" with the transmitter to read during the off-time. There are three synchronization methods available: cable connection, radio telemetry, and crystal clock. This flexibility enhances the operational capabilities of the system.

SURVEY METHODS

The wide frequency spectrum of data produced by a Pulse EM survey can be used to provide structural geological information as well as the direct detection of conductive or conductive associated ore deposits. The various types of survey methods, from surface and borehole, have greatly improved the chances of success in deep exploration programs. There are eight basic profiling methods as well as a resistivity sounding mode.

Moving Coil

A small, multi-turn transmitter loop (13.7m diameter) is moved for each reading while the receiver remains a fixed distance away. This method is ideal for quick reconnaissance in areas of high background conductivity.

Moving Loop

Same as Moving Coil method, but with a larger rectangular transmit loop (100 to 300 meters). This method provides deeper penetration in areas of high background conductivity, and works best for near-vertical conductors. This method can be used in conjunction with the Moving In-loop survey for increased sensitivity to horizontal conductors.

Moving In-Loop

A rectangular transmit loop of size 100 to 300 meters is moved for each reading while the receiver remains at the center of the loop. This method provides deep penetration in areas of very high background conductivity, and works best for near-horizontal conductors. It can be used in conjunction with the Moving Loop survey.

Large In-Loop

A very large, stationary transmit loop (800m square or more) is used, and survey lines are run inside the loop. This mode provides very deep penetration (700m or more) and couples best with shallow dip conductors (<45 deg.) under the loop.

Deep EM

A large, stationary transmit loop is used, and survey lines are run outside the loop. This mode provides very deep penetration, and couples best with steeply dipping conductors (>45 deg.) outside the loop.

Borehole (Z Component only)

Isolated Borehole: A drill hole is surveyed by lowering a probe down a hole and surveying it with a number of transmit loops laid out on surface. The data from multiple loops gives directional information on the conductors.

Multiple Boreholes: One large transmit loop is used to survey a number of closely spaced holes. The change in anomaly from hole to hole provides directional information. These methods have detected conductors to depths of 2500m from surface and up to 200m from the hole.

3-D Borehole

Drill holes are surveyed with both the Z and the XY borehole probes. The X and Y components provide accurate direction information using just one transmit loop. Since the probe rotates as it moves down the hole a correction is required for the X-Y data. This is accomplished in one of two ways. The measurement of the primary field from the "PP" channel can be used to apply a "cleaning" algorithm to remove most of the secondary field contamination, and compare this to theoretical values. The amount of probe rotation is then calculated, and the correction can be made. The second method involves the use of an optional orientation tool for the X-Y probe. This attachment uses dip meters to calculate the probe rotation. A third method uses another rotation tool with integrated 3-axis accelerometers and 3-axis magnetometers which can be used to correct rotation on steeply dipping holes including vertical.

Underground Borehole

Underground drill holes can be surveyed in any of the above mentioned borehole methods with one or more transmit loops on the surface. Near-horizontal holes can be surveyed using a push-rod system.

Resistivity Soundings

By reading a large number of channels in the centre of a transmit loop it is possible to perform a decay curve analysis giving a best-fit layer earth model using programs such as ARRTI or TEMIX.

EQUIPMENT

Transmit Loops

The PEM system can operate with practically any size of transmit loop, from a multi-turn circular loop 13.7m in diameter, to a 1 or 2 turn loop of any shape up to 1 or 2 kilometers square using standard insulated copper wire of 10 or 12 gauge. The multi-turn loop is made in two sections with screw connectors. The 10 or 12 gauge loop wire comes on spools in either 300m or 400m lengths. The spools can be mounted on pack frame wire winders for laying out or retrieving.

Power Supply

The PEM system has been produced in 2 varieties: high power (4.8 KW), and low power (2.4 KW). The low power PEM system normally operates with an input voltage from 24V to 240V with a maximum output current of 20 amps. For very low power surveys a 20amp/hr 24V battery can be used. The high power system operates on a continuously variable voltage input up to 240V with a maximum output current of 30 amps. The power supply requires a motor generator and a voltage regulator to control and filter the input voltage to the transmitter.

Specifications: PEM Motor Generator

- (2.4 KW) 4.5 hp Robin EH34 engine, 120V 3-phase alternator
- (4.8 KW) 11 hp Robin RGV6100 240V/120V generator (1-phase)
- cable output to regulator
- fuse type overload protection
- steel frame
- external gas tank

- optional packframe for low-power generator
- wooden shipping box
- unit weight: 33kg (2.4 KW); 81kg (4.8 KW)
- shipping weight: 47kg (2.4 KW); 100kg (4.8 KW)

Specifications: PEM Variable Voltage Regulator

- High Power
    - Continuously variable voltage output up to 240V
    - 30 amp maximum current
    - Integrated sealed aluminum case ruggedized for shipping
    - Shipping weight 18kg
- Low Power
    - selectable voltage between 24v and 120v
    - 20amp maximum current
    - anodize d aluminum case
    - padded wooden shipping box
    - unit weight 10kg; shipping weight 18kg
- fuse and internal circuit breaker protection
- cable connections to motor generator and transmitter

Specifications: PEM Transmitter

- High Power
    - Timebases
        - 8.33ms (30Hz), 10ms (25Hz), 16.66ms (15Hz), 20ms, (12.5Hz), 50ms (5Hz), 100ms (2.5Hz), 150ms (1.67Hz), 300ms (0.833Hz), 500ms (0.5Hz), 750ms (0.33Hz), 1000ms (0.25Hz)
    - ramp times: 0.5ms, 1.0ms, 1.5ms
    - operating voltage: continuously variable input up to 240V
    - output current up to 30amp maximum
    - optional current control feedback system features constant current output with ±0.1 amp precision
    - integrated sealed aluminum case ruggedized for shipping with shock protection
- Low Power
    - Timebases
        - 8.33ms (30Hz), 10ms (25Hz), 16.66ms (15Hz), 20ms, (12.5Hz), 50ms (5Hz), 100ms (2.5Hz), 150ms (1.67Hz), 300ms (0.833Hz)
    - operating voltage: 24v to 120v
    - output current: 5amp to 20amp
    - anodized aluminum case
    - optional pack frame
    - unit weight 12.5kg; shipping weight 22kg
    - padded wooden shipping box
- monitors for input voltage, output current, shut-off ramp, tx loop continuity, instrument temperature, and overload output current
- automatic shut-off for open loop, high instrument temperature, and overload
- fuse and circuit breaker overload protection
- three sync modes:
    - built-in radio and antenna
    - cable sync output for direct wire link to receiver or remote radio
    - crystal clock connection with built-in optical isolation

Receiver

The receiver measures the rate of decay of the secondary field across several time channels. The Crone Digital Receiver, in use since 1987 uses software control, offering a variety of programmable channel configurations.

Specifications: Digital PEM Receiver

- 26 bit (156dB) dynamic range
- operating temperature -40°C to 50°C
- built-in non-volatile memory
- optional pack frame
- unit weight 15kg; shipping weight 25.5kg
- padded wooden shipping box
- Menu driven operating software system offering the following functions:
  - controls channel positions, channel widths, and number of channels
  - Timebases: 8.33ms (30Hz), 10ms (25Hz), 16.66ms (15Hz), 20ms, (12.5Hz), 50ms (5Hz), 100ms (2.5Hz), 150ms (1.67Hz), 300ms (0.833Hz), 500ms (0.5Hz), 750ms (0.33Hz), 1000ms (0.25Hz)
  - ramp time selectable
  - sample stacking from 1 to 65536
  - automatic gain and spike rejection
  - scrolling routines for viewing data
  - graphic display of decay curve and profile with various plotting options
  - routines for memory management
  - control of data transmission
  - provides information on instrument and operating status

Sync Equipment

There are three modes of synchronization available; radio, cable, and crystal clock. The radio sync signal can be transmitted through a booster antenna from either the PEM Transmitter internal radio or through a Remote Radio.

Specifications: Sync Cable

- 2 conductor, 24awg, Teflon coated
- approx. 900m per aluminum spool with connectors

Specifications: Remote Radio

- operating frequency 27.12mhz
- 12V rechargeable gel cell battery supply
- fuse protection
- sync wire link to transmitter
- coaxial link to booster antenna
- anodized aluminum case
- unit weight 2.7kg

Specifications: Booster Antenna

- 8m, 4 section aluminum mast
- guide rope support
- ¼ wave CB fiberglass antenna
- range up to 2km
- coaxial connection to transmitter or remote radio

Specification: Crystal Clocks

- heat stabilized crystals
- 24V rechargeable gel cell battery supply

- anodized aluminum case
- rx unit can be separate or housed in the receiver
- outlet for external supplementary battery supply

Surface PEM Receive Coil

The Surface PEM Receive Coil picks up the EM field to be measured by the receiver. The coil is mounted on a tripod that can be positioned to take readings of any component of the field.

Specifications: Surface PEM Receive Coil

- ferrite core antenna
- VLF filter
- 10khz bandwidth
- two 9v transistor battery supply
- tripod adjustable to all planes
- unit weight 4.5kg; shipping weight 13.5kg
- padded wooden shipping box

Surface SQUID sensor

CSIRO 1-, 2- or 3- axis high-sensitivity superconducting sensor measures magnetic field in the sub-pT range.

Specifications: Surface SQUID sensor

- liquid nitrogen cooled, 12 hour operation between reservoir refills
- low-noise floor ~350fT/√Hz
- man-portable sensor and control system
- moving loop, or large loop survey configuration
- solid teflon non-magnetic housing
- operational temperature range: -40°C to 40°C
- total system packaged shipping weight (without liquid nitrogen): 62kg

Borehole PEM Z Component Probe

The Z component probe measures the axial component of the EM field. The Z component data is not affected by probe rotation so no correction is required.

Specifications: Borehole PEM Z Component Probe

- ferrite core
- dimensions: length - 1.6m; dia - 3.02cm (3.15cm for high pressure tested probes)
- internal rechargeable NiCd battery supply
- replaceable heat shrink tubing for abrasion protection
- pressure tested for depths 1300m, 2000m, and 2800m
- packaged in padded cover and aluminum tube
- shipped in padded wooden box; total weight 17kg

Borehole PEM XY Component Probe

The XY probe measures two orthogonal components of the EM field perpendicular to the axis of the hole. Correction for probe rotation can be achieved by mathematical theoretical primary field reduction or more commonly with an attached orientation tool sensor.

Specifications: Borehole PEM XY Component Probe

- ferrite core
- dimensions: length - 2.01m; dia - 3.02cm
- internal rechargeable ni-cad battery supply

- selection of X or Y coils by means of a switch box on surface or automatic switching with Digital receiver
- replaceable heat shrink tubing for abrasion protection
- pressure tested for depths to 2800m
- packaged in padded cover and aluminum tube
- shipped in padded wooden box; total shipping weight 20kg

Specifications: Orientation Tool

- 2 axis tilt sensors
- accuracy ± 0.1 deg.
- operating range -88 to -10 deg.
- dimensions: length - 0.94m; dia - 28.5mm
- packaged in padded cover and aluminum tube
- shipped in padded wooden box; total shipping weight 14kg

Specifications: Rotation Angle Direction (RAD) Tool

- integrated 3-axis accelerometers and 3-axis magnetometers
- dip and roll accuracy: ±0.5°, azimuth accuracy: ±1.0°
- operating range: all
- simultaneous 3D magnetometer borehole survey by station
- optional continuous logging mode
- dual 3-axis sensors provide an alternative complete borehole Dip-Azimuth measurement
- dimensions: length – 0.75m; dia – 31.8mm
- packaged in padded cover and aluminum tube
- shipped in padded wooden box; total shipping weight 14kg
- NiCd battery provides all-day operation
    - Length - 0.93m; dia – 28.6mm
    - Packaged in padded cover and aluminum tube
    - Shipped in padded wooden box; total shipping weight 14kg

Borehole Equipment

To lower the probe down a drill hole requires a cable and spool, winch assembly frame and cable counter. Borehole surveys also require equipment to "dummy probe" the hole before doing the survey.

Specifications: Borehole Cable

- two conductor shielded cable
- kevlar strengthened
- lengths are available up to 2600m on three sizes of spools
- shipped in wooden box

Specifications: Slip Ring

- attaches to side of borehole cable spool providing a connection to the receiver while allowing the spool to turn.
- VLF filter
- pure silver contacts

Specifications: Borehole Winch Frame

- welded aluminum frame
- removable axle
- chain driven, 3 speed gear box
- hand or optional power winding
- hand brake and lock

- optional chain-gear safety cover
- two sizes: standard for up to 1300m cable; large for longer cables
- shipped in wooden box

Specifications: Borehole Counter

- attaches to the drill hole casing
- calibrated in meters
- shipped in wooden box; total weight 13kg

Specifications: Dummy Probe and Cable

- solid steel or steel pipe
- same dimensions as borehole probe
- shear pin connection to dummy cable
- steel dummy cable on aluminum spool
- cable mounts on borehole frame
- various lengths to 2600m on 3 spool sizes.