Interpretation of Resistivity / IP Data

Wilson River

For

Jaguar Minerals

By

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March 2008

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SUMMARY

Resistivity /IP data over the Wilson River grid maps the ultramafic unit as an anomalous IP source. No coherent IP target is detected to the east of the ultramafic at the predicted locations of the Wilson River mineralisation. This is most likely due to the mineralisation at depth being too thin to be detected by the IP survey and to some extent because of a possible interfering effect from a highly chargeable ultramafic unit.

In the northern part of the grid to the north of line 3403000 N and on some lines poorly resolved moderate IP targets may be striking a NW direction, paralleling the probable trend of a structure (s) within the survey area.

1. INTRODUCTION

In December 2007/January 2008, Resistivity/IP data was collected over the Wilson River Grid (Figures 1 and 1a). The purpose of the survey was to map out and define mineralisation at depth consisting of galena, sphalarite and pyrite, located at the eastern edge of the ultramafic unit. This report present and discusses the results of this survey.

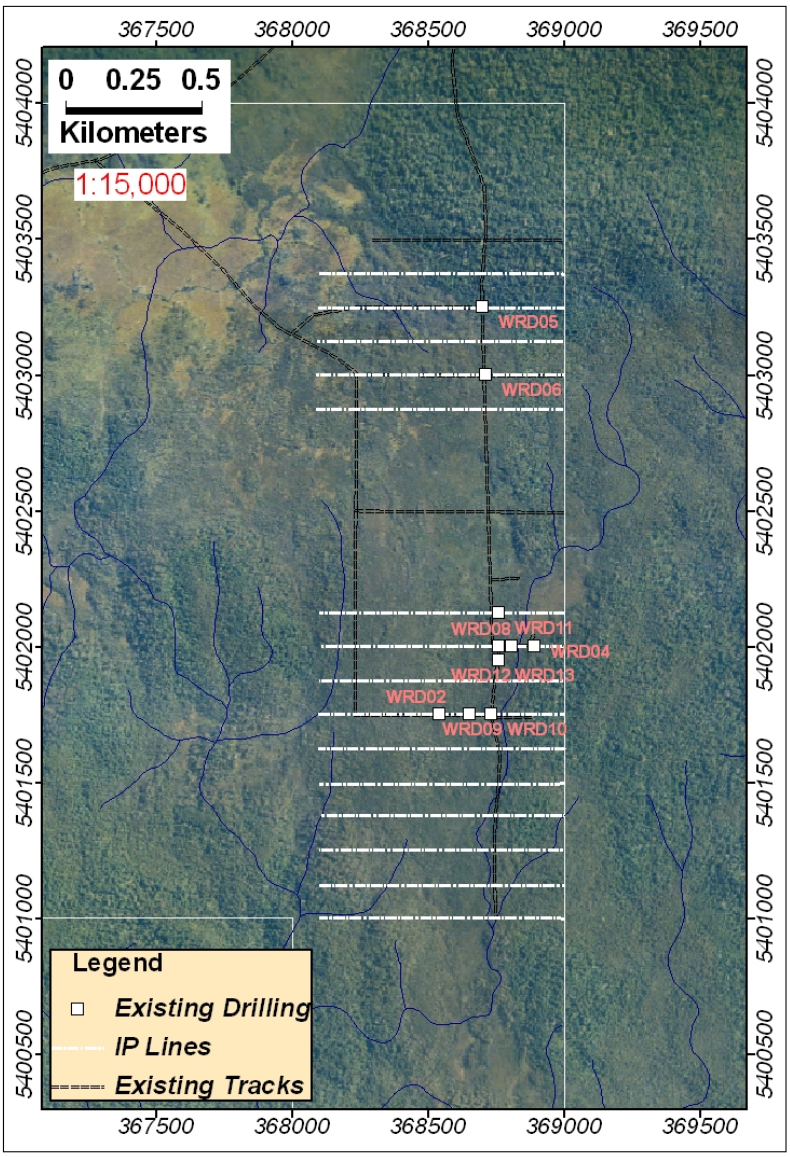

Figure 1. Wilson River IP Lines and Drilling

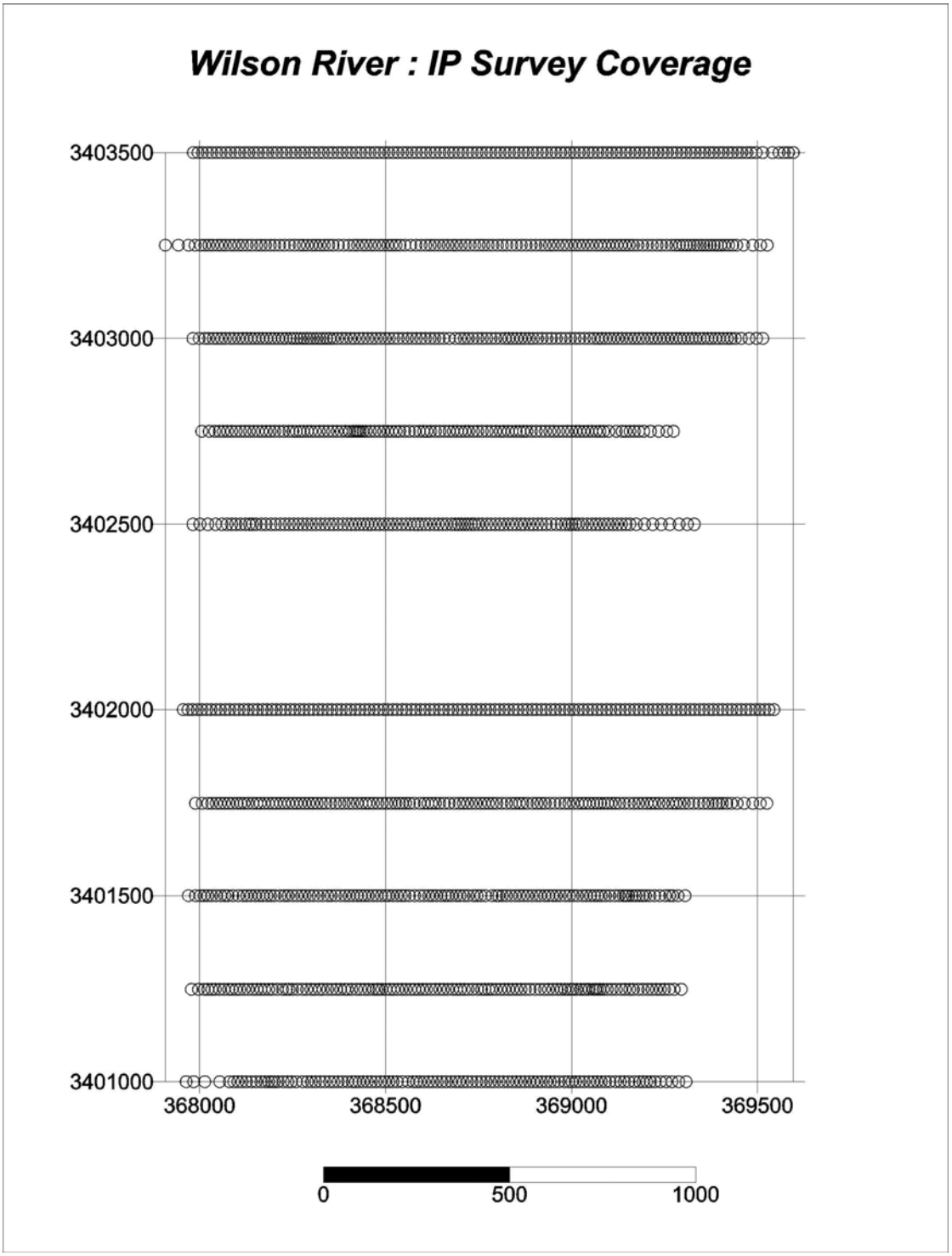

Figure 1a. Wilson River IP Survey Coverage

2. GEOPHYSICAL DATA OVER THE WILSON RIVER GRID

Previous geophysical data over the Wilson River grid includes Helicopter electromagnetic (EM) and Total Magnetic Intensity (TMI) data. The TMI data maps out the ultramafic unit (Figure 2 – 2a), whereas the helicopter frequency domain EM data outlines some broad poorly conductive units most likely related to the weathering of the surface rocks (Figure 2b and 2c). The ultramafic unit as mapped out by the TMI data (Figure 2a) is encircled by poorly conductive features (Figure 2c).

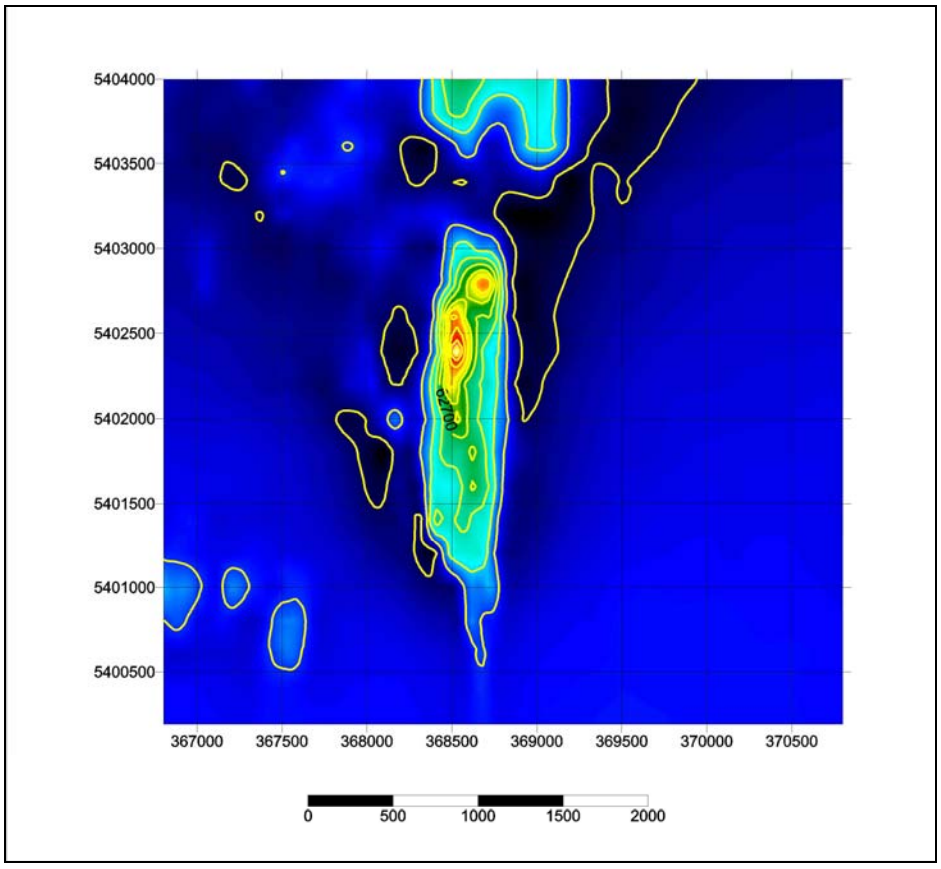

Figure 2. Wilson River Helicopter airborne Total Magnetic Intensity (TMI)

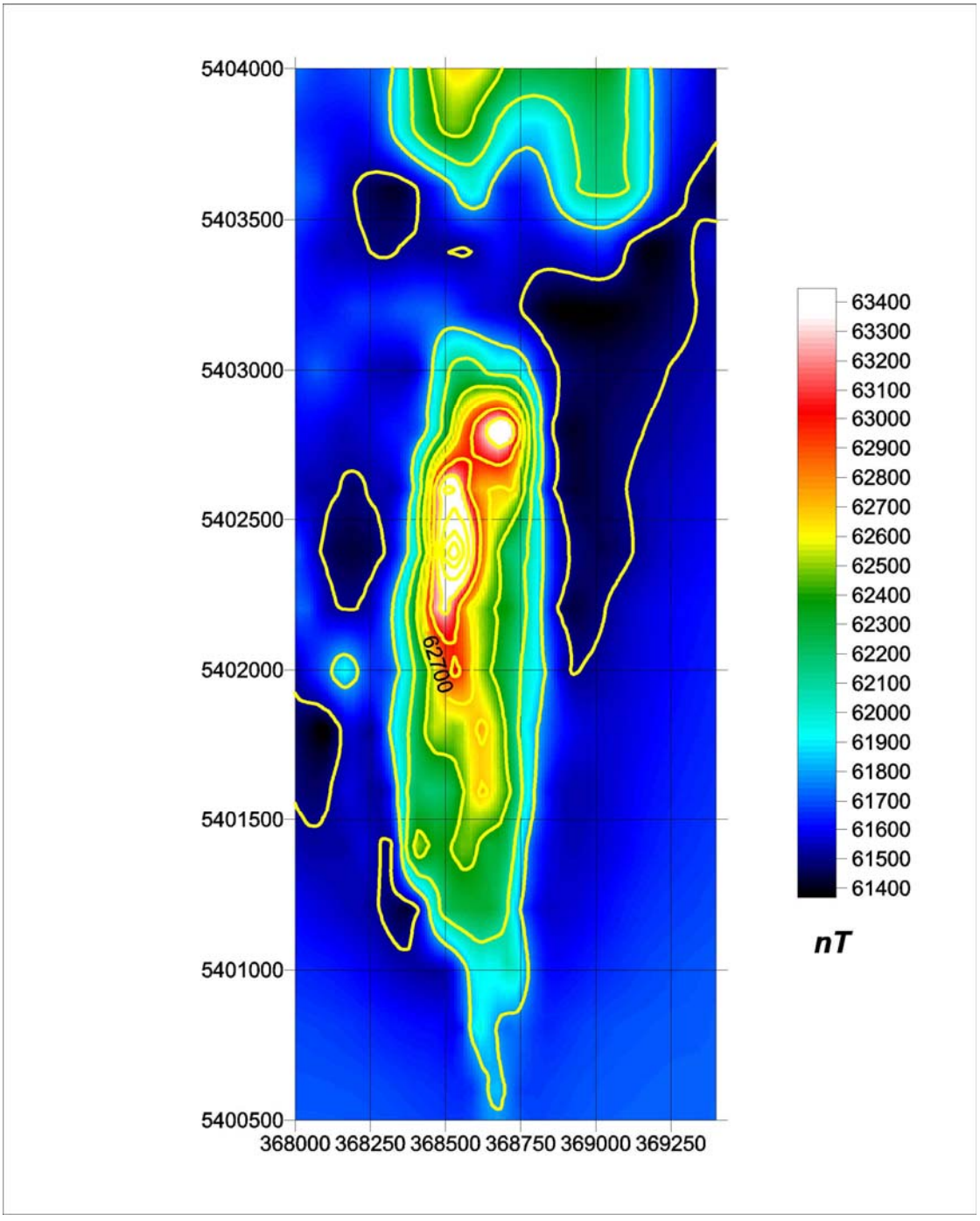

Figure 2a. Wilson River Helicopter airborne Total Magnetic Intensity (TMI)

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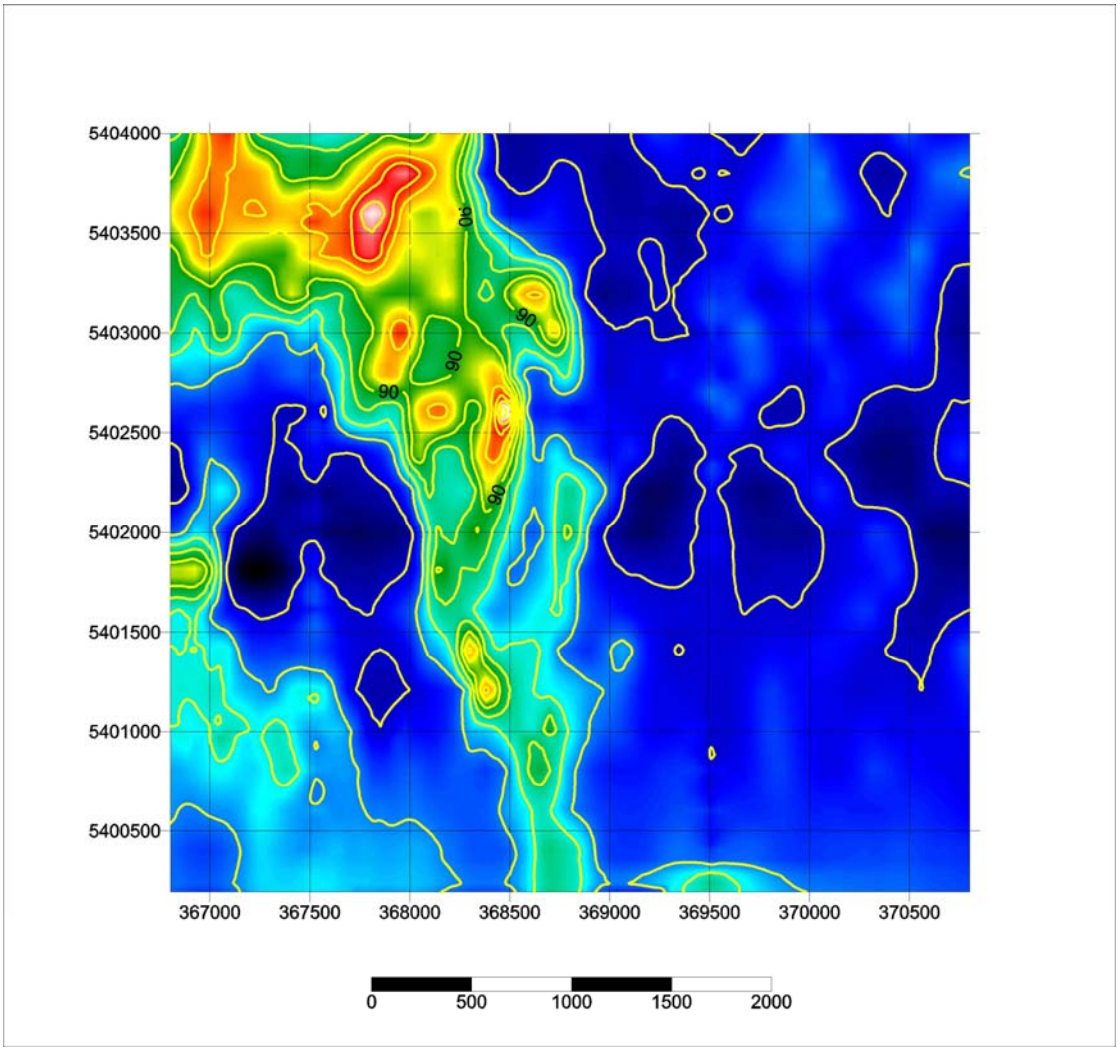

Figure 2b. ***Wilson River Helicopter Frequency Domain EM Coplanar 7 Khz Quadrature***

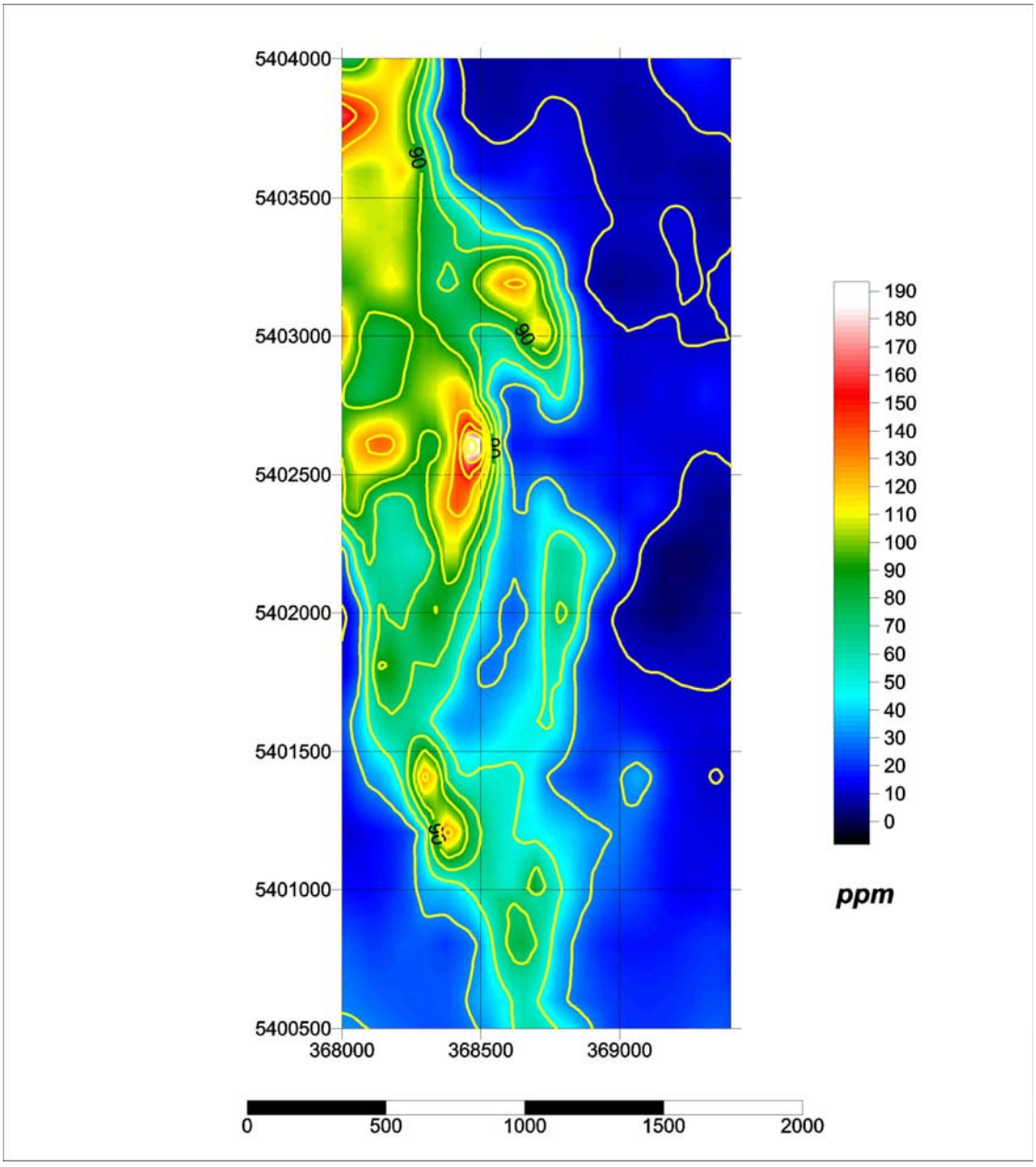

Figure 2c. Wilson River Helicopter Frequency Domain EM Coplanar 7 Khz Quadrature

2. PARAMETERS AND EFFECTIVENESS OF THE IP SURVEY

The resistivity/IP data was collected using a pole-dipole mode of surveying, with measuring (voltage) or receiving dipoles sizes of 25 or 50 meters at separations up to sixteen dipole spacing from the transmitting electrode. SJV Geophysics collected the data on behalf of Jaguar Minerals. With transmitter receiving dipole separations between 600 – 800 meters large IP targets at depths of between 200 – 400 meters could have been detected. The largest single limitation for detecting the Wilson River mineralised target would be its thickness. Very thin moralisation at depth less than 10 – 15 meters thick and at depths in excess of 100 meters is not expected to be detected by the IP Survey.

3. DISCUSSION OF RESISTIVITY /IP DATA

Figures 3 to 12 show the conductivity/chargeability (IP) sections over the ten surveyed lines. On examining these sections (Figure 3 – 12) in conjunction with the summary images showing the interpreted chargeability(IP) at depths of 55 and 105 meters it is apparent when comparing it with the TMI image over the ultramatic (Figure 2a) that :

(a) The ultramatic unit is mapped out by an anomalous IP response.

(b) No coherent target is evident to the east of the ultramatic unit or to the east of 368750 -368800 E or at the predicted location of the Wilson River mineralisation.

(c) IP targets and on some lines poorly resolved (lines 3402750 N and 3403000 N) are noted in the north-eastern part of the grid. These poorly resolved IP features may be striking in a NW direction and aligned with a possible structure within the survey area.

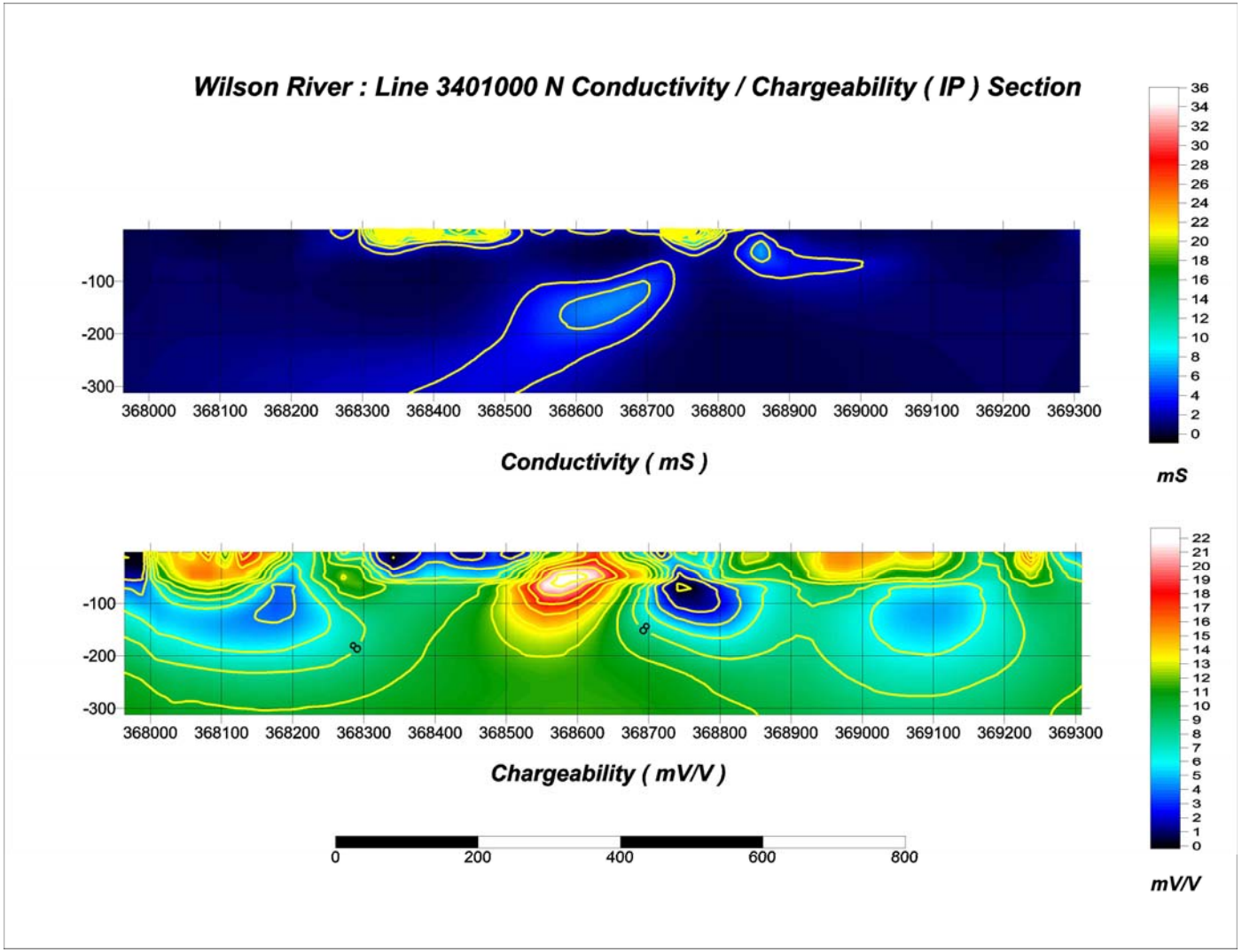

Figure 3. Wilson River: Line 3401000 N Conductivity/Chargeability (IP) Section

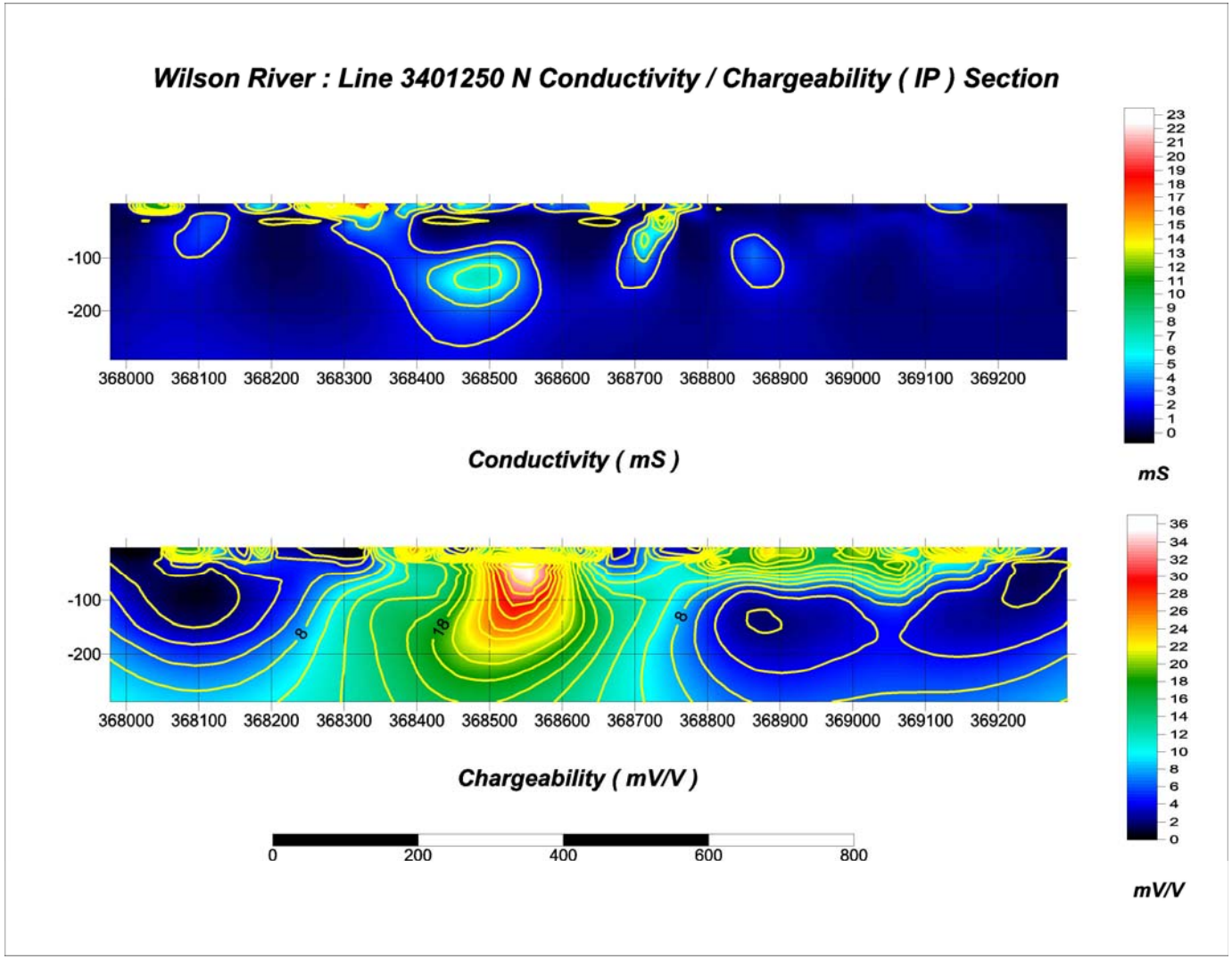

Figure 4. *Wilson River: Line 3401250 N Conductivity/Chargeabi8lity (IP) Section*

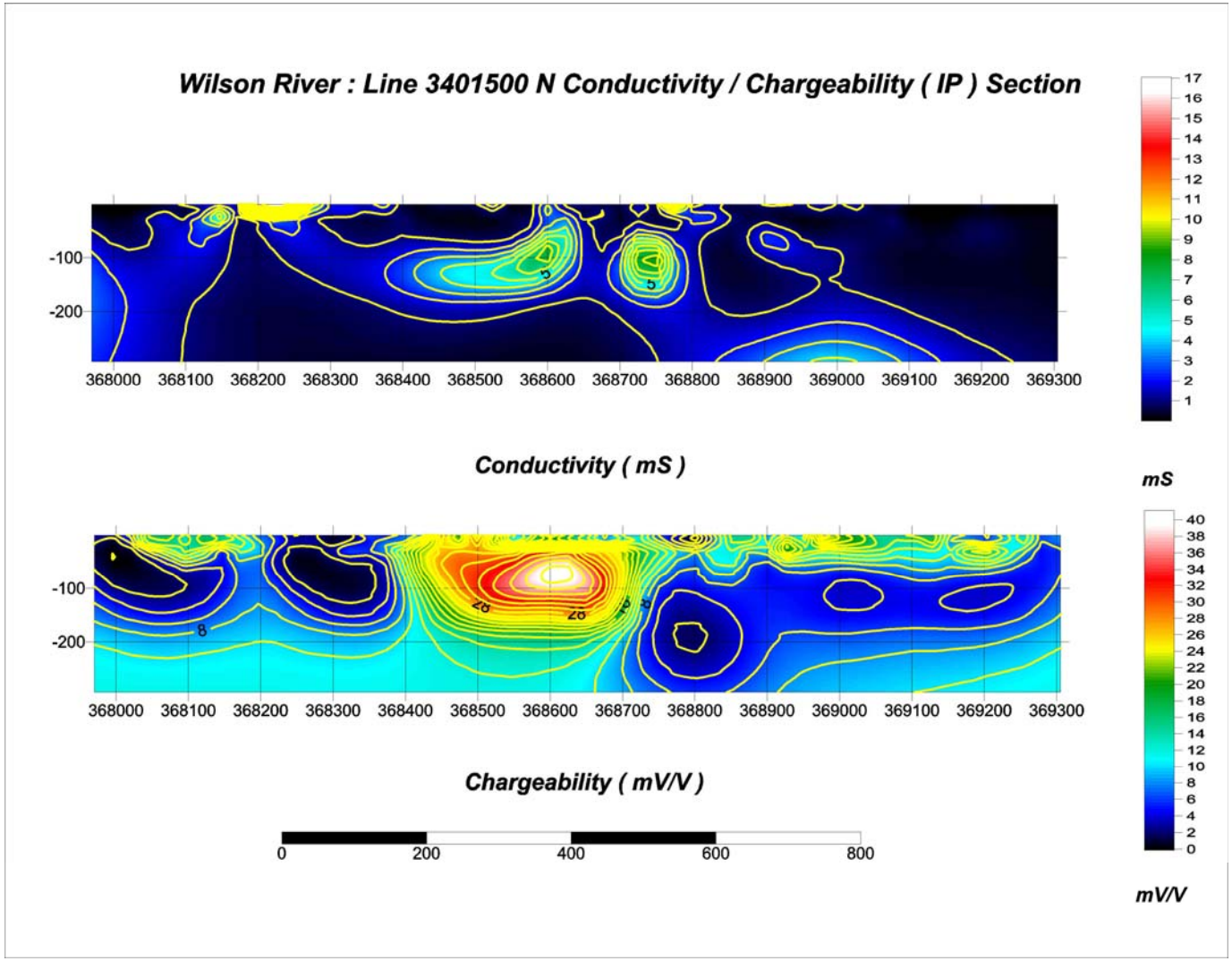

Figure 5. Wilson River: Line 3401500 N Conductivity/Chargeability (IP) Section

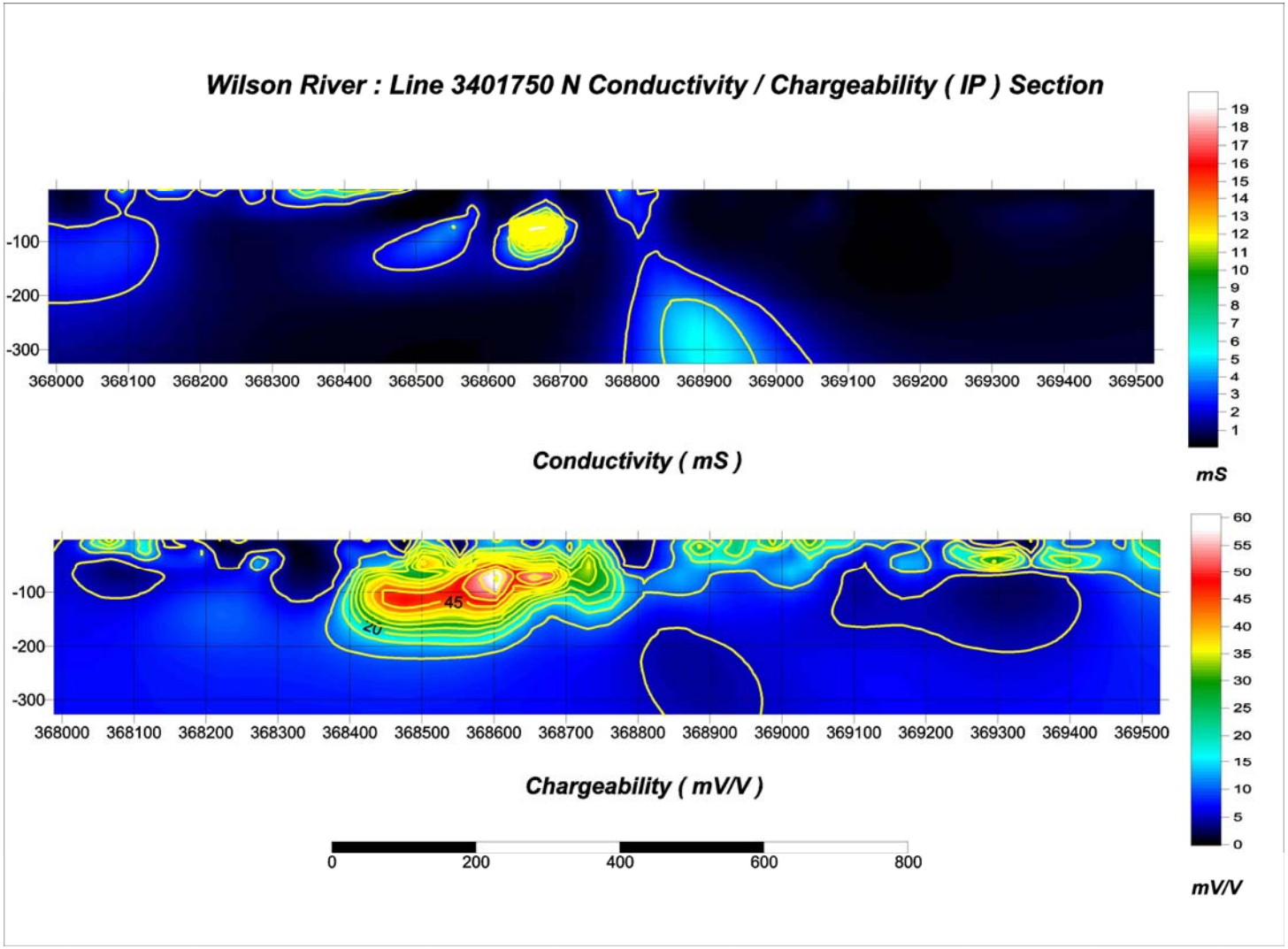

Figure 6. Wilson River: Line 3401750 N Conductivity/Chargeability (IP) Section

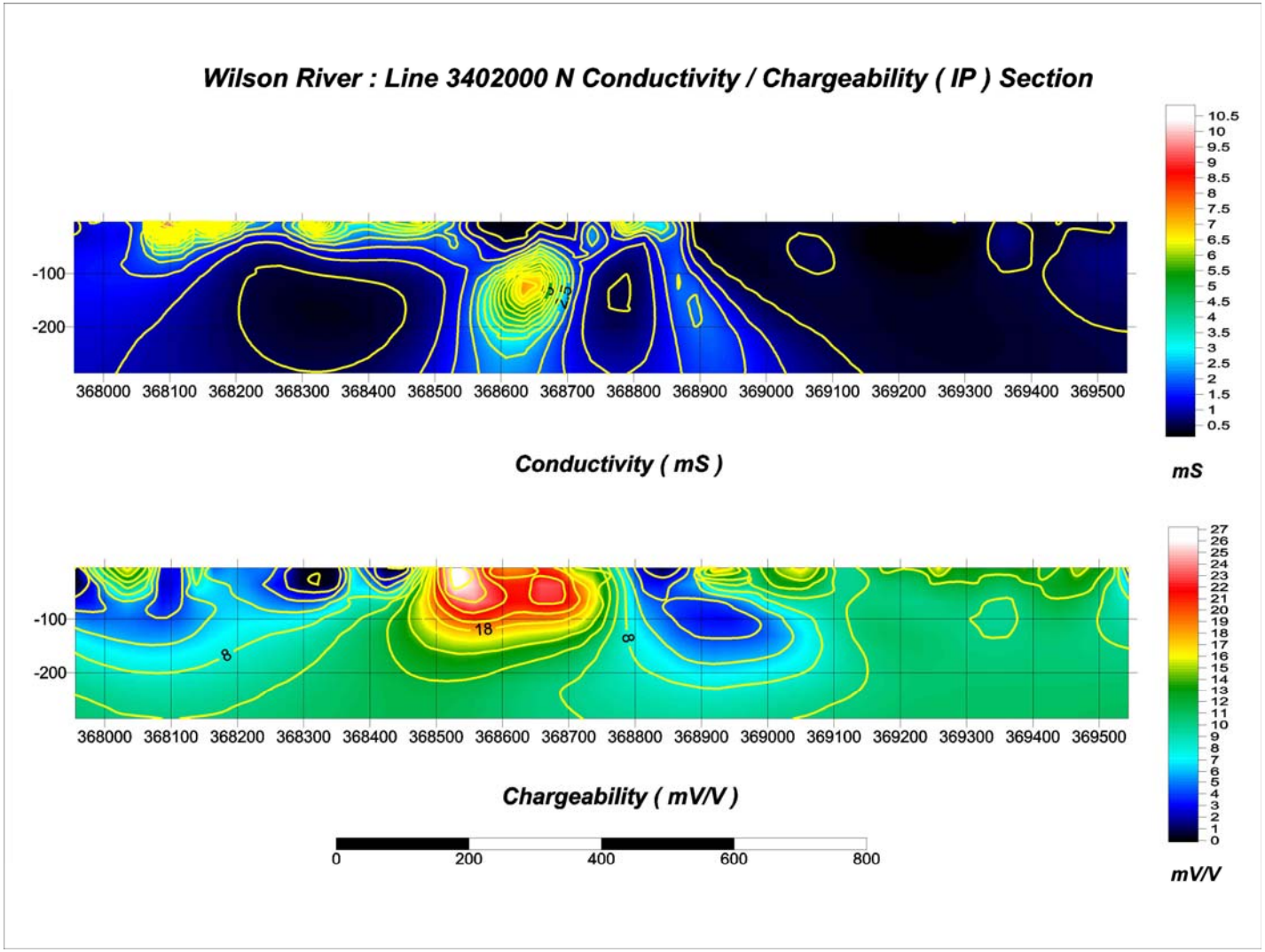

Figure 7. *Wilson River: Line 3402000 N Conductivity/Chargeability (IP) Section*

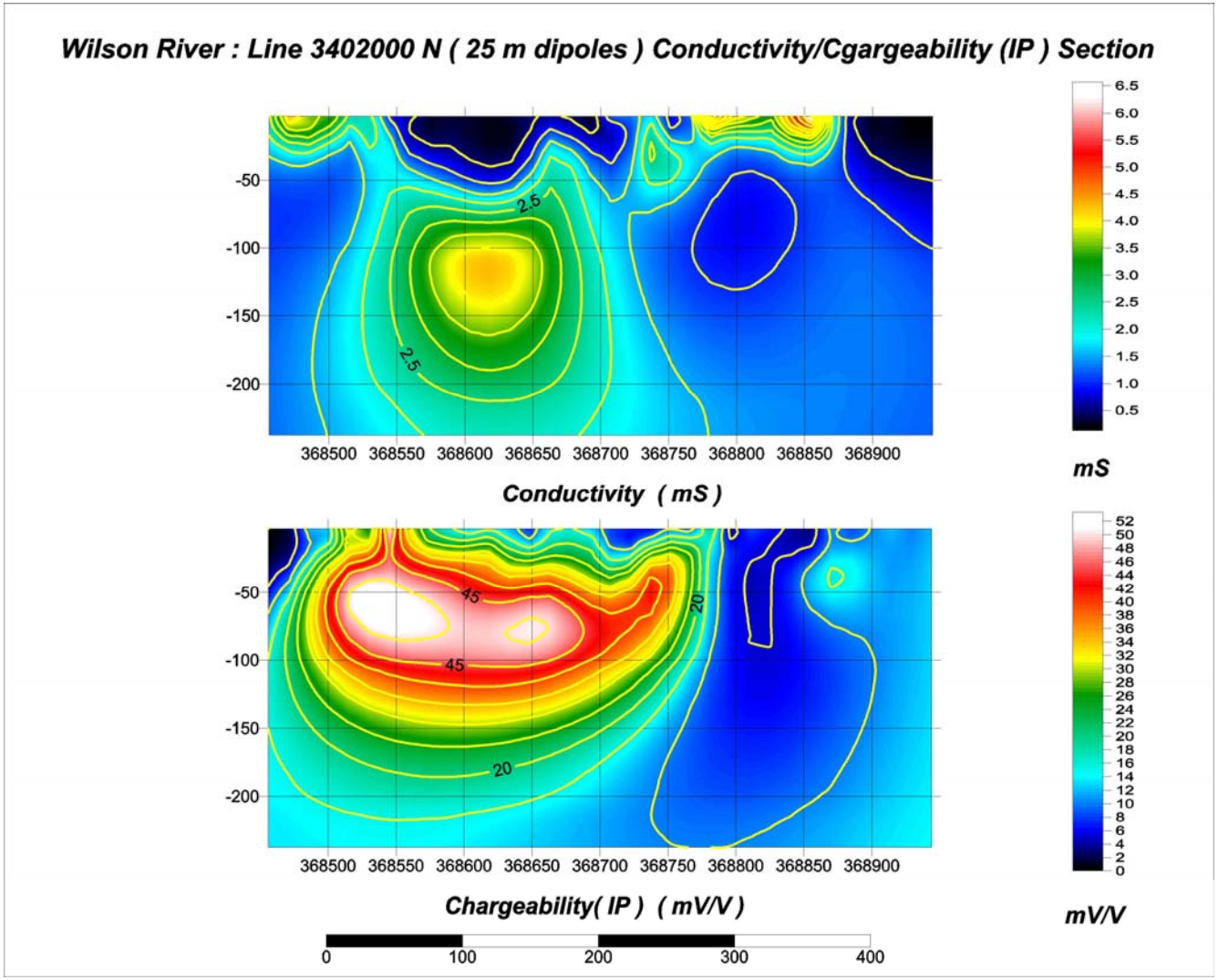

Figure 7a. Wilson River: Line 3402000 N (25 m dipoles) Conductivity/Chargeability (IP) Section

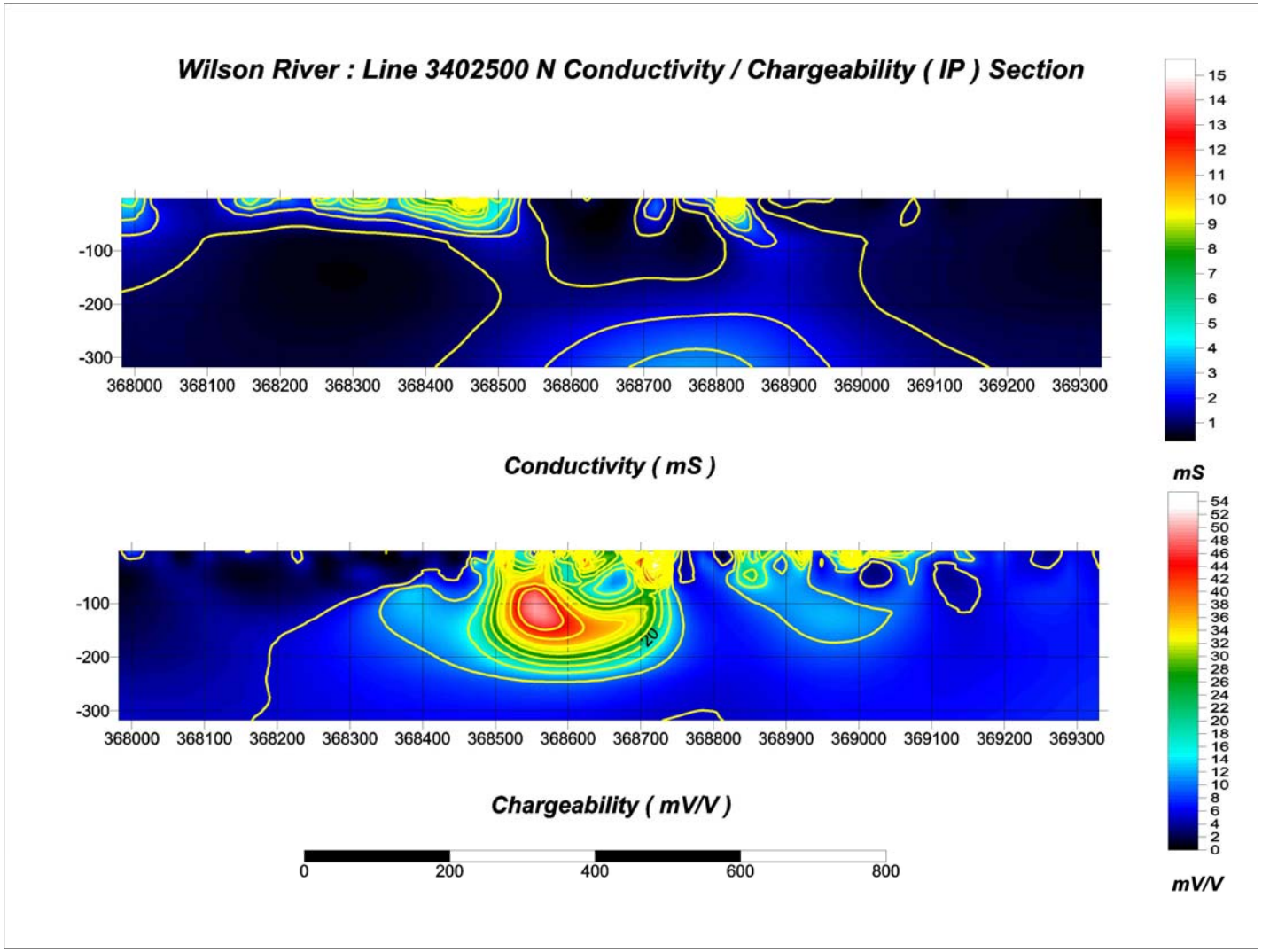

Figure 8. *Wilson River: Line 3402500 N Conductivity/Chargeability (IP) Section*

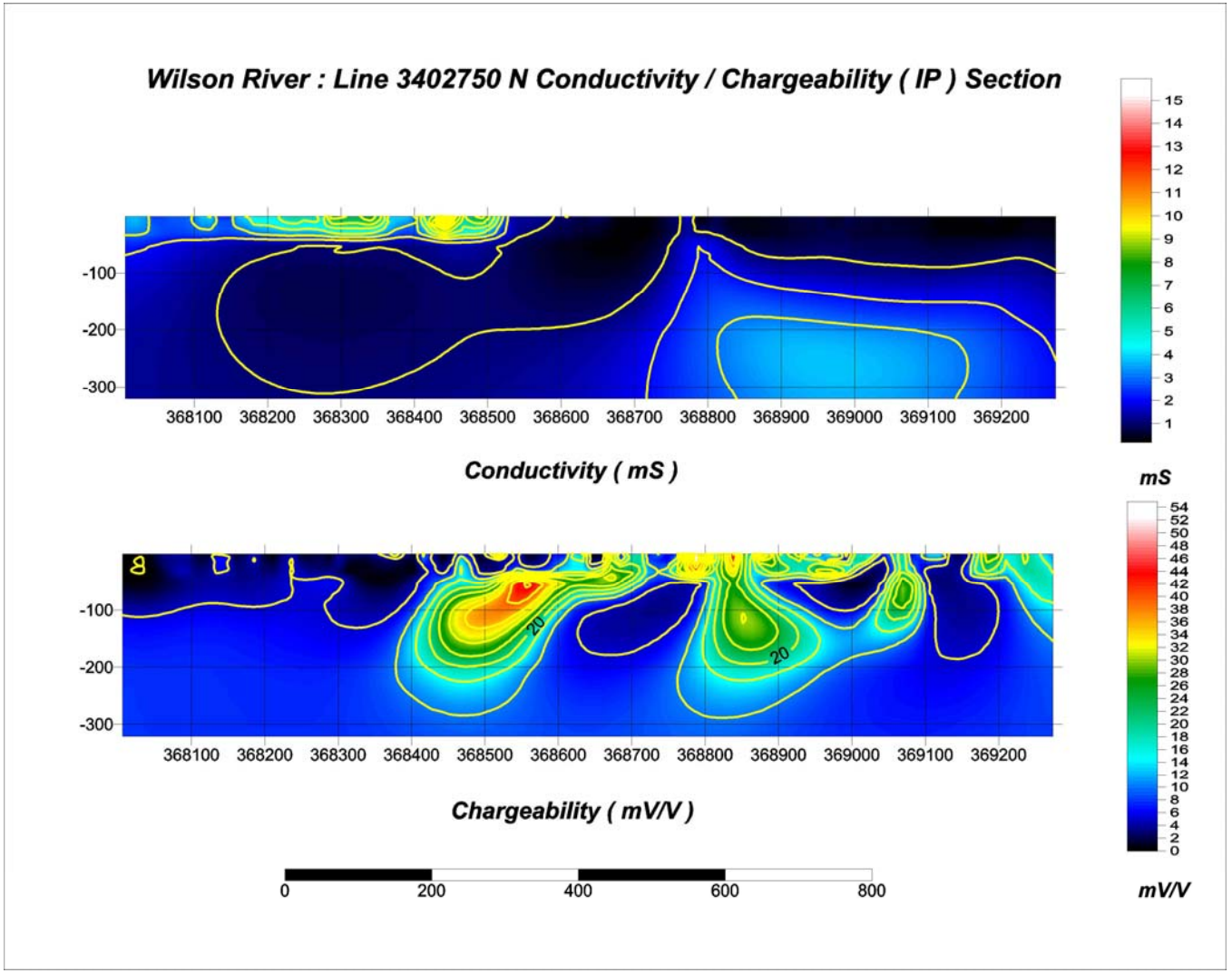

Figure 9. *Wilson River: Line 3402750 N Conductivity/Chargeability (IP) Section*

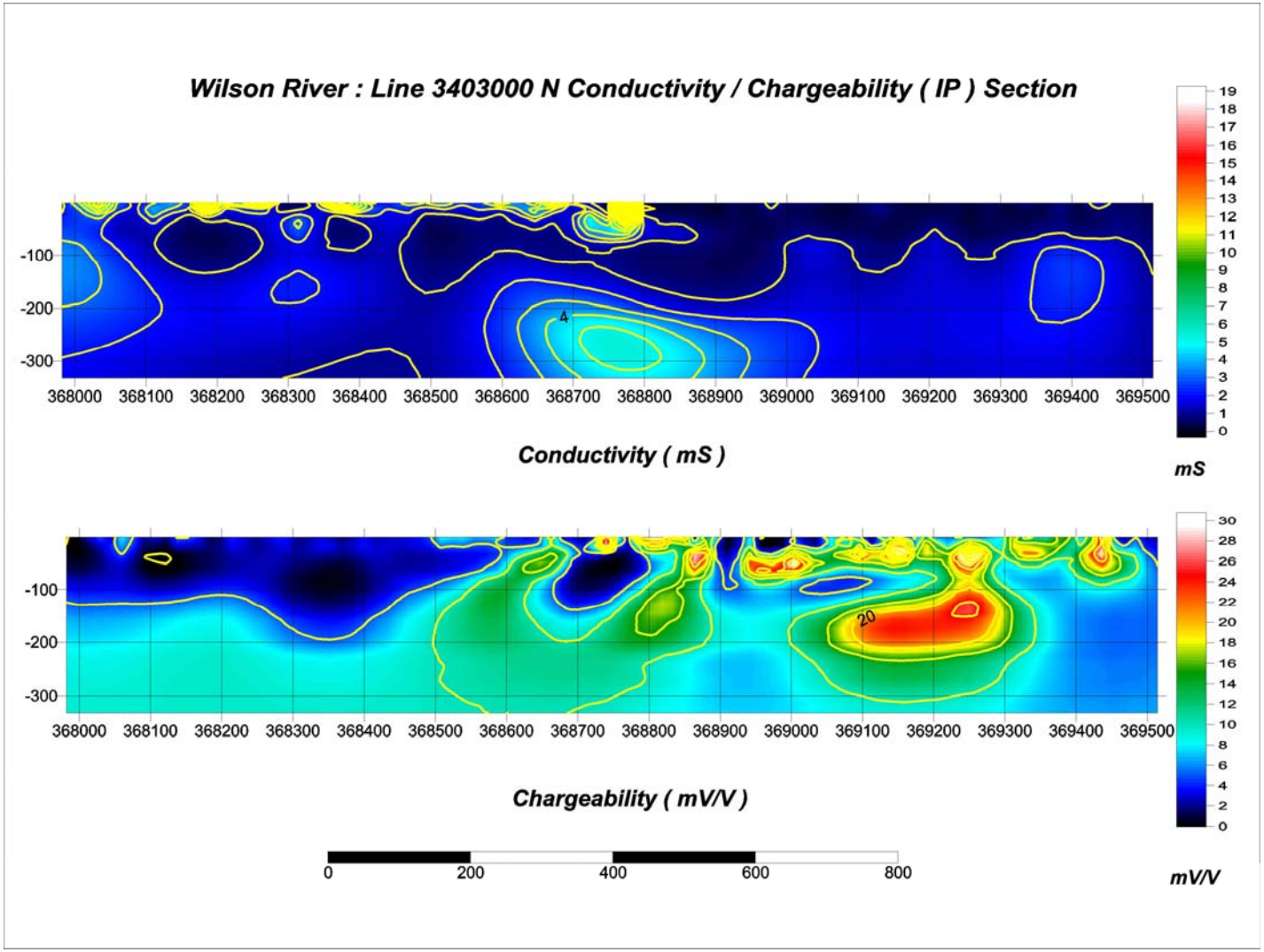

Figure 10. Wilson River: Line 3403000 N Conductivity/Chargeability (IP) Section

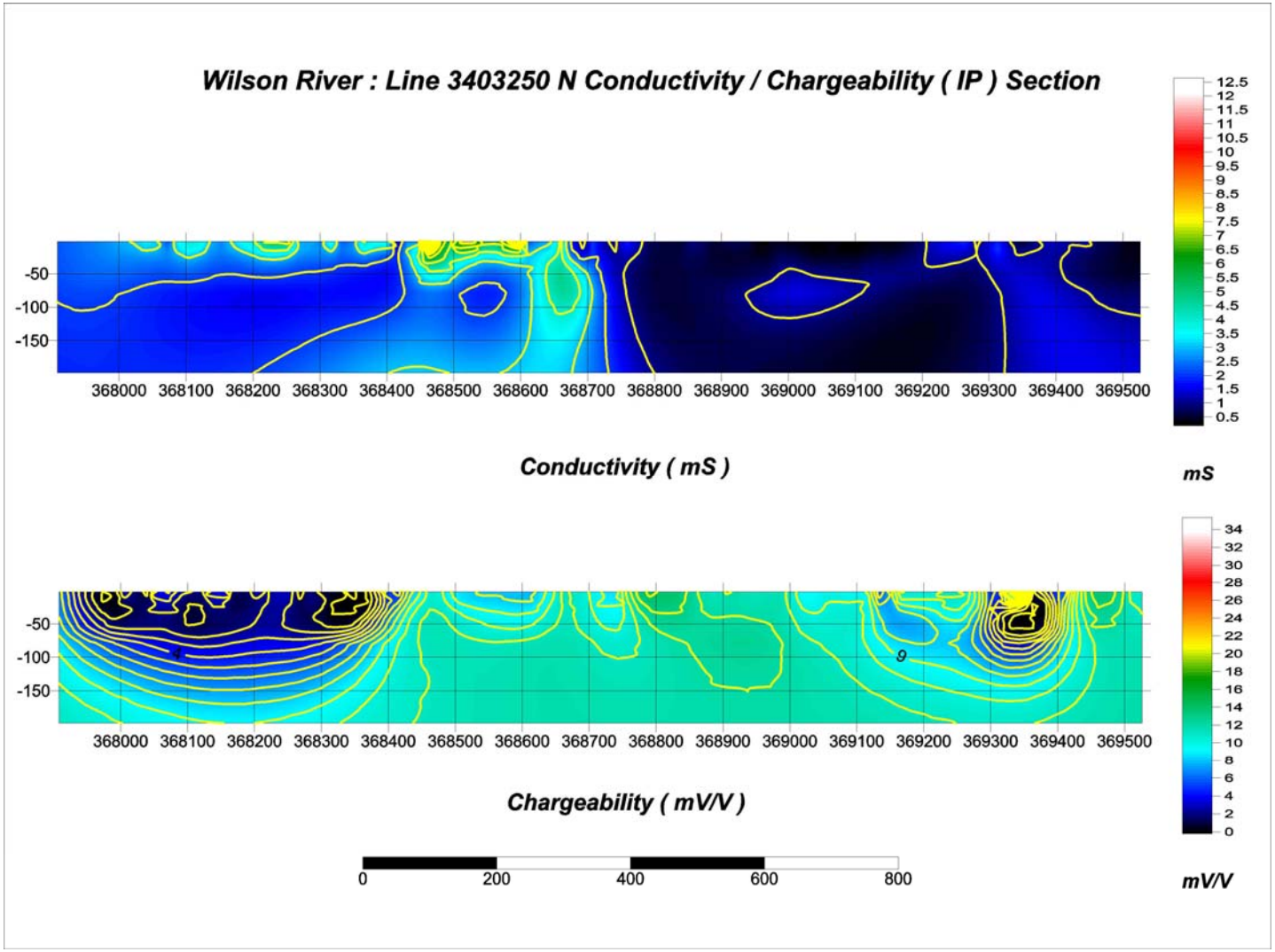

Figure 11. Wilson River: Line 3403250 N Conductivity/Chargeability (IP) Section

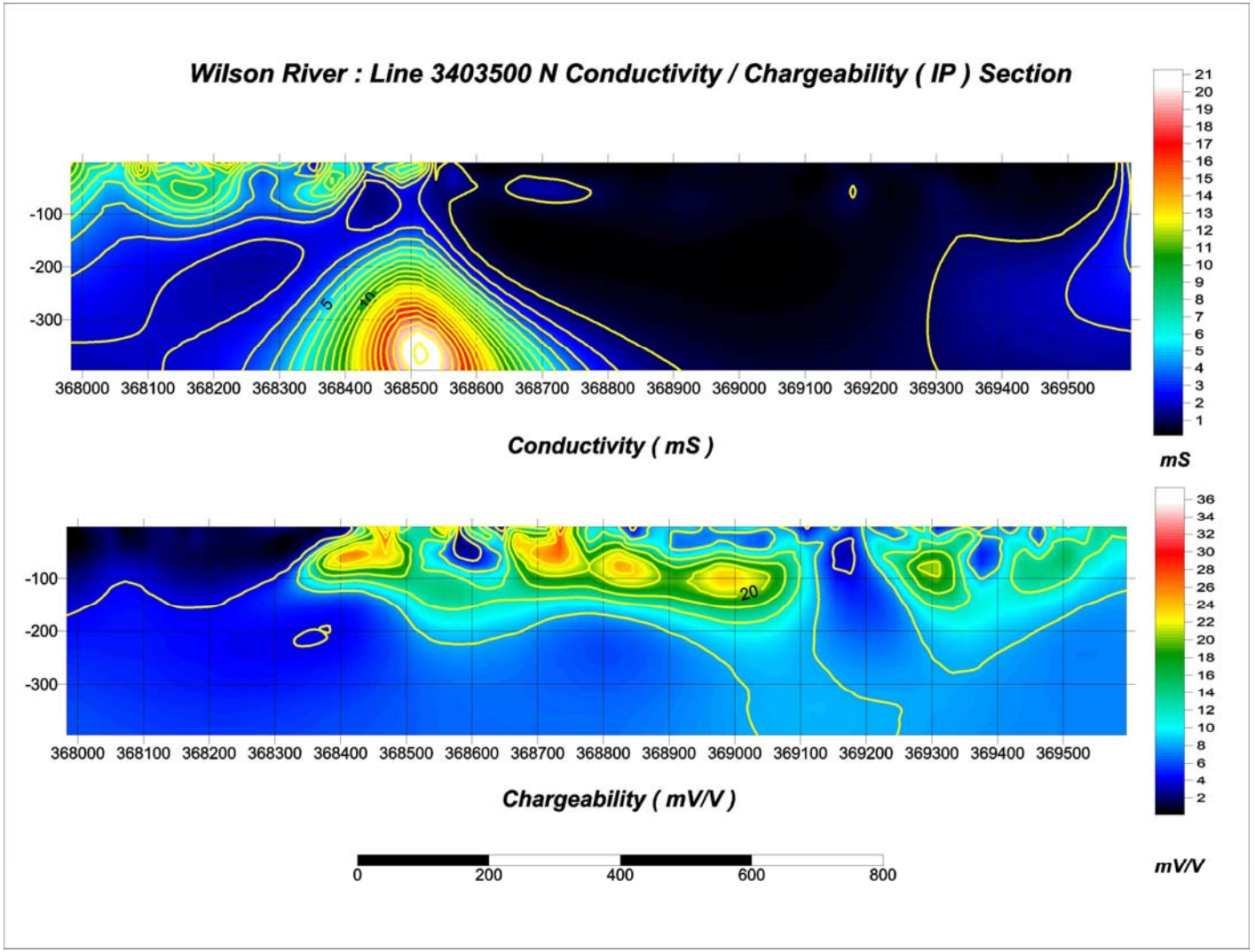

Figure 12. Wilson River: Line 3403500 N Conductivity/Chargeability (IP) Section

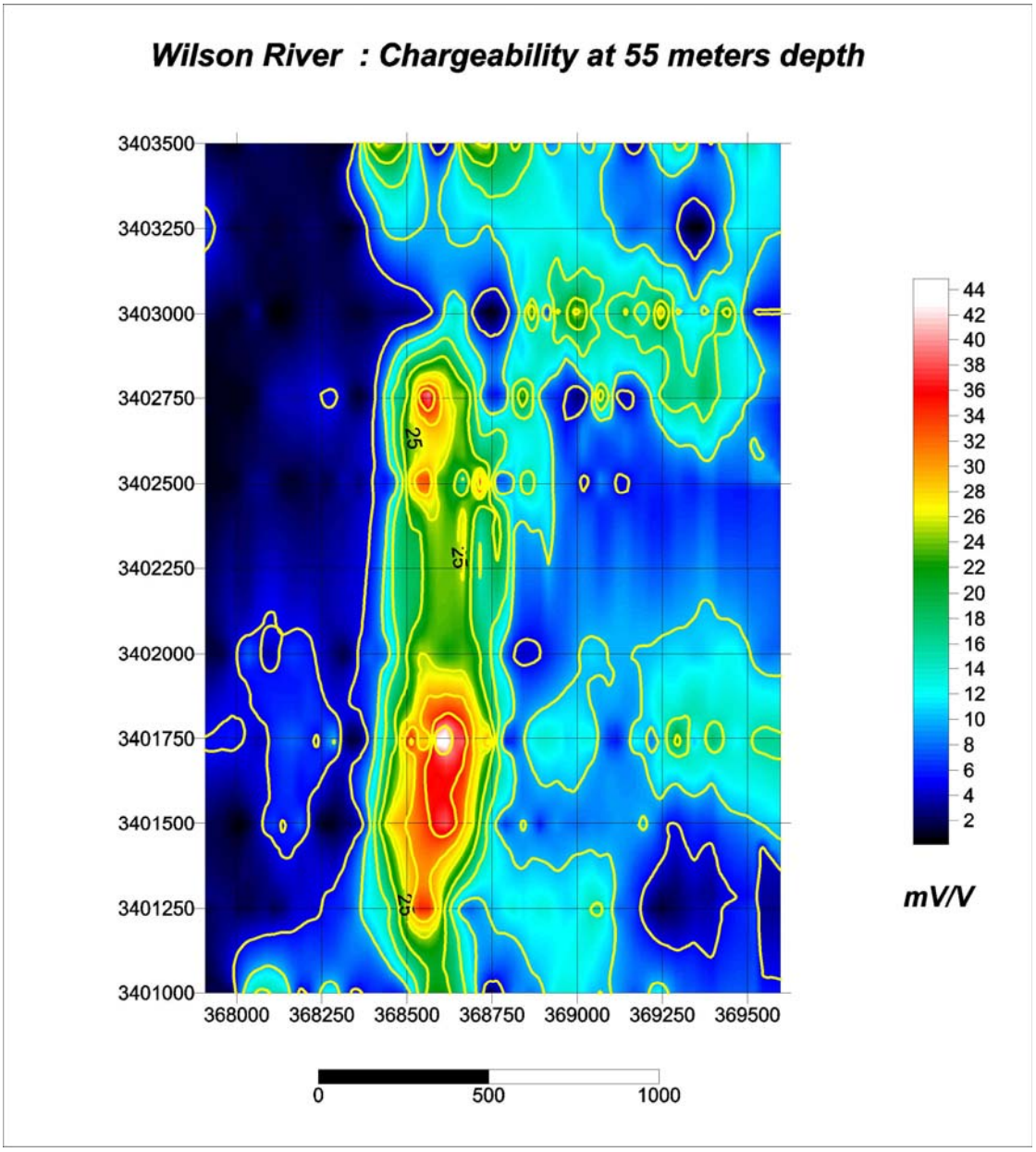

Figure 13. Wilson River: Chargeability at 55 meters depth

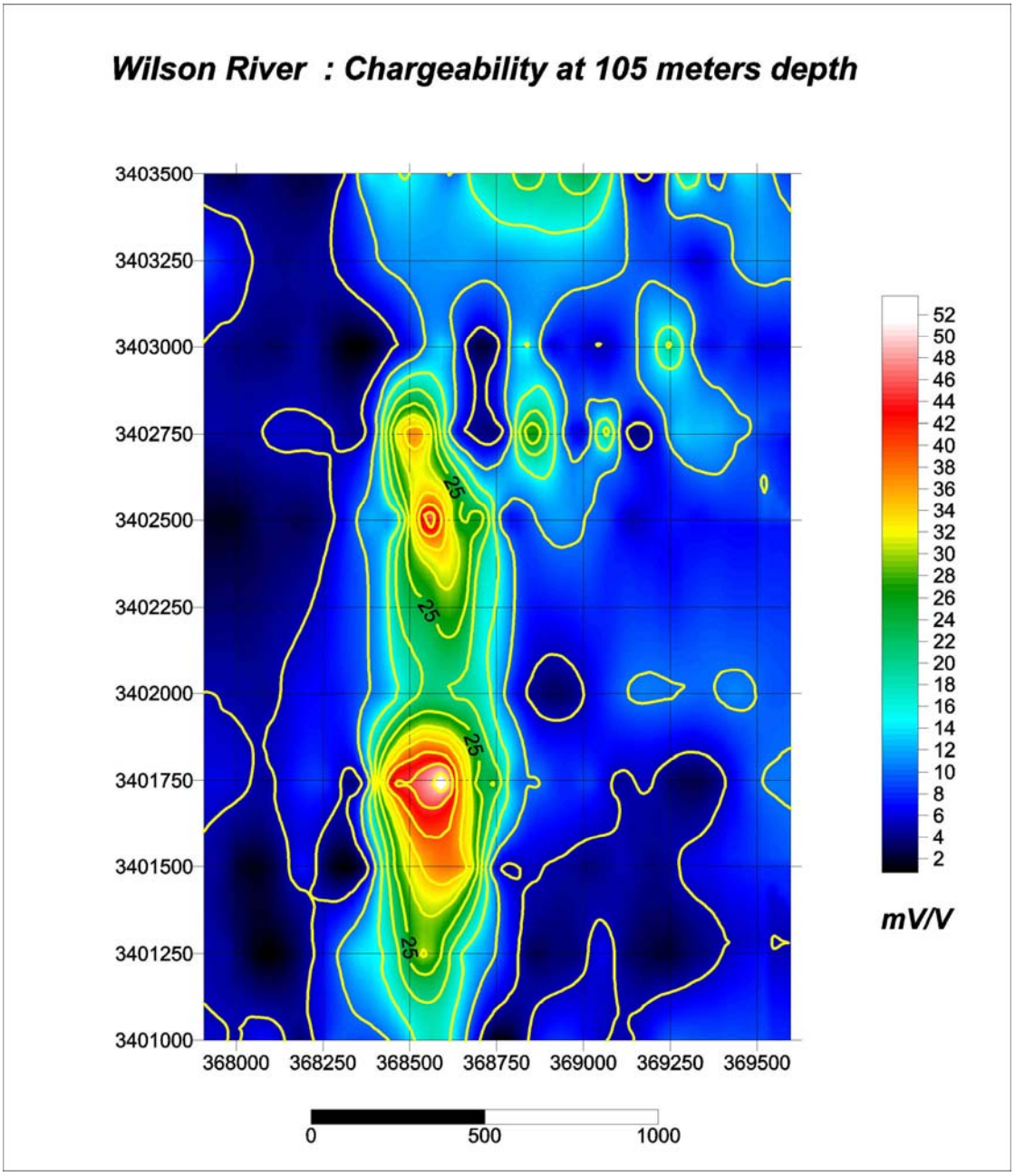

Figure 13a. Wilson River: Chargeability at 105 meters Depth

CONCLUSION

Resistivity /IP data over the Wilson River grid maps the ultramafic unit as an anomalous IP source. No coherent IP target is detected to the east of the ultramafic at the predicted locations of the Wilson River mineralisation. This is most likely due to the mineralisation at depth being too thin to be detected by the IP survey and to some extent because of a possible interfering effect from a highly chargeable ultramafic unit.

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