



ADDRESS
PO Box 35
North Perth
WA 6906 Australia

PHONE
+61 (8) 9295 0388
FAX
+61 (8) 9295 3480

EMAIL
info@frontierresources.com.au
WEBSITE
www.frontierresources.com.au

ABN 96 095 684 389
ASX : FNT

ASX Limited
Company Announcements Office
Announcement

26th November 2010

Three Very Large, Voluminous and Intense 3D-Induced Polarity Chargeability Anomalies Demonstrate the Presence of Major Sulphide Systems from Surface to >800m Deep Andewa Gold and Copper Project, Papua New Guinea

Frontier Resources Ltd is very pleased to announce that three exceptionally extensive, voluminous and intense, three dimensional Induced Polarisation (3D-IP) chargeability anomalies have compellingly demonstrated the presence of very large on-surface to >800m deep sulphide systems at the Andewa gold and copper Project on the island of New Britain in Papua New Guinea (Refer to figures 1, 2, 3 and 4).

There is also a major ring or donut shaped high-resistivity anomaly (figure 5) that surrounds the main chargeability zone, reflecting hydrothermal fluid movement that resulted in silicification or quartz veining in ring, radial and other types of fractures associated with a porphyry intrusion. The margins and more intense central sectors of the resistivity anomalies are valid drill targets.

- A very extensive (approx. 25 sq km) 3D - IP survey was recently completed at Andewa along with a soil geochemical program over the entire gridded area. The first two thirds of the IP grid data are reported herein and the information collected on the remaining third of the grid is now being processed. Results of the soil program are being collated and will be announced when a cohesive group of samples have been returned in January.
- Seven 'historic' high-level gold prospects or anomalous areas occur within a central 7 km by 2.5 km structural zone. Exploration has previously concentrated only the Komsen gold Prospect. The Andewa Valley is uninhabited (figure 2).
- **The main chargeability anomaly demonstrated is referred to as the 'Core Chargeability Zone (CCZ)'. It is very large, sub-equant and approximately 2,000m wide x 2,000m long (at >30ms) (figures 6-8 and 12-14).**
 - The Core Chargeability Zone clearly demonstrates a very large and voluminous sulphide system that commences at surface, but is more cohesive and extensive at depths of greater than 200m.
 - The anomaly appears to be at least partly fault controlled and is fragmented into major blocks near surface, becoming consistently very intense (>50ms) in strength at depth.
 - The Core Chargeability Zone is pseudo cup to funnel shaped in relation to both intensity and size, eventually becoming somewhat 'Y' shaped continuing to depth past the approximate 800m below surface modelled maximum depth.
 - The gold mineralised Komsen structure is located on the western margin of the Core Zone and extends radially to the west.
 - The geophysics has demonstrated there is excellent depth potential for possible gold and copper mineralisation associated with the intense chargeability anomalies /sulphide systems, but the grades of any such mineralisation are unknown.

For personal use only

- As a comparison, Frontier has previously drilled gold mineralisation at Komsen from surface to a maximum depth of 320m below surface in a limited program. All the holes drilled at the Komsen Prospect except one were relatively shallow, averaging exactly 100m downhole. Excellent continuity of mineralisation was demonstrated within the structure with gold intercepts such as 7.9m of 10.01g/t gold and 3.0m of 10.97g/t gold.
- Some Komsen drill intercepts contained significant base metals such as 1m of 19.0 g/t gold + 119.0g/t silver + 10.3% zinc + 0.22% copper, 2m of 5.43 g/t gold + 95 g/t silver + 11.1% zinc + 2.3% lead + 0.12% copper and 0.5m of 2.55 g/t gold + 36 g/t silver + 0.48% zinc + 0.19% copper. Virtually all holes encountered anomalous copper in the order of 400 to 600ppm, but in some holes showed 0.3% to 0.4%.
- The Core Chargeability Zone is located between the Komsen and Ekhos Prospects, where there are excellent indications of gold mineralisation including float rock samples assaying to 54.4 g/t gold + 990 g/t silver and outcrop rock samples assaying to 7.10 g/t gold. In addition, there is consistent jarosite-limonite-clay-pyrite-fuchsite+silica+dog's-tooth quartz alteration along fractures, with sparse and patchy clay-pyrite+silica+fuchsite alteration overprinting the commonly propylitically altered host-rock. It is also marginal to the Samarung Prospect which had a historic float rock sample grading 37.2 g/t gold + 1.58% copper + 0.5 ppm platinum + 44 ppm palladium and numerous narrow auriferous veins and structures.
- Mineralised and altered porphyry float rock has now been discovered and sampled in 2 locations on the Andewa grid (see the photograph -figure 15, of green secondary copper mineralisation on fractures of a porphyritic rock).
- Additional evidence of possible porphyry mineralisation was noted in the Core Zone in an Aster satellite evaluation, including a jarosite equivalent alteration zone, surrounded by a pyrophyllite clay alteration halo and a 1.1km diameter circular feature showing alunite equivalent clay alteration. Alunite can also be associated with High-Sulphidation epithermal gold systems, which can occur genetically related to porphyry mineralisation and are also a possible and valid target.

➤ **Two additional very large chargeability anomalies were also defined.**

- The Ekhos Chargeability Anomaly is located in the south of the 2 eastern most grid lines reported herein (figures 6-8 and 11-13)..
 - It is more than 1,000m long and is between 200m and 400m wide as presently known on the edge of the grid. This anomaly will likely be enlarged by the geophysical lines recently completed that are now being processed.
 - It is a very intense near surface anomaly that extends to depth and it appears to be associated with the Ekhos gold – copper Prospect and sub-region.
 - The Ekhos Prospect is currently known as a 700m x 100m ridge and spur gold-in-soil anomaly and associated substantial base metal anomaly.
 - North and South Zones have gold occurring in quartz veins to 10m width in hand trench. The best assay results were 9m at 1.96 g/t gold, 15m at 1.83 g/t gold and 2m of 5.19 g/t gold, with significant associated copper. Rock outcrop assays are to 7.60 g/t gold and 20.5 g/t gold, respectively and mineralisation on surface is open to the northwest.
- The Ber Chargeability Anomaly is located in the northern sector of the grid.
 - It is more than 1,500m long, is between 200m and 800m wide.
 - The anomaly also appears to be fault bounded.
 - Little work has been completed in this region, but it has anomalous gold in drainages and silicified structures interpreted from the Aster data.

- Figures 6 to 8 are plan views or depth slices below surface showing the IP response over the gridded area at 100m depth, 200m depth and 400m depth, respectively. These plans illustrate clearly that

there are local but limited IP chargeability responses that reach ground surface, with an increasing response with depth in intensity and cohesion, to a widespread and exceptionally strong response at 400m depth and greater.

- Figures 12 -15. are .grid .east-west sections of resistivity (on top) and chargeability (on the bottom) illustrating clearly how the chargeability expands at depth.
- Resistivity plans and sections are attached as figures 9-11 and 12-14, respectively and the donut shaped anomaly is obvious.
- A comprehensive review will be conducted once all geophysical and geochemical data from the grid is received.

Chairman Peter McNeil. M.Sc. commented:

The three dimensional Induced Polarisation geophysical survey has enhanced the economic potential for precious and base metals at the Andewa Project by an order of magnitude. Frontier's goal was to demonstrate the possible presence a major gold and copper mineralised system to produce new and systematically defined, high quality drilling targets in multiple prospect areas. I believe that the Company has been highly successful with this major geophysical and geochemical exploration program and anticipate an extensive drilling campaign will commence after the wet season in the second quarter of 2011, to test these incredibly impressive IP anomalies.

The central block of the Core chargeability Zone at Andewa is 1,200m long and about 500m wide at >50ms chargeability. This is a very intense chargeability zone reflecting very abundant sulphides. There are also 2 other intense chargeability blocks that are 400m x 400m and 300 x 400m, respectively. At 400m depth the Core chargeability Zone covers an area in excess of 2 sq km or >200 hectares. This is a huge and intense chargeability anomaly that extends to greater than 800m total depth. The Consulting geophysicist supervising the geophysical survey commented regarding the Core Zone "I have never seen anything like it"

Frontier has previously drilled gold mineralisation at the Komsen Prospect from surface to a maximum depth of 320m below surface in a limited program, proving excellent lateral and vertical continuity in the structure with results to 7.9m of 10.01g/t gold.

In addition, there are two additional very strong to intense chargeability anomalies located in the northern and south-eastern sectors of the grid (as processed to date). The first is called the Ber chargeability Anomaly and it is more than 1,500m long and is between 200m and 800m wide. The area has anomalous gold in drainage and the anomaly also appears to be fault bounded. The Ekhos chargeability Anomaly is located in the south of the 2 eastern most grid lines reported herein and is more than 1,000m long and is between 200m and 400m wide, as presently known on the edge of the grid. This anomaly will almost undoubtedly become longer and wider when the recently completed geophysical lines are processed.

It is useful and appropriate to compare the size of the Andewa chargeability anomalies with those recently reported on New Britain Island by competitors on their flagship projects. Coppermoly Ltd and Vangold Resources Ltd used the same geophysical consultants as Frontier, so the data is directly comparable. The main chargeability anomaly at Andewa has an intensity of much greater than 30ms at all depths and is >50ms in the high intensity centre of the Core Zone. The Nakru-1 chargeability anomaly located 150km to the ESE is also >30ms from surface and extends to the north-east at depth with dimensions of 600m by 200m, covering 10 hectares. Nakru 1 has only a few small zones that are >50ms in intensity. Of interest of course is that the first drill hole in the centre of the Nakru 1 anomaly recently intersected 213.75m of 0.92% copper and 0.33g/t gold, including significant higher grade zones. Vangold's Mt Penck project is located 65 km to the east, is the closest mineral project to Andewa and a very good analogy; their chargeability anomaly at 200m depth covers an area of 18 hectares but only at >25ms.

As a comparison, the Core chargeability Zone alone at Andewa is about 20 times the size of the main anomaly at Nakru 1 and >10 times the size of the main anomaly at Mt Penck, where Vangold have recently commenced a deep drilling campaign.

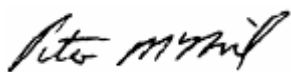
The Andewa 3D-IP has demonstrated the largest and most compelling chargeability anomalies that I have ever seen and we still have 1/3 of the grid area to be processed, evaluated and reported. It is not possible to speculate on the possibly associated gold or copper grades, as this can only be determined by drilling, but Management believe the Andewa Gold Project has excellent potential to yield potentially economic gold and copper mineralisation with additional systematic exploration and the Company will focus on achieving this outcome.

Some basic geological and geophysical discussion is warranted regarding what these geophysical results mean.

- ◆ The strong chargeability anomalies are in themselves valid and compelling drilling targets, as are their shoulders or the transition zones between high and low intensity, for both precious and base metal deposits.
- ◆ A “sulphide system” means disseminated or wide-spread, electrically conductive sulphide minerals are present. It is not known what type or quantity of sulphides are causing the chargeability response, but it is almost certainly pyrite and/or base metal sulphides (not graphite).
- ◆ The strength of the chargeability anomaly is directly proportional to the total volume and type of sulphides that are present (ie. generally more sulphides = stronger chargeability anomaly).
- ◆ Pyrite is iron sulphide. It is the most common form of sulphide, but has no economic value. Base metal sulphides primarily of copper (+/- zinc and lead) and precious metals (gold and silver) are economically significant and are the exploration targets at Andewa.
- ◆ The definition of a ‘World Class Deposit’ varies but is now generally considered to be about 4 million contained ounces of gold or equivalent.
- ◆ Gold and base metals have various three dimensional spatial relationships with pyrite in different types of mineral deposits in these environments, depending on the precise physical and chemical conditions under which they formed.
- ◆ Higher grade zones of copper mineralisation sometimes contains lower total sulphides (less pyrite) and thus actually have lower chargeability. As such, economically significant base metal sulphide zones could also occur adjacent to (not within) the highest chargeability anomalies. This means that the shoulders of the chargeability anomalies are also valid drilling targets.
- ◆ It is possible that copper and gold grades of the sulphide mineralisation will increase with depth and that the chargeability anomaly at or near surface represents structurally related mineralisation peripheral to major porphyry copper - gold mineralisation.

For information relating to Frontier Resources please visit our website at www.frontierresources.com.au or feel free contact me.

FRONTIER RESOURCES LTD



P.A. McNeil, M.Sc.

CHAIRMAN / MANAGING DIRECTOR

The information in this report that relates to Exploration Results is based on information compiled by, or compiled under the supervision of Peter A. McNeil - Member of the Aust. Inst. of Geoscientists. Peter McNeil is the Managing Director of Frontier Resources, who consults to the Company. Peter McNeil has sufficient experience which is relevant to the type of mineralisation and type of deposit under consideration to qualify as Competent Person as defined in the 2004 Edition of the Australasian Code of Reporting Exploration Results. Peter McNeil consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Figure 1. SRTM topographic image of the Andewa EL.

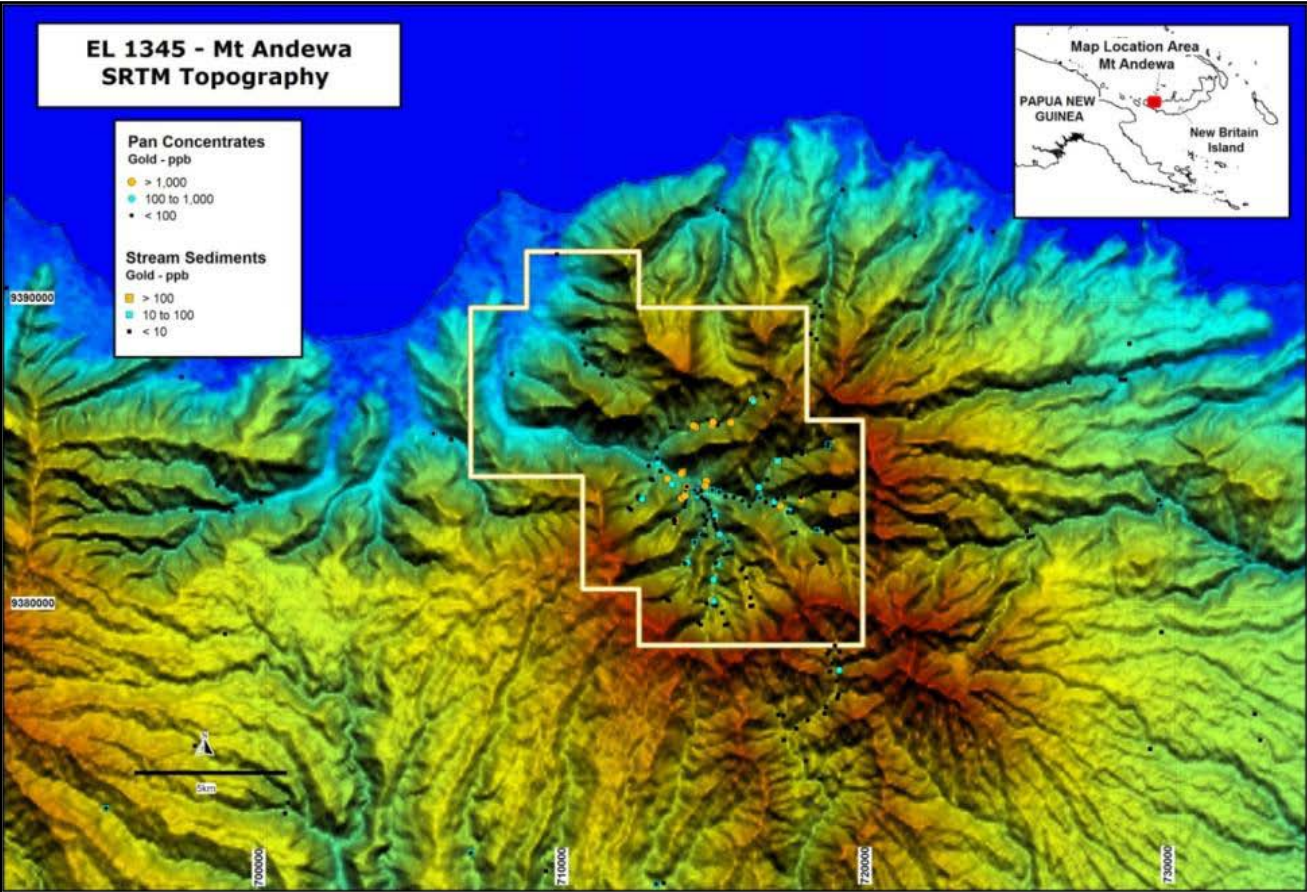
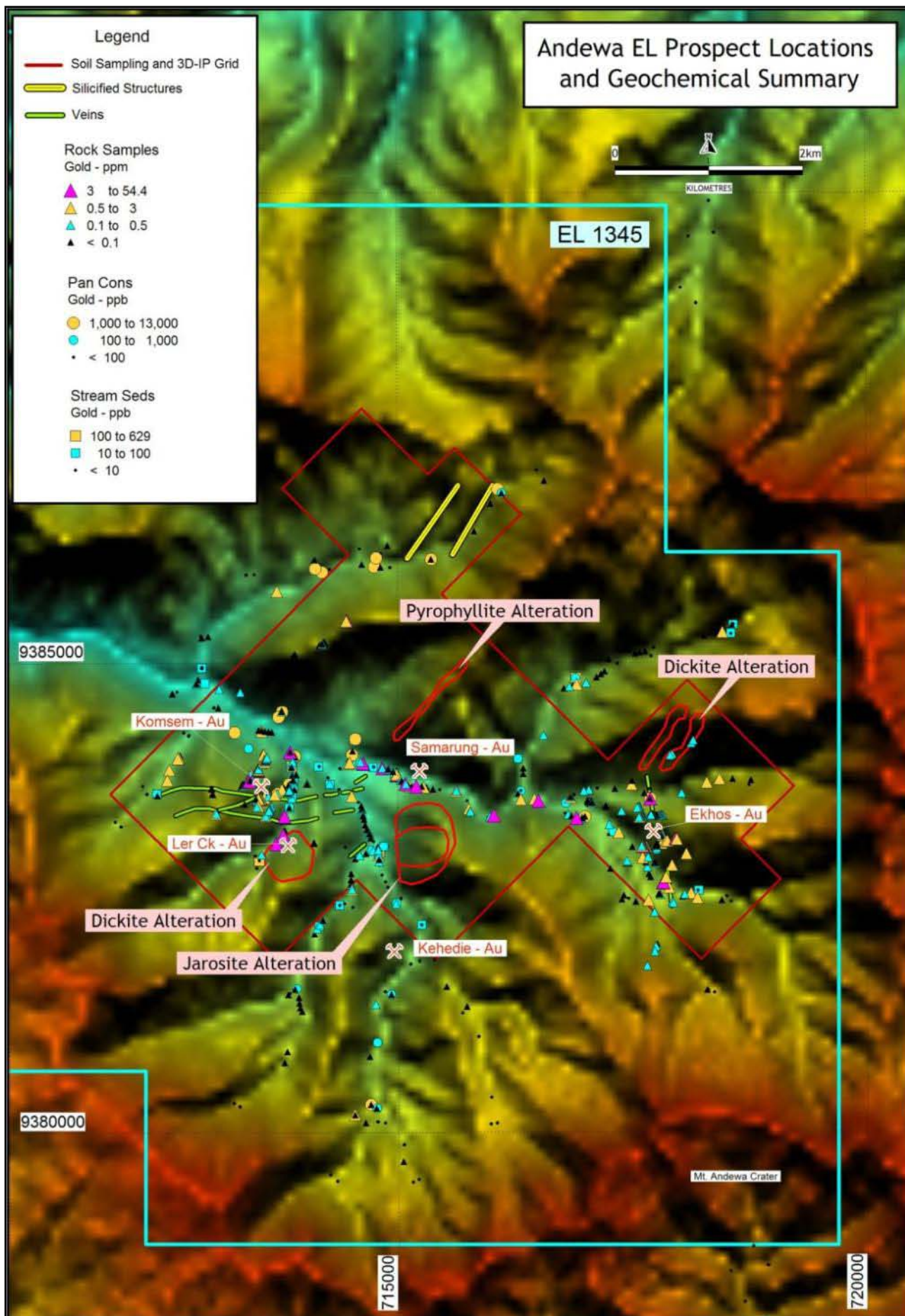


Figure 2. Photo of the Andewa Valley looking from the Ekhos Prospect down the structural zone and across the CCZ to the WNW. Komsen is near the shadow line in the central background sector (of the photo).



Figure 3. Andewa Prospect locations, showing the Komsen structures, drainage geochemistry and the initially proposed 3D -IP grid. The eastern corner of the grid is now being processed and the 'hole' in the grid has been filled in (use this grid as a scale and reference shape when evaluating the IP plans and sections).



For personal use only

Figure 4. Pseudo 3D representation of the chargeability anomalies viewed from the south, showing the IP and soil geochemistry section lines and topography, plus a plan view of the chargeability in the lower left corner.

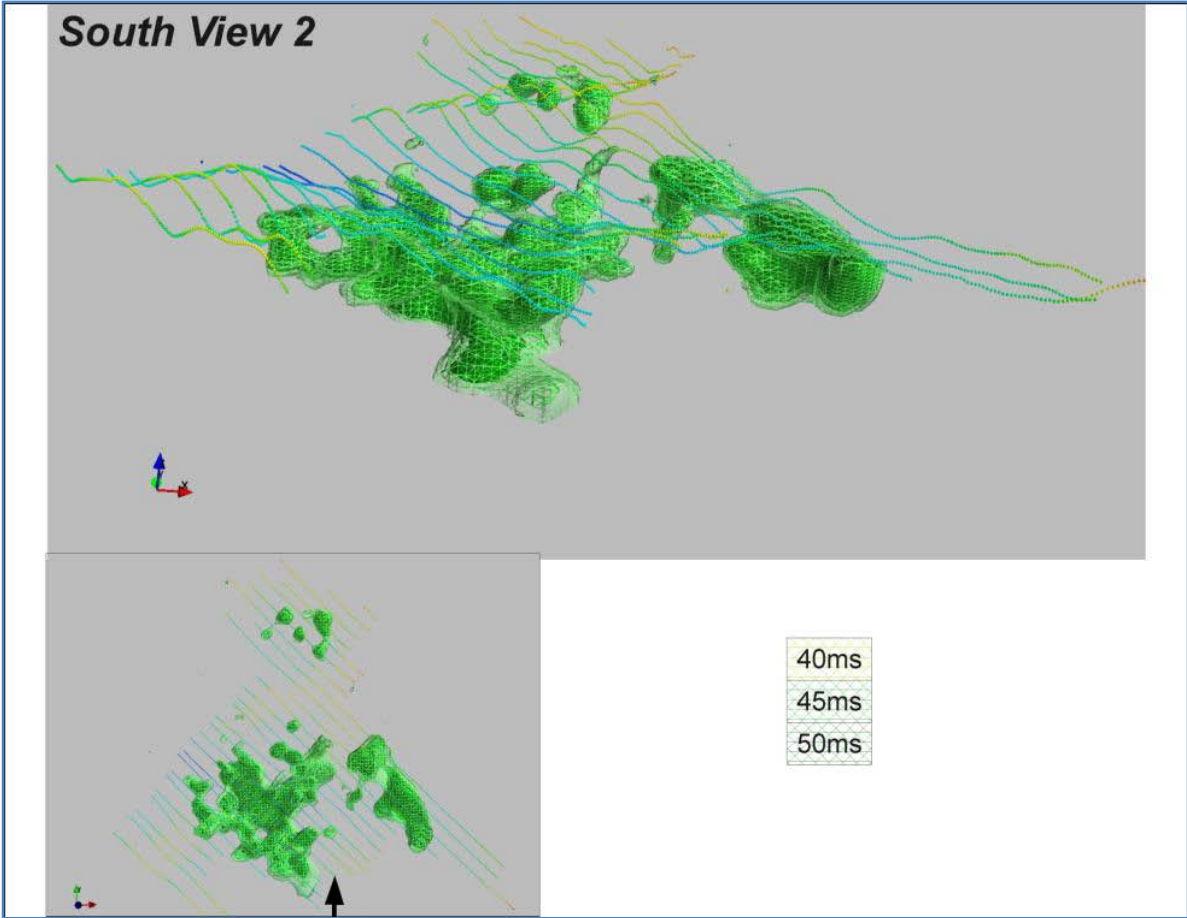
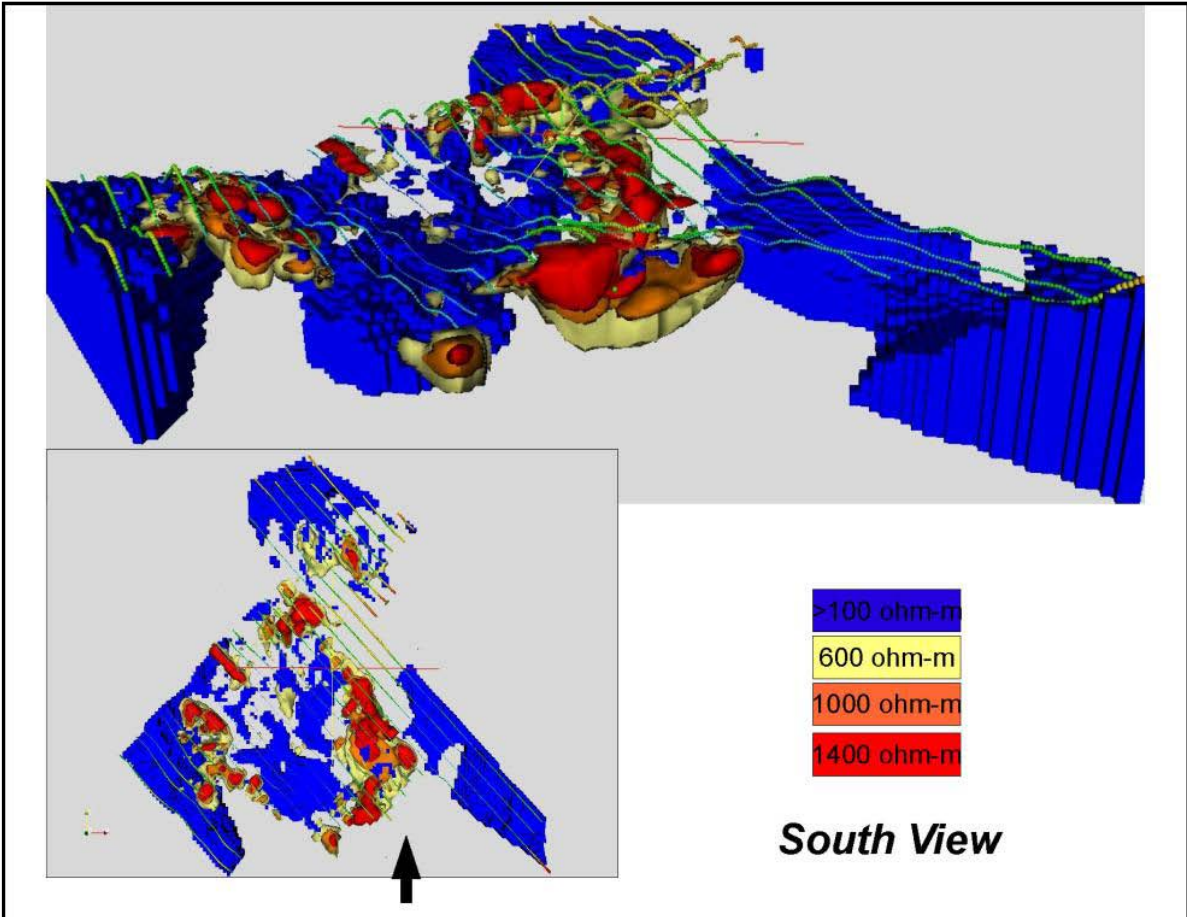


Figure 5. Resistivity anomalies viewed from the south, showing the section lines and topography. Also a plan view of the resistivity in the lower left corner.



For personal use only

Figure 6. Interpreted chargeability at 100m depth below topography.

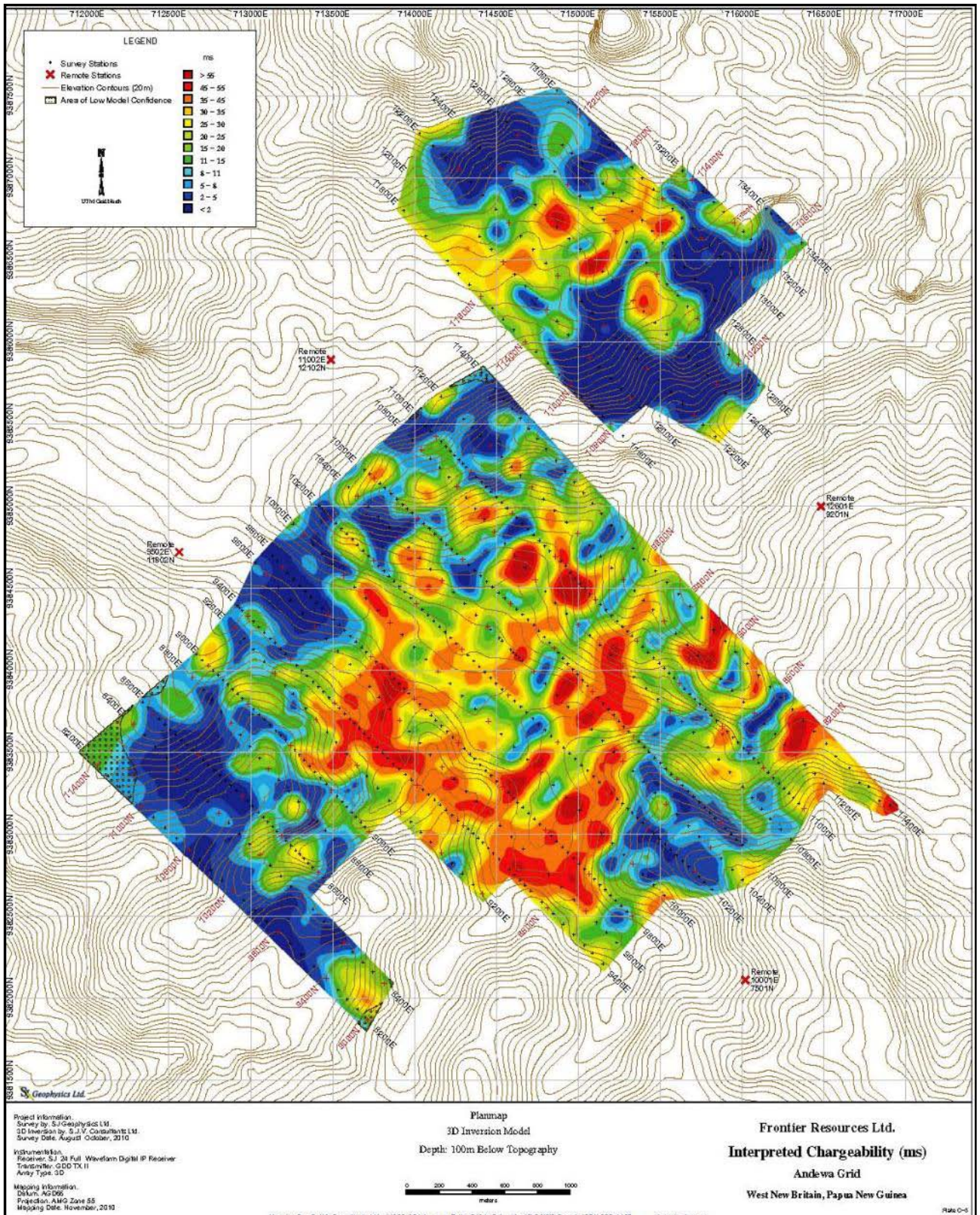


Figure 7. Interpreted chargeability at 200m depth below topography.

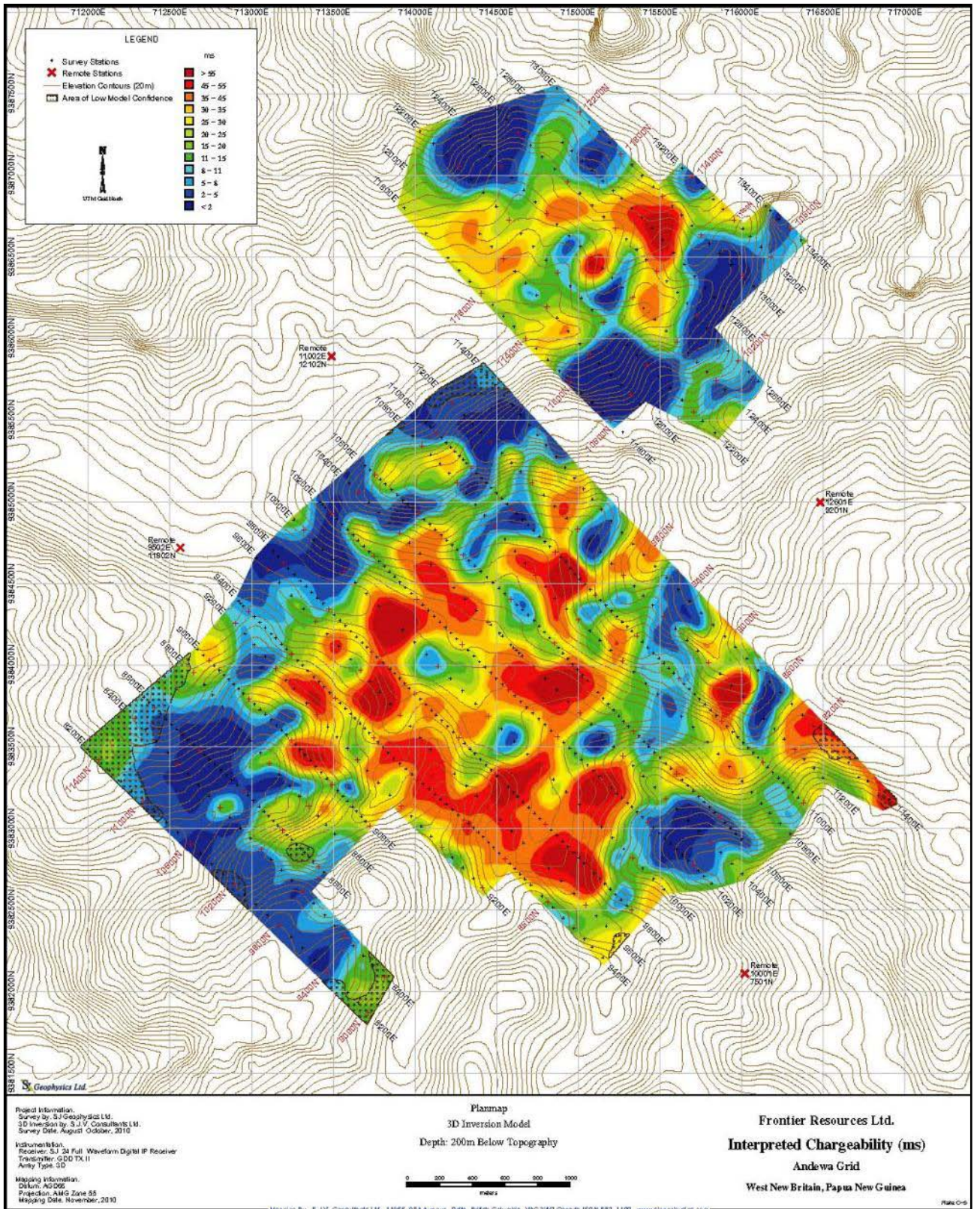


Figure 8. Interpreted chargeability at 400m depth below topography.

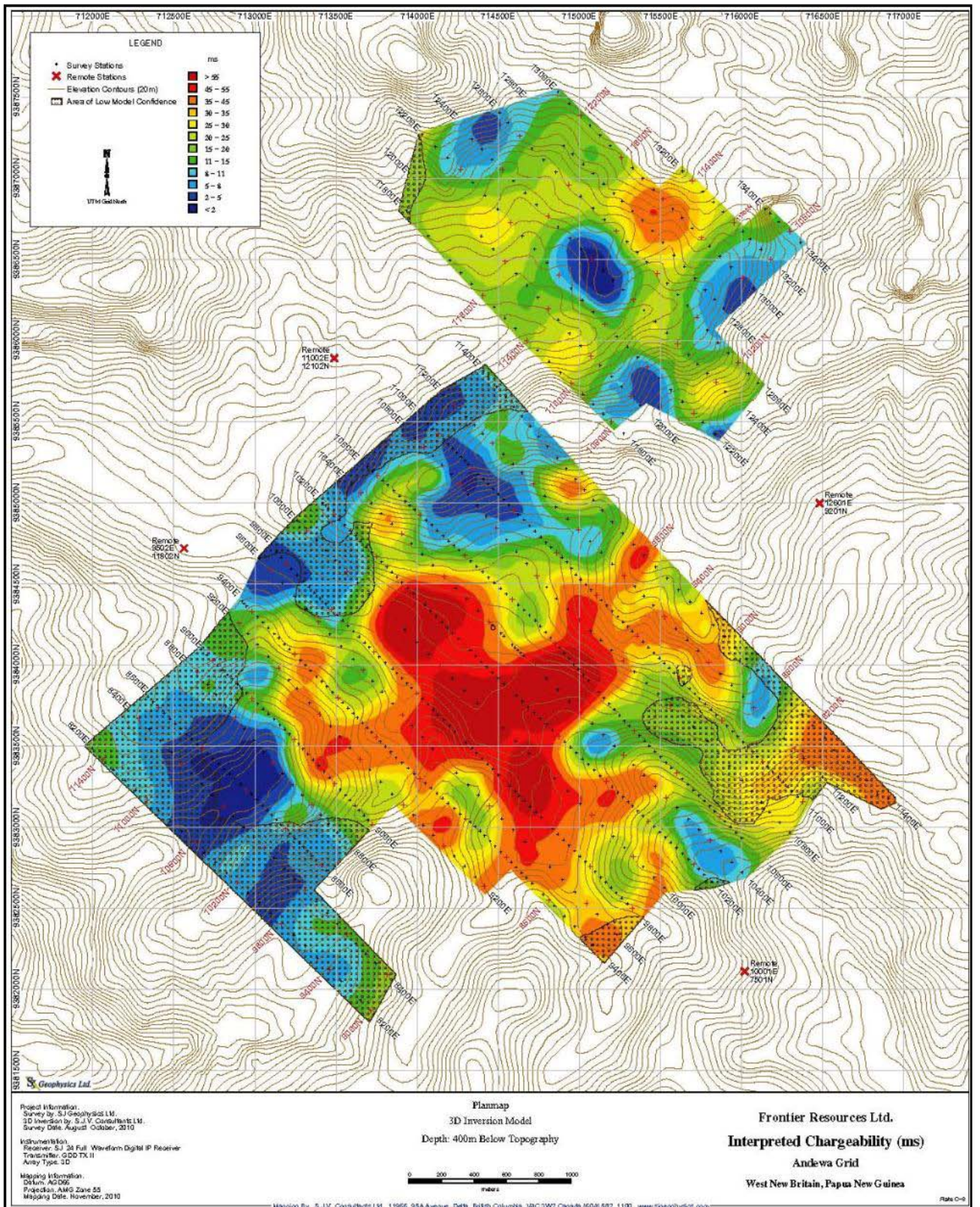


Figure 9. Interpreted resistivity at 100m depth below topography.

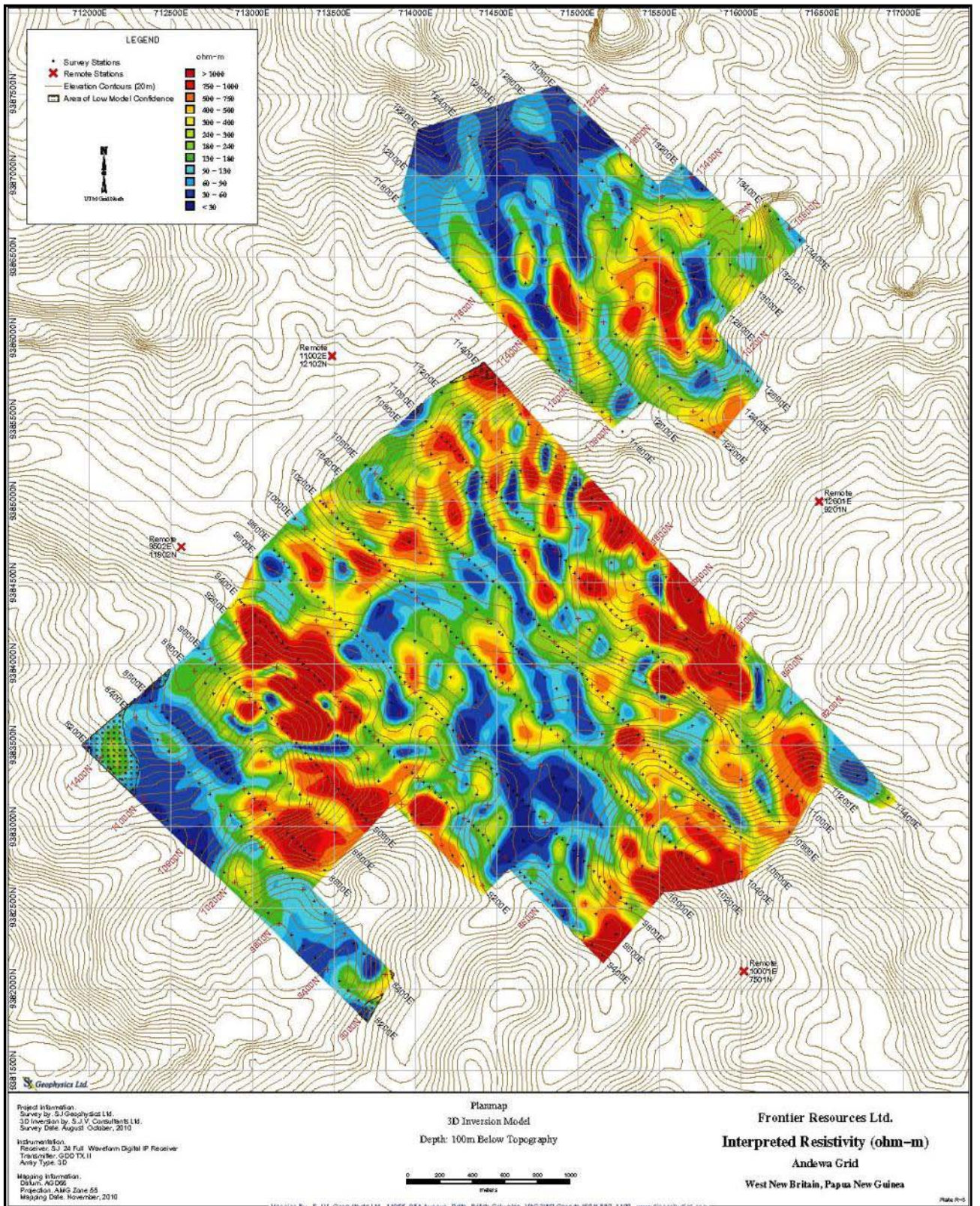


Figure 10. Interpreted resistivity at 200m depth below topography.

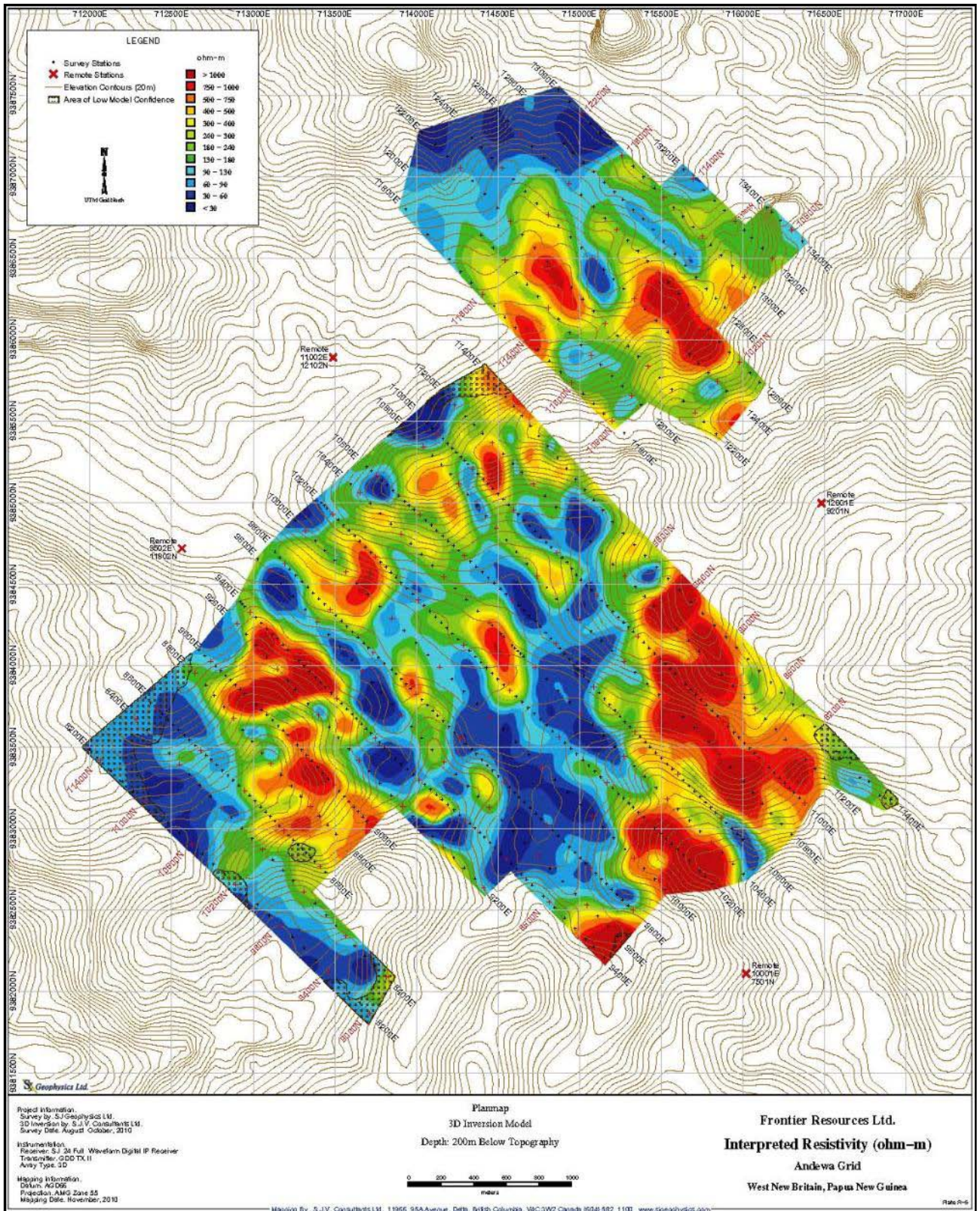
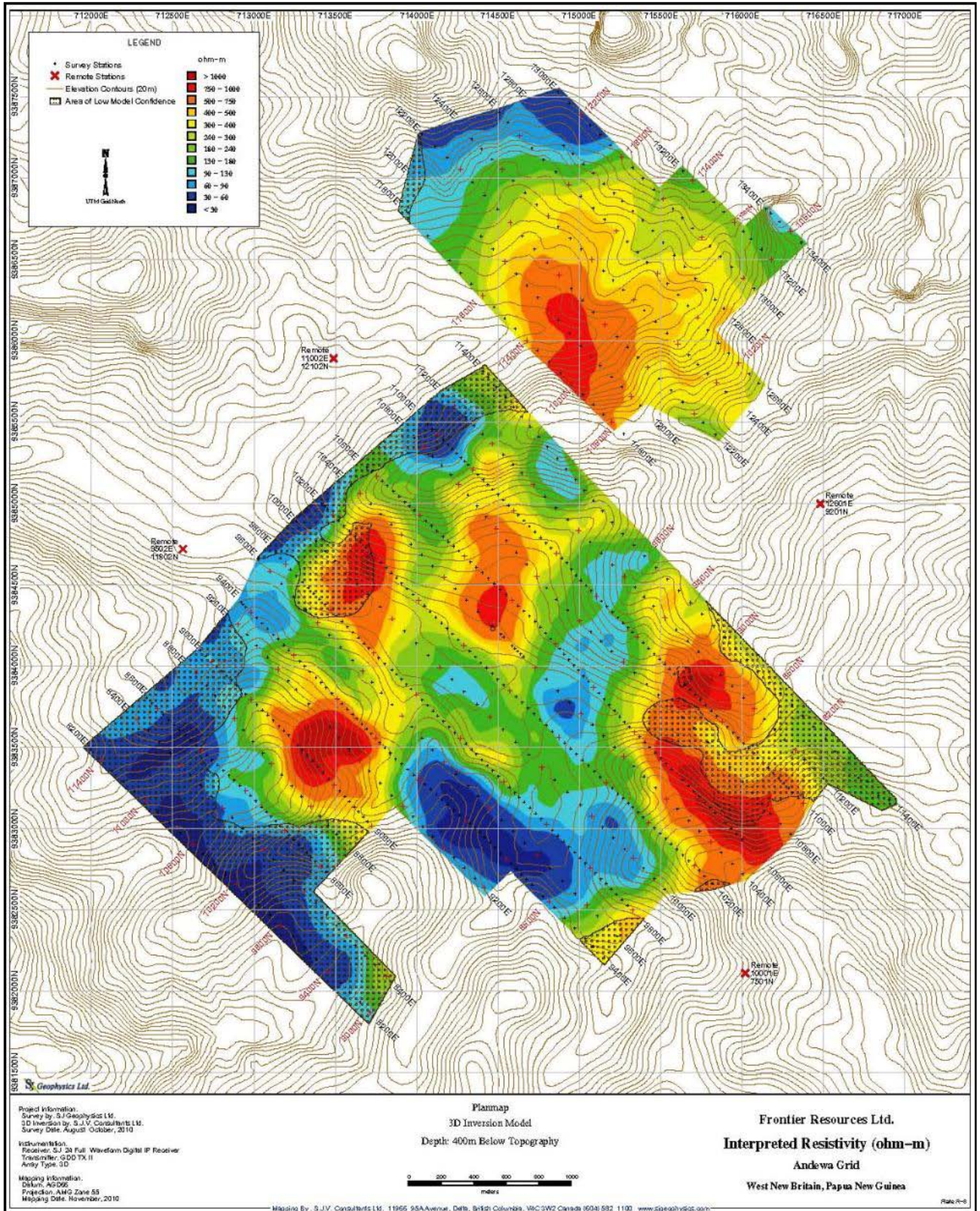


Figure 11. Interpreted resistivity at 400m depth below topography.



Figures 12-14. Interpreted resistivity and chargeability cross sections 9800E, 10200E and 11200E. Note that the upper right part of the figure shows the location of the section line relative to the grid.

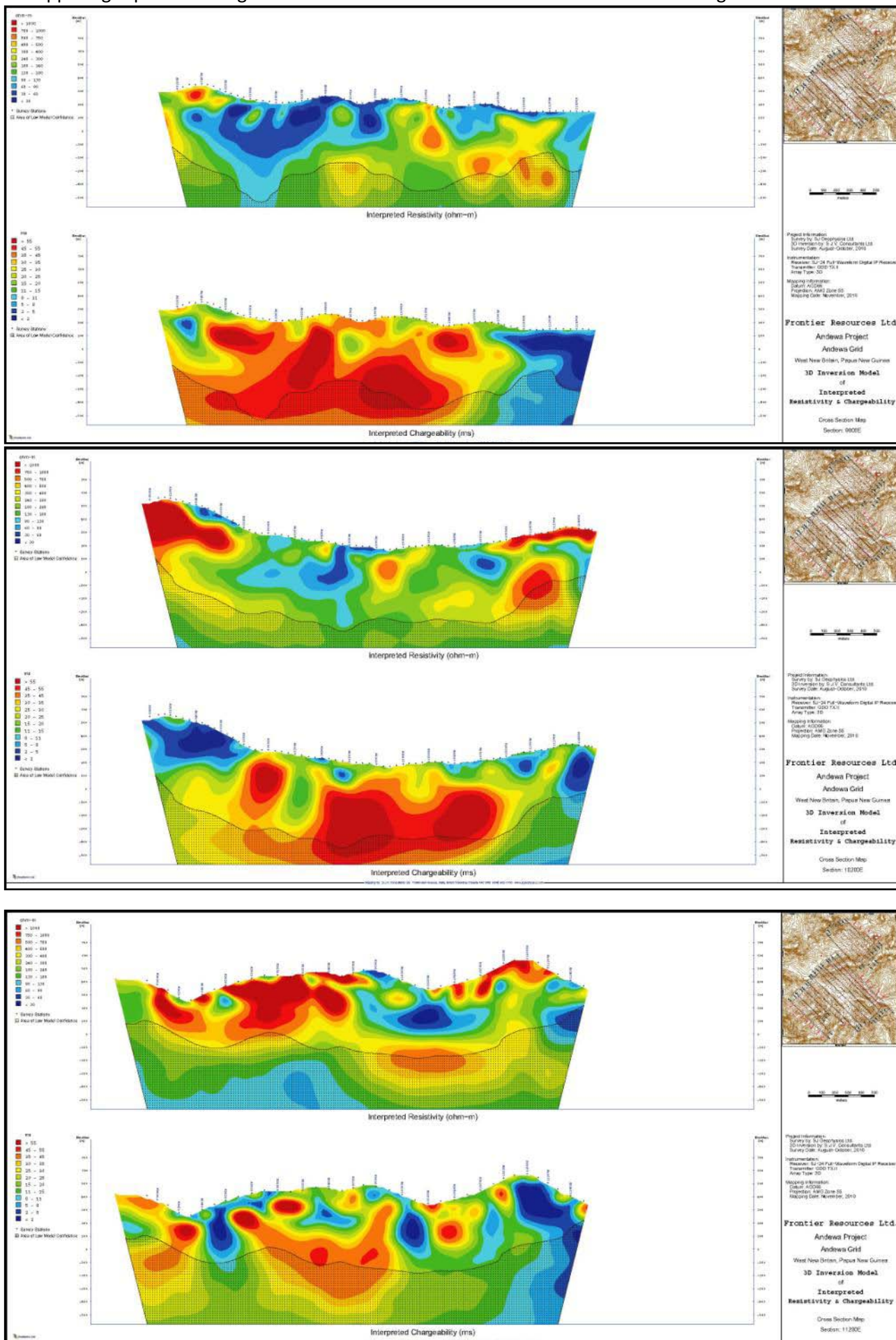


Figure 15. Secondary copper mineralised porphyry rock from Andewa at real (100%) scale.



For personal use only