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QUARTERLY ACTIVITIES REPORT – DECEMBER 2008

HIGHLIGHTS

- **Combined cash and liquid assets of \$5.7 million**
- **Completion of gravity surveys at the Elizabeth and Kylie prospects (Dajarra Project)**
- **3D Modelling of the Elizabeth gravity survey results with base metal and diamond targets generated for drilling in 2009 (Dajarra Project)**

FINANCIAL SUMMARY

In addition to cash of \$4.7 million at the end of the December 2008 quarter, SPQ holds 7 million Deep Yellow Limited shares with a value of \$0.98 million at the ASX closing price of \$0.14 on Thursday 22 January 2008. This makes total cash and liquid assets available for exploration of approximately \$5.7 million (7.4 cents per share).

COMMENT

Despite the global financial crisis, SPQ has a favourable cash position and will continue its advanced exploration program in northwest Queensland. SPQ will maintain its strong focus on the discovery of large high-grade deposits - an approach which is vindicated by the closure of a number of low-grade mines as metal prices retreat to more historical levels. SPQ, as always, will manage its activities to ensure the maximum return from expenditure and the preservation of maximum cash resources in these difficult times.

EXPLORATION ACTIVITIES

The main focus of work during the quarter was in the Dajarra Project area, following the encouraging results obtained from a gravity survey completed early in the quarter. Advanced modelling of the results of the gravity survey over the Elizabeth Prospect resulted in density anomalies which are coincident with conductivity anomalies obtained from the previous VTEM survey. It is planned to drill these base metal target areas during 2009. In addition to the base



metal targets the gravity survey also outlined a pronounced gravity low over a circular feature at the northern end of the Elizabeth Prospect (ASX Release - 10 November 2008). Density modelling of the gravity shows that this gravity low is probably a volcanic diatreme which may have potential for diamonds and drilling of this target is also planned for the 2009 year.

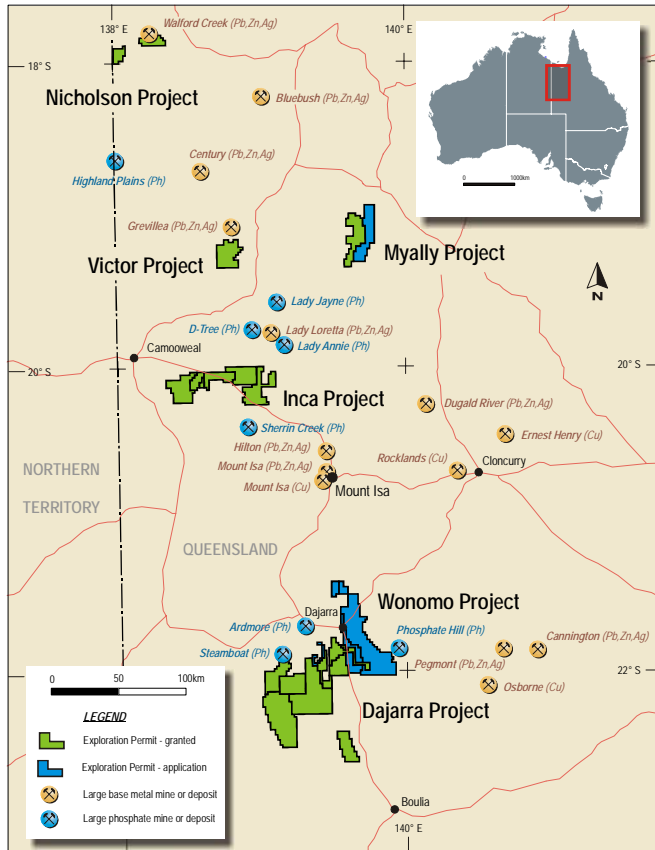


Figure 1. Superior Resources Limited – Project and tenement locations

Tenements

Existing tenements and tenement applications held by SPQ in northwest Queensland are shown in Figure 1. No changes occurred to the tenement holdings during the quarter.

Dajarra Project

The Dajarra Project is situated 150km south of Mount Isa. The target in the Dajarra Project is a major copper or lead-zinc-silver deposit. The area is interpreted to be the faulted southern extension of the Leichhardt River Fault Trough which hosts the copper and lead-zinc-silver mineralization at Mount Isa. Recent work indicates that the Dajarra Project also has potential for diamond deposits.

Elizabeth Prospect

Superior has been exploring the Elizabeth Prospect (Figure 2) for copper-lead-zinc deposits of the Mount Isa style, following the discovery of very strong VTEM anomalies in the area in the second half

of 2007. The VTEM anomalies occur over siltstones, including dolomitic siltstones, which are considered to be equivalent to the Mount Isa Group sediments which host the large Mount Isa deposits. To date, eight holes have been drilled in the area to locate the conductive sources to the VTEM anomalies. Down hole EM logging of three of the drill holes indicate that, although the holes had intersected conductive sources, there are additional conductive sources which had not been intersected by the drill holes. During the quarter a gravity survey was completed over the Elizabeth Prospect to determine which, if any, of the modelled conductivity sources might be associated with sulphide mineralization.

Elizabeth Gravity Survey

Preliminary results from the Elizabeth gravity survey were released to the ASX on 10 November 2008.

Haines Surveys of Adelaide completed the gravity survey between 23 October 2008 and 7 November 2008. Haines Surveys (www.hainessurveys.com.au) specialize in gravity surveys for the exploration industry.

The gravity survey involved the reading of 905 gravity stations at 100m intervals along 40 lines spaced at both 100 and 200m intervals over the Elizabeth Prospect area. Additional surveying involved the reading of control points, government gravity stations and duplicate points to ensure results were of a high standard and could be integrated into the national gravity



database. Accurate survey control was achieved using a Differential Global Positioning System (DGPS).

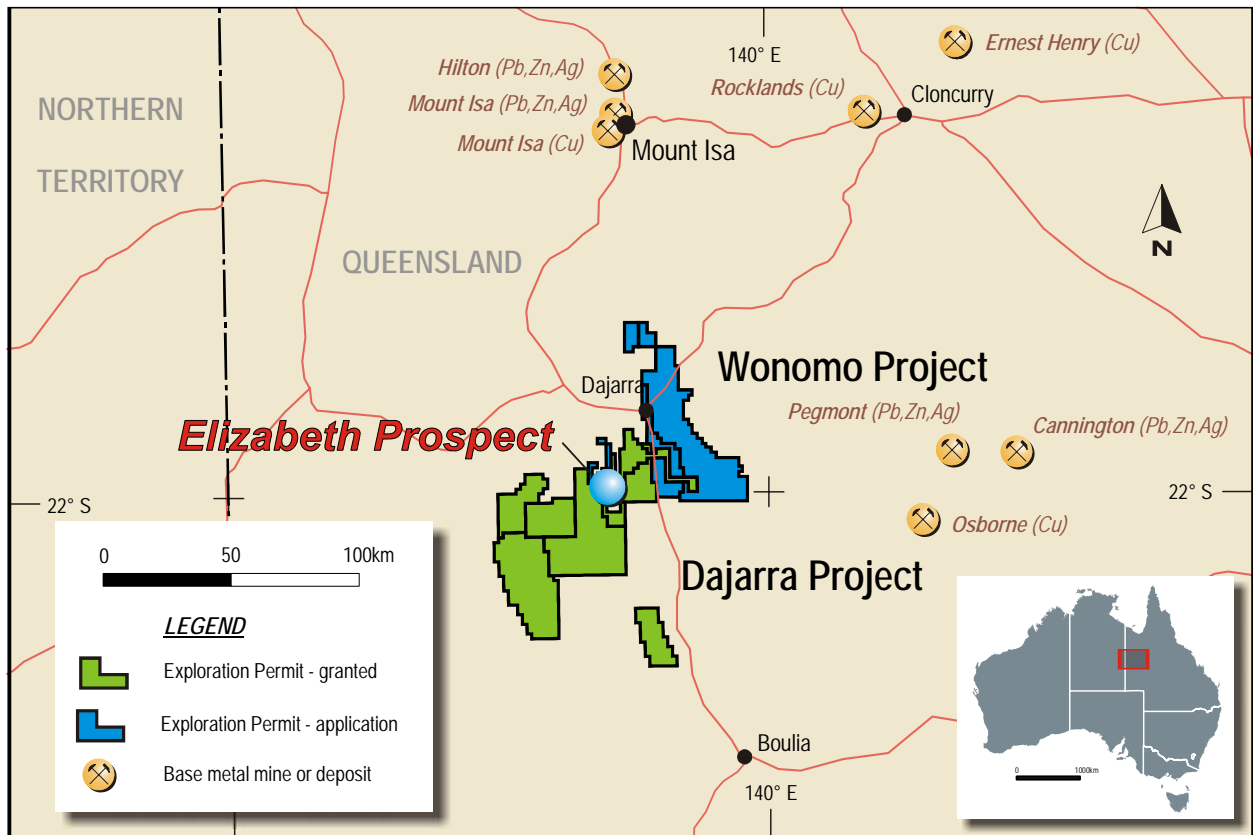


Figure 2. Superior Resources Limited – Dajarra Project and Elizabeth Prospect locations.

The gravity survey covered most of the Elizabeth Prospect apart from the extreme southern end where the VTEM anomaly is considerably deeper. The survey was extended to the north of the VTEM anomaly to cover a prominent circular feature that had been identified on air photographs and satellite imagery (Elizabeth Circular Feature).

A coloured image of the processed gravity survey results, with overlying contours of the results at the 0.25 milligal level, is shown in Figure 3.

The higher gravity values along the western side of the area confirm the presence of dense basalt in this area compared to the lower density sediments (with some basalt) in the eastern part of the area. A major fault separates these two rock units. The elevated gravity values in the northern part of the area indicate basalt at depth in this area also.

One of the most interesting feature from the gravity survey is the pronounced circular gravity low in the central northern portion of the area. This lies over a circular feature which readily shows on air photographs and satellite imagery (see the ASX Release of 10 November 2008). The circular feature has a diameter of 700 to 800m. There are also two gravity lows in the south-eastern portion of the survey area as well as more subtle features in the gravity survey results.

Gravity Survey Results and Modelling

Preliminary modelling of the gravity data was reported in the ASX release of 10 November 2008. This preliminary modelling has now been superceded by the more advanced 3D modelling reported here.

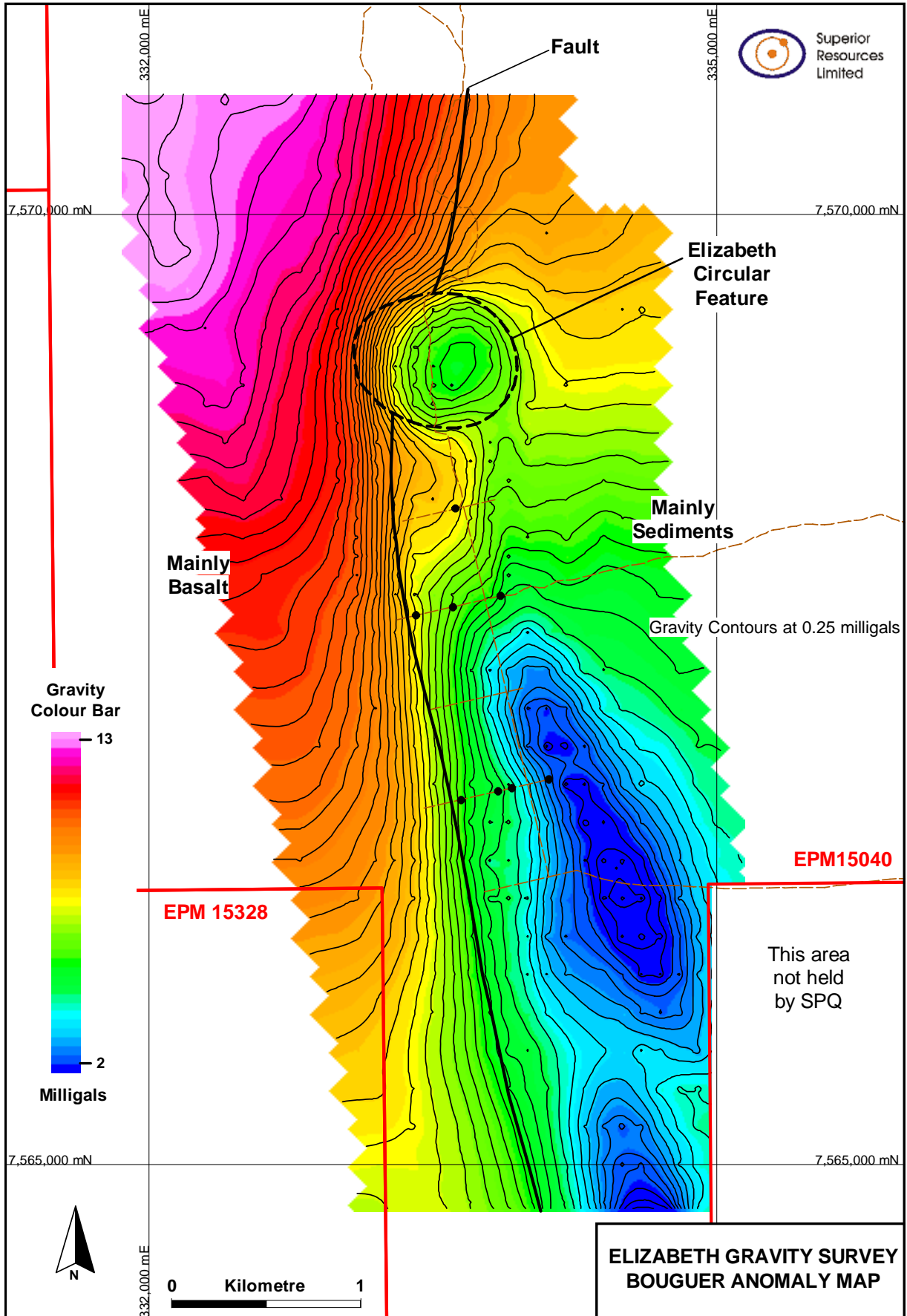


Figure 3. Elizabeth Prospect – Bouguer gravity image and contours at 0.25 milligal intervals. Note the pronounced circular gravity low feature in the central northern portion of the area which is coincident with the Elizabeth Circular Feature.



Advanced 3D modelling of the results from the Elizabeth Gravity Survey was completed by Geophysical Resources and Services Pty Ltd (www.consultgrs.com.au) using the grav3D software package. This software allows the inversion of gravity survey results to produce a 3D model of density contrasts within the ground below the survey area. The resultant 3D model consists of a regular 3D grid of density values with each value representing the density of a square prism of rock.

Figures 4 and 5 show horizontal (plan) sections through the 3D density model at 100RL (~190m below the ground level) and -100RL (~390m below the ground level) and Figures 6 and 7 show vertical sections through the model at 7,566,800N and 7,569,200N (MGA) respectively.

Base Metals

The principal purpose of completing the gravity survey at Elizabeth was to determine if the conductivity anomalies from the VTEM survey were supported by gravity (density) anomalies or not. If supported, the conductivity anomalies were more likely to be associated with sulphides and this could be used to improve drill targeting.

The gravity survey and resultant 3D density modelling have successfully outlined a number of additional targets for drilling for base metals in the 2009 year.

The 3D density modelling indicates that coincident density and conductivity anomalies occur at Area B (Figures 4 and 6). The density model indicates a moderate westerly dip for rocks in this area which is consistent with the conductivity modelling and the down hole EM surveying. Previous drilling on the northern end of Area B did not intersect sufficient sulphides to explain the anomalies and further drilling in this area is planned for 2009.

The conductivity anomaly extends to the south-south-east of Area B but at progressively increasing depth. A density anomaly also exists in this area (Figure 4) indicating that drilling is warranted in the area south-south-east of Area B also.

Only a weak density anomaly accompanies the conductivity anomaly at Area A. Previous modelling of down-hole EM data has suggested further drilling of this area is required. While the absence of a density anomaly downgrades this area it is likely that some further drilling of this area will also be completed in 2009.

Diamonds

The most apparent feature in the 3D density model is the prominent density low feature centred at about 7,569,200N; 333,500E (MGA) (Figures 4 and 5). This density low lies below the gravity low and the Elizabeth Circular Feature reported in the ASX Release of 10 November 2008.

In vertical section (Figure 7) the density low shows as a 'carrot shaped' feature extending from about 100RL to about -1500RL. The density low actually extends up to the ground surface but is less pronounced in the upper part.

It was previously reported that the gravity low probably reflected a volcanic diatreme but that a meteorite impact feature was also a possibility. The considerable vertical extent of the density low feature makes its possible interpretation as an impact feature unlikely and the volcanic diatreme interpretation most probable.

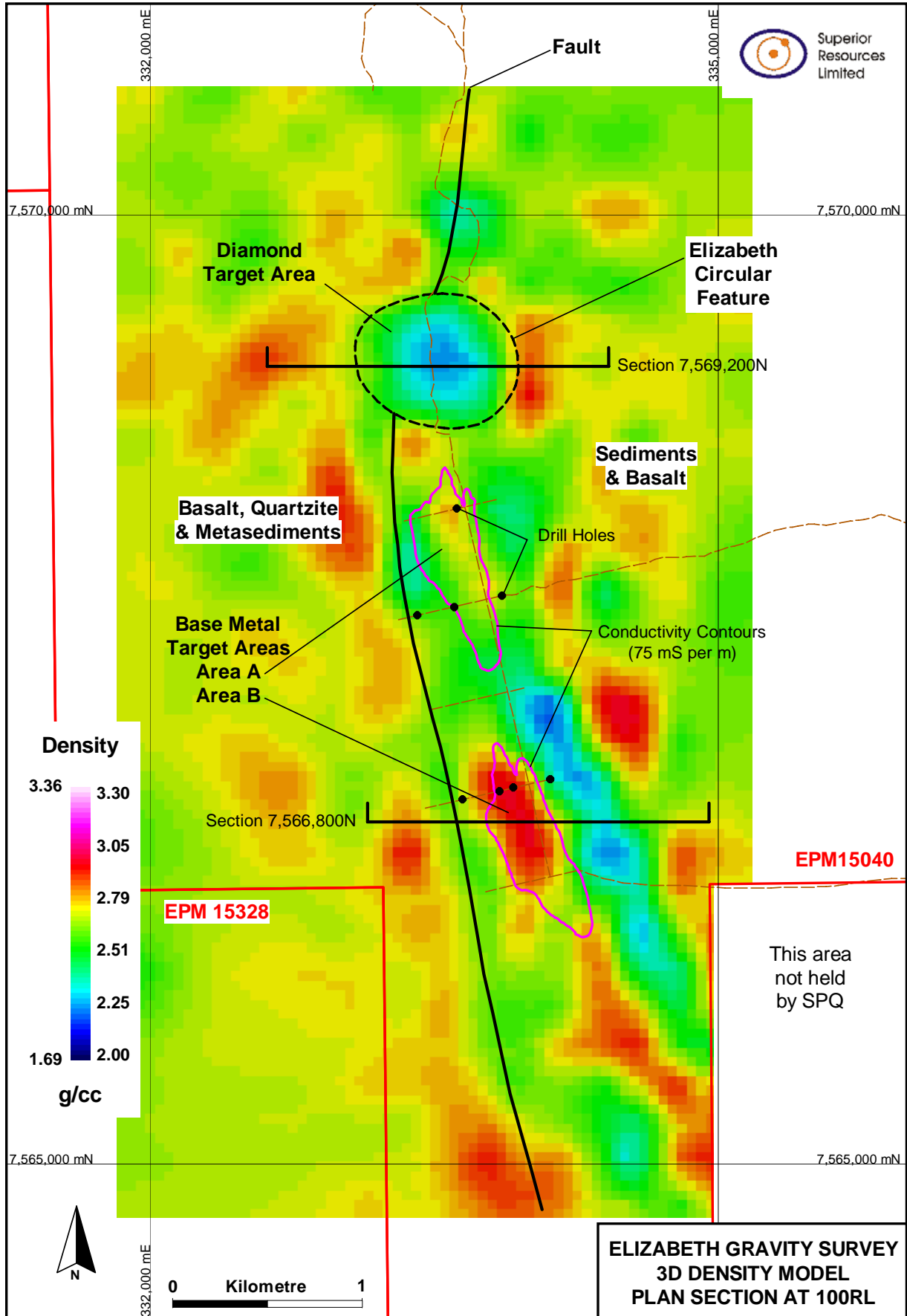


Figure 4. Elizabeth Prospect – Plan section at 100RL (~190m below ground level) through the 3D density model. Note the coincident conductivity and density anomalies at Area B which extends to the south-south-east and the density low in the central northern part of the area.

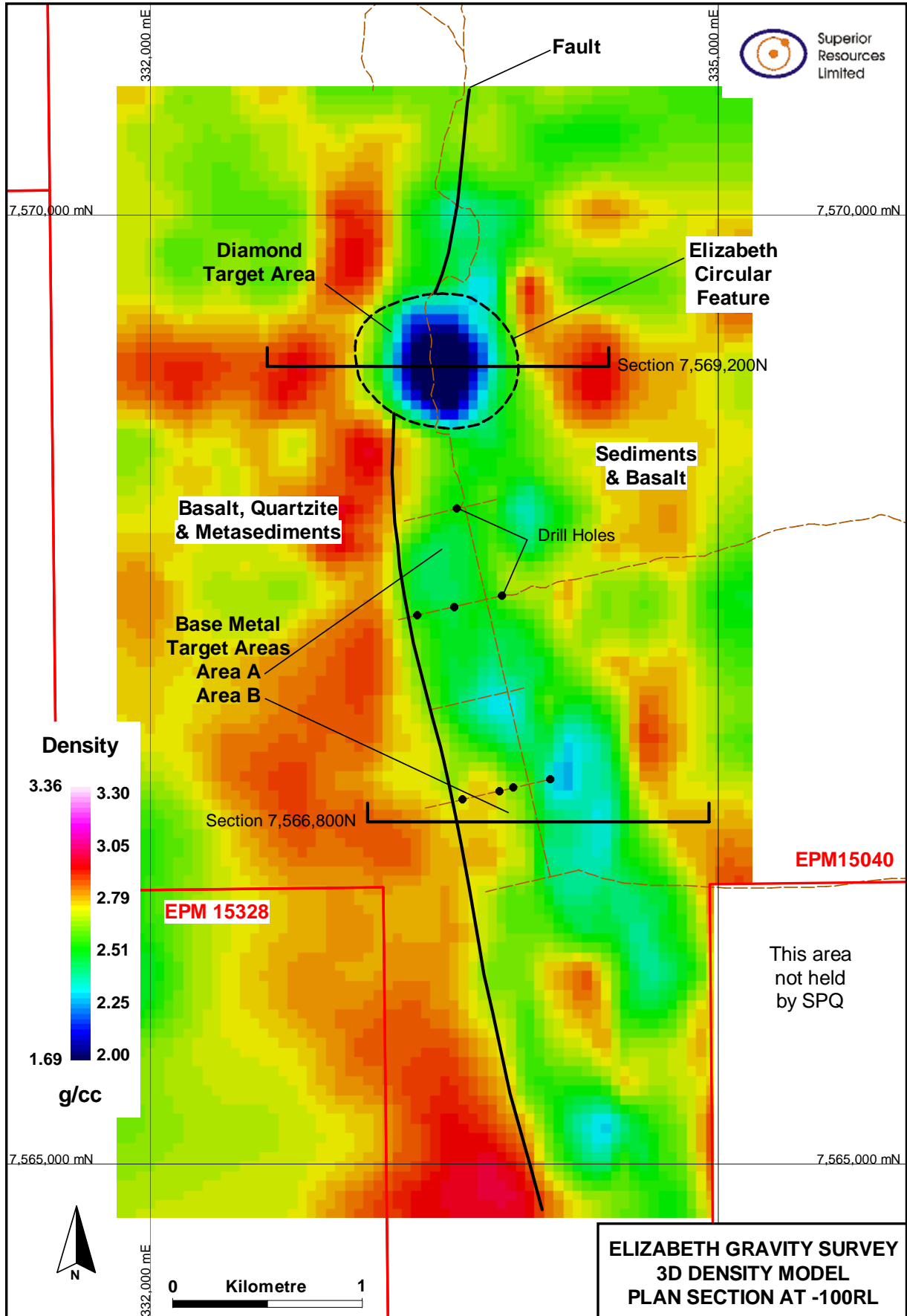


Figure 5. Elizabeth Prospect – Plan section at -100RL (~390m below ground level) through the 3D density model. Note the intense density low that indicates the diamond target area at 7,569,200N (MGA).

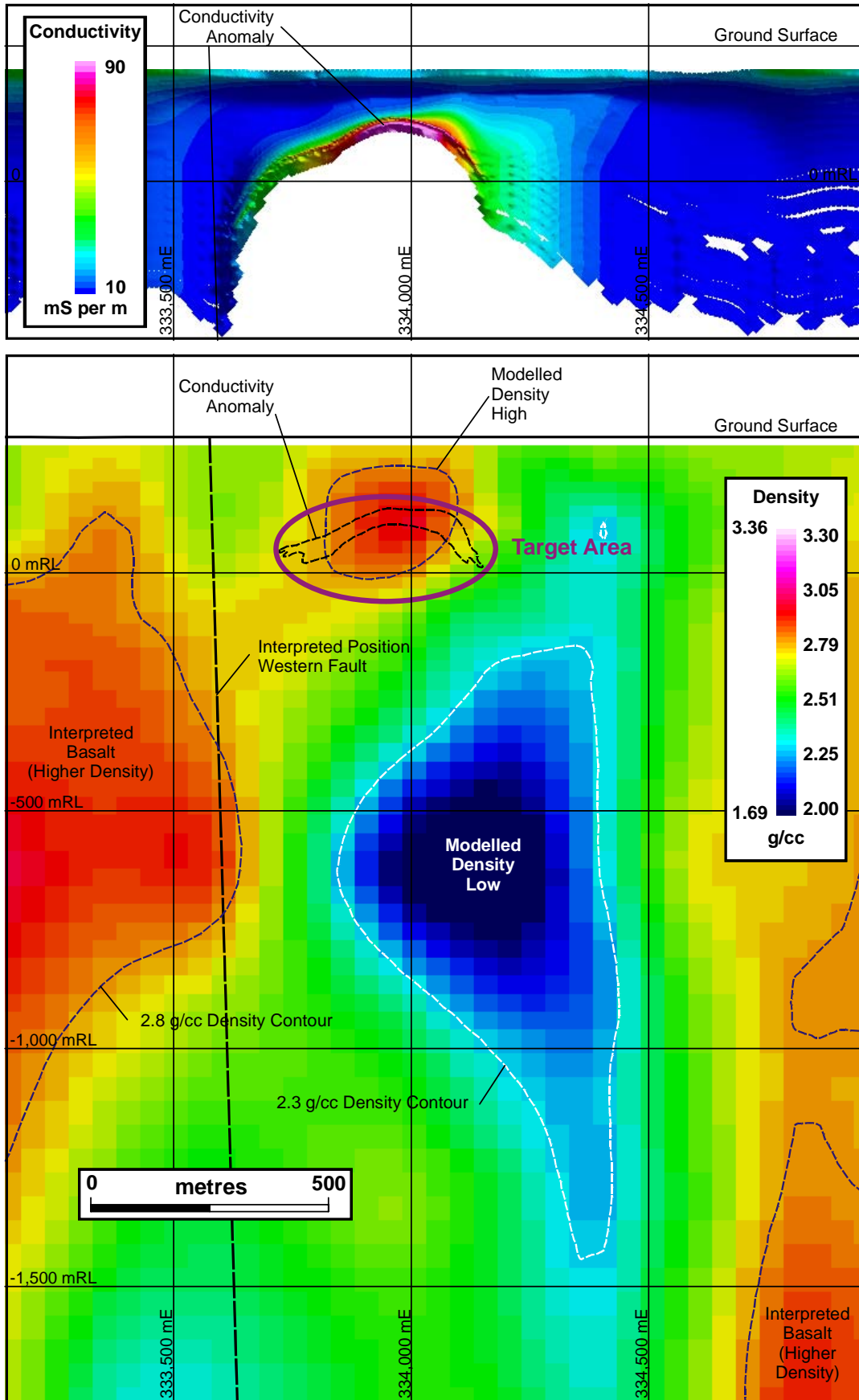


Figure 6. Elizabeth Prospect – Section 7,566,800N (for location see Figure 4) through the 3D density model (bottom) and the conductivity model (top). Note the coincident density high and conductivity high at 100RL; 334,000E which together outline a target area with potential for base metals (Area B of Figure 4).

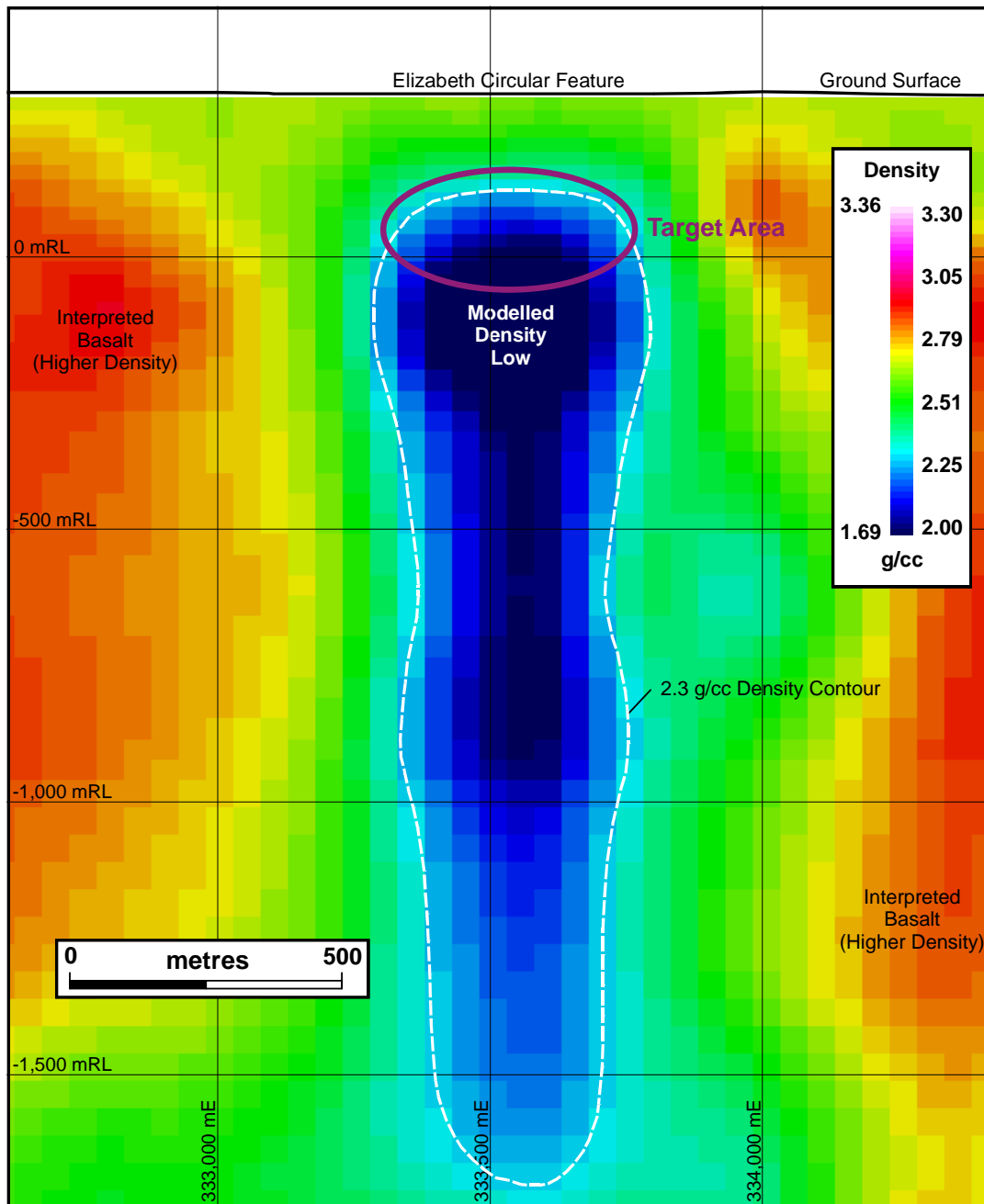


Figure 7. Elizabeth Prospect – Section 7,569,200N (for location see Figure 4) through the 3D density model. Note the vertical ‘carrot shaped’ density low feature at 333,500E (MGA) which probably reflects a volcanic diatreme. The top of this feature is a target area for drilling in 2009.

The 3D density model does not provide any conclusive information on the likely composition of the material within the volcanic diatreme. However the low density of the feature is consistent with kimberlite which, while it may have a density over a wide range, is often modelled with a density of about 2.4 g/cc. Lower densities for kimberlite are also reported (eg Orion South, Saskatchewan with a density of 2.25 g/cc).

The shape of the density low feature is also consistent with the often reported ‘carrot shape’ of a kimberlite diatreme (www.ga.gov.au/about/corporate/ga_authors/ajagg_17_4/AL_Jaques_ajagg174.jsp).

A possible interpretation of the cause of the density low feature is illustrated in Figure 8 where a hypothetical volcanic diatreme is shown overlain on the density low feature. The hypothetical volcanic diatreme contains diatreme facies volcanics below an enlarged crater containing crater



facies volcanics with overlying crater sediments as typically reported for kimberlite diatremes. These crater sediments actually outcrop in the northern portion of the Elizabeth Circular Feature.

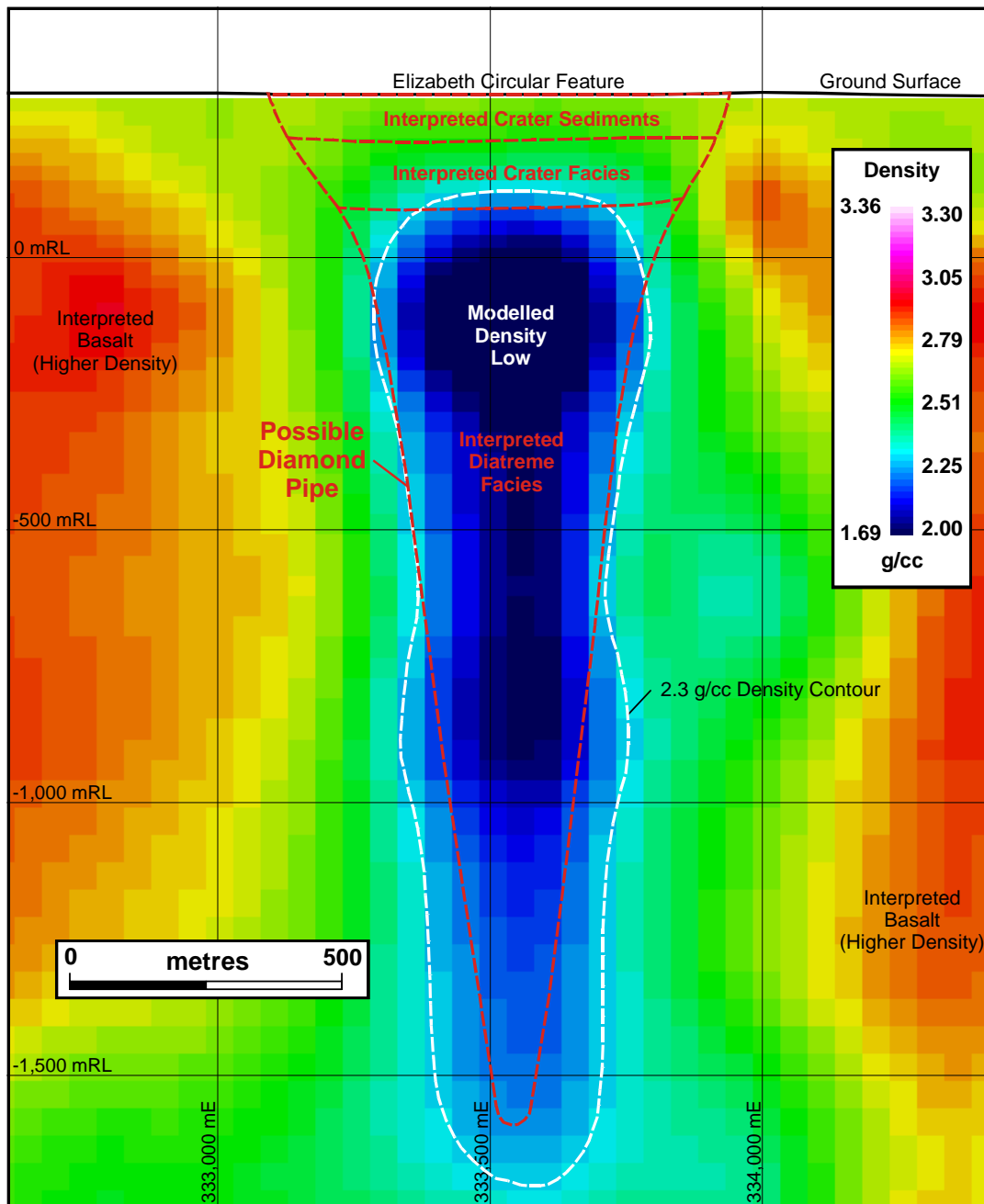


Figure 8. Elizabeth Prospect – Section 7,569,200N (for location see Figure 4) through the 3D Density Model generated from the gravity survey. This section covers the same area as Figure 7. The outline of a hypothetical volcanic diatreme (in red) has been overlain on the density low feature.

Based on the size of the Elizabeth Circular Feature and the density low feature it is reasonable to infer that the cross-sectional area of the volcanic diatreme, if present below the crater, would be of the order of 18 ha (180,000 square metres). This compares with the average reported cross-sectional area for kimberlite pipes of about 12 ha.

Drilling of the density low feature is planned following the wet season in 2009. The drilling is designed to determine the composition of volcanic material in the probable volcanic diatreme



and, if this material is prospective, whether it contains diamonds. An interpreted section through the probable volcanic diatreme showing some of the proposed drill holes is shown in Figure 9.

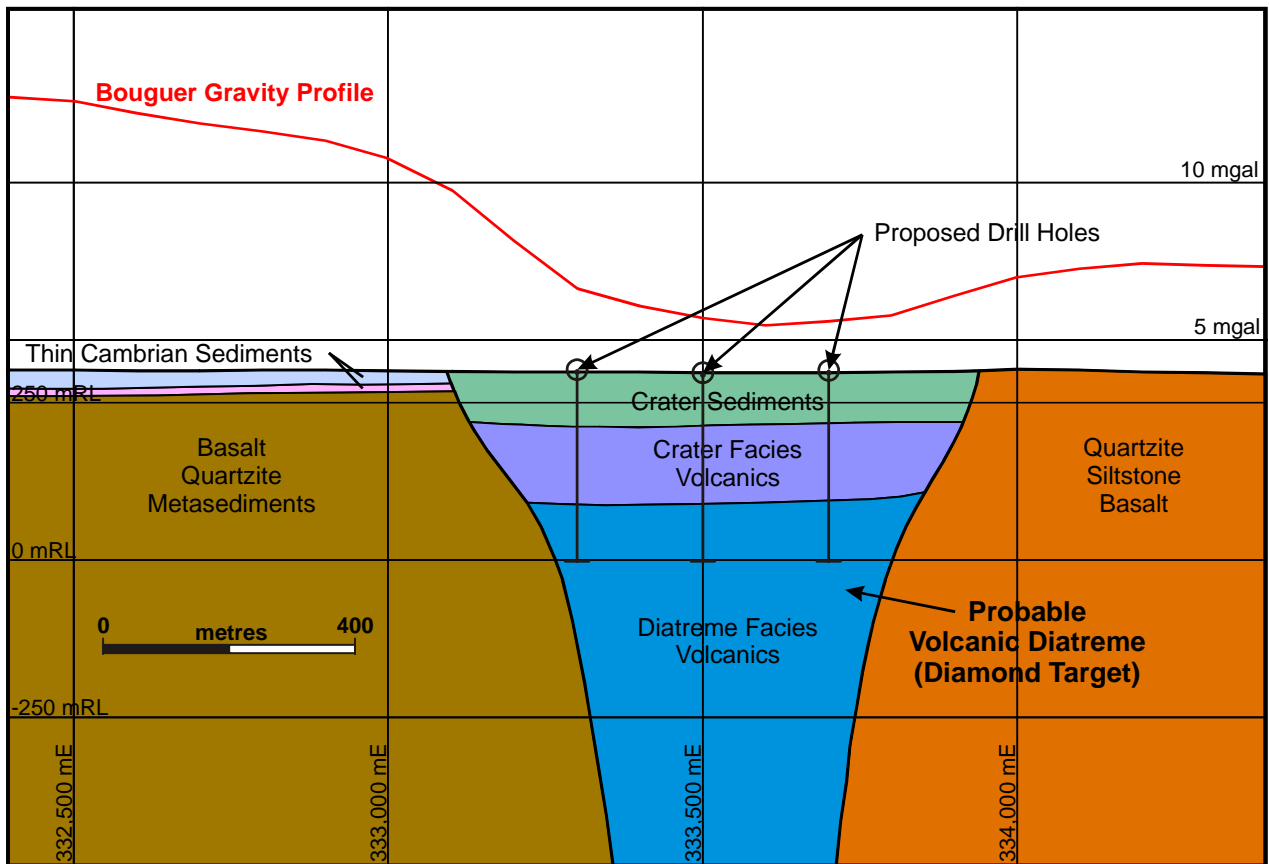


Figure 9. Elizabeth Prospect – Interpreted geological section 7,569,200N showing the proposed drill holes planned for the 2009 year.

An application for a 50% subsidy of the direct drilling costs for drilling of the Elizabeth Circular Feature diamond target under the Queensland Government's Collaborative Drilling Initiative (CDI) was submitted on 4 December 2008. A decision on the likely success or otherwise of this application is expected in late March or early April 2009.

A further density low feature which appears to be connected at depth to the density low feature centred at 7,569,200N exists at about 7,566,800N (Figure 6). Should the drilling of the Elizabeth Circular Feature be successful this second feature will also require testing.

Kylie Prospect

A small gravity survey on a circular feature located at 344,850E; 7,578,400N (MGA) (Kylie Prospect) did not result in a gravity low feature indicative of a volcanic diatreme at this locality.

Other Projects

With the focus of work on the Dajarra Project area and the onset of an early wet season in northwest Queensland, no field work was completed on other project areas during the quarter. An application for a 50% subsidy of the direct drilling costs for drilling of the Walford South base metal target (Nicholson Project) under the Queensland Government's Collaborative Drilling Initiative (CDI) was submitted on 4 December 2008. A decision on the likely success or otherwise of this application is expected in late March or early April 2009.



Future Exploration Program

- 1 Drilling for base metals and diamonds at the Elizabeth Prospect – Dajarra Project
- 2 Field assessment of the copper mineralization in the Victor Project
- 3 Drilling of the Walford South Prospect in the first half of 2009 - Nicholson Project
- 4 Additional shallow drilling for sandstone uranium deposits - Myally Project
- 5 Continuing assessment of additional targets from the VTEM and other EM surveys

The planned drilling programs at Elizabeth and Walford South are not likely to be completed until the June 2009 quarter because of the more intense wet season in northwest Queensland this year. In the meantime preparations for the drilling programs will be completed.

About Superior Resources Limited

Superior Resources limited (SPQ) is exploring for large copper and lead-zinc-silver deposits of the Mount Isa style in north-west Queensland, Australia. Diamonds, uranium and phosphate are secondary targets. SPQ currently holds a total of 17 exploration permits and applications. It has an active exploration program on these project areas in north-west Queensland.

SPQ has a very strong focus on north-west Queensland with most activity directed to the discovery of major base metal deposits of the Mount Isa style.

SPQ utilises advanced exploration methods in its search (particularly geophysics) with modern computer modelling of results to produce targets for further testing. In 2007 SPQ used the heliborne Versatile Time-Domain Electromagnetic (VTEM) system operated by Geotech Airborne Pty Ltd (www.geotechairborne.com) on three project areas with a total of approximately 2000 km flown in 2007. Assessment of the results from this work will continue through 2009.

Drilling is an important part of SPQ's exploration programs and drill testing of targets is seen as an essential part of the exploration process.

SPQ utilises experienced explorers in its exploration as they offer the best chance for discovery of resources.

SPQ's directors hold the view that by progressively exploring areas with potential for major deposits using modern advanced exploration methods followed by drilling, SPQ will be successful in its quest for a major mineral deposit in north-west Queensland.

Ken Harvey
Managing Director

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The information in this report that relates to Exploration Results is based on information compiled by Mr Ken Harvey, a full-time employee of the Company, who is a Member of the Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. Mr Harvey has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Harvey consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.