

COMPASS RESOURCES LIMITED

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MA23439 - RUM JUNGLE CREEK SOUTH

ANNUAL REPORT

For the period

15th November 2013 to 14th November 2014

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9th December 2014

Batchelor & Renolds River 1:100,000 sheets MGA94 Zone 52

Target: Cu, Co, Ni, Pb, Zn, Au, U

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EXECUTIVE SUMMARY

Compass Resources has undertaken extensive exploration programs for both base metals and uranium mineralisation within the Batchelor area for the last decade. This has resulted in the definition of oxide base metal resources at Browns, Browns East, Area 55 and Mt Fitch with a world class sulphide base metal resource has been defined at Browns-Browns East. A Scoping Study looking primarily at the large lead resource at Browns was undertaken in 2012/13.

Airborne EM, magnetic and gravity surveys have been completed over MA23439 which hosts the historical RJCS uranium open pit.

TENEMENT DETAILS

This area was originally applied for by Compass Resources NL and Guardian Resources Pty. Ltd on 12 November, 2001 being parts of 4 blocks. It was previously a reserve, RO588.

The tenement was granted as A23439 (now MA23439), effective 15 November 2005 covering an area of 2.930 square kilometres. The tenement was granted to Compass Resources 90% and Guardian Resources Pty. Ltd. 10%. Compass now effectively owns 100% equity in the tenement following the acquisition of Guardian Resources Pty. Ltd.

LOCATION

The tenement is located approximately 4.5km south of the Browns Oxide Project and 3.5km west of the town of Batchelor, covering the site of the old Rum Jungle Creek South uranium mine and its waste dumps.

The location of the tenement is outlined in Figure 1.

ACCESS

The main access is from Batchelor via the Litchfield Park road, then by the local road to the location known as Rum Jungle Lake. Several tracks exist within the tenement to allow for local access.

GEOLOGICAL SETTING

Previous geological mapping indicates the dominant surface rock types of the tenement belong to the Mount Partridge Group of the Lower Proterozoic. The oldest of these sediments are of the Crater Formation, consisting primarily of arkosic arenites and conglomerates. This unit is overlain by black shales and marls of the Whites Formation.

The White Formation is in turn overlain by the major carbonate sequence of the Coomalie Dolomite. It is within the lower parts of the Whites Formation and in the transition zone between the Whites and Coomalie Dolomite that the stratabound base metal sulphides occur. The extensive areas of quartz-haematite breccias represent structurally disturbed and altered equivalents to the Coomalie Dolomite that are associated with a major regional Mid Proterozoic structural event. Uranium mineralisation at RJCS is associated with this structural event.

Minor Mid Proterozoic dolerites intrude the stratigraphy.

PREVIOUS EXPLORATION

Due to the proximity of the licence to a known uranium mine and associated mineralisation, a significant amount of exploration has been undertaken by several organisations. The BMR commenced exploration in 1951 with a high level airborne survey and continued exploration in the area up to about 1970.

Territory Exploration Pty. Ltd. (TEP), a subsidiary of CRA, undertook significant regional and detailed evaluation in the period 1954 to 1965. This work concentrated on uranium exploration and mining, however in excess of 125 diamond drill holes were completed within the boundaries of the tenement in that period, mostly in the vicinity of the RJCS Prospect.

Uranerz undertook detailed uranium exploration in the general area in the period 1979 to 1984, drilling a large number of RAB and aircore holes around the tenement (then a reserve) and in adjoining tenements.

In 2006 5 RC holes at 891m were drilled, sampled and assayed. These holes are located to the north of the existing RJCS mine. In 2007 a following 6 RC holes at a total of 770m were drilled, sampled and assayed and are also to the north of the existing RJCS mine.

In 2008-09 the Company developed a comprehensive database or all historical and modern exploration within the Rum Jungle Mineral Field. The validated database currently comprises approx 5000 drillholes for 350,000+ metres.

In 2009/10 a review of this data (in conjunction with field checking) resulted in the development of a new structural model for the Rum Jungle district.

One of the prime benefits of compiling so much historical exploration data is that it generates a better understanding of both the regional geology as well detailed geology of individual prospects. At Rum Jungle this has resulted in a complete rethink of the timing and controls to mineralisation.

Based on the review of the historical exploration data there are two distinct primary mineralisation events at Rum Jungle:

(a) Lower Proterozoic stratiform base metal event (Browns, Area 55, possibly Mt Fitch sulphides)

(b) Mid Proterozoic structurally controlled uranium-gold-platinoid-base metal event (all other prospects).

The mid Proterozoic event is associated with a series of stacked, essentially bedding parallel thrust surfaces. These surfaces are characterised by extensive zones of brecciation and variable but often intense hydrothermal alteration. Alteration includes silicification, haematite dusting, specular haematite, apatite, tourmaline, chlorite and disseminated pyrite.

In 2010/11 the tenement was flown with detailed airborne EM and magnetics (as part of a survey covering all Compass tenements within the Rum Jungle Mineral Field). These surveys were completed in late 2010. Unfortunately there were extensive difficulties in processing the raw EM data, thought to be caused by interference form a nearby Defence Department facility. As a consequence the data was not finally available until September 2011.

The detailed airborne magnetics and EM data was processed and interpreted by a consultant geophysist in early 2012. Following a review of the data it was decided to fly the area with FALCON gravity to provide another targeting tool.

The Falcon Gravity Survey consisted of N-S lines at 200m spacing with a nominal terrain clearance of 80m (see Figure 2 for flight lines). An aeromagnetic survey was completed at the same time as was a LIDAR survey to provide the detailed topographic data for processing the gravity data.

WORK COMPLETED IN YEAR 9

Processing of the FALCON data was completed in 2013 with the final data handed to

the Mines Department in late 2013. The gravity and aeromagnetic data was integrated with the earlier EM surveys to refine targets for further exploration. Following discussion with the consultant geophysist it was decided IP traverses would be the best means to define targets for drilling.

PLANS FOR WORK IN YEAR 10

The various geophysical surveys will be integrated to identify anomalies for further follow up. The geophysical data, combined with the historical drilling compilation and georeferenced historical maps will be used to generate a 3-D geological model of the tenement to assist in ranking the anomalies. Uranium mineralisation is likely to be structurally controlled and any significant base metals will occur close to the base of the Whites Formation.

Surface checking and IP traverses of the high priority anomalies will be undertaken to properly define drill targets.

Expected expenditure is anticipated to exceed \$18,000.

CONCLUSIONS & RECOMMENDATIONS

MA23439 remains very prospective for uranium with lesser prospectivity for base metals given the strong structural disruption of the stratigraphy. The multiple geophysical surveys when combined with the existing GIS database will provide an effective tool to define and rank targets for future testing.

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PREVIOUS REPORTS AND REFERENCES

H Porteous 2009

Annual Report of Exploration A23439 - Rum Jungle Creek South.

T. Croshaw and A. Johnston 2008 Annual Report of Exploration A23439 – Rum Jungle Creek South.

D. Major December 2007; Annual Report of Exploration A23439 – Rum Jungle Creek South.

M. K. Boots December 2006 Annual Report of Exploration A23439 – Rum Jungle Creek South.



Figure 1 Location Map





Figure 2. Falcon Survey Flightlines