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Report prepared by

INTERNATIONAL GEOSCIENCE PTY LTD



On behalf of

UNIVERSAL SPLENDOUR INVESTMENTS PTY LTD

# FINAL REPORT: EL 27307 RELINQUISHED BLOCKS

7 December 2012

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### **EXECUTIVE SUMMARY**

Universal Splendour Investments (USI) was originally granted EL 27307 in October 2009. The main exploration focus for USI was for manganese mineralisation. The tenement is located in the Victoria River region of the Northern Territory, southwest of Katherine. This tenement is part of a group of three tenements collectively referred to as the Victoria River Project. Group reporting was accepted on 23<sup>rd</sup> of December 2011 (GR230). On the 31<sup>st</sup> of October 2012 50% of EL 27307 was voluntarily relinquished. The details in this report only refer to the relinquished blocks.

Initial work carried out for EL 27307 consisted of a background desktop study, completed by Karl Lindsay-Park from CSA Global in February 2010. This report covered all of USI's tenements in the Victoria River region.

In June 2011, September 2011 and several times in 2012 the project area was visited but never to the area included in the relinquished blocks.

The tenement is dominated by Cambrian volcanics of the Wiso Basin and may be prospective for copper mineralisation. No exploration was undertaken for copper as this commodity is not the main focus for USI. Subsequently the relinquished blocks were considered low priority.

No further work is recommended with respect to manganese mineralisation.

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#### 1 OVERVIEW

Universal Splendour Investments (USI) was originally granted EL 27307 in October 2009, located southwest of Katherine, within the Victoria River Region (Figure 1).

EL 27307 is one of three tenements which together are referred to as USI's Victoria River Project. Group reporting was granted in December 2011.

When granted, the tenements consisted of 309 blocks (1,020 km<sup>2</sup>). In October 2012, after holding the lease for 3 years, USI have decided to reduce the tenement by 50%.

A background review of the entire project was completed in 2010. No field work has been undertaken on the relinquished blocks.

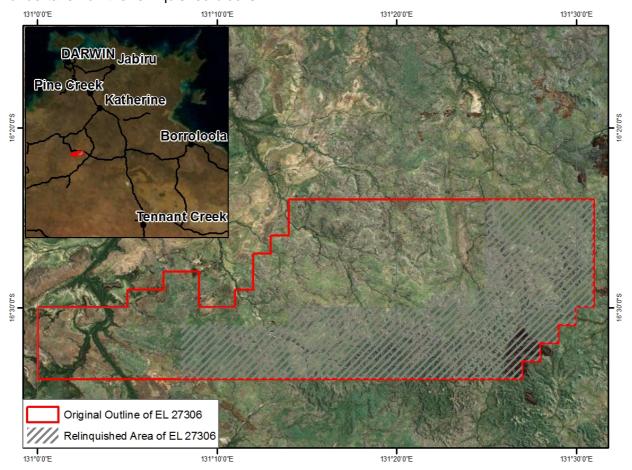


Figure 1: The original outline of EL 27307 granted to USI (red outline) and the relinquished area (hatching); within the Victoria River region, NT. The tenement is overlaid on an orthorectified image from BingTM, 2010.

### 1.1 Geology

EL 27307 is located in the Victoria River 1:250000 map sheet, and the Pigeon and Victoria River Downs 1:100000 map sheets. NTGS have extensive stream sample records across the tenement.

Covering approximately 80% of EL 27307 and along the eastern edge of the northern licences are the Antrim Plateau Volcanics. The Antrim Plateau Volcanics are Cambrian aged porphyritic tholeiitic basalt with lenses of agglomerate, sandstone and chert and may be prospective for copper mineralisation.

In the southwest of the tenement, Mesoproterozoic sediments of the Tijunna Group (Stubb formation) are cut by numerous alluvial channels, filled with recent unconsolidated material. These Proterozoic lithologies are thought to be prospective for manganese, as they correlate

with McArthur group (thought to be the source of manganese in the Gulf region). Within and surrounding the Tijunna Group NTGS records contain several higher Mn stream sediment assays (1000-7800 ppm).

The oldest rocks exposed in the tenement are those of the Battle Creek Formation which belong to the Mesoproterozoic Bullita Group, seen in the west of EL 27307. The Battle Creek Formation consists of finer-grained dolostone, shale, siltstone and dolomitic sandstone.

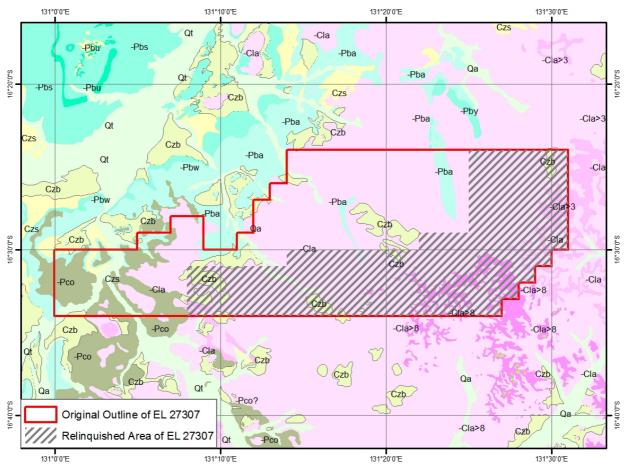


Figure 2: The original boundary of EL 27307 granted to USI (red outline) and the relinquished area (hatching); overlying NTGS 250K geology (see Figure 3 for legend).

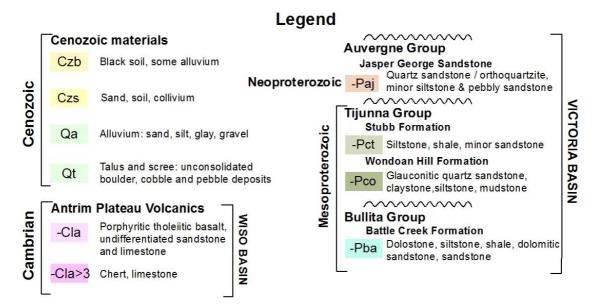


Figure 3: Surficial Geology legend for EL 27307; geology displayed in Figure 2.

# 2 TARGET COMMODITY

Manganese exploration is the main focus for USI within the Victoria River project area. The tenement was originally selected because of its close proximity to the Battle Creek 1 and Battle Creek 2 manganese occurrences. These occurrences lie within the Battle Creek Formation. The relinquished blocks do not contain any outcropping Battle Creek Formation and therefore are of low priority.

The Antrim Plateau Volcanics is known to host several minor copper ± Lead occurrences but exploration for these commodities was not the main focus for USI.

# 3 CONCLUSIONS AND RECOMMENDATIONS

Manganese was the target commodity for EL 27307. The style of manganese expected was Proterozoic sedimentary in nature. A detailed desktop study was undertaken to identify the prospectivity of the tenements.

In October of 2012 USI relinquished 50% of EL 27307. The relinquishment was based on the absence of the most prospective lithology for manganese mineralisation (Battle Creek Formation).

The relinquished blocks contain significant amounts of the Antrim Plateau Volcanic which may be prospective for copper ± lead mineralisation.

No follow-up work is recommended for manganese mineralisation.

# APPENDIX 1 – VICTORIA RIVER PROJECT REVIEW

Review of Previous Exploration and Work Proposal
Universal Splendour Investments
Victoria River Project
Northern Territory, Australia

Ву

Karl Lindsay-Park

15/2/10

#### Introduction

Universal Splendour Investments (USI) Victoria River Project consists of three exploration licences, 27307, 27307 and 27437 located in the central northwest of the Northern Territory, see figure 1. The details of the licences are displayed below:

Licence Number	Application Date	Grant Date	Size blocks/sqkm	Land Status PPL / NT Por	Owner	Covenant
27307	20/4/09	13/10/09	309/1020		USI	50000
27307	20/4/09	13/10/09	230/757.7		USI	39500
27437	7/6/09	Pending	187/616.5		USI	33000

An inspection of the register by the Aboriginal Areas Protection Authority has been done. Several registered sites have been identified in the licences. Three sites have been located in close proximity to the known manganese occurrences. The northern most site and mineral occurrence are shown to be in the same position and no work in that area is permitted. The southern manganese occurrence appears to be free.

The close proximity of the registered site and the manganese mineralisation has reduced the prospectivity of the area.

### Location, Landform and Climate

The three exploration licences are located approximately 230km to the southwest of Katherine. Access to the area is via the Victoria Highway and the Delemere road. The Top Springs roadhouse is located at the junction of the Delemere road and the Buchanan Highway. The roadhouse is located about 40km east of the licence area and provides meals and accommodation to field parties working in the area. There is a well developed series of station tracks in the licence area which provide access to most parts, figure 2.

The Google imagery and topographic map show the area to consist of numerous hill and ridges. There is a well established drainage system which will limit the movement of vehicles away from the tracks.

The Victoria River District is subject to two seasons per year. The tropical monsoon affects the area between October and April each year. During the wet time field work is difficult and the station owners limit the amount of traffic on their tracks to stop them being severely damaged.

# **Accommodation**

Given the proximity of the Top Springs Roadhouse (40km east) it is proposed to base the initial fieldwork there. The roadhouse offers accommodation, meals, communication and fuel.

### Geology

The oldest rocks exposed in the licence area are the Weaner Sandstone and the Battle Creek Formation which belong to the Mesoproterozoic Bullita Group. The Weaner Sandstone is described as quartz sandstone, gritty to pebbly at the base, The Battle Creek Formation consists of finer-grained Dolostone, shale, siltstone and dolomitic sandstone. Unconformably overlying the Bullita Group is the Wondoan Hill Formation. The Wondoan Hill Formation is described as glauconitic guartz sandstone, claystone and siltstone.

Covering most of the southern licence and along the eastern edge of the northern licences is the Antrim Plateau Volcanics. The Antrim Plateau Volcanics are Cambrian aged porphyritic tholeiitic basalt with lenses of agglomerate, sandstone and chert.

USI's interest in the area stems from the geological similarities between the Victoria River District and the Arnhem Land area. Two manganese occurrences, hosted by the Battle Creek Formation have been located in the licence area and further work will be required to define the nature and setting of the mineralisation.

A detailed examination of the Google Imagery has identified two areas that require further assessment. The areas, shown on figure 4 and marked "iron rich zone" appear to be related to lithology contacts. In the northern area the contact between the Wandoan Hill Formation and the Stub Formation is recognisable as a distinct dark red zone. The fine-grained Stubb Formation would act as an aquaclude to any fluids moving through the coarser Wondoan Hill Formation.

The more southern "iron rich zone" occurs where a chert and limestone member of the Antrim Plateau Volcanics overlies the tholeitic basalt of the same Group.

### Geophysics

The available regional geophysical data for the area of interest does little to aid the exploration effort. The uranium squared divided by thorium (U²/TH) image contains no anomalous responses. It should be note that for most of the tenement area there is no radiometric data available. This is probably due to the lack of interest in exploring in the Antrim Plateau Volcanics. The gravity data has been collected with a very wide spacing and is only useful in showing very broad features.

The airborne magnetic image does show several discrete magnetic expressions, Figure 3, that appear to be related to outcrops of the Antrim Plateau Volcanics. It is not known why some areas mapped as Volcanics cause a disruption in the magnetic data whilst the majority of the outcropping Volcanics is magnetically quiet. The areas of magnetic activity will have to be checked in the field. It was noted that some of the samples brought back from the first field trip contained a significant amount of haematite which may provide an explanation.

## **Previous Exploration**

The review of the previously completed exploration in the licence area has shown that very little meaningful work has been done. In the entire licence area there has been only one hole drilled and that was by the government for stratigraphic purposes. Some stream sediment sampling has been done for base metal exploration but the results were poor.

In 1988 rock chip sampling along Battle Creek returned three samples with 30.5%, 9.08% and 13.3% manganese. The samples were described as "chips off reefs" but no accurate sample locations were provided. Two manganese occurrences appear on the regional geology map. Both are near Battle Creek. At the northern occurrence, a sample of nodules assayed 55% manganese while the second occurrence is described as "vein fillings in chert and siltstone".

In late August 2009 a field trip was made to the area. The trip was made to try and identify the two manganese occurrences and generally prospect the area for other signs of mineralisation. No signs of the reported manganese mineralisation were found. On the trip 28 rock chip samples were collected from the tenements. None of the samples contain significant manganese but some of the samples appear to be rich in iron.

#### **Conclusions**

The field work completed to date has failed to enhance the prospectivity of the three licences. However, the work involved in compiling this report has demonstrated there are still

unexplained areas of interest. The main motivation for applying for the area was the presence of two manganese occurrences. Neither was located during the first field visit which suggests the initial reports may have exaggerated the size of the deposits. The close proximity of a registered site of significance to the northern most manganese occurrence also reduces the potential of the area.

There are several magnetic anomalies that appear to be related to outcrops of Antrim Plateau Basalt. At this stage no explanation for the anomalies is available.

The contact between the Wondoan Hill Formation and the Stubb Formation and the contact between members of the Antrim Plateau Volcanics Group require investigation. The presence of iron on the contacts and the lack of radiometric data opens the potential for uranium mineralisation. A spectrometer will be required during the field visit.

A field based inspection will be required to determine why some parts of the Basalts are magnetically active and the majority is not. Some of the rock chip samples, collected in August 2009, contain significant haematite and if this is the cause of the magnetic anomalies the iron potential of the area will need to be assessed.

The location of a registered site of significance near one of the recorded manganese occurrences has a negative impact on the overall prospectivity of the area.

### **Proposed Exploration**

A second trip to the area is planned for the start of the dry season. The trip will focus more specifically on locating the mapped manganese occurrences, the magnetic anomalies, the iron rich contacts and the sample sites from which the high haematite content samples were collected. If these areas appear to be interesting rock chip samples will be collected and dispatched for assay.

If the proposed field trip fails to find anything of significance the area will need to be reassessed for other commodities. One possibility is copper mineralisation hosted by the basaltic units. Considerable encouragement will be needed before a commitment to geophysical techniques is made.

# **Timing and Budget**

The Victoria River District experiences the tropical monsoon and as such it is unlikely that any field work can be done before April or May. To complete proposed program will require 3 days in the field and 2 days travel. Additional time in the field will be needed if areas of interest are located.

A tentative budget (below) has been prepared to cover the cost of the proposed exploration program.

Activity	Unit	Unit cost \$	Description	Total \$
Laboratory Services  Preparation Assay Freight	Sample Sample Sample	5 25 5	Dry and pulverise samples (50) Assay samples for element concentrations Move samples from the field to the lab	250 1250 250
Technical Services     Geologist     Fieldie	Day Day	1500 450	Regional prospecting and sampling (3 days) Regional prospecting and sampling (3 days)	4500 1350
Field Costs	Night	120	Geo + fieldie, 4 nights each (8 nights)	960

• Expenses	Day	60	Geo + fieldie, 4 nights each (8 nights)	480
	Day	10	Geo + fieldie, 4 nights each (8 nights)	80
Motor Vehicles				
Vehicle Hire	Day	160	Travel and on-site (5 Days)	800
• Fuel	Litre	1.80	Estimate 500 litres	900
Travel		4500		
	Day	1500		
<ul><li>Geologist</li><li>Fieldie</li></ul>	Day	450	Drive to and from site (2 days)	3000
Accommodation	Night	120	Drive to and from site (2 days)	900
<ul><li>Meals</li><li>Airfares</li></ul>	Man day	60		
	Trip	400		
Equipment	11.5	455		
Purchase	Unit	100		
<ul> <li>Repairs</li> </ul>	Unit			
<ul><li>Equipment Hire</li><li>Safety Equipment</li></ul>	Unit			
- Oalety Equipment	Unit	100	Sun Screen / Safety Glasses	100
Consumables				50
	Each	1	Hold and protect samples (50)	50
<ul><li>Bags</li><li>Flagging</li></ul>	Roll	7	Indicate sample sites (3)	21
<ul><li>Pegs</li><li>Textas</li></ul>	Each	2	Indicate sample sites (50)	
• Other	Box	30	Mark sample site pegs, number sample bags(1)	30
Overheads		1500	Geologist to compile data, report and planning(3)	4500
<ul><li>Reporting</li><li>Plan Printing</li></ul>	Days	25	Pre and Post field trip Large format A1(8)	200
Office Consumables	Each	50	Typing and formatting (3)	150
			Total	19771
Contingency 5%				988
			Rounded Total	\$21,000

