# Annual Technical Group Exploration Report – Year 1 Exploration Licence EL31824

From 12<sup>th</sup> November 2018 to 11<sup>th</sup> November 2019 Northern Territory, Australia

Holder: Scriven Exploration Operator: Scriven Exploration Reporting Period: From 12<sup>th</sup> November 2018 to 11<sup>th</sup> November 2019 Sheet Reference: Limbunya 1:250,000 (SE53-07) Due Date: 10<sup>th</sup> January 2020

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# SUMMARY

This Annual Report outlines exploration activities undertaken by the Operator on Exploration Licence EL31824 from 12<sup>th</sup> November 2018 to 11<sup>th</sup> November 2019. This period represents Year One of the License.

The Exploration Licence is situated on the Limbunya (E52\_07) 1:250,000 mapsheet, and Gregorys Depot (4963) 1:100,000 topographic mapsheet in the Birrindudu Region of the Northern Territory. The licence is located approximately 400 kilometres southwest of the township of Katherine and is accessed via existing sealed and gravel roads.

On-ground activities completed during the reporting period was stream sampling comprising a total 8 samples. Results for these samples will be reported in the Year 2 reporting period.

Expenditure for the reporting period is \$36,000 with the covenant being \$35,000.

## **1.0 INTRODUCTION**

This annual report outlines exploration activities undertaken by the Operator on Exploration Licence EL31824 between 12<sup>th</sup> August 2018 and 11<sup>th</sup> August 2019. This period represents Year one for the Licence.

The Operator is primarily targeting diamond deposits associated with kimberlite pipes.

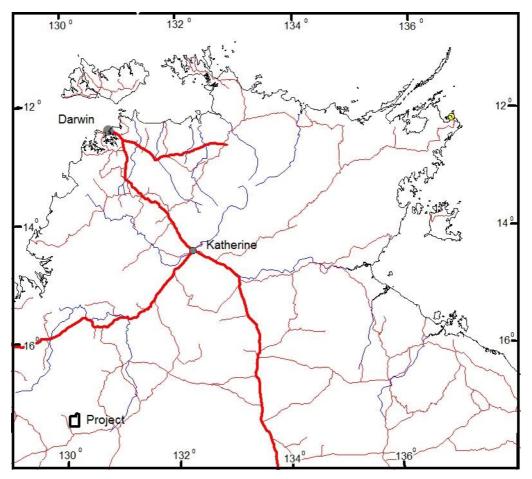
## 2.0 COPYRIGHT

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## 3.0 LOCATION AND ACCESS

Exploration Licence EL31824 is situated on the Limbunya (E5207) 1:250,000 mapsheet, and Gregorys Depot (4963) 1:100,000 topographic mapsheet in the Birrindudu Region of the Northern Territory. It is located approximately 400 kilometres southwest of the township of Katherine and is accessed via existing sealed and gravel roads. A tenement location map is provided as Figure 1.



**Figure 1. Tenement Location** 

# 4.0 LICENCE DETAILS

Details of the Project Tenement is outlined in Table 1 below.

## **Table 1: Tenement Schedule and Expenditure Details**

Name	Covenant	Effective Date	Grant Date	Expiry Date	Blocks	Holder	%
EL31824	\$35,000	12/11/18	12/11/18	11/11/23	28	Scriven Exploration	100

# 5.0 ABORIGINAL CLEARANCES

For the purpose of planning future ground disturbing activities the location of registered Heritage and Sacred Sites including Restricted Work Areas was obtained from the Aboriginal Areas Protection Authority in Darwin (AAPA) for the entire tenement area. No additional on ground Heritage clearances have been undertaken by the Operator.

## 6.0 PHYSIOGRAPHY

## 6.1 Geomorphology and Climate

#### Climate

The climate of the region is monsoonal with dry winters and hot humid summers. The rain falls almost entirely within the hot summer months (December through to march). The temperatures range from a mean maximum of 27 degrees centigrade to 35 degrees centigrade to a mean minimum of 10 degrees centigrade to 21 degrees centigrade in winter and summer respectively. Rare frosts occur on the higher parts of the area in June and July.

#### **Physiography**

Four major physiographic units are recognised on the Limbunya mapsheet.

The Stewart Plateau is an uplifted peneplain with the gently undulating surface ranging in elevation from 350 to 450 m above sea level. In many places the plateau is bounded by steep cliffs. Monadnocks composed of steeply dipping, well indurated sandstone rises 30 to 60 m above the general level of the plateau in the south-west. Most of the plateau has a laterite capping commonly covered by red sandy soil, and the remainder is covered by alluvial plains of dark grey clay soil and rare flat rocky pavements.

The Victoria River Plateau has an elevation of approximately 300 metres above sea level end is formed on gently folded Carpentarian or Adelaidean sedimentary rocks. It consists of structural Plateaux, benches, cuestas and karst areas. Only skeletal soils are developed on this unit except in the larger valleys which have formed in the softer weathering units and contain deeper alluvial soils.

The Victoria River Plains and benches are developed on basic volcanic rocks and comprise mesas, buttes, benches and inland erosional Plains. Dark grey clay soils are abundantly developed on the inland plains. In its upper reaches the Victoria River has cut a deep sided narrow rocky channel below the general plain level. Many of the mesas and buttes are capped by laterite are remnants of the Sturt Plateau.

The Ord River Basin has been divided into two distinct physiographic subunits;

The *Plains* bordered by limestone cuestas are formed on the Paleozoic sediments of the Hardman Basin. The area consists of flat soil plains with minor plateaux and limestone cuestas surrounded by a marginal zone of karst topography. Along the south-west margin the limestone forms an escarpment up to 30 m high.

The *Mesas* and structural benches occur in a zone 13 to 32 km wide surrounding the Hardman basin. The topography is steep and terraced with Plateaux mesas, buttes and narrow valleys. These landforms are developed in the flat-lying to gently dipping basalts and agglomerates of the Antrim Plateau Volcanics.

## 6.2 Geology

## Regional geological setting

The region is divided into six principal tectonostratigraphic components. A basement rise in Central Limbunya is manifested as two small inliers of the Inverway Metamorphics. These are unconformably overlain by stacked palaeoproterozoic to mesoproterozoic basins. A thin cover of lower Cambrian flood basalts blankets a large portion of the next mapsheet and separates the Paleozoic Ord Basin from the Victoria and Birrindudu basins. A Southeast trending fault- monocline which is recognisable as a major regional lineament, marks the south-western margin of the Ord Basin. This structural feature can be traced southward into the series of north trending faults and folds in the Limbunya group of the Birrindudu Basin.

The surface expression of the Neave fault is a prominent east trending fault ridge in the south eastern corner of the mapsheet. The Antrim Plateau Volcanics occur to the south of the fault and abruptly terminate against the fault ridge. This major structural lineament extends Southward into Birrindudu as a prominent magnetic feature.

In the centre of the mapsheet the east trending Limbunya fault dissects outcropping Limbunya Group rocks. On the upthrown southern side, basement is shallow and is overlain by the two basal formations of the Limbunya Group. On the northern side of the fault, the complete Limbunya Group succession is well exposed.

#### Local geological setting

The project area is poorly drained and mostly obscured by black soils and sands. Limited outcrops of Proterozoic aged rocks are present, and Antrim Plateau Basalts occur sporadically.

# 7.0 PREVIOUS EXPLORATION

## 7.1 Historic Investigations

The first recorded geological observations were made by Hardman in 1883-1884 when he briefly visited the northwestern part of the map sheet area and broadly defined the distribution of the Negri Group which occupies what is now termed the Hardman Basin. Brown (1909) made a passing visit to the southwestern parts of the map sheet area. Travers 1955 in his reconnaissance geological map of the Ord-Victoria area was the first to examine the mapsheet area as a whole. The Limbunya mapsheet was part of the regional mapping project of the Victoria River district undertaken by the BMR 1971.

## 7.2 Ashton Mining Ltd 1990 – 2005

#### Ashton Mining

Ashton Mining undertook reconnaissance diamond exploration within EL2557 in the 1980's and which was over the current Project tenement. Ashton Mining collected mainly gravel but also loam and some rock samples from 71 sites from the area now covered by EL 9964 during several previous diamond exploration campaigns in the region. The most intense sampling was concentrated within, and around, the south of EL2557. Ashton subsequently took up EL9964 over this same area but before the tenement was granted Ashton Mining was taken over by Rio Tinto. The ongoing exploration of this tenement was undertaken by Rio Tinto and subsequently Gravity Diamonds during the period 2003-2005.

#### Rio Tinto/Ashton Mining

During the first year of tenure, Rio Tinto conducted a thorough review of historic exploration data, including considerable surface sampling focussed on diamonds, and recommended divestment of the tenement.

#### Gravity Diamonds Farmin

Gravity Diamonds completed an assessment of the compilation work carried by Rio Tinto and concluded that the area was not of sufficient priority to warrant a Falcon<sup>™</sup> survey in the initial stages of the DMA-Rio Tinto farmin arrangement. No field work was carried out.

Gravity handed back the licence to Rio Tinto at the end of September 2004 and the licence was subsequently surrendered on 23 February 2005.

#### 7.3 Stockdale Prospecting 1996-1998

Reconnaissance stream sampling within EL9416 by Stockdale Prospecting and comprising 158 samples led to the recovery of abundant basaltic chromites. Some had characteristics which suggested they may be derived from kimberlite and warranted follow-up sampling. No further anomalous chromites were recovered.

An inspection of the NTGS Limbunya aeromagnetic survey data produced one low interest discrete magnetic anomaly which did not warrant follow-up. Consequently, the licence was considered to have little potential to host an economic diamond deposit and was surrendered.

# 8.0 EXPLORATION COMPLETED DURING REPORTING PERIOD (Year 1)

## a) Reconnaissance Sampling

A total 8 stream samples were collected at easily accessible locations throughout the tenement. The samples were dispatched to Diamond Recovery Services laboratory in Perth

for processing for the recovery of indicator minerals and diamond. Sample sites are shown in Figure 2 and results are presented in Table 2.

Results for these samples are pending and will be reported in the Year 2 reporting period.

	-	-				-
Sample Id	Easting	Northing	Туре	Wt_kg	Diamond	Chromite
NTL1901_001	626532	8084704	stream	20	pending	pending
NTL1901_002	624268	8075321	stream	20	pending	pending
NTL1901_003	623128	8074146	stream	20	pending	pending
NTL1901_004	626640	8073179	stream	20	pending	pending
NTL1901_005	626720	8086062	stream	20	pending	pending
NTL1901_006	624344	8087909	stream	20	pending	pending
NTL1901_007	613534	8075384	stream	20	pending	pending
NTL1901_008	612943	8076333	stream	20	pending	pending

 Table 2: Sample results

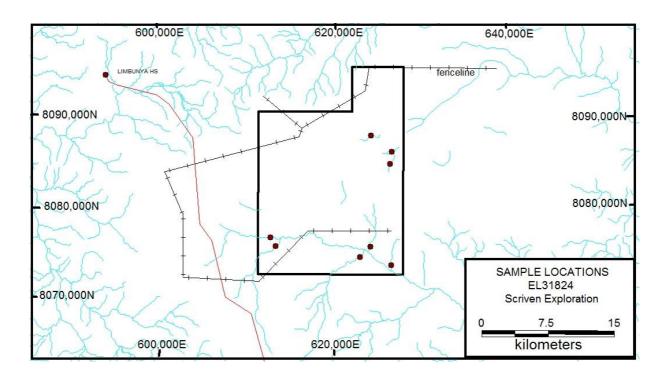


Figure 2. Location of 2019 Samples

# 9.0 CONCLUSIONS

Ongoing exploration will focus on identifying targets based on sampling and geophysical surveys which can be drill tested.

# **10.0 EXPENDITURE STATEMENT**

The exploration expenditure attributed to the Tenements during the current reporting period was a total of \$36,000. Expenditures are detailed on the submitted expenditure statements for the tenement.

# 11.0 PROPOSED PROGRAM

A proposed program of exploration for Year 2 for the Tenements is included below,

Administration and Reporting Stream/Loam Sampling – 10 samples Ground Geophysical Surveys – 15 line km <u>Total Proposed Expenditure</u> \$35,000

# 12.0 REFERENCES

Mendum, J.R, (1972) Limbunya Northern Territory. 1;250,000 Geological Series
Explanatory Notes, Sheet SE/52-07 international index. DME and BMR, NT
Ashton Mining Limited (1985). Final Report for EL2557.
Stockdale Prospecting (1998). Final Report for EL9416. NTCS Reference CR98/452
Ashton Mining Limited (2003). Final Report for EL9964. NTGS Reference CR1983-0335.