Annual and Final Surrender Report – Years 1- 4 Exploration Licence EL32066

From 16th August 2019 to 17th August 2023 Northern Territory, Australia

Holder: Scriven Exploration Operator: Scriven Exploration Reporting Period: From 16th August 2019 to 17th August 2023 Sheet Reference: Bauhinia 1:250,000 (SE53-07) Due Date: 14th October 2023

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SUMMARY

This Final Report outlines exploration activities undertaken by the Operator on Exploration Licence EL32066 from 16th August 2019 to 17th August 2023. This period represents Years one to four of the License.

The Exploration Licence is situated on the Bauhinia (SE5307) 1:250,000 mapsheet, and Mallapunyah (6064) 1:100,000 topographic mapsheet in the McArthur Region of the Northern Territory. The tenement is located approximately 10 kilometres southeast of the settlement of Cape Crawford and is accessed via existing sealed and gravel roads.

No prospecting activities were completed during the final reporting period.

1.0 INTRODUCTION

This final report outlines exploration activities undertaken by the Operator on Exploration Licence EL32066 between 16th August 2019 and 17th August 2023. This period represents Years one to four for the License.

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 EL32066 is situated on the Bauhinia (SE5307) 1:250,000 mapsheet, and Mallapunyah (6064) 1:100,000 topographic mapsheet in the McArthur Region of the Northern Territory. It is located approximately 10 kilometres southeast of the settlement of Cape Crawford at its closest point and is accessed via existing sealed and gravel roads. A tenement location map is provided as Figure 1.

The Project is situated approximately seven hundred (700) kilometres southeast of Darwin, and less than one hundred (100) kilometres southwest of Borroloola. The project area can be reached from Darwin along the Stuart Highway to Daly Waters, then along the sealed Carpentaria Highway to Cape Crawford. Dirt roads and station tracks service the project area away from the main highways.

4.0 LICENCE DETAILS

Details of the Project Tenement which comprised 35 graticular blocks is outlined in Table 1 below.

Table 1: Tenement Schedule and Expenditure Details

Name	Covenant	Effective Date	Grant Date	SurrenderDate	Grant Blocks	Current Blocks	Holder	%
EL32066	\$55,000	17/08/16	16/08/19	17/08/24	35	0	Scriven Exploration	100



Figure 1. Tenement Location

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

The region has a humid monsoonal climate with a dry season between April and October and a hot, wet season extending from November to March. The "wet" season is characterised by high relative humidity, high temperatures and most of the mean annual rainfall of 804mm. The "dry" season is characterised by lower humidity and lower temperatures.

EL32066 lies within the *Gulf Fall* physiographic division and contains north flowing drainages. A marginal scarp forms a drainage divide that separates the *Gulf Fall* from the *Barkly-Birdum Tableland* to the south where drainage flows southward. In this area the *Gulf Fall* division contains two sub-divisions namely the *Top Springs Erosion Surface* and the *Bukalara Plateau*.

The *Top Springs Erosion Surface* is generally flat at elevations of approximately 240 metres and contains outcrop of Top Springs Limestone, isolated outcrops of Cretaceous

sediments, and Quaternary sediments on flat-lying areas and in drainages. The southern part of the sub-division becomes undulating and slopes up to the scarp of the *Barkly-Birdum Tableland*.

The *Top Springs Erosion Surface* descends gently and merges with the *Bukalara Plateau* to the north. The plateau occurs approximately 10 metres below the *Top Springs Erosion Surface*. It is dissected by the Glyde River, Lancewood Creek and their tributaries, which has exposed the Bukalara Sandstone.

The *Barkly-Birdum Tableland* occurs on the southern side of the drainage divide at an elevation of approximately 350 metres. It contains flat-lying Cretaceous sediments with an often well-developed laterite profile. Black soil plains occur where the ferruginous zone of the laterite profile has been eroded. The tableland represents the original Tertiary land surface.

6.2 Regional Geology

All the known economic diamond deposits and other significantly diamondiferous occurrences in Australia are located within the North Australian Craton (NAC), which also hosts some of the largest ore deposits of base metal, gold and uranium. The NAC covers the Kimberley region of northern WA, the northern two thirds of the NT and the northwestern part of Queensland.

The NAC is surrounded in the south and southwest by the Musgrave and Paterson Orogens, and its eastern boundary is marked by the Tasman Line separating it from the Terra Australis Orogen. The NAC formed about 1850Ma ago during the Barramundi Orogeny by the amalgamation of Archean and early Paleoproterozoic rocks. The younger Late Paleoproterozoic to Phanerozoic igneous and sedimentary rocks conceals large parts of the NAC; as such, the Archean rocks of the NAC are scarcely exposed and are limited to the Rum Jungle and Nanumbu Complexes of Pine Creek Orogen and Billabong Complex of the Tanami Region.

The McArthur Basin is one of many basins to develop above the NAC between 1800-1500Ma. The sediments of the basin consist of unmetamorphosed and mildly deformed rocks of carbonate, siliciclastic and interbedded volcanics deposited in a shallow intracratonic setting. The sedimentary sequences of the southern McArthur Basin have been divided into four groups named, from oldest to youngest, the Tawallah, McArthur, Nathan and Roper Groups. The boundaries of these groups are punctuated by regional unconformities. The remnants of the Cambrian Bukalara Sandstone and the Cretaceous sediments of the Dunmarra Basin overlie the McArthur Basin.

There is a widespread distribution of Cainozoic sandy soil, laterite and alluvium along drainage systems. Major structural elements of the basin include the north-trending Batten Fault Zone and its northern equivalent the Walker Fault Zone separated by the east-

trending Urapunga Fault Zone (Pietsch, Rawlings, Creaser, Kruse, Ahmad, Ferenczi, and Findhammer 1991). The spatial association between the major structures and base metal deposits in the McArthur Basin suggests that these fault zones provided an important control on mineralization. The McArthur Basin hosts large lead-zinc-silver and copper deposits and several occurrences of small uranium and base metal mineralization. A number of varying size economical and sub-economical diamond bearing kimberlite pipes has been discovered in the basin. They are part of the sporadic volcanic activity occurring in the post-Cambrian period in the NAC.

The project area lies within the McArthur Basin, which is at places covered with Phanerozoic sedimentary sequence. Brief description of the stratigraphy of the McArthur Basin is given below:

McArthur Basin: Four groups, namely the Tawallah, McArthur, Nathan and Roper Groups, make up the sedimentary succession in the McArthur Basin. The brief description of each group is given below, however, for a full description of the geology of the McArthur Basin, see Peitsch et al (1991).

Tawallah Group: The stratigraphic units assigned to the Tawallah Group are the oldest in the McArthur Basin succession and are predominantly ridge-forming sandstones, with bimodal igneous intrusions and lavas, lutite, conglomerate, and dolostone. The succession in the Tawallah Group is up to five kilometres thick of which four kilometres of section belongs to the two basal sandstone units- Yiyintyi Sandstone and Sly Creek Sandstone.

McArthur Group: The stratigraphic units of the McArthur Group are restricted to the Batten Trough and form an interbedded sequence of carbonates, shale, siltstone and less common arenites. The McArthur Group has been subdivided in two subgroups: the Umbolloga Subgroup and the overlying Batten Subgroup.

Nathan Group: Lying unconformably above the McArthur Group sequence is the units of the Nathan Group. The Nathan Group comprises an interbedded sequence of carbonates and clastic rocks.

Roper Group: The Roper Group is a distinctly different assemblage of sediments compared to its precursor McArthur and Nathan Groups. It is almost entirely siliciclastic and hosts cyclic sequences of resistant quartz sandstone and recessive mudstone and siltstone that have accumulated in a shallow intracratonic basin.

6.3 Local Geology

The Project area lies within the Batten Trough of the Southern McArthur Basin. In the Batten Trough, formations of the older Tawallah and McArthur Groups dominate in outcrop; however, in the Abner Range syncline the younger Nathan Group and lower Roper Group are exposed.

The Project encompasses the Abner Range Plateau and surrounding low-lying area. The majority of the area is underlain by Mesoproterozoic Roper Group sediments (predominantly sandstones and minor siltstones) and minor volcanics as well as dolomitic sediments of the Nathan Group. Pockets of Cambrian Bukalara Sandstone and Cretaceous sediments occur at top of the Abner Plateau and in surrounding areas resting above the Proterozoic rocks, with minor dolerite sills intruding the upper part of the Roper Group. Bedrock units are commonly covered by laterite, lateritic soils and Quaternary deposits. Basement sediments are folded, with bedding dipping on average 20-30 degrees.

The Tawallah and Hot Springs Faults, that trend approximately N-S, lie on the western and eastern margins of the Abner Range syncline, respectively. These two major faults are parallel to, and probably broadly sympathetic to, and coeval with, the Emu Fault that defines the eastern margin of the Batten Trough. The lower Devonian diamond pipes of the Merlin field lie proximal to the Emu Fault. The north trending faults such as the Mallapunyah Fault exhibit observable strike-slip movement. The Mallapunyah Fault is one such fault.

7.0 PREVIOUS EXPLORATION

7.1 Historic

Extensive work has been conducted over the Abner Range in the last few decades. Major contributors in the region included CRAE and Ashton and then later Gravity Diamonds. Each has conducted several episodes of HMA sampling, as well as geochemical soil/loam sampling and drilling. Gravity Diamonds located the Abner Pipe, ABN21, in 2004 using a combination of the Falcon Gravity Survey, ground gravity and geochemical analysis of the earlier Ashton sampling.

Surface sampling by CRAE and Ashton was completed over the majority of the project area during the 1980s with some follow-up infill sampling during the 1990s. This sampling identified widespread microdiamonds and indicator minerals, mainly chromite grains. No kimberlites were discovered during this period in the Abner Group region, and the source of the anomalous indicator mineral grains remained unknown.

Several airborne geophysical surveys have been flown over the Abner region including Input, Aeromagnetics, HoistEM, Airborne Gravity. Of these the Falcon® airborne gravity gradiometer survey flown in 2003 was perhaps the most significant in the recent history and helped lead to the discovery of the ABN21 Pipe.

Two Falcon surveys were flown covering a substantial part of the project tenement. Flight lines were on an east-west orientation, 100m apart at a mean terrain clearance of 80m. Detailed interpretation, anomaly ranking and exploration targeting from the Falcon survey was completed in the following years. Reprocessing of the original Falcon TM gravity data

was carried out by BHPB Falcon operation with updated noise suppression algorithms that lowered the noise in the original data set from approximately 10 Eotvos to 3 Eotvos. A kimberlite (ABN21) pipe was discovered by Gravity Diamond at Abner Range that had a negative gravity response of 22 Eotvos.

A portion of the area covered by EL32066 was previously held by Legend under title EL23993. Exploration by Legend over this title defined a significant chromite anomaly. Stream gravel samples recovered significant numbers of potentially kimberlitic chromite grains approximate 15km south and along strike from the known Abner Range kimberlite pipe.

7.2 Legend International 2007 – 2015

Previous exploration by Legend in the project area reported abundant kimberlitic chromite in stream gravel samples in an area approximately 15km south and along 'strike' from the known Abner Range kimberlite pipe (Figure 2 and 3). These results are considered significant with >100 chromite recovered from low volume samples collected at poor quality trap sites. The observing mineralogist described the chromite as being of kimberlitic origin.

During August 2013, an Electromagnetic (EM) Survey was undertaken over this area. A total of 23.8 line kilometers were completed at 20m station spacing and 25m line spacing. Lines were oriented eastwest.

The survey identified two targets up to 100m diameter that may represent kimberlite pipes (Figure 4). The targets are defined by elevated conductivity values that may represent the weathered upper portion of a kimberlite body, being more conductive than the surrounding host rocks comprised of sandstones and siltstones. The elevation at the prospect is such that any kimberlites are not likely to be capped by Cretaceous sediments as is the case at the Abner range pipe and the Merlin pipes.

Six diamond exploration samples were collected and processed to recover diamond indicator minerals. Three samples reported positive results with two samples reporting 95 and 173 kimberlitic chromite grains. No diamonds were recovered.

Three loam samples were collected over the electromagnetic anomalies. These samples reported negative results. Two samples were stream gravel samples collected immediately downstream from the anomalies and reported 95 and 173 kimberlitic chromite grains. An additional stream gravel sample was collected to the southeast of the anomalies and reported 2 kimberlitic chromite grains. The results were considered encouraging.



Figure 2. EM Anomalies identified by Legend

7.3 Scriven Exploration 2019 – 2020

On-ground activities completed during the reporting period comprised ground reconnaissance, Stream geochemical sampling, soil geochemical sampling, stream heavy mineral sampling and the undertaking of ground based EM34 survey lines over previously reported conductor anomalies.

a) EM34 Survey

Five EM34 survey Lines (Figures 3) were completed over two EM34 conductor anomalies reported by Legend. The survey comprised 1.84line km for 184 recordings with readings done at 10m intervals and using a 10m coil spacing. The coil orientation was horizontal. The survey profiles are shown in Figure 4. The results confirmed the location and intensity of the previously reported conductor anomalies.



Figure 3. Location of Survey Lines

b) Stream HM Sampling

A total 2 stream samples (Figure 4) were collected from the tenement area. Samples NTA1902_001 and NTA1902_002 were taken from the drainages directly associated with the reported EM34 conductor anomalies. One sample reported 58 chromite grains considered to be of kimberlitic origin.

c) Stream/Anthill Geochem Samples

Two stream Geochem samples were taken at the same sites as the heavy mineral samples shown in Table 2. Sample NTA1905-002 was taken upstream of, but in proximity to a barite dyke and this may be reflected in the geochemical response.

d) Soil Geochemical Samples

A line of soil samples was taken at 10m intervals across the east most reported EM conductor anomaly, with a total 21 samples taken. A strong barium response was reported over a 40m interval. Some elevated rare earth responses were also associated with the barium anomaly.



Figure 4. Location of 2019 Samples

7.4 Scriven Exploration 2020 – 2021 (Year 2)

Due to the uncertainty associated with travel restrictions and intermittent border closures no on-ground field activities were able to be undertaken.

7.5 Scriven Exploration 2021 – 2022 (Year 3)

Due to the disruption of field activities during 2021, a review of the data pertaining to the tenement was undertaken. In addition, a field reconnaissance was completed to assess the status of access tracks and to inspect the known target areas. Vehicular access to the Abner plateau to inspect the northern portion of the tenement proved not to be possible due to degradation of the access track. The upgrading of this track in the forthcoming field season will be necessary to allow work to be undertaken on the plateau.

7.6 Scriven Exploration 2022 – 2023 (Year 4)

Due to external factors no field activities were conducted during the reporting period. A final review of exploration data was undertaken, and the tenement was recommended for surrender.

8.0 CONCLUSIONS

Historic exploration works in the southern part of the tenement identified 2 associated

significant at surface conductor anomalies. Because of the presence of kimberlitic chromite reporting to numerous drainages in the area it is believed that the conductor anomalies could represent the weathered near surface expression of kimberlite bodies. The work completed has confirmed the presence of the conductor anomalies, kimberlitic chromite in one of the associated drainages and some rare earth soil geochemical responses in proximity to the conductor targets. potential kimberlite targets based on detailed close spaced EM34 geophysical surveys. The presence of country rock outcrop associated with parts of the conductor anomalies tends to discount them as potentially representing kimberlite bodies and the presence of barite may explain the soil geochemical response. However, the presence of the kimberlitic chromite does imply the presence of kimberlite in the area but which are yet to be discovered.

Due to external factors no further work was recommended and the tenement was surrendered.

9.0 EXPENDITURE STATEMENT

The exploration expenditure attributed to the Tenement during the final reporting period was reported.

10.0 REFERENCES

Pietsch, B.A., Rawlings D.J., Greaser P.M., Kruse P.D., Ahmad M., Ferenzi P.A., and Findhammer T.L.R., 1991: Bauhinia Downs SE5303, 1:250,000 Geological Map Series, Explanatory Notes, Northern Territory Geological Survey, Darwin