KETTLE ROSE PTY LTD
ACN 119 016 330

EL26529

Davenport Project
Northern Territory

PARTIAL RELINQUISHMENT REPORT

FOR THE PERIOD
14 JULY 2008 TO 13 JULY 2015

BY
A. Raza

DUE DATE: 5 October 2015

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Kettle Rose Pty Ltd

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COMPANY: Kettle Rose Pty Ltd.
PROJECT: Davenport Project
TENEMENTS: EL26529
PREPARED BY: A. Raza
STATE: Northern Territory
LATITUDE: -20° 15' 00" to -20° 39' 00"
LONGITUDE: 135° 36' 00" to 136° 05' 00"
MGA mN: 7716297 to 7760588
 mE: 562859 to 603290
1 : 250,000 SHEET: Frew River SF53-3
1 : 100,000 SHEET: Hanlon 6056; Coolibah 6057
MINERAL DISTRICT: Davenport
COMMODITY: Au, Cu, Bi, W
KEY WORDS: Tennant Region, Davenport Province, Gold, Wolframite
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1 Summary of Exploration Activities

This report details exploration activities performed by Kettle Rose Pty Ltd on the relinquished portion of the Davenport license EL26529 for the period 14 July 2008 to 13 July 2015. After acquiring the tenement, Kettle Rose initiated the process of evaluating the mineral potential of EL26529 by examining the published research, historic exploration data and the current understanding of genesis of Proterozoic gold and wolframite in the Davenport Province.

The main exploration objective was to determine if geophysical, geochemical and geological anomalies within the Ooradidgee Group reflect sub-surface occurrence of ironstone bodies which may host copper-gold mineralisation similar to the deposit at Rover Field. To achieve this objective, a geophysical consultant was commissioned to review available regional airborne geophysical data from the Northern Territory Geological Survey (NTGS) and identify potential targets within the Davenport project that can be explored for economic occurrence of gold and other minerals. This study highlighted ten areas for further investigations by ground geophysical and geochemical surveys. These areas were investigated by mobile metal ion (MMI) soil sampling, ground magnetic surveying and ground gravity surveying. None of the targets were located within the relinquished portion of EL26529 hence there is no data to report.

In summary, no targets were identified within the relinquished area hence no field activities were undertaken and no data obtained. The relinquished area is not considered highly prospective for iron oxide hosted Au-Cu-Bi mineralisation. The Company is continuing to explore the wider project area for this style of mineralisation.

2 Tenement Status

Exploration Licence EL26529 is held by Kettle Rose Pty Ltd (Figure 1).

A Waiver of Area Reduction for EL26529 was approved by the Department of Mines and Energy on 1st November 2012 and 13th September 2012 respectively. The licence was renewed at the end of the sixth year and included a reduction of 112 blocks. A total of 103 blocks were retained. Further reduction in area was undertaken in July 2015 when Kettle Rose applied second time renewal of the licence. Company submitted 28 blocks for relinquishment and retained 75 blocks.
3 Location and Access

The licence is remotely located in the Tennant Region of Northern Territory approximately 200 km south-east of Tennant Creek. Tennant Creek is located on the Stuart Highway and accessible from Darwin or Alice Springs. Access from Tennant Creek to the licence is obtained by driving east on the Barkley Highway and then south at the junction of Barkley and Tablelands Highways via 4WD tracks. An alternative route to get to the Project from Tennant Creek is driving south along the Stuart Highway and then heading east via 4WD tracks through Epenarra Station.

Exploration programs were conducted by establishing a base camp at the Barkley Homestead Roadhouse located at the junction of Barkley Highway and Tablelands Highway. Field activities were completed with the support of an R44 helicopter and a Toyota Land Cruiser.

4 Geology

EL26529 is part of the company’s Davenport Project. Davenport Project is located within the Davenport Province of Tenant Region in the Northern Territory and lies on the Frew River (SF53-3) 1:250 000 Geological map sheet.
4.1 Regional geology

The following regional geology summary is collated from Ahmad et al. (2009), Claoue-Long et al. (2008), Fraser et al. (2008) and references therein. Figure 2 summarises the stratigraphy and timing of mineralisation events of the Davenport Province.

The Tenant Region lies north of the Arunta Region and comprises three separate Proterozoic age geological domains, the Tomkinson Province in the north, the Warramunga Province in the middle and the Davenport Province in the south. Geophysical and exploration drill hole data confirm that Palaeoproterozoic rocks of Tenant Region extend below the overlying Cambrian sequence of Georgina and Wiso Basins to the east and west respectively.

The Tomkinson Province predominantly contains Palaeoproterozoic platform sedimentary sequence. The Warramunga Province comprises a deformed and metamorphosed turbidite succession (Warramunga Formation) intruded by synorogenic granite and granodiorite, as well as by stratabound felsic porphyry. The Warramunga Formation is overlain by silicic volcanic and volcaniclastic rocks of Flynn Subgroup which is intruded by late orogenic granite, porphyry and lamprophyre.

The oldest rocks exposed in the Davenport Province are Warramunga Formation and the correlative Woodenjerrie Beds and Junalki Formation located at its north-western corner. Overlying unconformably these units are successions belonging to the Ooradidgee and Hatches Creek groups. The Ooradidgee Group is characterised by shallow-marine to subaerial sedimentation accompanied by bimodal volcanism and by penecontemporaneous subvolcanic intrusive activity. The Hatches Creek Group consists of siliciclastic and carbonate rocks with interbedded felsic and basaltic volcanic horizons.

The rocks of the Davenport Province has been deformed and regionally metamorphosed. Deformation in the Warramunga Formation produced tight upright folds with pervasive, sub-vertical, east-west slaty cleavage accompanied by lower greenschist-facies metamorphism.

The deformation of Ooradidgee and Hatches Creek Groups occurred ~at 1710 Ma in two stages, both of which postdate tight folding of the Warramunga Formation. During the first stage concentric upright, relatively open northwest-trending folds, accompanied by reverse faulting were formed. However, in the second stage, concentric upright, north to northeast-trending folding was accompanied by northeast-striking reverse faults and northwest-trending strike-slip faults. The metamorphism was low grade reaching to greenschist facies, preserving the sedimentary and diagenetic features.
Figure 2: Summary of stratigraphy and timing of mineralisation events.
4.2 Local Geology

The following description of the local geology has been adapted from Walley (1987).

The Palaeoproterozoic rocks of the Davenport Province are poorly exposed in EL26529 (Figure 3). Scattered outcrops and published interpreted geophysical data suggest that tenement is underlain by a sequence of Ooradidgee and Hatches Creek Groups. The exposed Proterozoic units are represented by Taragan Sandstone of Ooradidgee Group and Unimbra Sandstone, Errolola Sandstone and Canulgerra Sandstone of Hatches Group. Structurally the project area lies within the complexly deformed fold and thrust belt of the Davenport Province.

Palaeozoic sedimentary succession of Georgina Basin rests unconformably above the Proterozoic rocks and crops out as mesas and low hills along the eastern boundary of the project area.

Cainozoic deposits are widespread in the project area and largely represented by aeolian sand that form extensive field of longitudinal dunes. Dunes are low broad features generally up to 2m high. Part of the tenement is covered by calcrete.

Figure 3: Geology plan for EL 26529 (licence boundaries as per Figure 1).
5 Exploration

The Tennant Region has produced significant quantities of gold, copper, bismuth, selenium, and silver. Most of the metalliferous ore has been mined from the Tennant Creek mineral field of the Warramunga Province. The recorded production since 1932 from the Tennant Creek area is 130.2 t Au, 345000 t Cu, 14000 t Bi, 220 t Se and 56 t Ag (Ahmad et al., 2009). By contrast, the Davenport Province has produced only 75 kilogram of gold mainly from quartz veins in the Kurinelli area and 45000 tone of tungsten concentrate essentially from Hatches Creek and Wauchope tungsten fields.

Assessment of geological, geophysical and geochronological data by Kettle Rose concluded that project area is prospective for Rover-style Au-Cu-Bi mineralisation. This inference was based on the understanding that the magnetite bodies that host Rover Field deposits to the north-west of the tenement are at least in part located in the basal part of the Ooradidgee Group. Sediments and volcanics belonging to the basal Ooradidgee Group occur in the project area and therefore any existence of ironstone bodies within them are considered potential targets for Au-Cu exploration.

The Davenport Project comprised two contiguous tenements- EL26529 and EL26708; therefore, all phases of exploration program were planned and implemented on a project basis.

Exploration at the Davenport Project included mobile metal soil sampling, ground magnetic surveying and ground gravity surveying over aeromagnetic targets identified in the earlier desktop assessment. All sampling and surveying was completed within the retained portion of the licence as per Figure 4 hence there is no data to report for the relinquished portion.
Figure 4: 1st Vertical Derivative of Reduced to Pole Total Magnetic Intensity image showing soil sampling locations within retained portion of tenement. Tenement shape is as per Figure 1.

6 Conclusion

No targets were identified within the relinquished area hence no field activities were undertaken and no data obtained. The relinquished area is not considered highly prospective for iron oxide hosted Au-Cu-Bi mineralisation. The Company is continuing to explore the wider project area for this style of mineralisation.
7 References


Kettle Rose Pty Ltd, Davenport Project- EL26529 and EL26708 Annual Group Report (GR223/11) for Year 2010-2011.

Kettle Rose Pty Ltd, Davenport Project- EL26529 and EL26708 Annual Group Report (GR223/11) for Year 2011-2012.

Kettle Rose Pty Ltd, Davenport Project- EL26529 and EL26708 Annual Group Report (GR223/11) for Year 2012-2013

Kettle Rose Pty Ltd, Davenport Project- EL26529 and EL26708 Annual Group Report (GR223/11) for Year 2013-2014

Kettle Rose Pty Ltd, Davenport Project- EL26529 and EL26708 Annual Group Report (GR223/11) for Year 2014-2015