Northern Capital Resources Corporation
ACN 122 230 488

EXPLORATION LICENCE 28779

DAVENPORT PROJECT
NORTHERN TERRITORY

ANNUAL REPORT
FOR THE PERIOD
7 DECEMBER 2011 TO 6 DECEMBER 2012

BY
A. Raza

DUE DATE: 3 JANUARY 2013

PRIVATE AND CONFIDENTIAL
NOT TO BE COPIED OR DISTRIBUTED

8th Floor, 580 St Kilda Road, Melbourne, Victoria, 3004, Australia
Telephone: +61 3 8532 2800 Facsimile: +61 3 8532 2805

DISTRIBUTION
Department of Resources, Darwin
Northern Capital Resources Corporation
COMPANY: Northern Capital Resources Corporation
PROJECT: Davenport Project
TENEMENTS: EL28779
REPORTING PERIOD: 7 December 2011 - 6 December 2012
DUE DATE: 3 January 2013
AUTHOR: A. Raza
STATE: Northern Territory
LATITUDE: -20° 12' 00" to -20° 28' 00"
LONGITUDE: 135° 39' 00" to 136° 05' 00"
MGA mN: 7736495 to 7766028
mE: 567891 to 613150
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, Copper
## TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Summary of Exploration Activities</td>
<td>4</td>
</tr>
<tr>
<td>2 Tenement Status</td>
<td>4</td>
</tr>
<tr>
<td>3 Location and Access</td>
<td>4</td>
</tr>
<tr>
<td>4 Geology</td>
<td>4</td>
</tr>
<tr>
<td>4.1 Regional geology</td>
<td>4</td>
</tr>
<tr>
<td>4.2 Local Geology</td>
<td>7</td>
</tr>
<tr>
<td>5 Exploration</td>
<td>10</td>
</tr>
<tr>
<td>5.1 Proposed Exploration Programme</td>
<td>10</td>
</tr>
<tr>
<td>6 References</td>
<td>11</td>
</tr>
</tbody>
</table>

## LIST OF PLANS

- Figure 1: Plan showing exploration index for EL28779.  
- Figure 2: Plan showing location of EL28779.  
- Figure 3: Summary of stratigraphy and timing of mineralisation events.  
- Figure 4: Geology plan EL 28779.  

---

iii
1 Summary of Exploration Activities

This report describes exploration activities conducted over EL28779 during the 7 December 2011 to 6 December 2012. During this period assessment of mineral potential, particularly gold, copper and tungsten, of the tenement was completed by examining the published research, current and historic exploration data and recent understanding of the genesis of Proterozoic gold, copper and wolframite in the Davenport Province. However, no field based exploration activity was undertaken over the tenement during the reporting period.

2 Tenement Status

The Prospecting Lease EL28779 is held by the Northern Capital Resources Corporation (NCRC) (Figure 1).

<table>
<thead>
<tr>
<th>Tenement</th>
<th>Date of Grant</th>
<th>Date of Expiry</th>
<th>Blocks</th>
</tr>
</thead>
<tbody>
<tr>
<td>EL28779</td>
<td>07/12/2011</td>
<td>06/12/2017</td>
<td>134</td>
</tr>
</tbody>
</table>

3 Location and Access

The lease is remotely located in the Tennant Region of Northern Territory about 200 km south-east of Tennant Creek (Figure 2). Tennant Creek is located on Stuart Highway and assessable from Darwin or Alice Spring. Access from Tennant Creek to the tenement is driving east on the Barkley Highway and then to south at the junction of Barkley and Tablelands Highways via 4WD tracks. Alternative route to get to the Project from Tennant Creek is driving south along the Stuart Highway and then heading east via 4WD tracks.

4 Geology

EL28779 is a part of company’s Davenport Project comprising three granted tenements -EL26529, EL26708 and 28779. Davenport Project is located within the Davenport Province of Tennant Region in the Northern Territory.

4.1 Regional geology

The following abstract of regional geology is collated from Ahmad et al. (2009), Claoue-Long et al. (2008), Fraser et al. (2008) and references therein. Figure 3 summarises stratigraphy and timing of mineralisation events of the Davenport Province.

The Tennant 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. Palaeoproterozoic rocks of Tennant Region are covered by the Cambrian sequence of Georgina to the east and Wiso Basin to the west.

The Tomkinson Province consists of unmetamorphosed and weakly deformed, mainly shallow marine sedimentary rocks that are stratigraphically correlated to the McArthur Basin. The Warramunga Province, a basement inlier, comprises a deformed and metamorphosed turbidite succession (Warramunga Formation) intruded by synorogenic granites. This succession is overlain by silicic volcanic and volcaniclastic rocks of Flynn Subgroup which is intruded by late orogenic granite, porphyry and lamprophyre. Deformation in the Warramunga Province occurred during the Tennant Orogeny at ~1850Ma

![Figure 1: Plan showing exploration index for EL28779.](image)
Figure 2: Plan showing location of EL28779.
Unconformably overlying the basement Warramunga Formation are the sedimentary and volcanic units belonging to the Ooradidgee and Hatches Creek groups of the Davenport Province. 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 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.

4.2 Local Geology

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

Large part of the EL28779 is covered by the transported Cainozoic sediments concealing the Paleoproterozoic rocks of the Davenport Province (Figure 4). Published interpreted geology map of the Tennant Region (Donnellan and Johnstone 2004) suggests that tenement is underlain by sandstone and volcanic units of Ooradidgee and Hatches Creek Groups intruded by granite of Devils suite. Structurally the project area lies within the complexly deformed fold and thrust belt of the Davenport Province.

Cambrian Gum Ridge Formation of Georgina Basin crops out along the north-eastern part of the tenement.
Figure 3: Summary of stratigraphy and timing of mineralisation events.
Figure 4: Geology plan EL 28779.
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 t of tungsten concentrate essentially from Hatches Creek and Wauchope tungsten fields.

EL28779 is a part of Davenport Project. Although no ground based exploration activity was conducted on the EL, but any future work on the tenement is link to the success of recent exploration work that was carried out on the adjacent two member tenements-EL26529, EL26708 of the Davenport Project. Summary of this work is provided below.

NCRC carried out assessment of mineral potential of the Davenport Project, by reviewing the available geological, geophysical and geochronological data and concluded that the 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 gold deposits to the north-west of the tenement are at least in part located in the basal part of the Ooradidgee Group. Since Ooradidgee Group rocks sub-crop over a large part of the project area, therefore, any magnetite body that exists in them is considered to be a potential target for gold. These magnetite bodies have very strong signatures and can host very high grade Au and/or Cu mineralisation.

Publically available airborne magnetic data for EL26529, EL26708, was interpreted by a consultant geophysicist to identify magnetic anomalies that are analogous in magnitudes to that host gold at Rover Field. These magnetic anomalies were mapped by ground magnetic survey to model their geometry and subsurface depth. Many of these anomalies were MMI soil surveyed to assess their gold potential. Results of MMI soil survey were not encouraging and week responses were considered to be due to geological and environmental factors that may have impeded anomalous concentration of mobile metal ions on the surface.

It has been recommended to drill test at least one of the anomaly with a strong magnetic response which may provide direct information on the nature and mineralogy of the discrete magnetic source and better geological and geophysical parameters to model others in the project area.

5.1  Proposed Exploration Programme

Preparations for the proposed drilling are in progress, for which application for AAPA Certificate has been lodged. It is anticipated that results of this drilling will validate
NCRC’s mineralisation model in this area and will provide basis for the future exploration activities on the EL28779. Moreover, geological and geochemical data generated from the drilling will be critical in improving our understanding of what is a complex geological setting. Further progress on the project is expected to take place during the next reporting period.

The proposed exploration program for the Year 2 for EL28779 is as follow:

- Collection and assay of 200 Mobile Metal Ion soil geochemical samples.
- Collection and processing of ground magnetic survey data totalling 40 line kilometres.

6 References


