ANNUAL REPORT

FOR EXPLORATION LICENCE 7491

FOR THE PERIOD 15/10/93 TO 14/10/94

TENNANT CREEK DISTRICT, NORTHERN TERRITORY

ELDORADO PROSPECT

TENNANT CREEK 1:250,000 SHEET SE 53-14

VOLUME 1 OF 1

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1. SUMMARY

This report details work undertaken by Poseidon Gold Limited (PosGold) on Exploration Licence No. 7491 (Eldorado) during the period 15/10/93 to 14/10/94.

EL 7491 is located approximately six kilometres SSE of Tennant Creek and comprises four graticular blocks. The closed Eldorado Mine is located immediately NW of the licence boundary.

Exploration during year three of tenure was limited to geological re-assessment of the existing Eldorado database and planning of future work programmes over EL 7491. As a result exploration expenditure on EL 7491 for the period 15/10/93 to 14/10/94 is $13,525.
2. INTRODUCTION

2.1 Location and Access

Exploration Licence 7491 (Eldorado) is located approximately six kilometres SSE of Tennant Creek, refer Figure 1. Access is gained by an all-weather track leading east from the Stuart Highway, four kilometres south of Tennant Creek, or via a poorly formed track leading west from the abandoned Juno Mine.

2.2 Physiography

In the south and south-east of the licence, mesas and undulating topography trending WNW are present with alluvial and aeolian deposits located to the south and to the north. The mesas are spinifex covered with scattered ghost gums, while dense mulga scrub is ubiquitous to the flat areas.

2.3 Tenure

Exploration Licence 7491 comprises four graticular blocks and was granted to North Broken Hill-Peko Limited (Peko) on 27 May 1991. The licence was transferred to PosGold as a consequence of the purchase of all Peko's Tennant Creek assets by the company. Numerous Peko mineral claims and leases within the licence area were also included in the PosGold purchase, covering areas east of Eldorado and west of Argo.

On 16 September 1993, application for deferral in reduction of EL 7491 for 12 months was submitted to the Department of Mines and Energy (DME). On 16 November 1993 the deferral in reduction of EL 7491 was granted enabling PosGold to retain the four graticular blocks until 14 October 1994.

On 15 September 1994 PosGold nominated two blocks of EL 7491 to be retained in year four of tenure, the remaining blocks being subsequently relinquished. Details of the retained blocks are as follows:

1:100,000 Sheet No. 52/5 Tennant Creek

Blocks 51-23
52-23

3. LOCAL GEOLOGY

EL 7491 covers the eastern portion of a WNW trending linear structural corridor hosting numerous ironstones and historical prospects including Cats Whiskers, The Ellen and Dingo. Immediately to the west of the licence boundary is the Eldorado Mine. All of the abovementioned prospects are held by PosGold under mineral claims. Geological interpretation suggests the ironstones were emplaced along a WNW striking shear complex that parallels a tight anticlinal closure. Regionally the shear and anticlinal system are located on the Mt Samuel to Nobles Nob line of ironstones.
North of the ironstones, numerous porphyry lenses occur within Warramunga Group sedimentary rocks. NE and NW trending regional faults transect the northern portion of the licence in the vicinity of the Argo Mine. In the extreme north, east-west striking Warramunga Group sediments host the Dolomite and Pup sheared porphyry-quartz hosted Au Mines and the Explorer 38 Prospect.

Table 1 is a summary of prospects and closed mines located within EL 7491.

4. PREVIOUS WORK ON EL 7491

The majority of work on EL 7491 has focused on investigation of geophysical magnetic anomalies along the Mt Samuel to Nobles Nob line of ironstones. This resulted in the definition of four magnetic anomalies termed Anomaly 1 South, and Anomalies 3, 4 and 5. Anomaly 4 corresponds to the Cats Whiskers ironstone. The BMR, PosGold (then Australian Development Limited) and Peko carried out the majority of work on these anomalies. In the late 1960's Peko conducted a regional aeromagnetic survey which defined Explorer 38. All of the above prospects were subject to diamond drillhole testing, resulting in the definition of non to sub-economic ironstone hosted Au mineralisation.

In the extreme north of the licence, the Dolomite and Pup Mines are structurally hosted E-W and N-S striking quartz shear Au mines. Host rock is sheared porphyry. Although no production figures are available, it is recorded both mines were low tonnage, high grade deposits.

5. EXPLORATION UNDERTAKEN ON EL 7491
FOR THE PERIOD 15/10/93 TO 14/10/94

Work completed during years one and two of tenure focused on the area around the Eldorado Open Cut Mine operations and included, vacuum geochemical drilling and ground magnetic surveys. Results from these programs provided sufficient encouragement for follow-up test work.

Re-assessment of EL 7491 during year three of tenure lowered the priority for infill vacuum and RAB testing of weak, broad vacuum geochemical anomalies located south of the Eldorado hills. As a result the southern two blocks of EL 7491 were relinquished on 15/9/94. Rather, the exploration effort concentrated on areas west along strike of Eldorado to Patties Mine, which were subject to rock chip and RAB geochemical testing.
<table>
<thead>
<tr>
<th>PROSPECT/MINE</th>
<th>PRODUCTION</th>
<th>PERIOD</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dolomite Mine</td>
<td>Unknown but reported small tonnage, high grade</td>
<td>1980's</td>
<td>Small sheared porphyry-quartz (dilution zone) hosted Au deposit</td>
</tr>
<tr>
<td>Pup Mine</td>
<td>Unknown</td>
<td>1980's</td>
<td>As above</td>
</tr>
<tr>
<td>Explorer 38</td>
<td>Nil</td>
<td>-</td>
<td>Peko magnetic anomaly which was diamond drillhole tested. Defined small Argo-like ironstone with sub-economic Au</td>
</tr>
<tr>
<td>Cats Whiskers</td>
<td>381 tons for 99 oz Au (Ivanac, 1954)</td>
<td>To 1952</td>
<td>Historical mine. Causative of Anomalies 4 and 5 magnetic signatures</td>
</tr>
<tr>
<td>Eldorado</td>
<td>216,000 @ 20.2 g/t Au</td>
<td>Intermittently 1930-1992</td>
<td>Along strike, west of Cats Whiskers (outside EL 7491)</td>
</tr>
<tr>
<td>Argo</td>
<td>309,945 @ 8.3 g/t Au (Meade and Love, 1989)</td>
<td>1980's</td>
<td>Along strike, east of Explorer 38 (outside EL 7491)</td>
</tr>
</tbody>
</table>
Regional geophysical and geological interpretation of EL 7491 defined NE and NW striking faults which transect and intersect in the licences northern blocks. In year one of tenure a ground magnetic survey further defined the faults and several weak-broad magnetic highs, all of which are worthy of follow-up investigation.

6. **EXPENDITURE INCURRED ON EL 7491 FOR THE PERIOD 15/10/93 TO 14/10/94**

During the third year of tenure, PosGold incurred an exploration expenditure of $13,525 on EL 7491. A breakdown of this expenditure is outlined below:

<table>
<thead>
<tr>
<th>EXPENSE</th>
<th>COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee Costs</td>
<td>$ 6,344</td>
</tr>
<tr>
<td>Assays</td>
<td>$ 3,341 *</td>
</tr>
<tr>
<td>Drilling</td>
<td>$ -</td>
</tr>
<tr>
<td>Operating Costs</td>
<td>$ 1,790</td>
</tr>
<tr>
<td>Specialist Services</td>
<td>$ 489</td>
</tr>
<tr>
<td>Tenement</td>
<td>$ 419</td>
</tr>
<tr>
<td>Overheads</td>
<td>$ 1,135</td>
</tr>
<tr>
<td>Research</td>
<td>$ 7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$ 13,525</strong></td>
</tr>
</tbody>
</table>

* Accrued from 15/10/92 to 15/10/93 period.

Re-prioritisation of established targets within EL 7491 resulted in their down-grading and hence the anomalies were not followed up. Vacuum drilling in the northern blocks was schedule for late September 1994, however due to outstanding substantial disturbance clearance (submitted to DME 22/9/94), this work did not commence as scheduled. Therefore the exploration expenditure falls below covenant ($28,500).

7. **FUTURE EXPLORATION ACTIVITIES**

Assuming substantial disturbance clearance is received in early November 1994, vacuum geochemical drilling of regional NE and NW faults will be completed. Geological mapping of the vacuum grid will occur concurrent with the drilling programme.

The line of E-W trending ironstone and mines including Southern Star, Pup and Dolomite are all structurally located in east trending shear complexes, at their intersection with NE trending shears. Field reconnaissance and mapping in the northern block of EL 7491 will investigate the possibility for further fault dilation zones east of Dolomite Mine. In addition, the zone of Warramunga Group sediments west along strike of Explorer 38 will be vacuum geochemical tested.
To complete the exploration programme on EL 7491 outlined above, an exploration expenditure of $20,000 is envisaged. A breakdown of this is as follows:

<table>
<thead>
<tr>
<th>EXPENSE</th>
<th>COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee Costs</td>
<td>$ 6,000</td>
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<tr>
<td>Assays</td>
<td>$ 3,500</td>
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<tr>
<td>Drilling</td>
<td>$ 8,000</td>
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<tr>
<td>Operating Costs</td>
<td>$ 800</td>
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<tr>
<td>Overheads</td>
<td>$ 500</td>
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<tr>
<td>Tenements</td>
<td>$ 200</td>
</tr>
<tr>
<td>Specialist Services</td>
<td>$ 1,000</td>
</tr>
</tbody>
</table>

$ 20,000
8. REFERENCES


Edwards, G C (1992) : Annual Report for EL 7491 for the period 15/10/91 to 14/10/92, PosGold to DME report.

Worland, R J (1993) : Annual Report for EL 7491 for the period 15/10/92 to 14/10/93, PosGold to DME report.


APPENDIX ONE

BIBLIOGRAPHIC DATA SHEET
REPORT NUMBER 12220

REPORT NAME ANNUAL REPORT FOR EXPLORATION LICENCE 7491 FOR THE PERIOD 15/10/93 TO 14/10/94, TENNANT CREEK DISTRICT, NORTHERN TERRITORY, ELDORADO PROSPECT

PROSPECT NAME(S) DOLOMITE
ELDORADO
EXPLORER 38
CATS WHISKERS
THE ELLEN
DINGO
PUP

OWNER POSEIDON GOLD LIMITED

KEYWORDS VACUUM DRILLING
THE ELLEN
THE DINGO
PUP
DOLOMITE

COMMODITIES GOLD, COPPER

TECTONIC UNIT TENNANT CREEK INLIER
WARRAMUNGA GROUP

1:250,000 MAP SHEET TENNANT CREEK SE 53-14

1:100,000 MAP SHEET TENNANT CREEK 52/5