FINAL REPORT

EXPLORATION LICENCE No. 3257

INCORPORATING THE ANNUAL REPORT,
3rd MARCH 1984 TO 2ND MARCH 1985

OPEN FILE

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PETROCARB EXPLORATION N.L.

NORTHERN TERRITORY GEOLOGICAL SURVEY

DARWIN  
OCTOBER 1985
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E.L. 3257

INTRODUCTION

Exploration Licence 3257 was applied for by Nicron Resources Ltd. and Petrocarb Exploration N.L. as joint applicants on the 15th July 1981. The tenement was approved on the 3rd March 1982.

Upon grant the Exploration Licence was incorporated into a Joint Venture between Peko-Wallsend Operations Ltd. and Petrocarb Exploration N.L. and associated companies, dated 17th December 1981.

Geopeko, the exploration division of Peko-Wallsend Operations Ltd., managed the tenement on behalf of the Joint Venture until the 15th April 1984 when Peko withdrew from the Joint Venture and the management of the tenement was transferred to Petrocarb.

The tenement was relinquished on the 23rd August 1985.

This report is the Final Report for the tenement and reviews the exploration during the period of the licence. The report also serves as the Annual Report for the final year of tenure.

LOCATION

Exploration Licence 3257 is located approximately 235 kilometers north easterly from Alice Springs and 12 kilometers north of Mt. Sainthil (latitude 22° 40', longitude 135° 43') on the Huckitta 1:250,000 mapsheet (SF 53-11) and the Jinka 1:100,000 mapsheet.
TENEMENT HISTORY AND EXPENDITURE

The table below outlines the Tenure history and expenditure of Exploration Licence 3257.

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Expenditure for the exploration in the vicinity of Molyhil has been costed on a project basis and distributed to Exploration Licences on the basis of their area as a proportion of the total area of tenure involved in the joint venture. During the year ending 2nd March 1985 approximately $80,000 was spent on exploration and asset maintenance of which Exploration Licence 3257's share is $28,200.

EXPLORATION PHILOSOPHY

Exploration Licence 3257 is situated to the north of the Molyhil scheelite-molybdenite deposit. This deposit is composed of coarse scheelite and molybdenite clots within a magnetite chlorite skarn in calc-silicate rocks and high grade thermally metamorphosed sediments. The deposit occurs as an inlier in the Jinka Granite within a major linear structure called the Delny-Sainthil Fault Zone.

The aim of exploration in Exploration Licence 3257 was the discovery of additional scheelite bearing skarn deposits to add to the existing resource at Molyhil. The highly magnetic magnetite rich skarns can be located by low level aeromagnetic surveys followed by detailed ground magnetics and drilling. The exploration was designed to locate shallow open-cuttable resources that could be treated at a central milling facility.
EXPLORATION PROGRAMMES AND RESULTS

Exploration in the Molyhil district was undertaken in a regional context and activities were not constrained by the boundaries of individual exploration licences.

The first stage of exploration consisted of detailed literature review. This data has been summarised in the Annual Report to 2nd March 1983 by S. D. Turley who lists appropriate references.

Associated with the literature review a regional mapping programme was undertaken to further define the prospective geology and guide the follow-up of a coincident aeromagnetic and radiometric survey. Broad regional mapping was plotted at 1:50,000 scale from government RC9 photography, while some detailed mapping at 1:10,000 scale was completed in the immediate vicinity of Molyhil itself. Plans of this mapping are included in Turley's report.

The mapping indicated that the prospective Delny-Sainthil fault zone just traversed the south east corner of the Exploration Licence with the Middle Proterozoic Jinka Granite forming a basement to the area. Adeladian and Palaeozoic sediments unconformably overlie the northern half of the Exploration Licence and numerous prominent quartz reefs traverse the granite plain.

Using the Molyhil deposit as a model, a detailed aeromagnetic and radiometric survey was flown over a large area of prospective ground including a major part of the southern section of Exploration Licence 3257. Technical details of the survey are defined by Turley (ibid).

Ground follow-up of aeromagnetic anomalies consisted of ground magnetic location of the aeromagnetic feature, a detailed in field magnetic interpretation followed by shallow-airtrack percussion drilling. Chips from this
drilling were logged for rock type, tested for magnetic susceptibility, and inspected for scheelite presence under an intense ultra-violet light source.

Six anomalies were drill tested in Exploration Licence 3257 following the magnetic surveys. Details are outlined in Turley's report. In brief, no promising scheelite rich skarns were located and scheelite was not detected visually or in assays. The magnetic anomalies were generally due to concentrations of disseminated magnetite in the Jinka Granite.

An additional grid based air-track percussion drilling programme was completed at a small scheelite occurance on the E.L. called the Brighton Prospect but results did not indicate that a significant resource was present, ref. Turley (ibid).
REFERENCES

Turley, S. D., March 1983. Exploration Licence 3257, Annual Report 3.3.82 to 2.3.83.

Geopeko, June 1984. Exploration Licence 3257, Annual Report 3.3.83 to 2.3.84.