EXPLORATION LICENCE 3015
FINAL REPORT
INCORPORATING THE
ANNUAL REPORT
FOR PERIOD
4TH MARCH 1983 TO 1ST MARCH 1984
OPEN FILE

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GEOLOGICAL SURVEY
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ORGANISATION: GEOPEKO

PROSPECT: MOLYHIL EXPLORATION JOINT VENTURE

TITLE: EXPLORATION LICENCE 3015

FINAL REPORT incorporating the ANNUAL REPORT

FOR THE PERIOD 4TH MARCH 1983 to 1ST MARCH 1984

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COMODITIES: W, Mo

LOCALITY ILLOGWA CREEK

MAP REF. NO: SF 53-15 ILLOGWA CREEK

ABSTRACT: Final report summarizing the history of the Exploration Licence and the exploration carried out. The area was deemed not to be prospective for Molyhil type W, Mo mineralization and only limited evaluation of the area was warranted.
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1. **INTRODUCTION**

Exploration Licence 3015 formed part of a joint venture between Peko-Wallsend Operations Ltd, and Petrocarb Exploration N.L. called the Molyhil Exploration Joint Venture. The Joint Venture signed on 17th December, 1981 operated from 12th October, 1981 and was therefore in operation during the granted life of Exploration Licence 3015. Geopeko, the exploration division of Peko-Wallsend Operations Ltd. managed the joint venture.
2. **TENURE**

Exploration Licence 3015 was applied for by Attutra Exploration Company Pty. Ltd. (the exploration arm of Petrocarb Exploration N.L.) on 13th January, 1981. The application was not processed by December 1981 when the Petrocarb-Peko joint venture was formed, nor by the 1st July 1982 when the new N.T. Mining Act (1980) was proclaimed. Application to have the Exploration Licence application processed as an application under the new act was made by Geopeko on 25th August, 1982.

Following payment of further rent and upgrading of the original proposed programme by Geopeko at the request of the Department of Mines and Energy the Exploration Licence was eventually granted on the 4th March 1983 and gazetted in Gazette No. G11 of 18th March 1983.

By this time the regional exploration being carried out by Geopeko had reached a stage that indicated that the area covered by the Exploration Licence was not prospective for the target commodity. Following limited field review the decision to relinquish the title after the completion of the first year of tenure was made. With the concurrence of Petrocarb a letter was sent to the Department of Mines and Energy to this effect on 23rd February 1984. Notice of surrender as of 1st March 1984 was gazetted in Gazette No. G11 of 21st March 1984.
3. **EXPLORATION PHILOSOPHY**

The original Attutra application for the area of the Exploration Licence cites the proximity to the Molyhil scheelite-molybdenite mineralization as the basis for the desire for tenure. Geopeko on behalf of the Molyhil Exploration Joint Venture pursued the application on the same basis until it became clear that the control on the Molyhil mineralization was related to the skarn development in calc-silicate host rocks caused by granite related introduction of hydrothermal fluids in the vicinity of the Delny-Sainthill fault zone.

The rationale behind the tenure was then reduced and the title was surrendered.
4. **REGIONAL GEOLOGY**

Regional geological mapping by Geopeko along the Delny-Sainthill fault zone extended to generally cover the area of Exploration Licence 3015. Outcrop is generally sparse and geological reconnaissance was sufficient only to generally confirm existing regional mapping and to establish that the area did not contain lithologies or structures that met the criterion for "Molyhil" type mineralization. (ref. fig. 2). Geologically the area consists of Arunta Complex lithologies overlain by laterite and sand.

The area is also well south of a major lineament that runs north-north-easterly along the northern edge of the Hartz Range and south of Jervois. This lineament can be justified on both geological and geophysical (magnetic) grounds but doesn't appear to host or be related to tungsten mineralization.
5. **EXPLORATION**

Little actual on ground exploration was undertaken once the reconnaissance geology was completed and the area deemed non prospective. An aeromagnetic survey completed by the N.T. Geological Survey over the Brahma 1:100,000 map sheet completely covered the area of the Exploration Licence (ref. fig. 3). Although the survey specifications were not sufficiently detailed to determine magnetic targets of interest, the data together with the geological information was sufficient to determine that more detailed airborne surveying was unwarranted.

6. **EXPENDITURE**

It has been accepted practice with respect to the Molyhil Joint Venture exploration expenditure to assign expenditure to exploration licences on the basis of the proportional area that the EL made of the total exploration tenure held by the Joint Venture. In the case of Exploration Licence 3015 however, the tenement is outside the area of the majority of the Joint Venture tenure and cannot really be included in such a subdivision of costs. The expenditure commitment on grant for the first year of title of $20,000.00 has not been met because of the low prospectivity of the area.

It is estimated that expenditure of exploration both regionally and specifically would amount to approximately $5,000.00.
7. CONCLUSION

The area covered by Exploration Licence 3015 hold little prospectivity for magnetic skarn hosted scheelite-molybdenite mineralization of the type found at Molyhil. The tenure has been surrendered.