

## TROY RESOURCES N.L.

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DWS:d 16 June 1993

Principal Registrar
Titles Administration Branch
Department of Mines and Energy
GPO Box 2901
DARWIN NT 0801



ATTENTION: Mr C.P. Smith

Dear Sir

RE: EXPLORATION LICENCE 5337-9 INCLUSIVE REPORT ON AREA RELINQUISHED, 1993

Dear Sir

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Enclosed please find a report on the area relinquished from Exploration Licence 5337-9 inclusive at the end of the Fourth Year in accordance to Section 32 of the Mining Act. This report covers work carried out on the area for the period 12 May 1992 to 11 May 1993.

t of the area retained has been sent under separate cover on 11 June 1993.

aithfully

SARGEANT

# REPORT ON THE AREA RELINQUISHED AT THE END OF THE FOURTH YEAR EXPLORATION LICENCES 5337 TO 5339 INCLUSIVE

# DALY RIVER NORTHERN TERRITORY

12th May 1992 - 11th May 1993

1:250,000 - PINE CREEK (SD52-08) 1:100,000 - DALY RIVER (5070)

HOLDER: TROY RESOURCES NL

OPERATOR: TROY RESOURCES N.L.

JUNE 1993

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REPORT NO. WMS 93/7

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### 2.0 SUMMARY AND CONCLUSIONS

TROY RESOURCES N.L. (TROY) has acquired a 100 percent interest in Exploration Licences 5337 to 5339 (inclusive) covering an area of 47 graticular blocks. These tenements are part of a project which comprises 7 EL's and a number of MCN's. The project is situated approximately 120 kms south southwest of the Darwin, Northern Territory

The interest was acquired in 1992, too late for a start to carry out a comprehensive exploration programme before the onset of the wet season.

Troy decided to relinquish 17 graticular blocks as part of a reduction for the whole project area and based on information (regarding the potential of the area) that was supplied from the previous tenement holders.

This report documents exploration carried out on the area relinquished and is based on data supplied by the previous tenement holders.

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#### 4-0 INTRODUCTION

This report documents work undertaken within part of Exploration Licences 5337 to 5339 (inclusive) that has been relinquished at the end of the fourth year of tenure. (Refer Figures 1 to 3)

The tenement was acquired by Troy Resources N.L. (TROY) late in 1992 from Geopeko (a division of Peko Exploration Ltd.). The acquisition was executed too late to carry out a comprehensive exploration programme during 1992 with the wet season onset imminent.

This report describes exploration work carried out for the year to mid May 1993.

In the past, exploration has concentrated on base metals due to extensive copper showings in the Daly River Mineral Field. Geological/structural features indicate some prospectivity for gold. Geopeko reported values up to 2.7g/t Au.

This licence covers an area within the the Daly River inlier. Most past exploration in the region has been carried out in the proximity to the copper mines.

The tenement is situated approximately 120 kms south south-west of Darwin, Northern Territory (Refer Figure 4)

Access to the area is via the Stuart Highway to Adelaide River, then the Old Stuart Highway for 34 Kms, and finally along the Daly River Road which is sealed to the Daly River crossing. The licence area is centered around the turn-off to the old Litchfield Homestead.

The region is subject to a sub-tropical climate. The area comprises low flats and black soil to the west, low rubbly ground to the east, but area of good outcrop in the centre of the licence. The lower areas are usually difficult to traverse after raim. The Daly River and adjacent low lying areas are prope to flooding in the wet season.

The Daly River region is exposed to a wet season from November to April, when greater than 90% of Daly River's mean annual rainfall of 1400mm occurs. Relative humidity is usually less than 50% during the dry season with temperatures of up to 10 degrees C less than those during the wet season. Official records list monthly mean daily maxima temperatures from 31 to 44 degrees C, and monthly mean of daily minima from 12 to 24 degrees C.

The area is covered by a pastoral lease owned by Litchfield Station which is situated north westerly from the tenements and the settlement at Daly River.

5.0 TENEMENTS (Refer Figures 1 to 3)

Tenements: E 5337, E5338, E5339

Period of Tenure: To 11-5-95

Holder: TROY RESOURCES N.L.

Blocks to be relinquished: 17 Blocks

E5337; 6 blocks E5338; 1 block E5339; 10 blocks

Troy acquired 100 percent of these licences from Geopeko during 1992.

During the fourth year of tenure, the area of the licences totalled 64 blocks.

The Kamu and Malak-Malak land claim directly covers the area of these tenements. Troy has been proceeding to obtain the necessary clearances and agreements over all their tenements retained as soon as acquisition had been executed.

#### 6.0 PREVIOUS EXPLORATION

Troy are not aware of any specific previous exploration in this area prior to the grant of this tenement, except surveys of a regional nature by government such as aeromagnetics and geological mapping, and of a very general nature by companies during their exploration of nearby Daly River Copper Mine and its environs.

Although a vast amount of exploration has been carried out in the area around the Daly River Copper Mine (discovered in 1884), some programmes may have extended onto the area of this tenement, but are not reported to Troy.

Numerous diamond drill holes were completed, at prominent prospects/mines such as Knowles Farm, Daly River, Warr's, Wallaby, Wheal Danks Anomaly, and 'A' and 'C' prospects. There is no reported drilling on the area relinguished.

The area explored extensively is situated east and/or north of the blocks relinquished referred to in this report.

#### 7-0 REGIONAL GEOLOGY (Refer to Figures 4 and 5)

The exploration Licence is situated on the western edge of the Pine Creek Geosyncline within the Daly River 1:100,000 Sheet area. The regional geology has been described by the N.T. Geological Survey in the explanatory notes (1989).

The regional stratigraphic column has been summarised and presented in table form as TABLE 1, which follows.

The Burrell Creek Formation, within the Finness River Group, is of most interest. It is early Proterozoic in age and comprises steeply dipping shales to sandy facies rocks and contains submarine felsic volcanics associated with mineralization. These are underlain by felsic volcanics and sediments and overlain by a succession which comprises metabasic volcanics and ultramafic rocks and sediments.

In the regional context, mineralization therefore appears to lie at the regional break between underlying felsics and overlying basic rock suites.

A late stage granitoid, Litchfield Granite, has partially contact metamorphosed Proterozoic sediments of the Finness River Group.

The Middle Proterozoic (Tolmer Group) lies with regional unconformity on the lower succession and has a major shift in composition, described by the N.T. Survey as comprising near-shore shallow marine sands and silts upwards into a succession including chemical sediments(salt beds).

Giants Reef Fault is a major dextral wrench fault that apparently extends from Hall's Creek in Western Australia to the south-west, to Rum Jungle area in the north, and trends at approximately 010 degrees.

Sediments in the Burrell Creek Formation tend to trend at 170 degrees and dip steeply west in the tenement area.

#### TABLE 1 - SUMMARY OF REGIONAL STRATIGRAPHIC COLUMN

(After Dundas, Edgoose, G.Fahey, and J.Fahey Daly River Explanatory Notes, 1989)

TIME

UNIT

ROCK SUITE

CAMBRIAN

Dolomite, sands, basalt

REGIONAL UNCONFORMITY

LATE PROTEROZOIC

Glacials

REGIONAL UNCONFORMITY

MIDDLE PROTEROZOIC Tolmer Group

Dolomites, calcsands, halite

Shallow marine sands

REGIONAL UNCONFORMITY

EARLY PROTEROZOIC

Granites

Wangi Basics

Basalts, gabbros, dolerite

Ultra-mafics

Finness River

Sediments and

felsic

Group

volcanics

(includes Burrell

Creek and Warr's

(mineralized)

Volcanics, etc)

REGIONAL UNCONFORMITY

Hermit Creek Metamorphics Mixed high grade assemblage

#### 8-0 DISCUSSION (Refer Figures 6 and 7)

Exploration carried out on the area reported on herein was dominated by airborne magnetics and radiometrics, and stream sediment sampling using BLEG technology. The stream sediments were collected entirely on the area of E5339 being relinquished.

Digital data from an airborne geophysical survey conducted over the Daly River region, commissioned by the NT Geological Survey and undertaken by Aerodata in 1984, was acquired by Peko. This data has not been received by Troy.

Flight lines at a spacing of 500m with a terrain clearance of approximately 100m were flown. The digital data was image processed on a Sun Sparcstation 1 and viewed as shadow images and colour contours.

A more detailed low level survey including radiometrics was flown by Austirex International Ltd. in 1989. Flight lines at approximate east-west direction were spaced at 100 and 200m. Magnetometer sampling rate was 0.2 sec, and spectrometer sampling rate 1.0 sec. Mean terrain clearance was 80m. (Meade, 1990)

Whilst the magnetics recorded improved the geological understanding of the area, there were no anomalies of significance reported by Meade.

No radiometric anomalies were located within the area of this report.

An orientation survey was carried out on E5337 (but not on the area the subject of this report) in the vicinity of the Giant's Reef Fault .

13 samples were reported on the area of E5339 (the area the subject of this report) and no samples reported on E5337 and E5338. Sampling carried out further south (locations plotted on Figure 5) should have been reported previously during earlier relinquishments.

The BLEG sampling results are listed in TABLE 2, which as follows.

The results only a low order of potential. The best gold value is 5.33 ppb Au. All base metal values (Cu, Pb, Zn) are below 30 ppm. No follow up was required.



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#### ANALYTICAL REPORT

Job: 0DN1019 O/N: D33452

NT NT NT NT NT NT	01270 01271 01272 01273 01274 01282 01288 01289 01290 01291	-180 -180 -180 -180 -180 -180 -180	+75um +75um +75um +75um +75um +75um +75um +75um +75um +75um +75um	1 2 1 1 1 1 1 1	8 18 6 12 8 0 <4 0 <4 0 5 2 4	19 6 21 9 9 8 27 2 23 7 77 4 7 4 9	1-89 5-33 3-50 2-40 3-18 1-09 0-24 0-34 1-20 1-04
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			UNITS ET.LIM SCHEME	pp AAS	2 - 4	1 2	pres pres

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