KEN DAY PTY. LTD.

EXPLORATION LICENCE 4903

YEURALBA - NORTHERN TERRITORY

ANNUAL REPORT FOR YEAR 1 (1986/87)

A. JETTNER

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A. Wygralak

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1. INTRODUCTION:

EL 4903 is an exploration licence consisting of 6 graticular blocks located over the majority of the Yeuralba Mineral Field.

It was applied for in October 1985 and granted in March 1986.

This report covers the exploration activity done on the area in its first year of occupancy.

Work done in the first year has consisted entirely of research conducted from our Darwin Office with no field work being attempted.

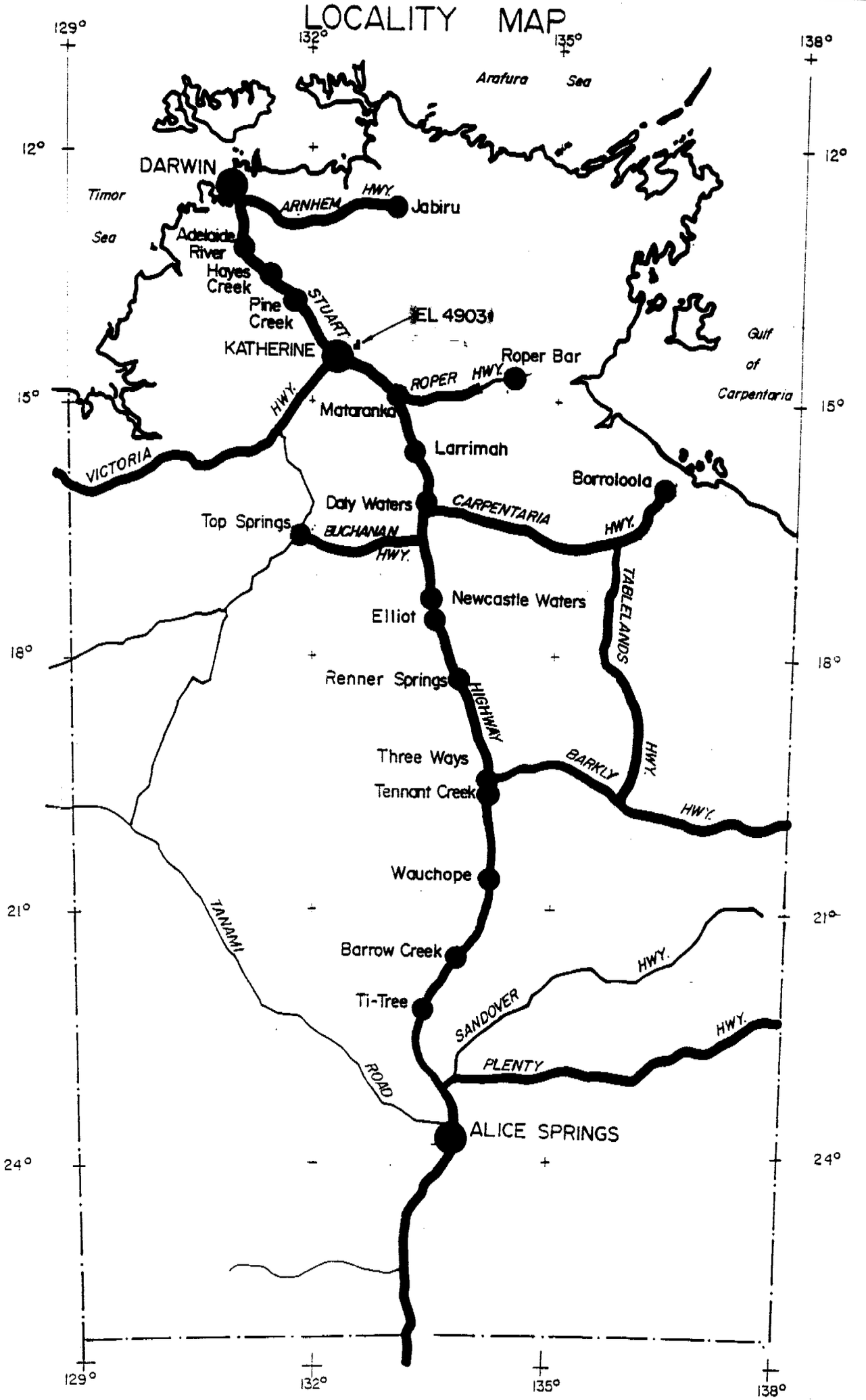
This area is considered prospective for the location of large low grade wolfram deposits or conversely small higher grade wolfram deposits.

Work has been conducted on this area by numerous operators in the past, generally with disappointing results. The propects located have been considered to be of too low grade to allow profitable mining. This has not detered the present operators who are willing to reexamine the prospects but assign it a lower priority when compared to their other areas of interest.

Territory Resources as operators of the exploration licence have entered into a joint venture agreement with Billiton Australia over EL 4457 which covers propsective ground located to the east of this licence.

The investigation of this area will be conducted in conjunction with investigations on EL 4457.

LOCALITY MAP



[redacted] EL 4903

2. LOCATION AND ACCESS

EL 4903 is located on the western granite contact of the Yeuralba Granite and covers the majority of the Yeuralba mineral field which is located approximately 75 km east of Katherine.

The exploration licence consists of 6 graticular blocks having an area of 19.3 km2.

Access to the exploration licence from Darwin is via the Stuart Highway to Katherine, a distance of 320 km, thence 48 km further along the highway to the Maranboy turnoff.

From here it is 19 km on a gravel road towards the Eva Valley road.

From this point access is along rough bush tracks for approximately 14 km to the Yeuralba Mineral Field.

3. DESCRIPTION:

The exploration licence is characterised by generally flat topography in the Northern part with incised Cretaceous rocks forming a plateau over most of the southern part. The topography where the Cretaceous Petrel Formation outcrops is very flat with steep sided escarpments forming the boundary where the underlying Lower Proterozoic Tollis Formation and Yeuralba Granite crop out.

Elongated ridges are formed by faults and silicified zones associated with the granite contact.

Vegetation cover is principally very open eucalypt scrub with patches of Cyprus Pine, with a dense wet season cover of speargrass.

4. GEOLOGY:

4.1 REGIONAL GEOLOGY

The Yeuralba area consists of the Lower Proterozoic Tollis Formation comprising greywacke, siltsone, argillite, tuff, ignimbrite and basalt.

This is intruded by an acid biotite granite, the Yeuralba Granite, which is the source of the tin and tungsten mineralisation.

The granite is intersected by northwest striking shears and northeast striking faults. The western contact is griesenised and the contact itself is marked by bodies of highly siliceous greisen. This greisen is a contact metamorphic alteration feature which extends along the entire exposed western contact disappearing under Cretaceous cover at the south end, with most of the wolfram mineralisation occuring over a 3.5 km length.

The northern granite contact is not wolfram bearing and is apparently formed by a north eastern fault.

Wolfram occurs where northwestern shears and to a lesser extent northeast shears intersect the contact greisen.

Elsewhere within the granite, the northwest fractures are mineralised with quartz, tourmaline, quartz-mica greisen and topaz, with associated minor tin and wolfram. Figure 2 is a regional geological map of the area.

4.2 PROSPECT GEOLOGY

The Western Wolfram-bearing Contact.

The geology of the western granite contact, together with workings and known wolfram occurences is shown in Figure 3.

The contact consists of a greisenised zone 30 to 100 metres wide adjacent to the granite. Between the greisen and the intruded shale, a number of siliceous bodies or lodes have been emplaced and form a conspicuous North-South ridge.

These bodies are traversed by a series of fractures, mainly northwest trending but some striking north east, in which secondary quartz, tourmaline, wolfram and traces of fluorospar have been deposited.

The quartz rock between the fracture zones has a sugary texture, while the quartz in the fractures themselves is generally microcrystalline or glassy.

The boundaries of the fractures are rather indistinct and some tourmaline and wolfram occurs in the adjacent quartz rock.

From north to south, these quartz bodies are named as follows:

Gates

Black Cat

Vivian

Old Camp Spring

Tourmaline Hill

Stone Dam

Black Diamond

Descriptions of these bodies are as follows:

GATES

Gates body is the largest, measuring 365 x 100 metres. The northern and probably the southern ends are truncated by faults, and the eastern contact may also be a major fault.

The northern and southern ends of Gates are well fractured and contain tourmaline with isolated patches of wolfram. There are two open cuts on the northern end, the most easterly of which (Almych's) measures 10x5x5 metres. Wolfram occurs in this cut at the intersection of northwest and northeast fractures, and extends south and west of the open cut.

A quartz outcrop seperated by alluvial cover from the main Gates body has been worked in an open cut 120m northwest of Almych's workings. No workings occur in the central part of the Gates body.

All the workings at Gates appear to be close to shale, either on the actual contact, or as roof pendants within the silicified bodies, as at Almych's.

BLACK CAT

The Black Cat zone is 450m south of Gates and the main body is 240 metres long by 60 metres wide, with narrower extensions north and south.

The overall character is similar to that of Gates, though the outcrop is less prominent.

Mr. W.J. Fisher developed an open cut on the western side of the body, from which 2500 tons were mined and treated at the Mt. Wells battery as an experiment to determine the bulk grade.

Head assays at the battery averaged 0.18% WO. The sample open cut was developed adjacent to two old pits and so the ore grade in the cut may be better then the average for the body.

The dimensions of the open cut are 18 x 12 x 5 metres depth and all the rock extracted was milled.

Four fractures are visible across the 18 metre face, the widest being 1.5m and the narrowest 15cm..

Wolfram is visible in the 2 widest fractures and also in the silicified rock adjacent to them.

These fractures strike 300 mag and a subsiduary set strikes 060 mag.

VIVIAN - SOUTHERN CROSS

This area extends south from the Black Cat for 600m. The silicified rock body is fairly narrow, averaging about 10m wide, but continuous over most of the strike length. The shale contact appears to be dipping 30-40 degrees W.

A mineralised zone occurs over a length of 150 metres in the central part of the body. In this 10 shallow pits have been dug on tourmalinised quartz fractures, mostly striking northwest.

Wolfram is visible on the dump material from these workings and also some coarse and fine wolfram is visible in the fracture zones and associated silicified rock.

Another group of workings occurs at the southern end of the outcrop over an area of 45 x 15 metres. The dumps from these workings are quite rich in wolfram.

OLD CAMP SPRING

The mineralisation host rock in this area outcrops 300m south of the Vivian area, with dimensions of 200 x 15 metres. There are only 2 workings of any size, with large and apparently barren dumps.

STONE DAM - TOURMALINE HILL

The host rock outcrops 180m south in a narrow body 430 metres long. A number of small pits have been developed on northwest trending fractures at the northern end, no wolfram was reported at the dumps.

At the southern end of the body, an area 15 x 30 metres has been worked in two small open cuts near the slate contact. Northwest and northeast fractures occur here.

Coarse wolfram was reported in the dumps.

BLACK DIAMOND

Highly tourmalinised silicified host rock occurs 300m south of the Stone Dam area. The outcrop measures 120 x 100 metres. Several pits have been sunk near the southern and eastern edges of the outcrop, and a trench 23m long dug across the strike.

Visible wolfram is reportedly restricted to a zone measuring about 45 x 15 metres near the eastern edge of the body.

5. PREVIOUS EXPLORATION

Previous exploration has been conducted on the Yeuralba mineral field by the following companies.

1970	Euralba Mining Pty. Ltd.	W.J. Fisher
1970	Yeuralba Mining N.L.	CHC Shannon
1976	Unimet Pty. Ltd.	D.O. Shatwell
1978	Nord Resources (Pacific) P/L	K. Schultz
1981	Euralba Mining Ltd.	----------
1982	Carpentaria Exploration Co. Pty. Ltd.	P.J. Barrett

With the exception of the Shannon report for Yeuralba Mining N.L. all have downgraded the prospects.

All the reports agree on the large tonnages of mineralised material available as well as the very low grade of material available.

In the view of the author of this report the tonnages mentioned may well be there but the various grade analyses suffer somewhat.

I consider that proper grade calculations should take into account the very spotty nature of the mineralisation, this limits representative sampling to bulk samples and to date there has only been one of these done in the area.

A bulk sample was removed from the Black Cat by Mr. W.J. Fisher and treated at the Mt. Wells battery.

Successive work on grade estimation for this and the other prospects has consisted of various assay and grab samples.

What I would propose to do would be to remove a number of small selective bulk samples which would be treated at the Mt. Wells Mill.

In this case I would envisage the removal and treatment of a bulk sample of not less than 100 tonnes from each of the named prospects.

This work would not be carried out in year 2 of occupancy but sometime after that.

6. EXPLORATION FOR YEAR 1

Due to the workload on the exploration arm of Territory Resources in the previous year no field exploration was carried out on this licence during the year.

Work done to date has consisted of obtaining what information was available on open file at the DME reference library.

A number of reports were also obtained from Mr. W.J. Fisher and brief discussions held with him.

His general feeling is one of optimism concerning the mineral field but he thinks a substantial increase in the wolfram price is needed to make the field profitable.

Other work consisted of the construction of base maps for the area as well as geological photointerpretation at 1:25000 scale.

7. EXPENDITURE FOR YEAR 1

Since writing in response to the Departments letter of the 2nd February, 1987, where we requested a variation of expenditure to $1570.00 we have spent an additional 5 days researching, correlating and preparing this report. This brings the actual expenditure up to $1954.00 which exceeds the amount requested in the variation.

This transforms into the following:

Wages:	W.A. Jettner	14 days	$1344.00
	J.N. Crago	3 days	$ 300.00
	T. O'leary	2 days	$ 210.00
			$1854.00
	Office Supplies		$ 50.00
	Aerial photographs		$ 50.00
		TOTAL	$1954.00

8. PROPOSED EXPLORATION FOR YEAR 2

The proposed exploration program for EL 4903 in year 2 is as follows:

(a) Silt Fraction Geochemistry

This consists of taking 1-2kg samples of the transported silt fraction found in drainage lines. The samples will then be dried at Mt. Wells and screened to -200 mesh size. It is then forwarded for assay of the following elements: Au, Ag, As, Pb, Cu, Zn, W and Ni.

(b) Bulk Leach Extraction

BLE samples will be taken from the major drainage system (Yeuralba Creek) with follow up work using our standard gold sampling method.

(c) Standard Gold Sampling

i) A 24 litre sample of -1.5cm alluvium is extracted from the drainage profile after removing the top 5cm of material prior to sampling.

ii) Sample locations are sited at least 30m upstream from confluences to avoid mixing of sources.

iii) The sample is panned to a heavy mineral concentrate which is examined under a hand lens for signs of the desired minerals, in this case gold and tin.

As a further check the concentrate is then assayed for the following elements: Au, Ag, As, Cu, Pb, Zn and Ni.

(iv) All samples are examined for acid volcanics and gossanous material.

(d) Mapping

Mapping will consist of small scale determination of of the previously discovered prospects with the view towards the removal of a bulk sample in the future.

9. EXPENDITURE FOR YEAR 2

It is proposed that the level of expenditure in year 2 be set at $20.000.

10. REFERENCES

BARRETT, P.J. "Exploration Licence No's 1224, 2636, Mineral Claims 38D, 39D, 53D, Mineral Leases 254D to 257D, 262D to 264D, Final Report." Carpentaria Exploration Co. Pty. Ltd., Technical Report No. 1119 (1982).

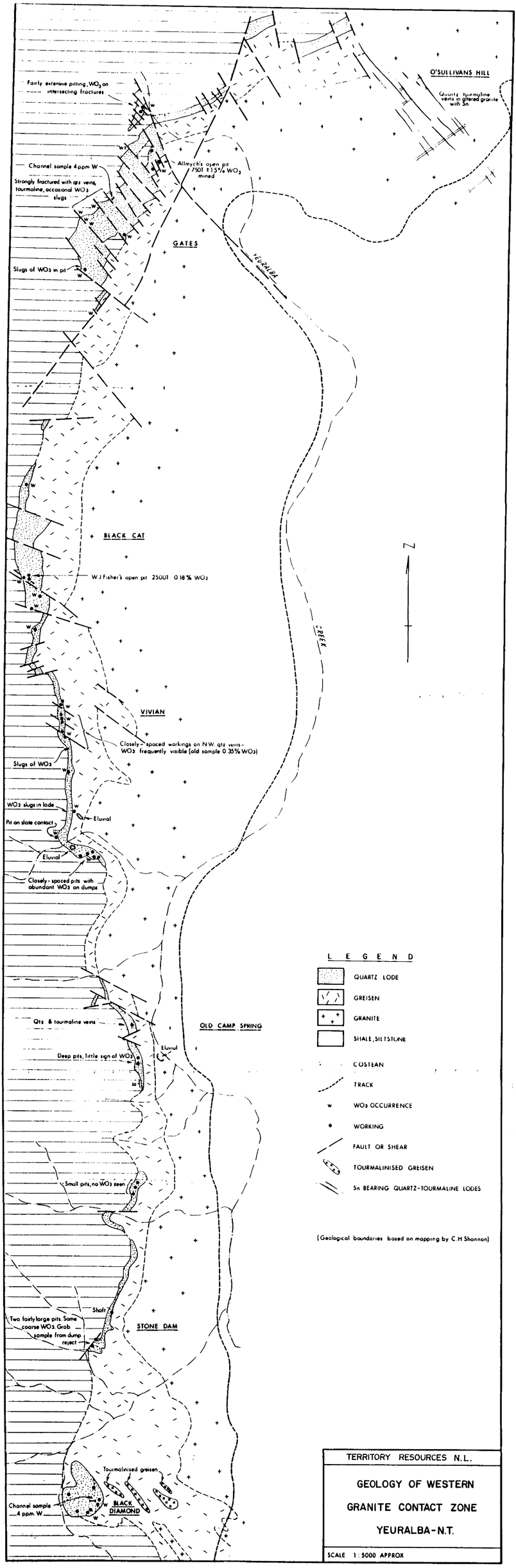
FISHER, W.J. "Report on Authority to Prospect 2117, Katherine," Euralba Mining Pty. Ltd. (1970).

SCHULTZ, K. "Report on Exploration of Yeuralba, N.T., Exploration Licence No. 1224 and Mining Leases No's 254D, 255D, October 1977-April 1978", Nord Resources (Pacific) Pty. Ltd. (1978).

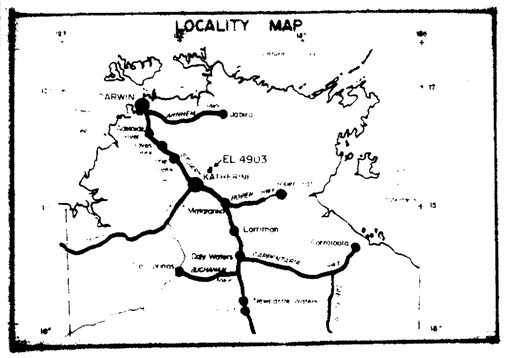
SHANNON, CHC. "The Yeuralba Wolfram Deposit", A-Z Geological Consultants Geological Report for Yeuralba Mining N.L. (1970).

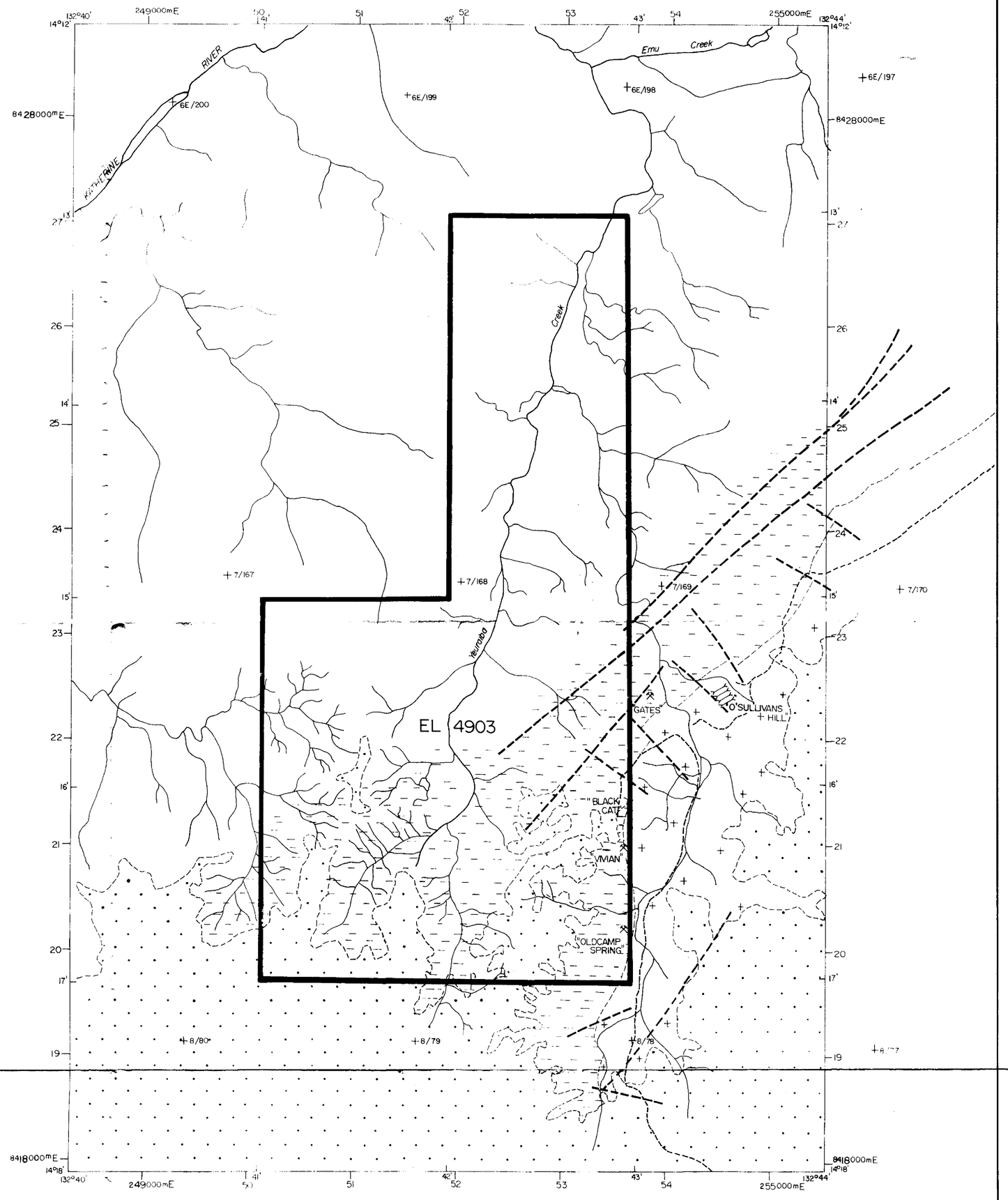
SHATWELL, DO. "Yeuralba Wolfram - Tin Prospect", Unimet Pty. Ltd., (1976).

---------- "Report on work done within Exploration Licence No's 1224 and 2636 for the period ended December 31, 1981", Euralba Mining Ltd., (1982).


O'SULLIVANS HILL
Quartz tourmaline veins in altered granite with Sn
Fairly extensive pitting, WO3 on intersecting fractures
Channel sample 4 ppm W
Strongly fractured with qtz veins, tourmaline, occasional WO3 slugs
Allmych's open pit 750T ±1.5% WO3 mined
GATES
Slugs of WO3 in pit
YEURALBA
BLACK CAT
W.J.Fisher's open pit 2500T 0.18% WO3
N
CREEK
VIVIAN
Closely-spaced workings on N.W. qtz veins - WO3 frequently visible (old sample 0.35% WO3)
Slugs of WO3
WO3 slugs in lode
Pit on slate contact
Eluvial
Eluvial
Closely-spaced pits with abundant WO3 on dumps
Qtz & tourmaline veins
OLD CAMP SPRING
Eluvial
Deep pits, little sign of WO3
Small pits, no WO3 seen
Shaft
Two fairly large pits. Some coarse WO3 Grab sample from dump reject
STONE DAM
Tourmalinised greisen
Channel sample 4 ppm W
BLACK DIAMOND
L E G E N D
QUARTZ LODE
GREISEN
GRANITE
SHALE, SILTSTONE
COSTEAN
TRACK
WO3 OCCURRENCE
WORKING
FAULT OR SHEAR
TOURMALINISED GREISEN
Sn BEARING QUARTZ-TOURMALINE LODES
(Geological boundaries based on mapping by C.H Shannon)
TERRITORY RESOURCES N.L.
GEOLOGY OF WESTERN GRANITE CONTACT ZONE
YEURALBA-N.T.
SCALE 1:5000 APPROX

Y87/40 /0

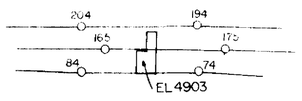




Aerial Photography covering the area of this map

AREA Yeuralba YEAR [illegible] COLOUR Y

Run [illegible] 045 INT



SCALE 1: 25 000 HEIGHT ASL 4026m FOCAL LENGTH 152.09mm

LEGEND

- Petrel Formation
- Yeuralba Granite
- Lower Proterozic Metasediments
- Geological Boundary
- Fault
- Costeun
- River, Creek
- Vehicle Track
- Fence

MAP REFERENCE

SEVENTEEN MILE	LAMBELL	DAVID	MARGARET
KATHERINE	COMOYE	EVA VALLEY	WATERHOUSE

KATHERINE EVA VALLEY WATERHOUSE EL 4903

1:100 000 / 1:50 000

kilometres 0 1 2 3 kilometres

Scale :- 1:25 000

Acknowledgement This geological map has been compiled using NATMAP 1:50 000 topographic series and aerial photography of the area

TN MN

Magnetic deviation 4°03' easterly

TERRITORY RESOURCES N.L.

EL 4903
GEOLOGICAL MAP

References 1:50 000 Comoye & Lambell, 1:100 000 Eva Valley		
Geologist A. Jettner	Scale 1:25 000	Report Number
Drawn by Terry O'Leary	Date 10 / 1 / 1987	Plan Number Y87/35/A1

CR87/92