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EL 2346

LAKE COOTABARLOW AREA

ANNUAL REPORTS FOR THE PERIOD 26/5/97 TO 23/1/2001

Submitted by

Giralia Resources NL
2001

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PRIMARY INDUSTRIES AND RESOURCES SA

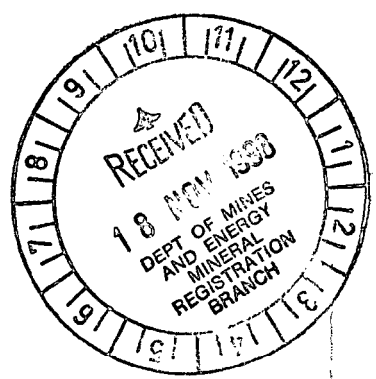
GIRALIA RESOURCES NL

ANNUAL REPORT

Twelve Months Ending
25 May 1998

EL 2346 - LAKE COOTABARLOW

FROME EMBAYMENT



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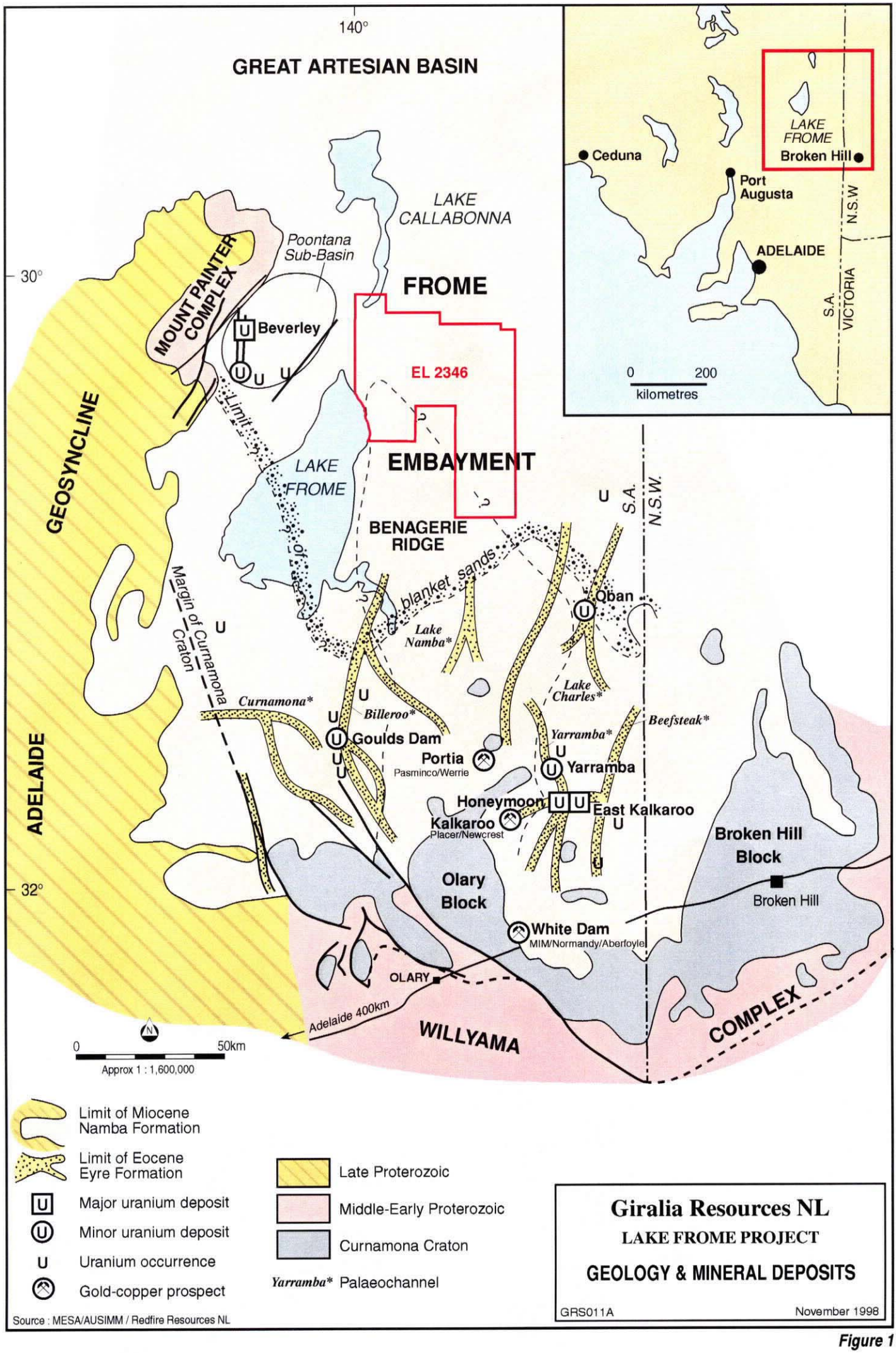

140°
GREAT ARTESIAN BASIN
LAKE FROME
Broken Hill
Ceduna
Port Augusta
ADELAIDE
N.S.W
S.A.
VICTORIA
0 200
kilometres
LAKE CALLABONNA
Poontana Sub-Basin
MOUNT PAINTER COMPLEX
30°
FROME
EL 2346
Beverley
Limit of Eocene
GEOSYNCLINE
LAKE FROME
EMBAYMENT
BENAGERIE RIDGE
S.A.
N.S.W.
blanket sands
Qban
Lake Namba*
Lake Charles*
Margin of Curnamona Craton
Curnamona*
Billeroo*
Goulds Dam
Portia
Pasminco/Werrie
Yarramba*
Beefsteak*
Yarramba
Honeymoon
East Kalkaroo
Kalkaroo
Placer/Newcrest
ADELAIDE
Olary Block
Broken Hill Block
Broken Hill
32°
White Dam
MIM/Normandy/Aberfoyle
OLARY
Adelaide 400km
WILLYAMA
COMPLEX
0 50km
Approx 1 : 1,600,000
Limit of Miocene Namba Formation
Limit of Eocene Eyre Formation
Major uranium deposit
Minor uranium deposit
Uranium occurrence
Gold-copper prospect
Late Proterozoic
Middle-Early Proterozoic
Curnamona Craton
Yarramba* Palaeochannel
Source : MESA/AUSIMM / Redfire Resources NL
Giralia Resources NL
LAKE FROME PROJECT
GEOLOGY & MINERAL DEPOSITS
GRS011A
November 1998

Figure 1

1.0 SUMMARY

Exploration Licence 2346 is located 25km east of the Beverley sedimentary uranium deposit in the northern Frome Embayment, South Australia. The tenement was the subject of reconnaissance exploration in the 1970's but since 1982 there has been little activity. Advances in the understanding of uranium deposition at Beverley and development of in situ mining techniques indicated further exploration was warranted. Pre-exploration studies commenced in preparation for drill target identification.

2.0 INTRODUCTION

EL 2346 is located in the northern Frome Embayment, on the north-east side of Lake Frome. The tenement, which is 2,253km^2 in area, was granted to B J Deveson on 26 May 1997 for a period of 12 months. Title has subsequently been transferred to Giralia Resources NL, and renewal of title extended to 25 November 1998.

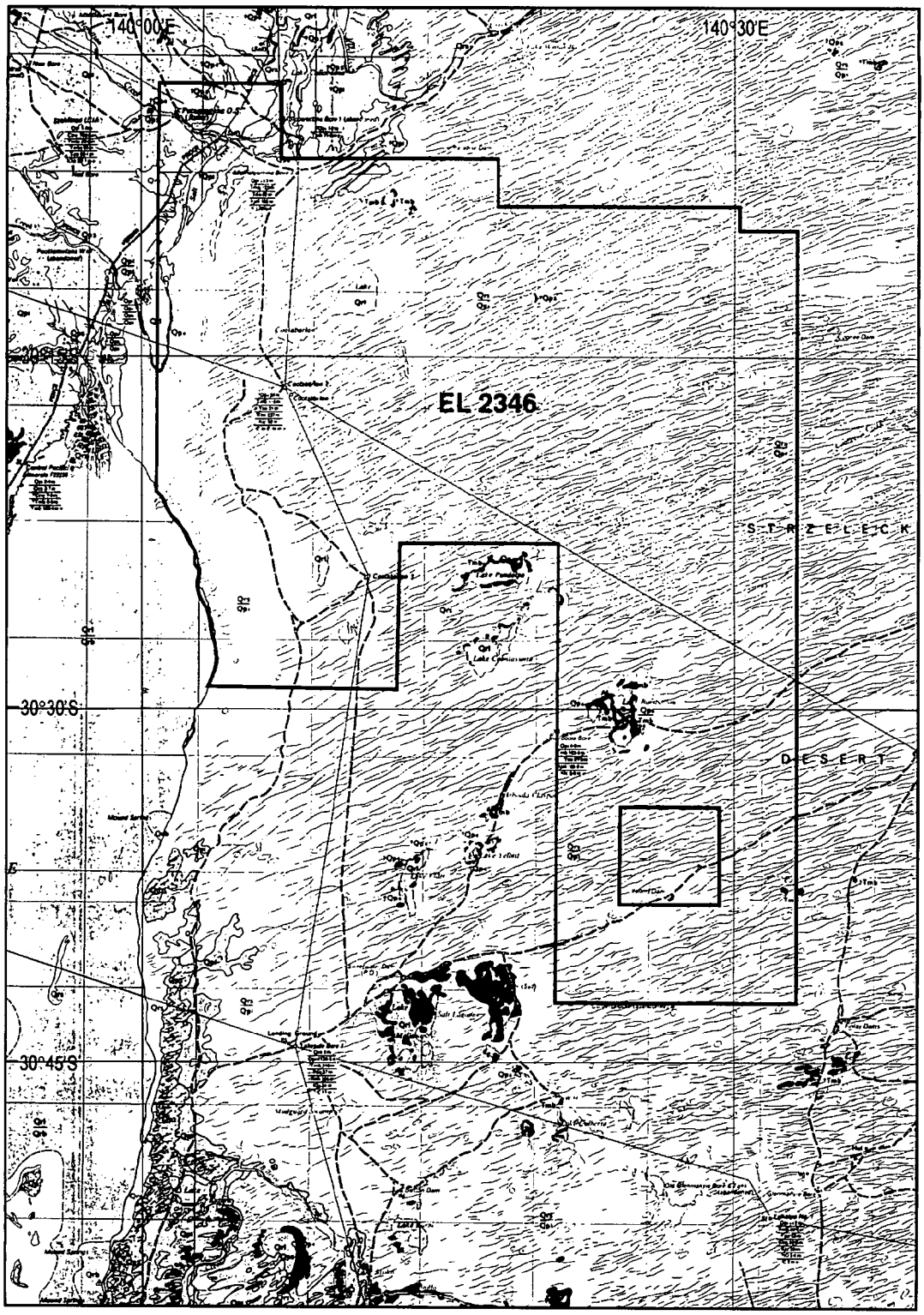
Access to the tenement is via major unsealed roads to the north-west corner and then by station tracks. The area is generally flat with extensive dune development. The Callabonna-Frome drainage axis traverses the north-west corner of the tenement. Several ephemeral lakes, of which Lake Cootabarlow is the largest, occur within the tenement. The dominant land form is the NNE trending sand dunes of the Strzelecki Desert.

3.0 GEOLOGY

The geology in the Lake Frome area consists of Jurassic and Cretaceous sediments resting on Cambrian to Archaean sediments and crystalline rocks. During the Lower Jurassic time, epiorogenic movements were initiated, resulting in the formation of the Great Artesian Basin and permitting a marine transgression during the Lower Cretaceous. The Frome Embayment is part of the Great Artesian Basin and owes its present aspect partly to Late Tertiary and Quaternary events (Callen, 1973)

Locally, the sequence comprises thin Quaternary, Tertiary and Cretaceous sediments overlying a Palaeo-Proterozoic unconformity surface. The main Tertiary units are the Willawortina, Namba and Eyre Formations, and in the Cretaceous the Bulldog Shale and Cadna-Owie Formation. These sediments are flanked to the south and east by the Olary and Broken Hill Blocks located on the southern margin of the Curnamona Craton, and to the west they abut rocks of the Adelaide Geosyncline and Mt Painter Complex.

The Beverley deposit occurs in confined sandy lenses within the Upper Namba Formation close to the Poontana Fault within the Poontana sub-basin. The Eyre Formation occurs as a uniform sand blanket facies in the tenement area, but is host to the Honeymoon and Goulds Dam deposits in the south-eastern Frome Embayment where it is represented by well-defined channel sands. The Cadna-Owie Formation is the basal sand unit, developed on the Palaeozoic-Proterozoic basement rocks, and is linked to the Great Artesian basin aquifer.



0 30km

1 : 500,000

Giralia Resources NL

LAKE FROME PROJECT

EL 2346 - LAKE COOTABARLOW TENEMENT LOCATION

GRS015A November 1998

Figure 2

Structurally the Frome Embayment has been described as a huge graben with tension faults formed as a result of anticlinal folding. Hydrological, topographic and stratigraphic evidence suggests movement along the faults has probably continued at intervals until recent times, with the main uplift of the Flinders Ranges taking place during the Late Pliocene period.

The licence area is located east of the Poontana sub-basin. This is a downwarp extending from the Lake Callabonna-Lake Frome lineament in the east to the Flinders Ranges in the west and south-west and the Mt Painter Ridge in the north. This basin is believed to have existed from the early Tertiary until very recent times.

Data within the tenement is limited to bores drilled for pastoral purposes and a small number of exploration holes.

3.1 Mineralisation

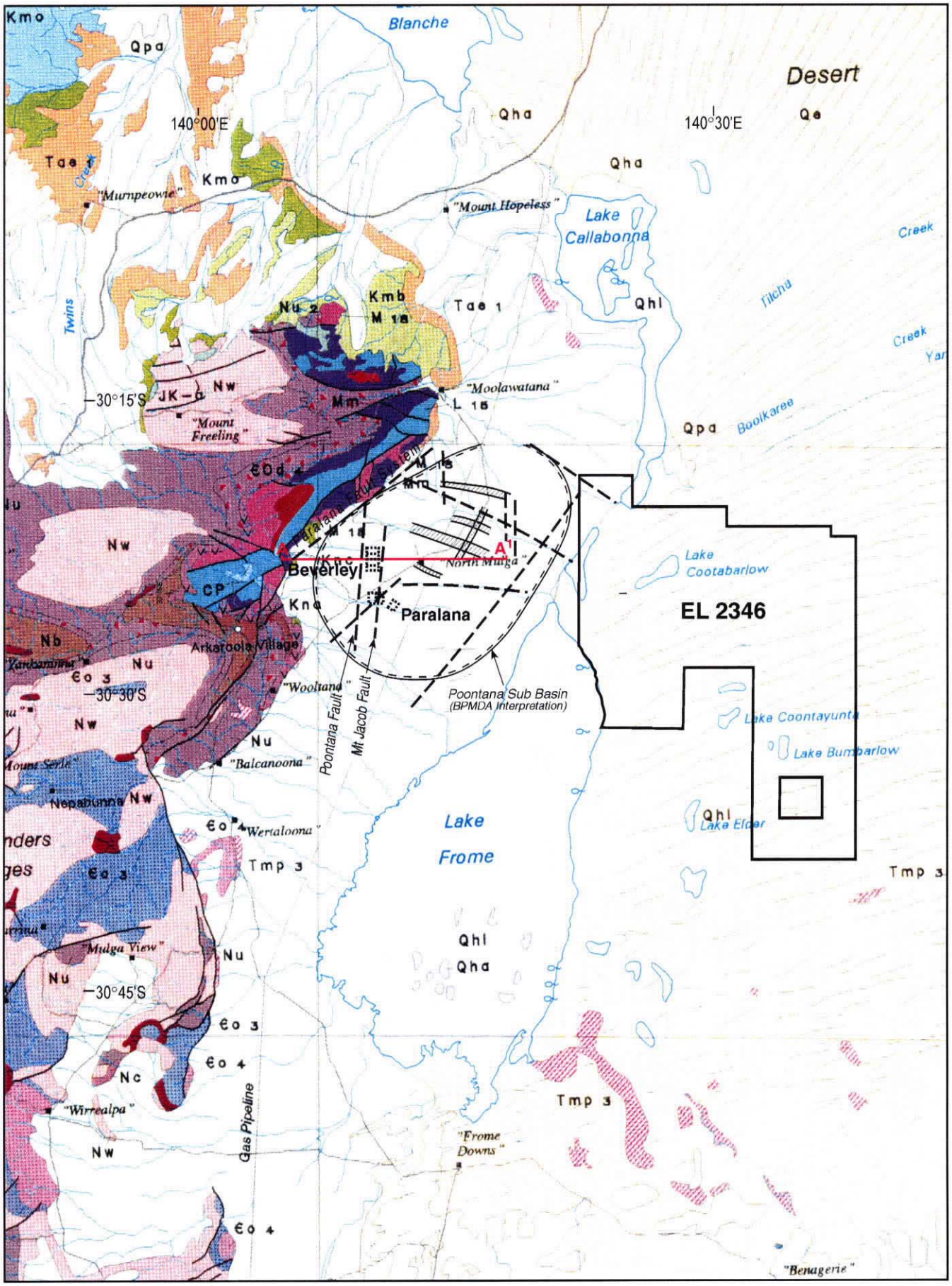
To date, Beverley is the only economic deposit located, however the Namba, Eyre and Cadna-Owie Formations are all prospective for sedimentary uranium mineralisation. Uplift of the Flinders Ranges produced hydrological gradients and oxygenated ground water movements through these units, which resulted in uranium deposition at redox fronts.

Within the tenement area, no significant mineralisation has been located to date. The primary potential is for Beverley-style deposits, as summarised in the following extract:

"Both the Beverley and Honeymoon deposits are hosted by valley fill fluviatile sands in Eocene to Miocene palaeochannels. The uranium is usually present as a uraninite or coffinite coating on sand grains, and the ore is often pyritic and carbonaceous. (Brunt, 1977)

The Beverley deposit occurs in unconsolidated sand bodies within a 400m wide north-east trending, shallow palaeodrainage channel (Curtis et al, 1990). The uranium was probably derived from known uranium mineralisation in older rocks of the Mount Painter region, 12km to the west. Reserves have been estimated at ~ 16,200 tonnes of U_3O_8 with an average grade of 0.27%, making it the largest deposit of its kind in Australia.

Mineralisation occurs at depths of 110-140m within the Namba Formation confined aquifer, which appears to be isolated from other aquifers in the region. Impermeable, plastic clay and silt over 300m thick separate the aquifer from the underlying Great Artesian Basin aquifers. Water in the Namba Formation is unsuitable for stock because of its high salinity and radionuclide concentrations which exceed (by orders of magnitude) concentrations permitted in any category of use." (I Dobrinski, MESA April 1997)



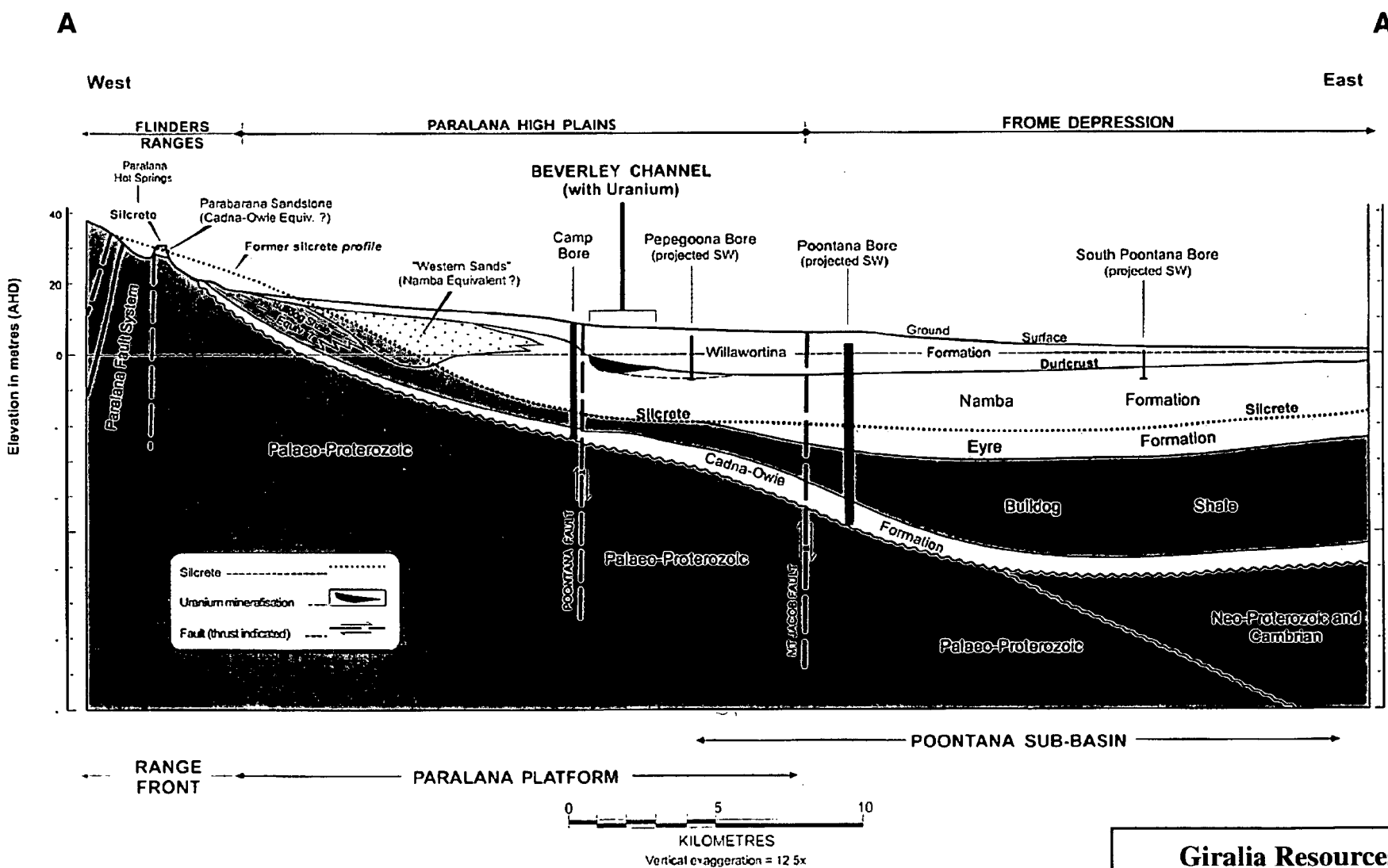
Giralia Resources NL

LAKE FROME PROJECT

GEOLOGY & TENEMENT
EL 2346

GRS016A November 1998

Figure 3



Source : Beverley EIS Report, Heathgate Pty Ltd, 1998

Giralia Resources NL

LAKE FROME PROJECT

REGIONAL GEOLOGICAL SECTION A - A1

GRS008A October 1998

Figure 4

4.0 PREVIOUS EXPLORATION

The areas of elevated outcrop in the Mt Painter area, to the west of the tenement, have been prospected since the early years of the century for copper, gold and base metals. In 1910 uranium mineralisation was discovered at Mt Painter and the surrounding areas, and mining of uranium continued into the 1930s.

Since the late 1960s this area has been explored by many companies, including Kerr McGee, Central Pacific Minerals (CPM-Magellan-Urangesellschaft-Somiren JV), Uranerz, Afmeco and BP Minerals (Petromin-Transoil-Oilmin-Minad-Teton JV), primarily for sedimentary uranium. Approximately 50 exploration holes have been drilled within the project area.

In the Mt Painter area the uranium mineralisation occurs in intrusive breccia bodies, as fracture fillings in gneiss and schist of the Willyama Supergroup, and in pegmatite dykes. An inferred resource at Mt Painter stands at 3.8 million tonnes grading 1.0 kg U_3O_8 per tonne, excluding the East Painter deposit. This mineralisation is the source of the Beverley sedimentary uranium deposit which was discovered in 1969 and is located 20-25km to the east.

Exploration also resulted in the discovery of Paralana A and B prospects, a resource of 1,000 tonnes of contained U_3O_8, grading 2.0 kg U_3O_8 per tonne. This resource is now held by Heathgate Resources Pty Ltd under retention leases (RLs 18, 19 and 20) which are located 8km south of Beverley.

Extensive exploration was carried out from 1968-82 on the area to the west of EL 2346. Little detailed exploration was conducted in the area now held as EL 2346.

5.0 RECENT EXPLORATION

The tenement covers ground immediately east of the Beverley deposit and is still considered to be relatively under-explored. In addition to sedimentary uranium mineralisation the ground may have potential for other types of deposit. Work by MESA and exploration by Churchill Resources NL in 1992-94 demonstrated widespread occurrence of celestite (strontium sulphate) along the western shore of Lake Frome which may extend into the north-west corner of the tenement. There is also some potential for basement hosted Cu-Au deposits similar to the Portia, Kalkaroo and White Dam discoveries to the south. The tenement is located at the northern end of the Benagerie Ledge, an important basement feature. Heavy mineral sand deposits containing 70% zircon and 2.8% rutile in the heavy fraction are reported from surface material in Lake Cootabarlow. There is also potential for concealed heavy mineral sands deposits associated with the Eurinilla and Eyre Formations.

The primary exploration activity conducted by the Company has been the acquisition and compilation of available uranium exploration data, and information relating to development work at the Beverley deposit.

Feasibility studies by Heathgate Pty Ltd into proposed in situ solution mining of the Beverley deposit has further added to knowledge of deposit formation. The strategic

importance of the ground around the Beverley tenements grew significantly in 1996-97 as this development work progressed with very positive results. In addition, the establishment of a long term treatment facility provides an opportunity to develop suitable small deposits that would not otherwise be viable.

Past exploration had been generally reconnaissance-style drilling with no clear focus. Future exploration will utilise vectors derived from the improved knowledge of this style of deposit gained in recent years.

Visits to the north-eastern corner were carried out by Company personnel and comprised a general reconnaissance of the physical conditions in the field, in terms of terrain and access. Other activities were acquisition of additional project data, and discussions with SAMD officers and prospective joint venture partners.

On-going activities will comprise further data review prior to planning an initial drill program.

C J FLESHER
FAusIMM, MMICA

6.0 EXPENDITURE

EL 2346 - LAKE COOTABARLOW - FROME EMBAYMENT

Expenditure Statement - 12 months to 25 May 1998

Data review and compilation - consultant geologists	1,625
Field visit (J Risinger) WA to Frome Embayment Travel, accommodation, GPS, vehicle, etc	1,920
Report and plan preparation	1,655
Tenement acquisition	6,985
Administration	1,440
	$13,625

7.0 REFERENCES

Beverley Uranium Mine Environmental Impact Statement (1998) Heathgate Resources Pty Ltd, September 1998

Dobrinski, I (1997) Beverley and Honeymoon uranium projects MESA Journal 5, pp 9-11, April 1997

Armcorp Resources NL (1997) Unpublished Prospectus Report R Ruker & Associates, March 1997

Maynard A (1998) Unpublished Summary Report, South Australian Projects Al Maynard & Associates, Consulting Geologists, January 1998

Curtis J L, Brunt D A, Binks P J (1990) Tertiary Palaeochannel Uranium Deposits of South Australia. Geology of Mineral Deposits of Australia and Papua New Guinea, pp 1631-1636, AusIMM

Various reports by BP Minerals, Marathon Petroleum mainly from SAMD Envelope 2608

Brunt D A (1978) Uranium in Tertiary Stream Channels, Frome Area, South Australia AusIMM Proceedings 266, pp 79-90

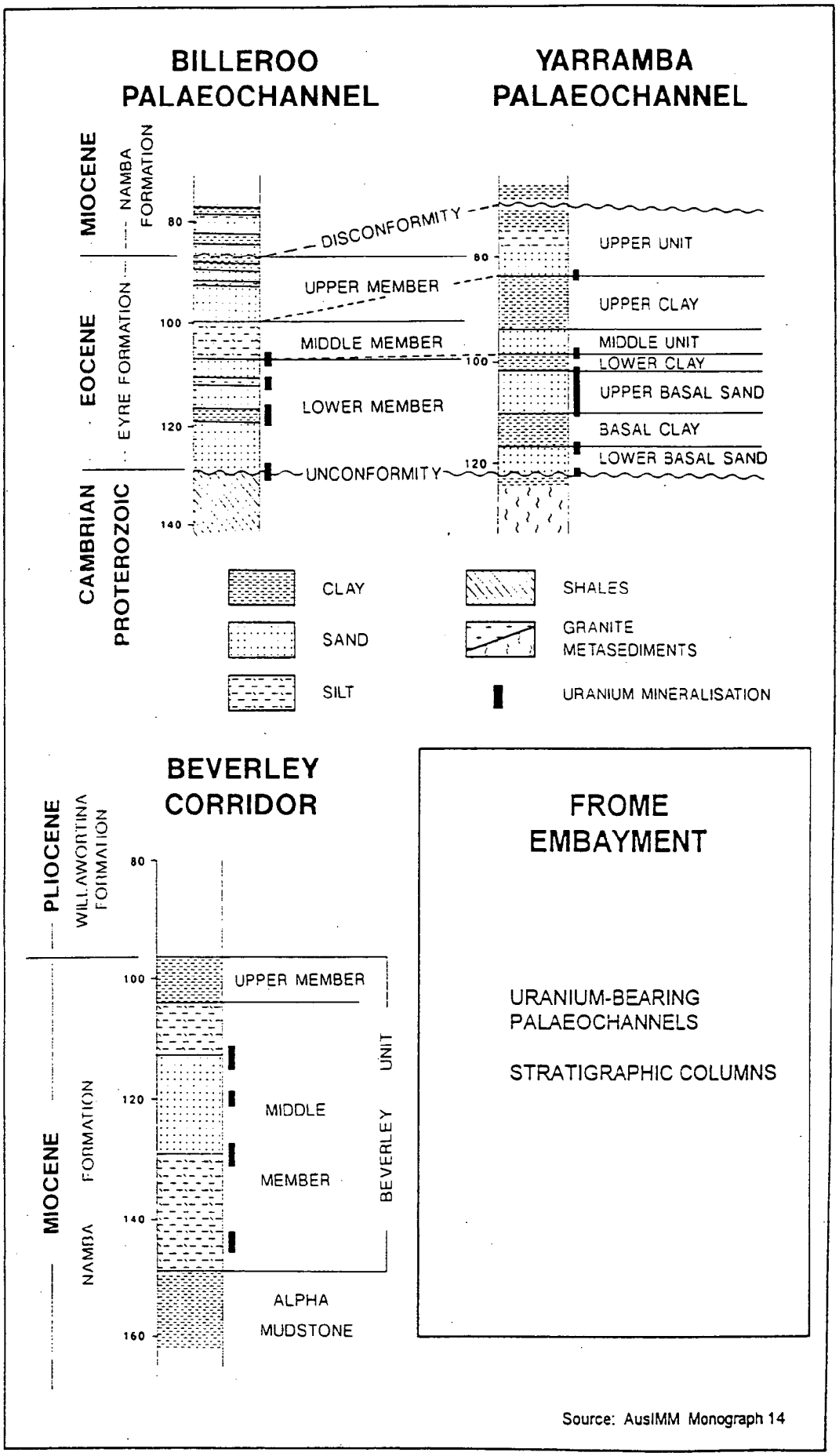
Youles I P (1975) Mt Painter Uranium Deposits. Economic Geology of Australia and Papua New Guinea. AusIMM Monograph 5, pp 505-508

STRATIGRAPHIC COLUMN - NORTH-WEST FROME EMBAYMENT

Time Units		Unit	Description
CAINOZOIC	Quaternary	Holocene	Sands and Gravels (Modern stream sediments) Simpson Sand (Dunes)
		Late Pleistocene to Holocene Medial to Late Pleistocene	Coonarbide Formation (Sand Plains) Eurinilla Formation (Sand Plains)
	Tertiary	Late Miocene to Early Pleistocene	Willawortina Formation (Sheeted gravels and clayed sands)
			Main period of Uplift
		Late Eocene to Palaeocene	Undifferentiated Duricrusts (Silcrete-Porcellanite-Greybilly)
		Miocene	Namba Formation-Upper (Olive Grey swelling clay, dolomite nodules and beds, greenish laminated silt and fine sand, *Includes Beverley Sands*. No exposures.) Namba Formation-Lower (Olive Grey swelling clay, dolomite nodules and beds, greenish laminated silt and fine sand, *Includes Beverley Sands*. No exposures.)
		Palaeocene to Eocene	Eyre Formation (Uncemented quartz sand, some clay beds, minor lignite, *Honeymoon, Goulds Dam host*)
MESOZOIC	Cretaceous	Undifferentiated	Bulldog Shale (Clay and silt, lesser sandy lenses) Parabarana Sandstone (Quartz Sandstone, pebbly conglomerates and basal channel deposits) Cadna-Owie Formation (Sandstones, basal aquifer to Great Artesian Basin)
PALAEOZOIC	Ordovician	Undifferentiated	British Empire Granite
PROTEROZOIC	Upper	Undifferentiated	Adelaide Geosyncline Units (Sandstones, siltstones, shales)
	Lower	Undifferentiated	Mt Painter Province Units (Quartzite, pebble conglomerates, rhyolites:porphyries, granites, gneiss)

Source: Department of Primary Industries and Energy Resources SA

TABLE 1



Source: AusIMM Monograph 14

TABLE 2

HEATHGATE RESOURCES PTY. LTD.

Friday, 24 December 1999

Mr George Kwitco
Principal Geologist - Company Exploration
Mineral Resources
Primary Industries and Resources SA
GPO Box 1671
Adelaide SA 5001

Dear George,

EXPLORATION LICENCE 2346 (L Cootabarlow area)

ANNUAL TECHNICAL REPORT period ended 25th May 1999

Title to EL 2346 (L. Cootabarlow area) is held by Giralia Resources NL. Under the terms of a joint Venture Agreement dated 1st October 1998, Heathgate Resources Pty Ltd has rights to earn an interest in the area. The title is one of 3 E Ls in the area which are held by the joint venture.

Work conducted by Heathgate in the 12 months to 25th May 1999 involved corporate issues, commitment by the company to the nearby Beverley uranium mine, and initial planning and evaluation work preparatory to determining an ongoing exploration program. There is no technical data to report.

SUMMARY REPORTS for the periods ended 25TH November 1998 and 25th May 1999 are attached.

Please contact me should additional information be required.

Sincerely,

David Brunt
Vice President

Cc:
Giralia Resources NL
PO Box 1665 West Perth
WA 6872
Attention: Stan MacDonald

EL2346 Tech Rept 25May99.doc

HEATHGATE RESOURCES PTY. LTD.

Tuesday, 17 October 2000

Mr George Kwitco
Principal Geologist - Company Exploration
Mineral Resources
Primary Industries and Resources SA
GPO Box 1671
Adelaide SA 5001

Dear George,

EXPLORATION LICENCE 2346 (L Cootabarlow area)

ANNUAL TECHNICAL REPORT period ended 25th May 2000

Title to EL 2346 (L. Cootabarlow area) is held by Giralia Resources NL. Under the terms of a joint Venture Agreement dated 1st October 1998, Heathgate Resources Pty Ltd has rights to earn an interest in the area. The title is one of 3 Exploration Licences in the area which are held by the joint venture.

There is no technical data to report. Discussions commenced with 4 Native title Claimant Groups concerning a site clearance exploration agreement. However, progress has been limited due to issues relating to Aboriginal heritage, the Native Title Act and amalgamation of native title claims.

Please contact me should additional information be required.

Sincerely,

David Brunt
Vice President

Cc:
Giralia Resources NL
PO Box 1665
West Perth
WA 6872
Attention: Mike Joyce

19/10/00

EL2346 Tech Rept 25 May 00

45 GRENFELL STREET, LEVEL 3, ADELAIDE, S.A. 5000 AUSTRALIA PHONE 61 (08) 8212-2155 FAX 61 (08

PRIMARY INDUSTRIES AND RESOURCES SA

MINING ACT, 1971

SURRENDER (OR PARTIAL SURRENDER) OF AN EXPLORATION LICENCE

(Please use BLOCK LETTERS)

I, GIRALIA RESOURCES NL

(Full name (please underline surname) or company name)

of P.O BOX 1665 WEST PERTH WA 6872

(Full address for correspondence or company registered address)

being the licensee under the Mining Act, 1971, as amended, of the lands comprised in Exploration Licence Number 2346 situated at LAKE COOTABARLOW

do, subject to the consent of the Minister for Primary Industries, Natural Resources and Regional Development -

- surrender the said Licence and the lands comprised in the licence, and all my rights and title under the licence
- ~~surrender the portion of the land comprised in the licence delineated in the attached plan, and all my rights and title under the licence to the extent of the surrender.~~
- *(Strike out whichever is inapplicable).*

Additional Information:

1. Contact telephone number: (08) 94814440
2. Contact facsimile number (if available): (08) 93210070
3. If the applicant is a company: ACN No: 009 218204
   Contact person: DENNIS HAWTIN

DATE: 8 JANUARY 2001

SIGNATURE: ..... WITNESS[1]: .....

or

COMPANY SEAL[2]

GIRALIA RESOURCES N.L. A.C.N. 009 218 204 COMMON SEAL

The Common Seal of Giralia Resources N.L. was hereunto affixed by authority of the Directors in the presence of:

..... (Director)

..... (~~Director~~/Secretary)

[1] The witness must be a Justice of the Peace, Officer of the Department of Primary Industries and Resources, Member of the Police Force, Proclaimed Bank Manager or Commissioner for Taking Affidavits.

[2] If the licensee is a company, the surrender must bear the company's seal and be witnessed by appropriate officers.

Consent is given to this Surrender

DIRECTOR OF MINES Adelaide

..... (Minister for Primary Industries, Natural Resources and Regional Development)

23/1/2001

T:FLOWSHTSURREND.DOC

ENTERED IN THE REGISTER

2/2/01 MINING REGISTRAR