

Uranium Exploration in West Arnhem Land



A Report for the Environment Centre Northern Territory
and the Australian Conservation Foundation

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Executive Summary

- Uranium exploration activity in West Arnhem Land increased substantially from 1996. Aboriginal traditional land owners have been more inclined to negotiate exploration agreements over the last five years. Saying yes to exploration is seen by many as one way 'to get miners off their backs' (McIntosh 2000). Currently, there are 20 granted licence areas in the West Arnhem region, most of which have been subject to uranium exploration activity at some point over the last five years. The area under current veto, where the traditional owners have told the mining companies to go away, continues to shrink.
- The two main companies involved in 2001 are Cameco, which is based in Canada and Afmeco, a subsidiary of French company Cogema. Afmeco's exploration activity is increasingly centering on the Tin Camp Creek area and is conducted from a base camp at Myra Falls. This area includes the prospective Caramal deposit, although at current uranium prices this is exceedingly unlikely to prove commercially viable. Cameco is also planning to explore in the Tin Camp Creek area. Other areas of ongoing interest for Cameco are the King River area north of Gunbalanya (Oenpelli) and Deaf Adder, which is further south near the upper reaches of the Mann River. In 2001 all of these programmes have been scaled down from previous years due to a squeeze on exploration budgets.
- A brief visit to Cameco's King River exploration site in early September 2001 revealed that drilling operations in this area demonstrated a low level of directly observable environmental impact. However, throughout West Arnhem Land more indirect impacts of exploration campaigns such as changed fire regimes, the spread of weeds and feral animals, erosion and reduced traditional owner access to country have been identified as issues of ongoing concern. Furthermore, if a prospective uranium deposit were to be discovered and mined, the impacts would undoubtedly be large and long-lasting, as demonstrated by the nearby uranium mine at Ranger and the former Nabarlek mine in West Arnhem Land itself.
- Under current provisions in the *Aboriginal Land Rights (NT) Act 1976* traditional owners have the right to veto exploration proposals for five year periods. If traditional owners consent to exploration, however, they are deemed to have consented to subsequent mining activity. Companies are also not required to formally declare their intention to explore for uranium (or to specify any other mineral they might be looking for). For traditional owners then, saying yes to exploration leaves the door wide open for a future uranium mine on their land whether they want one or not. This is an entirely unsatisfactory situation and should be remedied immediately by the Commonwealth and Northern Territory Governments. Uranium is a hazard-

ous substance. It is unquestionably different to other minerals due to its extremely radioactive nature and should not be accorded the same status as other minerals when dealing with exploration activities upon Aboriginal land. The Land Rights Act should also be amended so that consent to exploration does not automatically entail consent to mining. This would mean a return to the situation prior to changes made to the Act in 1987. Current legislative requirements are unfairly weighted in favour of mining corporations. This imbalance must be corrected.

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Traditional owner statements to the Review of the *Aboriginal Land Rights (NT) Act 1976*, John Reeves QC – Chairperson, Maningrida Meeting Transcript 1/12/97.

I'm Ralph Samuel from Goulburn Island, Warruwi. I living at King River in my outstation. I living in east what you call Wellington Range at King. I living next to the sound. I'm the one they doing exploring in my area. I got the right to give those mines because I'm the elder and a few men at Oenpelli and few at Goulburn, we work together. We got association in our home. We set it up first before the exploration doing. We got our land trust people for doing, signing our paper there at Oenpelli. We call Jacob (Nayinggul), he doing our signing and we doing right with NLC mob, we thought we're doing - we work together and we work together with mining so good and our Aboriginal people, they work with mining, a few Aboriginal people they working with them.

...We don't let mining company just go and do their own or else they damage our sacred sites and our sacred area so I'm dealing in my area, we're dealing this right... The road is bad so asked some money from mining operator, operation mob, they helping me. They put some roads there while they doing their what you call it, surveying, looking for minerals and drilling same time. So when they find everyone who said "Yes", and when they find, you can't change your mind, when they do mining, they send money to America or overseas, they make money.

Reggie Wuridjal (Gunabidji Traditional Owner): Mining its important. All we ever do is, Aboriginal people here, is just say yes or no. The Land Council up the top there and we're bottom, and they're acting on behalf of us. We should be telling the Land Council what to do. We just got to give two answers, yes or no. That's all. No questions asked, no anything. Get into details. Ask them properly, "What you doing to our land? Leave our land alone".

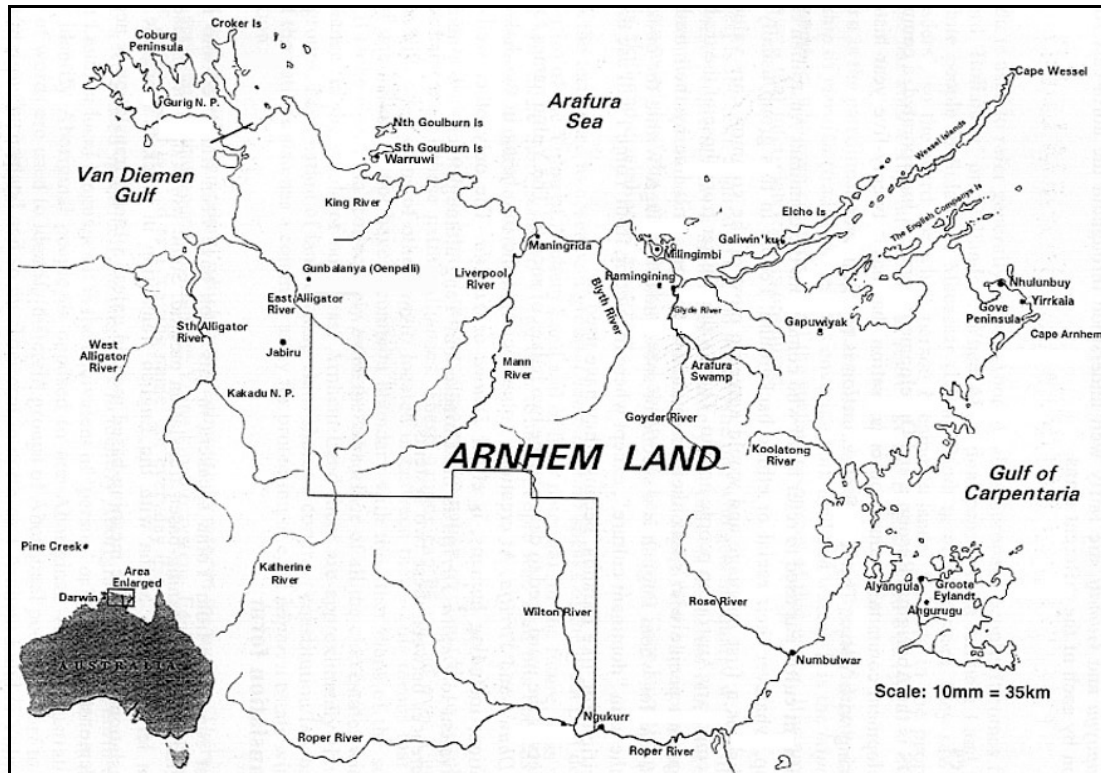
1. Introduction

Arnhem Land is Aboriginal-owned land which has been held under a special form of freehold title since the passing of the *Aboriginal Land Rights (NT) Act* by the Commonwealth Parliament in 1976. An important provision under the Act was that traditional owners retain the right to veto development proposals, including minerals exploration and mining, for five year periods. This was designed to give traditional owners some measure of control over what happens on their country. The Northern Land Council (NLC), one of four Aboriginal bodies currently empowered under the Act to negotiate exploration and mining agreements with mining companies on Aboriginal land in the Northern Territory, must follow the instructions of traditional owners.

Despite this power of veto, uranium exploration activity in the western third of Arnhem Land has been increasing dramatically in recent years. In the 1970's and early 1980's there were a number of uranium exploration programmes carried out in the region, one of which resulted in the Nabarlek mine (1979-88). By early 1995, however, there were only 4 granted exploration licences in the whole of Arnhem Land. Six years and two terms of the Howard Government later, there are 20 granted licences in and around the Alligator Rivers uranium field in West Arnhem Land alone. As Map 2 demonstrates, there are only small pockets of West Arnhem Land that are not subject to an exploration licence of one form or another. The area under current veto, where traditional owners have told the mining companies to go away, continues to shrink.

According to former Northern Land Council anthropologist Ian McIntosh (2000), this is happening because the rules of the game are heavily stacked in favour of the mining companies: 'By far the most common reason given by Aborigines (in Arnhem Land) for saying yes to a development proposal is 'to get miners off their backs'' (p112). Exploration licence area boundaries, as designated by the NT Department of Mines and Energy (NTDME), bear no relation to clan boundaries. Any one clan may consequently have a number of mining companies banging at their door. This constant 'humbug' can cause tribal and clan alliances to shift and splits often occur within communities over whether to give consent to exploration proposals. McIntosh further maintains that Aboriginal people in West Arnhem Land are becoming more reliant on the monetary economy and exploration proposals seem to offer the promise of a quick and ready source of cash.

Added to this is the fact that under the Land Rights Act, once traditional owners have given their consent to exploration they have no power to refuse subsequent mining should commercial quantities of any mineral, including uranium, be found. What's more, mining companies are not legally required to declare during the exploration licence

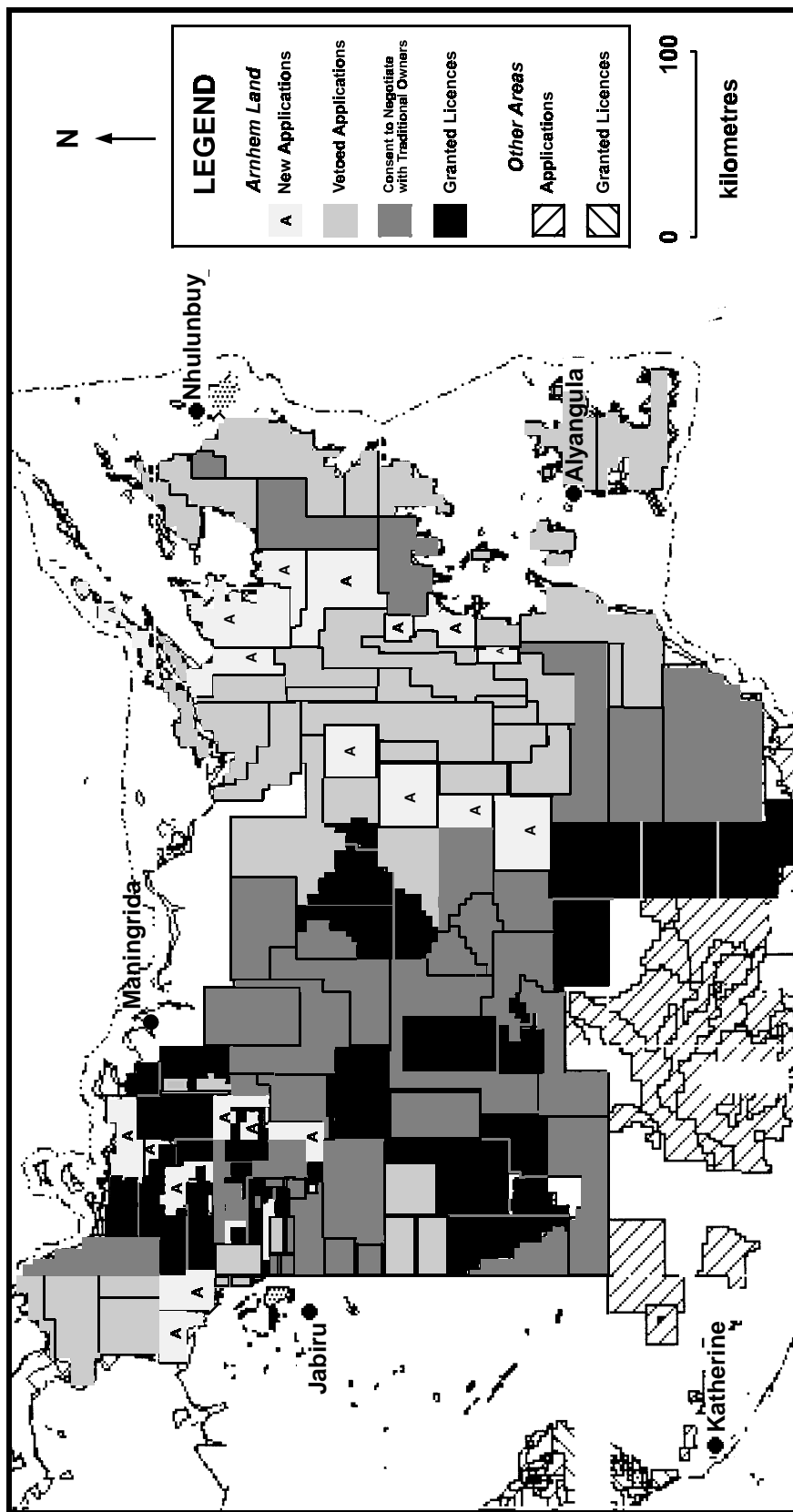


Map 1. Arnhem Land – Geographical Features

Source: adapted from Trudgen 2000

negotiation process exactly what type of mineral they will be exploring for. Generally the companies will announce whether they are interested in uranium, bauxite, diamonds or whatever. But of course, even the companies themselves are uncertain as to what lies beneath the surface of the Earth. **For traditional owners then, saying yes to exploration leaves the door wide open for a future uranium mine on their land whether they want one or not.**

The ECNT and the Australian Conservation Foundation are concerned that in this highly pressurised negotiating atmosphere insufficient information on the environmental implications of uranium exploration and mining is getting through to traditional owners. At the second Top End Indigenous Rangers Conference for Indigenous Land Management held at Wuyagiba Outstation in South East Arnhem Land in August 2000, Aboriginal people voiced concern about pollution of water courses, poisoning of the land, air and bush tucker and damage to sacred sites, communities and health from mining generally. They then called for more help to understand what mining involves and the risks associated with it (*Land Rights News*, December 2000). Uranium mining, in particular, has extremely long-term environmental consequences. Mine tailings remain dangerously radioactive for thousands of years. Past and existing uranium mines in the wet-dry tropics have a poor record when it comes to water management, tailings disposal and site reha-



Map 2. Status of Exploration Licences in Arnhem Land, April 2001

bilitation (see www.sea-us.org.au). The long-term impacts upon the health of the Aboriginal people in the areas surrounding these mines has also been inadequately monitored (Howitt 1997).

This report, along with the accompanying leaflet and poster, is one contribution towards assisting traditional owners to make better-informed decisions about whether to allow uranium exploration on their country. It is a modest attempt to redress the current informational and procedural imbalance in the exploration licence negotiations process in West Arnhem Land.

2. Legislative Context

The *Aboriginal Land Rights (NT) Act 1976* attempted to set out provisions to allow Aboriginal people to retain some measure of control over mining activities on their land held under freehold title. It was envisaged that minerals exploration and development would only take place if traditional owners as a group were well informed about the economic, social and ecological consequences of such activity. Traditional owners retained the right to refuse consent to exploration and mining activity for a period of five years. This has become commonly known as the 'veto' provision, although it can be over-ridden by the Governor General in the national interest.

An important principle of the Act was that exploration agreements between mining companies and traditional owners (who are represented by the Land Councils in negotiations) should include details of the terms and conditions of the subsequent mining stage. If any subsequent mining was in 'substantial accordance' with the original mining proposal outlined in the exploration agreement then the further consent of traditional owners was not legally required. This was termed a 'conjunctive' agreement. The provisions were not tested until 1982, however, when the NT Government lifted a freeze on processing exploration applications.

Between 1982 and 1987 most companies negotiated exploration agreements whereby Aboriginal consent to exploration did not include consent to mining, which instead had to be negotiated at a later date. These were known as 'disjunctive' agreements. This situation seemed to suit both traditional owners and the mining companies who generally found the process more simple and less time consuming. The NT Government then advised companies it would not grant exploration licences on this basis.

In 1987, under the Hawke Labour Government, a number of amendments to the Act were passed by the Commonwealth Parliament. All of these served to shift the balance

of power further towards the mining companies. They included a 12-month time frame for negotiations and the removal of the obligation on mining companies to detail the mining stage of the proposal. Indeed, the terms and conditions of mining could not even appear in the exploration agreement. Yet consent to exploration was now automatically deemed to include consent to mining.

Further, a Supreme Court decision in 1992, following an NT Government challenge to the validity of a central Arnhem Land exploration licence negotiated between Stockdale Prospecting Ltd, Narulindji Aboriginal Corporation and the Northern Land Council (NLC), determined that the NLC could not require further consent to mining even when the company itself agreed with this provision. Aboriginal people were left with no option but to negotiate watered-down conjunctive agreements.

Before a company can explore or mine for uranium (or any other mineral) in West Arnhem Land, the following **application process** must be adhered to. The same procedure is followed for any exploration proposal on Aboriginal freehold land in the Northern Territory.

1) Exploration Licence Application - The mining company applies to the Northern Territory Department of Mines and Energy (NTDME) for a licence or permit.

2) Consent to negotiate - The Minister for Mines and Energy grants the mining company 'consent to negotiate' with the Northern Land Council (NLC).

3) Application for consent - The mining company must submit its application including exploration proposal and mining details to the NLC within three months, otherwise the application is deemed to have been withdrawn. The exploration proposal must describe all aspects of the exploration activity including possible impact on the environment and the social impacts.

4) Consultation - Having ensured that the proposal provides adequate information for traditional landowners to make a decision, the NLC informs traditional owners and affected groups and communities within 30 days, and organises a meeting at which the applicant presents its proposal. A representative of the Minister for Aboriginal Affairs may also attend the meeting. The traditional landowners have the right to instruct the NLC to refuse consent to an exploration proposal that affects their land. Refusal freezes the application for five years after which the same company may re-apply. Alternatively, traditional landowners may instruct

the NLC to negotiate an agreement with the company.

5) Negotiation of Agreement - Negotiations must be concluded within 12 months. The NLC provides the company with a draft exploration agreement containing fundamental clauses and the company is invited to use this document as a basis for negotiations. A liaison committee of traditional landowners can be involved in negotiations. The negotiated agreement is then presented at a meeting of traditional landowners for their consideration.

6) Agreement - Once the traditional landowners have instructed the NLC to enter into the Agreement, their decision must be considered by the NLC Full Council to ensure that due process has been adhered to. The Full Council can reject the agreement if it is considered unreasonable. The NLC must then seek the approval of the Minister for Aboriginal and Torres Strait Islander Affairs to enter into the Agreement. Once the Agreement has been executed by all parties, the NLC then notifies the NT Minister for Mines and Energy who subsequently issues the exploration licence for a period of six years, with an ability to extend for a further four years (*from NLC submission to the Review of the Aboriginal Land Rights (NT) Act 1976*).

As noted above, companies can re-apply for licences every five years, and since traditional owners are legally required to consider any new exploration proposal within a year of any given application, the negotiations process, including the associated meetings and corporate demands, begins once again.

The terms and parameters of any subsequent mining stage (i.e. financial arrangements, environmental and employment considerations) are generally attached to the exploration licence as a signed joint venture contract between the company and corporations set up on the behalf of traditional owners (O'Faircheallaigh 1995). This is not a formal part of the Land Rights Act applications process, but an initiative by the NLC to bring some greater security for traditional owners, though the legal strength of the contract has yet to be tested in the courts. Generally, the Aboriginal corporation will have a 2% stake in the exploration licence. The NLC is currently finalising a standardised pro-forma exploration agreement.

In contrast, the Central Land Council process for negotiating exploration agreements is simplified and more streamlined. Negotiations over the subsequent mining stage are basically limited to financial arrangements. Traditional owners will generally receive royalties of between 2 and 4% if mining commences. There are no joint venture contractual arrangements between mining companies and Aboriginal corporations negotiated outside of the Land Rights Act (CLC, *pers. comm.*).

All exploration activities, including rehabilitation of sites, are currently regulated under the NT *Mine Management Act 1990*. In 2000 the former NT Government re-wrote legislation relating to mining with largely bipartisan support from the Labour Party. The new Mining Management Act which becomes law in early 2002 repeals the *Uranium Mining (Environmental Control) Act 1979*, removes all environmental provisions currently applying to mineral and exploration lease areas from the *Mining Act 1980* and generally moves towards industry self-regulation (see www.dme.nt.gov.au). It should also be pointed out that the nuclear 'trigger' in the Commonwealth's *Environmental Protection and Biodiversity Conservation Act 1999* does not apply in relation to uranium exploration activities, only to the subsequent stages in the nuclear fuel cycle.

Meanwhile, the NT Mining Act dictates that companies must surrender half of the blocks on their exploration licence at the end of the first 24-month period and again at the end of each subsequent 12-month period. 'Block' is a technical term used by the NT DME to describe a parcel of land approximately 3.22 square kilometres in area. This 'use it or lose it' provision is designed to prevent companies sitting on their licences until higher minerals prices make exploration more economically conducive. However, this provision also means that exploration licences have multiplied in areas of more intensive exploration activity, as, for instance, in West Arnhem Land adjacent to Jabiluka and Ranger, leaving the NLC and traditional owners with a proliferation of exploration licence applications to deal with. Reports outlining exploratory work conducted on relinquished blocks are filed with the NT Department of Mines and Energy and are open for public viewing (see <http://www.dme.nt.gov.au/dmemain/utilities/onlinesys/databases.html>).

3. Exploration in the Northern Land Council Region

As at 30 June 2001, there were 61 granted exploration licences on Aboriginal land in the NLC region (which includes Arnhem Land). These cover 37,000km², so that approval has been given for exploration on approximately 22% of Aboriginal land in the NLC region. In addition, the NLC was involved in negotiations for 11 exploration licences covering 13,505km² (NLC 2001).

With the increase in exploration licence applications over the last few years, the NLC has been hard pressed to meet the increasing demands placed upon it. Since 1999 it has been kept extremely busy coping with the flood of exploration licence applications on pastoral lease land. The NT Government had lifted a freeze on processing 570 exploration and mining notices after its native title legislation was rejected by the federal Senate (NLC 2000). The NLC has also found it difficult to fill positions within its environmental

unit (NLC, pers. comm.), despite the call from traditional owners in Arnhem Land for more assistance in understanding the risks involved with mining.

4. The Five Stages of Exploration

Company exploration programmes can involve any or all of the following five stages, depending on whether initial activities are encouraging (Burton 2000).

i) A desktop review of existing geological information about the area in order to identify where minerals are most likely to be found.

ii) Aerial photos and measurements of the country. Surveying the geo-magnetic contours of the area will identify what are known as 'anomalies' below ground.

iii) Surveys on the ground along 'transects'. Surface rock samples are taken and streams are tested for their mineral and chemical content. If no surface rocks are available the company may do some shallow drilling (or 'costeaming') which involves digging a large trench or pit. This is when camps and access roads are usually built. Helicopters may also be used for surveys.

iv) Drilling down deep into the ground for core samples. If initial drilling is encouraging a more intensive program will occur so that a more detailed picture of the entire ore-body emerges. New access tracks are often cut through vegetation.

v) A bulk sampling programme may be carried out in order to test the processing technologies for the particular ore-body. This can sometimes involve the use of fairly large-scale mining techniques with more significant environmental impacts.

5. Current Exploration Campaigns

In the 2000 dry season each of the three exploration programs in West Arnhem Land involved drilling. Also 'significant new road development' occurred in the Deaf Adder Creek area on Jawoyn country (EL5061 – see Appendix). Canadian company, Cameco, has been active in recent years in this area and also in the vicinity of King River (ELs 5890-91 & 734). The latter licences are 98% owned by PNC from Japan. PNC pulled out of West Arnhem Land exploration in 1999 and its licences are now managed by Cameco. Afmeco, a subsidiary of Cogema, the French state-run nuclear corporation, continued to explore in the Tin Camp Creek area from its base at Myra Falls Camp (ELs

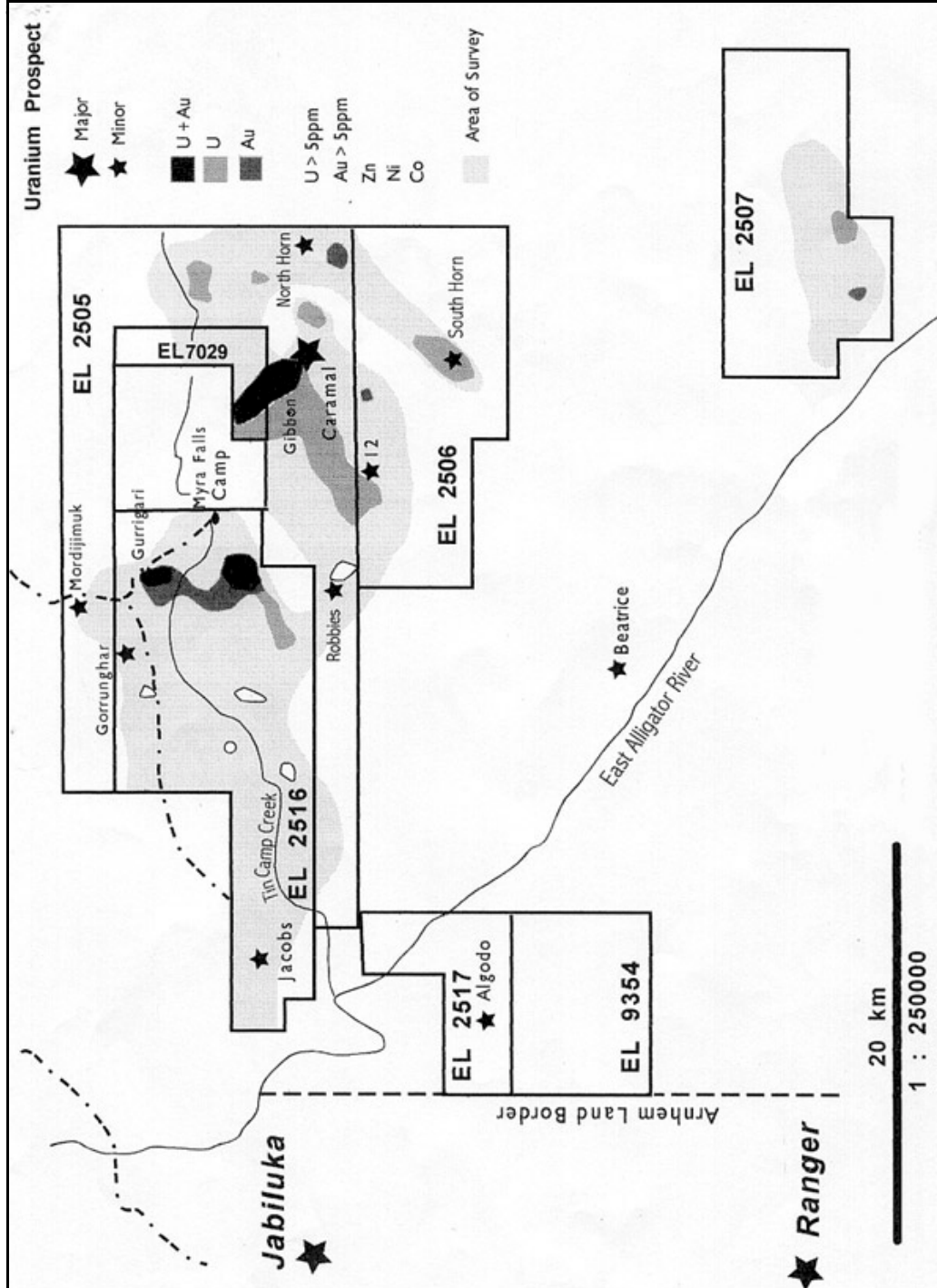
3347, 3589-90, 2505-07, 2516-17, 7029 & 9354) (Supervising Scientist 2000).

By early September in the 2001 dry season, Cameco had carried out a 4-6 week programme in the King River area on EL 734. This involved drilling 3 core samples about 100 metres apart (at an estimated cost of \$50000-70000 per drill hole). The company has honed in on a relatively small area but has yet to give any public indication that it has found an economic deposit. Exploration activities have been scaled down this year as funding from head office has been reduced. Another camp was again set up in the Deaf Adder Creek area but no actual drilling occurred. Cameco was also hoping to join the camp at Myra Falls where Afmeco has continued to maintain a presence this year. Afmeco has also scaled down its activities on other licence areas due to budgetary constraints (Afmeco, *pers. comm.*).

6. Case Study – Tin Camp Creek/ Myra Falls 1996-7

The most prospective area for uranium, and the region where the companies are increasingly focusing their exploration activities, is the Tin Camp Creek area, with the base camp being located at Myra Falls. Queensland Mines Limited (QMPL) commenced exploration in West Arnhem Land in 1970. Three years of radiometric surveying led to the discovery of the Nabarlek uranium deposit and the recognition of several other anomalies in the Tin Camp Creek area, including Caramal (also known as Nabarlek 2), Gorrunghar and Gurrigari. Both Caramal and Gorrunghar were tested for drilling in the early 1970's (Queensland Mines Ltd. 1997).

The Tin Camp Creek exploration licences were granted on the 12th September 1995 for a period of six years and occupy a total area of 670 square kilometres. Exploration activities carried out in 1996 and 1997 included drilling, stream sediment sampling, ground radiometrics, geophysical surveys and geological mapping. Afmeco provided contract geological services to QMPL for segments of the 1997 fieldwork and have since taken over the entire operation. 220 mineral samples were collected during a regional stream sediment survey (see Map 3). Several uranium or uranium-gold anomalies were detected in drainage close to previously known anomalies (Queensland Mines Ltd. 1997). The level of uranium mineralisation at Caramal is as high as 0.33% at one drill site. However, given the current depressed uranium price this is still significantly lower than what Afmeco would require for commercial viability. By way of comparison, the average grade of uranium ore proposed to be extracted at Jabiluka mine by Energy Resources of Australia (ERA) is 0.51%, with a cut-off grade at 0.2%. At the rich Nabarlek deposit the level of uranium mineralisation was 1.98% (www.sea-us.org.au).



Map 3. Tin Camp Creek - 1996-97 Stream Sediment Survey

Source: Queensland Mines Ltd. 1997.

7. Aboriginal concerns – environmental and social impacts of mining and exploration

Background. Aboriginal concerns about uranium need to be seen within the context of past actions by the mining industry and government, the bulk of which have ignored the basic land and human rights of the indigenous people of the Top End. The sorry story of how the Ranger uranium mine and the proposed Jabiluka mine were constructed against the wishes of the Mirrar traditional owners is well known (Fox *et al* 1977; www.mirrar.net). Further to the east on Yolngu country the Nabalco bauxite mine at Gove was imposed on an unwilling local population in the late 1960's and early 1970's. In 1979 the Nabarlek mine was also constructed in the face of opposition and active protest from many local Aboriginal people. The open pit mine was only 1km away from an area of special significance to them - the Gabo-djang, Dreaming Place of the Green Ants. After the mine opened a writ was issued against the operator Queensland Mines Ltd. by a group of local Aboriginal people in an attempt to prevent the company's trucks from continuing to rip up roads and endanger animals and children (Moody 1992).

Uranium mining and milling operations at Nabarlek have resulted in significant environmental impacts. The area around the mine during the one-year ore extraction phase was subjected to radiation levels 'five to ten times higher than predicted', according to the then Minister for Science and the Environment (Moody, 1992). Upon the closure of the uranium mill in 1988, buildings and equipment were supposed to be dismantled and buried in the mine pit, or decontaminated and taken off-site. Yet the Supervising Scientist, in its December 2000 report to the Alligator Rivers Region Advisory Committee, was of the view that 'the rehabilitation of Nabarlek had not yet reached the stage where the mining company (QML) could be discharged of its responsibilities'. A consultant's report prepared at the behest of the company was seen to be lacking in the necessary data to support the conclusions made concerning the success of revegetation at the mine site (Supervising Scientist 2000: p7). Much of the site has been seeded with para grass, a weed which is stifling the growth of other plants. A minesite revegetation workshop was subsequently called by the Supervising Scientist, which the company and consultants declined to attend. This particular episode certainly does not inspire much confidence in the way mine rehabilitation is managed in the area, nor in the long term commitment of the mining companies themselves to ensuring sound environmental management. Unfortunately, these sorts of environmental concerns are not confined to the Nabarlek case but are reflected in mine operations and rehabilitation right across the NT (see www.ecnt.org).

The operational Ranger Uranium Mine in the midst of Kakadu National Park has a long history of destructive environmental and social impacts since it was constructed in

1979-80. Over 90 environmental incidents occurred prior to 1997 which either caused regulatory concern or infringed environmental requirements (The Parliament of the Commonwealth of Australia 1997). Almost every wet season the mine's owner, Energy Resources of Australia (ERA), has had major problems with its water management regime, and regularly releases contaminated water from retention ponds into nearby creeks (see www.sea-us.org.au). These water courses are where local Aboriginal people still collect bushtucker and swim, but there has been very little monitoring carried out by the federal research body, the Office of the Supervising Scientist, on the potential accumulation of contaminants in the environment. The influx of non-Aboriginal workers, institutions, and cultural mores, focusing on the mining town of Jabiru, has also severely disrupted traditional ways of living and lines of authority. The proposed Jabiluka project is further exacerbating many of the problems facing Aboriginal people in the region.

Exploration. Well before mining takes place the environmental impacts of exploration need to be carefully monitored. These impacts can include:

- road, track and camp construction, including increased erosion along access tracks
- fuel and chemical spills
- fire management problems, including an increased incidence of wildfires and the interruption of traditional patterns of burning
- excessive water consumption and radioactive contamination of streams and rivers
- clearance of vegetation along survey transect lines
- the introduction of feral animals and weeds into areas with relatively pristine ecological systems

The **social impacts** can be equally problematic and can include:

- a seasonal influx of Balanda (non-Aboriginal people) at the exploration camps
- disturbance of sacred sites
- displacement of traditional activities and reduced access to bushtucker
- shifts in tribal and clan alliances over country

Companies are currently required by the NLC to have their work plans approved by traditional owners before the commencement of dry season operations. Staff from the NLC, NT Department of Mines and Energy and the Supervising Scientist then carry out on-site safety inspections, with an annual report being presented to traditional owners at the end of the year. If the work plan for the exploration programme is changed for any reason then a new meeting with traditional owners will be held. Unfortunately, as previously indicated, companies are not legally required to stipulate the type of mineral they are looking for. Uranium is therefore not singled out despite its unique and dangerous radioactive properties. In the current legislative framework it is conceivable that traditional owners could find themselves negotiating a uranium mining agreement with a

company that had begun by looking for a different mineral altogether.

Traditional owners are currently paid a small sum as compensation for damage and disturbance to their land. A few traditional owners are employed as liaison officers to make sure that sacred sites are not encroached upon without prior agreement. The Supervising Scientist (2000) reported 'some concerns in respect of road rehabilitation and erosion in some locations' (p9). In their view, overall management performance of the operations, including the management of liquid fuels and oils and the rehabilitation of drill sites, was considered to be good. Despite this, there is ongoing concern about the potential introduction of feral weeds and animals and the ever-present threat of wild-fires due to the alteration of traditional burning regimes (NLC, *pers. comm.*).

An on-site inspection of Cameco's operation in King River in early September 2001 seemed to indicate relatively low direct impacts of exploration activity, in this area of West Arnhem Land at least. With 3 drill sites and a camp providing accommodation and facilities for a crew of 10-15 people for 4-6 weeks, the ecological footprint of the operation is small relative to what would occur if a mine was to proceed. The top photo (overleaf) depicts a drilling rig which is attached to the back of a truck and a small water tank. The middle photo shows the core samples being laid out into trays for further analysis, whilst the bottom photo shows the surrounding woodland with the pipe in the foreground running down to a nearby creek. As far as we know, none of the current uranium exploration campaigns have proceeded to the more intensive bulk sampling phase. The longer term indirect impacts of uranium exploration are more difficult to assess.



Cameco Exploration Site at King River, West Arnhem Land, September 2001.

Drilling rig and water tank



Laying out the uranium core samples into trays

King River, September 2001

Surrounding woodland with water pipe in the foreground

King River, September 2001

Photos by Mark Wakeham



8. The Mining Transnational Corporations

Uranium exploration in West Arnhem Land is dominated by two of the giants of the nuclear industry – Cameco (Canada) and Cogema (France). Cogema's on-the-ground operations are conducted by its subsidiary Afmeco. Rio Tinto (UK/Australia) is also increasing its overall presence in Arnhem Land and is the new majority owner of Energy Resources of Australia (ERA), the operator of the Ranger Uranium Mine in Kakadu and proponent of the Jabiluka project in Kakadu.

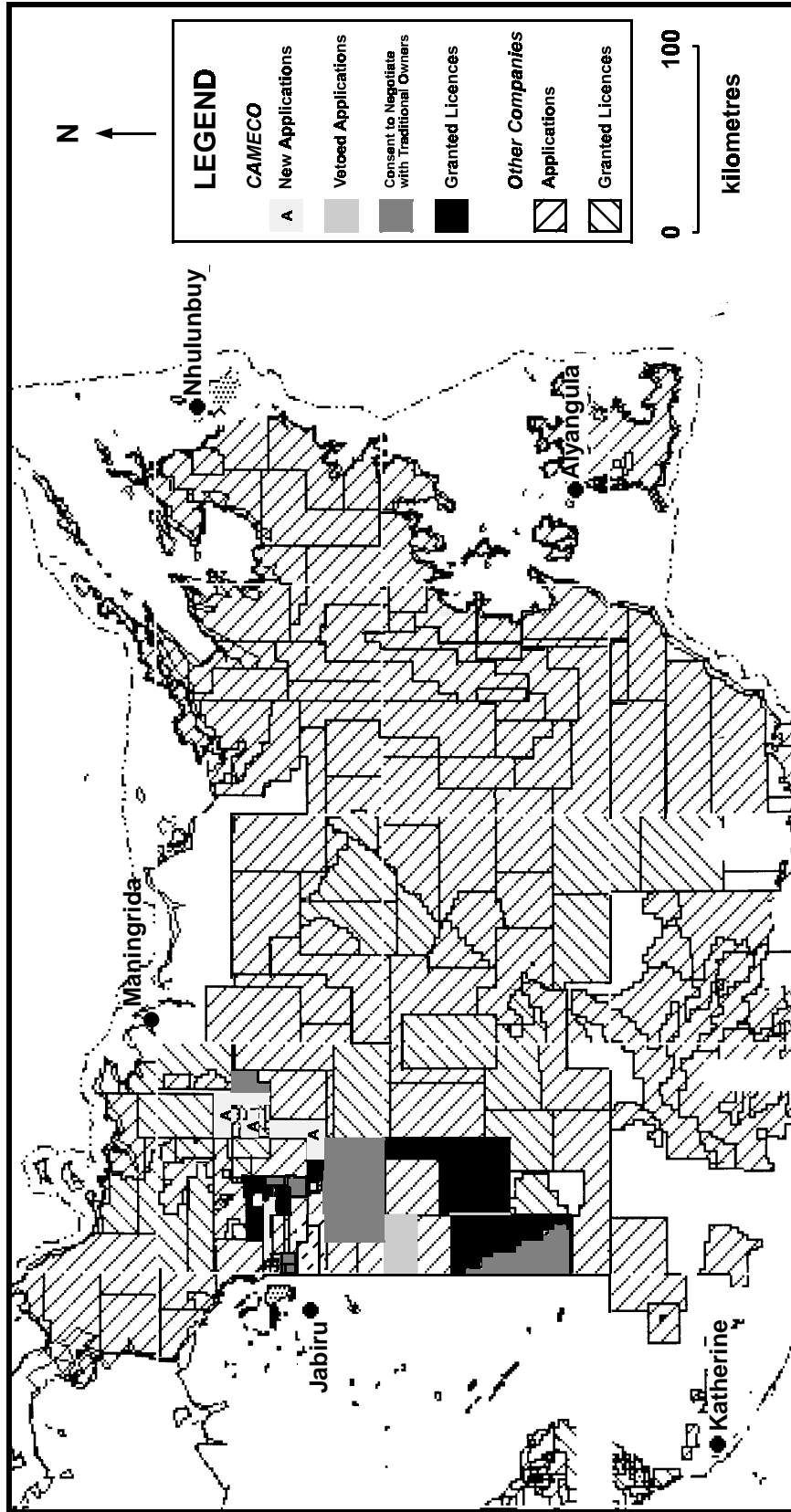
CAMECO (Canadian Mining and Energy Corporation)

Head Office Saskatoon, Canada

Cameco was formed in 1988 through a merger between Eldorado Nuclear and the Saskatchewan Government agency SMDC. It is the owner of the world's largest high-grade uranium mines, Rabbit Lake, Key Lake and McArthur River, all located in Saskatchewan. The company's recently opened mine at McArthur River has an uranium ore grade of 21% (Cameco 2000). Cameco also operates a nuclear fuel processing facility in Ontario and owns the largest uranium mine in the United States. In 1999, the company accounted for about 20% of the world's total uranium production. Cameco has repeatedly been taken to task (and to court) by Native Canadian groups for its negligent environmental management. In November 1989, 2 million litres of radioactive and heavy metal-bearing fluids from its Collins Bay operations flowed into a nearby creek system, for which the company received a \$10000 fine (Moody 1992).

In 1997 the company reported that its Canadian and Australian exploration expenditures had increased by 36% to \$15 million, 'reflecting Cameco's objective to expand its reserve base globally, particularly in Australia' (Cameco Corporation *1997 Annual Report* p30). By 1999 this expenditure had declined to \$11 million.

Cameco announced a \$4 million West Arnhem and Western Australian program for the 1999 dry season. The company has access to almost 20,000 square kilometres of land for exploration (ABC News Radio 7/4/99), including around the King River where it manages the licence areas on behalf of the current joint holders, Japanese corporation PNC and local Aboriginal corporations (ELs 734, 5890 & 5891). Much of the company's exploration has been carried out in joint venture arrangements with other companies, such as Black Range Minerals and its subsidiary UAL. It later announced that no significant uranium deposits were found during the 1999 season (*Annual Report* 2000).



Map 5. Status of CAMECO's Exploration Licences in Arnhem Land, April 2001

Note: Cameco also manages three exploration licences in the King River area on behalf of the holder PNC (Japan).

**COGEMA (Cie generale des matieres nucleaires)
owns AFMECO (Australian-French Metals Corp)
Head Office Velizy Cedex, France**

'Created in 1976, from the Production Division of The French Atomic Energy Agency (CEA), Cogema is now not only the world's single biggest supplier of uranium, but the only company on planet earth which offers every single stage of the nuclear process, from mining to spent fuel re-processing. It is the world's leader ... in supplying electricity services across the whole nuclear fuel cycle ... (and) in handling and reprocessing spent nuclear fuels. While it does not actually build nuclear power stations, it has a strong nuclear engineering wing. While it is not known to construct nuclear missiles, its expertise is essential to the French nuclear bomb programme' (Moody 1992: p203).

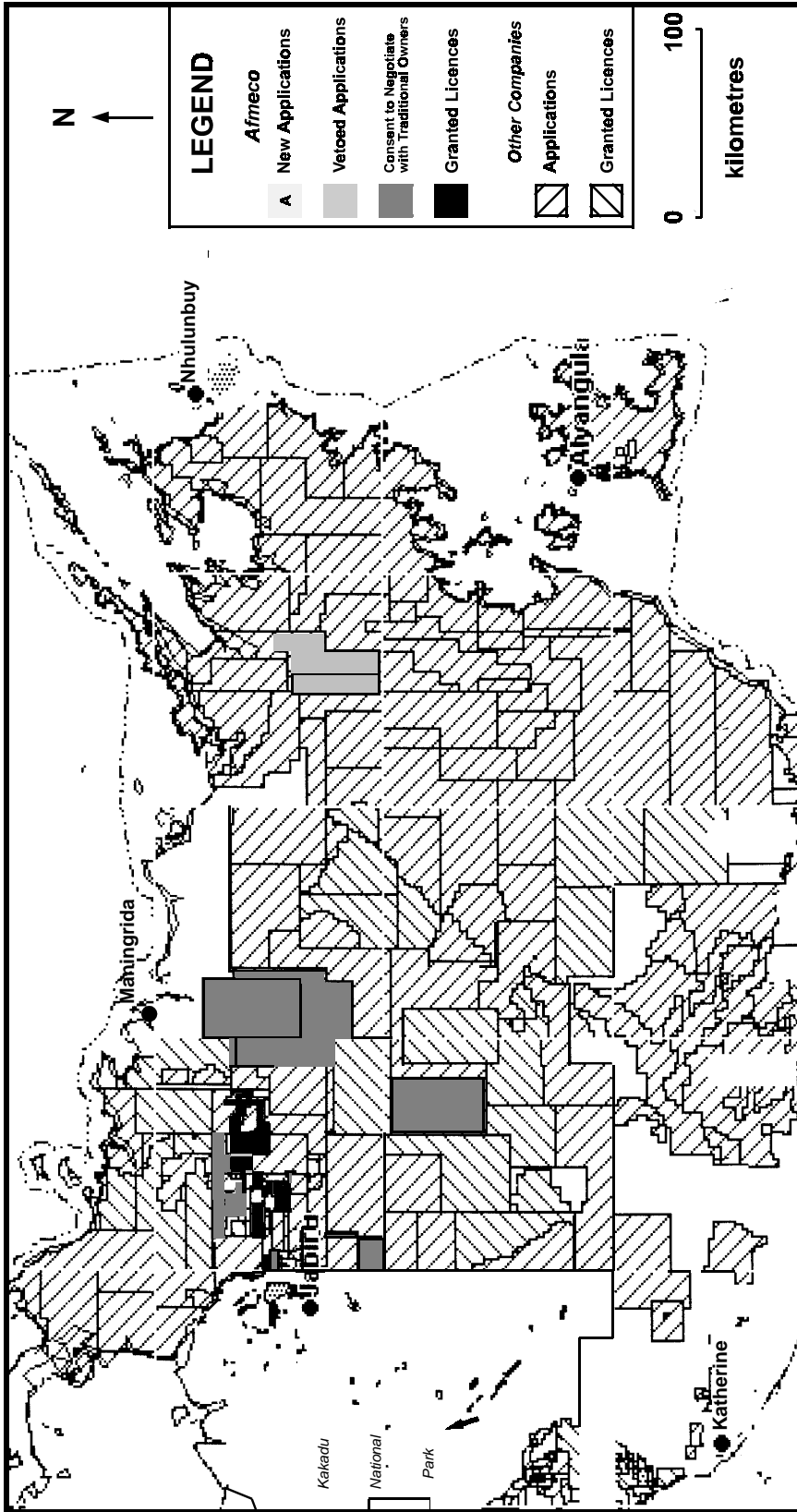
The company operates three uranium mines in France and has key stakes in two large Canadian prospects, Cigar Lake and McArthur River (in joint ventures with Cameco). It also undertakes exploration activities in Africa, South America, Spain and Australia. During the early 1980's in the areas surrounding its French operations there was strong local resistance to uranium mining, including two short-lived blockades. In 1995 Cogema acquired 100% ownership of the Koongarra uranium deposit in Kakadu National Park, whilst it is also a shareholder in ERA, the operator of Ranger uranium mine and proponent of Jabiluka. Following last year's decision by traditional owners to block the development of Koongarra for another 5 years the company closed its Darwin office. Nevertheless, Afmeco Mining and Exploration Pty. Ltd. is a subsidiary of Cogema and has substantial uranium exploration interests in West Arnhem Land.

Rio Tinto

Head Office London UK

As one of the world's largest mining companies Rio Tinto is an extremely powerful international corporation and is one of the world's most aggressive resource companies. Based in the UK and Australia since the merger of RTZ and CRA in 1995, Rio Tinto has resource interests on every continent. Unfortunately Rio epitomises the worst aspects of globalisation with its practice of undermining national regulations and over-riding indigenous landowners.

The controversial Rossing uranium mine in Namibia has been operated by Rio Tinto since it commenced in 1976 in South African occupied South West Africa. The mine operated in clear conflict with anti-apartheid UN sanctions and resolutions. More recently



Map 4. Status of Afmecco's Exploration Licences in Arnhem Land, April 2001

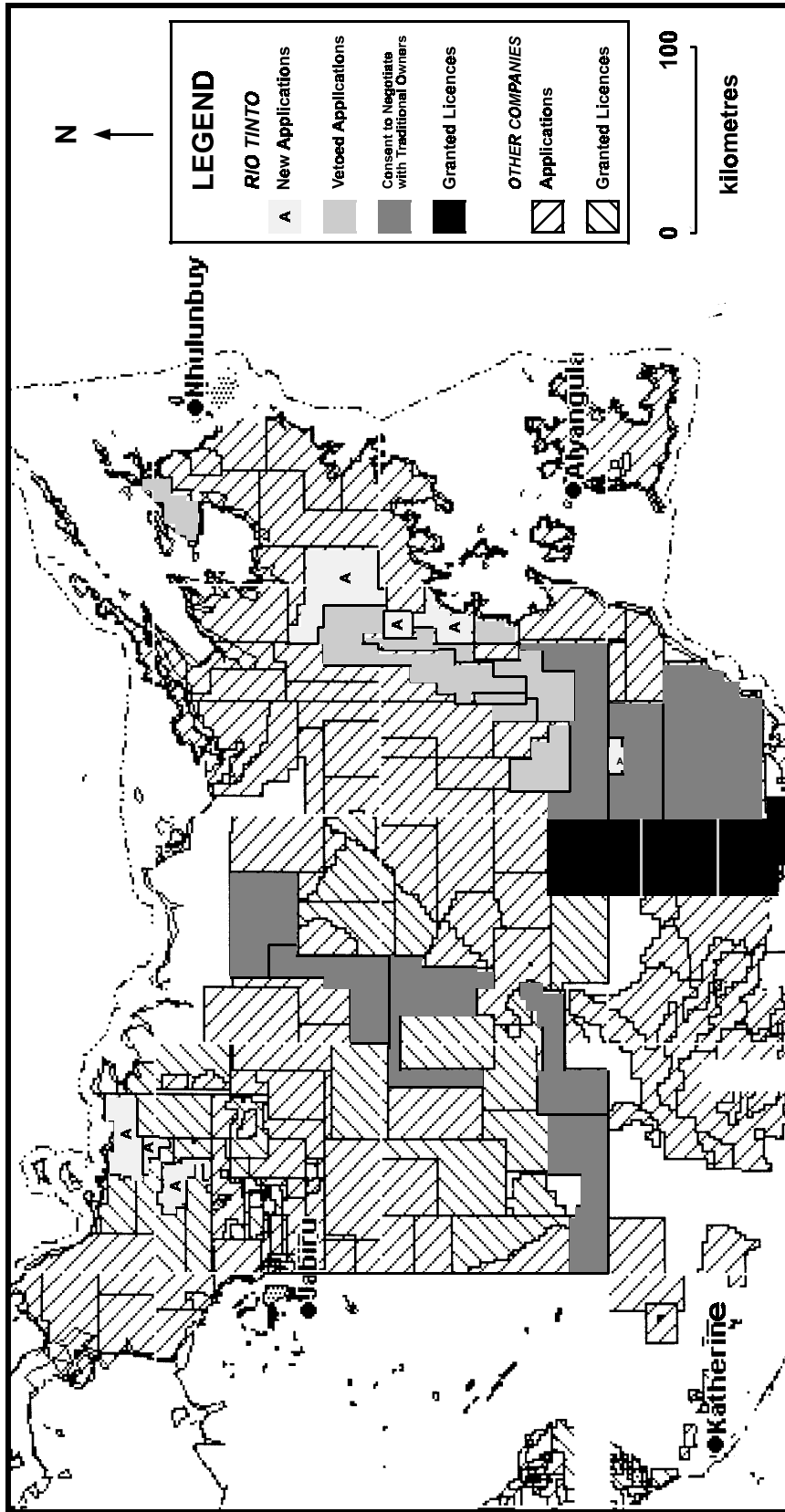
Rio has been the target of a number of compensation claims lodged by workers who contracted cancer while working at Rossing. Rio Tinto has also been involved in a number of notorious mining operations in Australia. CRA operated the Rum Jungle uranium mine in the 1950s and 1960's, which left a legacy of major environmental devastation and deteriorating workers' health. The company walked away from the Rum Jungle mine leaving the Australian Government to foot the bill for over \$23 million. In 2001 there are still problems with acid mine drainage, which continues to contaminate the Finniss River. It is also the owner of Canning Resources, proponent of the Kintyre uranium mine in Rudall River National Park in WA. This project is currently in a state of care-and-maintenance due to the low price of uranium.

Rio Tinto is making rapid inroads into Arnhem Land. In early 1999 it was granted two exploration licences in the south-east around Ngukurr and has since gained two more. It has commissioned a study by Wollongong University into the potential socio-economic impacts of mining in the Ngukurr area in anticipation of any future large-scale operation (Wand and Wilkie 2001).

In August 2000 Rio Tinto became the new majority shareholder in ERA's Ranger uranium mine. In March 2001 it announced that because of the lack of Aboriginal consent, strong community opposition and a weak international uranium market the company did not support the 'short term' development of Jabiluka. This means that Jabiluka would be unlikely to proceed for at least another ten years. Rio Tinto has recently applied for three new exploration licences in the northwest of Arnhem Land in the King River area. The company professes to be mainly interested in bauxite, but these areas have been subject to uranium exploration in the recent past and there has been no public assurance that identified uranium deposits would be left in the ground (Rio Tinto, *pers. comm.*).

9. Uneconomic Uranium

The former NT Government avidly supported uranium exploration activity in the West Arnhem region. In November 1998 it announced \$16 million funding for a five year NT Exploration Initiative which aims to improve the geoscientific data available to the mining industry. This has a particular focus on what is known as 'greenfields' exploration on previously unexplored land. There is reason for some optimism though on the part of those concerned about the environmental and social impacts of uranium exploration. Whilst exploration may be the 'lifeblood' of the mining industry, as former NT Minister of Resource Development Daryl Manzie has argued in Parliament ([http://notes.nt.gov/lant/hansard 20/2/01](http://notes.nt.gov/lant/hansard%202/2/01)), it is also subject to the ups and downs of global commodity mar-



Map 6. Status of Exploration Licences held by Rio Tinto in Arnhem Land, April 2001

kets. Companies such as Cameco are currently vulnerable because of the low price of uranium. The uranium price on the international spot market is now sitting at just US\$9/lb (compared to over \$16/lb back in mid-1996 when a new round of exploration activity in West Arnhem Land took off). Not only is Cameco looking to sell its 6% share in ERA, but it is becoming harder and harder for exploration managers to justify campaigns to head office on financial grounds.

In 2000 Black Range Minerals, which was in a number of joint ventures with Cameco and Afmeco through its subsidiary UAL, decided to disinvest from Arnhem Land uranium exploration. It cited the languishing uranium market as the primary reason for doing so but also mentioned that financing of its Syerston nickel-cobalt project in northern NSW was being made difficult through its involvement in the uranium industry. All of its interests were bought out by Cameco for a mere \$100,000. The recent upsurge in exploration in West Arnhem Land has largely come about due to the relaxation of political constraints on uranium mining under the Howard Government, as well as due to Aboriginal traditional owners feeling fatalistic about their chances of preventing mining in the longer term (McIntosh 2000). Economic constraints, however, may see the companies pack their bags and their core samples and leave the region once again. This time, hopefully, for good.

10. The Way Forward

The Kakadu and West Arnhem regions are unique for both natural and cultural reasons and must be fully protected from uranium mining. We believe that mining companies should be legally required to declare whether they intend to explore for uranium. Traditional owners should then have the power to decide that their land is permanently off-limits to uranium activity. The Land Rights Act should be amended so that consent for exploration and mining are differentiated and regarded as discrete and distinct steps in the negotiation process. This would allow traditional owners to negotiate disjunctive agreements as was the norm before 1987. Current legislative requirements unfairly favour mining corporations. These companies clearly have disproportionate power and already possess more than sufficient resources to help facilitate their ambitions. It is poor policy which sacrifices human and environmental rights to the corporate imperatives of the uranium mining companies – their interests should not be allowed to prevail over those of traditional owners.

Further Information

For official Exploration Licence information and an up-to-date depiction go to the **NT Department of Mines & Energy** website - <http://www.dme.nt.gov.au/tis>

Unfortunately the map on the above site, whilst using impressive GIS technology, does not make a distinction between applications under veto and those with consent to negotiate status. Nor is information on specific titleholders available to unregistered users. However, it is easy enough to register by simply filling in the on-line application form. Then click on 'select features' on the tool bar for details on the status of particular Exploration Licences. Unregistered users can still get very basic information by clicking 'locate map' on the tool bar.

Other sources include:

Environment Centre Northern Territory – <http://www.ecnt.org>

Australian Conservation Foundation – <http://www.acfonline.org.au>

Uranium Research Group - <http://www.urg.org.au>

Sustainable Energy and Anti-Uranium Service - <http://www.sea-us.org.au>

Northern Land Council – <http://www.nlc.org.au>

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Appendix

Catalogue of Granted Exploration Licences in Arnhem Land February 2001

See the following map of West Arnhem Land for the location of particular exploration licences. Licences with past, current or potential uranium exploration programs are noted with an asterisk*.

Also note that PNC Exploration (Australia) Pty. Ltd.'s exploration licences are now managed by Cameco.

327-329 De Beers Diamond Services Pty. Ltd (100% share)
Granted 14/5/98 Expires 13/5/04

734* PNC Exploration (Australia) Pty. Ltd. (98% share), Nadjinem Aboriginal Corporation (2%)
Granted 13/5/96 Expires 12/5/02
Past licence holder: Umetco Minerals Exploration Corporation

2505-2507*, **2516-2517***, **7029***, **9354*** CAMECO Australia Pty. Ltd. (49% share), COGEMA Australia Pty. Ltd. (24.5%), S.A.E. Australia Pty. Ltd. (24.5%), West Arnhem Corporation Pty. Ltd. (2%)
Granted 12/9/95 Expires 11/9/01
Past licence holder: Queensland Mines Pty. Ltd. (49%)

2855*, **2858*** PNC Exploration (Australia) Pty. Ltd. (100% share)
Granted 25/7/00 Expires 24/7/06

3340 Stockdale Prospecting Limited (100% share)
Granted 14/5/98 Expires 13/5/04

3346* Ernest Henry Mining (80% share), Savage Australian Exploration Pty. Ltd. (20%)
Granted 6/9/00 Expires 5/9/06

3347* AFMECO Mining and Exploration Pty. Ltd. (19.6% share), S.A.E. Australia Pty.Ltd. (19.6%), U A L Pty. Ltd. (19.6%), Savage Australian Exploration Pty. Ltd. (19.6%), Kumagai Gumi Co. Ltd. (19.6%), Kunbohwinjgu (Fresh Water) Aboriginal Corporation (2%).
Granted 28/7/97 Expires 3/4/03
Past licence holder: Ernest Henry Mining (100%)

3419* Kumagai Gumi Co. Ltd., U A L Pty. Ltd., Kun' nanj Aboriginal Corporation.
Granted 4/4/97 Expires 3/4/03

3589* AFMECO (36.75% share), S.A.E. Australia Pty. Ltd. (36.75%), Macapa Pty Ltd. (24.5%), Namarrkoon Aboriginal Corporation (2%).
Granted 18/11/97 Expires 17/11/03
Past licence holder: New World Oil (100%)

3590* AFMECO (36.75% share), S.A.E. Australia Pty. Ltd. (36.75%), Macapa Pty Ltd. (24.5%), Erre Aboriginal Corporation (2%).

Granted 18/11/97 Expires 17/11/03

Past licence holder: New World Oil (100%)

5061-5062* CAMECO Australia Pty. Ltd. (100% share)

Granted 27/5/97 Expires 26/5/03

5890* PNC Exploration (Australia) Pty. Ltd. (98% share), Yok Aboriginal Corporation (2%)

Granted 13/5/96 Expires 12/5/02

5891* PNC (98% share), Warrga Aboriginal Corporation (2%)

Granted 13/5/96 Expires 12/5/02

Past licence holder: Arnhem Land Mining (100%)

5892* PNC Exploration (Australia) Pty. Ltd. (100% share)

Granted 25/7/00 Expires 24/7/06

5954, 9275 Rio Tinto Exploration Pty. Ltd. (100% share)

Granted 29/3/99 Expires 28/3/04

6352, 6354 Normandy Exploration Limited (97.5% share), Margalkmi Aboriginal Corporation (1.25%), Bongoi Aboriginal Corporation (1.25%)

Granted 13/11/95 Expires 12/11/01

6354 Normandy Exploration Limited (97.5% share), Margalkmi Aboriginal Corporation (2.5%)

Granted 13/11/95 Expires 12/11/01

6355 Normandy Exploration Limited (97.5% share), Bongoi Aboriginal Corporation (1.25%)

Granted 13/11/95 Expires 12/11/01

8436 Normandy Exploration Ltd. (90% share), Bongoi Aboriginal Corporation (10%)

Granted 15/11/95 Expires 14/11/01

8437 Normandy Exploration Ltd. (100% share)

Granted 24/3/98 Expires 23/3/04

9279 Northern Aboriginal Investment Corporation Pty. Ltd. (100% share)

Granted 24/3/98 Expires 23/3/04

9969 Stockdale Prospecting Limited (100% share)

Granted 1/6/98 Expires 31/5/04



LEGEND

- A** Applications
- 8307 Granted Title
- 8307A Applications over Aboriginal freehold land with consent to negotiate
- 8307 Applications vetoed by the traditional owners
- Significant Uranium Deposits
- Approximate extent of the Alligator Rivers Region uranium field

Exploration Licences in West Arnhem Land – February 2001