



Uranium mining in the Alligator Rivers Region



Kakadu National Park © Department of the Environment and Energy

The Alligator Rivers Region (ARR) is located about 220 km east of Darwin in the Northern Territory of Australia. The ARR includes Kakadu National Park which is a World Heritage area and listed under the Ramsar convention on wetlands. It is also internationally recognised for more than 60,000 years of continuous human habitation, prolific rock art, outstanding diversity of flora, fauna and landscape, and expansive areas of pristine wilderness.

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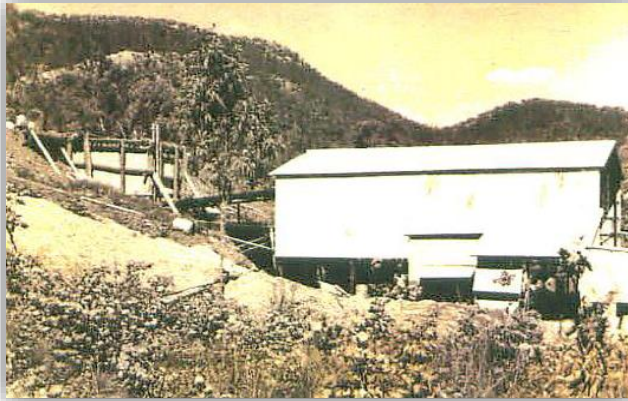
The ARR of northern Australia is a geologically unique and highly prospective area for minerals, particularly uranium. The uranium deposits of the South Alligator Valley were first discovered in 1953 when the Coronation Hill site was identified. In the seven years following, more than 20 potential uranium deposits were found, of which thirteen were exploited between 1959 and 1965. The total production for this field was approximately 840 tonnes of U_3O_8 . There were no formal environmental regulations throughout this period and mining legislation



*Former uranium mill, South Alligator Valley ©
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was essentially concerned with the tenure of the leases and some aspects of mine safety. In addition, there was no requirement for complete rehabilitation of any of these sites and they were generally just abandoned. This included infrastructure ranging from a small mill and solvent extraction plant, to contaminated process ponds, roads and tracks as well as open cut mines and mineshafts.



Mining in the ARR between 1956 and 1964

The 1960s brought a renewed demand for uranium for nuclear generated electricity and exploration activity rose sharply. Uranium exploration recommenced in the Alligator Rivers Region in the mid-1960s and four major deposits were identified. These were Ranger in 1969, Nabarlek and Koongarra in 1970, Jabiluka orebody 1 in 1971 and Jabiluka orebody 2 in 1973.

Current status of uranium mines in the ARR

Ranger is currently the only operational uranium mine in the ARR. Mining at Ranger ceased in 2012, however processing of stockpiled ore is continuing until 2021. Rehabilitation activities at Ranger have already commenced, and all rehabilitation works must be complete by 2026. The Jabiluka lease is currently in long-term care and maintenance after initial stages of development were halted in 1999 under an agreement between Traditional Owners and the Mining Company. Nabarlek ceased mining and milling activities in 1988 and has now been decommissioned and substantially rehabilitated. The Koongarra mining lease was incorporated into Kakadu National Park in 2013.



Ranger uranium mine © Supervising Scientist

There are also a number of former uranium mines in the South Alligator Valley of the ARR, which were subject to mining activity during the 1950s and 1960s. In May 2006, the Australian Government provided funding over four years for their rehabilitation. A containment facility was constructed in 2009 at the old El Sherana airstrip for the final disposal of historic uranium mining waste recovered from several sites throughout the South Alligator River Valley, and is now the responsibility of the Australian Government Director of National Parks.



El Sherana radiological containment under construction, South Alligator Valley © Supervising Scientist