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# Mine rehabilitation and Indigenous cultural values

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## Acknowledgement of country

I acknowledge the Larrakia people as the Traditional Owners of the Darwin region. I pay my respects to the Larrakia elders past and present.





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I am an ex-miner





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## Today's presentation

- Effects of mining
- Country and Indigenous health
- Previous work on restoring Indigenous cultural values to mined land
- My research





## Land degradation which may be caused by mining

- Vegetation removed
- Fauna absent
- Contours changed
- Large rocks lying around
- Surface water polluted with runoff
- Groundwater flow changed / contaminated
- Salinity
- Heavy metal residues







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## Minimum standards for mine site rehabilitation

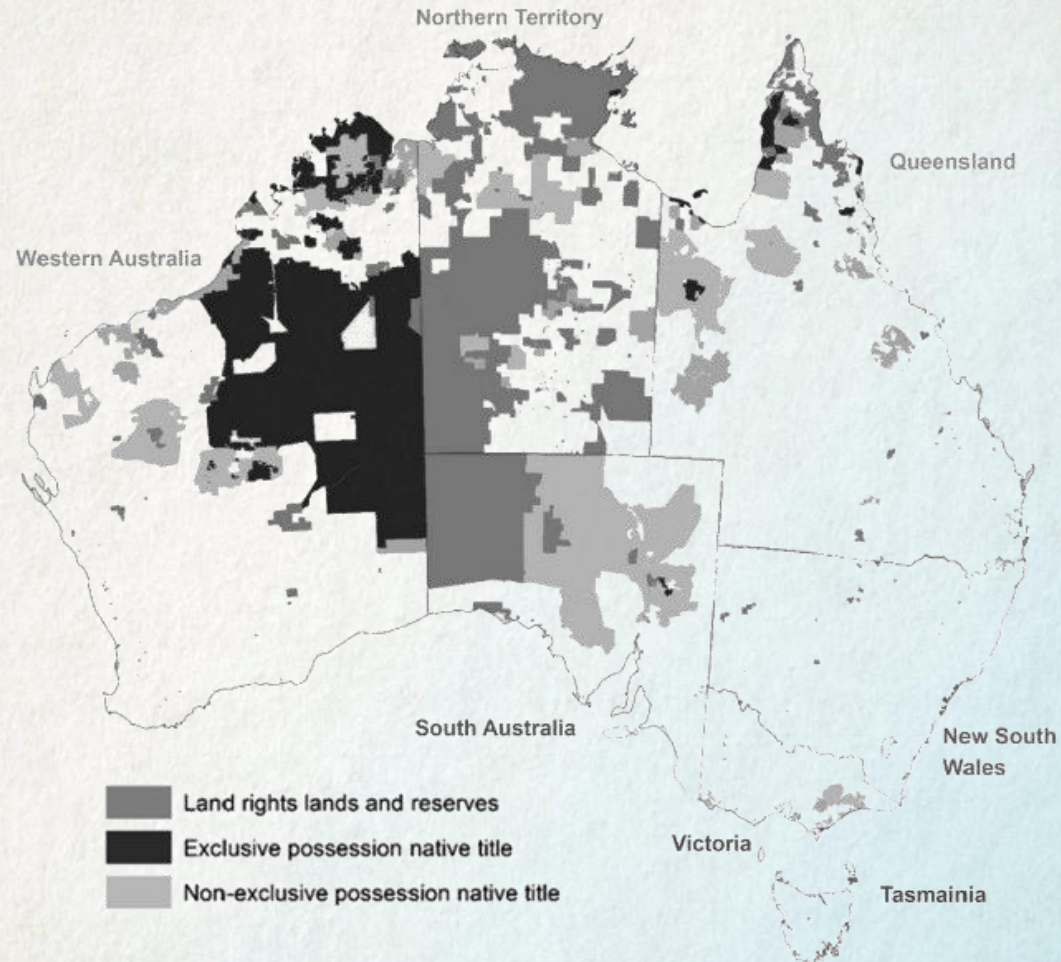
### Assessment criteria:

- Safe and stable landforms
- No erosion
- Revegetation
- No offsite impacts on water quality
- Comparison with similar sites nearby





# Indigenous owned land in Australia







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## Mines on Indigenous land

- Approximately 50% land in the NT is Indigenous owned
- Nine currently operating mines in the NT





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## Indigenous land use potentially affected by mining

- Camping
- Caring for country
- Hunting
- Harvesting bush food
- Teaching young people bush skills
- Performing rituals





“In relation to future rehabilitation activities, it would be inadvisable to deliberately plant edible fruiting trees or vegetables on the site”

(Rehabilitation at Nabarlek: Radiological issues - Martin, Tims & Ryan, 2000)





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[nt.seedmob.org.au](http://nt.seedmob.org.au)

**Country:** the land, sea, and sky to which a person or group of people belong.

Includes people, plants, animals, spirits, songs, and stories





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## Caring for country

*If you look after Country, Country will look after you*



Fire management in the Katiti Petermann Indigenous protected area





## Caring for country



Setting a camera for a biodiversity survey





## Indigenous health

“Health benefits for Aboriginal people through their involvement in caring-for-country [and] social benefits occurring as by-products of Aboriginal involvement in caring-for-country [have been shown to be fundamental to addressing chronic disease]”

(‘Aboriginal involvement in caring-for-country: an economic case study in primary preventative health’, Campbell 2015)





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## Indigenous health

- Health and life expectancy is much worse for Indigenous people than for non indigenous people
- Caring for Country brings health and wellbeing benefits
- To care for Country, it must be accessible and fit to live on
- Restoration of Indigenous cultural values as part of mine site rehabilitation will help improve Indigenous health outcomes





## What has been done so far?

### Developing cultural criteria for use in planning rehabilitation

- Canadian and Yukon Governments collaborated with First Nations to develop a remediation plan for the Faro mine, their input was considered necessary for proper process.
- Cultural heritage attributes were taken into account in developing a rehabilitation plan for Rum Jungle mine because they are essential for successful rehabilitation.
- Energy Resources Australia (ERA) carried out detailed consultations with TOs of Ranger mine to determine the post mining land use for planning rehabilitation.





## What has been done so far?

Incorporating Indigenous cultural practices into day-to-day mine operations

- Argyle diamond mine in WA developed a culture which involved local Indigenous people in the day to day running of the mine. A traditional smoking ceremony welcomed new employees to Country and the Indigenous people performed other rituals on the mine site – including to increase production.





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## Why does it matter?

- Doing the right thing
- Social licence to operate
- Better Indigenous health outcomes
- Better for the environment
- Doing it right first time costs less than having to do it again later





## My research

- What Indigenous cultural values relate to rehabilitation of mined lands?
- How well does mine rehabilitation restore the cultural landscape?
- Can this be improved?
- Do current success criteria for mining rehabilitation adequately assess the restoration of Indigenous cultural values?
- What is required to plan rehabilitation which incorporates restoration of Indigenous cultural values?





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## My research

- Interview Traditional Owners of mined land
- Interview environment professionals with experience in mine site rehabilitation
- Produce a report to assist Traditional Owners and mining companies plan rehabilitation which includes restoration of the cultural landscape





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Thank you!