

**Submission for the Senate Standing Committee on Environment,  
Communications and the Arts (10017586)**

*Preliminary works*

In early 2003, Matilda Minerals Limited (MAL) approached the Tiwi Land Council (TLC) to obtain permission from the local landowners to gain access to the Tiwi Islands to conduct mineral exploration with a view to develop a mineral sands orebody. This initial approach was initially rejected by the Tiwi landowners who were uncomfortable with the concept of a large-scale mining operation, which they feared would be similar in scope to that which they had seen at bauxite operations elsewhere in northern Australia.

Further presentations were made to the Tiwi Land Council, and to five landowner groups who might be affected by these operations, specifically, to those who resided on coastal regions that were of interest to MAL. These presentations aimed to demonstrate the size and scope of the prospective mineral sands mining operations, emphasizing that the works were anticipated to be short term in nature, would involve no chemicals, and that the mined areas would be backfilled and rehabilitated. This was also the opportunity to explain the benefits of this operation to the affected Tiwi landowners, ranging from the use of roadworks to be installed, structures that may be left behind, royalties to be earned, trades and jobs to be created for Tiwis, and they saw that they could play an active role in the future of the operations.

Once this understanding was accepted, the TLC agreed to support MAL's initial application for an Exploration Licence. It was only after these consultations that MAL lodged further applications with the NT Government. The first application was lodged in April 2003; a number of others were subsequently lodged in June 2004. The first tenement was granted in April 2004. MAL listed on the ASX in September 2004, and soon thereafter commenced exploration on the granted tenements.

During the application process, MAL was required to negotiate an Exploration Access Agreement with the affected landowners. This included an area-based rent which was paid annually to the local landowners, of approximately \$100,000 per year. The payment was made directly to the TLC, who then paid amounts to the relevant affected landowner groups. This was meant to compensate landowners for any disturbance and nuisance arising from exploration activities.

The Agreements also identified the requirement to conduct European and Aboriginal surveys and consult with the Aboriginal Heritage Council to identify any known significant sites. No such sites were identified in the operating areas; however, some nearby sites were identified, exclusion zones were noted, and our exploration personnel were so advised. At all times it was observed that the TLC acted at the behest of the landowners and were diligent in consulting with all affected persons. It was also noted that the landowners had an innate knowledge of the

country which MAL was accessing and were very cognizant of the effect we would have on their land, and the methods that we would employ to rehabilitate the cleared areas.

Within the TLC there is an environmental manager, and a training program for Land Rangers. The environmental manager was involved in the process of completing the Access Agreements and in the production of the Environmental Impact Statement (EIS).

Of particular concern to the environmental manager was the protection of species that have had limited studies, which included the Masked Owl, Red Gosshawk, Butler's Dunnart and various turtle species. Studies were conducted to collate information on all of these species on regular intervals during the exploration and mining processes. Of particular concern were studies for turtle species that nested on the Tiwi Islands.

MAL commenced turtle surveys in October 2004 and they continue to today. Very early in the study it was apparent that the mortality rate for turtle eggs was extremely high, to the point that after the first eight months of the survey, not a single egg was noted to hatch in the survey areas immediately adjacent to the proposed mining area at Andranangoo West. The high mortality rate was due to nests being disturbed by wild dogs, dingoes, and native reptiles. Following this revelation, a program was established with assistance from Darwin University, to attempt to improve the hatching rates. The programs included investigating potential to recover eggs and have them hatched in controlled conditions in Darwin and then released on the Tiwi Islands. At the same time, recent research indicated that hatchlings return to their birth place later to lay eggs, and that having them hatch in Darwin may disrupt this natural event. A simple but effective alternative was developed over the next 12 months involving pegging a plastic net over the nest immediately after the eggs were laid. This prevented predators from disturbing the nest. The success of this program was demonstrated when 10 of the first 13 nests that were protected in this way successfully hatched. The program continues today, guaranteeing that many hatchlings survive and proceed to the ocean.

### ***Mining works***

Before mining was undertaken, a Mining Agreement was executed with the TLC, the Tiwi Trustees, and the affected landowners, for mining to commence at Andranangoo West. This agreement included a landowner royalty equivalent to 5% of the gross sales of product from this area. This was estimated to be up to \$750,000 per year. The royalty was to be paid to the TLC which would forward the funds to the landowners following a submission, including a business plan, as to how the funds were to be spent. The first royalty payment was in fact used to buy a truck-mounted concrete agitator to be operated by a Tiwi team in the construction of houses on the Tiwi Islands.

As this was a short-term mining proposal, there were limited opportunities for short-term employment and training, so it was always intended that the royalty paid would be above the industry standard, and would allow landowners to invest funds for long-term benefits.

### ***Concentrate Shipment***

The initial mining studies had investigated using barges to access the remote sites proposed for mining, as distinct from constructing roads. However, during consultation with the landowners, they indicated it was preferable to construct roads to some of these areas which previously only had bush tracks to these remote locations. MAL agreed to construct a haul road which connected to the island's arterial road system to truck concentrate to the recently constructed

wharf at Port Melville. A 50 kilometre road, suitable for concentrate haulage was constructed at a cost exceeding \$500,000. Through the use of new satellite technology, the road was located on high ground where it is well drained and requires minimal maintenance. This gave the Tiwis a lasting asset. Through the Tiwi Island Local Government, local Tiwis were hired to assist in the road construction.

Once ore was hauled to Port Melville, it could be shipped out of the newly built deepwater port, which was shared with Great Southern Plantations, a tree plantation operation. After commencing operations at Andranangoo in 2005, MAL successfully shipped two shiploads of concentrate to China in July 2006, utilising the combination of the new haul road and wharf. Following a further shipment in July 2007, and just before an impending shipment, the wharf collapsed in August 2007. No explanation has been received from the operators of the wharf as to why the port collapsed, despite a number of engineering studies. The ramifications of the wharf collapse stymied MAL's operations, as alternative methods of shipping and movement of ore had to be evaluated, eventually leading to the use of additional costly barges to tranship concentrate to vessels moored offshore from the wharf, which then carried it to China. The wharf was integral to the production strategy undertaken by MAL, and its being out of operation severely affected the company's future.

### ***Operations***

Clearing and construction of a camp area commenced in July 2005, with the plant commissioning commencing October 2005, in anticipation of full production being reached by the end of 2005. Mining operations consisted of clearing vegetation and stockpiling topsoil, with excavation undertaken to an average of 2.5 metres in depth. As part of the processing sequence, the plant tailings were deposited back into the excavated void. With this sequence of mining, only a small area at any one time was being excavated. Rehabilitation was undertaken simultaneously, so that only a small area was being impacted by mining at any one time. After the tails were deposited, the area was rehabilitated by reshaping, replacing the topsoil, and seeding with local varieties.

The processing circuit was made up of gravity spirals which required no chemicals. Water was sourced from local fresh groundwater so ultimately the mined material, less approximately 5% extracted heavy minerals, was replaced whence it came. After processing, the concentrate was stockpiled and later transported to the wharf for shipping. Due to the climatic conditions in this area of northern Australia, the haulage operations were only conducted in the dry season, however mining and processing operations were able to be conducted all year around. Mining operations were limited to daylight hours, however processing was conducted 24 hours/day. Personnel were housed in a typical transportable mining camp, with up to 30 people at any one time on site involved in the project. During this time there were three or four Tiwi operators directly involved in the project at any one time, however as part of the haulage operations, the Tiwi Islands Local Government (TILG) were contracted for road maintenance which meant that additional Tiwis were employed by MAL. Although this was a short-term project, there were still limited transferrable training opportunities for Tiwis. Matilda has proposed that the mining camp would be offered to the TLC to lease out as a fishing or hunting lodge, which may be of long-term commercial benefit to landowners. Final details are yet to be resolved.

As part of the rehabilitation process, it was the intention of MAL to collect seeds locally as well as to propagate some varieties that do not grow very well from seed. To this end, MAL contracted the Land Rangers in the seed collection and propagation activities. A contracted seed collector conducted seed collecting method classes, and MAL paid for the re-

establishment of the market garden at Milikapiti to allow the land rangers to undertake the propagation of seedlings. Ultimately the re-establishment of the local nursery, which included reconnection of power and water supply, allowed the Tiwis to develop the market garden and supply fresh vegetables to the local community. The Tiwis were, through the Land Rangers, involved in the whole process of flora and fauna surveys to the final rehabilitation stage.

### ***Conclusion***

Matilda Minerals has proven itself to be a responsible company in all facets of dealing with the local landowners in their operations on the Tiwi Islands, having liaised with Tiwis at all levels from conception to final mining and shipping of their products.

The Tiwis have been a willing partner in this project, and are the benefactors on many levels of assistance from Matilda Minerals, from their consultative input, to the training and hiring of Tiwis, to their inclusion in the Site inspections, to their working on the road construction, seed and plant propagation, rehabilitation of the mined area, to taking over the roads and structures for future use, and are recipients of a higher than standard royalty to contribute to the betterment of their lifestyles. The Tiwis have proven themselves able partners in such a venture that is mutually beneficial to all parties concerned.

This submission has been compiled by and reflects the views of the undersigned.

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