

Mining Management Exploration Activities

Northern Territory of Australia – Mining Management Act 2001

It is recommended that the Mining Management Plan (MMP) is completed in conjunction with the user guide available on the [Northern Territory Government website](#).

Section 1 – Project Details

Project Name Provide new or existing project name	Barkly Super Project – EL32297, EL32298
Authorisation Number Insert existing authorisation number, where applicable	TBA
Operator Name Use ASIC-ABR registered name (if a company), or name of the applicant	Barkly Operations Pty Ltd (wholly owned subsidiary of Middle Island Resources Ltd)
Operator ABN and ACN numbers	ACN 641 856 706 ABN 75 641 856 706
Location and Access Details Include brief description of the location, access details, and distance to nearest town or community	The tenements are centred approximately 200km east of Tennant Creek, predominantly north and east of the Barkly Roadhouse. The proposed work areas are bisected by the Barkly and Tablelands Highways which provide excellent access along with station tracks.
Target Commodity Details Include target mineral commodities (i.e. gold, copper etc.)	Gold, Base Metals
Mining Activities Summarise the mining activities (exploration) to be the subject of the proposed Authorisation or Variation. Drilling programs over a maximum of four years are supported and encouraged and can be staged. Please refer to the guidelines for further information.	RC precollars with diamond tails.

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<p>Proposed Schedule Include start and finish dates of ground disturbing work</p>	<p>Commence late May 2022 to early June. Complete November 2022</p> <p>Contractors will be housed at the Barkly Roadhouse accommodation.</p>
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Mining Interest and Land Ownership

List the mining interests (titles), the title holder name/s, the title expiry date and the Property name/Land holder (e.g. pastoralist or Aboriginal land trust) for each title.

Title Number	Title Holder	Expiry Date	Underlying Property Name or Land Holder
EL32297	Barkly Operations Ltd	17/12/2026	Dalmore Downs Bronco Yard Pty Ltd as trustee for the Long Yard Trust
EL32298	Barkly Operations Ltd	17/12/2026	Dalmore Downs Bronco Yard Pty Ltd as trustee for the Long Yard Trust

A signed Land Access Agreement (LAA) is located in Appendix 12.

Organisational Structure

Position Title	Name
Managing Director	NA
General Manager	Brad Marwood
Exploration Manager	Paul Frawley

Section 2 – Operator Self-Assessment of the Environmental Risk

The purpose of this self-assessment is to ensure Operators complete a project risk assessment of potential environmental impacts and are aware of other legislative obligations from various Agencies. As a result of this self-assessment, further information may be required in the form of a management plan to enable full assessment of the MMP. If you have any queries please contact a Mining Officer prior to submitting the MMP. Useful resources to assist with this self-assessment are provided in the User Guide.

Environmental considerations

ASSESSMENT ASPECT	YES or NO	ACTIONS REQUIRED (if answered YES)	APPENDED INFORMATION (e.g. evidence of consultation with DEPWS and/or management plan where required).
<p>Step 1: Are there any threatened flora and fauna species or habitats of significance that may occur in the proposed work area?</p>	<p>Yes</p>	<p>Consulted EPBC Protected Matters Search Tool.</p> <p>In May 2022, CDM Smith prepared a Biodiversity Report over ELs 32297 and 32298. One mammal, six birds and one reptile species are listed as threatened and may occur within habitats within the project area. Two of the species are listed under the Territory Parks and Wildlife Conservation Act 1976 (TPWC Act) and eight species listed under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).</p> <p>Five of the threatened species are listed as unlikely to occur within the licences. The Curlew Sandpiper, Grey Falcon and Plains Death Adder are the only species that have a possible likelihood of occurring.</p> <p>No threatened flora species have been recorded within the project area.</p> <p>A Threatened Fauna Species Management Plan (contained in the Biodiversity Report), will be followed by Barkly Operations to ensure impact on Threatened Fauna Species is minimised.</p>	<p>Consulted EPBC Protected Matters Search Tool. Attached at Appendix 9.</p> <p>CDM Smith Biodiversity Report at Appendix 9</p>

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ASSESSMENT ASPECT	YES or NO	ACTIONS REQUIRED (if answered YES)	APPENDED INFORMATION <small>(e.g. evidence of consultation with DEPWS and/or management plan where required).</small>
Step 2: Are there any known declared weeds within the proposed work area?	No	DEPWS – Tennant Creek Weed Management Branch was consulted- no matters of specific concern. The company’s weed management protocols are attached. CDM Smith also assessed the licences for weeds. Four species of weeds were found to potentially occur within the licences. CDM Smith prepared a Weed Management Plan (contained in the Biodiversity Report), which Barkly Operations will follow.	Weed Management Plan attached within Biodiversity Report in Appendix 9.
Step 3: Will you be using water from bores or other sources for the operation?	Yes	From existing pastoral lease dam or bore. Consultation with pastoral leaseholder. The licences are not within a water control district and less than 5ML/ year will be used, therefore a water extraction licence is not required.	<i>Water Act</i>

Environmental assessment and cultural considerations

ASSESSMENT ASPECT	YES or NO	MANAGEMENT REQUIREMENTS
Step 4: Is your project likely to have a significant impact on the environment?	No	Consulted NTEPA Environmental Factors and Objectives Guideline.
Step 5: Are there Aboriginal sacred sites in the Project area?	No	An Abstract of Records was obtained by the AAPA in April 2022. A registered sacred site and restricted works area are within EL32298. Middle Island are aware of these sites and will not enter these areas. Field personnel will be advised not to enter the registered sacred site and restricted works area. Middle Island will inspect areas for potential artifacts and scatters before clearing and any suspected artifacts and scatters will be reported to the Heritage Branch and AAPA. A copy of the AAPA Abstract of Records is attached at Appendix 1.

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ASSESSMENT ASPECT	YES or NO	MANAGEMENT REQUIREMENTS
<p>Step 6: Are there archaeological and heritage sites in the Project area?</p>	<p>No</p>	<p>A search was conducted of the NT Heritage Register in April 2022. NT Portions 773, 5737 and 5738 were searched on the NT Heritage Register, where no heritage results were found.</p> <p>The NT Heritage Register Results are found in Appendix 2.</p> <p>A heritage and archaeological search was provided from the Heritage Branch in April 2022. The results showed that there are no nominated, provisional or declared heritage places located within those areas and there are also no previously recorded Aboriginal archaeological sites within those particular areas. The Heritage Branch recommend that archaeological surveys are conducted of any areas that will be subject to ground disturbance. Middle Island obtained an AAPA Abstract of Records, which provides the current recorded sacred sites and restricted works areas within the licences. Middle Island will inspect areas for potential artifacts and scatters before clearing and any suspected artifacts and scatters will be reported to the Heritage Branch and AAPA.</p> <p>The Heritage Results are Provided in Appendix 3.</p>

Section 3 – Amendments

As per Section 41(3) of the *Mining Management Act*, an MMP reviewed and amended under Section 41(1)(a) is to have amendments made since the previous MMP submission clearly identified.

Section	Amendment

Section 4 – Activities Proposed for this MMP only

Provide relevant EL numbers

Mining Interests (i.e. titles)	EL32297	EL32298
Number and type of proposed exploration drill	9 X RC with Diamond Tails	5 X RC with Diamond Tails
Maximum depth of proposed holes (m)	800	800
Number and size of drill pads to be cleared (Length: 25 m x Width: 12 m)	9 25m x 12m	5 25m x 12m
Total area of drill pads to be cleared (ha)	0.27 Ha	0.15 Ha
Number of proposed water bores	NA	NA
Is drilling likely to encounter groundwater in multiple or confined aquifers? (Y, N, unsure) If answering yes, please provide the number of exploration holes	Y	Y
Number of costeans	NA	NA
Volume to backfill costeans (Length: m x Width: m x Depth: m)	NA	NA
Number of bulk sample pits	NA	NA
Volume to backfill bulk sample pits (Length: m x Width: m x Depth: m)	NA	NA
Bulk sample pits approved under <i>Mineral Titles Act</i> ? (Y or N). If Yes provide approval	NA	NA

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Mining Interests (i.e. titles)	EL32297	EL32298
Line/track clearing: (length m x width 3m)	2.38km X 0.003km	4.87km X 0.003km
Area of proposed line/track clearing (ha)	0.714 Ha	1.461 Ha
Camp area to be cleared (ha)	NA	NA
Camp Infrastructure (i.e. demountable, tents) Please provide a complete list with measurements as required in the	NA	NA
Other	NA	NA
Total proposed area of disturbance (ha)	0.984 Ha	1.611 Ha

Staging approach based on disturbance can be proposed and will be considered by the Department.

Section 5 – Previous Disturbance (for existing Authorisations only)

The 'Disturbance Tracking' spreadsheet will be completed and attached to future MMP submissions.

Section 6 – Environmental Management

By checking these shaded boxes, you are agreeing to implement the following minimum environmental management standards on the project area. Where boxes have been left unchecked, justification is required.

6.1	X	Blade-up approach for clearing will be used (i.e. no windrows, leave root stock and topsoil)
6.2	X	Significant vegetation will be avoided during clearing (i.e. large trees, specimens providing habitat or food sources, riparian vegetation, and threatened species)
6.3	X	Vegetation clearing during, and immediately after rainfall events, will be avoided
6.4	X	Vegetation clearing will be kept to the minimum required to safely traverse vehicles and drill rigs along tracks and drill pads
6.5	X	Where blade-up techniques cannot be employed, topsoil and vegetation will be stockpiled appropriately for rehabilitation purposes
6.6	X	All employees and contractors will be trained and inducted in relation to the management of environmental risks in the work area, including weeds, waterways, threatened species, soil erosion, sacred sites and heritage areas
6.7	X	Sumps will be lined or tanks of appropriate size to contain water, sediment and drilling fluids encountered during drilling, will be used
6.8	X	Sumps, drill holes, and fuel stores will be located away from environmentally significant areas and water courses
6.9	X	Excavations (sumps, costeans and pits) will be appropriately ramped to allow fauna egress
6.10	X	Drill holes will be securely capped immediately after drilling
6.11	X	Vehicle hygiene measures will be employed to prevent the introduction and spread of invasive species and pathogens when mobilising vehicles and equipment from one location to another
6.12	X	Hydrocarbon spills will be minimised using liners and drip trays under machinery, and appropriately sized spill-kits available in the event of a spill
6.13	X	Hazardous substances (including hydrocarbons) will be stored and handled in accordance with relevant Australian Standards
6.14	X	Hydrocarbons will be stored in lined and bunded areas
6.15	X	Waste will be stored securely while on-site to minimise windblown rubbish and access by feral animals
6.16	X	Waste will be removed off-site and disposed of at an appropriate waste management facility
6.17	X	All environmental incidents will be reported to the Department in accordance with Section 29 of the <i>Mining Management Act</i> .
6.18	X	Acid and Metalliferous Drainage (AMD) and Potentially Acid Forming (PAF) material derived from drilling cuts will be managed to avoid AMD and PAF related issues on site.

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6.19	X	Radioactive/NORM drill cuttings will be managed to avoid radiation related issues on site.
6.20	X	Dust management will be implemented on site.

Justification and alternative management measures:

Section 7 – Rehabilitation and Closure

By checking these shaded boxes, you are agreeing to implement the following minimum rehabilitation standards on the project area. Where boxes have been left unchecked, justification is required.

A refund of security related to completed rehabilitation on site requires the submission of a rehabilitation report including photographs, an updated security calculation and updated disturbance tracking spreadsheet to the Department.

7.1	<input checked="" type="checkbox"/>	Drill holes will be plugged below ground level at a minimum depth of 0.4 metres and soil mounded to prevent subsidence, within 6 months of completion of drilling.
7.2	<input checked="" type="checkbox"/>	Drill holes encountering multiple or confined aquifers will be grouted with concrete.
7.3	<input checked="" type="checkbox"/>	Drill samples/spoil will be returned down drill holes, buried in sumps, or removed from site.
7.4	<input checked="" type="checkbox"/>	All drill hole and access markers including flagging tape, wooden markers and star pickets will be removed from site.
7.5	<input checked="" type="checkbox"/>	Cut and fill drill pads will be re-contoured to be consistent with the surrounding terrain.
7.6	<input checked="" type="checkbox"/>	Drill pads and compacted areas along the contour (on sloping ground) will be ripped/scarified of and tracks will be cross-ripped (zig-zag).
7.7	<input checked="" type="checkbox"/>	Tracks will be rehabilitated, including pushing in all windrows, unless otherwise agreed in writing by the land holder or appropriate third party.
7.8	<input checked="" type="checkbox"/>	Appropriate erosion and sediment controls will be installed where erosion is evident or likely to occur.
7.10	<input checked="" type="checkbox"/>	Access through watercourses will be removed and banks restored.
7.11	<input checked="" type="checkbox"/>	All previously disturbed areas will be stable, with no evidence of active soil erosion.
7.12	<input checked="" type="checkbox"/>	All excavations will be backfilled within 6 months of their completion.
7.13	<input checked="" type="checkbox"/>	All water bores will be decommissioned unless otherwise agreed in writing by the land holder or appropriate third party.
7.14	<input checked="" type="checkbox"/>	All rubbish and infrastructure will be removed from site.
7.15	<input checked="" type="checkbox"/>	Topsoil will be replaced and vegetation re-established.
7.16	<input checked="" type="checkbox"/>	Contaminated soils (e.g. hydrocarbon or hazardous chemicals) will be rehabilitated or removed from site.
7.17	<input checked="" type="checkbox"/>	Monitoring will be undertaken following the wet season or a significant rainfall event.

Justification and alternative management measures:

Section 8 – Required Attachments

8.1	X	Initial Application for Authorisation or variation of Authorisation (only if details on the form have subsequently changed).
8.2	N/A	Nomination of Operator Form, where required
8.3	X	Security Calculation Spreadsheet
8.4	X	Evidence of Land Access Agreement if operating on an Exploration Licence (EL) on Pastoral Lease (e.g. two-ways exchange of email)
8.5	NA	Disturbance tracking spreadsheet (for existing Authorisations)
8.6	X	Spreadsheet with coordinates of proposed drill holes or polygons of target areas
8.7	X	KML/shape files/track logs of proposed tracks, camp sites and proposed drill holes or polygons of target areas
8.8	X	Map(s) of the work area(s) showing: <ul style="list-style-type: none"> 1. title boundaries and title numbers 2. current and proposed drill holes, or polygons of target areas 3. current and proposed tracks 4. rehabilitated areas 5. camp sites 6. heritage sites or significant environmental areas 7. environmental constraints
8.10	NA	Radiation Management Plan (if applicable)
8.12	X	Document(s) being appended in relation to Section 2 (if any): <ul style="list-style-type: none"> - Appendix 1- AAPA Abstract of Records - Appendix 2- Heritage Results - Appendix 3- Historic and Archaeological Results - Appendix 9- Environmental Report