

# Mining Management Exploration Activities

## 5Northern 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

<b>Project Name</b> Provide new or existing project name	Barkly Copper-Gold Super Project
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<b>Authorisation Number</b> Insert existing authorisation number, where applicable	TBA
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<b>Operator Name</b> 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)
<b>Operator ABN and ACN numbers</b>	ACN 641 856 706 ABN 75 641 856 706

<b>Location and Access Details</b> Include brief description of the location, access details, and distance to nearest town or community	<p>EL32109 is centred approximately 90km ESE of Tennant Creek, predominantly SW of the 3 ways Roadhouse for tenement EL32109.</p> <p>Tenement EL33588 is located approx. 44km NE of the Barkly Roadhouse up the Tablelands Highway.</p> <p>The proposed work areas are bisected by the overgrown station tracks on EL33588, however recently cleared tracks get you to within 2km of the proposed drill sites for EL32109.</p>
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<b>Target Commodity Details</b> Include target mineral commodities (i.e. gold, copper etc.)	Gold, Base Metals
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<b>Mining Activities</b> 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.	<p>A combination of either/or RC, DD.</p> <p>Tracks will also be established to access the drill pads and temporary camps will also be required.</p>
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<p><b>Proposed Schedule</b> Include start and finish dates of ground disturbing work</p>	<p>Commence between late May and late November 2024, with the aim to be drilling Early June. However, this depends on rig availability, weather, fire season, etc</p> <p>Contractors will be housed on site in caravans next to the drill rig.</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
EL32109	Barkly Operations Pty Ltd	17/11/2025	Crown Land
EL33588	Barkly Operations Pty Ltd	4/09/2029	Alroy Downs Station Dalmore Downs Station Alexandria Station

A signed Land Access Agreement (LAA) is located in Appendix 12 for Alroy Downs which is over EL33588. An update will be provided in due course. EL32109 is located on Crown Land has details of this access are also located in Append 12.

## Organisational Structure

Position Title	Name
Managing Director	NA
General Manager/CEO	Roland Bartsch
Exploration Manager	Stephen Pearson

## 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><b>Step 1:</b> 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 Feb 2024, CDM Smith prepared a Biodiversity Report over ELs 32109 and 33588. CDM Smith identified eleven threatened species listed under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) that may occur in the area (DCCEEW 2024). This included, two mammals, eight birds and one reptile species</p> <p>No Threatened ecological communities were listed within the area under the PMST results.</p> <p>Additionally, the Fork Tail swift (<i>Apus pacificus</i>), while not a threatened species, was listed as likely to occur as a migratory species, however the Fork tail swift forage and roost aerially and do not breed in Australia, therefore they are highly unlikely to be encountered on the ground.</p> <p>No species listed under the <i>Territory Parks and Wildlife Conservation Act 1976</i> (TPWC Act) were recorded within the project site on the NR maps database.</p> <p>A desktop likelihood of occurrence assessment has been carried out for the threatened species in the PMST database search results. This is summarised in <b>Appendix 9</b>, along with a brief description of their ecological characteristics, and key considerations for the assessment.</p> <p>No threatened flora species have been recorded within the project area by PMST or NR Maps.</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>
<b>Step 2:</b> Are there any known declared weeds within the proposed work area?	Yes	The company's weed management protocols are attached in appendix 9 and 10  CDM Smith also assessed the licences for weeds. Two 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 and 10.
<b>Step 3:</b> Will you be using water from bores or other sources for the operation?	Yes	Extraction from historical company bore.  The licences are within the Daly Roper Beetaloo Basin water control district. There is currently an exemption in place to extract less than 5ML/ year in this water control district. Barkly will not exceed water extraction of 5ML/ year, therefore a water extraction licence is not required.	<i>Water Act</i>

## Environmental assessment and cultural considerations

ASSESSMENT ASPECT	YES or NO	MANAGEMENT REQUIREMENTS
<b>Step 4:</b> Is your project likely to have a significant impact on the environment?	No	Consulted NTEPA Environmental Factors and Objectives Guideline.
<b>Step 5:</b> Are there Aboriginal sacred sites in the Project area?	No	An Abstract of Records was obtained by the AAPA in March 2024. No registered sacred site and restricted works areas are within EL32109 and EL33588. Field personnel will be kept an eye out for any potential artifact and record when noted.  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 are attached at Appendix 1.

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<b>ASSESSMENT ASPECT</b>	<b>YES or NO</b>	<b>MANAGEMENT REQUIREMENTS</b>
<p><b>Step 6:</b> 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 March 2024. NT Portions 4469 and 651 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 March 2024. 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)	EL32109	EL33588
Number and type of proposed exploration drill holes	4 RC holes with Diamond Tails	1 RC hole with Diamond Tail
Maximum depth of proposed holes (m)	680	800
Number and size of drill pads to be cleared	4 X 30 m x 30 m	1 X 30 m x 30 m
Total area of drill pads to be cleared (ha)	<b>0.36 Ha</b>	<b>0.09 Ha</b>
Number of proposed water bores	Nil	Nil
Is drilling likely to encounter groundwater in multiple or confined aquifers? (Y, N, unsure) If answering yes, please provide the number of exploration holes where this is likely to occur	No	No
Number of costeans	NA	NA
Volume to backfill costeans (Length: m x Width: m x Depth: m)	N/A	N/A
Number of bulk sample pits	NA	NA
Volume to backfill bulk sample pits (Length: m x Width: m x Depth: m)	NA	NA

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Mining Interests (i.e. titles)	EL32109	EL33588
Bulk sample pits approved under <i>Mineral Titles Act?</i> (Y or N). If Yes provide approval	NA	NA
Line/track clearing:	16.5 km X 0.004 km	1.1 km X 0.004 km
Area of proposed line/track clearing (ha)	<b>6.6 Ha</b>	<b>0.44 Ha</b>
Camp area to be cleared (ha)	<b>0.09 Ha</b>	<b>0.09 Ha</b>
Camp Infrastructure (i.e. demountable, tents) Please provide a complete list with measurements as required in the security calculation	Kitchen Caravan, Tents, Shower caravan	Kitchen Caravan, Tents, Shower caravan
Other	NA	NA
Total proposed area of disturbance (ha)	<b>7.05 Ha</b>	<b>0.62 Ha</b>

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	<input checked="" type="checkbox"/>	Blade-up approach for clearing will be used (i.e. no windrows, leave root stock and topsoil)
6.2	<input checked="" type="checkbox"/>	Significant vegetation will be avoided during clearing (i.e. large trees, specimens providing habitat or food sources, riparian vegetation, and threatened species)
6.3	<input checked="" type="checkbox"/>	Vegetation clearing during, and immediately after rainfall events, will be avoided
6.4	<input checked="" type="checkbox"/>	Vegetation clearing will be kept to the minimum required to safely traverse vehicles and drill rigs along tracks and drill pads
6.5	<input checked="" type="checkbox"/>	Where blade-up techniques cannot be employed, topsoil and vegetation will be stockpiled appropriately for rehabilitation purposes
6.6	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	Sumps will be lined or tanks of appropriate size to contain water, sediment and drilling fluids encountered during drilling, will be used
6.8	<input checked="" type="checkbox"/>	Sumps, drill holes, and fuel stores will be located away from environmentally significant areas and water courses
6.9	<input checked="" type="checkbox"/>	Excavations (sumps, costeans and pits) will be appropriately ramped to allow fauna egress
6.10	<input checked="" type="checkbox"/>	Drill holes will be securely capped immediately after drilling
6.11	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	Hazardous substances (including hydrocarbons) will be stored and handled in accordance with relevant Australian Standards
6.14	<input checked="" type="checkbox"/>	Hydrocarbons will be stored in lined and bunded areas
6.15	<input checked="" type="checkbox"/>	Waste will be stored securely while on-site to minimise windblown rubbish and access by feral animals
6.16	<input checked="" type="checkbox"/>	Waste will be removed off-site and disposed of at an appropriate waste management facility
6.17	<input checked="" type="checkbox"/>	All environmental incidents will be reported to the Department in accordance with Section 29 of the <i>Mining Management Act</i> .
6.18	<input checked="" type="checkbox"/>	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	<b>X</b>	Radioactive/NORM drill cuttings will be managed to avoid radiation related issues on site.
6.20	<b>X</b>	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	X	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"> <li>1. title boundaries and title numbers</li> <li>2. current and proposed drill holes, or polygons of target areas</li> <li>3. current and proposed tracks</li> <li>4. rehabilitated areas</li> <li>5. camp sites</li> <li>6. heritage sites or significant environmental areas</li> <li>7. environmental constraints</li> </ul>
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"> <li>- Appendix 1- AAPA Abstract of Records</li> <li>- Appendix 2- Heritage Results</li> <li>- Appendix 3- Historic and Archaeological Results</li> <li>- Appendix 9- Environmental Report</li> </ul>