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 <u>Northern Territory Government website</u>.

Section 1 - Project Details

Project Name Provide new or existing project name	Eastern Project Area
Authorisation Number Insert existing authorisation number, where applicable	0463-04
Operator Name Use ASIC-ABR registered name (if a company), or name of the applicant	Emmerson Resources Ltd
Operator ABN and ACN	ABN: 53 117 086 745
numbers	ACN: 117 086 745
Location and Access Details Include brief description of the location, access details, and distance to nearest town or community	The Eastern Project Area (EPA) covers a number of tenements located to the east and south east of the Tennant Creek Township, between 1 and 34km in distance.
	The EPA is bisected by Peko Road and the Gosse River Road access is gained from these major roads with further access to other areas of the EPA via historic mine roads, existing 4WD and fence line tracks these will be utilised for access and therefore no new tracks will be required.
Target Commodity Details Include target mineral commodities (i.e. gold, copper etc.)	Gold, Copper, Bismuth, battery and base metals.
Mining Activities Summarise the mining activities (exploration) to be the subject of the proposed Authorisation or Variation.	Planned activities are for the drilling of 26 RC and 8 Diamond drillholes at the Golden Forty Prospect.
Drilling programs over a maximum of	

four years are supported and encouraged and can be staged. Please refer to the guidelines for

further information.

Proposed ScheduleInclude start and finish dates of ground disturbing work

Work is planned to commence in July 2022 and completed by December 2023.

Mining Interest and Land Ownership

Title Number	Title Holder	Expiry Date	Property Name or Land Holder	
EL10114	Giants Reef Exploration Pty Ltd	30/04/2023	Warrumungu Aboriginal Land Trust	
EL10124	Giants Reef Exploration Pty Ltd	30/04/2023	Warrumungu Aboriginal Land Trust	
EL10313	Giants Reef Exploration Pty Ltd	30/04/2023	Warrumungu Aboriginal Land Trust	
EL10406	Santexco Pty Ltd	30/04/2023	Warrumungu Aboriginal Land Trust	
EL26787	Giants Reef Exploration Pty Ltd	21/11/2022	Warrumungu Aboriginal Land Trust	
EL27011	Giants Reef Exploration Pty Ltd	28/05/2023	Tennant Creek Station	
EL27408	Giants Reef Exploration Pty Ltd	12/10/2023	Warrumungu Aboriginal Land Trust	
EL27537	Giants Reef Exploration Pty Ltd	21/11/2022	Warrumungu Aboriginal Land Trust	
EL27538	Giants Reef Exploration Pty Ltd	12/10/2022	Warrumungu Aboriginal Land Trust	
EL28618	Giants Reef Exploration Pty Ltd	14/07/2023	Tennant Creek Station	
EL28760	Giants Reef Exploration Pty Ltd	15/11/2023	Tennant Creek Station	
EL28761	Giants Reef Exploration Pty Ltd	15/11/2023	Tennant Creek Station	
EL30167	Giants Reef Exploration Pty Ltd	17/09/2022	Warrumungu Aboriginal Land Trust	
EL30584	Giants Reef Exploration Pty Ltd	5/10/2023	Warrumungu Aboriginal Land Trust	
EL30748	Giants Reef Exploration Pty Ltd	18/10/2023	Warrumungu Aboriginal Land Trust	
EL9403	Giants Reef Exploration Pty Ltd	30/04/2023	Warrumungu Aboriginal Land Trust	
EL9958	Giants Reef Exploration Pty Ltd	30/04/2023	Warrumungu Aboriginal Land Trust	
MCC203	Giants Reef Exploration Pty Ltd	6/11/2027	Warrumungu Aboriginal Land Trust	
MCC211	Giants Reef Exploration Pty Ltd	24/11/2025	Warrumungu Aboriginal Land Trust	
MCC239	Santexco Pty Ltd	23/04/2027	Warrumungu Aboriginal Land Trust	
MCC240	Santexco Pty Ltd	23/04/2027	Warrumungu Aboriginal Land Trust	
MCC316	Giants Reef Exploration Pty Ltd	24/11/2025	Tennant Creek Station	
MCC317	Giants Reef Exploration Pty Ltd	24/11/2025	Tennant Creek Station	
MCC340	Giants Reef Exploration Pty Ltd	8/03/2022	Tennant Creek Station	
MCC341	Giants Reef Exploration Pty Ltd	24/11/2025	Tennant Creek Station	

Title Number	Title Holder	Expiry Date	Property Name or Land Holder	
MCC66	Santexco Pty Ltd	29/12/2021	Warrumungu Aboriginal Land Trust	
MCC67	Santexco Pty Ltd	29/12/2021	Warrumungu Aboriginal Land Trust	
MCC9	Giants Reef Exploration Pty Ltd	31/12/2028	Warrumungu Aboriginal Land Trust	
MCC925	Santexco Pty Ltd	1/01/2029	Warrumungu Aboriginal Land Trust	
MCC926	Santexco Pty Ltd	1/01/2029	Warrumungu Aboriginal Land Trust	
ML22284	Giants Reef Exploration Pty Ltd	26/11/2031	Tennant Creek Station	
ML30620	Santexco Pty Ltd	4/02/2029	Warrumungu Aboriginal Land Trust	
ML30623	Santexco Pty Ltd	6/11/2024	Warrumungu Aboriginal Land Trust	
ML30716	Santexco Pty Ltd	17/03/2025	Tennant Creek Station	
ML30742	Giants Reef Exploration Pty Ltd	17/03/2025	Tennant Creek Station	
ML30743	Giants Reef Exploration Pty Ltd	16/02/2025	Tennant Creek Station	
ML30938	Santexco Pty Ltd	17/08/2025	Tennant Creek Station	
ML30945	Santexco Pty Ltd	22/09/2025	Tennant Creek Station	
ML31074	Santexco Pty Ltd	7/12/2025	Warrumungu Aboriginal Land Trust	
MLC127	Santexco Pty Ltd	31/12/2027	Warrumungu Aboriginal Land Trust	
MLC129	Santexco Pty Ltd	31/12/2027	Warrumungu Aboriginal Land Trust	
MLC130	Santexco Pty Ltd	31/12/2028	Warrumungu Aboriginal Land Trust	
MLC131	Santexco Pty Ltd	31/12/2028	Warrumungu Aboriginal Land Trust	
MLC132	Santexco Pty Ltd	31/12/2028	Warrumungu Aboriginal Land Trust	
MLC133	Santexco Pty Ltd	31/12/2028	Warrumungu Aboriginal Land Trust	
MLC134	Santexco Pty Ltd	31/12/2028	Warrumungu Aboriginal Land Trust	
MLC135	Santexco Pty Ltd	31/12/2028	Warrumungu Aboriginal Land Trust	
MLC136	Santexco Pty Ltd	31/12/2028	Warrumungu Aboriginal Land Trust	
MLC137	Santexco Pty Ltd	31/12/2028	Warrumungu Aboriginal Land Trust	
MLC138	Santexco Pty Ltd	31/12/2028	Warrumungu Aboriginal Land Trust	
MLC139	Santexco Pty Ltd	31/12/2028	Warrumungu Aboriginal Land Trust	
MLC140	Santexco Pty Ltd	31/12/2028	Warrumungu Aboriginal Land Trust	
MLC141	Santexco Pty Ltd	31/12/2028	Warrumungu Aboriginal Land Trust	
MLC142	Santexco Pty Ltd	31/12/2028	Warrumungu Aboriginal Land Trust	

Title Number	Title Holder	Expiry Date	Property Name or Land Holder	
MLC143	Santexco Pty Ltd	31/12/2028	Warrumungu Aboriginal Land Trust	
MLC144	Santexco Pty Ltd	31/12/2028	Warrumungu Aboriginal Land Trust	
MLC146	Santexco Pty Ltd	31/12/2023	Warrumungu Aboriginal Land Trust	
MLC147	Santexco Pty Ltd	31/12/2023	Warrumungu Aboriginal Land Trust	
MLC148	Santexco Pty Ltd	31/12/2023	Warrumungu Aboriginal Land Trust	
MLC149	Santexco Pty Ltd	31/12/2023	Warrumungu Aboriginal Land Trust	
MLC15	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC16	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC182	Santexco Pty Ltd	31/12/2026	Warrumungu Aboriginal Land Trust	
MLC183	Santexco Pty Ltd	31/12/2026	Warrumungu Aboriginal Land Trust	
MLC184	Santexco Pty Ltd	31/12/2026	Warrumungu Aboriginal Land Trust	
MLC253	Santexco Pty Ltd	31/12/2028	Tennant Creek Station	
MLC254	Santexco Pty Ltd	31/12/2028	Tennant Creek Station	
MLC255	Santexco Pty Ltd	31/12/2028	Tennant Creek Station	
MLC256	Santexco Pty Ltd	31/12/2028	Tennant Creek Station	
MLC257	Santexco Pty Ltd	31/12/2028	Tennant Creek Station	
MLC258	Santexco Pty Ltd	31/12/2028	Tennant Creek Station	
MLC259	Santexco Pty Ltd	31/12/2028	Tennant Creek Station	
MLC260	Santexco Pty Ltd	31/12/2028	Tennant Creek Station	
MLC261	Santexco Pty Ltd	31/12/2028	Tennant Creek Station	
MLC32	Santexco Pty Ltd	31/12/2025	Warrumungu Aboriginal Land Trust	
MLC343	Santexco Pty Ltd	31/12/2027	Warrumungu Aboriginal Land Trust	
MLC344	Santexco Pty Ltd	31/12/2027	Warrumungu Aboriginal Land Trust	
MLC345	Santexco Pty Ltd	31/12/2027	Warrumungu Aboriginal Land Trust	
MLC346	Santexco Pty Ltd	31/12/2027	Warrumungu Aboriginal Land Trust	
MLC347	Santexco Pty Ltd	31/12/2027	Warrumungu Aboriginal Land Trust	
MLC348	Santexco Pty Ltd	31/12/2027	Warrumungu Aboriginal Land Trust	
MLC349	Santexco Pty Ltd	31/12/2027	Warrumungu Aboriginal Land Trust	
MLC35	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	

Title Number	Title Holder	Expiry Date	Property Name or Land Holder	
MLC350	Santexco Pty Ltd	31/12/2027	Warrumungu Aboriginal Land Trust	
MLC351	Santexco Pty Ltd	31/12/2027	Warrumungu Aboriginal Land Trust	
MLC352	Santexco Pty Ltd	31/12/2028	Warrumungu Aboriginal Land Trust	
MLC353	Santexco Pty Ltd	31/12/2028	Warrumungu Aboriginal Land Trust	
MLC354	Santexco Pty Ltd	31/12/2028	Warrumungu Aboriginal Land Trust	
MLC355	Santexco Pty Ltd	31/12/2028	Warrumungu Aboriginal Land Trust	
MLC36	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC362	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC363	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC364	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC365	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC366	Santexco Pty Ltd	08/05/2027	Warrumungu Aboriginal Land Trust	
MLC367	Santexco Pty Ltd	31/12/2026	Warrumungu Aboriginal Land Trust	
MLC368	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC369	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC37	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC370	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC371	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC372	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC373	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC374	Santexco Pty Ltd	31/12/2026	Warrumungu Aboriginal Land Trust	
MLC375	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC376	Santexco Pty Ltd	31/12/2028	Tennant Creek Station	
MLC377	Santexco Pty Ltd	31/12/2028	Tennant Creek Station	
MLC378	Santexco Pty Ltd	31/12/2028	Tennant Creek Station	
MLC379	Santexco Pty Ltd	31/12/2028	Tennant Creek Station	
MLC38	Santexco Pty Ltd	31/12/2023	Tennant Creek Station	
MLC380	Santexco Pty Ltd	31/12/2028	Tennant Creek Station	
MLC381	Santexco Pty Ltd	31/12/2028	Tennant Creek Station	

Title Number	Title Holder	Expiry Date	Property Name or Land Holder	
MLC382	Santexco Pty Ltd	31/12/2028	Tennant Creek Station	
MLC383	Santexco Pty Ltd	31/12/2028	Tennant Creek Station	
MLC384	Santexco Pty Ltd	31/12/2028	Tennant Creek Station	
MLC385	Santexco Pty Ltd	31/12/2028	Tennant Creek Station	
MLC386	Santexco Pty Ltd	31/12/2028	Tennant Creek Station	
MLC387	Santexco Pty Ltd	31/12/2028	Tennant Creek Station	
MLC4	Santexco Pty Ltd	31/12/2027	Warrumungu Aboriginal Land Trust	
MLC406	Santexco Pty Ltd	31/12/2026	Warrumungu Aboriginal Land Trust	
MLC407	Santexco Pty Ltd	31/12/2026	Warrumungu Aboriginal Land Trust	
MLC408	Santexco Pty Ltd	31/12/2026	Warrumungu Aboriginal Land Trust	
MLC409	Santexco Pty Ltd	31/12/2026	Warrumungu Aboriginal Land Trust	
MLC432	Santexco Pty Ltd	31/12/2022	Tennant Creek Station	
MLC498	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC499	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC5	Santexco Pty Ltd	31/12/2027	Warrumungu Aboriginal Land Trust	
MLC50	Santexco Pty Ltd	31/12/2025	Warrumungu Aboriginal Land Trust	
MLC500	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC501	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC502	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC503	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC504	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC505	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC51	Santexco Pty Ltd	31/12/2025	Warrumungu Aboriginal Land Trust	
MLC518	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC522	Giants Reef Exploration Pty Ltd	31/12/2024	Tennant Creek Station	
MLC523	Santexco Pty Ltd	31/12/2025	Warrumungu Aboriginal Land Trust	
MLC524	Santexco Pty Ltd	31/12/2025	Warrumungu Aboriginal Land Trust	
MLC528	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC529	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	

Title Number	Title Holder	Expiry Date	Property Name or Land Holder	
MLC53	Santexco Pty Ltd	31/12/2024	Warrumungu Aboriginal Land Trust	
MLC530	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC535	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC54	Santexco Pty Ltd	31/12/2024	Warrumungu Aboriginal Land Trust	
MLC546	Santexco Pty Ltd	31/12/2041	Warrumungu Aboriginal Land Trust	
MLC55	Santexco Pty Ltd	31/12/2024	Warrumungu Aboriginal Land Trust	
MLC558	Santexco Pty Ltd	31/12/2029	Tennant Creek Station	
MLC56	Santexco Pty Ltd	31/12/2024	Warrumungu Aboriginal Land Trust	
MLC576	Santexco Pty Ltd	31/12/2041	Warrumungu Aboriginal Land Trust	
MLC577	Santexco Pty Ltd	31/12/2041	Warrumungu Aboriginal Land Trust	
MLC581	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC582	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC583	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC584	Santexco Pty Ltd	31/12/2028	Warrumungu Aboriginal Land Trust	
MLC585	Santexco Pty Ltd	31/12/2028	Warrumungu Aboriginal Land Trust	
MLC586	Santexco Pty Ltd	31/12/2028	Warrumungu Aboriginal Land Trust	
MLC598	Santexco Pty Ltd	31/12/2028	Warrumungu Aboriginal Land Trust	
MLC606	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC607	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC608	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC609	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC610	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC611	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC612	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC613	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC614	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC615	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC616	Santexco Pty Ltd	31/12/2022	Warrumungu Aboriginal Land Trust	
MLC619	Giants Reef Exploration Pty Ltd/ Lotus Appel	31/12/2028	Tennant Creek Station	

Title Number	Title Holder	Expiry Date	Property Name or Land Holder
MLC644	Giants Reef Exploration Pty Ltd	31/12/2027	Warrumungu Aboriginal Land Trust
MLC683	Santexco Pty Ltd	31/12/2025	Warrumungu Aboriginal Land Trust

Please note a Land Access Agreement (LAA) is required for disturbance proposed on Pastoral Properties on Exploration Licence (EL).

Organisational Structure

Position Title	Name
Managing Director	Rob Bills
Exploration Manager	Ana Liz Cuison
Senior Geologist	Rhianna Farrell

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).
Step 1: Are there any threatened flora and fauna species or habitats of significance that may occur in the proposed work area?	No	It is likely a threatened species will show up in most reports. Therefore, the Operator must undertake a likelihood analysis, which looks at the likelihood of the species or its habitat occurring at or near the site. If the analysis results in a high likelihood, then a "Significant Impact Assessment" should be undertaken, which may require consultation with the DENR – Flora and Fauna Division. The DENR may recommend a Biodiversity Management Plan – this must be developed and attached to the MMP.	Appendix 5- Desktop Review. Threatened Species, Weeds and Pests
Step 2: Are there any known declared weeds within the proposed work area?	No	Under the Weeds Management Act declared weeds are required to be eliminated or controlled by the owner and occupier of land. Seek advice from DENR – Weeds Management to ensure management measures are appropriate for the level of activity proposed and attach a Weed Management Plan (if required).	Appendix 5- Desktop Review. Threatened Species, Weeds and Pests
Step 3: Will you be using water from bores or other sources for the operation?	Yes	Note the Government is proposing to amend the exemption of water licencing under the Water Act for mining activities, including exploration. This section will be updated in light of any changes in the future.	Refer to Appendix 1 'Hydrology' Section

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	Refer to the NTEPA Environmental Factors and Objectives Guideline. Small drilling program.
Step 5: Are there Aboriginal sacred sites in the Project area?	YES	An Abstract of Records was obtained from the AAPA on 5 April 2022. There are no recorded sacred sites or recorded restricted works areas within MLC584. In 2018, an Authority Certificate was issued over MLCs 585 and 586. A sacred site and restricted works area has been recorded in the south east portion of MLC586, however the proposed works in this MMP are not within this area and will not be impacted on. A copy of the Abstract of Records is attached at Appendix 4. Emmerson will also obtain a Sacred Site Clearance Certificate from the CLC.
Step 6: Are there archaeological and heritage sites in the Project area?	NO	A search was conducted in March 2022 by the Heritage Branch of the Department of Territory Families, Housing and Communities, where it was confirmed that there are no nominated, provisional or declared heritage places located within the area of interest. It was also confirmed that there will be no requirement for any archaeological surveys in relation to this heritage search request. Correspondence attached at Appendix 10.

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 1 – Project Details	Mining activities, proposed schedule and licence expiry dates updated.
Section 2- Operator Self- Assessment of the Environmental Risk	Updated Heritage and archaeology search obtained. Updated AAPA Abstract of Records obtained.
Section 4 – Activities Proposed	Proposed new drilling activities inserted.
Appendices 6, 7, 8, 9 and 10.	Appendices updated.

Section 4 – Activities Proposed for this MMP only

Provide relevant EL numbers

Mining Interests	MLCs 584, 585 and 586
(i.e. titles)	
Number and type of proposed exploration drill holes	26 RC Drillholes 8 Diamond Drillholes
Maximum depth of proposed holes (m)	<mark>290m</mark>
Number and size of drill pads to be cleared (Length: m x Width: m)	10m x 15m
Total area of drill pads to be cleared (ha)	0.51 Ha
Number of proposed water bores	0
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
Number of costeans	Nil
Volume to backfill costeans (Length: m x Width: m x Depth: m)	Nil
Number of bulk sample pits	Nil
Volume to backfill bulk sample pits (Length: m x Width: m x Depth: m)	Nil
Bulk sample pits approved under <i>Mineral Titles Act</i> ? (Y or N). If Yes provide approval	No
Line/track clearing: (length m x width m)	Nil

Mining Interests (i.e. titles)	MLCs 584, 585 and 586
Area of proposed line/track clearing (ha)	Nil
Camp area to be cleared (ha)	Nil
Camp Infrastructure (i.e. demountable, tents) Please provide a complete list with measurements as required in the security calculation	Nil
Other	Nil
Total proposed area of disturbance (ha)	0.51 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 updated 'Disturbance Tracking' spreadsheet is attached at Appendix 8.

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	Х	Significant vegetation will be avoided during clearing (i.e. large trees, specimens providing habitat or food sources, riparian vegetation, and threatened species)			
6.3	Х	Vegetation clearing during, and immediately after rainfall events, will be avoided			
6.4	Х	Vegetation clearing will be kept to the minimum required to safely traverse vehicles and drill rigs along tracks and drill pads			
6.5	Х	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	Х	Sumps will be lined or tanks of appropriate size to contain water, sediment and drilling fluids encountered during drilling, will be used			
6.8	Х	Sumps, drill holes, and fuel stores will be located away from environmentally significant areas and water courses			
6.9	Х	Excavations (sumps, costeans and pits) will be appropriately ramped to allow fauna egress			
6.10	Х	Drill holes will be securely capped immediately after drilling			
6.11	Х	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	Х	Hazardous substances (including hydrocarbons) will be stored and handled in accordance with relevant Australian Standards			
6.14	Х	Hydrocarbons will be stored in lined and bunded areas			
6.15	Х	Waste will be stored securely while on-site to minimise windblown rubbish and access by feral animals			
6.16	Х	Waste will be removed off-site and disposed of at an appropriate waste management facility			
6.17	Х	All environmental incidents will be reported to the Department in accordance with Section 29 of the Mining Management Act.			
6.18	Х	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.			

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

Justifica	ation and alternative management measures:
-	Water will be carted in from Tennant Creek.

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	X	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	X	Drill holes encountering multiple or confined aquifers will be grouted with concrete.
7.3	X	Drill samples/spoil will be returned down drill holes, buried in sumps, or removed from site.
7.4	X	All drill hole and access markers including flagging tape, wooden markers and star pickets will be removed from site.
7.5	X	Cut and fill drill pads will be re-contoured to be consistent with the surrounding terrain.
7.6	X	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	X	Tracks will be rehabilitated, including pushing in all windrows, unless otherwise agreed in writing by the land holder or appropriate third party.
7.8	X	Appropriate erosion and sediment controls will be installed where erosion is evident or likely to occur.
7.10	X	Access through watercourses will be removed and banks restored.
7.11	X	All previously disturbed areas will be stable, with no evidence of active soil erosion.
7.12	X	All excavations will be backfilled within 6 months of their completion.
7.13	X	All water bores will be decommissioned unless otherwise agreed in writing by the land holder or appropriate third party.
7.14	X	All rubbish and infrastructure will be removed from site.
7.15	X	Topsoil will be replaced and vegetation re-established.
7.16	X	Contaminated soils (e.g. hydrocarbon or hazardous chemicals) will be rehabilitated or removed from site.
7.17	X	Monitoring will be undertaken following the wet season or a significant rainfall event.

Jus	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	X	Nomination of Operator Form, where required				
8.3	Х	Security Calculation Spreadsheet				
8.4	N/A	Evidence of Land Access Agreement if operating on an Exploration Licence (EL) on Pastoral Lease (e.g. two-ways exchange of email)- N/A works on Aboriginal Freehold Land, LAA not required.				
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:				
		title boundaries and title numbers				
		2. current and proposed drill holes, or polygons of target areas				
		current and proposed tracks				
		4. rehabilitated areas				
		5. camp sites				
		6. heritage sites or significant environmental areas				
		7. environmental constraints				
8.10	N/A	Radiation Management Plan (if applicable)				
8.12	X	Document(s) being appended in relation to Section 2 (if any):				
		- Appendix 4- AAPA Abstract of Records				
		- Appendix 5- EcOz Environmental Report				
		- Appendix 10- Archaeological & Heritage Search				

