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	Nobles Nob Gold and Copper Exploration Project

Authorisation Number Insert existing authorisation number, where applicable	

Operator Name Use ASIC-ABR registered name (if a company), or name of the applicant	Tennant Consolidated Mining Group Pty Ltd
Operator ABN and ACN numbers	ABN 72 645 263 547

Location and Access Details Include brief description of the location, access details, and distance to nearest town or community	Nobles Nob is located approximately 13 km southeast of Tennant Creek in the Northern Territory; and Juno is located approximately 10 km southeast of Tennant Creek, and 5 km west of Nobles Nob. The Project area encompasses a total of 419 ha, with 253 ha within Nobles Nob mining tenements, and 102 ha within Juno tenements. Access to the project site from Tennant Creek is approximately 9 km east of the town along Peko road, following Peko road to the south for another 4 km, turning right on to Goss River Road for approximately 1 km, arriving at the private access gate to Nobles Nob. A key is required for access to the site.

Target Commodity Details Include target mineral commodities (i.e. gold, copper etc.)	Gold and copper

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.	Exploration activities are planned to continue to assess the viability of both gold and copper prospects within the Nobles Nob project area. Including targets at Juno, Rising Sun, south of the Nobles Nob pit, and Weaber's Find. A total of 29 drill holes are proposed for the 2023 drill program. This includes 10 diamond drill holes (DDH) and 19 reverse circulation (RC) holes. With a total estimated drill depth of 7,544 m, and a maximum depth of 467 m for any one hole. A breakdown of the location of these holes is given below, and further details are included in Appendix A. TCMG proposes to drill 13 holes at the historic Juno mine site. This includes 10 DDH holes targeting gold; and 3 RC holes targeting copper. Within the Nobles Nob area TCMG proposes to drill 16 holes. This includes 11 RC holes targeting gold at Rising Sun and Weaber's Find; and 5 RC holes targeting copper south of the existing Nobles Nob pit. Each RC drill hole will be within a 20m x 20m drill pad area; and each DDH within a 20 x 30 m drill pad area. With some overlapping between drill pads, as shown in Appendix A. The total disturbed area will be 1.27 ha. Within this disturbance area sumps will be dug for each hole, as drilling is likely to intercept groundwater. Sumps are needed for safe capture of any groundwater encountered. For each RC hole, one sump will be required; for each DDH hole, two to three sumps will be required.

Proposed Schedule Include start and finish dates of ground disturbing work	The anticipated start date for activities is August 2023, with an anticipated end date of December 2023.

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.

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All of the tenements associated with the wider Nobles Nob project are listed below, which includes all of those associated with the historic Nobles Nob and Juno mine sites. Drilling for the 2023 drill program is proposed in 13 of these tenements, as indicated below.

Title Number	Title Holder	Expiry Date	Underlying Property Name or Land Holder	Drilling proposed? (Y/N)
MLC517	Tennant Consolidated Mining Group Pty Ltd	31/12/2032	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	N
MLC534	Tennant Consolidated Mining Group Pty Ltd	31/12/2033	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	N
MLC690	Tennant Consolidated Mining Group Pty Ltd	31/12/2026	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	N
MLC521	Tennant Consolidated Mining Group Pty Ltd	31/12/2029	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	N
MLC525	Tennant Consolidated Mining Group Pty Ltd	31/12/2030	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	Y
MLC549	Tennant Consolidated Mining Group Pty Ltd	31/12/2036	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	N
MLC545	Tennant Consolidated Mining Group Pty Ltd	31/12/2035	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	N
MLC540	Tennant Consolidated Mining Group Pty Ltd	31/12/2033	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	N
MLC548	Tennant Consolidated Mining Group Pty Ltd	31/12/2036	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	N
MLC537	Tennant Consolidated Mining Group Pty Ltd	31/12/2033	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	N
MLC515	Tennant Consolidated Mining Group Pty Ltd	31/12/2032	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	N
MLC516	Tennant Consolidated Mining Group Pty Ltd	31/12/2032	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	N
MLC589	Tennant Consolidated Mining Group Pty Ltd	31/12/2030	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	N
MLC556	Tennant Consolidated Mining Group Pty Ltd	31/12/2032	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	N
MLC689	Tennant Consolidated Mining Group Pty Ltd	31/12/2026	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	Y

Title Number	Title Holder	Expiry Date	Underlying Property Name or Land Holder	Drilling proposed? (Y/N)
MLC531	Tennant Consolidated Mining Group Pty Ltd	31/12/2033	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	N
MLC541	Tennant Consolidated Mining Group Pty Ltd	31/12/2033	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	N
MLC526	Tennant Consolidated Mining Group Pty Ltd	31/12/2026	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	N
MLC538	Tennant Consolidated Mining Group Pty Ltd	31/12/2033	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	N
MLC514	Tennant Consolidated Mining Group Pty Ltd	31/12/2032	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	Y
MLC688	Tennant Consolidated Mining Group Pty Ltd	31/12/2026	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	Y
MLC542	Tennant Consolidated Mining Group Pty Ltd	31/12/2035	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	N
MLC513	Tennant Consolidated Mining Group Pty Ltd	31/12/2032	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	N
MLC532	Tennant Consolidated Mining Group Pty Ltd	31/12/2033	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	N
MLC691	Tennant Consolidated Mining Group Pty Ltd	31/12/2026	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	Y
MLC539	Tennant Consolidated Mining Group Pty Ltd	31/12/2033	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	Y
MLC590	Tennant Consolidated Mining Group Pty Ltd	31/12/2030	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	N
MLC512	Tennant Consolidated Mining Group Pty Ltd	31/12/2032	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	Y
MLC550	Tennant Consolidated Mining Group Pty Ltd	31/12/2036	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	N
MLC543	Tennant Consolidated Mining Group Pty Ltd	31/12/2035	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	N

Title Number	Title Holder	Expiry Date	Underlying Property Name or Land Holder	Drilling proposed? (Y/N)
MLC544	Tennant Consolidated Mining Group Pty Ltd	31/12/2035	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	N
MLC533	Tennant Consolidated Mining Group Pty Ltd	31/12/2033	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	N
MLC68	Tennant Gold Pty Ltd	31/12/2033	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	Y
MLC154	Tennant Gold Pty Ltd	31/12/2024	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	N
MLC46	Tennant Gold Pty Ltd	31/12/2035	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	Y
MLC47	Tennant Gold Pty Ltd	31/12/2035	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	Y
MLC578	Tennant Gold Pty Ltd	31/12/2033	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	Y
MLC652	Tennant Gold Pty Ltd	31/12/2033	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	N
MLC45	Tennant Gold Pty Ltd	31/12/2035	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	Y
MLC579	Tennant Gold Pty Ltd	31/12/2033	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	Y
MLC155	Tennant Gold Pty Ltd	31/12/2024	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	N
MCC284	Tennant Gold Pty Ltd	7/07/2024	Aboriginal Freehold Land (ALRA) Warumungu Aboriginal Land Trust	N

Delete or add rows as required

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

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There is a Pre-Existing Tenements Agreement between Normandy Gold Pty Ltd (now Emmerson Resources Limited), Warumungu Land Trust, and the Central Land Council, dated 9 December 1998 which includes some of the above tenements. TCMG has consulted and secured agreement of the Warumungu Land Trust and the Central Land Council for rights and obligations under the Agreement for all of the above mining titles to be formally assigned to TCMG via a Deed of Assumption. The Deed is currently in the process of being signed by each party which is expected to be completed in July 2023.

Organisational Structure

Position Title	Name
Managing Director	Peter Main
Geology Manager	Steve Rose
Senior Geologist	Matt Golovanoff
Chief Operating Officer	Steve Murdoch
Project Manager	Andrew Harrington
Commercial Manager	AJ Larkin
Groundwater Manager & Principal Hydrogeologist	Ashish Mishra
Territory Manager	Michael Tennant
Environment & Sustainability Manager	Yemaya Smythe McGuinness
Chief Financial Officer	Jamie Morton

Delete or add rows for various position titles as required

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	The Operator must assess the likelihood of threatened species or their habitats occurring at or near the site. If the likelihood is high, then a "Significant Impact Assessment" must be undertaken and appended to this document. …….. EcOz Environmental undertook a flora and fauna assessment of the whole Nobles Nob and Juno project site, including all areas within the associated tenements. This assessment was undertaken to inform the separate Nobles Nob Gold Project MMP (Authorisation #1123-01), which includes mining activities. The EcOz assessment found that it is unlikely the project will affect any Sites of Botanical Significance, given the distance of mapped sites from the project area. No vegetation communities or ecological communities of listed conservation significance have been recorded within 50 km of the Project area. It also found that no flora of conservation significance is expected to occur within the project area due to the disturbed and unsuitable habitat. The EcOz assessment found that 19 threatened fauna species are known to occur within a 50 km radius of the Project area. Of these, five have a medium likelihood of occurrence and one a high likelihood of occurrence, which is the Central Australian Rock-wallaby. This assessment was for the wider mining project area that includes some suitable rock wallaby habitat, who inhabit rock shelters. Looking at the smaller project area relating to the proposed drill	e.g. - Consulted EPBC Protected Matters Search Tool and appended it to this document. - Consulted EPBC Protected Matters Search Tool and previous Biodiversity Management Plan, which is still current/related to the proposed work, appended to this document. …….. Refer to Nobles Nob Gold Project MMP – Authorisation #1123-01 in Appendix B. Section 2.1.3 outlines the Flora and Fauna assessment undertaken by EcOz.

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).
		pads, this does not include any suitable habitat for the Central Australian Rock-wallaby. Given that all drill pad areas are located away from rock shelters, the likelihood of the Central Australian Rock-wallaby occurring within project area of this MMP is considered low.	
Step 2: Are there any known declared weeds within the proposed work area?	YES	Seek advice from DEPWS – Weed Management Branch to determine if weeds are present on site and ensure management measures are appropriate for the level of activity proposed and attach a Weed Management Plan (if required). …….. There are known noxious weeds within the Nobles Nob project area, located around areas that were previously disturbed. There are currently no known weeds within the Juno tenements. TCMG is currently implementing a weed management strategy aiming to eradicate weeds from the Nobles Nob project area, which meets statutory requirements.	Refer to Nobles Nob Gold Project MMP – Authorisation #1123-01 in Appendix B. Section 2.1.3 outlines known weeds within the project area; and Sections 7.3.1 and 8.3.10 addresses management.
Step 3: Will you be using water from bores or other sources for the operation?	NO	Water related matters on mineral titles are no longer exempt from the *Water Act 1992.* Please consult with DEPWS Water Resources and/or familiarise yourself with the *Water Act* to ensure compliance under this Act when undertaking exploration activities.	No dewatering or water extraction is proposed within the scope of works for this MMP. A licence or permit under the *Water Act 1992* is not required.

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. …….. Given the history of mining disturbance at the site, and the small amount of disturbance associated with the proposed exploration activities, the scope of works proposed in this MMP is not expected to have a significant impact on the environment.

ASSESSMENT ASPECT	YES or NO	MANAGEMENT REQUIREMENTS
Step 5: Are there Aboriginal sacred sites in the Project area?	NO	Sacred Sites are protected under the NT *Aboriginal Sacred Sites Act 1989* and administered by the Aboriginal Areas Protection Authority (AAPA). It is recommended that advice be sought from AAPA in relation to sacred site protection. …….. There are two recorded sacred sites within the wider Nobles Nob project area, located on MLC514, and MLC549. As well as one known area of ecological heritage significance in the corridor between the Nobles Nob and Juno tenements. The required management of these areas have been prescribed within AAPA and CLC sacred sites certificates, as outlined below. TCMG will adhere to all requirements of these certificates and will ensure that no works will occur within the restricted works areas and exclusion zones, and no damage to sacred sites will occur as a result of project activities. TCMG has been granted two Aboriginal Areas Protection Authority (AAPA) Certificates under the *Northern Territory Aboriginal Sacred Sites Act 1989* to conduct works within the project area, including exploration works (C2022-026 and C2022-064). These certificates designate Restricted Works Areas around the two known sacred sites, in which no work shall take place other than specified permitted work; no damage shall occur; and the use of existing tracks is permitted for transit only. TCMG has also been granted a Central Land Council (CLC) Sacred Sites Clearance Certificate to conduct works within the project area, including exploration works (C2022-077). Being located on Aboriginal Land Trust land, this is required in addition to the AAPA Certificate under the *Aboriginal Land Rights (Northern Territory) Act 1976*. This certificate designates two Exclusion Zones associated with the two known sacred sites, similar to those designated by AAPA; as well as an additional Restricted Work Area north of the Nobles Nob to Juno infrastructure corridor. Within the Exclusion Zones no access is permitted; and no angled drilling underneath these areas. Within the Restricted Work Area, the certificate requests for only limited works to occur. All proposed drill pads are located outside of the designated exclusion zones and restricted works areas. The closest drill pad to either area is NN_11, as shown in Appendix A. NN_11 is located approximately 80 m north of one of the sacred sites (the billabong known as Lake Alice) and adjacent to the AAPA Restricted Works Area (approximately 23 m from the boundary at the closest point). The Restricted Works Area places a buffer around the sacred site to protect it, and drilling of this hole is outside of this buffer zone. Drilling of this hole is therefore not considered to pose a risk to the sacred site. Erosion and sediment controls will be implemented for all nearby drill holes as required to prevent any runoff to the lake.

ASSESSMENT ASPECT	YES or NO	MANAGEMENT REQUIREMENTS
Step 6: Are there archaeological and heritage sites in the Project area?	NO	Heritage and archaeology sites are protected in the NT. NT Department of Territory Families, Housing and Communities (DTFHC) administers the *Heritage Act 2011.* Seek advice in relation to protection of heritage and archaeological sites. …….. A search of the NT Heritage Register did not return any heritage or archaeological sites within the project area. The high level of historic activities and disturbance indicates it is unlikely for unrecorded heritage values to occur within the site.

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
N/A	This is the first MMP for this scope of works.

Delete or add rows as required

Section 4 – Activities Proposed for this MMP only

Provide relevant tenement numbers – PART 1 of 2:

Mining Interests (i.e. titles)	**MLC525**	**MLC689**	**MLC514**	**MLC688**	**MLC691**	**MLC539**	**MLC512**
Number and type of proposed exploration drill holes	1 x RC (NN_Cu_5)	2 x RC (NN_9, NN_11)	1 x RC (NN_10)	1 x RC (NN_Cu_4)	8 x RC (NN_1, NN_2, NN_3, NN_4, NN_5, NN_6, NN_7, NN_8)	None	3 x RC (NN_Cu_1, NN_Cu_2, NN_Cu_3)
Maximum depth of proposed holes (m)	209.04m	155.43m	183.82m	260.2m	167.19m	N/A	335.78m
Number and size of drill pads to be cleared (Length: m x Width: m)	~1.25 x 20m x 20m pads	~2.2 x 20m x 20m pads	~0.8 x 20m x 20m pads	~0.5 x 20m x 20m pads	8 x 20m x 20m pads (with overlap)	~0.25 x 20m x 20m pads (at NN_Cu_4)	~3 x 20m x 20m pads
Total area of drill pads to be cleared (ha)	~0.05	~0.088	~0.032	~0.02	~0.335	~0.01	~0.12
Number of proposed water bores	None	None	None	None	None	None	None
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	It is anticipated a single, unconfined aquifer will be encountered by all drill holes. Sumps will be constructed to the side of the drill pads to catch any groundwater runoff produced by the drilling.						

Mining Interests (i.e. titles)	**MLC525**	**MLC689**	**MLC514**	**MLC688**	**MLC691**	**MLC539**	**MLC512**
Number of costeans	None	None	None	None	None	None	None
Volume to backfill costeans (Length: m x Width: m x Depth: m)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Number of bulk sample pits	None	None	None	None	None	None	None
Volume to backfill bulk sample pits (Length: m x Width: m x Depth: m)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bulk sample pits approved under *Mineral Titles Act*? (Y or N). If Yes provide approval	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Line/track clearing: (length m x width m)	None	None	None	None	None	None	None
Area of proposed line/track clearing (ha)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Camp area to be cleared (ha)	None	None	None	None	None	None	None

Mining Interests (i.e. titles)	**MLC525**	**MLC689**	**MLC514**	**MLC688**	**MLC691**	**MLC539**	**MLC512**
Camp Infrastructure (i.e. demountable, tents) Please provide a complete list with measurements as required in the security calculation	The drillers will stay in Tennant Creek, no camp infrastructure will be required on site.						
Other	Sumps will be constructed to the side of the drill pads to catch any groundwater runoff produced by the drilling – and in the case of diamond drilling, to mix drilling fluids and retain cuttings from the returned drilling fluids. Sumps will be lined. These will be constructed within the disturbance area of the drill pads.						
Total proposed area of disturbance (ha)	~0.05	~0.088	~0.032	~0.02	~0.335	~0.01	~0.12

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

Provide relevant tenement numbers – PART 2 of 2:

Mining Interests (i.e. titles)	**MLC68**	**MLC46**	**MLC47**	**MLC578**	**MLC45**	**MLC579**
Number and type of proposed exploration drill holes	2 x DDH (J_9 & J_10)	None	4 x DDH (J_1, J_3, J_4, J_5)	3 x RC (J_Cu_1, J_Cu_2, J_Cu_3)	1 x DDH (J_2)	3 x DDH (J_6, J_7, J_8)
Maximum depth of proposed holes (m)	402.98m	N/A	381.26m	291.42m	381.14m	466.66m
Number and size of drill pads to be cleared (Length: m x Width: m)	2 x 20m x 30m pads	~0.5 x 20m x 30m pads (at J_6)	~3 x 20m x 30m pads (with overlap)	3 x 20m x 20m pads	~2 x 20m x 30m pads (with overlap) (at J_2, J_4 & J_5)	~2.5 x 20m x 30m pads

Mining Interests (i.e. titles)	**MLC68**	**MLC46**	**MLC47**	**MLC578**	**MLC45**	**MLC579**
Total area of drill pads to be cleared (ha)	0.12	~0.03	~0.12	0.12	~0.075	~0.15
Number of proposed water bores	None	None	None	None	None	None
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	It is anticipated a single, unconfined aquifer will be encountered by all drill holes. Sumps will be constructed to the side of the drill pads to catch any groundwater runoff produced by the drilling.					
Number of costeans	None	None	None	None	None	None
Volume to backfill costeans (Length: m x Width: m x Depth: m)	N/A	N/A	N/A	N/A	N/A	N/A
Number of bulk sample pits	None	None	None	None	None	None
Volume to backfill bulk sample pits (Length: m x Width: m x Depth: m)	N/A	N/A	N/A	N/A	N/A	N/A
Bulk sample pits approved under *Mineral Titles Act*? (Y or N). If Yes provide approval	N/A	N/A	N/A	N/A	N/A	N/A
Line/track clearing: (length m x width m)	None	None	None	None	None	None
Area of proposed line/track clearing (ha)	N/A	N/A	N/A	N/A	N/A	N/A

Mining Interests (i.e. titles)	**MLC68**	**MLC46**	**MLC47**	**MLC578**	**MLC45**	**MLC579**
Camp area to be cleared (ha)	None	None	None	None	None	None
Camp Infrastructure (i.e. demountable, tents) Please provide a complete list with measurements as required in the security calculation	The drillers will stay in Tennant Creek, no camp infrastructure will be required on site.					
Other	Sumps will be constructed to the side of the drill pads to catch any groundwater runoff produced by the drilling – and in the case of diamond drilling, to mix drilling fluids and retain cuttings from the returned drilling fluids. Sumps will be lined. These will be constructed within the disturbance area of the drill pads.					
Total proposed area of disturbance (ha)	0.12	~0.03	~0.12	0.12	~0.075	~0.15

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 must be completed and attached to the MMP submission to complete this section. The spreadsheet is available on the departmental web page where this template is located.

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N/A. This is the first MMP for this scope of works.

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	Y	Blade-up approach for clearing will be used (i.e. no windrows, leave root stock and topsoil)
6.2	Y	Significant vegetation will be avoided during clearing (i.e. large trees, specimens providing habitat or food sources, riparian vegetation, and threatened species)
6.3	Y	Vegetation clearing during, and immediately after rainfall events, will be avoided
6.4	Y	Vegetation clearing will be kept to the minimum required to safely traverse vehicles and drill rigs along tracks and drill pads
6.5	N/A	Where blade-up techniques cannot be employed, topsoil and vegetation will be stockpiled appropriately for rehabilitation purposes
6.6	Y	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	Y	Sumps will be lined or tanks of appropriate size to contain water, sediment and drilling fluids encountered during drilling, will be used
6.8	Y	Sumps, drill holes, and fuel stores will be located away from environmentally significant areas and water courses
6.9	Y	Excavations (sumps, costeans and pits) will be appropriately ramped to allow fauna egress
6.10	Y	Drill holes will be securely capped immediately after drilling
6.11	Y	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	Y	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	Y	Hazardous substances (including hydrocarbons) will be stored and handled in accordance with relevant Australian Standards
6.14	Y	Hydrocarbons will be stored in lined and bunded areas
6.15	Y	Waste will be stored securely while on-site to minimise windblown rubbish and access by feral animals
6.16	Y	Waste will be removed off-site and disposed of at an appropriate waste management facility
6.17	Y	All environmental incidents will be reported to the Department in accordance with Section 29 of the *Mining Management Act*.
6.18	Y	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	N/A	Radioactive/NORM drill cuttings will be managed to avoid radiation related issues on site.
6.20	Y	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	Y	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	Y	Drill holes encountering multiple or confined aquifers will be grouted with concrete.
7.3	Y	Drill samples/spoil will be returned down drill holes, buried in sumps, or removed from site.
7.4	Y	All drill hole and access markers including flagging tape, wooden markers and star pickets will be removed from site.
7.5	Y	Cut and fill drill pads will be re-contoured to be consistent with the surrounding terrain.
7.6	Y	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	N/A	Tracks will be rehabilitated, including pushing in all windrows, unless otherwise agreed in writing by the land holder or appropriate third party.
7.8	Y	Appropriate erosion and sediment controls will be installed where erosion is evident or likely to occur.
7.10	N/A	Access through watercourses will be removed and banks restored.
7.11	Y	All previously disturbed areas will be stable, with no evidence of active soil erosion.
7.12	Y	All excavations will be backfilled within 6 months of their completion.
7.13	N/A	All water bores will be decommissioned unless otherwise agreed in writing by the land holder or appropriate third party.
7.14	Y	All rubbish and infrastructure will be removed from site.
7.15	Y	Topsoil will be replaced and vegetation re-established.
7.16	Y	Contaminated soils (e.g. hydrocarbon or hazardous chemicals) will be rehabilitated or removed from site.
7.17	Y	Monitoring will be undertaken following the wet season or a significant rainfall event.

Justification and alternative management measures:

No new tracks are required, no watercourses will be encountered, and no water bores will be constructed within the scope of these works.

Section 8 – Required Attachments

8.1	N/A	Initial Application for Authorisation or variation of Authorisation (only if details on the form have subsequently changed).
8.2	Y	Nomination of Operator Form, where required
8.3	Y	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)
8.5	N/A	Disturbance tracking spreadsheet (for existing Authorisations)
8.6	Y	Spreadsheet with coordinates of proposed drill holes or polygons of target areas …….. Details of proposed drill holes are included in Appendix A of this MMP.
8.7	N	KML/shape files/track logs of proposed tracks, camp sites and proposed drill holes or polygons of target areas …….. Coordinates of the proposed drill holes are included in Appendix A of this MMP. No new disturbance related to tracks or camp sites are expected.
8.8	Y	Map(s) of the work area(s) showing: 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 …….. A map showing the relevant features is included in Appendix A of this MMP.
8.10	N/A	Radiation Management Plan (if applicable)
8.12	N/A	Document(s) being appended in relation to Section 2 (if any):

Appendix A. Proposed drill holes

Proposed Drill Holes for Nobles Nob Drilling 2023

Tennant Mining is proposing to drill 19 Reverse Circulation and 10 Diamond Drill holes within the Nobles Nob Project Area. This includes targets at Juno, Rising Sun, south of the Nobles Nob pit, and Weaber's Find. Details of the proposed drill holes are outlined in Table A below. An overview of the location of these drill holes within the Nobles Nob and Juno tenements is shown is Figure 1 below, including their proximity to designated Sacred Sites Restricted Work Areas and Exclusion Zones. A closer look at the location of the proposed drill pads and drill holes for each target are shown in Figures 2 – 5 below. The proximity of the nearest drill holes (being NN_11 and NN_10) to designated Sacred Sites Exclusion Zones within the project area is shown in Figure 6 below.

Table A. Proposed Nobles Nob drill holes for the 2023 drill program

Nobles Nob and Juno drill program 2023				GDA94 MGA 94 Z53		
Target	**HOLE_ID**	**EAST**	**NORTH**	**RL**	**DEPTH**	**TYPE**
Juno	J_1	420670	7821432.63	344.6	318.43	DDH
Juno	J_2	420670	7821465.42	344.2	381.14	DDH
Juno	J_3	420660	7821432.63	344.7	322.7	DDH
Juno	J_4	420660	7821462.82	344.2	381.26	DDH
Juno	J_5	420650	7821462.82	344.4	341.12	DDH
Juno	J_6	420530	7821076.5	345.4	426.26	DDH
Juno	J_7	420550	7821132.81	347.1	466.66	DDH
Juno	J_8	420490	7821102.13	346.4	455.7	DDH
Juno	J_9	420110	7821210.17	350.3	383.48	DDH
Juno	J_10	420130	7821221.13	350.2	402.98	DDH
Juno	J_Cu_1	420500	7821423	345.65	291.42	RC
Juno	J_Cu_2	420440	7821362	348.05	245.9	RC
Juno	J_Cu_3	420400	7821346	349.03	247.17	RC
Rising Sun	NN_1	427579.88	7819925.34	357.17	153.09	RC
Rising Sun	NN_2	427580.03	7819940.82	357.13	167.19	RC
Rising Sun	NN_3	427569.86	7819925.47	357.09	155.52	RC
Rising Sun	NN_4	427559.61	7819911.61	357.11	155.79	RC
Rising Sun	NN_5	427529.26	7819895.23	356.21	161.38	RC
Rising Sun	NN_6	427519.37	7819891.94	355.96	142.12	RC
Rising Sun	NN_7	427519.28	7819875.07	355.9	119.05	RC
Rising Sun	NN_8	427428.61	7819817.83	353.68	160.82	RC
Weaber's Find	NN_9	426810.33	7819942.73	351.63	64.72	RC
Weaber's Find	NN_10	426755.59	7819875.75	352.28	183.82	RC
Weaber's Find	NN_11	426645	7819965	354.6	155.43	RC
Nobles Nob pit	NN_Cu_1	426058.19	7819819.11	357.97	335.78	RC
Nobles Nob pit	NN_Cu_2	425999.31	7819954.2	362	155.28	RC
Nobles Nob pit	NN_Cu_3	425821.36	7819965.02	356.29	300.31	RC
Nobles Nob pit	NN_Cu_4	425781.11	7819975.58	355.71	260.2	RC
Nobles Nob pit	NN_Cu_5	425701.88	7820032.62	357.42	209.04	RC

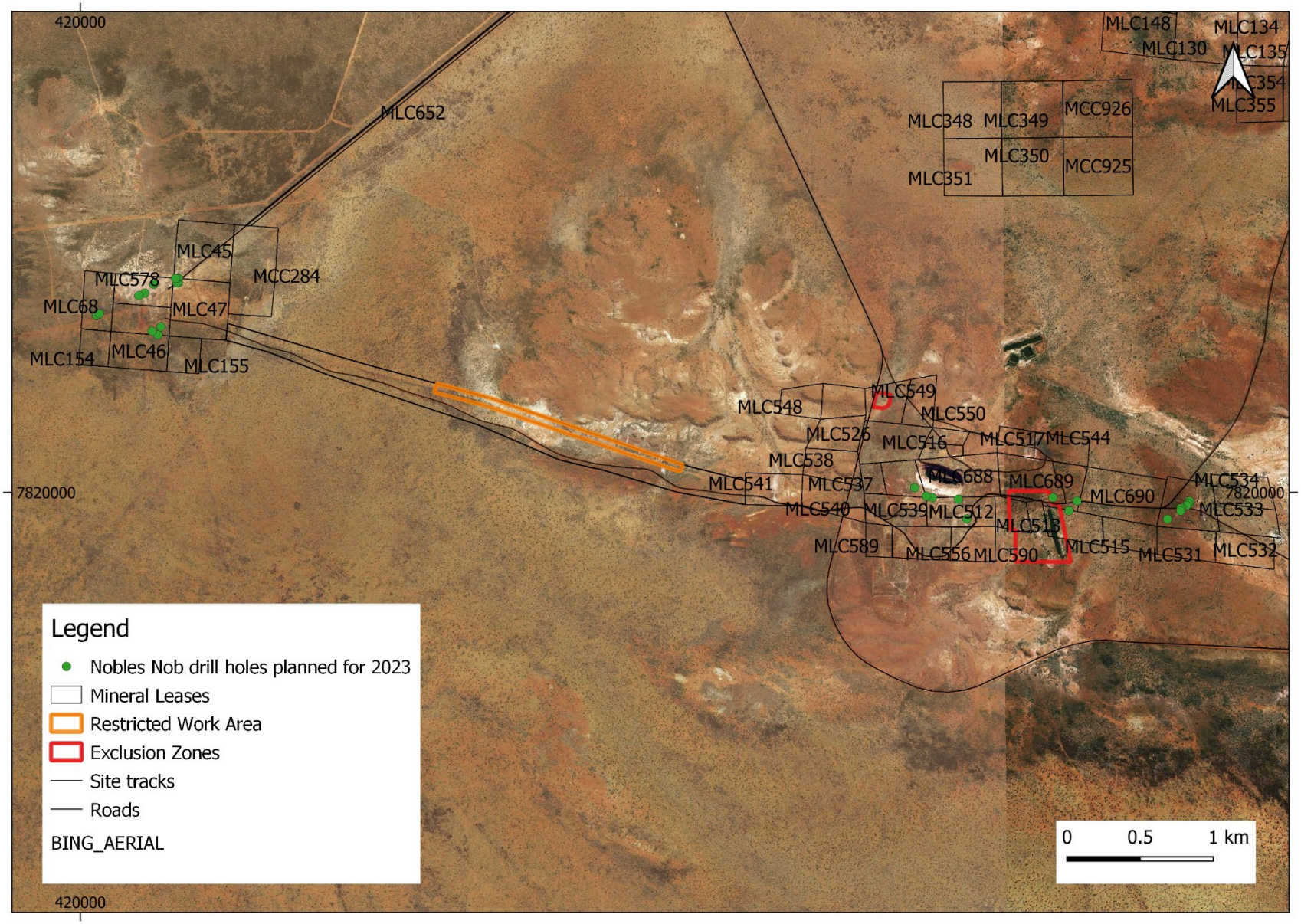

Figure 1. Location of planned drill holes for 2023 within Nobles and Juno tenements, showing proximity to Sacred Sites Exclusion Zones and Restricted Work Areas

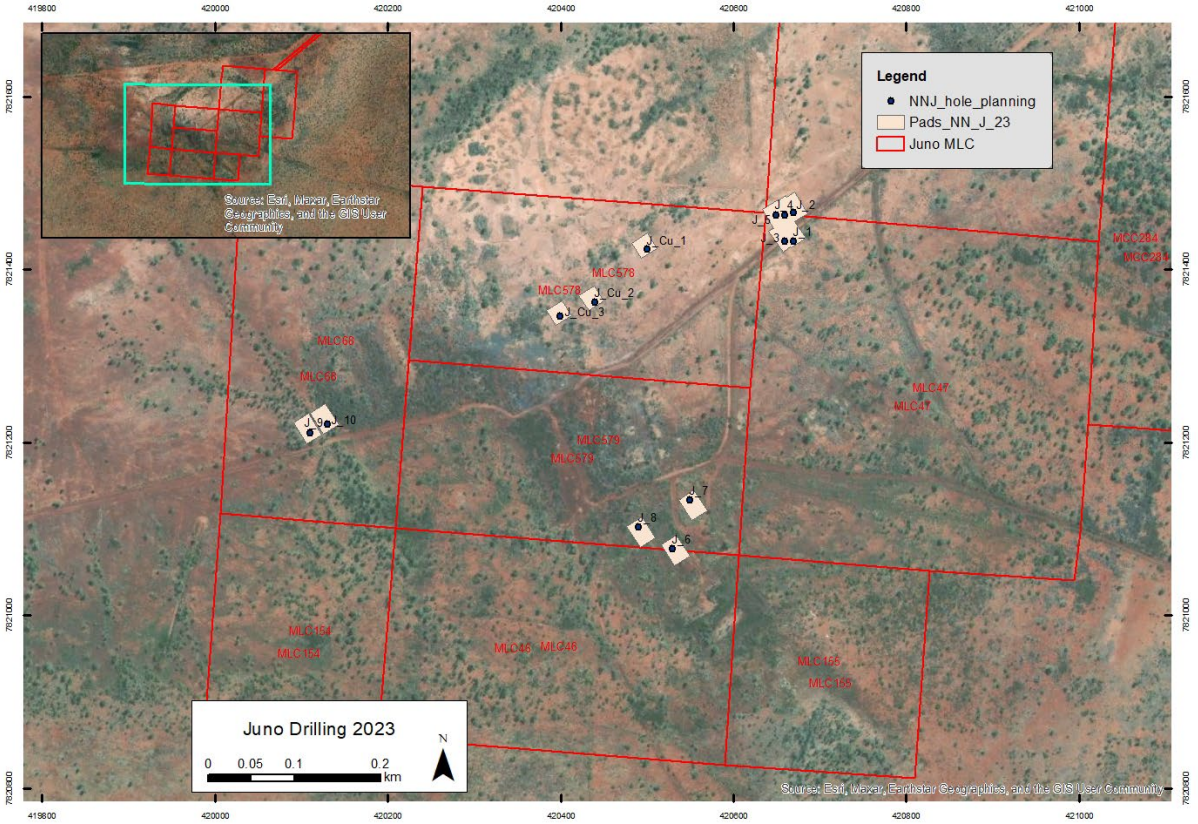

Figure 2. Location of proposed drill holes and drill pads for 2023 at Juno

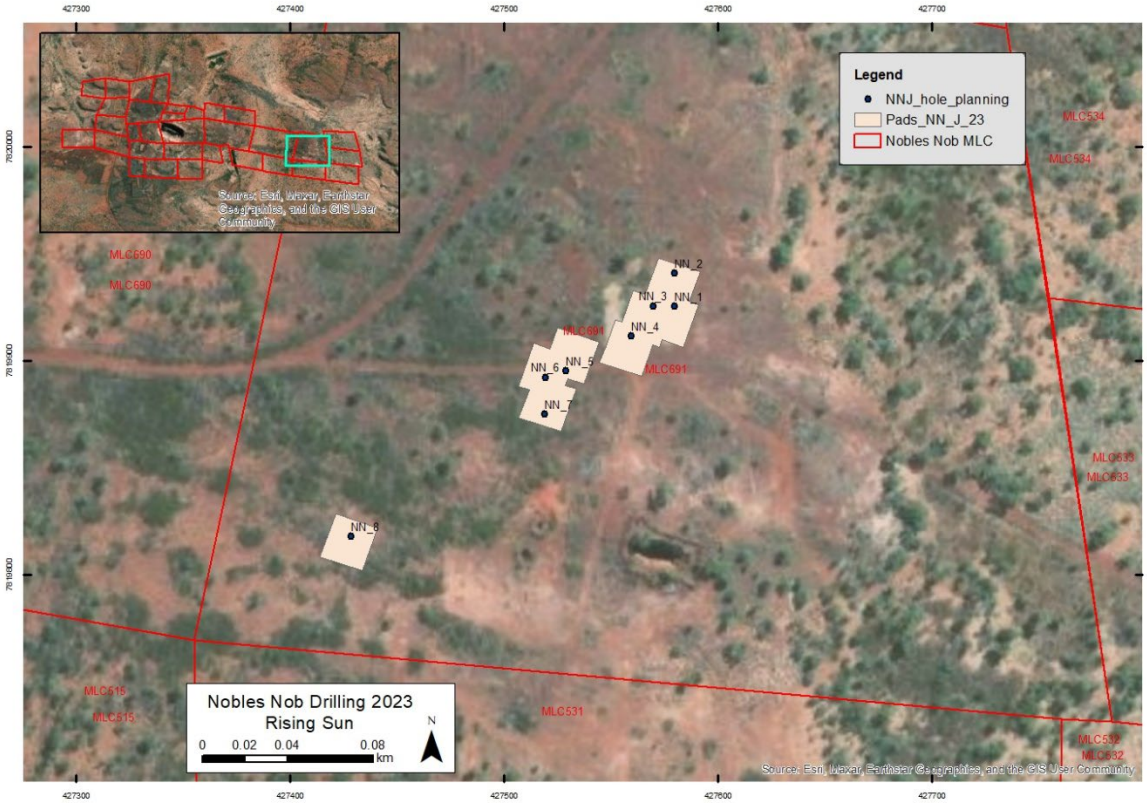

Figure 3. Location of proposed drill holes and drill pads for 2023 at Rising Sun

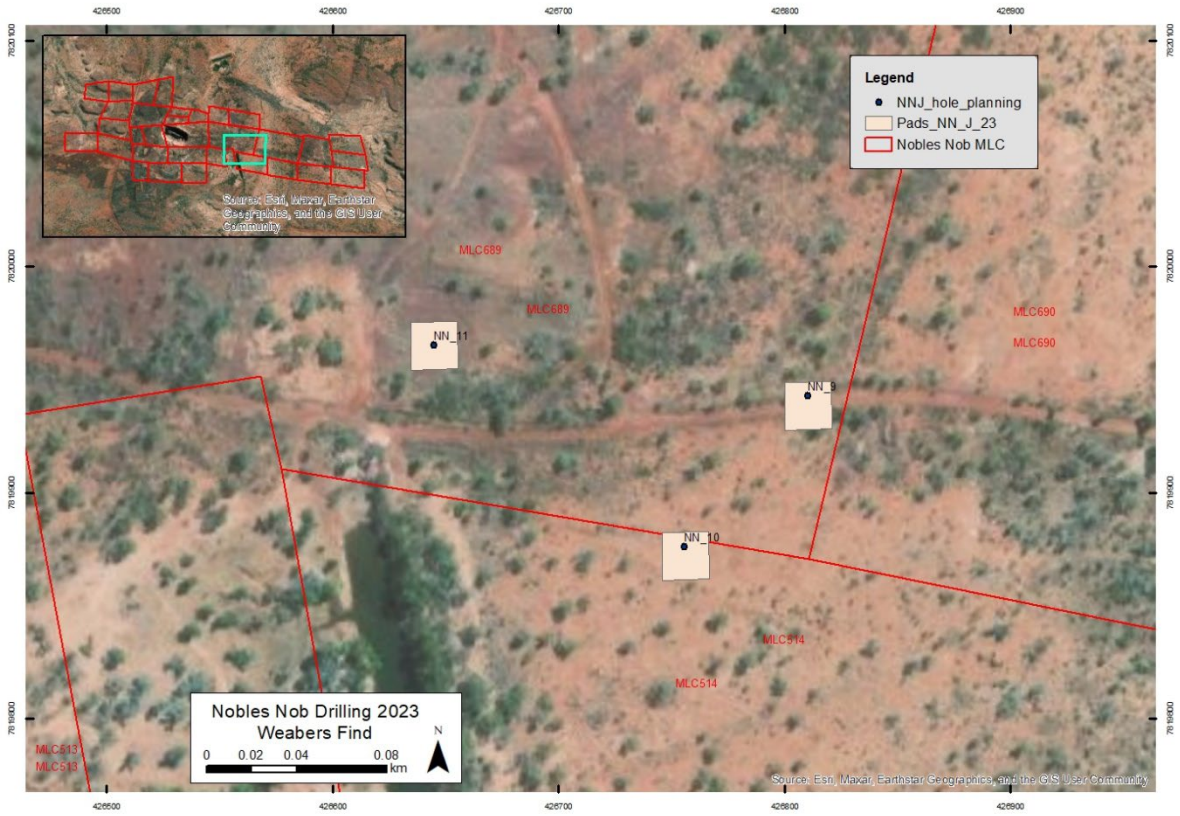

Figure 4. Location of proposed drill holes and drill pads for 2023 at Weaber's Find

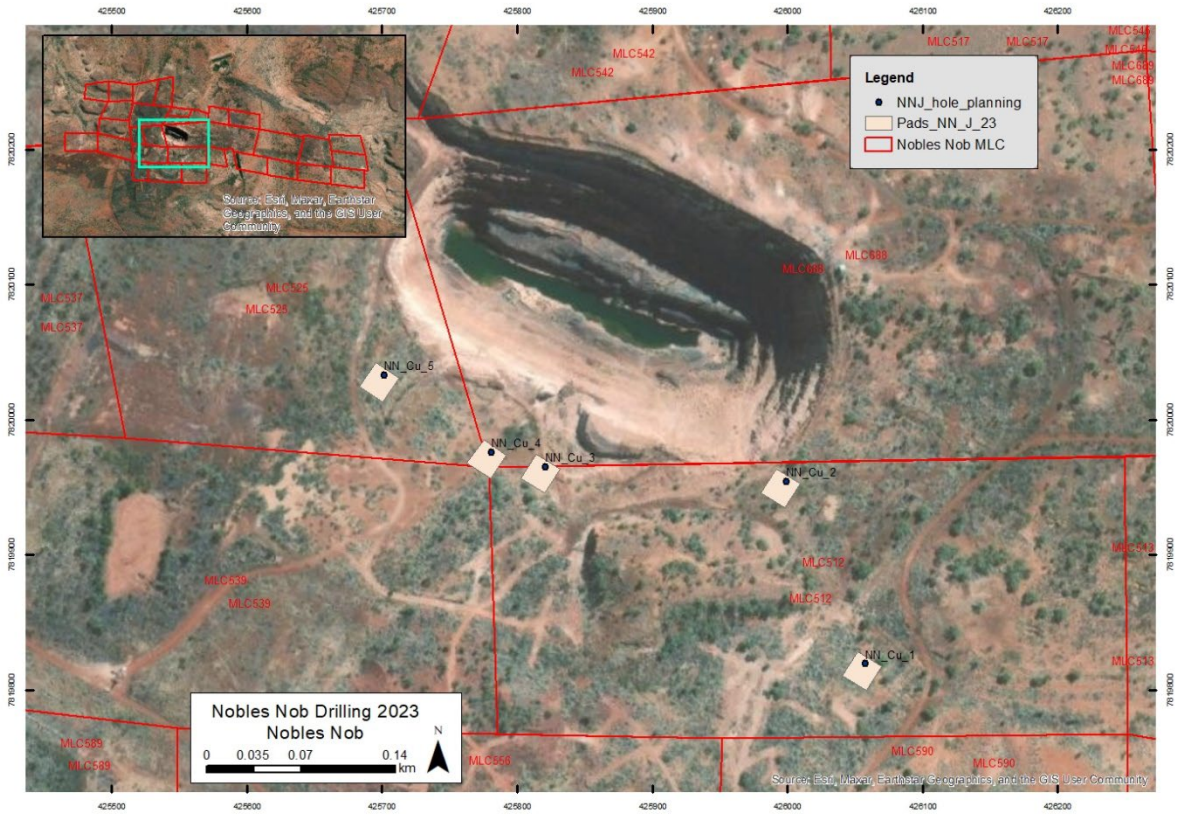

Figure 5. Location of proposed drill holes and drill pads for 2023 at Nobles Nob pit

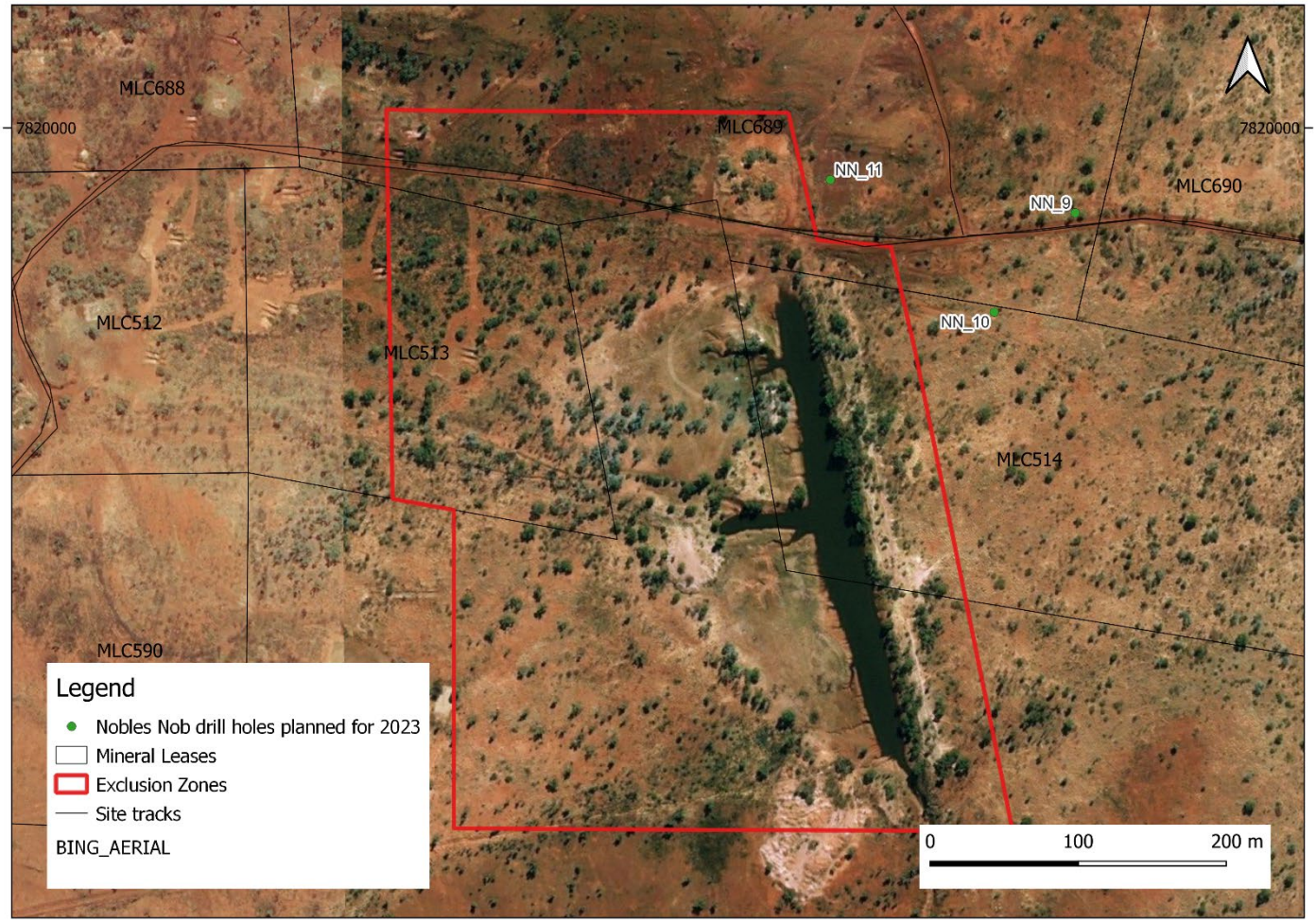

Figure 6. Location of drill holes in relation to Lake Alice Sacred Site Exclusion Zone

Appendix B. Nobles Nob Gold Project MMP (Authorisation #1123-01)