



**ONLINE LODGEMENT DATE:** 12/08/2022  
**REGISTRATION ID:** 113159  
**APPLICANT REFERENCE:** Marvel Loch North Pit

## **PROGRAMME OF WORK (*MINING ACT 1978*)**

<b>Applicant/Company:</b>	BARTO GOLD MINING Pty Ltd
<b>Submitter:</b>	Jonathan STREETER
<b>Primary Contact:</b>	Jonathan STREETER Position: Exploration Superintendent Email: jonathan.streeter@minjargold.com.au Tel: +61 8 9081 1325 Mob: +61 8 9081 1325

### **Please note the following:**

- **Requests** for further information will have a time limit of **10 working days** to **respond to the Department**.
- Please allow sufficient time for this proposal to be assessed (at least 30 business days). If all required information is not supplied, or if consultation with other agencies is required, then the assessment time frame may increase.
- The *Mines Safety and Inspections Act 1994* requires an Exploration Operation Notification form to be submitted to Resources Safety Division of DMIRS prior to the proposed activities (see section 1.3) taking place.  
<http://www.dmp.wa.gov.au/Safety-Exploration>
- DMIRS has a Memorandum of Understanding (MoU) with the EPA, certain criteria may trigger DMIRS to seek advice from other agencies. The MoU document is available at:  
<http://www.dmp.wa.gov.au/EPA-DMP-MOU>
- This application will be made available to other government agencies as required.

## **1. Proposed Activities**

### **1.1 Proposed Dates of Activity**

Approval is valid for 48 months from the date on the approval letter. These dates help to determine audit plans and any specific environmental or safety guidance.

**From: 12/08/2022**

**To: 01/08/2024**

Application for an extension of work beyond 48 months can be made in writing to an Environmental Officer prior to the expiry of the approval.

### **1.2 Target Minerals**

TIN - TANTALUM - LITHIUM  
GOLD

### 1.3 Activities summary

#### Drilling:

Name	Type	Tenements	Drilling	Pad Details	Number of Sumps	Buffer	Comments
M77/00525 RC	Drill Area	M 77/525	25 holes Reverse Circulation Max Depth = 300.00m Min Spacing = 50.00m Track = 1000.00m x 5.00m	25 pad(s) 25.000m x 20.000m	25 5.000m x 5.000m x 0.500m Sump within Pad	Default buffer of 0.00m applied	All sumps will be banded on three sides with the fourth ramped to allow for any fauna to exit Target=Mineral Groundwater Anticipated

## 1.4 Disturbance Table

Tenement	Activity Type	Proposed Area Disturbed (ha)	Proposed Tonnage Disturbed	Tonnage Removed
M 77/525	Drilling	1.75	0.000	0
		<b>Total = 1.75</b>	<b>Total = 0.00</b>	<b>Total = 0</b>

## 2. Land Use & Referrals

### Tenement Holders

Please note that the following tenement holders will be notified by email that this proposal has been submitted. It is essential that you liaise with and obtain permission from the tenement holder before commencing operations

Tenement & Holder Details	Consent Granted
BARTO GOLD MINING PTY LTD TENEMENTS & LANDS C/- MINJAR GOLD PTY LTD PO BOX 115 WEST PERTH M 77/525	Yes - I Am Able to Authorise

### Townsites

The approval envelope intersects with one or more townsites. Summary of consultation:

Townsite	Ministerial Consent Required?	Ministerial Consent Granted?	Approval Obtained?	Currently Seeking Approval?	Comments
MARVEL LOCH	Yes	Yes	Yes	No	
<b>Notices</b>					

### Crown Land

Please note, under section 20(5) of the *Mining Act 1978* the holder is not entitled to prospect or fossick on, explore, or mine on or under, or otherwise interfere with, any Crown Land that is:

- for the time being under crop (or within 100 m of that crop);
- used or situated within 100 m of a yard, stockyard, garden, cultivated field, orchard, vineyard, plantation, airstrip or airfield;
- situated within 100 m of any land that is in actual occupation and on which a house or other substantial building is erected;
- the site of or situated within 100 m of any cemetery or burial ground;
- within 400 m of the outer edge of, any water works, race, dam, well or bore, not being an excavation previously made and used for mining purposes by a person other than a lessee of that pastoral lease.

without the prior written consent of the occupier.

### Environmental Protection Authority

Has the area of proposed activity been referred or is it currently being assessed by the Environmental Protection Authority under Part IV of the *Environmental Protection Act 1986*? No

Has the area of proposed activity ever previously been assessed by the Environmental Protection Authority under No

Part IV of the *Environmental Protection Act 1986*?

**Waterways**

Does the proposed activity involve disturbing the beds and/or banks of a watercourse? No

**3. Environment**

**Native Vegetation Clearing**

Does your proposal involve the clearing of native vegetation? No

**Isolated Hills and Ranges in the Midwest/Yilgarn**

Do the proposed activities occur on any isolated hills or ranges, such as Banded Iron Formations? No

**Environmental Management**

All groundwater intercepted during drilling and/or drilling water appropriately stored and contained (e.g. within sumps or tanks) Yes

Excavations (sumps, costeans etc.) appropriately ramped to allow fauna egress Yes

Avoiding significant vegetation (e.g. large trees and dense patches of vegetation) Yes

Topsoil and vegetation stockpiled appropriately for use in rehabilitation Yes

Management measures implemented to minimise risk of hydrocarbon spillage (e.g. use of liners and drip trays under drill rigs) Yes

Vehicle hygiene maintained to prevent the spread of weeds Yes

**Rehabilitation Practices**

Surface holes drilled for the purpose of exploration are to be capped, filled or otherwise made safe immediately after completion Yes

Drill holes securely plugged below ground in a manner that prevents long-term slumping or subsidence, within 6 months of drilling. Yes

Drill sample piles rehabilitated or buried Yes

Excavations (sumps, costeans, etc) backfilled or appropriately made safe Yes

Blocking access to rehabilitated tracks Yes

Compacted areas such as access tracks, core farms, camp sites, etc, rehabilitated in an appropriate manner (e.g. deep ripped, scarified). Yes

Appropriate erosion control implemented in rehabilitation (contour ripping, managing runoff, etc.) Yes

All ground disturbing activities undertaken for the purposes of exploration/prospecting rehabilitated within 6 months of the Yes

activity

All sample bags, rubbish and temporary infrastructure removed from site at the end of the program Yes

#### **4. Safety**

##### **Fibrous Materials**

Is your exploration programme likely to encounter fibrous materials such as asbestos? No

##### **Radiation Management**

Is your exploration program likely to encounter Radioactive Material? No

#### **5. Additional Comments**

All significant vegetation clearing will be avoided unless it creates an unsafe operational area.

Drill collars will be moved to account for significant vegetation (trees etc.). Where possible historical tracks and natural open areas will be utilised to provide space for the drill rig to drill from.

All clearing and drilling operations will be in accordance with the sites environmental management plan attached and on file with DMIRS.

#### **6. Attachments**

Section	Attachment File Name
Additional Attachments	SX-EN-0004_Exploration Environmental Management Plan.pdf



## Tenement Endorsement and Conditions Extract

**Tenement:** M 77/525  
**Show History:** No  
**Working versions only:** No

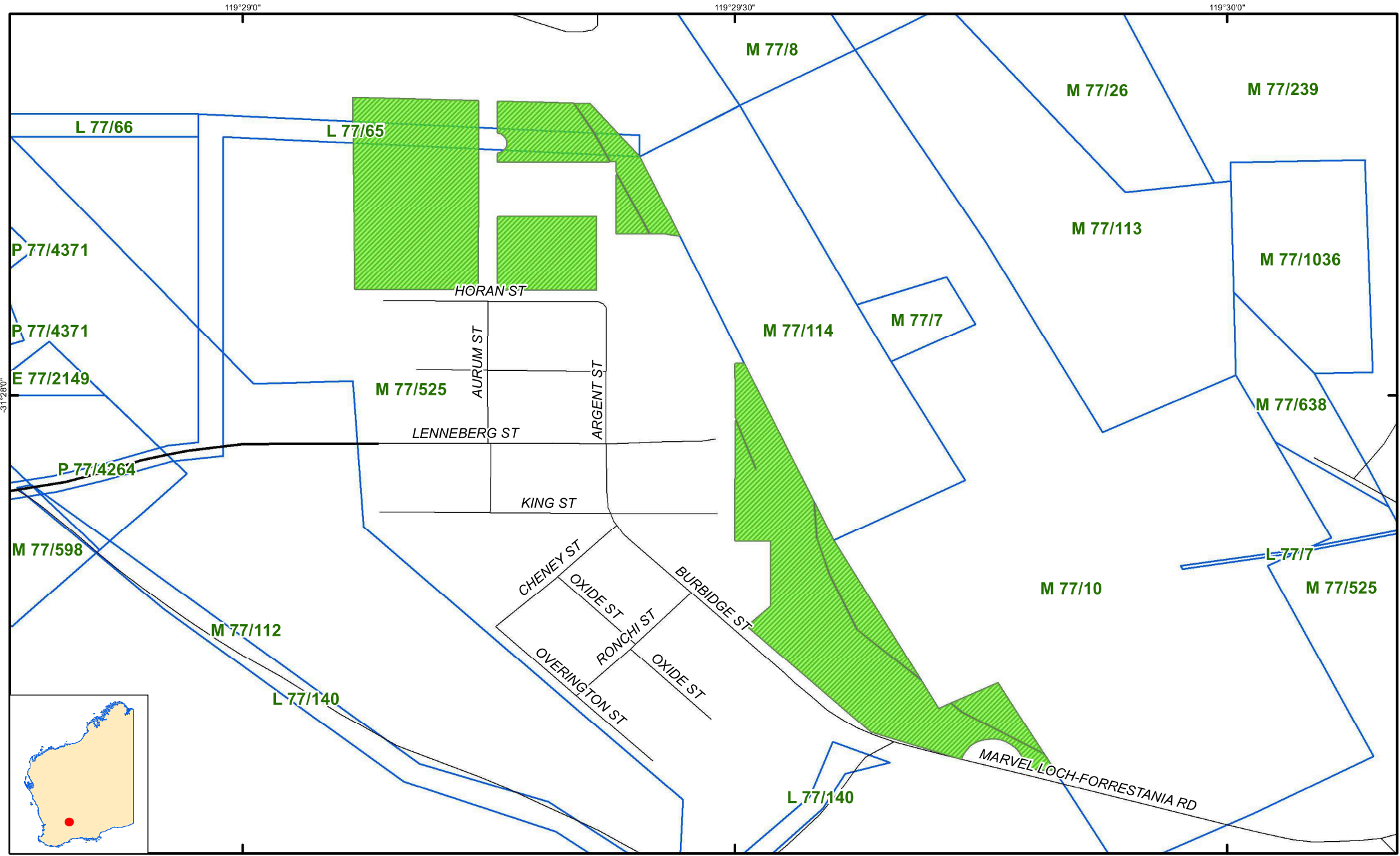
#	ENDORSEMENTS	Status	Start Date	End Date
1	The grant of this lease does not include any private land referred to in Section 29(2) of the Mining Act 1978 except that below 30 metres from the natural surface of the land.	Active	12/12/1995	
#	CONDITIONS	Status	Start Date	End Date
1	Survey.	Active	01/08/1991	
2	Compliance with the provisions of the Aboriginal Heritage Act, 1972 to ensure that no action is taken which is likely to interfere with or damage any Aboriginal site.	Active	01/08/1991	
3	All surface holes drilled for the purpose of exploration are to be capped, filled or otherwise made safe after completion.	Active	01/08/1991	
4	All costeans and other disturbances to the surface of the land made as a result of exploration, including drill pads, grid lines and access tracks, being backfilled and rehabilitated to the satisfaction of the Environmental Officer, Department of Industry and Resources (DoIR). Backfilling and rehabilitation being required no later than 6 months after excavation unless otherwise approved in writing by the Environmental Officer, DoIR.	Active	12/08/2005	
5	All waste materials, rubbish, plastic sample bags, abandoned equipment and temporary buildings being removed from the mining tenement prior to or at the termination of exploration programme.	Active	01/08/1991	
6	Unless the written approval of the Environmental Officer, DoIR is first obtained, the use of scrapers, graders, bulldozers, backhoes or other mechanised equipment for surface disturbance or the excavation of costeans is prohibited. Following approval, all topsoil being removed ahead of mining operations and separately stockpiled for replacement after backfilling and/or completion of operations.	Active	12/08/2005	
7	No developmental or productive mining or construction activity being commenced until the tenement holder has submitted a plan of the proposed operations and measures to safeguard the environment to the Director, Environment, DoIR for assessment; and until his written approval has been obtained.	Active	12/08/2005	
8	No mining on Caravan Park Reserve 13308, Water Purpose Reserve 21605, Effluent Disposal Reserve 40746 and Marvel Loch Townsite without the prior written consent of the Minister for Mines.	Active	01/08/1991	
9	The complete excision of Gold Mining Lease 77/4609 with rights of ingress to and egress from the ground comprised therein being at all times preserved to the lessee thereof.	Active	01/08/1991	
10	The grant in respect of Special Lease 3116/10232 and Jilbadji Location 999 being confined to below a depth of 30 metres from the natural surface.	Active	01/08/1991	
11	The rights of ingress to and egress from Miscellaneous Licences 77/7, 77/65 and 77/66 being at all times preserved to the licensee and no interference with the purpose and installations connected to the miscellaneous licence.	Active	01/08/1991	
12	No interference with Geodetic Survey Stations SC 44, SC44A, SC45 and SC46 and mining within 15 metres thereof being confined to below a depth of 15 metres from the natural surface.	Active	01/08/1991	
13	Mining on a strip of land 20 metres wide with any water main as the centreline being confined to below a depth of 31 metres from the natural surface and no mining material being deposited upon such strip.	Active	01/08/1991	
14	Rights of ingress to and egress from any water main being at all times preserved to employees of the Water Authority.	Active	01/08/1991	
15	Mining on any road or road reserve being confined to below a depth of 15 metres from the natural surface.	Active	01/08/1991	
16	The construction and operations of the project and measures to protect the environment being carried out generally in accordance with the document titled: <ul style="list-style-type: none"> <li>"Approval to mine the northern part of the Undaunted eastern lode" dated 20 August 1991;</li> <li>"Submission for approval for trial dump leach on M77/525 at Marvel Loch" dated 28 January 1993;</li> <li>"Addendum to Notice of Intent Proposal for the Undaunted Open Pit Marvel Loch WA" dated August 1995;</li> </ul> and retained on Department of Minerals and Energy File No.s 1096/90, 2018/93 and 2058/94. <ul style="list-style-type: none"> <li>"Marvel Loch Mining Operation- Addendum to Notice of Intent- Proposal to Extend the Southern Waste Dump" dated October 1999 and retained on Department of Minerals and Energy File No. 2657-99.</li> <li>"Addendum to Notice of Intent - Achilles Haul Road Extension and Expansion" dated 12 September 2002 and signed by Mr Michael Valent, Technical Service Manager (NOI 4077) and retained on Department of Mineral and Petroleum Resources File No. 5113/02;</li> <li>(MP Reg ID 58982) "Mining Proposal Amendment (Removal of Various Low Grade Stockpiles) - Rev A - Tenements M77/138, M77/747, M77/109, M77/525, M77/175, M77/137, M77/431, M77/790, M77/225" dated 7 June 2016 signed by Martin Haugg and retained on Department of Mines and Petroleum File No. EARS-MP-58982 as Doc ID 4292745;</li> <li>(MP Reg ID 72814) "Tailings Storage Facility Seepage DTM Mining Proposal Revision 1" dated 20 March 2018 signed by Martin Haugg and retained on Department of Mines, Industry Regulation and Safety File No. EARS-MP-72814 as Doc ID 5645314;</li> </ul>	Active	12/05/2021	

#	CONDITIONS	Status	Start Date	End Date
	<ul style="list-style-type: none"> <li>(MP Reg ID 74266) "Mining Proposal Marvel Loch Exploration Core Library" dated 28 May 2018 signed by Paul Gent, and retained on Department of Mines, Industry Regulation and Safety File No. EARS-MP-74266 as Doc ID 5780636</li> </ul> <p>Where a difference exists between the above documents and the following conditions, then the following conditions shall prevail.</p>			
17	The development and operation of the project being carried out in such a manner so as to create the minimum practicable disturbance to the existing vegetation and natural landform	Active	07/04/1993	
18	All topsoil being removed ahead of all mining operations from sites such as pit areas, waste disposal areas, ore stockpile areas, pipeline, haul roads and new access roads and being stockpiled for later respreading or immediately respread as rehabilitation progresses.	Active	07/04/1993	
19	At the completion of operations, all buildings and structures are to be removed from site or demolished and buried to the satisfaction of the State Mining Engineer.	Active	07/04/1993	
20	All rubbish and scrap being progressively disposed of in a suitable manner.	Active	07/04/1993	
21	At the completion of operations or progressively where possible, waste dump out slopes being battered down, covered with topsoil, deep ripped on the contour and revegetated with local native grasses, shrubs and trees to form a safe, stable landform to the satisfaction of the Inspectorate Environmental Officer.	Active	10/05/2004	
22	Any alteration or expansion of operations within the lease boundaries beyond that outlined in the above document, is not commence until a plan of operations and a programme to safeguard the environment are submitted to the State Mining Engineer for his assessment and until his written approval to proceed has been obtained.	Active	07/04/1993	
24	The lessee taking all reasonable and practicable measures to prevent or minimise the generation of dust from all materials handling operations, stockpiles, open areas and transport activities.	Active	07/04/1993	
25	Where saline water is used for dust suppression, all reasonable care being taken to avoid any detrimental effects to surrounding vegetation.	Active	07/04/1993	
26	The lessee directing stormwater runoff away from areas adjacent to heap leach facilities to minimise accidental loss of stored matter due to flooding or erosion.	Active	07/04/1993	
27	The lessee ensuring that all matter containing saline, alkaline, cyanide or other process chemical constituents being retained within holding facilities, such that there is no impairment of surface or underground waters.	Active	07/04/1993	
28	The lessee installing and maintaining, where practical, a perimeter drain immediately downstream of the heap leach facilities to collect and recover any liquid matter resulting from seepage or collapse of the heaps.	Active	07/04/1993	
29	Any failure of components of the heap leach system resulting in a loss of potentially polluting matter to the environment being immediately reported to the Inspectorate Environmental and Rehabilitation Officer of the Department of Minerals and Energy. This report being accompanied by a programme for corrective action.	Active	07/04/1993	
30	Upon discontinuation of use, or abandonment, the lessee flushing each leach pad, if necessary with a suitable oxidising agent, such that subsequent testing confirms the absence of free cyanide within the heap leach deposit.	Active	07/04/1993	
31	Access to the surface of land within Marvel Loch Townsite for mining purposes being subject to the approval of the local Authority or relevant reserve vestees, and mining activities within the first 100 metres below the surface of the land being limited to such exploration activities as may be approved by the State Mining Engineer.	Active	12/12/1995	
32	The Lessee submitting to the Executive Director, Environment Division, DMP, a brief annual report outlining the project operations, minesite environmental management and rehabilitation work undertaken in the previous 12 months and the proposed operations, environmental management plans and rehabilitation programmes for the next 12 months. This report to be submitted each year in: <ul style="list-style-type: none"> <li>October</li> </ul>	Active	02/09/2013	
33	A Mine Closure Plan is to be submitted in the Annual Environmental Reporting month specified in tenement conditions in the year specified below, unless otherwise directed by the Executive Director Resource and Environmental Compliance Division, Department of Mines, Industry Regulation and Safety. The Mine Closure Plan is to be prepared in accordance with the Department's "Guidelines for Preparing Mine Closure Plans": <ul style="list-style-type: none"> <li>2022</li> </ul>	Active	05/11/2020	
34	Placement of waste material must be such that the final footprint after rehabilitation will not be impacted upon by pit wall subsidence or be within the zone of pit instability.	Active	11/04/2017	
35	All activities being carried out in such a manner so as to not have a detrimental effect on the natural water flow through the lease and surrounding areas to the satisfaction of the Environmental Officer, DMP.	Active	11/04/2017	
36	On the completion of operations or progressively when possible, all waste dumps, tailings storage facilities, stockpiles or other mining related landforms must be rehabilitated to form safe, stable, non-polluting structures which are integrated with the surrounding landscape and support self sustaining, functional ecosystems comprising suitable, local provenance species or alternative agreed outcome to the satisfaction of the Executive Director, Environment Division, DMP.	Active	11/04/2017	
37	All ground disturbance activities associated with Mining Proposal Reg ID 87130 to be undertaken within the disturbance envelope as represented by the spatial data provided on 27 July 2020 and retained on Department of Mines, Industry Regulation and Safety File No. EARS-MPMCP-87130 as Doc ID 7576902.	Active	05/11/2020	
38	No alteration or expansion of mining operations beyond the activities detailed in Tables 5 - 6 of the Mining Proposal (Reg ID 87130) "Marvel Loch Underground Mining Proposal - Revision 2 Version 2" retained on Department of Mines, Industry Regulation and Safety File No. EARS-MPMCP-87130 as Doc ID 7817430.	Active	05/11/2020	

#	CONDITIONS	Status	Start Date	End Date
39	The Lessee to ensure adequate environmental monitoring and analysis is undertaken to demonstrate the level of achievement of the performance criteria stated in Table 27 of the Mining Proposal (Reg ID 87130) "Marvel Loch West Underground Mining Proposal - Revision 2 Version 2" retained on Department of Mines, Industry Regulation and Safety File No. EARS-MPMCP-87130 as Doc ID 7817430.	Active	05/11/2020	
41	Report any incident arising from mining activities that has caused, or has the potential to cause environmental harm or injury to the land, to the Executive Director, Resource and Environmental Compliance Division, Department of Mines, Industry Regulation and Safety, within 24 hours of becoming aware of the occurrence of the incident.	Active	05/11/2020	
42	Report any breach of environmental outcome or performance criteria stated in Table 27 of the Mining Proposal (Reg ID 87130) "Marvel Loch West Underground Mining Proposal - Revision 2 Version 2" retained on Department of Mines, Industry Regulation and Safety File No. EARS-MPMCP-87130 as Doc ID 7817430, to the Executive Director, Resource and Environmental Compliance Division, Department of Mines, Industry Regulation and Safety, within 24 hours of becoming aware of the occurrence of the breach.	Active	05/11/2020	
43	Two surface vibration monitoring devices must be installed at or in close proximity to the two closest Sensitive Receivers in the Marvel Loch town site in order to measure and record blast vibrations for all underground firings.	Active	05/11/2020	
44	Blast vibrations must not exceed human comfort thresholds of 5mm/s.	Active	05/11/2020	
45	All mining operations to meet the environmental outcomes as measured by the performance criteria stated in Table 14 of the Mining Proposal (Reg ID 88244) "Mining Proposal Three Mile Dam" retained on Department of Mines, Industry Regulation and Safety File No. EARS-MP-88244 as Doc ID 7941802.	Active	12/01/2021	
46	All ground disturbance activities associated with Mining Proposal (Reg ID 88244) to be undertaken within the disturbance envelope as represented by the spatial data provided on 18 December 2020 and retained on Department of Mines, Industry Regulation and Safety File No. EARS-MP-88244 as Doc ID 7973515.	Active	12/01/2021	
47	No alteration or expansion of mining operations beyond the activities detailed in Table 3 and Table 4 for granted tenure only of the Mining Proposal (Reg ID 88244) "Mining Proposal Three Mile Dam" retained on Department of Mines, Industry Regulation and Safety File No. EARS-MP-88244 as Doc ID 7941802.	Active	12/01/2021	
48	The Lessee to ensure adequate environmental monitoring and analysis is undertaken to demonstrate the level of achievement of the performance criteria stated in Table 14 of the Mining Proposal (Reg ID 88244) "Mining Proposal Three Mile Dam" retained on Department of Mines, Industry Regulation and Safety File No. EARS-MP-88244 as Doc ID 7941802.	Active	12/01/2021	
50	Report any breach of environmental outcome or performance criteria stated in Table 14 of the Mining Proposal (Reg ID 88244) "Mining Proposal Three Mile Dam" retained on Department of Mines, Industry Regulation and Safety File No. EARS-MP-88244 as Doc ID 7941802, to the Executive Director, Resource and Environmental Compliance Division, Department of Mines, Industry Regulation and Safety, within 24 hours of becoming aware of the occurrence of the breach.	Active	12/01/2021	
51	Management of mine closure to be undertaken in accordance with the latest, relevant, approved Mine Closure Plan.	Active	12/05/2021	

**-- End of Report --**





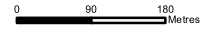
**Legend**

- Drilling Polygon
- Envelope
- Main Road
- Minor Road
- Tenements - Live
- Coastline



Government of Western Australia  
Department of Mines, Industry Regulation and Safety

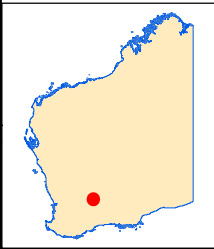
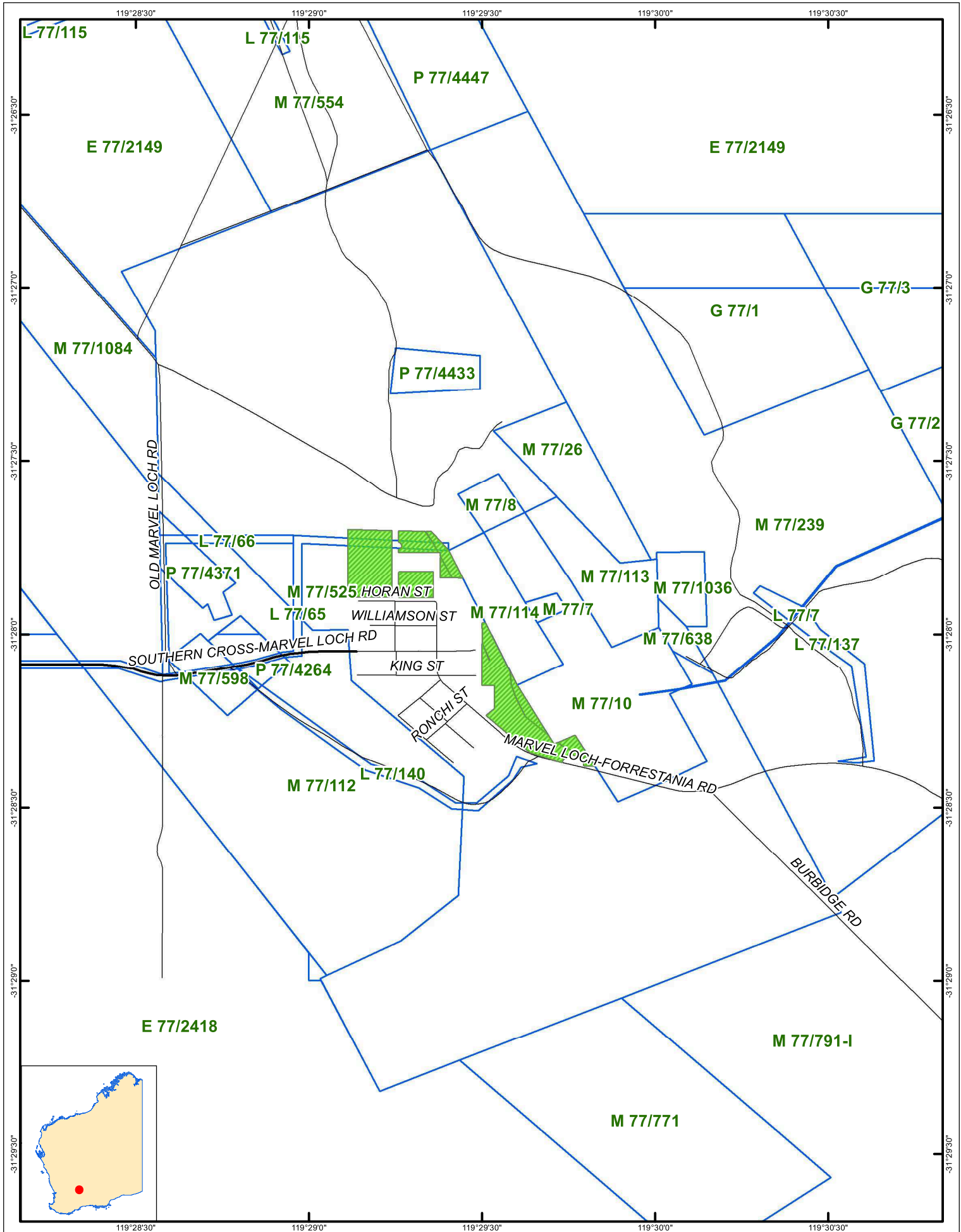
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Latitude/Longitude  
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12/08/2022, 08:14 AM

**BARTO GOLD MINING Pty Ltd**  
**Programme of Work: 113159**



- Legend**
- Drilling Polygon
  - Tenements - Live
  - Envelope
  - Coastline
  - Main Road
  - Minor Road



Government of Western Australia  
 Department of Mines, Industry Regulation and Safety

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**BARTO GOLD MINING Pty Ltd**  
**Programme of Work: 113159**



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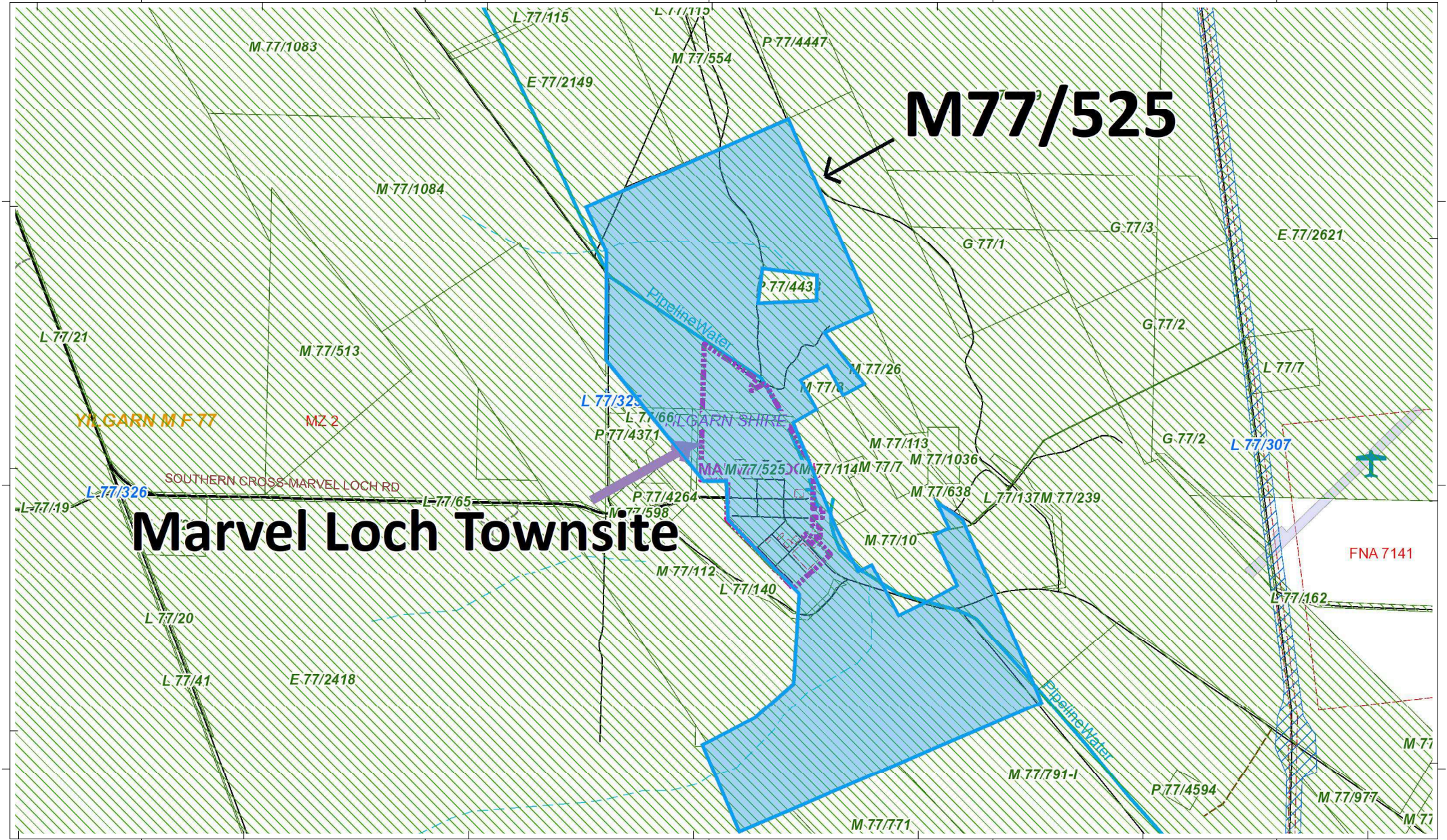
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# Marvel Loch Townsite

## M77/525

119°26' 119°27' 119°28' 119°29' 119°30' 119°31' 119°32'

This plan has been compiled from various data sources received from a number of agencies and with information supplied by applicants for mining tenements. No responsibility is accepted for any error or omission. The Commonwealth of Australia (c) 2002, through Geoscience Australia and the Department of Defence, maintains copyright over those parts of the topographic data it has provided for display in TENGRAPH. Users wishing to use the data in its unaltered form should contact Geoscience Australia at www.ga.gov.au. Confirmation of the extent and composition of any Native Title Claims should be sought from the Native Title Spatial Services Landgate. Enclosed Pastoral Lease land and Pre 1994 mining confined to Nharuwangga Wajarri and Ngariwangga ILLUA Native Title determination boundary.

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