

TERRITORY EXPLORATION PTY LTD

MINING MANAGEMENT PLAN

STRANGWAYS PROJECT
NORTHERN TERRITORY

2018 EXPLORATION ACTIVITIES

ON

EL 30779

RC Drilling Program

DISTRIBUTION:

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May 2018

Document Approval:

	Author	Reviewed	Approved
Date	May 2018	May 2018	May 2018
Name	W Jettner	D Muller	D Muller
Signature			

I, David Muller, Director, declare that to the best of my knowledge the information contained in this Mining Management Plan is true and correct and commit to undertake the works detailed in this plan in accordance with all the relevant Local, Northern Territory and Commonwealth Government legislation.

Signature:

Date:

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AMENDMENTS

Section	Amendment

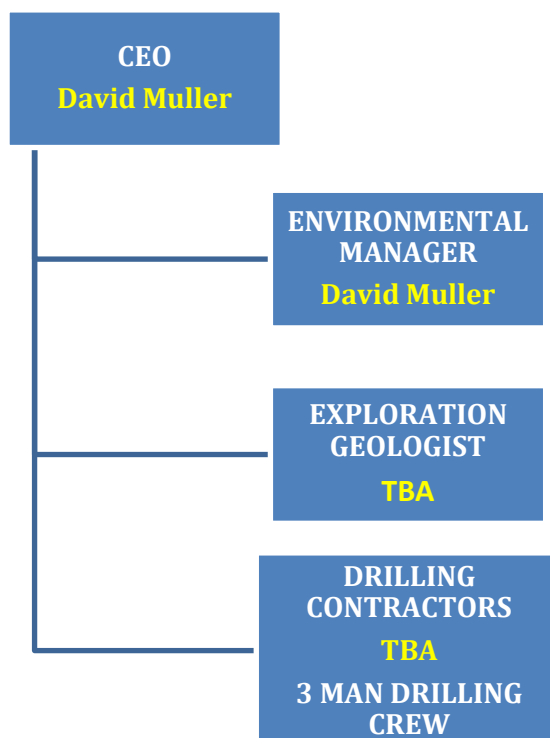
1.0 OPERATOR DETAILS

Operator Name:	Territory Exploration Pty Ltd
ACN:	123 338 376
Key Contact Person/s:	David Muller
Postal Address:	PO Box 90 Dandaragan WA 6507
Street Address:	1/19 Eric St Cottesloe WA 6011
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The Application for an Authorisation is included as APPENDIX 1, the Nomination of Operator of a Mining Site is included as APPENDIX 2 and the Appointment of Agent is included as APPENDIX 3.

1.1 ORGANISATIONAL STRUCTURE / CHART

Strangways Project Site Management Structure



1.2 WORKFORCE

The workforce will consist of the Chief Executive Officer - who will also act as the Environmental Manager for the project, an exploration geologist and a contract drilling crew of 3 people which will undertake daily on-ground exploration operations.

2.0 IDENTIFIED STAKEHOLDERS AND CONSULTATION

IDENTIFIED STAKEHOLDERS

STAKEHOLDERS	NAME	CONSULTED
Licence Owners	EL 30779 – Territory Exploration Pty Ltd	YES
Pastoral Station	Bushy Park Station (PPL 1122)	YES
Land Owner	SL Goldsworthy HJ Goldsworthy	YES
Land Manager	Sam Goldsworthy	YES
Land Claimants (Native Title)	NIL	NO
Land Council Area	Central Land Council	NO
Neighbours and Community	NIL	NO
Tenement Manager	Complete Tenement Management	YES
Government Departments	Dept. of Primary Industry and Resources	YES
	NT Environmental Protection Agency	NO
	Dept. of Environment and Natural Resources (DENR)	NO
	Dept. of Health (DH)	NO
	Dept. of Infrastructure, Planning and Logistics (DIPL)	NO
	Heritage Branch	YES
	AAPA	YES
	Bushfires NT NT Worksafe	NO NO
Shareholders	Territory Exploration Pty Ltd Shareholders	YES

For discussion and the status of consultations see below:**Licence Owner**

The mineral exploration tenure is EL 30779 which is owned by Territory Exploration Pty Ltd.

Land Owner

The affected real property is NT Por. 00687 (PPL 1132) Bushy Park Station, which is owned by SL and HJ Goldsworthy of Bushy Park Station, via Alice Springs NT. APPENDIX 4 contains a copy of the land title search for the affected land parcel.

Land/Pastoral Manager

The land manager for Bushy Station is currently Mr Samuel Goldsworthy. APPENDIX 4 contains an email from the land manager of Bushy Park, confirming their knowledge of the proposed program.

Land Claimants (Native Title)

The proposed activities are in accordance with an Exploration Licence granted under the Northern Territory DPIR's Expedited Native Title procedure and no agreements are required. No meetings have been held with any native title claimants.

Land Council representing traditional owners for the country

As the land is not Aboriginal Freehold land, subject to a land claim, owned by a registered aboriginal land trust or subject to a site of significance listed with the AAPA the operator has not conducted negotiations with the Central Land Council.

Neighbours and Community

There are no nearby neighbours or communities so no consultations have been undertaken.

Tenement Manager

Territory Exploration Pty Ltd employs Complete Tenement Management as its tenement managers and this organisation is fully informed of Territory Exploration's planned activities in the area.

Government Departments

- This MMP may be considered to be notification to the Dept. of Primary Industries and Resources and communications relating to it are the consultation process, these remain ongoing throughout the life of the MMP.
- The Environmental Protection Agency has not been consulted.
- The Dept. of Environment and Natural Resources has not been consulted, although information has been sought from it utilising its INFONET portal and the results of this have been included as APPENDIX 6 of this MMP.
- The Department of Health has not been consulted.
- The Department of Infrastructure Planning and Logistics has not been consulted.
- The Aboriginal Areas Protection Authority has been consulted by requesting information from records covering the area pertaining to this MMP with reference to any registered sites of significance within the area of EL 30779 and the results of this request are included as APPENDIX 7 of this MMP.
- The Heritage Branch of the Department of Tourism and Culture has been consulted with reference to any archaeological and/or heritage sites and results of this request are included as APPENDIX 8 of this MMP.
- Territory Exploration has not consulted Bushfires NT but will maintain contact with Bushfires NT through its web portal to establish the daily fire regime within the broader area to ascertain the level of fire danger pertinent to the area of operations.
- Territory Exploration has ascertained its level of obligation to NT Worksafe through its adherence to the National Health & Safety (National Uniform Legislation) Act and will continue to meet its obligations under this act.

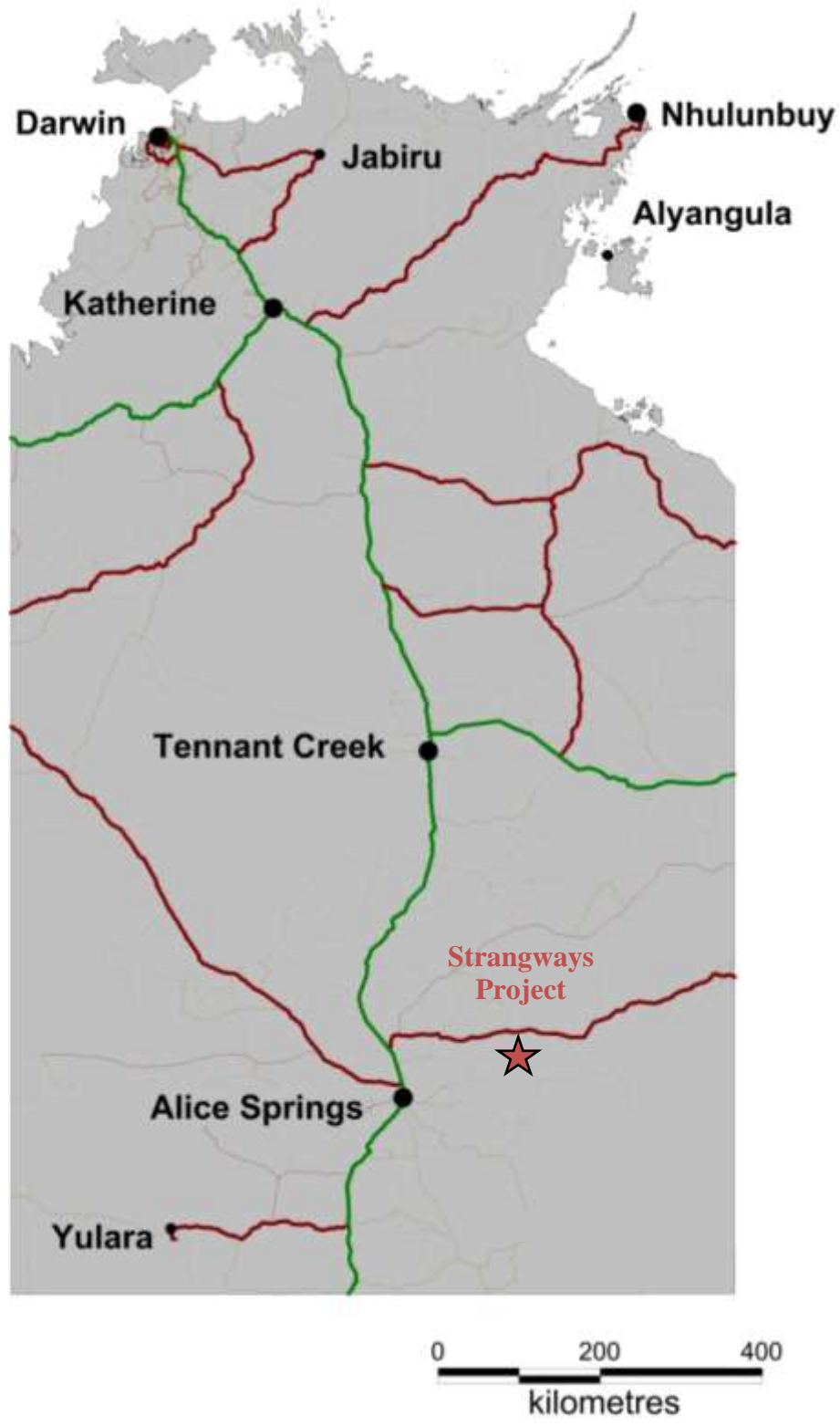
Shareholders

The shareholders of Territory Exploration Pty Ltd have been informed of the planned activities.

3.0 PROJECT DETAILS

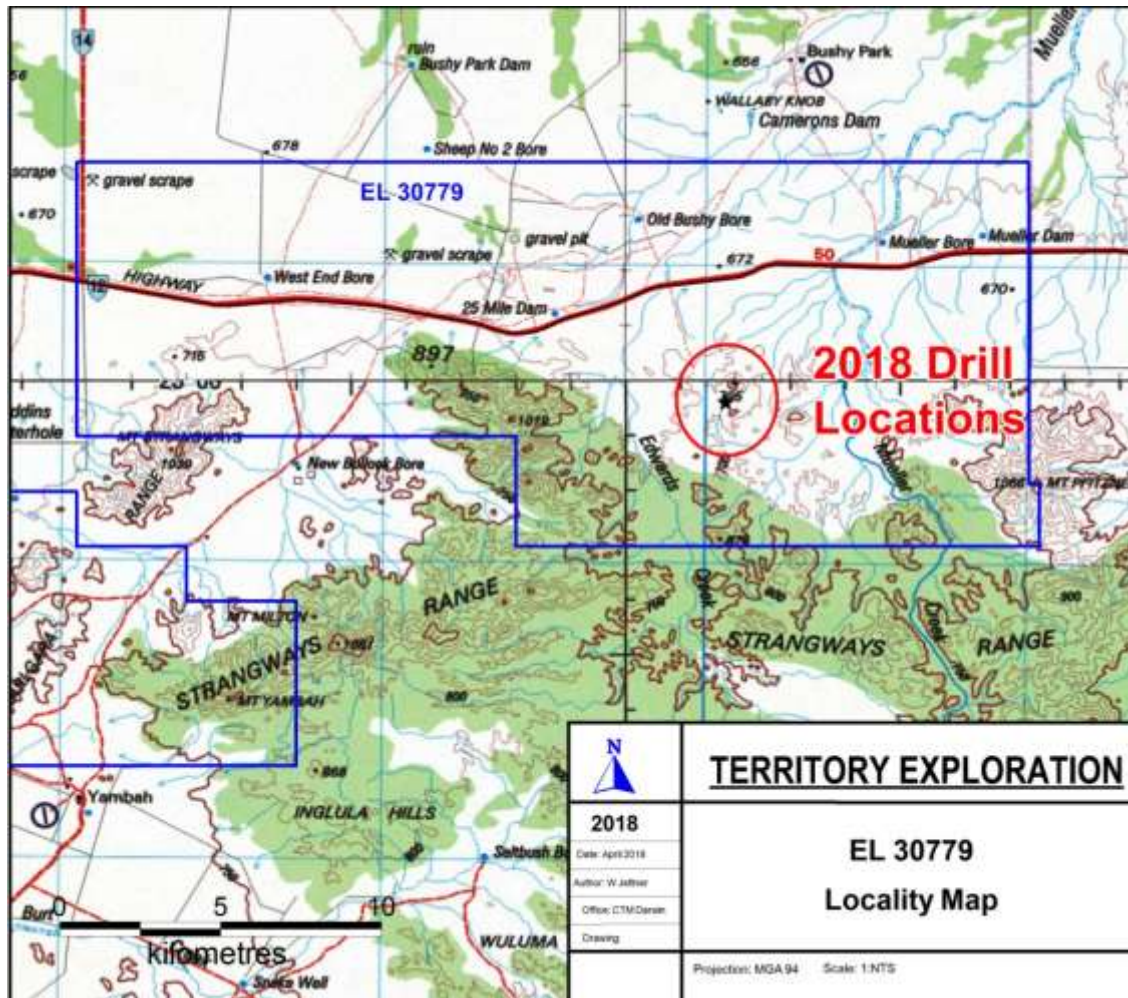
Project Name:	Strangways Project
Location:	Bushy Park Station, Northern Territory
Site Access:	Northwards via the Stuart Highway from Alice Springs to the Plenty Highway, then eastwards via the Plenty Highway to near the Bushy Park Station turnoff, then southwards along station gravel tracks to the Edwards Creek area.
Mining Interest:	EL 30779
Title holder/s:	Territory Exploration Pty Ltd
Program:	The drilling of 2 RC percussion drill holes up to 250m depth south of the Plenty Highway in the Edwards Creek regional area.

PROJECT LOCATION



Northern Territory Map
showing the location of the Strangways Project
(scale 1:4M)

LOCALITY MAP

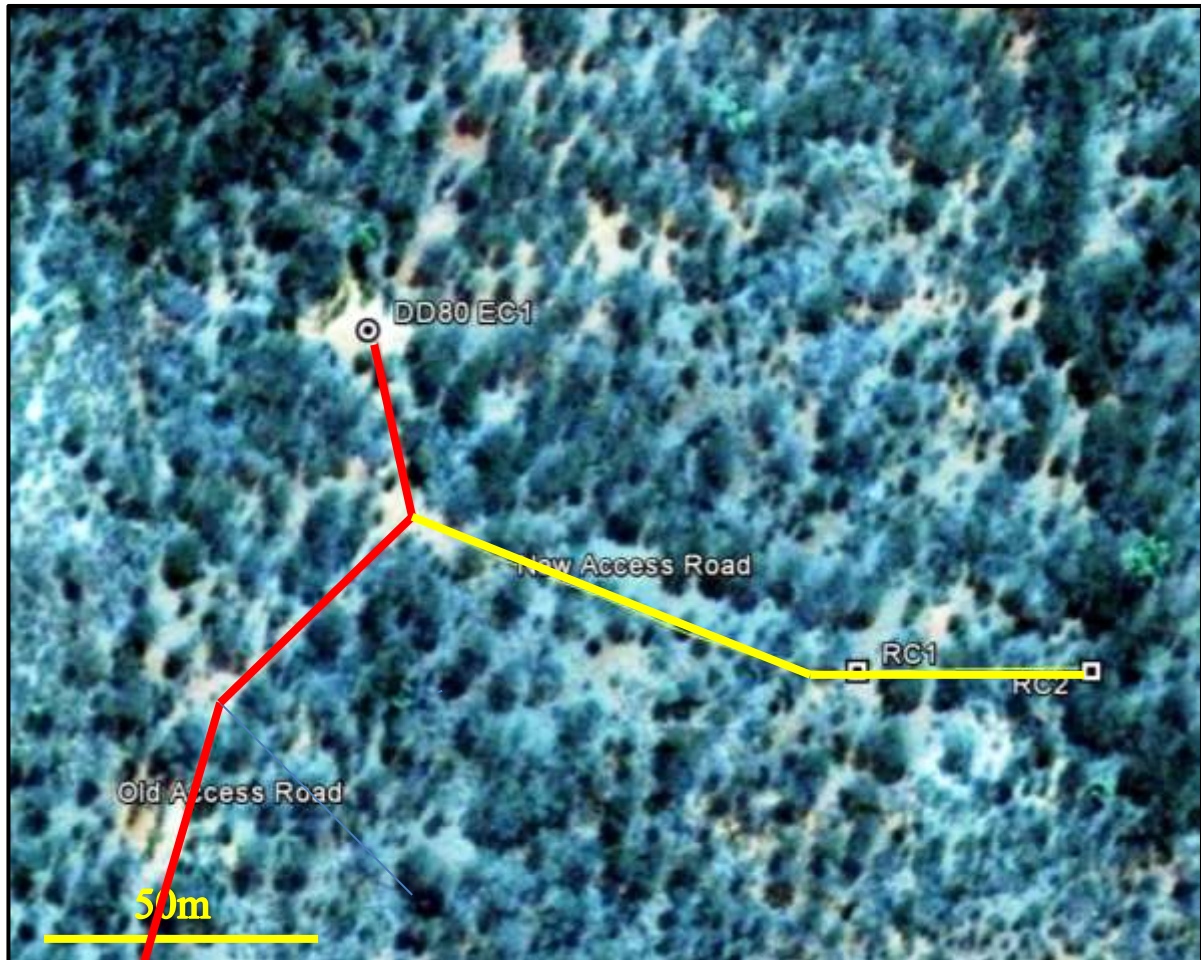


Regional Topographical Map showing Strangways Project 2018 planned drilling activities in a regional context (scale1:850K)

EL 29239

EL 29237

PROJECT MAPS



Strangways Project - planned drill holes and access tracks (Scale 1:25K)

3.1 PREVIOUS ACTIVITIES AND CURRENT STATUS

Historical Mining and Exploration Activities

The Edwards Creek area was covered by an aeromagnetic survey over the Strangways Ranges in 1965 (Tipper 1969).

The presence of malachite staining promoted the acquisition of mineral leases covering this prospect in 1970. Planet Mining conducted a coarse airborne magnetic and geochemical (Airtrace) survey. Weak Hg, Pb, Zn, Cu and Ni airborne anomalies were not verified, or supported by geochemical and IP follow-up surveys.

CRAE tested the siliceous 'gossan' with two shallow drillholes (CRAE 1983). They intersected relatively narrow, low- to medium-grade base metal mineralisation, hosted by several different rock types. Their sampling intervals for each assay varied considerably and core recovery was poor in parts. The core from these two holes is stored at the Alice Springs core library, but the actual mineralised intervals and adjacent trays are absent.

Sabminco NL undertook a stream sediment geochemical sampling program of the Edwards Creek region (Barraclough and Glasson 1988). This survey was principally aimed at exploring the region for Au mineralisation. Although Barraclough and Glasson indicated additional stream sediment sample locations on their map, data for only 56 of these sites was reported. The samples were sieved to <2.5 mm and approximately 5 kg was analysed for Au by bulk cyanide leach. Two anomalous Au values were encountered. One analysis (1150 ppt Au) occurred in a site draining the southern side of the Edwards Creek prospect. The other anomalous gold value (1950 ppt Au) occurs in low hilly country about 5 km to southeast and is yet to be fully tested. Sediment samples sieved to 80 mesh were also collected at the same sites, and analysed for Cu, Pb, Zn, Ag and As. Compared to other sites in this survey, only subtle Zn anomalies were encountered in most proximal sites draining the Edwards Creek prospect.

Aberfoyle Resources Limited undertook a single loop, four-line ground TEM survey in 1993 (Curran and Drown 1994). One line, which was close to the edge of the loop, yielded a significant response near the position of the siliceous gossan in the northern part of the prospect. Curran and Drown (1994) indicated that the best fit Ozplate model for this anomaly consisted of a sheet with top edge at a depth of 25 m, dipping 60° to the east. CRAE exploration hole DD80 EC1 was drilled from east to west under this siliceous gossan, about 20–50 m south of this line. Despite poor recovery and gossanous weathering, a narrow intersection of significant sulphide mineralization was encountered, consistent with the proposed conductor. This response is not seen on adjacent 200 m spaced lines and the lack of a significant TEM response on the southern line is also consistent with the observed low-grade, disseminated base metal mineralization found in DD81 EC2 and at surface.

Territory Exploration Ltd Exploration

Field exploration conducted by Territory Exploration has consisted of work outlined in the section below and a VTEM survey which has indicated a drill target down dip of the CRAE drill holes drilled in the 1980s and visits to the Alice Springs core library for examination of the CRAE core.

Exploration Concept

The best drill intersection recorded to date occurs at Edwards Creek; Hole DD80 EC1, which was collared near 400360E 7455380N to drill underneath the siliceous rock and penetrated mineralized quartz-hematite ironstone and quartz-hematite-magnetite from 47.45 to 53.70 m (true thickness is about 4.5 m). This intersection had an average recovery of about 43.5% with an average grade of 2.25% Cu, 0.11% Pb, 1.54% Zn, 22.7 ppm Ag, 0.1 ppm Au and 188 ppm Sn. The best individual metal results from six samples from this intersection included 0.72 m @ 7.11% Cu and 0.24 ppm Au, 0.84 m @ 0.26% Pb, 60 ppm Ag and 260 ppm Sn, and 1.55 m @ 3.26% Zn. Not only was this a significant zone of mineralization but it was not deep enough to be in the primary sulphide zone indicated by Aberfoyle's geophysical work.

As reported in the Amalgamated Report GR 388 in the First Annual Report for these tenements Territory Exploration has discovered a new gossan outcrop of some size and high copper zinc assays at the Two Amigos Prospect. They are confident other such surface discoveries will be made but believe the real potential will be via VTEM which Mr Muller used extensively in the Top End Mt Bundey and Mt Goyder areas with Rum Jungle Resources Ltd. These surveys successfully located several massive sulphide horizons unfortunately with sub economic values, but never the less providing first class data confirming sulphides.

The target mineralization of this survey will be to locate VMS style polymetallic sulphide deposits with or without gold credits and to also use magnetics due to the ubiquitous association of magnetite with mineralization in both Edwards Creek and Harrys Creek. Mr Muller has worked on other VMS deposits in Australia in a seven year work period with the Electrolytic Zinc Co of A'asia. These included Rosebery, Captains Flat, Elura and Golden Grove, where the magnetite association with mineralization is obvious and a key exploration asset.

3.2 PROPOSED ACTIVITIES

The purpose of this MMP is to seek approval for the drill testing of an area postulated to have the potential to host economically recoverable concentrations of base metals. Preliminary ground works have been undertaken to investigate existing access tracks, locating and determining suitability of proposed drill sites and conducting field investigations within the exploration area.

Once access has been planned and site conditions examined and documented in the Rehabilitation Register, site preparation may commence.

It is planned to drill up to 2 RC drill holes, one to a depth of 200m and a second up to a depth of 250m. New access tracks leading from near a previous explorers drill site (DD80 EC1) to the new drill sites will have to be constructed, these are approximately 100m for RC1 and a further 50m for RC2. It is planned to re-establish and maintenance grade the old CRAE access track to their drill hole DD80 EC1 from the Plenty River Highway to the north, total length 5.85km. Territory Exploration have allowed for a rehabilitation security to cover the whole of this access track, however it will not be ripped at the completion of work as it is used as a station access road into this area.

At the completion of the drilling program, rehabilitation works will be undertaken as required and as described in Section 6 of this MMP.

Further maps and images of the proposed activities are included as APPENDIX 5.

The Edwards Creek prospect is situated in the northern part of the Strangways Metamorphic Complex, about five kilometers south-southeast of the Edwards Creek and Plenty Highway intersection. Access is via a dirt track, just east of this intersection, southward through low hilly terrain.

Table showing Proposed Activities

Mining Interests (i.e. titles)	EL 30779
What time of the year will exploration occur?	May 2018
How long is exploration expected to occur?	2 weeks
Type of drilling (i.e. RAB, RC, Diamond, aircore)	RC
Target commodity	Base Metals
Is drilling likely to encounter radioactive material?	No
Number of proposed drill holes	2
Maximum depth of holes	250m
Number of drill pads (Length: 20m x Width: 20m)	2
Is drilling likely to encounter groundwater? (Y, N, unsure)	Yes
Number of sumps (Length: 6m x Width: 3m x Depth: 1.5m)	2
Length of line / track clearing (Kilometres: 6km x Width: 4m)	6km
Number of costeans (Length: x Width: x Depth: m)	0
Total bulk sample (tonnes) (Length: x Width: x Depth: m)	0
Will topsoil be removed for rehabilitation purposes?	No
Previous disturbance yet to be rehabilitated on title (ha)	0
Camp Loc: Gemtree Caravan Park (Length: m x Width: m)	0
Total area disturbed (hectares)	2.48ha
Other:	0

4.0 CURRENT PROJECT SITE CONDITIONS

Site Conditions	Description
Geology	<p>The Strangways Metamorphic Complex is a thick package of complexly folded Palaeoproterozoic mafic and felsic granulites and metasedimentary rocks, with subordinate granitic bodies. Extreme metamorphism has obliterated possible rhyolitic and tuffaceous textures to some rock units which may have importance in understanding possible VMS style origin to some of the mineral deposits.</p> <p>A detailed account of the geology of the Strangways Metamorphic Complex (SMC) is available in report 17 of the NTGS, "Geology and origin of some Cu-Pb-Zn (Au-Ag) deposits in the Strangways Metamorphic Complex, Arunta region, Northern Territory ". The report discusses in detail the various type mineral deposits in the area, which includes reference to the "Utnalanama type" deposits, which is relevant to Edwards Creek.</p>
Hydrology	<p>The groundwater potential of the area is generally bore quantities of less than 5.0L/s with salinities greater than 1500mg/L, generally being non-potable for humans.</p> <p>RN007486 (the bore report is located in APPENDIX 6) is the closest registered water bore to the planned drilling area and is located 3.8km west of the drilling area. This bore was drilled and was unrecorded, a 1970 inspection states that it is collapsed under the steel lining at 9m.</p> <p>Other bores in the wider area are also summarized here:</p> <p>RN13334 encountered water at 18m depth in granite with a flowrate of 0.505l/s. This bore was a NTG bore for road works on the Plenty Highway.</p> <p>RN13335 encountered water at 15m in granite with a flowrate of 3.78l/s This bore was a NTG bore for roadworks on the Plenty Highway.</p> <p>RN19012 encountered water at 12 to 20m in limestone with a flowrate of 1.5lt/s. This bore was a Bushy Park Station stock bore.</p> <p>The 3 bores listed above are all located 4.8km to the northwest of the drilling area.</p> <p>The proposed drilling program would provide substantial information as to the flowrates and nature of any aquifers encountered in the project area for future use.</p>
Threatened Flora	<p>An interrogation of the INFONET database shows that there is no NT classified endangered flora species in the project area. See APPENDIX 6 for further information on these species.</p>
Threatened Fauna	<p>An interrogation of the INFONET database shows that there are two endangered mammal species (Plains Mouse and the Dusky Hopping-mouse) and a further 4 species listed as vulnerable (brush-tailed Mulgara, Crest-tailed Mulgara, Greater Bilby and the Southern Marsupial Mole).</p> <p>There are 3 bird species listed as critical or endangered, (Grey Falcon, Australian Painted Snipe, Thick-billed Grasswren) See APPENDIX 6 for further information on these species.</p>
Historical, Aboriginal, Heritage Sites	<p>Requests were made of the AAPA and the Heritage Branch of the DTC to identify known historical, aboriginal and heritage sites within EL 30779.</p> <p>The AAPA request returned the information that there are no known Aboriginal sites of significance within the immediate area of the planned activities. The Heritage search also showed no Heritage Sites listed as occurring within the same area. See APPENDICES 7 and 8 for replies from these Departments.</p>
Sites of Conservation Significance	<p>The areas of proposed works on EL 30779 are located within the Greater MacDonnell Ranges Site of Conservation Significance. Information about this SoCS is included in APPENDIX 6. The drilling area is also located within the Mueller Creek Catchment Site of Botanical Significance.</p>

Weeds	There are 12 species of weeds of NT Status B or above, 5 of which are of WONS national status. These are Devils Rope Cactus, Common Prickly Pear, Parkinsonia, Mesquite and Athel Pine. These are also listed in the Guidelines for the Management of Weeds of EL 30779. See APPENDIX 6 for further information
Native Species	There are many native species listed as occurring within the 4 surrounding grid cells and due to the large area sampled (25,000km ²) listing them all here is meaningless. All of these individual species are listed in APPENDIX 6.
Invasive Species	There are 13 pest and potential pest species listed for the grid cells in which EL30779 occurs, of these 2 is are native species (Dingo, Red-tailed Black-cockatoo), and the remaining 9 are introduced species, (House Mouse, Fox, Cat, Rabbit, Donkey, Horse, Camel, Cattle, Goat, Asian House Geko and the Rock Dove).
Vegetation Community	The Strangways Project is located within the Burt Plain Bioregion (25%) and the MacDonnell Range Bioregion (75%), the vegetation community of the project area consists predominantly of open woodland comprising E. gongylocarpa (Marble Gum) with an open hummock grassland understorey. Included in APPENDIX 6 are the Simpson MacDonnell Ranges and Burt Plain Masterplans, which broadly details the various conservation values and environmental resources of the Strangways Project Area.
Land Use	The grazing of cattle is conducted on the pastoral lease/s and this represents the only land use in the exploration area.

In support of the above table please find included the following documents as appendices for this Mining Management Plan:

APPENDIX 6 - The DENR INFONET Database Extract covering endangered flora and fauna of the Strangways Project Area.

APPENDIX 7 – The AAPA reply to a request for information from records.

APPENDIX 8 – The DTC Heritage Branch reply to a request for information from the NTG Heritage and Archaeological database.

Threatened Species of Grid Cells 74, 96, 160 and 206

There are no threatened species listed specifically for the planned drilling area and the grid cells listed above cover an area extending 150km north-south and 200km to the east-west, **covering a total area of 25,000km²**. The Strangways Project area is located at the common point of all of these grid cells and so the sampled area is massive.

The locations of recorded threatened species observations are indicated within the NRM NT Maps web application and is shown on the map titled "NRM Environmental Values".

Scientific Name	Common Name	TPWC Status	EPBC Status	Preferred Habitats	Observations within 5km of the drilling area centroid	Likelihood of Occurrence in the drilling area
Snails						
<i>Bothriembryon spenceri</i>	Spencers Land Snail	Vulnerable	-	Located in leaf litter under fig trees and in rocky areas.	NIL	Unlikely – most previous observations have been to the west of Alice Springs.
<i>Granulomelon gilleni</i>	Gillen Creek Land Snail	Vulnerable	-	Little information available	NIL	
<i>Semotrachia esau</i>	Land Snail	Vulnerable	-	Located under fig trees and spinifex grass.	NIL	Unlikely – no previous observations indicated by NRM website.
<i>Liopholis kintorei</i>	Great Desert Skink	Vulnerable	Vulnerable	Lives in spinifex grassland and shrubland on sandplains and adjacent swales	NIL	Unlikely – no previous observations indicated by NRM website.

Scientific Name	Common Name	TPWC Status	EPBC Status	Preferred Habitats	Observations within 5km of the drilling area centroid	Likelihood of Occurrence in the drilling area
Birds						
<i>Falco hypoleucos</i>	Grey Falcon	Vulnerable	-	Located on lightly timbered low land plains, typically on inland drainage systems	NIL	Unlikely – no previous observations indicated by NRM website.
<i>Leipoa ocellata</i>	Mallee Fowl	Critical	Vulnerable	Occur in shallow, vegetated, freshwater swamps, claypans or inundated grasslands (including temporary wetlands).	NIL	Unlikely – no previous observations indicated by NRM website.
<i>Pezoporus occidentalis</i>	Night Parrot	Critical	Endangered	Known from spinifex grasslands in stony or sandy areas and samphire associations on floodplains, salt lakes and claypans.	NIL	Unlikely – no previous observations indicated by NRM website.
<i>Polytelis alexandrae</i>	Princess Parrot	Vulnerable	Vulnerable	Associated with open-eucalypt woodland in sand dune country, where there is a shrubby understorey of Cassia, Emu-bush, and beefwood.	NIL	Unlikely – no previous observations indicated by NRM website.

Scientific Name	Common Name	TPWC Status	EPBC Status	Preferred Habitats	Observations within 5km of the drilling area centroid	Likelihood of Occurrence in the drilling area
Mammals						
<i>Isoodon auratus</i>	Golden Bandicoot	Endangered	Vulnerable	Located in heathland and shrubland on sandstone or sandsheets.	NIL	Unlikely – the NTs only remaining population is located on Marchinbar Island.
<i>Macrotis lagotis</i>	Greater Bilby	Vulnerable	Vulnerable	Habitat is sandy soils vegetated by hummock grasslands covered by spinifex.	NIL	Unlikely – no previous observations indicated by NRM website.
<i>Petrogale lateralisi</i>	Black-footed Rock-wallaby	-	Vulnerable	Occur in rocky caves, rock holes, tree hollows and the tops of dense trees.	NIL	Unlikely – no previous observations indicated by NRM website.
<i>Trichosurus vulpecula vulpecula</i>	Common Brushtail Possum	Endangered	-	Found in sandy deserts where they occupy dunes, sandy plains and river flats.	NIL	Unlikely – no previous observations indicated by NRM website.

Sources:

NT NRM Report on the Strangways Project (APPENDIX 6)
 NRM NT Maps Web application
 NRM Threatened Species factsheets

5.0 ENVIRONMENTAL MANAGEMENT SYSTEM

Territory Exploration Pty Ltd currently does not have a formal environmental management system in place and this section will be used to report progress made against the outcomes listed in Section 5.6 of this MMP.

Territory Exploration's Environmental Management Plan for the Strangways Project is located in APPENDIX 9 of this MMP.

5.1 ENVIRONMENTAL POLICY AND RESPONSIBILITIES

Territory Exploration does not have a formal environmental policy in place at the present time and the company aims to minimise the impact on the natural environment in which they operate by adopting suitable environmental practices. To achieve this we ensure strict compliance with statutory laws and regulations, promote awareness of environmental issues amongst our workforce to identify the potential impact of their activities and wherever possible to conserve natural resources.

The environmental manager shall be responsible for day to day management and control of activities that may impact on the environment.

5.2 STATUTORY REQUIREMENTS and NON-STATUTORY REQUIREMENTS

All exploration activities will be conducted under the relevant acts and regulations which may include but are not restricted to the following:

- *Mining Management Act*
- *Mineral Titles Act*
- *Weeds Management Act*
- *Bushfires Act*
- *Heritage Conservation Act*
- *NT Aboriginal Sacred Sites Act*
- *Native Title Act*
- *Aboriginal Land Rights (Northern Territory) Act*
- *Environment Protection & Biodiversity Conservation Act*
- *Atomic Energy Act*
- *Work Health & Safety (National Uniform Legislation) Act*

Also

- Exploration Licence conditions
- Authorisation conditions

5.3 INDUCTION AND TRAINING

Induction and training is to be conducted for all personnel including geologists and field support teams, drilling crews and relevant technical services personnel prior to commencement of work.

As a minimum, the induction will cover the following:

- Introduction to the site – geography, contacts, land owners and emergency procedures, location of and use of fire extinguishers and other safety equipment;
- Expected behaviour and personal conduct rules;
- Access, including the use of roads and tracks and gates;
- Control measures required with regard to the management of Aboriginal and historic heritage sites.
- Control measures required with regard to the management of flora and fauna, including the procedures required where tracks, drill sites and camps are to be created. Indiscriminate clearing of vegetation is to be avoided at all times;
- Handling, storage and disposal of waste;
- Weed control
- Sediment and erosion controls;
- Control measures required with regard to surface and ground water management. Control measures required to be implemented with regard to the management and control of dust, noise, soil contamination and water pollution;
- Reporting of complaints and incidents;
- Rehabilitation of drill hole sites, access tracks and campsites;
- Personnel vehicles (including hire vehicles) are to be adequately equipped, maintained and suited to task. Daily checks are a part of the daily routine and will be demonstrated as part of the induction;
- Territory Exploration has a policy of zero alcohol and drug tolerance for drivers and equipment operators when on the job;
- Drilling and related equipment – Territory Exploration uses contractors for all drilling. All operators must be trained and be able to demonstrate safe working practices on the equipment. No person shall operate any related equipment without adequate training and supervision. No person shall approach drilling machinery without the permission of the driller;
- Housekeeping, security, personal safety equipment, personal safety (including remote area awareness & procedures, first aid, fauna awareness, breakdown / lost procedures;
- Duty of care and individual responsibilities;
- Operation of the Weed Identification Sheet
- Operation of the Threatened Species Identification Handbook
- The Territory Exploration Induction Manual for the Strangways Project has been included within this MMP as APPENDIX 10.

5.4 IDENTIFICATION OF ENVIRONMENTAL ASPECTS AND IMPACTS

The Risk Rating is that of the initial risk, prior to the application of control measures

Aspect	Impact(s)	Risk Rating	Preventative Control Measures (prevention)	Mitigating Control Measures (remediation)
Native vegetation disturbance	Potential for damage to native vegetation	2	The Strangways Project has an established network of access tracks. These will be used where possible. New tracks or drill pads at the project may need to be “cleared” along at least part of their length. Shrubs and grass will need to be driven over using a dozer with blade-up techniques, thereby reducing the disturbance to the topsoil, and allowing for a greater chance of quick regeneration from in-situ root systems. Large trees will be avoided by not drilling near them and directing tracks around them.	Where continued use of vehicle pathways results in the development of a firm track the site will be scarified after use to even the ground surface and encourage the regeneration of native vegetation. If vegetation is physically removed from the track route, it will be placed back over the track upon rehabilitation.
Soil disturbance	Potential for erosion of soil due to exploration activities	1	The drill sites for this program will be located in areas that will require drill pads to be cleared. Allowance has been made in this MMP for the 2 drill pads to be cleared. As discussed, new access tracks are locally required to undertake this drill program. The tracks are planned to begin at existing tracks. The new tracks are located along routes designed to have the minimum impact on the natural environment, as determined from imagery and from field reconnaissance. The tracks are designed to avoid, when possible, steep topography and large or significant vegetation. The tracks will be simple levelled paths clear of upright vegetation (i.e. will not be graded or have topsoil cleared/removed) and	By utilising natural clear paths and avoiding soil disturbance constructing the new tracks, it is planned that little to no scarification will be necessary during rehabilitation. The speed restrictions on tracks will reduce the potential for tracks to degrade. In the event that this occurs the company will endeavour to rehabilitate the problem area before continuing use. In the event of heavy rain, it is expected that the program will be delayed or put on hold to prevent significant impact to the tracks.

			vehicle speeds will be restricted (dependant on style and condition of track). Territory Exploration believes that by utilising these techniques the program will have only minor disturbance to the soil profile from its proposed new tracks and drill pads.	
Scientific & cultural sites	Disturbance of sites of cultural or scientific interest	1	Territory Exploration is unaware of any specific scientific or cultural sites within the confines of the proposed work program. The nearest sites are located 3.6km to the northeast of the work area.	Disturbance of sites will be avoided through fact sheets provided to field staff with feed-back as determined by the AAPA and the DTC Heritage Branch.
Fauna disturbance	Disturbance of vulnerable or endangered fauna	2	Territory Exploration believes that the disturbance of fauna from this program is low. As stated in Section 3, endangered species in the region as indicated from the NTG INFONET report are limited. Regardless, Territory Exploration will walk new access tracks and drill pads prior to construction to avoid fauna habitats.	Disturbance will be managed through fact sheets provided to field staff and avoided along with habitat and any trees or plants identified as nesting sites or food sources. Recognition of NTG INFONET listed species will be reported to DENR (Flora/Fauna Division)
Flora disturbance	Disturbance of vulnerable or endangered flora	2	The company believes that the disturbance of significant flora from this program is low. There are no endangered species within the drilling program area according to the NTG INFONET report and NRM website.	Disturbance will be minimised by careful management of all earth-works activities. All Employees will be inducted to be able to recognise significant species. Recognition of NTG INFONET endangered species will be reported to DENR (Flora/Fauna Division)
Visual impact	Evidence of increased vehicle activity in the area.	2	Through implementing the land use techniques discussed in this document Territory Exploration is reducing the impact of the program on the environment and therefore having a lesser effect on the visual impact on the area.	It is expected that once the program is completed and rehabilitation has taken place, the evidence of the work program on the area will be restricted to increased tyre tracks due to increased traffic in an otherwise rarely used area, it will be evident that vehicles have used the new proposed tracks and the drillhole locations will be

				visible due to the lack of grasses and other small vegetation in the immediate radius of the hole. Over time natural regeneration will remediate the visual impacts of this program to their pre-disturbance state.
Fire	Ignition of a fire from hot exhausts/ equipment	1	Territory Exploration believes fire risk from this program is likely to be minimal. Drilling operations will cease on total fire ban days. No vehicles with petrol engines which can have hot exhausts will be allowed on site.	All vehicles on site will carry fire extinguishers and shovels. Vehicles and equipment will only be parked on open ground.
Groundwater contamination	Cross contamination of fresh aquifers with saline aquifers	1	There is little or no cross contamination of aquifers expected during this program.	If significant aquifers are encountered cement plugs will be placed between and above aquifers to preserve the integrity of the seals.
Surface drainage interference	Disturbance of natural drainage systems and erosion	1	The proposed work area has only minor low-order surface drainage with no significant or steeply banked drainage systems. No clearing will occur within 25m of any significant drainage features and will follow the guidelines discussed later in this section.	Any works will be removed/cleared at the completion of the program back to as close to its original state as possible.
Introduced weeds/Invasive species	Introduction of weeds from vehicles	2	Territory Exploration anticipates that the risk from introduced species is low for this work program. Induction processes will inform all employees of potential weed species and their management to prevent weed propagation	As a precautionary measure the company will ensure that all staff and contractors vehicles are cleaned before entering the site and when moving between sites, to reduce the risk of contamination.
Rubbish and waste	Contamination of drill sites and tracks with rubbish and waste	2	Territory Exploration will induct all staff and contractors on the appropriate actions when dealing with rubbish and waste.	All rubbish at the drill sites will be collected and removed from site.

Landowner activities/interests	Disturbance of landowner activities/assets	1	As the land is pastoral land the main activities are the production of beef cattle. The company will liaise with the land manager to minimise any potential for land use conflict whilst they are conducting activities on site.	The exploration manager will be responsible for managing any unforeseen conflicts with the wishes of the landowners.
Hydrocarbon and hazardous materials	Hydrocarbon leak / spill – contamination of soil, surface and ground water	2	Spill Kits and absorbent matting will be available at all areas where there is potential to spill hydrocarbons (ie drill sites, and with any bulk transportable fuel tanks). Where possible full or partial bunding will be deployed to storage tanks contain any leaks (exceptions include fitted vehicle fuel tanks). It is not planned to have any hazardous materials on the site.	Any contaminated soil will be removed, bagged and disposed at an appropriately licenced facility with contaminated areas replaced with clean topsoil. All leaks of hydrocarbons will be recorded as an environmental incident and will thus be fully investigated and reported to the Department with the rehabilitation report.
Public or third party activities	Disturbance of public activities. Access by unauthorized parties to drill sites.	1	All drilling activities will be undertaken away from areas generally accessed by the public. Signs will be placed at all public entrances stating no unauthorised access.	Any unauthorized access to drill sites will be managed by the supervising geologist who will be on site at all times while drilling.
Noise and Air Quality	Detrimental effects to workers and nearby stock	1	Workers are protected by the use of correct PPE such as ear plugs or ear muffs.	Territory Exploration has identified no need for a noise or dust monitoring program for the 2018 drilling program.
Erosion and Sediment Control	Sediment and turbidity in nearby creeks	2	Turbidity in nearby streams is caused by sediment load being carried with the stream when it is flowing. This can be influenced by wind and water-borne soils eroded from the in-situ soil profile due to vehicle disturbance and clearing.	There are no active streams located within the planned 2018 drill area.

Risk Rating Table
(after DPIR Risk Matrix)

		Consequence (C)		
		Low Little or no Impact	Medium Medium term –ve Impact	High Irreversible or long term –ve Impact
Likelihood (L)	High >75% Chance event will occur in the life of the program	4	7	9
	Medium 25-75% Chance event will occur in the life of the program	2	5	8
	Low <25% Chance event will occur in the life of the program	1	3	6

KEY	
Critical Risk	
High Risk	
Moderate Risk	
Low Risk	

Discussion of Management Measures**Native Vegetation Disturbance****Impact**

Potential for damage to native vegetation

Management

Within the Strangways Project there is an established network of existing access tracks. These will be used where possible, but not all of the drill sites are serviced by existing tracks and some will require new access track construction, these have been minimised to 1 new track 150m long. New tracks or drill pads at the site will need to be “cleared” along at least part of their length due to the vegetation density.

Any clearing will be undertaken in accordance with the DPIR Guideline No AA7-005 “Clearing and Rehabilitation of Exploration Tracks and Gridlines”, and Guideline No AA7-029 “Construction and Rehabilitation of Exploration Drill Sites”.

Monitoring

Any potential native vegetation disturbance will be monitored by the exploration geologist as part of his daily duties and will be captured in the site rehabilitation register.

Soil Disturbance**Impact**

Potential for erosion of soil due to exploration activities.

Management

The new tracks are designed to avoid, when possible, steep topography and large or significant vegetation. The tracks will be simple levelled paths clear of upright vegetation (i.e. will not be graded or have topsoil cleared/removed) and vehicle speeds will be restricted (variant on style and condition of track). Territory Exploration believes that by utilising these techniques the program will have only minor disturbance to the soil profile from its proposed new tracks and drill pads.

Rehabilitation before the onset of the 2018 wet season will further reduce any impact.

Monitoring

Any potential soil disturbance will be monitored by the exploration geologist as part of his daily duties and will be captured in the site environmental inspections and audits.

Scientific and Cultural Sites

Impact

Potential loss of cultural and heritage sites.

Management

At this stage, the identification of cultural and heritage sites by applications to the AAPA and the DTC Heritage Branch has shown that there are no recorded sites within the 2018 exploration area. Territory Exploration recognises and acknowledges that not all cultural and heritage sites are reported to the government and they may exist unreported.

Monitoring

To date there have been no recorded cultural and heritage sites found in the 2018 drilling area. As part of the exploration activities personnel are encouraged to report any suspected indigenous, archaeological or heritage sites to the exploration geologist for preliminary evaluation. If the exploration geologist is satisfied he will place a moratorium on the immediate area and the company will report it to the appropriate authorities.

Flora and Fauna Disturbance

Impact

Clearing of access tracks and drill pads for flora and presence of workers and equipment for fauna.

Management

Flora and fauna loss or disturbance is primarily due to habitat loss, this is due to excessive or over clearing in drilling activities. The strategy for flora management is to minimise vegetation clearing by using the DPIR recommended 'blade up' track and drill pad construction techniques. As part of exploration activities any worker identifying a suspected endangered species should report it to the exploration geologist for further evaluation.

Monitoring

The monitoring of this is done directly within the reporting requirements of the annual MMP review process and as part of the Environmental Management System in the Rehabilitation Register.

Visual Impact**Impact**

Evidence of increased vehicle activity in the area.

Management

Due to the minor and spread-out nature of the 2018 drilling program it is anticipated that there will be no loss of visual amenity in this isolated area.

Monitoring

Any perceived long term visual impact will be noted during the periodic audits and this data captured in the rehabilitation register.

Fire**Impact**

Loss of habitat and death of small animals, also the possible loss of infrastructure and equipment and possessions onsite.

Management

The use of fire as a land management tool is the responsibility of the landowner and will not be undertaken in any circumstances by Territory Exploration. The company believes fire risk from this program is likely to be minimal. Drilling operations will cease on total fire ban days. No vehicles with petrol engines which can have hot exhausts will be allowed on site. This should drastically reduce the chances of personnel starting a fire. Measures to protect personnel and equipment from damage caused by wildfires will consist of moving personnel and equipment to cleared areas away from any danger as and when required.

Monitoring

Fire management monitoring is done visually by all personnel on the site.

Ground Water Contamination

Impact

Cross-contamination of aquifers if drill holes are left open after they encounter groundwater.

Ground Water Management

It is planned that all drill holes will intersect groundwater, the closest registered bores (RN 13334, 13335 and 19012) are located 4.7km to the northwest of the project and intersected water at very shallow depths (ie less than 50m) in granitic geology, (see APPENDIX 6). Territory Exploration has permitted a drill sump for each corresponding drill hole. If groundwater flows are significant then the company will plug any such holes with concrete plugs to reseal the aquifer.

Monitoring

Ground water presence and discharge will be monitored by the exploration geologist as part of his daily duties.

Surface Drainage Interference

Impact

Contamination of natural surface drainage systems and potential for erosion.

Surface Water Management

Any requirements for discharging of water will be identified during exploration planning and the appropriate actions taken as outlined in the risk matrix above. There is currently no anticipated need for water discharge from the exploration sites, as exploration is being conducted in the dry season there is no need for any surface water management (surface runoff) plans to be developed.

As the program is to utilise RC percussion drilling methods there will be no requirement for operational drilling water. As all drillers carry 3-5,000Lt of water (usually in the service truck or rod truck, there will be a significant quantity of non-potable water on hand for use in the planned activities should it be required.

Monitoring

Surface water discharge will be workplace monitored by the exploration geologist as part of his daily duties.

Introduced Weeds/Invasive Species

Impact

Possible competition for native flora both within the planned drilling area and further afield (due to the presence of stock).

Management

Weeds identification and management will occur in accordance with this MMP which is built around the DENR weeds data collection and eradication system. Weed eradication may involve spraying of small infestations around drill sites. Large scale infestations are the responsibility of the landowner and not Territory Exploration. Weed control and monitoring will be included as an ongoing regular duty of one or more designated staff members. Wash down units will be used for vehicles and any other equipment moving on or off the exploration site to prevent the spread of declared weeds.

The wash down unit will be located in a central cleared area which will enable all vehicles leaving the site to be examined and treated. Water for this unit will also be sourced from off site and stored at the unit in a 200Lt blue plastic drum. Vehicle monitoring will consist of examination for grass and seeds before leaving site if the activities are being conducted within an identified weed infestation. The wash-down area will be sprayed with weed poison on completion of the exploration program to minimise potential weeds spread from the site. All materials sourced outside the project area must be weed-free prior to being taken onsite.

Monitoring

Monitoring of weed infestations occurs by visual means, with periodic inspections in accordance with this MMP.

As part of the exploration activities any worker identifying a suspected weed infestation should report it to the exploration geologist for further evaluation.

Rubbish and Waste

Impact

Untidy site with potential health hazards.

Management

All wastes will be collected and transported off site to the nearest approved waste disposal facility. Drilling sites will be maintained in a clean and tidy condition at all times. All wastes, including human wastes, will be collected, segregated and stored in properly constructed containers and removed to an approved land fill or other disposal site in accordance with local council requirements.

Monitoring

Monitoring of waste collection and disposal will be the responsibility of the exploration geologist and will be undertaken visually.

Landowner Activities/Interests

Impact

Interference with authorised landowner activities

Management

As the land is leasehold land owned by the Goldworthy's there are currently pastoral activities being undertaken in the general area of the 2018 drilling activities. Active liaison with the station management will seek to avoid any potential misunderstandings or miscommunications about the company's activities. Territory exploration is aware of its role and responsibilities not to interfere with active pastoral activities.

Monitoring

The exploration geologist will be responsible for identifying and managing any potential landowner conflicts.

Hydrocarbons and Hazardous Materials

Impact

Possible impact on flora, contamination of underlying soils and poisoning of stock if ingested.

Management

Fuels and oils will be stored onsite in the appropriate storage facilities by the drilling contractors in accordance with the appropriate legislation, ie in self-bunded storage facilities for bulk products and in delivery containers for packaged products. Spill kits will be positioned at fuel storage facilities, and at the rig.

Drilling chemicals required by the drilling crew will be of the non-toxic and environmentally friendly type. Hazardous chemicals will generally be of less than 1Lt quantity and will be stored in the appropriate Drillers DG storage cabinet.

Monitoring

Because of the short duration of the program the potential sources of pollution will be visually monitored by daily workplace observations by the exploration geologist as part of his daily duties

Public Activities

Impact

Disturbance of public activities. Access by unauthorized parties to drill sites.

Management

There is no anticipated interference with public activities although the possibility of public access to drill sites is recognised. Drilling areas will be signposted to warn any members of the public in the near vicinity of operational exploration activities.

Monitoring

Signage and potential presence of members of the public will be visually monitored by daily workplace observations by the exploration geologist as part of his daily duties

Noise and Air Quality

Impact

Noise and dust affects workers, neighbours and nearby stock.

Management

Workers are protected by the use of correct PPE such as ear plugs, ear muffs and dust masks.

Neighbours are located +10km away and are unlikely to experience intrusive noise from drilling operations.

If any stock are in the immediate area they will remove themselves to a location where they are comfortable, the immediate area contains no fences to inhibit free movement.

All drill rigs to be used on site will be fitted with the appropriate noise suppression equipment (eg. mufflers).

Drill rigs are designed as dust collectors as part of their sample collection system, the use of the correct PPE by the workers associated with drilling activities; drillers, offsidiers, field assistants and geologists are an essential part of daily operation performance.

All drill rigs to be used on site will be fitted with the appropriate dust suppression equipment (eg. cyclones).

Monitoring

The company has identified no need for a noise or dust monitoring program for the 2018 drilling program. The monitoring of the dust and noise generated will be by workplace monitoring by the exploration geologist.

Erosion and Sediment Control

Impact

Sediment and turbidity in nearby creeks can be influenced by inappropriately planned roads and drill pad locations. This is a sign of soil erosion and potentially inappropriate rehabilitation techniques in areas upstream.

Management

Turbidity in streams is caused by sediment load being carried with the stream when it is flowing. This can be influenced by wind and water-borne soils eroded from the in-situ soil profile due to vehicle disturbance and clearing. Primary considerations for minimising this, is the correct siting of access tracks and drill sites to minimise soil disturbance. Clearing requirements will be done “blade-up” to minimise damage to flora and subsequent soil damage. There are no nearby streams to the 2018 drilling area.

Access roads and drill pad locations have been planned to keep on level surfaces to minimise sediment runoff and to allow easy access and drill rig operation. The drilling program is designed to be conducted in the 2018 dry season to minimise any erosion that may occur before site rehabilitation can occur. It has identified that there is no need for the development of an erosion and sediment control plan at this stage.

Monitoring

Because of the small program (2 holes) and short duration (<14 days) it is not proposed to have a water monitoring program.

5.5 ENVIRONMENTAL AUDITS AND INSPECTIONS

Environmental inspections will be undertaken by the environmental manager during the program. Territory Exploration will then monitor the drill program whilst it is underway, specifically focusing on the state of the access tracks and the state of the drill sites. These will be accessed daily and if issues are beginning to arise they will be rectified by the exploration geologist immediately. These will be recorded and photographed.

At completion of the program all drill sites will be rehabilitated to meet DPIR standards, as set out in the DPIR guidelines included under the section 'DPIR Rehabilitation Guidelines' in the Environmental Management Plan which is located in APPENDIX 9 of this MMP.

	Monitoring Technique	Audit Technique	Frequency
Native Vegetation Disturbance	Visual monitoring by the exploration geologist	Any native vegetation disturbance will be captured in the rehabilitation register	Daily
Soil Disturbance	Visual monitoring by the exploration geologist	Any soil disturbance will be captured in the site rehabilitation register	Daily
Scientific and Cultural Sites	Visual monitoring by the exploration geologist	Any scientific or cultural sites will be captured in the site rehabilitation register	Before ground disturbing activities
Fauna Disturbance	Visual monitoring by the exploration geologist	Any fauna disturbance will be captured in the site rehabilitation register	Daily
Flora Disturbance	Visual monitoring by the exploration geologist	Any flora disturbance will be captured in the site rehabilitation register	Before ground disturbing activities
Visual Impact	Visual monitoring by the exploration geologist	NIL	Daily
Fire	Visual monitoring by all site personnel	NIL	Daily
Groundwater Contamination	Visual monitoring by the driller and the exploration geologist	NIL	Daily during drilling activities
Surface Drainage Interference	Visual monitoring by the exploration geologist	Any surface water drainage interference will be captured in the site rehabilitation register	Daily
Introduced Weeds/ Invasive species	Visual monitoring by the exploration geologist	Yearly weed audits during post activity monitoring to closeout.	Yearly

Rubbish & Waste	Visual monitoring by all personnel	NIL	Daily
Landowner Activities/Interests	Open communications with the land manager	NIL	As required
Hydrocarbons & Hazardous Materials	Visual monitoring by the drill crew and the exploration geologist	Any hydrocarbon or hazardous material spills will be captured in the environmental incident reports and subsequent investigation.	Daily during drilling activities
Public or Third Party Activities	Monitoring by the exploration geologist	NIL	Daily
Noise and Air Quality	Monitoring by the driller and the exploration geologist	NIL	NIL
Erosion & Sediment Control	Visual monitoring by the exploration geologist	Any erosion and subsequent sediment control will be captured in the site rehabilitation register	Weekly

5.6 ENVIRONMENTAL PERFORMANCE

5.6.1 OBJECTIVES AND TARGETS

Item	Objective	Target	Responsible Person
Native Vegetation Disturbance	Minimal disturbance of native vegetation during exploration activities	Zero long term native vegetation disturbance	Exploration Geologist reporting to the Environmental Manager
Soil Disturbance	Minimal soil disturbance during exploration activities, especially in areas of dune crossings	Zero long term soil disturbance	Exploration Geologist reporting to the Environmental Manager
Scientific and Cultural Sites	No disturbance of known scientific or cultural sites	Zero disturbance of scientific or cultural sites	Exploration Geologist reporting to the Environmental Manager
Fauna Disturbance	Minimal clearing resulting in minimal fauna disturbance by exploration activities	Zero fauna disturbance	Exploration Geologist reporting to the Environmental Manager
Flora Disturbance	Minimal clearing resulting in minimal flora disturbance by exploration activities	Zero flora disturbance	Exploration Geologist reporting to the Environmental Manager
Visual Impact	No visual impairment of the exploration activity sites	Zero visual impairment	Exploration Geologist reporting to the Environmental Manager
Fire	Company or contractor personnel not responsible for any wildfires	Zero fires attributable to company or contractor personnel	Exploration Geologist reporting to the Environmental Manager
Groundwater Contamination	No cross contamination of groundwater aquifers	Zero cross contamination of groundwater aquifers	Exploration Geologist reporting to the Environmental Manager

Surface Drainage Interference	No surface water drainage interference	Zero surface water drainage interference	Exploration Geologist reporting to the Environmental Manager
Introduced Weeds/ Invasive species	No introduced weeds or invasive species brought into the area by company personnel or contractors	Zero introduced weeds or invasive species	Exploration Geologist reporting to the Environmental Manager
Rubbish & Waste	All exploration activity sites left rubbish and waste free	Zero rubbish or waste left lying around	Exploration Geologist reporting to the Environmental Manager
Landowner Activities/Interests	No interference with landowner activities or infrastructure	Zero interference and cordial relations with the land manager and their personnel	Exploration Geologist reporting to the Exploration Manager
Hydrocarbons & Hazardous Materials	No hydrocarbon or hazardous material spills	Zero hydrocarbon or hazardous material spills	Exploration Geologist reporting to the Environmental Manager
Public or Third Party Activities	No interaction with public or third party activities	Zero interaction with public or third party activities	Exploration Geologist reporting to the Environmental Manager
Noise and Air Quality	No impairment of noise or air quality	Zero impairment of air quality	Exploration Geologist reporting to the Environmental Manager
Erosion & Sediment Control	No erosion due to exploration activities	Zero erosion caused by exploration activities	Exploration Geologist reporting to the Environmental Manager

5.6.2 ENVIRONMENTAL PERFORMANCE REPORTING

Performance targets relevant to this phase of exploration are the rehabilitation of tracks, drill pads and collars, the removal of waste from sites and, where appropriate, back-filling of drill sumps within 1 month after completion of the drill holes. It is planned that up to 150m of new tracks to access the drill pads will be created during this program. It is planned to base the machine that has been contracted to maintain the existing track and to clear the new access track and drill sites at the site for the duration of the drilling program to conduct rehabilitation operations at the end of the program. The environmental manager will be responsible to insure the tracks and drill sites are fully rehabilitated within the stated timeframe.

Control and reporting on the rehabilitation work will be managed by establishing a Rehabilitation Register (see Section 5.0 below), in which the nature of the disturbance and the state of rehabilitation efforts will be recorded. The environmental manager will verify the completeness of rehabilitation before signing off. A periodic review will ensure that steady progress on rehabilitation is maintained and no areas are overlooked.

To provide a measurable basis for the rehabilitation works a photographic record will be started and maintained throughout the exploration program. Photographs of tracks and areas that have previously been cleared will be taken. Prior to any ground disturbing work occurring photographs of the area to be affected will be taken. The photographs will be used as base line data against which the effectiveness of the rehabilitation work will be assessed. Additional photographic evidence will be collected at the following points to monitor the progress of rehabilitation, these will also include photos at the time of drilling, after completion of rehabilitation and at monitoring intervals of post-wet season and 12 months after completion of rehabilitation.

5.7 EMERGENCY PROCEDURES AND INCIDENT REPORTING

Emergency Procedures

In the event of an emergency, either safety or environmental, the following general procedures are to be followed:

1. Ensure the safety of workers and anyone else present.
2. Prevent, control and stop the incident and its impact from spreading
3. Advise the Environmental Manager or Exploration Geologist and seek his assistance
4. Advise the Chief Executive of the DPIR by telephone of the incident and the steps undertaken to mitigate the impact and control the source of the incident .
5. Submit a written report on Form CF7-001 to the Chief Executive as soon as practical after assessing the incident
6. Undertake all instructions as issued by the mining officers.

Incident Reporting

All environmental incidents must be reported to the NT Department of Primary Industry and Resources in accordance with Section 29 of the Mining Management Act. The appropriate form to report an environmental incident is DPIR Form CF7-001, which is included in APPENDIX 9 in the Environmental Management Plan.

Incident Assessment

When assessing an incident an operator should have regard to the definition of “environment” in the MMA.

“Environment” is defined under Section 4 of the MMA as follows:

land, air, water, organisms and ecosystems on a mining site and includes:

- (a) *the well-being of humans;*
- (b) *structures made or modified by humans;*
- (c) *the amenity values of the site; and*
- (d) *economic, cultural and social conditions.*

Operators should conduct an appropriate assessment of the incident in order to determine the severity of the incident and to report the incident to the Chief Executive Officer of DPIR.

Operators should also have regard to the obligations set out in section 16 of the MMA, the conditions of authorisation, the permitted activities and the relevant procedures contained in the operator’s own management plan, including its associated systems.

It is not always necessary for there to have been an environmental impact for the requirement to report an incident to be triggered. The *potential* for any incident to have an impact on the environment should also be taken into account when considering whether to make a report to the Chief Executive Officer. The definition of “environment” is broad and careful consideration should be given to each aspect of the environment before a determination is made.

Incident Reporting

Incidents likely to be the subject of a section 29 incident report may include, but are not limited to, the following:

- (a) Escape (by any means such as a spill or leak) of a fuel, chemical, product or residue in solid, liquid or gaseous form including fumes, smoke, vapours, contaminated water, or dust;
- (b) Emissions of noise (beyond reasonable permitted levels);
- (c) Uncontrolled or accidental fire on any land, structure or infrastructure;
- (d) Unauthorised, uncontrolled, or both, discharge of controlled waters to surface or ground waters;
- (e) Damage to a Sacred Site, Aboriginal Protected Area, other protected area, archaeological or heritage site;
- (f) Unauthorised mining, whether the activity is undertaken on or off an authorised mining site;
- (g) Unauthorised clearing of vegetation or disturbance of the ground on or off an authorised mining site; and,
- (h) Harm to human well-being.

In accordance with Section 29 of the MMA operators are required to report all environmental incidents:

- (1) *As soon as practicable after the operator for a mining site becomes aware of the occurrence of an environmental incident on the site, the operator must notify the Chief Executive Officer of the occurrence.*

Section 29 also states:

- (2) *An operator who gives notice orally must, as soon as practicable after doing so, give a written notice to the Chief Executive Officer.*

Operators should also be aware of Section 33 of the MMA, which states:

- (1) *A person commits an offence if:*
 - (a) *the person releases waste or a contaminant that is from a mining site; and*
 - (b) *the release is not authorised by the mining management plan for the site.*

General emergency procedures as well as NT Worksafe incident notification and DPIR Environmental incident notification forms and procedures are also included as APPENDIX 11.

6.0 EXPLORATION REHABILITATION

All rehabilitation will be undertaken in accordance with the methods listed below and the relevant parts of the DPIR guidelines for rehabilitation of drill sites (AA7-029) and lines and tracks (AA7-005).

Disturbance	Rehabilitation Methods	Schedule (Timing)	Closure Objectives / Targets	Monitoring Techniques
Drill Holes	Cut below ground level and plug with a concrete plug	Progressively or within 1 month of completion of program	All drill holes permanently capped below ground level.	Follow-up observations/photographs at rehabilitation, pre wet season, post wet season, and 1 year.
Drill Holes	Drill holes that intersect groundwater will be plugged	At completion of hole	No groundwater cross-contamination between aquifers	NA
Drill Pads	Rehabilitated if required	Progressively or within 1 month of completion of program	Stable land surface	Follow-up observations/photographs at rehabilitation, pre wet season, post wet season, and 1 year.
Drill Sumps	Refilled, compacted and levelled	Progressively or within 1 month of completion of program	Stable land surface	Follow-up observations/photographs at rehabilitation, pre wet season, post wet season, and 1 year.
Tracks / Gridlines	Levelled and scarified if required	Progressively or within 1 month of completion of program	Stable land surface	Follow-up observations/photographs at rehabilitation, pre wet season, post wet season, and 1 year.
Drill Spoil	Drill spoil will be placed back down the drill hole and any excess levelled	Progressively or within 1 month of completion of program	Stable land surface	Follow-up observations/photographs at rehabilitation, pre wet season, post wet season, and 1 year.

Hole ID	Date Drilled	Drill hole Coordinates (GDA94 Zone # UTM)	Rehabilitation (✓ or date completed)									Post-closure Monitoring (1 Year after)						Sign off and Comments	
			Drill holes plugged/capped	Drill spoils buried/backfilled	Sample bags/core removed	Sumps backfilled	Topsoil/vegetation replaced	Drill pad ripped	Access track ripped	Rubbish removed	Is radiation within background levels?	Date of Monitoring	Is site nominated for ongoing monitoring?	Is the site revegetated?	Are there signs of erosion?	Are there weeds?	Is there subsidence?		Is radiation within background levels?

6.2 COSTING OF CLOSURE ACTIVITIES

The costing of closure activities being **commercial-in confidence** is included as APPENDIX 12.

APPENDIX 1

APPLICATION FOR AN AUTHORISATION

Section 1.0

APPENDIX 2

NOMINATION OF OPERATOR **Section 1.0**

APPENDIX 3

APPOINTMENT OF AGENT **Section 1.0**

APPENDIX 4

LAND OWNER CORRESPONDENCE **Section 2.0**

APPENDIX 5

LOCATION OF PROPOSED ACTIVITIES **Section 3.2**

APPENDIX 6

DENR

ENDANGERED FLORA AND FAUNA

DATABASE EXTRACT

Section 4.0

APPENDIX 7

AAPA INFORMATION FROM RECORDS **Section 4.0**

APPENDIX 8

DTC

ARCHAEOLOGICAL AND HERITAGE

DATABASE EXTRACT

Section 4.0

APPENDIX 9

ENVIRONMENTAL MANAGEMENT PLAN **Section 5.0**

APPENDIX 10

SITE INDUCTION MANUAL **Section 5.3**

APPENDIX 11

EMERGENCY PROCEDURES

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APPENDIX 12

SECURITY CALCULATION

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Section 6.2