#### Northern Territory of Australia – Mining Management Act

It is recommended that the Mining Management Plan is completed in conjunction with the user guide, available on the <u>Northern Territory Government website</u>.

## Section 1 – Project Details

Project Name Provide new or existing project name	Lake Mackay Project

Authorisation Number Insert existing authorisation number, where applicable	0815-01
Hambol, whole applicable	

Operator Name Use ASIC-ABR registered	Independence Group NL (ABN 46 092 786 304)
name (if a company), or	

Location and Access Details Include brief description of the location, access details, and distance to nearest town or community	The Lake Mackay Project is 400km West North West of Alice Springs and extends from the West Australian Border directly Eastwards to the Newhaven Wildlife Sanctuary. It is accessible from Alice Springs either via the Namatjira Drive on to the Kintore Road, or the Tanami road on to the Newhaven sanctuary access road, through to Nyrripi. The Kalipimbut road is used for access to central areas of the project. The project is close to several Aboriginal Communities, including; Kintore, Nyrripi in the West Papunya and Mount Liebig in the East.
	Temporary access tracks exist to provide access to specific prospects within the project and more will be created this year across the wider project area.

Target Commodity Details           Include target commodities (i.e. gold, copper etc)	Gold, Copper, Nickel, Cobalt.



Mining Activities Summarise the mining activities (exploration) to be the subject of the	Exploration activities will occur on the project between March and November.
proposed Authorisation or Variation	It is anticipated that both RC and diamond drilling will be required to test multiple targets across most of the project area. An RC program will run from Late March to Late June, possibly followed by a Diamond drilling programme from Early to late August onwards. This will require the clearance of temporary access track and drill pads, as well as sumps to catch/contain any water.
	Moving Loop Electromagnetic surveys (MLEM) will continue, using ATV's and light vehicles, to help select the best targets from Airborne EM surveys flown last year.
	Further soil sampling on ATV's will be required in some areas to help define potential geochemical anomalism and therefore potential for sub surface mineralisation.
	Temporary camps consisting of tents and caravans, will be established in clear areas and will be deconstructed at the end of an exploration campaign

Proposed Schedule Include start and finish dates of ground disturbing work	15 <sup>th</sup> March- 1 <sup>st</sup> April: temporary track and drill pad clearance for RC drill rig.
	15 <sup>th</sup> March- 30 <sup>th</sup> June: Moving Loop electromagnetic geophysical surveys of airborne geophysical anomalies to continue.
	1 <sup>st</sup> April- 6 <sup>th</sup> July June: RC drilling across leases.

## **Mining Interest and Land Ownership**

List the mining interests (titles), the title holder name/s, the title expiry date and the Property name/Land holder (e.g. pastoralist or Aboriginal land trust) for each title.

Title Number	Title Holder	Expiry Date	Property Name or Land Holder
EL24915	Prodigy Gold NL	22/09/2019	Haasts Bluff Aboriginal Land Trust
EL25146	Prodigy Gold NL	12/10/2023	Lake Mackay Aboriginal Land Trust
EL29747	Castile Resources Pty Ltd	12/10/2023	Haasts Bluff Aboriginal Land Trust
EL30729	Prodigy Gold NL	12/10/2023	Lake Mackay Aboriginal Land Trust
EL30730	Prodigy Gold NL	12/10/2023	Lake Mackay Aboriginal Land Trust
EL30731	Prodigy Gold NL	12/10/2023	Haasts Bluff Aboriginal Land Trust

Title Number	Title Holder	Expiry Date	Property Name or Land Holder
EL30732	Prodigy Gold NL	12/10/2023	Haasts Bluff Aboriginal Land Trust
EL30733	Prodigy Gold NL	12/10/2023	Lake Mackay Aboriginal Land Trust Yunkanjini Aboriginal Land Trust Haasts Bluff Aboriginal Land Trust
EL30739	Prodigy Gold NL	12/10/2023	Yunkanjini Aboriginal Land Trust Lake Mackay Aboriginal Land Trust
EL30740	Prodigy Gold NL	12/10/2023	Haasts Bluff Aboriginal Land Trust Yunkanjini Aboriginal Land Trust
EL31234	Independence Group NL	12/10/2023	Lake Mackay Aboriginal Land Trust Haasts Bluff Aboriginal Land Trust
EL31723	Independence Group NL	30/07/2024	Derwent Station
EL31794	Castile Resources Pty Ltd.	27/02/2024	Haasts Bluff Aboriginal Land Trust

# **Organisational Structure**

Position Title	Name
Managing Director	Peter Bradford
General Manager - Exploration	lan Sandl
Project Manager	Doug Winzar
Project Geologist	Simon Cornwell
HSEC Manager	Ross Jennings

# Section 2 – Operator Self-Assessment of the Environmental Risk

The purpose of this self-assessment is to ensure Operators complete a project risk assessment of potential environmental impacts and are aware of other legislative obligations from various Agencies. As a result of this self-assessment, further information may be required in the form of a management plan to enable full assessment of the MMP. If you have any queries please contact a Mining Officer prior to submitting the MMP. Useful resources to assist with this self-assessment are provided in the User Guide.

## **Environmental considerations**

ASSESS MENT ASPECT	YES or NO	ACTIONS REQUIRED (if answered YES)	APPENDED INFORMATION (Evidence of consultation with DENR and/or management plan)
Step 1: Are there any threatened flora and fauna species or habitats of significanc e that may occur in the proposed work area?	Yes	At this early stage of exploration, IGO has not undertaken any targeted surveys of flora and fauna in the Lake Mackay project area as the level of disturbance to be generated in this current work proposal is minor. The 9 threatened species listed below are from the Protected Matter Search. Birds: Night Parrot (Pezoporus occidentalis) Princess Parrot (Polytelis alexandrae) Red Goshawk (Erythrotriorchis radiatus) Curlew Sandpiper (Calidris ferruginea) Australian Painted Snipe (Rostratula australis) Mammals: Greater Bilby (Macrotis Lagotis) Warru, Black-footed Rock-wallaby (Petrogale lateralis MacDonnell Ranges race) Central Rock-rat, Antina (Zyzomys pedunculatus) Reptiles: Great Desert Skink (Liopholis kintorei)	Lake Mackay_PMST_2019.

ASSESS MENT ASPECT	YES or NO	ACTIONS REQUIRED (if answered YES)	APPENDED INFORMATION (Evidence of consultation with DENR and/or management plan)
Step 2: Are there any known declared weeds within the proposed work area?	Yes	<ul> <li>Three weed species were identified as likely to occur in the project area using a protected matters search. These were;</li> <li>Buffel-Grass (Cenchrus ciliaris</li> <li>Parkinsonia (Parkinsonia aculeata)</li> <li>Athel Pine (Tamarix aphylla)</li> <li>Buffel Grass is common throughout central Australia. The Athel Pine and Parkinsonia can occur in the Eastern end of the project. Therefore, IGO ensure all vehicles coming to the project area are suitably washed down before leaving Alice Springs. The exploration undertaken at this early stage does not present a major risk.</li> </ul>	
		WEED MANAGEMENT	
		OBJECTIVESTo prevent spread of established weeds within Project Area and the region.	
		TARGETSNo increase in the distribution of existing weed species. No introduction of new weed species.ACTIONSField personnel are to wash down vehicles and equipment prior to entering the project area. This will be done in Alice Springs prior to coming out to the project site or at the	
		MONITORING         Monitoring inspections of work sites, tracks and camp areas is to include recording and control of weed infestations that appear to be associated with exploration e.g. weeds not present in the "before" photographs, and weeds not previously seen/recorded from the area/region.	
		REVIEW & REPORTING       The Site Manager is to record weed conditions and control outcomes during inspections/monitoring. Any significant infestations of Class A weeds to be reported to DENR. Review of data and summary of weed management activities in annual MMP reporting.	

ASSESS MENT ASPECT	YES or NO	ACTIONS REQUIRED (if answered YES)	APPENDED INFORMATION (Evidence of consultation with DENR and/or management plan)
Step 3: Will you be using water from bores or other sources for the operation?	YES	<ul> <li>In 2019 potable water will be supplied from Alice Springs. Some drinking water may be purchased at Kintore or Papunya. Water bore RN19124 will be used for drilling water if required.</li> <li>Weekly water use projections for 2019 water consumption is;</li> <li>1. Ground geophysics or soil sampling: 1000 L per week. For a 4-man mobile camp which includes kitchen, showers and clothes washing.</li> <li>2. RC drilling: 5000 L per week. (2500L for camp, 2500L for drilling and dust suppression)</li> </ul>	

## Environmental assessment and cultural considerations

ASSESSMENT ASPECT	YES or NO	MANAGEMENT REQUIREMENTS
Step 4: Is your project likely to have a significant impact on the environment?	No	Due to the low impact nature of the exploration that is undertaken at this stage of the project the environmental auditing is very limited. Active work on the project generally occurs in 2-4-week phases. At the completion of drilling the drill pads are inspected to ensure that no spills are observed, or rubbish is present. Drill collars are temporarily capped until the full rehabilitation is undertaken. If camp sites are established for longer periods a monthly audit is undertaken. At the completion of each phase of work all rubbish is removed from the camp sites and any contaminated soil is removed for disposal at the licensed facility in Alice Springs. Photographs are taken of the camp sites prior to establishment and the drill sites prior to clearing. Once rehabilitation is completed the sites are photographed again. Environmental impacts will be continuously assessed through frequent site inspections by the Project Manager and Project Geologist, ensuring that IGO's expectations are being met by all employees and contractors. Should a site inspection determine that additional control measures are required, they will be put in place in a timely and effective manner.

ASSESSMENT ASPECT	YES or NO	MANAGEMENT REQUIREMENTS
Step 5: Are there Aboriginal sacred sites in the Project area?	Yes	The Aboriginal Traditional Owners for the project area are the Kukatja, Warlpiri and Pintupiluritju people. All of the project, with the exception of EL31723, falls under Aboriginal Land and is held as inalienable freehold title under the Aboriginal Land Rights Act 1976 (ALRA 1976). Aboriginal rights and interests in land are also recognised under the Commonwealth Native Title Act 1993 (NTA 1993). The NTA 1993 gives Aboriginal people the right to negotiate in regard to 'future acts' on their land and the ALRA 1976 gives Aboriginal people a right of veto for mining projects. IGO recognises and respects the rights of the Traditional Owners and before any activity is carried out on-ground consults with, and submits work programs to, the Central Land Council (CLC) for Sacred Site Clearances and their approval. All versions of this and other IGO Mining Management Plans are sent to the CLC for their overview and instruction. The CLC has been made aware of our intention to carry out the 2019 exploration program. The most recent Sacred Site Clearances Certificate was issued by the CLC on 30 <sup>th</sup> November 2018. Most of the proposed areas in which activities are to be conducted have now undergone a Sacred Site Clearance survey. An additional survey is planned to cover the remaining targets that were recently identified from airborne geophysics as the Central Land Council (CLC) has requested that the sacred site surveys cannot be released or discussed. IGO is unable to provide the Sacred Site Clearance Certificate survey data. If this information is required, the Department of Mines and Energy needs to consult directly with the CLC. This MMP has been submitted to the CLC for review and comment. IGO has discussed the lack of an Aboriginal Areas Protection Authority (AAPA) certificate with our joint venture partners and the CLC. They are fully aware that this project does not have an authority certificate, however as the CLC are not prepared to release information to the AAPA a certificate issued by the AAPA cannot be gained
Step 6: Are there archaeological and heritage sites in the Project area?	No	Heritage and archaeology sites are protected in the NT. NT Heritage Branch of the Department of Natural Resources and Environment (DENR) administers the <i>Heritage Act</i> . Seek advice in relation to protection of heritage and archaeological sites.

# Section 3 – Amendments

As per Section 41(3) of the *Mining Management Act*, an MMP reviewed and amended under Section 41(1)(a) is to clearly identify amendments made.

Section	Amendment
	Entire MMP has been updated and put in to new DPIR template.

Delete or add rows as required

# Section 4 – Activities Proposed

Mining Interests (i.e. titles)	EL31794	EL24915	EL25146	EL31234	EL30729	EL30731	EL30739	EL30733	EL30740	EL30730
Number and type of proposed drill holes	25x RC holes	4x RC Holes	4x RC holes	8x RC holes	6x RC holes	8x RC holes	4x RC holes	4x RC holes	4x RC holes	4x RC holes
	Final nu	mber of hole	es per tener			nfirmation o e a best est		by Moving	loop EM ge	ophysics
Maximum depth of proposed	400m	200m	270m	Unknow n	Unknow n	Unknow n	Unknow n	Unknow n	Unknow n	Unknow n
holes (m)	Hole de	pths for mu	ch of the dr			l are depend m geophysi		depth of any	/ modelled a	anomaly
Number and size of drill pads to be cleared (Length: m x Width: m)	25 @ 20x25 m	4@ 20x25 m	4 @ 20x25 m	8 @ 20x25 m	6@ 20x25 m	8@ 20x25 m	4 @ 20x25 m	4 @ 20x25 m	4 @ 20x25 m	4 @ 20x25 m
Total area of drill pads to be cleared (ha)	Approx 1.25	Approx 0.2	Approx 0.2	Approx 0.4	Approx 0.3	Approx 0.4	Approx 0.2	Approx 0.2	Approx 0.2	Approx 0.2
Is drilling likely to encounter groundwater? (Y, N, unsure)		Y to date has the water ta		r tenements	is not know		section of w			
Number of costeans (Length: m x Width: m x Depth: m)	0	0	0	0	0	0	0	0	0	0
Number of bulk sample pits	0	0	0	0	0	0	0	0	0	0
Total bulk sample (tonnes) (Length: m x Width: m x Depth:	0	0	0	0	0	0	0	0	0	0
Bulk sample pits approved under <i>Mineral</i> <i>Titles Act</i> ? (Y or N)	N	N	N	N	N	N	N	N	N	N
Length of line/track clearing	20km x 3m	16km x 3m	1Km x 3m	30km x 3m	25km x 3m	65km x 3m	25 x 3m	25km x 3m	8km x 3m	7.3km x 3m
(km: x Width: m)	All tracks	will start off		l (by 2xLV's) he drill rig w					quired to all	ow access

Mining Interests (i.e. titles)	EL31794	EL24915	EL25146	EL31234	EL30729	EL30731	EL30739	EL30733	EL30740	EL30730
Camp area to be cleared (ha)			0.5	0.5	0.5		0.5			
Camp Infrastructure (i.e. demountable.	naturally	clear areas	. Minor blad	e up clearin mps can co	g maybe co nsist of 2-3	onducted in a	areas to cre -8 tents, 2-4	ate a fire br	l activities lo eak to a ma cles, 2-3 Ligl	ximum of
Previous disturbance yet to be remediated on title (ha) if known	88Km tempora ry tracks (inc. 3.9km now in Exclusio n zone	122.7k m tempora ry tracks. 1km cleared Track		7Km tempora ry tracks	16km tempora ry tracks	7km tempora ry tracks	12.6km tempora ry tracks			10km tempora ry tracks
Other	N	N	N	N	N	N	N	N	N	N
Total area disturbed proposed (ha)	7.25	5	1.1	9.9	8.1	19.9	7.7	7.7	2.5	2.4

# Section 5 – Previous Disturbance (for existing Authorisations only)

Mining Interests (i.e. titles)	EL24915	EL	EL	EL		
Number/type of holes drilled	123	0	0	0		
Maximum depth of holes drilled (m)	639.7	0	0	0		
Number of holes remediated (i.e.	122	0	0	0		
plugged/capped)	RN19124 collar not rehabbed. 25 capped collars below ground not buried to allow further downhole geophysics in future.					
Number and size of drill pads cleared (Length: m x Width: m)	122	0	0	0		
Total area of drill pads cleared (ha)	36.6	0	0	0		
Total area of drill pads remediated (ha)	36.6	0	0	0		
Was groundwater encountered? (Y or N)	Y	0	0	0		
Length of line/track cleared (Length: 1 km x Width: 3 m)	1	0	0	0		

Mining Interests (i.e. titles)	EL24915	EL	EL	EL
Length of line/track remediated (Length: 1 km x Width: 3 m)	1	0	0	0
Number of costeans excavated (L: 3 m x W: 0.5 m x D: 1 m)	0	0	0	0
Number of costeans remediated	0	0	0	0
Total bulk sample pits excavated (Length: x Width: x Depth: m)	0	0	0	0
Total bulk sample pits remediated	0	0	0	0
Camp area/s cleared (ha)	0	0	0	0
Camp area/s remediated (ha)	0	0	0	0
Total area disturbed (ha)	36.9	0	0	0
Total area remediated (ha)	36.6	0	0	0

# Section 6 – Environmental Management

By checking these boxes, you are agreeing to implement the following minimum environmental management standards on the project area. Where boxes have been left unchecked, justification is required.

6.1	Y	Blade-up approach for clearing will be used (i.e. no windrows, leave root stock and topsoil)
6.2	Y	Significant vegetation will be avoided during clearing (i.e. large trees, specimens providing habitat or food sources, riparian vegetation, and threatened species)
6.3	Y	Vegetation clearing during, and immediately after rainfall events, will be avoided
6.4	Y	Vegetation clearing will be kept to the minimum required to safely traverse vehicles and drill rigs along tracks and drill pads
6.5	Y	Where blade-up techniques cannot be employed, topsoil and vegetation will be stockpiled appropriately for remediation purposes
6.6	Y	All employees and contractors will be trained and inducted in relation to the management of environmental risks in the work area, including weeds, waterways, threatened species, soil erosion, sacred sites and heritage areas
6.7		Sumps will be lined or tanks of appropriate size to contain water, sediment and drilling fluids encountered during drilling, will be used

6.8	Y	Sumps, drill holes, and fuel stores will be located away from environmentally significant areas and water courses
6.9	Y	Excavations (sumps, costeans and pits) will be appropriately ramped to allow fauna egress
6.10	Y	Drill holes will be securely capped immediately after drilling
6.11	Y	Vehicle hygiene measures will be employed to prevent the introduction and spread of invasive species and pathogens when mobilising vehicles and equipment from one location to another
6.12	Y	Hydrocarbon spills will be minimised using liners and drip trays under machinery, and appropriately sized spill-kits available in the event of a spill
6.13	Y	Hazardous substances (including hydrocarbons) will be stored and handled in accordance with relevant Australian Standards
6.14	Y	Hydrocarbons will be stored in lined and bunded areas
6.15	Y	Waste will be stored securely while on-site to minimise windblown rubbish and access by feral animals
6.16	Y	Waste will be removed off-site and disposed of at an appropriate waste management facility
6.17	Y	All environmental incidents will be reported to the Department in accordance with Section 29 of the <i>Mining Management Act.</i>

Justification and alternative management measures:

6.7 for the RC drilling sumps will not be lined. As this is an air drilling technique no drilling fluids are added. The foam products that maybe utilised to assist with maintain the borehole integrity will be biodegradable.

# Section 7 – Remediation and Closure

By checking these boxes, you are agreeing to implement the following minimum remediation standards on the project area. Where boxes have been left unchecked, justification is required.

7.1	Y	Drill holes plugged below ground level at a minimum depth of 0.4 metres and soil mounded to prevent subsidence, within 6 months of completion of drilling
7.2	Y	Drill samples/spoil returned down drill holes, buried in sumps, or removed from site
7.3	Y	All drill hole and access markers including flagging tape, wooden markers and star pickets will be removed from site
7.4	Υ	Re-contouring of cut and fill drill pads will be consistent with the surrounding terrain
7.5	Y	Ripping/scarifying of drill pads, and compacted areas along the contour (on sloping ground) and cross-ripping (zig-zag) along tracks
7.6	Y	Tracks will be remediated, including pushing in all windrows
7.7	Y	Appropriate erosion and sediment controls will be installed where erosion is evident or likely to occur

7.8	Y	All tracks will be remediated unless otherwise agreed in writing by the land holder or appropriate third party
7.9	Y	Access through watercourses will be removed and banks restored
7.10	Y	No erosion is occurring in disturbed areas, on tracks and in remediated areas
7.11	Y	All excavations backfilled within 6 months of completion of drilling
7.12	Y	All water bores decommissioned unless otherwise agreed in writing by the land holder or appropriate third party. The bore must comply with the Minimum Construction Requirements for Water Bores in Australia and may require permits or licenses under the <i>Water Act</i>
7.13	Y	All rubbish and infrastructure will be removed from site
7.14	Y	Replacement of topsoil and vegetation
7.15	Y	Contaminated soils (e.g. hydrocarbon or hazardous chemicals) will be remediated or removed from site
7.16	Y	Monitoring will be undertaken following the wet season or a significant rainfall event

Justification and alternative management measures:

# **Section 8 – Required Attachments**

8.1	Y	Security Calculation Spreadsheet			
8.2	Ν	Nomination of Operator Form			
		As per existing Authorisation.			
8.3	Y	Spreadsheet with coordinates of proposed drill holes or polygons of target areas			
8.4		Google Earth KML/shape files/track logs of proposed tracks and camp sites			
8.5	Y	A map of the work area(s) showing:			
		1. title boundaries and title numbers			
		2. current and proposed drill holes, or polygons of target areas			
		3. current and proposed tracks			
		4. remediated areas			
		5. camp sites			
		6. sacred/heritage sites			

		7. environmental constraints		
8.6	Y	Remediation Register (for existing Authorisations)		
8.7	NA	Photographs of remediation work		
		No Remediation work carried out in the previous year.		
8.8	NA	Radiation Management Plan (if applicable)		

# Section 9 – Declaration

The Mining Management Plan must be endorsed by a senior representative of the company who has the appropriate level of authority to do so.

	Author	Reviewed by	Approved by
Date	27/02/2019	28/02/2019	28/02/2019
Name	Simon Cornwell	Doug Winzar	Doug Winzar
Signature	June Jonwel	Doug Wingart	Doug Wingar

I .....Doug Winzar.......(name of approving person) Exploration Project Manager.....(position title) declare that I have the authority to make the commitments contained in this mining management plan on behalf of the company. To the best of my knowledge the information contained in this plan is true and correct and commit to undertake the works in accordance with the agreed minimum standards and all relevant Northern Territory and Commonwealth Government legislation.

SIGNATURE: .....

DATE: .....28/02/2019