BASIC ASSESSMENT, ENVIRONMENTAL MANAGEMENT PROGRAMME AND CLOSURE PLAN FOR THE CLOSURE OF THE HACKNEY 116KT PROSPECTING RIGHT

Hackney 116KT

JUNE 2019

SUBMITTED FOR ENVIRONMENTAL AUTHORISTAION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (ACT 107 OF 1998) IN RESPECT OF LISTED ACTIVITIES THAT HAVE BEEN TRIGGERED BY APPLICATIONS IN TERMS OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT (ACT 28 OF 2002) (MPRDA) (AS AMENDED) and APPLICATION FOR A CLOSURE CERTIFICATE IN TERMS OF SECTION 43 OF THE MPRDA

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BASIC ASSESSMENT, ENVIRONMENTAL MANAGEMENT PROGRAMME AND CLOSURE PLAN FOR THE CLOSURE OF THE HACKNEY 116KT PROSPECTING RIGHT

EXECUTIVE SUMMARY

PROJECT BACKGROUND

Marula Platinum (Pty) Ltd (Marula) owns and operates a platinum mine approximately 35 km north west of Burgersfort in the Greater Tubatse Local Municipality and Sekhukhune District Municipality in the Limpopo Province. Marula holds a Prospecting Right (DMR Ref No: 420/2006 PR) for platinum group metals (PGMs), silver ore, gold ore, nickel ore, cobalt, sulphur (in pyrite) and copper ore, and chrome ore on a portion of the farm Hackney 116 KT (Hackney) located to the north of the Marula mining right area. The regional and local settings are illustrated in Figure 1 and Figure 2 respectively. The abovementioned prospecting right is included in Appendix A.

In 2007 and 2012 Marula undertook prospecting activities on the farm Hackney, during which time five out of ten approved exploration boreholes were drilled. In 2012, access to the prospecting right area was denied on various occasions by members of the Djate/Modimolle/Matukwaneng communities and after numerous unsuccessful attempts to resolve matters raised by these communities, Marula has not been able to continue with prospecting.

In line with the Implats' strategic review of its operations, the Marula Board resolved in May 2017 to exit and close the Hackney prospecting right, and not to pursue the conversion of the prospecting right into the Marula mining right, as there was no reasonable prospect to include the area in the 30 year Mine Plan.

SLR Consulting (Africa) (Pty) Ltd (SLR), an independent firm of environmental assessment practitioners (EAP), has been appointed by Marula to manage the environmental authorisation processes associated with the closure of the Hackney prospecting right.

SUMMARY OF AUTHORISATION REQUIREMENTS

Prior to the closure of the prospecting right, the following is required:

- A Closure Certificate from the DMR in terms of Section 43(4) of the MPRDA.
- An environmental authorisation from the DMR in terms of the NEMA, as amended. The Environmental Impact Assessment (EIA) Regulations being followed are Government Notice Regulation (GNR) 982 of 4 December 2014, as amended. The relevant listed activities are included in Section 3.1.

STAKEHOLDER ENGAGEMENT

The stakeholder engagement process commenced prior to the submission of the BAR (Basic Assessment Report) and has continued throughout the environmental assessment process. As part of this process, commenting authorities and interested and affected parties (IAPs) were given the opportunity to review the background information document (BID) and the BAR and submit questions and comments to the project team. All comments submitted to date by the commenting authorities and IAPs have been included and addressed in this BAR.

This BAR was distributed for a 30 day comment period from **17 May 2019 to 19 June 2019** in order to provide I&APs with an opportunity to comment on any aspect of the proposed project and the findings of the BA process. Copies of the full report were made available on the SLR website (at https://slrconsulting.com/za/slr-documents/) and at the Marula Mine. Electronic copies (compact disk) of the report were available from SLR, at the contact details provided below.

All comments received during the review process have been addressed in this BAR that is being submitted for decision-making.

SLR Consulting (Africa) (Pty) Ltd

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IMPACTS AND MANAGEMENT ACTIONS

This section provides a summary of the assessment of the potential impacts. The potential impacts/risks have been assessed against the prospecting right closure objective which is to return any areas disturbed by prospecting activities to the pre-project state. Given that decommissioning and rehabilitation of each drill site was undertaken once drilling of each site was completed, this assessment focusses on potential residual impacts/risks as a result of the rehabilitation phase only. The assessment of the unmitigated scenario takes into account that decommissioning and rehabilitation activities have already been implemented in line with the management measures outlined in the approved prospecting EMPr, therefore the assessment of the mitigated scenario is where additional mitigation measures are deemed necessary. The table below provides a summary of the potential impacts in no particular order of importance.

Aspect	Potential impact	Reference to mitigation measures	Significance (Unmitigated) (takes into account measures implemented as per approved EMPr)
Flora and Fauna	Loss of flora and fauna through lack of or poor rehabilitation	No additional mitigation required. Passive monitoring of BH8171, BH8172 and BH8173 may be required. It is recommended that as part of a DMR site visit of the drill sites, any additional requirements for closure of the prospecting right are agreed and documents submitted as an appendix to this report.	Very Low
Land-use	Loss of pre- prospecting land uses through lack of or poor rehabilitation	No additional mitigation required. Passive monitoring of BH8171, BH8172 and BH8173 may be required. It is recommended that as part of a DMR site visit of the drill sites, any additional requirements for closure of the prospecting right are agreed and documents submitted as an appendix to this report.	Very Low
Visual	Change in the visual landscape of the area	No additional mitigation required.	Insignificant
Socio- economic	Negative and positive socio-economic impacts	No additional mitigation is possible due to Marula being denied access to the area. It is recommended that as part of a DMR visit of the drill sites, any additional requirements for closure of the prospecting right are agreed and documents as an annexure to this report.	Very Low



ENVIRONMENTAL STATEMENT

The assessment of the project indicates that the potential for negative residual impacts/risks is very low to insignificant. It follows that no additional active mitigation is required; passive monitoring of BH8171, BH8172 and BH8173 may be required. It is recommended that as part of a DMR site visit of the drill sites, any additional requirements for closure of the prospecting right are agreed and documents submitted as an appendix to this report.



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ACRONYMS AND ABBREVIATIONS

Acronym / Abbreviation	Definition	
ВА	Basic Assessment	
BAR	Basic Assessment Report	
BEE	Black Economic Empowerment	
BIC	Bushveld Igneous Complex	
BID	Background Information Document	
DWS	Department of Water and Sanitation	
EAP	Environmental Assessment Practitioner	
EIA	Environmental Impact Assessment	
EMPr	Environmental Management Programme	
GDARD	Gauteng Department of Agriculture & Rural Development	
GNR	Government Notice Regulation	
I&APs	Interested and Affected Parties	
IBAs	Important Bird and Biodiversity Areas	
MPRDA	Mineral and Petroleum Resources Development Act	
NEMA	National Environmental Management Act	
NWA	National Water Act	
PGMs	Platinum Group Metals	
RLS	Rustenburg Layered Suite	
SACNASP	South African Council for Natural Scientific Professions	
SLR	SLR Consulting (Africa) (Pty) Ltd	



INTRODUCTION

This chapter provides a brief description of the project background, describes the purpose of this report, summarises the legislative authorisation requirements, provides the study terms of reference and outlines the opportunity for comment.

PROJECT OVERVIEW

Marula Platinum (Pty) Ltd (Marula) (of which the shareholding is 73% held by Impala Platinum Holdings Limited (Implats), 9% held by Mmakau Platinum Mining (Pty) Ltd, 9% held by Tubatse Platinum (Pty) Ltd, and 9% held by the Marula Community Trust) owns and operates a platinum mine approximately 35 km north west of Burgersfort in the Greater Tubatse Local Municipality and Sekhukhune District Municipality in the Limpopo Province. Marula holds a Prospecting Right (DMR Ref No: 420/2006 PR) for platinum group metals (PGMs), silver ore, gold ore, nickel ore, cobalt, sulphur (in pyrite) and copper ore, and chrome ore on a portion of the farm Hackney 116 KT (Hackney) located to the north of the Marula mining right area. The regional and local settings are illustrated in Figure 1 and Figure 2 respectively. The abovementioned prospecting right is included in Appendix A.

In 2007 and 2012 Marula undertook prospecting activities on the farm Hackney, during which time five out of ten approved exploration boreholes were drilled. In 2012, access to the prospecting right area was denied on various occasions by members of the Djate/Modimolle/Matukwaneng communities and after numerous unsuccessful attempts to resolve matters raised by these communities, Marula has not been able to continue with prospecting.

In line with the Implats' strategic review of its operations, the Marula Board resolved in May 2017 to exit the Hackney prospecting right, and not to pursue the conversion of the prospecting right into the Marula mining right, as there was no reasonable prospect to include the area in the 30 year Mine Plan. Against this background, Marula has investigated opportunities to empower the local community. Marula has therefore proposed to the Hackney community that it applies for a preferential community right (in terms of Section 104 of the MPRDA). Accordingly, the Hackney community has expressed their interest and intent to apply over the said Hackney prospecting right area.

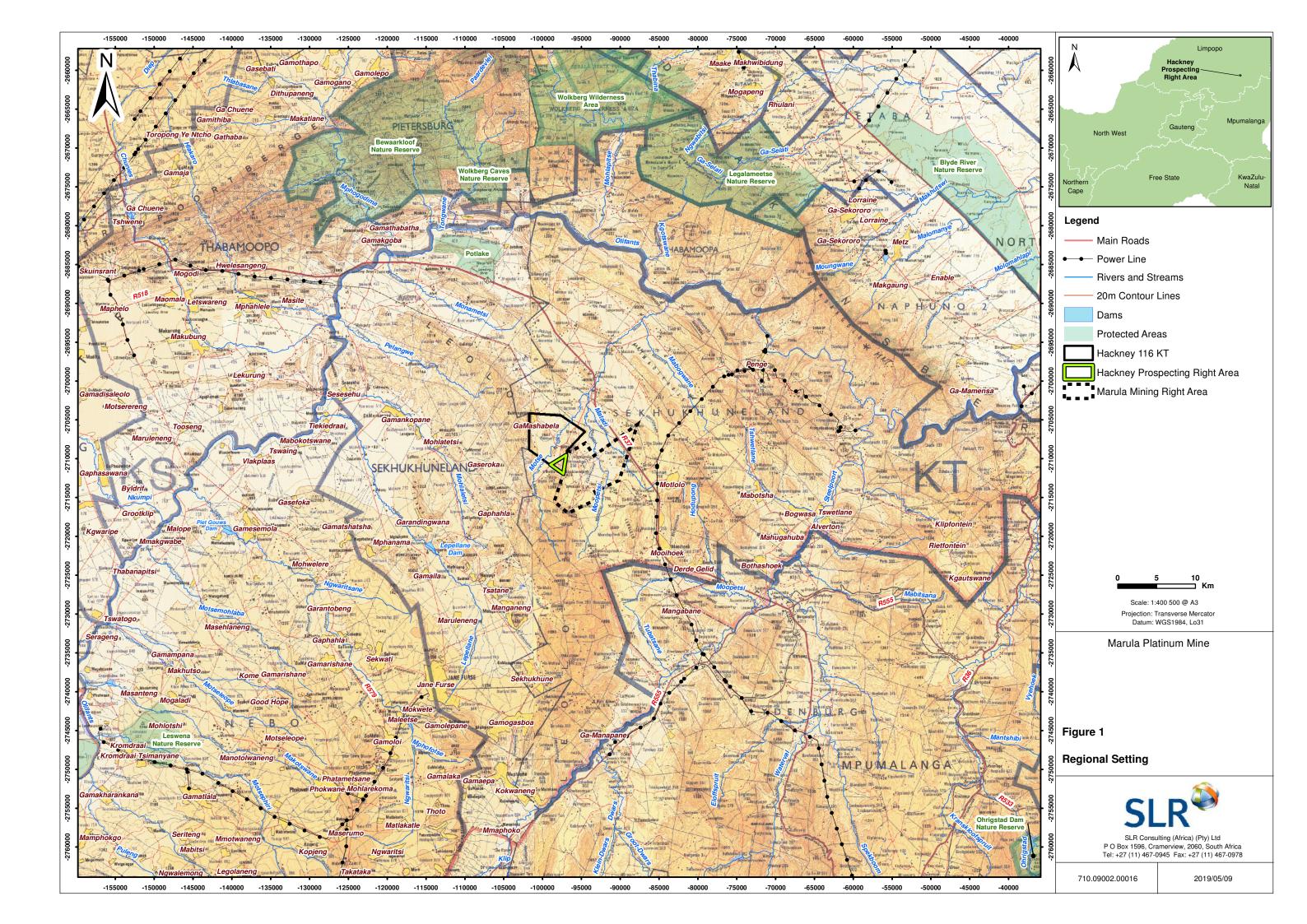
SLR Consulting (Africa) (Pty) Ltd (SLR), an independent firm of environmental assessment practitioners (EAP), has been appointed by Marula to manage the environmental authorisation processes associated with Marula's closure of the prospecting right.

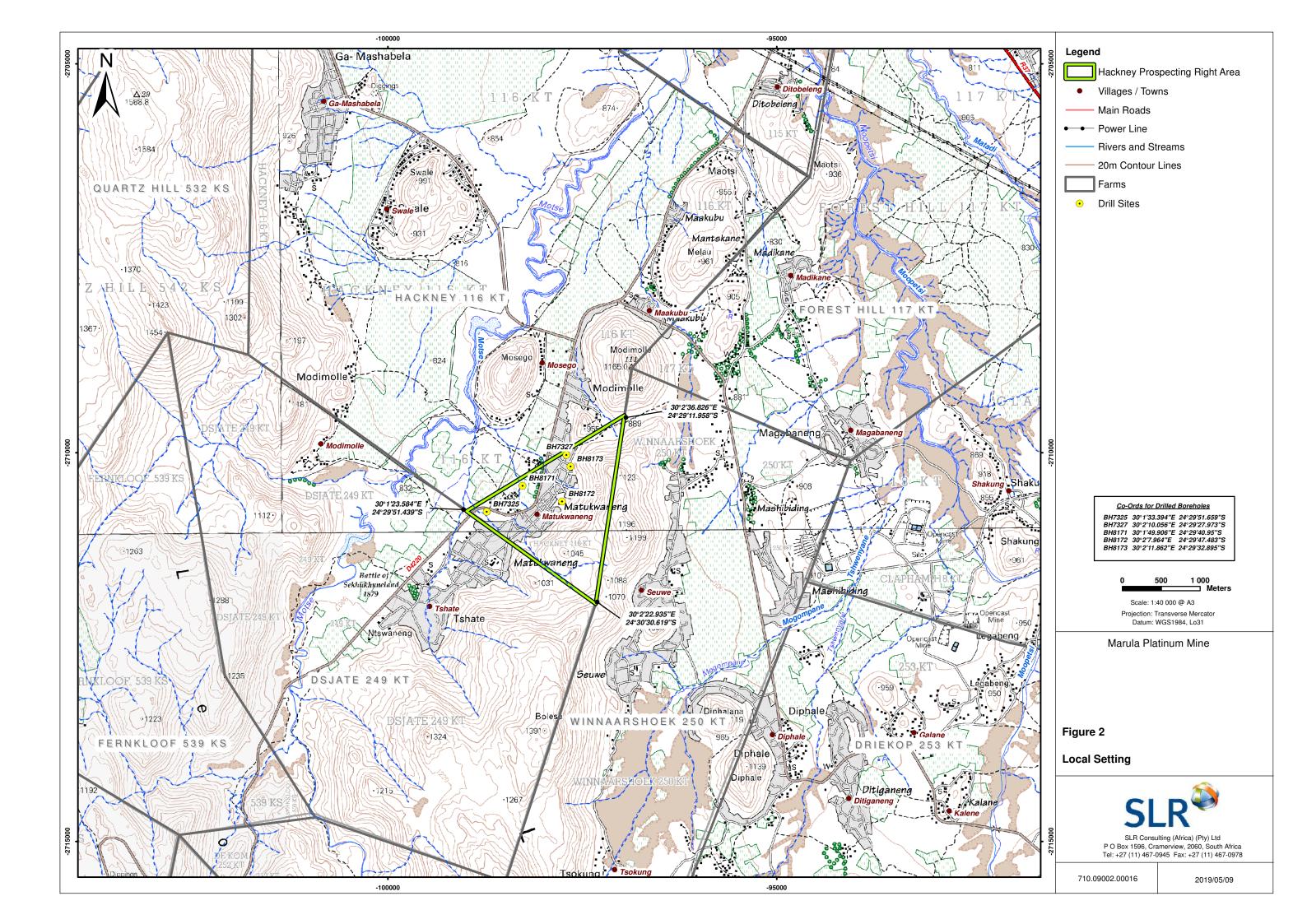
PURPOSE OF THIS REPORT

This Basic Assessment Report (BAR) has been compiled and distributed for review and comment as part of a Basic Assessment (BA) process that is being undertaken for the closure of the Hackney Prospecting Right, near Burgersfort in the Limpopo Province.

This BAR provides a description of the proposed closure project and the affected environment; summarises the BA process followed to date; presents to a closure plan for the project; identifies and assesses the key impacts associated with the decommissioning and closure of the prospecting right and presents management and mitigation measures.

Interested and Affected Parties (I&APs) were asked to comment on the BAR (see Section 7.2). The document was then updated into a final report, giving due consideration to the comments received. The final BAR is being submitted to the DMR for consideration as part of the closure application in terms of Section 43 of the Mineral and Petroleum Resources Development Act, 2002 (No. 28 of 2002) (MPRDA), as amended and application for Environmental Authorisation in terms of Chapter 5 of the National Environmental Management Act, 1998 (No. 107 of 1998) (NEMA), as amended.





SUMMARY OF AUTHORISATION REQUIREMENTS

Prior to the closure of the prospecting right, the following is required:

- A Closure Certificate from the DMR in terms of Section 43(4) of the MPRDA.
- An environmental authorisation from the DMR in terms of the NEMA, as amended. The Environmental Impact Assessment (EIA) Regulations being followed are Government Notice Regulation (GNR) 982 of 4 December 2014, as amended. The relevant listed activities are included in Section 3.1.

TERMS OF REFERENCE

SLR, as the independent EAP, is responsible for undertaking the required environmental regulatory process and conducting the public participation process. The terms of reference for the environmental regulatory process are to:

- Make application for Environmental Authorisation of the project in terms of NEMA.
- Make application for the Closure of the proposed project in terms of the MPRDA.
- Ensure the BA is undertaken in accordance with the requirements of NEMA and the EIA Regulations 2014 (as amended) as well as the MPRDA.
- Ensure the BA is undertaken in an open, participatory manner to ensure that all potential impacts are identified.
- Undertake a formal public participation process, which includes the distribution of information to I&APs and
 provides the opportunity for I&APs to raise any concerns/issues, as well as an opportunity to comment on
 all BA documentation.
- Integrate all information, including the findings of the specialist studies and other relevant information, into a BAR to allow an informed decision to be taken on the proposed project.

Further to this and in accordance with Appendix 1 of the EIA Regulations 2014 (as amended), the objectives of a BA process are to:

- Determine the policy and legislative context within which the proposed activity is located and how the activity complies with and responds to the policy and legislative context.
- Identify the alternatives considered, including the activity, location, and technology alternatives.
- Describe the need and desirability of the proposed alternatives.
- Through the undertaking of an impact and risk assessment process inclusive of cumulative impacts which
 focused on determining the geographical, physical, biological, social, economic, heritage, and cultural
 sensitivity of the sites and locations within sites and the risk of impact of the proposed activity and
 technology alternatives on these aspects to determine:
 - (i) The nature, significance, consequence, extent, duration, and probability of the impacts occurring.
 - (ii) The degree to which these impacts can be reversed, may cause irreplaceable loss of resources; and can be avoided, managed or mitigated.
- Through a ranking of the site sensitivities and possible impacts the activity and technology alternatives will impose on the sites and location identified through the life of the activity to:
 - (i) Identify and motivate a preferred site, activity and technology alternative.
 - (ii) Identify suitable measures to avoid, manage or mitigate identified impacts.
 - (iii) Identify residual risks that need to be managed and monitored.

This BA process consists of a series of steps to ensure compliance with these objectives and the EIA Regulations (2014). The process involves an open, participatory approach to ensure that all impacts are identified and that decision-making takes place in an informed, transparent and accountable manner.

OPPORTUNITY TO COMMENT

This BAR was distributed for a 30 day comment period from **17 May 2019 to 19 June 2019** in order to provide I&APs with an opportunity to comment on any aspect of the proposed project and the findings of the BA process.

Copies of the full report were made available on the SLR website (at https://slrconsulting.com/za/slr-documents/) and at the Marula Platinum (Pty) Ltd Mine Offices. Electronic copies (compact disk) of the report were available from SLR, at the contact details provided below.

All comments received during the review process were addressed in the BAR that is being submitted for decision-making.

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PART A – SCOPE OF ACTIVITY AND ENVIRONMENTAL IMPACT ASSESSMENT

1 DETAILS OF THE APPLICANT AND THE EAP

1.1 APPLICANT DETAILS

The applicant for the project is Marula Platinum (Pty) Ltd (Marula). Details are provided in Table 1 below.

TABLE 1: APPLICANT DETAILS

Name:	Marula Platinum (Pty) Ltd (Marula)	
Address:	Marula Platinum Mine, Steelpoort, Limpopo	
Contact No.	066 486 6682	
Responsible person:	Murendeni Makhado	

1.2 DETAILS OF THE EAP WHO PREPARED THE REPORT

As noted in Chapter 1, SLR has been appointed as the independent EAP to undertake the BA for the proposed closure of the prospecting right. The details of the EAP project team that are undertaking this BA are provided in Table 2.

SLR has no vested interest in the proposed project other than fair payment for consulting services rendered as part of the BA process and has declared its independence as required by the EIA Regulations 2014 (as amended). An undertaking by SLR is provided in Section 17.

TABLE 2: DETAILS OF THE BA PROJECT TEAM

General				
Organisation	SLR Consulting (Africa) (Pty) Ltd			
Postal address	PO Box 1596, Cramerview, 2060			
Tel No.	(011) 467 0945	(011) 467 0945		
Fax No.	(011) 467 0978			
Name	Tasks and roles Email			
Alex Pheiffer (SLR)	BAR and process reviewer	apheiffer@slrconsulting.com		
Stephen van Niekerk (SLR)	Closure plan and financial provision reviewer	svanniekerk@slrconsulting.com		
Caitlin Hird (SLR)	Management of the BA process, including public consultation, process review, specialist study review and report compilation			
Clive Phashe (SLR)	Project assistant and public consultation cphashe@slrconsulting.com			

1.3 EXPERTISE OF THE EAP

Caitlin Hird holds an Honours degree in Geography and Environmental Management and has approximately nine years of relevant experience. Alex Pheiffer holds an MSc degree in Environmental Management and is registered as a professional natural scientist (Environmental Management) with the South African Council for Natural Scientific Professions (SACNASP) (Appendix B). Alex Pheiffer has over 16 years of relevant experience. Both Caitlin Hird and Alex Pheiffer have been involved in several impact assessments for large scale mining developments in Southern Africa. Clive Phashe holds a Bachelor of Science in Life and Environmental Sciences from the University of Johannesburg. Clive has over a year's experience within the environmental consulting field. Clive has assisted in a variety of mining projects since joining the company. Relevant curricula vitae (including proof of registrations) are attached in Appendix B.



2 LOCATION OF ACTIVITY

2.1 LOCATION OF OVERALL ACTIVITY

A description of the property on which the proposed project is located is provided in Table 3.

TABLE 3: DESCRIPTION OF THE PROPERTY

Description	Details
Farm Name	A portion of the farm Hackney 116 KT.
Closure application area (ha)	The prospecting right area covers 223ha.
Magisterial district	The mine is located within the Sekhukhune District Municipality.
Distance and direction from nearest town	The project area is located approximately 35km north west of the town Burgersfort (Refer to Figure 1).
21 digit Surveyor General Code for each farm portion	The farm Hackney 116 KT - T0KT0000000011600000 (the prospecting right covers only the southern portion of the farm).
Triangular Co-ordinates (Refer to Figure 2)	North: 30°2'36.826"E and 24°29'11.958"S South: 30°2'22.935"E and 24°30'30.619"S West: 30°1'23.584"E and 24°29'51.439"S

2.2 LOCALITY MAP

The regional and local settings are illustrated in Figure 1 and Figure 2, respectively.

3 DESCRIPTION OF THE SCOPE OF THE ACTIVITY

This chapter lists the applicable listed activities and provides general information on the proposed project and a description of the proposed closure of the prospecting right.

3.1 LISTED AND SPECIFIED ACTIVITIES

The proposed project triggers a listed activity for which authorisation, is required in terms of the NEMA. The associated listed or specified activity is summarised in the table below. The legislative context pertaining to the listed activity is outlined in Section 4.

TABLE 4: PROJECT ACTIVITIES AND ASSOCIATED LISTED ACTIVITIES

Description of the proposed project activity	Aerial extent of the activity (ha)	Listed activity (mark with an x)	Listed activity number, applicable listing notice and activity description
Closure of already decommissioned prospecting activities (which include drill sites, contractor's office/ camp sites/ storage areas, access tracks). It should be noted that no drilling or related activities have taken place since 2012.	Approximately 223 ha (extent of the prospecting right area)	X	Activity 22 of Listing Notice 1 (GNR 983) The decommissioning of any activity requiring — (i) a closure certificate in terms of section 43 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002); but excluding the decommissioning of an activity relating to the secondary processing of a — (a) mineral resource, including the smelting, beneficiation, reduction, refining, calcining or gasification of the mineral resource; or (b) petroleum resource, including the refining of gas, beneficiation, oil or petroleum products; — in which case activity 31 in this Notice applies. "Decommissioning" is defined as 'to take out of active service permanently or dismantle partly or wholly, or closure of a facility to the extent that it cannot be readily re-commissioned'. Given that the prospecting facilities have been dismantled and will be closed (a closure certificate is required in terms of Section 43 of the MPRDA) this activity is deemed applicable.

3.2 DESCRIPTION OF THE PROSPECTING ACTIVITIES

3.2.1 Overview of prospecting activities

Prospecting activities undertaken in 2007 and 2012 included:

- Use of existing roads/ tracks (as far as possible).
- Establishment and use of new access tracks.
- Establishment and use of temporary contractor's camp (caravans, chemical toilets etc.).
- Establishment and use of support facilities (water, waste and fuel storage areas, digging and lining of sumps etc.).
- Drilling of five approved boreholes (BH7325 and BH7327 drilled in 2007; and BH8171, BH8172 and BH8173 drilled in 2012) as shown in Figure 2.



3.2.2 Decommissioning and rehabilitation of disturbed areas

Active phase

Decommissioning and rehabilitation took place immediately after exploration work at each drill site was completed. This usually took between one and three days. Decommissioning and rehabilitation activities at each site included the following steps:

- Removal of all equipment, structures and materials.
- Removal of any waste and disposal at an appropriately permitted waste site.
- Sealing and capping of all boreholes and installation of a 0.8 x 0.8 x 0.8 m concrete block and stand pipe for easy identification.
- Replacing and levelling topsoil (where removed).
- Scarifying/ripping areas were soils have been compacted.
- Areas were left to naturally re-vegetate.

These steps were based on the regulatory requirements for rehabilitation of the prospecting sites as detailed in the approved EMPr (see text box below for an outline of the rehabilitation commitments). It should be noted that at the time of compiling the prospecting EMP, the DMR's standard EMP format was relevant.

Rehabilitation commitments as detailed in the approved EMPr (dated 10 October 2006):

- The environment affected by the prospecting operations shall be rehabilitated by the holder, as far as is practicable, to its natural state or to a predetermined and agreed to standard or land use which conforms with the concept of sustainable development;
- The affected environment shall be maintained in a stable condition that will not be detrimental to the safety and health of humans and animals and that will not pollute the environment or lead to the degradation thereof;
- Any gate or fence erected by the holder which is not required by the landowner/tenant, shall be removed and the situation restored to the pre-prospecting situation;
- Roads shall be ripped or ploughed, and if necessary, appropriately fertilised (based on a soil analysis) to ensure the regrowth of vegetation. Imported road construction materials which may hamper regrowth of vegetation must be removed and disposed of in an approved manner prior to rehabilitation. If a reasonable assessment indicates that the re-establishment of vegetation is unacceptably slow, the Regional Manager may require that the soil be analysed and any deleterious effects on the soil arising from the prospecting operation, be corrected and the area be seeded with a seed mix to the Regional Manager's specification;
- Where office/camp sites have been rendered devoid of vegetation/grass or where soils have been compacted owing to traffic, the surface shall be scarified or ripped. The site shall be seeded with a vegetation seed mix adapted to reflect the local indigenous flora. If a reasonable assessment indicates that the re-establishment of vegetation is unacceptably slow, the Regional Manager may require that the soil be analysed and any deleterious effects on the soil arising from the mining/prospecting operation be corrected and the area be seeded with a vegetation seed mix to his or her specification;
- All infrastructure, equipment and other items used during the prospecting period will be removed from the site;
- Waste material of any description, including receptacles, scrap, rubble and tyres, will be removed entirely from the prospecting area and disposed of at a recognised landfill facility. It will not be permitted to be buried or burned on the site; and
- Final rehabilitation shall be completed within a period specified by the Regional Manager.

Passive phase - Aftercare and maintenance

Typically a period of aftercare and maintenance is applied to each rehabilitated drill site to ensure closure objectives are being met. Given the nature of the prospecting activities, a 2 to 3 year period of maintenance and aftercare is usually applied.

For drill sites BH7325 and BH7327 (drilled in 2007), the aftercare and maintenance activities included the monitoring of erosion and vegetation establishment and control and eradication of alien invasive plants. For drill sites BH8171,

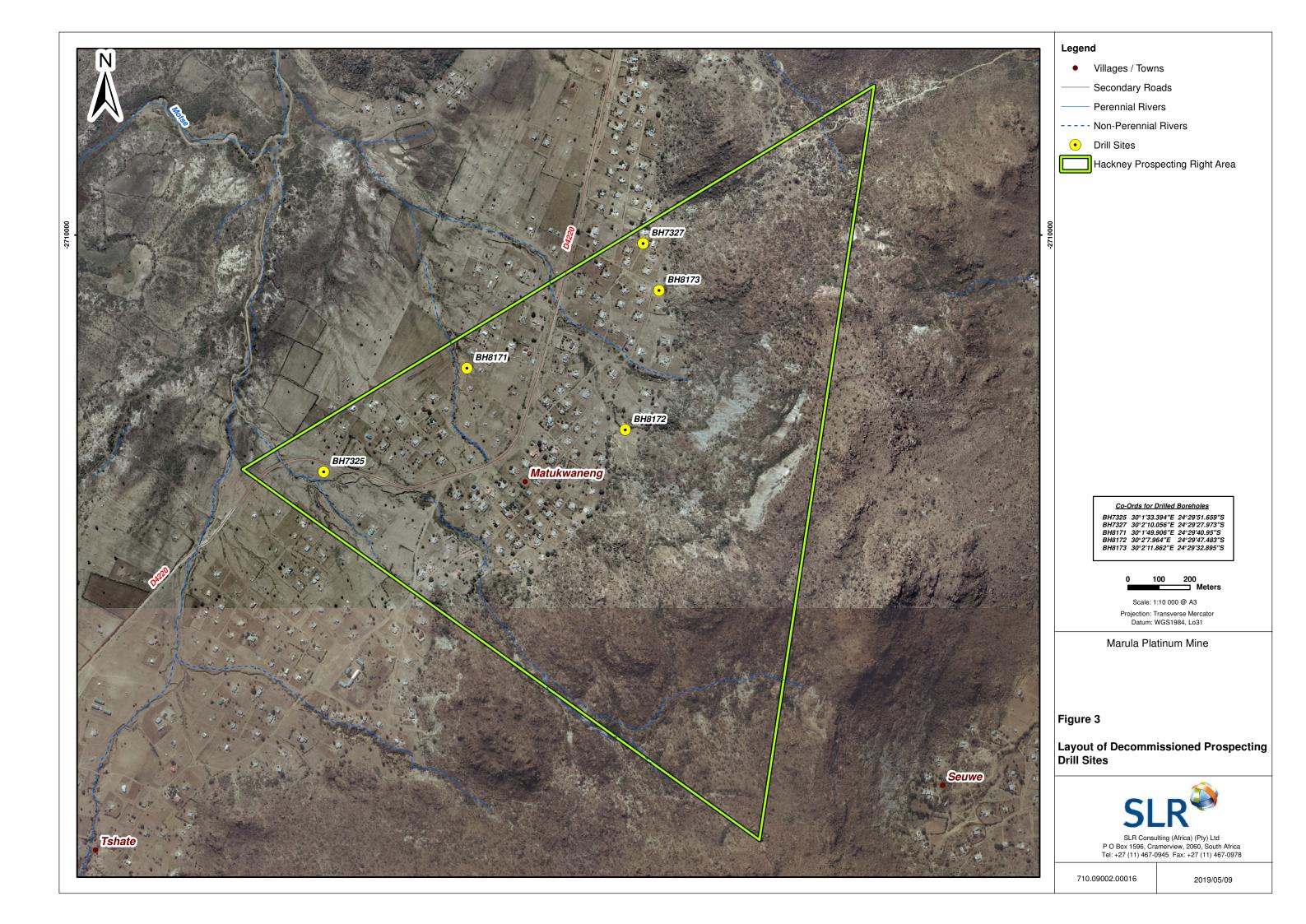
BH8172 and BH8173 drilled in 2012, a period of aftercare and maintenance could not be applied due to access to the drill sites being denied, by the community.

3.2.3 A summary of progressive rehabilitation and current status of the disturbed areas

Progressive rehabilitation took place as prospecting activities advanced. Rehabilitation commenced as each drill site was completed and decommissioned. Rehabilitation activities were aligned with Marula's approved EMPr and closure objectives, and included the activities outlined in Section 3.2.2 above.

Based on findings from previous EMP performance assessments undertaken in 2013 and 2017, at the time of the assessments drill sites BH7325 and BH7327 had fully re-vegetated and no further work was required by Marula. The re-vegetation of drill sites BH8171, BH8172 and BH8173 was still in progress. The final EMP Performance Assessment has been completed as part of this submission. Further detail on progressive rehabilitation and the current status of disturbed areas is included in the final EMP Performance Assessment in Section 8.2.





4 POLICY AND LEGISLATIVE CONTEXT

This chapter outlines the key legislative requirements applicable to the proposed project and outlines the guidelines, policies and plans that have been taken into account during the BA process.

4.1 LEGISLATIVE CONSIDERATION IN THE PREPARATION OF THE BASIC ASSESSMENT REPORT

In accordance with the EIA Regulations 2014 (as amended) and the DMR BAR template requirements, all legislation and guidelines that have been considered in the BA process must be documented. Table 5 below provides a summary of the applicable legislative context.

TABLE 5: LEGAL FRAMEWORK

Applicable legislation and guidelines used to compile the report	Reference where applied	How does this development comply with and respond to the policy and legislative context?
Mineral and Petroleum Resources Development Act (No. 28 of 2002) (MPRDA), as amended and supporting Regulations	Introduction and Table 8	An outline of the legislation is presented in Section 4.1.1. The project will require a closure certificate.
National Environmental Management Act (No. 107 of 1998) (NEMA), as amended and 2014 EIA Regulations, as amended	Introduction, Section 3.1, and Table 8	An outline of the legislation is presented in Section 4.1.2. The project will need to comply with the principles of NEMA. The project also triggers a listed activity.
Financial Provisioning Regulations, 2015 (GN 1147)	Section 18 and 27	A Financial Provision is required in line with the NEMA Regulations and is included in this report.
Alien Invasive Species Regulations GN 598 of 2014 in terms of the NEM:BA	Section 0 and 7.4.1	These regulations have been used to inform the rehabilitation status of the site.
Alien and Invasive Species List, GN 864 of 2016		
National Heritage Resources Act (No 25 of 1999).		

4.1.1 Mineral and Petroleum Resources Development Act, 2002 and Regulations (No. 28 of 2002)

The Mineral and Petroleum Resources Development Act (No. 28 of 2002) (MPRDA) governs the acquisition, use and disposal of mineral and petroleum resources. Section 43 of the MPRDA governs the issuing of a closure certificate. In this regard, the holder of a prospecting right remains responsible for any environmental liability, pollution, ecological degradation, the pumping and treatment of extraneous water, compliance to the conditions of the environmental authorisation and the management and sustainable closure thereof, until the Minister has issued a closure certificate in terms of the Act to the holder of the prospecting right.

Upon the lapsing, abandonment or cancellation of the right the holder of a prospecting right must apply for a closure certificate.

No closure certificate may be issued unless:

- The Council for Geoscience has confirmed in writing that complete and correct prospecting reports in terms of Section 21(1) of the MPRDA have been submitted to the Council for Geoscience.
- The complete and correct records, borehole core data or core-log data that the Council of Geoscience may deem relevant, have been lodged with the Council for Geoscience. OR
- In the case of the holder of a permit or right, the complete and correct surface and the relevant underground geological plans have been lodged with the Council for Geoscience.

Regulation 57 of the Mineral and Petroleum Resources Development Regulations details the requirements for applying for closure certificates by a holder of a prospecting right.



In this regard a closure application must be accompanied by:

- A closure plan contemplated in Regulation 62.
- An environmental risk report contemplated in Regulation 60.
- A final performance assessment report contemplated in Regulation 55(9).
- A completed application form contemplated in Regulation 57.

The above requirements for application for a closure certificate are addressed in the following sections of this report:

TABLE 6: REQUIREMENTS FOR APPLICATION FOR CLOSURE CERTIFICATE

Mineral and Petroleum Resources Development Act (No. 28 of 2002) (MPRDA), as amended	Requirement	Reference in the EMPr report
Regulation 62	Closure plan	Refer to Table 9
Regulation 60	Environmental risk report	Appendix D and Section 24.6
Regulation 55(9)	Final performance assessment report	Section 8.2
Regulation 57	Completed application form (Form P)	Appendix C

The proposed project is for the closure of a prospecting right. In this regard, the project requires a closure certificate in terms of Section 43 of the MPRDA, and therefore an application as contemplated in Regulation 57 is required in order for the DMR to consider closure of the prospecting site. This information has been included in this report.

In addition the regulations define the following terms:

- Residual environmental impact means the environmental impact remaining after a closure certificate has been issued.
- Latent environmental impact means any environmental impact that may result from natural events or disasters after a closure certificate has been issued.

4.1.2 National Environmental Management Act, 1998

The National Environmental Management Act, 1998 (No. 107 of 1998) (NEMA), as amended, establishes principles and provides a regulatory framework for decision-making on matters affecting the environment. All organs of state must apply the range of environmental principles included in Section 2 of NEMA when taking decisions that significantly affect the environment. Included amongst the key principles is that all development must be socially, economically and environmentally sustainable and that environmental management must place people and their needs at the forefront of its concern, and serve their physical, psychological, developmental, cultural and social interests equitably. The participation of I&APs is stipulated, as is that decisions must take into account the interests, needs and values of all I&APs.

Chapter 5 of NEMA provides a framework for the integration of environmental issues into the planning, design, decision-making and implementation of plans and development proposals. Section 24 provides a framework for granting of environmental authorisations. To give effect to the general objectives of Integrated Environmental Management, the potential impacts on the environment of listed or specified activities must be considered, investigated, assessed and reported on to the competent authority. Section 24(4) provides the minimum requirements for procedures for the investigation, assessment, management and communication of the potential impacts.

In terms of the management of impacts on the environment, Section 24N details the requirements for an EMPr.

EIA Regulations 2014

The EIA Regulations, 2014 (as amended by GN No. 326 of 7 April 2017) promulgated in terms of Chapter 5 of NEMA provide for control over certain listed activities. These listed activities are detailed in Listing Notice 1 (as amended by GN No. 327 of 7 April 2017), Listing Notice 2 (as amended by GN No. 325 of 7 April 2017) and Listing Notice 3 (as amended by GN No. 324 of 7 April 2017). The undertaking of activities specified in the Listing Notices is prohibited until Environmental Authorisation has been obtained from the competent authority. Such Environmental Authorisation, which may be granted subject to conditions, will only be considered once there has been compliance with the EIA Regulations, 2014.

The EIA Regulations, 2014 (as amended) set out the procedures and documentation that need to be complied with when applying for Environmental Authorisation. The proposed project triggers an activity listed in Government GN 983 (Listing Notice 1; as amended) (refer to Table 4) and therefore a BA process is required in order for the DMR to consider the application in terms of NEMA.

Since the proposed project is for the closure of a prospecting right, a closure plan and an environmental audit report are required in terms of Appendix 5 and 7 of the EIA Regulation, respectively.

4.2 GUIDELINES, POLICIES, PLANS AND FRAMEWORKS

The guidelines, policies and plans listed in Table 7 have been taken into account during the BA process, where applicable.

TABLE 7: GUIDELINE AND POLICY FRAMEWORK

Guideline	Governing body	Relevance
Public participation guideline in terms of NEMA (2017)	Department of Environmental	The purpose of this guideline is to ensure that an adequate public participation process is undertaken during the BA process.
Guideline on need and desirability (2017)	Affairs	This guideline informs the consideration of the need and desirability aspects of the proposed project.
Planning for Integrated Mine Closure: toolkit; International Council on Mining and Metals	International Council on Mining and Metals	Toolkit to assist in making decisions based on consideration of closure aspects in a holistic manner.
The Greater Tubatse Integrated Development Plan 2016-2021	Greater Tubatse Local Municipality	The Greater Tubatse Local Municipality and Sekhukhune District Municipality Integrated Development Plans area the principle strategic
Sekhukhune District Municipality Final Integrated Development Plan 2016-2021	Sekhukhune District Municipality	instruments guiding all planning, management, investment and development within the province in order to provide best solutions towards sustainable development.

4.3 LEGISLATIVE BAR CONTENT REQUIREMENTS

This document has been prepared in accordance with the DMR BAR template format, and was informed by the guidelines posted on the official DMR website. This is in accordance with the requirements of the MPRDA. This report also complies with the requirements of the NEMA and Appendix 1 and Appendix 4 of EIA Regulations 2014, as amended (GN 982). Table 8 provides a summary of the requirements, with cross references to the report sections where these requirements have been addressed.

Regulation 19(7) of the EIA Regulations 2014 notes that the content of a closure plan may be combined with the content of an EMPr on condition that the requirements of both Appendices 5 and 4, respectively, are met. In addition the closure plan must comply with the requirements of Regulation 62 of the MPRD Regulations. These requirements, with cross references to the report sections where these requirements have been addressed are included in Table 8 and Table 9 below.



TABLE 8: CONTENTS OF THE BAR

BAR requirement as per the DMR template	BAR requirements as per the 2014 NEMA regulations, as amended	Reference in the EMPr report
Part A of DMR report template	Appendix 1 of the NEMA regulations, as amended	Section/Appendix
Details of the EAP.	Details of the EAP who prepared the report.	Section 1.2.
Expertise of the EAP.	Details of the expertise of the EAP, including curriculum vitae.	Section 1.3 and Appendix B.
Location of overall activity.	The location of the activity, including - the 21 digit Surveyor General code of each cadastral land parcel. Where available the physical address and farm name. Where the required information is not available, the coordinates of the boundary of the property or properties.	Section 2
Locality plan.	A plan which locates the proposed activity or activities applied for as well as the associated structures and infrastructure at an appropriate scale, or, if it is a linear activity, a description and coordinates of the corridor in which the proposed activity or activities is to be undertaken or on land where the property has not been defined, the coordinates within which the activity is to be undertaken.	Section 2.
Description of the scope of the proposed overall activity.	A description of the scope of the proposed activity, including all listed and specified activities triggered. A description of the activities to be undertaken, including associated structure and infrastructure.	Section 3.
Policy and legislative context.	A description of the policy and legislative context within which the development is located and an explanation of how the proposed development complies with and responds to the legislation and policy context.	Section 4.
Need and desirability of the proposed activity.	A motivation for the need and desirability for the proposed development including the need and desirability of the activity in the context of the preferred location.	Section 5.
Motivation for the overall preferred site, activities and technology alternative.	A motivation of the preferred development footprint within the approved site including.	Section 6.
A full description of the process followed to reach the proposed development footprint within the site.	A full description of the process followed to reach the proposed development footprint within the approved site.	Section 7.
Details of the development footprint alternatives considered.	Details of all the alternatives considered.	Section 7.1.
Details of the public participation process followed.	Details of the public participation process undertaken in terms of regulation 41 of the Regulations, including copies of the supporting documents and inputs.	Section 7.2.
Summary of issues raised by I&APs.	A summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or the reasons for not including them.	Section 7.3.
Environmental attributes associated with the alternatives.	The environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects.	Section 7.4.
Impacts and risks identified including the nature, significance, consequence, extent, duration and probability of the impacts including the degree of the impacts.	The impacts and risks identified, including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts can be reversed, may cause irreplaceable loss of resources and can be avoided, managed and mitigated.	Section 7.5.
Methodology used in determining the nature, significance, consequence, extent, duration and probability of potential environmental impacts and risks.	The methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks.	Section 7.6.



BAR requirement as per the DMR template	BAR requirements as per the 2014 NEMA regulations, as amended	Reference in the EMPr report
The positive and negative impacts that the proposed activity (in terms of the initial site layout) and alternative will have on the environment and the community that may be affected.	Positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects.	Section 7.7.
The possible management actions that could be applied and the level of risk.	The possible management actions that could be applied and level of residual risk.	Section 7.8.
Motivation where no alternative sites were considered.	The outcome of the site selection matrix. If no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such.	Section 7.9.
Statement motivating the alternative development location within the overall site.	A concluding statement indicating the preferred alternatives, including preferred location within the approved site.	Section 7.10.
Full description of the process undertaken to identify, assess and rank the impacts and risks the activity will impose on the preferred site (in respect of the final site layout) through the life of the activity.	A full description of the process undertaken to identify, assess and rank the impacts the activity and associated structure and infrastructure will impose on the preferred location through the life of the activity including a description of all environmental issues and risks that were identified during the environmental impact assessment process and an assessment of the significance of each issue and risk and an indication of the extent to which the issue and risk could be avoided or addressed by the adoption of management actions.	Section 8.
Assessment of each identified potentially significant impact and risk.	An assessment of each identified potentially significant impact and risk including cumulative impacts, the nature, significant and consequence of the impact and risk, the extent and duration of the impact and risk, the probability of the impact and risk occurring, the degree to which the impact can be reversed, the degree to which the impact and risk may cause irreplaceable loss of a resources and the degree to which the impact and risk can be mitigated.	Section 9 and Appendix D.
Summary of specialist reports.	Where applicable the summary of the findings and recommendations of any specialist report complying with Appendix 6 of these Regulations and an indication as to how these findings and recommendations have been included in the final assessment report.	Section 10.
Environmental impact statement.	An environmental impact statement which contains a summary of the key findings of the environmental impact assessment, a map at an appropriate scale which superimposes the proposed activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffers and a summary of the positive and negative impacts and risks of the proposed activity and identified alternatives.	Section 11.
Proposed impact management objectives and the impact management outcomes for inclusion in the EMPr.	Based on the assessment, and where applicable, recommendations from specialist reports, the recording of proposed impact management objectives, and the impact management outcomes for the development for inclusion in the EMPr.	Section 12.
Aspects for inclusion as conditions of authorisation.	Any aspects which were conditional to the findings of the assessment either by the EAP or specialist which are to be included as conditions of authorisation.	Section 13.



BAR requirement as per the DMR template	BAR requirements as per the 2014 NEMA regulations, as amended	Reference in the EMPr report
Description of any assumptions, uncertainties and gaps in knowledge.	A description of any assumptions, uncertainties and gaps in knowledge which relate to the assessment and management actions proposed.	Section 14.
Reasoned opinion as to whether the proposed activity should or should not be authorised.	Reasoned opinion as to whether the proposed activity should or should not be authorised, and if the opinion is that it should be authorised, any conditions that should be made in respect of that authorisation.	Section 15
Period for which environmental authorisation is required.	Where the proposed activity does not include operational aspects, the period for which the environmental authorisation is required and the date on which the activity will be concluded and the post construction monitoring requirements finalised.	Section 16.
Undertaking.	An undertaking under oath or affirmation by the EAP in relation to the correctness of the information provided in the reports, the inclusion of comments and inputs from stakeholders and I&APs, the inclusion of inputs and recommendations from the specialist reports where relevant and any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested or affected parties.	Section 17.
Financial provision.	Where applicable, details of any financial provisions for the rehabilitation, closure, and ongoing post decommissioning management of negative environmental impacts.	Section 18.
Specific information required by the competent authority.	Any specific information required by the competent authority.	Section 19.
Other matter required in terms of section	Any other matter required in terms of section 24(4)(a) and	Section 20.
24(4)(a) and (b) of the Act.	(b) of the Act.	
·		Section/Appendix
24(4)(a) and (b) of the Act.	(b) of the Act.	Section/Appendix Section 21.
24(4)(a) and (b) of the Act. Part B of the DMR report template	(b) of the Act. Appendix 4 of the NEMA regulations Details of the EAP who prepared the EMPr and the expertise	
24(4)(a) and (b) of the Act. Part B of the DMR report template Details of EAP.	(b) of the Act. Appendix 4 of the NEMA regulations Details of the EAP who prepared the EMPr and the expertise of that EAP to prepare the EMPr, including curriculum vitae. A detailed description of the aspects of the activity that are	Section 21.
24(4)(a) and (b) of the Act. Part B of the DMR report template Details of EAP. Description of the aspects of the activity.	(b) of the Act. Appendix 4 of the NEMA regulations Details of the EAP who prepared the EMPr and the expertise of that EAP to prepare the EMPr, including curriculum vitae. A detailed description of the aspects of the activity that are covered by the EMPr as identified by the project description. A map at an appropriate scale which superimposes the proposed activity, its associated structures, and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that any areas that	Section 21. Section 22.
24(4)(a) and (b) of the Act. Part B of the DMR report template Details of EAP. Description of the aspects of the activity. Composite map. Description of impact management objectives including management	(b) of the Act. Appendix 4 of the NEMA regulations Details of the EAP who prepared the EMPr and the expertise of that EAP to prepare the EMPr, including curriculum vitae. A detailed description of the aspects of the activity that are covered by the EMPr as identified by the project description. A map at an appropriate scale which superimposes the proposed activity, its associated structures, and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that any areas that should be avoided, including buffers. A description of the impact management objectives, including management statements, identifying the impacts and risks that need to be avoided, managed and mitigated as identified through the environmental impact assessment process for all phases of the development including planning and design, pre-construction activities, construction activities, rehabilitation of the environment after construction and where applicable post closure; and where	Section 21. Section 22. Section 23.
Part B of the DMR report template Details of EAP. Description of the aspects of the activity. Composite map. Description of impact management objectives including management statements.	(b) of the Act. Appendix 4 of the NEMA regulations Details of the EAP who prepared the EMPr and the expertise of that EAP to prepare the EMPr, including curriculum vitae. A detailed description of the aspects of the activity that are covered by the EMPr as identified by the project description. A map at an appropriate scale which superimposes the proposed activity, its associated structures, and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that any areas that should be avoided, including buffers. A description of the impact management objectives, including management statements, identifying the impacts and risks that need to be avoided, managed and mitigated as identified through the environmental impact assessment process for all phases of the development including planning and design, pre-construction activities, construction activities, rehabilitation of the environment after construction and where applicable post closure; and where	Section 21. Section 22. Section 23. Section 24.1.
24(4)(a) and (b) of the Act. Part B of the DMR report template Details of EAP. Description of the aspects of the activity. Composite map. Description of impact management objectives including management statements.	(b) of the Act. Appendix 4 of the NEMA regulations Details of the EAP who prepared the EMPr and the expertise of that EAP to prepare the EMPr, including curriculum vitae. A detailed description of the aspects of the activity that are covered by the EMPr as identified by the project description. A map at an appropriate scale which superimposes the proposed activity, its associated structures, and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that any areas that should be avoided, including buffers. A description of the impact management objectives, including management statements, identifying the impacts and risks that need to be avoided, managed and mitigated as identified through the environmental impact assessment process for all phases of the development including planning and design, pre-construction activities, construction activities, rehabilitation of the environment after construction and where applicable post closure; and where relevant, operation activities. - A description and identification of impact management outcomes required for the aspects contemplated in	Section 21. Section 22. Section 23. Section 24.1.



BAR requirement as per the DMR template	BAR requirements as per the 2014 NEMA regulations, as amended	Reference in the EMPr report	
	applicable, include actions to avoid, modify, remedy, control or stop any action, activity or process which causes pollution or environmental degradation; comply with any prescribed environmental management standards or practices; comply with any applicable provisions of the Act regarding closure, where applicable comply with any provisions of the Act regarding financial provisions for rehabilitation, where applicable.		
Mechanism for monitoring compliance with and performance assessment against	The method of monitoring the implementation of the impact management actions.	Section 28.	
the environmental management programme and reporting thereon.	The frequency of monitoring the implementation of the impact management actions.		
	An indication of the persons who will be responsible for the implementation of the impact management actions.		
	The time periods within which the impact management actions must be implemented.		
	The mechanism for monitoring compliance with the impact management actions.		
	A program for reporting on compliance, taking into account the requirements as prescribed by the Regulations.		
Environmental Awareness Plan.	An environmental awareness plan describing the manner in which the applicant intends to inform his or her employees of any environmental risk which may result from their work; and risks must be dealt with in order to avoid pollution or the degradation of the environment.	Section 30.	
Specific information required by the competent authority.	Any specific information that may be required by the competent authority.	Section 31.	
Undertaking.	-	Section 32.	

TABLE 9: CONTENTS OF THE CLOSURE PLAN

MPRDA Closure Report Requirements as per Section 62 of MPRDA Regulations	NEMA Closure Report Requirements as per Appendix 5 of NEMA Regulations	Reference in the EMPr report
-	Details of the EAP who prepared the closure plan	Section 1.2
	The expertise of that EAP.	Section 1.3 and Appendix B
A description of the closure objectives and how these relate to the prospecting or mine operation and its environmental and social setting.	Closure objectives.	Section 24.1
A plan contemplated in regulation 2(2), showing the land or area under closure.	-	Figure 5
A sketch plan drawn on an appropriate scale describing the final and future land use proposal and arrangements for the site.		
A summary of the regulatory requirements and conditions for closure negotiated and documented in the environmental management programme or environmental management plan, as the case may be.	-	Section 27.1.3
-	Proposed mechanisms for monitoring compliance with and performance assessment against the closure plan and reporting thereon.	Section 28



MPRDA Closure Report Requirements as per Section 62 of MPRDA Regulations	NEMA Closure Report Requirements as per Appendix 5 of NEMA Regulations	Reference in the EMPr report
A summary of the results of the environmental risk report and details of identified residual and latent impacts.	-	Section 24.6
A summary of the results of progressive rehabilitation undertaken.	Measures to rehabilitate the environment affected by the undertaking of any listed activity or specified activity and associated closure to its natural or predetermined state or to a land use which conforms to the generally accepted principle of sustainable development, including a handover report, where applicable.	Section 3.2.3
A description of the methods to decommission each prospecting or mining component and the mitigation or management strategy proposed to avoid,	Information on any proposed avoidance, management and mitigation measures that will be taken to address the environmental impacts resulting from the undertaking of the closure activity.	Section 26
minimize and manage residual or latent impacts.	A description of the manner in which it intends to modify, remedy, control or stop any action, activity or process which causes pollution or environmental degradation during closure; remedy the cause of pollution or degradation and migration of pollutants during closure; comply with any prescribed environmental management standards or practices; and comply with any applicable provisions of the Act regarding closure.	
	The process for managing any environmental damage, pollution, pumping and treatment of extraneous water or ecological degradation as a result of closure.	
Details of any long-term management and maintenance expected.	Time periods within which the measures contemplated in the closure plan must be implemented.	Section 26
A record of interested and affected persons consulted.	Details of all public participation processes conducted in terms of regulation 41 of the Regulations, including copies of any representations and comments received from registered interested and affected parties; a summary of comments received from, and a summary of issues raised by registered interested and affected parties, the date of receipt of these comments and the response of the EAP to those comments; the minutes of any meetings held by the EAP with interested and affected parties and other role players which record the views of the participants; where applicable, an indication of the amendments made to the plan as a result of public participation processes conducted in terms of regulation 41 of these Regulations.	Section 7.2
Details of a proposed closure cost and financial provision for monitoring, maintenance and post closure management.	Where applicable, details of any financial provisions for the rehabilitation, closure and on-going post decommissioning management of negative environmental impacts.	Section 18 and 27
Technical appendices, if any.	-	-



5 NEED AND DESIRABILITY OF THE PROJECT

The DEA guideline on need and desirability (GNR 891, 20 October 2014) notes that while addressing the growth of the national economy through the implementation of various national policies and strategies, it is also essential that these policies take cognisance of strategic concerns such as climate change, food security, as well as the sustainability in supply of natural resources and the status of our ecosystem services. Thus, the over-arching framework for considering the need and desirability of development in general is taken at the policy level through the identification and promotion of activities / industries / developments required by civil society as a whole. The DEA guideline further notes that at a project level (as part of an EIA process), the need and desirability of the project should take into consideration the content of regional and local plans, frameworks and strategies.

5.1 ECOLOGICAL SUSTAINABLE DEVELOPMENT AND USE OF NATURAL RESOURCES

Due to the nature of prospecting projects being temporary and non-invasive, impacts on ecology/natural resources are possible, albeit that they are limited. The proposed closure of the Hackney prospecting right implies that Marula will not undertake further exploration activities in the area and in this regard, the land will be allowed to naturally re-vegetate and be used for pre-prospecting land uses (i.e. grazing of community livestock). The planned decommissioning and rehabilitation is therefore aligned with ensuring ecological sustainable development and use of natural resources.

5.2 PROMOTING JUSTIFIABLE ECONOMIC AND SOCIAL DEVELOPMENT

Community/society priorities are officially expressed through public documents including the provincial growth and development strategy and spatial development framework documents. In this regard, the priorities of the Greater Tubatse Local Municipality and Sekhukhune District Municipality IDPs are focused around the reduction of unemployment by investing in key sectors and developing and upgrading basic service delivery and infrastructure. Although Marula's abandonment of the Hackney prospecting right precludes Marula's future mining of that area, this does allow for new third party applications to be lodged with the DMR. Marula has investigated opportunities to empower the local community and has proposed to the Hackney community that it applies for a preferential community right (in terms of Section 104 of the MPRDA). The Hackney community has accordingly expressed their interest and intent to apply over the said Hackney prospecting right area. This has the potential for economic benefits to be realised by the Hackney community thereby aligning with the planned growth and development objectives contained in the IDPs.

5.3 RATIONALE FOR THE PROPOSED PROJECT ACTIVITY

Marula does not have access to the Hackney 116 KT prospecting area, and is not able to continue with prospecting activities. A Board decision was taken to discontinue (abandon) prospecting activities and exit from the Hackney project. Abandoning the prospecting right allows for new third party applications to be lodged with the DMR.

6 MOTIVATION FOR THE PREFERRED SITE, ACTIVITIES AND TECHNOLOGY ALTERNATIVES

The proposed project is the closure of a prospecting right associated with a specific area. Decommissioning activities have been completed. This section is therefore not applicable. Refer to Section 7.1 for further detail.



7 FULL DESCRIPTION OF THE PROCESS FOLLOWED TO REACH THE PROPOSED PREFERRED ALTERNATIVES WITHIN THE SITE

7.1 DETAILS OF THE DEVELOPMENT FOOTPRINT CONSIDERED

This report is in support of a closure application for a prospecting right and therefore development footprint alternatives (relating to site, activity or technology) are not applicable.

7.1.1 The "no-go" alternative

The "no-go" alternative would mean that the Hackney prospecting right would not be closed and the status quo would remain (i.e. for Marula to retain the prospecting right, but for no prospecting activities to be undertaken).

7.2 DETAILS OF THE PUBLIC PARTICIPATION PROCESS FOLLOWED

This section describes the public participation process undertaken during the BAR process. The public participation process was undertaken in accordance with the requirements of Chapter 6 of Regulations 982 of 4 December 2014 (EIA Regulations), as amended. In addition to this, consideration was also given to the public participation guideline in terms of the NEMA (2017) and the consultation requirements under MPRDA.

7.2.1 Public Participation Process undertaken to date

A public participation process has been undertaken to inform the BA process and include consideration of the Closure Plan consultation requirements in terms of the MPRDA and NEMA EIA Regulations. A record of the public participation process undertaken is outlined in Table 10 below. The purpose of the public participation process was to notify landowners, land users and other key stakeholders of the proposed project and to provide them with the opportunity to raise any initial issues or concerns regarding the proposed project. Supporting documentation is presented in Appendix C.

TABLE 10: PUBLIC PARTICIPATION PROCESS UNDERTAKEN AS PART OF THE BAR

Steps	Details
DMR Pre- application meeting	A pre-application meeting was held with the DMR in Polokwane on 10 April 2019. The purpose of the meeting was: To provide information pertaining to the project To outline the motivation for the proposed closure To provide an overview of the environmental process relevant to the project To provide an overview of the existing status of the environment To outline and obtain input on the potential environmental/cultural impacts To outline and obtain input on the planned public participation process. A copy of the pre-application meeting minutes is included in Appendix C.
Notification of the land claims commissioner	The land claims commissioner was consulted in order to verify the status of land claims on the farm Hackney 116 KT. The proof of correspondence is attached in Appendix C.
I&AP database	A database was compiled with input from the Marula stakeholder engagement team and is being updated on an on-going basis for the duration of the project. The I&AP database identified and included landowners, land users and lawful occupiers within the prospecting right area, as well as those immediately adjacent to the projecting right area. In addition the database included surrounding I&APs, industry, mines and non-governmental organisations (NGOs), and regulatory authorities. All stakeholders registered on the database received a copy of the Background Information Document (BID), SMS notification of the proposed project and are being notified that the BAR is available for public and regulatory authority review and comment. Landowner, land user, commenting authorities and other I&AP



	details were verified through a deedsearch and/or telephonic discussions. The database is included in Appendix C.
Call with Hackney Chief Kgoshi Mashabela	On 26 April 2019, SLR was able to make telephonic contact with the Hackney Chief (Kgoshi Mashabela) to notify him of the project. A telephonic record has been included in Appendix C.
Background Information Document (BID)	A BID (in English and Sepedi) was compiled by SLR and distributed to I&APs and commenting authorities registered on the project database. In addition the BID was made available at the mine. The BID provided: - Information about the proposed prospecting right closure. - Information about the baseline environment of the prospecting right area - Information about the environmental assessment process (Basic Assessment Process). - Information regarding possible environmental/cultural impacts. - Information on how I&APs and commenting authorities can have input into the environmental assessment process. A registration and response form was attached to the BID, which provided I&APs with an opportunity to register as an I&AP and submit comments on the proposed project. Copies of the BID in English and Sepedi are included in Appendix C.
Site notices	SLR placed laminated site notices (in English and Sepedi) along the D4220 road within the prospecting right area. Photographic proof is included in Appendix C. A map illustrating the location of the site notices is also included in Appendix C.
Newspaper advertisements	A block advertisement was placed in the Steelburger newspaper on 19 April 2019. A copy of the advertisement is included in Appendix C.
Review of draft BAR	The Draft BAR and summary document (in English and Sepedi) were made available for public and regulatory authority review from 17 May 2019 until 19 June 2019. Proof of distribution of the BAR and copies of the summary documents are included in Appendix C.

Approximately ten written submissions were received from I&APs during the public participation process (see Appendix C).

In addition, Marula has also engaged directly with members of the Djate/Modimolle/Matukwaneng community residing on the farm Hackney 116KT. Proof of this consultation (meeting minutes and emails) has been included in Appendix C.

TABLE 11: I&APS THAT SUBMITTED WRITTEN/TELEPHONIC CORRESPONDENCE DURING THE PROCESS

State Departments and Organs of State	Hackney 116 KT Farm
Commission on Restitution of Land Rights: Limpopo (by email on 02 April 2019)	Kgoshi Mashabela (telephone call on 26 April 2019)
Limpopo Department of Economic Development, Environment and Tourism (by email on 29 May 2019)	
Tjate village on the farm Dsjate 249KT – adjacent to the Hackney PR area	General I&APs
Abram Lepatla (by email on 26 and 29 April, 03 May and 15 June 2019)	Given Ngobeni (by email on 02 May 2019)

7.2.2 Review of the BAR

The BAR was made available for commenting authority and I&AP review and comment for 30 days. Summaries of the BAR (in English and Sepedi) were made available to all I&APs registered on the I&AP database (via email) and hard copies of the summary document were made available at the Marula Platinum Mine offices. In addition, I&APs were notified that the BAR and/or summary was available for review via SMS. An electronic copy of the BAR was made available on the SLR website.

Commenting authorities received both an electronic copy and a hard copy of the BAR. Proof of distribution is included in Appendix C.



7.2.3 Completion of the BAR

Following closure of the BAR commenting period, all comments received were incorporated and responded to in a Comments and Responses Report. Where required the BAR has been updated to address comments received. The final report including I&AP comments is now being submitted to DMR for consideration and decision-making. Registered I&APs have received notification of the final submission to DMR.

After the DMR has reached a decision, registered I&APs will be notified of the outcome of the application, the reasons for the decision and details of the appeal process.

7.3 SUMMARY OF ISSUES RAISED BY I&APS

All written comments received have been collated and responded to in a Comments and Responses Table (see Table 12 below). Full comments are included in Appendix C.

In summary, issues raised related mainly to dissatisfaction with Marula and the public participation process. This was to be expected given the historically difficult relationship between Marula and the Djate/Modimolle/Matukwaneng community residing on the farm Hackney 116KT. In order to provide context to the written submissions, proof of direct consultation between Marula and the above stakeholders has been included in Appendix C.

TABLE 12: SUMMARY OF ISSUES RAISED BY I&APS

Interested and affected party	Date comment received	Issues raised	Response provided by SLR (unless otherwise indicated)	Reference in report where issues & or responses were incorporated
Regulatory depa	rtment			
Land Claims Com	missioner: Lim	роро		_
Commission on Restitution of Land Rights: Limpopo	By email on 02 April 2019	Your enquiry dated 27 March 2019 has reference and is acknowledged. Kindly take note that there is a restitution land claim lodged prior to 1998 by the Roka Mashabela Tribe. The research report has been approved and is currently under investigation.	This information was used to inform the public participation process, by ensuring that land claimants were notified of the project.	Appendix C
Limpopo Department of Economic Development, Environment and Tourism	By email on 29 May 2019	The Department reviewed the report received and submits the following: The report indicates that five boreholes were drilled on the farm Hackney 116 KT for prospecting purposes and progressive rehabilitation took place as prospecting activities advanced. The EMP Performance Assessment undertaken in 2013 and 2017 revealed that two out of the five drill sites were full revegetated while re-vegetation of the other three drill sites was still in progress. Based on this, the Department has no objections against the issuance of the closure certificate.	No response required.	Appendix C
General I&APs	'			
Given Ngobeni	By email on 02 May 2019	Can you please register me to form the part of public participation process.	Given Ngobeni's email address was added to the stakeholder database to ensure that he is notified when the draft Basic Assessment Report is available for public review. Given was also provided with a copy of the Background Information Document in English and Sepedi.	Appendix C
Abram Lepatla (Tjate village)	By email on 26 April 2019	I'm Mr Abram Lepatla Kopotja from Tjate village. I form part of Hackney farm 116KT community. I have interest to be part of your public participation about Marula mine closing application. I will attend with members of Hackney development committee we are twelve in numbers. But we are also very surprised to see this papers of closing application, but your company not contacting the	Abram Lepatla's email address was added to the stakeholder database to ensure that he is notified when the draft BAR is available for public review. Abram was also provided with a copy of the BID in English and Sepedi. SLR explained that they had tried to make contact with Kgoshi Mashabela since 16 April 2019, however was only able to reach him on 26 April 2019. SLR further explained	Appendix C

Interested and affected party	Date comment received	Issues raised	Response provided by SLR (unless otherwise indicated)	Reference in report where issues & or responses were incorporated
		committee is very wrong to do so. My contact 0735764198 or Berry Mohlala 07300302244 (via email on 26 April 2019).	that the site notices had been placed as a legal requirement (in accordance with the requirements of Chapter 6 of the Environmental Impact Assessment Regulations (GNR 982 of 2017) 2014) to notify the community of the planned closure of the prospecting right and to invite stakeholders to provide input into the public participation process. Contrary to Mr Lepatla's assertions regarding the public participation process not being appropriately undertaken, it should be noted that Marula has engaged directly with Mr Lepatla via email and also during a meeting (in September 2018) held between Marula and these stakeholder committees. During this engagement, Marula advised the committees of its intention to walk away from the part of the Hackney farm covered by Marula's prospecting right. In this meeting, Marula also explained that its closure of the Hackney prospecting right would make it available for the community to apply for a preferential community right (in terms of Section 104 of the MPRDA). Mr Lepatla was present at this meeting and also interacted telephonically with Marula to outline the community's intent to apply for the abovementioned preferential community right. Proof of direct engagement between Marula and these committees is included in Appendix C (Marula).	
		Thanks for replying you were not supposed to talk to Kgoshi Mashabela alone, what about Tjate community. Talk to Marula mine to provide you with memorandum of understanding and the names of the current committee I'm the one of them and we are not happy the way you do things. This is brotherly advice. Is not only kgoshi being affected please do the right thing we need to meet you.		Appendix C
	By email on 29 April 2019	Our worries is that before you continue with public participation why you not consult the affected communities to be aware of what Marula planning for you just paste the papers without informing the committee that it will be false public participation please do the right thing ask Marula that were you can find the leaders.		Appendix C
	By email on 3 May 2019	Good afternoon Sir. Tjate community the most affected community is worrying because they want to be part of the public participation and Tjate tribal council expect them and send their acknowledge letter to the some email address. And please do not forget to address our concerns about the way you just posting the papers on our poles without informing the leaders because we were left out side of your process you were inviting poles not the people we are not sangomas or prophet to know that you were the right company and we have questions to ask.		Appendix C
		We waiting acknowledgement letter of Tjate community, hackney development committee, Tjate development committee, Tjate development forum, Tjate tribal council you can invite them on all letter they will received it on this email address abramlepatla@gmail.com worrying community leaders about hackney farm116kt.		Appendix C

Interested and affected party	Date comment received	Issues raised	Response provided by SLR (unless otherwise indicated)	Reference in report where issues & or responses were incorporated
Chief Kgoshi Mashabela (Hackney community)	By telephone on 26 April 2019	I have seen the site notices placed in the area and have referred the matter to my attorneys.	SLR explained that the site notices had been placed as a legal requirement (in accordance with the requirements of Chapter 6 of the Environmental Impact Assessment Regulations (GNR 982 of 2017) 2014) to notify the community of the planned closure of the prospecting right and to invite stakeholders to provide input into the public participation process.	Appendix C
Abram Lepatla (Tjate village)	By email on 15 June 2019	The Hackney community has not requested that Marula close the Hackney prospecting right.	The decision to exit and close the Hackney prospecting right follows from Implats' strategic review of its operations. The Marula Board resolved in May 2017 to not pursue the conversion of the prospecting right into the Marula mining right, as there was no reasonable prospect to include the area in the 30 year Mine Plan. It was further decided that an application for the renewal of the prospecting right (210 PR) be withdrawn from DMR.	Appendix C
		Marula have said that since 2012 they have been denied access to the Hackney prospecting right area, but this is not true.	Marula commenced with public and community consultations as early as May 2005 to inform all stakeholders, landowners, I&APs of the intended exploration on the said portion of Hackney. During 2007, Marula managed to successfully complete one borehole. Drilling was however stopped by the local communities by the end of 2007 and access was denied. Continuous consultation processes were undertaken until April 2012 when a Memo of Understanding (MOU) was signed with the Hackney Kgoshi and community leaders representing the Dsjate and Modimolle Communities to continue drilling for 3 years. In 2012 a total of 3 boreholes were drilled, but after drilling, access was once again denied, and no further drilling was conducted.	
		Marula agreed to employ ten people from Hackney and this has not been done. Even though ten people were employed via the contractor, the contractor was subsequently dismissed. Our	Marula recruits employees as and when employment opportunities exist. Community members residing within the farm Hackney are encouraged to apply as and when vacant positions are advertised.	

Interested and affected party	Date comment received	Issues raised	Response provided by SLR (unless otherwise indicated)	Reference in report where issues & or responses were incorporated
		people are sitting at home. We ask that they are employed by the mine, not by the contractor.	Applicants shall be employed and engaged based on merits. Preference is given to qualifying applicants that reside within the four farms that are covered by Marula's two converted mining rights and those that reside within Fetakgomo Tubatse Local Municipality.	
		Our boreholes have dried up due to Marula and we experience noise impacts from the mine.	Prospecting activities (or the discontinuation and closure thereof) are not associated with reduction of groundwater levels. Similarly, there are no noise related impacts associated with the closure of the prospecting right. Any issues relating to groundwater availability or noise impacts should be directed to Marula mine directly.	
		Marula refuses to include us in its Social and Labour Plan (SLP).	As the nature of prospecting activities is to determine the presence of exploitable mineral resources and is not associated with generating revenue, social related benefits are not applicable. In addition, it should be noted that Hackney does not fall within	
		For comprehension purposes, the above text has been summarised. The full text has been included in Appendix C.	Marula's mining right which covers the farms Winnaarshoek 250 KT, Driekop 253 KT, Clapham 118 KT and Forest Hill 117 KT. The application to include the farm Hackney into Marula's converted mining right (63 MR) has been abandoned.	

7.4 ENVIRONMENTAL ATTRIBUTES OF THE PROPOSED PROJECT AREA

Environmental attributes associated with the prospecting right area are presented in this section. This section has been informed by observations made by SLR during a drive-through of the broader prospecting right area in April 2019. In addition, where relevant, information from available reports (see reference list included in Section 33) has been used.

It was noted during the drive through that over-grazing by community livestock and general community activities have influenced the environmental attributes of the area.

7.4.1 Baseline environment affected by the proposed activity

Geology

The prospecting right area is underlain by the eastern limb of the Bushveld Igneous Complex (BIC). The BIC consists of two lithologically distinct units that are mainly intrusive into the Transvaal Supergroup: a lower sequence of layered mafic and ultramafic rocks, known as the Rustenburg Layered Suite (RLS), and an overlying unit of granites, known as the Lebowa Granite Suite. All the chromitite and platinum mineralisation is located in the RLS. During prospecting, Marula targeted the Merensky and UG2 reefs in order to evaluate the potential for future exploitation of platinum group metals (PGMs). Given the non-invasive nature of exploration drilling (when compared to mining), the geology baseline is expected to have been unaltered by prospecting activities.

Topography and surface water

The prospecting right area lies on the northern parts of the Leolo Mountains and its foothills and within the residential area of the Matukwaneng community. Gently undulating plains occur in the west (approximately 830 mamsl) with steeper gradients (1112 mamsl) in the east. The area is drained by several unnamed non-perennial tributaries of the Motse River (within quaternary catchment B71E) which flow in a north westerly direction. The confluence of the Motse and Olifants River is approximately 25 km downstream of the prospecting right area. The topography of the prospecting right area itself has been influenced by human activity. Prospecting activities were undertaken in the lower-lying areas of the landscape and drill sites are not located within proximity to any tributaries. As a result, the topography and related surface water runoff baselines are not expected to have been altered by prospecting activities. In addition, given the non-perennial nature of watercourses, the surface water quality baseline is not expected to have been altered by prospecting activities.

Climate

The prospecting right area experiences typical savannah climatic conditions namely hot and wet summers and cold and dry winters. Temperatures are mostly moderate, with a mean temperature of about 20°C. The prevailing wind direction is north-easterly and the wind speed varies from 15 to 25 km/hr. Extreme temperatures do occur in the area, with frost in winter and temperatures rising to above 40°C in summer. The mean annual rainfall is approximately 600 mm per annum. Rainfall and temperature affect the rate at which vegetation can re-establish, and given that that the prospecting right area has received on or above average rainfall during some years following the completion of drilling, it is expected that this would be adequate to support normal re-establishment of vegetation at the sites.

Soils and land capability

The soils overlying the prospecting right area are generally clayey (vertic/melanic) and are highly structured. Although these soils have a low yielding agricultural potential, in their natural state they could sustain substantial levels of crop production and grass for grazing. However this ability has been hampered by soil erosion and compaction resulting from over-grazing, community activities and the construction/upgrades of the D4220 road which runs through the prospecting right area. This has likely influenced the rate at which vegetation has reestablished at the remaining drill sites and the current status of the rehabilitated areas.

Flora and fauna

The vegetation in the prospecting right area forms part of a regional complex type known as the Arid Northern Bushveld. The majority of the vegetation is severely transformed and typically encompasses secondary shrubland and grassland leading to a high incidence of bush encroachment and invasive weeds. The plant community on the hills and mountains are considered highly sensitive and some nationally threatened species may be associated with these hills, especially those along the western boundary of the prospecting right area. Two red data listed plant species (*Boscia foetida* subsp. minima and *Plinthus rehmannii*) may occur within the prospecting right area.

Very little evidence of wild faunal populations is associated with the broader area due to the presence of mining, prospecting, farming and community activities. It is however expected that surviving wildlife will be restricted to the Leolo Mountains which are sparsely populated and where human activities are restricted to cattle or game farming. In addition, the rocky outcrops and dongas associated with drainage lines in the area have been identified as being ecologically sensitive and may host some red data listed species. Prospecting activities were undertaken only in the lower-lying areas and therefore outside of ecologically sensitive areas. It is expected that the loss of flora and fauna within the prospecting right area has hampered the ability for vegetation to successfully re-establish at the drill sites.

Groundwater

The prospecting right area is underlain by two aquifers; namely a shallow, weathered aquifer (up to a depth of approximately 40m) and a deeper fractured rock aquifer. The average ground water level ranges from 14 to 70 metres below ground level (mbgl). In the broader area, groundwater quality is generally marginal to poor. Third party water users rely on groundwater for domestic and agricultural purposes. Given the non-invasive nature of exploration drilling, the groundwater baseline is expected to have been unaltered by prospecting activities.

Air quality

The regional ambient air quality has been influenced by surrounding mines, household fuel combustion and vehicle tailpipe emissions. Locally, ambient air quality is likely influenced by wind erosion from exposed surfaces, vehicle entrainment along roads, household fuel combustion and vehicle tailpipe emissions. The status of the rehabilitated sites would influence baseline air quality conditions, especially during the drier winter months.

Noise

The ambient noise environment is typical of a rural area with livestock, birds and human voices being the main sources of sound in the prospecting right area. Given the temporary nature of exploration drilling and that no prospecting activities are currently taking place or planned to take place, the noise baseline has remained unchanged.

Visual aspects

The prospecting right area lies in the northern parts of the Leolo Mountains and its foothills and within the residential area of the Matukwaneng community. Drilled sites are demarcated by a cement beacon and an upright standpipe and are visible from houses and communal areas within the immediate vicinity of the drill sites. The presence of these standpipes does not materially alter the visual landscape of the area which is dominated by the presence of the rural community, its support infrastructure (powerlines, roads etc.) and subsistence farming activities as well as the Leolo Mountain range.

Heritage/Cultural and palaeontological resources

Important historical beacons occur in the Leolo Mountain range including the Tsjate Provincial Heritage Site which overlaps with the prospecting right area (see Figure 6 in Appendix E). The Tsjate Provincial Heritage Site in particular is important to the history of South Africa and is protected by national legislation. It includes:

- The Modimolle mountain (considered to be holy).
- The Sefateng Poort through which Merensky and his followers fled from Sekhukhune.
- The remains of an Early Iron Age site.



No drill sites are located within proximity to the above listed heritage features. Given the non-invasive nature of exploration drilling and the presence of only a standpipe to mark the location of the drill sites, the heritage baseline is expected to have been unaltered by prospecting activities

It is possible that palaeontological resources (fossils) may occur in the superficial deposits of calcrete and sands. Given the non-invasive nature of exploration drilling, the palaeontological baseline is expected to have been unaltered by prospecting activities.

Socio-economic and current land uses

Land ownership details within and immediately adjacent to the prospecting right area are provided in the table below. This section should be read with reference to Figure 5 in Section 27 which shows the below farms' location relative to the prospecting right area.

The surface rights are owned by the South African government.

TABLE 13: LAND OWNERSHIP WITHIN AND IMMEDIATELY ADJACENT THE HACKNEY PROSPECTING RIGHT AREA

Portion	Landowner					
Hackney 116 KT (P	rospecting Right Area is over a portion of the farm)					
Portion 0	Republic of South Africa (represented by Department of Rural Development and Land Reform)					
Dsjate 249 KT (Adja	acent, to the south-west of Hackney 116 KT))					
Portion 0	South African Development Trust (represented by Department of Rural Development and Land Reform)					
Winnaarshoek 250	KT (Adjacent, to the south and east of Hackney 116 KT)					
Portion 0	Government of Lebowa (Republic of South Africa) (represented by Department of Rural Development and Land Reform)					
Forest Hill 117 KT (Forest Hill 117 KT (to the north-east of Hackney 116 KT)					
Portion 0	Republic of South Africa (represented by Department of Rural Development and Land Reform)					

The Department of Rural Development and Land Reform (DRDLR) (Land Claims Commissioner) was contacted on 27 March 2019 to confirm the status of land claims on the farm Hackney 116KT. The Land Claims Commissioner has confirmed that there is a restitution land claim (lodged prior to 1998) by the Roka Mashabela Tribe. These claimants have been included in the I&AP database, and have been engaged. Proof of correspondence is included in Appendix C.

The prospecting right area covers a portion of the farm Hackney 116 KT. Within the prospecting right area is the community of Matukwaneng. Immediately adjacent and to the south east of the prospecting right area is the community of Tshate (on farm Dsjate 249 KT). Main land uses in the broader area relate to prospecting, mining, subsistence farming (livestock and cropping), and residential. The educational levels in the broader area are relatively low with a high level of unemployment and a dependency on subsistence agriculture, the public sector, and employment in the mining sector. Service provision (water, electricity, sanitation etc.) remains a challenge. The high economic dependency on subsistence scale agriculture has resulted in over-grazing of veld in the area. This has likely influenced the rate at which vegetation has re-established at the remaining drill sites and the current status of the rehabilitated areas.

7.4.2 Description of specific environmental features and infrastructure on the site

The environmental features and infrastructure in the broader prospecting right area is described in Section 7.4.1. In summary:

- Gentle undulating plains, with surface water drainage in a north-westerly direction.
- A rural type landscape influenced by the development of the rural community, its support infrastructure (powerlines, roads etc.) and subsistence farming activities.



- Generally clayey soils which have been compacted and eroded by over-grazing, community activities and construction/upgrades to the D4220 road.
- Mostly transformed vegetation with high incidence of bush and weed encroachment and little evidence of wild faunal populations in the lower-lying areas. Plant and animal communities on the hills of the Leolo mountains are expected to be better intact.

7.4.3 Environment and current land use map

A conceptual map showing topographical information as well as land uses on and immediately surrounding the prospecting site is provided in Figure 5.

7.5 ENVIRONMENTAL IMPACTS AND RISKS

As noted in Section 7.1, no alternatives are applicable to the project and as such an assessment of alternatives is not applicable to the project.

7.6 METHODOLOGY USED IN DETERMINING THE SIGNIFICANCE OF ENVIRONMENTAL IMPACTS

Both the criteria used to assess the impacts and the method of determining the significance of the impacts is outlined in Table 14. This method complies with the method provided in the EIA guideline document. Part A provides the approach for determining impact consequence (combining intensity, extent and duration). Impact consequence and significance are determined from Part B and C. The consequence rating is considered together with the probability of occurrence in order to determine the overall significance of each impact. The interpretation of the impact significance is given in Part D. The significance of the impact can be related to the level of risk associated with a specific issue.

TABLE 14: IMPACT ASSESSMENT METHODOLOGY

PART A: DEFINITIONS							
Definition of SIGNIFICANCE		Significance = consequence x probability					
Definition of CONSEQUENCE		Consequence is a function of intensity, spatial extent and duration					
Criteria for ranking	VH	Severe change, disturbance or degradation. Associated with severe consequences. May result in					
of the INTENSITY of		severe illness, injury or death. Targets, limits and thresholds of concern continually exceeded.					
environmental		Substantial intervention will be required. Vigorous/widespread community mobilization against					
impacts		project can be expected. May result in legal action if impact occurs.					
	Н	Prominent change, disturbance or degradation. Associated with real and substantial consequences.					
		May result in illness or injury. Targets, limits and thresholds of concern regularly exceeded. Will					
		definitely require intervention. Threats of community action. Regular complaints can be expected					
		when the impact takes place.					
	M	Moderate change, disturbance or discomfort. Associated with real but not substantial consequences.					
		Targets, limits and thresholds of concern may occasionally be exceeded. Likely to require some					
		intervention. Occasional complaints can be expected.					
	L	Minor (Slight) change, disturbance or nuisance. Associated with minor consequences or					
		deterioration. Targets, limits and thresholds of concern rarely exceeded. Require only minor					
		interventions or clean-up actions. Sporadic complaints could be expected.					
	VL	Negligible change, disturbance or nuisance. Associated with very minor consequences or					
		deterioration. Targets, limits and thresholds of concern never exceeded. No interventions or clean-up					
		actions required. No complaints anticipated.					
	VL+	Negligible change or improvement. Almost no benefits. Change not measurable/will remain in the					
		current range.					
	L+	Minor change or improvement. Minor benefits. Change not measurable/will remain in the current					
		range. Few people will experience benefits.					
	M+	Moderate change or improvement. Real but not substantial benefits. Will be within or marginally					
		better than the current conditions. Small number of people will experience benefits.					
	H+	Prominent change or improvement. Real and substantial benefits. Will be better than current					
		conditions. Many people will experience benefits. General community support.					



	VH+	Substantial, large-scale change or improvement. Considerable and widespread benefit. Will be much
		better than the current conditions. Favourable publicity and/or widespread support expected.
Criteria for ranking	VL	Very short, always less than a year. Quickly reversible
the DURATION of	L	Short-term, occurs for more than 1 but less than 5 years. Reversible over time.
impacts	M	Medium-term, 5 to 10 years.
	Н	Long term, between 10 and 20 years. (Likely to cease at the end of the operational life of the activity)
	VH	Very long, permanent, +20 years (Irreversible. Beyond closure)
Criteria for ranking	VL	A part of the site/property.
the EXTENT of	L	Whole site.
impacts	M	Beyond the site boundary, affecting immediate neighbours
	Н	Local area, extending far beyond site boundary.
	VH	Regional/National

PART B: DETER	MINING CONSEQU	ENCE					
				INTENSITY = VL			
	Very long	VH	Low	Low	Medium	Medium	High
	Long term	Н	Low	Low	Low	Medium	Medium
DURATION	Medium term	M	Very Low	Low	Low	Low	Medium
	Short term	L	Very low	Very Low	Low	Low	Low
	Very short	VL	Very low	Very Low	Very Low	Low	Low
		_		INTENSITY = L			
	Very long	VH	Medium	Medium	Medium	High	High
	Long term	Н	Low	Medium	Medium	Medium	High
DURATION	Medium term	M	Low	Low	Medium	Medium	Medium
	Short term	L	Low	Low	Low	Medium	Medium
	Very short	VL	Very low	Low	Low	Low	Medium
				INTENSITY = M			
	Very long	VH	Medium	High	High	High	Very High
	Long term	Н	Medium	Medium	Medium	High	High
DURATION	Medium term	M	Medium	Medium	Medium	High	High
	Short term	L	Low	Medium	Medium	Medium	High
	Very short	VL	Low	Low	Low	Medium	Medium
				INTENSITY = H			
	Very long	VH	High	High	High	Very High	Very High
	Long term	Н	Medium	High	High	High	Very High
DURATION	Medium term	M	Medium	Medium	High	High	High
	Short term	L	Medium	Medium	Medium	High	High
	Very short	VL	Low	Medium	Medium	Medium	High
				NTENSITY = VH			
	Very long	VH	High	High	Very High	Very High	Very High
	Long term	Н	High	High	High	Very High	Very High
DURATION	Medium term	M	Medium	High	High	High	Very High
	Short term	L	Medium	Medium	High	High	High
	Very short	VL	Low	Medium	Medium	High	High
					T	· · · · · · · · · · · · · · · · · · ·	
			VL	L	M	Н	VH
			A part of the	Whole site	Beyond the	Extending far	Regional/ National
			site/ property		site, affecting	beyond site	
					neighbours	but localised	
					EXTENT		

PART C: DETERMINING SIGNIFICANCE								
PROBABILITY	Definite/	VH	Very Low	Low	Medium	High	Very High	
(of exposure	Continuous							
to impacts)	Probable	Н	Very Low	Low	Medium	High	Very High	
	Possible/	M	Very Low	Very Low	Low	Medium	High	
	frequent							
	Conceivable	L	Insignificant	Very Low	Low	Medium	High	
	Unlikely/	VL	Insignificant	Insignificant	Very Low	Low	Medium	
	improbable							



VL	L	M	Н	VH

PART D: INTERPRETATION OF SIGNIFICANCE						
Significance	Decision guideline					
Very High	Potential fatal flaw unless mitigated to lower significance.					
High	It must have an influence on the decision. Substantial mitigation will be required.					
Medium	It should have an influence on the decision. Mitigation will be required.					
Low	Unlikely that it will have a real influence on the decision. Limited mitigation is likely required.					
Very Low	It will not have an influence on the decision. Does not require any mitigation					
Insignificant	Inconsequential, not requiring any consideration.					

^{*}VH = very high, H = high, M= medium, L= low and VL= very low and + denotes a positive impact.

7.7 POSITIVE AND NEGATIVE IMPACTS OF THE PROPOSED ACTIVITY AND ALTERNATIVES

As noted in Section 7.1, no site layout or infrastructure locational alternatives are being considered and as such an assessment of alternatives is not applicable to the project. The preferred project alternative is assessed in Section 9.



7.8 POSSIBLE MANAGEMENT ACTIONS THAT COULD BE APPLIED AND THE LEVEL OF RISK

A summary of issues and concerns raised by I&APs during the EIA process is provided in Section 7.3. As indicated in Section 7.3, issues raised related to communication and the public participation process. As such this section is not applicable.



7.9 MOTIVATION WHERE NO ALTERNATIVE SITES WERE CONSIDERED

No feasible alternatives exist for the proposed project and as such this section is not applicable. Refer to Section 7.1 for further detail.

7.10 STATEMENT MOTIVATING THE PREFERRED ALTERNATIVE

No feasible alternatives exist for the proposed project and as such this section is not applicable. Refer to Section 7.1 for further detail.



8 FULL DESCRIPTION OF THE PROCESS UNDERTAKEN TO IDENTIFY, ASSESS AND RANK THE IMPACTS AND RISKS THE ACTIVITY WILL IMPOSE ON THE PREFERRED SITE THROUGH THE LIFE OF THE ACTIVITY

8.1 DESCRIPTION OF THE PROCESS UNDERTAKEN TO IDENTIFY IMPACTS

Biophysical and socio-economic impacts associated with the proposed project were identified through a general site drive-through undertaken by SLR.

As part of the public participation process, I&APs and commenting authorities (see Section 7.2) are being provided with opportunities to provide input into the BAR process and comment on the proposed project, including the identification of environmental and socio-economic impacts.

8.2 FINAL PROSPECTING EMP PERFORMANCE ASSESSMENT

A final EMP performance assessment was undertaken by SLR to inform the closure of the prospecting right. As access to the drill sites has been denied, no recent monitoring reports or photographs of the drill sites are available. In this regard, the final EMP performance assessment has been informed by the following:

- Previous prospecting EMP performance assessments.
- Previous Marula drilling reports.
- Review of historical google earth imagery.
- Review of available photographs of the decommissioned drill sites (photographs taken in 2010 and 2013.
 Refer to Figure 4).
- Observations from a drive-through of the broader prospecting right area in April 2019 (in which community
 activities, over-grazing, and compaction and erosion of soils were found to have altered the baseline
 environment).
- Review of climatic conditions between 2012 and 2019, to inform likely success of re-vegetation of drill sites
 where passive monitoring could not be undertaken.

Based on the above, the following findings are noted for the final EMP performance assessment:

- There are currently no drilling activities taking place on site. Five drill sites were completed during the prospecting period.
- At the time of the 2013 EMP performance assessment, drill sites BH7325 and BH7327 had fully re-vegetated and no further maintenance or aftercare activities was deemed necessary. This is considered to still be applicable to this final assessment.
- At the time of the 2013 assessment the re-vegetation of drill sites BH8171, BH8172 and BH8173 was still in progress. Following this, access to the drill sites was denied by the local community.
- The 2017 EMP performance assessment recommended that monitoring of drill sites BH8171, BH8172 and BH8173 be undertaken until such time as vegetation has re-established to a satisfactory level. It is understood that monitoring in line with this recommendation has not been possible due to Marula still being denied access to the sites.
- With good subsequent rainy seasons (which have occurred in the area see Section 7.4.1) vegetation would likely have re-established in these areas.
- With reference to the environmental attributes of the general prospecting right area described in Section 7.4.1, it was noted that ongoing community activities (livestock grazing, subsistence agriculture etc.) taking place within the prospecting right area has resulted in over-grazing of the veld, soil erosion and soil compaction. This has likely influenced the revegetation status of the drill sites, particularly BH8171, BH8172 and BH8173.

In the absence of recent photographs and a final site inspection of these drill sites, a precautionary approach has been used to inform this final performance assessment. Based on photos of drill sites taken in 2013 (see Figure 4) and subsequent rainy seasons a conservative assumption has been made that drill sites BH8171, BH8172 and

BH8173 are expected to have rehabilitated to 90% and require passive monitoring. This has been reflected in the closure provision update provided in Section 18. When the DMR undertakes its site visit, it is recommended that a site inspection of drill sites be undertaken to ground-truth the expected rehabilitation status of drill sites BH8171, BH8172 and BH8173.

The EMP performance assessment procedure is described in detail in Appendix F.

8.3 DESCRIPTION OF THE PROCESS UNDERTAKEN TO ASSESS AND RANK THE IMPACTS AND RISKS

A description of the assessment methodology used to assess the severity of identified impacts (including the nature of impacts and the degree to which impacts may cause irreplaceable loss of resources), the extent of the impacts, the duration and reversibility of impacts, the probability of the impact occurring, and the degree to which the impacts can be mitigated is provided in Section 7.5.

8.4 A DESCRIPTION OF THE ENVIRONMENTAL IMPACTS AND RISKS IDENTIFIED DURING THE ENVIRONMENTAL ASSESSMENT PROCESS

Table 15 provides a description of the impacts on environmental and socio-economic aspects in respect of each of the main project actions / activities and processes that are assessed in Section 8.

TABLE 15: LIST OF POTENTIAL IMPACTS AS THEY RELATED TO THE PROPOSED PROJECT

Potential impact	Activity	Alternative	Project phases
Loss of flora and fauna if through lack of or poor rehabilitation	Replacement of topsoil Ripping of compacted soils Natural re-vegetation	Closure of the prospecting right	Closure and rehabilitation
Loss of pre-prospecting land uses through lack of or poor rehabilitation	Replacement of topsoil Ripping of compacted soils Natural re-vegetation	Closure of the prospecting right	Closure and rehabilitation
Change in the visual landscape of the area	Installation cement beacon and standpipe	Closure of the prospecting right	Closure and rehabilitation
Negative and positive socio- economic impacts	Marula's discontinuation of prospecting activities	Closure of the prospecting right	Closure and rehabilitation

8.5 ASSESSMENT OF THE SIGNIFICANCE OF EACH IMPACT AND RISK AND AN INDICATION OF THE EXTENT OF TO WHICH THE ISSUE AND RISK CAN BE AVOIDED OR ADDRESSED BY THE ADOPTION OF MANAGEMENT ACTIONS

The assessment of the significance of potential impacts, including the extent to which impacts can be avoided or mitigated, is included in Section 9 and Appendix D.

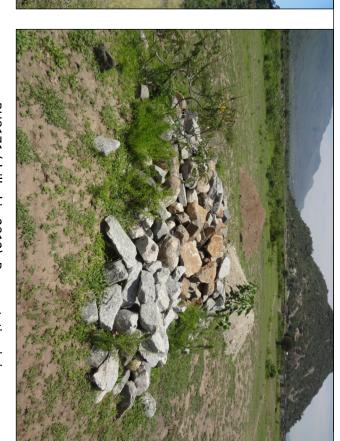




BH7325 (drilled in 2007). Vegetation has successfully re-established (photo taken in 2010)



BH7327 (drilled in 2007). Vegetation has successfully re-established (photo taken in 2010)



BH8171 (drilled in 2012). Re-vegetation is in progress (photo taken in 2013)



BH8173 (drilled in 2012). Re-vegetation is in progress (photo taken in 2013)



BH8172 (drilled in 2012). Re-vegetation is in progress (photo taken in 2013)



NOTE: MAP FOR CONCEPTUAL USE ONLY

9 ASSESSMENT OF EACH IDENTIFIED POTENTIALLY SIGNIFICANT IMPACT AND RISK

A summary of the assessment of the biophysical and socio-economic impacts associated with the proposed project is provided in Table 16 below. A full description of the assessment is included in Appendix D. Decommissioning and rehabilitation activities have already taken place in line with the management measures outlined in the approved EMPr, therefore, the assessment of the unmitigated scenario takes this into account. The mitigated scenario is where additional mitigation measures are required.

TABLE 16: ASSESSMENT OF SIGNIFICANT IMPACTS AND RISKS

Activity	Potential impact	Aspects affected	Phase	Significance (Unmitigated) (takes into account measures implemented in line with approved EMPr)	Management actions type	Significance (Mitigated)	Extent to which the impact can be reversed, avoided or cause irreplaceable loss and the degree to which the impact and risk can be mitigated
Replacement of topsoil Ripping of compacted soils Natural re- vegetation	Loss of flora and fauna through lack of or poor rehabilitation	Flora and Fauna	Closure and rehabilitation	Very Low	No additional mitigation required. Passive monitoring of BH8171, BH8172 and BH8173 may be required. It is recommended that as part of a DMR site visit of the drill sites, any additional requirements for closure of the	Not applicable. No additional mitigation measures are possible due to Marula being denied access to the three remaining drill sites.	Possible
Replacement of topsoil Ripping of compacted soils Natural revegetation	Loss of pre- prospecting land uses through lack of or poor rehabilitation	Land-use	Closure and rehabilitation	Very Low	prospecting right are agreed and documents submitted as an appendix to this report.	Not applicable. No additional mitigation measures are possible due to Marula being denied access to the three remaining drill sites.	Possible
Installation of cement beacon and standpipe	Change in the visual landscape of the area	Visual	Closure and rehabilitation	Insignificant	No additional mitigation required.	Not applicable. No additional mitigation measures are possible due to Marula being denied access to the three remaining drill sites.	Not required
Closure of	Negative and	Socio-	Closure and	Very Low	No additional mitigation is possible due	Not applicable. No additional	Possible

Activity	Potential impact	Aspects affected	Phase	Significance (Unmitigated) (takes into account measures implemented in line with approved EMPr)	Management actions type	Significance (Mitigated)	Extent to which the impact can be reversed, avoided or cause irreplaceable loss and the degree to which the impact and risk can be mitigated
prospecting activities	positive socio- economic impacts	economic	rehabilitation		to Marula being denied access to the area. It is recommended that as part of a DMR visit of the drill sites, any additional requirements for closure of the prospecting right are agreed and documents as an annexure to this report.	mitigation measures are possible due to Marula being denied access to the three remaining drill sites.	

10 SUMMARY OF SPECIALIST REPORT FINDINGS

Given the nature of the project, it was not deemed necessary to undertake any project specific specialist studies. This section is therefore not applicable.



11 ENVIRONMENTAL IMPACT STATEMENT

11.1 SUMMARY OF KEY FINDINGS

This section provides a summary of the findings of identified and assessed potential impacts on the receiving environment. Decommissioning and rehabilitation activities have already taken place in line with the management measures outlined in the approved EMPr, therefore the assessment of the unmitigated scenario takes this into account. A summary of the potential impacts (as per Section 9) is included in Table 17 below.

The assessment of the project indicates that the potential for negative residual impacts/risks is very low to insignificant. It follows that no additional active mitigation is required; passive monitoring of BH8171, BH8172 and BH8173 may be required. It is recommended that as part of a DMR site visit of the drill sites, any additional requirements for closure of the prospecting right are agreed and documents submitted as an appendix to this report.

TABLE 17: SUMMARY OF POTENTIAL IMPACTS

Aspect	Potential impact	Impact significance / Residual risk (the ratings are negative unless otherwise specified) Unmitigated ((takes into account measures implemented in line with approved EMPr)
Flora and Fauna	Loss of flora and fauna through lack of or poor rehabilitation	Very Low
Land Use	Loss of pre-prospecting land uses through lack of or poor rehabilitation	Very Low
Visual landscape	Change in the visual landscape of the area	Insignificant
Socio-economic	Negative and positive socio-economic impacts resulting from Marula's discontinuation of prospecting	Very low

11.2 FINAL SITE MAP

The final preferred site layout plan (layout of decommissioned drill sites) is included in Figure 3.

11.3 SUMMARY OF THE POSITIVE AND NEGATIVE IMPACTS AND RISKS OF THE PROPOSED ACTIVITY AND IDENTIFIED ALTERNATIVES

With reference to Sections 7.1 no site layout or infrastructure locational alternatives were considered and as such this section is not applicable.

12 IMPACT MANAGEMENT OBJECTIVES AND OUTCOMES FOR INCLUSION IN THE EMPR

Based on the outcome of the impact assessment the proposed management objectives and outcomes specific to the proposed project and for inclusion into the environmental management programme are detailed in this section.

12.1 PROPOSED MANAGEMENT OBJECTIVES AND OUTCOMES FOR ENVIRONMENTAL AND SOCIO-ECONOMIC IMPACTS

Specific environmental objectives to control, remedy or prevent potential impacts emanating from the proposed project are provided in Table 18 below. These are aligned specifically to Marula's closure objectives.

TABLE 18: ENVIRONMENTAL OBJECTIVES AND OUTCOMES

Aspect	Environmental objective	Outcome
Flora and Fauna	To prevent the unacceptable loss of flora and fauna if any residual contamination exists (considered unlikely) and if re-vegetation isn't successful (unknown).	Ensure that vegetation successfully re-establishes itself and no residual contamination remains on site.
Land use	To prevent loss of pre-mining land use if any residual contamination exists (considered unlikely) and if revegetation isn't successful (unknown).	Ensure that vegetation successfully re-establishes itself and no residual contamination remains on site, this allowing pre-project land uses to continue.
Visual landscape	To limit negative visual impacts.	Ensure that vegetation successfully re-establishes itself so as to limit scaring of the landscape.
Socio-economic	To limit negative socio-economic impacts, and enhance positive economic impacts.	Ensure that negative socio-economic impacts are managed through suitable communication structures. Ensure that positive socio-economic impacts are enhanced through suitable communication
		structures.

12.1.1 Impacts that require monitoring programmes

Outcomes of the environmental objectives are the implementation of monitoring programmes. Impacts that may require monitoring include:

- Loss of flora and fauna through lack of or poor rehabilitation.
- Loss of pre-prospecting land uses through lack of or poor rehabilitation.

At the time of the 2013 EMP performance assessment, for two of the drill sites (completed in 2007), vegetation had successfully re-established. For the remaining three drill sites (completed in 2012), re-vegetation was in progress. Although it was not possible to visit these three drill sites at the time of the current assessment, the area has experienced average to above average rainfall since 2013 which would have assisted with the natural revegetation of the remaining drill sites. On-going community activities and use of the land would have potentially hampered this. In addition the presence of alien invasive species is possible. This however could not be verified by SLR. It is recommended that as part of a DMR site visit of the drill sites, any additional requirements for closure of the prospecting right are agreed and documents submitted as an appendix to this report.

12.1.2 Activities and infrastructure

Decommissioning and rehabilitation activities have already taken place in line with the management measures outlined in the approved EMPr.



12.1.3 Management actions

Decommissioning and rehabilitation activities have already taken place in line with the management measures outlined in the approved EMPr. No additional mitigation is required. Passive monitoring of BH8171, BH8172 and BH8173 may be required (see Section 26).

12.1.4 Roles and responsibilities

The key personnel to ensure compliance to this BAR and EMPr are the Operations Executive, Stakeholder Department Manager and the Environmental Department Manager and officers. As a minimum, their roles, as they relate to the implementation of monitoring programmes and management activities, include:

- Ensuring that monitoring programmes and audits are scoped to be fit for purpose and included in the annual mine budget, where applicable.
- Identifying and appointing appropriately qualified specialists/engineers to undertake the monitoring programmes, where applicable.
- Establishing and maintaining good working relations with surrounding communities and landowners (as far as possible).
- Facilitating stakeholder communication, information sharing and a grievance mechanism.

13 ASPECTS FOR INCLUSION AS CONDITIONS OF THE AUTHORISATION

Given that the final status of revegetation at BH8171, BH8172 and BH8173 could not be verified by SLR at the time of the assessment, due to access being denied by the community, it is recommended that as part of a DMR site visit of the drill sites, any additional requirements for closure of the prospecting right are agreed and documents submitted as an appendix to this report.

With reference to Regulation 26 of GNR 982 of NEMA, additional conditions that should form part of the environmental authorisation that are not specifically included in the EMPr report include compliance with all applicable environmental legislation whether specifically mentioned in this document or not and which may be amended from time to time.



14 ASSUMPTIONS, UNCERTAINTIES, LIMITATIONS AND GAPS IN KNOWLEDGE

In light of access to the drill sites having been prevented by community members, this BAR relies on SLR's professional opinion which has been informed by the following:

- Previous EMP performance assessments.
- Previous financial provision reports.
- Historical drilling reports.
- Photographs taken in 2012.
- A review of historical google earth imagery.
- Review of climatic conditions since 2012 (to determine anticipated extent of vegetation re-establishment at the drill sites).
- A drive through the broader prospecting right area.

14.1 ENVIRONMENTAL ASSESSMENT LIMIT

The EIA focuses on third parties only and does not assess health and safety impacts on employees and contractors because the assumption is made that these aspects are separately regulated by health and safety legislation, policies and standards, and that Marula will adhere to these.



15 REASONED OPINION AS TO WHETHER THE PROPOSED ACTIVITY SHOULD OR SHOULD NOT BE AUTHORISED

15.1 REASONS WHY THE ACTIVITY SHOULD BE AUTHORISED OR NOT

The assessment of the project indicates that the potential for negative residual impacts/risks is very low to insignificant. It follows that no additional active mitigation is required; passive monitoring of BH8171, BH8172 and BH8173 may be required. It is recommended that as part of a DMR site visit of the drill sites, any additional requirements for closure of the prospecting right are agreed and documents submitted as an appendix to this report.

15.2 CONDITIONS THAT MUST BE INCLUDED IN THE AUTHORISATION

15.2.1 Specific conditions for inclusion in the EMPr

Refer to Section 13.

15.2.2 Rehabilitation requirements

Refer to Section 27.

16 PERIOD FOR WHICH AUTHORISATION IS REQUIRED

Marula has already decommissioned the drill sites within the Hackney 116 KT prospecting area. The environmental authorisation is required in support of the closure of a prospecting right.



17 UNDERTAKING

I, <u>Caitlin Hird</u>, the Environmental Assessment Practitioner responsible for compiling this report, undertake that:

- The information provided herein is correct
- Comments and inputs from stakeholders and I&APs have been included and correctly recorded in this
 report
- Inputs and recommendations from the specialist reports have been included where relevant
- Any information provided to I&APs and any responses to comments or inputs made is correct or was correct at that time.

Of .	19/06/2019		
Signature of EAP	Date		
Afg	19-6-19		
Signature of dommissioner of oath	Date		

OREN JAN VAN VREDE COMMISSIONER OF OATHS EX OFFICIO PROFESSIONAL ACCOUNTANT (S.A.)

18 FINANCIAL PROVISION

18.1 METHOD TO DERIVE THE FINANCIAL PROVISION

The closure cost liability was calculated as per the methodology of the DMR guideline document of January 2005.

The amount determined for financial provision for the project is provided in Section 27. This complies with the NEMA Financial Provisioning Regulation (2015) requirements.

18.2 CONFIRM THAT THE AMOUNT CAN BE PROVIDED FOR FROM OPERATING EXPENDITURE

The amount required in order to monitor the successful rehabilitation of the drill sites is provided for in the operating costs.



19 SPECIFIC INFORMATION REQUIRED BY THE COMPETENT AUTHORITY

19.1 IMPACT ON THE SOCIO-ECONOMIC CONDITIONS OF ANY DIRECTLY AFFECTED PERSON

The impacts associated with socio-economic conditions are discussed in Appendix D.

Direct socio-economic impacts include:

- Loss of social and economic benefits (to contractor) by not continuing with the prospecting, but it is assumed that the contractor would find contracts elsewhere.
- Social and economic benefits as a result of resource becoming available for other potential prospectors.

Indirect socio-economic impacts include:

• Loss of pre-prospecting land uses through lack of or poor rehabilitation.

The assessment of the project indicates that the potential for negative residual socio-economic impacts/risks is very low.

19.2 IMPACT ON ANY NATIONAL ESTATE REFERRED TO IN SECTION 3(2) OF THE NATIONAL HERITAGE RESOURCES ACT

Not applicable. No national estate will be affected as part of the project.

20 OTHER MATTERS REQUIRED IN TERMS OF SECTIONS 24(4)(A) AND (B) OF THE ACT

No other matters are required in terms of Section 24(4)(A) and (B) of the Act.



PART B - ENVIRONMENTAL MANAGEMENT PROGRAMME AND CLOSURE PLAN

21 DETAILS OF THE EAP

The details of the EAPs who undertook the EIA process and prepared this EMPr and Closure Plan are provided in Part A, Section 1.



22 DESCRIPTION OF THE ASPECTS OF THE ACTIVITY

The activities that are covered in the EMPr and Closure Plan are included in Part A, Section 3.



23 COMPOSITE MAP

A map superimposing the proposed activity over the environmental sensitivities of the prospecting right area is included in Appendix E.



24 DESCRIPTION OF THE IMPACT MANAGEMENT OBJECTIVES INCLUDING MANAGEMENT STATEMENT

24.1 DETERMINATION OF CLOSURE OBJECTIVES

The closure objectives for the project were developed against the local environmental and socio-economic context of the prospecting project (see Section 7.4), as well as, regulatory requirements (see Section 4) and perceived stakeholder expectations (see Section 7.2). Further information pertaining to the closure objectives identified for the project in provided in Section 27.1.1.

24.2 PROCESS FOR MANAGING ANY ENVIRONMENTAL DAMAGE, POLLUTION OR ECOLOGICAL DEGRADATION AS A RESULT OF UNDERTAKING A LISTED ACTIVITY

It is recommended that a site visit be undertaken with the DMR to determine the need for monitoring of drill sites BH8171, BH8172 and BH8173 until such time as rehabilitation has been successfully achieved and is in line with Marula's closure objectives.

24.3 POTENTIAL RISK OF ACID MINE DRAINAGE

Acid Mine Drainage is not a risk associated with prospecting activities and therefore has not been considered further in this report.

24.4 VOLUMES AND RATE OF WATER USE FOR MINING

No water will be used and therefore this section is not applicable.

24.5 HAS A WATER USE LICENCE BEEN APPLIED FOR?

No water uses are triggered by the closure of the prospecting right and therefore a water use license application is not applicable.

24.6 IMPACTS TO BE MITIGATED IN THEIR RESPECTIVE PHASES

The assessment of potential impacts is included in Section 9 and Appendix D. No additional mitigation is required. This section is therefore not applicable.

Passive monitoring of BH8171, BH8172 and BH8173 may be required. It is recommended that as part of a DMR site visit of the drill sites, any additional requirements for closure of the prospecting right are agreed and documents submitted as an appendix to this report.

25 IMPACT MANAGEMENT OUTCOMES

No additional mitigation is required. This section is therefore not applicable.

Passive monitoring of BH8171, BH8172 and BH8173 may be required. It is recommended that as part of a DMR site visit of the drill sites, any additional requirements for closure of the prospecting right are agreed and documents submitted as an appendix to this report.

26 IMPACT MANAGEMENT ACTIONS

No additional mitigation is required. This section is therefore not applicable.

Passive monitoring of BH8171, BH8172 and BH8173 may be required. It is recommended that as part of a DMR site visit of the drill sites, any additional requirements for closure of the prospecting right are agreed and documents submitted as an appendix to this report.



27 FINANCIAL PROVISION

27.1 DETERMINATION OF THE AMOUNT OF THE FINANCIAL PROVISION

27.1.1 Closure objectives description and the alignment with the baseline environment

The closure objective is to return land disturbed by the prospecting operations to its pre-disturbed state. In this case, the pre-prospecting state was that of:

- Gentle undulating plains, with surface water drainage in a north-westerly direction.
- Visually, a landscape that has been influenced by the development of the rural community, its support infrastructure (powerlines, roads etc.) and subsistence farming activities.
- Generally clayey soils which have been compacted and eroded by over-grazing, community activities and road construction by the local Roads Department.
- Vegetation mostly transformed with high incidence of bush and weed encroachment.
- Little evidence of wild faunal populations.

27.1.2 Confirmation that closure objectives have been consulted with landowners and I&APs

The intended final land use was outlined in the BID made available to landowners and I&APs for review and initial comment. The closure objective and closure plan for the prospecting right area is outlined in this report which is being made available for review and comment to landowners and I&APs (see Section 7.2 for further details).

To date no comments regarding closure objectives have been received from landowners or I&APs (see Section 7.3).

27.1.3 Regulatory requirements and conditions for closure

The regulatory requirements for closure are included in Section 4.

The conditions for closure are outlined below.

- Achieve physical stability over all landscapes disturbed by prospecting activities.
- Return land to its pre-disturbance potential.
- Maximise visual 'harmony' with the surrounding landscape.

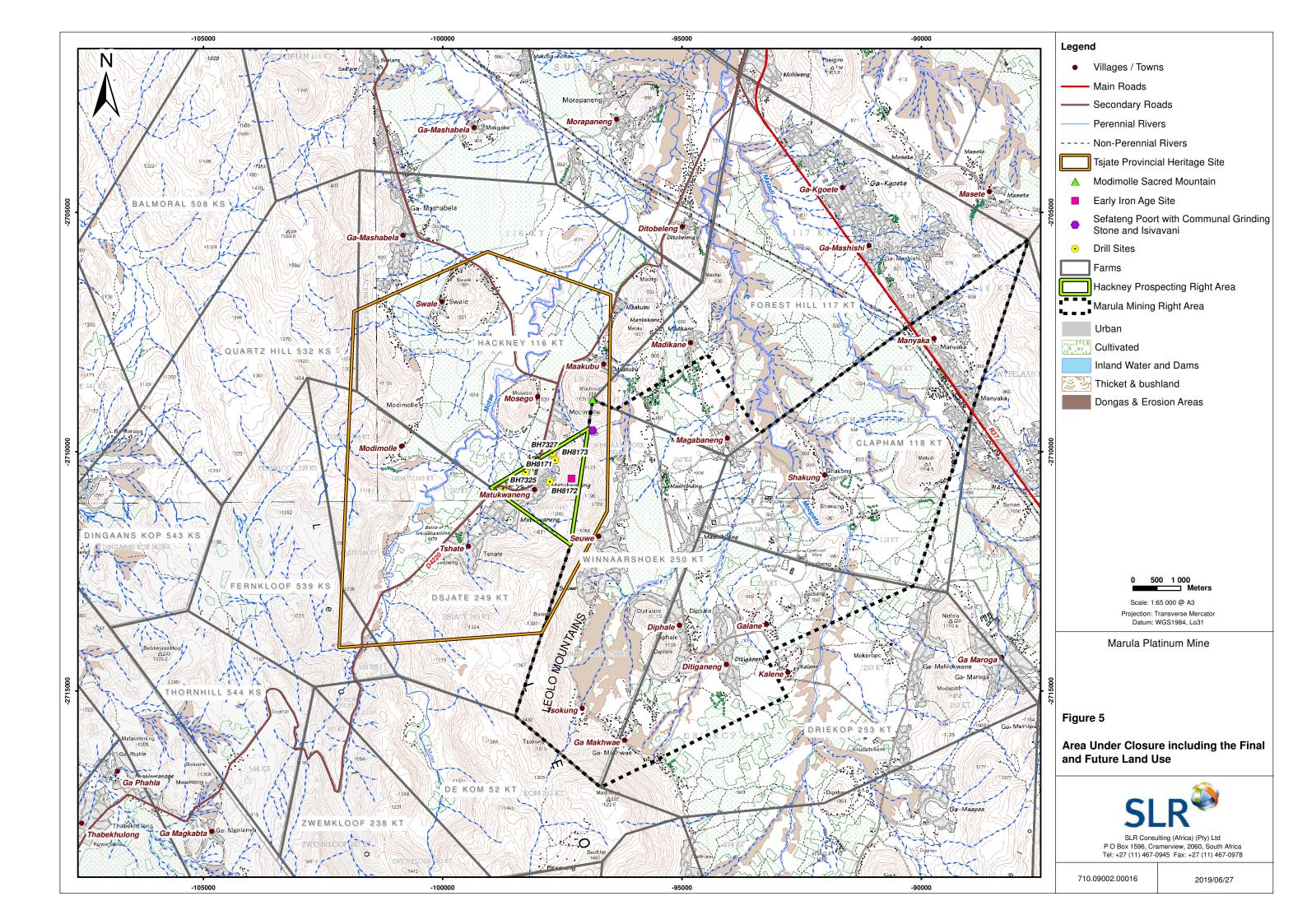
27.1.4 Rehabilitation plan

Rehabilitation of the prospecting sites has been undertaken as outlined in Section 3.2. In accordance with the MPRDA Closure Plan requirements (Regulation 62b) and the NEMA Closure Plan requirements (Appendix 5 1(i)) of the EIA Regulations), a plan showing the area under closure including the final and future land use is presented in Figure 5.

27.1.5 Compatibility of the rehabilitation plan with the closure objectives

It can be confirmed that the rehabilitation plan is compatible with the closure objectives given that the closure objectives were taken into account during the determination of the financial provision.





27.1.6 Calculate and state the quantum of the financial provision

Based on the final EMP performance assessment, the closure cost estimate below assumes the following:

- There are currently no drilling activities taking place on site.
- Drill sites BH7325 and BH7327 have fully re-vegetated and no further maintenance or aftercare activities are deemed necessary.

The re-vegetation of drill sites BH8171, BH8172 and BH8173 is in progress. In the absence of recent photographs and a follow-up site visit of these drill sites (due to access being denied by the community), a conservative approach has been applied. It is assumed that these drill sites have rehabilitated to 90% but are not yet fully re-vegetated. Given that Marula is applying to close the prospecting right and no remaining boreholes will be drilled under the prospecting right, only the current closure liability has been included in his report.

The closure cost estimate in Table 19 below assumes that monitoring of the rehabilitation work at BH8171, BH8172 and BH8173 will be required. Allowance has been made for maintenance and aftercare to be applied for a period of 2-3 years. Post closure management is included under preliminary, general and administration items.

TABLE 19: CURRENT CLOSURE AND REHABILIATATION COSTS

Hackney Prospecting Operations Current Closure and Rehabilitation Costs							
1	Sealing of boreholes (0 sites)	0.00	No.	R 1 305.00	R 0.00		
2	Demolish and remove concrete drilling platform (not applicable)	0.00	No.	R 2 890.00	R 0.00		
3	Removal of portable ablition facilities (not applicable)	0.00	No.	R 725.00	R 0.00		
4	Demolish and backfill sumps (5m x 3m x 0)	0.00	No.	R 935.00	R 0.00		
Item	Description	Quantity	Unit	Rate *	Amount		
5	General surface rehabilitation of current drilled sites (not applicable)	0.00	ha	R 116 708.59	R 0.00		
6	General surface rehabilitation of recently rehabilitated sites (not applicable)	0.00	ha	R 116 708.59	R 0.00		
7	General surface rehabilitation of previously rehabilitated sites (20m x 20m x 3) (sites are partially revegetated therefore rate is reduced by 90%)	0.12	ha	R 11 670.86	R 1 400.50		
8	General surface rehabilitation (rip and vegetate) of access tracks (not applicable)	0.00	ha	R 116 708.59	R 0.00		
9	Demobilise and general surface rehabilitation (rip and vegetate) of camp sites (not applicable)	0.00	ha	R 116 708.59	R 0.00		
10	2 to 3 years of maintenance & aftercare	0.12	ha	R 15 531.56	R 1 863.79		
	,			SUB TOTAL 1	R 3 264.29		
11	Preliminary and General	12.0000	%	of Sub Total 1	R 391.71		
12	Contingencies	10.0000	%	of Sub Total 1	R 326.43		
	•		•	SUB TOTAL 2	R 3 982.43		
13	VAT	15.0000	%	of Sub Total 2	R 597.37		
				GRAND TOTAL	R 4 579.80		

^{*} Rates have been taken from "Guideline Document for the Evaluation of the Quantum of Closure-Related Financial Provision Provided by a Mine" as published by the Department of Minerals and Energy (DME), dated January 2005. The rates have been inflated by 121.88 % to account for escalation since January 2005.

Reputable consultant: The entire closure calculation (including rates) was provided by SLR Consulting(Africa) (Pty) Ltd (SLR). SLR is a specialist environmental engineering and consulting company with over twelve years experience in this field.

Marula submitted a financial guarantee of R11 400 to the DMR for this prospecting right in 2005. Based on the estimated rehabilitation and closure costs outlined above the updated final financial provision is calculated at R4 579.80 (including VAT). In the scenario where monitoring of BH8171, BH8172 and BH8173 is required, the existing financial guarantee of R11 400 is deemed adequate to address any monitoring requirements. In the scenario where no further monitoring is required, based on the DMR site visit and in consultation with the DMR, the financial guarantee will be cancelled.



27.1.7 Confirmation that the financial provision will be provided

An existing financial guarantee is held with FirstRand Bank to the value of R11 400 (dated 16 September 2005, Guarantee No. G0657/0314935/GLO).

Based on the outcome of this assessment, the existing financial guarantee of R11 400 is deemed adequate to address any monitoring requirements relating to drill sites BH8171, BH8172 and BH8173.

28 MECHANISMS FOR MONITORING COMPLIANCE AND PERFORMANCE AGAINST THE EMPR

Monitoring of compliance and performance against the EMPr was done through bi-annual performance assessments of the prospecting activities which were submitted to the DMR. This report presents the findings of the final performance assessment and therefore no further performance assessments are deemed necessary.

At the time of the 2013 EMP performance assessment, for two of the drill sites (completed in 2007), vegetation had successfully re-established. For the remaining three drill sites (completed in 2012), re-vegetation was in progress. Although it was not possible to visit these three drill sites at the time of the current assessment, the area has experienced average to above average rainfall since 2013 which would have assisted with the natural revegetation of the remaining drill sites. Ongoing community activities and use of the land would have potentially hampered this. In addition the presence of alien invasive species is possible. This however could not be verified by SLR. It is recommended that as part of a DMR site visit of the drill sites, any additional requirements for closure of the prospecting right are agreed and documents submitted as an appendix to this report.



29 FREQUENCY OF SUBMISSION OF PERFORMANCE ASSESSMENT REPORT

If monitoring of drill sites BH8171, BH8172 and BH8173 is required, the frequency for submission of performance assessment reports will be agreed in consultation with the DMR.



30 ENVIRONMENTAL AWARENESS PLAN

Given that this report is in support of an application for the closure of a prospecting right, an environmental awareness plan is not deemed necessary.



31 SPECIFIC INFORMATION REQUIRED BY THE COMPETENT AUTHORITY

Given that this report is in support of an application for the closure of a prospecting right, no further information is expected to be required by the competent authority.



32 UNDERTAKING

I, Caitlin Hird, the Environmental Assessment Practitioner responsible for compiling this EMPr, undertake that:

- The information provided herein is correct;
- Comments and inputs from stakeholders and I&APs have been included and correctly recorded in this report;
- Inputs and recommendations from the specialist reports have been included where relevant; and
- Any information provided to I&APs and any responses to comments or inputs made is correct or was correct at that time.

ar.	
Signature of EAP	
NJ	
Signature of/commi	issioner of oath

19/06/2019 Date 19-6-19.

OREN JAN VAN VREDE COMMISSIONER OF OATHS EX OFFICIO PROFESSIONAL ACCOUNTANT (S.A.)

FOURWAYS MANOR OFFICE PARK UNIT 7, FOURWAYS 2 (011) 467 - 0945

33 REFERENCES

Marula Platinum. 2015. Final Prospecting Drilling Report of a Portion of the Farm Hackney 116 KT, for the period 10 October 2006 to 7 November 2015. November 2015

Metago Environmental Engineers (Pty) Ltd. 2007. Environmental Impact Assessment and Environmental Management Programme for Marula Platinum Mine. October 2007

SLR Consulting (Africa) (Pty) Ltd. 2012. Environmental Impact Assessment and Environmental Management Programme Report for the proposed tailings scavenger plant, two additional ventilation shafts and the extension of underground mining activities to include the farm Hackney 116 KT and a portion of the farm Driekop 253 KT. October 2012

SLR Consulting (Africa) (Pty) Ltd. 2017. Hackney 116KT Prospecting EMP Performance Assessment. September 2017

SLR Consulting (Africa) (Pty) Ltd. 2017. Hackney 116KT Prospecting Operations Closure Liability Estimate. September 2017

APPENDIX A: EXISTING AUTHORISATION (PROSPECTING RIGHT)

APPENDIX B: EAP CURRICULUM VITAE AND REGISTRATION

APPENDIX C: STAKEHOLDER ENGAGEMENT

Undertaken by SLR

- DMR pre-application meeting minutes (including presentation).
- NEMA application, proof of application fee payment, and acknowledgement of receipt from the DMR.
- MPRDA Closure Form P.
- Correspondence with the land claims commissioner.
- Newspaper advertisement placed in the Steelburger.
- Site notice (including photographic record and map illustrating the location of the site notices).
- Background Information Document (BID) in English and Sepedi and proof of distribution (emails & SMS.
- Written comments received from I&APs.
- Telephonic record of call with Hackney chief Kgoshi Mashabela.
- Copy of I&AP database.
- Summary document (English and Sepedi) and proof of distribution via email.
- Proof of SMS notification regarding availability of Draft BAR for review.
- Proof of Draft BAR distribution.
- Comments on Draft BAR received from Regulatory Authorities.
- Comments on Draft BAR received from I&APs.

Undertaken directly by Marula

- Meeting minutes (17 September 2018) from meeting between Marula and Hackney Development Committee (includes agenda and attendance register) in which the community was advised of Marula's intent to withdraw from the Hackney prospecting right
- Memorandum of Understanding (MOU) between Marula and Kgoshi Mashabela (Hackney Chief) signed on 17 September 2018
- Email to Mr Abram Lepatla (15 November 2018) notifying of Marula's intent to withdraw from Hackney prospecting right
- Email response from Mr Abram Lepatla (28 February 2019)

APPENDIX D: DETAILED ASSESSMENT OF POTENTIAL IMPACTS

Detailed assessment of potential impacts

Decommissioning and rehabilitation of each drill site was undertaken once drilling of each site was completed (as outlined in Section 3.2). This assessment therefore focusses on potential residual impacts/risks as a result of the rehabilitation phase only. Potential environmental and socio-economic residual impacts/risks have been identified by SLR. The sequence in which these issues are listed are in no order of priority or importance. The criteria used to rate each impact is outlined in Section 7.6.

The potential impacts/risks have been assessed against the prospecting right closure objective which is to return any areas disturbed by prospecting activities to the pre-project state. A summary of the impact assessment is provided in Section 9 of the main report. The assessment of the unmitigated scenario takes into account that decommissioning and rehabilitation activities have already been implemented in line with the management measures outlined in the approved prospecting EMPr. The mitigated scenario is where additional mitigation measures are deemed necessary.

ISSUE: LOSS OF FLORA AND FAUNA THROUGH LACK OF OR POOR REHABILITATION

Description of impact

A lack of or poor rehabilitation at the drill sites would result in the loss of flora and fauna at the drill site. This could cause a proliferation of alien invasive species and have edging effects on surrounding areas.

Assessment of impact

Vegetation and related habitat and faunal species in the lower lying areas have been influenced to varying degrees by on-going community activities including development of houses and community structures and livestock grazing. In the higher lying parts of the Leolo Mountains, the vegetation and related habitat and faunal species are expected to be better intact and would support a higher variety of species. Prospecting activities disturbed relatively small pieces of land (less than 0.04 ha per drill site) and took place within the lower lying areas and in close proximity to roads, houses and community activities (see Section 7.4). Rehabilitation activities have been undertaken at all drill sites, the sites cleared of any waste or contaminated soils and the soils prepared for re-vegetation. At the time of the 2013 EMP performance assessment, for two of the drill sites (completed in 2007), vegetation had successfully reestablished. For the remaining three drill sites (completed in 2012), re-vegetation was in progress. Although it was not possible to visit these three drill sites at the time of the current assessment, the area has experienced average to above average rainfall since 2013 which would have assisted with the natural revegetation of the remaining drill sites. Ongoing community activities and use of the land would have potentially hampered this. In addition the presence of alien invasive species is possible. This however could not be verified by SLR.

The loss of flora and fauna through a lack of or poor rehabilitation is considered to be of **VERY LOW** significance even without mitigation (see table below).

Mitigation and monitoring

No additional mitigation is possible due to Marula being denied access to the three remaining drill sites. It is recommended that as part of a DMR visit of the drill sites, any additional requirements for closure of the prospecting right are agreed and documents as an annexure to this report.

TABLE: IMPACT/RISK SUMMARY – FLORA AND FAUNA

Issue: Loss of flora and fauna throu	gh lack of or poor rehabilitation		
Phases: Closure			
Criteria	Without Mitigation	With Mitigation	
Intensity	Low change or disturbance (L)	-	
Duration	Short term (L)	-	
Extent	A part of the site (VL)	-	
Consequence	Low	-	
Probability	Conceivable (L)	-	
Significance	Very Low	-	
Nature of cumulative impacts	Ongoing community activities within the drill site areas would contribute to cumulative impacts on the flora and fauna.		
Degree to which impact can be reversed	Over-time and with adequate rainfall and controlled livestock grazing, any potential impacts could be reversed.		
Degree to which impact may cause irreplaceable loss of resources	Very Low		
Degree to which impact can be mitigated	Possible		
Residual impacts	None expected.		

ISSUE: LOSS OF PRE-PROSPECTING LAND USES THROUGH LACK OF OR POOR REHABILITATION

Description of impact

A lack of or poor rehabilitation at the drill sites would result in the loss of pre-prospecting land uses. This could affect the livelihoods of communities who rely on the land for subsistence purposes. In addition, this could result in ongoing dust emissions from exposed areas which could cause a nuisance to surrounding land uses.

Assessment of impact

Land uses in the prospecting right area include residential with related support infrastructure, subsistence farming and livestock grazing. In the higher lying areas of the Leolo Mountains, the land use is wilderness. Prospecting activities disturbed relatively small pieces of land (less than 0.04 ha per drill site) and took place within the lower lying areas and in close proximity to roads, houses and community activities (see Section 7.4). No farming areas were disturbed by prospecting activities. Rehabilitation activities have been undertaken at all drill sites, the sites cleared of any waste or contaminated soils and the soils prepared for revegetation. At all drill sites, a standpipe and/or concrete beacon marks the location of the drilled borehole. This is to allow for easy identification. As indicated above, at the time of the 2013 EMP performance assessment, for two of the drill sites (completed in 2007), vegetation had successfully re-established. For the remaining three drill sites (completed in 2012), re-vegetation was in progress. With the re-vegetation of the drill sites (partly or wholly), the pre-prospecting land uses on and surrounding the drill sites can continue. Where re-vegetation is still in progress, mis-management or overuse of the area could hamper long term use of the land and result in ongoing exposed areas. As it was not possible to visit these three drill sites at the time of the current assessment, this however could not be verified by SLR. The loss of pre-prospecting land uses through a lack of or poor rehabilitation is considered to be of VERY LOW significance even without mitigation (see table below).

Mitigation and monitoring

No additional mitigation is possible due to Marula being denied access to the three remaining drill sites. It is recommended that as part of a DMR visit of the drill sites, any additional requirements for closure of the prospecting right are agreed and documents as an annexure to this report.



TABLE: IMPACT/RISK SUMMARY - LAND USE

Issue: Loss of pre-prospecting land	use through lack of or poor rehabilitation	1	
Phases: Closure			
Criteria	Without Mitigation	With Mitigation	
Intensity	Low change or disturbance (L)	-	
Duration	Short term (L)	-	
Extent	A part of the site (VL)	-	
Consequence	Low	-	
Probability	Conceivable (L)	-	
Significance	Very Low	-	
Nature of cumulative impacts	Ongoing community activities within the drill site areas would contribute to cumulative impacts on land uses.		
1	With adequate rainfall and controlled livestock grazing, land uses could continue indefinitely.		
Degree to which impact can be reversed	1	vestock grazing, land uses could continue	
	1	vestock grazing, land uses could continue	
reversed Degree to which impact may cause irreplaceable loss of	indefinitely.	vestock grazing, land uses could continue	

ISSUE: CHANGE IN THE VISUAL LANDSCAPE OF THE AREA

Description of impact

A lack of or poor rehabilitation could alter the natural visual landscape and result in scaring.

Assessment of impact

The landscape is rural in nature and dominated by community structures and land uses (such as subsistence farming and livestock grazing) in the foreground and the higher lying areas of the Leolo Mountains in the background. Prospecting activities disturbed relatively small pieces of land (less than 0.04 ha per drill site) and took place within the lower lying areas and in close proximity to roads, houses and community activities (see Section 7.4). This has limited the potential change to and scaring of the landscape. Rehabilitation activities have been undertaken at all drill sites, the sites cleared of any waste or contaminated soils and the soils prepared for revegetation. At all drill sites, a standpipe and/or concrete beacon marks the location of the drilled borehole. This is to allow for easy identification. As indicated above, at the time of the 2013 EMP performance assessment, for two of the drill sites (completed in 2007), vegetation had successfully re-established. For the remaining three drill sites (completed in 2012), re-vegetation was in progress. With the revegetation of the drill sites, the visual landscape would return to a pre-prospecting state. During a drive through of the broader prospecting right area conducted in April 2019, prospecting drill sites were not obvious in the landscape and no visible scaring was noted. The change in the landscape is considered to be **INSIGNIFICANT** even without mitigation (see table below).

Mitigation and monitoring

No additional mitigation is deemed necessary.



TABLE: IMPACT/RISK SUMMARY - VISUAL LANDSCAPE

Issue: Change in the visual landscap	e of the area			
Phases: Closure				
Criteria	Without Mitigation	With Mitigation		
Intensity	Negligible change or disturbance (L)	-		
Duration	Very short term (VL)	-		
Extent	A part of the site (VL)	-		
Consequence	Very Low	-		
Probability	Unlikely (VL)	-		
Significance	Insignificant	-		
Nature of cumulative impacts	Ongoing community activities within the drill site areas would contribute to cumulative impacts on landscape.			
Degree to which impact can be reversed	With adequate rainfall and controlled livestock grazing, the pre-prospecting landscape could continue indefinitely.			
Degree to which impact may cause irreplaceable loss of resources	Not applicable.			
Degree to which impact can be mitigated	Not required.			
Residual impacts	None expected.			

ISSUE: NEGATIVE AND POSITIVE SOCIO-ECONOMIC IMPACTS

Description of impact

Closure of a prospecting right has the potential to result in both negative and positive socio-economic impacts. Where a third party applies for the mineral rights in the same area, related socio-economic impacts would occur.

Assessment of impact

Closure of the prospecting right would preclude Marula from undertaking further prospecting activities, which would result in a loss of income for the appointed contractor. It is however assumed that a contractor in the normal course of business would find alternative contracts to continue his business. Where a contractor made use of local communities, the temporary and short-term employment opportunities would no longer exist. As the nature of prospecting activities is to determine the presence of exploitable mineral resources and is not associated with generating revenue, social related benefits are not applicable. With Marula abandoning and exiting from the prospecting project, the mineral resource becomes available for third party applications. Marula has investigated opportunities to empower the local community and has proposed to the Hackney community that it applies for a preferential community right (in terms of Section 104 of the MPRDA). Accordingly, the Hackney community has expressed their interest and intent to apply over the said Hackney prospecting right area.

When considering the potential negative socio-economic impacts together with the opportunity that is created for third party applicants the overall impact is considered to be of **VERY LOW** significance even without mitigation (see table below).

Mitigation and monitoring

No additional mitigation is possible due to Marula being denied access to the area. It is recommended that as part of a DMR visit of the drill sites, any additional requirements for closure of the prospecting right are agreed and documents as an annexure to this report.



TABLE: IMPACT/RISK SUMMARY - SOCIO-ECONOMIC

Issue: Change in the visual landsca	pe of the area		
Phases: Closure			
Criteria	Without Mitigation	With Mitigation	
Intensity	Negligible change or disturbance (L)	-	
Duration	Short term (L)	-	
Extent	Affecting immediate neighbours (M)	-	
Consequence	Low	-	
Probability	Conceivable (L)	-	
Significance	Very Low	-	
Nature of cumulative impacts	No cumulative impacts expected.		
Degree to which impact can be reversed	With adequate rainfall and controlled livestock grazing, the pre-prospecting landscape could continue indefinitely.		
Degree to which impact may cause irreplaceable loss of resources	Not applicable.		
Degree to which impact can be mitigated	Possible.		
Residual impacts	None expected.		



APPENDIX E: COMPOSITE MAP



APPENDIX F: DETAILED FINAL AUDIT PROCEDURE AND EMP COMMITMENTS

F



RECORD OF REPORT DISTRIBUTION

Project Number:	710.09002.00016
Title:	Basic Assessment, Environmental Management Programme and Closure Plan for the Closure of the Hackney 116KT Prospecting Right
Report Number:	DMR Submission
Proponent:	Marula Platinum (Pty) Ltd

Name	Entity	No.	Date issued	Issuer
Vusi Maluleke	Department of Economic Development, Environment and Tourism	1 hard copy, 1 electronic copy	17 May 2019	C Hird
Adam Ramalisa	Department of Water Affairs Lydenburg Area	1 hard copy, 1 electronic copy	17 May 2019	C Hird
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