mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

BASIC ASSESSMENT REPORT

AND

ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

SUBMITTED FOR ENVIRONMENTAL AUTHORIZATIONS IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 AND THE NATIONAL ENVIRONMENTAL MANAGEMENT WASTE ACT, 2008 IN RESPECT OF LISTED ACTIVITIES THAT HAVE BEEN TRIGGERED BY APPLICATIONS IN TERMS OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (MPRDA) (AS AMENDED)

NAME OF APPLICANT: MOTHEHO MINING AND INVESTMENTS (Pty) Ltd

TEL NO: 083 494 5705

FAX NO: N/A

POSTAL ADDRESS: 548 CHIAWELO EXT 3, POST OFFICE CHIAWELO, SOWETO, GAUNTENG, 1818

PHYSICAL ADDRESS: 548 CHIAWELO EXT 3, POST OFFICE CHIAWELO, SOWETO, GAUNTENG, 1818

FILE REFERENCE NUMBER SAMRAD: 30/5/1/1/2/1581PR

1. IMPORTANT NOTICE

In terms of the Mineral and Petroleum Resources Development Act (Act 28 of 2002 as amended), the Minister must grant a prospecting or mining right if among others the mining "will not result in unacceptable pollution, ecological degradation or damage to the environment".

Unless an Environmental Authorisation can be granted following the evaluation of an Environmental Impact Assessment and an Environmental Management Programme report in terms of the National Environmental Management Act (Act 107 of 1998) (NEMA), it cannot be concluded that the said activities will not result in unacceptable pollution, ecological degradation or damage to the environment.

In terms of section 16(3)(b) of the EIA Regulations, 2014, any report submitted as part of an application must be prepared in a format that may be determined by the Competent Authority and in terms of section 17(1)(c) the competent authority must check whether the application has taken into account any minimum requirements applicable or instructions or guidance provided by the competent authority to the submission of applications.

It is therefore an instruction that the prescribed reports required in respect of applications for an environmental authorisation for listed activities triggered by an application for a right or a permit are submitted in the exact format of, and provide all the information required in terms of, this template. Furthermore, please be advised that failure to submit the information required in the format provided in this template will be regarded as a failure to meet the requirements of the Regulation and will lead to the Environmental Authorisation being refused.

It is furthermore an instruction that the Environmental Assessment Practitioner must process and interpret his/her research and analysis and use the findings thereof to compile the information required herein. (Unprocessed supporting information may be attached as appendices). The EAP must ensure that the information required is placed correctly in the relevant sections of the Report, in the order, and under the provided headings as set out below, and ensure that the report is not cluttered with un-interpreted information and that it unambiguously represents the interpretation of the applicant.

2. Objective of the basic assessment process

The objective of the basic assessment process is to, through a consultative process—

(a) 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;

(b) identify the alternatives considered, including the activity, location, and technology alternatives;

(c) describe the need and desirability of the proposed alternatives**;**

(d) 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 to; and

  (ii) the degree to which these impacts−

    (aa) can be reversed;

    (bb) may cause irreplaceable loss of resources; and

    (cc) can be avoided, managed or mitigated; and

(e) 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; and

  (iii) identify residual risks that need to be managed and monitored.

PART A

SCOPE OF ASSESSMENT AND BASIC ASSESSMENT REPORT

3. Contact Person and correspondence address

a) Details of

i) Details of the EAP

Name of the Practitioner: Lelani Claassen (nee Stolp)

Tel no: 011 794 7534

Fax No: 011 794 6946

e-mail address: lelani@cabangaenvironmental.co.za

ii) Expertise of the EAP

a) The qualifications of the EAP (with evidence)

BSc(Hons) Environmental Management (UNISA, 2013)

BSc Landscape Architecture (University of Pretoria, 2007)

Registered with the Environmental Assessment Practitioner Association of South Africa (EAPASA)

Please refer to Appendix A for a full CV of the EAP

iii) Summary of the EAP's past experience (in carrying out the Environmental Impact Assessment Procedure)

Lelani started her career as an environmental consultant in 2008. She holds an Honours degree in Environmental Management from UNISA, which she completed whilst working as an environmental consultant following the successful completion of a BSc Degree in Landscape Architecture from the University of Pretoria. She has also successfully completed the SABS Short-course: Environmental Legal Requirements for ISO 14001 compliance. Her project experience is extensive in scope and covers various aspects of development including residential developments, filling stations and depots, infrastructure and mining projects.

Lelani's experience includes environmental authorization processes: Basic Assessments, Environmental Impact Assessments, Environmental Management Plans and Programmes, Mining Right Applications, Water Use Licensing, Concept (Fatal Flaw), Pre-Feasibility and Feasibility Studies.

b) Location of the overall Activity

Farm Name:	Portions 2 and 11 of the Farm Vlakfontein 108 IT and Portions 1, 7, 11, 12 and 14 of the Farm Welgelegen 107 IT
Application Area (Ha)	2,664 Hectares (Ha)
Magisterial District:	Gert Sibande District Municipality, Msukaligwa Local Municipality (MP302) Mpumalanga Province. Msukaligwa Magisterial District (Main seat Ermelo)
Distance and direction from nearest town	5 km south-east of Breyten 7.5 km south-west of Chrissiesmeer 14.5 km north-east of Ermelo
21-digit Surveyor General Code for each farm portion	Please refer to Table 1

Table 1: Property details

Parent Farm	Portion	SG-Code	Extent (Ha)
Vlakfontein 108 IT	2	T0IT00000000010800002	1,063.31
Vlakfontein 108 IT	11	T0IT00000000010800011	250.772
Welgelegen 107 IT	1	T0IT00000000010700001	288.068
Welgelegen 107 IT	7	T0IT00000000010700007	261.513
Welgelegen 107 IT	11	T0IT00000000010700011	189.451
Welgelegen 107 IT	12	T0IT00000000010700012	97.254
Welgelegen 107 IT	14	T0IT00000000010700014	513.806
Application Area (approximate total Hectares)			**2664.175**

c) Locality Map

(show nearest town, scale not smaller than 1:250000).

Please refer to Plan 1.

d) Description of the scope of the proposed overall activity

Provide a plan drawn to a scale acceptable to the competent authority but not less than 1:10,000 that shows the location and area (hectares) of all the main and listed activities and infrastructure to be placed on site.

The Vlakfontein Project has been extensively investigated over the past several years. In past years Optimum Vlakfontein Mining and Exploration (Pty) Ltd (Vlakfontein) held prospecting rights over the properties (and others), which they acquired from Ingwe Collieries Ltd. Vlakfontein submitted an application to convert the Prospecting Right to a Mining Right, following promising prospecting results. Subsequent to the submission of the application, but before concluding the application process, Vlakfontein was obtained by Tegeta Exploration and Resources. Based on the time that has lapsed without further activity being undertaken, it is assumed that the Prospecting Right and Mining Right Application have since lapsed.

The current Applicant intends to undertake extensive review of prospecting results historically obtained by others, as part of the proposed prospecting operation.

No infrastructure will be developed on site. Existing farm roads and tracks made by previous prospecting operations will be used to access various areas on the site if required for verification drilling, which will be limited to a maximum of 3 boreholes across the entire application area, but is not expected to be required. No further prospecting activity is required given the extensive data that is available from past studies.

i) Listed and Specified Activities

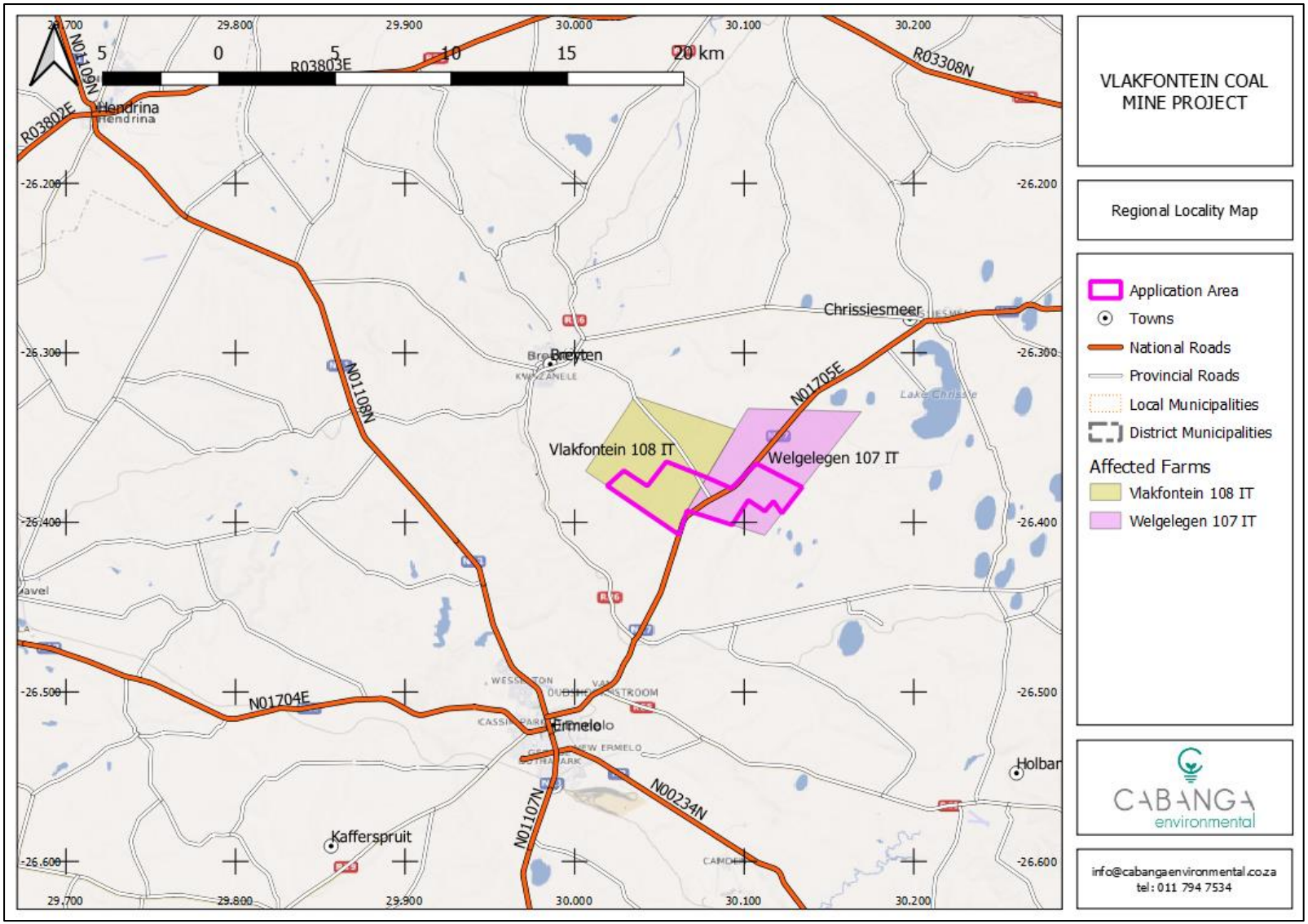
NAME OF ACTIVITY	**Extent of the Activity**	**LISTED ACTIVITY**	**APPLICABLE LISTING NOTICE**
e.g. for prospecting – drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office, access route, etc. etc.)	Ha or m^2	Mark with an X where applicable or affected	GN R 544, GN R 545 or GN R 546 (repealed and replaced by GN R 983, GN R 984 and GN R 985, as amended)
Application for a prospecting right	2,664.175 Hectares (Ha)	X	GN R 983 (as amended), Activity 20

Potential drill sites	0.25 Ha	X	GN R 985 (as amended) Activity 12 (f) (i) & (ii)
Potential camp associated with potential drill site	0.25 Ha	X	GN R 985 (as amended) Activity 12 (f) (i) & (ii)
Note, Activity 12 of GN R 983 (as amended) applies collectively to all physical prospecting activities that may be undertaken on site, though none are specifically planned at this stage (pending the outcome of the desktop work).			

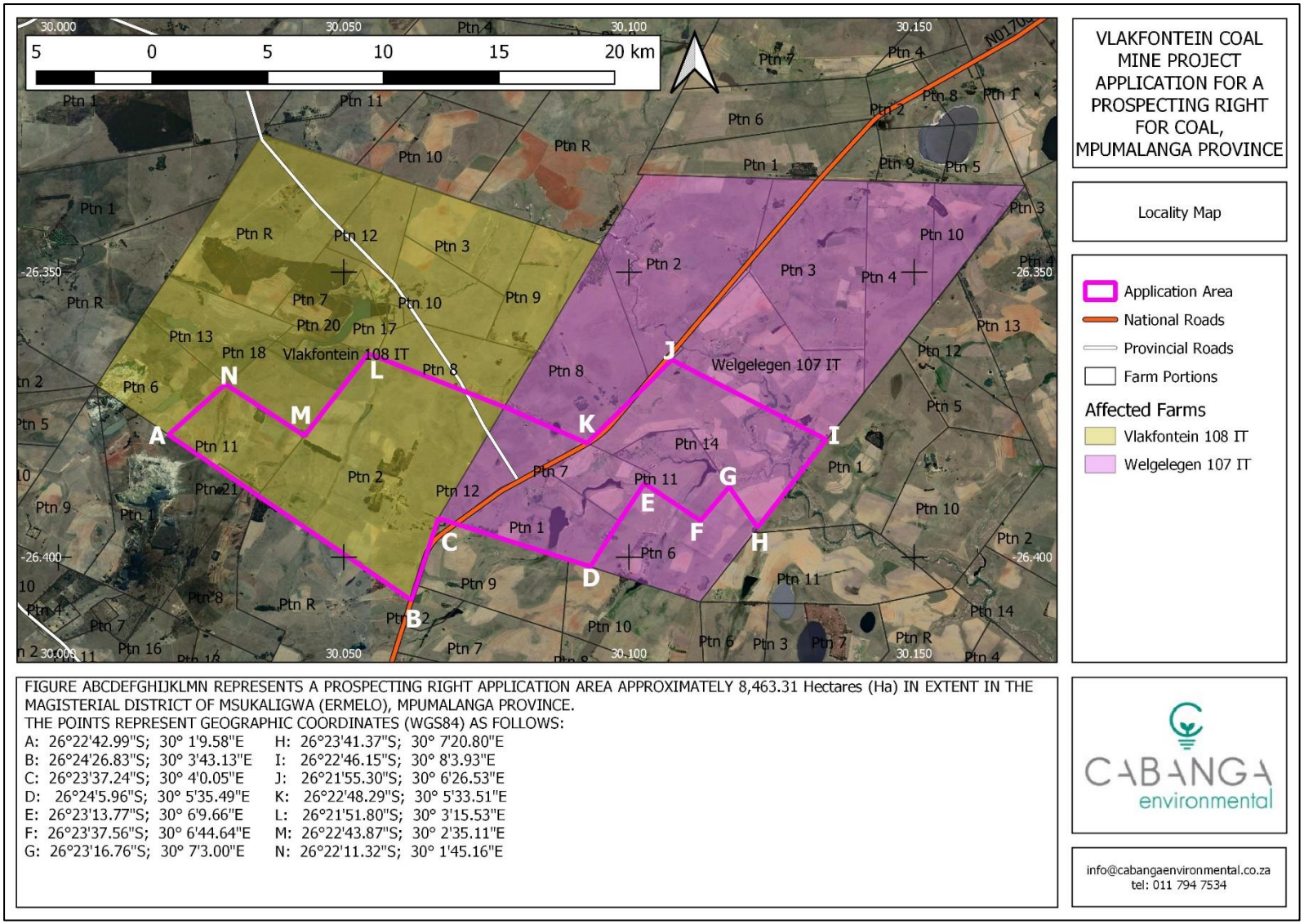
ii) Description of the activities to be undertaken

Describe Methodology or technology to be employed, including the type of commodity to be prospected / mined and for a linear activity, a description of the route of the activity.

As mentioned above, the prospecting for coal will be predominantly desktop-based, considering the existing available information. Verification drilling (maximum 3 boreholes) may be considered by the Applicant.



Plan 1: Regional Locality Map



Plan 2: Locality Map

e) Policy and Legislative Context

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT	REFERENCE WHERE APPLIED	HOW DOES THIS DEVELOPMENT COMPLY WITH AND RESPOND TO THE LEGISLATION AND POLICY CONTEXT
A description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process		E.g. in terms of the National Water Act, a Water Use License has/has not been applied for
Minerals and Petroleum Resources Development Act, 2002 (MPRDA): The MPRDA (Act No. 28 of 2002) and its Regulations (GNR527, 23 April 2004 as amended by: GNR R1288 dated 29 October 2004; GNR1203 dated 30 November 2006; and GNR349 dated 18 April 2011) is the predominant legislation dealing with the acquisition of rights to search for, extract and process mineral resources in South Africa. In general terms, prospecting rights must be granted if the application is made in the prescribed format and no other person holds rights on the same property for the same mineral as the application. It is believed that the rights previously held by various parties have lapsed, in consideration of the time that has lapsed since the previous applications to convert the original prospecting right to a mining right, and the fact that the	Throughout application process and reports	Section 53 of the MPRDA provides that persons who intend to use the surface rights of any land in any way which may result in sterilisation of a mineral resource or impede any objects of the MPRDA, has to obtain consent from the Minister of Mineral Resources prior to undertaking such activity or land use. This application relates specifically to the acquisition of rights over properties where the extent and economic viability of the coal resource is largely known, but not being extracted by the previous holder in accordance with the principles pf the MPRDA.

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT	REFERENCE WHERE APPLIED	HOW DOES THIS DEVELOPMENT COMPLY WITH AND RESPOND TO THE LEGISLATION AND POLICY CONTEXT
mineral resource is not being optimally extracted for the benefit of all South Africans in the current situation.		
The Mining Charter, 2018: One of the objectives of the MPRDA is to ensure the attainment of Government's objectives to redress historical socio-economic inequalities, to ensure broad-based economic empowerment and the meaningful participation of Historically Disadvantaged Persons in the mining and minerals industry. Section 100(2)(a) of the MPRDA empowers the Minister to develop a Broad-Based Black Economic Empowerment Charter for the South African Mining and Minerals Industry ("Mining Charter") as a regulatory instrument. The Mining Charter also prescribes allocation of benefits to host communities in accordance with an approved host community development programme, in addition to the Social and Labour Plan (SLP) requirements as per Section 23 of the MPRDA. Further to the direct benefits accruing to historically disadvantaged South Africans by the implementation of	BBBEE status of the Applicant	The Applicant for this prospecting right is a Level 1 BBBEE Contributor with a 135% Procurement recognition. The Applicant's interest in the prospecting rights will mean that, if such rights are granted to the Applicant, that they would have the security of tenure and thus the motivation to further explore the feasibility of mining the coal reserves known to exist on the subject properties. In doing so, the Applicant will be obligated to compile an SLP to the satisfaction of the relevant authorities and host communities and to implement the SLP and host community development programme to the advantage of its beneficiaries.

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT	REFERENCE WHERE APPLIED	HOW DOES THIS DEVELOPMENT COMPLY WITH AND RESPOND TO THE LEGISLATION AND POLICY CONTEXT
elements of the Mining Charter (including ownership, employment equity and Human Resources Development), Mines are also now obligated to meet certain BEE targets in terms of procurement, supplier and enterprise development.		
Mine Health and Safety Act, 1996 and its regulations Occupational Health and Safety Act and its regulations.	EMP	Prospecting activities undertaken on the site, if any, will have to ensure the safety of employees involved in the activities and the safety of surrounding community members and the public.
National Environmental Management Act, 1998 (Act No 107 of 1998) (NEMA) and EIA Regulations 2014 (as amended): Section 24 (1)(a) and (b) of NEMA state that the potential impact on the environment and socio-economic conditions of activities that require authorisation or permission by law and which may significantly affect the environment, must be considered, investigated and assessed prior to their implementation and reported to the organ of state charged by law with authorizing, permitting, or otherwise allowing the implementation of an activity.	Impact Assessment in this BAR	By undertaking this Basic Assessment, applying for Environmental Authorisation in terms of NEMA and its regulations, and the compilation of the EMP to ensure that potential environmental impacts from prospecting are identified and managed, the proposed prospecting responds to the legal requirements set out by NEMA and the EIA Regulations. Should prospecting results and feasibility modelling conclude that mining is feasible, the potential impacts from mining (including mine development) will be assessed in a Scoping & EIA Process as part of an application for Environmental Authorisation for those

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT	REFERENCE WHERE APPLIED	HOW DOES THIS DEVELOPMENT COMPLY WITH AND RESPOND TO THE LEGISLATION AND POLICY CONTEXT
		Listed Activities that will be associated with the potential mining project. As a first step in this process, prospecting rights must be obtained by the Applicant, to ensure security of tenure before approving expenditure on feasibility level studies and EIA's.
National Environmental Management Waste Act, 2008 (Act No. 59 of 2008) (NEMWA) and Regulations: The NEMWA provides for national norms and standards for regulating the management of waste, and the licensing and control of waste management activities. Regulations to the NEMWA identifies a number of activities which require a Waste Management License (WML) prior to being undertaken.	Not yet relevant	Knowledge of and consideration of the NEMWA will be required if the Vlakfontein Project proceeds to the next phase (application for mining rights, environmental authorisation and WML for residue stockpiles). No WML is required for the undertaking of the prospecting activities which are concentrated on desktop assessments and may be associated with limited domestic waste generation on site, if confirmatory drilling is required.
National Water Act, 1998 (Act No. 36 of 1998) (NWA): The NWA provides for the sustainable and equitable use and protection of water resources. The NWA defines a number of water uses and holds that a person may only undertake a water	Site Layout and EMP	If any prospecting activities are required to be undertaken on the site, these activities including access to potential drill sites will be further than 500m away from any identified wetland (NFEPA and previous Environmental studies) and further than 100m from any other river or drainage line, so as not to require licensing in terms of the

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT	REFERENCE WHERE APPLIED	HOW DOES THIS DEVELOPMENT COMPLY WITH AND RESPOND TO THE LEGISLATION AND POLICY CONTEXT
use (as defined in Section 21) if authorised to do so in terms of Section 22.		NWA and so as to avoid any potential impact on these water resources.
The Explosives Act (Act 26 of 1956, as amended): The Explosives Act relates to the manufacture, storage, sale, transport, import, export and use of explosives.	Not yet relevant	No explosives will be associated with the Prospecting activities even if it is confirmed that confirmatory drilling is required.
National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) (NEMAQA): A fundamental aspect of the new approach to the air quality regulation, as reflected in the NEMAQA is the establishment of National Ambient Air Quality Standards (NAAQS) (GN R 1210 of 2009), which provide the goals for air quality management plans and also the benchmark by which the effectiveness of these management plans is measured. Activities that are identified in GN 983 require an Atmospheric Emissions License (AEL) to be issued in terms of NEMAQA	Not relevant	The proposed prospecting activities will not require an AEL nor will the activities (which are primarily desktop-based) generate emissions or dust. If any confirmatory drilling is going to take place on site, this will not generate sufficient dust to warrant dust suppression. Good practice measures (turning off machinery and vehicles when not in use, etc.) have been included in the EMP.
National Environmental Management: Protected Areas Act, 2003 (Act No 57 of 2003) (NEMPAA):	Sensitivity maps	Although it is believed that the proposed prospecting would not affect the Chrissiesmeer Protected Environment, potential future mining might, and the risk

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT	REFERENCE WHERE APPLIED	HOW DOES THIS DEVELOPMENT COMPLY WITH AND RESPOND TO THE LEGISLATION AND POLICY CONTEXT
The NEMPAA provides for the protection and conservation of ecologically viable areas of South Africa's biological diversity, natural landscapes and seascapes. It further provides for the establishment of a register of protected areas (SAPAD), the management of those areas and for intergovernmental co-operation and public consultation in matters concerning protected areas.		posed by the proximity of the protected area to the coal reserves must be considered in the feasibility studies prior to the Applicant considering potential mining any further. It is confirmed that the activities (if any) are not proposed within the protected environment: the affected properties share a boundary but past prospecting has shown that the coal reserves which will be the focus of the prospecting activity (if any is required on site) are approximately 4km from the proclaimed edge of the protected environment (at the closest point, linear distance).
National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) (NEMBA): The NEMBA provides for the management and conservation of South Africa's biodiversity within the framework of the NEMA. The Act relates to the protection of species and ecosystems that warrant national protection, among others.	EMP	At this stage, no on-site activities are specifically planned as part of the prospecting application – the activity is primarily related to the review of data obtained through previous prospecting undertaken by others. If confirmatory drilling is required, a qualified ecologist with extensive local knowledge must undertake a survey of the proposed drill site and its access route to confirm the absence of protected species, and if any are

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT	REFERENCE WHERE APPLIED	HOW DOES THIS DEVELOPMENT COMPLY WITH AND RESPOND TO THE LEGISLATION AND POLICY CONTEXT
Certain Fauna and Flora Species of Conservation Concern (SCC) are legally protected by the Act and require permitting if such species are to be disturbed.		encountered, assist the Applicant to identify a route / site where such species will not be affected by prospecting.
National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA): The NHRA aims to promote good management and preservation of the country's Heritage Resources.	EMP	If any activities are planned on site, a qualified and registered archaeologist must first survey the affected area (including access route) to confirm the absence of heritage resources, so that all impacts to such resources can be avoided during prospecting.

f) Need and desirability of the proposed activities

(Motivate the need and desirability of the proposed development including the need and desirability of the activity in the context of the preferred location).

The primary motivation for this Prospecting Right Application relates to the fulfilment of the objectives of the MPRDA. The area has been extensively prospected in the past. Due to various circumstances no previous applicant or holder of rights on the subject property has been able to economically continue with development of a mine.

The Applicant requires the prospecting rights to afford them security of tenure over the coal reserves on the property, in order to study the existing geological data pertaining to the site and reserve, obtain additional data where required, and investigate the feasibility of developing the project into an operational and producing coal mine.

g) Motivation for the overall preferred site, activities and technology alternative

The location of the proposed site is dictated by the known location of the coal reserve. If additional confirmatory drilling is required by the applicant, drill sites selection will be based on existing geological data from previous drilling programmes, with due consideration of environmental and infrastructural aspects encountered on the site.

Activities on site during prospecting will be limited, if any. It is preferable and at this stage anticipated that sufficient data exists from previous prospecting undertaken by other parties on the site, that activities under the prospecting right (if granted) will be limited to review of the existing data to determine the feasibility of taking the project forward, and applying for a Mining Right if that is shown to be the case.

No technology alternatives are relevant – Desktop review of existing data is not associated with any on-site environmental impacts or technologies. If additional confirmatory drilling is required, the applicant will use standard core drilling techniques.

h) Full description of the process followed to reach the proposed preferred alternatives within the site.

NB! – This section is about the determination of the specific site layout and the location of infrastructure and activities on site, having taken into consideration the issues raised by interested and affected parties, and the consideration of alternatives to the initially proposed site layout.

There is no specific site layout as no infrastructure will be established on site during prospecting, unless confirmatory drilling is shown to be a requirement, in which case the exact sites of additional drilling will be determined. However, a thorough review of the existing data from past prospecting activities is required, before the need for and thus location of additional boreholes can be determined.

If the activities to be carried out in terms of this prospecting right (if granted) involve any on-site activities, the following guidelines will apply to site selection:

- No prospecting or associated activities (camp establishment, access tracks etc.) may occur within 500m of any identified wetland on site. Prior to activities commencing, a registered ecologist must undertake a screening of the area to confirm the absence of wetlands and protected species in the area that will be affected, and a 500m radius of that area.
- No prospecting activities (drilling, disposal of drill muds etc.) may occur within 100m of any river, road, powerline, private residence or infrastructure existing on the site, without the express and written consent of the owner of that infrastructure.

i) Details of the development footprint alternatives considered

With reference to the site plan provided as Appendix C *and the Location of the individual activities on site, provide details of the alternative considered with respect to:*

(a) the property on which or location where it is proposed to undertake the activity;
(b) the type of activity to be undertaken;
(c) the design or layout of the activity;
(d) the technology to be used in the activity;
(e) the operational aspects of the activity; and
(f) the option of not implementing the activity.

As mentioned, no alternative properties have been considered as the project location is dictated by the location of the Mineral Reserve, which has been determined to a large degree by previous prospecting undertaken on the site by other parties.

No alternative type of activity is being proposed. The Applicant needs to undertake a review of the prospecting data from the site to determine the viability of taking the project forward.

There will most likely not be any activity on the site, therefore design/layout alternatives are not relevant. If on-site activities become essential to taking the project forward, the guidelines above will apply and site layout will be dependant on the outcome of the desktop reviews.

There are no relevant technology alternatives to the proposed prospecting by desktop-review and potential confirmatory drilling (if required).

The preferred alternative for operational aspects is to ensure the following (in the event that any on-site activities take place at all):

- Limit all activities to daylight hours;
- Personnel may not be housed on site;

- Provide a temporary chemical toilet with hand wash basin and potable water for employees on site, but do not allow employees to cook, wash or stay over on the site (one security guard may be appointed to watch equipment overnight if required).

The option of not undertaking prospecting on the site is considered and discussed: This option would not be in keeping with the objectives of the MPRDA and would also not prevent any other party from applying for prospecting rights in future.

The option of not granting the prospecting right to the applicant would prevent the applicant from further investigating and/or assessing the coal deposits known to occur on the Property, based on the results of past prospecting undertaken by others, but never developed by them.

ii) Details of the public participation process followed

Describe the process undertaken to consult interested and affected parties including public meetings and one on one consultation. NB the affected parties must be specifically consulted regardless of whether or not they attended public meetings. (Information to be provided to affected parties must include sufficient detail of the intended operation to enable them to assess what impact the activities will have on them or on the use of their land).

The Public Participation Process (PPP) is based on the NEMA EIA Regulations 2014 (as amended) and specifically Chapter 6 (Regulation 39 to 44) as follows:

- A Register of Interested and Affected Parties (I&APs) was compiled based on previous I&AP databases compiled for previous prospecting and mining applications on the site. Details of land owners were verified by conducting searches on WinDeed, and added to the database along with the details of adjacent land owners, the Local Municipalities, relevant ward councillor, authorities including SANRAL and Eskom.
- A Background Information Document (BID) was compiled which details the application process, proposed activities and PPP. The BID was distributed to I&APs on the register, where details were available, and hand-distributed on and around the site. Details captured of people in the surrounding area was added to the Register.
- An advertisement was placed in a local newspaper providing the same information as the BID.
- Three Posters displaying the same information was displayed at the Project site.
- Any parties who contacted the EAP were added to the I&AP database.

For further details and proof of the PPP, please refer to Appendix B.

iii) Summary of issues raised by I&APs

(Complete the table summarising comments and issues raised, and reaction to those responses)

Interested and Affected Parties **List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted**		**Date comments received**	**Issues raised**	**EAPs response to issues**	**Section and paragraph reference in this report where the issues and or response were incorporated**
<u>AFFECTED PARTIES</u>					
Landowner/s	X				
All known land owners were notified – see Appendix B	X	No comments received to date. This is the Draft report and will be updated with comments received once the public review period is concluded.			
Lawful occupier/s of the land	X				
All identified occupiers of land were notified - see Appendix B	X	No comments received to date. This is the Draft report and will be updated with comments received once the public review period is concluded.			
Landowners or lawful occupiers on adjacent properties	X				
Adjacent persons were notified - see Appendix B	X	No comments received to date. This is the Draft report and will be updated with comments received once the public review period is concluded.			
Municipal councillor	X				

The relevant ward councillor and surrounding councillors were notified - see Appendix B	X	No comments received to date. This is the Draft report and will be updated with comments received once the public review period is concluded.			
Municipality	X				
Several Municipalities including the affected local and district municipality were notified - see Appendix B	X	No comments received to date. This is the Draft report and will be updated with comments received once the public review period is concluded.			
Organs of state responsible for infrastructure that may be affected:		PLEASE REFER TO Appendix B FOR A FULL LIST OF ALL THE PARTIES IDENTIFIED AND NOTIFIED OF THE APPLICATION AND AVAILABILITY OF THIS REPORT, FOR PUBLIC REVIEW. THIS TABLE WILL BE POPULATED AFTER CONCLUSION OF THE PUBLIC REVIEW PERIOD.			
Roads Department					
Eskom					
Telkom					
DWS					
Communities					
Dept. Land Affairs					

Traditional Leaders					
Dept Environmental Affairs					
Other competent authorities affected					
Other affected parties					
Other interested parties					

iv) The Environmental attributes associated with the alternatives

(The environmental attributed described must include socio-economic, social, heritage, cultural, geographical, physical and biological aspects)

The proposed prospecting site is located in the Msukaligwa Local Municipality of the Gert Sibande District Municipality, Mpumalanga Province. Key socio-economic and demographic statistics for the Local Municipal area are presented in the following Table:

(http://www.statssa.gov.za/?page_id=993&id=msukaligwa-municipality):

Total population	149,377 people
Young (0-14)	30% (45,411 people)
Working Age (15-64)	66% (97,842 people)
Elderly (65+)	4% 6,124 people)
Dependency ratio	52,6
Growth rate	1,8% (2001-2011)
Population density	25 persons/km²
Unemployment rate	26,8%
Youth unemployment rate	34,5%
No schooling aged 20+	12,3%
Higher education aged 20+	9,6%
Matric aged 20+	29,2%
Number of households	40,932
Number of Agricultural households	7,678
Average household size	3,5
Female headed households	37,8%
Formal dwellings	75,3%
Housing owned/paying off	43,4%
Flush toilet connected to sewerage	70,6%
Weekly refuse removal	65,5%
Piped water inside dwelling	53%
Electricity for lighting	74,7%

a) Type of environment affected by the proposed activity

(Its current geographical, physical, biological, socio-economic and cultural character)

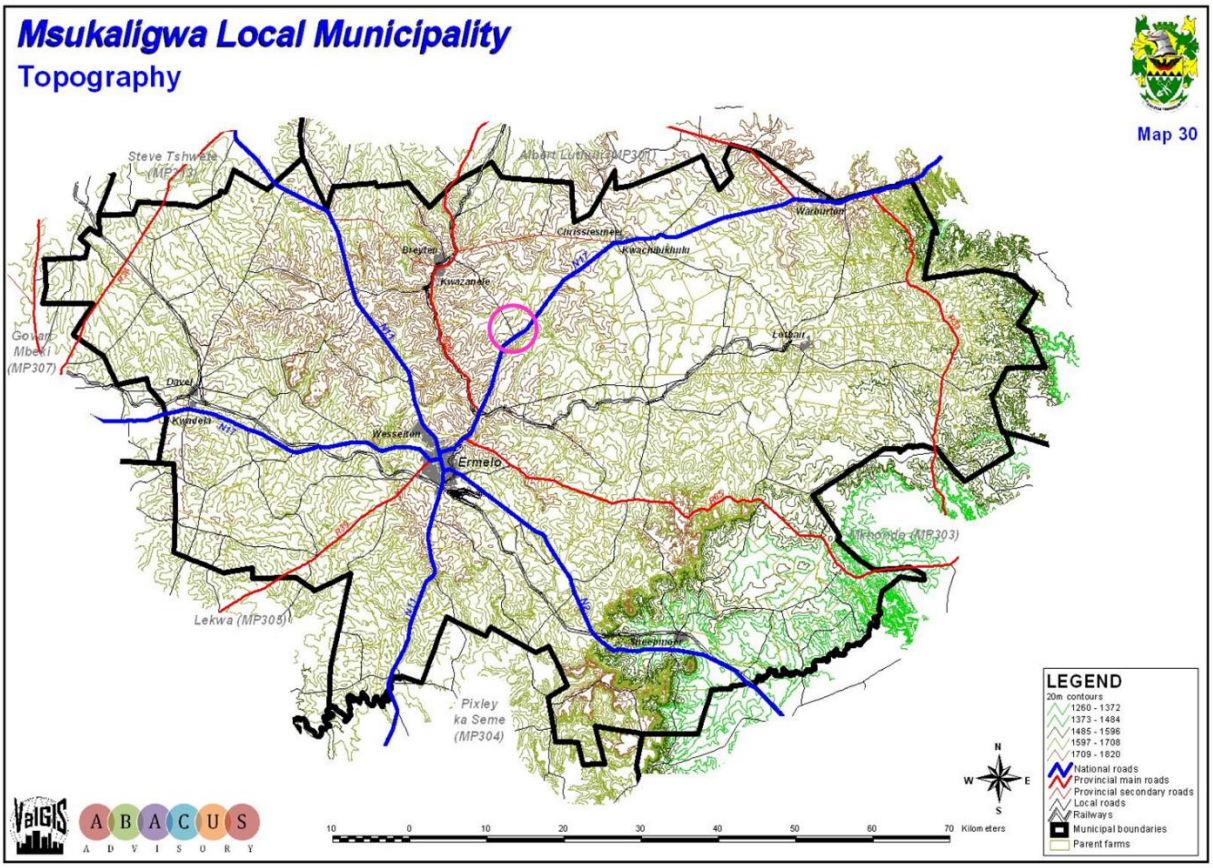
The environment where the site is located can be described as predominantly rural; surrounding land cover includes:

- Open areas dominated by natural veld, river and wetland systems, but also large stands of alien invasive tree species;
- Agricultural fields (mostly dryland agriculture);
- Conservation area: Chrissiesmeer Protected Environment;

- Infrastructure including National, Provincial and local roads, power lines, telephone lines and cellphone tower; and
- Existing and historic mining.

The Msukaligwa Local Municipality's Spatial Development Framework (SDF) was obtained from their website (http://www.msukaligwa.gov.za/SDF.htm). The following details were obtained from a review of the SDF.

Topography is gently undulating highland typical of the central Mpumalanga Province. The area falls in the central Mpumalanga climatic zone which experiences warms summers with rainfall and winters that are warm during the day, cold at night and dry, with sharp frosts. Rainfall is mainly experienced as showers and thunderstorms between October – March. Rainstorms are often violent with severe lightning and strong winds, occasional hail and up to 80mm of rain in a single day. Windiest months are August and September, although the winds are typically light. The topography of the Municipality is shown in the figure below with the site location indicated by the purple circle.



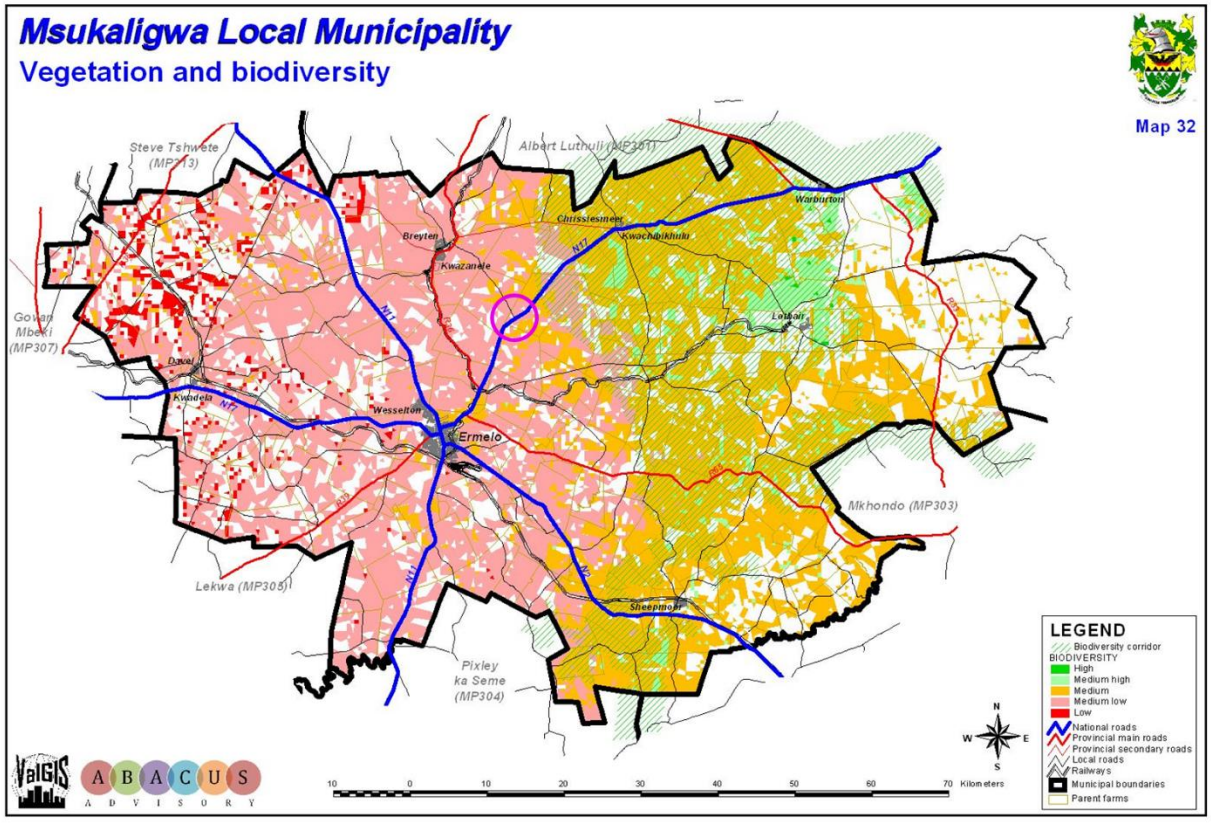
The Vaal River traverses a portion of the proposed Prospecting Right Area; the Vaal River has its origin approximately 6km north-west of the site, just south of Breyten and is the main tributary to the Orange River. It is the most significant River in the immediate area but there

are several others as well, including an unnamed tributary to the Vaal River, that traverses the site. Both these are National Freshwater Ecosystem Priority Area (NFEPA) Rivers.

The site is located in Quaternary Catchment C11A, which forms part of the Vaal Major Water Management Area (WMA) in terms of the National Water Resource Strategy 2. The Vaal River Catchment Management Agency (CMA) was established in terms of Section 78(1) of the NWA on 29 January 2016 and will thus be an important I&AP in this application.

The central-western part of the Municipality is underlain by the Ermelo Coal Field, the target geology in terms of the prospecting application to which this report relates. Predominant rocks are sedimentary, i.e. sandstones, shales and siltstones of the Ecca Group that contains arenaceous strata of the coal-bearing Vryheid formation.

Existing vegetation in the undeveloped areas of the Municipality consists predominantly of typical highveld grasslands, though it must be mentioned that agriculture, forestry and urban development has displaced the natural vegetation in substantial parts of the Municipality. The figure below indicates biodiversity on a municipal level, the site area is indicated by the purple circle. It is shown that the site is predominantly considered to be of Medium-Low biodiversity.



Mucina & Rutherford (2006) classifies the entire site as Eastern Highveld Grassland (Endangered). Vegetation is described as short, dense grassland dominated by the usual

highveld grass composition (*Aristida, Digitaria, Eragrostis, Themeda, Tristachya* etc.). the conservation target for this vegetation unit is 24% but only a very small fraction is statutorily conserved (Nooitgedacht Dam and Jericho Dam Nature Reserves, and a few private reserves). Some 44% of the vegetation unit has already been transformed, primarily by cultivation, plantations, mines, urbanisation and building of dams. Land cover data indicates that cultivation may have had a more extensive impact.

Acacia mearnsii can become dominant in disturbed sites, though no serious alien infestations are reported. Erosion is very low (Mucina & Rutherford, 2006).

b) Description of the current land uses

Current Land Uses on the proposed prospecting right area includes:

- Natural Veld;
- Dense stands of alien invasive trees;
- Rivers, streams, pans and dams;
- Dryland agriculture;
- Residential activities (farm dwellings, low density); and
- Infrastructure: roads, powerlines, telecommunication.

It is noted that the then Minister of Mineral Resources Susan Shabangu made known her intention to prohibit or restrict the granting of prospecting and mining rights on the Farm Welgelegen 107 IT, for a period of three years, in a published notice dated 04 March 2011. Considering the South African Protected Areas Database (SAPAD) for Quarter 1 2019 (which is the latest version of this database) does not show the Farm Welgelegen 107 IT as a protected area, it is assumed that the 2011 proclamation of intent by the Minister is no longer applicable to the Farm.

c) Description of specific environmental features and infrastructure on the site

The N17 Highway traverses the application area: it is bordered by Portion 12 of the Farm Welgelegen 107 IT to the West of the road, and Portion 1; 7 and 14 of the Farm Welgelegen 107 IT East of the road.

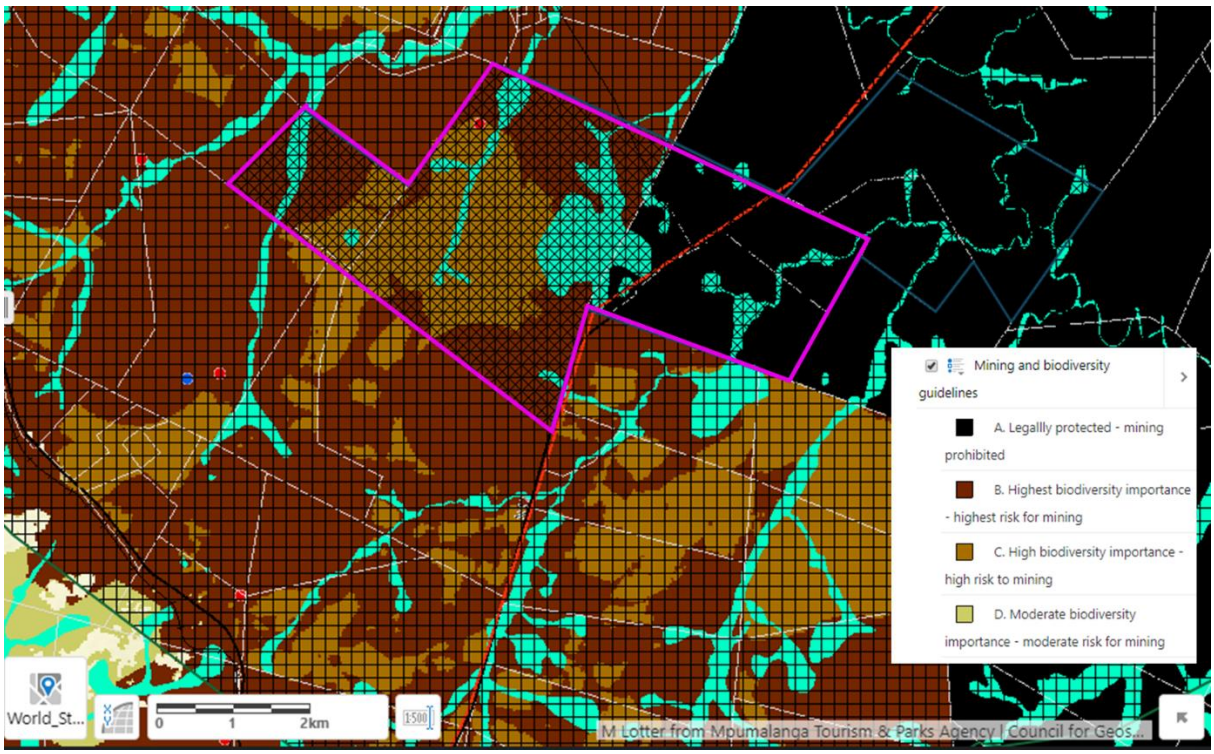
Provincial Road D1426 also traverses the site (it runs between Portion 7 of the Farm Welgelegen 107 IT and Portion 12 of the Farm Welgelegen 107 IT and then traverses Portion

2 of the Farm Vlakfontein 108IT). There are also other local roads and private access roads on the site.

Various telecommunication infrastructure exists throughout the site including telephone lines and tower. Existing farming infrastructure including fencing is also common.

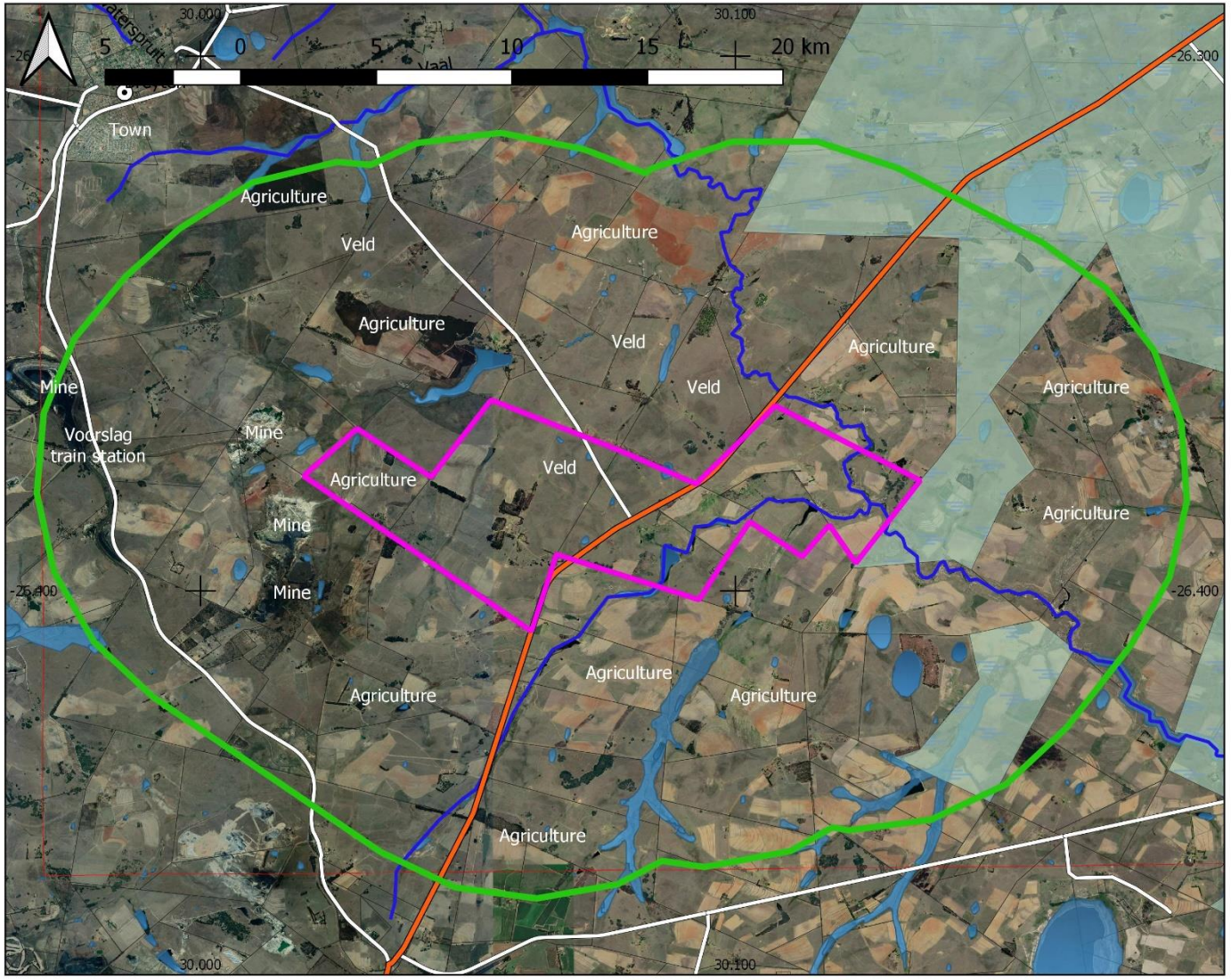
Specific environmental features include the Vaal River (which traverses a corner of Portion 14 of the Farm Welgelegen 107 IT) and its tributary (which originates south of the site and traverses Portion 1, 7, 11 and 14 of the Farm Welgelegen 107 IT). There are also several drainages and suspected wetlands and pans throughout the site.

The Mining and Biodiversity Guideline (DEA, DMR, CoM, SAMBF, SANBI, 2013) identifies portions of the Farm Welgelegen 107 IT as being legally protected (see figure below where the application area is marked by the purple line, the light green indicates Mpumalanga Highveld Wetlands), even though the latest information of the South African Protected Areas Database (SAPAD) indicates the Chrissiesmeer Protected Environment a further distance from the site apart from the adjacent boundary in the East of Portion 14 of the Farm Welgelegen 107 IT.



d) Environmental and Current Land Use Map

Please refer to Appendix C: Maps and Plans (A3) for an A3 version of the map presented overleaf, showing the Land Uses identified from a review of Google Earth Imagery (Imagery dated 9/22/2018) within 5km of the boundary of the Application Area.



VLAKFONTEIN COAL MINE PROJECT

Land Use Map

CABANGA environmental

info@cabangaenvironmental.co.za
tel: 011 794 7534

v) Impacts and risks identified including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts

(Provide a list of the potential impacts identified of the activities described in the initial site layout that will be undertaken, as informed by both the typical known impacts of such activities, and as informed by the consultations with affected parties together with the significance, probability, and duration of the impacts. Please indicate the extent to which they can be reversed, the extent to which they may cause irreplaceable loss of resources, and can be avoided, managed or mitigated.)

As indicated before, it is highly likely that no on-site activities will be required at all. If desktop review of the existing prospecting results indicate favourable results to the applicant, further studies will be undertaken as part of further application processes, to take the Project forward.

There is a possibility that confirmatory drilling may have to be undertaken (not currently foreseen), which could potentially cause environmental impacts as follows:

Activity	Impact / Risks	Probability	Duration	Scale / Extent	Significance	Consequence (without Mitigation)	Does the Impact cause irreversible Loss of Resources?	Can the Impact be reversed?	Can the impact be avoided/ managed/ mitigated?
Vegetation clearance (by indiscriminate vehicle movement, illegal harvesting by employees / contractors, or purposely in preparation for drill site establishment).	Damage to / destruction of sensitive flora species / habitats.	Highly Probable	Medium Term	Site	High	Moderate	No irreversible loss of resources, as vegetation will re-establish with time.	With rehabilitation and time, natural vegetation can return to the disturbed area. There is a risk of infestation of alien invasive species on disturbed sites.	The impact can be managed by ensuring the footprint of disturbance remains as small as possible, and mitigated by rehabilitating disturbed sites.
Driving on site, drill site establishment.	Loss of soils due to pollution or compaction.	Highly Probable	Long Term	Site	Moderate	Moderate	Soils are likely to recover through natural processes, though this may take significant time - No irreversible loss of resources.	The impacts, if they occur, can be reversed by rehabilitation of the affected site(s).	The impact can be managed by ensuring the footprint of disturbance remains as small as possible, and mitigated by rehabilitating disturbed sites.

Activity	Impact / Risks	Probability	Duration	Scale / Extent	Significance	Consequence (without Mitigation)	Does the Impact cause irreversible Loss of Resources?	Can the Impact be reversed?	Can the impact be avoided/ managed/ mitigated?
Presence of personnel / contractors on site, making fires.	Veld fires and resultant damage to infrastructure, fauna & flora etc.	Highly Probable	Short to Medium Term	Local	Moderate	Moderate	If fires break out on site, they could cause loss of resources but this will likely not be irreversible.	Impacts of fires are generally reversible by natural processes (for flora impacts) and human intervention (infrastructure impacts).	The impact can be avoided by prohibiting fires on site, and mitigated by ensuring a fire prevention and reaction plan is put in place. Join the local Fire Protection Agency (FPA).
Site roads, drill site(s)	Alteration of surface water flow patterns, erosion on disturbed sites and subsequent siltation of downstream water resources.	Highly Probable	Short Term	Local	Moderate	Moderate	If siltation / pollution reaches the Vaal River or its tributary the Loss of resource will take a long time to reverse through natural processes.	If manifest, the impact will be difficult to reverse, but it is possible through silt screens etc. More likely, natural processes will reverse the impact but this will take a long time.	The impact can be avoided by implementing appropriate buffer zones between activity and water resources, preventing erosion, limiting the extent of compacted areas and implementing adequate rehabilitation after drilling at each site.

Activity	Impact / Risks	Probability	Duration	Scale / Extent	Significance	Consequence (without Mitigation)	Does the Impact cause irreversible Loss of Resources?	Can the Impact be reversed?	Can the impact be avoided/ managed/ mitigated?
Presence of personnel / contractors on site, generating waste, littering.	Pollution (soil, water, air) from incorrect waste management and disposal.	Highly Probable	Short Term	Local	Low	Low	Littering will most likely not cause irreversible loss of resources.	The impact, if it occurs, should be fully reversible.	The impact can be avoided by provision of proper waste management, and mitigated (if needed) by implementing clean-up campaigns.
Presence of drill rig, vehicles and personnel on site.	Alteration of the visual resource.	Highly Probable	Short Term	Local	Low	Low	Visual alteration of the site will cease once activities cease and return to the pre-prospecting visual resource - no irreversible loss of resource.	The impact is fully reversed when the drilling activities and associated infrastructure are removed from site.	The impact can be mitigated by ensuring good housekeeping, limiting impact severity, and by rehabilitation following cessation of activities.
Vegetation clearance (by indiscriminate vehicle movement, or purposely in preparation for drill site establishment).	Damage to / destruction of unique / protected species.	Possible	Permanent	Isolated	Very High	Low	Potentially, if sensitive, unique, rare or protected species are affected, irreplaceable loss of resources may occur.	If unique species are lost, this is considered irreversible.	The impact can be avoided by ensuring an ecologist verifies the absence of unique species prior to disturbance.

Activity	Impact / Risks	Probability	Duration	Scale / Extent	Significance	Consequence (without Mitigation)	Does the Impact cause irreversible Loss of Resources?	Can the Impact be reversed?	Can the impact be avoided/ managed/ mitigated?
On-site activities (driving, establishing the drill site etc.).	Damage to / /destruction of heritage resources.	Possible	Permanent	Isolated	Very High	Low	If manifest, the impacts to heritage resources would cause irreplaceable loss of resources.	If manifest, the impact is irreversible.	The impact can be avoided by ensuring an archaeologist verifies the absence of heritage resources prior to disturbance.
Presence of personnel / contractors on site.	Security concerns due to strangers in the area.	Probable	Short Term	Local	Moderate	Low	The impact is not likely to cause irreversible loss of resources, or any loss of resources at all.	If the impact occurs, the impact will be difficult to reverse, as human perception is not easily changed.	The impact can be avoided by proper community relations, local procurement and ensuring staff do not access any property illegally.
Drilling.	Impacts on groundwater resources.	Unlikely	Permanent	Regional	Moderate	Insignificant	If it occurs, the impact may cause irreversible loss of resources as groundwater contamination is very difficult to remedy. It is considered unlikely that the impact will manifest given the existing boreholes on site.	If it occurs, the impact is difficult and expensive to reverse / remedy, but is likely to reverse with natural processes over a long time.	The impact is very unlikely, and can be made even less likely by properly constructing all boreholes to be drilled (if any).

vi) Methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks;

(describe how the significance, probability, and duration of the aforesaid identified impacts that were identified through the consultation process was determined in order to decide the extent to which the initial site layout needs revision)

The significance of impacts as rated above was determined as follows:

Consequence = (Significance + Extent + Duration) x Probability

Where each of the above aspects are rated as follows:

Significance = Magnitude of impact + sensitivity of Aspect			Magnitude (Negative)		
	1	Not significant		Slight: Little effect, negligible disturbance / benefit	1
	2			Slight to Moderate: Effects are observable but natural process continue without significant alteration	2
	3	Slight		Moderate: The effects of the impact change ecosystem processes / social dynamics and results in these processes being permanently altered, but functioning.	3
	4	Slight to Moderate		Moderate - High: The effects of the impact permanently alter natural / social processes to the point where function is limited	4
	5	Moderate		High: The aspect is affected to such an extent that its functioning is compromised and this effect is irreversible	5
	6	Moderate - High	Sensitivity of the Aspect	Not sensitive: The affected aspect is not sensitive to change or of particular significance to people (No irreplaceable loss of resource)	1
	7	High		Somewhat sensitive: The affected aspect is of not of significant value but is sensitive to change	2
	8	Very High		Sensitive: The affected aspect is of moderate value and is slightly resilient to change	3
	9	Extremely High		Very Sensitive: The affected aspect is of significant value and only slightly resilient to change	4
	10	Fatal Flaw		Irreplaceable: The affected aspect is of significant value and extremely sensitive to change. Direct irreplaceable loss of significant resource	5

Scale / Extent		
	1	Isolated: Limited footprint within the site will be affected (less than 50% of the site)
	2	Site Specific: The Entire Site will be affected
	3	Local: Will affect the site and surrounding areas
	4	Regional: Will affect the entire region / catchment / province
	5	National: Will affect the country, and possibly beyond the borders of the country

Duration		
	1	Short term: Less than 1 year
	2	Short to medium term: 2 - 3 years
	3	Medium term - 3 to 10 years
	4	Long term: 11-20 years
	5	Permanent: in excess of 20 years

Probability	1	Unlikely: Impact Could occur in extreme events. Less than 15% chance of the impact ever occurring.
	2	Possible: possibility of impact occurring is very low due to design or historic experience. Between 16% and 30% chance of the impact occurring.
	3	Probable There is a distinct possibility of the impact occurring at least once during the project lifespan. 31% to 60% chance of the impact occurring.
	4	Highly Probable: The impact is expected to occur. Between 61% and 85 % chance of the impact occurring.
	5	Definite: There are sound scientific reasons to expect that the impact will occur and cannot be prevented.

vii) The positive and negative impacts that the proposed activity (in terms of the initial site layout) and alternatives will have on the environment and community that may be affected

(provide a discussion in terms of advantages and disadvantages of the initial site layout compared to alternative layout options to accommodate concerns raised by affected parties).

The potential impacts of drilling, if it is determined that additional drilling is required on site, will be similar regardless of the exact drill location(s), considering the constraints imposed on site selection, including:

- No prospecting or associated activities (camp establishment, access tracks etc.) may occur within 500m of any identified wetland on site. Prior to activities commencing, a registered ecologist must undertake a screening of the area to confirm the absence of wetlands and protected species in the area that will be affected, and a 500m radius of that area.
- No prospecting activities (drilling, disposal of drill muds etc.) may occur within 100m of any river, private road not owned by the applicant, powerline, private residence or infrastructure existing on the site, without the express and written consent of the owner of that infrastructure.

The advantages of imposing these constraints on drill site selection include:

- Avoidance of damage to sensitive environmental features that may be present on site, including avoidance of edge effects from on-site activities impacting surrounding water resources; and
- Avoidance of unnecessary public disturbance (noise, visual impacts) and damage to infrastructure.

viii) The possible mitigation measures that could be applied and the level of risk

(With regard to the issues and concerns raised by affected parties, provide a list of the issues raised and an assessment/ discussion of the mitigations or site layout alternatives available to accommodate or address their concerns, together with an assessment of the impacts or risks associated with the mitigation or alternatives considered).

Ideally, impacts should be avoided entirely. Where the impact is unavoidable, mitigation and management measures should aim to reduce the likelihood of an impact occurring, and / or the severity of the impact.

This is the Draft Basic Assessment Report and affected parties have not yet had a chance to comment on the report. The report will be updated with comments received from affected parties before being submitted to the DMR for decision-making. Therefore, on a preliminary basis, the following mitigation (avoidance / management) measures should be implemented:

- Ensure the footprint of disturbance remains as small as possible;
- Prohibit fires on site. No person will be allowed to reside or cook food on the site;
- Compile and implement a fire prevention and reaction plan;
- Join the local FPA;
- Implement appropriate buffer zones between activities and water resources (including rivers, springs, wetlands, boreholes etc.);
- Implement measures to prevent erosion (vegetate exposed areas with naturally occurring grass species, avoid steep slopes, install reno-mattress, gabion baskets or similar in areas that are prone to erosion etc.);
- Provide proper waste management: ensure sufficient bins on site, educate employees about the importance of not littering etc.). Implement clean-up campaigns if necessary;
- Ensure good housekeeping on site to reduce visual intrusion;
- Ensure an ecologist, and an archaeologist, perform screenings of the areas to be affected (by access tracks and/or by physical activity on site) prior to any disturbance taking place;
- Facilitate proper community relations, implement local procurement policies where possible and ensure staff does not access any property illegally;
- Ensure all sites affected by the activities carried out under the Prospecting Right (if granted) are rehabilitated immediately following the activity (i.e. do not wait until all boreholes have been drilled before rehabilitating other areas).
- Implement post-rehabilitation monitoring including alien invasive species monitoring and eradication.

ix) Motivation where no alternatives were considered

The need for additional drilling, and the exact locations for drill sites (if necessary), can only be determined after review of the existing information gathered as part of previous prospecting activities on the site undertaken by others.

The location of the proposed site is dictated by the known location of the coal reserve. If additional confirmatory drilling is required by the applicant, drill sites selection will be based on existing geological data from previous drilling programmes, with due consideration of environmental and infrastructural aspects encountered on the site. No location alternatives can be defined until the desktop review has been done.

No technology alternatives are relevant – Desktop review of existing data is not associated with any on-site environmental impacts or technologies. If additional confirmatory drilling is required, the applicant will use standard core drilling techniques.

x) Statement motivating the alternative development location within the overall site

(provide a statement motivating the final site layout that is proposed)

As previously stated, review of the existing geological information will determine the need for additional drilling. If additional drilling is required, the drill sites will be identified by overlaying the geological information, with the environmental constraints (distance from water resources and infrastructure belonging to others). No alternative development location is identified as not development is proposed within the overall site as part of the prospecting application.

i) 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 plan) through the life of the activity.

(Including (i) a description of all environmental issues and risks that were identified during the Environmental Impact Assessment Process and (ii) 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 mitigation measures).

There are no environmental impacts or risks associated with the desktop evaluation of existing data obtained through the past prospecting activities undertaken by other parties on the site.

The potential impacts and risks associated with additional drilling (if required) were identified by undertaking a review of activities associated with drilling, and a review of known environmental features on the site. This may be expanded upon following public review of this report.

Assessment of the significance of these impacts and risks were undertaken following the methodology presented in Section h)vi) above.

The significance of each issue / risk was determined as shown in Section h)v) above, where the extent to which the issues / risks can be avoided and/or mitigated is also provided.

j) Assessment of each identified potentially significant impact and risk

This section of the report must consider all the known typical impacts of each of the activities (including those that could or should have been identified by knowledgeable persons) and not only those that were raised by registered interested and affected parties.

Please note that the prospecting activities will most likely be limited to desktop investigations of existing data and no on-site activities are currently planned. There will therefore most likely not be any onsite impacts associated with the prospecting right.

In the event that the Applicant wishes to undertake confirmatory drilling this will be limited to three boreholes maximum. If this is to be undertaken the potential impacts and required management measures are included in this report.

Please refer to the Table starting on the next page.

Name of activity	Potential Impact	Aspects Affected	Phase	Significance if not mitigated	Mitigation Type	Significance is mitigated
Vegetation clearance (by indiscriminate vehicle movement, illegal harvesting by employees / contractors, or purposely in preparation for drill site establishment).	Damage to / destruction of sensitive flora species / habitats.	Vegetation	Prospecting	Moderate	Remedy by rehabilitation. Control by limiting extent.	Low
Driving on site, drill site establishment.	Loss of soils due to pollution or compaction.	Soils	Prospecting	Moderate	Remedy by rehabilitation.	Low
Presence of personnel / contractors on site, making fires.	Veld fires and resultant damage to infrastructure, fauna & flora etc.	Flora & Fauna, Air Quality, health & safety	Prospecting	Moderate	Avoid by prohibiting fires, control by emergency response plans.	Low
Site roads, drill site(s)	Alteration of surface water flow patterns, erosion on disturbed sites and subsequent	Surface water	Prospecting	Moderate	Remedy by rehabilitation. Prevent by erosion management measures.	Low

Name of activity	Potential Impact	Aspects Affected	Phase	Significance if not mitigated	Mitigation Type	Significance is mitigated
	siltation of downstream water resources.					
Presence of personnel / contractors on site, generating waste, littering.	Pollution (soil, water, air) from incorrect waste management and disposal.	Soil, water, air quality	Prospecting	Low	Remedy by rehabilitation.	Low
Presence of drill rig, vehicles and personnel on site.	Alteration of the visual resource.	Visual resource	Prospecting	Low	Remedy by rehabilitation.	Low
Vegetation clearance (by indiscriminate vehicle movement, or purposely in preparation for drill site establishment).	Damage to / destruction of unique / protected species.	Vegetation (Flora)	Prospecting	Low	Avoid by ensuring sensitive species are not affected.	Low
On-site activities (driving, establishing the drill site etc.).	Damage to / /destruction of heritage resources.	Heritage Resources	Prospecting	Low	Avoid by ensuring heritage resources are not affected.	Low
Presence of personnel / contractors on site.	Security concerns due to strangers in the area.	Safety of people	Prospecting	Low	Avoidance and control by	Low

Name of activity	Potential Impact	Aspects Affected	Phase	Significance if not mitigated	Mitigation Type	Significance is mitigated
					implementing local procurement, site access etc.	
Drilling.	Impacts on groundwater resources.	Groundwater	Prospecting	Insignificant	Avoid by constructing boreholes properly with adequate casings etc. Impact very unlikely.	Insignificant

The full impact assessment is included hereto as Appendix D.

k) Summary of Specialist Reports

This summary must be completed if any specialist reports informed the impact assessment and final site layout process and must be in the following tabular form

List of studies undertaken	Recommendation of specialist reports	Specialist recommendations that have been included in the EIA Report (mark with an X where applicable)	Reference to applicable section of report where specialist recommendations have been included
Not relevant – no specialist studies have been completed as part of the application for a prospecting right. If the applicant decides, based on the desktop review of past prospecting data to undertake further studies and application for a mining right, the necessary specialist studies will be commissioned.			

l) Environmental Impact Statement

i) Summary of the key findings of the Environmental Impact Assessment

The assessment concludes that desktop review of past prospecting results will not have any impacts on site. It is possible that the applicant will require confirmatory drilling, but not likely. If additional drilling is going to take place on site, environmental impacts could be realised. These must be managed through proper site selection, including ecological survey and archaeological survey of areas that may be affected (including access to those areas) to ensure the absence of protected / sensitive species and habitat, wetlands / water resources and archaeological resources.

If drill sites are properly identified and managed as per the recommendations contained in this report, potential environmental impacts can largely be avoided, and remediated through adequate rehabilitation of affected sites.

Should review of existing prospecting data, and potential additional prospecting data, identify a viable project, several additional studies will have to be undertaken prior to the application for environmental authorisation and mining rights etc. associated with potential mining at the site.

ii) Final site map

Provide a map at an appropriate scale which superimposes the proposed overall activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffers. Attach as Appendix.

Please refer to Appendix C. As desktop review of existing prospecting data and results has to be undertaken prior to identifying the need for additional drilling, no site selection can take place yet. Known areas of sensitivity with allocated buffer zones have been identified, where drilling will not be allowed.

iii) Summary of the positive and negative impacts and risks of the proposed activity and identified alternatives

It is anticipated that the prospecting will only involve desktop review of existing data in which case no negative impacts will be realised.

Potential confirmatory drilling may result in impacts to local flora and fauna, heritage resources, soils and water courses but these are largely avoidable and / or reversible.

Approval of this application will result in the Applicant further exploring the viability of exploiting the coal reserve in line with the objectives of the MPRDA.

The only alternative that can be fully explored at this stage of the application is the no-go option, which would mean that the Applicant will not further investigate the potential project. It is anticipated that, if the prospecting results show a viable mining project at the site, many negative environmental impacts may be realised, however mine development will also be associated with some positive socio-economic impacts including job creating and coal supply. Impacts associated with mine development will have to be identified and assessed through specialist studies, if the project progresses to that stage.

m) Proposed impact management objectives and the impact management outcomes for inclusion in the EMPr

Based on the assessment and where applicable the recommendations from specialist reports, the recording of proposed impact management objectives, and the impact management outcomes for the development for inclusion in the EMPr as well as for inclusion as conditions of authorisation.

The impact management measures have the following primary objectives:

- Where possible, avoid the impact (prevent it from occurring);
- If unavoidable, make sure the impact affects as small an area as possible for as short duration as possible;

- Ensure the impacts are remediated through rehabilitation of affected sites.

All of the management / mitigation measures stipulated in this report must be made a condition of the authorisation and have been included in the EMPr in the following Part of this report.

n) Aspects for inclusion as conditions of authorisation

Any aspects which must be made conditions of the Environmental Authorisation

- Implementation of the EMP if any on-site activities are to be undertaken;
- Consultation with affected land owners if any on-site activities are to be undertaken;
- Ensuring that the necessary surveys (ecology, wetlands, archaeology) are undertaken prior to any on-site activities being undertaken;
- Identification of drill sites (if necessary) in accordance with the identified site sensitivities (including buildings and homesteads), with due cognisance of a 500m buffer zone, unless expressly agreed to by the owner of the structure / infrastructure that activities may be undertaken closer to the infrastructure / structures (this applies to buildings, roads, powerlines etc.).

o) Description of any assumptions, uncertainties and gaps in knowledge

(which relate to the assessment and mitigation measures proposed)

This is the Draft Basic Assessment Report and does not yet include comments from I&APs. This report is being made available for a review and comment period of 30 days, after which the report will be updated with comments received from I&APs.

No specialist studies or site visits were conducted as part of the compilation of this report. The content of this report is based on desktop research using available databases and aerial imagery.

p) Reasoned opinion as to whether the proposed activity should or should not be authorised

i) Reasons why the activity should be authorized or not

Approval of the project and granting of the prospecting right to the Applicant will result in security of tenure to the Applicant and enable the Applicant to further investigate the feasibility of developing the coal resource on the Property. Non-invasive prospecting (desktop review of previous prospecting results) will have no environmental impact. If additional drilling is required on the site to confirm or supplement previous prospecting results, the resultant environmental impacts can be managed to acceptable levels.

ii) Conditions that must be included in the authorisation

Awarding of the prospecting right to the Applicant should be conditional to the implementation of the EMPr commitments and management measures contained in this report.

q) Period for which the Environmental Authorisation is required

The prospecting right may not be valid for a period exceeding 5 years (Section 17(6) of the MPRDA) and therefore it is requested that the Environmental Authorisation pertaining to prospecting, if granted, also remains valid for a period of 5 years. After 5 years, the Applicant will have to apply for renewal of the prospecting right, relinquish the right or apply to convert the prospecting right to a mining right, which will then also be subject to the granting of Environmental Authorisation, pending the outcome of a full Scoping and EIA Process.

r) Undertaking

Confirm that the undertaking required to meet the requirements of this section is provided at the end of the EMPr and is applicable to both the Basic Assessment Report and the Environmental Management Programme report

Please refer to the undertaking contained at the end of the EMPr. The undertaking is relevant to both the BAR and EMPr.

s) Financial Provision

State the amount that is required to both manage and rehabilitate the environment in respect of rehabilitation.

If on-site activities are required, Financial provision to the amount of R121,676.07 will be required for rehabilitation.

i) Explain how the aforesaid amount was derived

This amount was calculated as follows:

Each drill site = 10m x 10m = 100m² = 0.001 Ha. 5 Drill sites maximum = 500m² = 0.005 Ha:

Activity	**Area**	**Cost / area**	**Total Cost**
Levelling of areas	500 m²	R22.95 / m²	11,475.00
Vegetate areas	0.5 Ha	R40,213.68 / ha	201.17
Rehabilitation monitoring	1 year	R110,000 / annum	110,000.00
	Total Amount		R121,676.07

ii) Confirm that this amount can be provided for from operating expenditure

(confirm that the amount is anticipated to be an operating cost and is provided for as such in the Mining Work Programme, Financial and Technical Competence Report or Prospecting Work Programme as the case may be).

Prospecting activity won't generate any revenue. The costs of undertaking additional drilling (if required) and the resultant cost of rehabilitation will be the responsibility of the License Holder.

t) Specific Information required by the competent Authority

i) Compliance with the provisions of sections 24(4)(a) and (b) read with section 24(3)(a) and (7) of the National Environmental Management Act (Act 107 of 1998). The EIA Report must include the: -

a) Impact on the socio-economic conditions of any directly affected person

(provide the results of investigation, assessment, and evaluation of the impact of the mining, bulk sampling or alluvial diamond prospecting on any directly affected person including the land owner, lawful occupier, or, where applicable, potential beneficiaries of any land restitution claim, attach the investigation report as an Appendix).

No investigation report has been compiled – prospecting activities will most likely involve desktop review of existing data only which could not possibly affect any land owner, occupier or future owner/ occupant. If additional drilling is required, drill sites (affected areas) will only comprise 100m² each, to a maximum of 5 sites throughout the Prospecting Right Area with due cognisance of the environmental buffers identified above. Sites will be rehabilitated upon conclusion of drilling and normal land-uses will resume.

Therefore, the proposed prospecting will not affect the socio-economic conditions of any directly affected person(s).

b) Impact on any national estate referred to in section 3(2) of the National Heritage Resources Act.

Provide the results of investigation, assessment, and evaluation of the impact of the mining, bulk sampling or alluvial diamond prospecting on any national estate referred to in section 3(2) of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) with the exception of the national estate contemplated in section 3(2)(i)(vi) and (vii) of that Act, attach the investigation report as an Appendix and confirm the applicable mitigation is reflected in 2.5.3; 2.11.6 and 2.12 herein).

Desktop activity could not impact on heritage resources, if any are present on the site. If on-site activities are required to verify or supplement previous prospecting data, on-site activity must be preceded by a site survey to be undertaken by a registered archaeologist to ensure archaeological / cultural heritage resources are entirely avoided and not impact by the prospecting activities.

This is included as a management measure within this report.

u) Other matters required in terms of sections 24(4)(a) and (b) of the Act

The EAP managing the application must provide the competent authority with detailed, written proof of an investigation as required by section 24(4)(b)(i) of the Act and motivation if no reasonable or feasible alternatives, as contemplated in sub-regulation 22(2)(h) exist. The EAP must attach such motivation as Appendix 4.

The motivation is provided here and not attached as an appendix.

This report contains the results of the investigation that was undertaken with respect to the potential environmental impacts of the proposed prospecting and alternatives, including the no-go alternative.

Motivation for the consideration of alternatives is also provided in section h)i)

PART B

ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

1. Draft Environmental Management Programme

a) Details of the EAP

Confirm that the requirement for the provision of the details and expertise of the EAP are already included in PART A, section 1(a) herein as required.

Details and expertise of the EAP (Lelani Claassen, EAPASA Registered EAP No 2018/153) are provided in Part A.

b) Description of the Aspects of the Activity

Confirm that the requirement to describe the aspects of the activity that are covered by the Draft Environmental Management Programme is already included in PART A, section 1(h) herein as required.

Please refer to Part A where detailed description of the aspects of the proposed prospecting activity are provided. This EMPr covers all of the mentioned aspects.

c) Composite Map

Provide a Map (attached as an appendix) as 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 should be avoided, including buffers).

Please refer to the Map entitled “site features with buffers” included in Appendix C.

d) Description of impact management objectives including management statements

i) Determination of closure objectives

(ensure that the closure objectives are informed by the type of environment described)

Upon completion of each borehole (if it is determined that drilling is required), the objective of rehabilitation will be to restore the affected land to the pre-activity state.

ii) Volumes and rate of water use required for the operation

If on-site activities are deemed necessary, on-site water use will be limited to potable use.

iii) Has a water use license been applied for?

No, no activity will be allowed to take place within 500m of identified wetland or within 100m or any river or stream. No water will be abstracted or stored or used in the process. Potable water will be provided by the Applicant (bottled water or municipal water brought to site in water cart).

No water uses identified in Section 21 of the National Water Act are relevant to the proposed prospecting activity.

iv) Impacts to be mitigated in their respective phases

Measures to rehabilitate the environment affected by the undertaking of the activity

Note, these measures will only be required in the event of on-site activities. If the proposed prospecting is limited to desktop investigation, none of these measures nor the financial provision are required as no on-site impacts will be realised.

ACTIVITIES	PHASE	SIZE AND SCALE of disturbance	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
Drill site and access route	Planning	Maximum 500m² (100m² per site)	Undertake drill site selection so that no activity occurs within 500m of identified site features, without the express written consent of the owner of the feature / structure / infrastructure.	This EMPr	Prior to on-site activity being undertaken.
Drill site and access route	Prospecting	Maximum 500m²	Appoint an ecologist to survey the area to be affected prior to any activity on site being undertaken.	National Environmental Management: Biodiversity Act	Prior to any on-site activities taking place (once-off)
Drill site and access route	Prospecting	Maximum 500m²	Appoint an archaeologist to survey the area to be affected prior to any activity on site being undertaken.	National Heritage Resources Act	Prior to any on-site activities taking place (once-off)

ACTIVITIES	PHASE	SIZE AND SCALE of disturbance	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
Drill site and access route	Prospecting	Maximum 500m²	Demarcate the area to be affected, limited to 100m² per drill site, to keep the affected areas as small as possible.	Best Practice	Throughout
Drill site and access route	Prospecting	Maximum 500m²	Use existing roads and tracks wherever possible.	Best Practice	Throughout
Drill site and access route	Prospecting	Maximum 500m²	Prohibit fires on site	National Veld and Forest Fire Act. Rules of the local Fire Protection Agency (FPA).	Throughout
Drill site and access route	Planning	N/A	Adopt a local procurement policy	Best Practice	When recruiting staff or procuring services
Drill site and access route	Rehabilitation	Maximum 500m²	Rehabilitate by shaping and revegetating of areas after all machinery, drill rig, materials, waste etc. have been removed off-site.	Best Practice	Upon completion of each borehole.

e) Impact Management Outcomes

A description of impact management outcomes, identifying the standard of impact management required for the aspects contemplated in paragraph ();

ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	MITIGATION TYPE	STANDARD TO BE ACHIEVED
Identifying Drill site and access route	Indiscriminate drilling without consideration of site sensitivities.	Biodiversity, affected parties, water resources	Planning	Control: Undertake drill site selection so that no activity occurs within 500m of identified site features, without the express written consent of the owner of the feature / structure / infrastructure.	Compliance to this EMPr
Drill site and access route	Destruction of flora / fauna / sensitive habitat	Biodiversity	Prospecting	Avoid: Appoint an ecologist to survey the area to be affected prior to any activity on site being undertaken.	National Environmental Management: Biodiversity Act
Drill site and access route	Destruction / damage to archaeological sites	Archaeological / socio-cultural resources	Prospecting	Avoid: Appoint an archaeologist to survey the area to be affected prior to any activity on site being undertaken.	National Heritage Resources Act
Drill site and access route	Damage to biodiversity / loss of soils / edge effects	Biodiversity, soils, water resources	Prospecting	Control: Demarcate the area to be affected, limited to 100m² per drill	Best Practice

ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	MITIGATION TYPE	STANDARD TO BE ACHIEVED
				site, to keep the affected areas as small as possible.	
Drill site and access route	Damage to biodiversity	Flora / Fauna	Prospecting	Control: Use existing roads and tracks wherever possible.	Best Practice
Drill site and access route	Ecological / infrastructure damage due to fires	Biodiversity, affected parties, structures & infrastructure	Prospecting	Avoid: Prohibit fires on site	National Veld and Forest Fire Act. Rules of the local Fire Protection Agency (FPA).
Drill site and access route	Social / safety concerns	Affected Parties & local communities	Planning	Manage: Adopt a local procurement policy	Best Practice
Drill site and access route	Continuance of previous impacts	Biodiversity, soils, water resources, affected parties.	Rehabilitation	Remedy: Rehabilitate by shaping and revegetating of areas after all machinery, drill rig, materials, waste etc. have been removed off-site.	Best Practice

f) Impact Management Actions

(A description of impact management actions, identifying the manner in which the impact management objectives and outcomes contemplated in paragraphs (c) and (d) will be achieved).

ACTIVITY	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR IMPLEMENTATION	STANDARD TO BE ACHIEVED
Identifying Drill site and access route	Indiscriminate drilling without consideration of site sensitivities.	Control: Undertake drill site selection so that no activity occurs within 500m of identified site features, without the express written consent of the owner of the feature / structure / infrastructure.	Prior to on-site activity being undertaken.	Compliance to this EMPr
Drill site and access route	Destruction of flora / fauna / sensitive habitat	Avoid: Appoint an ecologist to survey the area to be affected prior to any activity on site being undertaken.	Prior to any on-site activities taking place (once-off)	National Environmental Management: Biodiversity Act
Drill site and access route	Destruction / damage to archaeological sites	Avoid: Appoint an archaeologist to survey the area to be affected prior to any activity on site being undertaken.	Prior to any on-site activities taking place (once-off)	National Heritage Resources Act

ACTIVITY	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR IMPLEMENTATION	STANDARD TO BE ACHIEVED
Drill site and access route	Damage to biodiversity / loss of soils / edge effects	Control: Demarcate the area to be affected, limited to 100m² per drill site, to keep the affected areas as small as possible.	Throughout	Best Practice
Drill site and access route	Damage to biodiversity	Control: Use existing roads and tracks wherever possible.	Throughout	Best Practice
Drill site and access route	Ecological / infrastructure damage due to fires	Avoid: Prohibit fires on site	Throughout	National Veld and Forest Fire Act. Rules of the local Fire Protection Agency (FPA).
Drill site and access route	Social / safety concerns	Manage: Adopt a local procurement policy	When recruiting staff or procuring services	Best Practice
Drill site and access route	Continuance of previous impacts	Remedy: Rehabilitate by shaping and revegetating of areas after all machinery, drill rig, materials, waste etc. have been removed off-site.	Upon completion of each borehole.	Best Practice

g) Financial Provision

i) Determination of the amount of financial provision

a) Describe the closure objectives and the extent to which they have been aligned to the baseline environment described under the Regulation

Upon completion of each borehole (if it is determined that drilling is required), the closure objectives will be to:

- Remove all machinery, drill rig, waste, sanitary facilities etc. from the site; and
- Shape and vegetate the affected site to restore it to the same condition that it was in before on-site activities were undertaken.

Site-specific baseline conditions have to be recorded prior to any activities taking place on site by:

- The aforementioned ecological survey;
- The aforementioned archaeological survey; and
- Photographic record of the site.

b) Confirm specifically that the environmental objectives in relation to closure have been consulted with landowner and interested and affected parties.

This is a Draft BAR which will be made available to all I&APs including the land owner. It is anticipated that restoring affected sites (if any sites are affected) to the pre-activity state will be to the satisfaction of the land owner / user(s).

c) Provide a rehabilitation plan that describes as shows the scale and aerial extent of the main mining activities, including the anticipated mining area at the time of closure

This report relates to an application for a prospecting right, no mining will be allowed. Rehabilitation of prospecting drill sites (if any) will involve shaping of areas, ripping of compacted soils and revegetating the area to the pre-activity condition. Each drill site will not be bigger than 100m². A maximum of 3 drill sites will be allowed.

d) Explain why it can be confirmed that the rehabilitation plan is compatible with the closure objectives

The rehabilitation measures prescribed will return the affected land (if any) to the pre-activity state, which is the stated closure objective.

e) Calculate and state the quantum of the financial provision required to manage and rehabilitate the environment in accordance with the applicable guideline.

If on-site activities are required, Financial provision to the amount of R121,676.07 will be required for rehabilitation. This amount was calculated as follows:

Each drill site = 10m x 10m = 100m² = 0.001 Ha. 3 Drill sites maximum = 300m² = 0.003 Ha:

Activity	**Area**	**Cost / area**	**Total Cost**
Levelling of areas	500 m²	R22.95 / m²	11,475.00
Vegetate areas	0.5 Ha	R40,213.68 / ha	201.17
Rehabilitation monitoring	1 year	R110,000 / annum	110,000.00
	Total Amount		R121,676.07

f) Confirm that the financial provision will be provided as determined

The costs of undertaking additional drilling (if required) and the resultant cost of rehabilitation will be the responsibility of the License Holder.

Mechanisms for Monitoring compliance with and performance assessment against the environmental management programme and reporting thereon, including

h) Monitoring and Impact Management Actions
i) Monitoring and reporting frequency
j) Responsible Persons
k) Time period for implementing impact management actions
Mechanisms for monitoring compliance

SOURCE ACTIVITY	IMPACTS REQUIRING MONITORING PROGRAMMES	FINCTIONAL REQUIREMENTS FOR MONITORING	ROLES AND RESPONSIBILITIES FOR EXECUTION OF THE MONITORING PROGRAMMES	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
Identifying Drill site and access route	Indiscriminate drilling without consideration of site sensitivities.	Independent external and registered EAP to sign-off on drill site selection, after consideration of ecological and archaeological report and GIS analysis.	Applicant & EAP	Prior to on-site activity being undertaken.
Drill site and access route	Destruction of flora / fauna / sensitive habitat	Independent registered EAP to review ecology report and sign-off on site selection	Applicant & EAP	Prior to any on-site activities taking place (once-off)
Drill site and access route	Destruction / damage to archaeological sites	Independent registered EAP to review Heritage report and sign-off on site selection	Applicant & EAP	Prior to any on-site activities taking place (once-off)
Drill site and access route	Damage to biodiversity / loss of soils / edge effects	Applicant to provide photographic records showing demarcation and measurements to EAP during drilling	Applicant & EAP	Throughout

SOURCE ACTIVITY	IMPACTS REQUIRING MONITORING PROGRAMMES	FINCTIONAL REQUIREMENTS FOR MONITORING	ROLES AND RESPONSIBILITIES FOR EXECUTION OF THE MONITORING PROGRAMMES	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
Drill site and access route	Damage to biodiversity	EAP to undertake inspection of access routes as part of rehabilitation monitoring	Applicant & EAP	Throughout
Drill site and access route	Ecological / infrastructure damage due to fires	Applicant to show environmental policy and awareness training. EAP to inspect for evidence of fires as part of rehabilitation monitoring	Applicant & EAP	Throughout
Drill site and access route	Social / safety concerns	Applicant's HR to report on procurement and suppliers.	Applicant	When recruiting staff or procuring services
Drill site and access route	Continuance of previous impacts	Independent Registered EAP to undertake site inspection after drilling to confirm adequate rehabilitation.	Applicant and EAP	Upon completion of each borehole.

l) Indicate the frequency of the submission of the performance assessment / environmental audit report

An independent and Registered EAP (if activities conclude after 08 February 2020), must be appointed to undertake an inspection of each drill site and its access route, which inspection must be completed within 2 weeks of the drilling being concluded at each site.

Depending on the scheduling of drilling activities (if any drilling is required), separate reports may be submitted to the DMR for each site, or an integrated report will be prepared for submission.

The audit report(s) will be compiled according to Regulation 34 of the EIA Regulations 2014 (as amended) and include auditing of compliance against the commitments contained in this BAR / EMPr and the conditions of any environmental authorisation issued in respect of the proposed prospecting.

m) Environmental Awareness Plan

i) Manner in which the applicant intends to inform his or her employees of any environmental risk which may result from their work

This EMPr is to be available at the drill site, if it is decided to undertake additional drilling on the site. Each employee will undergo an environmental awareness training (the EAP can be contracted for this purpose by the Applicant), which will communicate the conditions of this EMPr to each employee before granting them access to the site.

ii) Manner in which risks will be dealt with in order to avoid pollution or the degradation of the environment.

All risks will be dealt with in terms of the provisions / commitments contained in this BAR/EMPr Report.

n) Specific Information required by the Competent Authority

Among others, confirm that the financial provision will be reviewed annually

If on-site activities occur as part of this proposed prospecting, the financial provision should be reviewed upon completion of rehabilitation of the first drill site, so that actual costs can be applied to the rehabilitation of subsequent drill sites.

It is foreseen that the financial provision will remain constant after the refining of costs based on the first rehabilitation event.

2. UNDERTAKING

Thea EAP herewith confirms:

a) the correctness of the information provided in the reports;

The information provided is correct, to the knowledge of the EAP and with due cognisance of the limitations and assumptions outlined in the report — YES

b) The inclusion of comments and inputs from stakeholders and I&APs;

This is the draft report. I&AP comments and inputs will be added after the 30-day public review period.

c) The inclusion of inputs and recommendations from the specialist reports where relevant;

No specialist reports were undertaken for this phase.

d) That the information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties are correctly reflected herein.

Information provided to I&APs is contained in this report. Once comments are received during the draft BAR review period, those comments and the EAPs responses will be included in this report.

Signature of the Environmental assessment practitioner

CABANGA CONCEPTS CC (trading as Cabanga Environmental)

Name of Company:

2019/08/26

Date:

- END-

Appendix A: CV of the EAP

Appendix B: Details of the Public Participation Process

Appendix C: Maps and Plans (A3)

Appendix D: Full impact assessment tables

+27 11 794 7534
lelani@cabangaenvironmental.co.za
www.cabangaenvironmental.co.za

APPENDIX A: CURRICULUM VITAE

CURRICULUM VITAE: LELANI CLAASSEN

EAPASA registration number 2018/153

PROFESSIONAL PROFILE

Lelani started her career as an environmental consultant in 2008. She holds an Honours degree in Environmental Management from UNISA, which she completed whilst working as an environmental consultant following the successful completion of a BSc Degree in Landscape Architecture from the University of Pretoria. She has also successfully completed the SABS Short-course: Environmental Legal Requirements for ISO 14001 compliance. Her project experience is extensive in scope and covers various aspects of development including residential developments, filling stations and depots, infrastructure and mining projects.

Lelani's experience includes environmental authorization processes: Basic Assessments, Environmental Impact Assessments, Environmental Management Plans and Programmes, Mining Right Applications, Water Use Licensing, Concept (Fatal Flaw), Pre-Feasibility and Feasibility Studies. She also has experience as an Environmental Control Officer on construction projects. Lelani has also completed numerous environmental compliance audits and environmental-legal compliance assessments.

In addition to projects throughout South Africa, Lelani completed an EIA which was approved in Zambia. She has travelled for work to the Democratic Republic of Congo (DRC) and Uganda. Lelani is familiar with the EIA process in Botswana and has assisted with Projects there as well.

Lelani is proficient on GIS software packages (ArcGIS, QGIS), the full MS Office suite, CorelDraw and AutoCAD.

QUALIFICATIONS

2011 - 2013	BSc. Hons. Environmental Management (UNISA)
July 2010	Short Course: South African Environmental Legal Requirements for ISO14000 (SABS)
2004 - 2007	BSc. Landscape Architecture (University of Pretoria)

YEARS EXPERIENCE

10 years

EMPLOYEMENT HISTORY

Cabanga Environmental: March 2018 – current

Position Held: Environmental Consultant.

Digby Wells and Associates (South Africa) (Pty) Ltd January 2016 – March 2018. Position held: Environmental Consultant and Project Manager.

Mills and Otten Environmental Consultants CC. April – December 2015: Position Held Environmental Scientist .

Exigo Sustainability (formerly Africa Geo-Environmental Services, AGES) 2010 – March 2015: Position Held: Environmental Consultant.

Eco Consult / E-Scape Landscapes: 2008 – 2009: Position Held: Environmental Consultant and Landscape Technologist.

SELECTED PROJECT EXPERIENCE

Sentech Telecommunicaitons Mast (2010)
Scope: Basic Assessments, EMPs and Public Participaiton for application for Environmental Authorisation for various telecommunicaiton masts.
Client: Sentech
Location: Gauteng and Eastern Cape

City of Tshwane Bulk Infrastructure Upgrades (2010)
Scope: EIAs for various roads and bulk stormwater infrastructure upgrades
Client: City of Tshwane Metropolitan Municipality
Location: Gauteng.

Sishen Concentrates Project (2012)
Scope: Scoping and EIA in support of application for EA for the reclamation of DMS thickener underflows at the Sishen Iron Ore Mine.
Client: Sishen Iron Ore Company (Pty) Ltd
Location: SA – Northern Cape

+27 11 794 7534
lelani@cabangaenvironmental.co.za
www.cabangaenvironmental.co.za

SELECTED PROJECT EXPERIENCE (continued)

Delf Cullinan Sand Mine (2012)

Scope: Basic Assessment and EMP for the application for EA (Including Public Participation) for the proposed mining of sand.

Client: (Delf Sand (Pty) Ltd

Location: SA – Gauteng

Mokolo River Sand Mine (2013)

Scope: EIA and EMP as part of the Section 24G Application for Rectification (including public participation), for the Mining of Sand from 20km of the Mokolo River.

Client: Labonte 5(Pty) Ltd

Location: SA – Limpopo

Zandkopsdrift Rare Earth Project (2014)

Scope: Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP), as part of an Application for Environmental Authorisation (EA) and Mining Rights (including Public Participation) for the development of an opencast Rare Earth Mine and processing facility.

Client: Sedex Minerals

Location: SA – Northern Cape

Sekgame Electricity expansion project (2015)

Scope: EIA (Basic Assessment) and EMP for the development of the Sekgame switching station and associated electricity distribution infrastructure at Sishen Iron Ore Mine.

Client: Kumba Iron Ore, Sishen Iron Ore Company (Pty) Ltd

Location: SA – Northern Cape

SELECTED PROJECT EXPERIENCE (continued)

Duikerfontein Gravel Mine (2015)

Scope: EIA and EMP as part of application for Mining Rights and EA (including public participation), for the Mining of Quartzite and Sandstone.

Client: Labonte 5(Pty) Ltd

Location: SA – Limpopo

HCI Coal: Environmental Legal Compliance Audits for Palesa and Mbali Coal Mines (2016 and 2017)

Scope: EMP Performance Assessments, Environmental-Legal Compliance Audits and Environmental Risk Assessments (including workshop facilitation)

Client: HCI Coal (Pty) Ltd

Location: SA – Mpumalanga

Chelmsford Colliery Amendment (2018)

Scope: Basic Assessment and Updated EMPr for additional open pit coal mining areas at the Chelmsford Colliery.

Client: Future Coal Pty Ltd

Location: SA – KwaZulu-Natal

Evander Gold, Elikhulu Project construction phase compliance audits (2018 and 2019)

Scope: 6-monthly compliance audits against conditions of the EMPr and EA for the Elikhulu Tailings reclamation project (new Plant, new TSF and associated upgrades).

Client: Evander Gold Mines: Pan Africa Resources

Location: SA - Mpumalanga

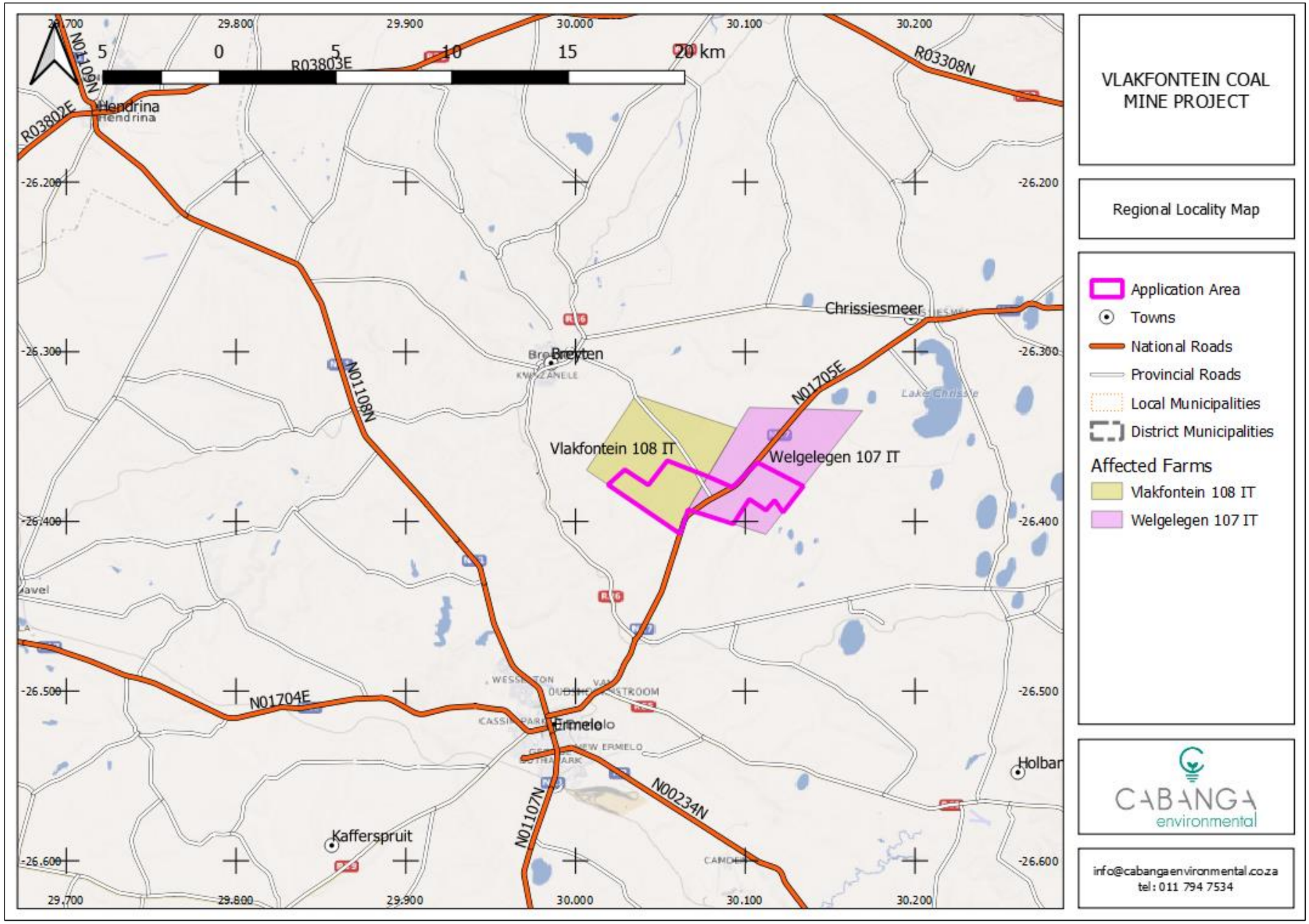
Appendix B: Details of the Public Participation Process

Preliminary I&AP database (based on previous studies). Note: contact details have been removed from this list to protect the privacy of I&APs.

Category	Organisation / Farm	Name
Affected Land Owner	Vlakfontein 108 IT Portion 2 & Welgelegen 107 IT Portion 12	SUSANNA BOERDERY CC
Affected Land Owner	Vlakfontein 108 IT Portion 11	CHALDEAN TRADING 46 PTY LTD
Affected Land Owner	Welgelegen 107 IT Portion 1	W P C H TRUST
Affected Land Owner	Welgelegen 107 IT Portion 7	W P C H TRUST
Affected Land Owner	Welgelegen 107 IT Portion 11	W P C H TRUST
Affected Land Owner	Welgelegen 107 IT Portion 14	W P C H TRUST
Adjacent Farm	Mooiplaats 86 Portion 11	LISISE FARMING CC
Adjacent Farm	Mooiplaats 86 Portion 10	ZWANE THOKO SOPHIE
Adjacent Farm	Mooiplaats 86 Portion Re	SUSANNA BOERDERY CC
Adjacent Farm	Gemsbokheuvel 87 Portion 1, Gemsbokheuvel 87 Portion 9, Gemsbokheuvel 87 Portion 5	JAN RAUTENBACH TRUST
Adjacent Farm	Welgelegen 107 Portion 10	ROSSOUW VAN RENSBURG TRUST
Adjacent Farm	Goedehoop 106 Portion 12	
Adjacent Farm	Goedehoop 106 Portion 5	
Adjacent Farm	Goedehoop 106 Portion 1	
Adjacent Farm	Goedehoop 106 Portion 11	
Adjacent Farm	Goedehoop 106 Portion 6	
Adjacent Farm	Bloemfontein 132 Portion 10	
Adjacent Farm	Bloemfontein 132 Portion 9, Bloemfontein 132 Portion 7	JOUBERT JOHANNES
Adjacent Farm	Mooifontein 109 Potion 8	L A N TRUST
Adjacent Farm	Mooifontein 109 Potion RE	D J SPIES FAMILIE TRUST
Adjacent Farm	Mooifontein 109 Potion 1, Kafferspruit 274 Portion 5	UMLABU COLLIERY PTY LTD
Adjacent Farm	Mooifontein 109 Potion 9	D J SWANEPOEL FAMILIE TRUST
Adjacent Farm	Sterkfontein 242 Portion 2	SPUY JURRIEN VAN DER
Adjacent Farm	Sterkfontein 242 Portion Re, Klipstapel 243 Portion 15	MSOBO COAL PTY LTD
Adjacent Farm	Sterkfontein 242 Portion 1	STEVE RAUTENBACH TRUST
Authority	Msukaligwa Local Municipality Ward 19	Msizo Madonsela
Authority	Msukaligwa Local Municipality Ward 18	Bonginkosi Innocent Mabuza/John Nzimande
Authority	Msukaligwa Local Municipality Ward 14	Mduduzi Sithole
Authority	Msukaligwa Local Municipality Environment	D. Stander
Authority	Gert Sibande- District Municipality	Environmental Services
Authority	Gert Sibande District Municipality	Tebogo Mogakabe
Authority	Department of Water Affairs	M. Shabalala
Authority	Department of Water Affairs	M. Sehume

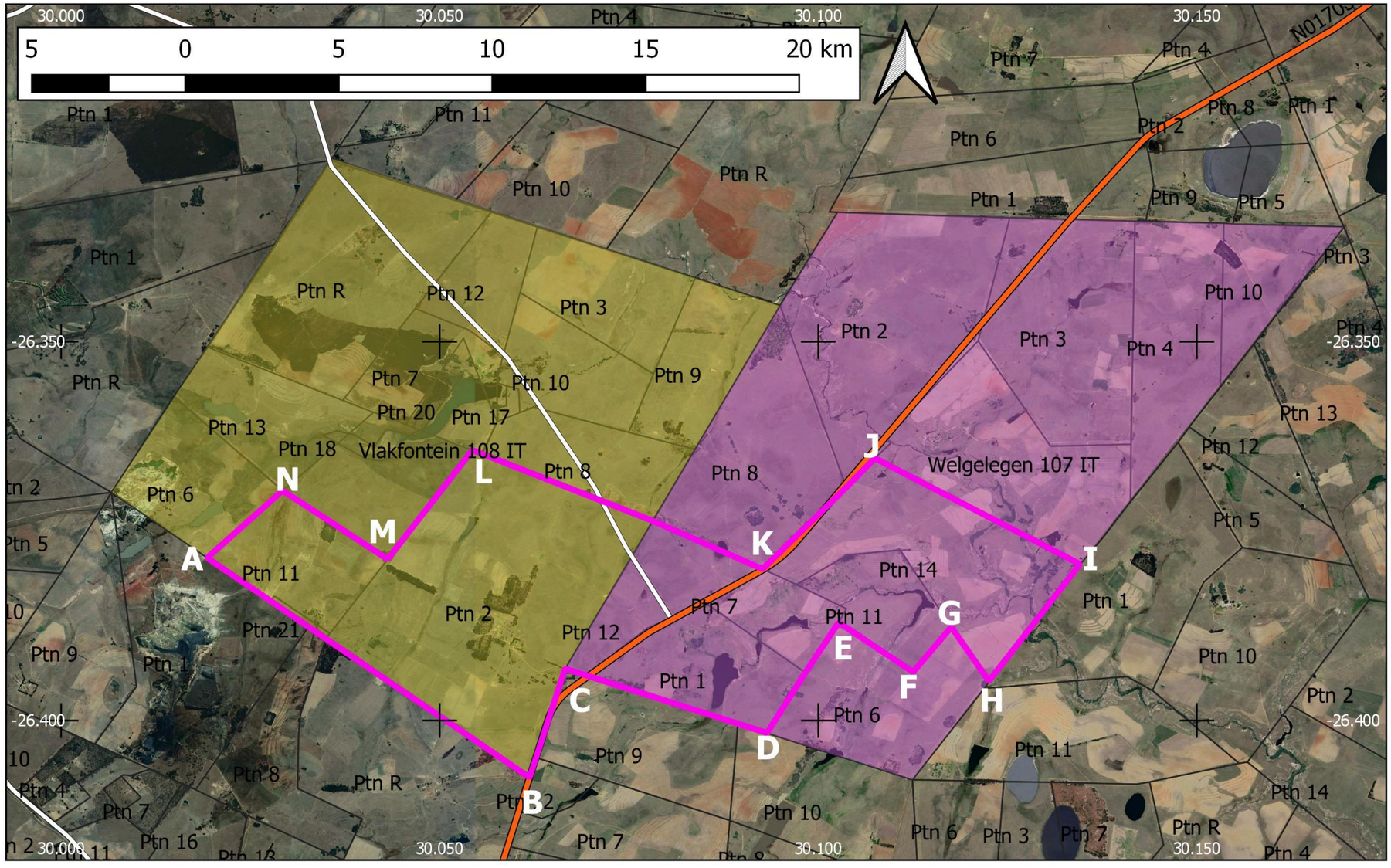
Authority	Department of Environmental Affairs	TN Fakude
Authority	Department of Environmental Affairs	P Ngomane
Authority	Department of Environmental Affairs	Mr Marebane
Authority	Department of Mineral Resources	Samuel Mathavhela
Authority	Department of Mineral Resources	Redwin Tshisudzungwa
Authority	Mpumalanga Tourism and Parks Agency	Komilla Knarasoo
Authority	Mpumalanga Tourism and Parks Agency	Frans
Authority	Department of Road and Transport	Mr Malatjie

Appendix C: Maps and Plans



VLAKFONTEIN COAL MINE PROJECT APPLICATION FOR A PROSPECTING RIGHT FOR COAL, MPUMALANGA PROVINCE

Locality Map



- Application Area
- National Roads
- Provincial Roads
- Farm Portions

Affected Farms

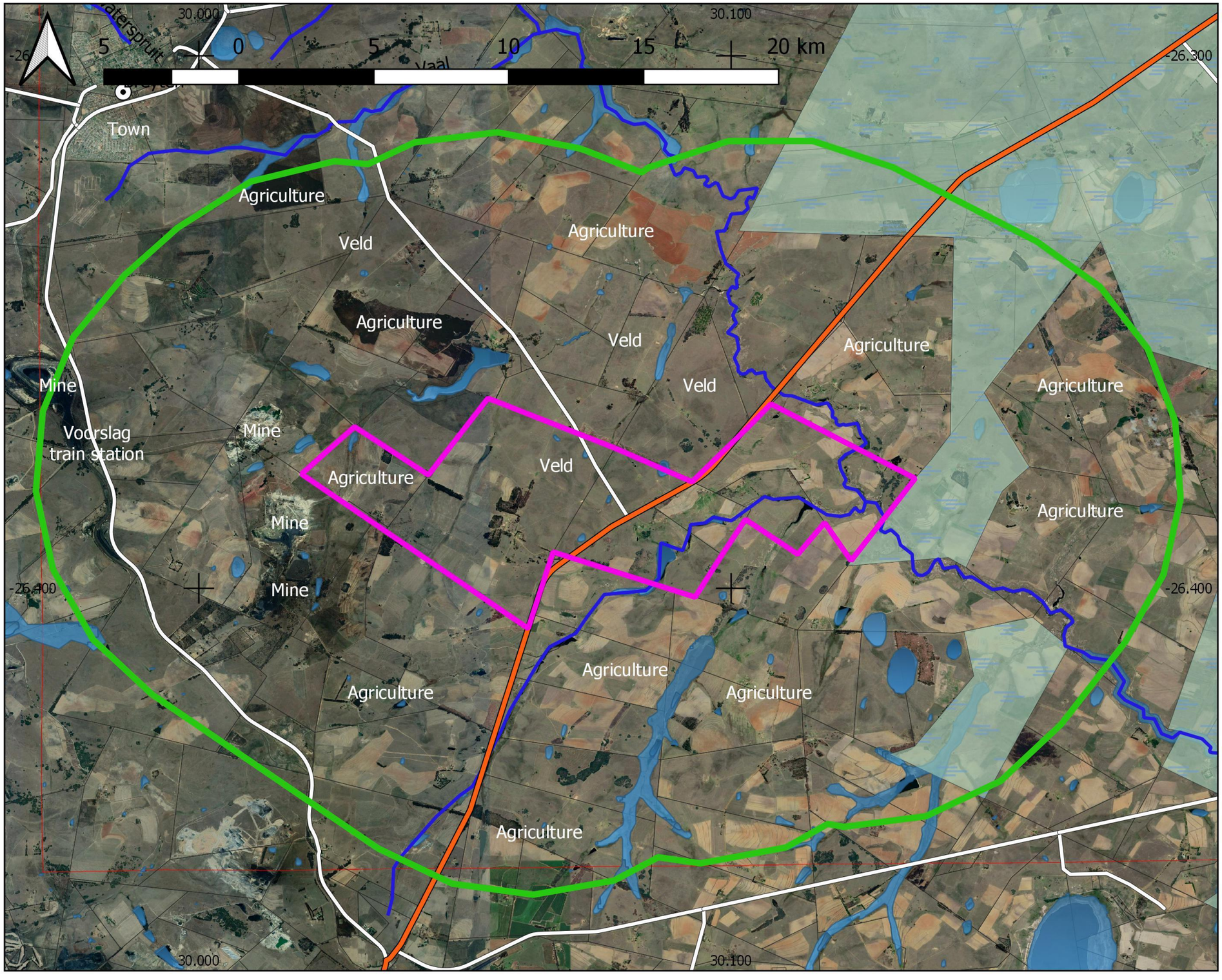
- Vlakfontein 108 IT
- Welgelegen 107 IT

FIGURE ABCDEFGHIJKLMN REPRESENTS A PROSPECTING RIGHT APPLICATION AREA APPROXIMATELY 8,463.31 Hectares (Ha) IN EXTENT IN THE MAGISTERIAL DISTRICT OF MSUKALIGWA (ERMELO), MPUMALANGA PROVINCE.
THE POINTS REPRESENT GEOGRAPHIC COORDINATES (WGS84) AS FOLLOWS:

A:	26°22'42.99"S; 30° 1'9.58"E	H:	26°23'41.37"S; 30° 7'20.80"E
B:	26°24'26.83"S; 30° 3'43.13"E	I:	26°22'46.15"S; 30° 8'3.93"E
C:	26°23'37.24"S; 30° 4'0.05"E	J:	26°21'55.30"S; 30° 6'26.53"E
D:	26°24'5.96"S; 30° 5'35.49"E	K:	26°22'48.29"S; 30° 5'33.51"E
E:	26°23'13.77"S; 30° 6'9.66"E	L:	26°21'51.80"S; 30° 3'15.53"E
F:	26°23'37.56"S; 30° 6'44.64"E	M:	26°22'43.87"S; 30° 2'35.11"E
G:	26°23'16.76"S; 30° 7'3.00"E	N:	26°22'11.32"S; 30° 1'45.16"E

CABANGA environmental

info@cabangaenvironmental.co.za
tel: 011 794 7534



VLAKFONTEIN COAL MINE PROJECT

Land Use Map

- Application Area
- 5km radius from site
- Farm Portions
- Towns
- Railways
- National Roads (N17)
- Provincial Roads
- NFEPA Rivers
- SAPAD (Chrissiesmeer Protected Environment
- NFEPA_Wetlands

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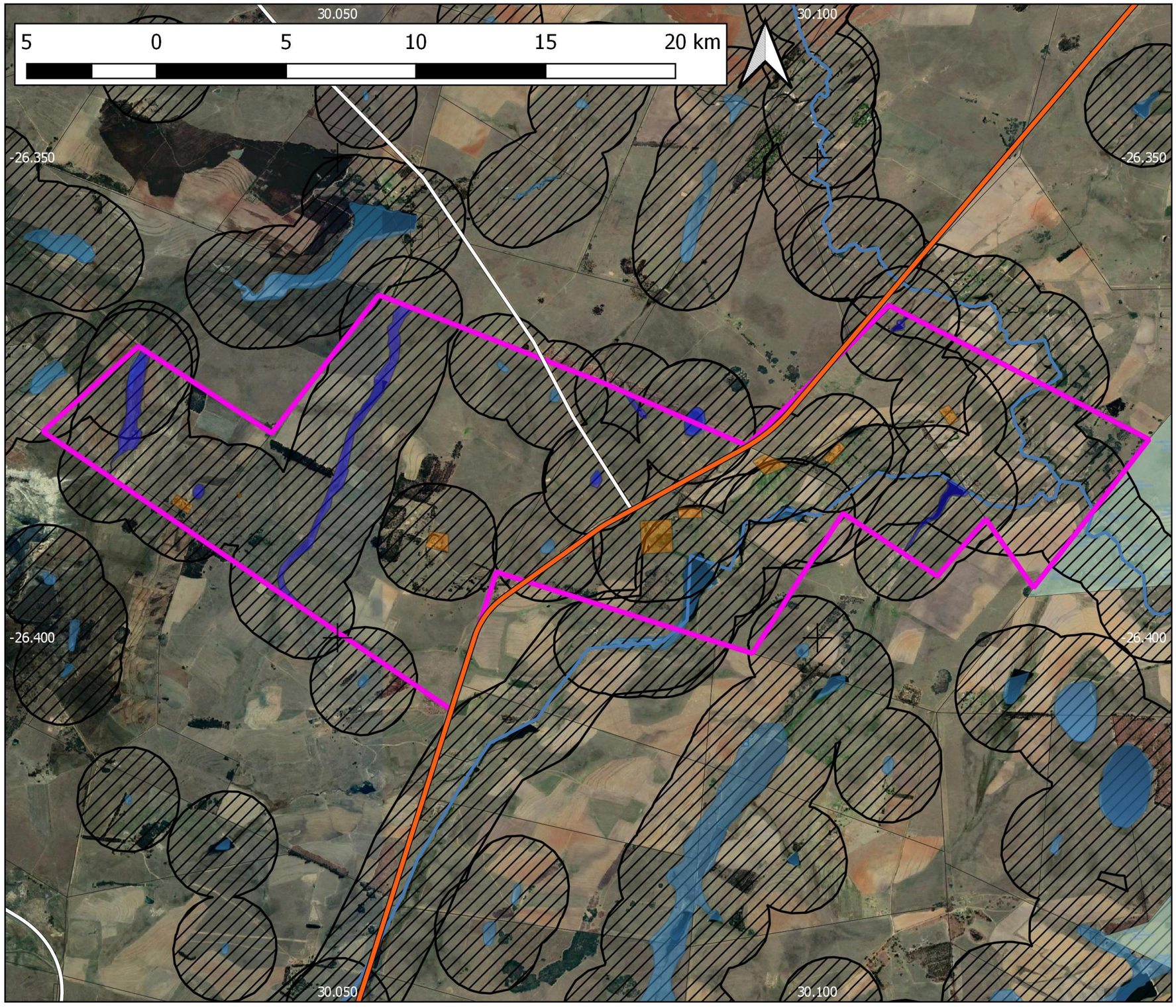

VLAKFONTEIN COAL MINE PROJECT APPLICATION FOR A PROSPECTING RIGHT FOR COAL, MPUMALANGA PROVINCE

Site features with buffers

- National Roads
- Provincial Roads
- Application Area
- Farm Portions

Site Features

- Buildings
- Wet areas
- Protected areas
- NFEPA Rivers
- NFEPA Wetlands
- 500m buffer around features - No Drilling

CABANGA environmental

info@cabangaenvironmental.co.za
tel: 011 794 7534

Appendix D: Full impact assessment tables

No	Activity	Impact / Risks	Probability	Duration	Scale / extent	Aspect sensitivity	Impact Severity	Significance	Consequence (without Mitigation)		Does the Impact cause irreversible Loss of Resources?	Can the Impact be reversed?	Can the impact be avoided/ managed/ mitigated?	Probability	Duration	Scale / extent	Aspect sensitivity	Impact Severity	Significance	Consequence (with Mitigation)	
1	Vegetation clearance (by indiscriminate vehicle movement, illegal harvesting by employees / contractors, or purposely in preparation for drill site establishment).	Damage to / destruction of sensitive flora species / habitats.	4	3	2	3	5	8	52	Moderate	No irreversible loss of resources, as vegetation will re-establish with time.	With rehabilitation and time, natural vegetation can return to the disturbed area. There is a risk of infestation of alien invasive species on disturbed sites.	The impact can be managed by ensuring the footprint of disturbance remains as small as possible, and mitigated by rehabilitating disturbed sites.	2	1	1	3	5	8	20	Low
2	Driving on site, drill site establishment.	Loss of soils due to pollution or compaction.	4	4	2	3	4	7	52	Moderate	Soils are likely to recover through natural processes, though this may take significant time - No irreversible loss of resources.	The impacts, if manifested, can be reversed by rehabilitation of the affected site(s).	The impact can be managed by ensuring the footprint of disturbance remains as small as possible, and mitigated by rehabilitating disturbed sites.	4	1	1	3	4	7	36	Low
3	Presence of personnel / contractors on site, making fires.	Veld fires and resultant damage to infrastructure, fauna & flora etc.	4	2	3	3	4	7	48	Moderate	If fires break out on site, they could cause loss of resources but this will likely not be irreversible.	Impacts of fires are generally reversible by natural processes (for flora impacts) and human intervention (infrastructure impacts).	The impact can be avoided by prohibiting fires on site, and mitigated by ensuring a fire prevention and reaction plan is put in place. Join the local Fire Protection Agency (FPA).	2	2	3	3	4	7	24	Low
4	Site roads, drill site(s)	Alteration of surface water flow patterns, erosion on disturbed sites and subsequent siltation of downstream water resources.	4	1	3	3	3	6	40	Moderate	If siltation / pollution reaches the Vaal River or its tributary the Loss of resource will take a long time to reverse through natural processes.	If manifested, the impact will be difficult to reverse, but it is possible through silt screens etc. More likely, natural processes will reverse the impact but this will take a long time.	The impact can be avoided by implementing appropriate buffer zones between activity and water resources, preventing erosion, limiting the extent of compacted areas and implementing adequate rehabilitation after drilling at each site.	4	1	2	3	3	6	36	Low
5	Presence of personnel / contractors on site, generating waste, littering.	Pollution (soil, water, air) from incorrect waste management and disposal.	4	1	3	3	2	5	36	Low	Littering will most likely not cause irreversible loss of resources.	The impact, if manifested, should be fully reversible.	The impact can be avoided by provision of proper waste management, and mitigated (if manifested) by	3	1	2	3	2	5	24	Low

No	**Activity**	**Impact / Risks**	Probability	Duration	Scale / extent	Aspect sensitivity	Impact Severity	**Significance**	**Consequence (without Mitigation)**		**Does the Impact cause irreversible Loss of Resources?**	**Can the Impact be reversed?**	**Can the impact be avoided/ managed/ mitigated?**	Probability	Duration	Scale / extent	Aspect sensitivity	Impact Severity	**Significance**	**Consequence (with Mitigation)**	
													implementing clean-up campaigns.								
6	Presence of drill rig, vehicles and personnel on site.	Alteration of the visual resource.	4	1	3	2	3	5	36	Low	Visual alteration of the site will cease once activities cease and return to the pre-prospecting visual resource - no irreversible loss of resource.	The impact is fully reversed when the drilling activities and associated infrastructure are removed from site.	The impact can be mitigated by ensuring good housekeeping, limiting impact severity, and by rehabilitation following cessation of activities.	4	1	2	2	2	4	28	Low
7	Vegetation clearance (by indiscriminate vehicle movement, or purposely in preparation for drill site establishment).	Damage to / destruction of unique / protected species.	2	5	1	5	5	10	32	Low	Potentially, if sensitive, unique, rare or protected species are affected, irreplaceable loss of resources may occur.	If unique species are lost, this is considered irreversible.	The impact can be avoided by ensuring an ecologist verifies the absence of unique species prior to disturbance.	2	5	1	5	5	10	32	Low
8	On-site activities (driving, establishing the drill site etc.).	Damage to / /destruction of heritage resources.	2	5	1	5	5	10	32	Low	If manifested, the impacts to heritage resources would cause irreplaceable loss of resources.	If manifested, the impact is irreversible.	The impact can be avoided by ensuring an archaeologist verifies the absence of heritage resources prior to disturbance.	2	5	1	5	5	10	32	Low
9	Presence of personnel / contractors on site.	Security concerns due to strangers in the area.	3	1	3	3	3	6	30	Low	The impact is not likely to cause irreversible loss of resources, or any loss of resources at all.	If manifested, the impact will be difficult to reverse, as human perception is not easily changed.	The impact can be avoided by proper community relations, local procurement and ensuring staff do not access any property illegally.	3	1	3	3	3	6	30	Low
10	Drilling.	Impacts on groundwater resources.	1	5	4	3	4	7	16	Insignificant	If manifest, the impact may cause irreversible loss of resources as groundwater contamination is very difficult to remedy. It is considered unlikely that the impact will manifest given the existing boreholes on site.	If manifested, the impact is difficult and expensive to reverse / remedy, but is likely to reverse with natural processes over a long time.	The impact is very unlikely, and can be made even less likely by properly constructing all boreholes to be drilled (if any). This will involve specialists in borehole drilling, casing and rehabilitation.	1	5	4	3	4	7	16	Insignificant