



mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

NAME OF APPLICANT: [Lesedi Lawrence Mocwagole](#)

REFERENCE NUMBER: [NC 30/5/1/1/2/11317PR](#)

ENVIRONMENTAL MANAGEMENT PLAN

SUBMITTED

**IN TERMS OF SECTION 39 AND OF REGULATION 52 OF THE MINERAL
AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002,**

(ACT NO. 28 OF 2002) (the Act)

STANDARD DIRECTIVE

Applicants for prospecting rights or Prospecting permits, are herewith, in terms of the provisions of Section 29 (a) and in terms of section 39 (5) of the Mineral and Petroleum Resources Development Act, directed to submit an Environmental Management Plan strictly in accordance with the subject headings herein, and to compile the content according to all the sub items to the said subject headings referred to in the guideline published on the Departments website, within 60 days of notification by the Regional Manager of the acceptance of such application. This document comprises the standard format provided by the Department in terms of Regulation 52 (2), and the standard environmental management plan which was in use prior to the year 2011, will no longer be accepted.

IDENTIFICATION OF THE APPLICATION IN RESPECT OF WHICH THE ENVIRONMENTAL MANAGEMENT PLAN IS SUBMITTED.

ITEM	COMPANY CONTACT DETAILS
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1. REGULATION 52 (2): Description of the environment likely to be affected by the proposed prospecting or Prospecting operation

This environmental management plan was prepared based on the information gathered on site from the observations done by Mr Lesedi Lawrence Mocwagole as well as the participation of the surface owners and the landowners of the adjacent farms.

Ndi Geological Consulting Services was appointed by Lesedi Lawrence Mocwagole, as the independent consultant to conduct the Public Participation process as part of the Environmental Management Plan Process (EMP). As stipulated in terms of Section 16 (4) b of the MPRDA (Act 28 of 2002), I&APs need to be notified and consulted with, as part of a Prospecting Right Application (PRA).

Lesedi Lawrence Mocwagole was granted Acceptance of an Application for a prospecting right in terms of Section 16(4) of the MPRDA (Act No. 28 of 2002); in respect of the Farm Ezelslaauw 5 as indicated on the acceptance letter by the Department of Mineral Resources (DMR). The interested and affected parties were invited to submit their comments or objection. A copy of the relevant Prospecting Work Programme ("PWP") was sent by registered mail to all the identified I&AP listed on 7.2.2.

1.1 The environment on site relative to the environment in the surrounding area.

Project Location

The proposed project area is located at Farm Ezelslaauw 5, Prieska, Northern Cape Province. The farm Ezel's Klaauw 5 is situated in the Prieska District, approximately 267 km south west west of Kimberley town, Northern Cape. The farm Ezel's Klaauw 5 is situated in the Prieska District, approximately 267 km south west west of Kimberley town, Northern Cape. The farm lies approximately 89 km to the north west of Prieska area known as Mountain View, and is situated on the western edge of the Eselberge Hill. . Access is via gravel roads and farm roads from the National Road N8. The farm size is a total of 19634.12 Ha with undulating terrain. The area shows signs of previous exploration and the geological feature known as heritage site (farm owner disruption) located next to the farm owner farm stead. The project is proposed for the prospecting of manganese and iron by drilling method.

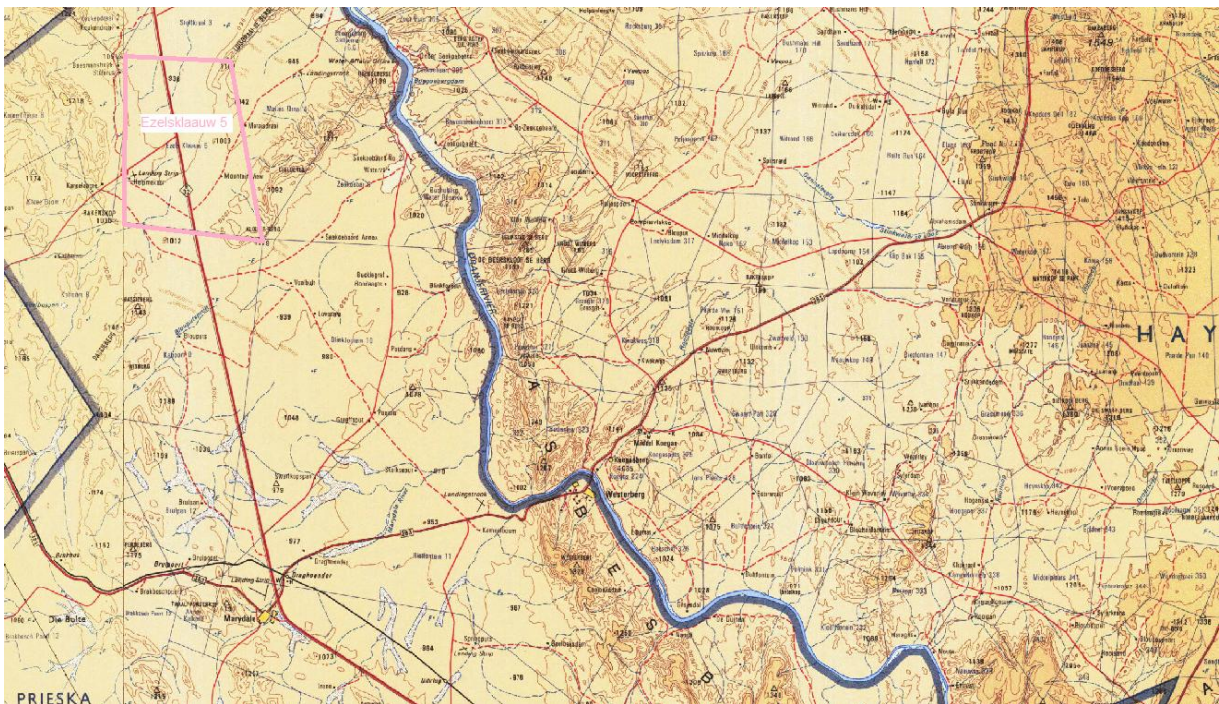


Figure 1: Locality map of the project area in relations to the nearest towns.

Property Description and Current Land Use

Farm No:	: 5
Farm Name	: Ezel's Klaauw
Portion	: 0, 1, 2 and 3
Region Name	: Prieska
Local Municipality	: Siyathemba
District Municipality	: Pixley ka Seme
Magisterial District:	: Prieska District
Province	: Northern Cape
Title Deed No	: T65188/1996, T61697/2008, and T65721/2010
Land Owner	: G H VOS FAMILIETRUST, MUN IKHEIS, REAN & ESTELLE FAMILIETRUS
Latitude	: -29.38312
Longitude	: 22.29616

Air Quality

The current sources of impacts are from the following:

Dust from gravel roads leading to properties

Dust from whirl winds and wind dust which are common in the area

Climate and rainfall

- Prieska area is located in a semi-arid region, receiving on average about 270mm of rainfall per annum. The rainfall is largely due to showers and thunderstorms falling in the summer months, October to March. The peak of the rainy season is normally March or February. The summers are very hot up to 43°C on average with cold winters.
- The Northern Cape is characterized by a harsh climate with minimal rainfall and prolonged droughts. The area's arid climate is accompanied by high evaporation due to the intense heat of the summer months. The mean annual temperature is 18.4°C. The mean annual precipitation is approximately 320mm in the area. The mean annual evaporation is approximately 2370 in the area.

Topography and drainage

- The area in terms of Water Resources Management falls within not far from the Orange River. Lower Vaal Water Management Area, as published in Government Gazette, 1 October 1999. Some insignificant, non-perennial drainage channels, which drain surface water from the

prospecting area towards the river. The area has several non-perennial drainage lines within the area of application.

- The area has an undulating topography supporting riparian thickets mostly dominated by Acacia Karoo, accompanied by seasonally flooded grasslands.

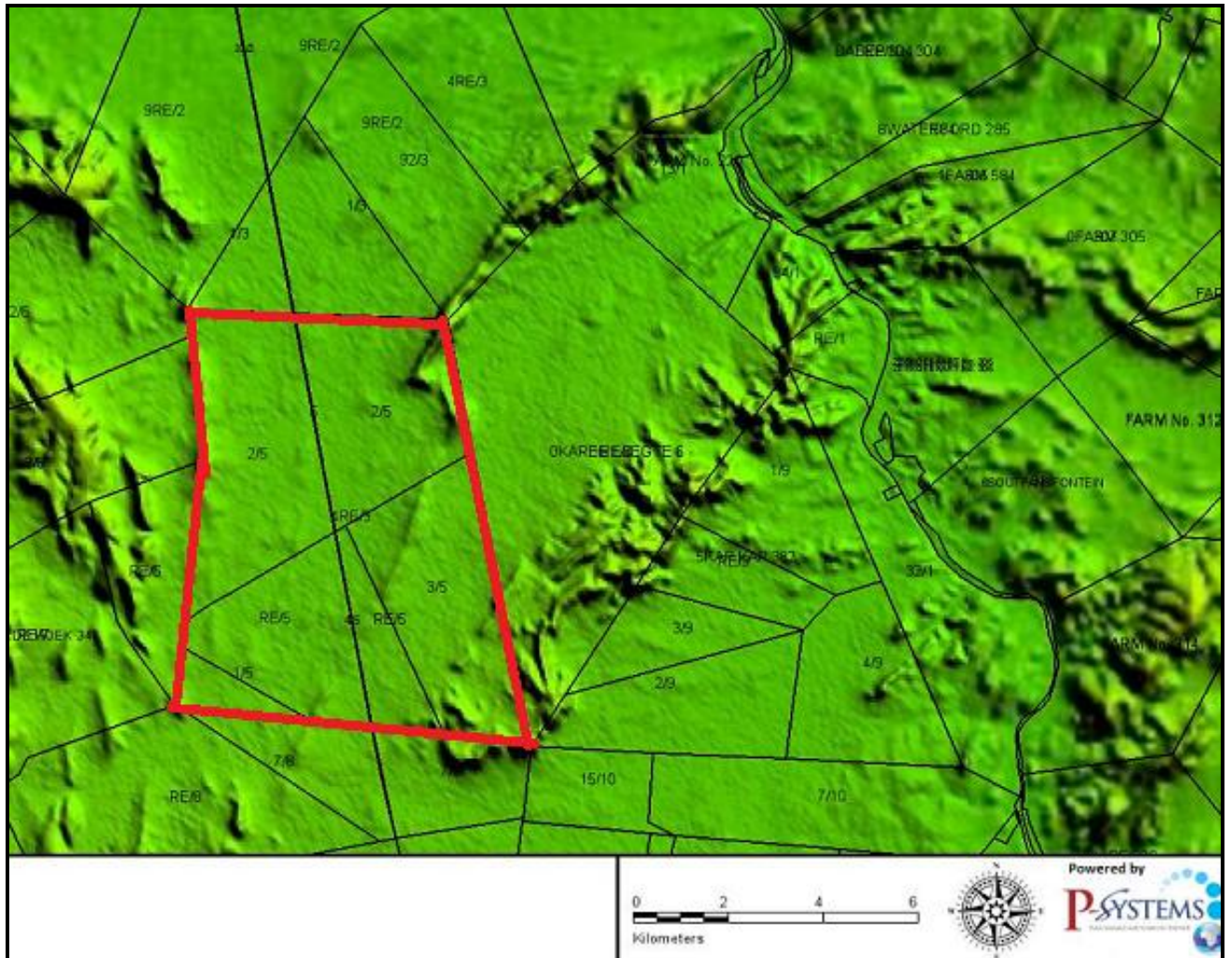


Figure 2: terrain map

Soil

The area is composed of The Savanna Biome consists of both herbaceous and woody layer elements indicating sufficient soil moisture to support trees and closed canopies. This phenomenon is visible along the perennial rivers within the area of which the proposed Prospecting area is located.

The soils are high in aerosols, soils with sandy or loamy sand texture and reddish brown.

Surface and Ground water

Ground

The ability of granite and gneiss units to host groundwater is enhanced by the presence of fractures and dykes and the associated weathering. The aquifers can be divided into weathered, intermediate and fractured bedrock zones. Borehole yields vary across the unit depending on the waterbearing features. The andesitic lava of the Allanridge formation can yield groundwater in excess of 2 l/s in fractures associated with faults or intrusions. The area is characterised with the groundwater level is between 7 to 25 metres deep on average (Van Tonder and Dennis (2003)).

Surface

General characteristics of riverbed aquifers can be summarized as: Course gravels and sands are more typical of alluvial deposits. However, flood plains consist mainly of fine silt. Towards the end of a river's course, the river slows down dumping some of the heavier materials on these flood plains. Boreholes drilled into these types of formations normally have higher yields. (DWAF, 2004).

Geology

The Olifantshoek Supergroup (Volop), in the study area is comprised of a sequence of metamorphosed sedimentary strata mainly interbedded shala, quartzite, subgraywaacke and andesitic lava overlain by a thick succession of coarse red and gray quartzite and minor shale with total thickness of approximately 7000m (Geological survey 1977, 1995 and 1998; SACS 1980; Moen 2006). The age of the Olifantshoek Supergroup ranges from 1893 Ma to 1928 Ma (Moen 2006).

In the study area, at the base of the Olifantshoek Supergroup (Volop) lie the Fairfield Formation and Ulco formation. The outcrops of the two formations area are visible east of the prominent Eselberge Hill on farm Zeekoebara 9 (Council for Geoscience, Pretoria; 250 000 geological map).

Fauna

The Savannah Biome is world renowned for the large herds of ungulates it supports, especially prior to the 1990's. A literature and desktop review of the IUCN Global List Red Data Mammals determined that the following fifteen species, which occur in the region, are considered threatened on a global scale:

Atelerix frontalis (South African Hedgehog), *Crocidura cyaena* (Reddish-grey Musk Shrew), *Crocidura hirta* (Lesser Red Musk Shrew), *Damaliscus lunatus* (Tsessebe), *Hippotragus equines* (Roan Antelope), *Hyaena brunnea* (Brown Hyaena), *Lutra maculicollis* (Spotted-necked Otter), *Mellivora capansis* (Honey Badger), *Lutra maculicollis* (Spotted-necked Otter), *Miniopterus schreibersi* (Schreibers Long Fingered Bat), *Rhinolophus clivosus* (Geoffroy's Horseshoe Bat), *Rhinolophus darling* (Darling's Horseshoe Bat) and *Rhinolophus denti* (Dent's Horseshoe Bat) and *Tatera leucogaster* (Bushveld Gerbil).

A total of thirty (30) birds are considered threatened. Of the 30 species, 57% is associated with terrestrial ecosystems and 30% specifically with grassland areas, 43% is associated with aquatic ecosystems and 23% specifically with pans.

The birds species are:

Anthropoides paradise (Blue crane), *Aquila rapax* (Tawny Eagle), *Ardeoetis kori* (Kori Bustard), *Charadrius pallidus* (Chestnut-banded Plover), *Ciconia nigra* (Black Stork), *Circus macrourus* (pallid Harrier), *Circus maurus* (Black Harrier), *Circus ranivorus* (African Marsh-Harrier), *Eupodotis caerulescens* (Blue Korhaan), *Falco biarmicus* (Lanner Falcon), *Falco naumanni*, (Lesser Kerstrel), *Falco peregrines* (Peregrine Falcon), *Glareola normanni* (Black winged Praticole), *Gyps afracanus* (White crummeniferus (Marabou Stork), *Mirafra chenianan* (melodius Lark)

Flora

➤ The Highveld Alluvial Vegetation Type has the following vegetation:

Riparian thickets;

Small trees: *Acacia karoo*, *Salix mucronata*, *ziziphus mucronata*, *celtis Africana*, *Rhus lancea*;

Tall Shrubs: *Gymnosporia buxifolia*, *Rhus pyroides*, *Dios lycioides*, *Ehretia rigida*, *Grewia flava*.

Low Shrubs: *Asparagus lancinus*, *A. Suaveolens*

Woody Climber: *Clematis brachiata*

Succulent Shrub: *Lycium hirsutum*

Graminoids: *Setaria verticillata*, *Panicum maximum*

Herb: *Pollichia campestris*

Reed beds:

Megagraminoid: *Phragmites australis*

Flooded grassland & herblands:

Low shrubs: *Gomphocarpus fruticosus*, *Felicia muricata*

Surrulent Shrub: *Salsola rabieana*

Graminoids: *Agrostis lachnantha*, *Andropogon eucomus*, *Chloris virgata*, *cynodon dactylon*, *Eragrostics plana*, *Hermarthria altissima*, *Imperata cylindrical*, *Ischaemum fasciculatum*, *Miscanthus juneus*, *Paspalum distichum*, *Andropogon appendiculatus*, *Brachiaria marlothii*, *Pycreus mundii*, *Sporobolus africanus*, *S. Fimbriatus*, *Themeda triandra*, *Urochloa panacoides*.

Herbs: *Perricaria lapathifolia*, *Alternanthera sessillis*, *Barleria macrostegia*, *corchorus asplenifolius*, *Lobelia angolensis*, *Nidorella resedifolia*, *Persicaria amphibian*, *P. Hystricula*,

Pseudognaphalium oligandrum, *Pulicaria scabra*, *Rorippa fluviatilis* var. *Fluviatilis*, *Senecio inornatus*, *Stachys hyssopoides*, *Vahlia capensis*.

Geophytic Herbs: *Crinum bulbispermum*, *Haplocarpha lyrata*

Heritage

There is an indication from farm owner provided that the farm has historic geological feature of heritage resources. South African Heritage Resources will be consulted to do an assessment on the prospecting area.

Surface Infrastructure

The proposed area has no infrastructure within it except farm owner farm stead, N10 road intersecting the farm in the middle.

1.2 The specific environmental features on the site applied for which may require protection, remediation, management or avoidance.

There are several drainage lines traversing the property, which have to be avoided if possible. If the drainage lines cannot be avoided, authorisation has to be obtained from the Department of Water Affairs should the water resources be tampered, authorisation will be through exemption of Government Notice No.704 on 4 June (Government Gazette No. 20119), General Authorisation Government Notice No. 1198 of 18 December 2009 or Section 21 c & i water use authorisation as required by the National Water Act (Act 36 of 1998). Water will be abstracted from a groundwater borehole, water use authorisation as per the National Water Act, (Act 36 of 1998) for this activity will be consulted with the Department of Water Affairs.

The historical geological feature has been identified on site by the farm owner during public participation took place on site, and such areas will be avoided, the boreholes capping, drilling vehicles and machinery will be lying low and will not affect the area. A buffer area of 60m will be maintained from the farm stead area. No water will be required for drilling purpose.

The following areas must be avoided by all means during the proposed prospecting operation as shown in figure 3;

There are some specific areas and environmental features within the proposed application area which may require protection, remediation, management or avoidance when conducting the proposed operation; these are the roads as indicated on figure 2.

- No boreholes or drilling will take place within 100 metres of any roadway without permission;
- No boreholes or drilling will take place within 100 metres of any body of water or watercourse;
- No boreholes or drilling will take place within 100 metres of any farm stead development without the permission of the Minister in writing;
- Buffers from 100 metres must be left along bodies of water for both erosion protection and aesthetic reasons, and or outside the floodplain and above the 1:50 year flood level mark.
- The width of the buffer zone will depend on soil characteristics, the steepness of the slope leading to bodies of water and the type of road construction;
- An adequate buffer zone of at least 100 metres should be maintained between the yard or lay down area and the nearest body of water;
- A buffer zone of 100m around heritage sites, including buildings older than 60 years and cemeteries.

1.3 Map showing the spatial locality of all environmental, cultural/heritage and current land use features identified on site.

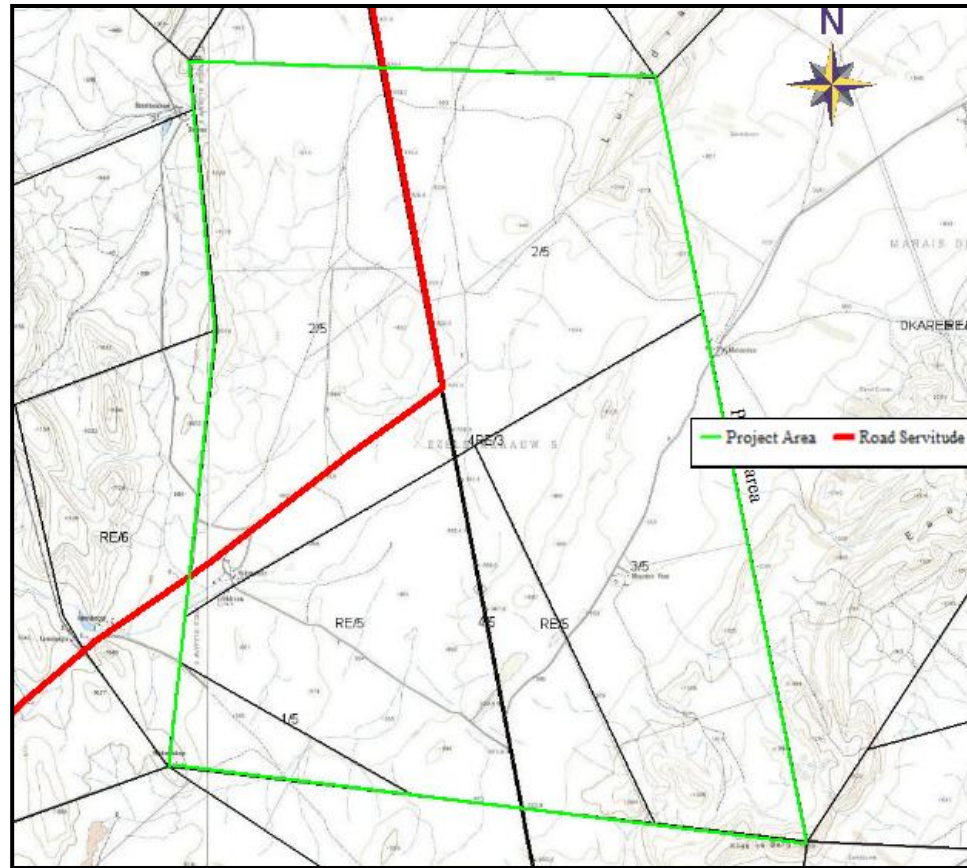


Figure 3: Surface infrastructure and Landscape of the project area.

1.4 Confirmation that the description of the environment has been compiled with the participation of the community, the landowner and interested and affected parties.

Consultation with interested and affected parties was done personally with the farm owners and a copy of this EMP was sent to them as well. Other interested and affected parties were notified through an advert on DFA local paper. Please find attached communication.

2. REGULATION 52 (2) (b): Assessment of the potential impacts of the proposed prospecting or Prospecting operation on the environment, socio- economic conditions and cultural heritage.

2.1. Description of the proposed prospecting or prospecting operation.

2.1.1 The main prospecting activities (e.g. access roads, topsoil storage sites and any other basic Prospecting design features)

Access Road

The road to be used to access the site will be existing gravel roads. The small portion of about 1000 m² road maybe required to access the prospecting points.

Top Soil

After stripping vegetation in the drill areas, top soil will be stockpiled and a layer of berm created to protect soil from being washed away by rain and covered by a synthetic plastic to avoid being blown away.

Toilet Facilities

The operation period at sites will be within 7:00 to 17:00 and about ±7 people will be working at site, chemical toilets will be sourced from the contractor and will be serviced by weekly and ensure that there will be no spillages.

Waste Water and refuse disposal

Due to minimal number of employees, domestic waste generated will be stored into a delineated container marked according to waste type; the area will lined with plastic and will be disposed into the municipality disposal site. Food and domestic water will be brought to site for use by employees.

Water will be required for drinking and will require 20 litres per day to be brought on site by the drilling crew.

Vehicle Maintenance Yard

The drill rig and vehicles will have oil trap trays and a concrete bunded area will be sited to maintenance of vehicles. The vehicles will be inspected every day before use for indication of leaks. Any spillages of oil, fuel will be handled by the contractor who will collect the contaminated samples and dispose properly.

Accommodation

There will be no accommodation facilities at site, employees will come to site during normal working hours and reverted back to their homes.

2.1.2. Plan of the main activities with dimensions

Machinery that will be used at site will be the 1 drilling rig and 3 small vehicles to access the site. . Topsoil of average 400 mm will be stripped with the shovel and stockpiled next to the borehole with protection barrier, to prevent runoff. Drilling program will be put into practice where the grid spacing will be set to 400 M x 400 M with an average depth of 100 m, followed by a second round of infill drilling as to whether to continue with the prospecting programme or not. The collar position of all boreholes will be surveyed. Results from this phase will be used to inform the plan and schedule of the subsequent drilling campaign. The exact location of the boreholes to be drilled is unknown since this stage is controlled by information from phase 1.

2.1.3 Description of construction, operational, and decommissioning phases.

Construction Phase

Construction phase will include construction on 1 cubicle office, minor access leading roads to lead to the drilling point, and preparing of topsoil stockpiling area. A small vehicle maintenance yards will be constructed and chemical toilets set up. None of the facilities will be located within 100 m from the surface water resource and surface owner house.

Phase 1: Desktop Studies

The geological investigations comprises of collecting various geological literature relating to the area of interest. This literature may be obtained from relevant books and journals. Information can also be inquired from companies which have previously mined in the area. Satellite images as well as geological maps will be used to identify possible Prospecting target areas.

Operational Phase

Phase 2: Drilling, Environmental Management, Rehabilitation

Detailed drilling of identified target areas, Petrography and mineralogy study; Chemical analyses and 3D mapping of drilling results. The principal of sampling is to determine the quality and grade of the iron and manganese as well as the depth and extent at which the ore is found.

Phase 3: Core Drilling

Core drilling will be carried out on selected manganese and iron occurrences that showed that economic quantities of manganese and iron could be present. This drilling will be designed to examine the manganese and iron in depth, to establish the structures of the different types of manganese and iron and to furnish samples for grade analyses.

Phase 4: Feasibility Studies

Geological modelling, bankable feasibility and geological report (months 54 to 60)

This written report comprises of all prospecting results as well as recommendations for future activities. Additional geological maps will also be used for verification of the report. When the prospecting period is done decisions will be made regarding the necessity of future prospecting or application for a Prospecting right.

Decommissioning Phase

Decommissioning will be dealt with as stated in Mineral and Petroleum Resources Development Act (Act 28 of 2002) Section 44. Given the nature of the project decommissioning phase will require removal of facilities (vehicle maintenance slab), rehabilitation of pits and ensuring vegetation growth and conforming topography, removal of the site plant, and chemical toilets. A performance assessment report will be drafted based on the state of the rehabilitation. Photographs before initiation of activity and after decommissioning phase will be taken. A risk assessment report after decommissioning will be drafted to be addressed to the Department of Mineral Resources.

ise	Activity (what are the activities that are planned to achieve optimal prospecting)	Skill(s) required (refers to the competent personnel that will be employed to achieve the required results)	Timeframe (in months) for the activity)	Outcome (What is the expected deliverable, e.g. Geological report, analytical results, feasibility study, etc?)	Timeframe for outcome (deadline for the expected outcome to be delivered)	What technical expert will sign off on the outcome? (e.g. geologist, mining engineer, surveyor, economist, etc)
	<u>Non-invasive</u> Literature Review	Geologist	Months 1 to 4	Data acquisition from government or private sources.	Month 4	Geologist
	Geological mapping	Geologist	Months 5 to 10	Geological maps/plans of the property.	Month 10	Geologist
	Geophysical survey	Geophysicist	Months 11 to 14	Magnetic/gravity data	Month 14	Geophysicist
	Surveying and Pegging	Surveyor	Months 15 to 16	labeled pegs	Month 16	Surveyor/Geologist
	Progress report	Geologist	Months 17 to 18	Detailed progress report.	Month 18	Project Geologist
	<u>Invasive</u> Boreholes	Geologist	Months 19 to 28	Borehole chips data/core	Month 28	Geologist
	<u>Non-invasive</u> Sample analysis	Laboratory	Months 19 to 28	Certified sample results	Month 28	Laboratory manager
	Progress report	Geologist	Months 29 to 30	Outcome of drilling/sample results.	Month 30	Qualified geologist
	<u>Non-invasive</u> Geological Modeling	Geologist	Months 31 to 32	Databases and 3-D geological models	Month 32	Resource geologist
	<u>Non-invasive:</u> Analytical Desktop studies/ including decision Making	Geologist	Months 33 to 36	Competent Person's Report (CPR)	Month 36	Professionally Qualified Persons

2.1.4 Listed activities (in terms of the NEMA EIA regulations)

Identification of potential impacts (Refer to the guideline)

According to Listing Notice 1: List of activities and competent authorities identified in terms of Sections 24(2) and 24D of the National Environmental Management Act, 1998 (Act no. 107 of 1998)

of Government Gazette no 33306, No. R. 544 the following activities are applicable according to NEMA EIA regulations.

Activity 19: Any activity requiring a Prospecting right in terms of Section 16 and 18 respectively of the Mineral and Petroleum Resources Development Act, 2002 (Act no 28 of 2002) or renewal thereof, the competence authority is the minister of the Department of Mineral Resources. The identified listed activities according to NEMA regulations will be consulted with the Department of Environmental Affairs.

2.2.1 Potential impacts per activity and listed activities.

Table 1

Activity	Potential Impact	Description of potential impacts
Boreholes	<ul style="list-style-type: none"> Air quality: 	<p>Drilling and boreholes will emit dust that will affect the air quality within site and the surrounding area.</p> <p>Emission of carbon monoxide from mine vehicles may increase on the carbon dioxide levels in the area</p>
	<ul style="list-style-type: none"> Geology 	Stratigraphy of the geological formation will be dismantled
	<ul style="list-style-type: none"> Land use 	The productivity of the land on other development sectors like agriculture and residence will be highly reduced
	<ul style="list-style-type: none"> Noise 	Drilling and boreholes will affect noise in the area
	<ul style="list-style-type: none"> Water Resources 	<p>Surface water resources catchment/drainage area will be highly affected should any activity be in the buffer zone of the water resource and if not regulated by the competent authority.</p> <p>Oils and diesel spills will affect both ground and surface water is not cleaned immediately</p>
	<ul style="list-style-type: none"> Oil, Diesel Spills and Sewage 	Oils and diesel spills will affect the environment, ground and surface water is not cleaned immediately. Chemical toilets will be regularly cleaned
Drilling/ Rehabilitation	<ul style="list-style-type: none"> Air quality: 	Backfilling of boreholes with overburden material and frequent movement of drilling rig and will result in dust

Activity	Potential Impact	Description of potential impacts
		Emission of carbon monoxide from mine vehicles may increase on the carbon dioxide levels in the area
	<ul style="list-style-type: none"> • Geology 	After boreholes geology will not be further disturbed
	<ul style="list-style-type: none"> • Land use 	The productivity of the land on other development sectors like agriculture and residence will be highly reduced
	<ul style="list-style-type: none"> • Noise 	Heavy mine vehicles, operation of plant, drilling and boreholes will affect noise in the area
	<ul style="list-style-type: none"> • Water Resources 	Surface water resources catchment/drainage area will be highly affected should any activity be in the buffer zone of the water resource and if not regulated by the competent authority
	<ul style="list-style-type: none"> • Oil, Diesel Spills and Sewage 	Oils and diesel spills will affect the environment, ground and surface water is not cleaned immediately. Chemical toilets will be regularly cleaned

2.2.2 Potential cumulative impacts.

Potential Impact on:	Type of Impact	Description
Air Quality	Minimal	Dust will be generated during drilling but will be suppressed immediately
Vegetation	Minimal	Clearing will be done on selected points where prospecting boreholes will be drilled
Surface Water Resources	Medium	Storm water contaminated during heavy rainfalls affecting the non-perennial drainage lines, polluted soils will be collected by an accredited waste collector within 24 hours before the impacts reach the groundwater table
Groundwater	Minimal	Limited amount will be abstracted for the prospecting activities
Noise	Minimal	Drilling machine may generate noise, but the noise will be minimal due to the delineated distance from residential area, but
Soil pollution	Minimal	Mine vehicles movement may pollute oil spills will be trapped. Applicable sections of the National Environmental Management: Waste Act 59 of 2008 will be adhered to for the handling of general and

		hazardous waste.
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2.2.3 Potential impact on heritage resources

South African Heritage Resources will be consulted to do an assessment on the prospecting area.

2.2.4 Potential impacts on communities, individuals or competing land uses in close proximity. (If no such impacts are identified this must be specifically stated together with a clear explanation why this is not the case.)

No negative impacts that will result from this prospecting activity. Therefore positive impacts will be to uplift the surrounding communities should this prospecting right turns to a Prospecting right. Meaning the area will be developed in terms of infrastructure and economic changes that may occur.

2.2.5 Confirmation that the list of potential impacts has been compiled with the participation of the landowner and interested and affected parties,

Please find attached communication.

2.2.6 Confirmation of specialist report appended.

No specialist was conducted.

3. REGULATION 52 (2) (c): Summary of the assessment of the significance of the potential impacts and the proposed mitigation measures to minimise adverse impacts.

3.1. Assessment of the significance of the potential impacts

Potential impact	Significance Rating (Low, Medium and High)			Duration
	Low	Medium	High	
Air Quality	Low			Long
Vegetation	Low			Medium
Surface Water Resources		Medium		Medium
Groundwater	Low			Short
Noise	Low			Medium

Soil pollution	Low			Medium
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3.1.1 Criteria of assigning significance to potential impacts

An assessment of the nature, extent, duration, probability and significance of the identified potential environmental, social and cultural impacts of the Prospecting operation, including the cumulative environmental impacts.

“assessment of each identified potentially significant impact must include

- (i) cumulative impacts,
- (ii) the nature of the impact,
- (iii) the extent and duration of the impact,
- (iv) the probability of the impact occurring,

Definitions:

- **Activity:** A specific deed, action or function that takes place at the Operation such as; -Stripping topsoil. - Prospecting.
- **Aspect** Considered having a direct effect of an activity, which has an influence on the environment. It is either categorised as neither positive nor negative. For example: -Stripping topsoil (an activity) causes the breakup of the natural soil structure and dust (both are aspects of the activity). -Prospecting (an activity) causes dust and noise (an aspect).
- **Impact:** The end-result of an aspect that occurred due to an activity, resulting in an influence on the environment. The influence is either positive or negative. The determinants of whether an impact is positive or negative are subjective. For example: -Loss of topsoil structure, an aspect of stripping of topsoil (an activity), cause degradation of the soil to promote promulgation of indigenous vegetation. -Dust and noise, an aspect of Prospecting (an activity), has a negative impact on surrounding communities.

Criteria to consider when Deter Prospecting Significance The ranking of impacts/determination of significance is estimated using two criteria, namely:

Consequence and Probability.

The definitions of each are provided below.

The Consequence of an impact resulting from an aspect is expressed as a combination of:

- **Nature of impact:** An indication of the extent of the damage (negative impacts) or benefit (positive impacts) the impact inflicts on natural, cultural, and/or social functions (environment).
- **Extent of impact:** A spatial indication of the area impacted (i.e.how far from activity the impact is realised) or the extent of the significance of the environmental attribute.
- **Duration of impact:** A temporal indication of the how long the effects of the impact will persist, assuming the activity creating the impact ceases. For example, the impact of noise is short lived (impact ceases when activity ceases) whereas the impact of removing topsoil exists for a much longer period of time.
- **Frequency of the aspect occurring:** An indication of how often an aspect, as a result of a particular activity, is likely to occur. Note that this does not assess how often the impact occurs as it applies only to the aspect. For example Prospecting takes place daily while the resultant frequency of the impacts occurring will vary based on a number of factors.
- **The Probability** of an impact resulting from an aspect is expressed as:
- **Probability of impact occurring:** An estimated indication of the potential for an impact to occur.

DeterProspecting Significance the Significance of an impact:

Considering Consequence and Probability (defined above), Significance is an indication of how serious a negative impact is anticipated to be and how beneficial a positive impact may be.

Significance is considered to be High, Medium or Low.

Consequence	Nature of the potential Impact
Low	Impacts affect the environment in such a way that natural, cultural and / or social functions and processes are affected insignificantly.
Low-Medium	Impacts affect the environment in such a way that natural, cultural and / or social functions and processes are altered in a minor way.
Medium	Impacts affect the environment in such a way that natural, cultural and / or social functions and processes are altered.
Medium-High	Impacts affect the environment in such a way that natural, cultural and / or social functions and processes are severely altered.
High	Impacts affect the environment in such a way that natural, cultural and / or social functions and processes will be irreversibly changed.
Consequence	Extent of the potential impact
Site	Impact occurs within a functional area
Neighbouring	Impact occurs on neighbouring properties
Local	Impact occurs within a 10km radius of the site.
Regional	Impact occurs within a 100km radius of the site.(or environmental attribute of regional importance)
National	Impact occurs within South Africa. (or environmental attribute of national importance)
Consequence	Duration of the potential impact
Very Short term	The impact will cease within 1 week if the activity is stopped.
Short - term	The impact will cease within 1 year if the activity is stopped.
Medium - term	The impact will cease within 5 years if the activity is stopped.
Long - term	After the operational life of the operation.
Permanent	Where mitigation either by natural process or by human intervention will

	not occur in such a way or in such a time span that the impact can be considered transient.
Consequence	Frequency of the activity causing the potential impact
Annually or less	Activity occurs at least once in a year or less frequently.
6 months	Activity occurs at least once in 6 months.
Monthly	Activity occurs at least weekly to once a month.
Weekly	Activity occurs on operational days.
Daily	Activity occurs daily.
Consequence	Probability of Potential Occurrence of the impact
Improbable	The possibility of the impact materialising is very low either because of design or historic experience.
Low	The possibility of the impact materialising is low either because of design or historic experience.
Medium	There is a possibility that the impact will occur.
High	There is a distinct possibility that the impact will occur.
Definite	The impact will occur regardless of any prevention measures.

3.1.2 Potential impact of each main activity in each phase, and corresponding significance assessment

- Dust- minimal due to remote location from residential and cultivated areas (more than 500m from the nearest receptors and when produced by percussion drilling settles down naturally over a few hundred meters distance).
- Noise- is negligent due to distance from receptors
- Potential fuel and oil spillages- if spillages occur the contaminated soil will be removed and recycled by the contractor.

- Destruction of vegetation- destroyed vegetation will be re-planted with seedlings after gravel and soil compaction.
- Waste-Chemical toilets have minimal impact of the environment since they will be regularly serviced by the contractor.

3.1.3 Assessment of potential cumulative impacts.

These impacts are minimal due to the small scale of disturbance and remote location of the licence.

3.2 Proposed mitigation measures to minimise adverse impacts.

- Dust suppression will be an ongoing activity on the daily basis till the closure of the operation.
- Soil contaminated by oil and fuel spills will be removed and recycled by the contractor within 24 hours.
- Water will be pumped only when necessary and authorisation from Department of Water Affairs will be obtained

3.2.1 List of actions, activities, or processes that have sufficiently significant impacts to require mitigation.

Impact Description	Impact rate	Mitigation
Geology: the impact of geology will be highly negative on the site	Low	Backfilling of the boreholes and pits that have been drilled during prospecting by concurrent rehabilitation
Soil: Where vehicles will move on topsoil	Medium	Vehicle movement will be limited and only the existing roads will be used Chemicals will be handled in a responsible manner according to MEMWA to prevent spillages and contamination of soil.
Air Quality: loading	Medium	Dust suppression will be an ongoing activity

and boreholes of roads		on the daily basis till the closure of the operation.
Water Loss: dewatering screens	Medium	Water will be pumped only when required and recycled into the screens when available
Water Resources: Non perennial drainage lines	Medium	Drainage lines will be avoided, where not avoidable authorisation will be required from Department of Water Affairs
Vegetation: on the boreholes will be removed and proper storing of topsoil will be done	High	Vehicle movement will be limited to the exciting roads and disturb area only. Topsoil with seed will be store elsewhere and used for rehabilitation purposes.

3.2.2 Concomitant list of appropriate technical or management options (Chosen to modify, remedy, control or stop any action, activity, or process which will cause significant impacts on the environment, socio-economic conditions and historical and cultural aspects as identified. Attach detail of each technical or management option as appendices)

Geology

Environmental Management/Mitigation measures/Plans

- No mitigation will apply on the geology, only the backfilling with waste rocks material. With care, the removal of deposits by means of earthmoving equipment's will be done to properly seal the pits and rehabilitate.

Closure Objective

- Optimal exploitation of the mineral resources in order to ensure and facilitate better rehabilitation planning. The overburden and topsoil must be backfilled in a responsible and planned manner in order to achieve conformity with surrounding undisturbed area.

Topography

Environmental Management/Mitigation measures/Plans

- All boreholes should be backfilled with waste material and overburden material, covered with a layer of topsoil

- Access to active boreholes should be controlled. All Prospecting activities should be restricted within the prospecting right and the fenced off area.
- Surface run off (trench with berm) put in the active boreholes and also rehabilitation tailings dumps to prevent the loss of growth medium on top of the dumps.

Closure Objective

- Rehabilitation of the new topography should blend well in with the surrounding landscape and allow normal surface drainage to continue. Thus the new landscape features would be stable and not pose any safety hazards to human or animals.

Environmental Management/Mitigation measures/Plans

- Any future expansion of the boreholes or constructions of infrastructure should be preceded by the removal of top soil; the surface of any new areas to be disturbed must be kept to a minimum. All available topsoil or overburden material should be removed and stockpiled for rehabilitation purposes.
- Implementation and maintaining of cut-off trenches/berms to prevent soil erosion. Re-vegetation of exposed soil surface should happen as soon as a particular activity has ceased in order to act as a sufficient erosion prevention measure.
- Vehicles to be inspected to ensure no oil and hydraulic fluids leaks occur. Servicing of vehicles must be on banded area.

Closure Objective

- Topsoil should be replaced during rehabilitation phase.
- No erosion must be visible and no potential for soil erosion must be present at closure.
- No soil contamination must be visible or known before closure can be given.
- No compaction of any roads or other area must be present during closure. If the soil structure is disturbed mitigation measures e.g. the use of organic material, lime and fertilisers must be implemented to restore the soil structure
- The soil must be fertile enough to sustain indigenous vegetation.

Vegetation

Environmental Management/Mitigation measures/Plans

- No mitigation expects to replace the vegetation by re-seeding of grasses
- Eradicate exotic weeds and invader species if it invades the terrain. All illegal invader plants and weeds shall be eradicated as required in terms of Regulation 15 and 16 of the Act on Conservation of Agricultural Resources, 1983 (Act no. 43 of 1983) which list the plants.
- An invasion and alien control programme must be drafted and implemented by the mine.

Closure Objective

- During rehabilitation indigenous vegetation cover comprising of local plant species should be established in order to ensure a well sustainable plant cover that would be able to prevent erosion of the replaced topsoil on the disturbed Prospecting site exposed surfaces, tailings dumps etc.
- No invasive and alien species must be present after closure. A post-closure control program must be implemented
- No excessive dust must be present during the normal growth season after closure.

Surface and Ground Water

Environmental Management/Mitigation measures/Plans

- Storm water must be implemented to divert clean water away from the Prospecting site and keep contaminated water contained.
- Vehicles must be inspected to ensure that no oil and hydraulic fluids leaks occurring. All oil spills on the soil to be removed and bio-remediated.
- Training with respect to pollution hazards and their impacts on the environment must be given as part of the induction training
- An incidence register for this purpose must be kept
- Drips trays must be available and used where emergency repairs is done

Closure Objective

- The berms creating storm water trenches will be levelled to ensure conformity with surrounding area.
- Groundwater boreholes will be capped and sealed

Air Quality

Environmental Management/Mitigation measures/Plans

- Daily spraying of roads with water will limit dust. Inspection should be done on a daily basis. If new roads are constructed, in co-ordination with the surface owner, dust pollution must be mitigated by means of spraying.

Closure Objective

- Rehabilitation of the boreholes would ensure that no dust is generated from exposed surface.

Noise

Environmental Management/Mitigation measures/Plans

- Ensures the required silencers are placed on all engines and compressors. No mitigation to reserve hooters is allowed due to safety standards.

Closure Objective

- There will be no noise attributed to Prospecting generated from the site after closure. During decommissioning and closure phase some earth moving equipment and trucks would be utilized for rehabilitation.

➤ **Waste-**

Ensure storm water is not affected by waste generated affecting the nearby water resources (non-point pollution).

Closure objective- Domestic waste will be very minimal since food will be sourced from town, however if waste is generated it will be stored into a marked bin and disposed into the local municipality landfill site. Sewage waste will be handled by means of chemical mobile toilets.

3.2.3 Review the significance of the identified impacts

ACTIVITY	POTENTIAL IMPACT	DURATION	SIGNIFICANCE RATING		
			Low	Medium	High
Soil Stripping	Geology	n/a	X		
	Soil	Long	X		
	Air Quality	Long	X		
	Water Loss	Long	X		
Stockpiles	Geology	Long	X		
	Soil	Medium	X		
	Air Quality	Short	X		
	Water Loss	Medium	X		
Roads	Geology	Long			X
	Soil	Medium		X	
	Air Quality	Long	X		
	Water Loss	Medium	X		
Office container	Geology	Short	X		
	Soil	Short	X		

ACTIVITY	POTENTIAL IMPACT	DURATION	SIGNIFICANCE RATING		
			Low	Medium	High
	Air Quality	Short	X		
	Water Loss	Medium	X		

4. REGULATION 52 (2) (d): Financial provision. The applicant is required to-

4.1 Plans for quantum calculation purposes.

(Show the location and aerial extent of the aforesaid main Prospecting actions, activities, or processes, for each of the construction operational and closure phases of the operation).

The facilities to be constructed will be the 1000 m² access road to pits, the 10mx10m concrete slab for vehicle maintenance. The office will be a container mobile office. To convert the area of the boreholes size into hectares for the area affected during prospecting (boreholes and drill truck station), the total numbers of boreholes will be multiplied by 10 and 5; and again by the number of boreholes that will be drilled, the total divided by 10000 to convert into Ha.

$$\text{Thus } \frac{10.5 \cdot (20)}{10000}$$

Therefore, 0.1 Hectares was used to derive the rehabilitation cost, 1000 m² for access road to the two trenches. Therefore using the calculation formula of quantum analyses, 46728.37 was analysed as funds required for rehabilitation costs.

4.2 Alignment of rehabilitation with the closure objectives

(Describe and ensure that the rehabilitation plan is compatible with the closure objectives determined in accordance with the baseline study as prescribed).

4.2.1 Geology

Environmental Management/Mitigation measures/Plans

- No mitigation exists on the geology, only the backfilling with waste rocks material. With care, the removal of deposits by means of earthmoving equipment will be done.

Closure Objective

- Optimal exploitation of the mineral resources in order to ensure and facilitate better rehabilitation planning. The overburden and topsoil must replace in a responsible and planned manner in order to achieve some conformity with surrounding undisturbed area.

4.2.2 Topography

Environmental Management/Mitigation measures/Plans

- All boreholes should be backfilled with waste material and overburden material, covered with a shallow layer of topsoil
- Access to active boreholes should be controlled. All Prospecting activities should be restricted to the fenced off area.
- Surface water run off (trench with berm wall) put in the active boreholes and also rehabilitation tailings dumps to prevent the loss of growth medium on top of the dumps.

Closure Objective

- Rehabilitation of the new topography should blend well in with the surrounding landscape and allow normal surface drainage to continue. Thus the new landscape features would be stable and not pose any safety hazards to human or animals.

4.2.3 Soil

Environmental Management/Mitigation measures/Plans

- Any future expansion of the boreholes or constructions of infrastructure should be preceded by the removal of top soil; the surface of any new areas to be disturbed must be kept to a minimum. All available topsoil or overburden material should be removed and stockpiled for rehabilitation purposes.

- Implementation and maintaining of cut-off trenches/berms to prevent soil erosion. Re-vegetation of exposed soil surface should happen as soon as a particular activity has ceased in order to act as a sufficient erosion prevention measure.
- Vehicles to be inspected to ensure no oil and hydraulic fluids leaks occur. No servicing of vehicles must occur on a steel floor in an area allocated for that.

Closure Objective

- Topsoil should be replaced during rehabilitation phase.
- No erosion must be visible and no potential for soil erosion must be present at closure.
- No soil contamination must be visible or known before closure can be given.
- No compaction of any roads or other area must be present during closure. If the soil structure is disturbed mitigation measures e.g. the use of organic material, lime and fertilisers must be implemented to restore the soil structure
- The soil must be fertile enough to sustain vegetation.
- The small berms creating storm water trenches will be levelled to ensure conformity with surrounding area.

4.2.4 Vegetation

Environmental Management/Mitigation measures/Plans

- No mitigation expects to replace the vegetation by re-seeding of grasses
- Eradicate exotic weeds and invader species if it invades the terrain. All illegal invader plants and weeds shall be eradicated as required in terms of Regulation 15 and 16 of the Act on Conservation of Agricultural Resources,1983 (Act no. 43 of 1983) which list the plants.
- An invasion and alien control programme must be drafted and implemented by the mine.

Closure Objective

- During rehabilitation indigenous vegetation cover comprising of local plant species should be established in order to ensure a well sustainable plant cover that would be able to prevent erosion of the replaced topsoil on the disturbed Prospecting site exposed surfaces, tailings dumps etc.

- No invasive and alien species must be present after closure. A post-closure control program must be implemented
- No excessive dust must be present during the normal growth season after closure.

4.2.6 Air Quality

Environmental Management/Mitigation measures/Plans

- Inspection should be done on a daily basis. If new roads are constructed, in co-ordination with the surface owner, dust pollution must be mitigated by means of spraying.

Closure Objective

- Rehabilitation of the boreholes would ensure that no dust is generated from exposed surface.

4.2.7 Noise

Environmental Management/Mitigation measures/Plans

- Ensures the required silencers are placed on all engines and compressors. No mitigation to reserve hooters is allowed due to safety standards.

Closure Objective

- No noise attributed to Prospecting generated from the site after closure anymore. During decommissioning and closure phase some earth moving equipment and trucks would be utilized for rehabilitation.

4.3 Quantum calculations.

(Provide a calculation of the quantum of the financial provision required to manage and rehabilitate the environment, in accordance with the guideline prescribed in terms of regulation 54 (1) in respect of each of the phases referred to).

		CALCULATION OF THE QUANTUM						
Applicant: Lesedi Lawrence Mocwagole					Location: Ezelslaauw			
Evaluators:					Date: Oct-09			
No.	Description	Unit	A	B	C	D	E=A*B*C*D	
			Quantity	Master Rate	multiplificatio factor	Weighting factor 1	Amount (Rands)	
1	Dismantling of processing plant and related structures (including overland conveyors and powerlines)	m3	0	11.58	1.1	1.05	0	
2 (A)	Demolition of steel buildings and structures	m2	0	161.24	1.1	1.05	0	
2(B)	Demolition of reinforced concrete buildings and structures	m2	0	237.62	1.1	1.05	0	
3	Rehabilitation of access roads	m2	1000	28.85	1.1	1.05	33321.75	
4 (A)	Demolition and rehabilitation of electrified railway lines	m	0	280.05	1.1	1.05	0	
4 (A)	Demolition and rehabilitation of non-electrified railway lines	m	0	152.75	1.1	1.05	0	
5	Demolition of housing and/or administration facilities	m2	0	322.48	1.1	1.05	0	
6	Opencast rehabilitation including final voids and ramps	ha	0.00	169047.8	1.1	1.05	0	
7	Sealing of shafts adits and inclines	m3	0.02	86.56	1.1	1.05	1.999536	
8 (A)	Rehabilitation of overburden and spoils	ha	0	112698.5	1.1	1.05	0	
8 (B)	Rehabilitation of processing waste deposits and evaporation ponds (non-polluting potential)	ha	0	140364	1.1	1.05	0	
8 (C)	Rehabilitation of processing waste deposits and evaporation ponds (polluting potential)	ha	0	407683.5	1.1	1.05	0	
9	Rehabilitation of subsided areas	ha	0	94368.03	1.1	1.05	0	
10	General surface rehabilitation	ha	0	36890	1.1	1.05	0	
11	River diversions	ha	0	89276.23	1.1	1.05	0	
12	Fencing	m	0	101.84	1.1	1.05	0	
13	Water management	ha	0	33945.33	1.1	1.05	0	
14	2 to 3 years of maintenance and aftercare	ha	0.02	11880.87	1.1	1.05	274.4481	
15 (A)	Specialist study	Sum	0			1	0	
15 (B)	Specialist study	Sum				1	0	
Sub Total 1							33598.198	
1	Preliminary and General		4031.783716		weighting factor 2 1		4031.7837	
2	Contingencies			3359.819763			3359.8198	
Subtotal 2							40989.80	
VAT (14%)							5738.57	
Grand Total							46728.37	

4.4 Undertaking to provide financial provision

(Indicate that the required amount will be provided should the right be granted).

The amount required to finance the work programme is **R1 470 000** to be funded, details attached in the PWP.

5. REGULATION 52 (2) (e): Planned monitoring and performance assessment of the environmental management plan.

5.1 List of identified impacts requiring monitoring programmes.

- Geology
- Soil
- Vegetation
- Air Quality
- Noise
- Surface Water

5.2 Functional requirements for monitoring programmes.

The consultant will discuss with the site manager and assist where necessary.

5.3 Roles and responsibilities for the execution of monitoring programmes.

The Applicant and his appointed environmental manager.

5.4 Committed time frames for monitoring and reporting.

Monitoring will be done monthly for similar impacts and reporting through performance assessment report on an annual basis.

6. REGULATION 52 (2) (f): Closure and environmental objectives.

6.1 Rehabilitation plan

(Show the areas and aerial extent of the main prospecting activities, including the anticipated prospected area at the time of closure).

The goal of rehabilitation with respect to the area where drilling took place is to leave the area to similar to its previous state prior prospecting activity. All other equipment's and material used during operation will be removed from the area, including other waste. Removal of these materials shall be done on a continuous basis and not only at the final stage of rehabilitation and closure.

6.2 Closure objectives and their extent of alignment to the pre-Prospecting environment.

Geology

Environmental Management/Mitigation measures/Plans

- No mitigation exists on the geology, only the backfilling with waste rocks material. With care, the removal of chips by means of drilling rig will be done.

Closure Objective

- Optimal exploitation of the mineral resources in order to ensure and facilitate better rehabilitation planning. The overburden and topsoil must replace in a responsible and planned manner in order to achieve some conformity with surrounding undisturbed area.

Topography

Environmental Management/Mitigation measures/Plans

- All boreholes should be backfilled with waste material and overburden material, covered with a shallow layer of topsoil
- Access to active drilling point should be controlled. All prospecting activities should be restricted to the fenced off area.
- Surface water run off (trench with berm wall) put in the active boreholes and also rehabilitation tailings dumps to prevent the loss of growth medium on top of the dumps.

Closure Objective

- Rehabilitation of the new topography should blend well in with the surrounding landscape and allow normal surface drainage to continue. Thus the new landscape features would be stable and not pose any safety hazards to human or animals.

Soil

Environmental Management/Mitigation measures/Plans

- Any future expansion of the boreholes or constructions of infrastructure should be preceded by the removal of top soil; the surface of any new areas to be disturbed must be kept to a minimum. All available topsoil or overburden material should be removed and stockpiled for rehabilitation purposes.

- Implementation and maintaining of cut-off trenches/berms to prevent soil erosion. Re-vegetation of exposed soil surface should happen as soon as a particular activity has ceased in order to act as a sufficient erosion prevention measure.
- Vehicles to be inspected to ensure no oil and hydraulic fluids leaks occur. No servicing of vehicles must occur on a steel floor in an area allocated for that.

Closure Objective

- Topsoil should be replaced during rehabilitation phase.
- No erosion must be visible and no potential for soil erosion must be present at closure.
- No soil contamination must be visible or known before closure can be given.
- No compaction of any roads or other area must be present during closure. If the soil structure is disturbed mitigation measures e.g. the use of organic material, lime and fertilisers must be implemented to restore the soil structure
- The soil must be fertile enough to sustain vegetation.
- The small berms creating storm water trenches will be levelled to ensure conformity with surrounding area.

Vegetation

Environmental Management/Mitigation measures/Plans

- No mitigation expects to replace the vegetation by re-seeding of grasses
- Eradicate exotic weeds and invader species if it invades the terrain. All illegal invader plants and weeds shall be eradicated as required in terms of Regulation 15 and 16 of the Act on Conservation of Agricultural Resources,1983 (Act no. 43 of 1983) which list the plants.
- An invasion and alien control programme must be drafted and implemented by the mine.

Closure Objective

- During rehabilitation indigenous vegetation cover comprising of local plant species should be established in order to ensure a well sustainable plant cover that would be able to prevent erosion of the replaced topsoil on the disturbed Prospecting site exposed surfaces, tailings dumps etc.

- No invasive and alien species must be present after closure. A post-closure control program must be implemented
- No excessive dust must be present during the normal growth season after closure.

Air Quality

Environmental Management/Mitigation measures/Plans

- Daily spraying of roads with water will limit dust. Inspection should be done on a daily basis. If new roads are constructed, in co-ordination with the surface owner, dust pollution must be mitigated by means of spraying.

Closure Objective

- Rehabilitation of the boreholes would ensure that no dust is generated from exposed surface.

Noise

Environmental Management/Mitigation measures/Plans

- Ensures the required silencers are placed on all engines and compressors. No mitigation to reserve hooters is allowed due to safety standards.

Closure Objective

- No noise attributed to Prospecting generated from the site after closure anymore. During decommissioning and closure phase some earth moving equipment and trucks would be utilized for rehabilitation.

6.3 Confirmation of consultation

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

The closure objectives have been consulted with the land owner.

7. REGULATION 52 (2) (g): Record of the public participation and the results thereof.

7.1 Identification of interested and affected parties.

(Provide the information referred to in the guideline)

Please find attached communication with the farm owners consulted.

7.2 The details of the engagement process.

7.2.1 Description of the information provided to the community, landowners, and interested and affected parties.

Please find attached communication.

7.2.2 List of which parties identified in 7.1 above that were in fact consulted, and which were not consulted.

An advert was put on DFA local paper, documents was delivered personal to the farm owners.

7.2.3 List of views raised by consulted parties regarding the existing cultural, socio-economic or biophysical environment.

Please find attached communication.

7.2.4 List of views raised by consulted parties on how their existing cultural, socio-economic or biophysical environment potentially will be impacted on by the proposed prospecting or Prospecting operation.

Please find attached communication.

7.2.5 Other concerns raised by the aforesaid parties.

Please find attached communication.

7.2.6 Confirmation that minutes and records of the consultations are appended.

Please find attached communication.

7.2.7 Information regarding objections received.

The farm owner requested for the EMP.

7.3 The manner in which the issues raised were addressed.

The EMP has been sent to the farm owner as requested.

8. SECTION 39 (3) (c) of the Act: Environmental awareness plan.

8.1 Employee communication process

(Describe how the applicant intends to inform his or her employees of any environmental risk which may result from their work).

By doing the following things: - Communication

- Urge- employees will be required to report incidents as a part company policy everyday they report for duty and report incident detail
- Leadership-management will be expected to follow up on incidents with employees to ensure that they are addressed
- Teamwork-it is every employee responsibility to ensure good environmental practices while on duty to protect t environment and other employees
- Understanding-employees have to be considerate with each other and assist when necessary
- Recognition-environmental awareness training should be provided so that all employees are able to identify environmental risks and report for action

- Empowerment-employees who are performing and ensuring good environmental practices will be recognised and have incentives according to company policy

8.2 Description of solutions to risks

(Describe the manner in which the risk must be dealt with in order to avoid pollution or degradation of the environment).

Fuel/Oil Storages-emergency treatment kit shall be present at the plant site at all times and at least one team member should be trained to apply the treatment.

Noise- drilling activities shall be restricted to 8 am – 6 pm to reduce noise impact.

Waste- Domestic waste will be disposed into the local municipality landfill site and sewage waste will be handled by means of chemical mobile toilets.

8.3 Environmental awareness training.

(Describe the general environmental awareness training and training on dealing with emergency situations and remediation measures for such emergencies).

The environmental awareness will be done through the communication channel between the employer and the employees, and also through working together/ teamwork and empowering each other on matter that concern the environment, such that neither weekly nor monthly meetings will be conducted to raise the awareness.

9. SECTION 39 (4) (a) (iii) of the Act: Capacity to rehabilitate and manage negative impacts on the environment.

9.1 The annual amount required to manage and rehabilitate the environment.

(Provide a detailed explanation as to how the amount was derived)

Rehabilitation: R 46 728.37 (as per quantum calculations)

Other labour: **R1 470 000** (as per Prospecting Work Programme financial provisions)

Total: R1 516 728.373

9.2 Confirmation that the stated amount correctly reflected in the Prospecting Work Programme as required.

The amount required to finance the prospecting operations is calculated to a total amount of **R1 470 000.**

10. REGULATION 52 (2) (h): Undertaking to execute the environmental management plan.

Herewith I, the person whose name and identity number is stated below, confirm that I am the person authorised to act as representative of the applicant in terms of the resolution submitted with the application, and confirm that the above report comprises EIA and EMP compiled in accordance with the guideline on the Departments official website and the directive in terms of sections 29 and 39 (5) in that regard, and the applicant undertakes to execute the Environmental management plan as proposed.

<p>Full Names and Surname</p>	<p>Lesedi Lawrence Mocwagole</p>
<p>Identity Number</p>	<p>720813 5537 084</p>

-END-