

FINAL BASIC ASSESSMENT REPORT AND ENVIRONMENTAL MANAGEMENT PLAN IN THE APPLICATION FOR A PROSPECTING RIGHT

Client:

Matolo trade and investment Pty

**10 Cecil Sussman Road,
Kimberley,
South Africa,
8301**

NC30/1/1/2/11680PR

DATE: November 2015

Prepared by:

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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: Matolo trade and investment Pty

TEL NO: 081 392 3214

PHYSICAL ADDRESS: 10 Cecil Sussman Road,

Kimberley,

South Africa,

8301

FILE REFERENCE NUMBER SAMRAD: NC30/1/1/2/11680PR

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 Prospecting right if among others the Prospecting “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—
 - (a) Can be reversed;
 - (b) May cause irreplaceable loss of resources; and
 - (c) Can be managed, avoided or mitigated;
- (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 manage, avoid 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: N Mofokeng

Tel No.: 0538420687

Fax No. : 086 538 1069

E-mail address: atshidzaho@gmail.com

ii) Expertise of the EAP.

(1) The qualifications of the EAP

(with evidence).

University of Venda

BSc (Hons) Earth Sciences in Mining and Environmental Geology

(2) Summary of the EAP's past experience.

(In carrying out the Environmental Impact Assessment Procedure)

Provide geological information for mining • Site visit for inspection in the mine • Mining Work Programme • Financial and technical ability • Environmental management Plan/Programme • Scoping Report • Social and Labour Plan • Prospecting work programme • Report on Results of Consultation • Section 11 and 102 Application • Closure application • Annual Reporting-Performance Assessment Report • Environmental Impact Assessment Regulation,2014 • Basic Assessment Report • Public Participation Process (consultation) • Environmental Authorisation

b) Location of the overall Activity.

Farm Name:	EENZAAMPAN
Application area (Ha)	1 890.1 891 hectares
Magisterial district:	Hay, Prieska
Distance and direction from nearest town	The Farm Eenzaampan No.307 is situated in the Kuruman District, approximately 20km-30km North east of Hotazel town, Northern Cape.
21 digit Surveyor General Code for each farm portion	C04100000000030700000

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

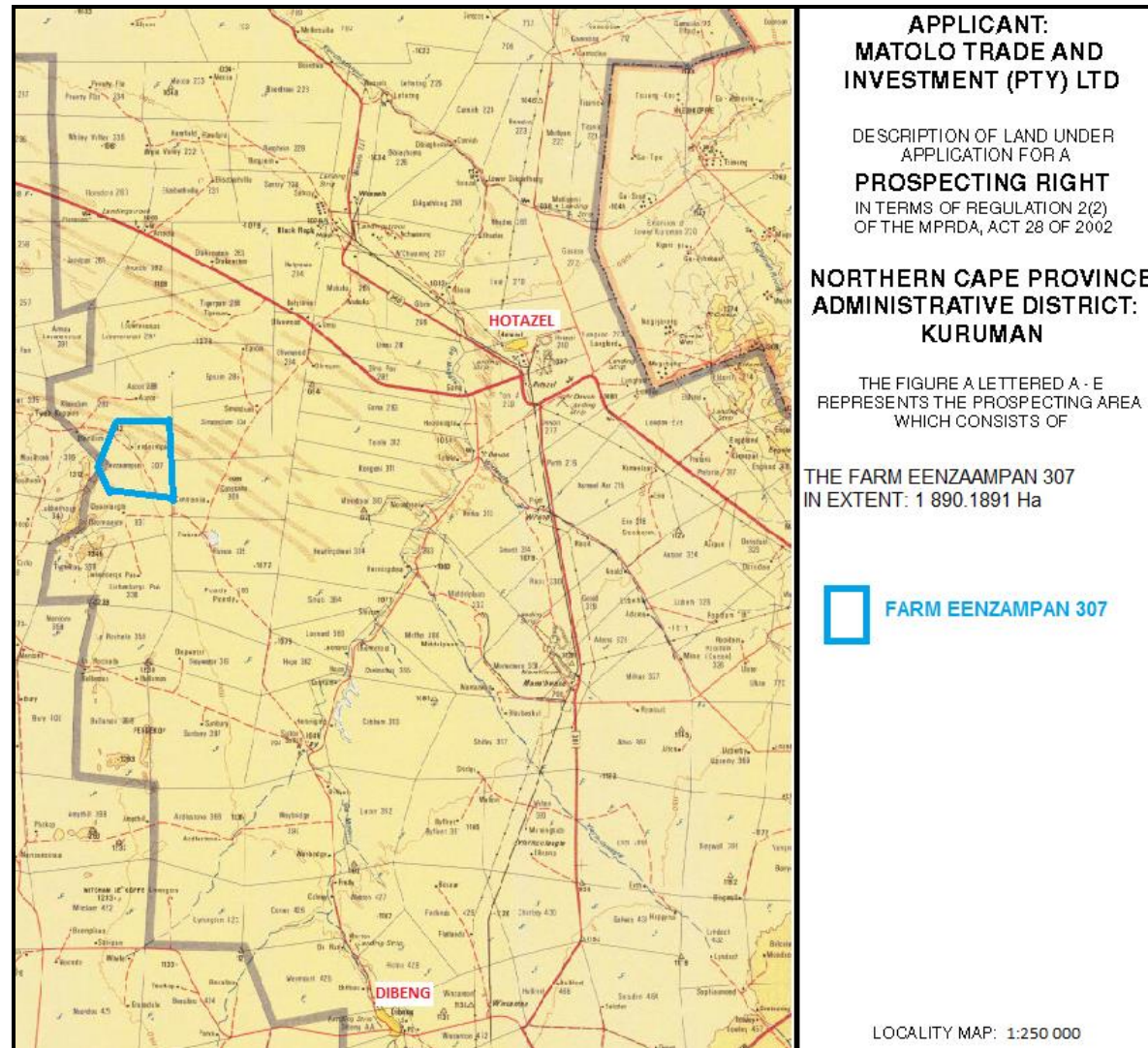


Figure 1: Location map of the proposed Prospecting Right area.

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 aforesaid main and listed activities, and infrastructure to be placed on site.

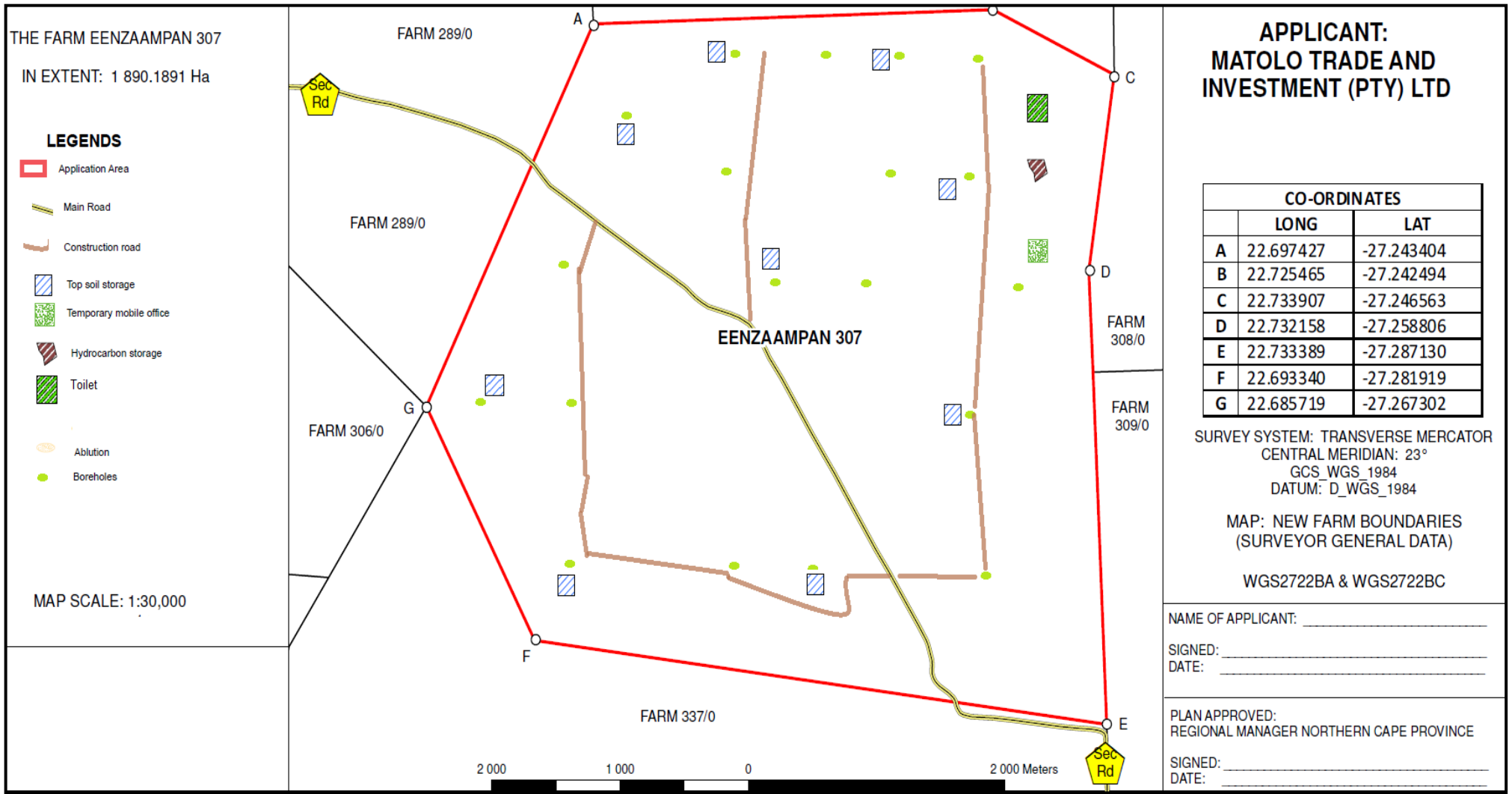


Figure 2: Layout plan

(i) Listed and specified activities

NAME OF ACTIVITY (E.g. For prospecting - drill site, site camp, ablution facility accommodation, equipment storage, sample storage, site office access route etc...etc...etc E.g. for Prospecting- excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dam and boreholes, accommodation, offices, ablution, stores, workshop processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc.)	Aerial extent of the Activity Ha or m²	LISTED ACTIVITY (Mark with an X where applicable or affected).	APPLICABLE LISTING NOTICE <i>(GNR 983 GNR 984 or GNR 895)</i>
Prospecting Activities and associated activities	1891 ha	x	GNR 983-Listing Notice 1 Activity No.20
20 Boreholes (Drilling)	0.20 ha	x	GNR 983-Listing Notice 1 Activity No.20
Temporal Dumps Site	0.01 ha	x	GNR 983
Temporal Topsoil Storage Site	0.0025 ha	x	GNR 983, Listing Notice 1, activity 27
Construction Of Temporal Concrete slab With Bund Walls For Temporal Storage Of Hydrocarbons	0.0025ha	x	GNR 983
Fence	250 m	x	GNR 983
Mobile Office	0.0025 ha	x	GNR 983
Ablution Facility	0.0012 ha	x	GNR 983
Construction of temporal access roads	400 m ²	x	GNR 983

(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)

The entire proposed prospecting project at the Farm Eenzaampan 307 will be conducted in four (4) phases as described below over a period of 36 months. This prospecting will consist of non-invasive and invasive (drilling) activities. The review of available information that exists over the area of interest will be undertaken by means of conducting a literature review from satellite images and other available information.

(i) DESCRIPTION OF PLANNED NON-INVASIVE ACTIVITIES:

(These activities do not disturb the land where prospecting will take place e.g. aerial photography, desktop studies, aeromagnetic surveys, etc)

Phase 1 - (18 months):

Non-Invasive Activities:

A. Literature Review (4 Months):

The non-invasive prospecting work will take approximately eighteen months (18) and will be comprised of the relevant data and observations from the recent and historical work done on the neighbouring farms. The deliverables will be a detailed report and maps highlighting areas with the best potential to contain manganese ore and iron ore.

Once this information has been assessed in detail, it will be used to further develop and refine the ongoing prospecting activities. Aerial photographs and a high resolution satellite image will be acquired for the prospecting right application so that a target identification process using both desktop study and geological mapping. Both desktop study and geological mapping interpretations will be used to focus future prospecting activities.

After the Desktop Study, a site geological mapping will be undertaken. The aim is to visit all the targets with manganese intersection identified in the Desktop Study to make sure that they are not cultural features. Planning for the drilling survey will occur at the same time.

B. Geological Mapping /Surface Mapping (6 Months):

Detailed field mapping of the surface geology with the use of GPS will need to be done to verify and correlate the geology; generating targets from satellite images or aerial photo mapping that identify any possible outcrops of manganese iron materials in the rest of the proposed application area. The mapping will be focused on outlining features such as linear structures and vegetation anomalies which could indicate the ore bodies.

C. Geophysical Survey (4 Months):

The Gravity/Magnetic survey method will be elected based on the information gathered from literature review, including the data gathered from geological mapping. All the information collected will be used to make the selection for the pre-defined survey points to demarcate the sub-outcrop/s of manganese iron materials. These points of gravity/magnetic will need to

be surveyed as a 1st phase on a 100m grid at short cost of R100 000.00. The results from the 1st phase will determine the drilling on phase 2.

D. Surveying and pegging of the anticipated deposit (2 Months):

The areas with prospective ground recognized during the surface mapping, geophysical and aerial photo mapping will be identified and will be marked on the map, after which those locations will be marked in the field by the surveyor with labelled pegs.

The routes to access the drill point will be located, and these roads will be used wherever possible.

E. Progress report (2 month):

When the literature review, geological mapping and gravity/magnetic survey is complete, comprehensive report will be drafted as part of the annual report for the Department of Mineral and Resource plus the shareholders.

Phase 2 - (12 Months):

Non-Invasive Activities:

A. Sample Analysis (10 Months):

The drilled samples will be sampled at 1m intervals down the hole. Suppose the targeted manganese and iron materials are encountered, the samples with manganese and iron materials trace element will be sent to the laboratory for analysis. Laboratory test will provide the quality or grade of ore if minable.

B. Progress report (2 Months):

The progress report will be drafted for management, including the investors/shareholders and the DMR personnel of the step forwards or what need to be done next.

Phase 3 - (2 Months):

Non-Invasive Activities:

A. Geological modelling (Months 2)

A 3-D geological model will be created in order to determine the ore body/s, using all the geophysics results and borehole information, to illustrate the geometry of the manganese and iron layers and the surface for later planning of mining activities.

Apart from ore resources calculations the drilling information will be used to construct ore thickness, overburden thickness and basement elevation contour plans.

(ii) DESCRIPTION OF PLANNED INVASIVE ACTIVITIES:

(These activities result in land disturbances e.g. sampling, drilling, bulk sampling, etc)

Phase 2 - (10 Months):

A. RC Drilling (month 10)

The prospecting drilling campaign will be aimed at defining the extent of mineralisation and will demonstrate geological continuity of the mineralized zone across the entire area under investigation (application area).

This phase of drilling, spanning ten months will consist of reverse circulation and core drilling, and will consist of drilling 20 boreholes. Drilling program will be put into practice where the grid spacing will be set to 400M x 400M with an average depth of 150m, 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.

20 boreholes X 150m X R400/m

= 3000 x 400

= 1 200 000

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.

2 boreholes X 100m X R900/m

= 200 x 900

= 180 000 16

Each drill borehole and sample site will be rehabilitated as prospecting proceeds.

(iii)DESCRIPTION OF PRE-/FEASIBILITY STUDIES

(Activities in this section includes but are not limited to: initial, geological modelling, resource determination, possible future funding models, etc)

Phase 4- (4 Months):

A. Feasibility study including decision Making (months 4)

The project geologist monitors the programme, consolidates and processes the data and amends the programme depending on the results. This is a continuous process throughout the programme and continues even when no prospecting is done on the ground. Each physical phase of prospecting is followed by desktop studies involving interpretation and modelling of all data gathered. These studies will determine the manner in which the work programme is to proceed in terms of activity, quantity, resources, expenditure and duration. A GIS based database will be constructed capturing all exploration data

Mine design features include:

- Topsoil storage
- Access Roads
- Boreholes
- Hydrocarbons storage site/area
- Mobile office
- Temporal topsoil storage area
- Temporal storage of overburdens
- Mobile ablution

The main prospecting activities will be conducted according to following procedures:

SITE ESTABLISHMENT

Prospecting area will be demarcated by means of pegs or fence. The site will be demarcated for the following activities:

Topsoil removal and storage

In all areas that are to be disturbed, topsoil will be partially stripped and stored separately from the overburden on the high ground side of the prospecting area away from flood plain. The topsoil stockpile will be less than 2 meters in height to avoid or minimise erosion. Stored Topsoil will not be used for the construction purpose or maintenance of roads but will only be used for rehabilitation at a later stage. Removed topsoil will be replaced in the same areas from which they were removed and they will be replaced in their sequence.

Temporary access roads

Existing access roads will be utilised as far as practicable in order to access the Prospecting area. Small tracks measuring approximately 400m² x 4m wide may be constructed in order to access the new drilling points. Constructed tracks will be ripped after use in order to allow smooth vegetation restoration. Farm owners will be consulted before construction of new access tracks if there is a need to construct access roads/tracks.

Temporary mobile office

Mobile containers will be used for site offices and no concrete or cement structure will be erected as a form of office or ablution blocks.

Ablution Facilities

Approximately two mobile chemical toilet measuring 2mx2m to the height of 3m will be provided on site. The mobile toilets will be serviced and emptied by qualified contractor on regular basis. As part of hygiene purpose these mobile toilets/ablution will be monitored at all times.

Accommodation

No accommodation would be necessary for employees on site. Permanent and temporary employees will have to seek their own accommodation on nearby towns or at adjacent areas.

Temporary Hydrocarbons Storage area

Hydrocarbon such as diesel, oil and grease will be stored in the reliable and sealed storage containers or tanks. Thick cement slab with bund walls will be constructed for the storage of the above mentioned tanks or containers. Safety measures at the re-fuelling point will be taken into consideration. Lockable storage containers will be used to store any chemicals that will be utilized throughout the Prospecting period.

Water

No processing of gravel will take place during this prospecting period. Water for dust suppression will be purchased from the nearby farm owners or municipality.

Equipment to be used when conducting prospecting activities:

The equipment to be used drilling, geophysical survey, geologist and surveyor, and it will be that of the contractors. All the equipment should they be needed will be provided by the hired contractor/s.

Rehabilitation of the prospecting area

The goal of rehabilitation with respect to the area where drilling took place is to leave the area 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. Rehabilitation of drilled holes will be done immediately after each hole is finished to prevent degradation of the environment, prevention of injuries to people and surrounding animals.

RC drill holes will be backfilled with drill samples and cement. Overburden will be stored adjacent to the boreholes in order to avoid any delay during rehabilitation period. If water is encountered the drill hole will be discussed with the surface owner and if the surface owner decides to keep it the necessary arrangements will be made. The compacted ground will be ripped to a depth of 300mm.

Rehabilitation of disturbed areas will be done concurrently with the prospecting activities. Overburden materials will be deposited to boreholes according to their sequence. This will be followed by topsoil in order to allow natural vegetation to grow. However if natural re-vegetation does not occur, seeding of the area with indigenous seeds will be done. Decommissioning of the area will be done once all areas have been rehabilitated or decommissioned. All equipment will be taken out of the prospecting area. Monitoring of rehabilitated areas will be done throughout the life span of the mine over a period of 1 year.

e) Policy and Legislative Context

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT (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)	REFERENCE WHERE APPLIED	HOW DOES THIS DEVELOPMENT COMPLY WITH AND RESPOND TO THE LEGISLATION AND POLICY CONTEXT. (E.g. In terms of the National Water Act a Water Use License has/ has not been applied for)
National Environmental Management Act 107 of 1998	Basic Assessment Report and EMPr	An environmental authorisation has been lodged with DMR and the application has been accepted.
Mineral and Petroleum Resource Development Act 28 of 2002	Application for Prospecting Right in terms of section 16 of the MPRDA 28 of 2002	A Prospecting application has been lodged with DMR and the application has been accepted.
National Heritage Resource Act 25 of 1999	The Prospecting activity might trigger the requirements under section 38 of the NHRA, however the activities are not yet known.	The heritage impact assessment has been conducted.

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).

Prospecting right in respect of manganese ore and iron ore will provide not more than 8 job opportunities for the local people or community and empowerment opportunities, this is important especially for the surrounding communities suffering from unemployment rates. These prospecting activities will bring revenue into the surrounding business.

It is important to do prospecting activities in respect of the manganese ore and iron ore since the prospecting activities will be able to provide employment to some of the surrounding people or communities. Manganese ore and iron ore is the most common mineral that is found in the surrounding area and farms. Expansion of the prospecting area will be highly dependent on the results obtained from the prospecting activities. No alternative site has been considered or identified since the application area is a preferred site for the applicant.

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

Preferred site: The applicant has applied for a prospecting right for 1 890.1891ha and is intending on prospecting the proposed areas in a sustainable manner. Manganese ore and iron ore is one of the most common mineral on the surrounding area and farms. No alternative site has been considered since the application area is a preferred site for this application.

Technology alternative: Reverse circulation and core drilling will be used for the drilling of prospecting boreholes. Due to the nature of the proposed prospecting activities future land use alternatives will not be compromised. Once viability of reserve has been confirmed full social and environmental impact assessment will be necessary in accordance with legislation.

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

i) Details of the development footprint alternatives considered.

With reference to the site plan provided as Appendix 4 and the location of the individual activities on site, provide details of the alternatives 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.

a) The property on which or location where it is proposed to undertake the activity;

The applicant has applied in terms of MPRDA for a Prospecting Right in order to conduct prospecting activities for Manganese Ore and Iron Ore on the farm Eenzaampan 307.

The proposed prospecting area (Farm Eenzaampan 307) is approximately 1890 hectares in extent. The planned Prospecting activities will take place within 1890 by means of drilling of 20 boreholes. No alternative areas have been identified or proposed. The proposed prospecting activities will only be conducted within the applied prospecting area, and must link to the proposed boreholes. The primary objective of the prospecting work programme is to assess the economic potential of Farm Eenzaampan 307 in terms of Manganese Ore and Iron Ore.

Like all prospecting, work programme must be regarded as dynamic and results driven. The outcome of the prospecting cannot be predicted or predetermined. The sites for the follow-up phases of work cannot be identified in advance nor can the phases be quantified in advance. Should further phases of exploration be required, the DMR will be consulted with the amendments to the BAR/EMPr.

b) The type of activity to be undertaken;

Prospecting of the Manganese Ore and Iron Ore is to take place within the demarcated area and no alternative site is considered with regard to the type of activity to be undertaken. The applicant intends to conduct their Prospecting activities in different phases as mentioned in section D clause ii. It is hereby noted that the different phases herein envisaged are, by their nature, dependent on the results obtained during previous phases of such prospecting activities. The proposals set out in the Prospecting Work Programme are therefore made on the basis that the results during preceding phases may necessitate reasonable adaptations to such proposals, which will be reported on prescribed timeframes. The prospecting programme is divided into successive phases extending over 3 years. These phases will guide the whole Prospecting life span. It is the applicant's aim to apply for a mining right at the end of prospecting years period should prospecting results identify an economical viable mineable ore bodies.

c) The design or layout of the activity;

Most of the infrastructures that are to be used during prospecting period will be mobile, that means the designed layout plan may change time to time as the infrastructures are mobile. However this will only affect areas where the 20 boreholes are to be drilled (proposed Prospecting area). No permanent structures or buildings will be constructed within the prospecting area. Accommodation will not be provided within the prospecting area and workers will be expected to provide their own accommodation possibly within the nearest town. Small track may be formed within the proposed prospecting area in order to access the footprint of the prospecting activity, however, their exact extent or foot print of the small tracks is unknown since existing roads will be preferred.

d) The technology to be used in the activity;

Reverse circulation drilling will require access by heavy machinery and limited clearing of vegetation maybe necessary in some places. Possible existing roads and tracks will be used to access the drill sites. Since drilling is a surface activity, there will be no significant damage to the soil profile and hence natural re-vegetation of the drill sites will not be impeded. All drilling sites will be properly cleaned by removing all accidental hydrocarbon spillages. Lubricating fluids and fuel deriving from the drilling equipment's will be disposed off at an approved site. Boreholes will be capped and top soiled with the original materials removed from the drilled boreholes. Drilling of boreholes is the only method to be used during prospecting period. These methods are the only major methods used in prospecting of manganese ore and iron ore. The technology to be used cannot be replaced by any other methods.

e) The operational aspects of the activity;

The applicant will make sure that before any prospecting activities could commence, employees are trained or work shopped with regards to the Prospecting activities and their phases. After workshop, employees will be able to identify, avoid, manage and minimise environmental impacts. The Basic assessment Report and Environmental Management Plan will be provided to the contractors, site manager and the document will always be available on site. The site manager will make sure that concurrent rehabilitation is taking place and to comply with the contents, terms and conditions of the environmental authorisation as well as environmental management programme. There are no alternatives on the operation aspects of the activities since only the planned activities will be undertaken.

f)The option of not implementing the activity.

The option of not implementing the prospecting activities is not considered as there are no other alternatives that were identified to conduct the proposed prospecting activities. All the activities will be implemented to the proposed area according to the environmental authorisation, Basic assessment Report and the environmental management programme. Proposed Prospecting activities will have low significant environmental impacts only if they are well managed or mitigated.

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.

***Definition of Public participation:** Public participation is defined as a process that leads to a joint effort by stakeholders, technical specialists, the authorities and the proponent to work together to produce better decisions than if they had acted independently. This is a two-way communication and collaborative problem solving with the goal of achieving better and more acceptable decisions.*

a) Placing an advertisement in one local newspaper

Newspaper advert 1

Publication name	Diamonds field advertiser
Date published	15 September 2015
Language	English

Publication name	Kathu Gazzete
Date published	19 September 2015
Language	English



**PUBLIC NOTICE
CONSULTATION FOR PROSPECTING RIGHTS**

Notice is hereby given in terms of Section 16 of the Mineral and Petroleum Resources Development Act, 2002 as amended by Section 12 of the Act 49 of 2008 and Environmental Authorization in terms of National Environmental Management Act (Act No 107 of 1998) as amended;

Applicant: Matolo Trade and Investment (Pty) Ltd
Location:

The farm Arcadia 282 is situated in the Kuruman District, approximately 22km NWW of Hotazel town, Northern Cape (MC1 9672P R).

The farm Ascot 288 is situated in the Kuruman District, approximately 15km west of Hotazel town, Northern Cape (MC1 9673P R).

The farm Eenzaampan 307 is situated in the Kuruman District, approximately 20km-30km North East of Ollifantshoek town, Northern Cape (MC1 9680P R).

Description of the proposed activities (Listing Notice 1 Activity No.20 of GMR 983):

The application is for prospecting rights in respect of Manganese and Iron ore without bulk sampling.

The farm Arcadia 282: The prospecting activities will be conducted using drilling methods whereby 15 boreholes will be drilled to a depth of 300m.

The farm Ascot 288: A total of 16 boreholes will be drilled to a depth of 300m on grid spacing of 400m x 400m using a 9 1/8" rig. The gravel samples from boreholes will be sent to the laboratory for testing.

The farm Eenzaampan 307: The prospecting activities will be conducted using drilling methods whereby 20 boreholes will be drilled to a depth of 300m on grid spacing of 400m x 400m.

The proposed prospecting operation is anticipated to last for 3 years on each application.

- The preparation of the Public Participation and Basic Assessment Report (relevant environmental reports).
- The proposed consultation work will be undertaken by Nd Geological Consulting Service, for and on behalf of the applicant.

Any interested and affected parties are invited to register as a stakeholder and lodge their comment or objection for the above proposed prospecting activities in terms of the acceptance before the 15th October 2015.

Comments and objections can be forwarded to the consultant whose details appear below.

NDI GEOLOGICAL CONSULTING SERVICE
Facsimile: 084-5830687
E-mail: ats@ndi.sho@gmail.com
Tel: 083-842 0687

**KATHU
Welcome to our Sector Commanders**



The Kathu SAPS new Sector Commanders are (l/r) Constable Welma Williams, Warrant Officer Raymond Tihankana, Sergeant Eugene Eilers and Warrant Officer Maryna Boyder.

Kathu SAPS would like to introduce the sector commanders of the various sectors to the community. These members can be contacted any time of the day or night if you experience any problem in your area and you are not able to make contact with the police station or it is a matter you want to bring to their attention. Any information regarding crime can also be directed to them.

Sector A - Warrant Officer Maryna Boyder (082 762 0576); Shoprite business area, Kathu Village Mall, Kameeldoring Plein and Heritage Mall areas. Residential areas around Boekenhout, Mopani, Karreisaan, Sijwerboom, Kokerboom, Poolsand, Kalahari golf estate and Uitkoms areas.

Sector B - Sergeant Eugene Eilers (073 039 0968) : The Smartie Town areas and New Dingleton areas, Bestwood and the Industrial area.

Sector C - Warrant Officer Raymond Tihankana (072 627 4992): The entire Sesheng and Mapoteng areas as well as Skoonplaas and the mine.

Social Crime and CPF-related matters resort under the command of Constable Welma Williams (079 915 5400).



**OLIFANTSHOEK
'Shakes' makes his colleagues proud**

Left: On Saturday 5 September 2015 Constable Lucky "Shakes" Keslamang (left) of the Olifantshoek police station took part in the annual SAPS soccer tournament in Mossel Bay as a member of the Northern Cape men's soccer team, who won the tournament by beating the Western Cape team. The management of SAPS Olifantshoek congratulated Constable Keslamang with his gold medal for being part of the winning team.

GAMAGARA LOCAL MUNICIPALITY

Notice
Gamagara Integrated Development Plan (IDP), Budget And Performance Management Framework And Process Plan For The 2016/17 Financial Year And Commencement Of IDP Cycle

Notice is hereby given in terms of the Local Government Municipal Systems Act, 2000 (Act 32 of 2000), that the District Municipality is starting its annual review process of the IDP, Budget and Performance Management System. Council adopted the IDP, Budget and Performance Management Framework and Process plan at its meeting of 26th August 2015, per Council Resolution No.: 7.3.26/08/2015. This will guide the process for the 2016/17 Financial Year.

The above documentation is open for inspection and may be viewed at the Municipal Offices in Kathu and/or on the Municipal Website at www.gamagara.gov.za.

Enquiries regarding the Municipal IDP Framework and Process plan may be directed to Mr P Leserwane at 053 723 6000, during normal office hours.

**I C ITUMELENG
MUNICIPAL MANAGER
GAMAGARA MUNICIPALITY
P.O BOX 1001
CNR HENDRICK V. ECK AND FRIKKIE MEYER RD
OLIFANTSHOEK, 8446
Notice No: 2015/56**

**KATHU
INVITATION
COMMUNITY SAFETY FORUM ELECTION**

All members of the community of Kathu are hereby invited to the election of the Kathu Community Policing Forum (CPF).

**Date: Wednesday, 7 October 2015
Time: 17h00
Place: Kathu SAPS Lecture Room
Together we can make a difference!**

**KURUMAN
Accident claims life**

The police in Kuruman are investigating a case of culpable homicide following an accident that took place on Friday 11 September 2015. The accident occurred on the N14 next to Red Sands. Two vehicles were allegedly involved in the accident. One passenger, Mr Tony Kgosieni (in his 40s) died on the scene.

Eienaars gesoek

Teefhondjie is vanaf 29 Augustus 2015 by die DSV.
Hond by Reitzhofplottelkruising oppel.
Skakel Sonika by 082 041 1187

b) One on one meeting

One on one meeting was conducted on the 17th of October 2015 at Hotazel recreation. Presentation was done with regards to the prospecting activities that is to be conducted, positive and negative impacts on the environment, socio economic, cultural and heritage aspects including their mitigation measures were presented to the interested and affected parties who attended the meeting. Background information was presented by the applicant.

NOTIFICATION OF INTERESTED AND AFFECTED PARTIES

Interested and affected parties were notified using relevant guidelines applicable to public participation as contemplated in section 24J of the Act. Public participation meeting with interested and affected parties is still to be held and notice containing information about public participation meeting, venues and time will be circulated within the area in a form of flyers.

Interested and affected parties were consulted in a form of the following system:

- (a) Placing an advertisement in one local newspaper
- (b) Fixing a notice board at a place conspicuous to and accessible by the public at the boundary or on the fence of the site where the activity to which the application or proposed application relates is or is to be undertaken and any alternative site,
- (c) Written notice will be given to the occupiers of the site, the land owners, the municipality which has jurisdiction in the area, any organ of state having jurisdiction in respect of any aspect of the activity; and any other party as required by the competent authority.

Potential registered interested and affected parties will also be consulted in a form of one on one meeting. All information that reasonably has or may have the potential to influence any decision with regard to this proposed application unless access to that information is protected by law will be sent or presented to the potential / registered parties so that they can have detailed information.

All potential or registered interested and affected parties will be provided with a reasonable opportunity to comment (Notification letters were sent) on the proposed prospecting right application. All relevant information provided by the registered potential interested and affected parties will be recorded and submitted to DMR.

Any reasonable notification method requested by DMR will be conducted.

iii) Summary of issues raised by I & Ap's

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

Interested and affected parties. List the names of person 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 as mandated by the applicant.	Section and paragraphs reference in this report where the issues and or response were incorporated	
INTERESTED AND AFFECTED PARTIES	X	17 October 2015	How many drill rigs are you going to use as they are more than one application area?	It was cleared that only one drill rig will be utilised for the whole prospecting period which is 3 years	viii) page 52
Mr Theart					
Mr Theart	X	17 October 2015	Appoint an environmental officer who will police the contractors	Agreement will still be reached for appointing local Environmental officers who will be readily available when needed and who will easily access the area. Note that Environmental officer who is being mentioned was part of the public participation meeting.	
Eben Anthonissen (farmers representative from Agri	X	17 October 2015	How are we going to protect flora that are on red data list as they are many types of	This will be done by conducting environmental awareness with the appointed employees and by	

Kuruman)			protected plants in and around the proposed prospecting farms	hiring resident environmental officer who will police the appointed people and contractors.	
Eben Anthonissen (farmers representative from Agri Kuruman)	X	17 October 2015	On slide 17 of the presentation a question was rose that where are we going to draw that pool of labour	This was also addressed that local community will be given preferences.	
Eben Anthonissen (farmers representative from Agri Kuruman)	X	17 October 2015	It was also suggested that we re-construct the statement on the presentation (Slide 7) that says local people will be hired during the life span of the proposed prospecting activities to local people will be hired during the lifespan of the prospecting activities.	This was agreed	
Eben Anthonissen (farmers representative from Agri Kuruman)	X	17 October 2015	<p>A concern was raised about the utilisation of the public gravel road, that this is going to affect farmers who are using that road on a day to day basis</p> <ul style="list-style-type: none"> ➤ The quality of the road will deteriorate due to high movement of vehicle going to the prospecting areas ➤ The road will be corrugated and will need proper maintenance, it was suggested that we do maintenance on a weekly basis. It was mentioned that the farmers are doing maintenance of that gravel road using cheaper methods 	It was agreed that maintenance of public gravel road will be done on a weekly basis and road widening will be done only if we are in position of the Environmental authorisation authorising the commencement of such activities.	

			<p>(Tyres are being towed at the back of the bakkie and being moved up and down the road)</p> <p>➤ Widening of that road as part of maintenance will need authorisation from the relevant department it must not be done willingly</p>		
Eben Anthonissen (farmers representative from Agri Kuruman)	X	17 October 2015	One of the concerns that were raised is that most of the things that are raised or reflected on the EMP are not being practiced and they look very good in black and white. How are we going to make sure that whatever is deviating from the approved EMP is addressed accordingly?		
Eben Anthonissen (farmers representative from Agri Kuruman)	X	17 October 2015	Draft EMP will be submitted to the I and AP for comments and other relevant information	This was also agreed	
Eben Anthonissen (farmers representative from Agri Kuruman)	X	17 October 2015	<p>The presentation was supposed to reflect things like how are we going to dispose industrial waste and domestic waste and which company will be responsible for such disposal.</p> <p>➤ It was mentioned that sewage was once be discovered being disposed next to the road</p>	Industrial waste and domestic waste management were reflected on the presentation and it was agreed that the presenter might have highlighted that and move quick because of time management. The presentation will be readily available for the interested and affected parties if requested.	

Eben Anthonissen (farmers representative from Agri Kuruman)		17 October 2015	How are we going to access Ascot 288 and Eenzaampan 307 because access to Arcadia 262 is going to be simple as it is lying along the main road?	A slide showing (Slide 8) locality plan of the project was re-visited and Ndi showed interested and affected parties access road to EENZAAMPAN 307 and ASCOT 288	
Clement Penny trust (MNR C Penny) Plaas Eenzaampan 307	X	22 October 2015	We put it on record that he as the owner of the farm is interested on this opportunity. We also put it on record that if the permit is awarded to your client, an agreeable agreement shall be entered into by our client and your client before prospecting can begin. Please see attached letter.	Noted	
Department of land affairs	x	20 October 2015	No land claim	Noted	
Department of Environmental affairs	x	14 September 2015	Official handling the file is on sick leave.	Noted	
Department of water affairs	x	14 September 2015	Application won't trigger water use application.	Noted	

iv) The Environmental attributes associated with the alternatives.(The environmental attributed described must include socio-economic, social, heritage, cultural, geographical, physical and biological aspects) .

No alternative area was considered suitable for the proposed prospecting activities. The area under application provides the best manganese ore and iron ore reefs for the purpose of prospecting.

(1) Baseline Environment

(a) Type of environment affected by the proposed activity.

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

TOPOGRAPHY & DRAINAGE

The topography of the entire study area is generally flat and the general slope is in a north-easterly direction. Some parts of the proposed prospecting area in the Eenzaampan is characterised by a generally homogenous topography, which is mostly in the form of flat plains, with red sand dunes found throughout the area.

SOIL

The main part of the proposed prospecting area is characterized by sandy, red-yellow apedal, freely drained soils with thicknesses of more than 300 mm and predominantly flat. The following types of soil were identified within the proposed prospecting area:

Oxidic soils

Oxidic soils are the main soil group identified in the study area and comprise the largest surface area (52.3%). Soils that developed within this group either have a red apedal or yellow-brown apedal horizon underlying an orthic A-horizon. No red structured profiles were identified on this site. These oxidic soils are associated with the Kalahari Sand Dunes that have been stabilised by vegetation over hundreds of years. The name of this soil groups has been derived from the oxides of iron that accumulate through weathering and colour many soils - uniformly if the conditions are well drained and aerated. The red colour of hematite signifies conditions that are warmer, drier, and less affected by organic matter than those indicated by the yellow-brown colour of goethite. Hematite is the stronger of the two clay pigments and many red soils contain more goethite than hematite.

Hutton soil form

The Hutton soil form consists of an orthic A horizon on a red apedal B horizon overlying unspecified material. All Hutton profiles are deeper than 500mm and some are deeper than 1500mm with no restrictive layers and are structureless or have very weakly developed structure. Hutton soils with no restrictions shallower than 500mm are generally good for crop production. The red apedal B1-horizon has more or less uniform "red" soil colours in both the moist and dry states and has weak structure or is structureless in the moist state. This horizon develops in well drained, oxidizing environments that produce coatings of iron oxides (hematite) on the soil particles, causing the red colours of the horizon.

The red apedal horizon is per definition non-calcareous within 1500mm of the soil surface, but may contain small lime nodules as was the case on site. The range of red colours that is a key identification tool in differentiating between a red apedal and yellow-brown apedal is defined by the Soil Classification Working Group Book, 1991. Some of the defining red soil colors identified on the sites are bleached while some are bright red. Textures are coarse to medium sand to sandy-loam in the topsoil and medium to fine sandy-loam in the subsoil. Structure is weak blocky (dominant) or apedal in all horizons.

Clovelly soil form

The texture of this soils form is fine sandy to sandy-loam to loam for all horizons and profiles were not shallower than 600mm and some were deeper than 1500mm. The high to moderate quality orthic A and yellow-brown apedal B-horizons are suitable materials for annual cropping (good rooting medium) should the climate permit and use as topsoil, having favourable structure (apedal) and consistence (friable). The Clovelly form has an orthic A horizon overlying a yellow-brown apedal B1-horizon with unspecified material underneath the apedal horizon. The unspecified material does not have any signs of wetness. The orthic A-horizon is between 100mm and 300mm deep. The yellow-brown apedal horizon has more or less uniform "yellow-brown" soil colours in both the moist and dry states and has weakly developed blocky structure or is structureless in the moist state. This horizon develops in a well-drained oxidizing environment, but with different mineral-chemical coatings (goethite) on soil particles than those of the red apedal horizon.

Calcic soils

The carbonate-rich horizons that characterises these soils are a result of the continuing accumulation of, especially, calcium, but also magnesium carbonate over a long period. The formation conditions needed for the development of these calcic soils are strongly governed by an arid or semi-arid climate. Calcic soils are low in organic matter as a result of generally sparse vegetation cover and the rapid decomposition of organic material in the often hot and dry conditions. These same conditions, however, result in the soils being base-rich with little leaching of plant nutrients. The exchange complex is nearly always close to being 100% saturated with, unsurprisingly, calcium and magnesium the dominant cations. The pH of calcic soils is close to neutral in the topsoil and somewhat higher below, where carbonate is more common and the acidifying influence of the organic matter mitigated. The calcic soils identified on site include soils of the Coega, Molopo, Plooyburg and Askham forms.



Photo 1: showing type of soils of the prospecting area

GEOLOGY

Regional Geology

The Kalahari Manganese Field occupies an area of about 400 Km². It is characterised by three distinct manganese ore units, interbedded with iron formation over a thickness of about 150 m and form a succession known as the Hotazel Formation at the stratigraphic top of the Palaeoproterozoic Transvaal Supergroup. The manganese units and iron formation are horizontally bedded and particularly, fine-grained with mineral assemblages indicating conditions of diagenesis to very low-grade metamorphism. The Hotazel Formation represents the youngest episode of iron-formation deposition in the Transvaal Supergroup. It overlies lavas of the Ongeluk Formation and in its upper parts grades into dolomitic rocks of the Moodraai Formation. The Hotazel and Moodraai Formations constitute the Voëlwater Subgroup, which is best preserved as an erosional relict in the southernmost part of the Kalahari Manganese Field.

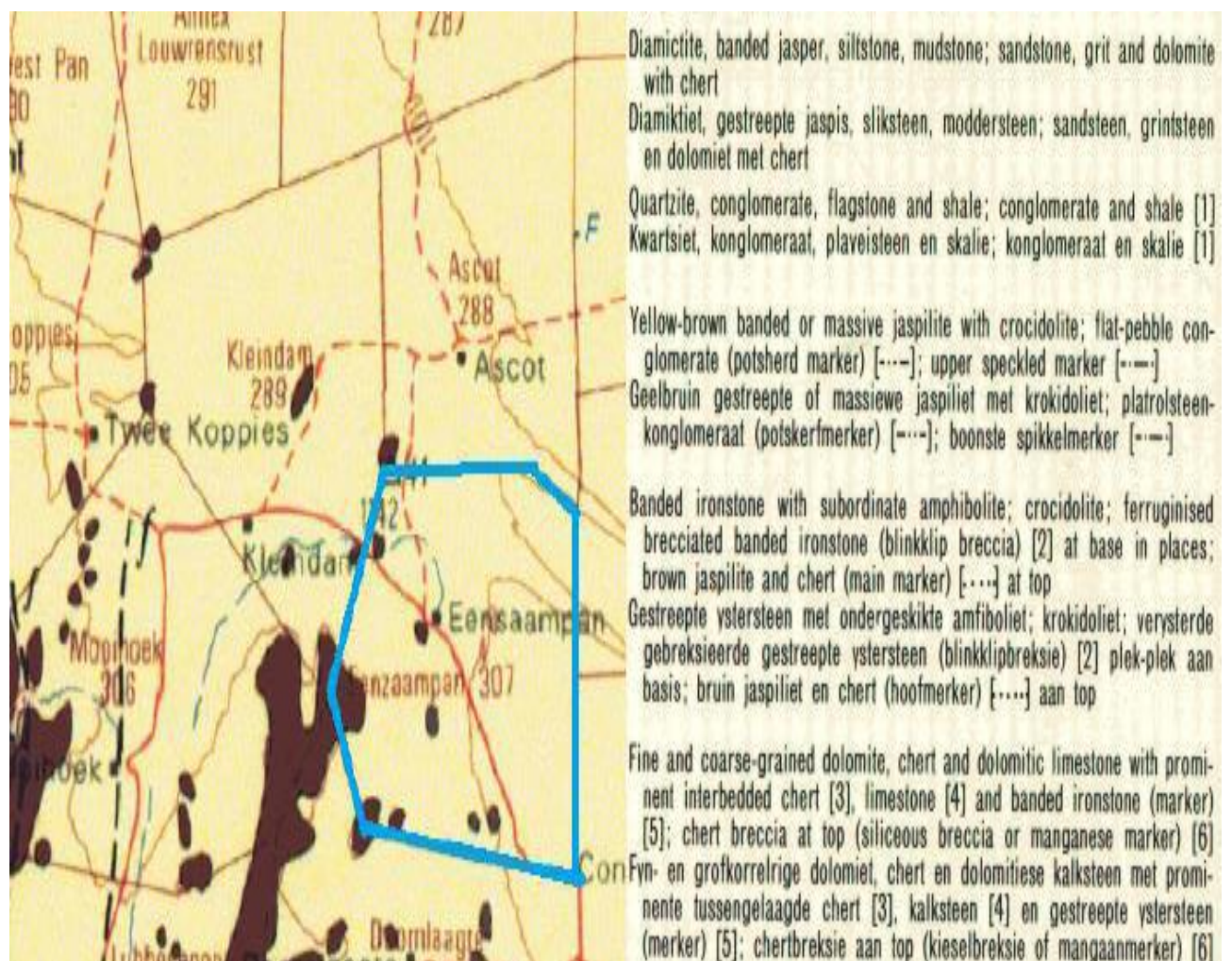
This anomaly is typical of a dolerite dyke. In places the anomaly is not continuous, but this may be a result of the large flight line spacing of 1 km. The first vertical derivative image was very useful to delineate this dyke, especially in the eastern part of the area. Magnetic field values to the north of this dyke generally are higher than to the south of the dyke. Looking at data collected along the westernmost tie line a jump in the order of 50 nT occur across this lineament, suggesting that the dyke intruded along a normal fault. The southern block moved downward with respect to the northern block. NW-SE striking lineament that coincides with a possible displacement in the east-west striking dyke also appears to be associated with a disruption in one of the prominent north-south striking anomalies. A north-south striking anomaly stops abruptly against this lineament and the direction of another anomaly changes sharply from northeast-southwest to north-south across the lineament. Fault of NW-SE striking lineament against which some of the north-south trending anomalies stop, NNW-SSE striking linear feature that displaces other anomalies and NW-SE striking lineament that displaces north-south striking anomalies.

Observations on borehole material from the Hotazel Formation have revealed four distinct units of banded iron-formation interbedded with three manganese layers. The manganese horizons attain considerable thicknesses (the lowermost economic manganese unit ranges from 15 to 45 m in places, the middle and upper units reach 3

to 10 m respectively). The interbedded banded iron-formation units show thickness relations antithetic to those of the manganese ores, a fact that applies in particular to the banded iron-formation section directly overlying the lowermost manganese unit specifically in the area north of the Mamatwan mine.

The borehole on the farm Nelskop, immediately to the west of Tweekoppies, is located on a high intensity magnetic anomaly, and a 108 m thick succession of BIF was encountered at a depth of 126 m below the surface. A susceptibility of 0.5 SI is necessary to mimic the magnetic anomaly on which this borehole is located. This is a rough estimate, as the amplitude of the anomaly depends on a number of factors, including the dip and strike length of the body. Assigning this susceptibility to the BIF in borehole KM2 on the farm Groënwater yielded an anomaly with very similar amplitude than the observed magnetic data.

Figure 3: Geological map of the proposed Prospecting Right area.



CLIMATE

Regional Climate

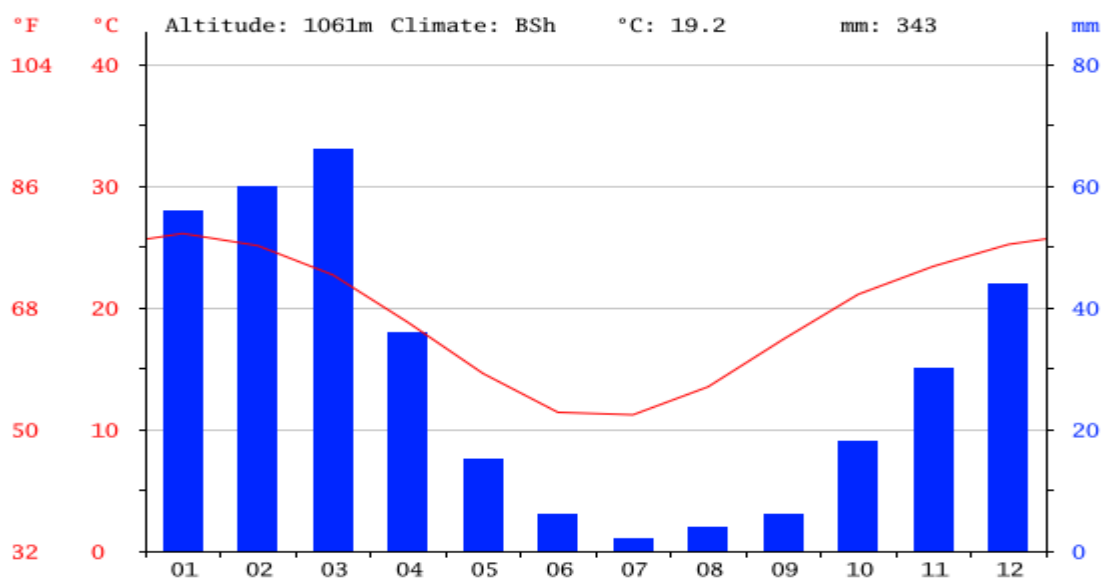
The Northern Cape region is semi-arid and receives an annual rainfall of between 250 to 500 millimeters, with the majority of rain falling in the summer months between October and March. On average the best rains fall in mid to late summer, with February and March being the wettest months. Thunder storms are a common feature of the summer climate and hail may accompany summer storms (data obtained from the S.A. Weather Bureau for the Kuruman station).

Local Climate

Hotazel normally receives about 223mm of rain per year, with most rainfall occurring mainly during summer. The chart below (lower left) shows the average rainfall values for Hotazel per month. It receives the lowest rainfall (0mm) in June and the highest (50mm) in February. The monthly distribution of average daily maximum temperatures (centre chart below) shows that the average midday temperatures for Hotazel range from 19.1°C in June to 33.2°C in January. The region is the coldest during July when the mercury drops to 1°C on average during the night. Consult the chart below (lower right) for an indication of the monthly variation of average minimum daily temperatures.

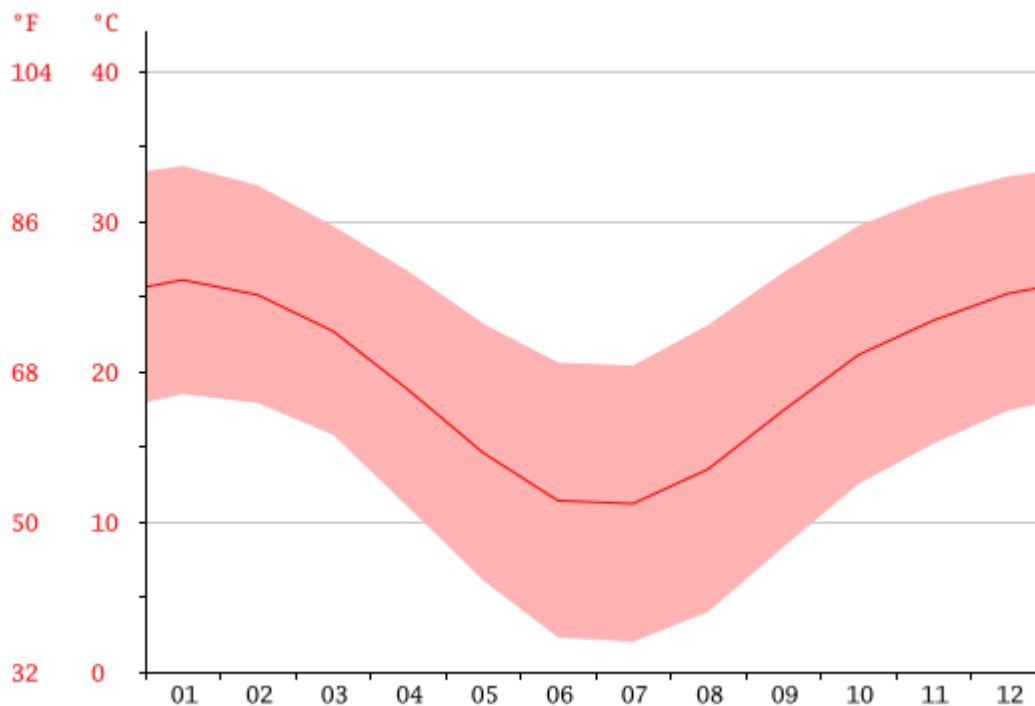
CLIMATE TABLES

Precipitation is the lowest in July, with an average of 2 mm. With an average of 66 mm, the most precipitation falls in March.



Graph 1: climate graph-Data sourced from Climate-Model by Climate-Data.org

At an average temperature of 26.1 °C, January is the hottest month of the year. July has the lowest average temperature of the year. It is 11.2 °C.



Graph 2: temperature graph- Data sourced from Climate-Model by Climate-Data.org

The variation in the precipitation between the driest and wettest months is 49 mm. The average temperatures vary during the year by 16.2 °C.

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	56	60	66	36	15	6	2	4	6	18	30	44
°C	26.1	25.1	22.7	18.8	14.6	11.4	11.2	13.5	17.4	21.1	23.4	25.2
°C (min)	18.5	17.9	15.8	11.0	6.1	2.3	2.0	4.0	8.3	12.5	15.2	17.4
°C (max)	33.7	32.4	29.7	26.7	23.2	20.6	20.4	23.1	26.6	29.7	31.7	33.0
°F	79.0	77.2	72.9	65.8	58.3	52.5	52.2	56.3	63.3	70.0	74.1	77.4
°F (min)	65.3	64.2	60.4	51.8	43.0	36.1	35.6	39.2	46.9	54.5	59.4	63.3
°F (max)	92.7	90.3	85.5	80.1	73.8	69.1	68.7	73.6	79.9	85.5	89.1	91.4

Graph 3: climate table- Data sourced from Climate-Model by Climate-Data.org

Evaporation

The various sources of climate data agree that local A-Pan evaporation will be in the order of 2400 mm per annum, but some further investigation is required in order to describe the distribution of this evaporation per month. The mean annual evaporation exceeds mean annual rainfall.

Local Wind Field

According to the Kathu weather station data, winds in the area have been recorded to blow at a maximum speed of up to 6.48 km/h (Refer to Figure 2.6). The highest vapour pressure recorded in this area is 15.10 hPa and this occurs during the months of February and March.

Vegetation

The vegetation in the proposed area corresponds to the Savanna Biome, which is the largest biome in southern Africa. The African savanna comprises more than 13 000 plant species, of which 8 000 are savanna endemics. Specifically, dry savannas have more than 3 000 endemic species. The physiognomy and diversity exhibited by natural habitat within the study areas is regarded representative of the regional vegetation types. Extremely little degradation and transformation is noted on a local and regional scale. The vegetation of the study areas is in a primary climax status. No 'Threatened' species were recorded during the survey period in the study areas.

Natural (untransformed) vegetation of the study area and the surroundings is strongly representative of the regional vegetation types, exhibiting extremely limited (localised) divergence from the species composition, diversity and vegetation structure described by Mucina and Rutherford. Typical of the vegetation of the region is that extremely little zonation is observed in vegetation forms.

The vegetation types that characterise this area include small tree (*Acacia mellifera* subsp. *Detinens*); tall shrubs (*Grewia flava* and *Rhigozum trichotomum*) low shrubs (*Aptosimum albomarginatum*, *Monechma incanum* and *Requienia sphaerosperma*); succulent shrubs (*Lycium bosciifolium*, *pumilum* and *Talinum caffrum*); and graminoids (*Schmidtia kalahariensis*, *Brachiaria glomerata*, *Bulbostylis hispidula*, *Centropodia glauca*, *Eragrostis lehmanniana*, *Stipagrostis ciliata*, *S. obtusa* and *S. uniplumis*) Biogeographically, important taxa (Kalahari Endemics) include the tall shrub *Acacia haematoxylon*, the graminoids *Stipagrostis amabilis*, *Anthehora argentea*, *Megaloprotachne albescens* and the herbs *Helichrysum arenicola*, *Kohautia ramosissima* and *Neuradopsis austro-africana*.

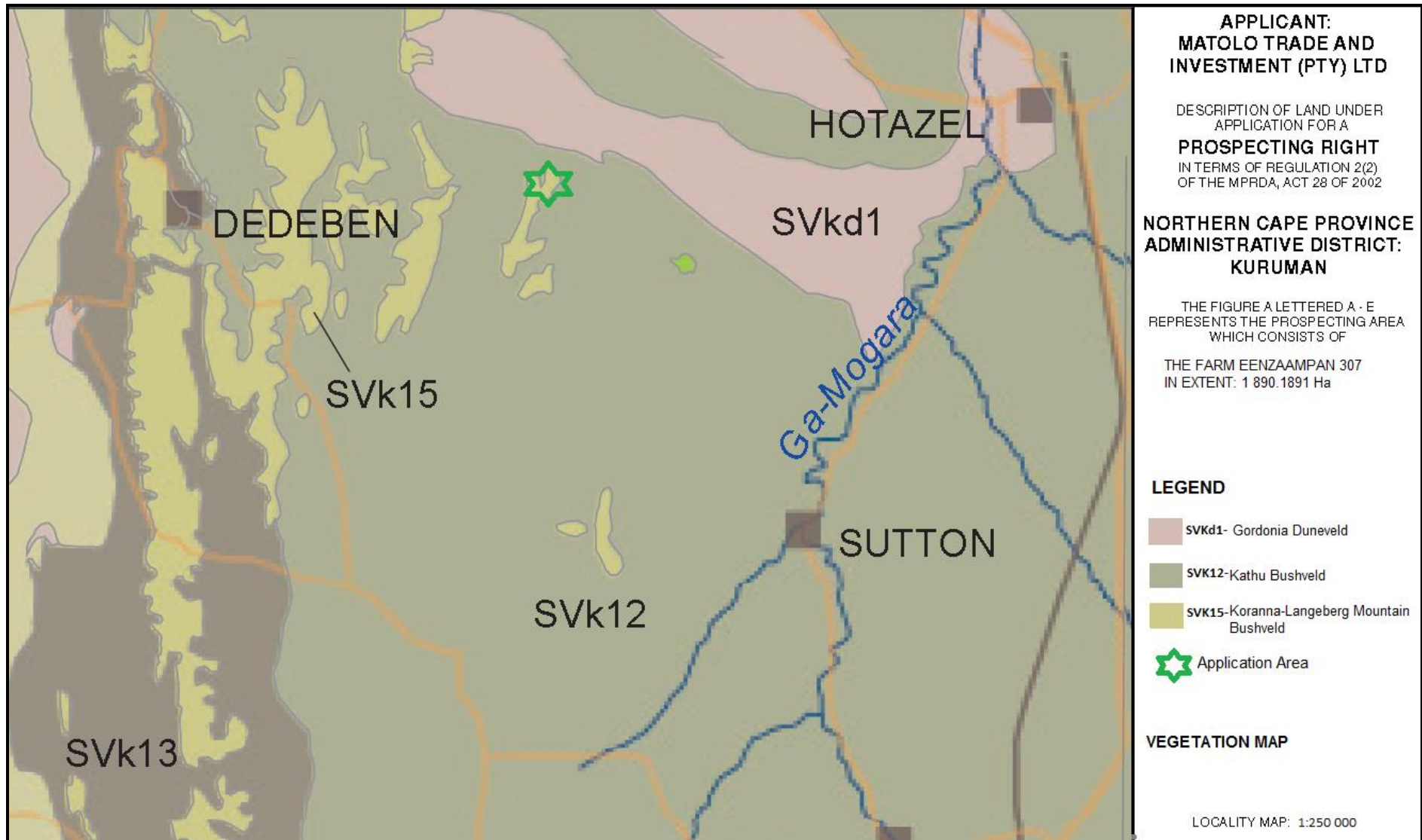


Figure 4: Vegetation map

The study area also comprises the Kathu Bushveld and this vegetation type is situated on the plains of Kathu and Dibeng in the south, through Hotazel, vicinity of Frylinkspan to the Botswana border roughly between Van Zylsrus and McCarthysrest. The vegetation comprehends a medium-tall tree layer with *Acacia erioloba* in places, but mostly open and including *Boscia albitrunca* as the prominent trees. The shrub layer is generally most important with, for example, *A. mellifera*, *Diospyros lycioides* and *Lycium hirsutum*. The grass layer is variable in cover and composition. **(See pictures of vegetation within the proposed prospecting area)**



Photo 2: vegetation on site

Fauna:

The area is currently used for the grazing of domesticated livestock, including sheep, goats. Natural indigenous fauna still remnant to the region are free roaming (i.e. not habitat-bound) and could be present, but not dependent, on the precise proposed prospecting area. Prospecting areas will be fenced off in order to restrict access of any animal or human. Speed limits of vehicles inside the application area will be strictly controlled to avoid dust accumulation in the atmosphere and protection of domesticated livestock. No poaching, setting of traps or snares will be allowed on site and if found will be removed from the area. Open fires on site will not be allowed. If vegetation growth on rehabilitated area is not satisfactory, seeding of the area with indigenous seeds will be considered.

Groundwater & surface water

According to the Hydrogeological Map of the Republic of South Africa (Sheet 2722 - Kimberley, 1:500 000), the main water bearing strata in the area is a fractured aquifer predominantly comprised of iron formation with banded ironstone and Jaspillite. The regional aquifer system is classified as a Minor Aquifer System (Parsons, 1995) with least vulnerability to contamination and low susceptibility. Minor Aquifer Systems can be fractured or potentially fractured rocks which do not have a high primary permeability, or other formations of variable permeability. The aquifer extent may be limited and water quality variable.

SOCIO-ECONOMIC ENVIRONMENT

John Taolo Gaetsewe District Municipality is the municipality formerly known as Kgalagadi. It comprises the three local municipalities of Gamagara, Ga-Segonyana and Joe Morolong (previously Moshaweng), and 186 towns and settlements, of which the majority (80%) are villages. The boundaries of this district were demarcated in 2006 to include the once north-western part of Joe Morolong and Olifantshoek, along with its surrounds, into the Gamagara Local Municipality. It has an established rail network from Sishen South and between Black Rock and Dibeng. It is characterised by a mixture of land uses, of which agriculture and mining are dominant. The district holds potential as a viable tourist destination and has numerous growth opportunities in the industrial sector.

Cities/Towns: Bankhara-Bodulong, Deben, Hotazel, Kathu, Kuruman, Mothibistad, Olifantshoek, Santoy, Van Zylsrus

Joe Morolong Municipality

Joe Morolong Local Municipality was formerly known as Moshaweng Local Municipality. It is located in the Northern Cape Province within John Taolo Gaetsewe District Municipality (previously Kgalagadi District Municipality). The area is mostly rural, with about 60% of it comprising virgin land surface. The village is situated approximately 24km north-east of Kuruman. Although unemployment is high, the municipality has a great deal of potential for developers, especially those interested in ecotourism and conservation.

Cities/Towns: Hotazel, Santoy, Van Zylsrus

Demography

Population	89 530
Age Structure	
Population under 15	39.40%
Population 15 to 64	54.20%
Population over 65	6.40%
Dependency Ratio	
Per 100 (15-64)	84.60
Sex Ratio	
Males per 100 females	85.50
Population Growth	
Per annum	-0.90%
Labour Market	
Unemployment rate (official)	38.60%
Youth unemployment rate (official) 15-34	49.50%
Education (aged 20 +)	
No schooling	22.80%
Higher education	4.10%
Matric	13.40%
Household Dynamics	
Households	23 707
Average household size	3.70
Female headed households	50.70%

Formal dwellings	72.50%
Housing owned	52.50%
Household Services	
Flush toilet connected to sewerage	6.00%
Weekly refuse removal	6.10%
Piped water inside dwelling	9.10%
Electricity for lighting	81.80%

(b) Description of the current land uses.

The area is currently used for the grazing of domesticated livestock, including sheep, and cattle. Natural indigenous fauna still remnant to the region are free roaming (i.e. not habitat-bound) and could be present, but not dependent, on the precise proposed prospecting right area. There are no cultivated lands on or close to the proposed prospecting site.

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

Built Infrastructure within the farm is characterized by the farm house, kraal, wind mill and water reservoir and wood livestock holding area. Farm homestead exist and this maybe of heritage significance. Based on personal communication, a grave of a child exist at the backside of the farm house. It is strongly recommended that exploration team should avoid cantering their drilling activities in close proximity to homesteads and ruins.

(d) Environmental and current land use map.
(Show all environmental and current land use features)

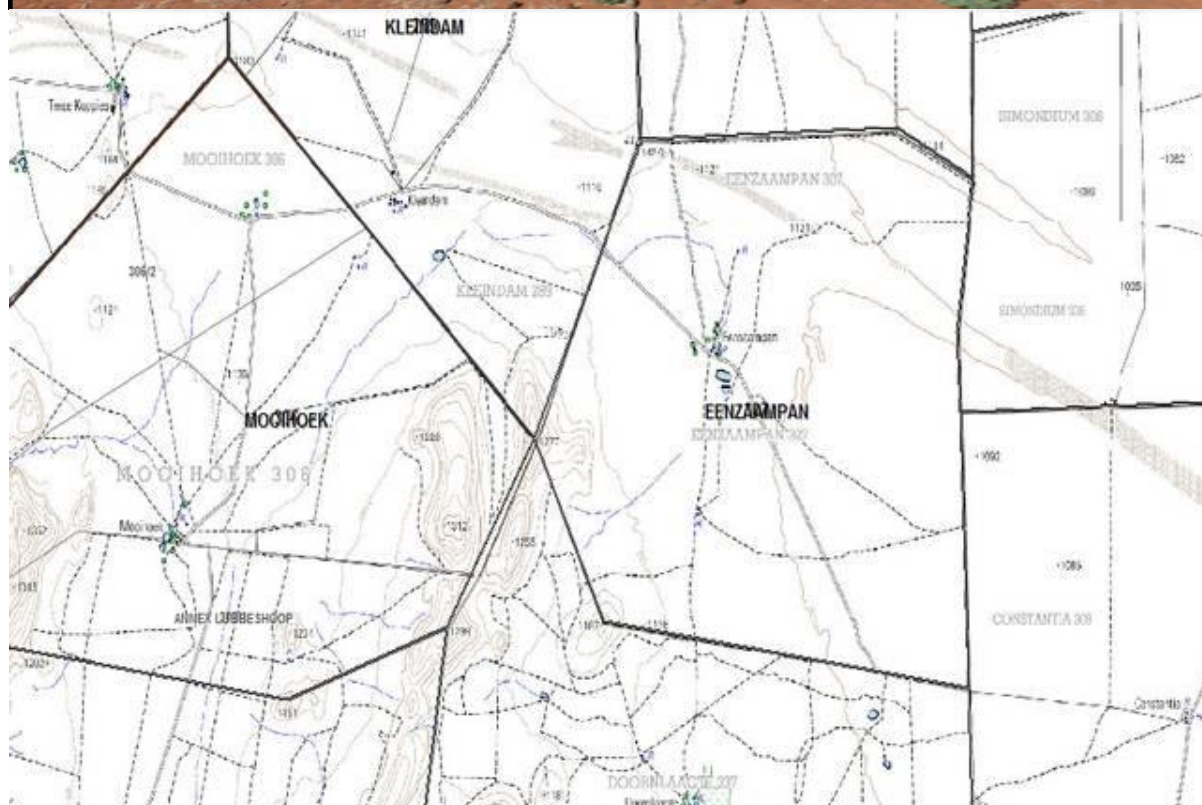


Figure 5: View of some of the farm livestock and Topographical map of the study area.

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)

(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)

Phase	Activities	Potential impacts	Reversible	Irreplaceable damage	Can impact be avoided	Managed or mitigated
Construction phase	Site establishment	-Vegetation loss	Yes (rehabilitation)	No	No	Yes
	-Vegetation clearance	-Soil compaction	Yes (ripping)	No	No	Yes
		-Soil erosion	Yes (Creating of berms)	No	Yes	Yes
	-Demarcation of the Prospecting area such as topsoil storage area, temporal office site, storage of dumps and ablution area	-Dust	Yes (dust suppression)	No	No	Yes
		-Loss of Fauna species	Yes (rehabilitation)	No	No	Yes
	-Moving of equipment and mobile infrastructure to site	-Negative visual impact	Yes (rehabilitation)	No	No	Yes
		-Loss of authentic values	Yes (rehabilitation)	No	No	Yes
	-Removal of topsoil	-Topographical disturbances	Yes (rehabilitation)	No	No	Yes
	-Construction of access roads	Livestock theft	No	No	Yes	Yes

Operational phase	Drilling and related Prospecting activities	-Land degradation	Yes (Through rehabilitation)	No	No	Yes
		-Loss of biodiversity	Yes (Through rehabilitation)	No	No	Yes
		-Negative Visual impact	Yes (Through rehabilitation)	No	No	Yes
		-Dust	Yes (dust suppression)	No	No	Yes
		-Soil pollution	Yes (Through rehabilitation)	No	Yes	Yes
		-Water pollution	Yes (Through rehabilitation)	No	Yes	Yes
		-Soil erosion	Yes (Creating of berms)	No	Yes	Yes
		-Noise pollution	Yes (Silencers)	No	No	Yes
		-Land use conflict	Yes (Demarcation)	No	Yes	Yes
		-Loss of authentic value	Yes (Through rehabilitation)	No	No	Yes
		-Topography	Yes (Through rehabilitation)	No	No	Yes
		-Waste generation	Yes (Dust bins)	No	Yes	Yes

		-Health risk to workers or general public	Yes (awareness)	No	Yes	Yes
		Socio-economic (positive impact)	No	No	No	N/A
		Livestock theft	No	No	Yes	Yes
		Veld fires	No	No	Yes	Yes
		Heritage site disturbances	No	No	Yes	Yes
Decommissioning phase	Positive impacts	Surface disturbance	Yes (Through rehabilitation)	No	Yes	Yes
		Soil pollution	Yes (Through rehabilitation)	No	Yes	Yes
		Vegetation loss	Yes (Through rehabilitation)	No	Yes	Yes
		Fauna disturbances	Yes (Through rehabilitation)	No	Yes	Yes
		Loss of authentic value	Yes (Through rehabilitation)	No	Yes	Yes
		Topography	Yes (Through rehabilitation)	No	Yes	Yes

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).

Criteria of assigning significance to potential impacts

The assessment of the impacts has been conducted according to a synthesis of criteria required by the integrated environmental management procedure.

Nature of impact

This is an appraisal of the type of effect the activity would have on the affected environmental component. Its description should include what is being affected, and how. The impact may be positive or negative.

Extent

The physical and spatial size of the impact. This is classified as follows:

Local

The impacted area extends only as far as the activity, e.g. a footprint.

Site

The impact could affect the whole, or a measurable portion of the property.

Regional

The impact could affect the area including the neighbouring farms, transport routes and the adjoining towns.

Cumulative

The impact could have a cumulative effect with the surrounding land uses.

Duration

The lifetime of the impact which is measured in the context of the lifetime of the proposed phase (i.e. construction or operation)?

Short term

The impact will either disappear with mitigation or will be mitigated through natural process in a short time period.

Medium term

The impact will last up to the end of the Prospecting period, where after it will be entirely negated.

Long term

The impact will continue or last for the entire operational life of the mine, but will be mitigated by direct human action or by natural processes thereafter.

Permanent

The only class of impact which will be non-transitory. Mitigation either by man or natural process will not occur in such a way or in such a time span that the impact can be considered transient.

Intensity

This describes how destructive, or benign, the impact is. Does it destroy the impacted environment, alter its functioning, or slightly alter it. These are rated as:

Low

This alters the affected environment in such a way that the natural processes or functions are not affected.

Medium

The affected environment is altered, but function and process continue, although in a modified way.

High

Function or process of the affected environment is disturbed to the extent where it temporarily or permanently ceases. This will be a relative evaluation within the context of all the activities and the other impacts within the framework of the project.

Probability

This describes the likelihood of the impacts actually occurring. The impact may occur for any length of time during the life cycle of the activity, and not at any given time. The classes are rated as follows:

Improbable

The possibility of the impact occurring is very low, due either to the circumstances, design or experience.

Probable

There is a possibility that the impact will occur to the extent that provisions must be made therefore.

Highly probable

It is most likely that the impacts will occur at some or other stage of the development.

Definite

The impact will take place regardless of any preventative plans, and mitigation measures or contingency plans will have to be implemented to contain the impact.

Determination of significance

Significance is determined through a synthesis of impact characteristics. Significance is an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required. The classes are rated as follows:

No significance

The impact is not likely to be substantial and does not require any mitigatory action.

Low

The impact is of little importance, but may require limited mitigation.

Medium

The impact is of importance and therefore considered to have a negative impact. Mitigation is required to reduce the negative impacts to acceptable levels.

High

The impact is of great importance. Failure to mitigate, with the objective to reduce the impact to acceptable levels, could render the entire development option or entire project proposal unacceptable. Mitigation is therefore essential.

Activities	Potential Impacts	Nature of Impact	Extent	Duration	Intensity	Probability	Significance Rating	Description of The Mitigation Measure	Significance After Mitigation (High, Medium, Low)
1. Site establishment -Vegetation clearance -Demarcation of the prospecting area such as topsoil storage area, temporal office site, storage of dumps and ablution area -Moving of equipment and mobile infrastructure to site -Removal of topsoil -Construction of access roads.	-Vegetation loss	Negative	Local	Long term	Medium	Highly Probable	High	Topsoil will be stripped and stored separate from overburden material Topsoil will be covered with shade cloth to protect seed stock Demarcate all working Areas with boundary fencing to restrict encroachment into surrounding veld Existing tracks must be used as far as practicable. Re-vegetation(seeding), Avoid veld and open fires, rehabilitation	Medium
	-Soil compaction	Negative	Local	Medium term	Medium	Highly Probable	High	Avoid construction of unnecessary roads and use existing roads. Ripping of compacted surfaces.	Low
	-Dust	Negative	Regional	Medium term	Medium	Highly Probable	High	Dust suppression measures will be done by means of spraying the area with water. This will be done only when there is a need.	Low
	-Loss of Fauna species	Negative	Site	Long term	Medium	Highly Probable	High	Demarcating the prospecting area. Restricting operational times to sunrise to sunset	low
	-Negative visual impact	Negative	Regional	Long term	Medium	Highly Probable	High	Concurrent rehabilitation	Low
	-Loss of authentic values	Negative	Regional	long-term	Medium	Highly Probable	High	Concurrent rehabilitation	Medium
	-Soil erosion	Negative	Site	Short term	Medium	Probable	High	Creating berms	Low
	-Topographical disturbances	Negative	Site	Long term	Medium	Highly Probable	High	Concurrent Rehabilitation	Low

	Surface disturbance	negative	Site	long-term	Medium	Highly Probable	High	Rehabilitation of disturbed areas	Low
2. Drilling and related prospecting activities	-Land degradation	Negative	Local	Medium term	Medium	Medium	Medium	Rehabilitation of disturbed areas	Low
	-Loss of biodiversity	Negative	Site	Long-term	Medium	Highly Probable	High	Containment of operational footprint with boundary fencing. Rehabilitation of disturbed areas	medium
	-Negative Visual impact	Negative	Regional	Long-term	Medium	Highly Probable	High	The area will be rehabilitated to its original state meaning that visual impact will be minimised.	Low
	-Dust	Negative	Regional	Medium term	Medium	Highly Probable	High	Reasonable and effective methods must be Implemented to reduce the liberation of dust into the air. Dust suppression measures such as the use of water spraying on dusty areas.	Low
	-Soil pollution	Negative	local	Short term	Medium	Probable	Medium	Using drip tray, taking precautions on the refuelling point. . If any soil is contaminated during the life of the prospecting activities, it will be immediately scooped and stored in the enclosed containers or plastic to be removed with the industrial waste to a recognized licenced facility for further treatment. Small accidental spillages will be treated on site using bio-sorb or oil cap.	Low
	-Water pollution	Negative	regional	Long-term	Medium	Probable	Medium	Avoid hydrocarbon accidental spillages.	low
	-Soil erosion	Negative	Site	Short-term	Medium	Probable	Medium	Creation of berms on topsoil storage area	low
	-Noise pollution	Negative	regional	Medium term	Medium	Probable	Medium	The applicant will comply with the occupational noise regulations of the Occupational Health and safety Act, Act 85 of 1993. Speed control of vehicles to be limited to 30km/h	low

	-Land use conflict	Negative	Site	Long-term	Medium	Highly Probable	High	Rehabilitation and return the area to its original state, Seeding of the rehabilitated area will be implemented if vegetation growth is not satisfactory.	medium
	-Loss of authentic value	Negative	Regional	Long-term	Medium	Highly Probable	Medium	Concurrent rehabilitation. Creation of buffer zone.	Low
	-Topography	Negative	Site	Medium term	Medium	Highly Probable	Medium	Concurrent rehabilitation.	Low
	-Waste generation	Negative	Site	Short term	Medium	Highly Probable	Low	Dedicated area for waste disposal and awareness.	Low
	-Health risk to workers or general public	Negative	Regional	Medium term	Medium	Probable	Medium	Environmental Awareness	Low
	Socio-economic (positive impact)	positive	Cumulative	Long-term	Medium	Definite	High	Creation of employment	High
	Impact on heritage	Negative	local	Short-term	Medium	Probable	Medium	Heritage impact assessment has been conducted and no heritage aspects were identified. Avoid impacting any areas so identified in Specialist report	Low
	Theft/poaching farm animals by workers	Negative	Site	Long-term	Medium	probable	Medium	Restrict access to employees only. Access identification cards. Workshopping the employees. Poaching of animals will be prohibited.	Low
Final rehabilitation of the prospecting area, Removal of equipment on site (positive impacts)	Noise	Negative	Local	Short-Term	Medium	Probable	High	Noise levels must comply with OHS regulations. Noise generating activities should be restricted to normal working hours. Mine is noted to be remote from any settlement and human habitation Vehicle exhaust systems should be	Low

								in good state of maintenance with standard noise suppression equipment. Personnel will wear PPE, specifically ear muffs to suppress noise levels when using machinery.	
	Soil compaction	Positive	Local	Short Time	Medium	Probable	High	Ripping of all compacted ground and also where equipment were standing.	Low
	Soil erosion	Positive	Local	Permanent	Medium	Probable	High	Finalise rehabilitation of berms created.	Low
	Dust	Negative	Local	Short-Term	Medium	Probable	High	Dust will be negligible	Low
	Surface disturbance	Positive	Local	Permanent	Medium	Probable	High	All surface disturbed will be rehabilitated to its original state. All compacted ground will be ripped to a depth of 300mm.	Low
	Soil pollution	Positive	Local	Short Term	Medium	Probable	High	Every equipments that may cause pollution will be taken out of the site.	Low
	Health risk	Positive	Regional	Permanent	Medium	Probable	High	No health risk is anticipated	Low
	Waste	Positive	Local	Short-Term	Medium	Probable	High	Collected and disposed-off to a licenced facility.	Low
Monitoring of rehabilitated areas for 6 months	Monitoring of vegetation growth	Positive	Site	Permanent	Medium	Highly Probable	High	Monitoring of vegetation growth will be done for a period of 1 years after final rehabilitation.	Low

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 the 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)

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).

List of the issues raised

This information will be provided after receiving comments from the interested and affected parties.

1. How many drill rigs are you going to use as they are more than one application area?
 - It was cleared that only one drill rig will be utilised for the whole prospecting period which is 3 years.
2. Appoint an environmental officer who will police the contractors.
 - Agreement will still be reached for appointing local Environmental officers who will be readily available when needed and who will easily access the area. Note that Environmental officer who is being mentioned was part of the public participation meeting.
3. How are we going to protect flora that are on red data list as they are many types of protected plants in and around the proposed prospecting farms?
 - This will be done by conducting environmental awareness with the appointed employees and by hiring resident environmental officer who will police the appointed people and contractors.
4. On slide 17 of the presentation a question was rose that where are we going to draw that pool of labour
 - This was also addressed that local community will be given preferences.
5. The presentation was supposed to reflect things like how are we going to dispose industrial waste and domestic waste and which company will be responsible for such disposal. It was mentioned that sewage was once be discovered being disposed next to the road. How are we going to access

Ascot 288 and Eenzaampan 307 because access to Arcadia 262 is going to be simple as it is lying along the main road?

- Industrial waste and domestic waste management were reflected on the presentation and it was agreed that the presenter might have highlighted that and move quick because of time management. The presentation will be readily available for the interested and affected parties if requested. A slide showing (Slide 8) locality plan of the project was re-visited and Ndi showed interested and affected parties access road to Eenzaampan 307 and Ascot 288.

6. We put it on record that he as the owner of the farm is interested on this opportunity. We also put it on record that if the permit is awarded to your client, an agreeable agreement shall be entered into by our client and your client before prospecting can begin. Please see attached letter.

- Noted.

Possible Mitigation Measures Include:

Air quality:

Air quality will be minimised by means of the following:

- Dust suppressions by means of water spraying on haul roads and unpaved areas when there is a need.
- Avoidance of unnecessary removal of vegetation
- Vehicles will be properly serviced in order for them to minimise emission of CO²
- Re-vegetation of rehabilitated areas not occupied by plant infrastructure to take place as soon as possible.
- Keeping material in the aqueous phase
- All workers will have access to respiratory protection equipment
- Stock piles will always damped
- Speed limit of 30km/hour will be maintained at all times during the lifespan of the Prospecting activities.
- Dust fall-out buckets will be installed within and outside the prospecting area in order to monitor dust emission from the prospecting activities. The buckets will be placed in areas where accurate result will be attained.

Flora:

Vegetation will be protected by avoiding unnecessary clearance and by using existing access roads at all times. All vehicles will be monitored so that they move on the existing tracks when conducting prospecting activities at all times. All prospected areas will be rehabilitated and re-vegetation will take place naturally. If re-vegetation do not take place naturally therefore seeding of the prospected area with surrounding indigenous species will be considered. Rehabilitated area will be monitored to avoid other disturbances on rehabilitated area until vegetation is fully grown. Open fire that will end up destroying the vegetation will be avoided at all times. If invader species are encountered they will be uprooted, felled or cut off and can be destroyed completely. The plants will be treated with an herbicide that is registered for use in connection therewith and in accordance with the directions for the use of such an herbicide for example Kaput gel might be used for the destruction of alien invader plants." Valid permits from Northern Cape Nature Conservation will be obtained before any protected plant species are removed.

Fauna:

- Prospecting areas will be fenced off in order to restrict access of any animal or human.
- Speed limits of vehicles inside the application area will be strictly controlled to avoid road kills.
- No poaching will be allowed on site and the Department of Nature Conservation will be contacted if any endangered species are encountered.
- Any form of snares or traps on the site will be removed and farm and game animals will be relocated if necessary.
- Fire will not be allowed on site and workers will bring their own cooked food.
- Any area that is rehabilitated or decommissioned will be seeded with a seed mixture reflecting the natural vegetation as is currently found and which may attract back animal species.

Noise:

The applicant will comply with the occupational noise regulations of the Occupational Health and safety Act, Act 85 of 1993. As a minimum, ambient noise levels emanating from the mine will not exceed 82 dBA at the site boundary. The applicant will comply with the measures for good practice with regard to management of noise related impacts during construction and operation. The management objective will be to reduce any level of noise, shock and lighting that may have an effect on persons or animals, both inside the plant and that which may migrate outside the plant area.

Hearing protection will be available for all employees where attenuation cannot be implemented. If any complaints are received from the farm owner, the general public or state department regarding noise levels, the levels will be monitored at prescribed monitoring points. Appropriate measures will specifically be installed and or employed at the plant to act as screen and to reflect/reduce the noise. The vehicles and the equipment will be equipped with silencers on their exhaust system.

Prospecting will only take place during the day from 07h00-17h00. The site manager will be responsible for monitoring noise within the mine. No loud music will be allowed within the Prospecting area. Workers will be inducted with regard to the measure to reduce noise pollution on site.

Soil pollution and surface & ground water contamination:

Topsoil will be stripped and stored separate from overburden and will not be used for building or maintenance of access roads. The stored topsoil will be adequately protected from being blown away or being eroded. The topsoil will be used during the rehabilitation of any impacted areas, after sloping in order to re-establish the same land capability. If any soil is contaminated during the life of the Prospecting activities, it will be immediately scooped and stored in the enclosed containers or thick plastic bag to be removed with the industrial waste to a recognized facility or applicant for further treatment. Small spills will be treated on site using bio-sorb or oil cap.

Mechanical equipment:

All mechanical equipment will be in good working order/condition and vehicles will adhere to the relevant noise requirements of the Road Traffic Act. All vehicles in operation will be equipped with a silencer on their exhaust system. Safety measures, which generate noise such as reverse gear alarms on large vehicles, will be appropriately calibrated/adjusted. Hydrocarbon such as diesel or oil will be stored in the mobile tank which will be brought on site on a daily basis. Drip trays will be placed under the mobile tanker and vehicles/equipment in order to avoid accidental spills.

Ground water mitigation:

During rehabilitation, one of the primary considerations is the isolation of material from the environment. This includes measures to reduce the potential long-term impact on groundwater, erosion controls to prevent surface water impacts and cover sequences to prevent biological penetration of tailings structures. Monitoring for this pathway will generally involve environmental sampling determination. However, care is required because of natural variability. In a number of cases the operational component may be far smaller than the natural background levels, the operational component will be determined and taken into account.

Visual impact:

Concurrent rehabilitation will be implemented throughout the prospecting operation, meaning that each borehole drilled will be rehabilitated before moving to the next drilling point. The area will be rehabilitated possibly to its original state meaning that

visual impact will be minimised or reduced. All prospecting equipment will be removed from site during the decommissioning phase of the Prospecting operation.

Conflict of land use

The current land use is farming/grazing land and after rehabilitation of all disturbed area as a result of Prospecting activities, the area will be returned to its original state and can again be used as a grazing land. During the Prospecting period all live stock or any animal will be relocated if it is necessary and the Prospecting areas will be fenced-off.

Surface disturbance and topography:

Concurrent rehabilitation will be implemented throughout the prospecting operation, meaning that each drilled borehole will be rehabilitated before moving to the next area to be prospected. All surface disturbed will be rehabilitated at this stage. All compacted ground will be ripped to a depth of 300mm. All rehabilitated areas will be monitored and if vegetation is not growing naturally seeding of the areas will be considered.

Waste generation:

Wastes will be stored temporarily stored within marked containers where they will be collected when full and deposited to a licenced facility. Industrial waste will be collected by contractors to the registered facility when there is a need. Employees must be able to differentiate between hazardous waste and general waste. Littering will not be allowed within or outside the prospecting boundaries.

ix) Motivation where no alternative sites were considered.

There were no alternative sites which were considered during the application of the Prospecting Right. The reasons were that the identified 1891ha applied for in terms of Mineral and Petroleum Resource Act is the only targeted area for Prospecting activities and the department of mineral resources only issue a prospecting right to the area that the applicant applied for. It is in this areas were potential of the manganese ore and iron ore mineral has been identified. Therefore no alternative sites that offer a better practical and economic option than the one identified.

x) Statement motivating the alternative development location within the overall site. (Provide a statement motivating the final site layout that is proposed).

There were no alternative sites which were considered or identified during the application of the Prospecting Right. The proposed final site has shown the potential of manganese ore and iron ore minerals.

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 are 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.)

Site visit was conducted on the 15 October 2015 in order to identify environmental features that may be impacted by the proposed prospecting activities. The site visit helped with the identification of different types of soil and vegetation communities. If there is heritage site (graves) within the prospecting area, Identified heritage area will be fenced before any prospecting activities could commence.

Public participation meeting dates will be arranged with the landowners and adjacent land owners on the 15 October 2015. The land owner and adjacent farm owners were served with notification letters to provide relevant information or comments regarding the proposed Prospecting activities with regard to the identified negative environmental impacts. The requested information will help with the identification of the environmental impacts and risk, especially historical information that could be provided by the lawful occupiers.

Desktop study: this was done to get more information about the proposed area and the adjacent farm, the climate, economic and their land uses.

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).

NAME OF ACTIVITY (E.g. For Prospecting - drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office, access route etc...etc...etc E.g. For Prospecting,-excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and excavations, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc.)	POTENTIAL IMPACT (Including the potential impacts for cumulative impacts) (e.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc....etc...)	ASPECTS AFFECTED	PHASE In which impact is anticipated (e.g. Construction, commissioning, operational Decommissioning, closure, post-closure)	SIGNIFICANCE if not mitigated	MITIGATION TYPE (modify, remedy, control, or stop) through (e.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc. etc) E.g. Modify through alternative method. Control through noise control Control through management and monitoring through rehabilitation.	SIGNIFICANCE if mitigated
Vegetation clearance	-Vegetation loss	Environment & fauna	Construction	High	Existing tracks must be used as far as practicable. Re-vegetation (seeding), Avoid veld fires, and rehabilitation	Low
Road construction & upgrading/ maintenance	Vegetation loss	Environment, people & animals	Construction	Medium	Ripping of road. Avoid construction of newly roads and use existing roads.	Low
	Dust	Environment, people & animals	Construction	Medium	Dust suppression methods will be implemented. limit vehicle speed to 30kh/h	Low

	Ground compaction	Environment	Operational	High	Ripping of road. Avoid construction of newly roads and use existing roads.	Medium
-Removal of topsoil	Surface disturbance	Environment	Construction	Medium	Rehabilitation using backfilling methods as far as practicable.	Medium
Topsoil storage area,	Surface compaction	Environment	Operational	Medium	Ripping of ground, Avoid unnecessary tracks.	Low
	Soil erosion	Environment	Operational	Medium	Topsoil will be stored on the high ground of the Prospecting area outside flood plain, stockpiles will be 2 m in height.	Low
Temporal office site	Surface compaction	Environment	Operational	High	Ripping of the compacted ground to 300m in order to allow vegetation growth	Medium
Ablution area	Surface compaction	Environment	construction	Medium	Ripping of the compacted ground to 300m in order to allow vegetation growth	Low
	Air pollution/hygiene	People	Operational	Medium	Dust suppression measures such as water spraying.	Low
-Demarcating temporal dumps storage	Surface compaction	Environment	construction	High	Ripping of the compacted ground to 300m in order to allow vegetation growth	Medium
	Visual impact	People	Operational	High	Concurrent rehabilitation	Medium
	Topographical change	Environment	Operational	High	Rehabilitation	Medium
-Moving of equipment and mobile infrastructure to site	Surface disturbance	Environment	Construction	Medium	Rehabilitation using backfilling methods as far as practicable.	Low
Drilling	-Surface disturbances	Environment, fauna and people	operational	High	Rehabilitation by backfilling boreholes.	Medium

Biodiversity loss	Environment, fauna and people	Operational	High	Rehabilitation, re-vegetation. Avoid unnecessary removal of vegetation. Capping each borehole with a steel lead before drilling a new one to prevent fauna from falling into the boreholes	Medium
Visual impacts	People	Operational	Medium	Concurrent rehabilitation or creation of bufferzone.	Low
Soil pollution	People, environment and fauna	Operational	Medium	Using drip tray, taking precautions on the refuelling point. If any soil is contaminated during the life of the Prospecting activities, it will be immediately scooped and stored in the enclosed containers or plastic to be removed with the industrial waste to a recognized licenced facility or applicant for further treatment. Small spills will be treated on site using bio-sorb or oil cap.	Low
Surface and ground Water pollution	People, environment and fauna	Operational	Medium	Avoid soil contamination throughout the life span of the mine.	Low
Dust	People, environment and fauna	Operational	Medium	Dust suppression measures will be applied.	Low
Health risk to workers or general public	People	Operational	Medium	Employees will be provided with PPE (dust mask, Ear plugs etc.)	Low
Heritage site	environment	Operational	Medium	Heritage impact assessment has been conducted before	Low

					commencing with the Prospecting activities. However if any heritage site or resource is identified during the excavating/ Prospecting period, it will be reported to SAHRA.	
	Soil erosion	Environment	Operational	Medium	Creation of berms, and proper storage of topsoil stockpiles.	Low
	Veld Fire	People, environment and fauna	operational	Medium	Environmental awareness.	Low
	Domestic waste	Animals, environment and people	Construction and operational.	Medium	Marked containers will be utilise to store domestic waste. Employees will be inducted on how to sort their waste. Waste will be taken to the municipality dumping site on the weekly basis	Low
	Noise	People & animals	Construction & operational	Medium	Noise will be kept minimal on working hours.	Low
Drilling	Surface disturbances	Environment, fauna and people	operational	High	Rehabilitation by backfilling holes.	Medium
	Biodiversity loss	Environment, fauna and people	operational	High	Rehabilitation, re-vegetation. Avoid unnecessary removal of vegetation. Fencing of holes to prevent fauna from falling into the holes.	Medium
	Visual impacts	People	Operational	Medium	Concurrent rehabilitation or creation of bufferzone.	Low
	Soil pollution	People, environment and fauna	Operational	Medium	Using drip tray, taking precautions on the refuelling point. If any soil is	Low

					contaminated during the life of the Prospecting activities, it will be immediately scooped and stored in the enclosed containers or plastic to be removed with the industrial waste to a recognized licenced facility or applicant for further treatment. Small spills will be treated on site using bio-sorb or oil cap.	
Surface and ground Water pollution	People, environment and fauna	Operational	Medium	Avoid soil contamination throughout the life span of the mine.	Low	
Dust	People, environment and fauna	Operational	Medium	Dust suppression measures will be applied.	Low	
Health risk to workers or general public	People	Operational	Medium	Employees will be provided with PPE (dust mask, Ear plugs etc.)	Low	
Heritage site	Environment	Operational	medium	Heritage impact assessment has been conducted before commencing with the Prospecting activities. However if any heritage site or resource is identified during the excavating/ Prospecting period, it will be reported to SAHRA.	Low	
Soil erosion	Environment	Operational	Medium	Creation of berms, and proper storage of topsoil stockpiles.	Low	
Veld Fire	People, environment and fauna	operational	Medium	Environmental awareness.	Low	

	Domestic waste	Animals, environment and people	Construction and operational.	Medium	Marked containers will be utilise to store domestic waste. Employees will be inducted on how to sort their waste. Waste will be taken to the municipality dumping site on the weekly basis	Low
	Noise	People & animals	Construction & operational	Medium	Noise will be kept minimal on working hours.	Low
Maintenance of machinery /vehicles	Soil pollution	People, animals and environment	Operational	High	No maintenance of vehicles will be done on site. Avoid soil contamination at all time. Contaminated soil will be scooped immediately after accidental spill of hydrocarbons.	Medium
Hydrocarbon storage	Soil contamination and water pollution	People, animals and environment	Operational	High	Avoid soil contamination at all time. Contaminated soil will be scooped immediately after accidental spill of hydrocarbons. Make sure that measures are applied at the refuelling point.	Medium
Final rehabilitation	Dust			Medium	Topsoil will be spread over the rehabilitated soil in order to allow regrowth of vegetation. All machinery will be removed from the site. Ripping of all remaining compacted surface	Low
	Noise			Medium	Noise will be minimal since only touch-up will be done on site for final rehabilitation.	Low

	Domestic waste	negative	Closure phase	Low	Removal of all marked containers and disposed waste at a registered facility	
Monitoring rehabilitated areas		environment	Post closure	Low	Monitoring of all rehabilitated areas will be done to make sure if vegetation is growing and if not other mitigation measures as seeding of the area will be considered. All invader species will be monitored and removed from all rehabilitated areas.	Low

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	RECOMMENDATIONS 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.
Heritage impact assessment report	In conclusion there are no written documents on previous archaeological investigations on Eenzaampan 307 farm from the South African Heritage Resource database. The phase 1 Archaeological Impact Assessments for prospecting rights on farm Eenzaampan 307 revealed no heritage resources sites within the study area. Farm homestead exist and this maybe of heritage significance. Based on personal communication, a grave of a child exist at the backside of the farm house. It is strongly recommended that exploration team should avoid centering their drilling activities in close proximity to homesteads and ruins.	In conclusion there are no written documents on previous archaeological investigations on Eenzaampan 307 farm from the South African Heritage Resource database. The phase 1 Archaeological Impact Assessments for prospecting rights on farm Eenzaampan 307 revealed no heritage resources sites within the study area. Farm homestead exist and this maybe of heritage significance. Based on personal communication, a grave of a child exist at the backside of the farm house. It is strongly recommended that exploration team should avoid centering their drilling activities in close proximity to homesteads and ruins.	Appendix 2.19.2.

	<p>The objective of the AIA is to limit primary and secondary impacts on archaeological and cultural heritage sites in the path of the proposed mineral prospecting site. The study informs and makes recommendations for any further mitigation that should take place before mineral prospecting commences. In the event of any unexpected heritage feature being encountered during mineral prospecting phase. Immediate reporting is very much crucial to relevant heritage authorities of any heritage resource discovered during prospecting periods. This recommendation should also be incorporated into the Environmental Management Plan for the proposed mineral prospecting rights.</p>	<p>The objective of the AIA is to limit primary and secondary impacts on archaeological and cultural heritage sites in the path of the proposed mineral prospecting site. The study informs and makes recommendations for any further mitigation that should take place before mineral prospecting commences. In the event of any unexpected heritage feature being encountered during mineral prospecting phase. Immediate reporting is very much crucial to relevant heritage authorities of any heritage resource discovered during prospecting periods. This recommendation should also be incorporated into the Environmental Management Plan for the proposed mineral prospecting rights.</p>	
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I) Environmental impact statement

(i) Summary of the findings of the environmental impact assessment;

- a) No river or any flowing streams that will be affected by the proposed prospecting activities.
- b) There were no graves or any historical aspects which were identified during the assessment
- c) It was identified during environmental impact assessment that if all negative impact is avoided and where they cannot be avoided they can be mitigated and managed throughout the lifespan of the prospecting activities, they will be insignificant.
- d) The area which is currently being used for grazing, it can be easily returned to its natural state if all mitigations and management measures are implemented effectively.
- e) No ecologically sensitive areas or Biodiversity are at risk
- f) Natural Ecosystems will not be compromised at site, regional scale and or local scale. Degradation can be mitigated through sound environmental rules, regulations and practise as will be stipulated in the EMPR.
- g) Vegetation Biomes are not threatened at local to regional scale, rehabilitation and mitigation will act to regenerate and restore land to its former state.
- h) Positive socio economic effects will be multiplied at local to regional scale

(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**

Final site map has been attached as appendix.....

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

The prospecting activities will have positive to the community and also the landowners as a result of the following reason: Preparation, widening, grading of main access route and minor tracks will improve accessibility within the farm and farm infrastructure in the period succeeding the prospecting activity. Establishment, repairs and upgrade of roads on farm will aid to improve the economic conditions of the farm. Employment opportunities will improve socio economic standard of local farm workers from which a small labour pool will be drawn. There will be a multiplier effect which will aid families associated with the workers.

Prospecting activities will have positive impact however they also have negative impacts on the environment and other aspect on the surrounding. The table below shows the negative impacts as a result of the proposed prospecting activities. Although they have negative impact, all those negative impacts can be avoided and were they cannot be avoid they can be mitigated and managed throughout the lifespan of the prospecting activity. After mitigation measures are applied all impact are less significant.

Negative impacts	Description of the impacts
Surface disturbances	Surface disturbance will occur as a result of boreholes that are to be drilled on site and this activity may cause land degradation if not mitigated. The compaction of ground will also occur during prospecting period.
Air pollution	Dust will be generated from the drilling point as results of Prospecting activities. Excessive emissions of CO ² from vehicles/EMV which are not well serviced.
Noise pollution	Noise from vehicles will be created during the Prospecting period which may affect the land owner, neighbouring/ adjacent farm owners.
Soil pollution	Contamination of soil may occur from accidental hydrocarbon spillages from the machineries, hydrocarbon storage and refuelling point
Vegetation loss	Where boreholes are drilled vegetation will be disturbed and/or destroyed.

	<p>-Removal of vegetation will lead to vegetation loss.</p> <p>-Where the firebreak will be created, the vegetation will be disturbed and/or destroyed.</p> <p>-The vegetation cover will be disturbed and / or destroyed where the overburden site, topsoil storage site, stockpile and waste dump areas will be established.</p>
Fauna disturbances	Animals within the Prospecting area will move to other location.
Loss of authentic value	Littering of domestic and industrial waste during exploration.
Topography	Drilling of boreholes will disturb the topography of the area.
Surface and ground water contamination	If accidental hydrocarbons spills are not removed with immediate effect after spill, this may lead to surface and ground water contamination.
Health risk to workers or general public	This can happen if worker or general public inhale excessive dust or drink contaminated water as a result of the Prospecting activities. This can also occur if the Mine Health and Safety Act is not implemented
Heritage site	Heritage features may be disturbed during the drilling of the area.
Veld Fire	Veld fire may occur as a result of negligence or improper awareness.
Conflict of land use	Prospecting activities will have conflict with the current land-use which is farming/ grazing.
Farm animals theft/ poaching	This may occur if access to the farm is not controlled. Lack of awareness classes.

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 EMP objectives:

The main objective of the EMPR is to provide information, guideline, and management measure to be implemented during the prospecting period. By following the information provided on the EMPR, impacts on the environment, cultural and social aspects will be avoided. Sensitive areas will not be disturbed if this document is implemented effectively.

The applicant will operate on the principle that “prevention is better than cure” and so will institute procedures to reduce the risk of emergencies taking place. These will include ensuring that all contracts specify that the contractor is required to comply with all the environmental measures specified in this EMP, environmental awareness training, on-going risk assessment and emergency preparedness.

Through implementation of the proposed prospecting activities and the mitigation measures it is anticipated that the identified impacts on the environmental, heritage resource and social economic conditions aspects can be mitigated and managed effectively. Implementation of the mitigation and management measures within the EMPR: it is anticipated that through the following management or mitigation measures impacts can be effectively managed:

- a) Theft risk can be mitigated through avoiding accommodation area on site and restriction of access to employed people only.
- b) Surface disturbances, visual impact and topographic changes can be minimised by practising concurrent rehabilitation throughout the Prospecting period. By doing this the area can be easily returned to its natural state.
- c) Surface and ground water pollution can be avoided by management of contaminated soil and by avoiding accidental hydrocarbon spillages.
- d) Noise pollution can be managed through communication with the affected parties and also environmental awareness of the employees.
- e) In term of emergencies all employees will be provided with emergency numbers and some will be placed in notice boards. Numbers of emergency services will include the local ambulance and firefighting service. All employees must be made aware of procedures to be followed during the environmental awareness training course.

Monitoring of the required mitigation measures is to take place on site on a daily basis by the site manager. Annual monitoring audits are to take place by an appointed independent environmental assessment practitioner (EAP) to compile the required annual environmental compliance report required by the DMR.

n) Aspects for inclusion as conditions of Authorisation.

(Any aspects which must be made conditions of the Environmental Authorisation)

- The applicant must inform the farm owners and adjacent farm owners prior to any commencement of the Prospecting activities.
- The applicant must appoint security officers in order to control access to the prospecting areas and adjacent farms.
- Access gates will always be locked at all times.
- The financial provision must be adjusted annually.

o) Description of any assumptions, uncertainties and gaps in knowledge. *(Which relate to the assessment and mitigation measures proposed)*

The Gaps of this basic assessment report is that it does not include comments from competent authorities and other state departments; however this will be included on the final report before submitting to DMR. Uncertainties exist in the actual final size, extent and depth of the boreholes as described in the BAR. The final size will only be known when prospecting takes place.

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.

All activities applied for should be authorized since there is no reason why they should not be authorised. All impacts have been assessed, evaluated and mitigations measures are in place to minimize any disturbance as results of prospecting activities. Monitoring of the required mitigation measures is to take place on site every two weeks by the environmental officer and daily by site manager. Annual monitoring audits will be done by an appointed independent environmental assessment practitioner to compile the required annual environmental compliance report required by the DMR.

ii) Conditions that must be included in the authorisation

- a) A copy of environmental authorisation must be kept at the property where the activities will be undertaken. Environmental authorisation must be produced to any authorised official of the Department who requests to see it and must be made available for inspection by any employee or agent of the holder of the authorisation who works or undertakes work at the property.
- b) Where any of the applicant's contact details changes, including the name of the responsible person where the applicant is a juristic person, the physical or postal address and/or telephonic details, the applicant must notify the relevant Department as soon as the new details become known to the applicant.
- c) The holder of the Environmental authorisation must notify the Department, in writing and within twenty four (24) hours, if any condition of this authorisation cannot be or is not adhered to. Any notification in terms of this condition must be accompanied by reasons for the non-compliance. Non-compliance with a condition of this authorisation may result in criminal prosecution or other actions provided for in the National Environmental Management Act, 1998 and the regulations.
- d) A holder of waste must, within the holder's power, take all reasonable measures to where waste must be disposed of, ensure that waste is treated and disposed of in an environmentally friendly manner.
- e) All areas on site that is disturbed must be rehabilitated using locally occurring indigenous plant species.
- f) The Prospecting site must be clearly demarcated; clear signage must be erected; and access must be controlled.
- g) Faunal species must not be trapped, killed or hunted during the construction period.
- h) Environmental person must visit the area at least twice a month.

- i) The EMPR, Environmental Authorisation and the layout plan must always be on site and available for environmental management inspectors.

q) Period for which the Environmental Authorisation is required.

The Environmental Authorisation is required for five years. The five years will also cover the final rehabilitation and monitoring period.

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 report.

The undertaking has been attached at the end of both the Basic assessment report and the Environmental Management Programme

S) FINANCIAL PROVISION

STATE THE AMOUNT THAT IS REQUIRED TO BOTH MANAGE AND REHABILITATE THE ENVIRONMENT IN RESPECT OF REHABILITATION.

The financial provision has been calculated to the amount of R84,578.00 for management and rehabilitation of environmental impacts.

j) Explain how the aforesaid amount was derived.

The calculation of the financial provision has been done with a guidance of the financial provision guideline provided by the department of mineral resources. 20 boreholes where the grid spacing will be set to 400m x 400m with an average depth of 150m will be drilled.

Environmental Rehabilitation was calculated as follows.

20 Boreholes	2000m ²
Temporary top soil storage area	25m ²
Construction of access gravel road	400m ² (not wider than 4m)
Temporary mobile office	25m ²
Hydrocarbon storage	25m ²
Fence	250m
Temporal stockpile area	50m ²
Temporal storage of overburdens	100m ²
Ablution facilities	

CALCULATION OF THE QUANTUM

Applicant:
Evaluators:

**Matolo Trading (Pty) Ltd
Ndi Geological Consultant Services**

Ref No.:
Date:

**11680PR
Oct-15**

No.	Description	Unit	A	B	C	D	E=A*B*C*D
			Quantity	Master Rate	Multiplication factor	Weighting factor 1	Amount (Rands)
1	Dismantling of processing plant and related structures (including overland conveyors and powerlines)	m3	0	12,21	1	1	0
2 (A)	Demolition of steel buildings and structures	m2	0	170,13	1	1	0
2(B)	Demolition of reinforced concrete buildings and structures	m2	0	250,72	1	1	0
3	Rehabilitation of access roads	m2	400	30,44	1	1	12176
4 (A)	Demolition and rehabilitation of electrified railway lines	m	0	295,49	1	1	0
4 (A)	Demolition and rehabilitation of non-electrified railway lines	m	0	161,18	1	1	0
5	Demolition of housing and/or administration facilities	m2	0	340,26	1	1	0
6	Opencast rehabilitation including final voids and ramps	ha	0	173174,97	0,05	1	0
7	Sealing of shafts adits and inclines	m3	0	91,33	1	1	0
8 (A)	Rehabilitation of overburden and spoils	ha	0	118912,29	1	1	0
8 (B)	Rehabilitation of processing waste deposits and evaporation ponds (non-polluting potential)	ha	0	148103,1	1	1	0
8 (C)	Rehabilitation of processing waste deposits and evaporation ponds (polluting potential)	ha	0	430161,62	1	1	0
9	Rehabilitation of subsided areas	ha	0	99571,13	1	1	0
10	General surface rehabilitation	ha	0,2225	94198,59	1	1	20959,18628
11	River diversions	ha	0	94198,59	1	1	0
12	Fencing	m	250	107,45	1	1	26862,5
13	Water management	ha	0	35816,95	1	1	0
14	2 to 3 years of maintenance and aftercare	ha	0,06502	12535,93	1	1	815,0861686
15 (A)	Specialist study	Sum	0			1	0
15 (B)	Specialist study	Sum				1	0
Sub Total 1							60812,77244

1	Preliminary and General	7297,532693	weighting factor 2	7297,532693
			1	
2	Contingencies	6081,277244		6081,277244
Subtotal 2				74191,58
VAT (14%)				10386,82
Grand Total				84578

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 Prospecting work programme, Financial and Technical Competence Report or Prospecting Work Programme as the case may be).

The financial provision can be provided for from operating expenditure. The applicant intends to make this financial provision in a form of bank guarantee or cash deposit.

t) Specific Information required by the competent Authority

None at this stage

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:-

There is no report which was compiled for socio-economic condition however the impacts and mitigation for such will be discussed with the interested and affected parties as follows:

(1) Impact on the socio-economic conditions of any directly affected person. (Provide the results of Investigation, assessment, and evaluation of the impact of the Prospecting, bulk sampling or alluvial diamond Prospecting on any directly affected person including the landowner, lawful occupier, or, where applicable, potential beneficiaries of any land restitution claim, attach the investigation report as an **Appendix** .

- Livestock theft as a result of uncontrolled access to the farm,
- Noise as a results of Prospecting activities,
- Potential water pollution as a result of neglected soil contamination,
- Visual impact
- Dust
- Surface disturbances as a result of borehole to be drilled.

Positive impacts on directly affected parties:

Preparation, widening, grading of main access route and minor tracks will improved accessibility within the farm and farm infrastructure in the period succeeding the mine activity. Establishment, repairs and upgrade of roads on farm will aid to improve the economic conditions of the farm.

Employment opportunities will improve socio economic standard of local farm workers from which a small labour pool will be drawn. There will be a multiplier effect which will aid families associated with the workers.

Mitigation measure to the impacts of the socio-economic condition of any directly affected person:

- Reasonable and effective methods must be implemented to reduce the liberation of dust from operational activities.
- Dust suppression measures such as water dampening from trailer to be used if and when required.
- Mine staff ECO induction will train all staff on recognition and importance of fauna and livestock.

- Hunting, snaring, capturing or interfering with any fauna and landowner's stock is forbidden.
- The areas demarcated for boreholes must be the minimum reasonably required which will involve the least possible disturbance to the environment and must be fenced to restrict any fauna to enter the holes).
- Ongoing refill concurrent with Prospecting will mitigate the overall footprint of boreholes and reduce the cumulative impact.
- Using drip trays and taking precautions on the refuelling point. If any soil is contaminated during the life of the Prospecting activities, it will be immediately scooped and stored in the enclosed containers or plastic to be removed with the industrial waste to a recognized licenced facility or applicant for further treatment. Small spills will be treated on site using bio-sorb or oil cap. This will minimise surface or ground water pollution.
- Concurrent rehabilitation will be implemented throughout the Prospecting operation, meaning that each borehole will be rehabilitated before moving to the next area to be drilled or excavated in order to reduce visual impacts.
- The current land use is farming/grazing land and after rehabilitation of all disturbed area as a result of Prospecting activities, the area will be returned to its original state and can again be used as a grazing land. During the Prospecting period all live stock or any animal will be relocated if it is necessary.

(2) 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 Prospecting, 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 **Appendix 2.19.2** and confirm that the applicable mitigation is reflected in 2.5.3; 2.11.6. and 2.12. herein).

No heritage studies were conducted however heritage impacts assessment will be communicated at the public participation meeting.

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**).

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).

It is confirmed 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

- 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).

The description of the aspect of the activity has been already covered in part A on section 1(h)

- c) **Composite Map**
(Provide a map (**Attached as an Appendix**) at an appropriate scale which superimposes the proposed activity, its associated structures, and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that any areas that should be avoided, including buffers)

The map has been attached in appendix -----

- 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)

Closure objectives have been determined in terms of the principles of National Environmental Management Act, Act 107 of 1998 (NEMA) since NEMA is the foundation of all environmental legislation:

- With regard to the proposed Prospecting operation, the determination of closure objective include the rehabilitation of the area to its natural state putting in mind the current land use (grazing) which must continue after closure.
- The disturbance of ecosystems and loss of biological diversity will be avoided, or, where they cannot be altogether avoided, are minimised and remedied.
- Pollution and degradation of the environment will be avoided, or, where they cannot be altogether avoided, are minimised and remedied;

- The disturbance of landscapes and sites that constitute the nations cultural heritage will be avoided, or where it cannot be altogether avoided, is minimised and remedied;
- Waste will be avoided, or where it cannot be altogether avoided, minimised and reused or recycled where possible and otherwise disposed of in a responsible manner;
- The use and exploitation of non-renewable natural resources is responsible and equitable, and takes into account the consequences of the depletion of the resource;
- A risk averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions; and
- Negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied.

Environmental management must be integrated, acknowledging that all elements of the environment are linked and interrelated, and it must take into account the effects of decisions on all aspects of the environment and the surrounding.

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

It is anticipated that 1000L may be used per months on site for drinking purpose and as a dust suppression measure if required. Minimum dust will be created as a result of the Prospecting activities.

iii) Has a water use licence has been applied for?

No, there is no need for applying water use licence or authorisation since there is no activity that triggers National Water Act.

iv) Impacts to be mitigated in their respective phases

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

ACTIVITIES (E.g. For mining - drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office, access route etc...etc...etc E.g. For mining,- excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and excavations, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc.)	PHASE (of operation in which activity will take place. State; Planning and design, Pre-Construction' Construction, Operational, Rehabilitation, Closure, Post closure).	SIZE AND SCALE of disturbance (volumes, tonnages and hectares or m ²)	MITIGATION MEASURES (describe how each of the recommendations in herein will remedy the cause of pollution or degradation and migration of pollutants)	COMPLIANCE WITH STANDARDS (A description of how each of the recommendations herein will comply with any prescribed environmental management standards or practices that have been identified by Competent Authorities)	TIME PERIOD FOR IMPLEMENTATION Describe the time period when the measures in the environmental management programme must be implemented Measures must be implemented when required. With regard to Rehabilitation specifically this must take place at the earliest opportunity. .With regard to Rehabilitation, therefore state either:- Upon cessation of the individual activity or. Upon the cessation of mining, bulk sampling or alluvial diamond mining as the case may be.
Literature Review	Planning	-	Mitigation not proposed	-	-
Geological Mapping	Planning	--	No mitigation proposed	-	-
Geophysical Mapping	Planning	-	Farm owners will be consulted with regard to the access to the proposed prospecting site. Gates will be closed after entering and departing the proposed prospecting. No poaching will be allowed on site.	<ul style="list-style-type: none"> • Compliance with EMPR • Compliance with Competent Authorities requests and regulation • EATC and ECO inspection 	Mitigation measures will be implemented when required.

Site establishment	Construction	-	<ul style="list-style-type: none"> • Existing tracks must be used as far as practicable. • Avoid veld fires, • The prospecting area will be demarcated by means of fence. • The area for fuel storage will be demarcated by means constructing a cement slab with bund walls around. • Sensitive areas like gullies and dry wash will be avoided. • Large established trees and bushes will also be avoided. • If large shrubs to be removed preferable to brush cut at surface level and retain root structure in place. • If any fauna species is found during site establishment stage, they will be relocated to other portions of the farm. 	<p>The applicant will make sure that the employees comply with the standard laid out in the Environmental Management Programme and the Environmental Authorisation including their conditions and /or conditions identified by Competent Authority. This to be done by way of regular EATC (training) and regular Environmental inspection and auditing.</p>	<p>Mitigation measures will be implemented when required. However, other mitigations measures such as existing tracks will be implemented from the commencement of this activity until cessation of activity.</p>
Vegetation clearance	Construction & Operational		<ul style="list-style-type: none"> • Existing tracks must be used as far as practicable. • Large trees and bushes to be left in situ as far as is practically possible • Avoid veld fires, Where vegetation clearance is unavoidable, preferable to brush cut at surface level and retain root structure in place. • The individuals of any protected plant species should be retained <i>in situ</i> wherever possible. Permits have to be 	<ul style="list-style-type: none"> • Compliance with EMPR • Compliance with Competent Authorities requests and regulation • EATC and ECO inspection 	<ul style="list-style-type: none"> • Mitigation measures to be in place prior to activity. • In event of an critical incident with environmental significance , remedial and mitigation to be Immediately carried out on site

			obtained from NCDENC and/or DAFF for the removal of protected species from the site.		
Construction of access roads	Construction	400m ²	<ul style="list-style-type: none"> • Avoid unnecessary construction of newly roads and use existing roads. • Dust suppression methods will be implemented. • limit a speed to 30kh/h • Limit road width to 3m • Avoid new road construction over listed trees and shrubs and other sensitively identified areas such as loose sands and dry wash areas. 	<ul style="list-style-type: none"> • Compliance with EMPR • Compliance with Competent Authorities requests and regulation • EATC and ECO inspection 	<ul style="list-style-type: none"> • Mitigation measures to be in place prior to activity. • In event of an critical incident with environmental significance , remedial and mitigation to be Immediately carried out on site
Topsoil removal	Construction		<ul style="list-style-type: none"> • Remove topsoil from all areas that will be subject to boreholes. • Topsoil will be stored on the high ground of the prospecting area outside flood plain, stockpiles will be max 2m in height to prevent crushing of seed stock and micro-organisms. • The topsoil stockpile will be shaped to divert storm water • Berms built around stockpile to divert storm water • Topsoil to be covered with shade cloth or netting to prevent wind removal and desiccation or • Topsoil stockpile will not be disturbed or used for construction/ maintenance of roads. 	<ul style="list-style-type: none"> • Compliance with EMPR • Compliance with Competent Authorities requests and regulation • EATC and ECO inspection 	<ul style="list-style-type: none"> • Immediate when topsoil is grubbed and stockpiled

Temporary Mobile office site	Construction & Operation	20m ²	<ul style="list-style-type: none"> • On removal and rehabilitation the compacted surface will be ripped to a depth of 300mm in order to allow regrowth. • When establishing the office and veg clearance is unavoidable, preferable to brush cut at surface level and retain root structure in place to bind and hold soil and to aid rehab after removal of site office. 	<ul style="list-style-type: none"> • Compliance with EMPR • Compliance with Competent Authorities requests and regulation 	Immediate when office is installed on mine and after removal off site
Ablution area	Construction & Operation		<ul style="list-style-type: none"> • The containers will be emptied by qualified applicant regularly to avoid health risk. • Doors will be kept latched at all times to prevent toilet paper from blowing into veld. • Facility will be locked during mine closure weekends when personnel not on site 	<ul style="list-style-type: none"> • Compliance with EMPR • Compliance with Competent Authorities requests and regulation • EATC and ECO inspection 	ongoing and with weekly regularity throughout life of mine
Boreholes drilling	Operational	2000m ²	<ul style="list-style-type: none"> • Concurrent rehabilitation will be implemented throughout the prospecting operation, meaning that each borehole on will be rehabilitated before moving to the next area to be drilled. • All boreholes will be capped if still to be utilised. • This minimises open exposed borehole areas, thereby reducing soil and microbe loss and limiting erosion 	<ul style="list-style-type: none"> • Compliance with EMP • Compliance with Competent Authorities requests and regulation 	throughout prospecting period and upon cessation of the individual activity

			<ul style="list-style-type: none"> • The area will be rehabilitated close to its original state meaning that livestock grazing can continue as before. • Access control procedures must be agreed on with farm owners. • If any heritage site or resource is identified during the drilling period, it will be reported to SAHRA. • Prospecting will be contained within the site and unnecessary disturbance of the site and surrounding environment and vegetation will be avoided. Boundary fencing is essential. • All care must be taken to avoid the establishment of alien invasive plant species. Implement a monitoring program for the early detection of alien invasive plant species and a control program to combat declared alien invasive plant species should be continued during the operational phase. • Indigenous trees and shrubs should be retained around the footprint of the borehole because they form important food sources and habitats for various animal species. 		
Hydrocarbon storage	Construction & operational	25m ²	<ul style="list-style-type: none"> • Hydrocarbon will be stored within the storage containers and will be placed on a cement slab within the bund walls. 	<ul style="list-style-type: none"> • Compliance with EMPR • Compliance with Competent Authorities 	Throughout Operational period of the mine.

			<ul style="list-style-type: none"> • Drip trays will be placed under each stationary equipment or vehicles to avoid soil contamination which may lead to water pollution • Taking precautions on the refuelling point. • If any soil is contaminated during the life of the prospecting activities, it will be immediately scooped and stored in the enclosed containers or plastic to be removed with the industrial waste to a recognized licenced facility or applicant for further treatment. • Small spills will be treated on site using bio-sorb or oil cap. • No smoking signage to be in place at Fuel Safe Storage areas. Fire Hydrant to be in place at Fuel Safe Storage areas and to be serviced, and charged. 	<p>requests and regulation.</p> <ul style="list-style-type: none"> • EATC and ECO inspection. 	
Final rehabilitation	Rehabilitation	2000m ²	<ul style="list-style-type: none"> • Topsoil will be spread over the rehabilitated soil in order to allow regrowth of vegetation. All machinery will be removed from the site. • Area to be profiled to assume shape and slope of surrounding land form • Area to be mulched to protect topsoil and root stock and allow for reseedling process • Ripping of all remaining compacted 	<ul style="list-style-type: none"> • Compliance with EMPR • Compliance with Competent Authorities requests and regulation 	Upon cessation of prospecting, during rehabilitation phase.

			<p>surface</p> <ul style="list-style-type: none"> • Removal of all marked containers and disposed waste at a registered facility • All equipment and mobile infrastructure will be taken out of the site. • 		
Monitoring	Closure	-	<p>Monitoring of all rehabilitated areas will be done to make sure if vegetation is growing and if not other mitigation measures as seeding of the area will be considered.</p> <p>All invader species will be monitored and removed from all rehabilitated areas</p>	<ul style="list-style-type: none"> • Compliance with EMPR • Compliance with Competent Authorities requests and regulation 	Post closure and post rehabilitation.

e) Impact Management Outcomes

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

ACTIVITY (whether listed or not listed). (E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and excavations, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc.).	POTENTIAL IMPACT (e.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc....etc...)	ASPECTS AFFECTED	PHASE In which impact is anticipated (e.g. Construction, commissioning, operational Decommissioning, closure, post-closure)	MITIGATION TYPE (modify, remedy, control, or stop) through (e.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc. etc) E.g. <input type="checkbox"/> Modify through alternative method. <input type="checkbox"/> Control through noise control <input type="checkbox"/> Control through management and monitoring <input type="checkbox"/> Remedy through rehabilitation..	STANDARD TO BE ACHIEVED (Impact avoided, noise levels, dust levels, rehabilitation standards, end use objectives) etc.
Literature Review	None	N/A	Planning	No mitigation proposed	-
Geological Mapping	None	N/A	Planning	No mitigation proposed	-
Geophysical Mapping	Poor access control which may result into	fauna and people	Planning	Control through management and monitoring measure as follows:	Impact avoided

	livestock theft.			<p>Farm owners will be consulted with regard to the access to the proposed prospecting site.</p> <p>Gates will be closed after entering and departing the proposed prospecting.</p> <p>No poaching will be allowed on site.</p>	
Site establishment	Vegetation loss	Environment & fauna	Construction	<ul style="list-style-type: none"> Remedy through rehabilitation and re-vegetation. Remedy through ripping of compacted ground 	Rehabilitation standards. Site to be rehabilitated to former land use with similar biodiversity component as pre-prospecting and to acceptable visual standard.
	Compaction of ground				
Vegetation clearance	Vegetation loss	Environment & fauna	Construction & operational	<ul style="list-style-type: none"> Avoid unnecessary removal of vegetation Using existing roads as far as practicable Remedy through rehabilitation and re-Vegetation. Control through dust suppression methods 	Vegetation to be regenerated to resemble former species composition. Alien intrusion to be eradicated.
	soil erosion				
Construction of access roads	Vegetation loss	Environment & animals	Construction & operational	<ul style="list-style-type: none"> Using existing roads as far as practicable Remedy through rehabilitation Control through management and monitoring. 	<p>Impact avoided, dust levels and rehabilitation standards.</p> <p>Avoid construction as far as practically possible</p> <p>Roads will be less than 3m width</p> <p>Roads to avoid sensitive areas and Listed Vegetation</p> <p>After rehab and closure new roads will be left in situ to aid landowner and provide improved farm infrastructure.</p>
	Dust				
	Ground compaction				
Topsoil removal	Erosion	Environment & people	Construction & operational	<ul style="list-style-type: none"> Storm water control measures, Dust control measures and monitoring Remedy through ripping of compacted ground/surface 	Impacts control and dust levels
	Dust				
	Ground				

	compaction				
Temporal Mobile office site	Ground compaction	Environment	Construction & operational	Remedy through ripping of compacted ground/surface	Surface under where structure was situated to be rehabilitated, to ensure vegetation will adequately regrow and biodiversity and former land use is re-established.
Ablution area	Health risk	Environment & people	Construction & Operational	Control through management and monitoring	Regular cleaning Maintain adequate health standard n compliance with O H & S. Keep doors closed
Borehole drilling	Vegetation - loss	Environment and fauna	Operational phase	<ul style="list-style-type: none"> Avoid unnecessary removal of vegetation Using existing roads as far as practicable Remedy through rehabilitation and re-vegetation. Control through dust suppression methods. Control through management and monitoring. Capping all boreholes to prevent fauna from falling into. Concurrent rehabilitation or creation of bufferzone. Using drip tray, taking precautions on the refuelling point. If any soil is contaminated during the life of the prospecting activities, it will be immediately scooped and stored in the enclosed containers or plastic to be removed with the industrial waste to a recognized licenced facility or applicant for further treatment. Small spills will be treated on site using bio-sorb or oil 	Impact avoided, noise levels, dust levels, rehabilitation standards and end use objectives) Land surface where trenching was situated to be rehabilitated, to ensure vegetation will adequately regrow and biodiversity and former land use is re-established.
	-Surface disturbances	Environment and fauna			
	Biodiversity loss	Environment and fauna			
	Visual impacts	People			
	Soil pollution	Environment			
	Surface and ground Water pollution	Environment & people			
	Health risk to workers or general public	people			

				cap.	
	Heritage resource disturbances	Heritage sites		<ul style="list-style-type: none"> Avoid soil contamination throughout the life span of the mine. 	
	Soil erosion	Environment		<ul style="list-style-type: none"> Employees will be provided with dust mask. Ear plugs will also be provided to the workers. 	
	Veld Fire	Environment, fauna and people		<ul style="list-style-type: none"> If any heritage site or resource is identified during the drilling period, it will be reported to SAHRA. 	
	Domestic waste generation	Environment		<ul style="list-style-type: none"> Creation of berms, and proper storage of topsoil stockpiles. 	
	Noise	People and fauna		<ul style="list-style-type: none"> Environmental awareness. Rehabilitation and return the area to its original state, Seeding of rehabilitated area if vegetation did not grow natural in order to attract fauna. Marked containers will be utilise to store domestic waste. Employees will be inducted on how to sort their waste. Waste will be taken to the municipality dumping site on the weekly basis Noise will be kept minimal on working hours and monitoring. Ripping of road. Avoid construction of newly roads and use existing roads. 	
Drilling	Vegetation - loss	Environment and fauna	Operational phase	<ul style="list-style-type: none"> Avoid unnecessary removal of vegetation Using existing roads as far as practicable Remedy through rehabilitation and re-vegetation. Control through dust suppression methods. Control through management and monitoring. 	Impact avoided, noise levels, dust levels, rehabilitation standards and end use objectives)
	-Surface disturbances	Environment and fauna			
	Biodiversity loss	Environment			

		and fauna		<ul style="list-style-type: none"> • Fencing of drilled borehole to prevent fauna from falling into the hole. • Concurrent rehabilitation or creation of buffer zone. • Using drip tray, taking precautions on the refuelling point. • If any soil is contaminated during the life of the prospecting activities, it will be immediately scooped and stored in the enclosed containers or plastic to be removed with the industrial waste to a recognized licenced facility or applicant for further treatment. • Small hydrocarbon spills will be treated on site using bio-sorb or oil cap. • Avoid soil contamination throughout the life span of the mine. • Employees will be provided with dust mask. Ear plugs will also be provided to the workers. • If any heritage site or resource is identified during the prospecting period, it will be reported to SAHRA. • Creation of berms, and proper storage of topsoil stockpiles. • Environmental awareness. 	<p>Land surface where boreholes was situated to be rehabilitated, to ensure vegetation will adequately regrow and biodiversity and former land use is re-established.</p>
	Visual impacts	People			
	Soil pollution	Environment			
	Surface and ground Water pollution	Environment & people			
	Health risk to workers or general public	people			
	Heritage resource disturbances	Heritage sites			
	Soil erosion	Environment			
	Veld Fire	Environment, fauna and people			

	Domestic waste generation	Environment		<ul style="list-style-type: none"> • Rehabilitation and return the area to its original state, • Seeding of rehabilitated area if vegetation did not grow natural in order to attract fauna. • Marked containers will be utilise to store domestic waste. • Employees will be inducted on how to sort their waste. • Waste will be taken to the municipality dumping site on the weekly basis • Noise will be kept minimal on working hours and monitoring. • Ripping of road. • Avoid construction of newly roads and use existing roads. 	
	Noise	People and fauna			
	Fly rock				
	noise				
Hydrocarbons storage	Soil pollution	Environment(Water) and people	Operational phase	<ul style="list-style-type: none"> • Pollution control measures • Hydrocarbon will be stored within the storage containers and will be place on a cement slab within the bund walls. • Drip trays will be placed under each stationary equipment or vehicles to avoid soil contamination which may lead to water pollution • Taking precautions on the refuelling point. • If any soil is contaminated during the life of the prospecting activities, it will be immediately scooped and stored in the enclosed containers or plastic to be removed with the industrial waste to a recognized licenced facility or applicant for further treatment. • Small spills will be treated on site using bio-sorb or oil cap. 	Impact avoided No soil spoilage and hydro carbon spillage will be visible on site.
	Water pollution	People and environment			
	noise				
	Ground compaction				
Final rehabilitation	Dust	people	Decommissioning	<ul style="list-style-type: none"> • Topsoil will be spread over the rehabilitated soil in order to allow regrowth of vegetation. 	Rehabilitation standard to be achieved. Former vegetation species and Biodiversity to be re-
	Noise	People and animals			

	Domestic waste	environment		<ul style="list-style-type: none"> • All machinery will be removed from the site. • Ripping of all remaining compacted surface 	instated as far as possible, alien infestation to be controlled. Former land use objectives standards to be re-instated to livestock grazing
Monitoring	-	Environment	Closure and post closure	<ul style="list-style-type: none"> • Monitoring of all rehabilitated areas will be done to make sure if vegetation is growing and if not other mitigation measures as seeding of the area will be considered. • All invader species will be monitored and removed from all rehabilitated areas 	Rehabilitation and end land use Rehabilitation standard to be achieved. Former vegetation species and Biodiversity to be re-instated as far as possible, alien infestation to be controlled. Former land use objectives standards to be re-instated to livestock grazing

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 whether listed or not listed. (E.g. Excavations, blasting, stockpiles, discard dumps or dams Loading, hauling and transport, Water supply dams and excavations, accommodation, offices, ablution, stores, workshops processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc.).	POTENTIAL IMPACT (e.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc....etc...)	MITIGATION TYPE (modify, remedy, control, or stop) through (e.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc. etc) E.g. <input type="checkbox"/> Modify through alternative method. <input type="checkbox"/> Control through noise control <input type="checkbox"/> Control through management and monitoring Remedy through rehabilitation..	TIME PERIOD FOR IMPLEMENTATION Describe the time period when the measures in the environmental management programme must be implemented Measures must be implemented when required. With regard to Rehabilitation specifically this must take place at the earliest opportunity. .With regard to Rehabilitation, therefore state either:-.. Upon cessation of the individual activity or. Upon the cessation of mining, bulk sampling or alluvial diamond mining as the case may be.	COMPLIANCE WITH STANDARDS (A description of how each of the recommendations in 2.11.6 read with 2.12 and 2.15.2 herein will comply with any prescribed environmental management standards or practices that have been identified by Competent Authorities)
Literature Review	None	No mitigation proposed	Planning Stage	The applicant will make sure that the employees or anyone who enter the prospecting area must comply with the environmental management standards as stipulated on the environmental authorization and PWP.
Geological Mapping	None	No mitigation proposed	Planning Stage	The applicant will make sure that the employees or anyone who enter the prospecting area must comply with the environmental management standards as stipulated on the environmental authorization and PWP.
Geophysical Mapping	Poor access control which may result into livestock theft.	Farm owners will be consulted with regard to the access to the proposed prospecting site. Gates will be closed after entering and departing the proposed prospecting. No poaching will be allowed on site.	Planning Stage	The applicant will make sure that the employees or anyone who enter the prospecting area must comply with the environmental management standards as stipulated on the environmental authorization and PWP.

Site establishment	<ul style="list-style-type: none"> • Vegetation loss • Compaction of ground 	<ul style="list-style-type: none"> • Remedy through rehabilitation and re-vegetation. • Remedy through ripping of compacted ground 	Mitigation measures will be implemented when required. However, other mitigations measures such as existing tracks will be implemented from the commencement of this activity until cessation of activity.	The applicant will make sure that the employees or anyone who enter the prospecting area must comply with the environmental management standards as stipulated on the environmental authorization and EMPR. The applicant will work in accordance with listed activity no.20 of NEMA regulations.
Vegetation clearance	<ul style="list-style-type: none"> • Vegetation loss • soil erosion 	<ul style="list-style-type: none"> • Avoid unnecessary removal of vegetation Using existing roads as far as practicable Remedy through rehabilitation and re-Vegetation. Control through dust suppression methods 	<ul style="list-style-type: none"> • Mitigation measures to be in place prior to activity. • In event of an critical incident with environmental significance , remedial and mitigation to be Immediately carried out on site 	The applicant will make sure that the employees or anyone who enter the prospecting area must comply with the environmental management standards as stipulated on the environmental authorization and EMPR. The applicant will work in accordance with listed activity no.20 of NEMA regulations.
Construction of access roads	<ul style="list-style-type: none"> • Vegetation loss • Dust • Ground compaction 	<ul style="list-style-type: none"> • Using existing roads as far as practicable • Remedy through rehabilitation • Control through management and monitoring. 	<ul style="list-style-type: none"> • Mitigation measures to be in place prior to activity. • In event of an critical incident with environmental significance , remedial and mitigation to be Immediately carried out on site 	The applicant will make sure that the employees or anyone who enter the prospecting area must comply with the environmental management standards as stipulated on the environmental authorization and EMPR. The applicant will work in accordance with listed activity no.20 of NEMA regulations.

Topsoil removal and stockpiling	<ul style="list-style-type: none"> • Erosion • Dust • Vegetation loss 	<ul style="list-style-type: none"> • Storm water control measures, • Dust control measures and monitoring • Remedy through ripping of compacted ground/surface 	<ul style="list-style-type: none"> • Immediate when topsoil is grubbed and stockpiled 	The applicant will make sure that the employees or anyone who enter the prospecting area must comply with the environmental management standards as stipulated on the environmental authorization and EMPR. The applicant will work in accordance with listed activity no.20 of NEMA regulations.
Temporal Mobile office site	<ul style="list-style-type: none"> • Surface compaction • Vegetation loss 	<ul style="list-style-type: none"> • Remedy through ripping of compacted ground/surface 	Immediate when office is installed on mine and after removal off site	The applicant will make sure that the employees or anyone who enter the prospecting area must comply with the environmental management standards as stipulated on the environmental authorization and EMPR. The applicant will work in accordance with listed activity no.20 of NEMA regulations.
Temporal Storage of dumps	<ul style="list-style-type: none"> • Visual impact • Surface compaction • Vegetation loss 	<ul style="list-style-type: none"> • Storm water control measures, • Dust control measures and monitoring • Remedy through ripping of compacted ground/surface 	<ul style="list-style-type: none"> • Mitigation measures to be put in place prior to establishment of waste dump. • Ongoing mitigation and waste dump maintenance throughout life period of mine. 	The applicant will make sure that the employees or anyone who enter the prospecting area must comply with the environmental management standards as stipulated on the environmental authorization and EMPR. The applicant will work in accordance with listed activity no.21 of NEMA regulations.

Ablution area	<ul style="list-style-type: none"> • Health risk 	<ul style="list-style-type: none"> • Control through management and monitoring 	ongoing and with weekly regularity throughout life of mine	The applicant will make sure that the employees or anyone who enter the prospecting area must comply with the environmental management standards as stipulated on the environmental authorization and EMPR. The applicant will work in accordance with listed activity no.20 of NEMA regulations.
Borehole drilling	<ul style="list-style-type: none"> • Vegetation loss • Surface disturbances • Biodiversity loss • Visual impacts • Soil pollution • Surface and ground Water pollution • Health risk to workers or general public • Heritage resource disturbances • Soil erosion • Veld Fire • Domestic waste generation • Noise 	<ul style="list-style-type: none"> • Avoid unnecessary removal of vegetation • Using existing roads as far as practicable • Remedy through rehabilitation and re-vegetation. • Control through dust suppression methods. • Control through management and monitoring. • Capping of all unused boreholes. • Concurrent rehabilitation. • Using drip tray, taking precautions on the refuelling point. • If any soil is contaminated during the life of the prospecting activities, it will be immediately scooped and 	Throughout prospecting period and upon cessation of the individual activity	The applicant will make sure that the employees or anyone who enter the prospecting area must comply with the environmental management standards as stipulated on the environmental authorization and EMPR. The applicant will work in accordance with listed activity no.20 of NEMA regulations.

		<p>stored in the enclosed containers or plastic to be removed with the industrial waste to a recognized licenced facility or applicant for further treatment.</p> <ul style="list-style-type: none"> • Small spills will be treated on site using bio-sorb or oil cap. • Avoid soil contamination throughout the life span of the mine. • Employees will be provided with dust mask. Ear plugs will also be provided to the workers. • If any heritage site or resource is identified during the drilling period, it will be reported to SAHRA. • Creation of berms, and proper storage of topsoil stockpiles. • Environmental awareness. • Rehabilitation and return the area to its original state, • Seeding of rehabilitated area if vegetation did not grow natural in order to attract fauna. • Marked containers will be utilise to store domestic waste. • Employees will be inducted on how to sort their waste. 		
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		<ul style="list-style-type: none"> • Waste will be taken to the municipality dumping site on the weekly basis • Noise will be kept minimal on working hours and monitoring. • Ripping of road. • Avoid construction of newly roads and use existing roads. • Dust suppression methods will be implemented. 		
Vehicle maintenance	<ul style="list-style-type: none"> • Soil pollution 	No maintenance will be done on site	Immediate on repair of any vehicle or plant equipment	The applicant will make sure that the employees or anyone who enter the prospecting area must comply with the environmental management standards as stipulated on the environmental authorization and EMPR. The applicant will work in accordance with listed activity no.20 of NEMA regulations.
Vehicles movement within the prospecting.	<ul style="list-style-type: none"> • dust • noise • Ground compaction 	<ul style="list-style-type: none"> • Noise levels must comply with OHS regulations. • Noise generating activities should be restricted to normal working hours. Mine is noted to be remote from any settlement and human habitation • Vehicle exhaust systems should be in good state of maintenance with standard noise suppression 	throughout prospecting period and upon cessation of the individual activity	The applicant will make sure that the employees or anyone who enter the prospecting area must comply with the environmental management standards as stipulated on the environmental authorization and EMPR. The applicant will work in accordance with listed activity no.20 of NEMA regulations.

		<p>equipment.</p> <ul style="list-style-type: none"> • Personnel will wear PPE, specifically ear muffs to suppress noise levels when using machinery. • Ripping of the compacted ground to 300m in order to allow vegetation growth <p>Dust suppression measure will be applied in order to control and manage dust.</p>		
<p>Hydrocarbon storage (<i>kindly note this is optional since mobile diesel tanker is a preferred choose to be used</i>)</p>	<ul style="list-style-type: none"> • Soil pollution • Water pollution 	<ul style="list-style-type: none"> • Pollution control measures • Hydrocarbon will be stored within the storage containers and will be place on a cement slab within the bund walls. • Drip trays will be placed under each stationary equipment or vehicles to avoid soil contamination which may lead to water pollution • Taking precautions on the refuelling point. • If any soil is contaminated during the life of the prospecting activities, it will be immediately scooped and stored in the enclosed containers or plastic to be removed with the industrial waste to a recognized licenced 	<p>Throughout Operational period of the mine</p>	<p>The applicant will make sure that the employees or anyone who enter the prospecting area must comply with the environmental management standards as stipulated on the environmental authorization and EMPR. The applicant will work in accordance with listed activity no.20 of NEMA regulations.</p>

		<p>facility or applicant for further treatment.</p> <ul style="list-style-type: none"> • Small spills will be treated on site using bio-sorb or oil cap. 		
Final rehabilitation	<ul style="list-style-type: none"> • Dust • Noise • Domestic waste 	<ul style="list-style-type: none"> • Topsoil will be spread over the rehabilitated areas in order to allow regrowth of vegetation. • All machinery will be removed from the site. • Ripping of all remaining compacted surface 	Upon cessation of prospecting, during rehabilitation phase.	The applicant will make sure that the employees or anyone who enter the prospecting area must comply with the environmental management standards as stipulated on the environmental authorization and EMPR. The applicant will work in accordance with listed activity no.20 of NEMA regulations.
Monitoring	-	<ul style="list-style-type: none"> • Monitoring of all rehabilitated areas will be done to make sure if vegetation is growing and if not other mitigation measures as seeding of the area will be considered. • All invader species will be monitored and removed from all rehabilitated areas 	Post closure and post rehabilitation.	The applicant will make sure that the employees or anyone who enter the prospecting area must comply with the environmental management standards as stipulated on the environmental authorization and EMPR. The applicant will work in accordance with listed activity no.20 of NEMA regulations.

Financial Provision

(1) 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.

The closure objectives are to create a post-prospecting state as close as possible to the pre-prospecting state of the environment. This can be accomplished by the correctness of rehabilitation and proper after-care activities.

- To prevent the sterilization of any ore reserves.
- To prevent the establishment of any permanent structures or features.
- To manage and limit any impact to the surface and groundwater aquifers in such a way that an acceptable water quality and yield can still be obtained, when a closure certificate is issued.
- To safeguard the safety and health of humans and animals on the mine.
- The last closure objective is that the mine is closed efficiently, cost effectively and in accordance with government policy.
- Capping of all boreholes.
- Re-establishment of Biodiversity.
- Re-establishment of vegetation species.
- Return to landowner a land use that is same as the pre prospecting land use.
- To leave newly constructed road sin state that is added value to infrastructure of the farm.
- To ensure that all fencing is left as it was in pre prospecting status.

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

The environmental objectives in relation to closure have been consulted with landowner and interested and affected parties.

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

The goal of rehabilitation with respect to the area where excavating 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.

- All boreholes will be capped to prevent any fauna from falling in and to prevent degradation of the environment and to prevent injuries.
- Backfilling method will be used in order to make sure that the area is return to its natural state.
- All compacted areas will be ripped to a depth of 300mm in order to allow vegetation to grow.
- Mobile equipment will be removed from the site
- The area will be seeded with surrounding plant species; this will attract back the animal life into the area.
- Waste containers will be removed from the site.
- No latent or residual impact may encountered after completion of rehabilitation
- The area will be returned to its previous land use which is grazing.

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

The main objectives of both rehabilitation plan and closure plans are aligned. 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. To achieve this, the applicant has to practice concurrent

rehabilitation from the commencement of the prospecting activities to the end. This can be accomplished by effectively implementation of EMPR. The financial provision for rehabilitation and/ or management of the negative impact will also assist to achieve the rehabilitation plan and the closure objectives.

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

CALCULATION OF THE QUANTUM

Applicant:
Evaluators:

Matolo Trading (Pty) Ltd
Ndi Geological Consultant Services

Ref No.:
Date:

11680PR
Oct-15

No.	Description	Unit	A	B	C	D	E=A*B*C*D
			Quantity	Master Rate	Multiplication factor	Weighting factor 1	Amount (Rands)
1	Dismantling of processing plant and related structures (including overland conveyors and powerlines)	m3	0	12,21	1	1	0
2 (A)	Demolition of steel buildings and structures	m2	0	170,13	1	1	0
2(B)	Demolition of reinforced concrete buildings and structures	m2	0	250,72	1	1	0
3	Rehabilitation of access roads	m2	400	30,44	1	1	12176
4 (A)	Demolition and rehabilitation of electrified railway lines	m	0	295,49	1	1	0
4 (A)	Demolition and rehabilitation of non-electrified railway lines	m	0	161,18	1	1	0
5	Demolition of housing and/or administration facilities	m2	0	340,26	1	1	0
6	Opencast rehabilitation including final voids and ramps	ha	0	173174,97	0,05	1	0
7	Sealing of shafts adits and inclines	m3	0	91,33	1	1	0
8 (A)	Rehabilitation of overburden and spoils	ha	0	118912,29	1	1	0
8 (B)	Rehabilitation of processing waste deposits and evaporation ponds (non-polluting potential)	ha	0	148103,1	1	1	0
8 (C)	Rehabilitation of processing waste deposits and evaporation ponds (polluting potential)	ha	0	430161,62	1	1	0
9	Rehabilitation of subsided areas	ha	0	99571,13	1	1	0
10	General surface rehabilitation	ha	0,2225	94198,59	1	1	20959,18628
11	River diversions	ha	0	94198,59	1	1	0
12	Fencing	m	250	107,45	1	1	26862,5
13	Water management	ha	0	35816,95	1	1	0
14	2 to 3 years of maintenance and aftercare	ha	0,06502	12535,93	1	1	815,0861686
15 (A)	Specialist study	Sum	0			1	0
15 (B)	Specialist study	Sum				1	0
Sub Total 1							60812,77244

1	Preliminary and General	7297,532693	weighting factor 2	7297,532693
			1	
2	Contingencies	6081,277244		6081,277244
Subtotal 2				74191,58
VAT (14%)				10386,82
Grand Total				84578

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

Matolo trade and investment Pty hereby confirms that the financial provision to the amount of R 100 000, 00 will be provided as determined either by bank guarantee or cash deposit.

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

- g) Monitoring of Impact Management Actions
- h) Monitoring and reporting frequency
- i) Responsible persons
- j) Time period for implementing impact management actions
- k) Mechanism for monitoring compliance

SOURCE ACTIVITY	IMPACTS REQUIRING MONITORING PROGRAMMES	FUNCTIONAL REQUIREMENTS FOR MONITORING	ROLES AND RESPONSIBILITIES (FOR THE EXECUTION OF THE MONITORING PROGRAMMES)	MONITORING AND REPORTING FREQUENCY and TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
Vehicular movement	Dust	<p>-Roads are sprayed by water when there is a need.</p> <p>-This impact will be monitored throughout the day and where it is encountered it will be suppressed by means of spraying water.</p> <p>-Atmospheric pollution prevention Act will be followed at all times.</p> <p>-Dust fall-out buckets are properly located and this must also be monitored throughout the day.</p> <p>-Monitoring of dust exposure will include use of active air sampling, passive dust collectors.</p> <p>-The National Environment Management: Air Quality Act, 2004 (Act No.39 of 2004) will be adhered to at all times.</p> <p>The Mine Health and Safety Act, 1996 (Act No. 29 of 1996) as amended and other legislation or regulations will also be adhered to at all times to avoid air pollution.</p>	Site manager and environmental officer	<p>Daily and ongoing</p> <p>Reporting will be done weekly</p> <p>Time period for implementing impact management is immediately.</p>
Contamination of soil as a result of Hydrocarbons storage and	Soil & Water pollution	Vehicles and equipment will be monitored before the commencement of any daily Prospecting activity to avoid any soil contamination which may lead	Environmental officer will be responsible for all monitoring programmes. The	<p>Daily and ongoing</p> <p>Reporting will be done weekly</p> <p>Time period for implementing impact management is</p>

refuelling point		to ground water contamination. Surface water will be protected by adhering to The National Water Act, 1998 (Act No. 36 of 1998).	site manager will be responsible overall monitoring programs.	immediately.
Vehicles movement	Noise	Bureau of Standards Code of Practice for the Measurement and Assessment of Occupational Noise for Hearing Conservation Purposes, SABS 083 as amended, in any place at or in any mine or works where persons may travel or work, exceeds 82 dB (A), the site manager will take the necessary steps to reduce the noise below this level. Noise monitor machine will be used to find out if the noise generated from the Prospecting activities is exceeding the standard. The following will be adhered to: a)The Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) – Section 7. b)The Mine Health and Safety Act, 1996 (Act No. 39 of 1996) as amended. c)The Road Traffic Act, 1997 (Act No. 93 of 1997);	Environmental officer and site manager	Daily and ongoing Reporting will be done weekly Time period for implementing impact management is immediately.
Removal of vegetation	Interference with existing land use	-Inform landowners in writing of intent and comply with reasonable request to reduce the impact. -Negotiate compensation for interference with landowner/lawful occupier -Visual confirmation of rehabilitation -Approval of rehabilitation by landowner/lawful occupier	Site manager	Daily and ongoing Reporting will be done weekly Time period for implementing impact management is immediately.
Clearance of vegetation	Vegetation loss	-Site clearance to be kept to a minimum and avoid unnecessary removal of vegetation. -Visual inspection to make sure that vehicle utilise the existing tracks as possible.	Environmental officer and site manager	Daily and ongoing Reporting will be done weekly Time period for implementing impact management is 3 months.

		-No removal, disturbance or pruning of large to medium shrubs or trees -Visual marking of sensitive species		
Movement of vehicles, poaching	Displacement, injury and death of local fauna;	-Site clearance to be kept to a minimum -Visual marking of sensitive species and areas -Visual inspection of fencing and/or other safety measures -On site log to be kept	Site manager	Daily and ongoing Reporting will be done weekly Time period for implementing impact management is immediately.
Removal of topsoil	Soil erosion;	Visual confirmation of soil erosion controls, soil profile disturbance and topsoil management where required.	Environmental officer and site manager	Daily and ongoing monitoring
Waste generation and disposal	Land pollution	-Visual inspection that waste does not accumulate inside or outside drill site. -All waste such as oil spills must be stored separately and disposed of at a registered facility -Proof of disposal must be kept on site. -EMP checklist will be compiled and utilised during the Prospecting period	Environmental officer and site manager	Daily and ongoing Reporting will be done weekly Time period for implementing impact management is immediately.

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

Performance assessment or environmental report will be submitted annually

m) Environmental Awareness Plan

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

Training will be provided to all employees. Initial environmental induction and or awareness will be conducted before commencement of any daily activity to all employees.

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

Everyday Awareness

Littering – All workers will be educated on how important is the wild animals that can be harmed or die if they litter any garbage such as plastics for example. Littering of non-degradable wastes such as plastics, glass, rubber and tyres can also pollute our environment since they will not be decomposed. Workers will also be educated to separate their waste so that they can be recycled and reused. No glass, paper, plastics and cigarette buds are to be littered during the duration of the prospecting operations. Marked garbage containers will be installed and maintained to prevent littering by workers. Penalties will be communicated to the worker if they do not follow the protocol with regard to littering.

Open fires –. It is by law prohibited to start open fires. Due to the hotness and dryness conditions of the district, it is very susceptible for runaway fires. No open fires will be tolerated during the prospecting period and as this is regarded by law as a criminal offence related penalties can be issued. The littering of self-ignitable substances or objects (e.g. matches) are also not allowed as it will always pose a danger regarding veld fires, and if such happen the person responsible to the littering will be charged with arson and related penalties can be issued.

Sanitation and Personal Hygiene

Sanitation and personal hygiene is a very important subject for environmental and social health. Improper sanitation habits can lead to intestinal parasite infestations within humans and animals, endangering the overall health of the recipients. Unfortunately these infestations do not stay only within the host and will spread rapidly throughout a community or herd. Human viruses like Tubercle bacillus (TB) and Herpes simplex, both are very contagious, spread vigorously throughout the community not handling good hygiene habits or practices. Strict use and cleanliness of the ablution facilities will be enforced during the entire life of mine. Employees will further be advised and educated on the importance of consuming clean and fresh water. Several sites will be identified and water tanks will be erected for safe human water consumption.

Fauna –Mine employees will be advised to stay clear from any wild animal or reptile and not to try and provoke them in any manner. They will further be

educated on dangerous and poisonous reptiles and the actions to be taken when such reptiles are encountered.

Flora- No indigenous shrubs or trees will be unnecessarily uprooted and utilized for firewood, the employees will rather be advised to utilize pioneer species and be educated on which plant species are indigenous, endangered or pioneer. If any pioneer species are observed the reporting thereof to the rehabilitation site manager will be highly recommended. Penalties will be given to individuals that damage any endangered species.

Work Related Awareness

- When handling chemicals make sure of non-spillage procedures are followed
- Scrap must be disposed of in the most appropriate manner
- Plastics and domestic wastes removed from the vehicles need to be discarded in the appropriate manner.
- Daily checking of oil/diesel leaks before vehicle is operated.
- Drip trays must be installed under all stationary vehicles and equipment.
- Strict adherence to the prospecting roads and no off-road driving to prevent trampling of vegetation.
- Driving speed must be complied with. Beware of animals, workers and other vehicles.
- During fencing/rehabilitation common fence wires may not be left scattered as these rust over time – any cuts to animals and humans (sepsis and tetanus risk) can lead to suffering or great discomfort.
- No metals may be left scattered as it poses the same threat as described directly above.
- All personnel handling work related chemicals must follow handling procedures. Material safety data sheet (MSDS) must be available.
- Any spillage contaminating the ground will pose risk to environmental degradation.
- All workers must always wear personal protective equipment/clothing at all time to reduce health and safety risk.

n) Specific information required by the Competent Authority
(Among others, confirm that the financial provision will be reviewed annually).

- Matolo trade and investment Pty (Applicant) hereby confirms that the financial provision will be reviewed annually and the report of such review will be submitted to the competent authority.
- The performance assessment will be conducted on the monthly basis and the report will be submitted annually or if requested by DMR.

2) UNDERTAKING

The EAP herewith confirms

- a. the correctness of the information provided in the reports
- b. the inclusion of comments and inputs from stakeholders and I&APs ;
- c. the inclusion of inputs and recommendations from the specialist reports where relevant; and
- 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.



Signature of the environmental assessment practitioner:

Matolo trade and investment Pty Ltd

Name of applicant:

12 November 2015

Date:

-END-

Addendum

Addendum A: Environmental Authorisation Acceptance Letter

Addendum B: Ndi Curriculum Vitae

Addendum C: Public Participation Process

Addendum D: Land Claims Request Letter

Addendum D: Water Letter

Addendum 2.19.2: HIA Report

Addendum 4: Motivation for not investigating Alternatives

Addendum H: Composite Map