



mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

ENVIRONMENTAL IMPACT ASSESSMENT REPORT AND ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

**PROSPECTING RIGHT APPLICATION OF DIAMOND ALLUVIAL, DIAMOND
GENERAL AND DIAMOND KIMBERLITE NEAR KIMBERLEY ON A CERTAIN
PORTION OF THE FARM ROOIFONTEIN 1722 (PREVIOUSLY KNOWN AS A
PORTION OF THE FARM DUTOITSPAN 119), REGISTRATION DIVISION:
BOSHOF, FREE STATE PROVINCE.**

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 Ltd |
| PREPARED BY | Milnex 189 CC |
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| FILE REFERENCE NUMBER SAMRAD: | FS30/5/1/1/2/10462PR |

CLAUSE

This report has been compiled by Milnex 189 CC, using information provided by **Matolo Trade and Investment Pty Ltd** the client as well as third parties, which information has been presumed to be correct. While Milnex 189 CC have made every endeavour to supply accurate information, and exercised all care, skill and diligence in the drafting of this report, errors and omissions may occur. Accordingly, Milnex 189 CC does not warrant the accuracy or completeness of the materials in this report. Milnex 189 CC does not accept any liability for any loss or damage which may directly or indirectly result from any advice, opinion, information, representation or omission, whether negligent or otherwise, contained in this report. Milnex 189 CC does not accept any liability for any loss or damage, whether direct, indirect or consequential, arising out of circumstances beyond the control of Milnex 189 CC, including the use and interpretation of this report by the client, its officials or their representatives or agents. This document contains information proprietary to Milnex 189 CC and as such should be treated as confidential unless specifically identified as a public document by law. Milnex 189 CC owns all copyright and all other intellectual property rights in this report. The document may not be copied, reproduced in whole or in part, or used for any manner without prior written consent from Milnex 189 CC. Copyright is specifically reserved in terms of the Copyright Act 98 of 1987 including amendments thereto. By viewing this disclaimer and by accepting this document, you acknowledge that you have read and accepted these Terms of Use and undertake to keep the information contained herein confidential and not to do any act or allow any act which is in breach of these Terms of Use.

IMPORTANT NOTICE

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

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

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

It is therefore an instruction that the prescribed reports required in respect of applications for an environmental authorisation for listed activities triggered by an application for a right or 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.

ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

- (1) The environmental impact assessment process must be undertaken in line with the approved plan of study for environmental impact assessment.
- (2) The environmental impacts, mitigation and closure outcomes as well as the residual risks of the proposed activity must be set out in the environmental impact assessment report.

OBJECTIVE OF THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

2. The objective of the environmental impact assessment process is to, through a consultative process-
 - (a) determine the policy and legislative context within which the activity is located and document how the proposed activity complies with and responds to the policy and legislative context;
 - (b) describe the need and desirability of the proposed activity, including the need and desirability of the activity in the context of the preferred location;
 - (c) identify the location of the development footprint within the preferred site based on an impact and risk assessment process inclusive of cumulative impacts and a ranking process of all the identified development footprint alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects of the environment;
 - (d) determine the--
 - (i) nature, significance, consequence, extent, duration and probability of the impacts occurring to inform identified preferred alternatives; and
 - (ii) degree to which these impacts-
 - (aa) can be reversed;
 - (bb) may cause irreplaceable loss of resources, and
 - (cc) can be avoided, managed or mitigated;
 - (e) identify the most ideal location for the activity within the preferred site based on the lowest level of environmental sensitivity identified during the assessment;
 - (f) identify, assess, and rank the impacts the activity will impose on the preferred location through the life of the activity;
 - (g) identify suitable measures to avoid, manage or mitigate identified impacts; and
 - (h) identify residual risks that need to be managed and monitored.

OBJECTIVE OF THE ENVIRONMENTAL IMPACT ASSESSMENT

1) Contact Person and correspondence address

A. Details of:

i) **The EAP who prepared the report**

ii) **Expertise of the EAP**

| Name of Practitioner | Qualifications | Contact details |
|----------------------|---|---|
| Lizanne Esterhuizen | Honours Degree in Environmental Science (refer to Appendix 1) | Tel No.: (018) 011 1925 Fax No. : (053) 963 2009 e-mail address: lizanne@milnex-sa.co.za |
| Percy Sehaole | Master’s Degree in Environmental Science (refer to Appendix 1) | Tel No.: (018) 011 1925 Fax No. : (053) 963 2009 e-mail address: percy@milnex-sa.co.za |
| Danie Labuschagne | Master’s Degree in Environmental Management and Geography (refer to Appendix 1) | Tel No.: (018) 011 1925 Fax No. : (053) 963 2009 e-mail address: danie@milnex-sa.co.za |

Summary of the EAP’s past experience. (Attach the EAP’s curriculum vitae as **Appendix 2**)

Milnex 189 CC was contracted by **Matolo Trade and Investment Pty Ltd** as the independent environmental consultant to undertake the EIA and EMPr process for a prospecting right for the prospecting of Diamonds Alluvial, Diamonds General and Diamond Kimberlite near Kimberley on a certain portion of the farm Rooifontein 1722 (previously known as a portion of the farm Dutoitspan 119), Registration Division: Boshof, Free State province. Located approximalty 9km from Kimberley and situated within the Tokologo Local Municipality area of jurisdiction. Milnex 189 CC does not have any interest in secondary developments that may arise out of the authorisation of the proposed project.

Milnex 189 CC is a specialist environmental consultancy with extensive experience in the mining industry which provides a holistic environmental management service, including environmental assessment and planning to ensure compliance with relevant environmental legislation. Milnex 189 CC benefits from the pooled resources, diverse skills and experience in the environmental and mining field held by its team that has been actively involved in undertaking environmental studies for a wide variety of mining related projects throughout South Africa. The Milnex 189 CC team has considerable experience in environmental impact assessment and environmental management, especially in the mining industry.

Lizanne Esterhuizen, Percy Sehaole & Danie Labuschagne have experience consulting in the environmental field. Their key focus is on environmental assessment, advice and management and

ensuring compliance to legislation and guidelines. They are currently involved in undertaking EIAs for several projects across the country (refer to **Appendix 2** for CV)

B. DESCRIPTION OF THE PROPERTY.

| | |
|---|---|
| Farm Name: | 1) A certain portion of the farm Rooifontein 1722 (previously known as a portion of the farm Dutoitspan 119) |
| Application area (Ha) | 324.7035 ha |
| Prospecting area (Ha) | 24 ha |
| Magisterial district: | Boshof |
| Distance and direction from nearest town | The proposed prospecting area is situated South East of De Beers Kimberley Mines not so far from the Slimes dam. The city of Kimberley lies ±9 km northwest of the proposed prospecting area. |
| 21 digit Surveyor General Code for each farm portion | 1) F00400000000172200000 |

iii. Farm co-ordinates

| Farm portion | Latitude | Longitude |
|---|----------------|----------------|
| A certain portion of the farm Rooifontein 1722 (previously known as a portion of the farm Dutoitspan 119) | 28°47'22.157"S | 24°50'25.760"E |
| | 28°47'30.236"S | 24°51'39.560"E |
| | 28°48'6.633"S | 24°51'38.070"E |
| | 28°48'45.841"S | 24°51'39.560"E |
| Prospecting activity area | 28°47'54.859"S | 24°51'30.580"E |
| | 28°48'4.269"S | 24°51'27.700"E |
| | 28°47'57.512"S | 24°50'59.220"E |
| | 28°47'48.103"S | 24°51'2.090"E |

C. LOCALITY MAP (show nearest town, scale not smaller than 1:250000 attached as **Appendix 3**).

A Locality map is attached in **Appendix 3** and on figure 1 below.

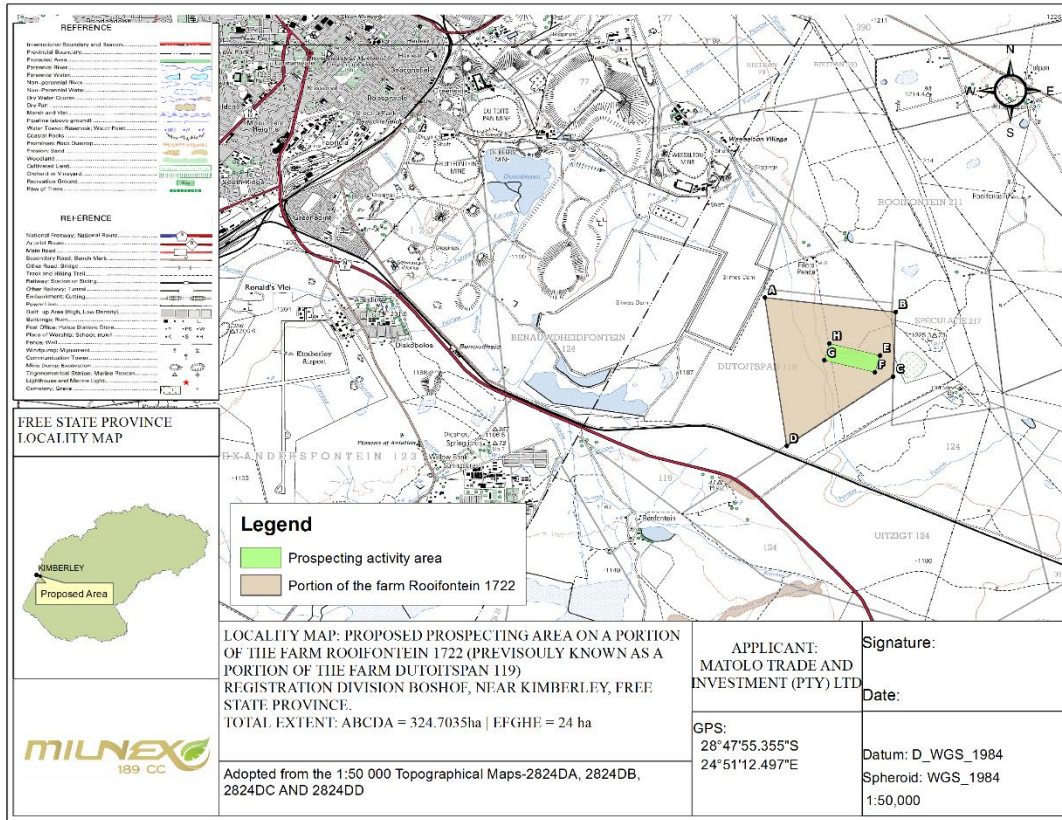


Figure 1: Locality Map

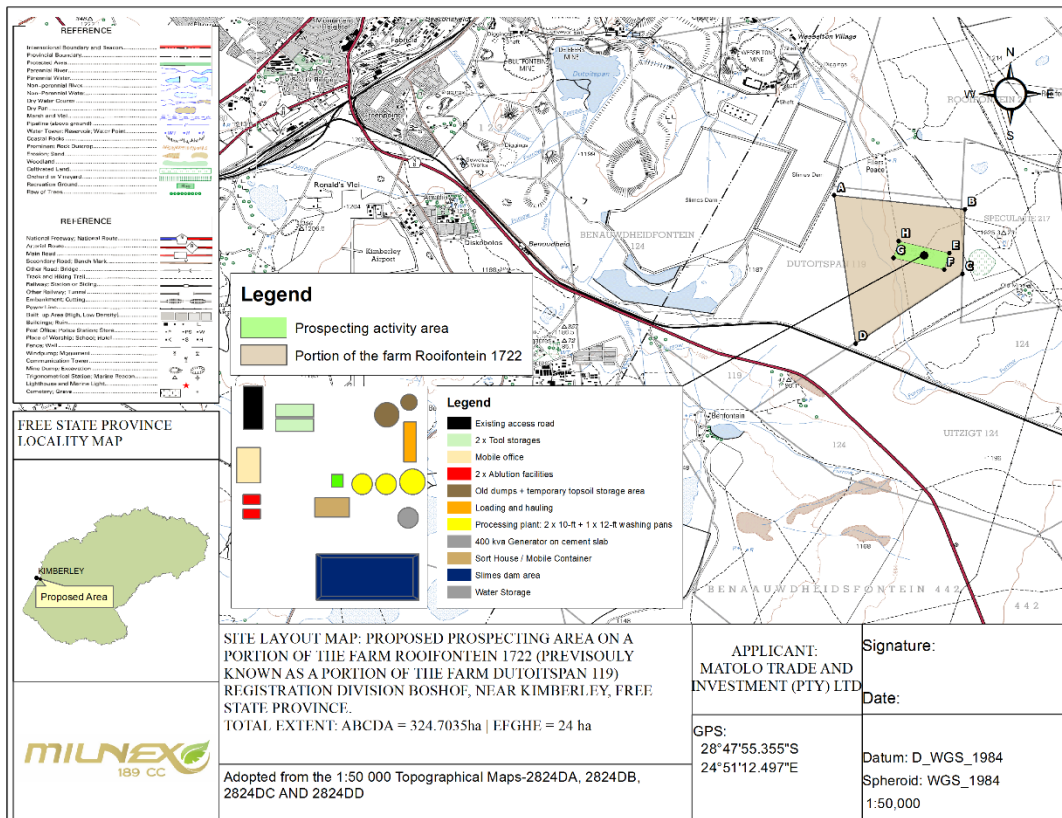


Figure 2: Site Plan Map

D. DESCRIPTION OF THE SCOPE OF THE PROPOSED OVERALL ACTIVITY.

i) LISTED AND SPECIFIED ACTIVITIES

| NAME OF ACTIVITY (All activities including activities not listed) (E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, 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 (GNR 983, GNR 984 or GNR 985) / NOT LISTED |
|---|---|---|---|
| Prospecting: RC and Core Drilling – 6 holes 24 Ha – 50m x 100m x 50m (2 trenches) | 24Ha (1Ha by trenches) | X | GNR 984 |
| Clearance of indigenous vegetation: RC and Core Drilling – 6 holes 24 Ha – 50m x 100m x 50m (2 trenches) Processing Plant - 500m ³ Loading and Hauling - 0,01ha Slimes Dam Area (30mx20m) - 0,06ha | 24 Ha- Only the areas where prospecting takes place, will be cleared. (1Ha by trenches) Concurrent backfilling will take place in order to rehabilitate. | X | GNR 984 |
| Processing Plant: 2 x 10 Ft and 1 x 12ft Pan with Conveyor – 66 000 tons to be washed, conveyors, screens, etc. – 500m ³ Loading and Hauling - 0,01ha Slimes Dam Area (30mx20m) - 0,06ha | 500m ³ - Only the areas where processing takes place, will be cleared. Loading and Hauling - 0,01ha Slimes Dam Area (30mx20m) - 0,06ha | X | GNR 984 |
| Prospecting Right: RC and Core Drilling – 6 holes 24 Ha – 50m x 100m x 50m (2 trenches) | 24 Ha (1Ha by trenches) | X | GNR 983 |
| Diamond Kimberlite (tailings) Slimes Dam Area (30mx20m) - 0,06ha | | | |
| Diamond Kimberlite (tailings) Slimes Dam Area (30mx20m) - 0,06ha Waste rock stockpiles before rehabilitation | | | |

Listed activities

| | |
|--|---|
| <p>Description of the overall activity. (Indicate Mining Right, Mining Permit, Prospecting right, Bulk Sampling, Production Right, Exploration Right, Reconnaissance permit, Technical co-operation permit, Additional listed activity)</p> | <ol style="list-style-type: none"> 1) Listing Notice GNR 984, Activity 15: "The clearance of an area of 20 hectares or more, of indigenous vegetation." – Random indigenous vegetation clearance of over a 24 hectares area. 2) Listing Notice GNR 984, Activity 19: "The removal and disposal of minerals contemplated in terms of section 20 of the Mineral and Petroleum Resources Development Act (Act No. 28 of 2002), including associated infrastructure, structures and earthworks, directly related to prospecting of a mineral resource, including activities for which an exemption has been issued in terms of section 106 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002)" – Prospecting right with bulk samples for the mining of Diamond Alluvial (DA), Diamond General (D) and Diamond Kimberlite including associated infrastructure, structures and earthworks. 3) Listing Notice GNR 984, Activity 21: "Any activity including the operation of that activity associated with the primary processing of a mineral resource including winning, reduction, extraction, classifying, concentrating, crushing, screening and washing but excluding the smelting, beneficiation, refining, calcining or gasification of the mineral resource in which case activity 6 in this Notice applies." 4) Listing Notice GNR 983, Activity 20: "Any activity including the operation of that activity which requires a prospecting right in terms of section 16 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), including associated infrastructure, structures and earthworks, directly related to prospecting of a mineral resource..." – Prospecting right with bulk samples for the mining of Diamond Alluvial (DA), Diamond General (D) and Diamond Kimberlite including associated infrastructure, structure and earthworks. |
|--|---|

ii) **DESCRIPTION OF THE ASSOCIATED STRUCTURES AND INFRASTRUCTURE RELATED TO THE DEVELOPMENT** (Describe Methodology or technology to be employed, and for a linear activity, a description of the route of the activity)

Matolo Trade and Investment Pty Ltd has embarked on a process for applying for a prospecting right for the prospecting of Diamonds Alluvial, Diamonds General and Diamonds Kimberlite near Kimberley on a certain portion of the farm Rooifontein 1722 (previously known as a portion of the farm Dutoitspan 119), Registration Division: Boshof, Free State province. This portion is preferred due to the sites expected mineral resources. Matolo Trade and Investment Pty Ltd requires a prospecting right in terms of NEMA and the Mineral and Petroleum Resources Development Act to mine diamonds alluvial, diamonds general and diamonds kimberlite within the Tokologo Local Municipality, Free State Province (refer to a locality map attached in **Appendix 3**).

Access roads

Several existing roads and tracks already traverse the proposed prospecting site, however an agreement has not been reached yet with the landowner, lessor and/or surrounding landowner.

According to an Interested and Affected Party: Mrs. Liza Pretorius on behalf of the Hunger and Thirst Foundations, the only current and closest entrance from the N8 to the planned prospecting site (that they are aware of), is the entrance the Foundation uses to its offices and training facility.

According to them it is an extremely dangerous turn-off to the left, as there is no tarred fly-off/ entrance as can be seen on the picture above and below. There is also not a shoulder on the road, the yellow line is just where the gravel is. When turning left towards the entrance gate, you find vehicles and trucks driving behind you at high speed, and if they do not see your indicator on, they realise at the last second that you are reducing speed to turn left in front of them. They further state, consider having large trucks, excavators and vehicles transporting the workers of Matolo through this entrance, some on a daily basis. This poses a major risk not only for the people entering the gate, including minor community children coming to the Boma, but also to the general public using the N8 National Road.

Please see Appendix 6 for the comments letter from Hunger and Thirst Foundations.

Water Supply

The Sol Plaatje municipality gave consent to abstract treated effluent water from the Kamferdam for prospecting purposes.

Additional water requirements related to the portable water supply for employees and workers will be supplied.

Water uses

Some water uses under section 21 a-k of the NWA are triggered. An Water Use Licence Application (WULA) will be lodged with the department of Water & Sanitation (DWS), to apply for a Section 21 (b) and (g) water use license.

A pre-application meeting was held 30 August 2017 at the DWS office in Kimberley.

Ablution

Chemical toilets shall be used, no french drains and pits shall be permitted.

Storage of dangerous goods

During the prospecting activities, limited quantities of diesel and fuel, oil and lubricants will be stored on site. These goods should be placed in a bunded area one and a half times the volume of the total amount of goods to be stored.

Prospecting activities and phases

Please find the Prospecting Work Programme attached as **Appendix 8**.

List of equipment's & infrastructure

The proposed prospecting operations will be undertaken by the available contractors. The equipment to be used will involve that of the drilling, geologist, surveyor, Front-end-loaders, Articulated dump truck , Excavator, Generator, pumps, pipes, tools, a number of vehicles & diesel trailers, etc., and it will be that of the contractors. All the equipment should they be needed will be that of the contractors.

| List of equipment | |
|-------------------|----------------------------------|
| 2 x Tool storages | Sorting House / Mobile Container |

| | |
|-----------------------------------|--|
| Mobile office | Water storage |
| 2 x Ablution facilities | Old dumps & temporary topsoil storage area |
| 1 x 12 Ft Washing Pan | Loading and hauling |
| 1 x 10 Ft Washing Pan | Slime dam area |
| 1 x 10 Ft Washing Pan | |
| 400 Kva Generator on cement slabs | |

(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

Literature Review (Month 1-2)

In order to direct the exploration programme in an efficient manner, there will be a review of all information and data gathered during previous exploration. A site investigation of the target areas will be undertaken to identify infrastructure and determine any potential problems that may need to be addressed.

Literature review of all available data for the area will be performed in order to accumulate as much regional and historical data around the area as possible. This includes published geological reports, infrastructure mapping, satellite imagery and existing geophysical information if available, both primary (Kimberlite or Lamproite) and secondary (alluvial) diamond deposits will be targeted.

Imagery Analysis & Geological Mapping (Month 3-5)

High-resolution satellite images will be studied and used to geologically map the application area. Contacts between various lithologies will be mapped and specific attention will be given to delineate and define areas underlain by alluvial gravels and kimberlite.

A. Progress report (Month 6-7)

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

(ii) **DESCRIPTION OF PLANNED INVASIVE ACTIVITIES:**

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

PHASE 2

Invasive Prospecting Drilling and excavations (Month 8-17)

Invasive Prospecting boreholes is estimated to be positioned within the 20 ha region marked as mining area on the image below.

Reverse or Percussion circulation drill holes (usually up to 165mm in diameter) will be positioned at targets identified during geological mapping and geophysical survey.

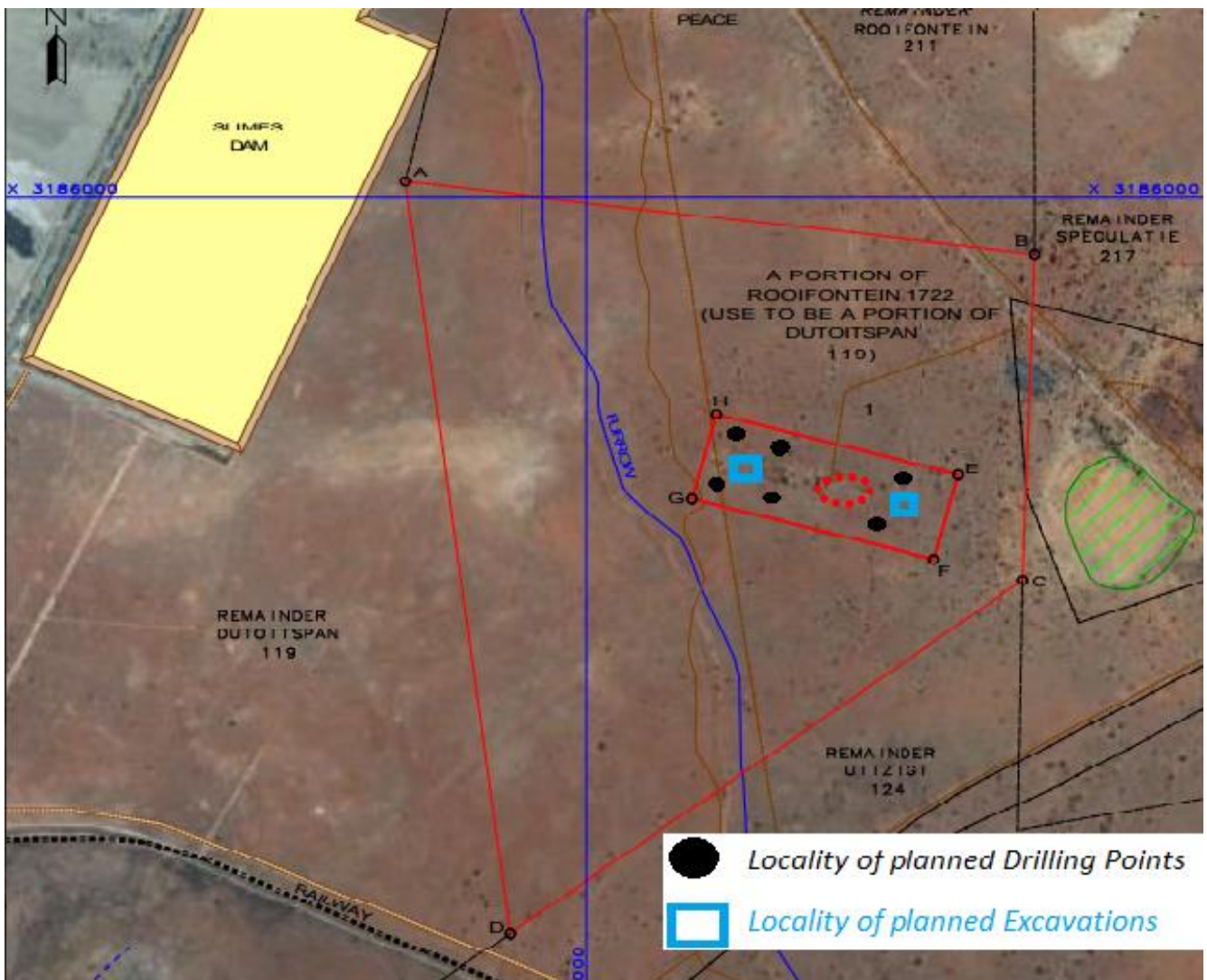
The exact location of the boreholes to be drilled is unknown since this stage is controlled by information from phase 1.

The first phase of drilling will require the drilling of approximately 6 boreholes to be drilled within the prospecting area. Drilling program will be put into practice where the grid spacing will be set to 50m x 50m with an average depth of 100m, 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.

During this drilling programme samples are collected every meter and logging will be done by a qualified geologist who will record the lithology. Apart from ore resources calculations the drilling information will be used to construct ore thickness, overburden thickness and basement elevation contour plans.

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

Invasive prospecting excavations will be positioned in the region of the blue square shape as estimated on the image listed above.



The above figure can be found in the PWP as Figure 3. It is a map that demonstrates the location of the planned excavations and drilling points. Please see **Appendix 4** for the above figure in colour.

PHASE 3

Bulk Sampling (Month 12-31)

Should delineation and initial evaluation of the deposit indicate a sufficient size and grade to warrant further evaluation, an appropriate bulk sampling program will be undertaken in order to establish grade and confirm its viability for mining.

Description of Pre-/Feasibility Studies

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

PHASE 4

Analytical Desktop Study

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.

Description of Bulk Sampling Activities

Only 2 pit/trenches will be dug (100m x 50m x ± 50m). No more than 2 trenches will be dug.

The total area to be disturbed for the duration of the activity will be- 2 trenches x (100m x 50m) = 1ha

| ACTIVITY | | DETAILS | | |
|---------------------------------|-------------------------|-------------------------------------|---------|---------|
| Number of pits/trenches planned | | 2 Pits/Trenches | | |
| | Number of pits/trenches | Length | Breadth | Depth |
| | 2 | 100m | 50m | +/_ 50m |
| | | | | |
| Locality | | See figure 3 in the PWP (estimated) | | |
| Volume Overburden (Waste) | | +/_ 50 000 m3 | | |
| Volume Ore | | +/_ 450 000m3 | | |
| Density Overburden | | | | |
| Density Ore | | | | |

| | |
|--|--|
| Phase(s) when bulk sampling will be required | Phase 3 |
| Timeframe(s) | From time-to-time during Months 12 to 31 |

The application area is 324.7035ha however the proposed prospecting area is only 24ha. According to representative of the applicant they believe that the diamond bearing gravel/kimberlite is located on a 24ha area. However, they could not gain access to the property for a land surveyor to mark the exact coordinates. Thus, they used google earth and because google earth is not as accurate as the land surveyor would have been they applied for the whole area in case the coordinates they obtained from google earth is not correct.

Only 2 trenches will be dug (100m x 50m x ± 50m), it is planned that only 1 trenches will be excavated in the first year, but it may be more if the process is quicker than planned for. It should be kept in mind that no more than 2 trenches will be excavated. The total area to be disturbed a year will be- 1 trenches x (100m x 50m / 10 000) = 0.5 ha per year. However it may be more if the process is quicker than planned for.

No more than 0.5 ha will be left as un-rehabilitated in two years. Rehabilitation will be done concurrently.

E. Policy and Legislative Context

| APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILER 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 |
|---|--|
| The Constitution of South Africa (Act No. 108 of 1996) | - |
| The National Environmental Management Act (Act No. 107 of 1998) | S24(1) of NEMA S28(1) of NEMA |
| The National Water Act (Act No. 36 of 1998) | S21 (a)(b) of NWA |
| Management: Air Quality Act (Act No. 39 of 2004) | S21 |
| The National Heritage Resources Act (Act No. 25 of 1999) | - |
| Conservation of Agricultural Resources Act (Act No. 85 of 1983) | - |
| Mineral and Petroleum Resources Development Act (Act No. 28 of 2002) | - |
| National Infrastructure Plan | - |
| National Forests Acts, Act 84 of 1998 | Chap 3 (Part 1) 1998 S12(1) S15(1) |
| Department of Environmental and Nature Conservation | - |
| Department of Agriculture, Forestry and Fisheries | - |
| National Veld & Forest Fires Act (Act 101 of 1998) | - |
| National Environmental Management: Waste Act, (No. 59 of 2008) (NEM:WA) | - |
| Occupational Health and Safety Act as amended, (No.181 of 1993) | - |
| Lejweleputswa District Municipality Integrated Development Plan (IDP) | - |
| Tokologo Local Municipality Integrated Development Plan (IDP) Review | - |

Policy and Legislative Context

| Legislation/Policy | Description |
|---|--|
| <p>The Convention of Biological Diversity (Rio de Janeiro, 1992).</p> | <p>The purpose of the Convention on Biological Diversity is to conserve the variability among living organisms, at all levels (including diversity between species, within species and of ecosystems). Primary objectives include (i) conserving biological diversity, (ii) using biological diversity in a sustainable manner and (iii) sharing the benefits of biological diversity fairly and equitably.</p> |
| <p>South African Constitution 108 of 1996</p> | <p>The Constitution is the supreme law of the land and includes the Bill of rights which is the cornerstone of democracy in South Africa and enshrines the rights of people in the country. It includes the right to an environment which is not harmful to human health or well-being and to have the environment protected for the benefit of present and future generations through reasonable legislative and other measures.</p> |
| <p>Strategic Framework for Sustainable Development in South Africa</p> | <p>The development of a broad framework for sustainable development was initiated to provide an overarching and guiding National Sustainable Development Strategy. The Draft Strategic Framework for Sustainable Development (SFSD) in South Africa (September 2006) is a goal orientated policy framework aimed at meeting the Millennium Development Goals. Biodiversity has been identified as one of the key crosscutting trends in the SFSD. The lack of sustainable practices in managing natural resources, climate change effects, loss of habitat and poor land management practices were raised as the main threats to biodiversity.</p> |
| <p>National Environmental Management Act 107 of 1998</p> | <p>This is a fundamentally important piece of legislation and effectively promotes sustainable development and entrenches principles such as the 'precautionary approach', 'polluter pays' principle, and requires responsibility for impacts to be taken throughout the life cycle of a project NEMA provides the legislative backing (Including Impact Assessment Regulations) for</p> |

| | |
|--|---|
| | regulating development and ensuring that a risk-averse and cautious approach is taken when making decisions about activities. |
| Nature Conservation Ordinance 8 of 1969 | <p>The administration of the whole of this Ordinance has under Proclamation 113 of 1994, published in Government Gazette 15813 of 17 June 1994, been assigned to Free State Province with effect from 17 June 1994</p> <p>To provide for the conservation of fauna and flora and the hunting of animals causing damage and for matters incidental thereto.</p> |
| Environmental Impact Assessment (EIA) regulations | <p>New regulations have been promulgated in terms of Chapter 5 of NEMA and were published on 08 December 2014 in Government Notice No. R. 985. Development and land use activities which require Environmental Authorisation in terms of the NEMA EIA Regulations, 2014, are in Listing Notice 3 (GG No. R.983, LN3) identified via geographic areas with the intention being that activities only require Environmental Authorisation when located within designated sensitive areas. These sensitive/geographic areas were identified and published for each of the nine (9) Provinces.</p> |
| National Environmental Management: Biodiversity Act No 10 of 2004 | <p>The Biodiversity Act provides listing threatened or protected ecosystems, in one of four categories: Critically Endangered (CR), Endangered (EN), Vulnerable (VU) or Protected (Government Gazette, 2011). The main purpose of listing threatened ecosystems is to reduce the rate of ecosystem and species extinction and includes the prevention of further degradation and loss of structure, function and composition of threatened ecosystems.</p> |
| Conservation of Agricultural Resources Act 43 of 1967 | <p>The intention of this Act is to control the over-utilization of South Africa's natural agricultural resources, and to promote the conservation of soil and water resources and natural vegetation. The CARA has categorised a large number of invasive plants together with associated obligations of the land owner, including the requirement to remove categorised invasive plants and taking measures to prevent further spread of alien plants.</p> |

| | |
|---|--|
| <p>National Forest Act 84 of 1998</p> | <p>The protection, sustainable management and use of forests and trees within South Africa are provided for under the National Forests Act (Act 84 of 1998).</p> <p>Prohibition on destruction of trees in natural forests</p> <p>(1) No person may -</p> <ul style="list-style-type: none"> (a) cut, disturb, damage or destroy any indigenous tree in a natural forest; or (b) possess, collect, remove, transport, export, purchase, sell, donate or in any other manner acquire or dispose of any tree, or any forest product derived from a tree contemplated in paragraph (a), except in terms of- <ul style="list-style-type: none"> (i) a licence issued under subsection (4) or section 23; or (ii) an exemption from the provisions of this subsection published by the Minister in the <i>Gazette</i> on the advice of the Council. |
| <p>National Environmental Management: Protected Areas Act 57 of 2003</p> | <p>This Act provides for the protection and conservation of ecologically viable areas representative of South Africa’s biological diversity and its natural landscapes and seascapes. It also seeks to provide for the sustainable utilization of protected areas and to promote participation of local communities in the management of protected areas.</p> |
| <p>National Water Act No 36 of 1998</p> | <p>The purpose of this Act is to ensure that the nation's water resources are protected, used, developed, conserved, managed and controlled in ways which take into account amongst other factors -</p> <ul style="list-style-type: none"> (a) meeting the basic human needs of present and future generations; (b) promoting equitable access to water; |

(c) redressing the results of past racial and gender discrimination;

(d) promoting the efficient, sustainable and beneficial use of water in the public interest;

(e) facilitating social and economic development;

(f) providing for growing demand for water use;

(g) protecting aquatic and associated ecosystems and their biological diversity;

(h) reducing and preventing pollution and degradation of water resources;

(i) meeting international obligations;

(j) promoting dam safety;

(k) managing floods and droughts,

and for achieving this purpose, to establish suitable institutions and to ensure that they have appropriate community, racial and gender representation.

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).

Mining has played a vital role in the economy of South Africa for over 100 years. In 2015 the mining industry contributed R286 billion towards South African Gross Domestic Product (GDP) representing 7.1% of overall GDP. Mining is a significant contributor to employment in the nation, with 457 698 individuals directly employed by the sector in 2015. This represents just over 3% of all employed nationally. Diamond mining has 17 885 direct employees.

Diamonds, arguably the ultimate luxury mineral, comprise an intricate lattice of carbon atoms, a crystalline structure that makes them harder than any other form in nature. This characteristic makes diamonds not only popular in jewellery, but also desirable in high-tech cutting, grinding and polishing tools.

Prospecting rights, mining rights and mining permit have been applied for in the vicinity of the proposed area, around Kimberley. According to the Chamber of Mines the country's diamond sector is far from reaching the end of its life even though diamond mining has been taking place in South Africa for almost a century and a half. The primary sources of all of South Africa's diamonds are kimberlites in ancient, vertically dipping volcanic pipes most of which were located in the vicinity of the city of Kimberley and which were initially amenable to open-cast.

The proposed prospecting right application is next to the Kimberley Ekapa Mining Joint Venture, previously known as De Beers Kimberley Mines.

In June 2016 De Beers Consolidated Mines (DBCM) announces that it has completed the sale of Kimberley Mines (all assets, including the tailings mineral resource) to Ekapa Minerals (Pty) Limited – an investor consortium comprising Ekapa Mining (Pty) Ltd (50.1%) and Petra Diamonds Limited (49.9%).

In July 2016 Petra Diamonds Limited announced the completion of a joint venture agreement with Ekapa Mining (Pty) Ltd, whereby the two companies would combine their respective operations in Kimberley. This resultant entity, Kimberley Ekapa Mining Joint Venture ("KEM JV"), now houses the Kimberley Underground mine, numerous tailings retreatment programmes and the Central Treatment Plant.

Thus, from the above mentioned it can be assumed that diamond bearing gravel/kimberlite might be present on the proposed area.

Prospecting as defined by the MPRDA: "intentionally searching for any mineral by means of any method - which disturbs the surface or subsurface of the earth, including any portion of the earth that is under the sea or under other water; or in or on any residue stockpile or residue deposit, in order to establish the existence of any mineral and to determine the extent and economic value thereof; or in the sea or other water on land" therefore

Matolo Trade and Investment Pty Ltd applied for a prospecting right on the mentioned properties in order to determine the presence of diamonds, as expected, and to determine whether it will be feasible to enter into further studies.

G. Motivation for the preferred development footprint within the approved site including a full description of the process followed to reach the proposed development footprint within the approved site.

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

Location of the site

The proposed prospecting area is situated south east of De Beers Kimberley Mines, not so far from the slimes dam. The city of Kimberley lies ± 9 km north west of the proposed prospecting area.

Preferred activity

The proposed portion is used as the Rooifontein Wildlife Club. The objective of the club is to promote, encourage and foster an interest in fauna and flora. The club facilities include game viewing, bicycle rides, walks, photography, camping, wedding functions and various educational seminars and courses.

The prospecting of diamonds alluvial, diamonds general and diamonds kimberlite is one of the preferred activities for the site, the other is the Rooifontein Wildlife Club. However, the mine will provide additional job opportunities than what is provided currently.

Technology alternatives

In terms of the technologies proposed, these have been chosen based on the long term success of their prospecting history. The prospecting activities proposed in the Prospecting Works Programme (**Appendix 9**) is dependent on the preceding phase as previously discussed, therefore no alternatives are indicated, but rather a phased approach of trusted prospecting techniques.

H. A FULL DESCRIPTION OF THE PROCESS FOLLOWED TO REACH THE PROPOSED DEVELOPMENT FOOTPRINT WITHIN THE APPROVED SITE, INCLUDING:

i. details of the development footprint alternatives considered;

• Consideration of alternatives

The DEAT 2006 guidelines on 'assessment of alternatives and impacts' proposes the consideration of four types of alternatives namely, the no-go, site, activity, and technology alternatives. It is however, important to note that the regulation and guidelines specifically state that only 'feasible' and 'reasonable' alternatives should be explored. It also recognizes that the consideration of alternatives is an iterative process of feedback between the developer, the EAP and Interested and affected parties, which in some instances culminates in a single preferred project proposal. The following sections explore each type of alternative in relation to the proposed activity.

• Location alternatives

This alternative asks the question, if there is not, from an environmental perspective, a more suitable location for the proposed activity. The applicant does not have any alternative location because it is expected that diamonds alluvial, diamonds general and diamonds kimberlite have been deposited on this farm and therefore the applicant would like to commence with their prospecting activities.

Land capability is the combination of soil suitability and climate factors. The site and surrounding area has a land capability classification, on the 8 category scale, of Class 5 – the proposed area falls within non-arable land. Land in Class 5 has little or no erosion hazard but have other limitations impractical to

remove that limit its use largely to pasture, range, woodland or wildlife food and cover. These limitations restrict the kind of plants that can be grown and prevent normal tillage of cultivated crops. Pastures can be improved and benefits from proper management can be expected.

(refer to Land capability map attached as **Appendix 5**)

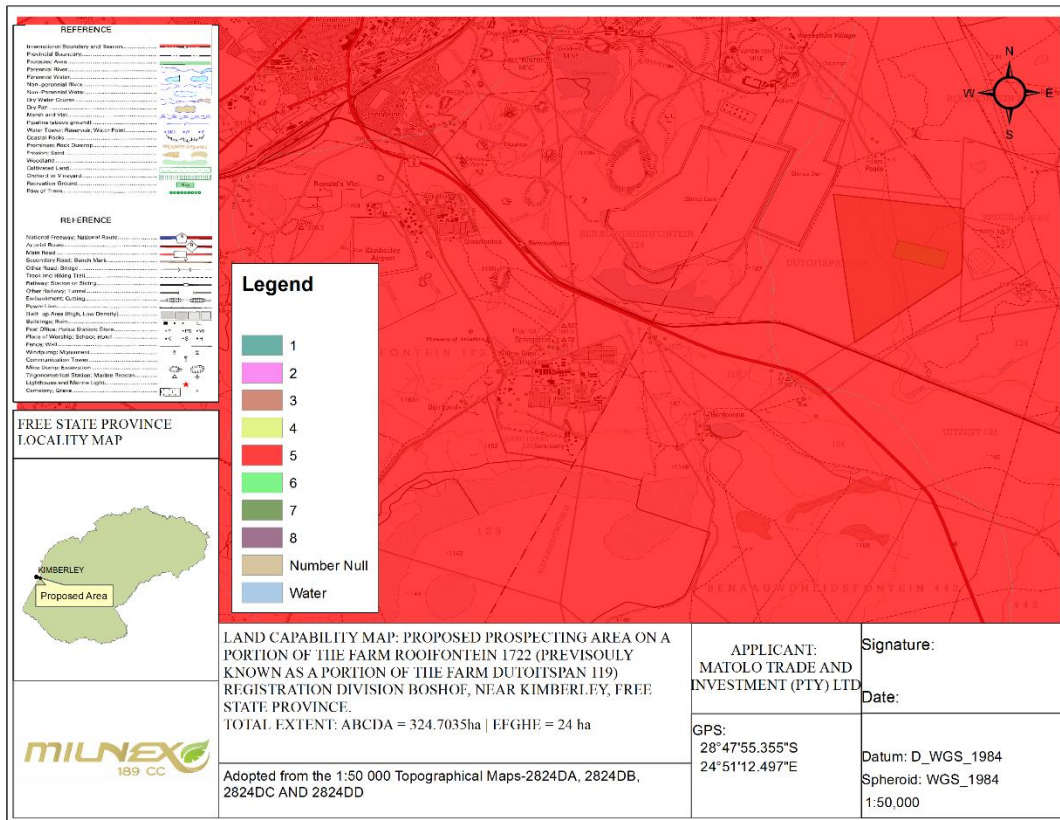


Figure 3: Land Capability Map

- **Activity alternatives**

The environmental impact assessment process also needs to consider if the development of a diamond alluvial, diamond general and diamond kimberlite mine would be the most appropriate land use for the particular site.

Prospecting of other commodities – from the surface and desktop assessment there are no indications that there are other commodities to be mined on the site, except alluvial diamond, diamonds general and diamonds kimberlite.

Agriculture – Due to the site being non-arable in terms of crop production, it may be preferred for grazing.

- **Design and layout alternatives**

The location of activities will be determined based on the location of the prospecting activities, which will only be determined during phase 1 and 2 of the PWP. All the infrastructure will be temporary and/or mobile. The layout follows the limitations of the site and aspects such as, roads, site offices and workshop area as well as fencing– refer **Appendix 3**.

- **Operational alternatives**

Due to the nature of the prospecting activities, no permanent services in terms of water supply, electricity, or sewerage services are required.

The activities will commence with a site investigation and desktop studies, which will comprise of non-invasive techniques. This manner of survey will ensure that the applicant can clearly delineate areas which are suitable for further investigation and no unnecessary surface disturbance will be undertaken.

Based on the outcome of the desktop studies and site investigation, holes will be drilled and pits will be dug by an excavator for the purpose of soil sampling. If gravel is found, the applicant will determine the composition and quality of the gravel.

The applicant will proceed with this way of prospecting by means of the open cast/trenching method, simultaneously or after pitting depending on the information obtained from the earlier work done. The trenches will be dug to remove and wash the gravel. It will be washed by a 16 feet washing pan to determine diamond proceeds per 100 tons of gravel.

All data will be consolidated and processed to determine the diamond bearing resources on the property. This will be a continuous process throughout the prospecting work programme.

No feasible alternatives to the pitting and trenching method currently exists. Impacts associated with the prospecting operations will be managed through the implementation of a management plan, developed as part of the application for authorisation.

- **No-go alternative**

This alternative considers the option of 'do nothing' and maintaining the status quo. The description provided in section H of this report could be considered the baseline conditions (status quo) to persist should the no-go alternative be preferred. Should the proposed activity not proceed, the site will remain unchanged and will continue to be used as a wildlife club.

Technology alternatives

In terms of the technologies proposed, these have been chosen based on the long term success of their prospecting history. The prospecting activities proposed in the Prospecting Works Programme (**Appendix 9**) is dependent on the preceding phase as previously discussed, therefore no alternatives are indicated, but rather a phased approach of trusted prospecting techniques.

The preferred technology for the proposed prospecting activity, will be to drill boreholes for sample collection, which will be used to calculate the ore resources, construct ore thickness, overburden thickness and basement elevation contour plans. Should delineation and initial evaluation of the deposit indicate a sufficient size and grade to warrant further evaluation, an appropriate bulk sampling program will be undertaken in order to establish grade and confirm its viability for mining. If it is feasible the preferred technology for the latter will be to remove the diamond bearing gravel with an excavator, depositing it in the 10 – 18 feet rotary pan(s) to be washed and sorted. Please find the Prospecting Work Programme attached as **Appendix 9**.

Reverse Circulation Drilling (RC drilling)

Drill Structure

RC drilling is usually a large piece of apparatus, that requires a lot of space, not just for the rig itself, but the supporting vehicles and the pit for collecting waste runoff.

The drill cutting is transferred to the surface inside drill rods, which are linked together to create a 'drill string'. Drill bits attached to the end of the hammer are made from tungsten-steel, and are usually around 13-20cm in diameter. These also have metal nodules attached at the end to allow cutting through particularly tough rock. Most RC drilling uses a dual-tube drill rods, with one tube inside another. The tubes inside overlap and provide a path for drilled rock from the ground to the surface. Inner tubes can be sealed together, meaning that the RC drill can sample up to very large depths, often around 500m.

Another type of RC drilling is 'centre sample' drilling. This is a modern variation, in which a central hammer, with a hollow centre, allows the sample to immediately enter the drill pipe, without the need to travel past the hammer (AZOMining, 2012)

Sample Extraction

The samples produced from RC drilling are dry chips of the drilled rock. To create the sample, the hammer acts like a pneumatic piston and pushes a tungsten-steel drill bit on to the rock, breaking it up. Before the drill bit hits the rock, it is dried out using an air compressor, so that the rock chips are dry at the surface.

Water is often used down the hole to cool the drill bit and reduce dust, as well as assisting with the transportation of sample bits to the surface. Air is blown down the drill rods to create a pressure difference, allowing the sample chips and water to rise through the inner tube. The sample then reaches a bell at ground level, which transports the sample to a cyclone where it dries out and is deposited into sacks (AZOMining, 2012).

Applications

RC drilling is a technique used in most stages of mine development.

As it is cheaper than diamond core drilling, it is often used in first stage exploration mining to delineate a potentially extractable ore body. It is also preferable to RAB or air-core drilling when trying to reach great depths, but RC drilling is slower and more expensive than either of these two methods.

RC drilling is also consistently used during in-pit grade control and the development stage of an ore body (AZOMining, 2012).

Pros & Cons of the alternative RC drilling

| Advantages | Disadvantages |
|--|--|
| Direct drilling cost reductions in the range of 25% to 40%. | Less geological information from sample. |
| Faster completion of drill programs with quicker delivery of results. | Holes can deviate (Spiral Stabiliser Subs keep holes straighter) |
| Reduced man-hours at the drill with decreased exposure to potential accidents. | Diamond drill can usually drill to greater depth although depths up to 800m have been achieved with. |
| Reduced contractor activity in the mine reduces mine support burden. | |
| Indirect cost reductions gained from a simplified sampling process. | |

Pros & Cons of the alternative Dense Media Separation (DMS)

| Advantages | Disadvantages |
|---|---|
| DMS plants is used mostly for kimberlite deposits | 10 times more expensive than Rotary pan |
| | Water consumption is high |
| | Operating costs are expensive |

In a Dense Media Separation (DMS) plant, powdered ferrosilicon (an alloy of iron and silicone) is suspended in water to form a fluid near the density of diamond (3.52 g/cm³), to which the diamond bearing material is added to begin the separation process of the heavier minerals from the lighter material. Additional separation of the denser material occurs by centrifuge in “cyclones” that swirl the mixture at low and high speeds, forcing the diamonds and other dense minerals to the walls and then out the bottom of the cyclone. Waste water rises at the centre of the cyclones and is sucked out and screened to remove waste particles. The DMS process results in a concentrate that generally weighs less than one percent of the original material fed into the plant at the beginning of the process.

Pros & Cons of the alternative Rotary Pan Plants

| Advantages | Disadvantages |
|---|--|
| More cost effective | The industry perception that Rotary Pan Plants yield poorer diamond recoveries |
| Readily available | |
| Generate more work opportunities | |
| Consume less water | |
| Rotary Pan Plants are most often used when mining alluvial deposits | |

In a Rotary Pan plant, crushed ore, when mining kimberlite, or alluvial gravel and soil is mixed with water to create a liquid slurry called “puddle” which has a density in the 1.3 to 1.5 g/cm³ range. The mix is stirred in the pan by angled rotating “teeth”. The heavier minerals, or “concentrate”, settle to the bottom and are pushed toward an extraction point, while lighter waste remains suspended and overflows out of the centre of the pan as a separate stream of material. The concentrate, representing just a small percentage of the original kimberlite ore or alluvial gravels, is drawn off for final recovery of the diamonds.

Both methods are in actual fact used for bulk material reduction and require a further process for the final diamond recovery however, for this project the Rotary Pan will be used.

Pros & Cons of the alternative Dense Media Separation (DMS)

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| | Water consumption is high |
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Both methods are in actual fact used for bulk material reduction and require a further process for the final diamond recovery however, for this project the Rotary Pan will be used.

When it comes to dust suppression two main methods were considered, namely molasses stillage and the wetting (water) of roads. The table below provides a short summary of the advantages and disadvantages of each.

| Water | Molasses stillage |
|---|---|
| More cost effective | Much more expensive |
| Could lead to the depleting of water resources | Requires less water |
| No damage (only if used excessively) | The product may be toxic to aquatic organisms. (As this product could have physical effects on aquatic organisms for e.g. floating, osmotic damage) |
| No harm to humans or animals (Only a high quantity will have harm to humans or animals) | Not Hazardous or toxic. Could cause irritation to eyes, skin or when ingested and inhaled. |
| Non-flammable | Non-flammable |

| | |
|-------------------------------|---|
| Eye-wash fountains not needed | Eye-wash fountains in the work place are strongly recommended |
| | Working procedures should be designed to minimize worker exposure to this product. |
| Basic storing methods | Storing methods are a bit more complicated. Should be stored in a plastic, plastic lined or stainless steel, tight closed containers between 5 and 40 degrees Centigrade. |

Considering the above-mentioned information, water will be used for dust suppression purposes.

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.

Advertisement and Notices

1. Newspaper advertisement

An advertisement was placed in English in the local newspaper (Bloem-news) on the 30 March 2017 (see **Appendix 6**) notifying the public of the EIA process and requesting Interested and Affected Parties (I&APs) to register with, and submit their comments to Milnex 189 CC. I&APs were given the opportunity to raise comments within 30 days of the advertisement.

2. Site notices

Site notices were placed on site on the 04 April 2017 in English to inform surrounding communities and immediately adjacent landowners of the proposed development. I&APs were given the opportunity to raise comments. Photographic evidence of the site notices is included in Appendix 6. Below are the coordinates where the site notices were placed

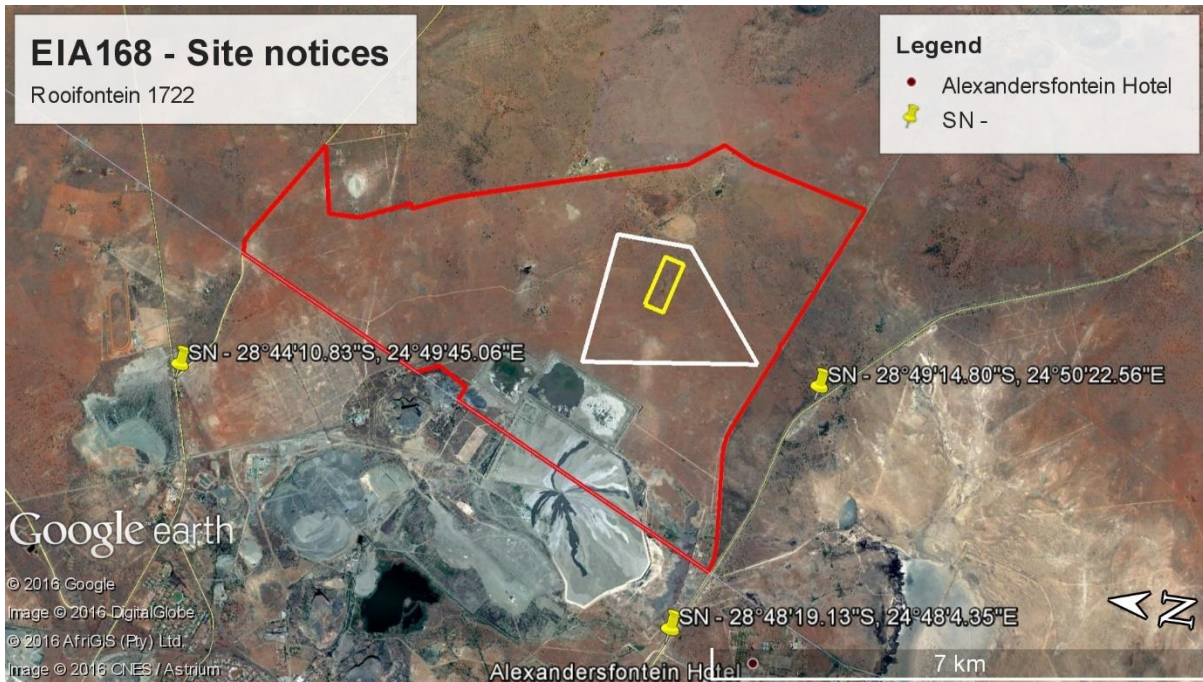


Figure 4: Site notice co-ordinates

3. Direct notification and circulation of Scoping Report to identified I&APs

Identified I&APs, including key stakeholders representing various sectors, are directly informed of the proposed development and the availability of the Scoping Report via registered post on **27 March 2017** and were requested to submit comments by **02 May 2017**.

A copy of the report is also available at the Milnex offices, Schweizer-Reneke and Potchefstroom, from 7:30 – 17:00, Monday to Friday. For a complete list of stakeholder details and for proof of registered post see **Appendix 6**. The consultees included:

- Department of Economic Small Business Development, Tourism and Environmental Affairs
- Department of Water and Sanitation
- Free State Department of Mineral Resources
- Department of Agriculture and Rural Development
- Department of Police, Roads and Transport
- Department of Public Works and Infrastructure
- Free State Provincial Heritage Resources Authority
- Wildlife and Environment Society of South Africa (Free State)
- South African National Roads Agency Limited
- Lejweleputswa District Municipality District Municipality
- Municipal Manager at the Tokologo Local Municipality
- Local Councilor at the Tokologo Local Municipality

4. Direct notification of surrounding land owners and occupiers

Written notices and the availability of the Scoping Report are also provided to all surrounding land owners and occupiers on **27 March 2017**. The surrounding land owners are given the opportunity to raise comments by **02 May 2017**. For a list of surrounding land owners see **Appendix 6**.

5. Consultation

All I&AP's are invited to attend the public meeting scheduled for the **25th of April 2017 at 11:00am–12:00pm** at the turnoff from N8 onto the Modderrivier gravel road. at the coordinates mentioned below.

Coordinates
28°48'19.80"S,
24°48'3.11"E

Directions from Kimberley

- Drive toward Petrusburg on the N8 from Kimberley.
- Keep driving on the N8 for approximately 7.7km or until you see the Modderrivier turnoff on your right-hand side.
- Turn right onto the Modderrivier gravel road.
- You will see Milnex personnel waiting next to the road.



Figure 5: Directions from Kimberley to the public meeting

On the day of the public meeting, Milnex 189 CC consultants waited for attendees at the above mentioned coordinates. After everyone arrived at the location the public meeting was moved to the Horseshoe Centre.

The public meeting is an opportunity to share information regarding the proposed development and provide I&APs with an opportunity to raise any issues and provide comments.

The following key stakeholders and surrounding land owners are also directly informed of the public meeting via registered post **27 March 2017**.

- Department of Economic Small Business Development, Tourism and Environmental Affairs
- Department of Water and Sanitation
- Free State Department of Mineral Resources
- Department of Agriculture and Rural Development
- Department of Police, Roads and Transport
- Department of Public Works and Infrastructure
- Free State Provincial Heritage Resources Authority
- Wildlife and Environment Society of South Africa (Free State)
- South African National Roads Agency Limited
- Lejweleputswa District Municipality District Municipality
- Municipal Manager at the Tokologo Local Municipality
- Local Councilor at the Tokologo Local Municipality
- Land Owner 1: Ekapa Mining (Pty) Ltd and Petra Diamonds Limited
- Surrounding Land Owner: Zuikerkop Country & Game Lodge Pty Ltd
- Surrounding Land Owner: AAA Mining CC
- Surrounding Land Owner: Jan Johannes Reichert
- Surrounding Land Owner: Mr. Stalin King and Mrs. Constance Louise King
- Surrounding Land Owner: Butinyane William Mopharing
- Surrounding Land Owner: Karreeboom Kimberly Pty Ltd
- Surrounding Land Owner: South African National Roads Agency Ltd
- Surrounding Land Owner: Transnet Ltd
- Surrounding Land Owner: De Beers Consolidated Mines Pty Ltd
- Surrounding Land Owner: Crown Resources Pty Ltd
- Surrounding Land Owner: Ekapa Minerals Pty Ltd
- Surrounding Land Owner: Alan James Thompson

6. Public Meeting

The public meeting is an opportunity to share information regarding the proposed development and provide I&APs with an opportunity to raise any issues and provide comments.

The public meeting was held at the Horseshoe Centre. Milnex 198 CC personnel waited at the original public meeting location for all the attendees, before driving to the Horseshoe Centre followed by the attendees.



Directions from the original location to the new location of the public meeting.

The meeting was attended by the following 20 (twenty) people, as attached in the attendance register:

| | |
|---------------------------|--------------------------------------|
| 1. Lionel Pieters | 2. Luckas Brits |
| 3. Alfred van Zyl | 4. Itumeleng |
| 5. Angus Slamet | 6. Erica Richards |
| 7. Wiekus Riet | 8. Hein Knoke |
| 9. Kelonale Tshoey | 10. Ester van der Westhuizen-Coetser |
| 11. Joyceline Brooks | 12. M.L. Weenih |
| 13. Maritha van Sckalkwyk | 14. M. Rantho |
| 15. Ernest van Sckalkwyk | 16. J.P. Squier |
| 17. Bennie Toubie | 18. C. van der Merwe |
| 19. Christo Moses | 20. Sipiwe Makhaye |

As well as Milnex Representatives: Ms. Lizanne Esterhuizen, Mr. Danie Labuschagne and Mr. Mandi Sibanyoni

Attached as **Appendix 6** is the attendance register and the minutes of the meeting. Below is an extraction of the minutes of the meeting.

| Attendee/s made the following statements and raised questions: | Milnex 189 CC consultants noted the statements and/or questions and answered some questions as follow: |
|---|--|
| Me. Ester van der Westhuizen-Coetzer (KEM representative) | |
| 1) The area is a historical heritage area. 2) Is the application for prospecting or mining? 3) Is it for Alluvial or Kimberlite? 4) There is already a licensed application on the area. | 1) Statement is noted 2) Prospecting 3) Diamonds Alluvial, Diamonds in General and Diamonds Kimberlite |

| | |
|--|--|
| <p>5) After prospecting, will mining continue</p> <p>6) Where will the treating of material take place?</p> <p>7) What is going to happen with the effluent / tailings?</p> <p>8) Will a waste license be applied for?</p> <p>9) There was no waste facility on the presentation.</p> <p>10) Will desktop studies or physical studies be used?</p> <p>11) If access roads are going to be constructed, how big will they be? Will the road/s be part of the 24ha area?</p> | <p>4) Asked that KEM representative provide this information to Milnex 189 CC. On which she replied, she will provide Milnex 189 CC with the details of the consultant that dealt with the relevant right.</p> <p>5) If it is feasible, a mining right or mining permit might be applied for.</p> <p>6) Treating of material will occur on site.</p> <p>7) Question is noted</p> <p>8) Question is noted</p> <p>9) Statement is noted</p> <p>10) Desktop and physical studies will be used.</p> <p>11) Questions is noted.</p> |
|--|--|

Rooifontein Wildlife Club

| | |
|--|--|
| <p>1) Where did Milnex 189 CC receive the information provided in the presentation?</p> <p>2) Where did you receive the PWP?</p> <p>3) From the information you are giving us, it means the applicant must have been on site. When was the applicant on the farm? Because if they were on site then it means there was a breach in security.</p> <p>4) Old dumps were mentioned in the presentation, there is no old mine dumps.</p> <p>5) How is access to the site going to be acquired during the prospecting activities?</p> <p>6) The farm size in the presentation is incorrect.</p> <p>7) If no dust suppression is implemented at the proposed prospecting plant, it will have an effect on the flora around the proposed prospecting area.</p> <p>8) How do you plan to keep the game safe from the proposed prospecting area?</p> <p>9) Will the game be affected by the water that the proposed prospecting activity is going to use?</p> | <p>1) In the PWP</p> <p>2) From the applicant</p> <p>3) Questions is noted</p> <p>4) We would like to visit the proposed farm to see for ourselves, if the landowner will give us access to the farm?</p> <p>5) Access roads will be used.</p> <p>6) Statement is noted.</p> <p>7) Statement is noted.</p> <p>8) Question is noted</p> <p>9) Question is noted</p> <p>10) The amount of topsoil can only be determined after phase 2, after drilling took place.</p> |
|--|--|

| | |
|--|--|
| 10) How many cubic meters of topsoil will be removed? | |
| Community members | |
| 1) Was there research done which determines the effect of the prospecting activity on the community's water? 2) Is the main road which goes to Bloemfontein, going to be used? If so, will it be maintained? Because it is used by agricultural- and motor vehicles | 1) Question is noted 2) Questions is noted. |

7. Direct notification and circulation of the draft Environmental Impact Assessment (EIA) & Environmental Management Programme (EMPr)

Identified I&APs, including key stakeholders representing various sectors, land owners & surrounding land owners are directly informed of the proposed development and the availability of the draft EIR & EMPr via registered post on **31 July 2017 and 02 August 2017**. They were requested to submit comments by **31 August 2017 and 4 September 2017**. A copy of the report is also available at the Milnex offices, Schweizer-Reneke and Potchefstroom, from 7:30 – 17:00, Monday to Friday. For a complete list of stakeholder details and for proof of registered post see **Appendix 6**. The consultees included people on table 1.

Rooifontein Wildlife Club Meeting

A meeting was held at the Rooifontein Wildlife Club on the 30 August 2017 at 18:00. This meeting was arranged on request from Ester van der Westhuizen-Coetzer. She asked that the the meeting be held to demonstrate what will be lost if the application is approved. All comments received from attendees was attached and included in the comments and response table. Even though it was an informal meeting, an attendance register was circulated. The attendance registred and proof of handing out CD's are attached under **Appendix 6**.

8. Issues Raised by Interested and Affected Parties

When the comment period ends, comments received will be included in the comments and response table/form (See Appendix 6 for comments and response form).

iii. SUMMARY OF ISSUES RAISED BY I&APS

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

| Interested and Affected Parties | | Date Comments Received | Issues raised | EAPs response to issues as mandated by the applicant | Section and paragraph reference in this report where the issue and or response where incorporated |
|--|---|------------------------|---|--|---|
| List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted. | | | | | |
| Organisation | Contact person | | | | |
| Land Owner | | | | | |
| Rooifontein RE/1722 (previously known as a portion of the farm Dutoitspan 119) | Kimberley Ekapa Mining | | | | |
| | Ester van der Westhuizen-Coetzer | 10/04/2017 | Email received on 10/04/2017 stating that as per telephonic conversation with Danie Labuschagne, Ester van der Westhuizen-Coetzer asks that the Scoping report, Map of area to be mined including GPS co-ordinates and the annexures will be uploaded onto the dropbox today or early tomorrow. She must also be included in future communication regarding this project and Milnex 189 CC should let her know when there is a public meeting and registration as I & AP. Furthermore, she confirmed that KEM is the new owners of this property. | | |
| | Kimberley Ekapa Mining: Environmental Specialist | 21/04/2017 | Email received at <u>8:50 AM</u> requesting the 3 full pages of the meeting that Milnex 189 CC want to hold in connection with this application | Email sent at <u>10:38 AM</u> states the following: Note that you are registered as an I&AP. The Public Meeting is scheduled for the 25th of April 2017 at 11:00am–12:00pm, at the turnoff from N8 onto the Modderrivier gravel road. Please see attached letter posted to your South African office, containing all the details regarding the public meeting. | |

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| | | | | <p>All project information, which include the appendices, can be found on the dropbox link below, however if you prefer a CD we can post you one.</p> <p>https://www.dropbox.com/sh/60zmsc4y3tdj1kn/AAC4i6VDmPhrvLPYwDbHINwca?dl=0</p> <p>May you please explain to me what you mean with “3 full pages of your meeting”, do you want the Agenda for the public meeting?</p> | |
| | | | Email received at 11:08 AM explains the 3 page that indicated the date, area and time of the meeting. She asked if she may get the Agenda of the public meeting. | Email sent 12:41 PM states please find the attached Agenda, as well as Google earth shape files for the proposed area. | |
| | | 04/05/2017 | | <p>Email sent on 04/05/2017 with attached letter dated 04 May 2017 is a formal request for the following:</p> <p>We would like to formally request the following from Kimberley Ekapa Mining:</p> <ol style="list-style-type: none"> 1. To give access to the property. 2. To provide the documents regarding the existing application. 3. What is the existing status of the current land uses and the socio-economic environment that may be affected on the proposed area? 4. What is the existing status of the cultural environment that may be affected on the proposed area? 5. What is the existing status of the heritage environment that may be affected on the proposed area? 6. What is the existing status of the infrastructure that may be affected on the proposed area? | |

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| | | | | <p>7. What is the existing status of the biophysical environment that may be affected on the proposed area?</p> <p>8. What is the potential cumulative impacts with other land uses?</p> <p>9. Is there any alternative land uses that may be affected on the relevant property or adjacent or non-adjacent properties? Please elaborate</p> <p>Kimberley Ekapa Mining is asked to respond to the above before or on the 18th of May 2017.</p> | |
| | | 05/05/2017 | | Email sent 05/05/2017 asking Ester to please confirm the receipt of the letter dated 4 May 2017. | |
| | | 11/05/2017 | | On 11/05/2017 Ester refused to accept the hand delivered letter dated 04/05/2017. | |
| | | 18/07/2017 20/07/2017 | Email received 18/07/2017 asked for the form to register as an I&AP | Email sent 20/07/2017 sent 07:45am states that Me. Ester must please note that she is already registered as an I&AP | |
| | | 20/07/2017 | Email received on 20/07/2017 at 09:21am states that she knows she is registered, however this is for someone additional. | <p>Email sent 20/07/2017 at 09:59am states that Me. Ester can just send us their contact details and they will be added to the I&AP list.</p> <p>Name and Surname Postal address Contact number Email address if any</p> | |
| | | 02/08/2017 | Email received 02/08/2017 states that access to the property is granted, however only on Wednesday because they are still busy with hunting season and no hunting takes place on Wednesdays. | Email sent 02/08/2017 states that we will let them know in advance when we would like to visit the property and that the appointed specialists will arrange their own site visit. | |
| | | 02/08/2017 | Email received 02/08/2017 states that we can provide the specialists with Ester's contact details for them to arrange their site visit. | | |

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| | 11/08/2017 | Received a call on 11/08/2017, Ester stated that the dropbox link is not working. | During the telephonic conversation, it was replied that Milnex 189 CC will look into it. | |
| | 14/08/2017 | Email received on 14/08/2017 ask that we let her know what is happening with the dropbox link that was shared with her on the letter communicated to them. At the time of the telephonic conversation the dropbox did not exist. | | |
| | 15/08/2017 16/08/2017 | Email received on 15/08/2017 states the time to comment is running out and we would like to have an input into it as landowners. The email further asks that Milnex 189 CC give feedback on the status of the dropbox issue as discussed | Email sent 16/08/2017 responds to email received earlier stating that Milnex 189 CC are working on the it and that their timeframe to comment will be revised. | |
| | 16/08/2017 | Email received 16/08/2017 thanked Milnex 189 CC and Milnex 189 CC should keep Ester updated. | | |
| | 18/08/2017 | Email received on 18/08/2017 states that Ester will check again and let us know. | Email sent 18/08/2017 states the following: Note that at the time of our telephonic conversation I went to double check the dropbox link and is was working. We also tested it by sending the link to colleagues in the office. Please find the dropbox link below. https://www.dropbox.com/sh/60zmsc4y3tdj1kn/AAC4i6VDmPhrvLPYwDbHINwca?dl=0 As the landowner you have until 18 September 2017 (30 days) to provide us with written comments on the draft EIR & EMP report. I am confident the link will work however if for some reason it doesn't, please note that CD's with project information will also be sent to the Duncan & Rothman Attorney's office in Kimberley via registered post, addressed to you and Mr. Izak Potgieter. | |
| | 21/08/2017 | Email received 21/08/2017 states that Ester downloaded the documents in question and would like to confirm that there are no specialist studies in the folder for specialist | Email sent 21/08/2017 answers her question and states it depends if we receive the reports in time and if we do we will send it to them. | |

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| | | | studies. She presumes this is due to the fact that none of the specialists was on site yet. She further asks if they will have extra time to review their reports as well as it was not part of the package now? | | |
| | 21/08/2017 | | Email received 21/08/2017 states the Milnex 189 CC should take note that the specialist reports is part of the EIA and that they must have access to it as well as time to comment on it before submission in order to formulate a proper opinion of the application. | | |
| | 02/08/2017 | | Email received on 02/08/2017 states that we may visit the site only on Wednesdays because Rooifontein Wildlife Club is still busy with Hunting season and no hunting takes place on Wednesdays. She asked that we look at our calendar and let her know what Wednesday will fit us and our company to visit the farm. She further asked that we let her know in advance so she can arrange with representatives from the club and other users to be present. | Email sent 02/8/2017 states that we will let her know in advance when we would like to visit the property and that the specialists will arrange their own site visit. It further asks may we provide the specialists with her contact detail or may she please provide us with a RWC member's contact details? | |
| | 02/08/2017 | | Email received 02/08/2017 states that we may provide the specialists with her contact details. | | |
| | 22/08/2017 | | Email received 22/08/2017 states that she will let us know if everything is in order and ask that we send her ID copies of all the attendees from our side. | Email sent 22/08/2017 states that we would like to visit the site on the 30th of August 2017 at 10:00am and asked Ester if she will please arrange it for us with the Rooifontein Wildlife Club (RWC) | |
| | 22/08/2017 | | | Email sent 22/08/2017 states that we will send the ID copies as soon as possible. | |
| | 22/08/2017 | | Email received on 22/08/2017 said that Ester spoke to the RWC and most of them are working at 10 in the morning. They would prefer 18:00 hours and ask that we indicate if this will be fine. | Email sent 22/08/2017 states that we will take photos and at 18:00 it is already getting dark, it will be easy to miss something in the twilight. Are there no staff members on the property who will be able to assist us anytime between 10:00 and 14:00. | |
| | 23/08/2017 | | Email received 23/08/2017 states the we can arrange the site visit and ask will be have a separate meeting with those parties that want to meet with us, like the bike club and so on? | | |
| | 24/08/2017 25/08/2017 | | Email received on 24/08/2017 as a reminder that they need our ID at least 48hours before the time. | After a tele/phonic conversation on 25/08/2017 and email was sent which states the following: | |

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| | | | | <p>Following our telephone conversation we discussed the following:</p> <ol style="list-style-type: none"> 1) You will arrange the site visit on the 30th of August 2017 between 11:00 and 14:00 for us and you will confirm the time. 2) You will arrange the session to meet with the RWC on the 30th of August 2017 at 18:00 and send me directions/coordinates to the location. 3) We need to bring our own projector for the above mentioned. 4) I will send you the ID's of the relevant people to gain access to the property. <p>Please find the attached ID's</p> | |
| | | 18/09/2017 | <p>Email received 18/09/2017 states the following: Find attached the formal issues regarding the EIA as received on the 18 Aug 2017 via drop box for the prospecting right of Matolo. Take note that up to now (18 Sept 2017) I have not received any specialist reports.</p> <p>Letter dated 18/09/2017 states the following:</p> <p>Kimberley Ekapa Mining Joint Venture (KEM JV) would like to submit its comments on the draft EIR & EMP and bring to the attention the issues that we believe are of significance to the consideration of the application. KEM JV main comments are broadly itemised below:</p> <p>2.1. KEM JV as a registered I&AP did not receive notification of the availability of the Scoping Report (SR) as indicated in the draft EIR & EMP on 7 September 2017. KEM JV was therefore not provided with the opportunity to submit comments</p> | | <p>2.1. The landowner postal address we retrieved from the Petra Diamonds website, please see attached website screenshot. Please see the Parcel tracking results that shows the landowner letter was collected at the post office on 21/04/2017. Two (2) CD's with project information was couriered to the Duncan &</p> |

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| | | | <p>on the SR as provided for in the NEMA EIR Regulations, 2014.</p> <p>2.2. The DEIAR was made available to KEM JV on 18 August via Dropbox. However, no specialist studies were included as part of the draft EIR & EMPr as requested in terms of the NEMA EIA Regulations, 2014.</p> <p>2.3. Reference is made to the quantum of the financial provision required to manage and rehabilitate the environment on page 84 of the draft EIR & EMPr. However, this amount has been left blank and no calculations have been provided to indicate how the financial provision was determined.</p> <p>2.4. Clear rehabilitation and closure objectives should be provided in the EMPr. Please provide clarification of the following statement on page 13 of the draft EIR & EMPR: <i>No more than 0.632 ha will be left un-rehabilitated in two years. Rehabilitation will be done concurrently.</i></p> <p>2.5. The prospecting area is indicated on page 75 of the report to be 24ha. However, the area applied for is for 300ha. The 300ha will divide the farm from the remaining 300ha at the back of the slimes dams that will lead to a significant agricultural and ecological loss to the farm owner.</p> <p>2.6. The draft EIR & EMPr is silent on water, dust and noise monitoring which is a legal requirement. It is acknowledged that provision has been made for environmental audit (performance assessment against the EMPr) which will not serve the same purpose as monitoring.</p> | | <p>Rothmans Attorney's Office in Kimberley on 20/06/2017 and one was addressed to Ester van der Westhuizen-Coetzer. On the 14th of June 2017, a consultation meeting was held and it was agreed that both CD's will be posted to Duncan & Rothmans Attorney's Office and Ester will pick up her CD from their offices. Please see parcel tracking results that the CD's was collected at the post office.</p> <p>2.2. Access to the site was only granted on the 02/08/2017.</p> <p>2.3. At the time when the draft EIR & EMPr was circulated the quantum was not approved by the applicant yet. Thus the reason why it</p> |
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| | | | <p>2.7. Appendix 3 of the NEMA EIA Regulations, 2014 specifically requires the applicant to provide a motivation for the need and desirability for the proposed development. Need and desirability has been included as a heading in Section F of the report, but no description has been provided. A description is provided of De Beers Consolidated Mines (DBCM), Ekapa Minerals (Pty) Limited, and Petra Diamonds Limited’s activities in the area.</p> <p>2.8. Appendix 3 of the NEMA EIA Regulations, 2017 requires that the report must set out a motivation for the preferred development footprint within the approved site. The draft EIR & EMP does not provide a specific site layout or the location of infrastructure and activities on site. It is also clear that the various issues from I&AP’s have not been taken into consideration.</p> <p>2.9. No alternative locations or a motivation why it has not been included have been provided in the report as required by Appendix 3 of the NEMA EIR Regulations, 2014.</p> <p>2.10. Please indicated why a pan plant is the preferred option on page 20 of the report, heading referring to technological alternatives. This paragraph refers to the experience of the applicant and not the proposed technology.</p> <p>2.11. The legend of figure 3 on page 21 and the map is unclear.</p> <p>2.12. The extract of the minutes of the public meeting held at the Horseshoe Centre (date not indicated) is not a true reflection of the meeting. It is indicated that the KEM JV representative, Ms. E</p> | | <p>was circulated without it.</p> <p>2.4. This statement was amended on the document, please see page 13.</p> <p>2.5. According to representative of the applicant they believe that the diamond bearing gravel/kimberlite is located on a 24ha area. However, they could not gain access to the property for a land surveyor to mark the exact coordinates. Thus, they used google earth and because google earth is not as accurate as the land surveyor would have been they applied for the whole area in case the coordinates they obtained from google earth is not correct.</p> <p>2.6. Please see the below</p> |
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| | | | <p>van der Westhuizen-Coetzer indicated that she will provide information on an existing mining application on the property, which was not said at the meeting and is a false statement. This should be rectified in the minutes and in the report.</p> <p>2.13. The draft EIR & EMPr must take into consideration comments from the I&AP's. During the public meeting questions were raised regarding waste management and roads. None of these issues have been addressed in the report.</p> <p>2.14. The proposed slimes dam is specifically listed in the "listed and specified activities" on page 8. No reference is made to a trailing facility. The EMPr provided management measures for non-mineral waste, but no mitigation measures are provided for tailings waste. The report should set out clear measures for the management of tailings waste generated from the prospecting operations.</p> <p>2.15. On page 41 of the report the following is stated: "A certain area of the proposed portion falls within the Highest (Class B) biodiversity importance area at risk for mining."</p> <p>Although biodiversity has been identified as a risk no mitigation measures have been provided in the EMPr. It is also not clear why reference is made to mining and not prospecting.</p> <p>2.16. It is not clearly described in the report how effluent from the plant will be managed. This could have an impact on ground and surface water. Please provide clarification.</p> | | <p>mentioned pages and tables.</p> <ul style="list-style-type: none"> • Water: Table: Impacts to be mitigated in their respective phases, Impact Management Outcomes, Impact Management Actions • Dust: Page 23, 25, 26 95, Table: Impacts to be mitigated in their respective phases, Impact Management Outcomes, Impact Management Actions • Noise: Table: Impacts to be mitigated in their respective phases, Impact Management Outcomes, Impact Management Actions <p>2.7. The Need and desirability has been amended, please see page 19.</p> |
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| | | | <p>2.17. On page 13 the applicant indicates that bulk sampling will entail 2 trenches or pits of approximately 100m x 5m x 50m. the area that is applied for is in close proximity of mayor slimes facility. The digging of trenches/pits of this magnitude may have an impact on the stability of the current slime dam walls.</p> <p><u>Comment 3:</u> Please note that prospecting operations may not commence without the following additional authorisations / permissions:</p> <p>3.1. A water use license for activities listed in section 21 of the National Water Act 36 of 1998. A parallel process is provided for as part of the one environmental system.</p> <p>3.2. A waste management licence is terms of the National Environmental Management Waste Act 59 of 2008 (NEMWA) and the List of Waste Management Activities (GN R921) for the disposal of tailings.</p> <p>3.3. The land use on a property must in compliance with the zoning of the property and conditions of the title deed. The applicant will not be permitted to proceed with its prospecting operations unless the property has a zoning which permits such activities. It is not clear if the applicant has considered the current zoning of the property and the town-planning scheme of the Municipality.</p> <p><u>Comment 4:</u> Kindly provided proof of the agreement with Sol Plaatjes Municipality for the water from Homevale to illustrate that game will not be affected by the water that the proposed prospecting activities.</p> <p><u>Comment 5:</u> KEM JV trust that Milnex will in the interest of sustainability take sincere consideration of its comments set out above.</p> | | <p>2.8. Due to the fact that the application is for prospecting, the exact location of equipment, tailing dam, trances, etc cannot be determined as to yet. As soon as prospecting activities commence a plan will be submitted to DMR by the applicant. All I&AP comments have been included in the report.</p> <p>2.9. There is no alternative location because it is expected that diamonds alluvial, diamonds general and diamonds kimberlite have been deposited on this farm and therefore the applicant would like to commence with their prospecting activities. Page 20</p> <p>2.10. This statement is not</p> |
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| | | | | | <p>correct as it refers to the technology alternatives and not the experience of the applicant</p> <p>2.11. The map is A3 size under Appendix 3.</p> <p>2.12. On the day of the public meeting there were three Milnex 189 CC representatives and minutes of the meeting were taken. On the notes that were taken, it was noted that Ester mentioned that she will provide Milnex 189 CC with the details of the consultant that dealt with the relevant right. The minutes will be amended accordingly.</p> <p>2.13. Road – Please see page 9 & 10.</p> <p>Waste – A waste licence will be applied for.</p> |
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| | | | | | | <p>2.14. Please see page 158 and 176.</p> <p>2.15. The data we received from SANBI and in their GIS Metadata: Detailed Report they only mention the mining sector and do not differentiate between mining and prospecting. Please see the specialist report for mitigation measures and mitigation measures was also added in the EMP.</p> <p>2.16. Please see Groundwater resource protection page 161 and 179.</p> <p>2.17. This has not been established by the applicant, however if the I&AP feel this may be a problem they may provide us with such evidence</p> |
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| | | 20/09/2017 | | Email sent 20/09/2017 reads as follow: From the cadastral data Milnex 189 CC have made a map that illustrates the whole area of the Rooifontein Wildlife Club. Please verify if the attached map is correct. If it is wrong may you please indicate where it is wrong and how it should be. | |
| Aletta Anderson | | 11/04/2017 | Email received by Mr. D. Labuschagne (Milnex 189 CC consultant) on 11/04/2017 asking that a copy of the Section 10 notice wherein the DMR accepts the application and confirmation of the Applicant and due date for comments to be submitted. | | |
| | | 28/04/2017 | Email received by Mr. D. Labuschagne (Milnex 189 CC consultant) on 28/04/2017 stating the following: <i>“Kindly advise as a matter of urgency as we need to establish who the applicant is”</i> | | |
| | | 02/05/2017 | Email received by Mr. D. Labuschagne (Milnex 189 CC consultant) on 02/05/2017 states that the Section 10 has not been received and Milnex 189 CC should respond to email aletta.anderson@petradiamonds.com . | Email sent by Mr. D. Labuschagne on 02/05/2017 with attached DMR acceptance letter. | |
| | | 04/05/2017 | | Email sent 04/05/2017 states: “During our telephonic conversation, I explained to you the situation with Danie’s email address Please find the attached email he sent to you with the requested document. May you please forward me any future correspondence to avoid any miscommunication, because of the problems Danie is experiencing with his email address.” | |
| Rassie Erasmus | | 30/05/2017 12/05/2017 | Email received on 30/05/2017 states the following: | Email sent 30/05/2017 states that Ms. Lizanne Esterhuizen did not receive Mr. Erasmus email sent on 12/05/2017 and is sorry for any inconvenience | |

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| | | | <p>Since I did not get ANY response on my e-mail below I would like your staff to do FULL Security Vetting before you sit foot onto our property at KEM JV.</p> <p>I understand that you requested a meeting with Ester, and before this is granted I would appreciate if this can be done as per our Security Access Procedure.</p> <p>Please find attached the documents for each and every individual who needs to attend the meeting AS WELL as a document for your Company.</p> <p>Please urgently action and send this to the relevant persons or direct me to whoever that might be.</p> <p>PLEASE acknowledge receipt of my mail as well as the attached documents</p> <p><u>Email dated 12/05/2017 which was below the email received on 30/05/2017 states the following:</u></p> <p>Mr. Erasmus would like to understand the reasoning why three employees of Milnex entered our Mining property at KEM JV unannounced, without proper Security Clearance, without Security Visitors Access Cards and also being confrontational with one of our employees.</p> <p>Mr. Erasmus would like an explanation for this behaviour as it is totally unacceptable that these gentleman entered our property without proper authorisation and without an appointment.</p> <p>Can Milnex please supply him with urgent feedback</p> | <p>caused. She will ask the IT people to look into it. She further states that she did receive his email sent 30/05/2017 and will forward it to the relevant person.</p> | |
| | | 30/05/2017 | Email received on 30/05/2017 states that it is very peculiar that Milnex did not receive the email. | | |
| | | 01/06/2017 | Email received 01/06/2017 states the following: | Email sent 01/06/2017 states that IT people responded to our enquiry of why Ms. Esterhuizen did not receive the email sent on the 12th of May 2017. | |

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| Izak Potgieter | | | <p>There was NO attachment as it was a plain e-mail message to you.</p> <p>Very peculiar indeed, but please inform your colleagues accordingly as per my second e-mail.</p> <p>ALL these Vetting documents per person as well as for Your Company needs to be sent to us prior to their visit and when they do arrive, a compulsory fingerprint Security Criminal Vetting as well as 100% alcohol testing will be conducted as per normal practice.</p> | <p>The email was identified as spam mail and as a result did not go to her inbox. The reason for this might be because of an attachment attached to the email.</p> <p>Mr. Erasmus is asked if there was something attached to the email sent on the 12th of May 2017 because this information can help the IT people.</p> | |
| | 02/06/2017 | <p>Email received 02/06/2017, Mr. Potgieter states it is not possible because he is in consultation with another client for the entire day. He requested an alternative date.</p> | <p>Email sent on 02/06/2017 from Betsie Viljoen of Milnex refer to a telephonic conversation between Mr. Potgieter and Ms. Nieuwoudt of Milnex. In the email Mr. Potgieter is asked if it is possible to arrange a meeting with him on the 7th of June 2017 at 11:15AM?</p> | | |
| | 05/06/2017 | <p>Email sent 05/06/2017 to Betsie Viljoen of Milnex states the following:</p> <p><i>“Please refer to our letter to you of the 25th April 2017 when we did advise that we also act for the Rooifontein Wildlife Club.</i></p> <p><i>As you know, I am not available to meet on the 7th of June 2017 as requested.</i></p> <p><i>Kindly provide an alternative date. “</i></p> | | | |
| | 05/06/2017 | <p>Email sent 05/06/2017 to Lizanne Esterhuizen states to please refer to below (email correspondence between Izak Potgieter and Betsie Viljoen) and please confirm receipt.</p> | <p>Email sent 05/06/2017 confirm receipt of emails.</p> | | |
| | 06/06/2017 07/06/2017 | <p>Email received on 07/06/2017 with attached letter and proof of sending the email to Milnex on the 2nd of May 2017. Mr. Potgieter will report back to Milnex regarding the request to meet.</p> | <p>Email sent 06/06/2017 from Anica Nieuwoudt with attached letter dated 06/06/2017 which states the following:</p> <p>Milnex kindly request that Mr. Potgieter confirm that he acts on behalf of Zuikerkop Country & Game</p> | | |

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| | | | | <p>Lodge (Pty) Ltd, Eskapa Minerals and Rooifontein Wildlife Club.</p> <p>Kindly provide Milnex with a copy of the letter dated 25 April 2017 which you refer to in your email sent to Milnex dated 5 June 2017 as well as proof of sending it to our office.</p> <p>Kindly inform Milnex whether 13 June 2017 or 14 June 2017 will suite both you and your clients for the meetings to be held at your office in Kimberley.</p> | |
| | Pam from Duncan & Rothman attorneys | 13/06/2017 | | <p>Email sent 13/06/2017 to confirm time and date of meeting with the landowner's and lawful occupier's representative, Mr. Izak Potgieter.</p> <p>The meeting was held on 14 June 2017, 11:00am at the Duncan & Rothman attorney's office in Kimberley.</p> | |
| | Izak Potgieter | 04/07/2017 | | <p>Email sent 04/07/2017 with attached letter refers to the consultation meeting held on the 14th of June 2017. The minutes of the meeting was attached to the letter as Appendix X and asked them they inform Milnex 189 CC of their comments which will also be provided to the DMR.</p> <p>Milnex 189 CC requested the following during the meeting:</p> <ul style="list-style-type: none"> • A Copy of the Rooifontein Wildlife Club lease Agreement. • Access to the property for the appointed specialists to conduct the necessary studies as well as access for Milnex 189 CC personnel's site visit. • The contact details of the mentioned host parties of Rooifontein Wildlife Club. | |

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| | | | | <p>During the meeting, the following was requested from Milnex 189 CC:</p> <ul style="list-style-type: none"> • Background information of the applicant as soon as possible. • A copy of the Re-zoning Application will be made available to Mr. Potgieter. • How mining waste will be managed as soon as the appointed specialists have finalised their studies. • Two CD's with copies of the Environmental documents was send per registered post to your office on 20 June 2017. | |
| | | 17/07/2017 | | <p>Email sent on 17/07/2017 with attached letter refers to the consultation meeting held on 14 June 2017 and the letter dated 4 July 2017. The letter provides background information on the applicant and requests the following:</p> <ul style="list-style-type: none"> • A Copy of the Rooifontein Wildlife Club Lease Agreement. • Access to the property for the appointed specialists to conduct the necessary studies as well as access for Milnex 189 CC personnel's site visit. • The contact details of the mentioned host parties of Rooifontein Wildlife Club. | |
| Email sent 02/06/2017 with reply from different people | | | | | |
| | Ester van der Westhuizen-Coetzer | 02/06/2017 | <p>Email received on <u>13:43PM</u> states that she will only be able to confirm after corresponding with all the parties involved. She asked Rassie Erasmus if he can indicate the time it will take to get security clearance if they receive the completed forms on Monday. She will get back to us as soon as she can.</p> | <p>Email sent to Ester van der Westhuizen-Coetzer from Lizanne Esterhuizen at <u>11:12AM</u>, asking for an appointment on the 7th of June 2017 at 13:45 – 14:45 at their Kimberley office.</p> <p>The persons who will attend the meeting will be Lizanne Esterhuizen, Japie Loubser and Anica Nieuwoudt. The car registration number is HHJ 089 NW and the car is a golden-brown Toyota Fortuner.</p> | |

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| | | | | We are currently busy filling in the security clearance forms, however can only forward it on Monday because we are waiting for above mentioned people to sign all the relevant forms. | |
| | Rassie Erasmus | | Email received at <u>14:59PM</u> responding to Ester van der Westhuizen-Coetzer email. He said security clearance take 3 to 5 weeks. | | |
| Email sent 05/06/2017 with reply from different people | | | | | |
| | Ester van der Westhuizen-Coetzer | | | Email sent at <u>08:34AM</u> from Lizanne Esterhuizen proposes that the meeting be arranged at an alternative location. | |
| | Izak Potgieter | 05/06/2017 | Email received at <u>08:55AM</u> states the following: <i>"You are missing the point. No meeting will be held on the 7th of June 2017. I have requested Milnex to provide alternative dates. I represent Ekapa Minerals and Rooifontein Wildlife Club. Please refer to my letter of the 25th of April 2017."</i> | | |
| | Jahn Hohne | | Email received <u>09:16AM</u> states that a meeting can be held at the Hub. There is no permission to visit site at this point. | | |
| Landowners or lawful occupiers on adjacent properties | | | | | |
| Olifantsfontein 0/1719 | Zuikerkop Country & Game Lodge Pty Ltd | | | | |
| | Duncan & Rothman Inc. Mr. I. Potgieter | | | | Please see correspondence between Izak Potgieter and Milnex 189 CC above. |
| Speculatie 1/217 | AAA Mining CC | | | | |

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| Rooifontein 1/211 | Jan Johannes Reichert | | | | |
| New Klippiespan 8/1635 | Mr. Stalin King | | | | |
| | Mrs. Constance Louise King | | | | |
| New Klippiespan 2/1635 & 10/1635 | Butinyane William Mopharing | | | | |
| Kareeboom 0/1716 | Kareeboom Kimberly Pty Ltd | | | | |
| Dutoitspan 2/119 | South African National Roads Agency Ltd | | | | |
| Benauwdheidefonte in 1/124 | Transnet Ltd | | | | |
| Benauwdheidefonte in 0/124 | De Beers Consolidated Mines Pty Ltd | | | | |
| Benauwdheidefonte in 8/124 | Crown Resources Pty Ltd | | | | |
| Rietpan 0/212 | Ekapa Minerals Pty Ltd | | | | |
| Kareeboom 0/211 | Alan James Thompson | | | | |
| New Klippiespan 3/1635 | Kadri Trust | | | | |
| | Josef Adriaan de Klerk | | | | |
| | Karin de Klerk | | | | |
| | Werner Hauptfleisch | | | | |

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| Uitzigt 0/1717 | Zuikerkop Trust | | | | |
| The Municipality in which jurisdiction the development is located | | | | | |
| Tokologo Local Municipality | Municipal Manager: Mr Kelehile J Mothale | | | | |
| Municipal councilor of the ward in which the site is located | | | | | |
| Tokologo Local Municipality | Ward 3 Councilor | | | | |
| Organs of state having jurisdiction | | | | | |
| Department of Economic Small Business Development, Tourism and Environmental Affairs (DESTE A) | Head of Department: Mr. G. Brown | 26/04/2017 | Call received on 26/04/2017 acknowledging receipt of the letter requesting comments and stated Milnex 189 CC must just note that the head of department is no longer Ms. M Gasela, but Mr. G. Brown. | | |
| Department of Mineral Resources, Free State (DMR) | B.S. Mthombeni | 31/03/2017 | <p>Letter dated 31/03/2017 states that the application is accepted. Please note that in terms of section 17(1) MPRDA, you are required to give effect to the objects referred to at section 2(d) of the MPRDA. Therefore, please submit on or before 18 May 2017 to this office any documentation proving such including but not limited to:</p> <ol style="list-style-type: none"> 2.1. Certified copies of share certificates and shareholders register 2.2. Certified copies of shareholders agreements 2.3. Certified copies articles and memorandum of association of the company. 2.4. Trust deed documents and letters of authority for any trust holding shares. 2.5. Details relating to funding (all relevant agreements) 2.6. Any other information that may be necessary to explain and serve as evidence that the applicant meets the appropriate HDSA ownership and/or | | |

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| | | | compliance requirements of the MPRDA and Mining Charter. | | |
| | | 12/04/2017 | Email received on 12/04/2017 stating please find the attached letter. Letter dated 11/04/2017 acknowledges receipt of the application. | Email sent 12/04/2017 acknowledges receipt of email. | |
| | Mineral Regulation: Mathapelo Mosikidi | 28/04/2017 25/04/2017 | <p>Email received on 28/04/2017 stating an objection letter against the application was received by the department and the application will be kept on hold until the objection is finalised. Milnex 189 CC are advised to get in contact with the objector and address their concerns. The objection letter dated 25/04/2017 from Duncan and Rothman Attorneys was attached to the email and states the following:</p> <ol style="list-style-type: none"> 1. Duncan and Rothman Attorneys understand that Matolo Trade & Investment (Pty) Ltd. is in process of applying for a prospecting right in respects of the farm Rooifontein 1722, District Boshof. 2. Zuikerkop Country & Game Lodge (Pty) Ltd has been asked for comments by the applicant in respect of the draft Scoping Report prepared by the applicant. 3. Zuikerkop Country & Game Lodge (Pty) Ltd. is the registered owner of the farm Olifantsfontein 1719, District Boshof. 4. The said property is adjacent to the farm Rooifontein 1722, District Boshof, which last mentioned property constitute the property upon which the application wished to establish a prospecting operation. 5. Attached hereto please find a copy of our letter addressed to Milnex 189 CC, the contents of which is self-explanatory. 6. On behalf of Zuikerkop Country & Game Lodge (Pty) Ltd we hereby on its behalf lodge its formal objection to the application for a prospecting right lodged under DMR reference FS30/5/1/1/2/10462PR. In support of | | A concultation meeting was held 14th of June 2017 with Mr. Izak Potgieter who represented the landowner, lawful occupier and one of the surrounding landowner. |

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| | | | <p>our client's objection we on its behalf record the following:</p> <ol style="list-style-type: none"> 6.1. Zuikerkop Country & Game Lodge (Pty) Ltd has not been consulted in any way by the applicant. 6.2. Zuikerkop Country & Game Lodge (Pty) Ltd in its capacity as the owner of the adjacent property will under no circumstances grant any right of way over the property for the purposes of enabling the applicant to gain access to the farm Rooifontein 1722, District Boshof. 6.3. The draft Scoping Report contains no mitigation factors addressing the possibility of the diminishing of the underground water resource in the event of a water resource being negatively affected as a result of the drilling activities to be conducted by the applicant. <p>7. On behalf of our client we kindly request that you favour our offices with the following:</p> <ol style="list-style-type: none"> 7.1. The letter of acceptance issued to Matolo Trade & Investment (Pty) Ltd. in terms of Section 16(4) of the Mineral and Petroleum Resources Development Act 28 of 2002 and 7.2. The notice prescribed in Regulation 3 of the Regulations to the MPRDA. <p>8. Duncan and Rothman Attorneys reserve the right of their client.</p> <p>Letter sent to Milnex 189 CC on 25 April 2017 according to Duncan and Rothman Attorneys, states the following:</p> <ol style="list-style-type: none"> 1. We act on behalf of Zuikerkop Country & Game Lodge (Pty) Ltd. 2. Your letter of request dated 27 March 2017 addressed to our client has reference. 3. Our instructions are as follows: <ol style="list-style-type: none"> 3.1. To request you to register Zuikerkop as an interested and affected party. | | |
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| | | | <p>3.2. To refer all future correspondence and consultations to the writer hereof and to Duncan & Rothman Inc.</p> <p>3.3. Our client conducts extensive cattle farming operations on the farm Olifantsfontein 1719, District Boshof together with the surrounding agricultural properties owned by Zuikerkop.</p> <p>3.4. Zuikerkop is concerned about the effect which the drilling of boreholes will have on the underground water resources especially in view of the fact that the draft Scoping Report contains no mitigation factors to address the concern of our client.</p> <p>4. We further wish to record the no consultation processes have been conducted in person by your client with Zuikerkop.</p> <p>5. Please also be advised that Zuikerkop will under no circumstances allow any access routes over the properties of Zuikerkop in order to enable your client to access the property upon which the proposed mining area is identified.</p> <p>6. The rights of our client are reserved.</p> | | |
| | | 05/05/2017 | | Email sent 05/05/2017 states that Ms. Mosikidi must note that we are in correspondence with the objector and their concerns have been included in the Finale Scoping Report. | |
| | Tshifhiwa Makhokha | 24/05/2017 | Email received on 24/05/2017 which states that the department received the SR and comments regarding the received document will be communicated in writing. | | |
| | | 08/06/2017 06/07/2017 10/07/2017 | <p>Letter dated 08/06/2017 states the department is satisfied that the documents comply with the minimum requirements of Appendix 2(2) of NEMA, 1998 (as amended) EIA Regulations, 2014. The Scoping Report is hereby accepted by the Department in terms of Regulation 22(a) of the NEMA EIA Regulations, 2014.</p> <p><u>Comment 3</u> Ensure that comments from all relevant stakeholders are submitted to the Department with the EIAR. This include</p> | <p>Letter dated 06/07/2017 was couriered to DMR on 10/07/2017, the letter responding to Comment 4 c). The last page of the Scoping Report signed under oath that all the information provided in the Scoping Report is correct, was attached to the letter.</p> | <p>b) A pre-application meeting held 30 August 2017 at the DWS office in Kimberley.</p> <p>e) Please see Appendix 4</p> |

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| | | | <p>but is not limited to PHRA, Provincial Environmental Department, DAFF, DWS and the local municipality.</p> <p><u>Comments 4</u> The following amendments and additional information are required for the EIR & EMP.</p> <ul style="list-style-type: none"> a) The locality map and site layout plan on the SR are not clear, item 4 of the application form requires the application to attach a locality map but it is not attached, please attach the locality map in the revised application form. b) Should a water use license be required, proof of application for a license must be submitted. c) Disclosure of vested interest and confirmation of the correctness of information by the EAP has not been provided under oath or affirmation on the scoping report. d) Item 5 of the application form, the activity description differs from the one on the SR. Please note that the activities on both scoping and application form must correspond. e) Plan of the application area map should be in colour so that all the activities can be visible. f) Under public participation process there is an objection raised by Duncan and Rothman Attorneys. Please check page 29-35 of the Scoping Report. You need to address their objections and include the agreement or your response on the EIR to be submitted. g) Information on services required on the site, e.g. sewage removal, water and electricity. Who will support these services and has an agreement and confirmation of capacity been obtained? h) Please note that the application form must be dated and signed by the applicant. <p><u>Comment 5</u></p> | | <p>f) An agreement has not been reached with the landowner or lawful occupier yet. Please see the correspondence between the representative of the landowner and lawful occupier, Mr. Izak Potgieter and Milnex 189 CC</p> <p>g) Please see Appendix 13 for a Preliminary Waste Agreement .</p> |
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| | | | It must be reiterated that should an application for EA be subject to any permits or authorisations in terms of the provisions of any Specific Environmental Management Acts /(SEMAs), proof of such applications will be required. / | | | |
| | | 18/07/2017 19/07/2017 | | A letter dated 18/07/2017 was email to the department on 18/07/2017. The letter states that the application was amended from applying for a NEMA S&EIR application to applying for a NEMA S&EIR application combined with NEMWA S&EIR application The letter was also couriered on 19/07/2017. | | |
| | Sibongile Mthombeni | 14/08/2017 | | Email set 14/08/2017 states that the differences of R5000 to change the application from NEMA S&EIR application on its own (R10 000) to NEMA S&EIR application combined with NEMWA S&EIR application (R15 000) has not been paid yet because we have not received a letter from DMR with the department's bank account details to pay the money into. May you please provide me with a letter with the relevant banking details of the department, so we can pay the money. We cannot determine when was the amended application uploaded on SAMRAD, we can only see it was uploaded but not when it was uploaded. Only the department (officials) can see when was a document uploaded on SAMRAD. | | |
| | | 21/08/2017 24/08/2017 | Email received 24/08/2017 acknowledges the email and states that all amendments relating to the Environmental Authorisation are done under Chapter 5 of NEMA. | Email sent 21/08/2017 states that after our telephonic conversation we will continue with the application without applying for the NEMWA waste license application. If the Environmental Authorisation is granted we will apply for a Section 102 Part 2 amendment to apply for a NEMWA waste licence. | | |
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| | | 05/09/2017 | | Email sent 05/09/2017 ask that the site visit on Thursday (7 September 2017) be postponed to next week Thursday (14 September 2017). | |
| | | 06/09/2017 | | Email sent 06/09/2017 at 10:26 follows up on email sent 05/09/2017. | |
| | | 06/09/2017 | | Email sent 06/09/2017 at 12:09 states that everything is arranged for the site visit on 7 September 2017. | |
| | | 06/09/2017 | | Email sent 06/09/2017 at 14:21 with attached directions map to the site visit. | |
| Department of Water & Sanitation (DWS) | Mr. Abe Abrahams | 19/04/2017 | | A draft Scoping Report was couriered to the Department on 19/04/2017. | |
| | Lindiwe Franks | 21/08/2017 | | <p>Email sent 21/08/2017 follows up on comments from DWS. The email is as follows: On the 11th of August 2017, we received an email requesting hard copy documents for a list of project, please see attached. Among those was a project with reference number: FS30/5/1/1/2/10462PR. This project was couriered to the DWS office in Kimberley on the 19th of April 2017 for comments, however I have yet to receive comments. Please see the proof of courier attached.</p> <p>After we received the email I am concerned whether you received the draft report couriered to your office for comments. May you please verify if your office received the document and if they did when can I expect comments?</p> | |
| | Koketso Tleane, Tshembhani Ngobeni & Lesego Rabothata | | | <p>Email sent 01/09/2017 summarises the pre-application meeting held 30 August 2017 at the DWS office in Kimberley.</p> <p>The following was discussed and agreed upon with reference to the application – The water uses applicable to the project are:</p> <p>Section 21(a): Authorisation from the local municipality has been received to abstract water from</p> | |

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| | | | | <p>the Kamfersdam (the water will be transported to the site via water trucks);</p> <p>Section 21(b): The storage will not be significant, and therefore will not be applied for, but the details regarding the storage of water will be communicated in the application documents;</p> <p>Section 21(g): This water use will be applied for due to the production and disposal of diamond mining prospecting;</p> <ul style="list-style-type: none"> • It is proposed that a tailings dam be constructed on the site – design drawings will be a compulsory component of the Section 21(g) water use; • A geohydrological assessment study should be conducted to determine whether the prospecting activities will have an effect on the groundwater in the area; • The public participation documentation from the EIA will be sufficient to be included in the WULA; • All the normal, compulsory documentation and reports will be included in the application such as the relevant DW forms, IWWMP, company registration certificates, the R114 processing fee, the property owner’s consent, the relevant maps, the Section 27 Motivation, Method Statement, relevant sections of the GN.704 Report, etc. | |
| FS Department of Agriculture and Rural Development | Head of Department: Mr MP Thabethe | | | | |
| FS Department of Police, Roads and Transport | Head of Department: Mr S Msibi | | | | |
| FS Department of Public Works and Infrastructure | Head of Department Mr M Seoke | | | | |

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| Free State Provincial Heritage Resources Authority (PHRA) | Heritage Coordinator: Ntando PZ Mbatha | | | | |
| South African Heritage Resources Agency (SAHRA) | Ragna Redelstorff | 09/06/2017 | Letter dated 09/06/2017 request a Phase 1 Archaeological Impact Assessment Report and desktop Palaeontological Impact Assessment. | | |
| Free State Department of Rural Development & Land Reform, Land Claims Commissioner: Regional Offices | Khomotso Bernard Mahlatji & Rachel Taole | 27/03/2017 | | Email sent 27/03/2017 is proof of land claims consultation. | |
| | | 15/05/2017 17/05/2017 | Email received 17/05/2017 with attached letter dated 17/05/2017 states the Department confirms that as at the date on this letter no land claims appear on our database in respect of the Property. This include the database for claims lodged by 31 December 1998 and those lodged between 1 July 2014 and 24 July 2016 in terms of the Restitution of Land Rights Amendment Act, 2014. | Email sent 15/05/2017 follows up on land claims enquiry. | |
| Other- | | | | | |
| Sol Plaatje Municipality | Manager: Water Services Authority and Compliance – Sabelo Mkhize | 11/07/2017 | <p>Letter date 11/07/2017 gives permission to abstract treated effluent water from Kamferdam for mine prospecting purposes.</p> <p>Matolo Trade and Investment (Pty) Ltd is hereby permitted to abstract a maximum of 4.85 megalitres per month which is equivalent to 53.36 megalitres per annum, of treated effluent water from Kamfersdam. This must be done using portable water pumping system and road haulage to transport water. No fix pumping system is permitted or should be installed.</p> <p>It must also be noted that the standard tariff for effluent is R0.5344 per kilolitre, as such an account must be opened with the municipality as soon as the activity commences. If there is no metering device installed, the monthly abstraction average provided by yourself in your application shall be utilised to generate the bill.</p> | | |

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| | | | Sol Plaatje Municipality has no responsibility of ensuring that abstracted water is of acceptable quality, nor the required quality is secured at any given time. | | |
| Lejweleputswa District Municipality | Municipal Manager: Ms Palesa Kaota | | | | |
| WESSA (Free State) | To whom it may concern | | | | |
| SANRAL | To whom it may concern | | | | |
| I & AP | Izak Potgieter | 19/04/2017 20/04/2017 | Mr. Izak Potgieter called Milnex 189 CC on 19/04/2017 requesting project information. | Email with project information attached sent 19/04/2017 stating that a CD will all project information will be posted to him via registered post. Proof of CD posted on 20/04/2017 | |
| | | 20/04/2017 | Email received on 20/04/2017 states the annexures referred to in the documents are not attached. Please provide the annexures. | Email sent on 20/04/2017 states that he must just note that the appendices are too big to send with email and a CD with project information, which include the appendices, was posted to his office via registered post. He can also follow the dropbox link: https://www.dropbox.com/sh/60zmsc4y3tdj1kn/AAC4i6VDmPhrvLPYwDbHINwca?dl=0 | |
| | | 04/05/2017 | Email received on the 04/05/2017 stating that the letter sent to Milnex 189 CC is attached to the letter DMR letter and we should just scroll further down. | Email sent 04/05/2017 states that we received an email from DMR on the 28th of April 2017, with regards to Duncan and Rothman's objection to the application. In the letter addressed to DMR, Duncan and Rothman refer to a letter sent to our office. However, we have no record of this letter. We only saw it attached to the DMR letter. We asked that Duncan and Rothman to please forward the email that was sent to us. | |
| | | 04/05/2017 | Email received on the 04/05/2017 with attached letter dated 25/04/2017 which states the follows: | After a telephonic conversation on 04/05/2017, explaining to Mr. Potgieter that we did not receive | |

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| | | | <ol style="list-style-type: none"> 1. We act on behalf of Zuikerkop Country & Game Lodge (Pty) Ltd. 2. Your letter of request dated 27 March 2017 addressed to our client has reference. 3. Our instructions are as follows: <ol style="list-style-type: none"> 3.5. To request you to register Zuikerkop as an interested and affected party. 3.6. To refer all future correspondence and consultations to the writer hereof and to Duncan & Rothman Inc. 3.7. Our client conducts extensive cattle farming operations on the farm Olifantsfontein 1719, District Boshof together with the surrounding agricultural properties owned by Zuikerkop. 3.8. Zuikerkop is concerned about the effect which the drilling of boreholes will have on the underground water resources especially in view of the fact that the draft Scoping Report contains no mitigation factors to address the concern of our client. 4. We further wish to record the no consultation processes have been conducted in person by your client with Zuikerkop. 5. Please also be advised that Zuikerkop will under no circumstances allow any access routes over the properties of Zuikerkop in order to enable your client to access the property upon which the proposed mining area is identified. 6. The rights of our client are reserved. | their email with the attached letter, he said he will send it to us. | |
| I & AP | Hein Knoke | | | | |
| I & AP | M.L Weenih / Rinus Weenink Rooifontein Wildlife Club | 02/06/2017 04/06/2017 | Email received on 04/06/2017 states that the request has been referred to the landowner. | Email sent 02/06/2017 from Betsie Viljoen of Milnex states the following: Referring to the telephonic conversation between Marinus Weenink and Anica Nieuwoudt on the 31 st of May 2017. | |

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| | | | | We would like to know if you will be available for a meeting on Wednesday, 7 June 2017 at 15h00 at the Rooifontein Wildlife Club regarding the prospecting application on Rooifontein | |
| I & AP | Rooifontein Wildlife Club J.P. Squier | | | | |
| I & AP | C. van der Merwe | | | | |
| I & AP | Hunger and Thirst Foundation: Mrs. Lize Pretorius | 03/05/2017 | <p>Email received 03/05/2017, states please find the attached letter and kindly confirm receipt thereof.</p> <p>The letter states the following:</p> <p>Following the "Notice of Application for a Prospecting Right and Subsequent Environmental Impact Assessment", that was put up at the entrance to land the Foundation uses as offices and training facility (copy included for reference purposes), the following:</p> <p>Hunger and Thirst Foundation leases the 'Boma' land from De Beers Consolidated Mines in terms of a lease agreement signed in 2010. The 'Boma' land forms part of portions of the farms Alexanderfontein no 123 and Benaudheidsfontein no 124, Northern Cape.</p> <p>The land on which the proposed diamond prospecting activities are intended by Matolo Trade and Investment (Pty) Ltd, are thus adjacent to the land the Foundation operates from. We need to be informed about/ considered in the impact of noise, dust, water consumption, entrance/ servitude roads with heavy vehicles, security, etc that such open-cast mine poses.</p> <p>The Foundation is therefore an affected party in this matter and in terms of the included notice the Foundation wish to</p> | Email sent 03/05/2017 acknowledges receipt of the email. | |

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| | | | receive all notices and/or correspondence intended for affected parties. | | |
| | | 04/05/2017 | Email received 04/05/2017 saying thank you for the quick response. | | |
| | | 05/09/2017 | <p>Email received 05/09/2017 states the following:</p> <p>I did receive your registered letter when I collected the mail from our post box, 2 days after our meeting @ Rooifontein. I see the postage stamp shows 2 August, so I have no idea why it took so long to reach us!</p> <p>We still wish to send our concerns/ comments from H&T's side. I see the registered letter says the deadline was 4 Sept, but the notice put up at our premises says 14 Sept (pse see attached).</p> <p>Please confirm that by 14 Sept is still fine.</p> | <p>Email sent 05/09/2017 refers to the meeting held 30 August 2017 at Rooifontein Wildlife Club for I&APs. During the meeting Lize Pretorius mentioned she did not receive a letter in the post to comment on the draft EIR & EMP.</p> <p>Attached to the email was the letter posted to her to comment on the draft EIR & EMP, as well as proof of postage. In the email, it further mentions that Milnex 189 CC used the postal address which was on the letter sent to Milnex 189 CC by her on the 3rd of May 2017.</p> | |
| | | 06/09/2017 | | Email sent 06/09/2017 states that comment can be sent until 18 September 2017. | |
| | | 18/09/2017 | <p>Email received 18/09/2017 with documents attached states the following:</p> <p>Please find attached comments from the Hunger and Thirst Foundation on the Draft EIA, an Arial map of the Boma premises and a summarized profile of the Foundation.</p> <p><u>Comments: Conclusion:</u> Please see the complete comments under Appendix 6(iii), printed out. In the comments received from Lize Pretorius, there are pictures to support their statements.</p> <p>3.1. We wish to note that as members of RWC, we support their concerns and objections raised in connection with these planned prospecting and mining activities by Matolo.</p> | <p>Email sent 19/09/2017 acknowledges receipt of email.</p> | <p>3.3.1. – The report will be sent to SANRAL for comments. If the above mentioned sends any comments their comments will be submitted to the DMR. Letters requesting comments was sent to the FS Department of Police, Roads and Transport, please see proof of postage. However no comments was received.</p> |

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| | | | <p>3.2. We have attached to this document a profile of the Foundation, to give more insight on the Foundation and the impact on the surrounding Communities.</p> <p>3.3. In summary and as documented above, we expect to see the following:</p> <p>3.3.1. Should Matolo plan on using any entrance from the N8 National Road's side, we expect to see specific approval from SANRAL as well as the Department of Transport (2.1.1. to 2.1.5 above);</p> <p>3.3.2. Should Matolo plan on using a railway crossing and/or part(s) of Transnet's service road next to the railway line on the N8, we expect to see specific approval from Transnet Ltd (2.1.6 to 2.1.7 above);</p> <p>3.3.3. We expect to see the specific approval/ water use licence from the Department of Water and Sanitation, as the additional water usage seems to inflict on the objectives of the National Water Act no 36 of 1998 (2.2 above);</p> <p>3.3.4. We expect to be notified in writing which statutory body will be responsible to 'police' whether the security and fire risk measures are continuously complied with, not just at the onset of the activities but more important so during the entire prospecting and mining period. And what rights the interested and affected parties will have to observe/ investigate and report on possible breaches of these commitments by Matolo (2.3 above)</p> <p>3.3.5. We expect an independent financial due diligence report, quantifying the financial and other Socio-Economic benefits gained versus lost should such activities be approved (2.4 above).</p> <p><u>Hunger and Thirst Foundation summarized profile</u> <i>Hunger and Thirst Foundation was established more than 11 years ago, on 4 May 2006, with the objectives of</i></p> | | <p>3.3.2. - The report will be sent to Transnet Ltd. for comments. If the above mentioned sends any comments their comments will be submitted to the DMR.</p> <p>3.3.3 - Page 9</p> <p>3.3.4. – The DMR is the competent authority</p> <p>3.3.5 – DMR is the competent authority to verify if the financial provision made suffice</p> |
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| | | | <p><i>Poverty Relief and Community Development. Our vision to Feed and Equip in underprivileged communities. Through our projects we enable children, youth and adults to renew their thinking from a 'lack mentality' to a 'more than enough mentality' and assist them to make it a reality in their daily lives.</i></p> <p><i>Our projects are combined under one heading called: "BLESS-A-FAMILY". This project can be seen as a tree with many different branches. Our projects are established in Greenpoint and Roodepan in Kimberley, Barkly-West, Windsorton, Ritchie and Hopetown.</i></p> <p><i>Since July 2010, thus for the past 7 years, we have been renting the Boma property from De Beers Consolidated Mines (Pty) Ltd, for the use of our Offices and Indoor and Outdoor Training Facility. The transfer of ownership of this property and additional surrounding land to the Foundation should be concluded within the next few months.</i></p> <p><i>Our Bless- A- Family tree consists of the following 4 branches:</i></p> <ul style="list-style-type: none"> • <i>Walk Through Project</i> • <i>Leadership & Sports Academies</i> • <i>Hamper Project</i> • <i>Agri Project</i> <p>Please see the complete profile under Appendix 6(iii), printed out.</p> | | |
| I&AP | The De Beers Group of Companies: Dr Corne Anderson | 21/08/2017 | <p>Email received at 08:54AM with attached comments and response form. Corné Anderson ask that we register him as an I&AP and send him project information by e-mail.</p> <p>On the comments and response form that was attached to the email he marked the box to receive project information via email.</p> | Email sent 09:20AM acknowledges receipt of his email and states that we will register him as an I&AP. | |

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| | | | Email received 11:51AM states that everything is in order. | Email sent 10:45AM with draft EIR & EMP attached, states that he is registered as an I&AP and that we zipped all the files to send to him, however the it is too big so send via email. We will make him a CD with all project information and send it via registered post. The email further states that we noticed on the comments and response form Corné Anderson sent us, Milnex 189 CC said De Beers Consolidated Mines Pty Ltd are the landowner and surrounding landowner. However, he should please note that Kimberley Ekapa Mining is the landowner and De Beers Consolidated Mines Pty Ltd is only a surrounding landowner. Proof of CD posted on 22/08/2017 | |
| Community representatives | Angus Slammat | | | | |
| | Wiekus Riet | | | | |
| Rooifontein Wildlife Club meeting: | Rooifontein Wildlife Club meeting: 30 August 2017 | | | | |
| | Comments and response form were handed out during the meeting for I&APs to give comments on, some people returned their form after the meeting, others emailed/faxed their comments. | | | | |
| | Comments forms received after meeting | | | | |
| | Jean Robey | | Kamfers dams is private. | | |
| Dr. Jock Robey | 30/08/201 | Your prospecting trenches 100 x 100 x 50m deep are ridiculous – too large – this is mining. How are you going to get water from the Kamfers dam to Rooifontein? | | Tranches will be 100mx50x+/-50m. Water will be transported to the site via water trucks. | |
| Jeannette Kilian | | Only registered as an I&AP. | | | |

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| Marietjie Reynecke | | <p>Where are you going to get water to prospect and how is the water going to reach your workings</p> <p>How are you going to keep the animals out of the workings.</p> <p>Will the clubs have access to your prospecting area over weekends.</p> <p>How many people will have work during the period?</p> <p>How are you going to preserve any heritage or paleontological artefacts that you may come across during prospecting.</p> | | <p>1) Water will be transported to the site via water trucks.</p> <p>2) Area will be fenced off.</p> <p>3) Yes</p> <p>4) Approximately 15 of more</p> <p>5) Please see Appendix 12</p> |
| Nicole Du Toit | | Only registered as an I&AP. | | |
| Juan van Rhyn | | Only registered as an I&AP. | | |
| Charmaine van Rhyn | | Only registered as an I&AP. | | |
| Dr. Doug Horebottle | | Only registered as an I&AP. | | |
| Angelia Orton | | Rooifontein has played a huge role in my life. I camped and walked nighthike here. If you do the mining we can't do night hike again. You will ruin so many peoples histories. Please stop mining. | | |
| Mark Orton | | Nighthike and camps are very important to scouts and guides. On nighthike we use the whole farm. If we can't hike here a 48 year tradition. | | |
| Judy Lyle | | <p>Please we enjoy the farm. Please can we continue to hike + camp here.</p> <p>Ask DeBeers for info on mining/prospecting done here.</p> | | |
| Gail du Toit | | We don't want mining on this farm it is very special to us. We come out weekly to view the game and often sleep over. | | The meeting with the RWC was arranged on request from Ester |

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| | | <p>The water they say for this mine will be coming from Kamfers dam, but this dam is private property and very important to our Flamingo's at this stage the water is scarce by Kamfers dam. This will cause our precious Flamingos to leave Kimberley.</p> <p>The animals on the Farm will not be here for long after the mining starts and "our" Farm will be closed.</p> <p>Where was this meeting advertised in a newspaper as very few people knew about this.</p> | | van der Westhuizen-Coetzer form KEM JV. |
| | Glenda Steyn | <p>NO MINING PLEASE – SAVE OUR NATURE & CAMPSITES.</p> <p>NO PROSPECTING!</p> | | |
| | Graham Steele | <p>Concerned for Bat eared fox population</p> <p>Carrying capacity of the remaining land</p> <p>Safety of the scouts who use the farm for hiking; night hike & camping</p> <p>Impact on the birding & bird population & bird diversity</p> <p>Concern about the rehabilitation of the land after mining</p> <p>Division of the farm into 2 portions dividing the populations of animals</p> <p>Poaching concerns</p> | | A specialist studies was conducted, please see Appendix 12. |
| | Sean Kriel | <p>Impact on Wildlife, Birds and Flora will destroy Rooifontein.</p> <p>This is the only place in Kimberley to go into the veld which is just outside Kimberley.</p> | | A specialist studies was conducted, please see Appendix 12. |
| | Ian Mandy | <p>Only registered as an I&AP.</p> | | |

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| | Ursula Mandy | | Only registered as an I&AP. | | |
| | Anja van Deventer | | <p>Why is the prospecting site so deep? 50 meter?</p> <p>How many vehicles will be on site at the time?</p> <p>Why is there such a large portion for prospecting?</p> <p>Why was all the registered parties not contacted.</p> <p>Should there not be financial “loss of income” study for all the clubs? (social impact assessment)</p> | | Such a study was not conducted. |
| | Bert Botes | | Only registered as an I&AP. | | |
| | Gert Britz | | <p>The vegetation will NEVER be the same again.</p> <p>A dessert will remain after prospecting and then the mine will only say sorry!!!</p> <p>Not one of the 800+ members wants to be between the stockpiles and equipment.</p> | | |
| | Jarred v/d Merwe | | Only registered as an I&AP. | | |
| | Nicole Reddan | | Only registered as an I&AP. | | |
| | Heather Reddan | | Only registered as an I&AP. | | |
| | Melissa van der Merwe | | Only registered as an I&AP. | | |
| | Suzanne Erasmus | | <p>ACCESS CONTROL</p> <p>REHABILITATION</p> <p>SAFETY OF VISITORS</p> <p>HUGE AREA – GRAZING OF ANIMALS</p> | | A specialist studies was conducted, please see Appendix 12. |
| | Andre Erasmus | | Where will the gravel be taken to and sampled. | | During this drilling programme samples are collected every |

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| | | | <p>Where will the siled water be contained and how will it be rehabilitated.</p> <p>How is it possible for Sol Plaatjies to grant the use of water from Kamfers dam as Kem JV has the sole permission.</p> <p>How will the prospecting influence the Seasonal hunting as that is the income for the RWC.</p> <p>Where will all the water come from to wet the roads.</p> <p>If they rehabilitate, what type of grass will they sow.</p> <p>WHY DO THEY NOT JUST LOOK AT HISTORICAL MAPS OF THE AREA ??</p> | | <p>meter and logging will be done by a qualified geologist who will record the lithology.</p> <p>Tailings will be kept in a tailings dam</p> <p>An agreement still needs to be reached with the landowner and lawful occupier.</p> <p>A specialist studies was conducted, please see Appendix 12 for mitigation measures and rehabilitation.</p> |
| | Hermien Lamprecht | | <p>I am the event director for parkrun in Kimberley. We have almost 3000 registered parkrunners. Rooifontein lets us use the premises to host parkrun on Saturdays. We usually use the premises from 05:00until 08:30. I am responsible for the safety of each and every person who shows up for parkrun on specific date.</p> <p>I am concerned for the safety of the parkrunners since our route starts and ends at the main entrance. The possibility of large trucks an lots of vehicles on the route might endanger the lives of the parkrunners. Apart from that the dust will not be healthy and the road will be damaged by the heavy vehicles might cause injury to our runners.</p> | | <p>An agreement still needs to be reached with the landowner and lawful occupier.</p> <p>Dust suppression measures have been included in the EIR & EMP.</p> |
| | Willem Harmse | | <p>Who will be held responsible for any hunting accidents that might take place during the hunting season and which measures will be taken when hunting season arrives?</p> <p>Photographers won't be able to take photographs of sunrises and sunsets anymore and not even to mention</p> | | <p>An agreement still needs to be reached with the landowner and lawful occupier.</p> |

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| | | <p>the game, grass and trees being pale as they are covered by the dust</p> <p>It is a place where you can come and relax with you loved ones at any time, but now this will not be the case anymore.</p> <p>THERE IS TOO MUCH TO MENTION</p> <p>So... NO, NO, NO!!!</p> | | Dust suppression measures have been included in the EIR & EMP. |
| | Robert van der Nest | Not interested to hand over the mining rights. It is our only game farm in Kimberley. | | |
| | Brian Culver | Once the "Experts" have completed their reports we expect them to report back for a Q&A. | | |
| Comments received via email and/or fax after the Rooifontein Wildlife Club meeting. | | | | |

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| | 24 Recipients | 01/09/2017 04/09/2017 | Ester van der Westhuizen-Coetzer responded to the email on 04/09/2017 stating that the Ecologist cancelled 4 times over the past month. They cannot take responsibility for that. Also, the Hydrogeologist did not even make contact yet. She further stated that the specialist studies are part of the EIA and that they will therefore need time to go through those studies as well. | <p>Email sent 01/09/2017 to all I&AP who returned their comments and response forms after the meeting and had written in their email address.</p> <p>We refer to the I&AP meeting held at the Rooifontein Wildlife Club on 30 August 2017 with reference to the proposed Prospecting Right application of Diamond Alluvial, Diamond General and Diamond Kimberlite on a certain portion of the farm Rooifontein 1722 (previously known as a portion of the farm Dutoitspan 119), Registration Division: Boshof, Free State province. DMR Ref: FS30/5/1/1/2/10462PR. The purpose of the meeting was to record all your objections and concerns regarding the application lodged by Matolo Trade and Investment (Pty) Ltd.</p> <p>Please follow the dropbox link below to obtain the relevant project information:</p> <p>https://www.dropbox.com/sh/60zmsc4y3tdj1kn/AAC4i6VDmPhrvLPYwDbHINwca?dl=0</p> <p>You may send comments until 18 September 2017.</p> <p>Please note that the specialists are still busy with their respective studies. Access to the property was only granted on the 2nd of August 2017. The studies will be emailed and uploaded on dropbox as soon as they are completed.</p> | |
| | Ester van der Westhuizen-Coetzer | 04/09/2017 | Email received 04/09/2017 confirms the Ecologist visit and states he arrived at 10:45AM. | Email sent 04/09/2017 replies to Esters email stating that Lizanne Esterhuizen of Milnex 189 CC just spoke to the Ecologist saying he is going to the site today and ask that Ester confirm the latter. If she is not aware that the Ecologist is going to the site today she must let us know so we can call him again. | |
| Email correspondence on 06/09/2017 at different times between Charne Kemp and Milnex 189 CC | | | | | |

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| | Charne Kemp | 06/09/2017 | <p>Email received at 13:53, replies on email sent on 01/09/2017.</p> <p>In the email, Charne Kemp ask if Milnex 189 CC have extra comments and response forms for members of the Rooifontein Wildlife Club to fill in and ask that these forms be sent to her via email.</p> | <p>Milnex 189 CC replies to the email at 03:10 PM and states it will be better if they send their comments via email and ask Mrs. Charne Kemp to provide them with the email address of Lizanne Esterhuizen from Milnex 189 CC.</p> | |
| | | | <p>Email received at 15:11 states that these forms she is requesting is for her husband who is a member of the club and his friend who do not have an email address.</p> | <p>Email sent 15:57 with attached comments and response form states these forms are for Mrs. Charne Kemp husband and his friend.</p> | |
| | Jacobus van Wyk | 01/09/2017 03/09/2017 | <p>Email received on 01/09/2017 on behalf of the mentioned below, states the following:</p> <p>With reference to the abovementioned meeting we would like to raise the following concerns:</p> <ul style="list-style-type: none"> • Jaco & Michelle van Wyk (Members) • Koos & Angelique Opperman (Members) • Deon & Annelize Benadie (Members) • Wimpie & Adelaide Pretorius (Members) • Thomas & Amanda Ferreira (Members) <p>❖ Air emissions</p> <ul style="list-style-type: none"> ○ Dust from trucks / heavy vehicles – This is a respiratory irritant which will have an impact on the visitors to the farm as well as the fauna and flora. Star gazing at night will be effected. ○ Common gasses / vapours – polycyclic aromatic hydrocarbons – how will this be managed / reduced. <p>❖ Water</p> <ul style="list-style-type: none"> ○ The Northern Cape is a semi-arid province with limited water: ○ Underground aquifers (water table) will be affected if water is sourced from the farm and will eventually be depleted due to over drafting, effecting the animals (drinking water) as well as the shallow rooted plants. | <p>Email sent 03/09/2017 acknowledges receipt of the email.</p> | <p>A specialist studies was conducted, please see Appendix 12</p> <p>Air Pollution mitigation measures have been included in the EIR & EMP on page 151.</p> <p>Water pollution mitigation measures have been included in the EIR & EMP on page 160.</p> <p>Management of Hazardous waste have been included in the EIR & EMP on page 173.</p> <p>Noise mitigation measures have been included in the EIR & EMP on page 153.</p> |

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| | | | <ul style="list-style-type: none"> ○ How will the rainwater runoff w.r.t. polluted water from the machinery (oil / diesel spillages) be managed? ❖ Soil will be polluted by plant, machinery and vehicles. Where will fuels and oils be stored? ❖ Noise <ul style="list-style-type: none"> ○ Low frequency noise created from the vehicles / plant travel very far and will affect the animals w.r.t. their breeding / sleeping habits. The farm has a rich variety of birdlife, this will have a huge impact on them. ○ Vibration through the ground from vehicles will have an impact on all animals. ❖ How will the total waste stream be managed? (Disposal – will they bury it on the farm as all the other miners?) ❖ The visual impact on the surrounding area will be effected as the proposed site is in the middle of the farm. ❖ Loss of biodiversity / ecosystems in the effected / proposed are is of great concern and will negatively impact the rest of the fauna and flora. ❖ Access and security is a concern for the animals (poaching) and the farm members (children). ❖ This is the only farm around Kimberley where we have 365 days access too, as members, and where we can enjoy the outdoors with our families and friends in peace and safety. This proposal if approved will have a huge impact on this. ❖ How will artificial light pollution (security / visibility) be managed with a view to lessen the impact on the nocturnal wildlife? | | <p>Litter management have been included in the EIR & EMP on page 173.</p> |
| | Kate Armstrong | 06/09/2017 | <p>Email received on 06/09/2017 states please find attached the comments and response form. It further states that Gavin and Kate Armstrong attended the Milnex 189 CC meeting at Rooifontein Eco Centre on 30/08/2017. She asked that Milnex 189 CC email her the Dropbox link for the complete EIA Assessment.</p> | <p>Email sent 06/09/2017 acknowledges receipt of the email and the comments and response form. It further states the following: <i>Please follow the below dropbox link for project information and note that the EIA process is still underway and that we are in the</i></p> | <p>A specialist studies was conducted, please see Appendix 12</p> |

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| | | | <p><i>The comments and response form dated 30/08/2017 states the following:</i></p> <p><i>Rooifontein farm is a nature reserve and an area of historical value. I am against mining and prospecting on Rooifontein farm for the following reasons:</i></p> <ol style="list-style-type: none"> 1) The loss/damage of feeding type and area. 2) The irreplaceable indigenous fauna. 3) The noise pollution 4) The dust pollution 5) The danger to human life during culling/hunting operations 6) The impact on the fragile water table. 7) Loss of income from the Eco Centre and accommodation and venues 8) Additional fire risks 9) Negative impact on membership numbers 10) The negative press 11) The safety of cyclist, walkers, parkrunners, employees etc. 12) The job security of our remunerated employees. 13) The impact on the Kimberley community. | <p><i>draft Environmental Impact Report & Environmental Management Programme (EIR & EMP) phase.</i></p> <p>https://www.dropbox.com/sh/60zmsc4y3tdj1kn/AAC4i6VDmPhrvLPYwDbHINwca?dl=0</p> | <p>Air Pollution mitigation measures have been included in the EIR & EMP on page 151.</p> <p>Water pollution mitigation measures have been included in the EIR & EMP on page 160.</p> <p>Management of Hazardous waste have been included in the EIR & EMP on page 173.</p> <p>Noise mitigation measures have been included in the EIR & EMP on page 153.</p> <p>Litter management have been included in the EIR & EMP on page 173.</p> <p>Fire prevention measures have been included in the EIR & EMP report on page 170.</p> <p>An agreement still needs to be reached with the landowner and lawful occupier.</p> |
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| | Attie Kemp | 04/09/2017 | <p>Fax received on 04/09/2017 of a comments and response form which states the following:</p> <p><i>Rooifontein is a unique refuse/haven for thousands of people, not only but mainly Kimberley residents. For me personally it is a save area to walk/run/cycle/meditate in. As an agnostic it provides me, and at least 20 other people I am aware of, with spiritual nourishment every Sunday.</i></p> <p><i>The smirking glutton hell-bent on prospecting/digging will destroy irreplaceable FAUNA , FLORA and the physical and mental wellbeing of the thousands who benefit from Rooifontein.</i></p> <p><i>No rehabilitation will ever be done. As we all know the law is unenforceable. Just look across the fence to the see what this special place will be reduced to once the Glutton has bought a few luxury German cars and expensive liquor.</i></p> | | |
| | Chris Whittaker | 14/09/2017 | <p>Email receive on 14/09/2017 states with a Word document attached which states the following:</p> <p>My objections stated below on 11 September 2071:</p> <p>1) Rooifontein: <i>An area of the proposed portion falls within the highest biodiversity importance area at risk for mining and I believe that special caution must be used.</i></p> <p>Animals: <i>The large area enclosed for mining will decrease the habitat for the animals inside Rooifontein. This will most likely have an effect on movement patterns of said animals. The potentially constant operation of both light and heavy vehicles inside the park's perimeter may lead to casualties amongst the animals. It should be noted that the significant mammal population at Rooifontein includes</i></p> | | |

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| | | <p><i>the aardvark, which is facing increasingly higher risks of extinction.</i></p> <p>Land: <i>Once permission is granted to mine inside the park, there is no guarantee that the companies involved, or other interested companies, will refrain from mining the park further. This could lead to the park being completely mined and the total removal or destruction of all animals within its boundaries.</i></p> <p>2) Kimberley parkrun: <i>Parkrun is a 5km run held every Saturday at Rooifontein. We have 3203 registered runners, however runners that have not registered are also welcome to attend. This run has an average attendance of 176.7 runners and has been going for 132 weeks. This is a non-profit event, run by volunteers, for the benefit of the local community. I would like to add that parkrun is an international event and every week we have participants from outside of Kimberley and the Northern Cape. Mining inside the park, as well as the vehicles that will travel through from the mining area, may cause health and safety issues for our runners.</i></p> <p>3) Public meeting: <i>I received notification of the meeting held on 30 August 2017, just hours before the event. I believe this was common amongst attendees and may have had an adverse effect on the amount of participants at the event. Attendees were also told that it was an informal meeting to air views and raise issues. Given that it was labelled as an informal meeting I do not understand why an attendance register was passed around. We were also told that a formal participation meeting was held a month previously. No date for this meeting was provided and I am unsure how productive that meeting could have been as I assume even less information was available at that earlier event. I</i></p> | |
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| | | <p><i>have attached hereto an article published in the local Diamond Fields Advertiser of 18 August 2017, which states that attendees at that earlier meeting also had many major concerns about the flaws in the procedures followed prior to the public meeting.</i></p> <p><i>Another concern is that at this meeting very few facts were provided by the hosts. Issues such as where would the access points be, what roads would be used, how can the animals' safety be guaranteed, etc. went unanswered. Expert opinions, commissioned by the hosts, was unavailable. The audience was informed that one of the four experts has yet to complete his work.</i></p> <p><i>I personally asked our hosts when a formal meeting would be held and was told that no such meeting will occur. I find this rather alarming.</i></p> <p><i>It is impossible to assess community feeling about the proposed operations adequately when the community is, whether negligently or deliberately, not notified of public meetings and when the hosts cannot provide basic information at these meetings.</i></p> <p><i>Using the reference number provided by the hosts, I searched for further information at my own expense. The documents available through SAHRA highlights the following concerns:</i></p> <ul style="list-style-type: none"> <i>• The Basic Assessment Report and Environmental Management Programme Report states that plant and office sites as well as sites for vehicle storage, diesel storage and chemical storage will be cleared and structures will be erected. The clearing of indigenous vegetation and the construction of structures will have a strong impact on the availability of food for the animals.</i> <i>• The Basic Assessment Report and Environmental Management Programme Report states that a water use license has been applied for. During the meeting,</i> | | |
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| | | | <p><i>the hosts could give no concrete information or assurance on measures that will be taken to ensure that there are sufficient water resources for the animals and plants in Rooifontein. Such measures are critical, especially considering the current drought conditions. The construction of a settling dam will further disrupt the availability of water to the animals, with potentially dire consequences.</i></p> <ul style="list-style-type: none"> <i>The above report also states that access and mine roads will be scraped regularly, which will be disruptive to the local wildlife.</i> <p><i>I write my objections as a regular volunteer and participant at Kimberley parkrun, as well as a staunch supporter of nature conservation. In conclusion I believe that this park, in its current state, is an asset to the local community.</i></p> <p><i>I have attempted to keep my objections brief; however, I have been forced to deviate from using the supplied objection form as the space provided was not sufficient.</i></p> | | |
| | <p>Rinus Weenink on behalf of the Rooifontein Wildlife Club.</p> | <p>18/09/2017</p> | <p>Email received on 18/09/2017 with attached comments on behalf of the Rooifontein Wildlife Club states the following:</p> <ol style="list-style-type: none"> 1. Access to mining area: Access to mining area needs to be indicated and controlled. The route vehicles will follow and maintenance of roads needs to be indicated. 2. Fencing of mining area: indication is needed how it will be done to protect wildlife and visitors to the farm. 3. Water for mining: where and how will the water be obtained for the mining operations? If water is obtained from Kamphersdam / Homevale as mentioned on the meeting a certificate is needed from Sol Plaatje Municipality regarding the quality of the water and the effect it will have on our wildlife. The water quality needs to be tested on a regular | | <p>An agreement still needs to be reached with the landowner and lawful occupier.</p> <p>Water will be transported to the site via water trucks.</p> <p>Water quality measures have been included in the EIR & EMP report on page 178.</p> <p>Air Pollution mitigation measures have been included in</p> |

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| | | | <p>basis in case of a breakdown of the process at Homevale. The water will have to be pumped and piped to the farm, therefore additional EIAs are needed. We will also need the permission letter from the Department of Water and Sanitation.</p> <ol style="list-style-type: none"> 4. Dust and noise pollution needs to be controlled. This is a legal requirement. 5. Rehabilitation: We need a clear rehabilitation plan. How will invasive species be controlled after rehabilitation? 6. Loss of vegetation: Due to the mining activities there will be a significant loss of vegetation for grazing. 7. The applicant must produce the correct Zoning permit from the various municipalities. | | <p>the EIR & EMP on page 151.</p> <p>Noise mitigation measures have been included in the EIR & EMP on page 153.</p> <p>Exotic vegetation control measures have been included in the EIR & EMP on page 166.</p> |
| | 24 Recipients | 22/09/2017 | | <p>Email sent on 22/09/2017 to all I&AP who returned their comments and response forms after the meeting and had written in their email address. The email reads as follows: Please note that some of the specialist studies have been uploaded on dropbox.</p> <p>We are still waiting for the Heritage Impact Assessment report. We are in contact with the specialist and hopefully he will send the report today.</p> <p>Dropbox link: https://www.dropbox.com/sh/60zmsc4y3tdj1kn/AAC4i6VDmPhrvLPYwDbHINwca?dl=0</p> | |
| | Izak Potgieter | | <p>Received and Automatic reply email on 22/09/2017 from Izak Potgieter which states that he will be out of office as from 15 September 2017 returning on 26 September 2017. He will have limited internet access.</p> | | |

iv. THE ENVIRONMENTAL ATTRIBUTES ASSOCIATED WITH THE SITES

Baseline Environment

The baseline environment is described with specific reference to geotechnical conditions, ecological habitat and landscape features, Soil, land capability and agricultural potential, climate and the visual landscape.

Land owner consent

An agreement has not been reached yet with the landowner and lawful occupier. If and when an agreement has been reached, the Land use agreement will be submitted to the DMR.

Type of environment affected by the proposed activity.

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

Specialist studies were conducted, please see **Appendix 12**.

Geology and Soils

The proposed prospecting area is located on a flat Plateau with an average altitude of just over 1 200 m above mean sea level. The area around Greenpoint is therefore relatively flat due to the nature of the underlying strata.

The basement rocks consist of Andesitic Ventersdorp lavas and related pyroclastics overlying the Witwatersrand Strata. These lavas are covered by younger shale of the Eccca group of the Karoo Supergroup.

Regional Geology

The proposed prospecting area is situated South East of De Beers Kimberley Mines not so far from the Slimes dam. The city of Kimberley lies ± 9 km to the South East of the proposed prospecting area.

The proposed prospecting area is located on a flat Plateau with an average altitude of just over 1 200 m above mean sea level. The area around Greenpoint is therefore relatively flat due to the nature of the underlying strata.

Kimberlite could be seen in historical workings at the sites of the blows, but these had been fully exposed, and there are accessible reports of them in the literature. The south-western blow was however investigated by De Beers in the 1980s and found to be lamproite, or lamproitic kimberlite (P. Zweistra pers. comm.). The fact that it is lamproite, rather than true kimberlite, now appears to be quite generally known among miners and prospectors in the area.

Local Geology

The basement rocks consist of Andesitic Ventersdorp lavas and related pyroclastics overlying the Witwatersrand Strata. These lavas are covered by younger shale of the Eccca group of the Karoo Supergroup. These lavas are covered by younger shale of the Eccca Group of the Karoo Supergroup. A thin layer of less than 5 m of red soils and calcrete is present on the immediate surface.

The proposed prospecting area is underlain by rocks of the Karoo Supergroup, with a sequence comprising of a sedimentary succession of mainly Karoo shales and dolerite. These successions vary between 10 – 125 m. The sedimentary succession overlies a sequence of Ventersdorp lavas and quartzites, which vary in thickness from ± 900 m below surface at Wesselton Mine to ± 500 m below surface at Joint Shaft and De Beers Mine. The Ventersdorp rock overlies the basement granite gneisses with amphibolites and schists in varying amounts.

Kimberlite tailings resources are located in many locations over the surrounding area mining property of De Beers and are likely to influence water quality due to the high sodium and sulphate content and the high silt load contained in the runoff water. An assessment on groundwater impacts was conducted by Golder Associates Africa (Pty) Ltd. The results of this assessment were documented in the report titled “De Beers Kimberley Mines, Assessment of groundwater impacts from tailings storage facilities and proposed backfilling of open pits.

The shale overlies the late Archaean Ventersdorp Lavas. This unit is dominantly hard grey-green amygdaloidal lava. The historical mining of the kimberlite dykes around this area passed downwards from shale to lava country rock, and it is estimated that the shale may be around 200 – 300 m thick.

Ecological habitat and landscape features

Vegetation

It is noted that protected tree species under the National Forests Act No. 84 of 1998 are listed in Table 4.9. In terms of a part of section 15(1) of Act No. 84 of 1998, no person may cut, disturb, damage or destroy any protected tree or possess, collect, remove, transport, export, purchase, sell, donate or in any other manner acquire or dispose of any protected tree, except under a license granted by the Minister.

In cases where the trees will need to be cut, disturbed, damaged or destroyed or possessed, collected, removed, transported, exported, purchased, sold or donated a flora permit and/or NFA License will be applied for with the Department of Environmental and Nature Conservation and Department of Agriculture, Forestry and Fisheries.

The proposed area falls within vegetation unit SVk 4, which is known as the Kimberley Thornveld. The Kimberley Thornveld is part of the Eastern Kalahari Bushveld Bioregion, which is a sub-bioregion for the Savanna Biome.

According to Mucina and Rutherford (2006:516), the Kimberley Thornveld vegetation covers the North West, Free State and Northern Cape Provinces: Most of the Kimberley, Hartswater, Bloemhof and Hoopstad Districts as well as substantial parts of the Warrenton, Christiana, Taung, Boshof and to some extent the Barkley West District. This thornveld is situated on an altitude of 1050m – 1400m.

The area often has slightly irregular plains with a well-developed tree layer with *Acacia Erioloba*, *A. tortillis*, *A. karoo* and *Boscia albitrunca* and a well-developed shrub layer with occasional dense stands of *Tarchonanthus camphoratus* and *A. mellifera*. Grass layer open with much uncovered soil.

Mucina and Rutherford (2006:517) also states that the conservation of this thornveld type, is Least Threatened with a target of 16%. Only 2% of this thornveld is statutorily conserved in Vaalbos National Park and in Sanveld, Bloemhof Dam and S.A. Lombard Nature Reserve. As much as 18% is already transformed, mostly by cultivation. Low erosion is associated with this type of thornveld. The area is mostly used for cattle farming or game ranching. Overgrazing leads to encroachment of *Acacia mellifera* subsp. *detinens*.

See figure 6 below and appendix 7

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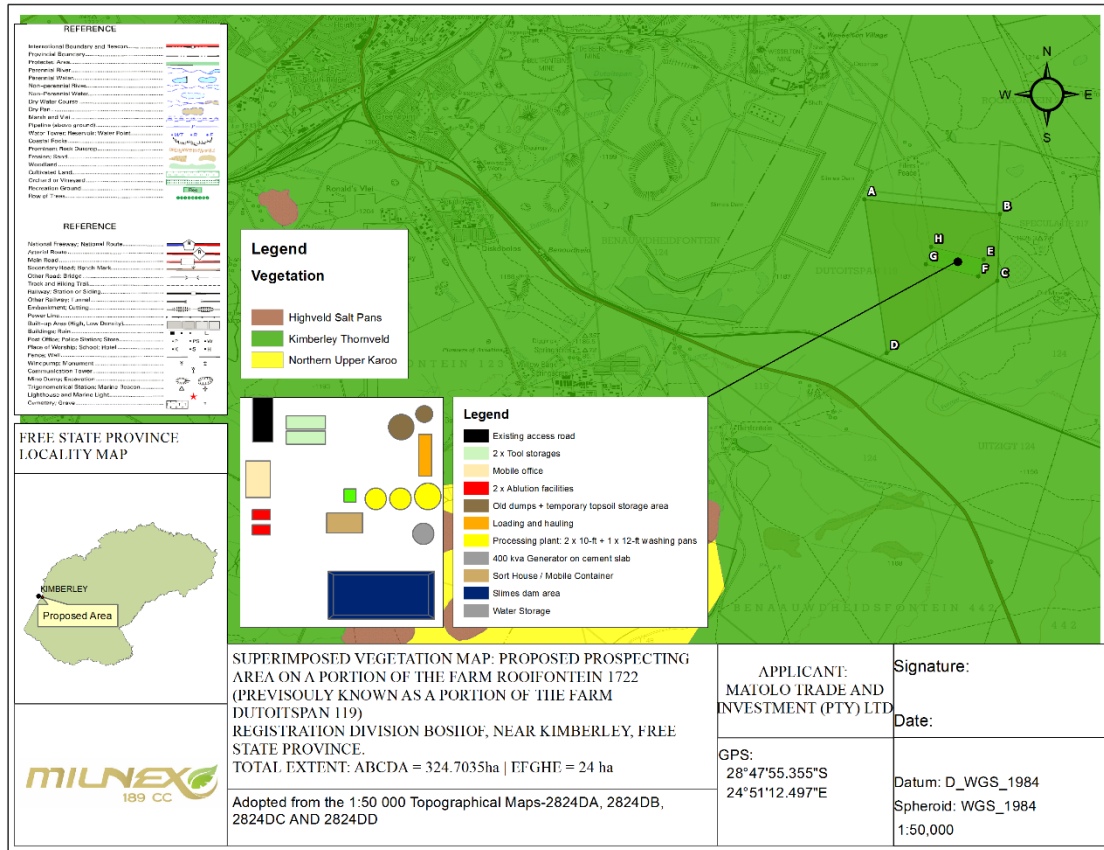


Figure 6: Vegetation Unit Map

Protected Areas

According to the data for protected areas the portion do not fall within a formally protected Area, nor threatened ecosystems

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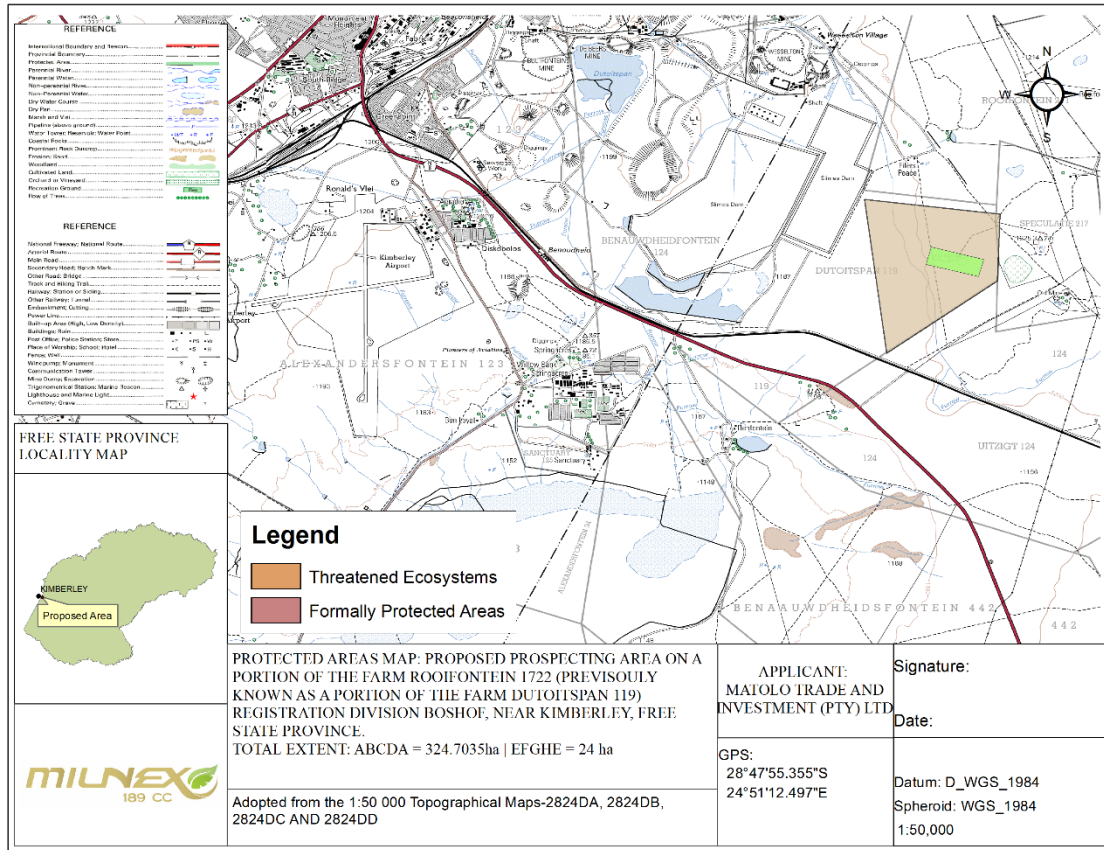


Figure 7: Protected Areas Map

Critical Biodiversity Area

According to READ (2015) “Critical biodiversity areas (CBAs) are terrestrial and aquatic areas of the landscape that need to be maintained in a natural or near-natural state in order to ensure the continued existence and functioning of species and ecosystems and the delivery of ecosystem services. In other words, if these areas are not maintained in a natural or near natural state then biodiversity targets cannot be met.

According to the data for Critical Biodiversity Areas, the proposed portions fall within Ecological Support Area (ESA) type 1 and type 2.

ESA is defined as an area that plays an important role in supporting the ecological functioning of a protected area or Critical Biodiversity Area, or in delivering ecosystem services. In most cases ESAs are currently in at least fair ecological condition, and should remain in at least fair ecological condition.

ESA1 (Ecological Support Area: Natural)

Planning units identified to be ESAs and of which <= 10 percent of the surface has been transformed or degraded. Pus belonging to this category are mostly natural and are considered to represent prime corridor areas.

ESA2 (Ecological Support Area: Other)

Planning units identified to be ESAs and of which <= 50 percent of the surface has been transformed. It follows that PUs of which 100% of their area has been degraded are included in this class. Degraded areas mostly

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consist of old lands on which some form of natural vegetation has established and are therefore considered to be suitable areas to facilitate animal movement

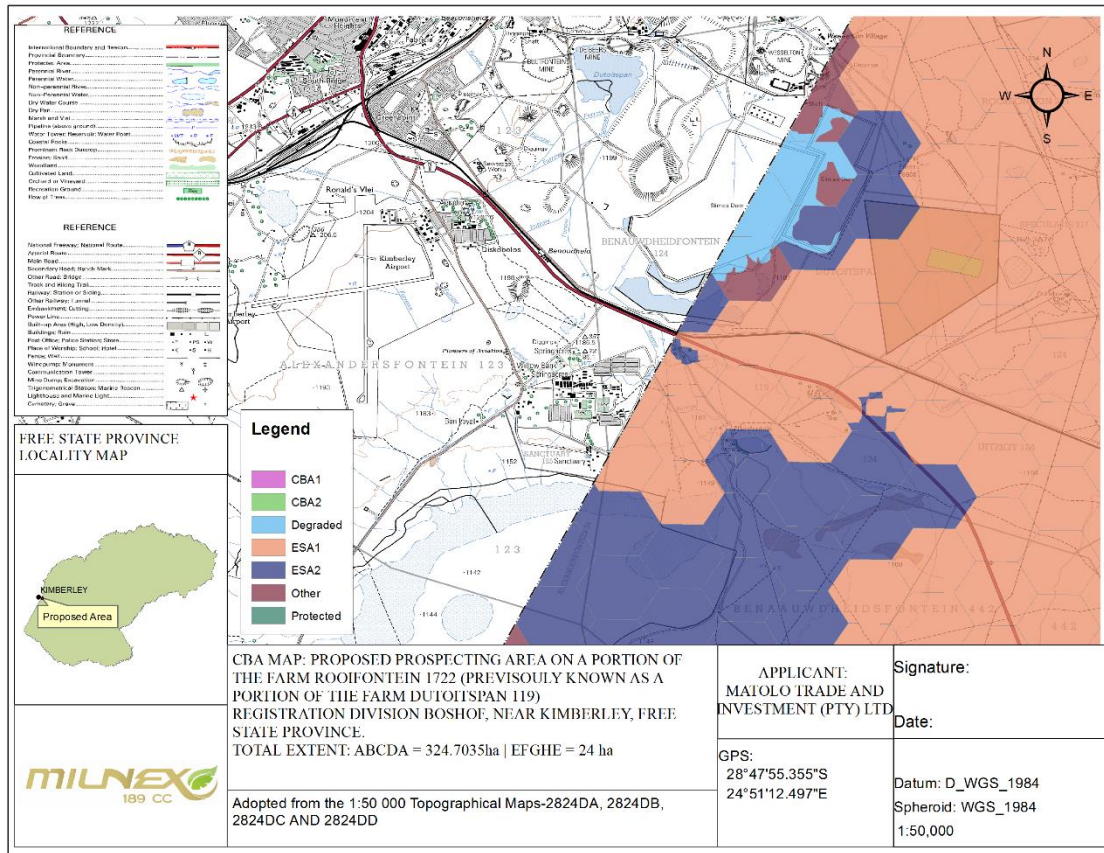


Figure 8: Critical Biodiversity Areas Map.

Sensitive area for Mine

A certain area of the proposed portion falls within the Highest (Class B) biodiversity importance area at risk for mining.

Highest biodiversity importance (B)

These areas are viewed as necessary to ensure protection of biodiversity, environmental sustainability, and human well-being. The Biodiversity priority areas is as follows:

- Critically endangered and endangered ecosystems
- Critical Biodiversity Areas (or equivalent areas) from provincial spatial biodiversity plans
- River and wetland Freshwater Ecosystem Priority Areas (FEPAs), and a 1km buffer around these FEPAs
- Ramsar Sites

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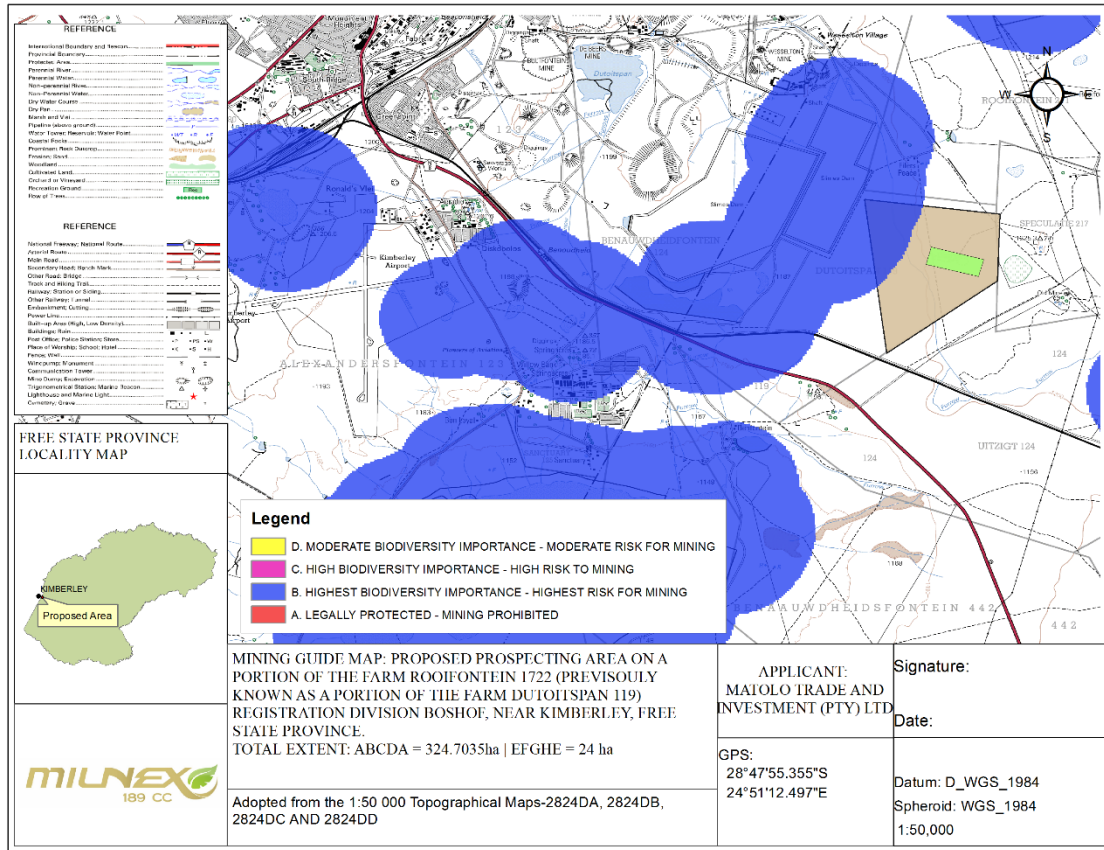


Figure 9: Sensitive area for mine

Wetland Areas

Wetland is defined as land which is transitional between terrestrial and aquatic systems where the water table is usually at or near the surface, or the land is periodically covered with shallow water, and which land in normal circumstances supports or would support vegetation typically adapted to life in saturated soil (from the South African National Water Act; Act No. 36 of 1998).

The maps below depict all wetland areas on the proposed area. The proposed area consists of not wetlands. The wetland vegetation type falls within the Eastern Kalahari Bushveld Group 3.

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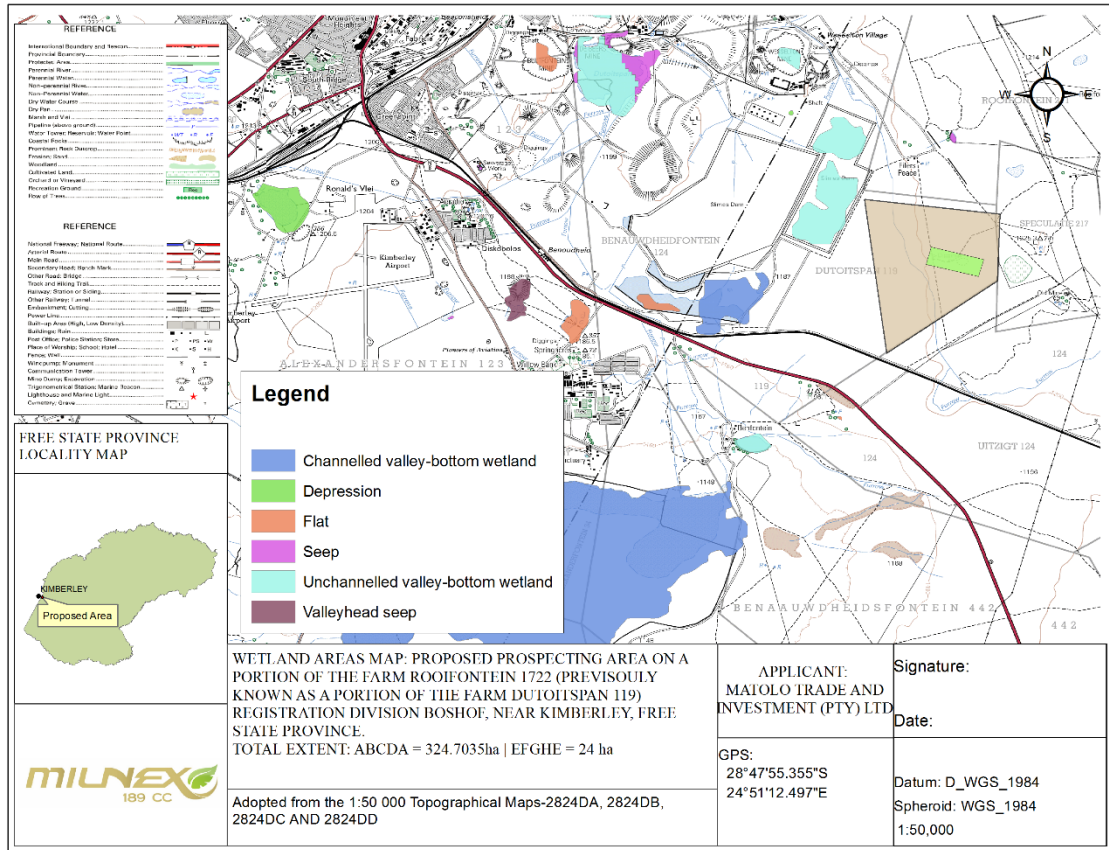


Figure 10: Wetland types present on site

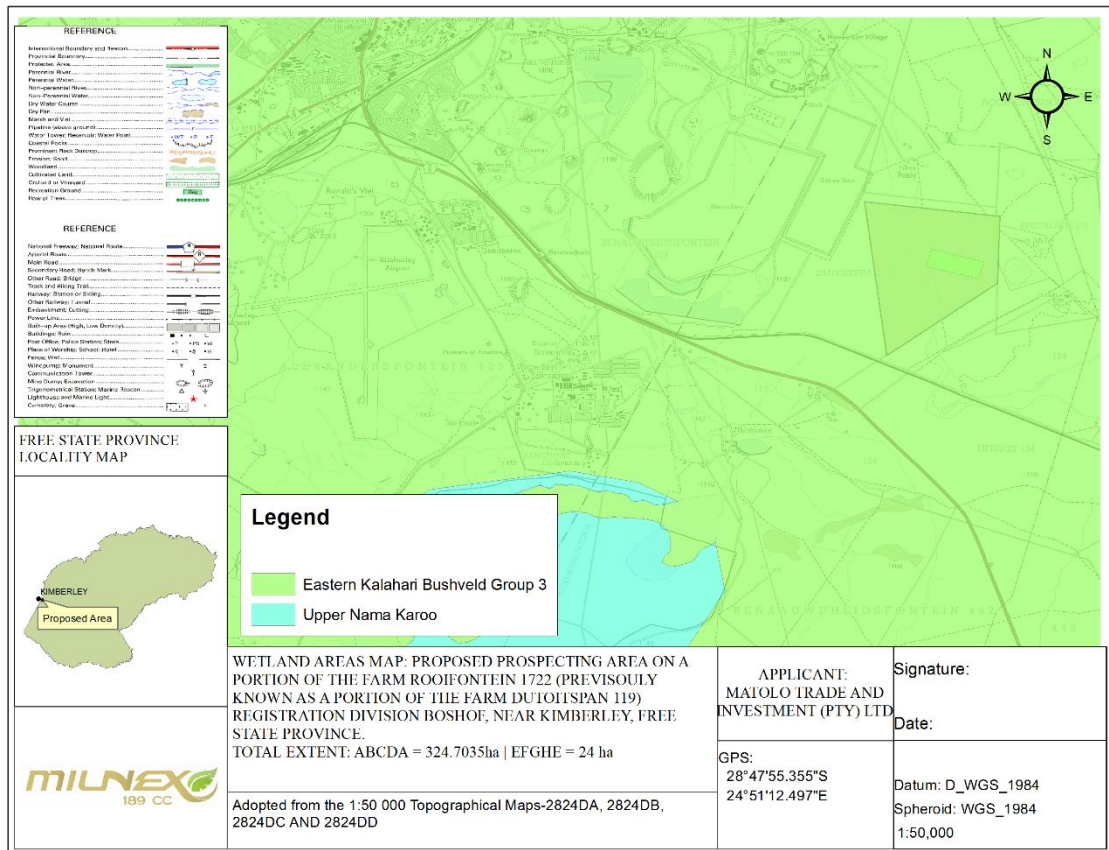


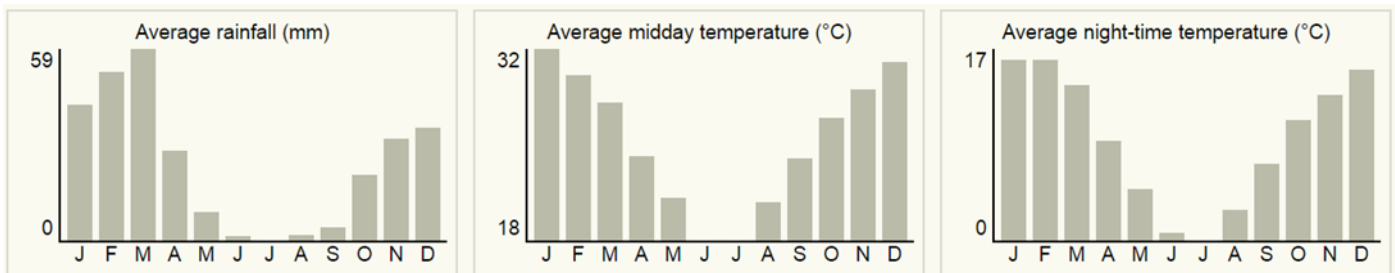
Figure 11: Wetland vegetation type

Land capability and agricultural potential

- Climate and water availability

Even though the proposed application falls within Free State Province, it is near Kimberley thus the below climate is used.

Kimberley normally receives about 283mm of rain per year, with most rainfall occurring mainly during summer. The chart below (lower left) shows the average rainfall values for Kimberley per month. It receives the lowest rainfall (0mm) in July and the highest (59mm) in March. The monthly distribution of average daily maximum temperatures (centre chart below) shows that the average midday temperatures for Kimberley range from 18°C in June to 32°C in January. The region is the coldest during July when the mercury drops to 0.3°C on average during the night. Consult the chart below (lower right) for an indication of the monthly variation of average minimum daily temperatures. (SAexplorer:2014).



Description of the socio-economic environment

Socio-economic conditions

According to the 2016/2017 Tokologo Local Municipality’s IDP second draft (2016/2017:12) the Tokologo Local Municipality area covers 9326km². Tokologo Local Municipality area covers 9326 km² and consists of three former Transitional Local Councils namely, Boshof, Dealesville and Hertzogville, as well as a portion of a former Transitional Rural Council(Moddervall) which contained approximately 1480 farms.

Boshof is the capital town and is situated in the centre whilst Dealesville is further Boshof east, and Hertzogville is situated in the north of the municipal area. Dealesville is the smallest town within Tokologo Local Municipality.

According to Census 1996, Census 2001 and Census 2011 it shows that the working age group 15-64 years increased gradually from 60.6% in 1996 to 62.9% in 2011 whereas the young population group decreased gradually from 33.8 in 1996 to 31.2 in 2011. The dependence ration of Tokologo local municipality over the three consecutive censuses shows there is a decline from 64.9% in 1996 to 58.9% in 2011. This implies that, the working age group (15-65 years) is increasing whereas the young (0-14 years) and the elderly (15-65 years) is decreasing gradually.

Gender is distributed almost evenly in the Tokologo Local Municipality, but there are slightly more females than males. The population consist mostly of Black Africans with 84.5% in 2011, Whites are second with 9.9% followed by Coloured (4.6%), Indian or Asian (0.7) and Other (03).

Unemployment in this municipality for age 15-64 years, range from 22.8% in 1996, 26.9% in 2001 and 27.4% in 2011. The school attendance percentage in 2011 shows that 66.5% were attending school whereas 33.5% were not. Males were found to be attending school more than females with 67.7% and 65.3% respectively. Since 1996 to 2011 people attaining matric certification increased from 5.4% in 1996 to 12.6% in 2011.

In 1996, total number of household were 6616 which contributed 4.1% to the total number of households in Lejweleputswa whereas in 2001 and 2011 Tokologo contributed 4.8% and 4.7% to the total number of households in Lejweleputswa respectively. The number of households in formal dwelling increased from 66.7% in 1996 to 83.8% in 2011 whereas those in informal and traditional dwellings decreased from 25.3% and 7.7% to 14.8% and 0.5% respectively.

In 1996, 55.4% of households were using electricity for lighting and the number increased in 2001 and 2011 to 73.0% and 84.4% respectively. The number of households with usage of candles for lighting decreased from 32.1% in 1996 to 14.3% in 2011. Accesses to piped water in dwelling/yard increased from 31.9% in 1996 to 87.0% whereas access to piped water on community stands decreased from 58.8% in 1996 to 10.7% in 2011. As for households without water access decreased from 9.3% in 1996 to 2.3%.

The economy Tokologo Local Municipality rests largely on agriculture and the necessary support sectors for these economic drivers such as manufacturing. To a certain extent, the municipality proximity to Kimberly and Bloemfontein meant that there will be less local demand for higher order services from those wealthier residents able to travel to the nearest large town or city.

Cultural and heritage aspects

Special attention was given for the identification of possible cultural, heritage and/or palaeontological resources on site. Studies pertaining to this were onducted and are attached as **appendix 12** and summarised on table of specialist studies. Heritage resources including archaeological and paleontological sites over 100 years old, graves older than 60 years, structure older than 60 years are protected by the National Heritage Resources Act no 25 of 1999. Therefore, if such resources are found during the prospecting or development activities, they will not be disturbed without a permit from the relevant heritage resource Authority, which means that before such sites are disturbed by development, the developer will ensure that a heritage impact assessment is done and the Provincial Heritage Resources Authority and SAHRA will be contacted immediately.

Description of the current land uses.

The site survey revealed that land cover on and in the immediate vicinity of the proposed area are essentially comprised of natural cover. Below is the land cover of the farm.

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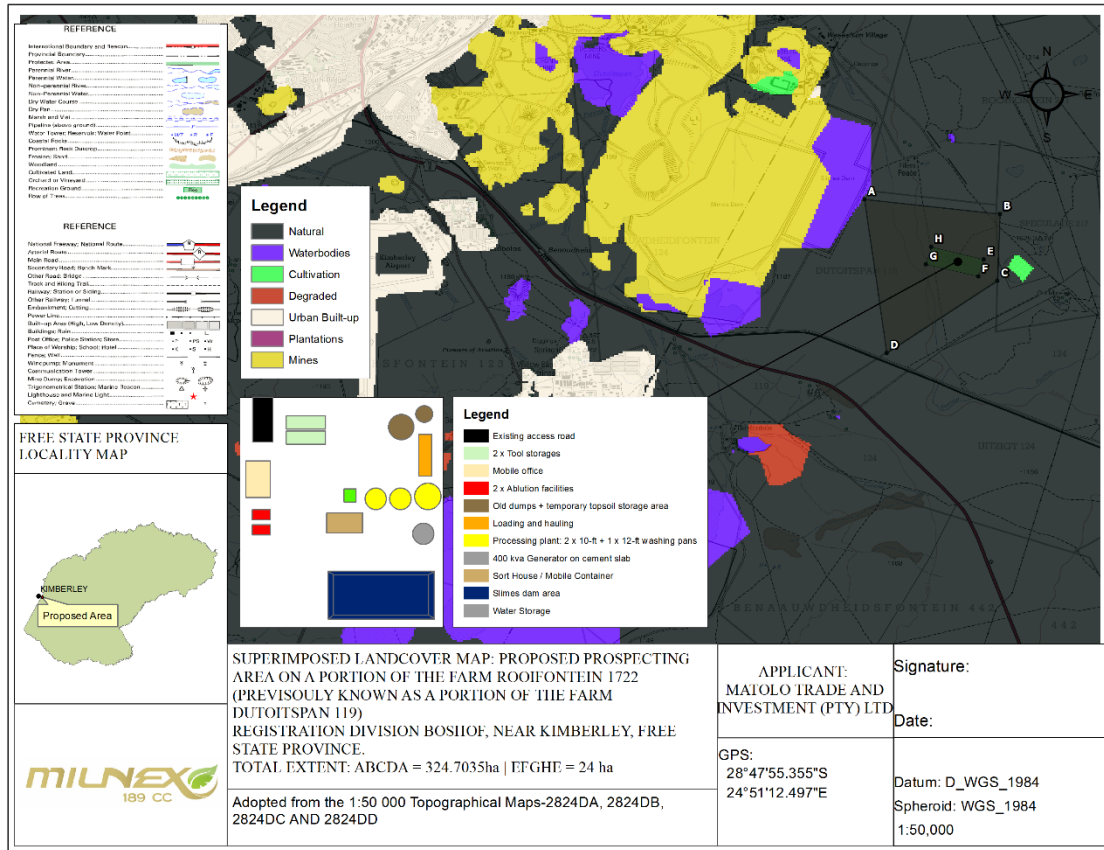


Figure 12: Land cover

The proposed area consists of Track & Hiking trails

v. IMPACTS AND RISKS IDENTIFIED INCLUDING THE NATURE, SIGNIFICANCE, CONSEQUENCE, EXTENT, DURATION AND PROBABILITY OF THE IMPACTS, INCLUDING THE DEGREE TO WHICH THESE IMPACTS -

- (aa) can be reversed;
- (bb) may cause irreplaceable loss of resources; and
- (cc) can be avoided, managed or mitigated;

Significance of potential impacts

The following sections present the outcome of the significance rating exercise. The results suggest that the prospecting activities will have an impact on the natural vegetation and the agricultural activities, if not properly mitigated.

INITIAL CLEARANCE AND SITE PREPARATION PHASE

Direct impacts: During this phase minor negative impacts are foreseen over the short term. The latter refers to a period of weeks. The site preparation may result in the loss or fragmentation of indigenous natural fauna and flora, loss or fragmentation of habitats, soil erosion, hydrology, and temporary noise disturbance, generation of waste, visual intrusions, increase in heavy vehicle traffic, and risk to safety, livestock and farm infrastructure, and increased risk of veld fires. The abovementioned impacts are discussed in more detail below:

• Loss, destruction or fragmentation of indigenous natural fauna and flora:

The proposed area falls within vegetation unit SVk 4, which is known as the Kimberley Thornveld. The Kimberley Thornveld is part of the Eastern Kalahari Bushveld Bioregion, which is a sub-bioregion for the Savanna Biome.

According to Mucina and Rutherford (2006:516), the Kimberley Thornveld vegetation covers the North West, Free State and Northern Cape Provinces: Most of the Kimberley, Hartswater, Bloemhof and Hoopstad Districts as well as substantial parts of the Warrenton, Christiana, Taung, Boshof and to some extent the Barkley West District. This thornveld is situated on an altitude of 1050m – 1400m.

The area often has slightly irregular plains with a well-developed tree layer with *Acacia Erioloba*, *A. tortillis*, *A. karoo* and *Boscia albitrunca* and a well-developed shrub layer with occasional dense stands of *Tarchonanthus camphoratus* and *A. mellifera*. Grass layer open with much uncovered soil.

Mucina and Rutherford (2006:517) also states that the conservation of this thornveld type, is Least Threatened with a target of 16%. Only 2% of this thornveld is statutorily conserved in Vaalbos National Park and in Sanveld, Bloemhof Dam and S.A. Lombard Nature Reserve. As much as 18% is already transformed, mostly by cultivation. Low erosion is associated with this type of thornveld. The area is mostly used for cattle farming or game ranching. Overgrazing leads to encroachment of *Acacia mellifera* subsp. *detinens*.

| Loss or fragmentation of indigenous natural fauna and flora | Pre-mitigation impact rating | Post mitigation impact rating |
|---|---|-------------------------------|
| Status (positive or negative) | Negative | Negative |
| Extent | Site (1) | Site (1) |
| Probability | Definite (4) | Definite (4) |
| Duration | Medium term (2) | Medium term (2) |
| Magnitude | High (3) | Medium (2) |
| Reversibility | Partly reversible (2) | Partly reversible (2) |
| Irreplaceable loss of resources | Significant loss of resource (3) | Marginal loss of resource (2) |
| Cumulative impact | Medium cumulative impacts (3), since the trenching will only be 0.5 ha at any given time in extent per year. | |
| Significance | Negative medium (45) | Negative low (28) |
| Can impacts be mitigated? | <p>If the development is approved, contractors must ensure that no mammalian species are disturbed, trapped, hunted or killed. If the development is approved, every effort should be made to confine the footprint to the blocks allocated for the development and have the least possible edge effects on the surrounding area. The EMPr also provides numerous mitigation measures – refer to section (f) of the EMPr.</p> <p>The potential impacts associated with damage to and loss of farmland should be effectively mitigated. The aspects that should be covered include:</p> <ul style="list-style-type: none"> • The site should be fenced off prior to commencement of construction activities; • The footprint associated with the construction related activities (access roads, construction platforms, workshop etc.) should be confined to the fenced off area and minimised where possible; | |

| | |
|--|--|
| | <ul style="list-style-type: none"> • An Environmental Control Officer (ECO) should be appointed to monitor the establishment phase of the construction phase; • All areas disturbed by construction related activities, such as access roads on the site, construction platforms, workshop area etc., should be rehabilitated at the end of the construction phase; • The implementation of a rehabilitation programme should be included in the terms of reference for the contractor/s appointed. Specifications for the rehabilitation are provided throughout the EMP – section (f) of the EMP. • The implementation of the Rehabilitation Programme should be monitored by the ECO. |
|--|--|

- Loss destruction or fragmentation of habitats – High probability - It is noted that the proposed prospecting site fall within a Wildlife Club.

| Loss or fragmentation of habitats | Pre-mitigation impact rating | Post mitigation impact rating |
|-----------------------------------|--|-------------------------------|
| Status (positive or negative) | Negative | Negative |
| Extent | Site (1) | Site (1) |
| Probability | Definite (4) | Definite (4) |
| Duration | Medium term (2) | Medium term (2) |
| Magnitude | High (3) | Medium (2) |
| Reversibility | Partly reversible (2) | Partly reversible (2) |
| Irreplaceable loss of resources | Significantly loss of resource (3) | Marginal loss of resource (2) |
| Cumulative impact | Medium cumulative impacts (3) | |
| Significance | Negative low (45) | Negative low (28) |
| Can impacts be mitigated? | Exotic and invasive plant species should not be allowed to establish, if the development is approved. Where exotic and invasive plant species are found at the site continuous eradication should take place. If the development is approved, every effort should be made to confine the footprint to the blocks allocated for development – section (f) of the EMP also provides numerous mitigation measures related to fauna and flora. | |

- Loss of topsoil – Topsoil may be lost due to poor topsoil management (burial, erosion, etc.) during construction related soil profile disturbance (levelling, excavations, disposal of spoils from excavations etc.) The effect will be the loss of soil fertility on disturbed areas after rehabilitation. This will result in grazing and cultivation potential being lost.

| Loss of topsoil | Pre-mitigation impact rating | Post mitigation impact rating |
|-------------------------------|------------------------------|-------------------------------|
| Status (positive or negative) | Negative | Negative |
| Geographical extent | Site (1) | Site (1) |
| Probability | Possible (2) | Unlikely (1) |
| Duration | Medium term (2) | Medium term (2) |
| Magnitude | High (3) | Medium (2) |
| Reversibility | Partly reversible (2) | Partly reversible (2) |

| | | |
|---------------------------------|--|--------------------------|
| Irreplaceable loss of resources | Marginal (2) | Marginal (2) |
| Cumulative impact | Medium cumulative impacts (3) | |
| Significance | Negative medium (36) | Negative low (22) |
| Can impacts be mitigated? | <p>The following mitigation or management measures are provided:</p> <ul style="list-style-type: none"> • If an activity will mechanically disturb below surface in any way, then any available topsoil should first be stripped from the entire surface and stockpiled for re-spreading during rehabilitation. • Topsoil stockpiles must be conserved against losses through erosion by establishing vegetation cover on them. • Dispose of all subsurface spoils from excavations where they will not impact on undisturbed land. • During rehabilitation, the stockpiled topsoil must be evenly spread over the entire disturbed surface. • Erosion must be controlled where necessary on top soiled areas. <p>Establish an effective record keeping system for each area where soil is disturbed for constructional purposes. These records should be included in environmental performance reports, and should include all the records below.</p> <ul style="list-style-type: none"> • Record the GPS coordinates of each area. • Record the date of topsoil stripping. • Record the GPS coordinates of where the topsoil is stockpiled. • Record the date of cessation of constructional (or operational) activities at the particular site. • Photograph the area on cessation of constructional activities. • Record date and depth of re-spreading of topsoil. • Photograph the area on completion of rehabilitation and on an annual basis thereafter to show vegetation establishment and evaluate progress of restoration over time. <p>Section (f) of the EMP also provide mitigation measures related to topsoil management.</p> | |

- Soil erosion – Soil erosion due to alteration of the land surface run-off characteristics. Alteration of run-off characteristics may be caused by construction related land surface disturbance, vegetation removal and the establishment of roads. Erosion will cause loss and deterioration of soil resources. This will result in grazing and cultivation potential being lost. However, the proposed area falls within land capability class 5 which has little or no erosion hazard.

| Soil erosion | Pre-mitigation impact rating | Post mitigation impact rating |
|-------------------------------|------------------------------|-------------------------------|
| Status (positive or negative) | Negative | Negative |

| | | |
|---------------------------------|--|--------------------------|
| Geographical extent | Site (1) | Site (1) |
| Probability | Possible (2) | Unlikely (1) |
| Duration | Medium term (2) | Medium term (2) |
| Magnitude | Medium (2) | Medium (2) |
| Reversibility | Partly reversible (2) | Partly reversible (2) |
| Irreplaceable loss of resources | Marginal (2) | Marginal (2) |
| Cumulative impact | Medium cumulative impact (2). | |
| Significance | Negative low (22) | Negative low (20) |
| Can impacts be mitigated? | <p>The following mitigation or management measures are provided: Implement an effective system of run-off control, where it is required, that collects and safely disseminates run-off water from all hardened surfaces and prevents potential down slope erosion.</p> <p>Include periodical site inspection in environmental performance reporting that inspects the effectiveness of the run-off control system and specifically records the occurrence any erosion on site or downstream – refer to section (f) of the EMPr..</p> | |

- Temporary noise disturbance - Preparation activities will result in the generation of noise over a period of months. Sources of noise are likely to include vehicles, the use of machinery such as back actors and people working on the site. The noise impact is unlikely to be significant; but activities should be limited to normal working days and hours (between 6:00 – 18:00).

| Temporary noise disturbance | Pre-mitigation impact rating | Post mitigation impact rating |
|---------------------------------|--|-------------------------------|
| Status (positive or negative) | Negative | Negative |
| Extent | Local (2) | Local (2) |
| Probability | Definite (4) | Probable (3) |
| Duration | Short term (1) | Short term (1) |
| Magnitude | Medium (2) | Medium (2) |
| Reversibility | Completely reversible (1) | Completely reversible (1) |
| Irreplaceable loss of resources | No loss of resource (1) | No loss of resource (1) |
| Cumulative impact | The impact would result in low cumulative impact (2). Members of the Wildlife club might not visit the club as much in the period because of noise disturbances. | |
| Significance | Negative low (22) | Negative low (20) |
| Can impacts be mitigated? | Yes, management actions related to noise pollution are included in section (f) of the EMPr. | |

- Generation of waste - general waste, construction waste, sewage and grey water - The workers on site are likely to generate general waste such as food wastes, packaging, bottles, etc. Construction waste is likely to consist of packaging, scrap metals, waste cement, etc (if any). The applicant will need to ensure that general and construction waste is appropriately disposed of i.e. taken to the nearest licensed landfill. Sufficient ablution facilities will have to be provided, in the form of portable/VIP toilets. No pit latrines, French drain systems or soak away systems shall be allowed.

| Generation of waste | Pre-mitigation impact rating | Post mitigation impact rating |
|---------------------|------------------------------|-------------------------------|
|---------------------|------------------------------|-------------------------------|

| | | |
|---------------------------------|---|--------------------------|
| Status (positive or negative) | Negative | Negative |
| Extent | Local/district (2) | Local/district (2) |
| Probability | Definite (4) | Definite (4) |
| Duration | Short term (1) | Short term (1) |
| Magnitude | Medium (2) | Low (1) |
| Reversibility | Partly reversible (2) | Partly reversible (2) |
| Irreplaceable loss of resources | No loss of resource (1) | No loss of resource (1) |
| Cumulative impact | Medium cumulative impact (3) - An additional demand for landfill space could result in significant cumulative impacts if services become unstable or unavailable, which in turn would negatively impact on the local community. | |
| Significance | Negative medium (26) | Negative low (13) |
| Can impacts be mitigated? | Yes, it is therefore important that all management actions and mitigation measures included in section (f) of the EMP are implemented. | |

- Impacts on heritage objects – Heritage resources including archaeological and paleontological sites over 100 years old, graves older than 60 years, structure older than 60 years are protected by the National Heritage Resources Act no 25 of 1999. If such resources are found during the prospecting or development activities, they shall not be disturbed without a permit from the relevant heritage resource Authority, which means that before such sites are disturbed by development it is incumbent on the developer to ensure that a heritage impact assessment is done and the Provincial Heritage Resources Authority and SAHRA must be contacted immediately and work must stop.

A specialist has been appointed to undertake a Heritage Impact Assessment, please see his findings below:

A total of three sites were recorded during the survey of which one is a historic mine and refuse dump (Site 1), one is a historic water furrow (Site 2) and a rock art site (Site 3). The historical sites are associated with the late 19th century and early 20th century mining activities that took place in the region.

| Impacts on heritage objects | Pre-mitigation impact rating | Post mitigation impact rating |
|---------------------------------|--|-------------------------------|
| Status (positive or negative) | Negative | Negative |
| Extent | Province (3) | Local (2) |
| Probability | Probable (3) | Possible (2) |
| Duration | Short term (1) | Short term (1) |
| Magnitude | Medium (2) | Low (1) |
| Reversibility | Irreversible (4) | Irreversible (4) |
| Irreplaceable loss of resources | Marginal loss of resource (2) | No loss of resour (1) |
| Cumulative impact | Low cumulative impact (2). Should these impacts occur, there may be a cumulative impact on the preservation of heritage objects in the area. | |
| Significance | Negative medium (30) | Negative low (12) |
| Can impacts be mitigated? | If archaeological sites or graves are exposed during construction work, it should immediately be reported to a heritage practitioner so that an investigation and evaluation of the finds can be made. Also refer to section (f) of the EMP. | |

| | |
|--|--|
| | <ul style="list-style-type: none"> • Historical mine and refuse dump (Site 1) - Maintain a buffer zone of 100 metres during prospecting phase • Historical water furrow (Site 2) - Fenced off and gate installed, Maintain a buffer zone of 50 metres during prospecting phase • Rock art (engravings)(Site 3) - Maintain a buffer zone of 100 metres during prospecting phase |
|--|--|

Indirect impacts: The nuisance aspects generally associated with the installation of infrastructure or ground preparation will also be applicable to this development, which relates primarily to the increase in vehicle traffic associated with prospecting practices, the influx of job seekers to the area, risk to safety, livestock and farm infrastructure, and increased risk of veld fires.

- Increase in vehicle traffic – The movement of heavy vehicles during the clearance of vegetation and topsoil has the potential to damage local farm roads and create dust and safety impacts for other road users in the area. Several existing roads and tracks already traverse the proposed prospecting site, however an agreement has not been reached yet with the landowner, lessor and/or surrounding landowner.

Access may be obtained from a gravel roads off the N8, the proposed area is approximately 9km from Kimberley. The volume of traffic along this road is high, the movement of heavy vehicles along this road is likely to damage the road surface and impact on other road users. The contractor should be required to ensure that damage to the road is repaired periodically. The movement of additional heavy vehicle traffic is will add significantly to the current traffic load on the road. The impact on the N8 is therefore likely to be moderet and moderate on the gravel road.

| Increase in vehicle traffic | Pre-mitigation impact rating | Post mitigation impact rating |
|---------------------------------|--|-------------------------------|
| Status (positive or negative) | Negative | Negative |
| Extent | Local (2) | Local (2) |
| Probability | Probable (3) | Probable (3) |
| Duration | Medium term (2) | Medium term (2) |
| Magnitude | High (3) | Medium (2) |
| Reversibility | Completely reversible (1) | Completely reversible (1) |
| Irreplaceable loss of resources | No loss of resource (1) | No loss of resource (1) |
| Cumulative impact | Medium cumulative impact (3). If damage to roads is not repaired then this will affect the farming activities in the area and result in higher maintenance costs for vehicles of local farmers and other road users. The costs will be borne by road users who were no responsible for the damage. | |
| Significance | Negative medium impacts (36) | Negative low (24) |
| Can impacts be mitigated? | <p>The potential impacts associated with heavy vehicles can be effectively mitigated. The mitigation measures include:</p> <ul style="list-style-type: none"> • The contractor must ensure that damage caused by construction on the gravel road off the N8 is repaired. The costs associated with the repair must be borne by the contractor; • Dust suppression measures must be implemented for heavy vehicles such as wetting of gravel roads on a | |

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| | <p>regular basis and ensuring that vehicles used to transport sand and building materials are fitted with tarpaulins or covers;</p> <ul style="list-style-type: none"> All vehicles must be road-worthy and drivers must be qualified and made aware of the potential road safety issues and need for strict speed limits. <p>Also refer section (f) of the EMP. For mitigation measures related to traffic.</p> |
|--|---|

- Risk to safety, livestock, game and farm infrastructure - The presence on and movement of workers on and off the site poses a potential safety threat to local farmer's and farm workers in the vicinity of the site threat. In addition, farm infrastructure, such as fences and gates, may be damaged and stock losses may also result from gates being left open and/or fences being damaged or stock theft linked either directly or indirectly to the presence of farm workers on the site.

| Risk to safety, livestock and farm infrastructure | Pre-mitigation impact rating | Post mitigation impact rating |
|--|---|--------------------------------------|
| Status (positive or negative) | Negative | Negative |
| Extent | Local (2) | Local (2) |
| Probability | Possible (2) | Possible (2) |
| Duration | Medium term (2) | Medium term (2) |
| Magnitude | Medium (2) | Low (1) |
| Reversibility | Completely reversible (1) | Completely reversible (1) |
| Irreplaceable loss of resources | No loss of resource (1) | No loss of resource (1) |
| Cumulative impact | Low cumulative effects (2), provided losses are compensated for. | |
| Significance | Negative low (18) | Negative low (9) |
| Can impacts be mitigated? | <p>Key mitigation measures include:</p> <ul style="list-style-type: none"> Matolo Trade and Investment Pty Ltd should enter into an agreement with the local farmers in the area whereby damages to farm property etc. during the construction phase will be compensated for. The agreement should be signed before the construction phase commences; The construction area should be fenced off prior to the commencement of the construction phase. The movement of construction workers on the site should be confined to the fenced off area; Contractors appointed by Matolo Trade and Investment Pty Ltd should provide daily transport for low and semi-skilled workers to and from the site. This would reduce the potential risk of trespassing on the remainder of the farm and adjacent properties; Matolo Trade and Investment Pty Ltd should hold contractors liable for compensating the Rooifontein Wildlife Club and farmers in full for any stock losses and/or damage to farm infrastructure that can be linked to construction workers. This should be | |

| | |
|--|---|
| | <p>contained in the Code of Conduct to be signed between the proponent, the contractors and neighbouring landowners. The agreement should also cover loses and costs associated with fires caused by construction workers or construction related activities (see below);</p> <ul style="list-style-type: none"> • The Environmental Management Programme (EMPr) should outline procedures for managing and storing waste on site, specifically plastic waste that poses a threat to livestock / game if ingested; • Contractors appointed Matolo Trade and Investment Pty Ltd must ensure that all workers are informed at the outset of the construction phase of the conditions contained on the Code of Conduct, specifically consequences of stock theft and trespassing on adjacent farms. • Contractors appointed by Matolo Trade and Investment Pty Ltd must ensure that construction workers who are found guilty of trespassing, stealing livestock/game and/or damaging farm infrastructure are dismissed and charged. This should be contained in the Code of Conduct. All dismissals must be in accordance with South African labour legislation; • The housing of construction workers on the site should be strictly limited to security personnel (if any). |
|--|---|

- Increased risk of veld fires - The presence of construction workers and construction-related activities on the site poses an increased risk of grass fires that could in turn pose a threat to livestock, crops, wildlife and farmsteads in the area. In the process, farm infrastructure may also be damaged or destroyed and human lives threatened. The potential risk of grass fires was heightened by the windy conditions in the area, especially during the dry, windy winter months from May to October. In terms of potential mitigation measures, a fire-break should be constructed around the perimeter of the site prior to the commencement of the construction phase. In addition, fire-fighting equipment should be provided on site during the construction phase.

| Increased risk of veld fires | Pre-mitigation impact rating | Post mitigation impact rating |
|---------------------------------|---|-------------------------------|
| Status (positive or negative) | Negative | Negative |
| Extent | Region (3) | Local (2) |
| Probability | Probable (3) | Probable (3) |
| Duration | Medium term (2) | Short term (1) |
| Magnitude | High (3) | Low (1) |
| Reversibility | Completely reversible (1) | Completely reversible (1) |
| Irreplaceable loss of resources | No loss of resource (1) | No loss of resource (1) |
| Cumulative impact | Negligible cumulative effects (1), provided losses are compensated for. | |
| Significance | Negative medium (33) | Negative low (9) |
| Can impacts be mitigated? | The mitigation measures include: | |

| | |
|--|---|
| | <ul style="list-style-type: none"> • A fire-break should be constructed around the perimeter of the site prior to the commencement of the construction phase; • Contractor should ensure that open fires on the site for cooking or heating are not allowed except in designated areas; • Contractor to ensure that construction related activities that pose a potential fire risk, such as welding, are properly managed and are confined to areas where the risk of fires has been reduced. Measures to reduce the risk of fires include avoiding working in high wind conditions when the risk of fires is greater. In this regard special care should be taken during the high risk dry, windy winter months; • Contractor to provide adequate firefighting equipment on-site, including a fire fighting vehicle; • Contractor to provide fire-fighting training to selected construction staff; • No construction staff, with the exception of security staff, to be accommodated on site over night; • As per the conditions of the Code of Conduct, in the advent of a fire being caused by construction workers and or construction activities, the appointed contractors must compensate farmers/landowners for any damage caused to their farms. The contractor should also compensate the firefighting costs borne by farmers and local authorities. |
|--|---|

OPERATIONAL PHASE

Direct impacts: During the operational phase the study area will serve as an prospecting area and the impacts are generally associated with soil erosion, change in land use, impacts associated with the, increase in storm water runoff, increased consumption of water, visual intrusion, the generation of general waste, leakage of hazardous materials, and the change in the sense of place. The operational phase will also have a direct positive impact through the provision of permanent employment opportunities and facilitating a positive economic growth. The abovementioned impacts are discussed in more detail below:

- Soil erosion – The largest risk factor for soil erosion will be during the operational phase when the prospecting activity ensues and soil is left bare until rehabilitation is initiated. Erosion will be localised within the site. This will ultimately lead to the irretrievable commitment of this resource. The measurable effect of reducing erosion by utilizing mitigation measures may reduce possible erosion significantly.

| Soil erosion | Pre-mitigation impact rating | Post mitigation impact rating |
|-------------------------------|------------------------------|-------------------------------|
| Status (positive or negative) | Negative | Negative |
| Extent | Local/Regional (2) | Local/Regional (2) |
| Probability | Definite (4) | Unlikely (1) |
| Duration | Medium term (2) | Medium term (2) |
| Magnitude | High (3) | Medium (2) |
| Reversibility | Partly reversible (2) | Partly reversible (2) |

| | | |
|---------------------------------|---|-------------------------------|
| Irreplaceable loss of resources | Significant loss of resource (3) | Marginal loss of resource (2) |
| Cumulative impact | Medium cumulative impact (3). Should these impacts occur, there will be a cumulative impact on the air and water resources in the study area in terms of pollution. | |
| Significance | Negative High (48) | Negative Low (24) |
| Can impacts be mitigated? | Yes, to avoid soil erosion it will be a good practice to not remove all the vegetation at once but to only clear the area as it becomes necessary and to implement concurrent rehabilitation. Also refer to section (f) of the EMPr. | |

- Change in land-use – The proposed portion will still be used as a wildlife club throughout the proposed prospecting activities. The impact on the wildlife club’s income due to the loss of grazing will be less than the offset by the income from Matolo Trade and Investment Pty Ltd.

| Change in land use | Pre-mitigation impact rating | Post mitigation impact rating |
|---------------------------------|---|-------------------------------|
| Status (positive or negative) | Negative | Negative |
| Extent | Province (3) | Local (2) |
| Probability | Possible (2) | Possible (2) |
| Duration | Medium term (2) | Medium term (2) |
| Magnitude | Medium (2) | Medium (2) |
| Reversibility | Partly reversible (2) | Completely reversible (2) |
| Irreplaceable loss of resources | Marginal loss of resource (2) | Marginal loss of resource (2) |
| Cumulative impact | Medium cumulative impacts (3). | |
| Significance | Negative medium (28) | Negative medium (22) |
| Can impacts be mitigated? | The proponent should establish a Rehabilitation Fund to be used to rehabilitate the area once the proposed facility has been decommissioned. The fund should be funded by revenue generated during the operational phase of the project. The motivation for the establishment of a Rehabilitation Fund is based on the experience in the mining sector where many mines on closure have not set aside sufficient funds for closure and decommissioning. Also refer to section (f) of the EMPr. | |

- Generation of alternative land use income – Income generated through the diamond alluvial, diamond general and diamond kimberlite mine will provide the wildlife club with increased cash flow and rural livelihood, and thereby improve the financial sustainability of the wildlife club on site.

| Generation of alternative land use income | Pre-mitigation impact rating | Post mitigation impact rating |
|---|------------------------------|-------------------------------|
| Status (positive or negative) | Positive | Positive |
| Geographical extent | Site (1) | Site (1) |
| Probability | Definite (4) | Definite (4) |
| Duration | Long term (3) | Long term (3) |
| Magnitude | Medium (2) | Medium (2) |
| Reversibility | Completely reversible (1) | Completely reversible (1) |
| Irreplaceable loss of resources | No loss of resources (1) | No loss of resources (1) |

| | | |
|---------------------------|----------------------------|--------------------------|
| Cumulative impact | Low cumulative impact (2). | |
| Significance | Positive Low (24) | Positive Low (24) |
| Can impacts be mitigated? | No mitigation required. | |

- Increase in storm water runoff – The development will potentially result in an increase in storm water runoff that needs to be managed to prevent soil erosion, especially where vegetation will be cleared. Not all the vegetation should be removed at once. Only the specific trench being excavated at the specific time should be cleared.

| Increase in storm water runoff | Pre-mitigation impact rating | Post mitigation impact rating |
|---------------------------------|--|-------------------------------|
| Status (positive or negative) | Negative | Negative |
| Extent | Local (2) | Local (2) |
| Probability | Probable (3) | Unlikely (1) |
| Duration | Long term (3) | Long term (3) |
| Magnitude | Medium (2) | Low (1) |
| Reversibility | Partly reversible (2) | Partly reversible (2) |
| Irreplaceable loss of resources | Significant loss of resource (3) | Marginal loss of resource (2) |
| Cumulative impact | Medium cumulative impact (3) - Should these impacts occur, there will be cumulative impacts on the wider area. | |
| Significance | Negative medium (32) | Negative low (13) |
| Can impacts be mitigated? | Yes. It is therefore important that all management actions and mitigation measures included in section (f) of the EMP. are implemented to ensure that these impacts do not occur | |

- Increased consumption of water - Approximately 35 000 liters of water per hour will be required for the washing of the gravel in the rotary per pan from which 30% is re-used. The water will be sourced from the Kamfer dam.

| Increased consumption of water | Pre-mitigation impact rating | Post mitigation impact rating |
|---------------------------------|--|--------------------------------|
| Status (positive or negative) | Negative | Negative |
| Extent | Region (3) | Region (3) |
| Probability | Definite (4) | Definite (4) |
| Duration | Long term (3) | Long term (3) |
| Magnitude | High (3) | Medium (2) |
| Reversibility | Irreversible (4) | Irreversible (4) |
| Irreplaceable loss of resources | Marginal loss of resources (2) | Marginal loss of resources (2) |
| Cumulative impact | High cumulative impacts (4) - An additional demand on water sources could result in a significant cumulative impact with regards to the availability of water. | |
| Significance | Negative high (60) | Negative medium (40) |
| Can impacts be mitigated? | Yes, management actions and mitigation measures related to the use of water are included in section (f) of the EMP. | |

- Generation of waste – Approximately 15 Workers will be present on site between 6:00 – 18:00, Monday to Saturday. Sources of general waste will be waste food, packaging, paper, etc. General waste will be stored on the site and removed on a weekly basis by a contractor.

| Generation of waste | Pre-mitigation impact rating | Post mitigation impact rating |
|---------------------------------|---|-------------------------------|
| Status (positive or negative) | Negative | Negative |
| Extent | Local (2) | Local (2) |
| Probability | Definite (4) | Definite (4) |
| Duration | Long term (3) | Long term (3) |
| Magnitude | Low (1) | Low (1) |
| Reversibility | Partly reversible (2) | Partly reversible (2) |
| Irreplaceable loss of resources | No loss of resource (1) | No loss of resource (1) |
| Cumulative impact | Medium cumulative impact (3) - An additional demand for landfill space could result in significant cumulative impacts with regards to the availability of landfill space. | |
| Significance | Negative low (15) | Negative low (15) |
| Can impacts be mitigated? | Yes, management actions related to waste management are included in section (f) of the EMP. | |

- Leakage of hazardous materials - The proposed prospecting activity will make use of machinery that use fuel and oil. Leakage of these oils and fuel can contaminate water supplies and must be prevented by constructing oil and diesel permeable bunds to ensure that any spills are suitably attenuated and not released into the environment.

| Leakage of hazardous materials | Pre-mitigation impact rating | Post mitigation impact rating |
|---------------------------------|--|-------------------------------|
| Status (positive or negative) | Negative | Negative |
| Extent | Local (2) | Local (2) |
| Probability | Possible (2) | Unlikely (1) |
| Duration | Long term (3) | Long term (3) |
| Magnitude | High (3) | Medium (2) |
| Reversibility | Partly reversible (2) | Partly reversible (2) |
| Irreplaceable loss of resources | Marginal loss of resource (2) | Marginal loss of resource (2) |
| Cumulative impact | The impact would result in negligible to no cumulative effects (1) | |
| Significance | Negative medium (36) | Negative low (22) |
| Can impacts be mitigated? | Yes. It is therefore important that all management actions and mitigation measures included in the section (f) of EMP are implemented to ensure that these impacts do not occur. | |

- Noise disturbance - Prospecting activities will result in the generation of noise over a period of 3-5 years. Sources of noise are likely to include vehicles, the use of machinery such as backactors, rotary pans and people working on the site, as well as occasional blasting if needed; but prospecting activities should be limited to normal working days and some Saturdays and hours (between 6:00 – 18:00).

| Temporary noise disturbance | Pre-mitigation impact rating | Post mitigation impact rating |
|-------------------------------|------------------------------|-------------------------------|
| Status (positive or negative) | Negative | Negative |
| Extent | Local (2) | Local (2) |
| Probability | Definite (4) | Probable (3) |
| Duration | Short term (1) | Short term (1) |
| Magnitude | Medium (2) | Low (1) |

| | | |
|---------------------------------|--|---------------------------|
| Reversibility | Completely reversible (1) | Completely reversible (1) |
| Irreplaceable loss of resources | No loss of resource (1) | No loss of resource (1) |
| Cumulative impact | The impact would result in low cumulative impact (2). Members of the Wildlife club might not visit the club as much in the period because of noise disturbances. | |
| Significance | Negative low (22) | Negative low (10) |
| Can impacts be mitigated? | Yes, management actions related to noise pollution are included in section (f) of the EMP. | |

Indirect impacts: The operational phase will have an indirect negative impact through the change in the sense of place and an indirect positive impact through the provision of additional electrical infrastructure.

- **Potential impact on tourism** – The tourism sector is regarded as an important economic sector in the FSP and TLM. The tourism potential of the area is linked to the areas natural resources, including the relatively undisturbed scenery and landscape. The impact of the proposed prospecting of diamond alluvial, diamond general and diamond kimberlite on the areas sense of place with mitigation is likely to be medium. In addition, the site will not be visible from the N8, however it will have a visual impact on visitors visitors and members of the Rooifontein Wildlife Club.

Mining is an all year round industry whereas tourism is mainly a seasonal one with the majority of the trade occurring in late spring, through the summer and into early autumn. Hunting is the main source of income for the Rooifontein Wild Life Club, the club hunts for 120 days of the year. The Rooifontein farm is a haven for most members and visitors. It serves as an escape from their every day life to relax and enjoy the outdoors. It is a safe place to walk, cycle and participate in parkruns.

The impact of the proposed mine on the tourism potential of the area, the Tokologo Local Municipality and Free State Province is therefore likely to be medium.

| Potential impacts on tourism | Pre-mitigation impact rating | Post mitigation impact rating |
|---------------------------------|---|-------------------------------|
| Status (positive or negative) | Negative | Negative |
| Extent | Site (1) | Site (1) |
| Probability | Probable (3) | Probable (3) |
| Duration | Medium term (2) | Medium term (2) |
| Magnitude | High (3) | Medium (2) |
| Reversibility | Completely reversible (1) | Completely reversible (1) |
| Irreplaceable loss of resources | Significant loss of resource (3) | Marginal loss of resource (2) |
| Cumulative impact | The impact would result in medium cumulative impact (2). Members of the Wildlife club might not visit the club as much in the period because of the proceting activities. | |
| Significance | Negative low (36) | Negative low (22) |
| Can impacts be mitigated? | | |

DECOMMISSIONING PHASE (MINE CLOSURE AND REHABILITATION)

Direct impacts: Typically, the major social impacts associated with the decommissioning phase are linked to the loss of jobs and associated income. This has implications for the households who are directly affected, the communities within which they live. If infrastructures are removed after a 3/5 year period, the site will be returned to its natural state. Therefore, the physical environment will benefit from the closure of the prospecting area.

- Rehabilitation of the physical environment – The physical environment will benefit from the closure of the prospecting area since the site will be restored to its natural state as far as possible.

| Rehabilitation of the physical environment | Pre-mitigation impact rating | Post mitigation impact rating |
|--|--|-------------------------------|
| Status (positive or negative) | Positive | Positive |
| Extent | Site (1) | Site (1) |
| Probability | Definite (4) | Definite (4) |
| Duration | Long term (3) | Long term (3) |
| Magnitude | Low (1) | Low (1) |
| Reversibility | N/A | N/A |
| Irreplaceable loss of resources | N/A | N/A |
| Cumulative impact | The impact would result in negligible to no cumulative effects (1) | |
| Significance | Negative low (9) | Negative low (9) |
| Can impacts be mitigated? | No mitigation measures required. | |

- Loss of employment - Given the relatively large number of people employed during the operational phase, the decommissioning of the facility has the potential to have a negative social impact on the local community.

| Loss of employment | Pre-mitigation impact rating | Post mitigation impact rating |
|---------------------------------|---|-------------------------------|
| Status (positive or negative) | Negative | Negative |
| Extent | Local (2) | Local (2) |
| Probability | Possible (2) | Possible (2) |
| Duration | Medium term (2) | Short term (1) |
| Magnitude | High (3) | Medium (2) |
| Reversibility | Partly reversible (2) | Partly reversible (2) |
| Irreplaceable loss of resources | No loss of resource (1) | No loss of resource (1) |
| Cumulative impact | The impact would result in negligible to no cumulative effects (1) | |
| Significance | Negative medium (30) | Negative low (18) |
| Can impacts be mitigated? | <p>The following mitigation measures are recommended:</p> <ul style="list-style-type: none"> • All structures and infrastructure associated with the proposed facility should be dismantled and transported off-site on decommissioning; • Matolo Trade and Investment Pty Ltd should establish an Environmental Rehabilitation Trust Fund to cover the costs of decommissioning and rehabilitation of disturbed areas. | |

Indirect impacts: No indirect impacts are anticipated from the decommissioning phase of the proposed development.

vi. METHODOLOGY USED IN DETERMINING AND RANKING THE NATURE, SIGNIFICANCE, CONSEQUENCES, EXTENT, DURATION AND PROBABILITY OF POTENTIAL ENVIRONMENTAL IMPACTS AND RISKS

Method of environmental assessment

The environmental assessment aims to identify the various possible environmental impacts that could result from the proposed development. Different impacts need to be evaluated in terms of its significance and in doing so highlight the most critical issues to be addressed.

Significance is determined through a synthesis of impact characteristics which include context and intensity of an impact. Context refers to the geographical scale i.e. site, local, national or global whereas intensity is defined by the severity of the impact e.g. the magnitude of deviation from background conditions, the size of the area affected, the duration of the impact and the overall probability of occurrence. Significance is calculated as shown in the Table below.

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 total number of points scored for each impact indicates the level of significance of the impact.

Impact Rating System

Impact assessment must take account of the nature, scale and duration of impacts on the environment whether such impacts are positive or negative. Each impact is also assessed according to the following project phases:

- Construction
- Operation
- Decommissioning

Where necessary, the proposal for mitigation or optimisation of an impact should be detailed. A brief discussion of the impact and the rationale behind the assessment of its significance should also be included. The rating system is applied to the potential impacts on the receiving environment and includes an objective evaluation of the mitigation of the impact. In assessing the significance of each impact the following criteria is used:

Table: The rating system

| NATURE | | |
|--|-----------------|--|
| Include a brief description of the impact of environmental parameter being assessed in the context of the project. This criterion includes a brief written statement of the environmental aspect being impacted upon by a particular action or activity. | | |
| GEOGRAPHICAL EXTENT | | |
| This is defined as the area over which the impact will be experienced. | | |
| 1 | Site | The impact will only affect the site. |
| 2 | Local/district | Will affect the local area or district. |
| 3 | Province/region | Will affect the entire province or region. |

| | | |
|---|----------------------------|---|
| 4 | International and National | Will affect the entire country. |
| PROBABILITY | | |
| This describes the chance of occurrence of an impact. | | |
| 1 | Unlikely | The chance of the impact occurring is extremely low (Less than a 25% chance of occurrence). |
| 2 | Possible | The impact may occur (Between a 25% to 50% chance of occurrence). |
| 3 | Probable | The impact will likely occur (Between a 50% to 75% chance of occurrence). |
| 4 | Definite | Impact will certainly occur (Greater than a 75% chance of occurrence). |
| DURATION | | |
| This describes the duration of the impacts. Duration indicates the lifetime of the impact as a result of the proposed activity. | | |
| 1 | Short term | The impact will either disappear with mitigation or will be mitigated through natural processes in a span shorter than the construction phase (0 – 1 years), or the impact will last for the period of a relatively short construction period and a limited recovery time after construction, thereafter it will be entirely negated (0 – 2 years). |
| 2 | Medium term | The impact will continue or last for some time after the construction phase but will be mitigated by direct human action or by natural processes thereafter (2 – 10 years). |
| 3 | Long term | The impact and its effects will continue or last for the entire operational life of the development, but will be mitigated by direct human action or by natural processes thereafter (10 – 30 years). |
| 4 | Permanent | The only class of impact that will be non-transitory. Mitigation either by man or natural process will not occur in such a way or such a time span that the impact can be considered indefinite. |
| INTENSITY/ MAGNITUDE | | |
| Describes the severity of an impact. | | |
| 1 | Low | Impact affects the quality, use and integrity of the system/component in a way that is barely perceptible. |
| 2 | Medium | Impact alters the quality, use and integrity of the system/component but system/component still continues to function in a moderately modified way and maintains general integrity (some impact on integrity). |
| 3 | High | Impact affects the continued viability of the system/component and the quality, use, integrity and functionality of the system or component is severely impaired and may temporarily cease. High costs of rehabilitation and remediation. |
| 4 | Very high | Impact affects the continued viability of the system/component and the quality, use, integrity and |

| | | |
|---|-------------------------------|---|
| | | functionality of the system or component permanently ceases and is irreversibly impaired. Rehabilitation and remediation often impossible. If possible rehabilitation and remediation often unfeasible due to extremely high costs of rehabilitation and remediation. |
| REVERSIBILITY | | |
| This describes the degree to which an impact can be successfully reversed upon completion of the proposed activity. | | |
| 1 | Completely reversible | The impact is reversible with implementation of minor mitigation measures. |
| 2 | Partly reversible | The impact is partly reversible but more intense mitigation measures are required. |
| 3 | Barely reversible | The impact is unlikely to be reversed even with intense mitigation measures. |
| 4 | Irreversible | The impact is irreversible and no mitigation measures exist. |
| IRREPLACEABLE LOSS OF RESOURCES | | |
| This describes the degree to which resources will be irreplaceably lost as a result of a proposed activity. | | |
| 1 | No loss of resource | The impact will not result in the loss of any resources. |
| 2 | Marginal loss of resource | The impact will result in marginal loss of resources. |
| 3 | Significant loss of resources | The impact will result in significant loss of resources. |
| 4 | Complete loss of resources | The impact is result in a complete loss of all resources. |
| CUMULATIVE EFFECT | | |
| This describes the cumulative effect of the impacts. A cumulative impact is an effect which in itself may not be significant but may become significant if added to other existing or potential impacts emanating from other similar or diverse activities as a result of the project activity in question. | | |
| 1 | Negligible cumulative impact | The impact would result in negligible to no cumulative effects. |
| 2 | Low cumulative impact | The impact would result in insignificant cumulative effects. |
| 3 | Medium cumulative impact | The impact would result in minor cumulative effects. |
| 4 | High cumulative impact | The impact would result in significant cumulative effects |
| 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 calculation of the significance of an impact uses the following formula: | | |
| $(\text{Extent} + \text{probability} + \text{reversibility} + \text{irreplaceability} + \text{duration} + \text{cumulative effect}) \times \text{magnitude/intensity.}$ | | |
| The summation of the different criteria will produce a non-weighted value. By multiplying this value with the magnitude/intensity, the resultant value acquires a weighted characteristic which can be measured and assigned a significance rating. | | |

| Points | Impact significance rating | Description |
|----------|----------------------------|--|
| 6 to 28 | Negative low impact | The anticipated impact will have negligible negative effects and will require little to no mitigation. |
| 6 to 28 | Positive low impact | The anticipated impact will have minor positive effects. |
| 29 to 50 | Negative medium impact | The anticipated impact will have moderate negative effects and will require moderate mitigation measures. |
| 29 to 50 | Positive medium impact | The anticipated impact will have moderate positive effects. |
| 51 to 73 | Negative high impact | The anticipated impact will have significant effects and will require significant mitigation measures to achieve an acceptable level of impact. |
| 51 to 73 | Positive high impact | The anticipated impact will have significant positive effects. |
| 74 to 96 | Negative very high impact | The anticipated impact will have highly significant effects and are unlikely to be able to be mitigated adequately. These impacts could be considered "fatal flaws". |
| 74 to 96 | Positive very high impact | The anticipated impact will have highly significant positive effects. |

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)

- Increased ambient noise levels resulting from geophysics site fly-overs and increased traffic movement during all prospecting phases.
- Potential water and soil pollution impacts resulting from hydrocarbon spills and soil erosion which may impact on environmental resources utilized by communities, landowners and other stakeholders.
- Potential water and soil pollution impacts resulting from hydrocarbon spills and soil erosion which may impact on ecosystem functioning.
- Potential decrease in water levels due to abstraction.
- Increased vehicle activity with in the area resulting in the possible destruction and disturbance of fauna and flora.
- Poor access control to farms which may impact on livestock movement, breeding and grazing practices.
- Influx of persons (job seekers) to site as a result of increased activity and the possible resultant increase in opportunistic crime.
- Potential visual impacts caused by prospecting activities.
- Prospecting will be undertaken by specialist sub - contractors and it is not anticipated that employment opportunities for local and / or regional communities will result from the prospecting activities.
- Prospecting activities may result in localised visual impacts.
- Prospecting activities may have a negative impact on membership numbers of the Rooifontein Wildlife Club.

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).

Negative impacts on vegetation, soil and the water resources associated with the prospecting activity have been identified through the Scoping & EIR process. Mitigation measures as set out in the Environmental Management Programme (EMPr) attached in Part B must be implemented in order to minimise these potential impacts.

Noise

Site activities must take place during the day (between 06:00 – 18:00) to avoid night time noise disturbances and night time collisions with fauna.

Visual impact

Dust suppression measures must be implemented.

Soil

- Disturbances to soil should be limited as far as possible.
- Topsoil should be stockpiled in a proper manor and no alien invasive species should be allowed to grow on the stockpiles.
- Erosion control measures should be implemented if necessary.
- Oils and lubricants must be stored in lined containment structures.
- Drip trays should be used where necessary.
- Waste bins should be provided and waste should be removed and disposed of at a licensed landfill site.
- Rehabilitation should be done concurrently.

Water

- Before any water is abstracted, a geo-hydro study should be conducted in order to determine the specific yield.
- Oils and lubricants must be stored in lined containment structures.
- Drip trays should be used where necessary.
- Erosion control measures should be implemented if necessary.

ix. MOTIVATION WHERE NO ALTERNATIVE SITES WERE CONSIDERED.

As discussed in the previous section, based on outcomes of previous studies in the vicinity of the proposed site, the possibility to encounter further Diamond Reserves on a certain portion of the farm Rooifontein 1722 (previously known as a portion of the farm Dutoitspan 119), was identified.

x. STATEMENT MOTIVATING THE ALTERNATIVE DEVELOPMENT LOCATION WITHIN THE OVERALL SITE. (Provide a statement motivating the final site layout that is proposed)

The site is preferred due to its possibility of having diamond reserves, the property is also used as a wildlife club for recreational, educational and hunting purposes.

A. 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.

i. A description of all environmental issues and risks that are identified during the environmental impact assessment process

Process for the identification of key issues

The methodology for the identification of key issues aims, as far as possible, to provide a user-friendly analysis of information to allow for easy interpretation.

- **Checklist**: The checklist consists of a list of structured questions related to the environmental parameters and specific human actions. They assist in ordering thinking, data collection, presentation and alert against the omission of possible impacts.
- **Matrix**: The matrix analysis provides a holistic indication of the relationship and interaction between the various activities, development phases and the impact thereof on the environment. The method aims at providing a first order cause and effect relationship between the environment and the proposed activity. The matrix is designed to indicate the relationship between the different stressors and receptors which leads to specific impacts. The matrix also indicates the specialist studies, which will be submitted as part of the Environmental Impact Report in order to address the potentially most significant impacts.

Checklist analysis

The site visit was conducted to ensure a proper analysis of the site specific characteristics of the study area. The table below provides a checklist, which is designed to stimulate thought regarding possible consequences of specific actions and so assist scoping of key issues. It consists of a list of structured questions related to the environmental parameters and specific human actions. They assist in ordering thinking, data collection, presentation and alert against the omission of possible impacts. The table highlights certain issues, which are further analysed in matrix format.

Table: Environmental checklist

| QUESTION | YES | NO | Un-sure | Description |
|---|-----|----|---------|--|
| 1. Are any of the following located on the site earmarked for the development? | | | | |
| I. A river, stream, dam or wetland | × | | | <p>According to the topographic map a historic water furrow runs through the proposed area.</p> <p>Biodiversity specialist study identified the following: There is a small wetland at the site of which the origin is obscure; this wetland is very small, marginal and with a lack of distinctive wetland plant species, but should be regarded as sensitive.</p> <p>If the development is approved, exclusion of the small restricted pan depression at the site should be upheld and a buffer zone of 32 m applies, this pan could be an important stepping stone of conservation corridors in the larger area.</p> |
| II. A conservation or open space area | × | | | The proposed prospecting area is on the portion leased by the Rooifontein Wildlife Club. |
| III. An area that is of cultural importance | × | | | <p>Heritage Impact Assessment study conducted recommended the following : It is recommended, from a cultural heritage perspective, that the proposed prospecting activities may proceed.</p> <p>In addition it should be noted that a proposal has been submitted to SAHRA for the declaration of the Rooifontein Farm 1722 on the eastern outskirts of Kimberley as a suite of significant heritage resources worthy of formal protection. The application includes the following (Date submitted on SAHRIS: 21 November 2016; Case ID: 10477):</p> <ul style="list-style-type: none"> • early diamond mining sites and remains of associated infrastructure • traces of the South African War Siege of Kimberley Boers positions and HQ sites • pre-colonial rock engravings and Stone Age sites |
| IV. Site of geological significance | | × | | According to the specialist prospecting can go ahead, however the following should be conserved: if any palaeontological material is exposed during digging, excavating, drilling or blasting SAHRA must be notified. All construction activities must be stopped and a palaeontologist should be called in to determine proper mitigation measures. |
| V. Areas of outstanding natural beauty | | | × | |
| VI. Highly productive agricultural land | | × | | According to the land capability map the proposed portions fall within Class 5, which means it has little or no erosion hazard but have other limitations impractical to remove that limit its use largely to pasture, range, woodland or wildlife food and cover. |
| VII. Floodplain | | × | | None. |
| VIII. Indigenous forest | | × | | None. |

| | | | | |
|--|---|---|---|--|
| IX. Grass land | × | | | Vegetation in terrestrial zone at site consists of open savanna, grassy patches with tree clumps and patches containing conspicuous high frequencies of karoo plant elements. |
| X. Bird nesting sites | × | | | Secretarybird has been found at site. |
| XI. Red data species | × | | | Biodiversity specialist study identified the following: If the site is developed suitable habitat of two Threatened animal species will be impacted, the Black-footed Cat, <i>Felis nigripes</i> (Vulnerable) and Secretarybird, <i>Sagittarius serpentarius</i> (Vulnerable). While the Secretarybird has been found at site, presence of Black-footed Cat as resident at site needs confirmation. Habitat of the Near Threatened <i>Equus quagga</i> (Plains Zebra) will also be impacted if the development is approved. Other bird species of particular conservation that could be impacted if the development is approved are White-backed Vulture, <i>Gyps africanus</i> (Threatened: Vulnerable) and Kori Bustard, <i>Ardeotis kori</i> (Near Threatened). Presence of Threatened or Near Threatened plant species at site is unlikely. If the development is approved and any damage or removal of <i>Vachellia erioloba</i> (Camel Thorn) and <i>Boscia albitrunca</i> (Shepherd's Tree), two nationally protected tree species, are foreseen, a permit should be applied for. In terms of a part of section 51(1) of Act No. 84 of 1998, no person may cut, disturb, damage or destroy any protected tree or possess, collect, remove, transport, export, purchase, sell, donate or in any other manner acquire or dispose of any protected tree, except under a license granted by the Minister. |
| XII. Tourist resort | × | | | The proposed area falls within the Rooifontein Wildlife Club. |
| 2. Will the project potentially result in potential? | | | | |
| I. Removal of people | | × | | None. |
| II. Visual Impacts | × | | | The proposed portion is approximate 1km from the N8 and 170m from a railroad. The R64 tar road is approximately 6km for the proposed portion. The visual impact will be managed. Members and visitors of the RWC will experience a negative visual impact. |
| III. Noise pollution | × | | | The noise impact is unlikely to be significant, however it may scare animals way. Site activities must take place during the day (between 06:00 – 18:00) to avoid night time noise. |
| IV. Construction of an access road | | | × | Several existing roads and tracks already traverse the proposed prospecting site, however we have not yet reached an agreement with the landowner, lessor and/or surrounding landowner. |
| V. Risk to human or valuable ecosystems due to explosion/fire/ discharge of waste into water or air. | | × | | In cases where explosives will be used, mitigation measures will be implemented. Dust pollution should be kept to a minimum |

| | | | | |
|---|---|---|---|---|
| VI. Accumulation of large workforce (>50 manual workers) into the site. | | × | | Approximately 15 employment opportunities will be created during the construction and operational phase of the project. |
| VII. Utilisation of significant volumes of local raw materials such as water, wood etc. | × | | | 1 x 12 Ft washing pan and 2 x 10 Ft washing pans which utilise approximately 13000L/per hour and 11000 L/per hour each (22000L/per hour for 2 x 10 Ft washing pan), which in total is 35000L/per hour for all the pans from which 30% is re-used. |
| VIII. Job creation | × | | | Approximately 15 employment opportunities will be created during the construction and operational phase of the project. |
| IX. Traffic generation | | × | | None. |
| X. Soil erosion | | × | | Only areas earmarked for prospecting will be cleared. The prospecting will be phased and the topsoil stockpiled separately. Concurrent rehabilitation will take place. The soil also has little or no erosion hazard potential. |
| XI. Installation of additional bulk telecommunication transmission lines or facilities | | × | | None. |
| 3. Is the proposed project located near the following? | | | | |
| I. A river, stream, dam or wetland | | × | | There is a slime/tailing dams from Kimberley Ekapa Mine which appears as Unchannelled valley-bottom wetland on the Wetland Areas map. |
| II. A conservation or open space area | | | × | The proposed area is adjacent the Zuikerkop Country & Game Lodge Pty Ltd. |
| III. An area that is of cultural importance | × | | | The town of Kimberley has a rich history. |
| IV. A site of geological significance | | | × | This cannot be determined as the specialist study wil only focus on the application area. |
| V. An area of outstanding natural beauty | | | × | Most of the area around the proposed farm is covered in natural vegetation and it is also adjacent Kimberley Ekapa Mine and Zuikerkop Country & Game Lodge Pty Ltd. |
| VI. Highly productive agricultural land | | × | | According to the land capability map the area around the proposed portions fall within Class 5, which states its non-arable land. According to the landcover map there is only a small area east of the proposed area used for cultivation |
| VII. A tourist resort | × | | | The proposed portion is adjacent Zuikerkop Country & Game Lodge Pty Ltd. |
| VIII. A formal or informal settlement | | × | | None. |

Matrix analysis

The matrix describes the relevant listed activities, the aspects of the development that will apply to the specific listed activity, a description of the environmental issues and potential impacts, the significance and magnitude of the potential impacts, and the mitigation of the potential impacts. The matrix also highlights areas of particular concern, which requires more in depth assessment. Each cell is evaluated individually in terms of the nature of the impact, duration and its significance – should no mitigation measures be applied. This is important since many impacts would not be considered insignificant if proper mitigation measures were implemented. The matrix also provides an indication if mitigation measures are available.

In order to conceptualise the different impacts the matrix specify the following:

- **Stressor:** Indicates the aspect of the proposed activity, which initiates and cause impacts on elements of the environment.
- **Receptor:** Highlights the recipient and most important components of the environment affected by the stressor.
- **Impacts:** Indicates the net result of the cause-effect between the stressor and receptor.
- **Mitigation:** Impacts need to be mitigated to minimise the effect on the environment.

J. AN ASSESSMENT OF EACH IDENTIFIED POTENTIALLY SIGNIFICANT IMPACT AND RISK

| LISTED ACTIVITY (The Stressor) | ASPECTS OF THE DEVELOPMENT /ACTIVITY | POTENTIAL IMPACTS | | SIGNIFICANCE AND MAGNITUDE OF POTENTIAL IMPACTS | | | MITIGATION OF POTENTIAL IMPACTS | SPECIALIST STUDIES / INFORMATION | |
|--|---|-----------------------------|----------------------------------|--|-------|----------|---------------------------------------|-------------------------------------|---|
| | | Receptors | Impact description | Minor | Major | Duration | Possible Mitigation | | |
| CONSTRUCTION PHASE | | | | | | | | | |
| <i>Listing Notice GNR 984, Activity 15: "The clearance of an area of 20 hectares or more, of indigenous vegetation."</i> | <u>Site clearing and preparation</u> Areas earmarked for prospecting will need to be cleared, topsoil will be stockpiled separately. | BIOPHYSICAL ENVIRONMENT | Fauna & Flora | <ul style="list-style-type: none"> Loss or fragmentation of indigenous natural vegetation. Loss of sensitive species. Loss or fragmentation of habitats. | | - | L | Yes | - |
| | | | Air | <ul style="list-style-type: none"> Air pollution due to the increase of traffic of construction vehicles. | - | | S | Yes | - |
| | | | Soil | <ul style="list-style-type: none"> Soil degradation, including erosion. Loss of topsoil. Disturbance of soils and existing land use (soil compaction). | | - | S | Yes | - |
| | | | Geology | <ul style="list-style-type: none"> It is not foreseen that the removal of indigenous vegetation will impact on the geology or vice versa. | | - | S | Yes | - |
| | | | Existing services infrastructure | <ul style="list-style-type: none"> Generation of waste that need to be accommodated at a licensed landfill site. Generation of sewage that need to be accommodated by the local sewage plant. | - | | S | Yes | - |
| | | | Ground water | <ul style="list-style-type: none"> Pollution due to construction vehicles. | - | | S | Yes | - |
| | | | Surface water | <ul style="list-style-type: none"> Increase in storm water run-off. Pollution of water sources due to soil erosion. Destruction of watercourses (pans/dams/streams). | - | | S | Yes | - |
| | | SOCIAL/ECONOMIC ENVIRONMENT | Local unemployment rate | <ul style="list-style-type: none"> Job creation. Business opportunities. Skills development. | | + | S | Yes | - |
| | | | Visual landscape | <ul style="list-style-type: none"> Potential visual impact on residents of farmsteads and motorists in close proximity to proposed facility. Potential visual impact on members and visitors of the Rooifontein Wildlife Club. | | - | S | Yes | - |
| | | | Traffic volumes | <ul style="list-style-type: none"> Increase in construction vehicles. | - | | S | Yes | - |
| | | | Health & Safety | <ul style="list-style-type: none"> Air/dust pollution. Road safety. Increased risk of veld fires. | | - | S | Yes | - |
| | | | Noise levels | <ul style="list-style-type: none"> The generation of noise as a result of construction vehicles, the use of machinery such as drills, excavators, rotary pans, dumper trucks and people working on the site. | | - | M | Yes | - |

| | | | | | | | | | |
|---|--|--|---|---|-----|-----|-----|-----|---|
| | | | Tourism industry | <ul style="list-style-type: none"> Since there are tourism facilities in close proximity to the site, the construction activities might have an impact on tourism in the area. The proposed area fall within the Rooifontein Wildlife Club. | | | M | | - |
| | | | Heritage and palaeontological artefacts | <ul style="list-style-type: none"> Removal or destruction of archaeological and/or paleontological sites. Removal or destruction of buildings, structures, places and equipment of cultural significance. Removal or destruction of graves, cemeteries and burial grounds. | - | | S | Yes | - |
| <p><i>Listing Notice GNR 984, Activity 15: "The clearance of an area of 20 hectares or more, of indigenous vegetation."</i></p> | <p><u>Site clearing and preparation</u> Areas earmarked for prospecting will need to be cleared, topsoil will be stockpiled separately. This will inevitably result in the removal of indigenous vegetation located on the site.</p> | <p style="writing-mode: vertical-rl; transform: rotate(180deg);">BIOPHYSICAL ENVIRONMENT</p> | Fauna & Flora | <ul style="list-style-type: none"> Loss or fragmentation of indigenous natural vegetation. Loss of sensitive species. Loss or fragmentation of habitats. | | - | L | Yes | - |
| | | | Air quality | <ul style="list-style-type: none"> Air pollution due to the increase of traffic. | - | | M | Yes | - |
| | | | Soil | <ul style="list-style-type: none"> Soil degradation, including erosion. Disturbance of soils and existing land use (soil compaction). Loss of agricultural potential (low significance relative to agricultural potential of the site). | - | | M | Yes | - |
| | | | Geology | <ul style="list-style-type: none"> It is not foreseen that the removal of indigenous vegetation will impact on the geology or vice versa. | N/A | N/A | N/A | N/A | - |
| | | | Existing services infrastructure | <ul style="list-style-type: none"> Generation of waste that need to be accommodated at a licensed landfill site. Generation of sewage that need to be accommodated by the local sewage plant. | - | | M | Yes | - |
| | | | Ground water | <ul style="list-style-type: none"> Pollution due to construction vehicles. | | | S | Yes | - |
| | | | Surface water | <ul style="list-style-type: none"> Increase in storm water run-off. Pollution of water sources due to soil erosion. Destruction of watercourses (pans/dams/streams). | | - | M | Yes | - |
| | | <p style="writing-mode: vertical-rl; transform: rotate(180deg);">SOCIAL/ECONOMIC ENVIRONMENT</p> | Local unemployment rate | <ul style="list-style-type: none"> Job creation. Skills development. | | + | S | N/A | - |
| | | | Visual landscape | <ul style="list-style-type: none"> Since there are tourism facilities in close proximity to the site, the construction activities might have an impact on tourism in the area. Potential visual impact on residents of farmsteads and motorists in close proximity to proposed facility. Potential visual impact on members and visitors of the Rooifontein Wildlife Club. | | - | M | Yes | - |
| | | | Traffic volumes | <ul style="list-style-type: none"> Increase in construction vehicles. | | - | S | Yes | - |
| | | | Health & Safety | <ul style="list-style-type: none"> Air/dust pollution. Road safety. | | - | S | Yes | - |

| | | | | | | | | | |
|---|--|---|---|---|--|-----|-----|-----|-----|
| | | Noise levels | <ul style="list-style-type: none"> The generation of noise as a result of construction vehicles, and people working on the site. | | - | S | Yes | - | |
| | | Tourism industry | <ul style="list-style-type: none"> Since there are tourism facilities in close proximity to the site, the construction activities might have an impact on tourism in the area The proposed area fall within the Rooifontein Wildlife Club. | | - | M | Yes | - | |
| | | Heritage and palaeontological artefacts | <ul style="list-style-type: none"> Removal or destruction of archaeological and/or paleontological sites. Removal or destruction of buildings, structures, places and equipment of cultural significance. Removal or destruction of graves, cemeteries and burial grounds. | - | | S | Yes | - | |
| OPERATIONAL PHASE | | | | | | | | | |
| <p>Listing Notice GNR 984, Activity 19: "The removal and disposal of minerals contemplated in terms of section 20 of the Mineral and Petroleum Resource4s Development Act (Act No. 28 of 2002), including associated infrastructure, structures and earthworks, directly related to prospecting of a mineral resource, including activities for which an exemption has been issued in terms of section 106 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002)"</p> | <p>The key components of the proposed project are described below:</p> <ul style="list-style-type: none"> Supporting Infrastructure - A control facility with basic services such as water and electricity will be constructed on the site and will have an approximate footprint 50m² or less. Other supporting infrastructure includes a site office and workshop area. Roads – Several existing roads and tracks already traverse the proposed prospecting site, however an agreement has not been reached with the landowner, lessor and/or surrounding landowner yet. Fencing - For health, safety and security reasons, the facility will be required to be fenced off from the surrounding farm. | BIOPHYSICAL ENVIRONMENT | Fauna & Flora | <ul style="list-style-type: none"> Fragmentation of habitats. Establishment and spread of declared weeds and alien invader plants (operations). | | - | M | Yes | - |
| | | | Air quality | <ul style="list-style-type: none"> Air pollution due to the mining activity, crusher plant and transport of the gravel to the designated areas. | N/A | N/A | N/A | N/A | - |
| | | | Soil | <ul style="list-style-type: none"> Soil degradation, including erosion. Disturbance of soils and existing land use (soil compaction). Loss of agricultural potential (low significance relative to agricultural potential of the site). | - | | M | Yes | - |
| | | | Geology | <ul style="list-style-type: none"> Collapsible soil. Seepage (shallow water table). Active soil (high soil heave). Erodible soil. The presence of undermined ground. Instability due to soluble rock. Steep slopes or areas of unstable natural slopes. Areas subject to seismic activity. Areas subject to flooding. | - | | S | Yes | - |
| | | | Existing services infrastructure | <ul style="list-style-type: none"> Generation of waste that need to be accommodated at a licensed landfill site. Generation of sewage that need to be accommodated by the municipal sewerage system and the local sewage plant. Increased consumption of water. Approximately 35 000 L per hour | | - | L | Yes | - |
| | | | Ground water | <ul style="list-style-type: none"> Leakage of hazardous materials. The machinery on site require oils and fuel to function. Leakage of these oils and fuels can contaminate water supplies. | - | | L | Yes | - |
| | | | Surface water | <ul style="list-style-type: none"> Increase in storm water runoff. The development will potentially result in an increase in storm water run-off that needs to be managed to prevent soil erosion. Destruction of watercourses (pans/dams/streams). Leakage of hazardous materials. The machinery on site require oils and fuel to function. Leakage of these oils and fuels can contaminate water supplies. | | - | L | Yes | - |
| | | | SOCI AL/EC | Local unemployment rate | <ul style="list-style-type: none"> Job creation. Security guards will be required for 24 hours every day of the week and general laborers will also be required for the cleaning of the panels. | | + | L | Yes |

| | | | | | | | | | |
|------------------------------|--|-----------------------------|---|---|-----|-----|-----|-----|---|
| | | | | <ul style="list-style-type: none"> Skills development. | | | | | |
| | | | Visual landscape | <ul style="list-style-type: none"> The proposed portions are used as a wildlife club which will still take place simultaneously with the prospecting activity, however this depends on the location of the activity. | - | | L | Yes | - |
| | | | Traffic volumes | <ul style="list-style-type: none"> Increase in vehicles collecting gravel for distribution. | - | | S | Yes | - |
| | | | Health & Safety | <ul style="list-style-type: none"> Air/dust pollution. Road safety. | - | | S | Yes | - |
| | | | Noise levels | <ul style="list-style-type: none"> The proposed development will result in noise pollution during the operational phase. | | - | L | Yes | - |
| | | | Tourism industry | <ul style="list-style-type: none"> Since there are a tourism facilities in close proximity to the site, the operational activities might have an impact on tourism in the area. The proposed area fall within the Rooifontein Wildlife Club | | - | L | Yes | - |
| | | | Heritage and palaeontological artefacts | <ul style="list-style-type: none"> Removal or destruction of archaeological and/or paleontological sites. Removal or destruction of buildings, structures, places and equipment of cultural significance. Removal or destruction of graves, cemeteries and burial grounds. | - | | S | Yes | - |
| DECOMMISSIONING PHASE | | | | | | | | | |
| | <p><u>Mine closure</u> During the mine closure the Mine and its associated infrastructure will be dismantled.</p> <p><u>Rehabilitation of biophysical environment</u> The biophysical environment will be rehabilitated.</p> | BIOPHYSICAL ENVIRONMENT | Fauna & Flora | <ul style="list-style-type: none"> Re-vegetation of exposed soil surfaces to ensure no erosion in these areas. | + | | L | Yes | - |
| | | | Air quality | <ul style="list-style-type: none"> Air pollution due to the increase of traffic of construction vehicles. | - | | S | Yes | - |
| | | | Soil | <ul style="list-style-type: none"> Backfilling of all voids Placing of topsoil on backfill | | + | L | Yes | - |
| | | | Geology | <ul style="list-style-type: none"> It is not foreseen that the decommissioning phase will impact on the geology of the site or vice versa. | N/A | N/A | N/A | N/A | - |
| | | | Existing services infrastructure | <ul style="list-style-type: none"> Generation of waste that need to be accommodated at the local landfill site. Generation of sewage that need to be accommodated by the municipal sewerage system and the local sewage plant. Increase in construction vehicles. | - | | S | Yes | - |
| | | | Ground water | <ul style="list-style-type: none"> Pollution due to construction vehicles. | - | | S | Yes | - |
| | | | Surface water | <ul style="list-style-type: none"> Increase in storm water run-off. Pollution of water sources due to soil erosion. Destruction of watercourses (pans/dams/streams). | - | | S | Yes | - |
| | | SOCIAL/ECONOMIC ENVIRONMENT | Local unemployment rate | <ul style="list-style-type: none"> Loss of employment. | | - | L | Yes | - |
| | | | Visual landscape | <ul style="list-style-type: none"> Potential visual impact on visual receptors in close proximity to proposed facility. | - | | S | Yes | - |
| | | | Traffic volumes | <ul style="list-style-type: none"> Increase in construction vehicles. | - | | S | Yes | - |

| | | | | | | | | | |
|--|--|--|---|--|-----|-----|-----|-----|---|
| | | | Health & Safety | <ul style="list-style-type: none"> Air/dust pollution. Road safety. Increased crime levels. The presence of mine workers on the site may increase security risks associated with an increase in crime levels as a result of influx of people in the rural area. | - | | | Yes | - |
| | | | Noise levels | <ul style="list-style-type: none"> The generation of noise as a result of construction vehicles, the use of machinery and people working on the site. | - | | S | Yes | - |
| | | | Tourism industry | <ul style="list-style-type: none"> Since there are tourism facilities in close proximity to the site, the decommissioning activities might have an impact on tourism in the area. | + | | M | Yes | - |
| | | | Heritage and palaeontological artefacts | <ul style="list-style-type: none"> It is not foreseen that the decommissioning phase will impact on any heritage and/or palaeontological resources. | N/A | N/A | N/A | N/A | - |

(N/A) No impact (+) Positive Impact (-) Negative Impact (S) Short Term (M) Medium Term (L) Long Term

K. SUMMARY OF THE KEY FINDINGS OF THE ENVIRONMENTAL IMPACT ASSESSMENT

(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. |
|--|---|--|--|
| Desktop Palaeontological Impact Assessment | <p>Concerns/threats (1g,1ni,1nii,1o,1p) to be added to EMPr:</p> <ol style="list-style-type: none"> 1. Threats are earth moving equipment/machinery (for example haul trucks, front end loaders, excavators, graders, dozers) during construction, the sealing-in or destruction of the fossils by development, vehicle traffic, mining activities and human disturbance. 2. Special care must be taken during the digging, drilling, blasting and excavating of foundations, trenches, channels and footings and removal of overburden during construction not to intrude surrounding or underlying fossiliferous layers. An appropriate protocol and management plan is attached (Appendix 1). 3. Mitigation is needed if a fossil or traces of it is found (Appendix 1). Permission is needed from SAHRA. 4. The Environmental Control Officer must check for fossils. If a fossil is found, all construction must stop, and SAHRA must be notified. A palaeontologist must be called in to excavate. <p>Recommendations are:</p> <ol style="list-style-type: none"> 1. The prospecting can go ahead, no consultation with parties was necessary. 2. No further palaeontological studies are necessary. 3. The prospecting can go ahead with caution, the ECO must survey for fossils during ground breaking and digging or drilling in line with the legally binding Environmental | X | EMPr |

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| | <p>Management Programme (EMPr), this must be updated to include the involvement of a palaeontologist.</p> <p>J. Recommendation (1j,1l)</p> <p>a There is no objection (see Recommendation B) to the development, and it is not necessary to request a Phase 1 Palaeontological Impact Assessment: Field study to determine whether the development will affect fossiliferous outcrops as the palaeontological sensitivity is HIGH. A Phase 2 Palaeontological Mitigation is not required. Protocol is attached (Appendix 2).</p> <p>b This project will benefit the economy, the growth of the community, health and social development of the community.</p> <p>c Preferred choice: The impact on the palaeontological heritage is HIGH. The presence of fossils in both formations are problematic (see Executive Summary).</p> <p>d The following should be conserved: if any palaeontological material is exposed during digging, excavating, drilling or blasting SAHRA must be notified. All construction activities must be stopped and a palaeontologist should be called in to determine proper mitigation measures.</p> | | |
| <p>Heritage Impact Assessment</p> | <p>A total of three sites were recorded during the survey of which one is a historic mine and refuse dump (Site 1), one is a historic water furrow (Site 2) and a rock art site (Site 3). The historical sites are associated with the late 19th century and early 20th century mining activities that took place in the region.</p> <p>No Stone Age or Iron Age settlements, structures, features or assemblages were recorded during the survey.</p> <p>It is well known that Late Iron Age stone-walled settlements do not usually occur in open low-lying grasslands. The well-known Korana settlements of Chief Mossweu are located near Mamusa Hill (further east near Schweizer-Reneke) and other Tswana settlement (Rolong and Tlhaping) occur further north and east of the survey area.</p> <p>It is therefore recommended, from a cultural heritage perspective, that the proposed prospecting activities may proceed.</p> <p>Also, please note:</p> | <p style="text-align: center;">X</p> | <p>EMPr</p> |

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| | <p>Archaeological deposits usually occur below ground level. Should archaeological artefacts or skeletal material be revealed in the area during development activities, such activities should be halted, and a university or museum notified in order for an investigation and evaluation of the find(s) to take place (cf. NHRA (Act No. 25 of 1999), Section 36 (6)).</p> <p><u>Proposed Mitigation</u></p> <ul style="list-style-type: none"> • Historical mine and refuse dump – The site comprises a large dump that is probably the result of the adjacent miner compound linked to the nearby Olifantsfontein Shaft. The accumulation of cinder and cultural material is dramatic with a large quantity of material evident on the surface. The open areas to the south were probably occupied by miners in a large mining compound. Note that the site is included in a proposal to have the area declared a Provincial heritage site. <ul style="list-style-type: none"> ○ Maintain a buffer zone of 100 metres during prospecting phase. • Historical water furrow – The site comprises a water furrow that forms part of an extensive water canal system in the region east of Kimberley. The water canals were probably used to get water to the various mines in the area. The furrow was clearly excavated with a retaining sand embankment on one side only. <ul style="list-style-type: none"> ○ Fenced off and gate installed ○ Maintain a buffer zone of 50 metres during prospecting phase • Rock art (engravings) – The site comprises a rock art site with several Later Stone Age and historical (gravitti) engravings. The engravings were done on large boulders on top of a small hillock to the east of the survey area. The main animal that was recorded is the eland and some antelope. <ul style="list-style-type: none"> • Maitain a buffer zone of 100 metres during prospecting phase. <p><u>Review of existing information/data</u></p> | | |
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| | <p>Although several heritage impact assessments have been completed in the general vicinity of the survey footprint, no heritage sites were recorded inside the current survey area.</p> <p>In addition it should be noted that a proposal has been submitted to SAHRA for the declaration of the Rooifontein Farm 1722 on the eastern outskirts of Kimberley as a suite of significant heritage resources worthy of formal protection. The application includes the following (Date submitted on SAHRIS: 21 November 2016; Case ID: 10477):</p> <ul style="list-style-type: none"> • early diamond mining sites and remains of associated infrastructure • traces of the South African War Siege of Kimberley Boers positions and HQ sites • pre-colonial rock engravings and Stone Age sites <p><u>9. Management Measures</u></p> <p>Heritage sites are fixed features in the environment, occurring within specific spatial confines. Any impact upon them is permanent and non-reversible. Those resources that cannot be avoided and that are directly impacted by the proposed development can be excavated/recorded and a management plan can be developed for future action. Those sites that are not impacted on can be written into the management plan, whence they can be avoided or cared for in the future.</p> <p>Coetzee, FP HIA: Proposed Diamond Prospecting: Rooifontein 1722, Free State</p> <p>9.1 Objectives</p> <ul style="list-style-type: none"> • Protection of archaeological, historical and any other site or land considered being of cultural value within the project boundary against vandalism, destruction and theft. • The preservation and appropriate management of new discoveries in accordance with the NHRA, should these be discovered during construction activities <p>The following shall apply:</p> <ul style="list-style-type: none"> • Known sites should be clearly marked in order that they can be avoided during construction activities. • The contractors and workers should be notified that archaeological sites might be exposed during the construction activities. | | |
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| | <ul style="list-style-type: none"> • Should any heritage artefacts be exposed during excavation, work on the area where the artefacts were discovered, shall cease immediately and the Environmental Control Officer shall be notified as soon as possible; • All discoveries shall be reported immediately to a heritage practitioner so that an investigation and evaluation of the finds can be made. Acting upon advice from these specialists, the Environmental Control Officer will advise the necessary actions to be taken; • Under no circumstances shall any artefacts be removed, destroyed or interfered with by anyone on the site; and • Contractors and workers shall be advised of the penalties associated with the unlawful removal of cultural, historical, archaeological or palaeontological artefacts, as set out in the NHRA (Act No. 25 of 1999), Section 51. (1). <p>9.2 Control In order to achieve this, the following should be in place:</p> <ul style="list-style-type: none"> • A person or entity, e.g. the Environmental Control Officer, should be tasked to take responsibility for the heritage sites and should be held accountable for any damage. • Known sites should be located and isolated, e.g. by fencing them off. All construction workers should be informed that these are no-go areas, unless accompanied by the individual or persons representing the Environmental Control Officer as identified above. • In areas where the vegetation is threatening the heritage sites, e.g. growing trees pushing walls over, it should be removed, but only after permission for the methods proposed has been granted by SAHRA. A heritage official should be part of the team executing these measures. | | |
| <p>Biodiversity study</p> | <p><u>Specialist report conclusion:</u></p> <ul style="list-style-type: none"> • Vegetation at site consists of open savanna, grassy patches with tree clumps and patches containing conspicuous high frequencies of karoo plant elements. Conspicuous frequency of <i>Aristida congesta</i> subsp. <i>barbicollis</i> and <i>Eragrostis lehmanniana</i> at many areas may be indicative of disturbances of past, impacts of recent droughts and possible overgrazing in past. | | |

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| | <ul style="list-style-type: none"> • Highly invasive alien tree <i>Prosopis glandulosa</i> (Mesquite) occurs at a number of spots at the site and in the larger study area; these if allowed to establish further could become costly to eradicate. Exotic weeds are present where disturbances or clearings took place but large areas of fairly natural vegetation remain. Patches of natural vegetation with a diversity of indigenous trees, shrubs, herbs and grasses persist in the terrestrial zone at the site. • Vegetation type at site, Kimberley Thornveld (SVk 4) is not listed as threatened ecosystem (National List of Threatened Ecosystems, 2011). • A small wetland depression is found at the site. This wetland is however very small (almost to a point of not qualifying as such) and its functionality as wetland rather than a rain pool is obscure. Nevertheless this small wetland should be regarded as sensitive. • Site is part of the Lower Vaal Water Management Area (WMA 10). Site is not recognized as part of a Freshwater Ecosystem Priority Area (FEPA) according to the Atlas of Freshwater Ecosystem Priority Areas (Nel et al. 2011a, 2011b). • Site is part of a conservation area the Rooifontein Game Farm so that if developments/ prospectings are approved there will be significant impacts to conserved habitat as well as grazing area for a considerable time before being restored to some extent by rehabilitation. • If the site is developed suitable habitat of two Threatened animal species will be impacted, the Black-footed Cat, <i>Felis nigripes</i> (Vulnerable) and Secretarybird, <i>Sagittarius serpentarius</i> (Vulnerable). While the Secretarybird has been confirmed to be present at and near site, presence of Black-footed Cat as resident at site and Rooifontein Game Farm needs confirmation. Important and well-known population of Black-footed Cat is present at the Benfontein Nature Reserve south of the site. • Habitat of the Near Threatened <i>Equus quagga</i> (Plains Zebra) will also be impacted if the development is approved. • Other bird species of particular conservation that could be impacted if the development is approved are White-backed Vulture, <i>Gyps africanus</i> (Threatened: Vulnerable) and Kori Bustard, <i>Ardeotis kori</i> (Near Threatened) but the impacts on these birds could be less intense or more indirect compared to confirmed habitat loss of Secretarybird. • Presence of Threatened or Near Threatened plant species at site is unlikely. | | |
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| | <ul style="list-style-type: none"> • If the development is approved and any damage or removal of <i>Vachellia erioloba</i> (Camel Thorn) and <i>Boscia albitrunca</i> (Shepherd's Tree), two nationally protected tree species, are foreseen, a permit should be applied for. In terms of a part of section 51(1) of Act No. 84 of 1998, no person may cut, disturb, damage or destroy any protected tree or possess, collect, remove, transport, export, purchase, sell, donate or in any other manner acquire or dispose of any protected tree, except under a license granted by the Minister. • In the case of permitted removal of <i>Vachellia erioloba</i> (Camel Thorn) trees at the site, if the development is approved, it is recommended that new <i>Vachellia erioloba</i> trees are planted in areas where any further damage or removal of these trees are unlikely. This recommendation could not apply for <i>Boscia albitrunca</i> because up to date very little success has been achieved to cultivate any <i>Boscia albitrunca</i> plants in nurseries and gardens. • Ecological sensitivity at site is estimated to be medium-high sensitivity. While suitable habitat or corridors for Black-footed cat appear to be present at site, no confirmed population such as at Benfontein Nature Reserve could be found up to date. Suitable breeding habitat for Vulnerable Secretarybird is present at site. This bird species roam large areas, but because of conserved habitat for this species a site, which may have been regarded as of medium sensitivity, is then regarded as of medium-high sensitivity. Disused termitaria which is a refuge and habitat for many animal species cannot be replaced by available rehabilitation methods which also confirms the medium-high sensitivity of the site. • While the site is on gentle slopes with no rocky ridges, there is a rocky ridge east of the site at the Rooifontein Game Reserve which appears to be sensitive at a glance, for example presence of plant species such as a "small flowered form" of <i>Pachypodium succulentum</i> is found at this rocky ridge. Therefore, if developments are approved, dust pollution should be kept to a minimum so that minimum impact on these sensitive areas nearby take place. • If the developments are approved the following key issue needs to be addressed: Though beyond the scope of this report distinct measures should be demonstrated to acquire a long-term and sustainable corridor, least fragmented possible (given tar roads and some impacts already exist) at eastern parts of Rooifontein Game Reserve or even adding areas further east (there is considerable scope for the rocky hills east of Kimberley to be an important conservation area and corridor). It | | |
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| | <p>should be borne in mind that it is unlikely to recreate a corridor with old termitaria for the Black-footed Cat with available rehabilitation methods. This means there should be a sustainable conservation corridor between the Kamfers Dam, Dronfield Nature Reserve, Rooifontein Game Farm and Benfontein Nature Reserve. A long term and definite solution needs to be found.</p> <p><u>6.1 Anticipated risks or impacts to the loss of habitat</u> Potential impacts on the available habitat will be of local extent, of permanent duration, of high intensity and high probability. The significance of loss of habitat is expected to be high without mitigation and moderate-high with mitigation.</p> <p><u>Mitigation measures:</u></p> <ul style="list-style-type: none"> • If the development is approved, a rehabilitation plan that allows for reshaping land to its original gradient, to appropriate soil structure and establishing indigenous vegetation that approach the original state should be applied. • Dust pollution should be kept to a minimum so that sensitive ecosystems such as rocky ridge outside the site but nearby are impacted to a minimum. • Exotic and invasive plant species should not be allowed to establish, if the development is approved, especially an alien invasive tree species such as Prosopis. • If the development is approved, exclusion of the small restricted wetland at the site should be upheld and a buffer zone of 32 m applies. <p><u>6.2 Anticipated risks or impacts to the loss of sensitive species</u> If the site is developed suitable habitat of two Threatened animal species will be impacted, the Black-footed Cat, <i>Felis nigripes</i> (Vulnerable) and Secretarybird, <i>Sagittarius serpentarius</i> (Vulnerable). While the Secretarybird has been confirmed to be present at and near site, presence of Black-footed Cat as resident at site and even larger study area needs confirmation. Black-footed Cat is confirmed to be present at the Benfontein Nature Reserve south of the site. Habitat of the Near Threatened <i>Equus quagga</i> (Plains Zebra) will also be impacted if the development is approved. Other bird species of particular conservation that could be impacted if the development is approved are White-backed Vulture, <i>Gyps africanus</i> (Threatened: Vulnerable) and Kori Bustard, <i>Ardeotis kori</i> (Near Threatened). Presence of Threatened or Near Threatened plant</p> | | |
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| | <p>species at site is unlikely. If the development is approved and any damage or removal of <i>Vachellia erioloba</i> (Camel Thorn) and <i>Boscia albitrunca</i> (Shepherd’s Tree), two nationally protected tree species, are foreseen, a permit should be applied for. In terms of a part of section 51(1) of Act No. 84 of 1998, no person may cut, disturb, damage or destroy any protected tree or possess, collect, remove, transport, export, purchase, sell, donate or in any other manner acquire or dispose of any protected tree, except under a license granted by the Minister.</p> <p><u>Mitigation measures for protected tree species:</u></p> <ul style="list-style-type: none"> • A permit at the relevant authorities should be applied for in case of any damage or removal of individual trees of <i>Vachellia erioloba</i> (= <i>Acacia erioloba</i>) (Camel Thorn) and/or <i>Boscia albitrunca</i> (Shepherd’s Tree) should be applied for, if the development is approved. • In the case of removal of <i>Vachellia erioloba</i> (Camel Thorn) trees at the site, if the development is approved, it is recommended that new <i>Vachellia erioloba</i> trees are planted in areas where any further damage or removal of these trees are unlikely. This recommendation could not apply for <i>Boscia albitrunca</i> because up to date very little success has been achieved to cultivate any <i>Boscia albitrunca</i> plants in nurseries and gardens. <p><u>Mitigation measures for impacts on suitable habitat of Secretary Bird and Black-footed Cat.</u></p> <ul style="list-style-type: none"> • If developments are approved, rehabilitation that includes leveling of slope and re-establishment of savanna with patches that contain open grass and shrub layers, is imperative. • If the developments are approved biodiversity off-sets in terms of suitable habitat for Secretarybird and Black-footed Cat should apply. This means that an area of similar size to the impacted area should be acquired and conserved. <p><u>6.3 Anticipated risks or impacts to habitat connectivity and open space</u> Potential impacts on connectivity will be of local extent, of permanent duration, of high intensity and high probability. The significance of the impacts on loss of connectivity is expected to be high without mitigation and low with mitigation.</p> | | |
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| | <p><u>Mitigation measures:</u></p> <ul style="list-style-type: none"> • If developments are approved, rehabilitation that includes leveling of slope and re-establishment of savanna with patches that contain open grass and shrub layers, is imperative. • If the development is approved biodiversity off-sets in terms of suitable habitat for Secretarybird and Black-footed Cat should apply. This means that an area of similar size to the impacted area should be acquired and conserved. • If the development is approved, establishment of exotic and invasive plant species should be avoided and where these have been found at the site continuous eradication should take place. • Alien invasive species could compromise conservation corridors and buffers. It is in particular declared alien invasive species such as <i>Prosopis glandulosa</i> (Honey Mesquite) that should not be allowed to establish. • If the development is approved, exclusion of the small restricted pan depression at the site should be upheld and a buffer zone of 32 m applies, this pan could be an important stepping stone of conservation corridors in the larger area. <p><u>6.4 Anticipated risks or impacts associated with construction activities</u></p> <p>Overall construction activities associated with the development if approved will be of local extent, of medium duration, of high intensity and high probability. During the construction phase, the significance of the impacts associated with the construction phase is likely to be high without and moderate mitigation.</p> <p><u>Mitigation measures:</u></p> <ul style="list-style-type: none"> • If the development is approved, contractors must ensure that no animal species are disturbed, trapped, hunted or killed during the construction phase. • Rubble or waste that could accompany the construction effort, if the development is approved, should be removed during and after construction. • If the development is approved, measures should be taken to avoid any spills and infiltration of petroleum fuels or any chemical pollutants into the soil during construction phase. | | |
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| | <ul style="list-style-type: none">• If the development is approved, the small restricted pan depression at the site should be fenced off during the construction phase, with appropriate tape and any activities at this small depression avoided.• If developments are approved, rehabilitation that includes leveling of slope and re-establishment of savanna with patches that contain open grass and shrub layers, is imperative. | | |
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Specialist Report is attached as **Appendix 12**

L. ENVIRONMENTAL IMPACT STATEMENT

This section provides a summary of the assessment and conclusions drawn from the proposed prospecting area. In doing so, it draws on the information gathered as part of the environmental impact assessment process and the knowledge gained by the environmental consultant during the course of the process and presents an informed opinion on the environmental impacts associated with the proposed project. The following conclusions can be drawn for the proposed prospecting activity:

- Potential impacts on biodiversity: It is expected that some vegetation might be lost but through implementing mitigation measures, no adverse impacts are expected. It should be kept in mind that not the whole of 324.7035 ha will not be cleared, the prospecting activities will only occur on a 24ha area.
- Potential in groundwater amounts: Due to the water being abstracted from the Kamfer dam, groundwater resources will not be depleted. The specific yield should be determined before abstraction continues. This will provide the applicant with the correct amount of water to be abstracted. If not determined, great implications will exist.
- Potential impacts on land use: The proposed portions is currently utilised as a wildlife club for recreational, educational and hunting purposes. The activity which will be subject to concurrent rehabilitation may have an impact on the land use. Hunting is the main source of income for the Rooifontein Wild Life Club, the club hunts for 120 days of the year. The proposed prospecting activity may impact the number of members negatively of the Rooifontein Wildlife Club.
- Potential social impacts: The presence of construction workers poses a potential risk to family structures and social networks. While the presence of construction workers does not in itself constitute a social impact, the manner in which construction workers conduct themselves can impact on local communities. The most significant negative impact is associated with the disruption of existing family structures and social networks. The Rooifontein farm is a haven for most members and visitors. It serves as an escape from their every day life to relax and enjoy the outdoors. It is a safe place to walk, cycle and participate in parkruns.
- Potential negative impacts: (noise, dust, soil degradation, storm water, traffic, health and safety) associated with the operation of the facility are expected to be of low-high impact, of medium terms and site specific. These can be mitigated or negated through the implementation of practical and appropriate mitigation measures.
- Positive impacts: The prospecting of alluvial diamonds, diamonds general and diamonds kimberlite will have socio-economic benefit to the area.

All possible negative impacts and risks that have been identified in this report can be effectively mitigated and managed by implementing the migratory measures as set out in the Environmental Management Programme (EMPr) attached in Part B.

B. 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.

Refer to Locality Map attached in **Appendix 4**.

C. Summary of the positive and negative implications and risks of the proposed activity and identified alternatives

- Increased noise levels
- Potential water and soil pollution impacts.
- Potential loss of fauna and flora.
- Increased vehicle activity.
- Increased dust levels.
- Increase in water consumption and possible depletion of groundwater resources.
- Potential visual impacts.

All possible negative impacts and risks that have been identified in this report can be effectively mitigated and managed by implementing the mitigation measures as set out in the Environmental Management Programme (EMPr) attached in Part B.

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)

Management objectives include:

- Ensure that the prospecting activity does not cause pollution to the environment or harm to persons.
- Minimise production of waste.
- All prospecting activities must be conducted in a manner that minimises noise impact, litter, environmental degradation and health hazards i.e. injuries.
- The mine must be kept neat and tidy during waste handling to prevent unsightliness and accidents.

Expected outcomes include:

- Minimum impacts on the environment as a result of alluvial diamond, diamond general and diamond kimberlite prospecting.
- Compliance with legislative requirements.
- Mine is neat and tidy and well managed.

N. FINAL PROPOSED ALTERNATIVES (Provide an explanation for the final layout of the infrastructure and activities on the overall site as shown on the final site map together with the reasons why they are the final proposed alternatives which respond to the impact management measures, avoidance, and mitigation measures identified through the assessment)

This alternative asks the question, if there is not, from an environmental perspective, a more suitable location for the proposed activity. Due to the expected mineral resources, Matolo Trade and Investment Pty Ltd would like to potentially prospect for Diamonds Alluvial, Diamonds General and Diamonds Kimberlite on a certain portion of the farm Rooifontein 1722 (previously known as a portion of the farm Dutoitspan 119), Registration Division: Boshof, Free State province. Therefore there will be no other alternative (i.e. to facilitate the movement of machinery, equipment, infrastructure).

O. ASPECTS FOR INCLUSION AS CONDITIONS OF AUTHORISATION.

Any aspects which have not formed part of the EMP that must be made conditions of the Environmental Authorisation

- The operational activities and relevant rehabilitation of disturbed areas should be monitored against the improved EMP and all other relevant environmental legislation.
- A copy of the EMP should be made available onsite at all times.
- Implementation of the proposed mitigation measures set out in the EMP.

P. DESCRIPTION OF ANY ASSUMPTIONS, UNCERTAINTIES AND GAPS IN KNOWLEDGE. (Which relate to the assessment and mitigation measures proposed)

The uncertainties in results are mostly related to the availability of information, time available to gather the relevant information as well as the sometimes-subjective nature of the assessment methodology. In terms of addressing the key issues the EAP is satisfied that there is sufficient information to conduct the significance rating and provide the environmental authority with sufficient information to make an informed decision. If the authority feels that specialists' studies need to be conducted, such will be corresponded to the applicant.

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

Reasons why the activity should be authorized or not.

Based on the outcomes of other diamond mines in the area the possibility to encounter further Diamond Reserves were identified.

The proposed prospecting area is targeted as, historically, several alluvial diamonds, diamond general and diamonds kimberlite occurrences are known in the area, and a number of these have been exploited in the past. There are also various diamond operations within the vicinity of the prospecting area.

No other properties have been secured by the applicant and the site is therefore regarded as the preferred site, and alternatives are not considered.

The option of not approving the activities will result in a significant loss to valuable diamond deposits being exploited. And all economic benefits will be lost.

However the proposed application will have a negative impact on the numbers of member of the Rooifontein Wildlife Club. The Rooifontein farm is a haven for most members and visitors. It serves as an escape from their every day life to relax and enjoy the outdoors. It is a safe place to walk, cycle and participate in parkruns.

R. CONDITIONS THAT MUST BE INCLUDED IN THE AUTHORISATION

- The operational activities and relevant rehabilitation of disturbed areas should be monitored against the improved EMP and all other relevant environmental legislation.

- A copy of the EMP should be made available onsite at all times.
- Implementation of the proposed mitigation measures set out in the EMPr.

The EMPr should be binding on all managers and contractors operating/utilizing the site.

Period for which the Environmental Authorisation is required.

For a minimum of 10 years.

D. UNDERTAKING

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

The undertaking required to meet the requirements of this section is provided at the end of the EMPr and is applicable to both the Environmental Impact Assessment report and the Environmental Management Programme report.

I, **Lizanne Esterhuizen** (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. the acceptability of the project in relation to the finding of the assessment and level of mitigation proposed;



Signature of the environmental assessment practitioner:

Milnex 189 CC – Environmental Consultants

Name of company:

26 – 09 – 2017

Date:

T. FINANCIAL PROVISION

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

CALCULATION OF THE QUANTUM

Applicant: **Matolo Trade and Investment Pty Ltd**
 Evaluator:

Ref No.: **FS30/5/1/1/2/10462PR**
 Date: **21/09/2017**

| 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 | m3 | 500 | 13,7 | 1 | 1 | 6850 |
| 2 (A) | Demolition of steel buildings and structures | m2 | 0 | 190,3 | 1 | 1 | 0 |
| 2(B) | Demolition of reinforced concrete buildings and structures | m2 | 6 | 280,46 | 1 | 1 | 1682,76 |
| 3 | Rehabilitation of access roads | m2 | 0 | 34,05 | 1 | 1 | 0 |
| 4 (A) | Demolition and rehabilitation of electrified railway lines | m | 0 | 330,5 | 1 | 1 | 0 |
| 4 (A) | Demolition and rehabilitation of non-electrified railway lines | m | 0 | 180,3 | 1 | 1 | 0 |
| 5 | Demolition of housing and/or administration facilities | m2 | 37 | 380,6 | 1 | 1 | 14082,2 |
| 6 | Opencast rehabilitation including final voids and ramps | ha | 1,1 | 193716,3 | 0,52 | 1 | 110805,7236 |
| 7 | Sealing of shafts adits and inclines | m3 | 0 | 102,17 | 1 | 1 | 0 |
| 8 (A) | Rehabilitation of overburden and spoils | ha | 0,1 | 133017,19 | 1 | 1 | 13301,719 |
| 8 (B) | Rehabilitation of processing waste deposits and evaporation ponds (non-polluting potential) | ha | 0,06 | 165670,5 | 1 | 1 | 9940,23 |
| 8 (C) | Rehabilitation of processing waste deposits and evaporation ponds (polluting potential) | ha | 0 | 481185,7 | 1 | 1 | 0 |
| 9 | Rehabilitation of subsided areas | ha | 0,1 | 111381,9 | 1 | 1 | 11138,19 |
| 10 | General surface rehabilitation | ha | 0,1 | 105372,05 | 1 | 1 | 10537,205 |
| 11 | River diversions | ha | 0 | 105372,05 | 1 | 1 | 0 |
| 12 | Fencing | m | 1000 | 120,2 | 1 | 1 | 120200 |
| 13 | Water management | ha | 0 | 40065,4 | 1 | 1 | 0 |
| 14 | 2 to 3 years of maintenance and aftercare | ha | 0,1 | 14022,9 | 1 | 1 | 1402,29 |
| 15 (A) | Specialist study | Sum | | | | 1 | 0 |
| 15 (B) | Specialist study | Sum | | | | 1 | 0 |
| Sub Total 1 | | | | | | | 299940,3176 |

| | | | | |
|--------------------|-------------------------|-------------|---------------------------|------------------|
| 1 | Preliminary and General | 35992,83811 | weighting factor 2 | 35992,83811 |
| | | | 1 | |
| 2 | Contingencies | 29994,03176 | | 29994,03176 |
| Subtotal 2 | | | | 365927,19 |
| VAT (14%) | | | | 51229,81 |
| Grand Total | | | | 417157 |

The first phase of drilling will require the drilling of approximately 6 boreholes to be drilled within the prospecting area. Drilling program will be put into practice where the grid spacing will be set to 50m x 50m with an average depth of 100m, 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.

Should delineation and initial evaluation of the deposit indicate a sufficient size and grade to warrant further evaluation, an appropriate bulk sampling program will be undertaken in order to establish grade and confirm its viability for prospecting.

Only 2 trenches will be dug (100m x 50m x ± 50m), it is planned that only 1 trenches will be excavated in the first year, but it may be more if the process is quicker than planned for. It should be kept in mind that no more than 2 trenches will be excavated. The total area to be disturbed a year will be- 1 trenches x (100m x 50m / 10 000) = 0.5 ha per year. However it may be more if the process is quicker than planned for.

No more than 0.5 ha will be left as un-rehabilitated in two years. Rehabilitation will be done concurrently.

A. Explain how the aforesaid amount was derived.

The closure cost estimate provided above is aligned with the Guideline Document for the Evaluation of Quantum of Closure related Financial Provision Provided by a Mine, by the DMR (January, 2005). The amount was calculated by Milnex 189 CC.

- ii) Confirm that this amount can be provided for from operating expenditure.**
(Confirm that the amount, is anticipated to be an operating cost and is provided for as such in the Mining work programme, Financial and Technical Competence Report or Prospecting Work Programme as the case may be).

Financial Guarantee

The financial guarantee for the rehabilitation for land disturbed by Matolo Trade and Investment Pty Ltd was submitted together with the application for a prospecting right.

Rehabilitation Fund

Matolo Trade and Investment Pty Ltd will also make provision for rehabilitation during closure by establishing a rehabilitation trust.

U. DEVIATIONS FROM THE APPROVED SCOPING REPORT AND PLAN OF STUDY.

- i. Deviations from the methodology used in determining the significance of potential environmental impacts and risks.**

None of the methodologies approved for the scoping report were deviated.

- ii. Motivation for the deviation.**

Not applicable

V. OTHER INFORMATION REQUIRED BY THE COMPETENT AUTHORITY

W. 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:

- (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 mining, 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 **Appendix 2.19.1** and confirm that the applicable mitigation is reflected in 2.5.3; 2.11.6.and 2.12.herein).

The following impacts may be regarded as community impacts:

- Increased noise levels
- Potential water and soil pollution impacts.
- Potential loss of fauna and flora.
- Increased vehicle activity.
- Increased dust levels.
- Increase in water consumption and possible depletion of groundwater resources.
- Potential visual impacts.

Indirect socio-economic benefits are expected to be associated with the creation of employment.

(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 mining, bulk sampling or alluvial diamond prospecting on any national estate referred to in section 3(2) of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) with the exception of the national estate contemplated in section 3(2)(j)(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).

Special attention was given for the identification of possible cultural, heritage and/or palaeontological resources on site. Studies pertaining to this were conducted and are attached as **appendix 12** and summarised on table of specialist studies.

Heritage resources including archaeological and paleontological sites over 100 years old, graves older than 60 years, structure older than 60 years are protected by the National Heritage Resources Act no 25 of 1999. Therefore if such resources are found during the prospecting or development activities, they shall not be disturbed without a permit from the relevant heritage resource Authority, which means that before such sites are disturbed by development it is incumbent on the developer to ensure that a heritage impact assessment is done and the Provincial Heritage Resources Authority and SAHRA must be contacted immediately and work must stop.

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**).

From a local perspective on a certain portion of the farm Rooifontein 1722 (previously known as a portion of the farm Dutoitspan 119), Registration Division: Boshof, Free State province is preferred based on the outcomes of other diamond mines in the area to encounter further Diamond Reserves.

PART B

ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

1) Draft environmental management programme.

A. Details of the EAP

- i) The EAP who prepared the report
- ii) Expertise of the EAP

| Name of Practitioner | Qualifications | Contact details |
|----------------------|---|---|
| Lizanne Esterhuizen | Honours Degree in Environmental Science (refer to Appendix 1) | Tel No.: (018) 011 1925 Fax No. : (053) 963 2009 e-mail address: lizanne@milnex-sa.co.za |
| Percy Sehaole | Master's Degree in Environmental Science (refer to Appendix 1) | Tel No.: (018) 011 1925 Fax No. : (053) 963 2009 e-mail address: percy@milnex-sa.co.za |
| Danie Labuschagne | Master's Degree in Environmental Management and Geography (refer to Appendix 1) | Tel No.: (018) 011 1925 Fax No. : (053) 963 2009 e-mail address: danie@milnex-sa.co.za |

E. 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).

It is hereby confirmed that the requirements to describe the aspects of the activity that are required by the EMP is already included in Part A, section 1(h).

F. 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)

Refer to Locality Map, attached as in **Appendix 4**.

G. 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 in 2.4 herein)

Closure objectives for the alluvial diamond, general diamond and diamonds kimberlite mine will aim to ensure that the residual post-closure impacts be minimized and be acceptable to relevant parties. To achieve these closure objectives, the following will be implemented:

- All prospecting related infrastructure, foundations and concrete areas will be decommissioned, removed from the site and appropriately disposed of. Reclaimable structures such as metal, electrical installations or equipment will be sold for re-use or as scrap.
 - All disturbed areas within the site not already vegetated will be re-vegetated with appropriate indigenous, ecologically adapted species appropriate to the area and the final land use as soon as possible after operation ceases. Progress of vegetation growth/establishment, stability and drainage/erosion will be monitored and, in the event of adverse trends being identified, corrective measures will be implemented.
 - Vegetation monitoring will consider, inter alia, the establishment of perennial ground cover and infestation by alien invasive plant species. The encroachment of indigenous vegetation into the area will be used as an indication of a stable, self-sustaining vegetation cover with little risk of retrogressing to a situation where are and water pollution may occur.
- Final landforms must be resilient to perturbation and also be self-sustaining to obviate/limit further/ongoing interventions and maintenance by Matolo Trade and Investment Pty Ltd
 - The remaining impacts be of an acceptable nature with minimal deterioration over time.
 - The final outcome of the mine site rehabilitation would be productive systems, where required sustaining either livestock or wildlife.
 - Environmental and human quality of life, including health and safety requirements in general, would not be compromised; and
 - Closure is achieved in an efficient and cost-effective manner as possible and with minimum socioeconomic changes.

The above goal is underpinned by more specific objectives listed below.

1. Upfront planning/development

To provide overall guidance and direction to closure planning and/or the implementation of progressive closure measures over the remaining over the prospecting life.

2. Physical stability

To ensure that surface infrastructure and prospecting residue and/or disturbances that are present at processing plant decommissioning will be removed and/or stabilised in a manner that these will not compromise post-closure land use and be sustainable long-term landforms.

- Closure, removal and disposal of all surface infrastructure that has no beneficial post-closure use.
- Shaping and vegetating the remaining earth embankments, trenches, etc. to stabilise slopes and integrate with surrounding topography.

3. Environmental quality

To ensure that local environmental quality is not adversely affected by possible physical effects arising from prospecting operations and the prospecting site after closure. This will be achieved by:

- Avoiding and/or limiting the following during prospecting operations which could result in adverse effects that could not be readily addressed and/or mitigated at mine closure.
- Dust fall-out areas surrounding the prospecting site.
- Wash-off and/or mobilisation of chemically contaminated soils and sediments from the prospecting site that could have long term adverse effects on local aquatic health and/or other water uses.
- Possible shallow groundwater contamination adversely affecting the quality of the local water resource and its beneficial use.
- Limiting the potential for dust generation on the rehabilitated prospecting site that could cause nuisance and/or health effects to surrounding landowners;
- Limiting the possible adverse water quality and quantity effects arising from the rehabilitated prospecting site to ensure that long term beneficial use of local resources is not compromised;
- Conducting soil clean-up/remediation to ensure that the planned land use could be implemented and maintained;

4. Health and safety

To limit the possible health and safety treats due to terrain hazards to humans and animals utilizing the rehabilitated prospecting site after closure by:

- Demonstrating through upfront soil testing that any resultant inorganic and organic pollution present on the site is acceptable;
- Removal of potential contaminants such as hydrocarbons and chemicals off site;
- Shaping of embankments and trenches to safe slopes and reintegrating of these into surrounding topography.
- Ensuring that the environmental quality as reflected above is achieved.

5. Land capability / land use

To ensure that the required land capability to achieve and support the planned land use can be achieved over the prospecting site by:

- Clean-up and reclamation of contaminated soil areas in order not to compromise the above land use planning earmarked for implementation;
- To ensure that the overall rehabilitated prospecting site is free draining
- Transferring prospecting related surface infrastructure to third parties for beneficial use after closure.

6. Aesthetic quality

To ensure that the rehabilitated prospecting site will display, at a minimum, an acceptable aesthetic appearance that would not compromise the planned land use by leaving behind:

- A prospecting area that is properly cleared-up with no fugitive/scattered waste piles
- Rehabilitated prospecting area that is free draining and disturbed areas that are suitably vegetated.
- Rehabilitated prospecting residues that are suitably landscaped, blending with the surrounding environment as far as possible.
- Shaped and rehabilitated terrace and hard stand areas, roughly emulating the local natural surface topography.

7. Landscape viability

To create a landscape that is self-sustaining and over time will evolve/converge to the desired ecosystem structure, function and composition by:

- Conducting surface profiling, with associated material movement optimisation, to obtain a landscape resembling the natural landscapes to support the succession trajectory towards a climax ecological system.

- Establishing woody patches and create “rough and loose” areas for pioneer specie establishment around the respective patches.
- Establishing pioneer species as follows:
 - Collected and prepared seeds for broad casting;
 - Seedlings grown on on-site nursery;
 - Cuttings collected from surrounding veld areas;
 - Conducting rehabilitation monitoring and corrective action as required.

8. Biodiversity

To encourage, where appropriate, the re-establishment of native vegetation on the rehabilitated mine site such the terrestrial biodiversity is largely re-instated over time, by:

- Stabilising disturbed areas to prevent erosion in the short- to medium term until a suitable vegetation cover has established; and
- Establishing viable self-sustaining vegetation communities of local fauna, as far as possible.

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

The Rehabilitation & Closure Plan is attached as **Appendix 8**.

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: **Matolo Trade and Investment Pty Ltd**
 Evaluator:

Ref No.: **FS30/5/1/1/2/10462PR**
 Date: **21/09/2017**

| 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 | m3 | 500 | 13,7 | 1 | 1 | 6850 |
| 2 (A) | Demolition of steel buildings and structures | m2 | 0 | 190,3 | 1 | 1 | 0 |
| 2(B) | Demolition of reinforced concrete buildings and structures | m2 | 6 | 280,46 | 1 | 1 | 1682,76 |
| 3 | Rehabilitation of access roads | m2 | 0 | 34,05 | 1 | 1 | 0 |
| 4 (A) | Demolition and rehabilitation of electrified railway lines | m | 0 | 330,5 | 1 | 1 | 0 |
| 4 (A) | Demolition and rehabilitation of non-electrified railway lines | m | 0 | 180,3 | 1 | 1 | 0 |
| 5 | Demolition of housing and/or administration facilities | m2 | 37 | 380,6 | 1 | 1 | 14082,2 |
| 6 | Opencast rehabilitation including final voids and ramps | ha | 1,1 | 193716,3 | 0,52 | 1 | 110805,7236 |
| 7 | Sealing of shafts adits and inclines | m3 | 0 | 102,17 | 1 | 1 | 0 |
| 8 (A) | Rehabilitation of overburden and spoils | ha | 0,1 | 133017,19 | 1 | 1 | 13301,719 |
| 8 (B) | Rehabilitation of processing waste deposits and evaporation ponds (non-polluting potential) | ha | 0,06 | 165670,5 | 1 | 1 | 9940,23 |
| 8 (C) | Rehabilitation of processing waste deposits and evaporation ponds (polluting potential) | ha | 0 | 481185,7 | 1 | 1 | 0 |
| 9 | Rehabilitation of subsided areas | ha | 0,1 | 111381,9 | 1 | 1 | 11138,19 |
| 10 | General surface rehabilitation | ha | 0,1 | 105372,05 | 1 | 1 | 10537,205 |
| 11 | River diversions | ha | 0 | 105372,05 | 1 | 1 | 0 |
| 12 | Fencing | m | 1000 | 120,2 | 1 | 1 | 120200 |
| 13 | Water management | ha | 0 | 40065,4 | 1 | 1 | 0 |
| 14 | 2 to 3 years of maintenance and aftercare | ha | 0,1 | 14022,9 | 1 | 1 | 1402,29 |
| 15 (A) | Specialist study | Sum | | | | 1 | 0 |
| 15 (B) | Specialist study | Sum | | | | 1 | 0 |
| Sub Total 1 | | | | | | | 299940,3176 |

| | | | | |
|--------------------|-------------------------|-------------|---------------------------|---------------|
| 1 | Preliminary and General | 35992,83811 | weighting factor 2 | 35992,83811 |
| | | | 1 | |
| 2 | Contingencies | 29994,03176 | | 29994,03176 |
| Subtotal 2 | | | | 365927,19 |
| VAT (14%) | | | | 51229,81 |
| Grand Total | | | | 417157 |

The first phase of drilling will require the drilling of approximately 6 boreholes to be drilled within the prospecting area. Drilling program will be put into practice where the grid spacing will be set to 50m x 50m with an average depth of 100m, 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.

Should delineation and initial evaluation of the deposit indicate a sufficient size and grade to warrant further evaluation, an appropriate bulk sampling program will be undertaken in order to establish grade and confirm its viability for prospecting.

Only 2 trenches will be dug (100m x 50m x ± 50m), it is planned that only 1 trenches will be excavated in the first year, but it may be more if the process is quicker than planned for. It should be kept in mind that no more than 2 trenches will be excavated. The total area to be disturbed a year will be- 1 trenches x (100m x 50m / 10 000) = 0.5 ha per year. However it may be more if the process is quicker than planned for.

No more than 0.5 ha will be left as un-rehabilitated in two years. Rehabilitation will be done concurrently.

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

Financial Guarantee

The financial guarantee for the rehabilitation for land disturbed Matolo Trade and Investment Pty Ltd was submitted together with the application for the prospecting right.

Rehabilitation Fund

Matolo Trade and Investment Pty Ltd will also make provision for rehabilitation during closure by establishing a rehabilitation trust.

ii) 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 prospecting - 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 boreholes, 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 prospecting as the case may be. |
|--|---|---|--|---|---|
| Clearance of vegetation | Drilling and trenching phase- (construction and operation phase) | 24 Ha- Only the areas where prospecting takes place, will be cleared. (1Ha by trenches) Concurrent backfilling will take place in order to rehabilitate. | <ol style="list-style-type: none"> 1. Site clearing must take place in a phased manner, as and when required. 2. Areas which are not to be prospected on within two months must not be cleared to reduce erosion risks. 3. The area to be cleared must be clearly demarcated and this footprint strictly maintained. 4. Spoil that is removed from the site must be removed to an approved spoil site or a licensed landfill site. 5. The necessary silt fences and erosion control measures must be implemented in areas where these risks are more prevalent. | Compliance with Duty of Care as detailed within NEMA | Duration of operations on the prospecting activities. |

| | | | | | |
|------------------------------|---|--|--|---|--|
| <p>Construction of roads</p> | <p>Drilling and trenching phase- (construction and operation phase)</p> | | <ol style="list-style-type: none"> 1. Planning of access routes to the site for construction/prospecting purposes shall be done in conjunction with the Contractor and the Landowner. All agreements reached should be documented and no verbal agreements should be made. The Contractor shall clearly mark all access roads. Roads not to be used shall be marked with a "NO ENTRY for prospecting vehicles" sign. 2. Construction routes and required access roads must be clearly defined. 3. Damping down of the un-surfaced roads must be implemented to reduce dust and nuisance. 4. Soils compacted by construction/prospecting activities shall be deep ripped to loosen compacted layers and re-graded to even running levels. 5. The contractor must ensure that damage caused by related traffic to the gravel access road off the N8 is repaired continuously. The costs associated with the repair must be borne by the contractor; 6. Dust suppression measures must be implemented for heavy vehicles such as wetting of gravel roads on a regular basis and ensuring that vehicles used to transport the gravel are fitted with tarpaulins or covers; 7. All vehicles must be road-worthy and drivers must be qualified and made aware of the potential road safety issues and need for strict speed limits. | <p>Compliance with Duty of Care as detailed within NEMA</p> | <p>Duration of operations on the prospecting activities.</p> |
|------------------------------|---|--|--|---|--|

| | | | | | |
|---|---|---|---|---|---|
| <p>Prospecting of Alluvial Diamonds, Diamonds General and Diamonds Kimberlite – Soils and geology</p> | <p>Drilling and trenching phase- (construction and operation phase)</p> | <p>24 Ha- Only the areas where prospecting takes place, will be cleared. (1Ha by trenches) Concurrent backfilling will take place in order to rehabilitate.</p> | <ol style="list-style-type: none"> 1. The Contractor should, prior to the commencement of earthworks determine the average depth of topsoil (If topsoil exists), and agree on this with the ECO. The full depth of topsoil should be stripped from areas affected by construction and related activities prior to the commencement of major earthworks. This should include the building footprints, working areas and storage areas. Topsoil must be reused where possible to rehabilitate disturbed areas. 2. Care must be taken not to mix topsoil and subsoil during stripping. 3. The topsoil must be conserved on site in and around the pit/trench area. 4. Subsoil and overburden in the prospecting area should be stockpiled separately to be returned for backfilling in the correct soil horizon order. 5. If stockpiles are exposed to windy conditions or heavy rain, they should be covered either by vegetation or geofabric, depending on the duration of the project. Stockpiles may further be protected by the construction of berms, trenches or low brick walls around their bases. 6. Stockpiles should be kept clear of weeds and alien vegetation growth by regular weeding. 7. Where contamination of soil is expected, analysis must be done prior to disposal of soil to determine the appropriate disposal route. Proof from an approved waste disposal site where contaminated soils are dumped if and | <p>Compliance with Duty of Care as detailed within NEMA</p> | <p>Duration of operations on the mine</p> |
|---|---|---|---|---|---|

| | | | | | |
|---|--|--|--|--|--|
| | | | <p>when a spillage/leakage occurs should be attained and given to the project manager.</p> <p>8. The impact on the geology will be permanent. There is no mitigation measure.</p> | | |
| Prospecting Alluvial Diamonds, Diamonds General and Diamonds Kimberlite – excavations | Drilling and trenching phase- (construction and operation phase) | <p>24 Ha- Only the areas where prospecting takes place, will be cleared. (1Ha by trenches)</p> <p>Concurrent backfilling will take place in order to rehabilitate.</p> | <p>1. The prospecting activities must aim to adhere to the relevant noise regulations and limit noise to within standard working hours in order to reduce disturbance of dwellings in close proximity to the development.</p> <p>2. Mine, pans, workshops and other noisy fixed facilities should be located well away from noise sensitive areas. Once the proposed final layouts are made available by the Contractor(s), the sites must be evaluated in detail and specific measures designed in to the system.</p> <p>3. Truck traffic should be routed away from noise sensitive areas, where possible.</p> <p>4. Noise levels must be kept within acceptable limits.</p> <p>5. Noisy operations should be combined so that they occur where possible at the same time.</p> <p>6. Mine workers to wear necessary ear protection gear.</p> <p>7. Noisy activities to take place during allocated hours.</p> <p>8. Noise from labourers must be controlled.</p> <p>9. Noise suppression measures must be applied to all equipment. Equipment must be kept in good working order and where appropriate fitted with silencers which are kept in good working order. Should the vehicles or equipment not be</p> | Compliance with Duty of Care as detailed within NEMA | Duration of operations on the prospecting area |

| | | | | | |
|--|--|--|--|--|--|
| | | | <p>in good working order, the Contractor may be instructed to remove the offending vehicle or machinery from the site.</p> <p>10. The Contractor must take measures to discourage labourers from loitering in the area and causing noise disturbance. Where possible labour shall be transported to and from the site by the Contractor or his Sub-Contractors by the Contractors own transport.</p> <p>11. Implementation of enclosure and cladding of processing plants.</p> <p>12. Applying regular and thorough maintenance schedules to equipment and processes. An increase in noise emission levels very often is a sign of the imminent mechanical failure of a machine.</p> | | |
|--|--|--|--|--|--|

b) 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). | POTENTIAL IMPACT | ASPECTS AFFECTED | PHASE In which impact is anticipated | MITIGATION TYPE | STANDARD TO BE ACHIEVED |
|--|---|-------------------------|--|--|--|
| (E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc.). | (e.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc....etc...) | | (e.g. Construction, commissioning, operational Decommissioning, closure, post-closure) | <p>(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)</p> <p>E.g.</p> <ul style="list-style-type: none"> • Modify through alternative method. • Control through noise control | (Impact avoided, noise levels, dust levels, rehabilitation standards, end use objectives) etc. |

| | | | | <ul style="list-style-type: none"> • Control through management and monitoring • Remedy through rehabilitation.. | |
|-------------------------|-----------------------------------|---------------|--|--|--|
| Clearance of vegetation | Loss or fragmentation of habitats | Fauna & flora | Pitting and trenching phase-(construction and operation phase) | <p>Existing vegetation</p> <ol style="list-style-type: none"> 1. Vegetation removal must be limited to the prospecting area. 2. Vegetation to be removed as it becomes necessary rather than removal of all vegetation throughout the site in one step. 3. No vegetation to be used for firewood. 4. Alien and invasive plant species should not be allowed to establish, if the development is approved. 5. A permit at the relevant authorities should be applied for in case of any damage or removal of individual trees of <i>Vachellia erioloba</i> (= <i>Acacia erioloba</i>) (Camel Thorn) and/or <i>Boscia albitrunca</i> (Shepherd's Tree) should be applied for, if the development is approved. 6. In the case of removal of <i>Vachellia erioloba</i> (Camel Thorn) trees at the site, if the development is approved, it is recommended that new <i>Vachellia erioloba</i> trees are planted in areas where any further damage or removal of these trees are unlikely. This recommendation could not apply for <i>Boscia albitrunca</i> because up to date very little success has been achieved to cultivate any <i>Boscia albitrunca</i> plants in nurseries and gardens. <p>Rehabilitation</p> <ol style="list-style-type: none"> 7. All damaged areas shall be rehabilitated upon completion of the contract. 8. Re-vegetation of the disturbed site is aimed at approximating as near as possible the natural vegetative conditions prevailing prior to construction. 9. All natural areas impacted during construction/prospecting must be rehabilitated with | Minimisation of impacts to acceptable limits |

| | | | | | |
|--|--|--|--|--|--|
| | | | | <p>locally indigenous grasses typical of the representative botanical unit.</p> <ol style="list-style-type: none"> 10. Rehabilitation must take place in a phased approach as soon as possible. 11. Rehabilitation process must make use of species indigenous to the area. Seeds from surrounding seed banks can be used for re-seeding. 12. Rehabilitation must be executed in such a manner that surface run-off will not cause erosion of disturbed areas. 13. Planting of indigenous tree species in areas not to be cultivated or built on must be encouraged. 14. If developments are approved, rehabilitation that includes leveling of slope and re-establishment of savanna with patches that contain open grass and shrub layers, is imperative. <p>Demarcation of prospecting area</p> <ol style="list-style-type: none"> 1. All plants not interfering with prospecting operations shall be left undisturbed clearly marked and indicated on the site plan. 2. The prospecting area must be well demarcated and no construction/prospecting activities must be allowed outside of this demarcated footprint. 3. Vegetation removal must be phased in order to reduce impact of construction/prospecting. 4. Site office and laydown areas must be clearly demarcated and no encroachment must occur beyond demarcated areas. 5. Strict and regular auditing of the prospecting process to ensure containment of the prospecting and laydown areas. 6. Soils must be kept free of petrochemical solutions that may be kept on site during construction/prospecting. Spillage can result in a loss of soil functionality thus limiting the re-establishment of flora. | |
|--|--|--|--|--|--|

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| | | | | <p>Utilisation of resources</p> <p>7. Gathering of firewood, fruit, muti plants, or any other natural material onsite or in areas adjacent to the site is prohibited unless with prior approval of the ECO.</p> <p>Exotic vegetation</p> <p>8. Alien vegetation on the site will need to be controlled.</p> <p>9. The Contractor should be responsible for implementing a programme of weed control (particularly in areas where soil has been disturbed); and grassing of any remaining stockpiles to prevent weed invasion.</p> <p>10. The spread of exotic species occurring throughout the site should be controlled.</p> <p>11. Qualified specialist should be consulted and appropriate methods should be applied to control alien invasive plants.</p> <p>Herbicides</p> <p>12. Herbicide use shall only be allowed according to contract specifications. The application shall be according to set specifications and under supervision of a qualified technician. The possibility of leaching into the surrounding environment shall be properly investigated and only environmentally friendly herbicides shall be used.</p> <p>13. The use of pesticides and herbicides on the site must be discouraged as these impact on important pollinator species of indigenous vegetation.</p> <p>Fauna</p> <p>14. Rehabilitation to be undertaken as soon as possible after the prospecting activities have been completed.</p> | |
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| | | | | <p>15. No trapping or snaring to fauna on the construction/prospecting site should be allowed.</p> <p>16. No faunal species must be disturbed, trapped, hunted or killed by maintenance staff during any routine maintenance at the development.</p> | |
| Prospecting Alluvial Diamonds, Diamonds General and Diamonds Kimberlite – excavations | Loss of topsoil | Soil | Drilling and trenching phase- (construction and operation phase) | <ol style="list-style-type: none"> 1. The Contractor should, prior to the commencement of earthworks determine the average depth of topsoil, and agree on this with the ECO. The full depth of topsoil should be stripped from areas affected by construction and related activities prior to the commencement of major earthworks. This should include the building footprints, working areas and storage areas. Topsoil must be reused where possible to rehabilitate disturbed areas. 2. Care must be taken not to mix topsoil and subsoil during stripping. 3. The topsoil must be conserved on site in and around the pit/trench area. 4. Subsoil and overburden in the prospecting area should be stockpiled separately to be returned for backfilling in the correct soil horizon order. 5. If stockpiles are exposed to windy conditions or heavy rain, they should be covered either by vegetation or geofabric, depending on the duration of the project. Stockpiles may further be protected by the construction of berms or low brick walls around their bases. 6. Stockpiles should be kept clear of weeds and alien vegetation growth by regular weeding. 7. Where contamination of soil is expected, analysis must be done prior to disposal of soil to determine the appropriate disposal route. Proof from an approved waste disposal site where contaminated soils are dumped if and when a spillage/leakage occurs should be attained and given to the project manager. | Minimisation of impacts to acceptable limits |

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| | | | | <p>Establish an effective record keeping system for each area where soil is disturbed for prospecting purposes. These records should be included in environmental performance reports, and should include all the records below.</p> <ul style="list-style-type: none"> • Record the GPS coordinates of each area. • Record the date of topsoil stripping. • Record the GPS coordinates of where the topsoil is stockpiled. • Record the date of cessation prospecting activities at the particular site. • Photograph the area on cessation of prospecting activities. • Record date and depth of re-spreading of topsoil. • Photograph the area on completion of rehabilitation and on an annual basis thereafter to show vegetation establishment and evaluate progress of restoration over time. | |
| | Erosion | Soil Air Water | Drilling and trenching phase- (construction and operation phase) | <ol style="list-style-type: none"> 1. An effective system of run-off control should be implemented, where it is required, that collects and safely disseminates run-off water from all hardened surfaces and prevents potential down slope erosion. 2. Periodical site inspection should be included in environmental performance reporting that inspects the effectiveness of the run-off control system and specifically records the occurrence of any erosion on site or downstream. 3. Wind screening and stormwater control should be undertaken to prevent soil loss from the site. 4. The use of silt fences and sand bags must be implemented in areas that are susceptible to erosion. 5. Other erosion control measures that can be implemented are as follows: | Minimisation of impacts to acceptable limits |

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| | | | | <ul style="list-style-type: none"> ○ Brush packing with cleared vegetation ○ Mulch or chip packing ○ Planting of vegetation ○ Hydroseeding/hand sowing <ol style="list-style-type: none"> 6. Sensitive areas need to be identified prior to construction/prospecting so that the necessary precautions can be implemented. 7. All erosion control mechanisms need to be regularly maintained. 8. Seeding of topsoil and subsoil stockpiles to prevent wind and water erosion of soil surfaces. 9. Retention of vegetation where possible to avoid soil erosion. 10. Vegetation clearance should be phased to ensure that the minimum area of soil is exposed to potential erosion at any one time. 11. Re-vegetation of disturbed surfaces should occur immediately after construction/prospecting activities are completed. This should be done through seeding with indigenous grasses. 12. No impediment to the natural water flow other than approved erosion control works is permitted. 13. To prevent stormwater damage, the increase in stormwater run-off resulting from construction/prospecting activities must be estimated and the drainage system assessed accordingly. 14. Stockpiles not used in three (3) months after stripping must be seeded or backfilled to prevent dust and erosion. | |
| | Air Pollution | Air | Drilling and trenching phase- (construction and operation phase) | <p>Dust control</p> <ol style="list-style-type: none"> 1. Wheel washing and damping down of un-surfaced and un-vegetated areas. 2. Retention of vegetation where possible will reduce dust travel. 3. Clearing activities must only be done during agreed working times and permitting weather | Minimisation of impacts to acceptable limits |

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| | | | | <p>conditions to avoid drifting of sand and dust into neighbouring areas.</p> <ol style="list-style-type: none"> 4. Damping down of all exposed soil surfaces with a water bowser or sprinklers when necessary to reduce dust. 5. The Contractor shall be responsible for dust control on site to ensure no nuisance is caused to the neighbouring communities. 6. A speed limit of 30km/h must not be exceeded on site. 7. Any complaints or claims emanating from the lack of dust control shall be attended to immediately by the Contractor. 8. Any dirt roads that are utilised by the workers must be regularly maintained to ensure that dust levels are controlled. <p>Odour control</p> <ol style="list-style-type: none"> 9. Regular servicing of vehicles in order to limit gaseous emissions. 10. Regular servicing of onsite toilets to avoid potential odours. <p>Rehabilitation</p> <ol style="list-style-type: none"> 11. The Contractor should commence rehabilitation of exposed soil surfaces as soon as practical after completion of earthworks. <p>Fire prevention</p> <ol style="list-style-type: none"> 12. No open fires shall be allowed on site under any circumstance. All cooking shall be done in demarcated areas that are safe and cannot cause runaway fires. 13. The Contractor shall have operational fire-fighting equipment available on site at all times. The level of firefighting equipment must be assessed and evaluated through a typical risk assessment process. | |
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| | Noise | | Drilling and trenching phase- (construction and operation phase) | <ol style="list-style-type: none"> 1. The prospecting activities must aim to adhere to the relevant noise regulations and limit noise to within standard working hours in order to reduce disturbance of dwellings in close proximity to the development. 2. Mine, crushers, workshops and other noisy fixed facilities should be located well away from noise sensitive areas. Once the proposed final layouts are made available by the Contractor(s), the sites must be evaluated in detail and specific measures designed in to the system. 3. Truck traffic should be routed away from noise sensitive areas, where possible. 4. Noise levels must be kept within acceptable limits. 5. Noisy operations should be combined so that they occur where possible at the same time. 6. Mine workers to wear necessary ear protection gear. 7. Noisy activities to take place during allocated hours. 8. Noise from labourers must be controlled. 9. Noise suppression measures must be applied to all equipment. Equipment must be kept in good working order and where appropriate fitted with silencers which are kept in good working order. Should the vehicles or equipment not be in good working order, the Contractor may be instructed to remove the offending vehicle or machinery from the site. 10. The Contractor must take measures to discourage labourers from loitering in the area and causing noise disturbance. Where possible labour shall be transported to and from the site by the Contractor or his Sub-Contractors by the Contractors own transport. 11. Implementation of enclosure and cladding of processing plants. | Minimisation of impacts to acceptable limits |
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| | | | | 12. Applying regular and thorough maintenance schedules to equipment and processes. An increase in noise emission levels very often is a sign of the imminent mechanical failure of a machine. | |
| | Impact on potential cultural, heritage and palaeontological artefacts | Heritage Palaeontology | Drilling and trenching phase- (construction and operation phase) | <ol style="list-style-type: none"> 1. Any finds must be reported to the nearest National Monuments office to comply with the National Heritage Resources Act (Act No 25 of 1999) and to DEA. 2. Local museums as well as the South African Heritage Resource Agency (SAHRA) should be informed if any artefacts/ fossils are uncovered in the affected area. 3. The Contractor must ensure that his workforce is aware of the necessity of reporting any possible historical, archaeological or palaeontological finds to the ECO so that appropriate action can be taken. 4. Known sites should be clearly marked in order that they can be avoided. The workforce should also be informed that fenced-off areas are no-go areas. 5. The ECO must also survey for heritage and palaeontological artefacts during ground breaking and digging or drilling. He/she should familiarise themselves with formations and its fossils or a palaeontologist should be appointed during the digging and excavation phase of the development. 6. All digging, excavating, drilling or blasting activities must be stopped if heritage and/or palaeontological artefacts are uncovered and a specialist should be called in to determine proper management, mitigation, excavation and/or collecting measures. 7. Any discovered artefacts or fossile shall not be removed under any circumstances. Any destruction of a site can only be allowed once a permit is obtained and the site has been mapped and noted. Permits shall be obtained from SAHRA | Minimisation of impacts to acceptable limits |

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| | | | | <p>should the proposed site affect any world heritage/palaeontology sites or if any heritage/palaeontology sites are to be destroyed or altered.</p> <p>8. Under no circumstances shall any artefacts be removed, destroyed or interfered with by anyone on the site; and contractors and workers shall be advised of the penalties associated with the unlawful removal of cultural, historical, archaeological or palaeontological artefacts, as set out in the NHRA (Act No. 25 of 1999), Section 51. (1).</p> <p>9. In areas where the vegetation is threatening the heritage sites, e.g. growing trees pushing walls over, it should be removed, but only after permission for the methods proposed has been granted by SAHRA. A heritage official should be part of the team executing these measures.</p> <p>10. Mitigation for sites recorded in the Phase 1 Cultural Heritage Impact Assessment:</p> <ul style="list-style-type: none"> • Site 1 (Historical mine and refuse dump) – Maintain a buffer zone of 100 metres during prospecting phase • Site 2 (Historical water furrow) - Fenced off and gate installed and Maintain a buffer zone of 50 metres during prospecting phase • Site 3 (Rock Art [engravings]) - Maintain a buffer zone of 100 metres during prospecting phase | |
| Waste management | | Pollution | Drilling and trenching phase- (construction and operation phase) | <p>Litter management</p> <p>1. Refuse bins must be placed at strategic positions to ensure that litter does not accumulate within the construction site.</p> <p>2. The Contractor shall supply waste collection bins where such is not available and all solid waste collected shall be disposed of at registered/licensed landfill.</p> | Minimisation of impacts to acceptable limits |

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| | | | | <ol style="list-style-type: none"> 3. Good housekeeping practices should be implemented to regularly maintain the litter and rubble situation on the construction site. 4. If possible and feasible, all waste generated on site must be separated into glass, plastic, paper, metal and wood and recycled. An independent contractor can be appointed to conduct this recycling. 5. Littering by the employees of the Contractor shall not be allowed under any circumstances. The ECO shall monitor the neatness of the work sites as well as the Contractor campsite. 6. Skip waste containers should be maintained on site. These should be kept covered and arrangements made for them to be collected regularly. 7. All waste must be removed from the site and transported to a landfill site promptly to ensure that it does not attract vermin or produce odours. 8. Where a registered waste site is not available close to the construction site, the Contractor shall provide a method statement with regard to waste management. 9. A certificate of disposal shall be obtained by the Contractor and kept on file, if relevant. 10. Under no circumstances may solid waste be burnt on site. 11. All waste must be removed promptly to ensure that it does not attract vermin or produce odours. <p>Hazardous waste</p> <ol style="list-style-type: none"> 12. All waste hazardous materials must be carefully stored as advised by the ECO, and then disposed of offsite at a licensed landfill site, where practical. Incineration may be used where relevant. 13. Contaminants to be stored safely to avoid spillage. 14. Machinery must be properly maintained to keep oil leaks in check. | |
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| | | | | <p>15. All necessary precaution measures shall be taken to prevent soil or surface water pollution from hazardous materials used during construction and any spills shall immediately be cleaned up and all affected areas rehabilitated.</p> <p>Sanitation</p> <p>16. The Contractor shall install mobile chemical toilets on the site.</p> <p>17. Staff shall be sensitised to the fact that they should use these facilities at all times. No indiscriminate sanitary activities on site shall be allowed.</p> <p>18. Toilets shall be serviced regularly and the ECO shall inspect toilets regularly.</p> <p>19. Toilets should be no closer than 50m or above the 1:100 year flood line from any natural or manmade water bodies or drainage lines or alternatively located in a place approved of by the Engineer.</p> <p>20. Under no circumstances may open areas, neighbours fences or the surrounding bush be used as a toilet facility.</p> <p>21. The construction of “Long Drop” toilets is forbidden, but rather toilets connected to the sewage treatment plant.</p> <p>22. Potable water must be provided for all construction staff.</p> <p>Remedial actions</p> <p>23. Depending on the nature and extent of the spill, contaminated soil must be either excavated or treated on-site.</p> <p>24. Excavation of contaminated soil must involve careful removal of soil using appropriate tools/machinery to storage containers until treated or disposed of at a licensed hazardous landfill site.</p> <p>25. The ECO must determine the precise method of treatment for polluted soil. This could involve the</p> | |
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| | | | | <p>application of soil absorbent materials as well as oil-digestive powders to the contaminated soil.</p> <p>26. If a spill occurs on an impermeable surface such as cement or concrete, the surface spill must be contained using oil absorbent material.</p> <p>27. If necessary, oil absorbent sheets or pads must be attached to leaky machinery or infrastructure.</p> <p>28. Materials used for the remediation of petrochemical spills must be used according to product specifications and guidance for use.</p> <p>29. Contaminated remediation materials must be carefully removed from the area of the spill so as to prevent further release of petrochemicals to the environment, and stored in adequate containers until appropriate disposal.</p> <p>Tailings</p> <p>30. It is proposed that storm water cut-off trenches be dug around the excavation working areas and the proposed new tailings dam area.</p> <p>31. The proposed storm water cut-off trenches will then convey clean storm water around the excavation working areas and tailings dam.</p> <p>32. The trenches should be dug to a maximum depth of 250mm with gentle slopes. The banks as well as the bed of the trenches will be compacted with rocks packed by hand to ensure that no erosion or sedimentation are caused by the trenches.</p> <p>33. It is proposed that a storm water discharge point (“Outlet Structure”) be constructed at the base of the cut-off trenches. These discharge points will then ensure that the water conveyed by the storm water cut-off trenches are discharged gently into the natural veld without causing any erosion. Any sedimentation flowing out of these discharge structures will be trapped by the silt fences that should be installed at the base (“downstream” side) of each discharge point.</p> | |
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| | | | | <p>34. The before mentioned silt should be used for rehabilitation purposes.</p> <p>35. It is proposed that silt fences (silt trap fences) be established on the “downstream” side of the excavation working areas and tailings dam. These fences will be used to trap any sedimentation and erosion that might be caused by the “dirty” water flowing over the prospecting site.</p> <p>36. The silt fences may consist of a permeable geotextile 70cm high and will be tucked into a 15cm deep anchor trench at the base. This will prevent the bottom of the fence from kicking out in a high flow situation. The fences will be supported with stakes/poles (mainly steel rods) at 1.5m centres.</p> <p>37. The silt fences will be erected in such a way that they are at a soft angle to the direction of flow. There will also be a 2nd silt fence installed in the areas where a higher</p> <p>38. It is proposed that an additional silt fence be installed at the base (“downstream” side) of the proposed new tailings dam area. This will ensure that any sedimentation resulting from the construction, maintenance or operating of the new tailings dams are trapped before it can reach any of the other areas of the prospecting site.</p> <p>39. The proposed tailings dams should have an Emergency Spill-Way Channel that will allow the upper layers of water within the dam to flow over the dam wall in a controlled manner during a severe rainfall event. Additional silt fences will therefore be installed at the base (“downstream” side) of each Emergency Spill-Way Channel. The water discharging from the Emergency Spill-Way Channel will therefore flow directly into the silt fences located at the base of the spill-way channel. These silt fences will then ensure that water can</p> | |
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| | | | | flow through the geotextile material while trapping any sedimentation within the water behind. | |
| Water Use and Quality | Water pollution | Water | Drilling and trenching phase- (construction and operation phase) | <p>Water Use</p> <ol style="list-style-type: none"> 1. Develop a sustainable water supply management plan to minimise the impact to natural systems by managing water use, avoiding depletion of aquifers and minimising impacts to water users. 2. Water must be reused, recycled or treated where possible. <p>Water Quality</p> <ol style="list-style-type: none"> 3. The quality and quantity of effluent streams discharged to the environment including stormwater should be managed and treated to meet applicable effluent discharge guidelines. 4. Discharge to surface water should not result in contaminant concentrations in excess of local ambient water quality criteria outside a scientifically established mixing zone. 5. Efficient oil and grease traps or sumps should be installed and maintained at refueling facilities, workshops, fuel storage depots, and containment areas and spill kits should be available with emergency response plans. <p>Stormwater</p> <ol style="list-style-type: none"> 6. The site must be managed in order to prevent pollution of drains, downstream watercourses or groundwater, due to suspended solids and silt or chemical pollutants. 7. Silt fences should be used to prevent any soil entering the stormwater drains. 8. Temporary cut off drains and berms may be required to capture stormwater and promote infiltration. | |

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| | | | | <p>9. Promote a water saving mind set with construction/prospecting workers in order to Contractor ensure less water wastage.</p> <p>10. Hazardous substances must be stored at least 40m from any water bodies on site to avoid pollution.</p> <p>11. The installation of the stormwater system must take place as soon as possible to attenuate stormwater from the construction phase as well as the operation phase.</p> <p>12. Earth, stone and rubble is to be properly disposed of, or utilized on site so as not to obstruct natural water path ways over the site. i.e. these materials must not be placed in stormwater channels, drainage lines or rivers.</p> <p>13. There should be a periodic checking of the site's drainage system to ensure that the water flow is unobstructed.</p> <p>14. If a batching plant is necessary, run-off should be managed effectively to avoid contamination of other areas of the site. Untreated runoff from the batch plant must not be allowed to get into the storm water system or nearby streams, rivers or erosion channels or dongas.</p> <p>Groundwater resource protection</p> <p>15. Process solution storage ponds and other impoundments designed to hold non fresh water or non-treated process effluents should be lined and be equipped with sufficient wells to enable monitoring of water levels and quality.</p> <p>Sanitation</p> <p>16. Adequate sanitary facilities and ablutions must be provided for construction workers (1 toilet per every 15 workers).</p> | |
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| | | | | <p>17. The facilities must be regularly serviced to reduce the risk of surface or groundwater pollution.</p> <p>Concrete mixing</p> <p>18. Concrete contaminated water must not enter soil or any natural drainage system as this disturbs the natural acidity of the soil and affects plant growth.</p> <p>Public areas</p> <p>19. Food preparation areas should be provided with adequate washing facilities and food refuse should be stored in sealed refuse bins which should be removed from site on a regular basis.</p> <p>20. The Contractor should take steps to ensure that littering by construction/prospecting workers does not occur and persons should be employed on site to collect litter from the site and immediate surroundings, including litter accumulating at fence lines.</p> <p>21. No washing or servicing of vehicles on site.</p> | |
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c) 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. | POTENTIAL IMPACT | MITIGATION TYPE | TIME PERIOD FOR IMPLEMENTATION | COMPLIANCE WITH STANDARDS |
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| <p>(E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc.).</p> | <p>(e.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc....etc...)</p> | <p>(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)</p> <p>E.g.</p> <ul style="list-style-type: none"> • Modify through alternative method. • Control through noise control • Control through management and monitoring <p style="text-align: center;">Remedy through rehabilitation..</p> | <p>Describe the time period when the measures in the environmental management programme must be implemented Measures must be implemented when required.</p> <p>With regard to Rehabilitation specifically this must take place at the earliest opportunity. .With regard to Rehabilitation, therefore state either:-.</p> <p>Upon cessation of the individual activity</p> <p>or.</p> <p style="padding-left: 40px;">Upon the cessation of mining, bulk sampling or alluvial diamond prospecting as the case may be.</p> | <p>(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)</p> |
| <p>Clearance of vegetation</p> | <p>Loss or fragmentation of habitats</p> | <p>Existing vegetation</p> <ol style="list-style-type: none"> 1. Vegetation removal must be limited to the prospecting site. 2. Vegetation to be removed as it becomes necessary rather than removal of all vegetation throughout the site in one step. | <p>Duration of operation</p> | <p>The implementation of the recommended mitigation measures will result in the minimisation of impacts to acceptable standards, thereby ensuring compliance with NEMA</p> |

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| | | <ol style="list-style-type: none"> 3. No vegetation to be used for firewood. 4. Alien and invasive plant species should not be allowed to establish, if the development is approved. 5. A permit at the relevant authorities should be applied for in case of any damage or removal of individual trees of <i>Vachellia erioloba</i> (= <i>Acacia erioloba</i>) (Camel Thorn) and/or <i>Boscia albitrunca</i> (Shepherd's Tree) should be applied for, if the development is approved. 6. In the case of removal of <i>Vachellia erioloba</i> (Camel Thorn) trees at the site, if the development is approved, it is recommended that new <i>Vachellia erioloba</i> trees are planted in areas where any further damage or removal of these trees are unlikely. This recommendation could not apply for <i>Boscia albitrunca</i> because up to date very little success has been achieved to cultivate any <i>Boscia albitrunca</i> plants in nurseries and gardens. <p>Rehabilitation</p> <ol style="list-style-type: none"> 7. All damaged areas shall be rehabilitated upon completion of the contract. 8. Re-vegetation of the disturbed site is aimed at approximating as near as possible the natural vegetative conditions prevailing prior to construction. 9. All natural areas impacted during construction/prospecting must be rehabilitated with locally indigenous grasses typical of the representative botanical unit. 10. Rehabilitation must take place in a phased approach as soon as possible. 11. Rehabilitation process must make use of species indigenous to the area. Seeds from surrounding seed banks can be used for re-seeding. | | <p>and Duty of Care as prescribed by NEMA.</p> |
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| | | <p>12. Rehabilitation must be executed in such a manner that surface run-off will not cause erosion of disturbed areas.</p> <p>13. Planting of indigenous tree species in areas not to be cultivated or built on must be encouraged.</p> <p>14. If developments are approved, rehabilitation that includes leveling of slope and re-establishment of savanna with patches that contain open grass and shrub layers, is imperative.</p> <p>Demarcation of prospecting area</p> <p>15. All plants not interfering with prospecting operations shall be left undisturbed clearly marked and indicated on the site plan.</p> <p>16. The prospecting area must be well demarcated and no construction activities must be allowed outside of this demarcated footprint.</p> <p>17. Vegetation removal must be phased in order to reduce impact of construction/prospecting.</p> <p>18. Site office and laydown areas must be clearly demarcated and no encroachment must occur beyond demarcated areas.</p> <p>19. Strict and regular auditing of the prospecting process to ensure containment of the prospecting and laydown areas.</p> <p>20. Soils must be kept free of petrochemical solutions that may be kept on site during construction/prospecting. Spillage can result in a loss of soil functionality thus limiting the re-establishment of flora.</p> <p>Utilisation of resources</p> <p>21. Gathering of firewood, fruit, muti plants, or any other natural material onsite or in areas adjacent to the site is prohibited unless with prior approval of the ECO.</p> <p>Exotic vegetation</p> | | |
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| | | <p>22. Alien vegetation on the site will need to be controlled.</p> <p>23. The Contractor should be responsible for implementing a programme of weed control (particularly in areas where soil has been disturbed); and grassing of any remaining stockpiles to prevent weed invasion.</p> <p>24. The spread of exotic species occurring throughout the site should be controlled.</p> <p>25. Qualified specialist should be consulted and appropriate methods should be applied to control alien invasive plants.</p> <p>Herbicides</p> <p>26. Herbicide use shall only be allowed according to contract specifications. The application shall be according to set specifications and under supervision of a qualified technician. The possibility of leaching into the surrounding environment shall be properly investigated and only environmentally friendly herbicides shall be used.</p> <p>27. The use of pesticides and herbicides on the site must be discouraged as these impact on important pollinator species of indigenous vegetation.</p> <p>Fauna</p> <p>28. Rehabilitation to be undertaken as soon as possible after prospecting has been completed.</p> <p>29. No trapping or snaring to fauna on the construction/prospecting site should be allowed.</p> <p>30. No faunal species must be disturbed, trapped, hunted or killed by maintenance staff during any routine maintenance at the development.</p> | | |
| <p>Prospecting of Alluvial Diamonds, Dimonds general and Diamonds in Kimberlite – excavations</p> | <p>Loss of topsoil</p> | <p>1. The Contractor should, prior to the commencement of earthworks determine the average depth of topsoil, and agree on this with the</p> | <p>Duration of operation</p> | <p>The implementation of the recommended mitigation measures will result in the</p> |

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| | | <p>ECO. The full depth of topsoil should be stripped from areas affected by construction/prospecting and related activities prior to the commencement of major earthworks. This should include the building footprints, working areas and storage areas. Topsoil must be reused where possible to rehabilitate disturbed areas.</p> <ol style="list-style-type: none"> 2. Care must be taken not to mix topsoil and subsoil during stripping. 3. The topsoil must be conserved on site in and around the pit/trench area. 4. Subsoil and overburden in the prospecting area should be stockpiled separately to be returned for backfilling in the correct soil horizon order. 5. If stockpiles are exposed to windy conditions or heavy rain, they should be covered either by vegetation or geofabric, depending on the duration of the project. Stockpiles may further be protected by the construction of berms or low brick walls around their bases. 6. Stockpiles should be kept clear of weeds and alien vegetation growth by regular weeding. 7. Where contamination of soil is expected, analysis must be done prior to disposal of soil to determine the appropriate disposal route. Proof from an approved waste disposal site where contaminated soils are dumped if and when a spillage/leakage occurs should be attained and given to the project manager. <p>Establish an effective record keeping system for each area where soil is disturbed for prospecting purposes. These records should be included in environmental performance reports, and should include all the records below.</p> <ul style="list-style-type: none"> • Record the GPS coordinates of each area. • Record the date of topsoil stripping. | | <p>minimisation of impacts to acceptable standards, thereby ensuring compliance with NEMA and Duty of Care as prescribed by NEMA.</p> |
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| | | <ul style="list-style-type: none"> • Record the GPS coordinates of where the topsoil is stockpiled. • Record the date of cessation prospecting activities at the particular site. • Photograph the area on cessation of prospecting activities. • Record date and depth of re-spreading of topsoil. • Photograph the area on completion of rehabilitation and on an annual basis thereafter to show vegetation establishment and evaluate progress of restoration over time. | | |
| | Erosion | <ol style="list-style-type: none"> 1. An effective system of run-off control should be implemented, where it is required, that collects and safely disseminates run-off water from all hardened surfaces and prevents potential down slope erosion. 2. Periodical site inspection should be included in environmental performance reporting that inspects the effectiveness of the run-off control system and specifically records the occurrence of any erosion on site or downstream. 3. Wind screening and stormwater control should be undertaken to prevent soil loss from the site. 4. The use of silt fences and sand bags must be implemented in areas that are susceptible to erosion. 5. Other erosion control measures that can be implemented are as follows: <ul style="list-style-type: none"> ○ Brush packing with cleared vegetation ○ Mulch or chip packing ○ Planting of vegetation ○ Hydroseeding/hand sowing 6. Sensitive areas need to be identified prior to construction/prospecting so that the necessary precautions can be implemented. 7. All erosion control mechanisms need to be regularly maintained. | Duration of operation | The implementation of the recommended mitigation measures will result in the minimisation of impacts to acceptable standards, thereby ensuring compliance with NEMA and Duty of Care as prescribed by NEMA. |

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| | | <ol style="list-style-type: none"> 8. Seeding of topsoil and subsoil stockpiles to prevent wind and water erosion of soil surfaces. 9. Retention of vegetation where possible to avoid soil erosion. 10. Vegetation clearance should be phased to ensure that the minimum area of soil is exposed to potential erosion at any one time. 11. Re-vegetation of disturbed surfaces should occur immediately after construction/prospecting activities are completed. This should be done through seeding with indigenous grasses. 12. No impediment to the natural water flow other than approved erosion control works is permitted. 13. To prevent stormwater damage, the increase in stormwater run-off resulting from construction/prospecting activities must be estimated and the drainage system assessed accordingly. A drainage plan must be submitted to the Engineer for approval and must include the location and design criteria of any temporary stream crossings. 14. Stockpiles not used in three (3) months after stripping must be seeded/backfilled to prevent dust and erosion. | | |
| | Air Pollution | <p>Dust control</p> <ol style="list-style-type: none"> 1. Wheel washing and damping down of un-surfaced and un-vegetated areas. 2. Retention of vegetation where possible will reduce dust travel. 3. Clearing activities must only be done during agreed working times and permitting weather conditions to avoid drifting of sand and dust into neighbouring areas. 4. Damping down of all exposed soil surfaces with a water bowser or sprinklers when necessary to reduce dust. | Duration of operation | The implementation of the recommended mitigation measures will result in the minimisation of impacts to acceptable standards, thereby ensuring compliance with NEMA and Duty of Care as prescribed by NEMA. |

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| | | <p>5. The Contractor shall be responsible for dust control on site to ensure no nuisance is caused to the neighbouring communities.</p> <p>6. A speed limit of 30km/h must not be exceeded on site.</p> <p>7. Any complaints or claims emanating from the lack of dust control shall be attended to immediately by the Contractor.</p> <p>8. Any dirt roads that are utilised by the workers must be regularly maintained to ensure that dust levels are controlled.</p> <p>Odour control</p> <p>9. Regular servicing of vehicles in order to limit gaseous emissions.</p> <p>10. Regular servicing of onsite toilets to avoid potential odours.</p> <p>Rehabilitation</p> <p>11. The Contractor should commence rehabilitation of exposed soil surfaces as soon as practical after completion of earthworks.</p> <p>Fire prevention</p> <p>12. No open fires shall be allowed on site under any circumstance. All cooking shall be done in demarcated areas that are safe and cannot cause runaway fires.</p> <p>13. The Contractor shall have operational fire-fighting equipment available on site at all times. The level of firefighting equipment must be assessed and evaluated through a typical risk assessment process.</p> | | |
| | Noise | <p>1. The prospecting activities must aim to adhere to the relevant noise regulations and limit noise to within standard working hours in order to reduce disturbance of dwellings in close proximity to the development.</p> | Duration of operation | The implementation of the recommended mitigation measures will result in the minimisation of impacts to acceptable standards, thereby |

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| | | <ol style="list-style-type: none"> 2. Pans, power plants, crushers, workshops and other noisy fixed facilities should be located well away from noise sensitive areas. Once the proposed final layouts are made available by the Contractor(s), the sites must be evaluated in detail and specific measures designed in to the system. 3. Truck traffic should be routed away from noise sensitive areas, where possible. 4. Noise levels must be kept within acceptable limits. 5. Noisy operations should be combined so that they occur where possible at the same time. 6. Mine workers to wear necessary ear protection gear. 7. Noisy activities to take place during allocated hours. 8. Noise from labourers must be controlled. 9. Noise suppression measures must be applied to all equipment. Equipment must be kept in good working order and where appropriate fitted with silencers which are kept in good working order. Should the vehicles or equipment not be in good working order, the Contractor may be instructed to remove the offending vehicle or machinery from the site. 10. The Contractor must take measures to discourage labourers from loitering in the area and causing noise disturbance. Where possible labour shall be transported to and from the site by the Contractor or his Sub-Contractors by the Contractors own transport. 11. Implementation of enclosure and cladding of processing plants. 12. Applying regular and thorough maintenance schedules to equipment and processes. An increase in noise emission levels very often is a sign of the imminent mechanical failure of a machine. | | <p>ensuring compliance with NEMA and Duty of Care as prescribed by NEMA.</p> |
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| | <p>Impact on potential cultural, heritage and palaeontological artefacts</p> | <ol style="list-style-type: none"> 1. Any finds must be reported to the nearest National Monuments office to comply with the National Heritage Resources Act (Act No 25 of 1999) and to DEA. 2. Local museums as well as the South African Heritage Resource Agency (SAHRA) should be informed if any artefacts/ fossils are uncovered in the affected area. 3. The Contractor must ensure that his workforce is aware of the necessity of reporting any possible historical, archaeological or palaeontological finds to the ECO so that appropriate action can be taken. 4. Known sites should be clearly marked in order that they can be avoided. The workforce should also be informed that fenced-off areas are no-go areas. 5. The ECO must also survey for heritage and palaeontological artefacts during ground breaking and digging or drilling. He/she should familiarise themselves with formations and its fossils or a palaeontologist should be appointed during the digging and excavation phase of the development. 6. All digging, excavating, drilling or blasting activities must be stopped if heritage and/or palaeontological artefacts are uncovered and a specialist should be called in to determine proper management, mitigation, excavation and/or collecting measures. 7. Any discovered artefacts or fossils shall not be removed under any circumstances. Any destruction of a site can only be allowed once a permit is obtained and the site has been mapped and noted. Permits shall be obtained from SAHRA should the proposed site affect any world heritage/palaeontology sites or if any heritage/palaeontology sites are to be destroyed or altered. 8. Under no circumstances shall any artefacts be removed, destroyed or interfered with by anyone | <p>Duration of operation</p> | <p>The implementation of the recommended mitigation measures will result in the minimisation of impacts to acceptable standards, thereby ensuring compliance with NEMA and Duty of Care as prescribed by NEMA.</p> |
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| | | <p>on the site; and contractors and workers shall be advised of the penalties associated with the unlawful removal of cultural, historical, archaeological or palaeontological artefacts, as set out in the NHRA (Act No. 25 of 1999), Section 51. (1).</p> <p>9. In areas where the vegetation is threatening the heritage sites, e.g. growing trees pushing walls over, it should be removed, but only after permission for the methods proposed has been granted by SAHRA. A heritage official should be part of the team executing these measures.</p> <p>10. Mitigation for sites recorded in the Phase 1 Cultural Heritage Impact Assessment:</p> <ul style="list-style-type: none"> • Site 1 (Historical mine and refuse dump) – Maintain a buffer zone of 100 metres during prospecting phase • Site 2 (Historical water furrow) - Fenced off and gate installed and Maintain a buffer zone of 50 metres during prospecting phase • Site 3 (Rock Art [engravings]) - Maintain a buffer zone of 100 metres during prospecting phase | | |
| Waste Management | | <p>Litter management</p> <ol style="list-style-type: none"> 1. Refuse bins must be placed at strategic positions to ensure that litter does not accumulate within the construction/prospecting site. 2. The Contractor shall supply waste collection bins where such is not available and all solid waste collected shall be disposed of at registered/licensed landfill. 3. Good housekeeping practices should be implemented to regularly maintain the litter and rubble situation on the construction/prospecting site. 4. If possible and feasible, all waste generated on site must be separated into glass, plastic, paper, metal | Duration of operation | The implementation of the recommended mitigation measures will result in the minimisation of impacts to acceptable standards, thereby ensuring compliance with NEMA and Duty of Care as prescribed by NEMA. |

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| | | <p>and wood and recycled. An independent contractor can be appointed to conduct this recycling.</p> <ol style="list-style-type: none"> 5. Littering by the employees of the Contractor shall not be allowed under any circumstances. The ECO shall monitor the neatness of the work sites as well as the Contractor campsite. 6. Skip waste containers should be maintained on site. These should be kept covered and arrangements made for them to be collected regularly. 7. All waste must be removed from the site and transported to a landfill site promptly to ensure that it does not attract vermin or produce odours. 8. Where a registered waste site is not available close to the construction/prospecting site, the Contractor shall provide a method statement with regard to waste management. 9. A certificate of disposal shall be obtained by the Contractor and kept on file, if relevant. 10. Under no circumstances may solid waste be burnt on site. 11. All waste must be removed promptly to ensure that it does not attract vermin or produce odours. <p>Hazardous waste</p> <ol style="list-style-type: none"> 12. All waste hazardous materials must be carefully stored as advised by the ECO, and then disposed of offsite at a licensed landfill site, where practical. Incineration may be used where relevant. 13. Contaminants to be stored safely to avoid spillage. 14. Machinery must be properly maintained to keep oil leaks in check. 15. All necessary precaution measures shall be taken to prevent soil or surface water pollution from hazardous materials used during construction/prospecting and any spills shall immediately be cleaned up and all affected areas rehabilitated. | | |
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| | | <p>Sanitation</p> <ol style="list-style-type: none"> 16. The Contractor shall install mobile chemical toilets on the site. 17. Staff shall be sensitised to the fact that they should use these facilities at all times. No indiscriminate sanitary activities on site shall be allowed. 18. Toilets shall be serviced regularly and the ECO shall inspect toilets regularly. 19. Toilets should be no closer than 50m or above the 1:100 year flood line from any natural or manmade water bodies or drainage lines or alternatively located in a place approved of by the Engineer. 20. Under no circumstances may open areas, neighbours fences or the surrounding bush be used as a toilet facility. 21. The construction of “Long Drop” toilets is forbidden, but rather toilets connected to the sewage treatment plant. 22. Potable water must be provided for all construction staff. <p>Remedial actions</p> <ol style="list-style-type: none"> 23. Depending on the nature and extent of the spill, contaminated soil must be either excavated or treated on-site. 24. Excavation of contaminated soil must involve careful removal of soil using appropriate tools/machinery to storage containers until treated or disposed of at a licensed hazardous landfill site. 25. The ECO must determine the precise method of treatment for polluted soil. This could involve the application of soil absorbent materials as well as oil-digestive powders to the contaminated soil. 26. If a spill occurs on an impermeable surface such as cement or concrete, the surface spill must be contained using oil absorbent material. | | |
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| | | <p>27. If necessary, oil absorbent sheets or pads must be attached to leaky machinery or infrastructure.</p> <p>28. Materials used for the remediation of petrochemical spills must be used according to product specifications and guidance for use.</p> <p>29. Contaminated remediation materials must be carefully removed from the area of the spill so as to prevent further release of petrochemicals to the environment, and stored in adequate containers until appropriate disposal.</p> <p>Tailings</p> <p>30. It is proposed that storm water cut-off trenches be dug around the excavation working areas and the proposed new tailings dam area.</p> <p>31. The proposed storm water cut-off trenches will then convey clean storm water around the excavation working areas and tailings dam.</p> <p>32. The trenches should be dug to a maximum depth of 250mm with gentle slopes. The banks as well as the bed of the trenches will be compacted with rocks packed by hand to ensure that no erosion or sedimentation are caused by the trenches.</p> <p>33. It is proposed that a storm water discharge point (“Outlet Structure”) be constructed at the base of the cut-off trenches. These discharge points will then ensure that the water conveyed by the storm water cut-off trenches are discharged gently into the natural veld without causing any erosion. Any sedimentation flowing out of these discharge structures will be trapped by the silt fences that should be installed at the base (“downstream” side) of each discharge point.</p> <p>34. The before mentioned silt should be used for rehabilitation purposes.</p> <p>35. It is proposed that silt fences (silt trap fences) be established on the “downstream” side of the excavation working areas and tailings dam. These</p> | | |
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| | | <p>fences will be used to trap any sedimentation and erosion that might be caused by the “dirty” water flowing over the prospecting site.</p> <p>36. The silt fences may consist of a permeable geotextile 70cm high and will be tucked into a 15cm deep anchor trench at the base. This will prevent the bottom of the fence from kicking out in a high flow situation. The fences will be supported with stakes/poles (mainly steel rods) at 1.5m centres.</p> <p>37. The silt fences will be erected in such a way that they are at a soft angle to the direction of flow. There will also be a 2nd silt fence installed in the areas where a higher</p> <p>38. It is proposed that an additional silt fence be installed at the base (“downstream” side) of the proposed new tailings dam area. This will ensure that any sedimentation resulting from the construction, maintenance or operating of the new tailings dams are trapped before it can reach any of the other areas of the prospecting site.</p> <p>39. The proposed tailings dams should have an Emergency Spill-Way Channel that will allow the upper layers of water within the dam to flow over the dam wall in a controlled manner during a severe rainfall event. Additional silt fences will therefore be installed at the base (“downstream” side) of each Emergency Spill-Way Channel. The water discharging from the Emergency Spill-Way Channel will therefore flow directly into the silt fences located at the base of the spill-way channel. These silt fences will then ensure that water can flow through the geotextile material while trapping any sedimentation within the water behind.</p> | | |
| Water Use and Quality | Water pollution | <p>Water Use</p> <p>1. Develop a sustainable water supply management plan to minimise the impact to natural systems by</p> | | |

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| | | <p>managing water use, avoiding depletion of aquifers and minimising impacts to water users.</p> <p>2. Water must be reused, recycled or treated where possible.</p> <p>Water Quality</p> <p>3. The quality and quantity of effluent streams discharged to the environment including stormwater should be managed and treated to meet applicable effluent discharge guidelines.</p> <p>4. Discharge to surface water should not result in contaminant concentrations in excess of local ambient water quality criteria outside a scientifically established mixing zone.</p> <p>5. Efficient oil and grease traps or sumps should be installed and maintained at refueling facilities, workshops, fuel storage depots, and containment areas and spill kits should be available with emergency response plans.</p> <p>Stormwater</p> <p>6. The site must be managed in order to prevent pollution of drains, downstream watercourses or groundwater, due to suspended solids and silt or chemical pollutants.</p> <p>7. Silt fences should be used to prevent any soil entering the stormwater drains.</p> <p>8. Temporary cut off drains and berms may be required to capture stormwater and promote infiltration.</p> <p>9. Promote a water saving mind set with construction/prospecting workers in order to Contractor ensure less water wastage.</p> <p>10. New stormwater construction must be developed strictly according to specifications from engineers in order to ensure efficiency.</p> | | |
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| | | <p>11. Hazardous substances must be stored at least 20m from any water bodies on site to avoid pollution.</p> <p>12. The installation of the stormwater system must take place as soon as possible to attenuate stormwater from the construction phase as well as the operation phase.</p> <p>13. Earth, stone and rubble is to be properly disposed of, or utilized on site so as not to obstruct natural water path ways over the site. i.e. these materials must not be placed in stormwater channels, drainage lines or rivers.</p> <p>14. There should be a periodic checking of the site's drainage system to ensure that the water flow is unobstructed.</p> <p>15. If a batching plant is necessary, run-off should be managed effectively to avoid contamination of other areas of the site. Untreated runoff from the batch plant must not be allowed to get into the storm water system or nearby streams, rivers or erosion channels or dongas.</p> <p>Groundwater resource protection</p> <p>16. Process solution storage ponds and other impoundments designed to hold non fresh water or un-treated process effluents should be lined and be equipped with sufficient wells to enable monitoring of water levels and quality.</p> <p>Sanitation</p> <p>17. Adequate sanitary facilities and ablutions must be provided for construction workers (1 toilet per every 15 workers).</p> <p>18. The facilities must be regularly serviced to reduce the risk of surface or groundwater pollution.</p> <p>Concrete mixing</p> | | |
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| | | <p>19. Concrete contaminated water must not enter soil or any natural drainage system as this disturbs the natural acidity of the soil and affects plant growth.</p> <p>Public areas</p> <p>20. Food preparation areas should be provided with adequate washing facilities and food refuse should be stored in sealed refuse bins which should be removed from site on a regular basis.</p> <p>21. The Contractor should take steps to ensure that littering by construction workers does not occur and persons should be employed on site to collect litter from the site and immediate surroundings, including litter accumulating at fence lines.</p> <p>22. No washing or servicing of vehicles on site.</p> | | |
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Mechanisms for monitoring compliance with and performance assessment against the environmental management programme and reporting thereon, including

- J. Monitoring of Impact Management Actions
- K. Monitoring and reporting frequency
- L. Responsible persons
- M. Time period for implementing impact management actions
- N. Mechanism for monitoring compliance
- O.

| 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 |
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| Clearance of vegetatio | Loss or fragmentation of habitats | <ul style="list-style-type: none"> • Conduct regular internal audits • Conduct regular external audits | <ul style="list-style-type: none"> • Environmental Manager • Suitable qualified environmental auditor | Monitoring should be undertaken for duration of operations. Internal audits should be undertaken at least every 6 months. External audits should be undertaken by a suitably qualified auditor on an annual basis. Reports should be made available to the competent authority if required. |
| Prospecting of Alluvial and Kimberlite Diamonds–excavations | Loss of topsoil Erosion Air Pollution Noise Impact on potential cultural-, heritage artefacts and fossils | <ul style="list-style-type: none"> • Conduct regular internal audits • Conduct regular external audits | <ul style="list-style-type: none"> • Environmental Manager • Suitable qualified environmental auditor | Monitoring should be undertaken for duration of operations. Internal audits should be undertaken at least every 6 months. External audits should be undertaken by a suitably qualified auditor on an annual basis. Reports should be made available to the competent authority if required. |
| Waste management | Pollution | <ul style="list-style-type: none"> • Conduct regular internal audits • Conduct regular external audits | <ul style="list-style-type: none"> • Environmental Manager • Suitable qualified environmental auditor | Monitoring should be undertaken for duration of operations. Internal audits should be undertaken at least every 6 months. External audits |

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| | | | | should be undertaken by a suitably qualified auditor on an annual basis. Reports should be made available to the competent authority if required. |
| Water Use and Quality | Water pollution | <ul style="list-style-type: none"> • Conduct regular internal audits • Conduct regular external audits | <ul style="list-style-type: none"> • Environmental Manager • Suitable qualified environmental auditor | Monitoring should be undertaken for duration of operations. Internal audits should be undertaken at least every 6 months. External audits should be undertaken by a suitably qualified auditor on an annual basis. Reports should be made available to the competent authority if required. |

P. INDICATE THE FREQUENCY OF THE SUBMISSION OF THE PERFORMANCE ASSESSMENT REPORT.

External audits should be undertaken by a suitably qualified auditor on an annual basis. Reports should be made available to the Competent Authority if required.

Q. 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.

Matolo Trade and Investment Pty Ltd will implement an Environmental Awareness Plan which will include various mechanisms for informing employees of environmental risks resulting from their work, including:

- Induction training for full –time staff and contractors;
- In-house training sessions to be held with relevant employees;
- On the job training regarding environmental issues
- Training and skills development

The above measures will be implemented through an Environmental Communication Strategy to be implemented.

See the attached **Appendix 11** for the Awareness plan

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

Matolo Trade and Investment Pty Ltd will implement an incident reporting and reporting procedure in order to identify risks timeously and implement actions to avoid or minimise environmental impacts.

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

No specific information requirements have been detailed by the Competent Authority.

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