



ENVIRONMENTAL AUTHORISATION APPLICATION – PROSPECTING RIGHT

Name of Applicant: Kareelaagte Diamante (Pty) Ltd

DMR Reference No: NW30/5/1/3/3/2/1/13022PR

Humanskraal 346 IO

North West





mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

SCOPING REPORT

**PROSPECTING RIGHT APPLICATION FOR THE
PROSPECTING OF DIAMOND, DIAMOND (ALLUVIAL),
DIAMOND (GENERAL) AND DIAMOND (IN KIMBERLITE)
NEAR OTTOSDAL ON A PORTION OF PORTION 34
(EXCLUDING THE 4.95Ha MINING PERMIT) OF THE FARM
HUMANSKRAAL 346, RD IO, NORTH WEST 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	Kareelaagte Diamante (Pty) Ltd
PREPARED BY	Kuhle Environmental Consult (Pty) Ltd
TEL NO	083 287 3513
SAMRAD REF NUMBER:	NW30/5/1/3/3/2/1/13022PR

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.

OBJECTIVE OF THE SCOPING PROCESS

- 1) The objective of the scoping process is to, through a consultative process—
 - (a) identify the relevant policies and legislation relevant to the activity;
 - (b) motivate 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 and confirm the preferred activity and technology alternative through an impact and risk assessment and ranking process;
 - (d) identify and confirm the preferred site, through a detailed site selection process, which includes an impact and risk assessment process inclusive of cumulative impacts and a ranking process of all the identified alternatives focusing on the geographical, physical, biological, social, economic, and cultural aspects of the environment;
 - (e) identify the key issues to be addressed in the assessment phase;
 - (f) agree on the level of assessment to be undertaken, including the methodology to be applied, the expertise required as well as the extent of further consultation to be undertaken to determine the impacts and risks the activity will impose on the preferred site through the life of the activity, including the nature, significance, consequence, extent, duration and probability of the impacts to inform the location of the development footprint within the preferred site; and
 - (g) identify suitable measures to avoid, manage, or mitigate identified impacts and to determine the extent of the residual risks that need to be managed and monitored.
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Tables of acronyms

AIS:	Alien Invasive Species
BAR:	Basic Assessment Report
CARA:	Conservation of Agricultural Resources Act
CBA:	Critical Biodiversity Area
cpht	Carats per hundred tonne
DEDECT:	Department of Economic Development, Environment, Conservation and Tourism
DMR:	Department of Mineral Resources
EA	Environmental Authorisation
EAP:	Environmental Assessment Practitioner
EIA:	Environmental Impact Assessment
ECO	Environmental Control Officer
EMPr:	Environmental Management Program
Ha:	Hectares
IDP:	Integrated Development Plan
I&AP:	Interested and affected Parties
LCZ	Lower Critical Zone
MP:	Mining Permit
MPRDA	Mineral and Petroleum Resources Development Act
NDP:	National Development Plan
NEMA:	National Environmental Management Act
NEM: BA	National Environmental Management: Biodiversity Act
NEM: WA	National Environmental Management: Waste Act
NWA	National Water Act
PGM:	Platinum Group of Metals
PPP:	Public Participation Process
PR	Prospecting Right
READ:	Department of Rural, Environmental and Agriculture Development

SANBI:	South African National Biodiversity Institute
SAHRA:	South African Heritage Resources Agency
SCC:	Species of Conservation Concern
SFSD:	Strategic Framework for Sustainable Development
SR	Scoping Report
UCZ	Upper Critical Zone
WUA:	Water Use Application

DISCLAIMER

This Scoping Report has been compiled by Kuhle Environmental Consult (Pty) Ltd, by using information provided by Kareelaagte Diamante (Pty) Ltd (the client/applicant) as well as third parties, which information has been presumed to be accurate and correct. While Kuhle Environmental Consult (Pty) Ltd have made every endeavour to supply accurate information, and exercised all care, skill and diligence in the drafting of this Scoping Report, errors and omissions may occur. Accordingly, Kuhle Environmental Consult (Pty) Ltd does not warrant the accuracy or completeness of the materials in this report. Kuhle Environmental Consult (Pty) Ltd 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. Kuhle Environmental Consult (Pty) Ltd does not accept any liability for any loss or damage, whether direct, indirect or consequential, arising out of circumstances beyond the control of Kuhle Environmental Consult (Pty) Ltd, including the use and interpretation of this report by the client, I&AP, its officials or their representatives or agents. This Scoping Report and its Annexures contains information proprietary to Kuhle Environmental Consult (Pty) Ltd and as such should be treated as confidential unless specifically identified as a public document by law/regulation. Kuhle Environmental Consult (Pty) Ltd owns all the copyright and all other intellectual property rights in this Scoping Report. This document may not be copied, reproduced in whole or in part, or used for any manner without prior written consent from Kuhle Environmental Consult (Pty) Ltd. Copyright is specifically reserved in terms of the Copyright Act 98 of 1987 including the amendments thereto. By viewing this disclaimer and by accepting this document/report, you hereby acknowledge that you have read and accepted these beforementioned 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.

SCOPING REPORT

a. Contact Person and correspondence address

Details of:

- i) The EAP who prepared the report

Table 1: Details of EAPs

Name of Practitioner	Danie Labuschagne
Contact details	Cell No.: (061) 970 2449 Email address: danie.kuhle@outlook.com
Name of Practitioner	Miané Swanepoel
Contact details	Email address: miane.kuhle@outlook.com

- ii) The expertise of the EAP

- (1) The qualifications of the EAP
(With evidence attached as **Appendix 1**).

Table 2: Qualifications of EAPs

Name of Practitioner	Danie Labuschagne
Qualifications	Master's Degree in Geography and Environmental Management. EAPASA: 2019/1122 Pr. Sci.Nat: 117285
Name of Practitioner	Miané Swanepoel
Qualifications	Completing Master's in Environmental Health

- (2) Summary of the EAP's experience.
(Attach the EAP's curriculum vitae as **Appendix 1**)

Kuhle Environmental Consult (Pty) Ltd, which was registered in 2020 by Mr Labuschagne, is a professional environmental consultancy company with experience in the mining and non-mining industry which provides a diverse range of environmental management services. Our Environmental management services include environmental assessment and planning which ensures compliance with relevant environmental and mining legislation/regulations.

Kuhle Environmental Consult (Pty) Ltd benefits from the combined resources, various skills and experience in the environmental and mining field held by its team and outsourced specialists. These benefits are actively involved in undertaking environmental and specialist studies for a wide variety of projects throughout South Africa. Kuhle Environmental Consult (Pty) Ltd does not have any interest in secondary developments that may arise out of the approval of the proposed prospecting project.

Danie Labuschagne’s and Miané Swanepoel’s experience lies mainly in the environmental consulting and management industry; including the compilation of environmental studies in support of Environment Authorisations, project management and ensuring compliance to legislation/regulations and guidelines. They are currently undertaking several Environmental Impact Assessments (EIAs) for mining and non-mining projects across South Africa.

CVs attached as **Appendix 1**

b. Description of the property

The proposed site is located approximately 18.5km northwest of the town Ottosdal in the North West Province, under the Tswaing Local Municipality (LM), in the North West Province. The application area is made up of a portion of Portion 34 (Excluding the 4.95ha Mining Permit) of the farm Humanskraal 346 (as seen in **Table 3** below) and the total area that will be affected is approximately 252.0096Ha (256.9596 Ha– 4.95ha).

Table 3: Farm Included in the Application Area

Name of the proposed farm:	A portion of Portion 34 (Excluding the 4.95ha Mining Permit) of the farm Humanskraal 346
Application area (Ha) - Extent	252.0096Ha (256.9596 Ha– 4.95ha)
Magisterial district:	Ngaka Modiri Molema District Municipality
Local Municipality	Tswaing Local Municipality
Distance and direction from the nearest town	The property is located approximately 18.5km northwest of the town Ottosdal in the North West Province.
21-digit Surveyor General Code for each farm portion	TOIO00000000034600034

Table 4: Farm Co-ordinates

Farm portion description	Longitude (East) (Degrees, Minutes, Seconds)	Latitude (South) (Degrees, Minutes, Seconds)
A portion of Portion 34 (Excluding the 4.95ha Mining Permit) of the farm Humanskraal 346	25°50'16.299"E	26°44'18.169"S
	25°49'59.052"E	26°43'09.186"S
	25°51'01.050"E	26°44'10.934"S
	25°50'48.148"E	26°43'13.903"S

c. Locality map

(show nearest town, scale not smaller than 1:250000 attached as **Appendix 2**).

A Locality Map is attached in **Appendix 2** and figure 1 below.

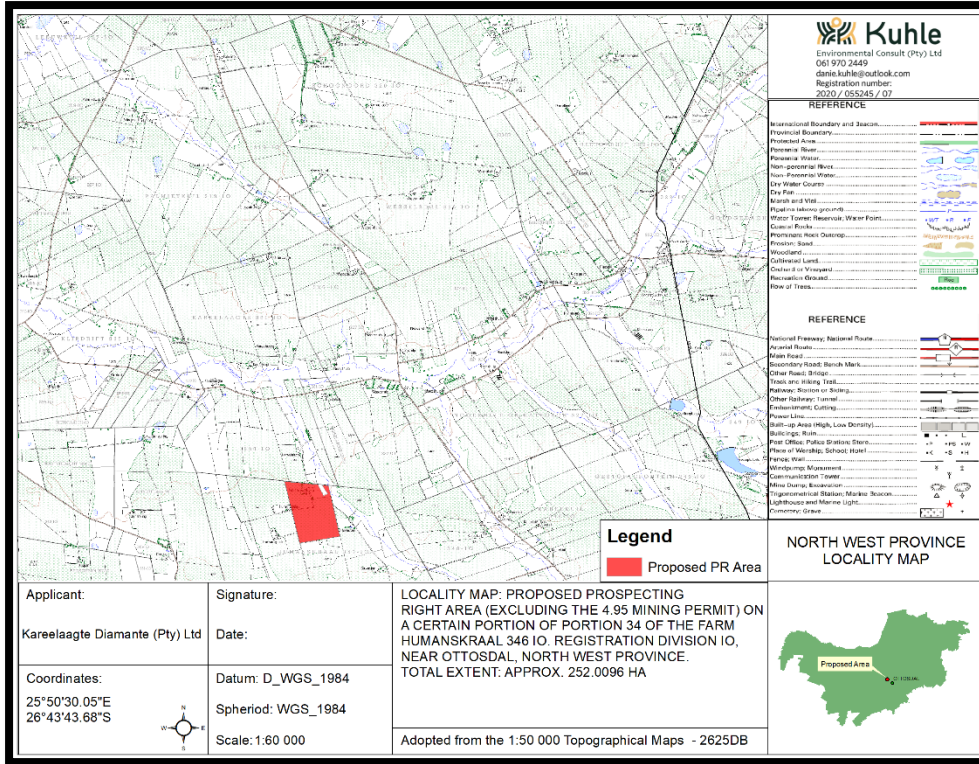


Figure 1: Locality Map

d. Description of the scope of the proposed overall activity.

i. Listed and specified activities

Provide a plan drawn to a scale acceptable to the competent authority but not less than 1: 10 000 that shows the location, and area (hectares) of all the aforesaid main and listed activities, and infrastructure to be placed on-site and attach as **Appendix 3**

A Site Plan Map is attached in **Appendix 3** and figure 2 below.

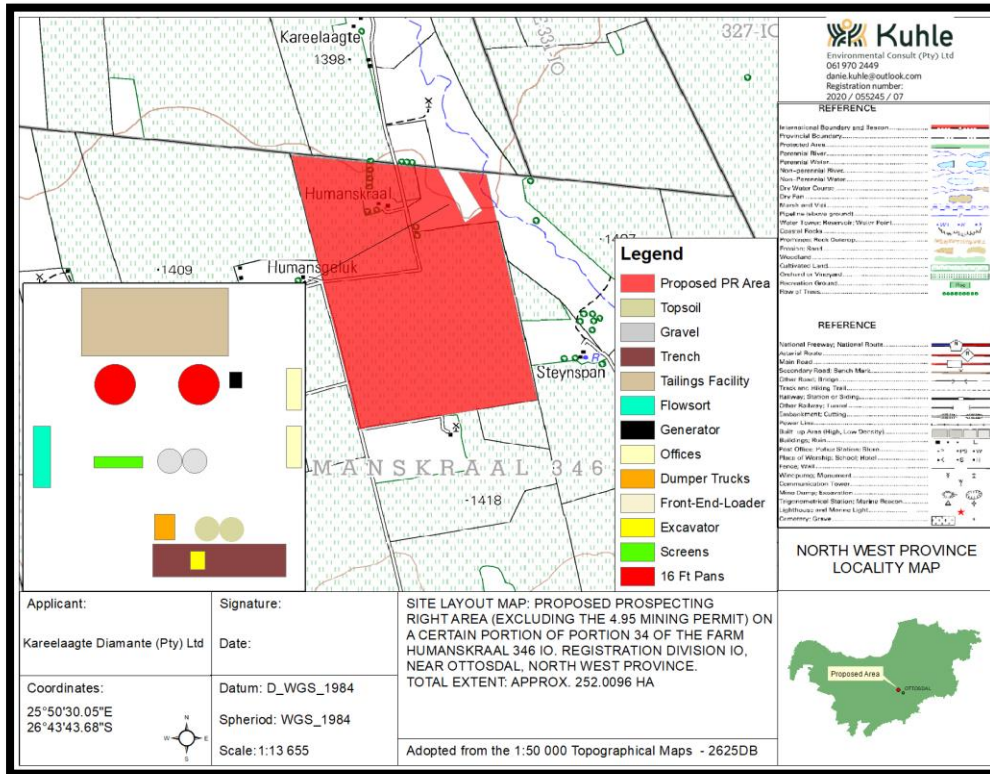


Figure 2: Site Plan Map

Table 5: Listed and Specified Activities

NAME OF ACTIVITY	AERIAL EXTENT OF THE ACTIVITY HA OR M ²	LISTED ACTIVITY	APPLICABLE LISTING NOTICE	WASTE MANAGEMENT AUTHORISATION
(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, stormwater control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc.)		(Mark with an X where applicable or affected).	(GNR 983, GNR 984 or GNR 985) As Amended	(Indicate whether an authorisation is required in terms of the Waste Management Act). (Mark with an X)

<p>PROSPECTING: Bulk Sampling: 252.0096Ha (256.9596 Ha- 4.95ha) 3m x 3m x 4m (45 pits), 40m x 12m x 4m (45 trenches)</p>	<p>252.0096Ha (256.9596 Ha- 4.95ha) Total hectares to be disturbed</p>	X	<p>GNR. 325 (As Amended) Activity 19</p>	-
<p>PROSPECTING RIGHT: Bulk Sampling: 252.0096Ha (256.9596 Ha- 4.95ha) 3m x 3m x 4m (45 pits), 40m x 12m x 4m (45 trenches) 2 x 16 feet washing pan with 40 000 tons per month to be washed, conveyors, screens, etc.</p>	<p>252.0096Ha (256.9596 Ha- 4.95ha) Total hectares to be disturbed</p>	X	<p>GNR. 325 (As Amended) Activity 20</p>	-
<p>CLEARANCE OF INDIGENOUS VEGETATION: Bulk Sampling: 252.0096Ha (256.9596 Ha- 4.95ha) 3m x 3m x 4m (45 pits), 40m x 12m x 4m (45 trenches)</p>	<p>252.0096Ha (256.9596 Ha- 4.95ha) Total hectares to be disturbed</p>		<p>GNR. 325 (As Amended) Activity 15</p>	
<p>STORAGE OF WASTE: The storage of general waste in lagoons</p>			<p>NEM: WA 59 of 2008 Category A: (1)</p>	X
<p>RESIDUE STOCKPILES OR RESIDUE DEPOSITS: The establishment or reclamation of a residue stockpile or residue deposit resulting from activities which require a prospecting right or mining permit, in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002).</p>			<p>NEM: W_A 59 of 2008 Category A: (15)</p>	X

Table 6: 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>	<p>UNDER NEMA:</p> <ol style="list-style-type: none"> 1. Listing Notice GNR 325, Activity 15: "The clearance of an area of 20 hectares or more, of indigenous vegetation." 2. Listing Notice GNR 325, Activity 19: "The removal and disposal of minerals contemplated in terms of section 20 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), including— <ol style="list-style-type: none"> (a) associated infrastructure, structures and earthworks, directly related to the prospecting of a mineral resource [,]; or (b) [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)] the primary processing of a mineral resource including winning, extraction, classifying, concentrating, crushing, screening or washing; 3. Listing Notice GNR 327, 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— <ol style="list-style-type: none"> (a) associated infrastructure, structures and earthworks, directly related to the prospecting of a mineral resource[,]; or [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)] (b) the primary processing of a mineral resource including winning, extraction, classifying, concentrating, crushing, screening or washing; – Prospecting right with bulk samples for the prospecting of Diamond, Diamond (Alluvial), Diamond (General) and Diamond (In Kimberlite) including associated infrastructure, structure and earthworks.
	<p>UNDER NEM: WA</p> <p>Storage of waste Category A: (1) The storage of general waste in lagoons</p> <p>Residue stockpiles or residue deposits</p>

Category A: (15) The establishment or reclamation of a residue stockpile or residue deposit resulting from activities which require a prospecting right or mining permit, in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002).

ii) Description of the activities to be undertaken

(Describe Methodology or technology to be employed, and for a linear activity, a description of the route of the activity)

The applicant, **Kareelaagte Diamante (Pty) Ltd**, commissioned a SR process as required by the National Environmental Management Act (NEMA) (Act No.107 of 1998) for a PR combined with a Waste Licence Application for the prospecting of Diamond, Diamond (Alluvial), Diamond (General) and Diamond (In Kimberlite) near Ottosdal on a portion of Portion 34 (Excluding the 4.95Ha Mining Permit) of the farm Humanskraal 346, Registration Division: IO, North West Province.

This portion is proposed due to the expected Diamond, Diamond (Alluvial), Diamond (General) and Diamond (In Kimberlite) mineral resources/reserves. **Kareelaagte Diamante (Pty) Ltd** requires a PR in terms of the NEMA and the Mineral and Petroleum Resources Development Act (Act No. 28 of 2002) (MPRDA) to mine Diamond, Diamond (Alluvial), Diamond (General) and Diamond (In Kimberlite) within the Tswaing LM, North West Province (refer to a Locality Map attached in **Appendix 2**).

During the resource estimation phase of a potential alluvial diamond project, the three main parameters to be determined are the gravel volume, diamond grade and diamond value. Combinations of ground geophysical surveys, drilling (including augering), pitting, trenching and bulk-sampling are used to increase the knowledge and confidence of the underlying geology to estimate a resource as defined in any of the international resource/reserve estimation codes.

The following phases have been identified to assist in determining the diamond gravel volume, diamond grade and diamond value:

Phase 1 – Site visit

Kareelaagte Diamante (Pty) Ltd will appoint Mr Tim Vermaakt (Guyron) as the project geologist and Mr Danie Labuschagne (Kuhle) as the Environmental Specialist to commence with the site visit phase. These specialists and the applicant will conduct a site visit within 90 days after the execution of the proposed prospecting right. It is expected that one or more site visits will be conducted throughout this phase and the various phases that will follow hereafter.

The main purpose of the site visit is to assist Kareelaagte Diamante (Pty) Ltd to become familiar with the surrounding environment, the sensitive areas, the underlying soil and geology before invasive prospecting activities commence. During this process, Kareelaagte Diamante (Pty) Ltd and its appointed specialists will also assess and review all the information available concerning the underlying geology of the proposed prospecting area.

Phase 2 – Desktop Studies

A desktop study phase will commence after the above-mentioned site visit(s) and analysis was completed to determine the areas that should be targeted through

the proposed prospecting. This includes the identification of any infrastructure to be erected, any potential problems that may arise and to be addressed.

The desktop phase involves reviewing various literature, interpretation of aerial photographs, GIS data (BGIS-SANBI), satellite images (Google Earth), geological maps and ground validation of targets. A detailed preliminary study of the underlying and surrounding environment will be obtained, which will improve the efficiency of the project and cost by providing a clearer understanding of the challenges that may surface. Upon completion of this phase, Mr Tim Vermaak (Geologist) will compile a report that captures the results of the analysis.

Phase 3 – Pitting

Making use of the trial pit/test pit or inspection pit investigation method is a highly effective way to obtain data on the underlying surface soil and geological conditions of the prospecting right area. It allows the specialists to log and sample the various soils and geological layers and to make a preliminary assessment.

The trial pit/test pit or inspection pit will be excavated, logged, sampled and backfilled. To excavate these pits, Kareelaagte Diamante (Pty) Ltd will make use of the advised methods of Mr Tim Vermaak (Geologist).

Kareelaagte Diamante (Pty) Ltd will be in possession of the following information after completing the pitting phase: a brief description of the soil and geological layers from the surface to the base of the pits; a record of rock head and refusal depth; an indication of where trenches should be excavated to obtain bulk-samples; an indication of where groundwater is expected to be intersected; a general indication of the underlying geology and the associated conditions in the vicinity of the test pits.

45 pits at an extent of 3m (length) x 3m (breadth) x 4m (depth) are planned.

- (45 pits/24 months) x 12 months= 22 pits to be dug per year
- Total area to be disturbed per year= 22 pits x (3m x 3m)/10 000= 0.0198 Ha disturbed per year
- Total area disturbed for 24 months= 45 pits x (3m x 3m)/10 000= 0.0405 Ha disturbed for 24 months

Phase 4 – Trenches

The only reliable method of grade estimation is through bulk sampling and the direct measurement of carats per volume processed.

In addition, limited sampling (both numbers of samples and volume of individual samples) can result in spurious grade results. Systematic bulk sampling is essential to the effective evaluation of alluvial diamond deposits. Since the geology can vary significantly from one alluvial diamond deposit to another, it is not possible to prescribe drill grid parameters (for the estimation of gravel volume) or the number or size of samples (for grade estimation).

By making use of the bulk-sample method, Kareelaagte Diamante (Pty) Ltd will be able to determine the grade of alluvial diamond deposits. The grade of a diamond deposit is the estimated number of carats contained in one hundred tonnes (cpht) or hundred cubic metres (ct/100 m³) of gravel.

During these activities, Kareelaagte Diamante (Pty) Ltd will determine the size and value distribution of the planned trenches. Alluvial streams are highly transient environments and therefore the diamond distribution patterns of alluvial deposits

vary to such a nature that there is no repeatability of sample results even from adjacent samples.

Given the extent of the area and the expected grades, Kareelaagte Diamante (Pty) Ltd will have to process bulk samples of approximately 40 000 tons per month.

Mr Tim Vermaakt (Geologist), will advise Kareelaagte Diamante (Pty) Ltd on where the proposed trenches should be excavated. Unlike the case of drilling, bulk samples will not be taken along a systematic grid.

After the grades (cpht) and the diamond size distribution has been determined, the diamonds will be sold to determine the value of the diamonds.

The method that will be used is that of the so-called “plant/bulk sampling technique”, which is typical to that of the South African alluvial diamond mining industry.

The method/technique to be followed are as follow:

- Vegetation will be cleared from the planned/identified bulk sampling area before excavation commences. This will be done as per the environmental regulations and through supervision by the appointed Environmental Specialist (Kuhle Environmental Consult (Pty) Ltd. Overburden and topsoil will then be removed and stockpiled, as per the EMP, for rehabilitation purposes.
- The bulk samples will be “box form” excavations. The dimensions of these individual “box form” excavations will approximately be 40m long x 12m wide. It is estimated that the depth of each bulk sample will be 4 m in depth.
- Gravel will be excavated, removed and loaded directly onto dumper trucks by excavators. The excavated gravel will then be hauled to the on-site screening plant. The material will be screened where after the screened material will be transported to the on-site processing plant, where the gravel will be processed by making use of 2 x 16ft washing pans. Concentrate will be moved to the Flowsort plant where the concentrate will be sorted.
- The oversize material and tailings recovered from the plant will be used as backfill material before final rehabilitation. Rehabilitation includes backfilling of trenches and rehabilitation of the tailings facility (evening the slopes and planting vegetation)

The equipment used for the bulk-sampling operation will be conventional open pit mining equipment comprising dumper trucks, excavators and front-end-loaders. All equipment is planned to be diesel driven.

45 trenches at an extent of 40m (length) x 12m (breadth) x 4m (depth) are planned. Total area to be disturbed per year= 22 trenches x (40 m x 12 m)/10 000 = 1.056 Ha disturbed per year.

Phase 5 – Interpretation and Consolidation of Results & Data

The abovementioned prospecting activities will have to be conducted to determine an “Inferred Resource” and an “Indicated Resource”. It is usual for an alluvial diamond project to progress from “Exploration Results”, through “Inferred Resource” to “Indicated Resource” classification.

Unlike the “Indicated Resources” the “Inferred Resource” has a lower level of confidence. The “Inferred Resource” indication will be where the geological and or grade continuity could not be confidently interpreted. It cannot be assumed that an “Inferred Resource” will necessarily be upgraded to an “Indicated Resource”. Such a resource is normally also not sufficient to enable an evaluation of economic viability.

The industry standard for resource estimation on alluvial diamond mines is to estimate some two/three years of Indicated Resources and multiple years of Inferred Resources. As these are consumed, there is a continuous cycle of resource rollover (where continuous prospecting upgrades existing “Inferred Resources” to “Indicated Resource” status to take the place of such resources which have been mined).

Typical parameters for “Indicated Resources” classification include:

- Sufficient drilling to generate a 3D model based on well constrained geology;
- Extrapolation only within similar geological environments to distances determined by the geology of the deposit (typically, this distance may be up to 250 m, but may also be as low as 10 m in specific instances);
- Sufficient bulk sampling to take account of all the key geological variables expected from the deposit in question (and to recover the required number of carats for valuation or sale).
- The recovery of 3,000–5,000 cts of diamonds for valuation (or sale) to estimate diamond value.

The appointed project geologist and environmentalist will monitor the Prospecting Work Programme, consolidate and process the data, and amend the Prospecting Work Programme depending on the results received after each phase of the Prospecting Work Programme. Any updates or amendments will be communicated to the Department of Mineral Resources and Energy.

Each invasive prospecting phase of the Prospecting Work Programme will involve a post-desktop study, which will include the interpretation and modelling of all the collected data. These results that were obtained will determine how the Prospecting Work Programme will be proceeded with in terms of the activity, quantity, resources, expenditure and duration.

A GIS Geo/File database will be generated to capture all the exploration/prospected data. All data will be consolidated and processed to determine the diamond-bearing resource on the property

Please find the Prospecting Work Programme attached as **Appendix 9**.

List of equipment & infrastructure

List of planned equipment to be used
2 x 16ft Pans plus conveyors
1 x 20t Excavator
1 x 33t Excavator
2 x Front End Loader
1 x Scalping Screen
3 x Dump Trucks
1 x Flowsort Diamond Recovery Plant
1 x 250 kVa Generator

Other activities which will be undertaken

Access roads:

A new gravel road needs to be constructed and existing farm access roads will be used as far as possible.

Water Supply:

Additional water (portable water) will be supplied, as required for dust suppression and water consumption by employees and workers.

Water uses:

Water uses under the NWA: section 21 a-k of will be triggered, thus a Water Use Licence Application (WULA) will be lodged with the Department of Water & Sanitation (DWS) when needed.

These uses include:

- Borehole abstraction
- Water Use Pan Size specifications for Alluvial Diamond Mining (DWS NC & FS, 2001):
 - Pan size: 16 ft x 2 pans
 - Water/hour (m³): 17 x 2 = 34
 - Water/day(m³): 170 x 2 = 340
 - Gravel/hour (tons): 60 x 2 = 120
 - Gravel/day (ton): 600 x 2 = 1200
- Storage of water that was abstracted from the borehole
- Storage of tailings / “porrel”

Also, a Geohydrological Assessment should be conducted before any of the above water uses are commenced with.

Ablution:

Only chemical toilets shall be permitted on-site, no french drains and pits shall be used.

Blasting:

No blasting will occur. A specialist must be consulted before any blasting activities are commenced. Also, the surrounding farms/community should be consulted before any blasting occurs.

Storage of dangerous goods:

The prospecting activities may require limited quantities of diesel and fuel, oil and lubricants to be stored on the proposed site. However, these will be below the threshold. If any storage occurs, 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.

Please find the Prospecting Work Programme attached as **Appendix 9**.

e. Policy and Legislative Context

Table 7: Policy and Legislative Context

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT	REFERENCE WHERE APPLIED	HOW DOES THIS DEVELOPMENT COMPLY WITH AND RESPOND TO THE LEGISLATION AND POLICY CONTEXT.
(A description of the policy and legislative context within which the development is proposed including identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that apply to this activity and are to be considered in the assessment process);		E.g. In terms of the National Water Act, a

		Water Use License has/ has not been applied for
The Constitution of South Africa (Act No. 108 of 1996)	-	
The National Environmental Management Act (Act No. 107 of 1998)	S24(1) of the NEMA S28(1) of the NEMA	EA being applied for
The National Water Act (Act No. 36 of 1998)	S21 of the 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)	-	PR being applied for
National Infrastructure Plan	-	
National Forests Acts, Act 84 of 1998	Chap 3 (Part 1) 1998 S12(1) S15(1)	
Mine, Health and Safety Act 29 of 1996		
National Environmental Management: Waste Act 59 of 2008		
National Environmental Management: Biodiversity Act (NEM: BD) 10 of 2004		
Ngaka Modiri Molema District Municipality Integrated Development Plan (IDP)	-	
Tswaing Local Municipality Integrated Development Plan (IDP) Review	-	

POLICY AND LEGISLATIVE CONTEXT

Table 8: Description of Applicable Legislation.

Legislation/Policy	Description
<p>South African Constitution No. 108 of 1996</p>	<p>The South African Constitution is the supreme law of the Republic of South Africa and includes the Bill of rights, which is the cornerstone of democracy in South Africa. It enshrines the rights of all the people in the country and affirms the democratic values of human dignity, equality and freedom. Under Section 24 it is included that everyone has the right to an environment that is not harmful to our human health or well-being; and to ensure that the environment is protected, for the benefit of current and future generations through, reasonable legislative and other measures that:</p> <ul style="list-style-type: none"> (i) prevent pollution and ecological degradation; (ii) promote conservation; and (iii) secure ecologically sustainable development and use of natural resources <p>while promoting justifiable economic and social development.</p> <p>The project will ensure that the environment is not harmful to anyone during construction and operations as everyone has the right to a healthy environment.</p>
<p>Strategic Framework for Sustainable Development (SFSD) 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 (NSDS). 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 (MDG). Biodiversity has been identified as one of the</p>

	<p>main cross-cutting 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 (NEMA) No. 107 of 1998</p>	<p>The NEMA is an important piece of legislation, which 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. The NEMA provides the legislative backing (including Environmental Impact Assessment Regulations) for regulating development and ensuring that a risk-averse and cautious approach is taken when making decisions about planned activities.</p> <p>The project triggers activities listed in the 2014 EIA NEMA regulations (As Amended) and the activities should be approved before construction.</p>
<p>2014 Environmental Impact Assessment (EIA) regulations (As Amended)</p>	<p>The purpose of these Regulations is to regulate the procedure and criteria as contemplated in Chapter 5 of the Act relating to the preparation, evaluation, submission, processing and consideration of, and decision on, applications for environmental authorisations for the commencement of activities, subjected to environmental impact assessment, to avoid or mitigate detrimental impacts on the environment, and to optimise positive environmental impacts, and for matters pertaining thereto.</p> <p>The project is being applied for.</p>
<p>National Environmental Management: Biodiversity Act (NEM: BA) No. 10 of 2004</p>	<p>The purpose of this act is to ensure the management and conservation of South Africa’s biodiversity within the framework of the National Environmental Management Act, 1998; the protection of species and ecosystems that warrant national protection; the sustainable use of indigenous biological resources; the fair and equitable sharing of benefits arising from bioprospecting involving indigenous biological resources; the establishment and functions of a South African National Biodiversity Institute; and for matters connected</p>

	<p>therewith. This Act lists threatened and/or protected ecosystems, in four categories: Critically Endangered (CR), Endangered (EN), Vulnerable (VU) or Protected (Government Gazette, 2011). The main purpose of this listing is to ensure that the rate of the ecosystem and species extinction is reduced and that the further degradation and loss of structure, function and composition of threatened ecosystems is prevented.</p>
<p>Conservation of Agricultural Resources Act (CARA) No. 43 of 1967</p>	<p>The main aim of this Act is to manage the over-utilization of South Africa’s natural agricultural resources and to promote the conservation of soil and water resources as well as natural vegetation. This Act has categorised a large number of invasive plants together with associated obligations of the landowner, including the requirement to remove categorised invasive plants and taking measures to prevent further spread of alien plants.</p>
<p>National Forest Act (NFA) No. 84 of 1998</p>	<p>The purposes of this Act are to-</p> <ul style="list-style-type: none"> (a) promote the sustainable management and development of forests for the benefit of all; (b) create the conditions necessary to restructure forestry in State forests; (c) provide special measures for the protection of certain forests and trees; (d) promote the sustainable use of forests for environmental, economic, educational, recreational, cultural, health and spiritual purposes; (e) promote community forestry; (f) promote greater participation in all aspects of forestry and the forest products industry by persons disadvantaged by unfair discrimination.

	<p>Prohibition on the destruction of trees in natural forests</p> <p>(1) No person may -</p> <p>(a) cut, disturb, damage or destroy any indigenous tree in a natural forest; or</p> <p>(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-</p> <p>(i) a licence issued under subsection (4) or section 23; or</p> <p>(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>
<p>National Environmental Management: Protected Areas Act (NEM: PA) No. 57 of 2003</p>	<p>The Act allows for the protection and conservation of ecologically viable areas representative of South Africa's biological diversity and its natural landscapes and seascapes; for the establishment of a national register of all national, provincial and local protected areas; for the management of those areas in accordance with national norms and standards; for intergovernmental co-operation and public consultation in matters concerning protected areas; for the continued existence, governance and functions of South African National Parks; and for matters in connection therewith.</p>
<p>Mine, Health and Safety Act (MHSA) No. 29 of 1996</p>	<p>To execute the statutory mandate of the Department of Mineral Resources and Energy to safeguard the health and safety aspect of mine employees and communities affected by mining operations.</p>
<p>National Environmental Management: Waste Act (NEM: WA) No. 59 of 2008</p>	<p>The Act reformed the law regulating waste management to protect health and the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically</p>

sustainable development; to provide for institutional arrangements and planning matters; to provide for national norms and standards for regulating the management of waste by all spheres of government; to provide for specific waste management measures; to provide for the licensing and control of waste management activities; to provide for the remediation of contaminated land; to provide for the national waste information system; to provide for compliance and enforcement; to provide for matters connected therewith.

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).

For more than 100 years mining has played a very important vital role in the economy of South Africa. The mining industry contributed approx. R286 billion towards South African Gross Domestic Product (GDP) in 2015, representing approx. 7.1% of the overall GDP. Mining is known to be a significant contributor when it comes to employment in South Africa, with approx. 457 698 individuals being directly employed by the sector in the year 2015. This represents just over 3% of all employed nationally. (Chamber of Mines, South Africa, 17:2016)

This proposed activity aligns with the National Development Plan (NDP) of 2030 which strives to create better lives for South African citizens. This plan places great emphasis on growing an inclusive economy, improving the capabilities of the state together with leaders to ultimately solve complex problems. One aspect of this plan focuses on the importance of employment to generate poverty alleviation, restorations of livelihood and to reduce inequality in South Africa. This plan sets out the goal to reduce unemployment from 24,9% (2012) to 6% by 2030.

The establishment of the Kareelaagte mine means that employment opportunities will be created and also the social infrastructure will be improved which aligns with the NDP. As well as the establishment of any future mine would provide job opportunities for unskilled, and potentially skilled, labour from the surrounding areas contributing further to the NDP. During the proposed activities, local services such as a drilling company and excavator services will be utilised as far as possible.

Prospecting and mining activities for Diamond, Diamond (Alluvial), Diamond (General) and Diamond (In Kimberlite) takes place in the vicinity of the proposed area which suggests the possibility of encountering further chrome deposits.

The North West Province is known to be one of the main contributor provinces when it comes to supplying Diamonds, Diamonds (Alluvial), Diamonds (General) and Diamonds (In Kimberlite) to the international market.

g. Period for which the environmental authorisation is required.

The environmental authorisation is required for a minimum of 3 years & a maximum period of 5 years.

h. Description of the process followed to reach the proposed preferred site.

NB!! – This section is not about the impact assessment itself; It is about the determination of the specific site layout having taken into consideration (1) the comparison of the originally proposed site plan, the comparison of that plan with the plan of environmental features and current land uses, the issues raised by interested and affected parties, and the consideration of alternatives to the initially proposed site layout as a result.

Each of the proposed prospecting phases depends on the results of the previous prospecting phase. Therefore, it is difficult to determine the total extent and the

location of each bulk sample to be taken. Due to this difficulty, mapping of the proposed prospecting activities could not be undertaken at this stage. Therefore, for the purposes of this SR the overall proposed prospecting area is illustrated in **Appendix 2**.

- i) Details of all alternatives considered.
Regarding the site plan provided as **Appendix 3** and the location of the individual activities on-site, provide details of the alternatives considered for:
 - (a) the property on which or location where it is proposed to undertake the activity;
 - (b) the type of activity to be undertaken;
 - (c) the design or layout of the activity;
 - (d) the technology to be used in the activity;
 - (e) the operational aspects of the activity; and
 - (f) the option of not implementing the activity.
- a) The property on which or location where it is proposed to undertake the activity

It is evident from personal maps that Diamond, Diamond (Alluvial), Diamond (General) and Diamond (In Kimberlite) gravel occur on the proposed farm portion. Therefore, the applicant would like to commence with their prospecting activities on the proposed farm portion near Ottosdal.

The proposed development falls within Land in Class III (3), - Arable land moderate to severe limitations. Suitable for grazing with moderate potential for crop production. (AGIS, 2016). As seen in the Land capability map, **figure 3**, and attached as **Appendix 4**).

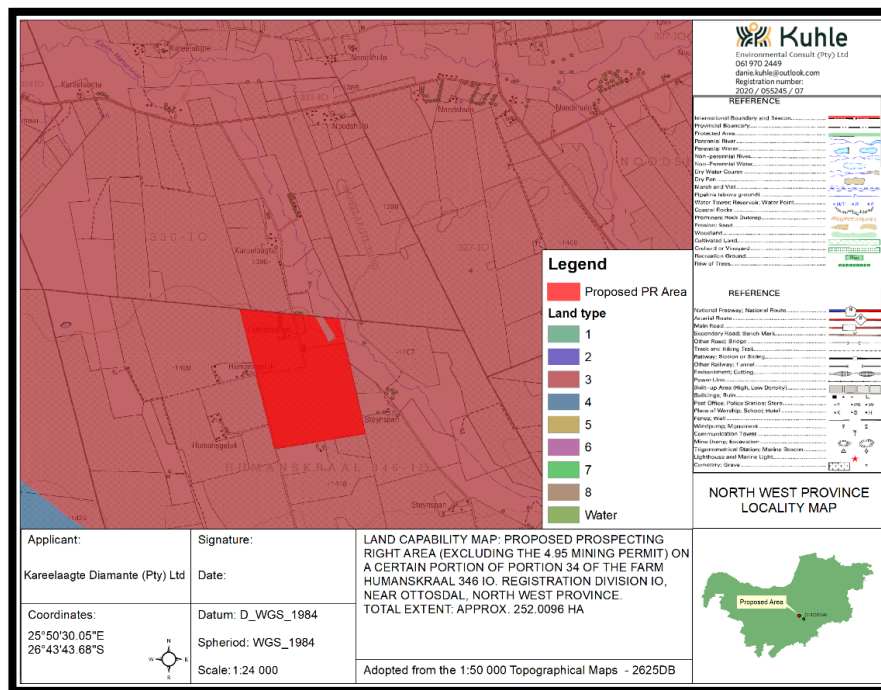


Figure 3: Land Capability Map

- (b) The type of activity to be undertaken

The proposed prospecting activities and their associated technologies have been selected due to their success rate throughout the prospecting history. As mentioned previously, each of the proposed prospecting phases depends on

the previous prospecting phase, therefore no alternative activities are considered, but rather a phased approach of historically trusted prospecting techniques.

(c) The design or layout of the activity

As mentioned previously, each of the proposed prospecting phases depends on the results of the previous prospecting phase. Therefore, it is difficult to determine the total extent and the location of each bulk sample to be taken. Due to this difficulty, mapping of the proposed prospecting activities could not be undertaken at this stage. Thus, the extent and location of the bulk sample activities will be determined during phase 1 of the Prospecting Work Programme (see **Appendix 9** for the Programme).

(d) The technology to be used in the activity

The proposed prospecting activities and their associated technologies have been selected due to their success rate throughout the prospecting history. As mentioned previously, each of the proposed prospecting phases depends on the previous prospecting phase, therefore no alternative activities are considered, but rather a phased approach of historically trusted prospecting techniques.

The proposed prospecting activities and their associated technologies for the proposed prospecting activities will be to excavate and remove the diamond-bearing gravel (resource) by making use of the excavators. The gravel (resource) will then be transported by dumper trucks to the washing plant and then be deposited into the feed bins of the 10 – 18 feet rotary washing pan(s) to be washed and sorted.

Please find the Prospecting Work Programme attached as Appendix 9.

The rotary washing pan was chosen as the best alternative after comparing the pros and cons thereof with that of a Dense Media Separator (DMS).

Advantages of a Rotary Washing Pan vs the advantages of a DMS

Advantages - rotary washing pan	Advantages - DMS
More cost-effective than that of a DMS	DMS plants are used mostly for kimberlite deposits
More available	
Creates more job opportunities	
Lower water consumption than that of a DMS	
Rotary Pan Plants are the most common technique used when it gets to the prospecting and mining of alluvial deposits	

Disadvantages of a Rotary Washing Pan vs the disadvantages of a DMS

Disadvantages - rotary washing pan	Disadvantages - DMS
The industry perception that Rotary Pan Plants yield poorer diamond recoveries	Known to be more expensive than Rotary Washing Pans

	Water consumption is higher than Rotary Washing Pans
	Operating costs are more expensive than Rotary Washing Pans

(e) The operational aspects of the activity

The proposed prospecting activities applied for does not require any permanent services in terms of water supply, electricity, or sewerage services are required.

The proposed prospecting will commence with the Phase 1 and 2 activities, which includes the site visit and desktop studies. This will allow the applicant to determine the areas that should be targeted through the proposed prospecting. This includes the identification of any infrastructure to be erected, any potential problems that may arise and to be addressed.

Based on the outcome of Phase 1 and 2 activities, pits will be excavated, logged, sampled and backfilled. This will allow the specialists to get a brief description of the soil and geological layers from the surface to the base of the pits; a record of rock head and refusal depth; an indication of where trenches should be excavated to obtain bulk samples; an indication of where groundwater is expected to be intersected; a general indication of the underlying geology and the associated conditions in the vicinity of the test pits.

The applicant will then proceed with bulk sampling. Gravel will be excavated, removed and loaded directly onto dumper trucks by excavators. The excavated gravel will then be hauled to the on-site screening plant. The material will be screened where after the screened material will be transported to the on-site processing plant, where the gravel will be processed by making use of 2 x 16ft washing pans. Concentrate will be moved to the Flowsort plant where the concentrate will be sorted.

Kareelaagte Diamante (Pty) Ltd will then be able to determine the grade of the alluvial diamond deposit. The grade of a diamond deposit is the estimated number of carats contained in one hundred tonnes (cpht) or hundred cubic metres (ct/100 m³) of gravel.

All data will be consolidated and processed to determine an “Inferred Resource” and an “Indicated Resource”. This will be a continuous process throughout the prospecting work programme.

The reason for making use of the abovementioned methods is that no alternatives for the pitting and trenching method currently exists. The impacts that are being associated with this type of prospecting operations will be managed and mitigated by implementing an environmental management programme.

(f) The option of not implementing the activity

Should the proposed activity not proceed, the site will remain unchanged.

Should the no-go alternative be implemented, the following disadvantages will be associated

1. There will be a loss of direct and indirect opportunities for employment in the surrounding community.

2. Unutilised diamond mineral resources will be lost which will lead to no additional income to the surrounding community.
3. This will ultimately harm the South Africa economy for the mining industry contributes greatly to our local economy.

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 the use of their land.

The Public Participation Process (PPP) according to Chapter 6 of the NEMA guidelines include the following processes.

1. Identification of the key Interested and Affected Parties (“I&APs”) such as the affected and adjacent landowners and other stakeholders which includes organs of state and other parties.
2. The placement of site notices on farms, and within a 100m radius
3. The formal and direct notification of the application to key Interested and Affected Parties (all adjacent landowners) and other stakeholders
4. Consultation and correspondence with I&AP’s and Stakeholders.
5. Public meetings at a centrally accessible location identified by I&AP and the addressing of their comments they might have.
6. Newspaper advertisements.

1. Identification of key Interested and Affected Parties

The principal objective of public participation is to inform and enrich decision-making. This is also a key phase in this Environmental Impact Assessment (“EIA”) process.

Landowners (affected and adjacent) were identified through a search conducted via online search engines accessing the Title Deed office database. In addition to landowners, other relevant organisations were identified and notified of the application. This includes Municipal and Governmental Departments with jurisdiction in the project area and Non- Governmental Organisations (NGOs) with an interest. I&AP’s representing the following sectors of society were identified:

- National, provincial and local government;
- Agriculture, including local landowners;
- Community-Based Organisations
- Non-Governmental Organisations;
- Department of Water and Sanitation
- Industry and Mining;
- Other stakeholders

2. Placement of site notices

Numerous site notices were placed (as anticipated on the coordinates below) on-site in English on **02 July 2021** to inform the surrounding communities and immediately adjacent landowners of the proposed development. I&APs were given the opportunity to raise comments within thirty (30) days of placing the site notices. Photographic evidence of the site notices is included in Appendix 5. Below are the coordinates where the site notices were placed.



Figure 4: Site Notice Co-ordinates

3. Formal and Direct notification and circulation of SR to identified I&APs

The Identified I&APs and key stakeholders representing various Departments, were directly informed of the proposed prospecting development and the availability of the **SR Report** via consultation letters and emails on **01 July 2021** and were requested to submit comments by **31 July 2021**. For a complete list of stakeholder details and proof of registered post see **Appendix 5**.

I&APs were expected to provide their inputs and comments within 30 days after receipt of the notification or SR Report. When the comment period ended, all comments received were included in the final SR Report & EMP Report.

Direct notification of surrounding landowners and occupiers

Notices and the availability of the SR Report were also provided to all the identified surrounding landowners and land occupiers on **01 July 2021**. The identified surrounding landowners were given the opportunity to raise comments **31 July 2021**. For a list of surrounding landowners see **Appendix 5**.

Table 9: Summary of Stakeholders, Landowners and Surrounding Landowners.

Identified Stakeholders	Identified Landowners / Occupier	Identified Surrounding Landowner / Occupier
Department of Agriculture and Rural Development (DARD)	Owner of Portion 34 of Humanskraal 346 IO	Portion 4 of Kareelaagte 330 IO
Department of Economic Development, Environment, Conservation and Tourism (DEDECT)		Portion 5 of Kareelaagte 330 IO
The Department of Human Settlements, Water & Sanitation (DHSWS)		The remaining extent of portion 1 of Kareelaagte 331 IO

Identified Stakeholders	Identified Landowners / Occupier	Identified Surrounding Landowner / Occupier
Provincial Heritage Resources Agency (PHRA) North West		Portion 10 of Humanskraal 346 IO
Department of Community Safety and Transport Management		Portion 16 of Humanskraal 346 IO
Department of Public Works, Roads and Transport in NW (DPWRT)		Portion 17 of Humanskraal 346 IO
Department of Agriculture Forestry, and Fisheries (DAFF)		The remaining extent of portion 20 of Humanskraal 346 IO
Department of Environment, Forestry, and Fisheries (DEFF)		
Department of Agriculture, Land Reform and Rural development		
Bojanala District Municipality		
Municipal councillor of the ward & Municipal Manager for Tswaing LM		
North West Department: Economy and Enterprise Development		
South African Heritage Resources Agency (SAHRA)		
South African National Roads Agency (SANRAL)		
WESSA (National Office)		
Eskom		
Transnet		

4. Consultation and correspondence with I&AP's and Stakeholders.

Issues Raised by I&AP's and Stakeholders

The comments received are captured in the comments and response table/form (See **Appendix 5** for comments and response form).

5. Public meetings at a centrally accessible location identified by I&AP and the addressing of their comments they might have.

Public Meeting

Due to Covid-19, no public meetings will be held.

6. Newspaper Notice

A notice was placed in English in the local newspaper (**Noordwester**) on **02/07/2021** (see **Appendix 5**) notifying the public of the proposed prospecting application and its associated EIA process and allowing Interested and Affected Parties (I&APs) to register with, and submit their comments to Kuhle Environmental Consult (Pty) Ltd. I&APs were given the opportunity to raise comments and concerns within 30 days of the notice.

i) Summary of issues raised by I&AP's

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

Table 10: Summary of the Issues Raised by I&AP's

INTERESTED AND AFFECTED PARTIES		ISSUES RAISED	EAPS RESPONSE TO ISSUES AS MANDATED BY THE APPLICANT	SECTION AND PARAGRAPH REFERENCE IN THIS REPORT WHERE THE ISSUE AND OR RESPONSE WERE INCORPORATED
List the names of persons consulted in this column, and Mark with an X where those who must be consulted were consulted.				
Organisation	Owner & Contact person			
Land Owner				
Portion 34 of Humanskraal 346 IO	Mr. M.J. Theunissen	No objection		
Surrounding Land Owners				
The remaining extent of portion 1 of Kareelaagte 330 IO	Wilco Trust	No objection		
	Mr. J.A. Coetzee			
Portion 4 of Kareelaagte 330 IO	Wilco Trust	No objections		
	Mr. J.A. Coetzee			
Portion 5 of Kareelaagte 330 IO	Wilco Trust	No objections		
	Mr. J.A. Coetzee			
Portion 10 of Humanskraal 346 IO	Wilwest Boerdery CC Mr. C.J.L. West	On a Comments and Response Form dated 7/07/2021, the following is stated: "The fence was constructed by myself. The current owner made no contribution what so ever. No mining to happen within 15 meters of the fence. The owner was notified of all the expenses that I had regarding the fence."		
Portion 16 of Humanskraal 346 IO	Mr. M.J. Theunissen	No objection		
Portion 17 of Humanskraal 346 IO	Protected by POPI Act	None received to date		

The remaining extent of portion 20 of Humanskraal 346 IO	Mr. M.J. Theunissen	No objection		
The Municipality in which jurisdiction the development is located				
Tswaing LM	Municipal Manager: Mr Valtein Mokopane Letsoalo	None received to date		
Municipal councillor of the ward in which the site is located				
Tswaing LM	Ward 30 Councillor	None received to date		
Organs of the state having jurisdiction				
Department of Economic, Development, Environment, Conservation and Tourism (DEDECT)	Ouma Skosana	None received to date		
Department Mineral Resources & Energy	Ms Ntanganedzeni Mushome	In a letter dated 20/05/2021, the mineral application submitted is accepted. This letter was attached to an email dated 31/05/2021. In a letter dated 13/04/2021, the Environmental Authorisation Application is acknowledged. In an email dated 15/05/2021, the Department granted the extension.	In an email dated 11/05/2021, the EAP notified the Department of a 20 day timeframe extension.	
The Department of Human Settlements, Water & Sanitation (DHSWS)	Mr K. Mudau Mr Chadwick Lobakeng Dr Tseliso Ntili	None received to date		
NW Agriculture and Rural Development (DARD)	Ms Bonolo Mohlakoana	None received to date		
Provincial Heritage Resources Agency (PHRA) North West	Mr. Motlhabane Mosiane	None received to date		

Department of Public Works, Roads and Transport in NW (DPWRT)	HOD: Mr P Mothupi	None received to date		
Department of Agriculture, Forestry, and Fisheries (DAFF)	Mr Maurice Vukeya & Mrs Mpho Gumula	None received to date		
North West Department: Economy and Enterprise Development	HOD Mr L Tshikovhi	None received to date		
Department of Agriculture, Land Reform and Rural Development	Land Claims Commissioner: Regional Offices, Chief Director: Mr Lengane Bogatsu	In a letter dated 16/07/2021, the request for comments is acknowledged. This letter was attached to an email dated 21/07/2021		
South African Heritage Resources Agency (SAHRA)	Ms Natasha Higgitt	None received to date		
South African National Roads Agency (SANRAL)	Ms Nicole Abrahams	None received to date		
Other-				
Bojanala District Municipality	Municipal Manager: Mr P Shikwane Secretary: Tsholofelo B Dikgole	None received to date		
WESSA (National Office)	To whom it may concern	None received to date		
North West Parks and Tourism Board	Mr Wilfred Seithamo	In an email dated 02/06/2021, Mr. Seithamo, acknowledged the request for comments.		
Eskom	Vuyokazi Dlulane Katlego Hungwane	None received to date		
Transnet	Transnet Ltd Norman Papenfus Real Estate Management	In an email dated 02/06/2021, Transnet confirmed that the application will have no affect to Transnet.		

	André Bodenstein Geo-Spatial (Inland)			
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ii. The Environmental attributes associated with the sites

(1) 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.

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

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

Geographical Environment

The proposed site falls within the Tswaing LM, located in the North West Province of South Africa. The proposed site is 252.0096Ha (256.9596 Ha- 4.95ha) in extent and is near the town of Ottosdal.

Physical Environment

A. Geology and Soils

The area forms further part of the old Palaeo River Valley which flowed from north to south and the Vaal River. The country rocks are lavas of the Ventersdorp supergroup and remnants of the Dwyka Tillite and Shale. The anticipated deposits are situated in channels and are covered in calcrete in some places. The deposits normally consist of thick medium to coarse-grained fluvial gravels of mixed lithological composition. (Lava, Dolomite, Fe-shale, Chert, Quartzite, Agate, Quartz etc)

A Geological Map is attached in **Appendix 6** and figure 5 below.

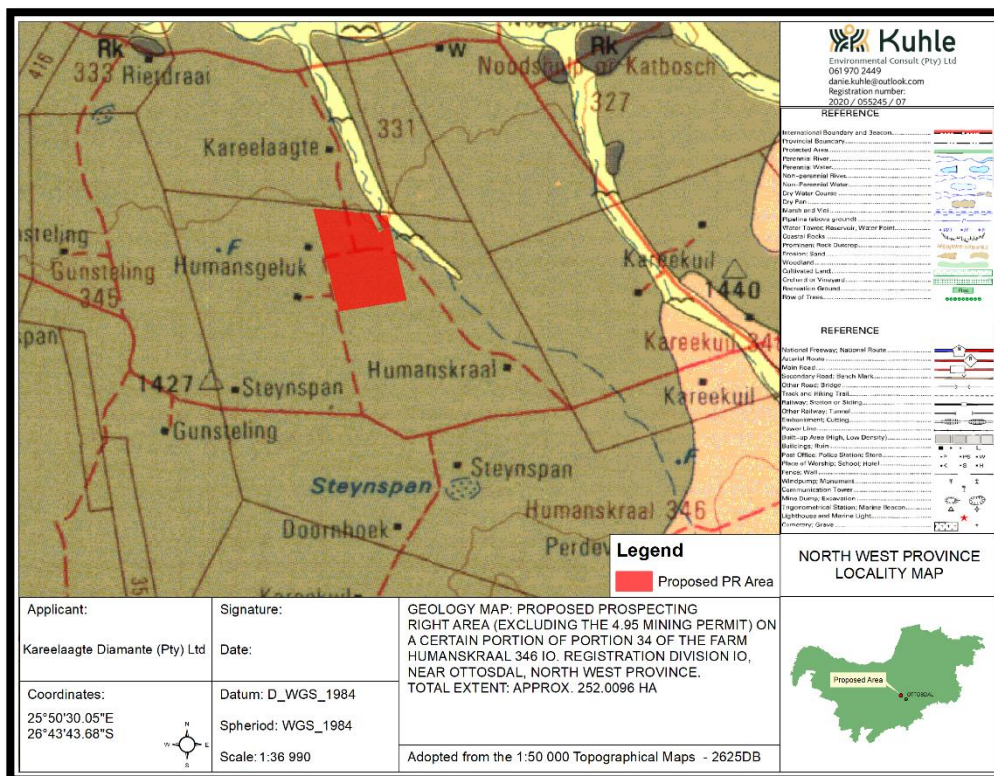


Figure 5: Geology Map

B. Climate and water availability

Ottosdal is 1499m above sea level. Ottosdal's climate is a local steppe climate. In Ottosdal, there is little rainfall throughout the year. This climate is considered to be BSk according to the Köppen-Geiger climate classification. The temperature here averages 17.4 °C | 63.4 °F. In a year, the rainfall is 565 mm | 22.2 inch.

Precipitation is the lowest in July, with an average of 4 mm | 0.2 inch. With an average of 103 mm | 4.1 inch, the most precipitation falls in January.

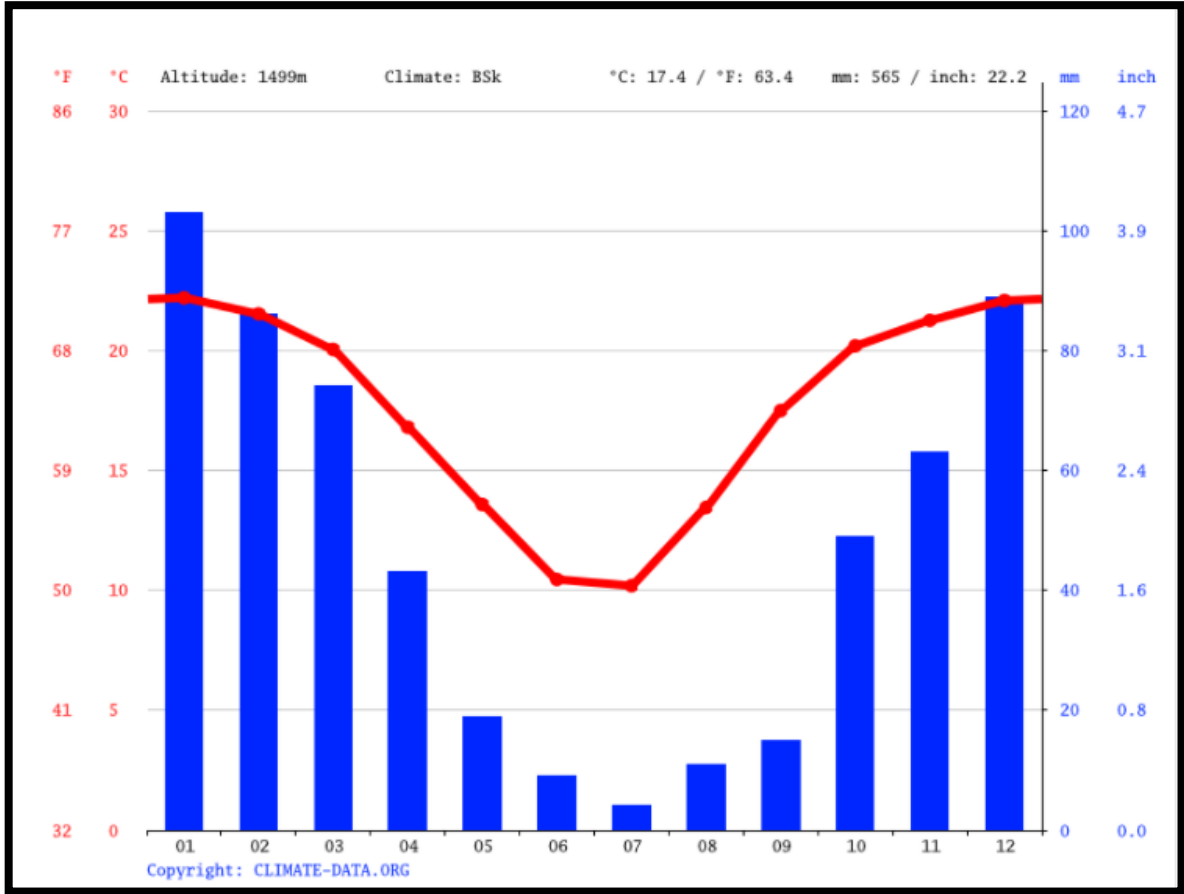


Figure 6: Ottosdal Climate Graph // Weather By Month

At an average temperature of 22.2 °C | 72.0 °F, January is the hottest month of the year. July has the lowest average temperature of the year. It is 10.2 °C | 50.3 °F.

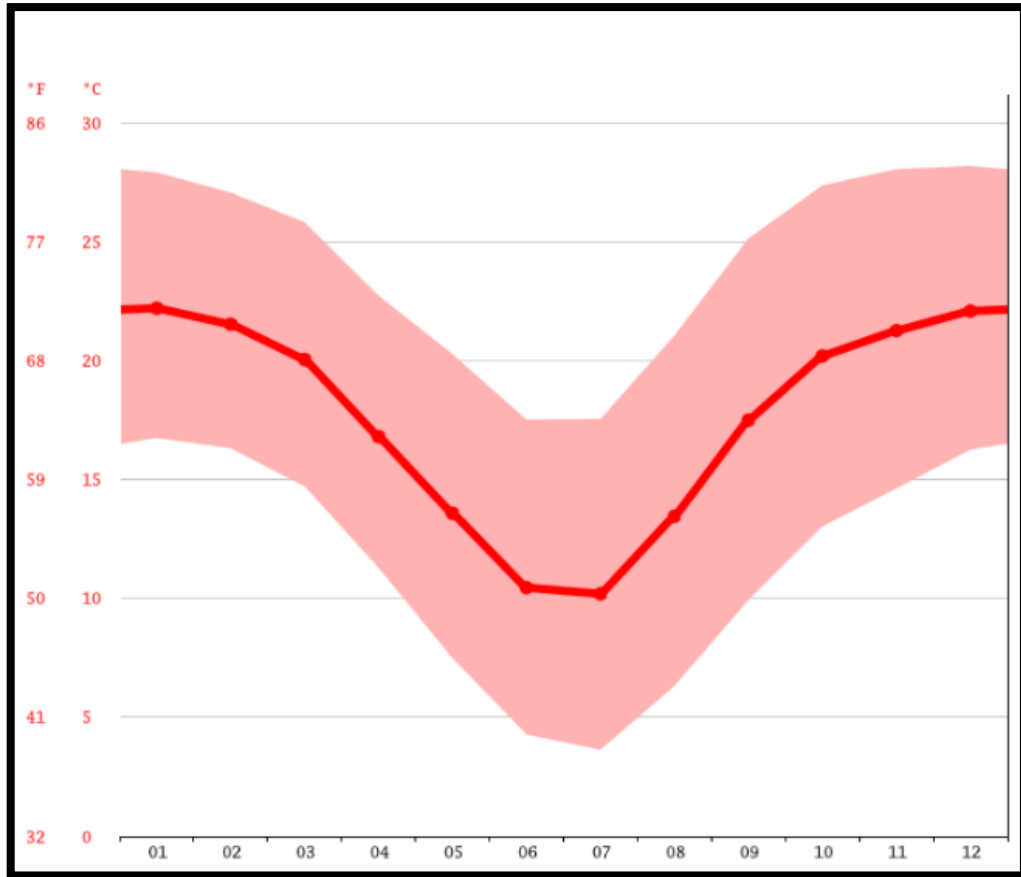


Figure 7: Ottosdal Average Temperature

Between the driest and wettest months, the difference in precipitation is 99 mm | 4 inch. During the year, the average temperatures vary by 12.0 °C | 21.6 °F.

	January	February	March	April	May	June	July	August	September	October	November	December
Avg. Temperature °C (°F)	22.2 °C (72.0) °F	21.5 °C (70.7) °F	20 °C (68.1) °F	16.8 °C (62.2) °F	13.6 °C (56.4) °F	10.5 °C (50.8) °F	10.2 °C (50.3) °F	13.5 °C (56.2) °F	17.5 °C (63.5) °F	20.2 °C (68.3) °F	21.3 °C (70.3) °F	22.1 °C (71.7) °F
Min. Temperature °C (°F)	16.7 °C (62.1) °F	16.3 °C (61.4) °F	14.7 °C (58.5) °F	11.3 °C (52.3) °F	7.5 °C (45.5) °F	4.3 °C (39.7) °F	3.6 °C (38.5) °F	6.3 °C (43.4) °F	9.9 °C (49.9) °F	13 °C (55.5) °F	14.6 °C (58.3) °F	16.3 °C (61.3) °F
Max. Temperature °C (°F)	27.9 °C (82.2) °F	27.1 °C (80.7) °F	25.8 °C (78.5) °F	22.7 °C (72.9) °F	20.3 °C (68.5) °F	17.5 °C (63.5) °F	17.5 °C (63.6) °F	21.1 °C (69.9) °F	25.1 °C (77.2) °F	27.4 °C (81.3) °F	28 °C (82.5) °F	28.2 °C (82.7) °F
Precipitation / Rainfall mm (in)	103 (4.1)	86 (3.4)	74 (2.9)	43 (1.7)	19 (0.7)	9 (0.4)	4 (0.2)	11 (0.4)	15 (0.6)	49 (1.9)	63 (2.5)	89 (3.5)
Humidity(%)	56%	58%	58%	57%	50%	49%	43%	34%	30%	35%	41%	51%
Rainy days (d)	11	10	9	5	2	1	1	1	2	6	7	10
avg. Sun hours (hours)	10.8	10.3	9.8	9.1	9.2	8.9	9.3	9.8	10.3	10.9	11.1	11.2

Figure 8: Ottosdal Weather By Month // Weather Averages

In Ottosdal, the month with the most daily hours of sunshine is December with an average of 11.16 hours of sunshine. In total there are 345.89 hours of sunshine throughout December.

The month with the fewest daily hours of sunshine in Ottosdal is January with an average of 11.16 hours of sunshine a day. In total there are 345.89 hours of sunshine in January.

Around 3670.17 hours of sunshine are counted in Ottosdal throughout the year. On average there are 120.67 hours of sunshine per month.

Climate data source: <https://en.climate-data.org/africa/south-africa/north-west/ottosdal-189666/>

C. Wetlands and Rivers

Wetland Areas

Wetlands are 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 illustrate all the possible wetland areas in the proposed portion. The proposed 252.0096Ha (256.9596 Ha– 4.95ha) area consists of no wetlands. However, a dam is found north-eastern corner of the farm.

A Wetland Map is attached in **Appendix 6** and figure 9 below.

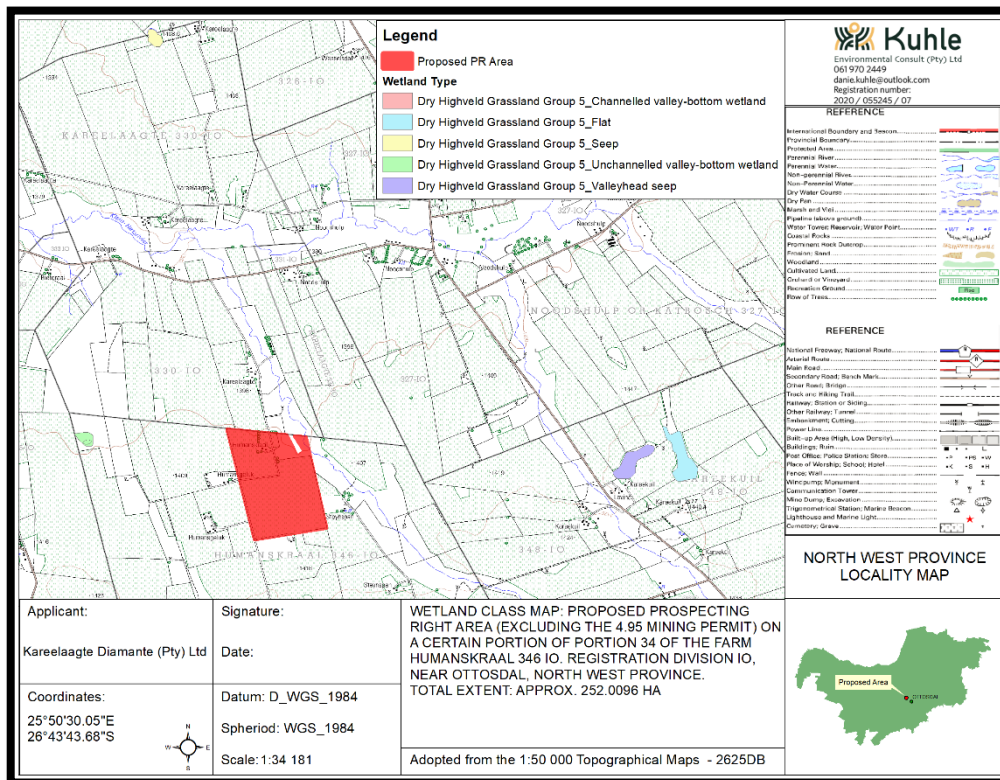


Figure 9: Wetland Types Present on Site

River Ecosystem Status

No major river occurs on or adjacent to the proposed application area. However, a tributary to the Klein-Harts River flows through the north-easterly corner of the application area.

A Rivers Map is attached in **Appendix 6** and figure 10 & 11 below.

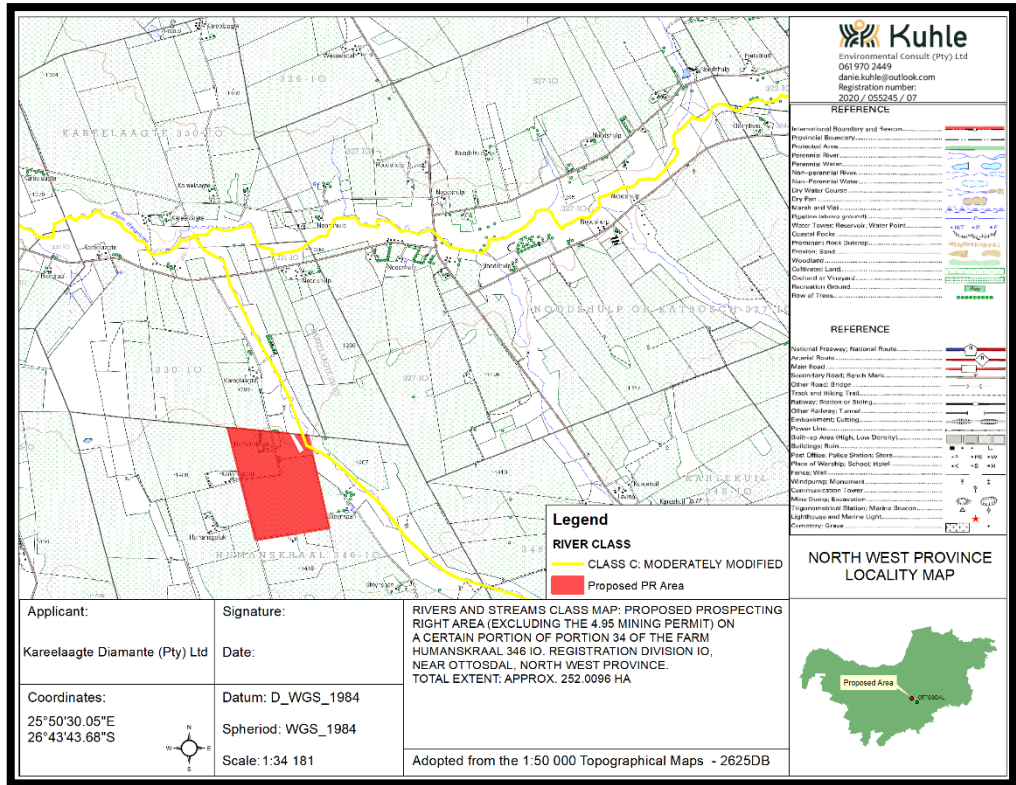


Figure 10: River Ecosystem Status

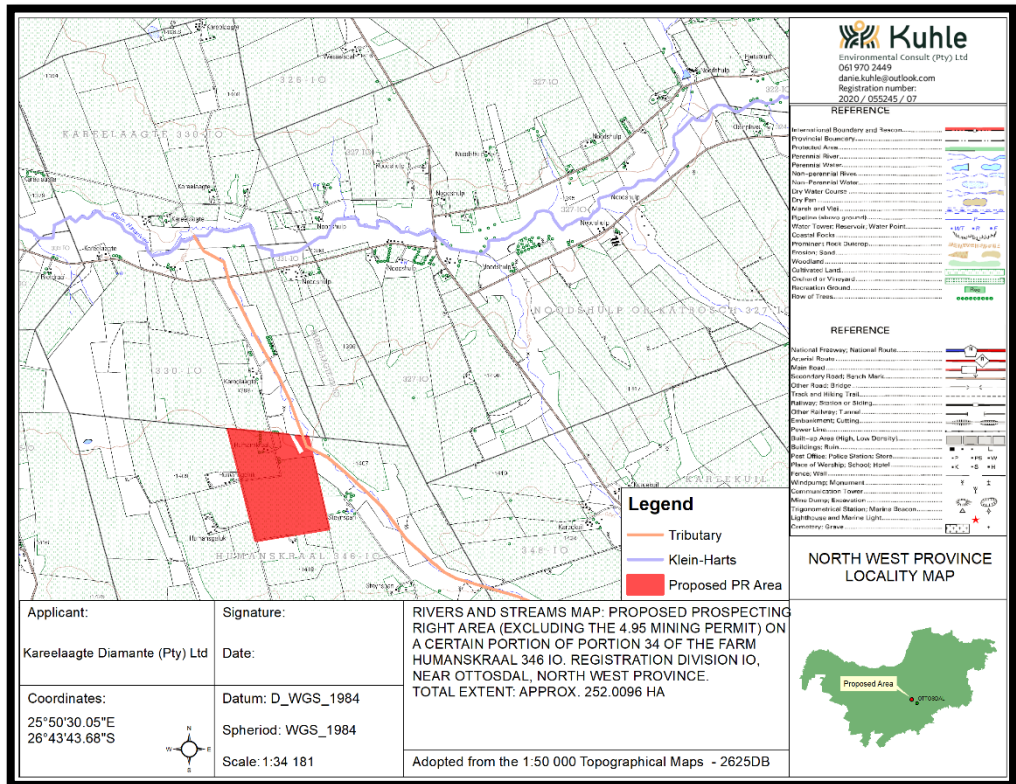


Figure 11: River and Streams Map

D. Natural Vegetation and floristics

The proposed prospecting area is found within vegetation unit Gh 14, which is known as the Western Highveld Sandy Grassland. The Western Highveld Sandy Grassland is part of the Dry Highveld Grassland, which is a sub-bioregion of the Grassland Biome.

According to Mucina and Rutherford (2006:387), Western Highveld Sandy Grassland covers the North West Provinces, from Mafikeng to Schweizer-Reneke in the south and from Broedersput and Kameel in the west to Lichtenburg and Ottosdal in the east. This vegetation is situated at an altitude of 1280-1520m and the main area at 1340-1380 m. The area often has flat to gently undulating plains with short dry grassland, with some woody species occurring in bush clumps.

Mucina and Rutherford (2006:388) also state that the conservation is endangered with a target of 24%. Only a very small portion statutorily conserved (Barberspan Nature Reserve). More than 60% has been ploughed. Non-arable parts are on shallow Aeolian soils which become easily over-utilised through grazing. This vegetation type has very low erosion and about 95% of this land is suitable for cultivation. However, low rainfall makes it a high-risk area for agriculture. Therefore, the natural vegetation is often restricted to non-arable bush clumps, shallow soils, Aeolian sands and pans.

See **Appendix 6 & Figure 12.**

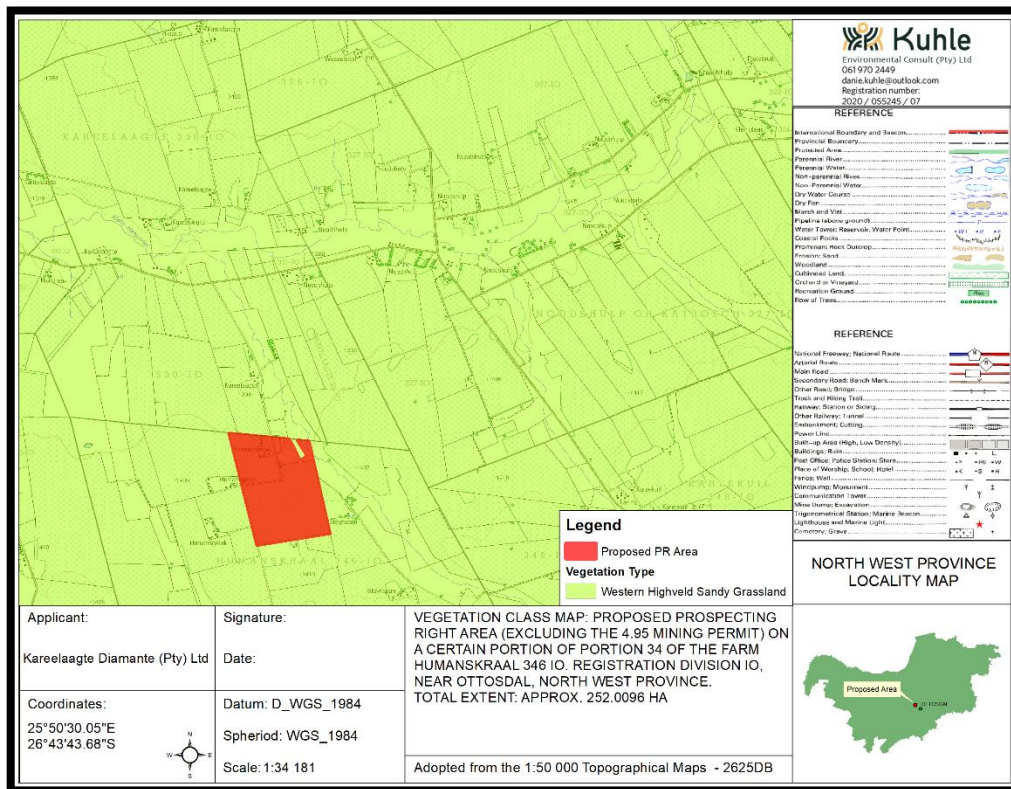


Figure 12: Vegetation Unit Map

Protected Areas

According to the data for protected areas from SANBI, the proposed prospecting area does not fall within a Formally Protected Area, nor a Threatened Ecosystem.

A Protected Areas Map is attached in **Appendix 6** and figure 13 below.

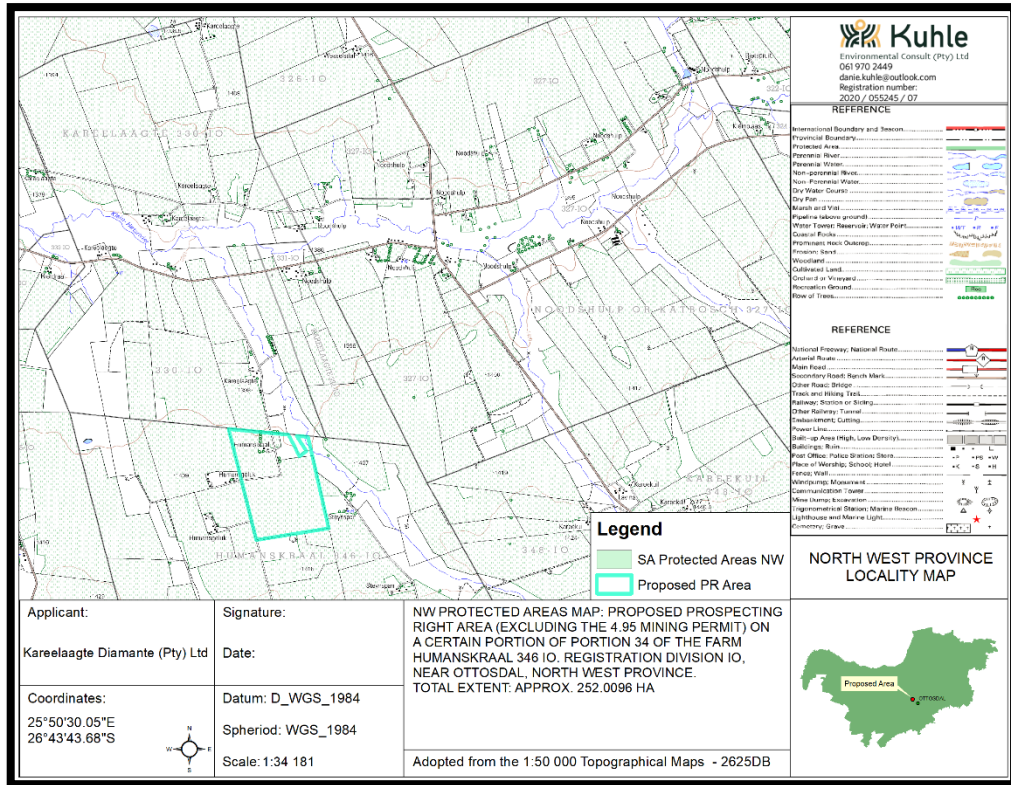


Figure 13: Protected Area Map

Protected tree species

Protected tree species trees may be found in the proposed area. Such trees are protected under the National Forests Act No. 84 of 1998 are listed in Table 4.9. 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 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 will be applied for.

Critical Biodiversity Area

The NW: Biodiversity Plan of the Department of Rural, Environmental and Agriculture Development (READ)(now DEDECT) defines CBA and Ecological Support Areas as follows:

CBA are terrestrial and aquatic areas of the landscape that need to be maintained in a natural or near-natural state 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. Maintaining an area in a natural state can include a variety of biodiversity compatible land uses and resource uses.

Ecological Support Areas (ESAs) are terrestrial and aquatic areas that are not essential for meeting biodiversity representation targets (thresholds), but which nevertheless play an important role in supporting the ecological functioning of CBA and/or in delivering ecosystem services that support socio-economic development, such as water provision, flood mitigation

or carbon sequestration. The degree or extent of the restriction on land use and resource use in these areas may be lower than that recommended for CBAs.

According to the data for CBAs, the proposed area falls within parts of CBA 1.

A CBA Map is attached in **Appendix 6** and figure 14 below.

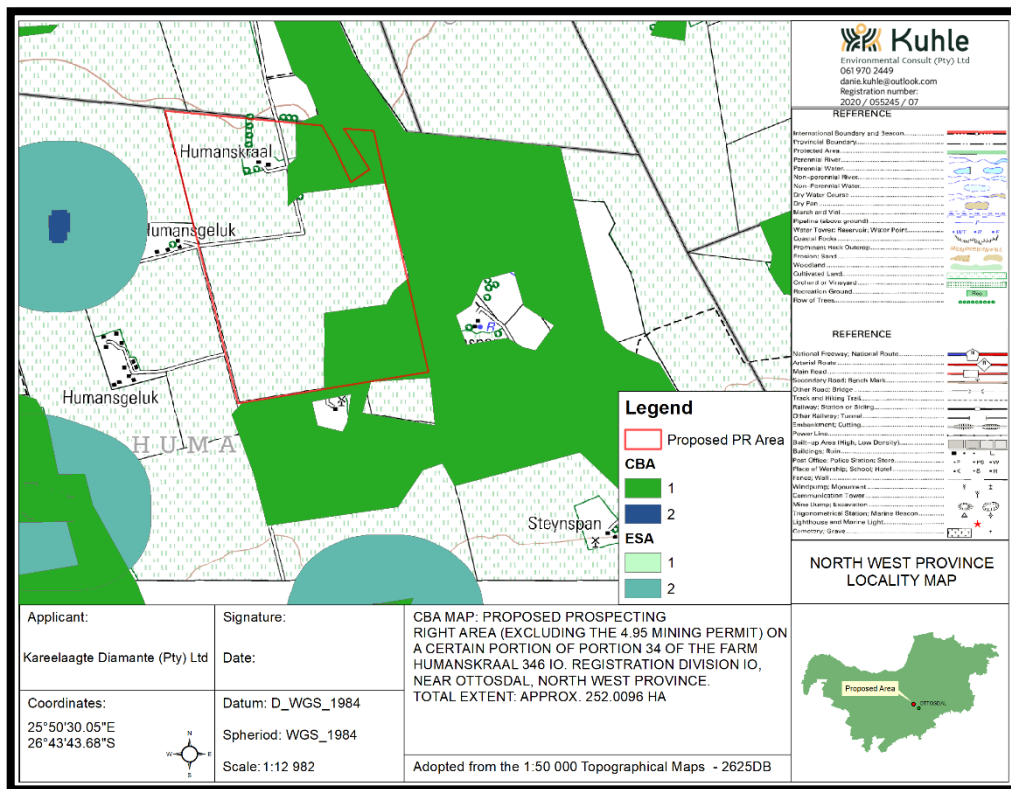


Figure 14: Critical Biodiversity Areas Map

Sensitive area for Mine

The Mining of Biodiversity Guidelines, biodiversity priority areas sensitive to the impacts of mining are categorized into four categories (please see table 11 below).

Table 11: 4 Categories of biodiversity guidelines

Category	Category Description (DEA, DMR, Chamber of Mines, SAMBF & SANBI 2013)
A - Legally protected Areas	<p>Biodiversity Priority Areas:</p> <ul style="list-style-type: none"> Protected areas (including National Parks, Nature Reserves, World Heritage Sites, Protected Environments, Nature Reserves) Areas declared under Section 49 of the Mineral and Petroleum Resources Development Act (No. 28 of 2002) <p>Risks for Mining:</p> <ul style="list-style-type: none"> Mining Prohibited

<p>B - Highest Biodiversity Importance Areas</p>	<p>Biodiversity Priority Areas:</p> <ul style="list-style-type: none"> • 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 <p>Risks for Mining:</p> <ul style="list-style-type: none"> • Highest Risk for Mining
<p>C - High Biodiversity Importance Areas</p>	<p>Biodiversity Priority Areas:</p> <ul style="list-style-type: none"> • Protected area buffers (including buffers around National Parks, World Heritage Sites* and Nature Reserves) • Transfrontier Conservation Areas (remaining areas outside of formally proclaimed protected areas) • Other identified priorities from provincial spatial biodiversity plans • High water yield areas • Coastal Protection Zone • Estuarine functional zone • Note that the status of buffer areas of World Heritage Sites is subject to a current intra-governmental process <p>Risks for Mining:</p> <ul style="list-style-type: none"> • High Risk for Mining
<p>D - Moderate Biodiversity Importance Areas</p>	<p>Biodiversity Priority Areas:</p> <ul style="list-style-type: none"> • Ecological support areas • Vulnerable ecosystems • Focus areas for protected area expansion (land-based and offshore protection) <p>Risks for Mining:</p> <ul style="list-style-type: none"> • Moderate Risk for Mining

The purpose of this Guideline provides explicit direction in terms of where mining-related impacts are legally prohibited, where biodiversity priority areas may present high risks for mining projects, and where biodiversity may limit the potential for mining. The Guideline distinguishes between four categories of biodiversity priority areas concerning their importance from a biodiversity and ecosystem service perspective as well as the implications for mining in these areas.

According to the guide to mining map, the proposed area falls within category B which states the biodiversity priority areas is as follows:

Highest biodiversity importance (B)

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

A Guide to Mining Map is attached in **Appendix 6** and figure 15 below.

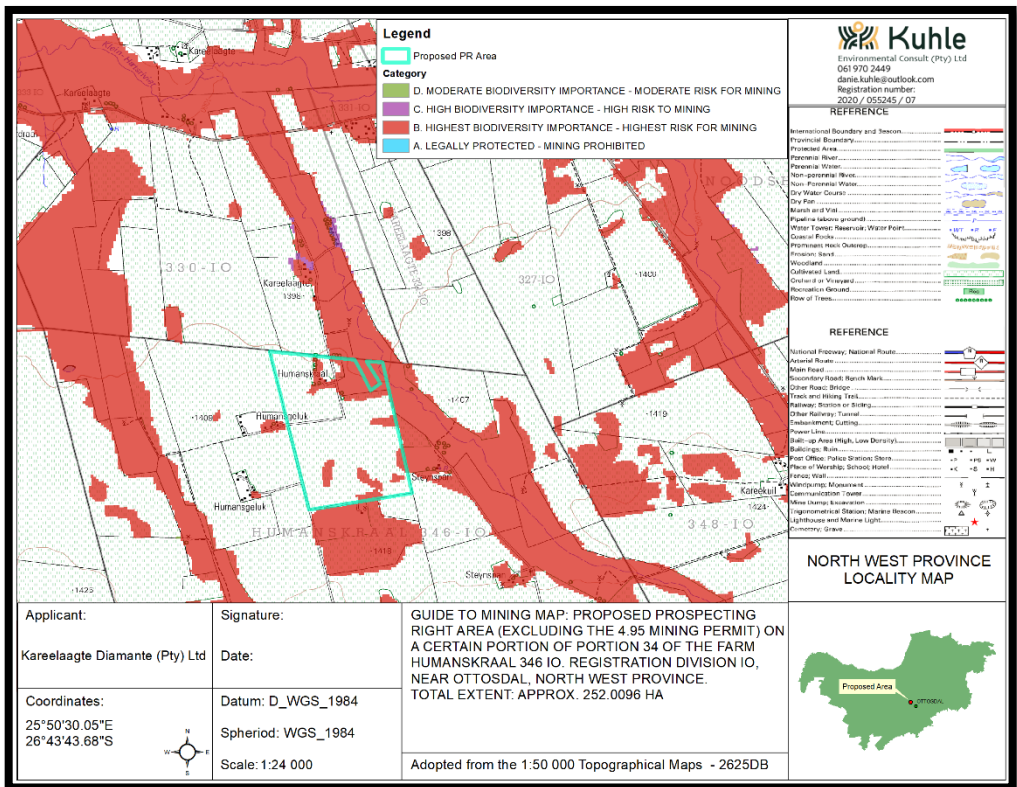


Figure 15: Sensitive Area for Mine Map

E. Cultural and Heritage Environment

According to the Phase 1: Heritage Assessment conducted by Mr Van Schalkwyk (2021) (Appendix 10), no sites, features or objects of cultural significance were identified.

F. Socio-economic profile

Tswaing Local Municipality is part of Ngaka Modiri Molema District Municipality.

MDB code: NW382

Description: The Tswaing Local Municipality is a Category B municipality situated in the Ngaka Modiri Molema District in the North West Province. It is one of the five local municipalities in this district, making up almost a quarter of its geographical area.

Tswaing Local Municipality provides all the basic services in its area of jurisdiction except water and sanitation, which are provided by the Ngaka Modiri Molema District Municipality. The data from Global Insight Regional Explorer 593 indicates that there has been tremendous improvement in the allocation of services to the communities in the Tswaing Local Municipality, especially housing, water, electricity and sanitation.

Despite these positive results, the municipality still faces challenges with regards to backlogs in the provision of water, electricity, sanitation, roads and street lighting. The main reason for this is the increase in population in the past 10 years, partly due to evictions of people in the surrounding farms and partly because of the natural growth of the population.

Area: 5 875km²

Cities/Towns: Delareyville, Ottosdal, Sannieshof

Main Economic Sectors: Agriculture, small-scale mining

b) Description of the current land uses

The land uses currently on this site and its surroundings include:

- Cultivation Areas
- Natural area
- Waterbodies.

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

The following infrastructure is found on the proposed 252.0096Ha

(256.9596 Ha– 4.95ha):

- Farm roads
- A farm house
- Powerline.

d) Environmental and current land use map.

(Show all environmental, and current land use features)

A Land Cover Map is attached in **Appendix 6** and figure 16 below.

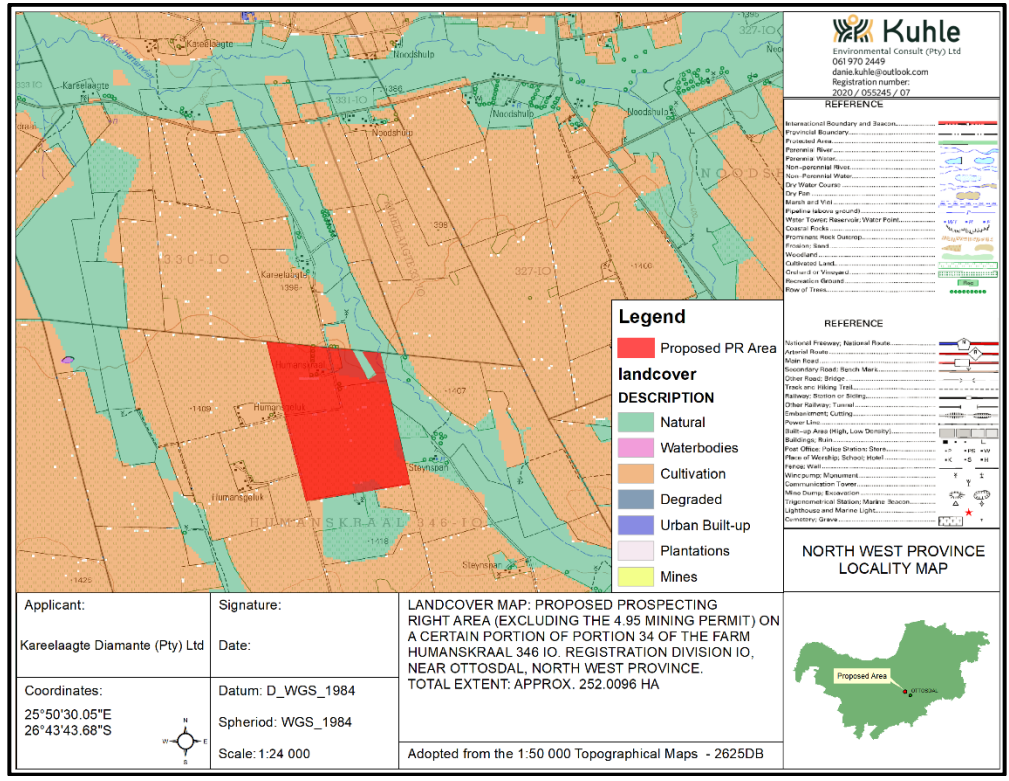


Figure 16: Land Cover Map

i. **Impacts identified**

(Provide a list of the potential impacts identified of the activities described in the initial site layout that will be undertaken, as informed by both the typical known impacts of such activities, and as informed by the consultations with affected parties together with the significance, probability and duration of the impacts

<p>Impacts identified during the construction phase</p>	<ul style="list-style-type: none"> ○ Negative impacts related to fauna and flora ○ Negative impacts related to the subsurface (soil and geology) ○ Positive impacts related to temporary employment and ○ Positive impacts related to other economic benefits ○ Possible impacts on heritage resources ○ Possible impacts on surface water (wetlands/pans) ○ Possible impacts on the existing services infrastructure ○ Impacts on air quality ○ Noise Impacts
<p>Impacts identified during the operational phase</p>	<ul style="list-style-type: none"> ○ Negative impacts related to fauna and flora ○ Negative impacts related to the subsurface (soil and geology) ○ Positive impacts related to temporary employment and ○ Positive impacts related to other economic benefits ○ Possible impacts on heritage resources ○ Possible impacts on surface water (wetlands/pans) ○ Possible impacts on the existing services infrastructure ○ Visual impacts were identified ○ Impacts on air quality ○ Noise impacts
<p>Impacts identified during the decommissioning phase</p>	<ul style="list-style-type: none"> ○ Loss of income to the local community ○ Loss of employment

- iv. The methodology in determining the significance of environmental impacts (Describe how the significance, probability, and duration of the aforesaid identified impacts that were identified through the consultation process was determined to decide the extent to which the initial site layout needs revision).

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.

Table 12: Process for the Identification of Key Issues

Process for the identification of key issues	
Checklist analysis:	The checklist contains a list of properly structured questions relating to the environmental parameters and specific human actions. These questions promote ordering thinking, data collection, presentation and alert against the omission of possible impacts.
Matrix analysis:	The matrix analysis method provides a complete indication of the interaction and relationship between the various proposed activities, development phases (construction, operational and decommissioning) and the impact thereof on the applicable environment. This method aims at providing a first-order cause and effect relationship between the environment and the proposed activity. The matrix is used to indicate the relationship between the various identified stressors and receptors which leads to specific impacts. The other purpose of the matrix is to indicate the various specialist studies that will accompany the Environmental Impact Report to address the potentially most significant impacts.

Checklist analysis

The site visit was conducted on 11/12/2020 (**Appendix 8**) to ensure that a proper analysis of the site-specific characteristics of the proposed application area takes place. The table below provides a proper checklist that was designed to stimulate thought regarding possible consequences of specific actions and so assist in scoping the key issues applicable to the proposed project. The checklist contains numerous structured questions relating to the environmental parameters and specific human actions. These questions promote 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 13: Environmental Checklist

QUESTION	YES	NO	UN-SURE	DESCRIPTION
1. Are any of the below located on the proposed site?				
a. Any waterbodies: river, stream, dam or wetland?	X			One dam and a tributary.
b. Any areas of conservation importance or any other open space areas?			X	Some parts of the application area fall within the CBA 1 areas. An Ecological Assessment will be conducted.

c. An area that is of heritage and/or cultural importance?			×	According to the Phase 1: Heritage Assessment conducted by Mr Van Schalkwyk (2021) (Appendix 10), no sites, features or objects of cultural significance were identified.
d. Any sites of geological importance?		×		None
e. Any areas that are of outstanding natural beauty?		×		None
f. Any signs of highly productive agricultural land?			×	The proposed development falls within Land in Class III (3) - Arable land moderate to severe limitations. Suitable for grazing with moderate potential for crop production.
g. Any floodplains?		×		None
h. Any indigenous forest of importance?	×			Not quite indigenous, but undisturbed natural vegetation does occur. An Ecological Assessment will be conducted.
i. Any indigenous grassland?	×			The proposed prospecting area is found within vegetation unit Gh 14, which is known as the Western Highveld Sandy Grassland. The Western Highveld Sandy Grassland is part of the Dry Highveld Grassland, which is a sub-bioregion of the Grassland Biome. An Ecological Assessment will be conducted.
j. Any important bird nesting sites?	×			No recorded bird nesting sites, but general bird sites are expected due to trees and rivers being present. An Ecological Assessment will be conducted.
k. Any occurrence of red data species?			×	An Ecological Assessment will be conducted.
l. Any tourist resort?		×		None.
2. Will the proposed development potentially result in?				
a. The removal of people?		×		None.
b. Any type of visual impact?	×			Yes, but not significantly.
c. Any kind of noise pollution?	×			Yes, due to the prospecting activities and movement of mining vehicles.
d. The construction of any type of access road?	×			Yes. Only a gravel road will be constructed.
e. Any risk to human or valuable ecosystems due to explosion/fire/discharge of waste into water or air?		×		None, if the mitigation measures are properly implemented.
f. The accumulation of a large workforce (>50 manual workers) into the site?		×		Approximately 20 Skilled & Unskilled people employment opportunities will be created during the construction and operational phase of the project.

g. The utilisation of high volumes of local raw materials such as water, wood etc.?	X			The application area will use 2 x 16 feet washing pans, the amount of water for the pans will be 34 000 L/hour from which 30% is re-used
h. In Job creation?	X			Approximately 20 Skilled & Unskilled people employment opportunities will be created during the construction and operational phase of the project.
i. High volume traffic generation?		X		None, the impact is expected to be low due to the project being small scale and basic.
j. Any type of soil erosion?	X			Yes. Erosion control measures will be required, especially when vegetation is removed and the soil is exposed.
k. The Installation of additional bulk telecommunication transmission lines or other relevant types of facilities?		X		None
l. Any type of air pollution?	X			Limited dust will be generated during the construction and operational phase. Also, emissions from vehicles.
3. Is the proposed development located near any of the below?				
a. Any waterbodies: river, stream, dam or wetland?	X			Tributaries are found around the site.
b. Any conservation or open space areas?			X	None. An Ecological Assessment will be conducted.
c. Any area that is of heritage and/or cultural importance?			X	According to the Phase 1: Heritage Assessment conducted by Mr Van Schalkwyk (2021) (Appendix 10), no sites, features or objects of cultural significance were identified.
d. Any sites that are of geological significance?		X		None
e. Any areas that are of outstanding natural beauty?		X		None.
f. Any highly productive agricultural land?		X		The surrounding areas fall within Land Class III (3) - Arable land moderate to severe limitations. Suitable for grazing with moderate potential for crop production).
g. Any tourist resort?		X		None.
h. Any formal or informal settlement?		X		None. Only farmhouses are found on-site and in the vicinity.

Matrix analysis

The analysis describes the relevant identified listed activities, the various aspects of the proposed development that apply to each of the listed activities, description of the identified

environmental issues, description of the identified potential impacts, the significance and magnitude of the identified potential impacts, and the mitigation of each identified potential impact. The matrix analysis further brings attention to the areas of particular concern, which requires a more in-depth assessment. Each of the cells is evaluated individually in terms of the: nature of the impact, the duration of the impact and the significance of each impact – should no mitigation measures be implemented. This however is very important, since many of the identified impacts would not be able to be considered insignificant if proper mitigation measures were not to be implemented. The matrix also provides a sample indication of applicable mitigation measures.

The different impacts of the matrix specify the following:

The Stressor:	Indicates the aspect of the proposed activity, which initiates and cause impacts on elements of the environment.
The Receptor:	Identifies the recipient and the most important components of the environment that will be affected by the stressor.
The Impacts:	Indicates the net result of the cause-effect between the beforementioned stressor and receptor.
The Mitigation:	Each of the identified impacts needs to be mitigated to minimise the effect on the environment.

Table 14: Matrix Analysis

ASPECTS OF THE DEVELOPMENT /ACTIVITY	IDENTIFIED 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								
<ul style="list-style-type: none"> Removal of vegetation Clearing of areas for infrastructure Hardening of surface areas Management of stormwater Site office, laydown and storage areas Operation of equipment and machinery Vehicle activity Domestic and industrial waste Storage of chemicals, mixes and fuel Spills and leaks 	BIOPHYSICAL ENVIRONMENT	Fauna & Flora	<ul style="list-style-type: none"> Loss or fragmentation of habitat for faunal and floral species Loss of indigenous faunal and floral species diversity. Loss of faunal and floral species of conservation significance Degradation and/or destruction of natural pans. 		-	L	Yes	Specialist study will be conducted
		Air quality	<ul style="list-style-type: none"> Impact on air quality as a result of the dust generation from cleared areas; Impact on air quality as a result of emissions from machinery and increased vehicle usage; Odour emissions 		-	M	Yes	-
		Soil	<ul style="list-style-type: none"> Considering the slope angle, parental rock, depositional environment and grading of the upper soils inspected on-site, an intermediate to high erodibility is assigned to the site; Loss of soil resources as a result of soil stripping of the construction footprint; Sterilisation of soil resources as a result of hydrocarbon/chemical/waste contamination; Possibility of erosion as a result of runoff from cleared and compacted areas resulting in the soil instability and loss of soil resources; Soil contamination as a result of uncontrolled sewage handling; Indirect impact on the loss of micro habitats following soil removal; and Erosion due to floods. This will result in grazing and cultivation potential being lost. 		-	L	Yes	-
		Geology	<ul style="list-style-type: none"> Hard/compact geology. Steep slopes or areas of unstable natural slopes. Areas subject to seismic activity. Areas subject to flooding. 		-	L	Yes	-
		Existing services infrastructure	<ul style="list-style-type: none"> Mixing of waste and uncontrolled disposal; Pollution and aesthetical impacts as a result of uncontrolled waste storage; Uncontrolled storage of waste leading to pollution; Impact on groundwater as a result of uncontrolled waste handling; Impact on the surrounding environment as a result of sewage control and wastewater generation; and 		-	S	Yes	-

			<ul style="list-style-type: none"> Possible contamination of surface water resources as a result of uncontrolled waste handling and disposal. Generation of waste that needs to be accommodated at a licensed landfill site. Generation of sewage that needs to be accommodated by the local sewage plant. Increase in construction vehicles on existing roads. 						
		Groundwater	<ul style="list-style-type: none"> Impact on groundwater quality as a result of soil pollution due to the usage of hazardous substances on site; Impact on groundwater as a result of uncontrolled waste handling; and Hydrocarbon contamination is possible due to accidental spills of diesel/oils, etc. from the usage of heavy machinery and construction vehicles on-site 			-	M	Yes	It is advised that a Geohydrological Assessment should be conducted before any water uses are commenced with.
		Surface water	<ul style="list-style-type: none"> Increase in stormwater run-off. Pollution of water sources due to soil erosion. Destruction of watercourses (pans/dams/streams/tributaries). 			-	L	Yes	-
	SOCIAL/ECONOMIC ENVIRONMENT	Local unemployment rate	<ul style="list-style-type: none"> Job creation. Skills development. 			+	S	N/A	-
		Visual landscape	<ul style="list-style-type: none"> Visual disturbance on adjacent land and road users as a result of the use of construction equipment, excavation and building material; Aesthetic impact as a result of litter dispersion and untidy housekeeping from contractors; and Visual impact as a result of the development (change of sense of place). 			-	S	Yes	-
		Traffic volumes	<ul style="list-style-type: none"> 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. Traffic on the road is generally low, thus the impact would not be significant. 			-	M	Yes	-
		Health & Safety	<ul style="list-style-type: none"> Air/dust pollution. Road safety. Health risks as a result of waste generation and storage; and Possible increase in criminal activity. 			-	S	Yes	-
		Noise levels	<ul style="list-style-type: none"> During the construction phase, there is likely to be an increase in noise pollution from construction vehicles and construction staff. 			-	M	Yes	-
		Tourism industry	<ul style="list-style-type: none"> Noise. Dust. 			-	S	Yes	-

		Heritage resources	<ul style="list-style-type: none"> • Destruction of cultural and heritage artefacts found underground; and • Destruction of alternation of buildings older than 60 years. 	-	N/A	N/A	N/A	According to the Phase 1: Heritage Assessment conducted by Mr Van Schalkwyk (2021) (Appendix 10), no sites, features or objects of cultural significance were identified.
OPERATIONAL PHASE								
<ul style="list-style-type: none"> • Removal of vegetation • Clearing of areas for prospecting • Hardening of surface areas • Management of storm water • Operation of equipment and machinery • Vehicle activity • Domestic and industrial waste • Storage of chemicals, mixes and fuel • Spills and leaks • Prospecting 	BIOPHYSICAL ENVIRONMENT	Fauna & Flora	<ul style="list-style-type: none"> • During the operational phase of the project, there will be disturbance and destruction of habitats, faunal species and vegetation. • Impacts on fauna species of conservation importance (including suitable habitat) 	-	L	Yes	Specialist study will be conducted	
		Air quality	<ul style="list-style-type: none"> • Impact on air quality as a result of the dust generation from cleared areas; • Impact on air quality as a result of emissions from machinery and increased vehicle usage; • Odour emissions 	-	M	Yes	-	
		Soil	<ul style="list-style-type: none"> • Considering the slope angle, parental rock, depositional environment and grading of the upper soils inspected on site, an intermediate to high erodibility is assigned to the site; • Loss of soil resources as a result of soil stripping of the prospecting footprint; • Sterilisation of soil resources as a result of hydrocarbon/chemical/waste contamination; • Possibility of erosion as a result of runoff from cleared and compacted areas resulting in the soil instability and loss of soil resources; • Soil contamination as a result of uncontrolled sewage handling; • Indirect impact on the loss of micro habitats following soil removal; and • Erosion due to floods. • This will result in grazing and cultivation potential being lost. 	-	L	Yes	-	
		Geology	<ul style="list-style-type: none"> • Hard/compact geology. • Steep slopes or areas of unstable natural slopes. • Areas subject to seismic activity. • Areas subject to flooding. 	-	L	Yes	-	
		Existing services infrastructure	<ul style="list-style-type: none"> • Mixing of waste and uncontrolled disposal; • Pollution and aesthetical impacts as a result of uncontrolled waste storage; • Uncontrolled storage of waste leading to pollution; • Impact on groundwater as a result of uncontrolled waste handling; • Impact on the surrounding environment as a result of sewage control and waste water generation; and 	-	S	Yes	-	

			<ul style="list-style-type: none"> Possible contamination of surface water resources as a result of uncontrolled waste handling and disposal. Generation of waste that needs to be accommodated at a licensed landfill site. Generation of sewage that needs to be accommodated by the local sewage plant. Increase in construction vehicles on existing roads. 					
		Ground water	<ul style="list-style-type: none"> Impact on groundwater quality as a result of soil pollution due to the usage of hazardous substances on site; Impact on groundwater as a result of uncontrolled waste handling; and Hydrocarbon contamination is possible due to accidental spills of diesel/oils, etc. from the usage of heavy machinery and construction vehicles on site. 			M	Yes	It is advised that a Geohydrological Assessment should be conducted before any water uses are commenced with.
		Surface water	<ul style="list-style-type: none"> Possible contamination of surface water resources as a result of contaminated runoff; Possible contamination of surface water resources as a result of uncontrolled waste handling and disposal; Sedimentation of surface water resources as a result of runoff from cleared areas; Contamination of surface water resources as a result of uncontrolled waste handling and disposal; The development will increase stormwater runoff resulting in erosion and possible sedimentation. 			L	Yes	-
	SOCIAL/ECONOMIC ENVIRONMENT	Local unemployment rate	<ul style="list-style-type: none"> Job creation. Skills development. 			L	N/A	-
		Visual landscape	<ul style="list-style-type: none"> Visual disturbance on adjacent land and road users as a result of the use of prospecting equipment, excavation and building material; Aesthetic impact as a result of litter dispersion and untidy housekeeping from contractors; and Visual impact as a result of the development (change of sense of place). 			S	Yes	-
		Traffic volumes	<ul style="list-style-type: none"> 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. Increase in vehicular traffic 			M	Yes	-
		Health & Safety	<ul style="list-style-type: none"> Air/dust pollution. Road safety. Risks due to prospecting. Health risks as a result of waste generation and storage; and Possible increase in criminal activity. 			M	Yes	-

		Noise levels	<ul style="list-style-type: none"> During the construction phase there is likely to be an increase in noise pollution from prospecting vehicles and construction staff. 	-		M	Yes	-
		Tourism industry	<ul style="list-style-type: none"> Noise. Dust. Change in land-use/sense of place. 	-		S	Yes	-
		Heritage resources	<ul style="list-style-type: none"> Destruction of cultural and heritage artefacts found underground; and Destruction of alternation of buildings older than 60 years. 	-	N/A	N/A	N/A	According to the Phase 1: Heritage Assessment conducted by Mr Van Schalkwyk (2021) (Appendix 10), no sites, features or objects of cultural significance were identified.

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

- v. 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)

The main impacts associated with the proposed project include:

Socio-Economic Impacts

- The construction phase will result in additional temporary job opportunities;
- The proposed project will increase the local Gross Domestic Product (GDP) through the provision of employment and support to other businesses in the area;
- Auxiliary services required for the construction will be sourced from local businesses;
- The possible inflow of migrant workers;
- Nuisance to surrounding landowners as a result of noise, dust and emissions.

Soil Impacts

- Collapsible Soil
- A low to moderate soil compressibility is anticipated, probably secondary to the collapse potential.
- Considering the slope angle, parental rock, depositional environment and grading of the upper soils inspected on site, an intermediate to high erodibility is assigned to the site.
- Loss of soil resources as a result of soil stripping of the construction/prospecting footprint;
- Sterilisation of soil resources as a result of hydrocarbon/chemical/waste contamination;
- Possibility of erosion as a result of runoff from cleared and compacted areas resulting in the soil instability and loss of soil resources;
- Soil contamination as a result of uncontrolled sewage handling;
- Indirect impact on the loss of micro habitats following soil removal.
- Erosion due to floods;

Surface Water Impacts

- Possible contamination of surface water resources as a result of contaminated runoff;
- Possible contamination of surface water resources as a result of uncontrolled waste handling and disposal;
- Sedimentation of surface water resources as a result of runoff from cleared areas;

- Inadequately designed greywater and wash water disposal systems could result in overflow (due to an increase in wastewater volume) and the subsequent contamination of surface water;
- Contamination of surface water resources as a result of uncontrolled waste handling and disposal;
- The development will increase stormwater runoff resulting in erosion and possible sedimentation.
- Deconstruction of dams/water courses/tributaries.

Groundwater Impacts

- Impact on groundwater quality as a result of soil pollution due to the usage of hazardous substances on site;
- Impact on groundwater as a result of uncontrolled waste handling;
- Hydrocarbon contamination is possible due to accidental spills of diesel/oils, etc. from the usage of heavy machinery and construction/prospecting vehicles on site;

It is advised that a Geohydrological Assessment should be conducted before any water uses are commenced with.

Air Quality Impacts

- Impact on air quality as a result of the dust generation from cleared areas and prospecting;
- Impact on air quality as a result of emissions from machinery and increased vehicle usage;
- Odour emissions; and
- Impact on air quality as a result of exhaust emissions and dust generation.

Noise Impacts

- Noise emissions as a result of machinery movement around the site; and
- Noise from increased traffic.

Land Use and Land Capability Impacts

- Permanent loss of land use and land capability as a result of the clearance of land;
- Sterilisation of land as a result of soil pollution and erosion.

Waste Impacts

- Mixing of waste and uncontrolled disposal;
- Pollution and aesthetical impacts as a result of uncontrolled waste storage;
- Uncontrolled storage of waste leading to pollution;
- Impact on groundwater as a result of uncontrolled waste handling;

- Impact on the surrounding environment as a result of sewage control and waste water generation;
- Possible contamination of surface water resources as a result of uncontrolled waste handling and disposal.

Cultural and Heritage Impacts

- Destruction of cultural and heritage artefacts found underground; and
- Destruction of alternation of buildings older than 60 years.

According to the Phase 1: Heritage Assessment conducted by Mr Van Schalkwyk (2021) (Appendix 10), no sites, features or objects of cultural significance were identified.

Visual Impacts

- Visual disturbance on adjacent land and road users as a result of the use of construction and prospecting equipment, excavation and building material;
- Aesthetic impact as a result of litter dispersion and untidy housekeeping from contractors; and
- Visual impact as a result of the development (change of sense of place).

Fauna and Flora Impacts

- Loss of habitat owing to the removal of vegetation at the proposed development;
- Loss of sensitive species (Threatened, Near-Threatened, Rare, Declining or Protected species) during the construction and prospecting phase;
- Loss of connectivity and conservation corridor networks in the landscape;
- Killing of vertebrate fauna during the construction and prospecting phase;
- An increased infestation of exotic or AIS owing to disturbance;
- Disturbance of faunal species, including those of adjacent landowners, as a result of noise generation;
- Potential to indirectly increase the risk of the spread of AIS vegetation;
- Potential impact on surrounding fauna and flora as a result of incorrect waste storage and handling; and
- Potential impact on surrounding biodiversity as a result of contaminated runoff;

An Ecological Assessment is underway

Safety, Security and Health

- Increased economic activity may lead to an increase in crime;
- The safety risk of contractors, due to increased construction and prospecting activity;
- Health risks as a result of waste generation and storage;

- Possible increase in criminal activity.

Traffic

- Increase in traffic.

Climate Change

- The utilisation of non-renewable energy sources resulting in the increased project carbon footprint;
- Change in land use to accommodate the development.

- vi. The possible mitigation measures that could be applied and the level of risk.
(Concerning 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).

Due to the scale of the project, significant environmental and social impacts associated with the proposed activity have been identified through the BAR process. Mitigation measures will be set out in the Environmental Management Programme (EMPr) attached in Part B of the EIR. These must be implemented to minimise any potential impacts.

- vii. The outcome of the site selection Matrix. Final Site Layout Plan
(Provide a final site layout plan as informed by the process of consultation with interested and affected parties)

Refer to the superimposed map attached as Appendix 3

- viii. Motivation where no alternative sites were considered.

The proposed site is being preferred due to its possibility of having

- Diamond,
- Diamond (Alluvial),
- Diamond (General) and
- Diamond (In Kimberlite) resources.

- ix. Statement motivating the preferred site.
(Provide a statement motivation with the final site layout that is proposed)

The applicant is in the possession of maps that propose that the site is possibly containing diamond-bearing gravel.

No other properties have been secured by the applicant.

i. Plan of study for the Environmental Impact Assessment process

- i. Description of alternatives to be considered including the option of not going ahead with the activity.

Should the no-go alternative be implemented, the following disadvantages will be associated

1. There will be a loss of direct and indirect opportunities for employment in the surrounding community.
 2. Unutilised mineral resources will be lost which will lead to no additional income to the surrounding community.
 3. This will ultimately harm the South Africa economy for the mining industry contributes greatly to our local economy.
- ii. Description of the aspects to be assessed as part of the environmental impact assessment process

(The EAP must undertake to assess the aspects affected by each individual mining activity whether listed or not, including activities such as blasting, Loading, hauling and transport and mining activities such as Excavations, stockpiles, discard dumps or dams, water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, stormwater control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc.).

Table 15: Aspects to be assessed

Aspects / potential impacts	Description of the aspect	Specialist studies / technical information
Biophysical Environment		
On fauna and flora	Refer to Matrix table	The EAP will conduct a desktop assessment by making use of GIS, site visits and the book written by Mucina and Rutherford (The Vegetation of South Africa, Lesotho and Swaziland) A specialist will conduct an Ecological Assessment.
On air quality	Refer to Matrix table	The EAP will conduct a desktop assessment by making use of GIS using BGIS data and site visits)
On soil	Refer to Matrix table	The EAP will conduct a desktop assessment by making use of GIS using BGIS data and site visits)
On geology	Refer to Matrix table	The EAP will conduct a desktop assessment by making use of GIS

		using BGIS data and site visits)
On existing services infrastructure	Refer to Matrix table	The EAP will conduct a desktop assessment by making use of GIS using BGIS data and site visits)
On groundwater	Refer to Matrix table	The EAP will conduct a desktop assessment by making use of GIS using BGIS data and site visits) It is advised that a Geohydrological Assessment should be conducted before any water uses are commenced with.
On surface water	Refer to Matrix table	The EAP will conduct a desktop assessment by making use of GIS using BGIS data and site visits)
On heritage resources	Refer to Matrix table	A heritage specialist will be appointed
Socio / Economic Environment		
On local employment rate	Refer to Matrix table	The EAP will conduct a desktop assessment
On visual landscape	Refer to Matrix table	The EAP will conduct a desktop assessment
On traffic volumes	Refer to Matrix table	The EAP will conduct a desktop assessment
On health & safety	Refer to Matrix table	The EAP will conduct a desktop assessment

iii. Description of aspects to be assessed by specialists

A Phase 1: Heritage Assessment and an Ecological Assessment will be conducted.

It is advised that a Geohydrological Assessment should be conducted before any water uses are commenced with.

iv. The proposed method of assessing the environmental aspects including the proposed method of assessing alternatives

The purpose of an environmental impact assessment is to identify the different possible environmental impacts that are associated with the proposed activities. Each of the

different identified impacts will then have to be evaluated in terms of their significance and to highlight the most significant issues to be addressed.

The significance of each impact is determined through a synthesis of impact characteristics which include the context and intensity of each identified impact. The context of an impact refers to the geographical scale (site, local, national or global) whereas the intensity of an impact refers to the severity of the impact (the magnitude of deviation from baseline conditions, the extent of the affected area, the duration of the impact and the overall probability of occurrence of the impact). The method for calculating the significance is provided 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.

v. The proposed method of assessing duration significance

METHODOLOGY

The potential environmental impacts associated with the project will be evaluated according to its nature, extent, duration, intensity, probability and significance of the impacts, whereby:

- **Nature:** A brief written statement of the environmental aspect being impacted upon by a particular action or activity.
- **Extent:** The area over which the impact will be expressed. Typically, the severity and significance of an impact have different scales and as such bracketing ranges are often required. This is often useful during the detailed assessment phase of a project in terms of further defining the determined significance or intensity of an impact. For example, high at a local scale, but low at a regional scale;
- **Duration:** Indicates what the lifetime of the impact will be;
- **Intensity:** Describes whether an impact is destructive or benign
- **Probability:** Describes the likelihood of an impact occurring; and
- **Cumulative:** Concerning an activity, means the impact of an activity that in itself may not be significant but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area.

Impact Rating System

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

- Construction Phase
- Operational Phase
- Decommissioning Phase

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 are used:

Table 16: Criteria of each significant impact

EXTENT			
National (4)	Regional (3)	Local (2)	Site (1)
The whole of South Africa	Provincial and parts of neighbouring provinces	Within a radius of 2 km of the construction site	Within the construction site
DURATION			
Permanent (4)	Long-term (3)	Medium-term (2)	Short-term (1)
Mitigation either by man or natural process will not occur in such a way or in such a period of time that the impact can be considered transient	The impact 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. The only class of impact which will be non-transitory	The impact will last for the period of the construction phase, whereafter it will be entirely negated	The impact will either disappear with mitigation or will be mitigated through a natural process in a span shorter than the construction phase
INTENSITY			
Very High (4)	High (3)	Moderate (2)	Low (1)
Natural, cultural and social functions and processes are altered to extent that they permanently cease	Natural, cultural and social functions and processes are altered to extent that they temporarily cease	The affected environment is altered, but natural, cultural and social functions and processes continue albeit in a modified way	The impact affects the environment in such a way that natural, cultural and social functions and processes are not affected
PROBABILITY OF OCCURRENCE			
Definite (4)	Highly Probable (3)	Possible (2)	Improbable (1)
The impact will certainly occur	Most likely that the impact will occur	The impact may occur	The likelihood of the impact materializing is very low

Table 17: Criteria for Rating of Classified Impacts

CRITERIA FOR THE RATING OF CLASSIFIED IMPACTS	
Low impact (3 -10 points)	A low impact has no permanent impact of significance. Mitigation measures are feasible and are readily instituted as part of a standing design, construction or operating procedure.
Medium impact (11 -20 points)	Mitigation is possible with additional design and construction inputs.
High impact (21 -30 points)	The design of the site may be affected. Mitigation and possible remediation are needed during the construction and/or operational phases. The effects of the impact may affect the broader environment.
Very high impact (31 - 48 points)	Permanent and important impacts. The design of the site may be affected. Intensive remediation is needed during construction and/or operational phases. Any activity which results in a “very high impact” is likely to be a fatal flaw.
Status	Denotes the perceived effect of the impact on the affected area.
Positive (+)	Beneficial impact.
Negative (-)	Deleterious or adverse impact.
Neutral (/)	The impact is neither beneficial nor adverse.
<p>It is important to note that the status of an impact is assigned based on the status quo – i.e. should the project not proceed. Therefore, not all negative impacts are equally significant.</p> <p>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.</p> <p>The calculation of the significance of an impact uses the following formula: (Extent + duration + probability) x magnitude/intensity.</p>	

The stages at which the competent authority will be consulted

The consultation process regarding the competent and commenting authorities will be a continuous process throughout the impact assessment phase. Each of the competent and commenting authorities will also comment on whether they think it necessary to conduct any additional specialist studies.

The continuous consultation process will include:

- The submission of the Final Scoping Report after conducting a 30 day public participation period (and consideration of comments received).
- The submission of the Final EIR after conducting a 30 day public participation period (and consideration of comments received).

- A possible meeting, to discuss the project and the final report, will be arranged with the Environmental Official responsible for the project during the 107 day review period.
 - An opportunity will also be provided to the Environmental Official to visit and inspect the site.
- vi. Particulars of the public participation process with regard to the Impact Assessment process that will be conducted
1. Steps to be taken to notify interested and affected parties.
(These steps must include the steps that will be taken to ensure consultation with the affected parties identified in (h) (ii) herein).

The principal objective of the public participation process will be to inform and enrich decision-making. This is also a key phase in this Environmental Impact Assessment (“EIA”) process.

Landowners (affected and adjacent) were identified through a search conducted via online search engines accessing the Title Deed office database. In addition to landowners, other relevant organisations were identified and were notified of the application. This includes Municipal and Governmental Departments with jurisdiction in the project area and Non- Governmental Organisations (NGOs) with an interest. I&AP’s representing the following sectors of society were identified:

- National, provincial and local government;
- Agriculture, including local landowners;
- Community-Based Organisations
- Non-Governmental Organisations;
- Department of Water and Sanitation
- Industry and Mining; and
- Other stakeholders

All the registered I&APs and identified State Departments were given the opportunity to review the Draft Scoping report and was given the opportunity to review the Draft EIR and EMP per the EIA Regulations. A minimum of 30 days, as required by Regulations 39-44 of the EIA Regulations, commenting period were allowed. All stakeholders and I&APs were given an opportunity to provide/submit their written comments to the EAP within 30 days. All the identified issues during the 30 day public participation period are documented and captured within the Comments and Response Report, which is included as part of the Final SR to be submitted to the North West Department of Mineral Resources and Energy.

2. Details of the engagement process to be followed.
(Describe the process to be 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 and records of such consultation will be required in the EIA at a later stage).

The public participation process was strictly conducted following Regulations 39-44 of the EIA Regulations. The following three categories were taken into account when determining the required level of public participation process to be followed:

- The scale of anticipated impacts.
- The sensitivity of the affected environment and the degree of controversy of the project.

- The characteristics of the potentially affected parties.

The following public participation process mechanisms were used:

- Newspaper advertisement in a local newspaper
- Site notices
- Direct notification of surrounding landowners and occupiers
- Circulation of Draft Scoping Report
- The EIR will be circulated
- Direct notification to all stakeholders of the Environmental Authorisation will be given.

3. Description of the information to be provided to Interested and Affected Parties.

(Information to be provided must include the initial site plan and sufficient detail of the intended operation and the typical impacts of each activity, to enable them to assess what impact the activities will have on them or the use of their land).

The Request for Comments Letter that was provided to the I&APs briefly describes the proposed activity, the extent and location description of the proposed activity, including a locality map of the proposed activity and a Dropbox link to the full Draft Scoping report and its Appendices.

vii. Description of the tasks that will be undertaken during the environmental impact assessment process

Tasks to be undertaken

The following sections describe the tasks that will be undertaken as part of the EIA process.

- Project Description

Further technical and supporting information will be gathered to provide a more detailed project description. This will include a detailed site layout plan that will be compiled once the low – medium areas of sensitivity have been indicated.

- Consideration of alternatives

The following project alternatives will be investigated in the EIR:

- The no-go alternative: Maintaining the status quo.
- Design/Layout alternatives: In terms of the actual layout of the proposed prospecting activities.

- Compilation of Environmental Impact Report

An EIR will be compiled to meet the content requirements as per Appendix 3 of GNR326 of the EIA Regulations (4 December 2014) (As Amended) and will also include a draft Environmental Management Programme containing the aspects contemplated in Appendix 4 of GNR326 (As Amended).

- viii. Measures to avoid, reverse, mitigate, or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored.

ACTIVITY whether listed or 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, stormwater control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc.)	POTENTIAL IMPACT (e.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc...etc...)	MITIGATION TYPE (modify, remedy, control, or stop) through (e.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc. etc) E.g. Modify through an alternative method. Control through noise control Control through management and monitoring through rehabilitation.	POTENTIAL FOR RESIDUAL RISK
On the fauna and flora	Surface disturbance, Unnecessary vegetation removal, destruction of habitats	Monitoring and clear identification of areas to be disturbed	Medium
On the air quality	Dust generation due to the proposed activities	Dust and travelling on-site control measures	low
On the soil	Erosion, Surface run-off, Soil contamination	Stormwater control, stormwater management plans	Medium
On the geology	Fly rock	Blasting controls	low
On groundwater	Groundwater contamination through spillages, Groundwater depletion	Groundwater monitoring	Medium
On surface water	Surface water contamination through spillages and run-off	Stormwater control, avoidance	Medium
On visual landscape	Dust and the change of landscape	Dust control and stockpiling measures	low
On traffic volumes	Emissions and dust	Dust and travelling on-site control measures	low

j. An undertaking under oath of affirmation by the EAP

I, **Danie Labuschagne (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:

Kuhle Environmental Consult (Pty) Ltd – Environmental Consultants

Name of company:

03/08/2021

Date:

k. Undertaking regarding level of agreement

I **Danie Labuschagne (EAPASA, Pr. Sci. Nat)** herewith undertake that the information provided in the foregoing report is correct, and that the level of agreement with interested and Affected Parties and stakeholders has been correctly recorded and reported herein.



Signature of the EAP

DATE: 03/08/2021

1. Other Information required by the competent Authority

- a) 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:

- Noise levels will increase
- Loss of fauna and flora through vegetation clearance
- Soil pollution through spillages and erosion.
- Potential surface and groundwater impacts through surface run-off and spillages.
- Increase in traffic.
- Dust levels will increase due to prospecting activities and the increase in the movement of vehicles.
- Increase in water consumption and possible depletion of groundwater resources.
- Visual impact due to the increase of dust.

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)(i)(vi) and (vii) of that Act, attach the investigation report as **Appendix 2.19.2** and confirm that the applicable mitigation is reflected in 2.5.3; 2.11.6. and 2.12. herein).

According to the Phase 1: Heritage Assessment conducted by Mr Van Schalkwyk (2021) (Appendix 10), no sites, features or objects of cultural significance were identified.

Attention will be given to the identification of possible cultural and/or heritage resources found on site.

m. 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 10**).

As mentioned throughout the document, the prospecting of Diamond, Diamond (Alluvial), Diamond (General) and Diamond (In Kimberlite) are one of the optimal preferred activities for the proposed site and the other is livestock grazing. Surrounding the proposed area there are numerous legal and illegal mining activities taking place.

The applicant believes that Diamond, Diamond (Alluvial), Diamond (General) and Diamond (In Kimberlite) are present in the proposed prospecting area. The mine will provide additional job opportunities to the surrounding community of Ottosdal.

-END-