



mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

BASIC ASSESSMENT REPORT
And
ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

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

NAME OF APPLICANT: **Cyprus Boerdery (Pty) Ltd.**

TEL NO: **083 371 0815**

FAX NO: -

POSTAL ADDRESS: -

PHYSICAL ADDRESS: **223 Bronkhorst Street, Brooklyn, Pretoria 0180**

FILE REFERENCE NUMBER SAMRAD: **NW 30/5/1/3/2/10902 MP**

1. IMPORTANT NOTICE

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

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

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

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

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

2. Objective of the basic assessment process

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

(a) determine the policy and legislative context within which the proposed activity is located and how the activity complies with and responds to the policy and legislative context;

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

(c) describe the need and desirability of the proposed alternatives,

(d) through the undertaking of an impact and risk assessment process inclusive of cumulative impacts which focused on determining the geographical, physical, biological, social, economic, heritage, and cultural sensitivity of the sites and locations within sites and the risk of impact of the proposed activity and technology alternatives on these aspects to determine:

(i) the nature, significance, consequence, extent, duration, and probability of the impacts occurring to; and

(ii) the degree to which these impacts—

(aa) can be reversed;

(bb) may cause irreplaceable loss of resources; and

(cc) can be managed, avoided or mitigated;

(e) through a ranking of the site sensitivities and possible impacts the activity and technology alternatives will impose on the sites and location identified through the life of the activity to—

(i) identify and motivate a preferred site, activity and technology alternative;

(ii) identify suitable measures to manage, avoid or mitigate identified impacts; and (iii)

identify residual risks that need to be managed and monitored.

PART A

3. SCOPE OF ASSESSMENT AND BASIC ASSESSMENT REPORT

CONTACT PERSON AND CORRESPONDENCE ADDRESS

a) DETAILS OF -

(i) Details of the EAP how prepared the report

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 - 3. (1)(a)(i)

Name of the Practitioner: DERA Environmental Consultants (Pty) Ltd.

Mr Daan Erasmus

Tel No.: 018-468 5355

Fax No. : 018-468 4015

E-mail address: daane@dera.co.za

(ii) Expertise of the EAP

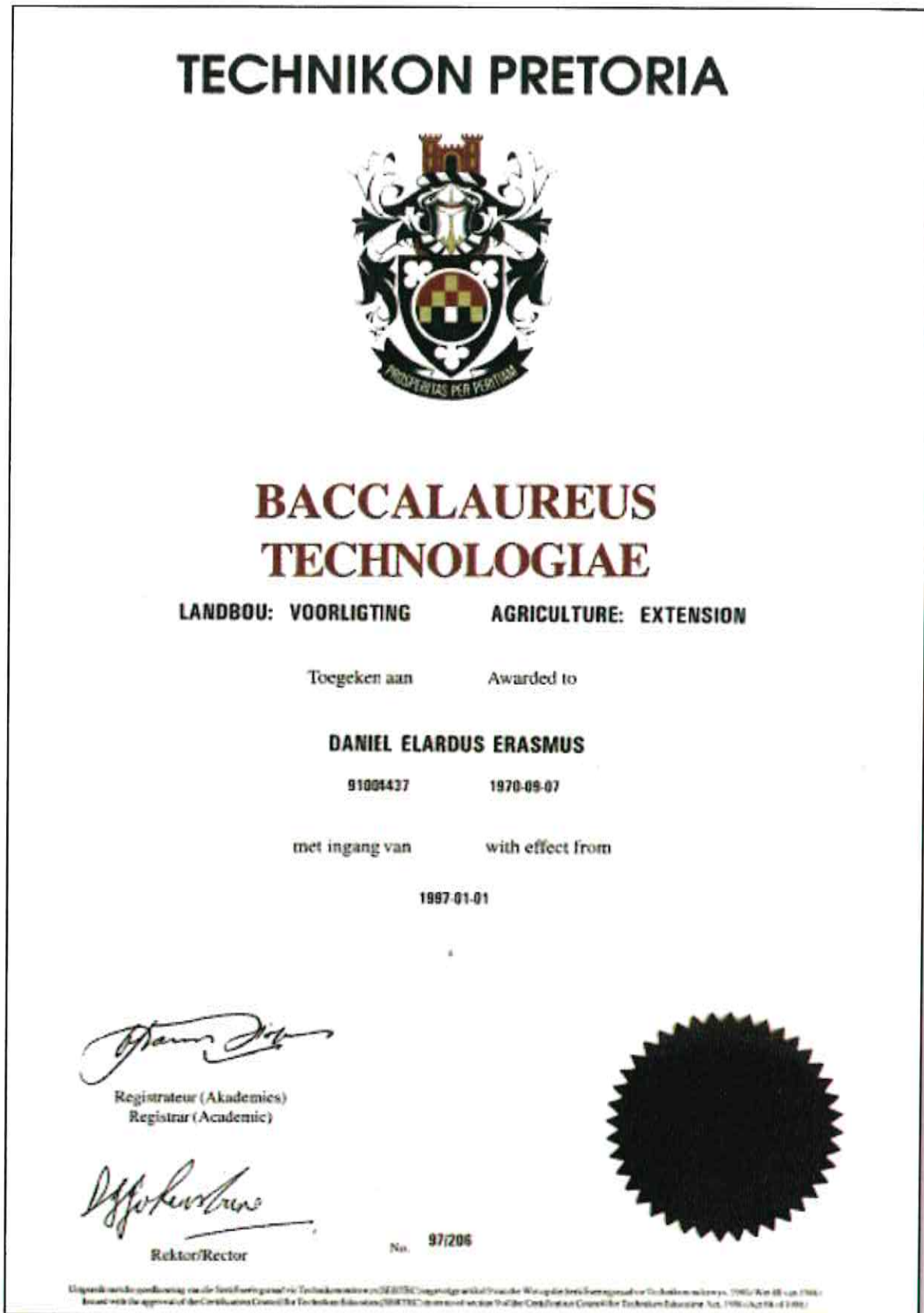
1) The qualifications of the EAP

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 - 3. (1)(a)(ii)

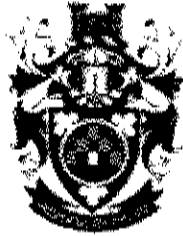
The EAP Mr. Daan Erasmus has a National Diploma in Agriculture Resource Utilization and a Baccalaureus Technologiae degree in Agricultural Extension.

See next page for copy of qualification, **Figure 1**.

Figure 1 – Copy of Qualification



TECHNIKON
PRETORIA



TECHNIKON
PRETORIA

NASIONALE NATIONAL DIPLOMA

LANDBOU: HULPBRONBEWITTING

AGRICULTURE: RESOURCE UTILISATION

Toegeken aan

Awarded to

DANIEL ELANUS GRASMUS

9100437

7009075033088

met ingang van

with effect from

1994-01-01

Die volgende is voltooi

The following were completed

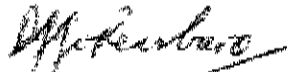
Landbou-ekonomie I, II en III
 Voorligtingsmetodiek I en II
 Akkerbou I, II en III
 Weidingkunde A
 Bodembepaling I en II
 Bodembewaring I
 Grondkunde I en II
 *Meganisasie
 Fisiese Wetenskap
 Melkproduksietegnologie
 Vleisveeproduksietegnologie
 Kleinveeproduksietegnologie
 Grondklassifikasie III

Agricultural Economics I, II and III
 Extension Method I and II
 Field Husbandry I, II and III
 Pasture Science A
 Land Use Planning I and II
 Soil Conservation I
 Soil Science I and II
 Mechanisation*
 Physical Science
 Milk Production Technology
 Beefar Production Technology
 Small Stock Production Technology
 Soil Classification III

Minimum Opleidings tydperk: 3 Jaar
Minimum Training Period : 3 Years


 SERTEC
 Uitvoerende Direkteur
 Executive Director

Nr /No. NG1117/94


 TECHNIKON
 Rector/Rector

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2) Summary of the EAP's past experience.


The EAP, Mr. Erasmus is involved in mining, environmental management, EMP & EMPR as well as Basic Assessments as from 1995. The EAP was involved in the NEMA Act through applications for chicken broilers where the Basic Assessments Report was also used to get to a ROD.


See Figure 2 - below Curriculum Vitae of D. E. Erasmus.


DAAN ERASMUS


ENVIRONMENTAL PRACTITIONER




CONTACTS 


 daane@dera.co.za

 +27 82 895 3516


 Klerksdorp, North-west Province, South Africa

SKILLS 

Report writing
Conduct auditing
Bilingual (English/Afrikaans)
Computer Proficient
Report generation and analysis
Verbal and written communication
Computer Literate
Project Management
Results orientated
Conduct risk assessments

ABOUT ME 

Environmental Practitioner with 29 years' experience in Agricultural Science, and Mining- and Environmental Management.
 Began own company – DERA Environmental Consultants (Pty) Ltd 2003.
 Main scope of business: Compiling and submission of mining related applications; manage and compile legal environmental documents.
 Furthermore doing monitoring work to evaluated compliance to environmental legislation; evaluating outstanding rehabilitation liabilities for mining companies.
 Assist legal companies in determining environmental damage.
 Do risk assessment and applications for closure certificates.
 Give guidance in rehabilitation practices.
 Compile EMPR/EIA for Mining Rights and compilation of EMPlan's for Prospecting and Mining Right applications.
 Compile BAR & EMPR reports in support of application of Chicken Broilers and – facilities, Feed lots, Fuel Storage, Ploughing of virgin soil and associated infrastructure for Environmental Authorizations and many more based on experience from management of the natural resources and the mitigation of impacts.

WORK EXPERIENCE 

<p><u>JAN 1989</u> <u>SEPT 1990</u></p>	<p>MILITARY SERVICE <i>National Defence Force</i></p> <p>Officers Course: II Lieutenant</p>
<p><u>JAN 1991</u> <u>FEB 2003</u></p>	<p>CHIEF RESOURCE CONSERVATION INSPECTOR <i>National Department of Agriculture</i></p> <p>Administration of Act 43 of 1983, Agricultural Resource Conservation Act in North West Province. The main activities were veld inspections in order to monitor correct utilization of natural resources and where necessary take corrective steps. Other activities included discussions and lectures at farmers union meetings; municipalities and other institutions in order to promulgate the Act. Management of personnel and personnel related matters; management of budget of regional office in Potchefstroom; management and control of declared weeds and invader species. Evaluation of EMPr's and EIA's and monitoring mine rehabilitation and environmental management out of agricultural point of view Audit and compliance inspections of mining operations.</p>

Page 1

WORK EXPERIENCE (Continues)

MAR 2003
PRESENT

ENVIRONMENTAL PRACTITIONER

DERA Environmental Consultants

Compiling and submission of mining related applications; manage and compile legal environmental documents.
 Furthermore doing monitoring work to evaluated compliance to environmental legislation; evaluating outstanding rehabilitation liabilities for mining companies.
 Assist legal companies in determining environmental damage.
 Do risk assessment and applications for closure certificates.
 Give guidance in rehabilitation practices.
 Compile EMPR/EIA for Mining Rights and compilation of EMPlan's for Prospecting and Mining Right applications.
 Compile BAR & EMPr reports in support of application of Chicken Broilers and –facilities, Feed lots, Fuel Storage, Ploughing of virgin soil and associated infrastructure for Environmental Authorizations and many more based on experience from management of the natural resources and the mitigation of impacts.

EDUCATION

1988

HIGH SCHOOL DIPLOMA-- with Full Exemption

Wolmaransstad High School, North West, SA

English	Afrikaans
Mathematics	Science
Geography	Accounting

1994

NATIONAL DIPLOMA: AGRICULTURE: RESOURCE

Pretoria Technikon (Tshwane University of Technology) – Pretoria, Tshwane

Agricultural Economics I, II and III	
Extension Method I, II and III	Field Husbandry I, II and III
Pasture Science A	Land Use Planning I and II
Soil Conservation I	Soil Science I and II
Mechanization	Physical Science
Milk Production Technology	Beef Production Technology
Small Stock Production Technology	
Soil Classification III	Computer Application I

1996

BACCALAUREUS TECHNOLOGIAE: AGRICULTURAL EXTENTION

Pretoria Technikon (Tshwane University of Technology) – Pretoria, Tshwane

Agricultural Communication I	Agricultural Extension IV
Crop Production IV	Research Methodology

EDUCATION - continues



1999 **MASTERS DEGREE IN SUSTAINABLE AGRICULTURE** - uncompleted
Orange Free State University, Bloemfontein, SA

Conservation of agricultural resources and the Environment
 Soil-, climate and water use and soil and water Management
 Plant and energy utilization and management
 Economics of sustainability and development
 Scrip – project proposal
 Sustainable plant production systems
 Farm management for sustainable agriculture
 Strategic management, marketing and planning
 Communication and technology transfer
 Final dissertation - uncompleted

EIA- EXPERIENCE



The following list of EIA's was just some that was done by me:

- Compliance Creators (Goedgevonden) – was done as part of a Prospecting Right Application with Bulk Sampling, my role entailed: site visit, impact assessment and evaluation and compilation of report and handling of application process.
- Diamsure (Palmietfontein) - was done as part of Prospecting Right Application with Bulk Sampling, my role entailed: site visit, impact assessment and evaluation and compilation of report and handling of application process.
- Brenda Gagiano (Katdoornplaats) - was done as part of Prospecting Right Application with Bulk Sampling, my role entailed: site visit, impact assessment and evaluation and compilation of report and handling of application process.
- J & K Steyn Trust (Klipkull) - was done as part of Prospecting Right Application with Bulk Sampling, my role entailed: site visit, impact assessment and evaluation and compilation of report and handling of application process.
- Pilansberg Tented Facility (Pilansberg) - was done as part of an Environmental Authorization for a listed activity for new tented camp, my role entailed: site visit, impact assessment and evaluation and compilation of report and handling of application process.
- FMS Trust (Saamgevoeg) - was done as part of an Environmental Authorization for a listed activity, for the construction of Chicken Broilers, my role entailed: site visit, impact assessment and evaluation and compilation of report and handling of

SHORT COURSES



Computer training Dbase IV
 Seminar in public speaking
 Veld assessment course
 Resource identification and utilization course
 ArcView GIS course
 Persuasion skills
 Wetlands identification
 Rehabilitation of Wetlands
 Management skills
 Agricultural law course

b) LOCATION OF THE ACTIVITY

Table 1: Property Description

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. (1)(b)

(i) 21 digit Surveyor General Code for each farm portion	T0H00000000015600004
(ii) Farm Name:	Uitkyk 156 HO ✓ a certain portion of Portion 4 (portion of portion 3)
(iii) Coordinates of the application area	Co-ordinates List WG 27 ^a <div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;"> Co-ordinates: A: 25.9132 -27.0514 B: 25.9131 -27.0544 C: 25.9125 -27.0557 D: 25.9114 -27.0533 WGS 84/WGS 84 </div>
Application area (Ha)	5 hectares
Magisterial district:	<i>Wolmaransstad</i> is a maize-farming town situated on the N12 between Johannesburg and Kimberley in <i>North West Province of South Africa</i> . The town lies in an important alluvial diamond-mining area and it is the main town of the <i>Maquassi Hills Local Municipality</i> . It further falls under <i>Dr Kenneth Kaunda District Municipality</i> , with their offices situated in Klerksdorp. Course: https://en.wikipedia.org/wiki/Wolmaransstad
Distance and direction from nearest town	Approximately 20.9 km south, south-east of Wolmaransstad and 33.3 km east of Schweizer-Reneke
Minerals applied for	Diamonds (Alluvial) (DA)

c) LOCALITY MAP

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. (1)(c)

The application is situated within the Wolmaransstad district, which is a maize-farming town situated on the N12 between Johannesburg and Kimberley in North West Province of South Africa. The town of Wolmaransstad lies in an important alluvial diamond-mining area and it is the main town of the *Maquassi Hills Local Municipality*. It further falls under *Dr Kenneth Kaunda District Municipality*, with their offices situated in Klerksdorp. See **Appendix 1(a)** attached for Locality Map.

Appendix 1(a) – Locality Map

d) DESCRIPTION OF THE SCOPE OF THE PROPOSED OVERALL ACTIVITY.

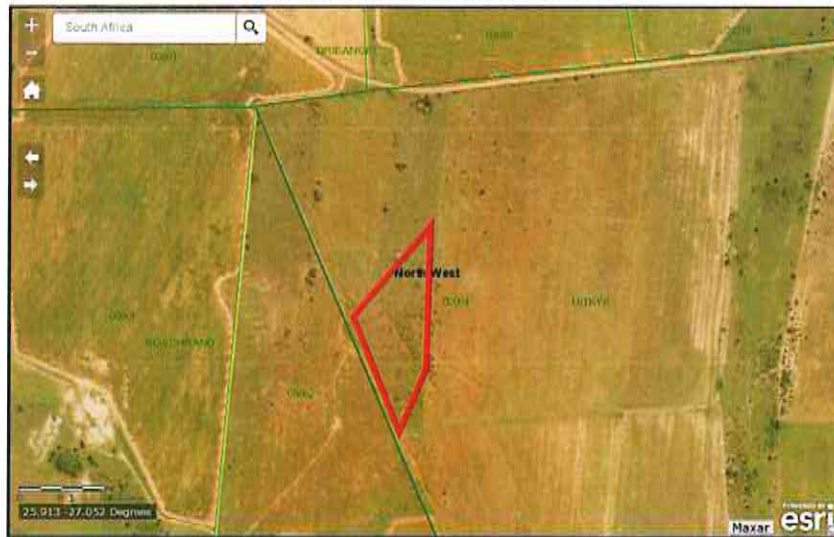
In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. (1)(d)

This will be a very small project with low impacts (only 5 ha). The application area is situated over an area that is over natural veld that has a scarce vegetation/scrub cover and signs of historic pick and shovel mining activities. The proposed application area is situated 20.9 km south, south-east of Wolmaransstad. It is situated amidst cultivated fields and cultivated fields that was withdrawn from cultivation, but can be seen as transformed rangeland which was change to cultivated land; see **Appendix 1(b) – Pre-Mining Infrastructure Map** and **Figure 3** below for images of proposed area - http://daffarcgis.nda.agric.za/Comp_Atlas_v2/. On **Figure 3** it can be seen that the area that are applied for is over natural veld that bear signs of historic pick and shovel mining activities. There is no infrastructure over the application area beside for fence line. Access to the proposed site can be gained via the Vogelstruiskuil gravel road that turns off from the R505 tar road that is running between the towns of Wolmaransstad and Ottosdal. There are further no structures over this application area. It is part of a bigger farm portions - of Portion 4 of the farm Uitkyk 158 HO.

The scope of the applications will be small scale diamond mining operation. The main mining activities will be excavation of *Alluvial Diamond (DA)* bearing gravel resource, and processing it through a washing plant. All the waste from the screening and washing plant will be placed back into the bottom of the excavation, here after the topsoil will be replaced back as a growth medium and the surface will be levelled. See **Appendix 1 (c)** for proposed Surface Infrastructure for Mining. The area will be mined and rehabilitated and the sides will be level to blend in with the surrounding environment. The area applied for is over natural veld. The vegetation cover seems to be scarce because of old pick and shovel mining. The mining focus area will be clearly demarcated and fenced off.

**Appendix 1(b) – Infrastructure Map
&
Appendix 1(c) - Proposed Surface Mining Infrastructure**

Figure 3: Images of proposed area



(i) Listed and specified activities

Table 2: Listed Activities

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. (1)(d)(i)

NAME OFACTIVITY	Aerial extent of the Activity (Ha or m ²)	LISTED ACTIVITY	APPLICABLE LISTING
<p>Listing 1 – Activity 21: Any activity including the operation of that activity which requires a mining permit in terms of section 27 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), including –</p> <p>(a) associated infrastructure, structures and earthworks, directly related to the extraction 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)]</p> <p>(b) <u>the primary processing of a mineral resource including winning, extraction, classifying, concentrating, crushing, screening or washing;</u> <u>but excluding the secondary processing of a mineral resource, including the smelting, beneficiation, reduction, refining, calcining or gasification of the mineral resource in which case activity 6 in Listing Notice 2 applies.</u></p>	5 ha	X	327
<p>Listing 1 – Activity 27: The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for—</p> <p>(i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.</p>	5 ha	X	327

(ii) Description of the activities to be undertaken

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. (1)(d)(ii)

Table 3: Description of Activities to be followed

Activities	Description of phases	Associated structures and infrastructures
The Mineral	Cyprus Boerdery (Pty) Ltd. intends to mine for diamonds in the alluvial gravel situated on, 5 hectares of the farm Uitkyk 156 HO.	
The extend	<p>The gravel is on average 3 meter thick with a topsoil layer which varies between 300 and 500 millimeters.</p> <p>The area that was identified and demarcated is shown on the attached sketch plan.</p> <p>The gravel reserve on this 5 hectare is estimated at 150'000m³ or 240'000 tons and the total material to be moved is 150'000m³.</p>	
Mining method	<p>The above area will be mined through opencast excavations where the topsoil will be stripped separately and stockpiled. The gravel is then removed with a 20 ton excavator and placed next to the excavation.</p> <p>A Front -end Loader takes the gravel to the 10 feet washing pan which is fed it at a rate of 20m³ an hour, 200m³ a day and 4000m³ a month. All the rough are first placed back into the bottom of the excavation, hereafter the puddle out of the pan is pumped directly back into the open excavation. After the puddle dried off, the topsoil is put back on top again. The excavations will be 40m in length 10m wide and ±3.5 meters deep on average. Only one excavation will be opened at a time. The total estimated reserve of gravel is 150'000m³ taken at a production rate of 4'000m³ a month, it will take 37 months to work the estimated reserve of 150'000m³.</p> <p>The production rate is taken at 4'000m³/month. The gravel which is relatively thick (3 meters) and the low production rate of the applicant make this 5 hectare to be worked sustainable over a period of two years.</p> <p>The total cost of the operation is taken at R 40.6/m³ and the total material moved monthly at 4'000m³. The total mining cost a month is then R 162'500. 00 and the</p>	There will be a plant area with ablation facilities and roads to the excavations.

	total monthly income is envisaged at R 273'000.00 (0.75 carats/100ton, 30 carats sold at \$ 650/R14.00)
The grade	The grade of this gravel is estimated at 0.75 carat per 100 ton of gravel and \$650 a carat, which can give 1'125 carats of diamonds. With the small operation of Cyprus Boerdery (Pty) Ltd. the above project can last for 37 months and can be profitable. This operation will be financed by Silver Charm Distribution as confirmed by The Accountant.

e) POLICY AND LEGISLATIVE CONTEXT

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. (1)(e)(i)&(ii)

Table 4: Policy & Legislative Context

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT	REFERENCE WHERE APPLIED	HOW DOES THIS DEVELOPMENT COMPLY WITH AND RESPOND TO THE POLICY AND LEGISLATIVE CONTEXT
National Environmental Management Act, 1998 (Act 107 of 1998) (NEMA) 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 has been triggered by applications in terms of the Minerals and Petroleum Resources Development Act, 2002 (As mentioned).	Activity 21, listing 1	Mining Permit application submitted and EIA application with DMR
National Environmental Management Act, 1998 (Act 107 of 1998); Environmental Impact Assessment Regulations, 2014 (G36282 – R982-985) EIA Authorisation and EIAEMP. Submit documents that will describe the impacts and sustainable mitigation thereof Compliance to Act and Regulations during course of activities. Show impact and mitigation thereof.	Regulation 21	Basic Assessment Report in process
National Water Act, 1998 (Act 36 of 1998) Application for Water abstraction for mining use	Section 21 (a)	Application for water use license with DWS, will follow.
Conservation of Agricultural Resources Act No 43 of 1983 Compliance to Act and Regulations during course of activities. Stabilization of soil after rehab to be sustainable with no erosion. Eradication of declared weeds	Section 29	Regulation will be applicable during construction and operational phases of mining.
National Heritages Resources Act, 1999 (Act 25 of 1999) Compliance to Act and Regulations during course of activities. Ensure that no graves or heritage sites will be disturbed.	Section 36	SAHRA was notified process will be followed.

f) NEED AND DESIRABILITY OF THE PROPOSED ACTIVITIES

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. (1)(f)

The applicant believes that the applied area has prospects for Diamonds (Alluvial) (DA) as applied for. This is natural vegetation with scarce vegetation with historical disturbance caused by pick and shovel mining. There are another mining operation north-west of this site, which show the potential for Diamonds (Alluvial) (DA) in this area, thus the application in order to confirm if minerals can be mined successfully. The desirability of this project can be motivated that the impacts that will be caused by the mining activities can be properly mitigated and rehabilitated. It is also not over high potential agricultural land, but over an area which can be seen as marginal potential for agricultural cultivation. All mining activities will be kept within the mining permit area. The locality of the activities is over a small area within a bigger farm portion. The specific activities as listed will be on this 5 ha application area specific according to the sketch plan. The duration of the activities will be 2 years.

g) MOTIVATION FOR THE OVERALL PREFERRED SITE, ACTIVITIES AND TECHNOLOGY ALTERNATIVE

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. (1)(g)

The applicant envisaged that the applied mineral Diamonds (Alluvial) (DA) is present on this property and therefore the application for a mining permit. As this is a mining permit area (5 ha) the whole of the 5 ha will be mine over the 2 year period, as all mining activities will be within this 5 ha area. This 5 ha area applied for is the preferred site, thus there cannot be an alternative site as all activities must stay within the boundaries of the 5 ha applied for. Since the adjacent area of portion 4 is cultivated fields, the applicant have decided to first work the natural area, which are not seen as high potential cultivated fields and because of the historical pick and shovel activities that occurred here. The applicant will surely investigate technology alternatives by looking at the newest equipment available that will be more productive, energy- and water efficient, thus lesser impact on the environment and more cost effective.

h) FULL DESCRIPTION OF THE PROCESS FOLLOWED TO REACH THE PROPOSED PREFERRED ALTERNATIVES WITHIN THE SITE

(i) Details of the development footprint alternatives considered

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. (1)(h)(i)

Alternative is not applicable. The current land is agricultural (natural veld) land with scarce vegetation/scrub cover and signs of historic pick and shovel mining activities. Thus the option to mine the area will not be a total new land use. The applicant, Cyprus Boerdery (Pty) Ltd., is also the land owner, thus if this mining project will not continue, he will just carry on with existing agricultural practices over this area.

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

There are no alternative for the property as the application is for this 5 hectare area only. Since the area is so small there are not really location alternatives. And the whole of the application area will systematically be mined eventually. There are no alternative sites as the whole of the application area was identified as being favourable to bear Alluvial Diamonds. Since the rest of portion 4 is cultivated fields, the applicant have decided to first work the natural area, which are not seen as high potential cultivated fields and which bear the signs of historic pick and shovel mining activities.

(b) the type of activity to be undertaken

The type of activity is in line with the submitted Mining Plan. Alluvial Diamond mining normally use the opencast mining method in order to access the mineral where after it is feed into a rotating washing pan. It is only when operations go to a big scale, where large volumes of gravel is being processed that technology such as DMS plants are use, but them you need to be able to sustain large volumes over a longer period of time to get return of the investment od such expensive processing equipment. As this is a small scale mining operation it will be the basic opencast method with associated washing pan.

(c) the design or layout of the activity

The layout of the activity will and can only be on the application area as per sketch plan as submitted with the application. And the whole of the application area will systematically be mined eventually. There are no preferred sites as the whole of the application area was identified as being favourable to bear Alluvial Diamonds. Diamond mining operations are also not static operations. They will perhaps have a temporary office building, washing pan will be moved from the one excavation to the next as mining progress and the mining machinery will be in and around the open excavation and where backfilling is done. There will also be temporary chemical toilets on the site for ablution facilities. There will not be services to machinery done on site and in case of emergency it will be done over a PVC lining. This operation will be a basic small scale mining layout, with minimal temporary infrastructure and just the necessary equipment. See **Appendix 1(c)** for proposed site layout.

(d) the technology to be used in the activity

The technology used in the activity will be as described in the Mining Plan and the best options will be determined by the applicant, which is open cast mining of the excavations whereby gravel is excavated. The technology used with regards to the processing of the diamond gravel is normally with the use of rotation washing pans. They can add cyclones in order to minimize the amount of water that will be deposited back into the excavations with the puddle. They can further use a DMS plant in order to recover more diamonds. But all of these more advanced technology required a bigger financial investment, which it not always possible with a small scale mining operation. Technology as DMS plants also required bigger volumes of gravel.

(e) the operational aspects of the activity, and

The operational aspect is only the mining of Diamonds (Alluvial) (DA) on this specific area. Making use of conventional opencast mining technology. Operations will be done through systematically mining of the whole of the 5 ha. Doing concurrent rehabilitation, meaning that as soon as an excavation is mined out and backfilling have been done, the next excavation will be opened and the topsoil will be removed and spread over the closed up excavation, thus creating a rollover effect. The importance will be to work this area starting from the western side toward the eastern side not leaving any patches of gravel, but rather work out the reserve systematically in order that proper concurrent rehabilitation can take place.

(f) the option of not implementing the activity

This option might only be possible if the applicant decide to abandon the project. The applicant is also the landowner thus if this application is not implemented he will just continue with existing agricultural activities which is natural garzing. Thus not exploiting the mineral reserve and somebody else can apply. The Wolmaransstad area is well known for alluvial diamond mining and will it not stop the next person from applying.

(ii) Details of the Public Participation Process Followed

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. (1)(h)(ii)

The process as described by NEMA for Environmental Authorization was followed. See **Table 5 & 6** below for the identification of Interested and Affected Parties to be consulted with. The landowner (is also the applicant Cyprus Boerdery (Pty) Ltd.) and the direct neighbours were consulted personally and through letters that was given to them by hand. The result of this consultation and responses as received are all attached under **Appendix 2**. An advertisement was placed in the local newspaper of Stellalander Newspaper of the 9th June 2021 and site meeting was held on the 11th June 2021, also see copies of these attached. Notice was put up at the entrance to the application area, where all passers-by are invited to give through their comments of objections toward the proposed application. A copy of the Draft BAR was sent to all the State Departments. See proof of consultation under **Appendix 2**.

Appendix 2 – Proof of consultation.

a. Details of the Public Participation Process Followed

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. (1)(h)(iii)

The public participation process followed was in line with this prescription as per NEMA for Environmental Authorization. All relevant interested and affected parties was identified and consulted with. See **Table 5** below for identification list and how they were consulted.

Table 5: Identification of Interested and Affected Parties to be consulted

IDENTIFICATION CRITERIA	Mark with an X where applicable		ACTIONS
	YES	NO	
Will the landowner be specifically consulted?	X		They were consulted through personal and written consultation.
Will the lawful occupier on the property other than the Landowner be consulted?	X		No applicable as the landowners works his land.
Will a tribal authority or host community that may be affected be consulted?		X	N/A
Will recipients of land claims in respect of the area be consulted?	X		E-mail was sent to Keabetswe Mofuipi
Will the landowners or lawful occupiers of neighbouring properties been identified?	X		The landowner and neighbours were all consulted in person
Will the local municipality be consulted?	X		Letter was sent to Mr. Boloa of Maquassi Hills Local Municipality.
Will the Authority responsible for power lines within 100 metres of the area be consulted?		X	There are no power lines within 100m from application area.
Will the Authorities responsible for public roads or railway lines within 100 metres of the area applied for be consulted?		X	There are no public roads within 100 m that will be affected.
Will the Authorities responsible for any other infrastructure within 100 metres the area applied for be consulted? (Specify)		X	There is no surface infrastructure that will be affected; the application area is within natural veld.
Will the Provincial Department responsible for the environment be consulted?	X		Draft BAR was sent to DEDECT.
Will all of the parties identified above be provided with a description of the proposed mining/prospecting operation as referred above?	X		All consultation letters included the full property description and summary of intended activities
Will all the parties identified above be requested in writing to provide information as to how their interests (whether it be socio-economic, cultural, heritage or environmental) will be affected by the proposed mining project?	X		All consultation letter invited all I&AP's to send through any comment or objections.
Other, Specify			

(iii) Summary of issues raised by I&AP's

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. (f)(h)(iii)

The public participation process was followed as described by NEMA for Environmental Authorization and as described under the previous point (ii) Details of the Public Participation. See Table 6 below for summary of all I&AP's which was consulted with and Appendix 2 for copies of all letter, notices and photos on public participation.

Table 6: Summary of Identified I&AP's

Interested and Affected Parties		Date sent and/or Comments Received	Issues raised	EAP's response to the applicant
AFFECTED PARTIES				
Landowner/s	X			
Cyprus Boardery (Pty) Ltd 223 Bronkhorst Street Pretoria, 0180 Cell: 083 271 0815 e-mail: nick@silvercharm.co.za (Landowner and applicant on the farm Uitkyk 156 HO)		3 June 2021	No objection as the landowner is also the applicant.	
Lawful occupier/s of the land				
Landowners or lawful occupiers on adjacent properties	X			
Mr. M. Knoetze (Neighbour) Holvoort Boardery P.O. Box 390, Wolmaransstad, 2630 Cell: 076 323 0630 E-mail: marthusknoetze@gmail.com		3 June 2021 7 June 2021	No objection, see signed consultation letter attached.	
Mr. G.C. Knoetze (Neighbour) Wesvaal Delwery P.O. Box 390, Wolmaransstad, 2630 Cell: 083 431 4452 E-mail: wesvaaldelwery@gmail.com		3 June 2021 7 June 2021	No objection, see signed consultation letter attached.	
Municipal councillor				
Municipality	X			
Maquassi Hills Local Municipality LED officer: Peter Bolao E-mail: bolaopeter@gmail.com		3 June 2021	Consultation letter sent to Mr. Bolao	
Organs of state (Responsible for infrastructure that may be affected Roads Department, Eskom, Telkom, DWA.				
Eskom				
Communities				
N/A				
Dept. Land Affairs	X			
KeabetsweMothupi E-mail: Keabetswe.mothupi@dldr.gov.za		3 June 2021	Request for verification of land claims sent to Keabetswe Mothupi Acknowledgment letter received	
Traditional Leaders				
N/A				

BAR – Cyprus Boerdery (Pty) Ltd. – Uitkyk 156 HO (Port. 4 (-)-3) – NW 30/5/1/3/2/10902 MP

<p>Dept. Rural, Environment and Agricultural Development OurnaSkosana Agricentre Building, Cnr James Moroka& Stadium Road, Mmabatho, 2735 E-mail: os.kosana@nwpp.gov.za</p>	<p>X</p>	<p>9 June 2021</p>	<p>BAR/EMPI sent with Fastway couriers for comments</p>	
<p>Dept. Water and Sanitation Dr. T. Ntuli 2nd Floor, Bloem Plaza Building Cnr East Burger & Charlotte Maxeke Bloemfontein, 9300 Tel: 051 405 9000, E-mail: NtuliT@dwf.gov.za</p>	<p>X</p>	<p>9 June 2021</p>	<p>BAR/EMPI sent with Fastway couriers for comments</p>	
<p>Dept. Agriculture, Forestry and Fisheries Maurice Vuyega Louis le Grange Building, Cnr Peter Mokaba & Wolmarans street, 3rd Floor, Office no 318, Potchefstroom, 2520 Tel: 018-389 5156, E-mail: MauriceV@dlf.gov.za</p>	<p>X</p>	<p>9 June 2021</p>	<p>BAR/EMPI sent with Fastway couriers for comments</p>	
<p>Other Competent Authorities</p>				
<p>OTHER AFFECTED PARTIES</p>				
<p>INTERESTED PARTIES</p>				

Notice was published in the Stellalander Newspaper of the 9th June 2021

(iv) The Environmental attributes associated with the alternatives

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. (1)(h)(iv)

1. Baseline Environment

Introduction: The purpose of this section is to provide information on the environment in which the proposed mining activities will take place, with a view to identify sensitive issues/areas, which need to be considered when conducting the impact assessment. The application is over: **Uitkyk 156 HO – certain portion of Portion 4 (a portion of portion 3)**. This area can be described as natural veld with scapes vegetation and shrub cover, see **Appendix 1(b)** and **Figure 3**.

Magisterial District: Wolmaransstad is a maize-farming town situated on the N12 between Johannesburg and Kimberley in **North West Province** of **South Africa**. The town lies in an important alluvial diamond-mining area and it is the main town of the **Maquassi Hills Local Municipality**. It further falls under **Dr Kenneth Kaunda District Municipality**, with their offices situated in Klerksdorp. Course: <https://en.wikipedia.org/wiki/Wolmaransstad>

Direction from neighbouring town: The site is situated 19 min (20.9 km) via R505 from Wolmaransstad, 2640. Head northwest on Kruger Street (R504) toward Piet Retief Street for 1.8 km. Turn right onto Ottosdal Way (R505); continue to follow R505 in the direction of Ottosdal for 8.0 km. Turn left on the Vogelstruiskuil gravel road and drive for 9.3 km. Turn left on farm road and drive for 1.7 km. The site will be amongst natural fields on the left hand side at -27.0533 & 25.9114. See location of proposed site on Locality Map **Appendix 1(a)**.

Longitude (approximate center of mining site): 25.9114 E

Latitude (approximate center of mining site): -27.0533 S

Existing Surface Infrastructure: This will be a very small project with low impacts (only 5 ha). The application area is situated over an area that is over natural veld that has a scapes vegetation/scrub cover and signs of historic pick and shovel mining activities. The proposed application area is situated 20.9 km south, south-east of Wolmaransstad. It is situated amidst cultivated fields and cultivated fields that was withdrawn from cultivation, but can be seen as transformed rangeland which was change to cultivated land; see **Appendix 1(b)** – Pre-Mining Infrastructure Map and **Figure 3** below for images of proposed area - http://daffarcgis.nda.agric.za/Comp_Atlas_v2/. On **Figure 3** it can be seen that the area that are applied for is over natural veld that bear signs of historic pick and shovel mining activities. There is no infrastructure over the application area beside for fence line. Access to the proposed site can be gained via the Vogelstruiskuil gravel road that turns off from the **R505** tar road that is running between the towns of Wolmaransstad and Ottosdal. There are further no structures over this application area. It is part of a bigger farm portions - of Portion 4 of the farm Uitkyk 158 HO.

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

Distribution: North-West Province: In two sets of patches, one in the Wolmaransstad, Ottosdal and Hartbeesfontein region, and the other from the Botsolano Game Park north of Mafikeng to the vicinity of Madibogo in the south. Altitude 1 260–1 580 m.

Climate: Warm-temperate, summer-rainfall region, with overall MAP of 401 - 600 mm. Summer temperatures are high with maximums summer temperatures of between 27°C – 29.2°C and winter minimum being between 4°C – 5.5°C. Frequent frost occurs in winter between 11-20 April.

Geology & Soil: Shale, slate and quartzite of the Pretoria Group with interlaid diabase sills and Hekpoort lava supporting relatively shallow and rocky soils (Glenrosa and Mispah forms), typical of the Fb land type. Equally represented are eutrophic red plinthic soils (Hutton from), derived mainly from a thick succession of volcanics and sediments of the Ventersdorp Supergroup (Bc land type). Bd and Ae is of minor occurrence. The landtype Ae37 is Red-yellow apedal, freely drained soils, Red; high base status >300 mm deep.

Vegetation & Landscape Features: The terrain type is categorized as being: plains or slightly irregular undulating plains with open to dense *Accacia karoo* bush clumps in dry grassland. Slope ≤ 2 % - 3-5% which indicate it as a relatively flat area, see **Figure 4** below. The agricultural region within which this application area falls is classified as being: IV Marginal potential arable land. The landcover is classified as being Unimproved (natural) Grassland. The grazing capacity was set at being between 4 - 7 ha/LSU (1993) and 8 – 10 ha/LSU (2019), indicating that the general grazing capacity of the area have deteriorate over time. Furthermore according to the DEDACT's (Department of Economic Development, Environment,

Conservation and Tourism's) new screening tool the footprint of this application area, although only mall scale mining, are classified as per **Table 7** below.

Table 7: DEDACT - Screening Report

Theme	Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
Agriculture Theme			X	
Animal Species Theme				X
Aquatic Biodiversity Theme				X
Archaeological and Cultural Heritage Theme				X
Civil Aviation Theme			X	
Palaeontology Theme			X	
Plant Species Theme			X	
Defence Theme				X
Terrestrial Biodiversity Theme				X

According to this Screening Tool none of the theme has tested as being very high to high sensitive. *Agriculture Theme*, *Civil Aviation Theme*, *Palaeontology Theme* and *Plant Species Theme* have tested medium sensitivity. Thus there is no need for specialized studies, as the application area is over natural veld that was historically disturbed by pick and shovel miners. Thus this area can also not be seen as pristine anymore. It is not high potential agricultural land, but marginal grazing land. The vegetation cover is also scares in places because of historical pick and shovel mining that have left the area uneven and unrehabilitated. Plant live and animal life has adjusted to this area and will probably just migrate to adjacent area if mining start. As indicated by the Department of Agriculture, Land Reform and Rural Development - Comprehensive Atlas V2: http://daffarcgis.nda.agric.za/Comp_Atlas_v2/. The agricultural region within which this application area falls is classified as being: IV Marginal potential arable land. It is also classified as being Unimproved (natural) Grassland. As this area have been historically mined and was left unrehabilitated it is not deemed necessary to undertake any specialist assessment report and because none of the themes have been proven to have the potential of being high/very high sensitivity.

Figure 4: Land cover map



According to VEGMAP (2006) the area is classified as part of the (Gh 13) Klerksdorp Thornveld. vT 50 Dry Cymbopogon—Themeda Veld (44%), VT 19 Sourish Mixed Bushveld (29%) (Acocks 1953). LR 37 Dry Sandy Highveld Grassland (70%) (Low & Rebelo 1996). See **Table 8** below for summary of Klerksdorp Thornveld and **Figure 5, below** is a summary of the plant species that may occur over the surrounding undisturbed areas, which in turn can be a source for regrowth of natural species once mining, have totally ceased over this area.

Table 8: Summary of Klerksdorp Thornveld

Name of vegetation type	Klerksdorp Thornveld
Code as used in the Book - contains space	Gh13
Conservation Target (percent of area) from NSBA	24%
Protected (percent of area) from NSBA	1.1% (+1.4%)
Remaining (percent of area) from NSBA	70.8%
Description of conservation status from NSBA	Vulnerable
Description of the Protection Status from NSBA	Poorly protected

Area (sqkm) of the full extent of the Vegetation Type	3928,11
Name of the Biome	Grassland Biome
Name of Group (only differs from Bioregion in Fynbos)	Dry Highveld Grassland Bioregion
Name of Bioregion (only differs from Group in Fynbos)	Dry Highveld Grassland Bioregion

Important Taxa – **Small Trees:** *Acacia karoo* (d), *A. caffra*, *Celtis Africana*, *Rhus lancea*, *Ziziphus mucronata*. **Tall Shrubs:** *Acacia hebeclada*, *Diospyros lycioides* subsp. *lycioides*, *Ehretia rigida*, *Grewia flava*, *Gymnosporia buxifolia*, *Rhus pyroides*, *Tarchonanthus camphotatus*. **Woody Climbers:** *Asparagus africanus*. **Low Shrubs:** *Asparagus larcinus* (d), *A. suaveolens* (d), *Felicia muricata* (d), *Anthospermum hispidulum*, *A. rigidum* subsp. *pumilum*, *Aptosimum elongatum*, *Gnidia capitata*, *Gomphocarpus fruticosus* subsp. *fruticosus*, *Helichrysum dregeanum*, *Leucas capensis*, *Pavonia burchelli*, *Pentzia globosa*, *Solanum supinum* var. *supinum*, *Triumfetta sonderi*, *Ziziphus zeyheriana*. **Graminoids:** *Aristida congesta* (d), *Eragrostis lehmaniana* (d), *E. trichophora* (d), *Microchloa caffra* (d), *Panicum coloratura* (d), *Sporobolus africanus* (d), *Themeda triandra* (d), *Andropogon schirensis*, *Antheophora pubescens*, *Aristida junciformis* subsp. *galpinii*, *A. stipitata* subsp. *gracilliflora*, *Brachiaria nigropedata*, *B. serrate*, *Bulbostylis burchellii*, *Cymbopogon pospischilii*, *Digitaria eriantha*, *Diheteropogon amplexens*, *Elionurus muticus*, *Eragrostis curvula*, *E. obtuse*, *E. racmosa*, *E. suberba*, *Eustachys paspaloides*, *Heteropogon contortus*, *Staria aphacelata*, *Sporobolus africanus*, *Tragus berteronianus*, *Trichoneura grandiglumis*, *Triraphis andropogonoidea*. **Herbs:** *Acalypha angustata*, *Acanthospermum austral*, *Berkheya onopordifolia* var. *onopordifolia*, *B. setifera*, *Blepharis integrifolia* var. *clarkii*, *Chamaesyce inaequilatera*, *Chascanum adenostachyum*, *Dicoma macrocephala*, *Helichrysum nudifolium* var. *nudifolium*, *Hermannia lancifolia*, *Hibiscus pusillus*, *Justicia anagalloides*, *Lippia scaberrima*, *Nidorella microcephala*, *Nolletia ciliaris*, *Pollichia campestris*, *Rhynchosia adenodes*, *Salvia radula*, *Selago densiflora*, *Teucrium trifidum*, *Tolpis capensis*. **Geophytic Herb:** *Bulbine narcissifolia*, *Ledebouria marginata*, *Ornithogalum tenifolium* subsp. *tenuifolium*, *Raphionacme hirsute*. **Harbaceous Climbers:** *Rhynchosia venulosa*. **Conservation:** Vulnerable. Target 24%. Only about 2.5% conserved in the statutory Mafikeng Game Reserve, private Botsolano Game Park and Faan Meintjes Nature Reserve. Almost a third already transformed for cultivation and by urban sprawl. This vegetation unit has a high grazing capacity and this leads to overutilization and degradation, and subsequent invasion of *Acacia karoo* into adjacent dry grassland. Due to the great habitat and floristic diversity and for aesthetical reasons, the landscape deserves to be conserved. **References:** Louw (1951), Morris (1973, 1976), Bredenkomp & Bezuidenhout (1990), Bezuidenhout (1993), Bezuidenhout et al. (1994c, d)

Figure 5: The VEGMAP classification: (Gh 13) Klerksdorp Thornveld



Animal Life [Fauna]: Not many species were directly observed but the presence of nesting sites in the area is an indication that this area is an acceptable habitat for shelter and food for avian species. The natural animal life occurring over the application area includes but is not restricted to, small animals common in this area. List of mammals which are likely to occur over the project area were derived based on distribution record from the Animal Demography Unit (ADU) web portal: <http://vmus.adu.org.za>. Animals that are likely to occur here are: **Mammals:** *Sylvicapra grimmia* (Bush Duiker), *Suricata suricatta* (Meerkat), *Pedetes capensis* (South African Spring Hare), *Xerus inauris* (South African Ground Squirrel), *Canis mesomelas* (Black-backed Jackal), *Hystrix africae australis* (Cape Porcupine), *Phacochoerus africanus* (Common Warthog), *Raphicerus campestris* (Steenbok). **Birds:** *Ciconia abdimii* (Abdim's Stork), *Nectarinia [Cinnyris] talatala* (White-bellied (breasted) Sunbird), *Bubulcus ibis* (Cattle Egret), *Euplectes afer* (Yellow-crowned (Golden) Bishop), *Chlidonias hybridus* (Whiskered Tern).

Topography: The topography is characterized as being *plains or slightly irregular undulating plains*. Slope $\leq 2\%$ - 3-5% which indicate it as a relatively flat area. The average elevation is between 1 260–1 580 m. The area is characterized by predominantly one-terrain unit that form part of the natural topography of the area. The application area is under natural veld.

Surface Water: This application area fall within the water management area of the *Middle Vaal (9)(C2)* and secondary catchment area *C25* and tertiary drainage region *C25E*. There is no open water of surface water body on the application area. All precautions will have to be taken to prevent erosion during heavy storm events. See **Figure 6** below of WMA.

Figure 6: Water Management Area



Ground Water: There are no boreholes on the application area, but there is a borehole just north outside the application area, which will be used for mining purposes. The applicant intends to use water from this borehole and the necessary water use conversion will be done. The water uses out of this borehole will be for dust suppression on roads and testing of the gravel. They will require about 10 000 liters per hour for all these mining processes.

Air Quality: With reference to the Scheduled processes under the Atmospheric Pollution Act, 1965 (Act No. 45 of 1965): No scheduled process relates to any proposed mining activity on this applied area. The current source of air pollution in the area stems from vehicles travelling on the gravel roads of the area and agricultural activities. The source of air pollution will be nuisance dust generated by the movement of excavators, hauling of raw mineral to and from excavations to the processing area via the mining roads. Gas emissions from vehicles will be within legal limits. The landowner and surrounding will not be negatively impacted as there is no residence in or near this application area. It is however foreseen that the overall dust impact will be medium to low negative. The accumulative impact of dust generated will only be noticeable during cultivation times when tractors and farming equipment also generate a lot of dust.

Noise: The movement of heavy vehicles, as well as die screening and washing during the operational and closure phase and the mining of the diamond gravel will have a low impact on the noise levels in the vicinity of the mine. The mining and transporting of the gravel, which is during normal office hours will blend in with the daily noise impact and other agricultural practices. These noise levels will be continuous and the operators will be issued with earplugs. The impact would be of more importance regarding the direct worker environment that should adhere to the requirements in terms of the Mine Health and Safety Act and the influence on wild life.

Sites of Archaeological and Cultural Interest: There are no graves on the application area.

Sensitive Landscapes: There are no sensitive areas over the mining permit application area. In times of heavy rainfall events extra measures need to be taken to ensure soil erosion does not take place and that loose soil and pollutants such as lubricants for the mining terrain are not washed in the direction of this water body.

Visual Aspects: The nearest residences are farmsteads on the bogger Portion 4 which is situated 1.7 km south-east of the application area. The operation will not be shielded by the natural vegetation, as it is surrounded by cultivated fields. As it will not be a big operation the impact is seen as being low negative. The mining site will only be visible to the land owner and neighbours traveling over their own property. The negative visual impact associated with the stockpiling of diamond gravel dumps to be processed and the processing plant (washing pan) are not seen to be a high visual impact since this infrastructure will only be part of the topography for *two years*. The mitigation of this impact will be done concurrent with operations as mining progress, the stockpile dumps will get smaller and eventually diminish and in the long term this site will sloped and rehabilitated back to agricultural cultivation use again.

Social:

The proposed activity will employ 7 people, of which are resident from Wolmaransstad. Various social amenities are available close to the operation. These include schools, hospitals churches, recreation facilities as well as a Police Station at Wolmaransstad, which is located approximate between 20.9km south of the proposed operation.

(a)Description of the current land uses

The application area is situated over an area that is over natural veld that was historically worked by pick and shovel miners. There is no infrastructure over the application area. It is part of a bigger farm portion of Portion 4 (a portion of portion 3). Access to the farm is gained via the Vogelstruiskuil gravel road turning off from the 505 tar road running between Ottosdal and Wolmaransstad. The surrounding areas are used for as agriculture cultivation and grazing.

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

Please refer to Section 2 (d)(ii) Table 2 for a description of the activities and the infrastructure which are foreseen to form part of the mining activity. There is no infrastructure over the application area. See **Appendix 1(b)** of existing infrastructure.

(c)Environmental and current land use map

Current land use of the application area is natural veld that was historically mined by pick and shovel miners. See **Appendix 1(b)** [Pre-Mining Infrastructure Map] and **Figure 3** [Images of existing infrastructure] for more detail.

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

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. (1)(h)(v)

The proposed project is anticipated to impact on a range of biophysical and socio-economic aspects of the environment. The main purpose of the Basic Assessment Report is to identify and evaluate the significance of these potential impacts and determine how they can be minimized or mitigated.

It should be noted that a comprehensive Environmental Management Program (EMPr) will be developed and implemented to regulate and minimize the direct, indirect and cumulative impacts during the construction and operational phases. The potential environmental impacts identified, which will be investigated further in the Impact Assessment Phase of the project, are summarized in **Table 9** on next page.

Table 9: Impact significance identification matrix for Urtkyk 156 HO

PHASE	A	B	C	D	ABIOTIC				BIOTIC			K	L	M	N		
					E	F	G	H	I	J	Sensitive landscapes					Visual impact	Archaeological & cultural sites
	Geology	Topography	Soil	Land capability	Land use potential	Surface water	Ground water	Air quality	Noise	Vegetation	Wildlife						
Construction	1																
	2																
	3																
	4																
	5																
	6																
	7																
	8																
	9																
	Operational	10															
		11															
	Decommission	12															
		13															
		14															
		15															
		16															

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

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. (1)(h)(vi)

Introduction:

This section below describes and evaluates the effects of the different mining projects and the associated activities on the natural and social environments. The different environmental components, on which the project (can/may) have an impact, are:

- | | |
|--------------------|---------------------------------------|
| 1. Geology | 9. Ground Water |
| 2. Topography | 10. Air Quality |
| 3. Soil | 11. Noise |
| 4. Land Capability | 12. Archaeological and Cultural sites |
| 5. Land Use | 13. Sensitive Landscapes |
| 6. Vegetation | 14. Visual Aspects |
| 7. Wildlife | 15. Socio-economic Structure |
| 8. Surface Water | 16. Interested and Affected Parties |

IMPACT ASSESSMENT

Before the impact assessment could be done the different project activities were identified:

ACTIVITIES:

1. Access Roads (Existing roads to be upgraded)
2. Temporary office, workshops, ablution facility, water tanks, diesel tanks and other temporary buildings
3. Mining equipment (conveyor, screen/crusher, generator)
4. Stockpiles
5. Opencast trenches

Environmental Impact Assessment Summary:

- **Environment likely to be affected by the mining operation. (See Appendix 1 (b) for location)**

Environmental aspect	Affected		Not affected
	Negligible	Substantial	
1. GEOLOGY		X	
2. TOPOGRAPHY	X		
3. SOIL		X	
4. LAND CAPABILITY		X	
5. LAND USE	X		
6. VEGETATION		X	
7. WILDLIFE	X		
8. SURFACE WATER			X
9. GROUND WATER	X		
10. AIR QUALITY	X		
11. NOISE	X		
12. SENSITIVE LANDSCAPES			X
13. VISUAL ASPECTS	X		
14. SOCIO ECONOMICS	X		
15. INTERESTED & AFFECTED PARTIES	X		
16. ARCHAEOLOGICAL			X

- **Environment likely to be affected by the alternative land use**

Mining will not be a new land use over this area, as the area was previously disturbed by historical mining activities. The site that is earmarked for mining represents ± 100 % of the total area applied for. And it is further not foreseen that mining activities would disturbed an area of not more than 0.5 ha at any given time. The whole of the 5 ha area will be under mining associated infrastructure or activities.

- **Assessment of the impacts created by the mining activity**

Before any assessment can be made the following evaluation criteria need to be described:

Explanation of probability of impact occurrence

Probability of impact	Explanation of probability
Very low	<20% sure of particular fact or likelihood of impact occurring.
Low	20 to 39% sure of particular fact or likelihood of impact occurring.
Moderate	40 to 59% sure of particular fact or likelihood of impact occurring.
High	60 to 79% sure of particular fact or likelihood of impact occurring.
Very high	80 to 99% sure of particular fact or likelihood of impact occurring.
Definite	100% sure of particular fact or likelihood of impact occurring.

Explanation of extend of impact

Extend of impact	Explanation of extend
Site specific	Direct and indirect impacts limited to site of impact only.
Local	Direct and indirect impacts affecting environmental elements within the Wolmaransstad.
Regional	Direct and indirect impacts affecting environmental elements within North West Province.
National	Direct and indirect impacts affecting environmental elements on a national level.
Global	Direct and indirect impacts affecting environmental elements on a global level.

Explanation of duration of impact

Duration of impact	Explanation of duration
Very short	Less than 1 year
Short	1 to 5 years
Medium	6 to 12 years
Long	13 to 50 years
Very long	Longer than 50 years
Permanent	Permanent

Explanation of impact significance

Impact significance	Explanation of significance
No impact	There would be no impact at all - not even a very low impact on the system or any of its parts.
Very low	Impact would be negligible. In the case of negative impacts, almost no mitigation and/or remedial activity would be needed, and any minor steps, which might be needed, would be easy, cheap and simple. In the case of positive impacts, alternative means would almost all likely to be better, in one or a number of ways, than this means of achieving the benefit.
Low	Impact would be of a low order and with little real effect. In the case of negative impacts, mitigation and/or remedial activity would be either easily achieved or little would be required, or both. In case of positive impacts, alternative means for achieving this benefit would likely be easier, cheaper, more effective, less time-consuming, or some combination of these.
Moderate significance	Impact would be real but not substantial within the bounds of those which could occur. In the case of negative impacts, mitigation and/or remedial activity would be both feasible and fairly easily possible. In the case of positive impacts, other means of achieving these benefits would be about equal in time, cost and effort.
High significance	Impacts of a substantial order. In the case of negative impacts, mitigation and/or remedial activity would be feasible but difficult, expensive, time-consuming or some combination of these. In the case of positive impacts, other means of achieving this benefit would be feasible, but these would be more difficult, expensive, time-consuming or some combination of these.
Very high significance	Of the highest order possible within the bounds of impacts which could occur. In the case of negative impacts, there would be no possible mitigation and/or remedial activity to offset the impact at the spatial or time scale for which it was predicted. In the case of positive impacts, there is no real alternative to achieving the benefit.

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

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. (1)(h)(vii)

In terms of the EIA regulations, consideration must be given to alternatives. Alternatives are different approaches and ways of meeting the need, purpose and objectives of a proposed activity. Alternatives may include a location site alternative, activity alternatives, processes or technology alternatives, temporal alternatives etc. the no-go alternative or option is also considered, as it provides the baseline against which the impacts or other alternatives may be compared.

However, for this specific project, no alternatives have been investigated, with the exception of the no-go alternative. The reason for this being that the mining permit is being applied for the sole purpose of mining of *Alluvial Diamond gravel*. The no-go option entails the continuation of the current land use (natural vegetation) on the study site by the landowner/applicant. The project will contribute towards providing continued jobs. Should the proposed project therefore not be authorized to proceed, it is anticipated that

employment opportunities will be lost.

The no-go option is therefore not a feasible option in this case, as it suggests that the mineral reserves should not be exploited and current employment opportunities should not materialize or be prolonged. The site layout will be only the excavation, plant area and office container. The stockpiles of the topsoil will be placed next to the side walls of the excavation on the outside. This will have the advantage to be nearby available to be used for rehabilitation. The stockpiles for the *Alluvial Diamond gravel* (product) and the washing plant will be placed just outside the excavation within the mining area which will have the advantage that the loading of trucks can proceed without hampering the mining process and will be a safer mining environment.

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

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. (1)(h)(viii)

Refer to the results of consultation contained in **Table 10** for the issues that were raised by I&AP's and stakeholders during the review period of the Consultation phase of the BAR/EMPr report, as well as the response to those issues made by the Environmental Assessment Practitioner.

The mitigation measures and technical management action plans which address potential impacts are discussed below. Please see section below for more detail.

Table 10: Assessment of the nature, extent, duration, probability and significance of the potential environmental, social and cultural impacts of the proposed mining operation, including the cumulative environmental impacts

ASPECT	IMPACTS	CUMULATIVE IMPACTS							
1. GEOLOGY									
Nature of the impact	Geology (deposits will be destroyed during the opencast mining operation.) During operation which will be for the next 2 years, the mineral resource (<i>Alluvial Diamond gravel</i>) will be extracted from mineral deposits. Waste material/overburden material is disposed off/backfilled in excavations as part of the mining process.								
Extent	Site	Activity causing the impact							
Duration	Permanent	An opencast mining method will be used to extract mineral deposits. Therefore the original geology will be totally destroyed.							
Probability	Definite								
Significance	High								
Phase responsible for the impact	<table border="1"> <tr> <td>Phase 1</td> <td>Phase 2</td> <td>Phase 3</td> <td>Closure</td> </tr> <tr> <td></td> <td>X</td> <td>X</td> <td></td> </tr> </table>		Phase 1	Phase 2	Phase 3	Closure		X	X
Phase 1	Phase 2	Phase 3	Closure						
	X	X							

ASPECT	IMPACTS	CUMULATIVE IMPACTS							
2. TOPOGRAPHY									
Nature of the impact	<ul style="list-style-type: none"> * Change in landform : * The mining site is situated on: plains or slightly irregular undulating plains. * Disturbance of the surface drainage: The mining of the mineral deposits will result in the creation of excavations (40 x 10 m x 3.5m or less), that act as depressions in the environment that captures run-off. Mining activities will be concentrated as indicated on Appendix 1(c) on the application area (approximately 3.5 m depth). Normal surface drainage will be disturbed at a given point. Run-off if any will be diverted away from the specific site. 								
Extent	Site	Activity causing the impact							
Duration	Very long to Permanent	Creation of excavations							
Probability	Definite								
Significance	High								
Phase responsible for the impact	<table border="1"> <tr> <td>Phase 1</td> <td>Phase 2</td> <td>Phase 3</td> <td>Closure</td> </tr> <tr> <td></td> <td>X</td> <td>X</td> <td>X</td> </tr> </table>		Phase 1	Phase 2	Phase 3	Closure		X	X
Phase 1	Phase 2	Phase 3	Closure						
	X	X	X						

ASPECT	IMPACTS	CUMULATIVE IMPACTS							
3. SOIL									
Nature of the impact	The surface area is characterized by historical disturbed uneven soil surface because of historical pick and shovel mining activities with only thin organic layer on top. Any construction of infrastructure should be preceded by the removal of all available topsoil where available.								
Extent	Site	Activity causing the impact							
Duration	Long	In the process of removing topsoil the soil layers are mixed and the structure may be disturbed.							
Probability	High								
Significance	Moderate								
Phase responsible for the impact	<table border="1"> <tr> <td>Phase 1</td> <td>Phase 2</td> <td>Phase 3</td> <td>Closure</td> </tr> <tr> <td></td> <td>X</td> <td>X</td> <td></td> </tr> </table>		Phase 1	Phase 2	Phase 3	Closure		X	X
Phase 1	Phase 2	Phase 3	Closure						
	X	X							

ASPECT	IMPACTS	CUMULATIVE IMPACTS			
3. SOIL					
Nature of the impact	The establishment, construction, operation and eventually rehabilitation (demolition) of listed structures such as the access roads, stockpiles, cause compaction of soil. All mining activities will be concentrated on the identified mining focus area where mineral deposits could be found. In the same time a certain surface area is therefore alienated. The active mining surface area (alienated) would be restricted within the 5 ha at any given time for the next 2 years.				
Extent	Site	Activity causing the impact			
Duration	Long	Site preparation for additional mining sites and the construction, operation of listed infrastructure.			
Probability	High				
Significance	Moderate				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X		X	X

ASPECT	IMPACTS	CUMULATIVE IMPACTS			
3. SOIL					
Nature of the impact	Soil erosion: Due to the fact that certain surface areas would become compacted and this would lead to lesser infiltration of rainwater and more run-off that could cause erosion on bare disturbed surfaces. Erosion would always be possible until such time a vegetation cover is provided during rehabilitation phase.				
Extent	Site	Activity causing the impact			
Duration	Very short	When removing topsoil during site preparation, little storm water control structures are in place. If a severe storm hits the area, it may lead to erosion on site. Topsoil stockpiles may be prone to erosion due to lack of vegetation cover. Water control structures may fail or severe rainstorms may cause excessive run-off. Surface compaction due to activities taking place.			
Probability	Very low				
Significance	Low				
Phase responsible for the impact	Phase 1		Phase 2	Phase 3	Closure
		X	X	X	

ASPECT	IMPACTS	CUMULATIVE IMPACTS			
3. SOIL					
Nature of the impact	Potential of soil contamination.	None.			
Extent	Site	Activity causing the impact			
Duration	Long	Vehicle/equipment breakages and oil/lubricant /diesel spills may contaminate soil.			
Probability	Moderate				
Significance	Moderate				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X	X	

ASPECT	IMPACTS	CUMULATIVE IMPACTS			
3. SOIL					
Nature of the impact	Loss of soil structure	None			
Extent	Site	Activity causing the impact			
Duration	Long	In the process of removing topsoil the soil layers are mixed and the structure may be disturbed.			
Probability	High				
Significance	Moderate				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X		

ASPECT	IMPACTS	CUMULATIVE IMPACTS			
3. SOIL					
Nature of the impact	Loss of soil fertility	None			
Extent	Site	Activity causing the impact			
Duration	Short	The mixing of soil during site preparation, compaction and potential pollution (spillage of oil etc.) all may cause this situation.			
Probability	Definite				
Significance	Low				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X		

ASPECT	IMPACTS	CUMULATIVE IMPACTS			
4. LAND CAPABILITY					
Nature of the impact	Temporary loss of land capability to support cultivation. The small area (0.5 ha) where the active mining activities occur (excavations, plant area, stock piles, mining equipment) etc. will thus be temporary alienated, until the area is rehabilitated. All excavations would be rehabilitated as part of the mining process during which excavations are sloped. The rest of the application area will still be used by the landowner as town lands.				
Extent	Site	Activity causing the impact			
Duration	Long	Site preparation for additional mining sites and the construction, operation of listed infrastructure, the land capability of the active mining area will be totally destroyed.			
Probability	Definite				
Significance	Moderate				
Phase responsible for the impact	Phase 1		Phase 2	Phase 3	Closure
			X	X	X

ASPECT	IMPACTS	CUMULATIVE IMPACTS			
5. LAND USE					
Nature of the impact	This is a renewed mining operation over historical mining are and therefore will lose its land use to support grazing again on this area of the 5 ha during the next 2 years. Only a small portions of land (0.5 ha at a time) would be affected by the mining operation. All excavations would be rehabilitated as part of the mining process during which excavations are sloped.				
Extent	Site	Activity causing the impact			
Duration	Long to permanent	Site preparation for mining and the construction, operation of listed infrastructure			
Probability	Definite				
Significance	Moderate				
Phase responsible for the impact	Phase 1		Phase 2	Phase 3	Closure
			X	X	

ASPECT	IMPACTS	CUMULATIVE IMPACTS			
6. VEGETATION					
Nature of the impact	Vegetation clearance, disturbance and trampling. Destruction of habitats for vegetation. Due to a disturbed ecosystem, bare ground and spreading of exotics can follow.				
Extent	Site	Activity causing the impact			
Duration	Long	The site preparation for new sites, construction of listed infrastructure will cause destruction of habitats for vegetation. Due to a disturbed ecosystem, bare ground and invasion of exotics could further spread. The vegetation needs to be cleared to remove the topsoil.			
Probability	Definite				
Significance	High				
Phase responsible for the impact	Phase 1		Phase 2	Phase 3	Closure
			X	X	

ASPECT	IMPACTS	CUMULATIVE IMPACTS			
6. VEGETATION					
Nature of the impact	Habitat change, loss of species, spread of alien and invasive species.				
Extent	Site	Activity causing the impact			
Duration	Permanent	The change in the current habitat will be mitigated during final rehabilitation.			
Probability	High				
Significance	Moderate				
Phase responsible for the impact	Phase 1		Phase 2	Phase 3	Closure
			X	X	

ASPECT	IMPACTS	CUMULATIVE IMPACTS			
6. VEGETATION					
Nature of the impact	Dust coverage of plants.	None			
Extent	Site	Activity causing the impact			
Duration	Long	Heavy trucks and other vehicles on dirt roads, stockpiling, dumping of tailings are mainly responsible for this impact.			
Probability	High				
Significance	Low				
Phase responsible for the impact	Phase 1		Phase 2	Phase 3	Closure
			X	X	

ASPECT	IMPACTS				CUMULATIVE IMPACTS
7. WILDLIFE					
Nature of the impact	Wildlife or wildlife habitat destruction /change / disturbance.				None
Extent	Site				Activity causing the impact
Duration	Permanent				The flora which normally serves as habitat for animals would be destroyed during site preparation. The increase in activity will temporarily scare other animals. The area will serve as a new habitat after rehabilitation.
Probability	Very High				
Significance	Moderate				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X		

ASPECT	IMPACTS				CUMULATIVE IMPACTS
7. WILDLIFE					
Nature of the impact	Injury and death to wildlife.				None
Extent	Site				Activity causing the impact
Duration	Short				The movement of vehicles may kill certain insects, rodents and possible birds. Most of the remaining animal life will however move away due to noise.
Probability	Very low				
Significance	Low				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X		

ASPECT	IMPACTS				CUMULATIVE IMPACTS
7. WILDLIFE					
Nature of the impact	Restoration of habitat.				None
Extent	Site				Activity causing the impact
Duration	Short				As rehabilitation progresses the habitat of certain species will be restored/created (Closure objective) Animals will probably only move back when human movement is limited.
Probability	Low				
Significance	Low				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X	X	

ASPECT	IMPACTS				CUMULATIVE IMPACTS
8. SURFACE WATER					
Nature of the impact	Increased silt load. Clearing topsoil for footprint areas can increase infiltration rates of water to the groundwater system and decrease buffering capacity of soils to absorb contaminants from spills on surface. This can increase the risk of contamination of the groundwater system (increases aquifer vulnerability).				
Extent	Local				Activity causing the impact
Duration	Short				The clearance of vegetation and the traffic on access roads will all contribute to an increase in the silt load on the mining area.
Probability	Moderate				
Significance	Moderate				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X	X	

ASPECT	IMPACTS				CUMULATIVE IMPACTS
8. SURFACE WATER					
Nature of the Impact	Change in surface water quality. Spillages from vehicles and also surface water run-off that is not adequately diverted away from the active mining excavations could end-up in the excavations creating problems regarding water quality and hindering the mining process. Surface run-off from active mining sites if not adequately contained on site could end-up in the adjacent undisturbed natural veld. If the natural surface run-off is not adequately diverted in the case of the dry-water course area, mining sections it could become silted-up.				
Extent	Local				Activity causing the impact
Duration	Short				"Dirty / Clean" water systems at facilities like the overburden dumps, roads, excavations, etc. may impact on the quality of the surface water. The water should be contained in the surface runoff control measures provided therefore.
Probability	Moderate				
Significance	High				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X		

ASPECT	IMPACTS	CUMULATIVE IMPACTS							
8. SURFACE WATER									
Nature of the impact	Change in surface water quantity: Notwithstanding the above-mentioned facts, it is not expected that mining operations will have any effect on the boundaries or the general water flow of the catchment. Standing water in trenches could as the result of rain/ surface run-off ending up in shallow depressions. Water for the dust suppression might be used from the borehole.								
Extent	Site	Activity causing the impact							
Duration	Long	It is an operational objective to contain or divert all surface run-offs from the active mining excavations area mainly due to pollution (sediment) potential. This will reduce the run-off quantity, although small in comparison with the drainage area in total.							
Probability	High								
Significance	High								
Phase responsible for the impact	<table border="1"> <tr> <td>Phase 1</td> <td>Phase 2</td> <td>Phase 3</td> <td>Closure</td> </tr> <tr> <td></td> <td align="center">X</td> <td align="center">X</td> <td></td> </tr> </table>		Phase 1	Phase 2	Phase 3	Closure		X	X
Phase 1	Phase 2	Phase 3	Closure						
	X	X							

ASPECT	IMPACTS	CUMULATIVE IMPACTS							
9. GROUND WATER									
Nature of the impact	Reduction of groundwater quality Mining activities are not likely to impact on local ground-water quality. No chemicals are used during the mining process. Handling of waste and transport of building material can cause various types of spills (domestic waste, pit latrines, hydrocarbons) which can infiltrate and contaminate the groundwater system.								
Extent	Site	Activity causing the impact							
Duration	Long								
Probability	Definite								
Significance	High								
Phase responsible for the impact	<table border="1"> <tr> <td>Phase 1</td> <td>Phase 2</td> <td>Phase 3</td> <td>Closure</td> </tr> <tr> <td></td> <td align="center">X</td> <td align="center">X</td> <td align="center">X</td> </tr> </table>		Phase 1	Phase 2	Phase 3	Closure		X	X
Phase 1	Phase 2	Phase 3	Closure						
	X	X	X						

ASPECT	IMPACTS	CUMULATIVE IMPACTS							
9. GROUND WATER									
Nature of the impact	Even though abstraction is likely to have a minimal effect on the surrounding groundwater users, this is a new use, and groundwater levels are expected to continue current trends. Groundwater will be abstracted for potable water supply and processing. The volume of water needed is small (10 000 Lit/day) in comparison to other water use and will have a small impact on the surrounding aquifer.								
Extent	Site	Activity causing the impact							
Duration	Long	Opencast mining operation.							
Probability	Low								
Significance	High								
Phase responsible for the impact	<table border="1"> <tr> <td>Phase 1</td> <td>Phase 2</td> <td>Phase 3</td> <td>Closure</td> </tr> <tr> <td></td> <td align="center">X</td> <td align="center">X</td> <td align="center">X</td> </tr> </table>		Phase 1	Phase 2	Phase 3	Closure		X	X
Phase 1	Phase 2	Phase 3	Closure						
	X	X	X						

ASPECT	IMPACTS	CUMULATIVE IMPACTS							
10. AIR QUALITY									
Nature of the impact	Dust will be generated during the mining operation (loading with an excavator to the washing pan) and transportation to the client and on gravel/dirt/town land roads. The mining of the <i>Alluvial Diamond gravel</i> are a wet process and therefore minimum dust is generated.								
Extent	Site	Activity causing the impact							
Duration	Long	Initial construction work with regard to infrastructure (roads) that involves earth moving equipment. Dust could be generated as indicated during mining.							
Probability	Moderate								
Significance	Moderate								
Phase responsible for the impact	<table border="1"> <tr> <td>Phase 1</td> <td>Phase 2</td> <td>Phase 3</td> <td>Closure</td> </tr> <tr> <td></td> <td align="center">X</td> <td align="center">X</td> <td align="center">X</td> </tr> </table>		Phase 1	Phase 2	Phase 3	Closure		X	X
Phase 1	Phase 2	Phase 3	Closure						
	X	X	X						

ASPECT	IMPACTS	CUMULATIVE IMPACTS							
11. NOISE POLLUTION									
Nature of the impact	Noise will be generated during the mining operation excavator and loading with a front end loader into the washing pan) and transportation from the site. The mine itself is located in on valley. The impact would be of more importance regarding the direct worker environment that should adhere to the requirements in terms of the Mine Health and Safety Act.								
Extent	Local	Activity causing the impact							
Duration	Long	Earth moving equipment and vehicles (trucks).							
Probability	Definite								
Significance	Moderate								
Phase responsible for the impact	<table border="1"> <tr> <td>Phase 1</td> <td>Phase 2</td> <td>Phase 3</td> <td>Closure</td> </tr> <tr> <td></td> <td align="center">X</td> <td align="center">X</td> <td align="center">X</td> </tr> </table>		Phase 1	Phase 2	Phase 3	Closure		X	X
Phase 1	Phase 2	Phase 3	Closure						
	X	X	X						

ASPECT	IMPACTS	CUMULATIVE IMPACTS								
12. ARCHAEOLOGICAL AND CULTURAL SITES										
Nature of the impact	The terrain is not archaeologically vulnerable as it was disturbed before. It is unlikely that the proposed development will result in any significant archaeological impact at the site.									
Extent	Site	Activity causing the impact								
Duration	Permanent									
Probability	Definite									
Significance	High									
Phase responsible for the impact	<table border="1"> <tr> <td>Phase 1</td> <td>Phase 2</td> <td>Phase 3</td> <td>Closure</td> </tr> <tr> <td></td> <td align="center">X</td> <td></td> <td></td> </tr> </table>	Phase 1	Phase 2	Phase 3	Closure		X			
Phase 1	Phase 2	Phase 3	Closure							
	X									

ASPECT	IMPACTS	CUMULATIVE IMPACTS								
13. SENSITIVE LANDSCAPE										
Nature of the impact	No sensitive landscapes identified.									
Extent	Not applicable	Activity causing the impact								
Duration	Not applicable									
Probability	Not applicable									
Significance	Not applicable									
Phase responsible for the impact	<table border="1"> <tr> <td>Phase 1</td> <td>Phase 2</td> <td>Phase 3</td> <td>Closure</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Phase 1	Phase 2	Phase 3	Closure					
Phase 1	Phase 2	Phase 3	Closure							

ASPECT	IMPACTS	CUMULATIVE IMPACTS								
14. VISUAL ASPECTS										
Nature of the impact	Mining will only be visible to the landowners. The operation is not visible to from any tourist road.									
Extent	Site	Activity causing the impact								
Duration	Long	Mining operation.								
Probability	Definite									
Significance	Low									
Phase responsible for the impact	<table border="1"> <tr> <td>Phase 1</td> <td>Phase 2</td> <td>Phase 3</td> <td>Closure</td> </tr> <tr> <td></td> <td align="center">X</td> <td align="center">X</td> <td align="center">X</td> </tr> </table>	Phase 1	Phase 2	Phase 3	Closure		X	X	X	
Phase 1	Phase 2	Phase 3	Closure							
	X	X	X							

ASPECT	IMPACTS	CUMULATIVE IMPACTS								
15. SOCIO ECONOMICS										
Nature of the impact	Increase in Socio – economic activity at local level. The project in itself would ensure that approximately 7 workers would be assured of a job for some time. Job creation plays a major role in increasing the economic wellbeing of employees and their dependants in the Wolmaransstad and surrounding district. Once all mining operations have ceased it would definitely have a negative impact.	The increase in socio-economic activity will add to the current growth and development in Wolmaransstad district already created by industry and mining.								
Extent	Local	Activity causing the impact								
Duration	Long	Additional employment opportunities created.								
Probability	Definite									
Significance	High									
Phase responsible for the impact	<table border="1"> <tr> <td>Phase 1</td> <td>Phase 2</td> <td>Phase 3</td> <td>Closure</td> </tr> <tr> <td></td> <td align="center">X</td> <td align="center">X</td> <td align="center">X</td> </tr> </table>	Phase 1	Phase 2	Phase 3	Closure		X	X	X	
Phase 1	Phase 2	Phase 3	Closure							
	X	X	X							

ASPECT	IMPACTS	CUMULATIVE IMPACTS								
15. SOCIO ECONOMICS										
Nature of the impact	The main impact on the landowners is visual impact and the small area of 0.5 ha that will not be available for agricultural activities at any given time for 2 years.	The economic benefits in terms of investment and the delivery of services in the North West province will get an additional benefit from the project.								
Extent	Regional	Activity causing the impact								
Duration	Very Long									
Probability	High									
Significance	Moderate									
Phase responsible for the impact	<table border="1"> <tr> <td>Phase 1</td> <td>Phase 2</td> <td>Phase 3</td> <td>Closure</td> </tr> <tr> <td></td> <td align="center">X</td> <td align="center">X</td> <td align="center">X</td> </tr> </table>	Phase 1	Phase 2	Phase 3	Closure		X	X	X	
Phase 1	Phase 2	Phase 3	Closure							
	X	X	X							

ASPECT	IMPACTS				CUMULATIVE IMPACTS
16. INTERESTED & AFFECTED PARTIES					
Nature of the impact	Impact of activities on I&AP's Temporary loss of utilization of the mining focus areas for agricultural purposes. The long-term benefits far out-weight the current benefits from the current use. No negative impact is expected that could be appropriately mitigated, such as the eventual rehabilitation of the excavations.				
Extent	Local				Actively causing the impact
Duration	Long				
Probability	High				
Significance	High				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X	X	

(ix) Outcome of site section matrix

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. (1)(h)(ix)

Alternative is not applicable. The current land use is natural veld with previous disturbance through historical pick and shovel mining. The option to explore the possibility for mining is not an alternative land use, as previous mining activities have already taken place over the area years ago and had left the area un-rehabilitated and uneven. The applicant, Cyprus Boerdery (Pty) Ltd. is not interested in any other alternative land use over this land aside of mining of Alluvial Diamond gravel or any other activity, or method use other than mining for the aforementioned minerals in the conversional way, which is the most cost effective for such a small operation. Please note that no additional infrastructure will be established, and therefore no alternatives for the location of infrastructure were identified. All infrastructures will be temporary and will move with the operation.

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

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. (1)(h)(x)

The application area applied for is only 5 hectares thus the development location is limited to this area and the area where the mineral deposits occur. The occurrence of economical viable Alluvial Diamond gravel was identified over this specific area, thus this site selection.

i) FULL DESCRIPTION OF THE PROCESS UNDERTKEN TO IDENTIFY, ASSESS AND RANK THE IMPACTS AND RISKS THE ACTIVITY WILL IMPOSE ON THE PREFERRED SITE (IN RESPECT OF THE FINAL SITE LAYOUT PLAN) THROUGH THE LIFE OF THE ACTIVITY

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. (1)(h)(xi)

See Table 11 below

Table 11: Technical & Management Action Plans

Environmental Component	Geology
Environmental Management/Mitigation Measures/Action Plans/Commitments	
<ul style="list-style-type: none"> No mitigation exists except to slope the excavations where it was not possible to backfill. As mining progressed and the excavation has been sloped, a certain amount of overburden material and topsoil would be placed on these areas. This will not restore the geology, but will mitigate the impact. Planned, systematic and thorough mining of the mineral resource (<u>Alluvial Diamond gravel</u>) should take place. Optimal utilization of the mineral resource should take place within the boundaries of the mining terrain. Strip, remove and store soil and overburden as far as practical in an orderly fashion and replace as far as possible on back-filled areas, in the reverse order once decision have been taken that no further mining would take place in a particular section or which might still be traversed by vehicles and disturbed in the process. Cognisance should be taken of the fact that bulk sampling would take place by means of an opencast mining method until such level is reach / cut-off point is reach where rehabilitation could begin. Care must be taken that the removal of Alluvial Diamond gravel by means of earthmoving equipment is restricted to what is really necessary to achieve the objective. 	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
Optimal mining of the mineral resource in order to ensure to facilitate better rehabilitation planning. The overburden and topsoil (where available) must be replaced in a responsible and planned manner in order to achieve some conformity with the surrounding undisturbed area.	

Environmental Component	Topography
Environmental Management/Mitigation Measures/Action Plans/Commitments	
<ul style="list-style-type: none"> All trenches should be partly back-filled where possible with waste and eventually sloped and covered with a shallow layer of topsoil (if available). Access to all active mining excavation areas should be controlled. The active mining area should be fenced off. The necessary warning signs should be put in place. All mining activities should be restricted to the fenced-off area. Surface run-off control should be put in place at active trenches (preventing water from entering) and also rehabilitated tailings dumps and overburden dumps in order to prevent the loss of growth medium on top of the dumps. <p>Mining would be done according to a definite Mining Plan (only disturbing an area that is really necessary). As part of the Mining Plan the handling of tailings material, overburden material, construction of dumps and back-filling of trenches should also form part of it.</p> <p>Rehabilitation of the new topographical landscape in such a way that it would blend in with the surrounding landscape and allow normal surface drainage to continue. As soon as a section of the mining site would not be explored anymore it should be rehabilitated (planned and phased manner).</p>	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
Rehabilitation of the new topographical landscape in such a way that it would blend in with the surrounding landscape and allow normal surface drainage to continue. Rehabilitation in such a way that the new landscape features would be stable and would not pose any safety hazard to human and animal anymore.	

Environmental Component	Soil (topsoil & access roads)
Environmental Management/Mitigation Measures/Action Plans/Commitments	
<p>Handling of topsoil as a natural resource: Any future expansion of the trenches or construction of infrastructure should be preceded by the removal of <u>all available topsoil</u>. The surface of any new areas to be disturbed must be kept to a minimum. <u>All available topsoil/overburden material should be removed and stockpiled for rehabilitation purposes.</u></p> <p>Access roads, etc: The clearing of soil surface areas would be restricted to what is really necessary for the construction of infrastructure. Wherever possible all topsoil should be removed and stockpiled for rehabilitation purposes. Overburden material should also be stockpiled separately if practically possible. Topsoil and overburden material should be transported to an area earmarked for rehabilitation.</p>	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
The topsoil removed in the site preparation process should be replaced during the rehabilitation exercise.	

Environmental Component	Soil (soil compaction)
Environmental Management/Mitigation Measures/Action Plans/Commitments	
<p>Soil compaction: The mining operation should only be restricted to what is really required (demarcated area of exploitation) within the fenced-off area. Access roads towards the sites would be restricted only to the roads (existing roads & roads established in consultation with the surface owner). No land would be disturbed unnecessarily. Mining & rehabilitation should be done in a well-planned manner (according to a MP) and in the process ensuring that activities are only restricted to surface areas really required. Compaction of soil surface areas would be alleviated once rehabilitation of certain area starts. Certain roads would probably remain for access (in consultation with the surface owner). Those that would not be required would be ripped and rehabilitated.</p>	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
Alleviation of compaction of soils would be done during rehabilitation of the mining terrain, including roads.	

Environmental Component	Soil (Soil erosion)
Environmental Management/Mitigation Measures/Action Plans/Commitments	
<p>Soil Erosion: To take preventive steps against land disturbance like erosion. Implement and maintain cut-off trenches/berms to prevent erosion. Re-vegetation of exposed soil surfaces (man-made surfaces on tailings dumps , overburden dumps, disturb surfaces in excavated sites, roads, etc) should happen as soon as a particular activity has ceased in order to act as a sufficient erosion prevention measure.</p>	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
No soil erosion must be visible and no potential for soil erosion must be present at closure.	

Environmental Component	Soil (Soil contamination)
Environmental Management/Mitigation Measures/Action Plans/Commitments	
<p>Potential for soil contamination: Vehicles to be inspected to ensure no oil and hydraulic fluid leaks occur. All oil spills on soil to be removed and bio-remediate immediately (certain commercial products are available such as Terrasorb or it could be rehabilitated by means of the application of fertilizer and turn with a spade from time to time in order to enhance the natural occurring soil microbial activity). No servicing of vehicles must occur except on a concrete floor or over PVC lined area in an area allocated for that. Training w.r.t pollution hazards and their impact on the environment must be given as part of induction training. An incidence register for this purpose must be kept. Drip trays must be available and used where emergency repairs is done.</p>	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
Closure can only be given once all soil contamination measures have been conducted to prevent and remediate any incidences.	

Environmental Component	Soil (Soil structure)
Environmental Management/Mitigation Measures/Action Plans/Commitments	
<p>Change in Soil structure: Ensure that all available (if any) topsoil is carefully removed in different areas. The soil must also be compacted as sloping is done. No unnecessary driving outside the active mining area is allowed due to soil compaction that may occur. Use organic material e.g. manure to restore the soil structure during rehabilitation. Ensure that the rehabilitation plan makes provision for ripping of roads and spreading of organic material and that this is used during rehabilitation.</p>	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
No compaction of any roads or any other area must be present during closure. If the soil structure is disturbed mitigation measures e.g. the use of organic material, lime and fertilizers must be implemented to restore the soil structure.	

Environmental Component	Soil (Soil fertility)
Environmental Management/Mitigation Measures/Action Plans/Commitments	
<p>Soil fertility: Little can be done to preserve the moisture status of the soil once it is exposed. The soil must be used for rehabilitation as quickly as possible. The soil on the rehabilitated area must be analysed to determine the deficiencies and fertilizer and lime must be ploughed into the soil to restore its fertility, if necessary. Ensure that stockpiled soil is kept clean and where possible ensure that the topsoil is treated with organic material and fertilized. Do not use stockpiled soil for any other purpose but for rehabilitation. Do not use topsoil to construct roads. Ensure the rehabilitation plan makes provision for fertiliser. Make sure rehabilitated topsoil is analysed in a laboratory. The type of fertilizer would depend on a soil analyses and fertilizer recommendation.</p>	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
The soil must be fertile enough to sustain vegetation.	

Environmental Component	Land Capability
Environmental Management/Mitigation Measures/Action Plans/Commitments	
<p>The disturbance of land must be restricted (kept to a minimum) to the planned fenced-off, active mining site only. Remove topsoil where it is available. Take care that roads needed are restricted to one entry to the area for mining purposes. If new land is used for roads to enter the area it must be done in consultation with the surface owner. All rehabilitation will be done according to the final rehabilitation plans after approval by the Department of Mineral Resources (DMR). Topsoil will be placed in areas where it was removed and the areas will be re-vegetated accordingly. Ensure that the rehabilitation plan is implemented.</p>	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
Rehabilitated to the state that it is suitable for the predetermined and agreed land capability.	

Environmental Component	Land Use
Environmental Management/Mitigation Measures/Action Plans/Commitments	
The disturbance of land must be restricted (kept to a minimum) to the planned active, fenced-off mining site only. Remove topsoil where it is available. Take care that roads are the only areas used to enter the area for mining purposes. If new land is used for roads to enter the area it must be done in consultation with surface owner. All rehabilitation will be done according to the final rehabilitation plans after approval by the Department of Mineral Resources (DMR). Topsoil will be placed in areas where it was removed and the areas will be re-vegetated accordingly. Ensure that the rehabilitation plan is implemented.	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
The opencast section requires the land to be totally disturbed. The replacement of tailings material, overburden and topsoil would ensure that the land is able to support some cultivation.	
Environmental Component	Vegetation
Environmental Management/Mitigation Measures/Action Plans/Commitments	
No mitigation exists except to replace the vegetation by reseeded of grasses and natural growth. Mining should be done in a well-planned manner (according to a MP) and in the process ensuring that activities are only restricted to surface areas really required.	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
During rehabilitation indigenous vegetation cover comprising of local plant species should be established in order to ensure a well-adapted sustainable plant cover that would be able to prevent erosion of the replaced topsoil on the disturbed mining site exposed surfaces, tailings dumps, etc.).	

Environmental Component	Vegetation
Environmental Management/Mitigation Measures/Action Plans/Commitments	
Habitat change, loss of species, spread of alien and invasive species: No mitigation exists except to replace the vegetation by reseeded of grasses. Mining should be done in a well-planned manner (according to a MP) and in the process ensuring that activities are only restricted to surface areas really required. <i>Develop and implement an invasive and alien control programme to control the spread of weeds and other invasive species.</i> Eradicate exotic weeds and invader species if it invades the terrain. All illegal invader plants and weeds shall be eradicated as required in terms of Regulation 15 & 16 of the Act on Conservation of Agricultural Resources, 1983 (Act no. 43 of 1983) which list the plants. An invasive and alien control programme must be implemented by the mine.	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
No invasive and alien species must be present after closure. A post-closure control program must also be implemented.	

Environmental Component	Vegetation
Environmental Management/Mitigation Measures/Action Plans/Commitments	
Ensure that all roads on the mining site (utilized by mining vehicles) are daily sprayed with water to control dust. Site inspections to ensure the spraying are done.	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
No excessive dust must be present during the normal growth season after closure.	

Environmental Component	Wildlife (habitat)
Environmental Management/Mitigation Measures/Action Plans/Commitments	
Wildlife or wildlife habitat destruction /change / disturbance : To take care that no new or unnecessary destruction of habitats, other than the demarcated mining site should take place. Restoration of habitat: Ensure the rehabilitation plan is implemented.	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
The animal life habitat must be restored after decommissioning. Success will be measured against the extent to which the animals return to the area.	

Environmental Component	Wildlife (injury and death)
Environmental Management/Mitigation Measures/Action Plans/Commitments	
<p>Injury and death to wildlife: Re-establish trees and grass cover as soon as possible during and after mining. Fence area off to ensure that no person can enter without permission. Ensure that the rehabilitation plan is compiled and executed. Keep incidence register on killings and disturbances.</p>	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
The animal life habitat must be restored after decommissioning. Success will be measured against the extent to which the animals return to the area.	

Environmental Component	Wildlife
Environmental Management/Mitigation Measures/Action Plans/Commitments	
<p>Make game catching, traps, snares, poaching and any other unnecessary disturbance of animals a disciplinary offence. All staff must undergo basic environmental awareness lecture during induction training. Machine operators and drivers to undergo appropriate level of environmental impact training to ensure they understand their impact on the environment. Ensure all staff working on the opencast section undergo basic lecture during induction phase. Introduce the actions as listed above into disciplinary code as offence.</p>	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
The post-closure phase must be suitable for further restoration of the newly man-made animal habitat. The area must be stable and acceptable for the return of animal- and plant life.	

Environmental Component	Surface Water (quality)
Environmental Management/Mitigation Measures/Action Plans/Commitments	
<p>Change in surface water quality: Storm water control measures must be implemented to divert clean water away from the active mining site and keep contaminated water contained. Water control structures must be well designed and constructed to ensure a minimum down wash of topsoil. Vegetation disturbance must be as little as possible. The Mining Plan must be strictly adhered to. Re-vegetation to be done as quickly as possible. Final re-vegetation to be done as per rehabilitation plan.</p>	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
The post closure water run-off may in no circumstance impact negatively on the water quality.	

Environmental Component	Surface Water (quantity)
Environmental Management/Mitigation Measures/Action Plans/Commitments	
<p>Change in surface water quantity: Once the area is rehabilitated the surface run-off will be restored and normal clean water run-off will end-up in the drainage system. Once the area is rehabilitated the normal surface run-off drainage will be restored according to rehabilitation plan. The disturbed surface area must be rehabilitated to ensure some normal drainage. Minimal run-off should end-up in trenches. Final rehabilitation will be done according to the final rehabilitation plans after approval by the Department of Mineral Resources. The depth of the operation of maximum of 5m will not intersect the groundwater table thus no negative impact.</p>	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
Ultimately rehabilitation of the disturbed mining site and the construction of run-off control structures in a planned and phased manner would ensure normal drainage and stability of rehabilitated site. The drainage must be away from the gravel road.	

Environmental Component	Ground Water (quality)
Environmental Management/Mitigation Measures/Action Plans/Commitments	
<p>Reduction of groundwater quality: Storm water control measures must be implemented to divert clean water away from the site and keep (silt) contaminated water contained. Vehicles to be inspected to ensure no oil and hydraulic fluid leaks occur. All oil spills on soil to be removed and bio-remediate immediately. No servicing of vehicles must occur except at the workshops. Training w.r.t pollution hazards and their impact on the environment must be given as part of induction training. Storage of fuel and oil should be done according to best practices, within a bunded area and in containers of which the integrity is sound. The mining processes will not introduce any harmful or toxic substances and the most likely sources of pollution to the groundwater system would be associated with the infrastructure and / or workshop area. The most likely contaminants is therefore nitrate and bacteria (from sewage / pit latrines), as well as hydrocarbons (from vehicle accidents, diesel storage and the workshop area). An incidence register for this purpose must be kept. Drip trays must be available and used where emergency repairs is done. All waste must be stored according to best practices and disposed at an authorized waste disposal facility.</p>	

EMP Performance Assessment & Monitoring Reporting

To be included in EMP/EIA.

Closure Objective

Post water quality need to indicate a positive trend/improvement.

Environmental Component

Ground Water (quantity)

Environmental Management/Mitigation Measures/Action Plans/Commitments

Reduction of groundwater quantity, lowering of groundwater level: Water levels in the boreholes that are used for mining activities should be recorded monthly. Water volumes should be recorded continuously to ensure compliance with the water use authorization for abstraction.

EMP Performance Assessment & Monitoring Reporting

To be included in EMP/EIA.

Closure Objective

Post water quality need to indicate a positive trend/improvement.

Environmental Component

Air Quality

Environmental Management/Mitigation Measures/Action Plans/Commitments

Dust: The mining method will serve as mitigation measure because mining will limit dust to the active mining area (area where the excavator and the trucks are operating). Daily spraying of roads with water. Inspection should be done on a daily basis. If new roads are constructed, in coordination with surface owner, dust pollution must be mitigated by means of spraying the roads with water.

EMP Performance Assessment & Monitoring Reporting

To be included in EMP/EIA.

Closure Objective

Dust count must be the same as before mining. Rehabilitation of the mining sampling site would ensure that no dust is generated from exposed surfaces.

Environmental Component

Noise

Environmental Management/Mitigation Measures/Action Plans/Commitments

Ensure the required silencers are placed on all engines and compressors. No mitigation to reverse hooters is allowed due to safety standards. Inspection of vehicles and machinery to ensure silencers are fitted. Ensure that a complaints register is created, managed and maintained. Vehicles and earthmoving equipment should be equipped with the necessary silencers and regularly maintained in a good working condition.

EMP Performance Assessment & Monitoring Reporting

To be included in EMP/EIA.

Closure Objective

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

Environmental Component

Archaeological and Cultural Sites

Environmental Management/Mitigation Measures/Action Plans/Commitments

All grave yard needs to be avoided if found. However, the potential occurrence of unmarked graves or subsurface finds not recorded during this survey can never be excluded, so it is advised that SAHRA and a qualified archaeologist are informed immediately if archaeological objects are uncovered.

EMP Performance Assessment & Monitoring Reporting

To be included in EMP/EIA.

Closure Objective

No site of archaeological importance should be disturbed or damaged until the necessary permit from SAHRA has been issued.

Environmental Component

Sensitive Landscapes

Environmental Management/Mitigation Measures/Action Plans/Commitments

None

EMP Performance Assessment & Monitoring Reporting

To be included in EMP/EIA.

Closure Objective

Environmental Component	Visual Aspects
Environmental Management/Mitigation Measures/Action Plans/Commitments	
Visual impact would be addressed by means of; * re-vegetation of disturbed areas with grasses; * removal of any temporary building, scrap, domestic waste, etc. that would otherwise contribute to a negative visual impact. Concurrent rehabilitation should be done simultaneously as mining activities progress.	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
No residual visual impacts will remain after closure. The terrain should blend in with the surrounding landscape.	

Environmental Component	Socio-Economics
Environmental Management/Mitigation Measures/Action Plans/Commitments	
There will be a very small increase in Socio – economic activity at local level, because of the size of this mining activity.	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
The economic development must deliver a multiplier effect that will contribute to the local economy long after closure.	

Environmental Component	Interested and Affected Parties
Environmental Management/Mitigation Measures/Action Plans/Commitments	
Access control should always be a priority. Active mining site should be fenced off and also any deep water holes. If any problem should arise, meetings will be held with the landowners and affected parties to consult them on certain matters like permission to mine and pollution. No mining should be conducted under or near Eskom power line (10 m distance should be kept) (<i>Permission of Inspector of Mines should be obtained.</i>)	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
Not to be an economic, social or environmental liability to the local community or the state now or in the future. The company will ensure that the interest of all interested and affected parties will be considered.	

j) ASSESSMENT OF EACH IDENTIFIED POTENTIALLY SIGNIFICANT IMPACT AND RISK

In terms of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. (1)(a)(i)(ii) (iii) (iv) (v) (vi) (vii)

The process flow that will be required in order to access the mineral are systematically described in Table 12 below and rating each identified potential significant impact and risk that could be associated with them.

Table 12: Identified Potentially Significant Impacts & Risks

NAME OF ACTIVITY	POTENTIAL IMPACT	(i) CUMULATIVE IMPACTS	(ii) SIGNIFICANCE	(iii) EXTEND AND DURATION	(iv) PROBABILITY OF THE IMPACT OCCURRING	(v) DEGREE TO WHICH IMPACT/RISK CAN BE REVERSED	(vi) DEGREE TO WHICH IRREPLACEABLE LOSS MAY OCCUR	(vii) DEGREE TO WHICH IMPACT/RISK CAN BE MITIGATED
Excavations for Alluvial Diamond gravel	1.1 Removal of the Alluvial Diamond gravel up to 3.5m. Disturbance of 0.5 hectare at any given time. 1.2 Change in landform. The entire mining area will be lowered by 3.5 m area if mining is also and normal surface drainage will be disturbed at this specific point. The pit will be sloped	None Topography on adjacent practised	High - Moderate -	At open excavations 2 years 2 years	High Moderate	Impossible Possible	Not reversible at all Partly reversible	Not mitigated Fully Mitigated
	1.3 Striping of all available topsoil and stockpiled. Stockpile area of 1.4 hectare at any given time. 1.4 Soil erosion: Due to the fact that certain surface areas would become devoid of any vegetation cover and compacted this would lead to lesser infiltration of rain water and more run-off that could cause erosion on bare disturbed areas and side slopes	Localized Localized	Low - Low -	2 years 2 years	High Low	Impossible Possible	Partly reversible Reversible	Fully Mitigated Fully mitigated
	1.5 Land capability and land use. Loss of land to support cultivation. 1.6 Generation of dust by excavating and vehicle movement	If old disturbances not rehabilitated. Air quality	Low - Low -	2 years 2 years	Low Low	Possible Possible	Reversible Reversible	Fully mitigated Fully mitigated.

K) SUMMARY OF SPECIALIST REPORTS

[In terms of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. f)(k)]

As this area was disturbed by historical pick and shovel miners many years ago, which left the area unrehabilitated and uneven the environment is not pristine any more. All the impact identified from these activities can be fully mitigated. None of the natural Themes was rated as being very high or high sensitive. It is not high potential agricultural land, but marginal grazing land. The vegetation cover is also scares in places because of historical mining that have left the area uneven and unrehabilitated. Plant live and animal life has adjusted to this area and will probably just migrate to adjacent area if mining start. As indicated by the Department of Agriculture, Land Reform and Rural Development - Comprehensive Atlas V2: http://daffaragis.nda.agric.za/CompAtlas_v2/. The agricultural region within which this application area falls is classified as being: *IV Marginal potential arable land*. It is also classified as being *Unimproved (natural) Grassland*. As this area have been historically mined and was left unrehabilitated it is ***not deemed necessary to undertake any specialist assessment report*** and because none of the themes have been proven to have the potential of being high/very high sensitivity. There is also no sensitive area that was identified over or near the application area.

Table 13: Specialist Reports

LIST OF STUDIES UNDERTAKEN	RECOMMENDATIONS OF SPECIALIST REPORTS	SPECIALIST RECOMMENDATIONS THAT HAVE BEEN INCLUDED IN THE EIA REPORT (Mark with an X where applicable)	REFERENCE TO APPLICABLE SECTION OF REPORT WHERE SPECIALIST RECOMMENDATIONS HAVE BEEN INCLUDED.
None			

I) ENVIRONMENTAL IMPACT STATEMENT

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. (1)(l)

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

The small scale Alluvial Diamond gravel mining operation is definitely going to have an impact on the environment. The main impact relates to topography, geology, soil, vegetation, and land use and land capability. The Alluvial Diamond gravel resource will be mined over a period of 2 years or less. The existing land-use is natural vegetation. This is a small operation and for the next 2 years only a small portion of the town lands will be temporarily alienated.

The conservation of topsoil is of utmost importance and therefore in order to ensure a sustainable land use again on the 5 ha, the top at least 30-50 cm topsoil where available needs to be removed prior to mining of the underlying Alluvial Diamond gravel (up to 3.5 m depth). This will be used again as growth medium during the rehabilitation phase. Topsoil will be stored in berm walls to divert any surface run-off during a rainfall event.

Other environmental impacts relates to the day to day operation that could easily be managed, such as dust and noise.

ii) Final Site Map

Because of this fact that this will not be a static operation, it is not possible to generate a final site map. See **Appendix 1(c)** for proposed site map and this will change as mining operation progress over the 5 ha application area.

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

The loss of land use and land capability will be temporary as the site will be rehabilitated in such a way that it allows the regrowth of natural vegetation again and the utilization thereof. The rest of the area will still be continued to be used for grazing land.

Although this is small Alluvial Diamond gravel mining operation it would also add to the increased economic activity within the farming and exiting mining community around Wolmaransstad. Jobs for 7 permanent labourers will be created.

Negative impacts on the area are expected to be temporary and can be mitigated to a large extent if the recommendations of the EMP are adhered to e.g. rehabilitation.

No concerns have been raised as yet by any I & AP.

The specific occurrence of the Alluvial Diamond gravel deposit dictates the selection of the specific mining site.

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

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. (1)(m)

The main closure objective of the applicant is to rehabilitate the entire mining site in such a way to ensure that the man-made topographical landscape would be rehabilitated toward agricultural use and to blend in with the surrounding landscape and not pose a safety hazard to humans and animals, while at the same time allow for alternative land uses. Establish a self-sustaining and stable vegetation cover in order to mitigate the visual impact, to control erosion and to create some habitat for animals. The rehabilitated environment also needs to be aesthetically acceptable according to the principle of BPEO. The applicant will ensure that the Operation/Sites are:

- Neither a danger to public health and safety nor to animal health and safety;
- Not a source of any pollution;
- Stable (ecological and geophysical);
- Rehabilitated to the state that is suitable for the predetermined and agreed land use (cultivation);
- Compatible with the surrounding biophysical environment;
- A sustainable environment;

- Aesthetically acceptable;
- Not an economic, social or environmental liability to the local community or the state now or in the future.

n) Aspects for Inclusion as Conditions of Authorisation.

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. (1)(n)

None

o) Description of Any Assumptions, Uncertainties and Gaps in Knowledge.

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. (1)(o)

None

p) Reasoned Opinion As To Whether The Proposed Activity Should Or Should Not Be Authorised

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. (1)(p)

(i) Reasons why the activity should be authorized or not.

This activity will have only low and very low impacts and no significant impacts were identified. No concerns were raised by the interested parties. These mining activities will have no significant impacts on them or their surrounding environment.

(ii) Conditions that must be included in the authorisation

None

q) Period for which the environmental authorisation is required.

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. (1)(q)

24 months for initial permit period, thus 24 months in total.

r) UNDERTAKING

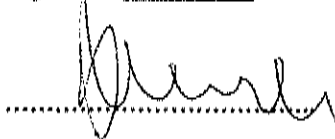
In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. (1)(r)

UNDERTAKING

I, D.E. Erasmus, the undersigned and duly authorised thereto by DERA Omgewingskonsultante (PTY) Ltd hereby confirm:

- ✓ the correctness of the information provided in this report;
- ✓ the inclusion of comments and inputs from stakeholders and I&AP's;
- ✓ the inclusion of inputs and recommendations from the specialist reports where relevant and where applicable and;
- ✓ all information provided to the interested and affected parties a true reflection of this document.

Signed at Klerksdorp on this day 9th June 2021.



Signature of EAP

s) FINANCIAL PROVISION

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. (1)(s)

The total application area is 5 hectares but only 0.3 hectares will be disturbed by opencast excavations and 0.2 hectares by surface disturbance to be used for washing pan and the stockpile at any given time. These figures were used for the calculation of the quantum, thus a total of R94 371.00 needed for the rehabilitation guarantees. **R 94 371.00** for rehabilitation. See quantum attached as **Appendix 3**.

(i) Explain how the aforesaid amount was derived.

The amount was determined through the quantum tables provided by DMR.

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

Yes, it is hereby confirmed that the amount will be provided from operating expenditure.

t) SPECIFIC INFORMATION REQUIRED BY THE COMPETENT AUTHORITY

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. (1)(t)

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

1. Impact on the socio-economic conditions of any directly affected person.

The applicant has an agreement with the landowner and the landowner will be paid for the land used by mining when the activity starts. No other person will be directly affected by this activity.

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

This activity will have no impact on archaeological structures.

u) OTHER MATTERS REQUIRED IN TERMS OF SECTIONS 24(4)(A) AND (B) OF THE ACT

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 1 – 3. (1)(u)

None

PART B

ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

1. DRAFT ENVIRONMENTAL MANAGEMENT PROGRAMME.

A) DETAILS OF THE EAP

Name of the Practitioner: DERA Environmental Consultants (Pty) Ltd.

Mr. Daan Erasmus

Tel No.: 018-468 5355

Fax No. : 018 011 3760

E-mail address: daane@dera.co.za The EAP Mr. Daan Erasmus has a National Diploma in Agriculture Resource Utilization and a Baccalaureus Technologiae degree in Agricultural Extension.

See Figure 1 & Figure 2 for copies of his qualifications and CV.

B) DESCRIPTION OF THE ASPECTS OF THE ACTIVITY

Activities	Description of phases	Associated structures and infrastructures
The Mineral	Cyprus Boerdery (Pty) Ltd. Intends to mine for diamonds in the alluvial gravel situated on 5 hectares of the farm Uitkyk 156 HD.	
The extend	The gravel is on average 3 meter thick with a topsoil layer which varies between 300 and 500 millimeters. The area that was identified and demarcated is shown on the attached sketch plan. The gravel reserve on this 5 hectare is estimated at 150'000m ³ or 240'000 tons and the total material to be moved is 150'000m ³ .	
Mining method	The above area will be mined through opencast excavations where the topsoil will be stripped separately and stockpiled. The gravel is then removed with a 20 ton excavator and placed next to the excavation. A Front-end Loader takes the gravel to the 10 feet washing pan which is fed it at a rate of 20m ³ an hour, 200m ³ a day and 4000m ³ a month. All the rough are first placed back into the bottom of the excavation, hereafter the puddle out of the pan is pumped directly back into the open excavation. After the puddle dried off, the topsoil is put back on top again. The excavations will be 40m in length 10m wide and ±3.5 meters deep on average. Only one excavation will be opened at a time. The total estimated reserve of gravel is 150'000m ³ taken at a production rate of 4'000m ³ a month, it will take 37 months to work the estimated reserve of 150'000m ³ . The production rate is taken at 4'000m ³ /month. The gravel which is relatively thick (3 meters) and the low production rate of the applicant make this 5 hectare to be worked sustainable over a period of two years. The total cost of the operation is taken at R 40.6/m ³ and the total material moved monthly at 4'000m ³ . The total mining cost a month is then R 162'500.00 and the total monthly income is envisaged at R 273'000.00 (0.75 carats/100ton, 30 carats sold at \$ 650/R14.00)	There will be a plant area with ablation facilities and roads to the excavations.
The grade	The grade of this gravel is estimated at 0.75 carat per 100 ton of gravel and \$650 a carat, which can give 1'125 carats of diamonds. With the small operation of Cyprus Boerdery (Pty) Ltd. the above project can last for 37 months and can be profitable. This operation will be financed by Silver Charm Distribution as confirmed by The Accountant.	

C) COMPOSITE MAP

As this is a mining permit application there will not be a final site layout as this will not be a static operation. The excavator will be moving over the application area on a grid basis in order to mine the entire area. Trenches will be made, gravel will be washed through the washing plant and backfilled where after the plant will be moved to the next position. Attach as Appendix 1 (c) – Mine Infrastructure and Activity Map.

D) DESCRIPTION OF IMPACT MANAGEMENT OBJECTIVES INCLUDING MANAGEMENT STATEMENTS

(i) Determination of closure objectives

The main closure objective of the applicant is to rehabilitate the entire mining site in such a way to ensure that the man-made topographical landscape would blend in with the surrounding landscape, not pose a safety hazard to humans and animals, while at the same time allow for alternative land uses. Establish a self-sustaining and stable vegetation cover in order to mitigate the visual impact, to control erosion and to create some habitat for animals. The rehabilitated environment also needs to be aesthetically acceptable according to the principle of BPEO. Another main objective is to manage the surface water in such way that an acceptable water standard is achieved when a closure certificate is issued.

Cyprus Boerdery (Pty) Ltd. will ensure that the Operation/Sites are:

- Neither a danger to public health and safety nor to animal health and safety;
- Not a source of any pollution;
- Stable (ecological and geophysical);
- Rehabilitated to the state that is suitable for the predetermined and agreed land use;
- Compatible with the surrounding biophysical environment;
- A sustainable environment;
- Aesthetically acceptable;
- Not an economic, social or environmental liability to the local community or the state now or in the future.

Cyprus Boerdery (Pty) Ltd. will furthermore:

- ensure that the physical and chemical stability of the rehabilitated site will be such that risk to the environment is not increased by naturally occurring forces to the extent that such increased risk cannot be contended with by the installed measures;
- subscribe to the optimal exploitation and utilization of South Africa's mineral resources (Alluvial Diamond gravel);
- ensure that the mining site is closed efficiently and cost effectively.
- ensure that the operation is not abandoned but closed in accordance with the relevant requirements;
- ensure that the interest of all interested and affected parties will be considered;
- ensure that the all-relevant legislation regarding mine closure will be adhered to, and all relevant application procedures followed.

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

10 000 litres a day will be used for processing of alluvial gravel.

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

Applicant will apply that the current water use over one of the existing boreholes will be converted to mining use for the duration of the Mining Permit.

(iv) Impacts to be mitigated in their respective phases

Table 14: Measures to rehabilitate the environment affected by the undertaking of any listed activity

ACTIVITIES	PHASE	SIZE AND SCALE of disturbance	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
1. Excavations	Operational	0.3 hectares at any stage	Concurrent rehabilitation by backfilling and sloping the sides of the excavation to the stable/sustainable and covered with topsoil and vegetation Keep this area as small as possible within the demarcated area. Prevent spillages of fuels by machines	Sloping of sides	As part of concurrent rehabilitation.
2. Alluvial Diamond gravel Stockpile area/Plant area	Operational	0.2 hectares at any stage		Immediate cleaning of spillages	Concurrent with mining

E) IMPACT MANAGEMENT OUTCOMES

ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	MITIGATION TYPE	STANDARD TO BE ACHIEVED
1. Excavations of alluvial gravel	1.1 Removal of the Alluvial Diamond gravel up to 3.5 m. 1.2 Change in landform. The excavation will be sloped	Geology & soil Topography	Operational Operational and closure	The impact will be mitigated by backfilling and sloping the sides of the excavation and stabilizing the soil to prevent soil erosion. A surface water cut-off trench should be put in place around the active mining site in order to prevent surface water on the mining site. Rehabilitation of the new rehabilitated landscape in such a way that it would blend in with the surrounding landscape.	A stable levelled area that can sustain vegetation without excessive erosion. If not complete backfilled it must be gentle stable slopes.
	1.3 Stripping of all available topsoil and stockpiled	Soil	Construction and operational	The top soil must be removed before any disturbance take place. The top soil must be removed and stockpile in a demarcated area for rehabilitation purposes. To take preventive steps against erosion. Implement and maintain cut-off trenches and or berms around the mining area to prevent water entering that can cause excessive erosion.	Enough topsoil for rehabilitation to ensure sustainable vegetation.
	1.4 Soil erosion due to the fact that certain surface areas would become devoid of any vegetation cover and compacted. This would lead to lesser infiltration of rain water and more run-off that could cause erosion on bare disturbed areas and side slopes. 1.5. Loss of Land capability & land use.	Soil Land capability & land use	Construction and operational Operational and closure		No excessive erosion that cannot be stabilized. Sustainable rehabilitated area.
	1.6 Generation of dust by excavating, crushing/screening and vehicle movement	Air quality	Operational	As this is only a very small area of 5 hectares, the impact is low. As the sides will be sloped and vegetated, the rehabilitated area must be treated as sensitive. The generation of dust will only be localized at the mining site. Daily spraying of roads with water	No excessive dust that can be harmful to the environment and humans.

F) IMPACT MANAGEMENT ACTIONS

ACTIVITY	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR IMPLEMENTATION	COMPLIANCE WITH STANDARDS
Excavations for alluvial gravel	1.1 Removal of the Alluvial Diamond gravel up to 3.5 m 1.2 Change in landform. The excavation will be sloped.	The impact will be mitigated by backfilling the excavation and stabilizing the soil to prevent soil erosion. The side of pit will be sloped and the soil stabilized to prevent erosion. A surface water cut-off trench should be put in place around the active mining site in order to prevent surface water on the mining site. Rehabilitation of the new sloped landscape in such a way that it would blend in with the surrounding landscape. The top soil must be removed before any disturbance take place. The top soil must be removed and stockpile in a demarcated area for rehabilitation purposes		
	1.3 Stripping of all available topsoil and stockpiled	To take preventive steps against erosion, implement and maintain cut-off benches and or berms around the mining area to prevent water entering that can cause excessive erosion.		
	1.4 Soil erosion due to the fact that certain surface areas would become devoid of any vegetation cover and compacted. This would lead to lesser infiltration of rain water and more run-off that could cause erosion on bare disturbed areas and side slopes.	As this is only a very small area of 5 hectares, the impact is low. As the excavations will be backfilled and levelled and must be treated as sensitive till soil has settled to ground level.		
	1.5 Loss of Land capability & land use	The generation of dust will only be localized at the mining site. Daily spraying of roads with water		
	1.6 Generation of dust by excavating, crushing/screening and vehicle movement			

G) FINANCIAL PROVISION

1. Determination of the amount of Financial Provision

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

The main closure objective of the applicant is to rehabilitate the entire mining site in such a way to ensure that the new man-made topographical landscape would blend in with the surrounding landscape, not pose a safety hazard to humans and animals, while at the same time allow for alternative land uses. Establish a self-sustaining and stable vegetation cover in order to mitigate the visual impact, to control erosion and to create some habitat for animals. The rehabilitated environment also needs to be aesthetically acceptable according to the principle of BPEO. Another main objective is to manage the surface water in such way that an acceptable water standard is achieved when a closure certificate is issued.

Cyprus Boerdery (Pty) Ltd. will ensure that the Operation/Sites are:

- Neither a danger to public health and safety nor to animal health and safety;
- Not a source of any pollution;
- Stable (ecological and geophysical);
- Rehabilitated to the state that is suitable for the predetermined and agreed land use;
- Compatible with the surrounding biophysical environment;
- A sustainable environment;
- Aesthetically acceptable;
- Not an economic, social or environmental liability to the local community or the state now or in the future.

Cyprus Boerdery (Pty) Ltd. will furthermore:

- ensure that the physical and chemical stability of the rehabilitated site will be such that risk to the environment is not increased by naturally occurring forces to the extent that such increased risk cannot be contended with by the installed measures;
- subscribe to the optimal exploitation and utilization of South Africa's mineral resources (ALLUVIAL DIAMOND GRAVEL);
- ensure that the mining site is closed efficiently and cost effectively.
- ensure that the operation is not abandoned but closed in accordance with the relevant requirements;
- ensure that the interest of all interested and affected parties will be considered;
- ensure that the all-relevant legislation regarding mine closure will be adhered to, and all relevant application procedures followed.

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

Yes, the disturbance that will take place and the rehabilitation thereof were discussed on the site visit with the landowner.

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

Rehabilitation:

The clearing of soil surface areas would be restricted to what is really necessary for the construction of infrastructure/crushing plant. During rehabilitation of these sites, or where vegetation is lacking or compacted, the areas would be ripped or ploughed and levelled in order to re-establish a growth medium and if necessary appropriately fertilised to ensure the regrowth of vegetation and the soil ameliorated based on a fertilizer recommendation (soil sample analysed).

Rehabilitation of access roads

- Whenever a mining permit is suspended, cancelled or abandoned or if it lapses and the holder does not wish to renew the permit or right, any access road or portions thereof, constructed by the holder and which will no longer be required by the landowner/tenant, shall be removed and/or rehabilitated to the satisfaction of the Regional Manager.
- Any gate or fence erected by the holder which is not required by the landowner/tenant, shall be removed and the situation restored to the pre-mining situation.
- Roads shall be ripped or ploughed, and if necessary, appropriately fertilised (based on a soil analysis) to ensure the regrowth of vegetation. Imported road construction materials which may hamper regrowth of vegetation must be removed and disposed of in an approved manner prior to rehabilitation.
- If a reasonable assessment indicates that the re-establishment of vegetation is unacceptably slow, the Regional Manager may require that the soil be analysed and any deleterious effects on the soil arising from the mining operation, be corrected and the area be seeded with a seed mix to the Regional Manager's specification.

Rehabilitation of the surface mining site

On completion of operations, all buildings, structures or objects on the camp/office site shall be dealt with in accordance with section 44 of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002), which states:

- (1) *When a prospecting right, mining right, retention permit or mining permit lapses, is cancelled or is abandoned or when any prospecting or mining operation comes to an end, the holder of any such right or permit may not demolish or remove any building, structure, object -*
 - (A & B) *which may not be demolished in terms of any other law;*
 - (C) *which has been identified in writing by the Minister for purposes of this section; or*
 - (c) *which is to be retained in terms of an agreement between the holder and the owner or occupier of the land, which agreement has been approved by the Minister in writing.*
 - (2) *The provision of subsection (1) does not apply to bona fide mining equipment which may be removed*
- The surface area shall be ripped or ploughed to a depth of at least 300mm and the topsoil previously stored adjacent the site, shall be spread evenly to its original depth over the whole area.

After all the foreign matter has been removed from the mining sites, the side slopes and the final void area will be sloped and levelled and the previously stored topsoil replaced.

The area shall then be fertilised if necessary (based on a soil analysis). The site shall be seeded with a vegetation seed mix (section C) adapted to reflect the local indigenous flora. Where the site has been rendered devoid of vegetation/grass or where soils have been compacted owing to traffic, the surface shall be scarified or ripped. Photographs of the site, before and during the mining operation and after rehabilitation, shall be taken at selected fixed points and kept on record for the information of the Regional Manager.

Rehabilitation of the new topographical landscape in such a way that it would blend in with the surrounding landscape and allow normal (controlled) surface drainage to continue.

Implement water control systems in order to prevent erosion. Seed the area (see C. (below) for recommended seed mixture).

Visual impact would be addressed by means of;

- re-vegetation (grasses);
- removal of any building, scrap, domestic waste, etc. that would otherwise contribute to a negative visual impact.

Fertilising of Areas to be Rehabilitated

If a reasonable assessment indicates that the re-establishment of vegetation is unacceptably slow, the Regional Manager may require that the soil be analysed and any deleterious effects on the soil arising from the mining operation be corrected and the area be seeded with a seed mix to his or her specification.

Seeding of Grass Seed Mixture and planting of Woody Species

The eventual seed mixture takes into account the availability of seed, different soil situations and the prevailing climatic conditions of the area. The following mixture will be applicable to the mining permit site:

- *Cenchrusciliaris*
- *Cynodondactylon*
- *Digitariaeriantha*
- *Heteropogoncontortus*

- *Panicum maximum*

a. Demolition of infrastructure/buildings

On completion of operations, all buildings, structures or other on the mining terrain shall be dealt with in accordance with section 44 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002). There will be no permanent buildings.

b. Invasive and alien control programme

Develop and implement an invasive and alien control programme to control the spread of weeds and other invasive species. Eradicate exotic weeds and invader species if it invades the terrain. All illegal invader plants and weeds shall be eradicated as required in terms of Regulation 15 & 16 of the Act on Conservation of Agricultural Resources, 1983 (Act no. 43 of 1983) which list the plants.

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

All the mined areas will be rehabilitated by sloping the sides in order to have sustainable vegetation, thus no after mining impacts or residues.

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

The total application area is 5 hectares but only 0.3 hectares will be disturbed by opencast excavations and 0.2 hectares by surface disturbance to be used for the plant area at any given time. These figures were used for the calculation of the quantum, thus a total of R94 371.00 needed for the rehabilitation guarantees.

R 94 371.00 for rehabilitation. See quantum attached as **Appendix 3**.

F. Confirm that the financial provision will be provided as determined

The financing for this project will be done from the account Cyprus Boerdery (Pty) Ltd. the applicant himself out of own funds. The guarantee will be provided in the form of Bank Guarantee after confirmation of the amount.

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

- vii. Monitoring of Impact Management Actions
- viii. Monitoring and reporting frequency
- ix. Responsible persons
- x. Time period for implementing impact management actions
- xi. Mechanism for monitoring compliance

SOURCE ACTIVITY	IMPACTS REQUIRING MONITORING PROGRAMMES	FUNCTIONAL REQUIREMENTS FOR MONITORING	ROLES AND RESPONSIBILITIES	MONITORING AND REPORTING FREQUENCY and TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
Mining site/Soil	Possible spillages of petrochemicals. Stripping of topsoil	Checking for spillages on daily basis. Checking correct stripping and stockpiling of topsoil	Manager and Applicant	Daily checking and reporting with Performance Assessment
Mining site/ Topography	Concurrent backfilling of the excavations	Checking stability of slope and erosion preventive measures	Manager and applicant	Quarterly
Mining site/Air quality	Dust pollution from mining activities.	Regular wetting of roads and stockpile area where loading take place.	Manager and applicant	Daily
Mining site	Chemical toilet	Make sure that it is used and hygienic.	Manager and Applicant	Weekly.

H) INDICATE THE FREQUENCY OF THE SUBMISSION OF THE PERFORMANCE

ASSESSMENT/ ENVIRONMENTAL AUDIT REPORT.

Annually

I) ENVIRONMENTAL AWARENESS PLAN

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

Cyprus Boerdery (Pty) Ltd. will contract DERA Environmental Consultants to inform the employees after the EMP was approved. The following guidelines will be used:

- Communication
- Urge
- Leadership
- Teamwork
- Understanding
- Recognition
- Empowerment (CULTURE).

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

The risks will be dealt with by proper management actions as described in 1d.

J) SPECIFIC INFORMATION REQUIRED BY THE COMPETENT AUTHORITY

The quantum for rehabilitation liability will be reviewed with the performance assessment on annual basis.

2. UNDERTAKING

The EAP herewith confirms

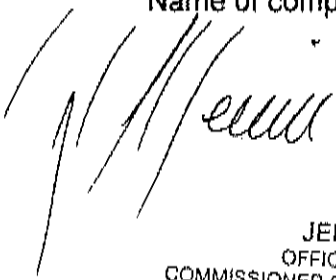
- (i) The correctness of the information provided in the reports;**
- (ii) The inclusion of comments and inputs from stakeholders and I&APs;**
- (iii) The inclusion of inputs and recommendations from the specialist reports where relevant; and**
- (iv) That the information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties are correctly reflected herein.**



Signature of the environmental assessment practitioner:

DERA Omgewingskonsultante (Pty) Ltd.

Name of company:



-END-

JERRY DEAN MENIN
OFFICE MANAGER / AUDITOR
COMMISSIONER OF OATHS / KOMMISSARIS VAN EDE
Appointed in terms of Section 5(1) of Act 16 of 1963
Aangestel in terme van Artikel 5(1) van Wet 16 van 1963
Centrallaan 32 Central Avenue, Flamwood, Klerksdorp
Appointed/Aangestel: 23 Oktober 2012

APPENDIX 1A

LOCALITY MAP

Co-ordinates:

WGS 84/WGS 84

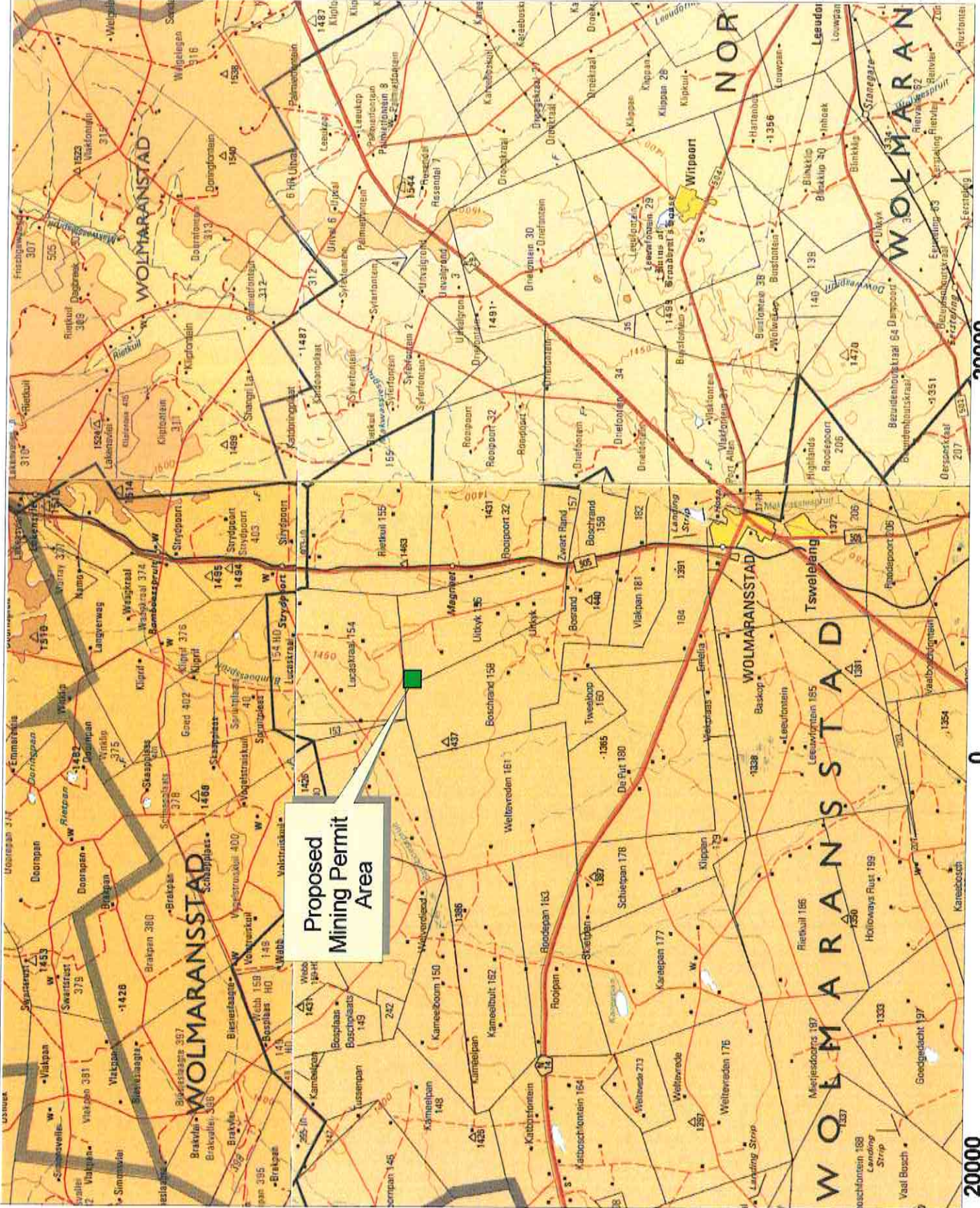


Scale: 1:250000

Legend:

- Proposed Mining Permit Area
- Tar Roads
- Canal
- Secondary roads
- Houses/Farm yards/ Small holdings
- Mining areas

40000 Meters



Proposed Mining Permit Area

20000

0

20000

Appendix 1 (b)

Infrastructure Map



APPENDIX 1C

SKETCH PLAN OVER
A CERTAIN PORTION OF
PORTION 4 (-/-3) OF THE
FARM UITKYK 156 HO

Co-ordinates:
A: 25.9132 -27.0514
B: 25.9131 -27.0544
C: 25.9125 -27.0557
D: 25.9114 -27.0533

WGS 84/WGS 84



Scale: 1:3000

Extent: 5 ha

Figure ABCDA represent the Mining Permit area in terms of Section 27(2) of the MPRDA, (Act 28 of 2002), over a certain portion of Portion 4 (a portion of portion3) of the farm Uitkyk 156 HO, in the district of Wolmaransstad

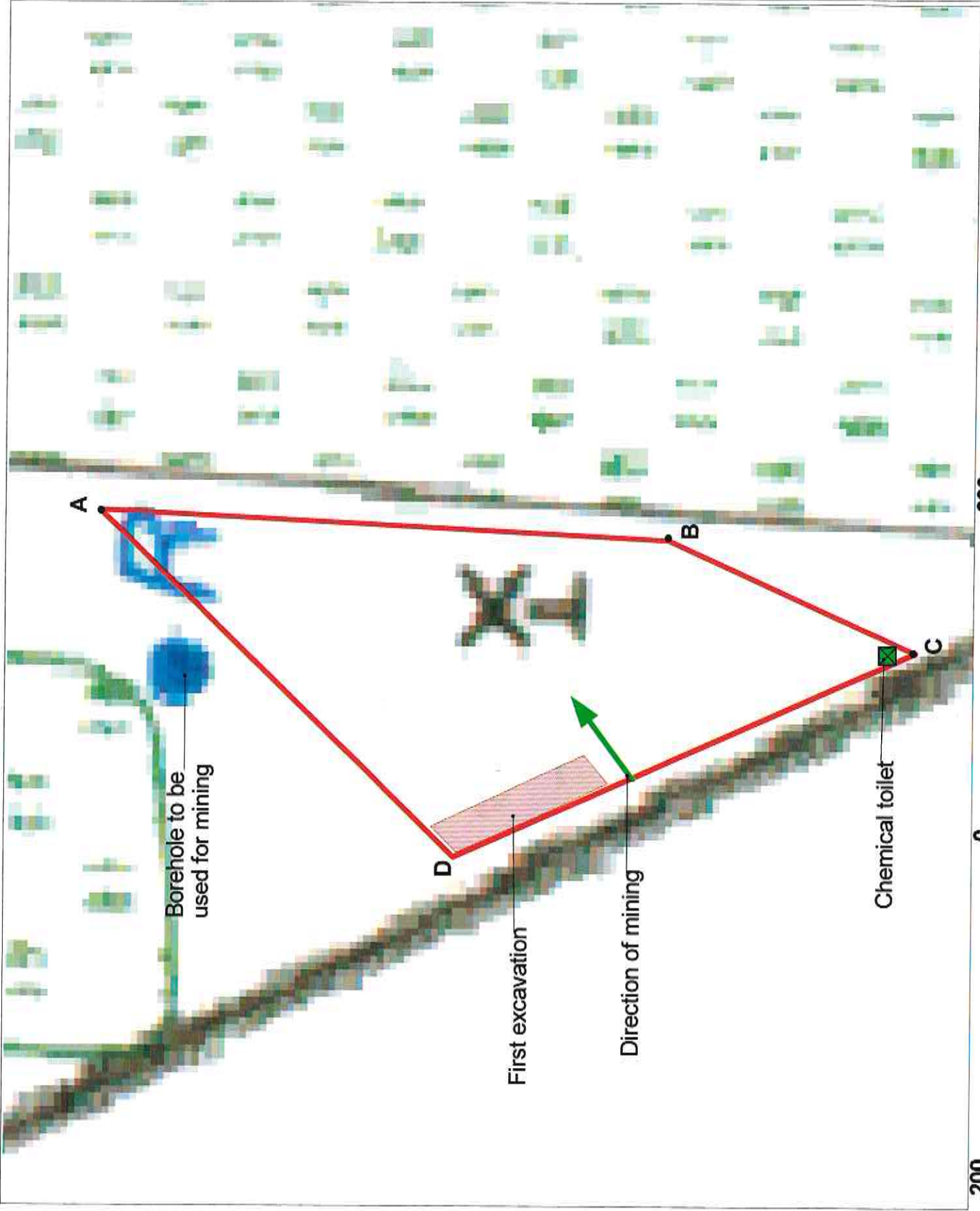
Applicant:

Cyprus Boerdery (Pty) Ltd
Reg. No. 2018/629279/07
Date: 18/02/2021

Approved:

Regional Manager
North West Region

Date:



APPENDIX 2: DETAILS OF THE PUBLIC PARTICIPATION PROCESS

Interested and Affected Parties List the names of persons consulted in this column, and Mark with an 'X' where those who must be consulted were in fact consulted.	Date sent and/or Comments Received	Issues raised	EAP's response to the applicant
AFFECTED PARTIES			
Landowner/s			
Cyrus Boerdery (Pty) Ltd 223 Bronkhorst Street Pretoria, 0180 Cell: 083 271 0815 e-mail: nick@silvercharm.co.za (Landowner and applicant on the farm Uitkyk 158 HO)	3 June 2021	No objection as the landowner is also the applicant.	
Lawful occupier/s of the land			
Landowners or lawful occupiers on adjacent properties			
Mr. M. Knoetze Holloof Boerdery P.O. Box 390, Wolmaransstad, 2630 Cell: 076 323 0530 E-mail: mariusknnoetze@gmail.com (Neighbour)	3 June 2021 7 June 2021	No objection, see signed consultation letter attached.	
Mr. G.C. Knoetze Wesvaal Delivery P.O. Box 390, Wolmaransstad, 2630 Cell: 083 431 4452 E-mail: wesvaaldelivery@gmail.com (Neighbour)	3 June 2021 7 June 2021	No objection, see signed consultation letter attached.	
Municipal councillor			
Municipality			
Maquassi Hills Local Municipality LED officer: Peter Bolao E-mail: bolao.peter@gmail.com	3 June 2021	Consultation letter sent to Mr. Bolao	
Organs of state (Responsible for infrastructure that may be affected Roads Department, Eskom, Telkom, DWA.			
Eskom			
Communities			
N/A			
Dept. Land Affairs			
KeabetsweMothupi E-mail: Keabetswe.mothupi@drdlr.gov.za	3 June 2021	Request for verification of land claims sent to Keabetswe Mothupi	
Traditional Leaders			
N/A			
Dept. Rural, Environment and Agricultural Development			
OumaSkosana Agricentre Building, Cnr James Moroka & Stadium Road, Mmabatho, 2735 e-mail: oskosana@nwpp.gov.za	9 June 2021	BAR/EMPr sent with Fastway couriers for comments	

<p>Dept. Water and Sanitation Dr. T. Ntuli 2nd Floor, Bloem Plaza Building Car East Burger & Charlotte Maxeke Bloemfontein, 9300 Tel: 051 405 9000 E-mail: NtuliT@dws.gov.za</p>	<p>Dept. Agriculture, Forestry and Fisheries Maurice Vuyega Louis le Grange Building, Car Peter Mokaba & Wolmarans street, 3rd Floor, Office no 318, Potchefstroom, 2520 Tel: 018-389 5155 e-mail: MauriceV@daff.gov.za Other Competent Authorities</p>	<p>X</p>	<p>9 June 2021</p>	<p>BAR/EMPT sent with Fastway couriers for comments</p>
<p>OTHER AFFECTED PARTIES</p>				
<p>INTERESTED PARTIES</p>				

Public Notice – Stelalander 9 June 2021

REGISTRATION FORM AND COMMENT FOR THE PUBLIC PARTICIPATION PROCESS
PROPOSED MINING PERMIT APPLICATION ON A CERTAIN PORTION OF PORTION 4 (PORTION OF PORTION 3)
OF THE FARM UITKYK 156 HO, MAGISTERIAL DISTRICT OF WOLMARANSSTAD.

Daan Erasmus
P.O. Box 6499
KLERKSDORP
2572

Tel: 018-468 5355
Fax: 018-011 3760
Mobile: 082 895 3516
E-mail: dera.office@dera.co.za or daans@dera.co.za

PERSONAL INFORMATION:

Title/Title: Mr Initials/Voorletters: MC First Name/Eerste naam: Marinus
Surname/Van: Knoetze
E-mail/E-pos: marinusknoetze@gmail.com
Telephone/Telefoon: 076 323 0530 Fax/Faks: -
Organisation (if applicable)/Organisasie (indien van toepassing): Holvoer Boerdery
Capacity (member, etc.)/Kapasiteit (lid ens): lid
Landowner/Grondeienaar/Buurman/Neighbour/Interested and/or affected parties on the farm/op die plaas: Grondseigneur
Postal Address/ Posadres: Postbus 390
Town/City/Dorp/Stad: Wolmaransstad Code/Kode: 3 2630

COMMENT/OBJECTION:

1. What is the nature of your interest in the proposed project/Wat is u belang in die voorgename projek?
n.v.t. Buurman

2. Do you have any ground for objection towards the proposed project/Het u enige gronde tot beswaar ten opsigte van bogenoemde projek?
Nee

YES/NO JA/NEE

If "Yes", please list shortly/Indien "JA", lys asseblief kortliks.
n.v.t.

3. Do you foresee that this activity will have a negative impact on yourself or the environment/Voorsien u dat die voorgename projek 'n negatiewe inpak kan he op uself of die omgewing?

YES/NO JA/NEE

If "Yes", please describe shortly/Indien "JA", verduidelik asseblief kortliks.
Nee

Filled in on/Ingevol op: 07 day of /dag van: Junie (month)/(maand) 2021

Name and Surname/ Company
Naam en Van/Maatskappy
Holvoer Boerdery

Signature/Handtekening
[Signature]

**REGISTRATION FORM AND COMMENT FOR THE PUBLIC PARTICIPATION PROCESS
PROPOSED MINING PERMIT APPLICATION ON A CERTAIN PORTION OF PORTION 4 (PORTION OF PORTION B)
OF THE FARM UITKYK 156 HO, MAGISTERIAL DISTRICT OF WOLMARANSSTAD.**

Daan Erasmus
P.O. Box 6499
KLERKSDORP
2572

Tel: 018-488 5355
Fax: 018-011 3760
Mobile: 082 895 9516
E-mail: dera.office@ders.co.za or daane@ders.co.za

PERSONAL INFORMATION:

Title/Titel: MNR. Initials/Voorletters: G. C. First Name/Eerste naam: GERHARD
Surname/Van: KNIGTSE
E-mail/E-pos: wesvaaldelivery@gmail.com
Telephone/Telefoon: 083 431 4452 Fax/Faks: -
Organisation (if applicable)/Organisasie (indien van toepassing): WESVAAL DELIVERY
Capacity (member, etc.)/Kapasiteit (lid ens): LID
Landowner/Grondelenaar/Boorman/Neighbour/Interested and/or affected parties on the farm/op die plaas: GRONDEIGENAR
Postal Address/Posadres: PO BOX 390
Town/City/Dorp/Stad: WOLMARANSSTAD Postal Code/Postkode: 7630

COMMENT/OBJECTION:

1. What is the nature of your interest in the proposed project/Wat is u belang in die voorgename projek?
N.V.T. BUITENLAND

2. Do you have any ground for objection towards the proposed project/tiet u enige gronde tot beswaar ten opsigte van bogenemde projek?
NEE

YES NO JA/NEE

If "Yes" please list shortly/Indien "JA" lys asseblief kortliks.
N.V.T.

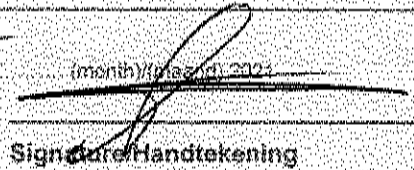
3. Do you foresee that this activity will have a negative impact on yourself or the environment/Voorsien u dat die voorgename projek 'n negatiewe impak kan he op u self of die omgewing?

YES NO JA/NEE

If "Yes" please describe shortly/Indien "JA" verduidelik asseblief kortliks.
NEE

Filled in on/Ingevolg op: 7 day of/daag van: JULIE (month)/(maand) 2024
WESVAAL DELIVERY

Name and Surname/ Company
Naam en Van/Maatskappy


Signature/Handtekening

Gerda

From: Gerda <dera.office@dera.co.za>
Sent: Thursday, 15 July 2021 13:57
To: 'Peter Bolao'
Subject: Consultation letter - Cyprus Boerdery (Pty) Ltd - Mining Permit
Attachments: Consultation letter - Cyprus Boerdery (Pty) Ltd - Mining Permit.pdf

Good day Peter

See attached the consultation letter for Cyprus Boerdery (Pty) Ltd. for a Mining Permit application in the district of Wolmaransstad.

It will be appreciated if you can complete and return the form to dera.office@dera.co.za

Regards.

Gerda Els
Cell: 083 225 1593

Daan Erasmus
Dera Omgewingskonsultante (Pty) Ltd.
Reg no: 2014/051013/07
P.O. Box 6499, Flamwood, 2572
VAT no: 4590284073
Tel: 018 468 5355
Fax: 018 011 3760
Cell: 082 895 3516
e-mail: dera.office@dera.co.za or daane@dera.co.za

Your message is ready to be sent with the following file or link attachments:

Consultation letter - Cyprus Boerdery (Pty) Ltd - Mining Permit

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

P O Box 6499
Flamwood
2572
Fax: 018 011 3760
Mobile: 062 895 3516
E-mail: dera.office@dera.co.za
daane@dera.co.za

.....
DERA

3 June 2021

Environmental Consultants

To whom it may concern

CONSULTATION WITH INTERESTED AND AFFECTED PARTIES WITH REGARD TO AN APPLICATION FOR A MINING PERMIT IN TERMS SECTION 27(2) OF THE MINERALS AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (ACT 28 OF 2002) AND NEMA, EIA 2014: THE PROPOSED MINING AREA IS OVER A CERTAIN PORTION OF PORTION 4 (PORTION OF PORTION 3) OF THE FARM UITKYK 156 HO, IN THE DISTRICT OF WOLMARANSSTAD.

You are herewith informed that **Cyprus Boerdery (Pty) Ltd.** has submitted an application in terms of Section 27(2) of the Minerals and Petroleum Resources Development Act, 2002 (Act 28 of 2002), and NEMA, EIA 2014 to the Regional Manager: Mineral Regulation, North West Region in respect of **Diamonds Alluvial** in the magisterial district of Wolmaransstad.

Cyprus Boerdery (Pty) Ltd. is in the process of compiling the Basic Assessment Report, which needs to be submitted at the Regional Office of DMR and will be available for I&AP's for comments.

In terms of Section 10 of the Minerals and Petroleum Resources Development Act, 2002 (Act 28 of 2002), and in terms of Regulation 39(1) of the regulations published in the Government Notice No. R10328 (of 4 December 2014) under Chapter 6 of the NEMA, EIA 2014, the landowner or legal occupier of the land, as well as any other interested party must be notify and must be consulted with in terms of the proposed project.

Cyprus Boerdery (Pty) Ltd. (Pty) Ltd. deem it necessary to consult with inter alia yourself / your company/ your organization, and you are therefore kindly requested to comment very clearly and unambiguously with regard to the proposed mining project. You are requested to put in writing any interest/ objection and/or comments you may have and send it back to the appointed consultants (**Reference no. NW30/5/1/3/2/10902MP**) within 30 days from the date of receipt of this letter. If no correspondence is received from you within the mentioned period, the applicant shall accept that you have no objection in the proposed mining activities.

Please call me if any further information is needed.

Your co-operation will be appreciated.

Yours faithfully


Daan Erasmus
DERA Environmental Consultants

.....

**REGISTRATION FORM AND COMMENT FOR THE PUBLIC PARTICIPATION PROCESS
PROPOSED MINING PERMIT APPLICATION ON A CERTAIN PORTION OF PORTION 4 (PORTION OF PORTION 3)
OF THE FARM UITKYK 156 HO, MAGISTERIAL DISTRICT OF WOLMARANSSTAD.**

Daan Erasmus
P.O. Box 6499
KLERKSDORP
2572

Tel: 018-468 5355
Fax: 018-011 3760
Mobile: 082 895 3516
E-mail: dera.office@dera.co.za or daane@dera.co.za

PERSONAL INFORMATION:

Title/Titel: Initials/Voorletters: First Name/Eerste naam:

Surname/Van:

E-mail/E-pos:

Telephone/Telefoon: Fax/Faks:

Organisation (if applicable)/Organisasie(indien van toepassing):

Capacity (member, etc.)/Kapasiteit (lid ens):

Landowner/Grondeienaar/Buurman/Neighbour/Interested and/or affected parties on the farm/op die plaas:

Postal Address/ Posadres:

Town/City/Dorp/Stad: Code/Kode:

COMMENT/OBJECTION:

1. What is the nature of your interest in the proposed project/Wat is u belang in die voorgename projek?
.....
.....
2. Do you have any ground for objection towards the proposed project/Het u enige gronde tot beswaar ten opsigte van bogenoemde projek?
.....
.....

YES/NO JA/NEE

If "Yes", please list shortly/Indien 'JA', lys asseblief kortliks.
.....
.....

3. Do you foresee that this activity will have a negative impact on yourself or the environment/Voorsien u dat die voorgename projek 'n negatiewe inpak kan he op self of die omgewing?

YES/NO JA/NEE

If "Yes", please descibe shortly/Indien 'JA', verduidelik asseblief kortliks.
.....
.....

Filled in on/Ingevol op day of /dag van (month)/(maand) 2021

Name and Surname/ Company

Naam en Van/Maatskappy

Signature/Handtekening

.....

Gerda

From: Gerda <dera.office@dera.co.za>
Sent: Thursday, 15 July 2021 13:59
To: keabetswe.mothupi@dalrrd.gov.za
Subject: Verification of land claims - Cyprus Boerdery (Pty) Ltd.
Attachments: Verification of land claims - Cyprus Boerdery (Pty) Ltd..pdf

Good day Kea

See attached our request for verification of land claims on Portion 4 of the farm Uitkyk 156 HO, district Wolmaransstad.

Regards.

Gerda Els
Cell: 083 225 1593

Daan Erasmus
Dera Omgewingskonsultante (Pty) Ltd.
Reg no: 2014/051013/07
P.O. Box 6499, Flamwood, 2572
VAT no: 4590284073
Tel: 018 468 5355
Fax: 018 011 3760
Cell: 082 895 3516
e-mail: dera.office@dera.co.za or daane@dera.co.za

Your message is ready to be sent with the following file or link attachments:

Verification of land claims - Cyprus Boerdery (Pty) Ltd.

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

.....
DERA

Environmental Consultants

3 June 2021

Department of Land Affairs & Rural Development

Attention: Keabetswe Mothupi

Re: Verification of Land Claims

We are Environmental Consultants situated in Klerksdorp and has applied on behalf of Cyprus Boerdery (Pty) Ltd. for a mining permit application on the following farm in the Wolmaransstad district.

- Portion 4 (Portion of Portion 3) of the farm Uitkyk 156 HO

Maquassi Hills Local Municipality

Could you please be so kind to verify if there are any land claims over the farms as mentioned above?

It would be highly appreciated if you could help us in this matter as soon as possible.

Please feel free to contact the office of Dera Environmental Consultants or Mr. Erasmus on his cell: 082 895 3516 for any further information.

Yours truly.

P.P. 

Daan Erasmus

.....

PUBLIC NOTICE

APPLICATION FOR AN ENVIRONMENTAL AUTHORIZATION FOR THE PROPOSED ACTIVITIES.

Notice is given for the following application:

1) Environmental authorization application for mining.

- **Proponent:** The applicant is Cyprus Boerdery (Pty) Ltd.
- **Ref. no:** NW30/5/1/3/2/10902MP
- **Property description:** The proposed mining area is over a certain Portion of Portion 4 (Portion of Portion 3) of the farm Uitkyk 156 HO, in the district of Wolmaransstad. The total extent of the prospecting area is 5 hectares. (21 SG digital codes: TOHO00000000015800004
- **Location:** The property is situated \pm 15 km north-west of Womaransstad.
- **Project description:** The purpose of the application is to obtain the required authorisation from the Department to successfully: undertake opencast mining.
- **Process of Basic Assessment is followed**
- **Activity applied for:** the following activities as listed in terms of NEMA (Act No. 107 of 1998) as amended and EIA Regulations, 2014 was applied for under Activity 21 (Listing Notice 1) – GNR 327 & Activity 27 (Listing Notice 1) – GNR 327
- **Minerals applied for:** Alluvial Diamonds
- **Date submitted:** 1 April 2021
- **Stakeholder involvement:** Stakeholders are invited to register as interested and affected parties and to participate in the application process by identifying issues of concern and suggestions for consideration in the BAR/EMPr. Please submit your written comments by mail, fax or e-mail in this 30 day of this notice to:

Mr. Daan Erasmus of DERA Environmental Consultants
PO Box 6499 E-mail: daane@dera.co.za
Flamwood Tel: 018 468 5355
2572 Fax: 018 011 3760

Date of advertisement: Wednesday 9 June 2021

Date and venue for meeting: Friday 11 June 2021 on site - coordinates:

lat: -27.0514 long: 25.9131

Time: 10H00

AGENDA OF PUBLIC MEETING

CYPRUS BOERDERY (PTY) LTD


Mining Permit over a certain portion of portion 4 (a portion of portion 3) of the farm Uitkyk 156 HO, District of Wolmaransstad.

Venue: on site coordinates lat: -27.0514 long: 25.9131

Date: Wednesday 11 June 2021

Time: 10H00

1. Welcome
2. Background of proposed Mining Permit
3. Open discussion on impacts and mitigation measures
4. Closure

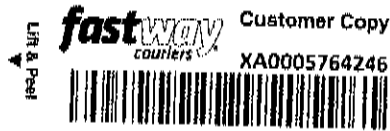
ATTENDANCE REGISTER OF PUBLIC MEETING					
	Name	Capacity	Cell No	Email address	Signature
1	Daan Erasmus	DERA Environmental Consultants	0826953516	daane@dera.co.za	
2					
3					
4					
5					
6					

Comments:

Date: 11/07/2021

Signature: 

.....
DERA



P O Box 6499
Flamwood
2572
Tel: 018-468 5355
Fax: 018-011 3760
Cell: 083 225 1593
E-mail: dera_office@dera.co.za
daane@dera.co.za

Environmental Consultants

9 June 2021

Department of Rural, Environment and Agricultural Development
Agricentre Building
Cnr James Moroka & Stadium Road
Mmabatho
2735

Attention: Ouma Skosana

RE: Basic Assessment Report (BAR) & EMPr

Reference Number: NW30/5/1/3/2/10902MP

It is hereby confirmed that Cyprus Boerdery (Pty) Ltd has applied for a mining permit over a certain Portion of Portion 4 (Portion of Portion 3) of the farm Uitkyk 156 HO, situated in the district of Wolmaransstad, North West Province.

The application was accepted by the Department of Mineral Resources and they have requested that the Department of Rural, Environment and Agricultural Development (North West Regional Office) must be consulted about the proposed mining permit. See attached the BAR/EMPr for comments.

Should you have any questions regarding the above, please call Mr. Erasmus at 082 895 3516

DERA Environmental Consultants can be contacted for any further enquiries.

Yours sincerely

Daan Erasmus
DERA Environmental Consultants

.....

CYPNUS
Bosildem - SAE NW 10902 MF

To

Company Name:

To: Department of Economic Development, Environment, Conservation and Tourism

Agricentre Building

Cnr Dr James Moroko Drive & Stadium Road

Office no. E36

Mmabatho, 2735

Phone: 018 389 5095/5156 Attention: Ms. Ouma Skosana

City/Town:

State:

Postcode:

Phone:

Attention:

No Dangerous Goods Declaration

I hereby certify that this consignment does not contain any dangerous or prohibited goods, eg. explosives, flammables, corrosives, aerosols or poisonous substances.

Name:

GELS

Signature:

GELS

Lift & Peel



Pickup

XA0005764246

Lift & Peel



Delivery

XA0005764246

XA0005764246



P O Box 6499
Flamwood
2572
Tel: 018-468 5355
Fax: 018-011 3760
Cell: 082 895 3516
E-mail: dera_office@dera.co.za
daane@dera.co.za



DERA

Environmental Consultants

9 June 2021

Department of Water and Sanitation
2nd Floor, Bloem Plaza Building
Cnr. East Burger & Charlotte Maxeke
Bloemfontein
9300

Attention: Dr. T. Ntli

RE: Basic Assessment Report (BAR) & EMPr

Reference Number: NW30/5/1/3/2/10902MP

It is hereby confirmed that Cyprus Boerdery (Pty) Ltd has applied for a mining permit over a certain Portion of Portion 4 (Portion of Portion 3) of the farm Uitkyk 156 HO, situated in the district of Wolmaransstad, North West Province.

The Department of Mineral Resources have requested that the Department of Water & Sanitation (North West Regional Office) must be consulted about the proposed mining permit. See attached BAR/EMPr for comments.

Should you have any questions regarding the above, please call Mr. Erasmus at 082 895 3516

DERA Environmental Consultants can be contacted for any further enquiries.

Yours sincerely



Daan Erasmus
DERA Environmental Consultants

.....

CYPRUS Boerdery (Pty) Ltd - BAR - 10902 MF

To

Company Name:

To: Department of Water & Sanitation

2nd Floor, Bloem Plaza Building

Cnr East Burger & Charlotte Maxeke

Bloemfontein, 9300

Phone: 051 405 9109 Attention: Dr. T. Ntuli

City/Town:

State:

Postcode:

Phone:

Attention:

No Dangerous Goods Declaration

I hereby certify that this consignment does not contain any dangerous or prohibited goods, eg. explosives, flammables, corrosives, aerosols or poisonous substances.

Name:

G. Els

Signature:

Els

▲ Lift & Peel



Pickup

VA0013208121

▲ Lift & Peel



Delivery

VA0013208121

VA0013208121



P O Box 6499
Flamwood
2572
Tel: 018-468 5355
Fax: 018-011 3760
Cell: 082 895 3516
E-mail: dera.office@dera.co.za
daane@dera.co.za



DERA

Environmental Consultants

9 June 2021

Department of Agriculture, Forestry and Fisheries
Louis le Grange Building
Cnr Peter Mokaba & Wolmarans street
3rd Floor, Office 318
Potchefstroom
2520

Attention: Maurice Vukeya

RE: Basic Assessment Report (BAR) & EMPr

Reference Number: NW30/5/1/3/2/10902MP

It is hereby confirmed that Cyprus Boerdery (Pty) Ltd has applied for a mining permit over a certain Portion of Portion 4 (Portion of Portion 3) of the farm Uitkyk 156 HO, situated in the district of Wolmaransstad, North West Province.

The Department of Mineral Resources has requested that the Department of Agriculture, Forestry and Fisheries (North West Regional Office) must be consulted about the proposed mining permit. See attached BAR/EMPr for comments.

Should you have any questions regarding the above, please call Mr. Erasmus at 082 895 3516.

DERA Environmental Consultants can be contacted for any further enquiries.

Yours sincerely

P.P. 

Daan Erasmus
DERA Environmental Consultants

.....

JUL 20061 MW 10902 MF
BAK.
Secondary.
Expous

To

Company Name:

To: Department of Agriculture, Forestry & Fisheries

Louis Le Grange Building (Court Building)

Cnr Peter Mokaba & Wolmarans Street

3rd Floor Office 318

Potchefstroom, 2520

Phone: 018 299 6739 Cell: 082 459 6479 Attention: Maurice Vukeya

City/Town:

State:

Postcode:

Phone:

Attention:

No Dangerous Goods Declaration

I hereby certify that this consignment does not contain any dangerous or prohibited goods, eg. explosives, flammables, corrosives, aerosols or poisonous substances.

Name:

G. Els

Signature:

Els



**SCREENING REPORT FOR AN ENVIRONMENTAL AUTHORIZATION AS
REQUIRED BY THE 2014 EIA REGULATIONS – PROPOSED SITE
ENVIRONMENTAL SENSITIVITY**

EIA Reference number: NW 30/5/1/3/2/10902 MP

Project name: Uitkyk 158 HO

Project title: Mining Permit

Date screening report generated: 14/07/2021 14:46:37

Applicant: Cyprus Boerdery (Pty) Ltd

Compiler: DERA Omgewingskonsultante (Pty) Ltd

Compiler signature:

[Handwritten signature]
.....

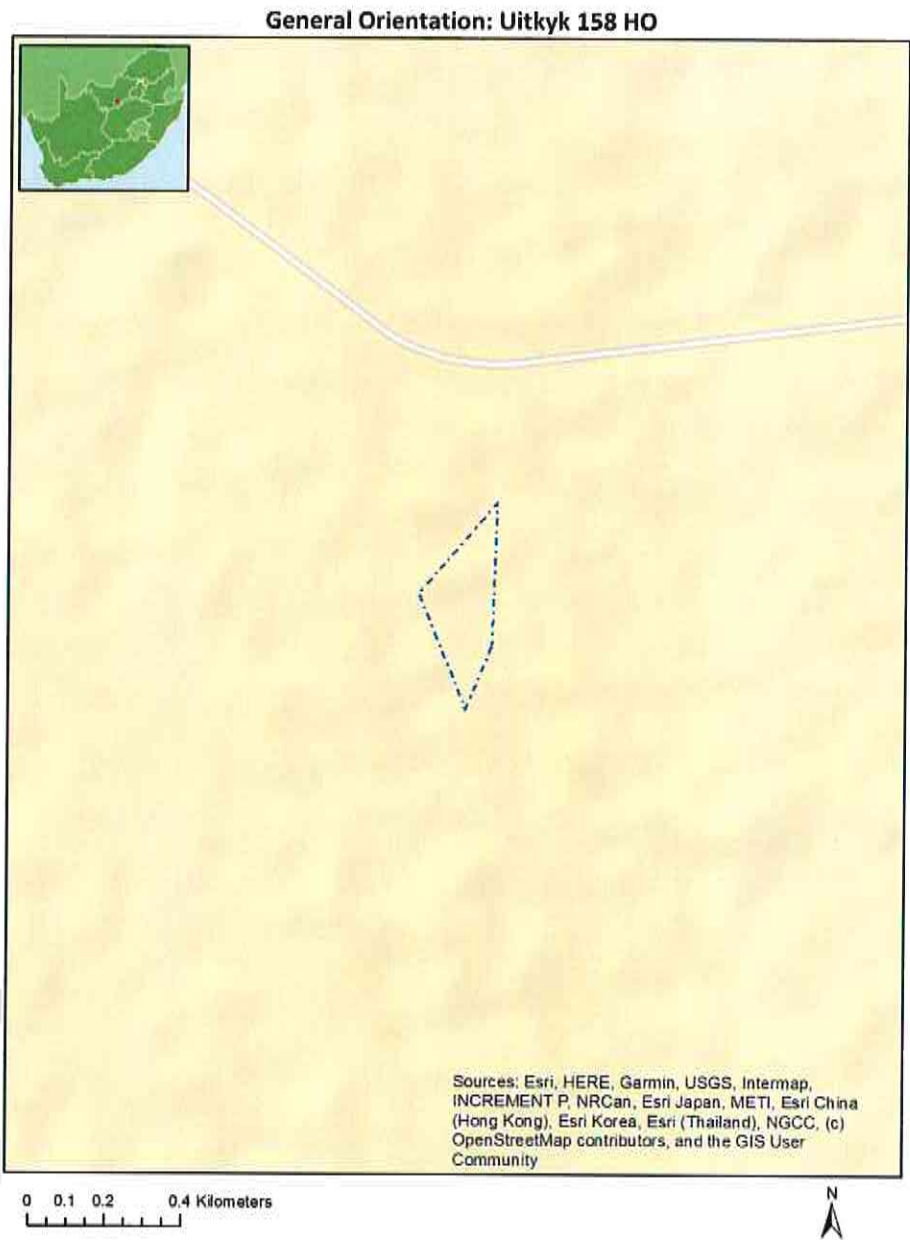
Application Category: Mining|Mining Permit

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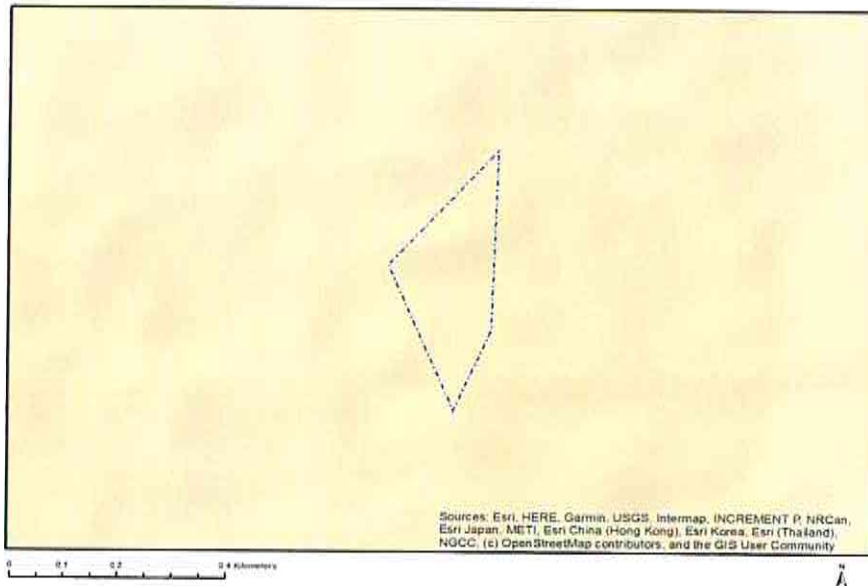
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Cadastral details of the proposed site	4
Wind and Solar developments with an approved Environmental Authorisation or applications under consideration within 30 km of the proposed area	4
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Proposed Project Location

Orientation map 1: General location



Map of proposed site and relevant area(s)



Cadastral details of the proposed site

Property details:

No	Farm Name	Farm/ Erf No	Portion	Latitude	Longitude	Property Type
1	UITKYK	156	0	27°4'47.16S	25°56'32.08E	Farm
2	UITKYK	156	4	27°3'20.54S	25°55'20.18E	Farm Portion

Development footprint¹ vertices:

No development footprint(s) specified.

Wind and Solar developments with an approved Environmental Authorisation or applications under consideration within 30 km of the proposed area

No nearby wind or solar developments found.

Environmental Management Frameworks relevant to the application

No intersections with EMF areas found.

¹ "development footprint", means the area within the site on which the development will take place and includes all ancillary developments for example roads, power lines, boundary walls, paving etc. which require vegetation clearance or which will be disturbed and for which the application has been submitted.

Environmental screening results and assessment outcomes

The following sections contain a summary of any development incentives, restrictions, exclusions or prohibitions that apply to the proposed development site as well as the most environmental sensitive features on the site based on the site sensitivity screening results for the application classification that was selected. The application classification selected for this report is:

Mining | Mining Permit.

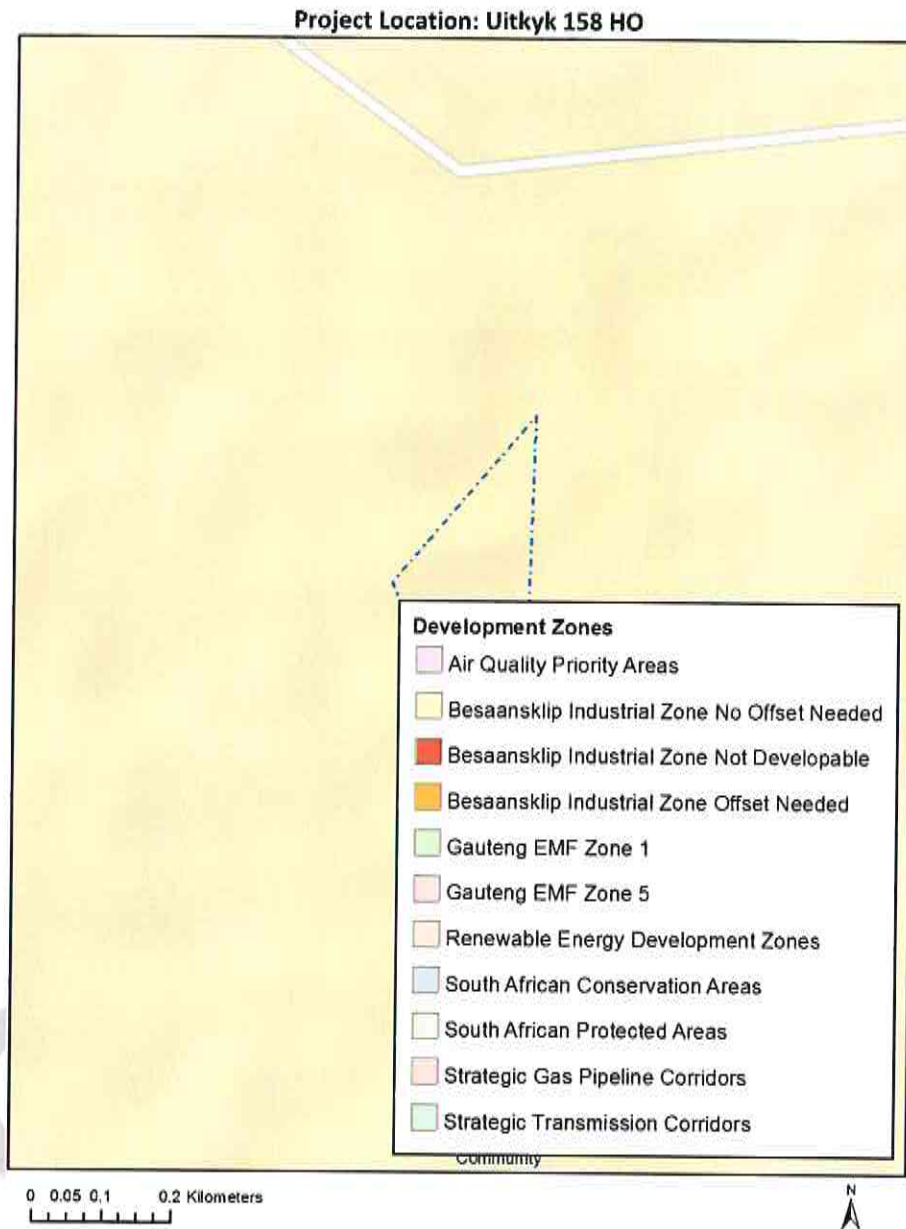
Relevant development incentives, restrictions, exclusions or prohibitions

The following development incentives, restrictions, exclusions or prohibitions and their implications that apply to this site are indicated below.

No intersection with any development zones found.

OFFICIAL

Map indicating proposed development footprint within applicable development incentive, restriction, exclusion or prohibition zones



Proposed Development Area Environmental Sensitivity

The following summary of the development site environmental sensitivities is identified. Only the highest environmental sensitivity is indicated. The footprint environmental sensitivities for the proposed development footprint as identified, are indicative only and must be verified on site by a suitably qualified person before the specialist assessments identified below can be confirmed.

Theme	Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
Agriculture Theme			X	
Animal Species Theme				X

Aquatic Biodiversity Theme				X
Archaeological and Cultural Heritage Theme				X
Civil Aviation Theme			X	
Defence Theme				X
Paleontology Theme			X	
Plant Species Theme			X	
Terrestrial Biodiversity Theme				X

Specialist assessments identified

Based on the selected classification, and the environmental sensitivities of the proposed development footprint, the following list of specialist assessments have been identified for inclusion in the assessment report. It is the responsibility of the EAP to confirm this list and to motivate in the assessment report, the reason for not including any of the identified specialist study including the provision of photographic evidence of the site situation.

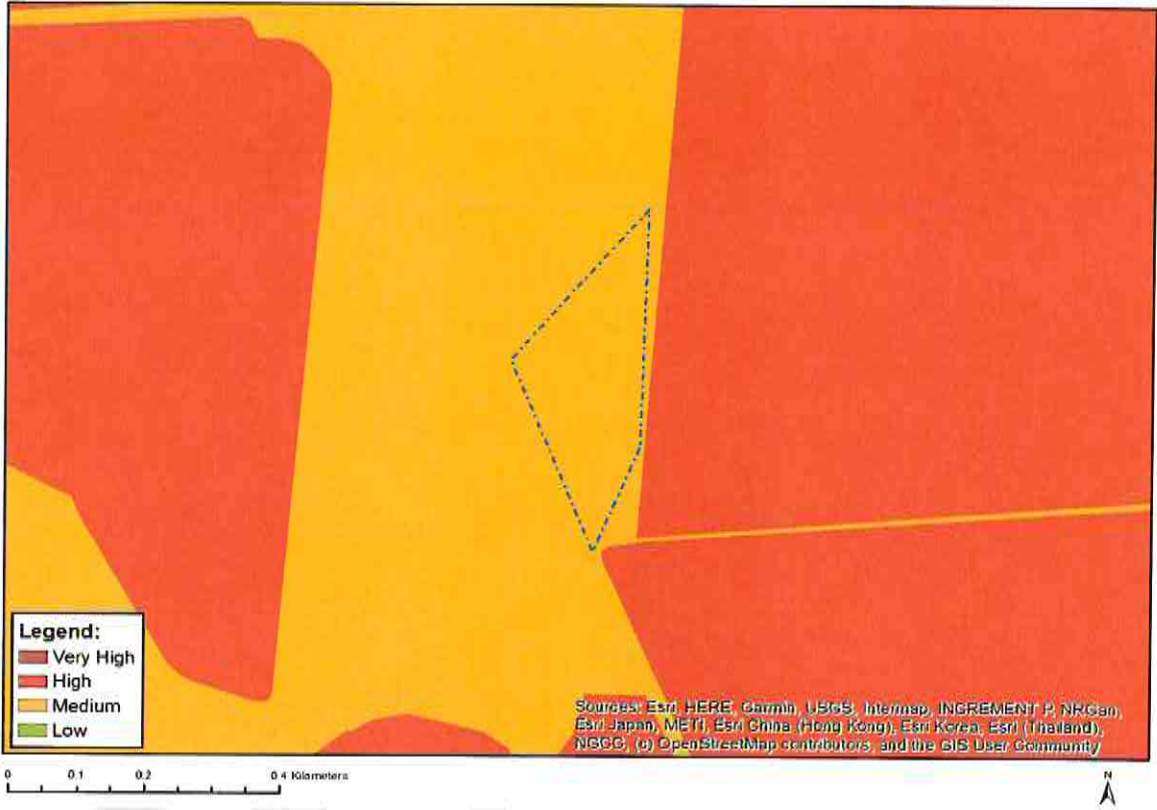
N o	Specialist assessment	Assessment Protocol
1	Agricultural Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Agriculture Assessment Protocols.pdf
2	Archaeological and Cultural Heritage Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf
3	Palaeontology Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf
4	Terrestrial Biodiversity Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted Terrestrial Biodiversity Assessment Protocols.pdf
5	Aquatic Biodiversity Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted Aquatic Biodiversity Assessment Protocols.pdf
6	Hydrology Assess	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf

	ment	
7	Noise Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted Noise Impacts Assessment Protocol.pdf
8	Radioactivity Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf
9	Traffic Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf
10	Geotechnical Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf
11	Socio-Economic Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted General Requirement Assessment Protocols.pdf
12	Plant Species Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted Plant Species Assessment Protocols.pdf
13	Animal Species Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted Animal Species Assessment Protocols.pdf

Results of the environmental sensitivity of the proposed area.

The following section represents the results of the screening for environmental sensitivity of the proposed site for relevant environmental themes associated with the project classification. It is the duty of the EAP to ensure that the environmental themes provided by the screening tool are comprehensive and complete for the project. Refer to the disclaimer.

MAP OF RELATIVE AGRICULTURE THEME SENSITIVITY

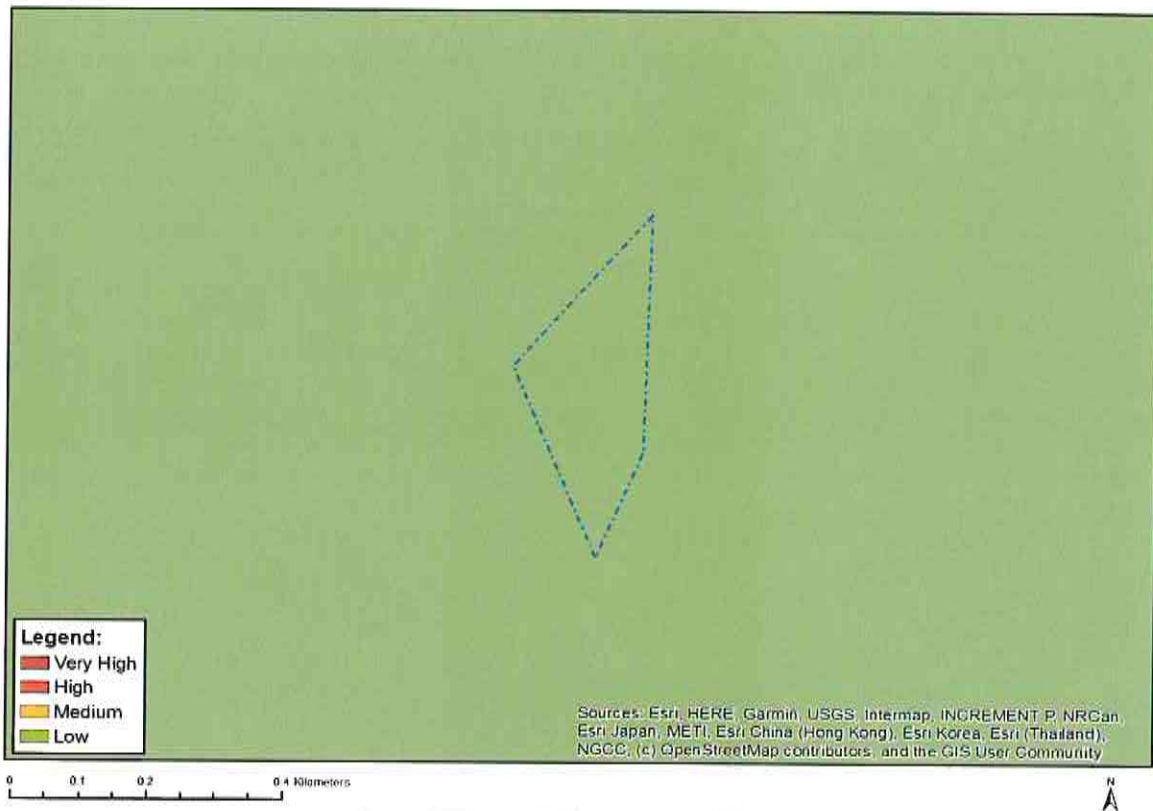


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Land capability;06. Low-Moderate/07. Low-Moderate/08. Moderate

MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY



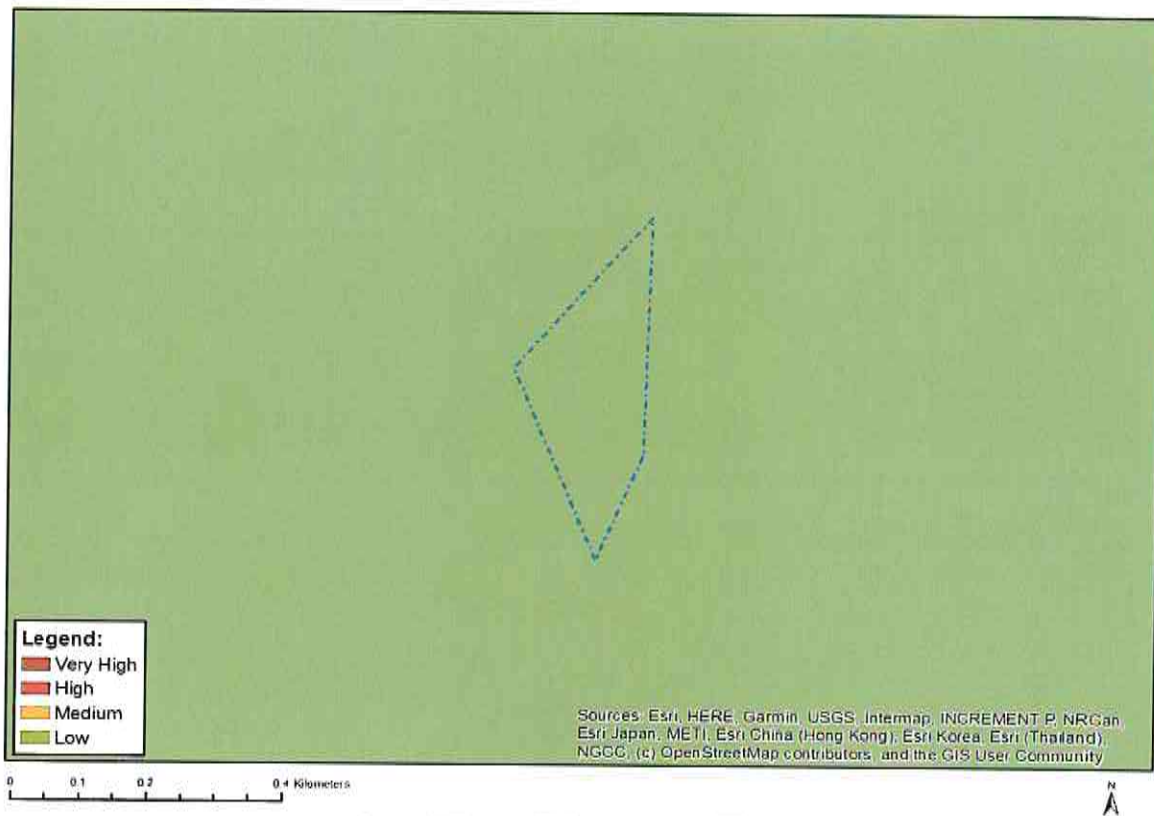
Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity

MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY

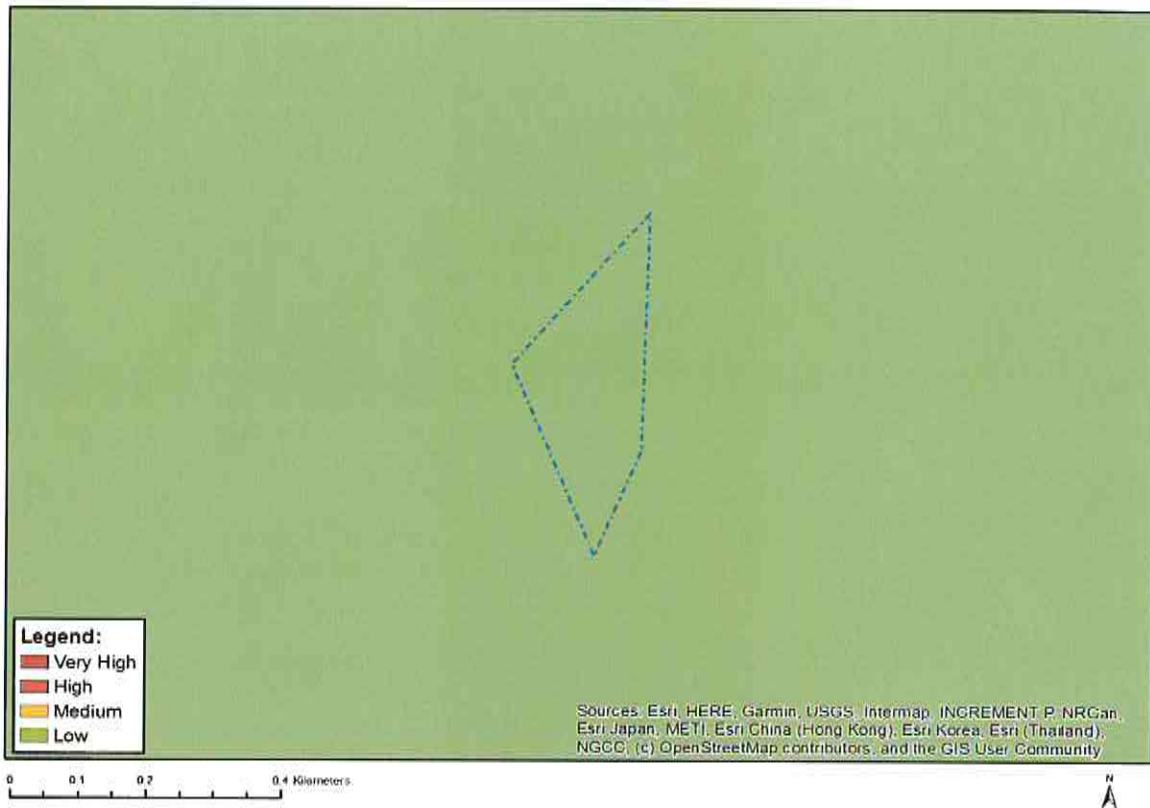


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity

MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY

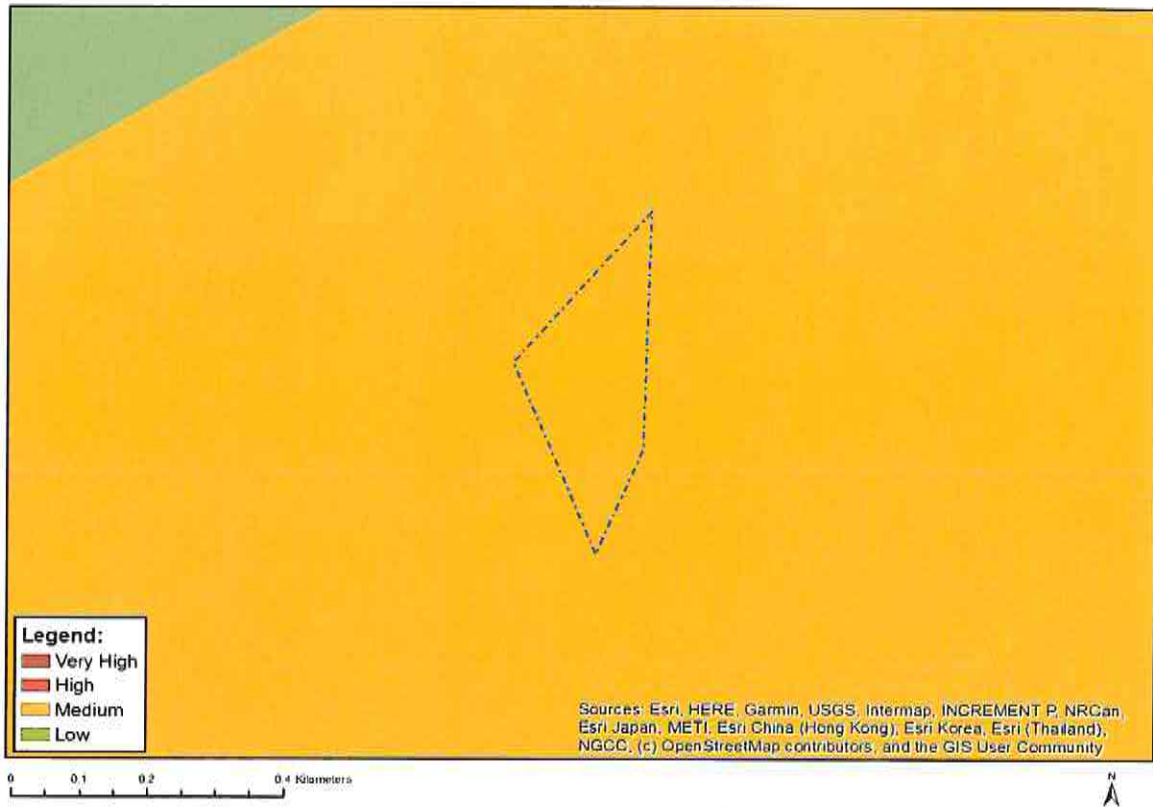


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity

MAP OF RELATIVE CIVIL AVIATION THEME SENSITIVITY

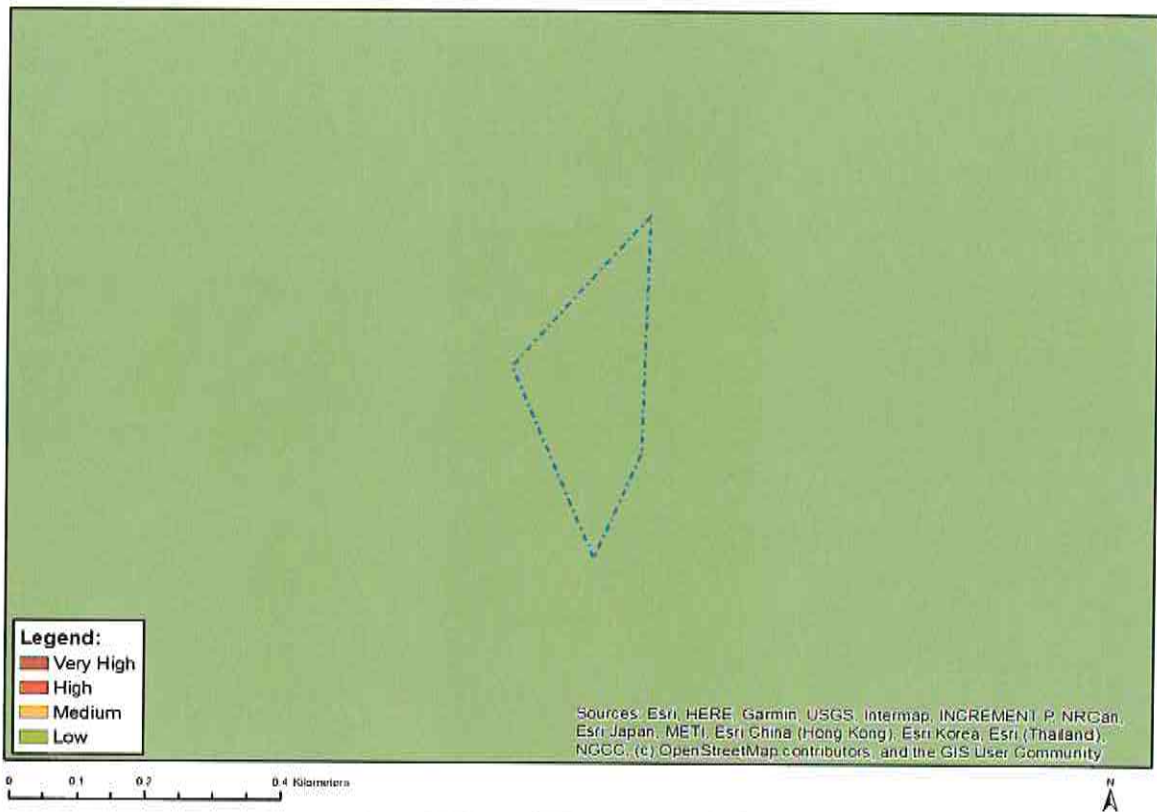


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Between 8 and 15 km of other civil aviation aerodrome

MAP OF RELATIVE DEFENCE THEME SENSITIVITY

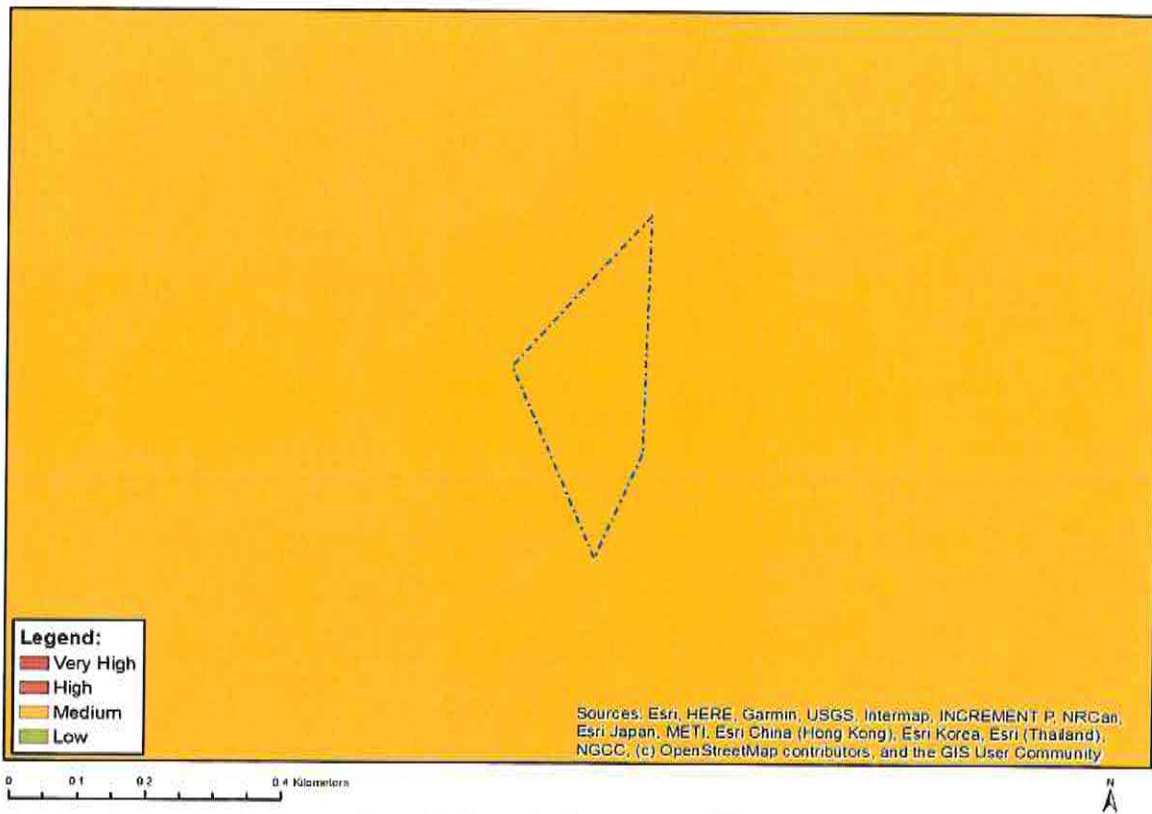


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

MAP OF RELATIVE PALEONTOLOGY THEME SENSITIVITY

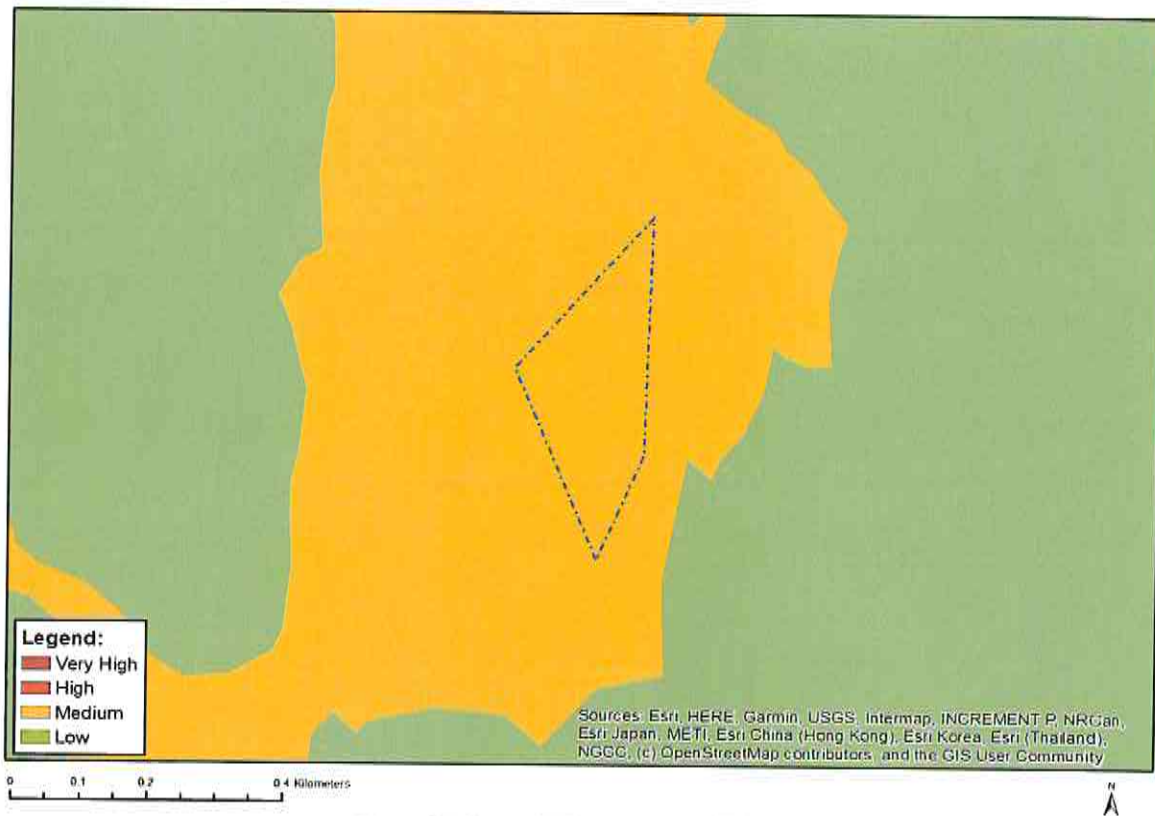


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Low	Features with a Low paleontological sensitivity
Medium	Features with a Medium paleontological sensitivity

MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY



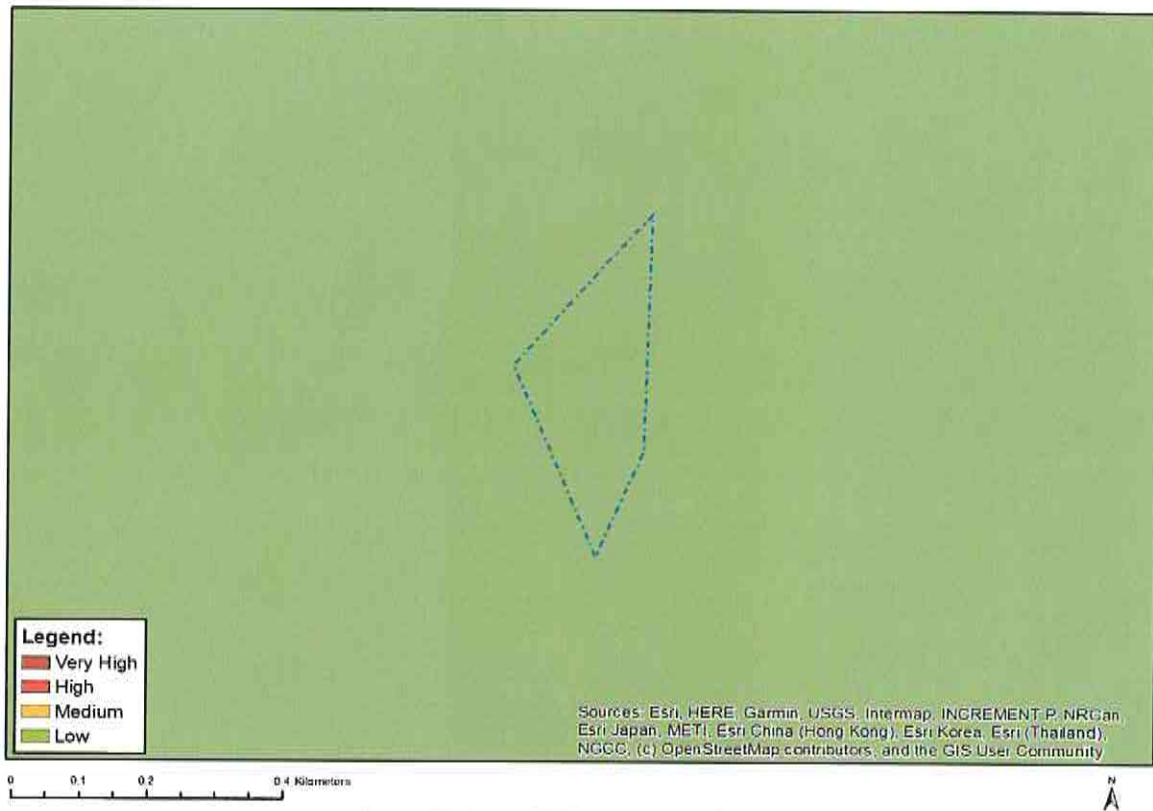
Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity
Medium	Sensitive species 1261

MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

CALCULATION OF THE QUANTUM

10902 MP
Jul-21

Cyprus Boerdery (Pty) Ltd
DERA

Applicant:
Evaluators:

No	Description	Unit	A Quantity	B Master Rate	C Multiplication factor	D Weighting factor 1	E=A*B*C*D Amount (Rands)
1	Dismantling of processing plant and related structures (including overhead conveyors and powerlines)	m3	0	16	1	1	0
2 (A)	Demolition of steel buildings and structures	m2	0	195.76	1	1	0
2(B)	Demolition of reinforced concrete buildings and structures	m2	0	288.49	1	1	0
3	Rehabilitation of access roads	m2	50	41	1	1	2050
4 (A)	Demolition and rehabilitation of electrified railway lines	m	0	340.01	1	1	0
4 (A)	Demolition and rehabilitation of non-electrified railway lines	m	0	185.46	1	1	0
5	Demolition of housing and/or administration facilities	m2	0	391.53	1	1	0
6	Overcast rehabilitation including final voids and ramps	ha	0.3	238897	0.52	1	37236.732
7	Sealing of shafts adits and inclines	m3	0	105.09	1	1	0
8 (A)	Rehabilitation of overburden and spoils	ha	0	136828.1	1	1	0
8 (B)	Rehabilitation of processing waste deposits and evaporation ponds (non-polluting potential)	ha	0	170416.93	1	1	0
8 (C)	Rehabilitation of processing waste deposits and evaporation ponds (potentially polluting)	ha	0	494971.55	1	1	0
9	Rehabilitation of subsided areas	ha	0	114572.93	1	1	0
10	General surface rehabilitation	ha	0.2	126059	1	1	25211.8
11	River diversions	ha	0	108390.94	1	1	0
12	Fencing	m	0	123.64	1	1	0
13	Water management	ha	0	41213.28	1	1	0
14	2 to 3 years of maintenance and aftercare	ha	0.2	16776	1	1	3355.2
15 (A)	Specialist study	Sum	0			1	0
15 (B)	Specialist study	Sum	0			1	0
Sub Total 1							07853.732

1	Preliminary and General	8142.44784	weighting factor 2	8142.44784
2	Contingencies	6785.3732	1	6785.3732
		Subtotal 2		82781.65
		VAI (15%)		11589.42
		Grand Total		94371