



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: **Raubex Construction (Pty) Ltd**

TEL NO: **072 591 8878**

FAX NO: -

POSTAL ADDRESS: -

PHYSICAL ADDRESS: **Building 1 High Grove Park, 50 Tegel Avenue, Highveld 0169**

FILE REFERENCE NUMBER SAMRAD: **FS30/5/1/3/2/10322 MP**

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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 un- interpreted information and that it unambiguously represents the interpretation of the applicant.

2. Objective of the basic assessment process

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

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

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

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

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

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

(ii) the degree to which these impacts—

(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
SCOPE OF ASSSMENT AND BASIC ASSESSMENT REPORT

3. CONTACT PERSON AND CORRESPONDENCE ADDRESS

A) DETAILS OF

(i) Details of the EAP

Name of the EAP: **Mr. Daan Erasmus**
Tel No.: **018 468 5355**
Fax No. : **018 468 4015**
E-mail address: **dera@xsinet.co.za**

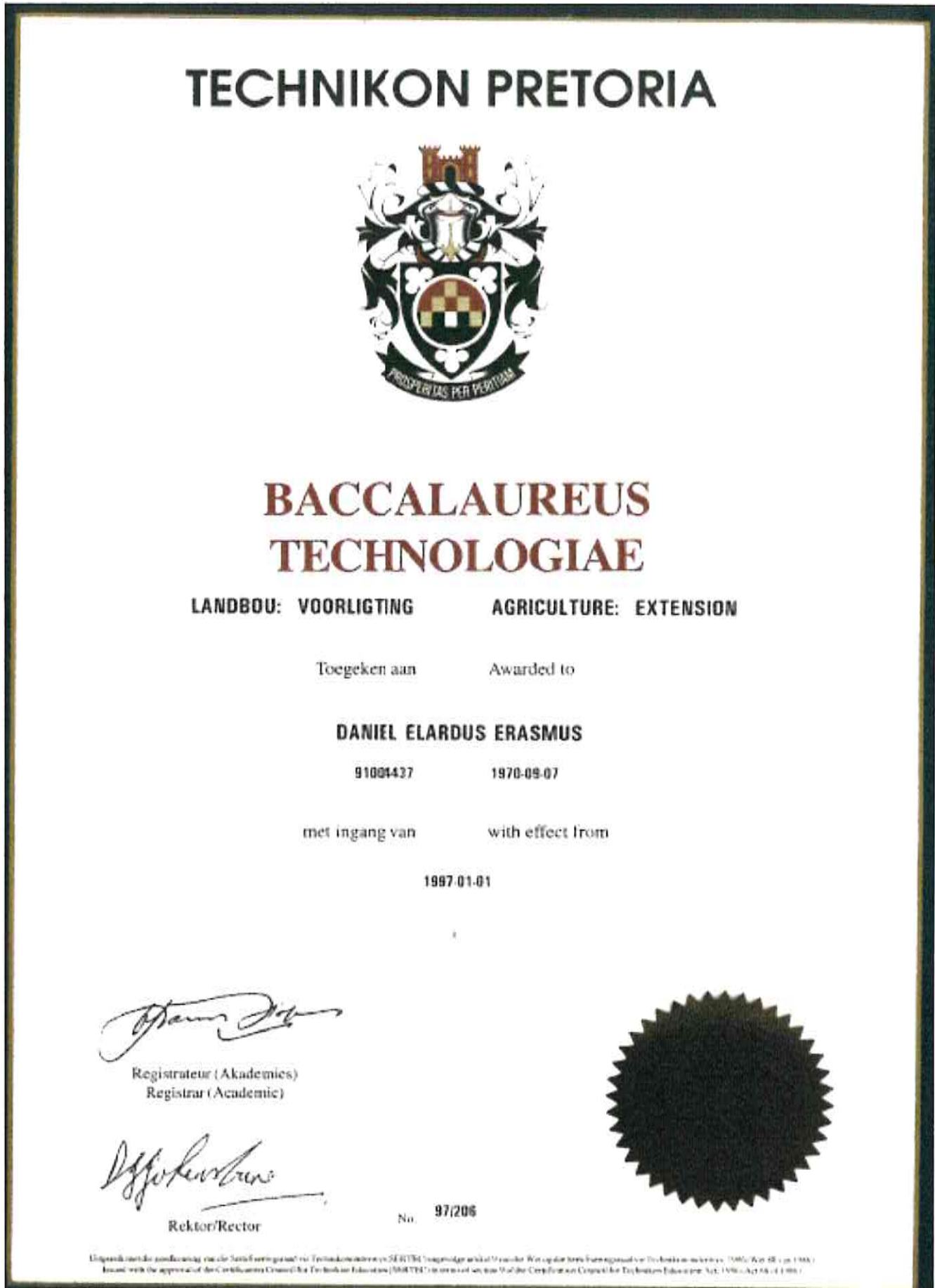
(ii) Expertise of the EAP.

1) The qualifications of the EAP
(with evidence).

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

See **Figure 1** – Copy of qualification.

Figure 1 – Copy of Qualification



TECHNIKON
PRETORIATECHNIKON
PRETORIA

NASIONALE NATIONAL DIPLOMA

LANDBOU: HULPBRONBENUTTING

AGRICULTURE: RESOURCE UTILIZATION

Toegeken aan

Awarded to

DANIEL ELARDUS ERASMUS

91004437

7009075033088

met ingang van

with effect from

1994-01-01

Die volgende is voltooi

The following were completed

*(Die onderstaande is)**(The following are)*

Landbou-ekonomie I, II en III
 Voorligtingsmetodiek I en II
 Akkerbou I, II en III
 Weidingkunde A
 Bodembepanning I en II
 Bodembewaring I
 Grondkunde I en II
 *Meganisasie
 Fisiese Wetenskap
 Melkproduksietegnologie
 Vleisheesproduksietegnologie
 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
 Beefer Production Technology
 Small Stock Production Technology
 Soil Classification III

Minimum Opleidingstydperk: 3 Jaar
 Minimum Training Period : 3 Years

SERTEC
 Uitvoerende Direkteur/
 Executive Director

Nr./No. ND1117/94

TECHNIKON
 Rektor/Rector

2) Summary of the EAP's past experience.

(In carrying out the Environmental Impact Assessment Procedure)

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.

27 Louis Street
Wilkoppiet
Klerksdorp

Phone + 2718-468-6665
Fax + 2718-468-4215
E-mail: dera@raubex.co.za

DAAN ERASMUS

Curriculum Vitae Daniël Elardus Erasmus

February 2015

Personal Information

Name: Daniël Elardus Erasmus
 Date of Birth: 7 September 1970
 Place of Birth: Ottosdal, North West Province, South Africa
 Marital Status: Married with two children

Secondary & Post Secondary Education

1983-1988 Wolmaransstad High School, North West, SA
 Higher School Certificate – with Full Exemption

Subjects: English Afrikaans
 Mathematics Science
 Geography Accounting

1989-1990 Military Service, Potchefstroom, SA
 Artillery Division
Officers Course: II Lieutenant

1991-1994 Technikon Pretoria, Pretoria, SA
National Diploma
 Agriculture: Resource Utilization

Subjects: 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 Technikon Pretoria, Pretoria, SA
Baccalaureus Technologiae
 Agriculture: Extension
 Agricultural Resource Conservation Act in the North West Province of SA; management of personnel and personnel related matters; management of budget of regional office in Potchefstroom; monitoring mine rehabilitation and environmental management out of agricultural point of view; management and control of declared weeds and invader species.

2003-Present Began own company – DERA Environmental Consultants. Main scope of business: Compiling and submission of mining related applications; Manage and compile legal environmental documents. Further doing monitoring work to evaluated compliance to environmental legislation; evaluating outstanding rehabilitation liabilities for mining companies.
 Assist legal companies in determining environmental damage. Do assessment for closure applications. Give guidance in rehabilitation practices. Compile applications and basic assessment reports for chicken broilers and feed lots based on experience form management of the natural resources and the mitigation of impacts.

B) LOCATION OF THE OVERALL ACTIVITY**Table 1: Property Description**

Farm Name:	Minsaam 1074 ✓ (certain area of the Remaining Extent)
Application area (Ha)	5 hectares
Magisterial district:	Frankfort
Distance and direction from nearest town:	Approximately 45 km north-east of Frankfort
21 digit Surveyor General Code for each farm portion	F0140000000107400000

C) LOCALITY MAP

(Show nearest town, scale not smaller than 1:250000).

See Appendix 1(a) attached for Locality Map.

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

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

Appendix 1(b) – Infrastructure and current land use Plan.

(i) Listed and specified activities**Table 2: Listed Activities**

NAME OF ACTIVITY (E.g. For prospecting -drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office, access route etc...etc...etc E.g. for mining - excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc... etc.)	Aerial extent of the Activity Ha or m ²	LISTED ACTIVITY Mark with an "X" where applicable or affected.	APPLICABLE LISTING NOTICE (GNR 544, GNR 545 or GNR 546)	WASTE MANAGEMENT AUTHORISATION (Indicate whether authorisation is required in terms of the Waste Management Act). (Mark with an X)
Mining – excavations and processing (activity 21, listing 1)	3 ha	X	GNR 327	
Clearing of an area more than 1 hectare (activity 27 listing 1)	5 ha		GNR 327	

(ii) Description of the activities to be undertaken

(Describe Methodology or technology to be employed, including the type of commodity to be prospected/mined and for a linear activity, a description of the route of the activity)

Table 3: Description of Activities to be followed

ITEM	DESCRIPTION
Environmental attributes. Describe how the Environmental attributes associated with the development footprint will be determined.	The site was visited and a proper foot survey will be conducted. The activities that will be conducted by the applicant will be discussed on site as described in the Finance and technical document. The environmental setting on site and surrounding with the experience of the EAP will give an idea and lead to environmental attributes.
Identification of impacts and risks. Describe the process that will be used to identify impacts and risks.	The activities will take place will be discussed in detail with the applicant on site. With the specific environmental setting in mind and more specifically, the type of soil, soil depth, land use, vegetation type, and distances to open water and structures, the EAP will be able to identify potential impact areas where significant impacts might occur and the risks thereof. The methods of rehabilitation that need to be done, in order to meet the objective of the final land use will also be taken in consideration.
Consideration of alternatives. Describe how alternatives, and in particular the alternatives to the proposed site layout and possible alternative methods or technology to be applied will be determined.	The site will be visited before the BAR is compiled. There are no different site alternatives as this is a Mining Permit within the application area. The entire application area will be visited and areas that might be environmentally sensitive will be identified. The proposed impacts and mitigations will also be discussed.
Process to assess and rank impacts. Describe the process to be undertaken to identify, assess and rank the impacts and risks each individual activity.	The site was visited before the BAR was compiled. The entire application area will be visited and areas that might be environmentally sensitive will be identified. The proposed impacts and mitigations will also be discussed. The EAP (with 21 years' experience in mining and mining activities) will assess the specific site for possible impacts. The assessment of impacts will be done according to a synthesis of the following assessment criteria: - Nature of the impact; - Extent (spatial scale); - Duration; - Magnitude or intensity of the impact (severity); - Probability; The criteria that will be used to determine significance as described below. Nature of the impact: This is an appraisal of the type of effect the activity would have on the affected environment. The description includes how and what is being affected, whether it is positive or negative, as well as whether it is direct or indirect.

Contribution of specialist reports. Describe how specialist reports, if required, will be taken into consideration and inform the impact identification, assessment and remediation process.	No specialist reports required at this stage, unless specifically requested. A heritage specialist will be involved with the BAR.
Determination of impact management objectives and outcomes. Describe how impact management objectives will be determined for each activity to address the potential impact at source, and how the impact management outcomes will be aligned with standards.	The Nature of the impact: This is an appraisal of the type of effect the activity would have on the affected environment. The description includes how and what is being affected, whether it is positive or negative, as well as whether it is direct or indirect. Each impact will be assessed and quantified, and management objectives according to the first two steps, will be set. The management of the objectives will be aligned with the significance of the impact, as well as to ensure a positive outcome. The outcomes will be aligned with standards on environmental management and rehabilitation of mining areas according to Department Mineral Resources.

1. The mineral

Raubex intends to mine for Stone Aggregate; Gravel and gravel (grav) G5 situated on a portion of the farm Minsaam, Frankfort district, and 4 hectares in total. The stone aggregate and gravel will be used as filling material in road construction. The gravel and aggregate will be used in different facets of the road construction industry.

2. The extend

The gravel is situated on this demarcated area on average 4 meters deep. The identified and demarcated which are 5 hectares in total includes the entire mining area of 4 hectares will be used for mining and 1 ha for the stockpiling and plant area. The gravel/stone reserve on this 4 hectares is estimated at 120 000 m³ (200 000 tons).

3. Mining method

The above area will be mined through opencast excavations where the gravel/stone will be blasted in order to loosen the stone and then removed with an excavator onto a stockpile and fed by a frond end loader into the screening/crushing plant. A stockpile will be created at the screening/crushing plant and loaded on the trucks for transporting to the clients. It is envisaged that some of the gravel (G5) will be loaded directly onto the trucks without any processing. The gravel/stone from the stockpile is transported at an average rate of 450 tons a day to the clients or as needed. The total estimated reserve of gravel is 200 000 tons taken at a production rate of 5000 tons a month it will take 40 months to work this reserve.

The gravel which is 4 m thick and the relatively low production rate of this operation make this 4 hectare to be worked sustainable over a period of two years.

Equipment to be used includes:

- ✓ 2 x Frond end loaders;
- ✓ 1 x Excavator;
- ✓ 4 x trucks;
- ✓ 1 x screening/crushing plant.
- ✓ 10 x Permanent labourers and one manager will used in this operation.

The total cost of the operation is taken at R 62/ton and the total material moved monthly at 5000 tons. The total monthly mining cost is then R 314 199 .00 and the total monthly income is on average R 600 000.00. This operation can thus be economical viable

4. The grade

It is estimated that this sand will be sold for R 90.00/m³.

E) POLICY AND LEGISLATIVE CONTEXT

Table 4: Policy & Legislative Context

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT <small>(a description of the policy and legislative context within which the development proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process)</small>	REFERENCE WHERE APPLIED	HOW DOES THIS DEVELOPMENT COMPLY WITH AND RESPOND TO THE LEGISLATION AND POLICY CONTEXT. <small>(E.g. In terms of the National Water Act a Water Use License has/ has not been applied for)</small>
Mineral and Petroleum Resources Development Act, 2004 (Act 28 of 2004) (MPRD)	Mineral and Petroleum Resources Development Act, 2004 (Act 28 of 2004) (MPRD)	Application for Mining Permit
National Environmental Management Act, 1998 (Act 107 of 1998) (NEMA)	National Environmental Management Act 1998 (Act 107 of 1998) (NEMA)	Application for Environmental Authorization
National Environmental Management Act, 1998 (Act 107 of 1998): Environmental Impact Assessment Regulations, 2014 (G38282 – R982-985)	National Environmental Management Act 1998 (Act 107 of 1998): Environmental Impact Assessment Regulations, 2014	Submitting of BAR/EMP
National Water Act, 1998 (Act 36 of 1998)	National Water Act, 1998 (Act 36 of 1998)	N/A

F) NEED AND DESIRABILITY OF THE PROPOSED ACTIVITIES

(Motivate the need and desirability of the proposed development including the need and desirability of the activity in the context of the preferred location).

Raubex is into road construction and a new project for upgrading of the N3 is due for February 2021. SANRAL requested that this material be used which is next to the N3, thus easy accessible. They gave permission for blasting as the area is 150 – 200m away from the N3. This project is of National importance for the upgrading of the N3.

The portions over which the application was applied for is virgin area, with no signs of any disturbance or developments. The area is under natural veld. There is no infrastructure on site prior to mining. Access to the farm is gained by an existing gravel road from the national tar road (N3). See Figure 3 below for Google Earth Images of proposed area. The whole of the 5 ha will be under mining infrastructure or activities. The area will be mined and rehabilitated. The mining focus area will be clearly demarcated. The area applied for is over the demarcated portion only. After mining the land will be rehabilitated and could be used for grazing again.

Figure 3: Google Earth Images



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

The applicant envisaged that the applied mineral (Stone Aggregate, Gravel and Gravel (G5)) might be present on this property and therefore the application for a mining permit. The gravel and stone does outcrop on several places within the application area and for this reason this area is the preferred area.

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

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

(i) Details of the development footprint alternatives considered

With reference to the site plan provided as Appendix 4 and the location of the individual activities on site, provide details of the alternatives considered with respect to: Alternative is not applicable. The current land is virgin area. Thus the option to mine the area will be an alternative land use in itself. Mining the area and rehabilitation the area must be done in such a way that the area will be astatically associable and that it will be available for natural grazing. The applicant, Raubex Construction (Pty) Ltd, is not interested in any other alternative land use over this land aside for the exploration of Stone Aggregate, Gravel and Gravel (G5), or any other activity, or method use other than mining for Stone Aggregate, Gravel and Gravel (G5) in the conventional way, which is the most cost effective.

(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.

(b) the type of activity to be undertaken

The type of activity is in line with the submitted Mining Programme.

(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.

(d) the technology to be used in the activity

The technology used in the activity will as described in the Mining Programme and the best options will be determined by the applicant.

(e) the operational aspects of the activity, and

The operational aspect is only the mining of Stone Aggregate & Gravel on this specific area.

(f) the option of not implementing the activity

This option might only be possible if the applicant decide to abandon the project.

(i) Details of the Public Participation Process Followed

Describe the process undertaken to consult interested and affected parties including public meetings and one on one consultation. NB the affected parties must be specifically consulted regardless of whether or not they attended public meetings. (Information to be provided to affected parties must include sufficient detail of the intended operation to enable them to assess what impact the activities will have on them or on the use of their land)

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 (*A du Plessis*) and the direct neighbours were consulted personally and through a letter that was given to them by hand. A site notice was placed at the entrance gate of the farm. With this site notice all passersby are requested to submit any written comments to be forwarded to the consultant (still awaiting response). An advertisement was placed in the Vrystaat Kroon on the 11th November 2020 and a public meeting was held on site on the 18th November 2020. See proof of consultation under Appendix 2. The Public Participation process is still ongoing and the documents will be updated as more feedback is received back.

Appendix 2 – Proof of consultation.

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

IDENTIFICATION CRITERIA	Mark with an X where applicable	
	YES	NO
Will the landowner be specifically consulted?	X	
Will the lawful occupier on the property other than the Landowner be consulted?	X	
Will a tribal authority or host community that may be affected be consulted?		X
Will recipients of land claims in respect of the area be consulted?	X	
Will the landowners or lawful occupiers of neighbouring properties been identified?	X	
Will the local municipality be consulted?	X	
Will the Authority responsible for power lines within 100 metres of the area be consulted?		X
Will the Authorities responsible for public roads or railway lines within 100 metres of the area applied for be consulted?		X
Will the Authorities responsible for any other infrastructure within 100 metres the area applied for be consulted? (Specify)		X
Will the Provincial Department responsible for the environment be consulted?	X	
Will all of the parties identified above be provided with a description of the proposed mining/prospecting operation as referred above?	X	
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	
Other, Specify		

(ii) Details of the Public Participation Process Followed

Describe the process undertaken to consult interested and affected parties including public meetings and one on one consultation. NB the affected parties must be specifically consulted regardless of whether or not they attended public meetings. (Information to be provided to affected parties must include sufficient detail of the intended operation to enable them to assess what impact the activities will have on them or on the use of their land)

Table 6: Identification of Interested and Affected Parties to be consulted

IDENTIFICATION CRITERIA	Mark with an X where applicable	
	YES	NO
Will the landowner be specifically consulted?	X	
Will the lawful occupier on the property other than the Landowner be consulted?	X	
Will a tribal authority or host community that may be affected be consulted?		X
Will recipients of land claims in respect of the area be consulted?	X	
Will the landowners or lawful occupiers of neighbouring properties been identified?	X	
Will the local municipality be consulted?	X	
Will the Authority responsible for power lines within 100 metres of the area be consulted?		X
Will the Authorities responsible for public roads or railway lines within 100 metres of the area applied for be consulted?		X
Will the Authorities responsible for any other infrastructure within 100 metres the area applied for be consulted? (Specify)		X
Will the Provincial Department responsible for the environment be consulted?	X	

Will all of the parties identified above be provided with a description of the proposed mining/prospecting operation as referred above?	X	
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	
Other, Specify		

Table 7: Furthermore the details of the engagement process to be followed are as reflected below.

<p>Steps to be taken to notify interested and affected parties (Describe the process to be undertaken to consult interested and affected parties including public meetings and one on one consultation. NB the affected parties must be specifically consulted regardless of whether or not they attended public meetings. Photographs of notice and copies of advertisements and notices notifying potentially interested and affected parties of the proposed application are attached as Appendix 1b).</p>	<p>PROVIDE DESCRIPTION HERE The applicant does have a surface lease agreement with the landowner and the neighbours was informed personally consulted by the applicant and confirmed in the writing. A consultation letter was send to the Local Municipality. An advertisement was placed in the local newspaper for comments.</p>
<p>Information to be provided to Interested and Affected Parties.</p>	<p>Compulsory The site plan. List of activities to be authorized Scale and extent of activities to be authorized Typical impacts of activities to be authorized (e.g. surface disturbance, dust, noise, drainage, fly rock etc.) The duration of the activity. Sufficient detail of the intended operation to enable them to assess what impact the activities will have on them or on the use of their land)</p> <p>Other, specify: mining plan</p>
<p>Information to be required from Interested and Affected Parties.</p>	<p>Compulsory To provide information on how they consider that the proposed activities will impact on them or their socio-economic conditions To provide written responses stating their suggestions to mitigate the anticipated impacts of each activity To provide information on current land uses and their location within the area under consideration To provide information on the location of environmental features on site to make proposals as to how and to what standard the impacts on site can be remedied. requested to make written proposals To mitigate the potential impacts on their socio economic conditions (to make proposals as to how the potential impacts on their infrastructure can be managed, avoided or remedied).</p> <p>Other, Specify</p>

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

(Complete the table summarising comments and issues raised, and reaction to those responses)
See **Appendix 2** for full detail on public participation.

Table 8: Summary of Identified I&AP's

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			
Me.A. du Plessis Mr. Org du Plessis Cell: 082 784 0167 E-mail: org@dup3agri.co.za (Landowner)	X 28 Oct 2020 27 Nov 2020 11 Dec 2020	Consulted personally, telephonically and via e-mail with the landowner. No objection, awaiting signed consultation letter.	
Lawful occupiers of the land			
Landowners or lawful occupiers on adjacent properties	X		
Dr. H.B. Hugo P.O. Box 55, Frankfort, 9830 Cell: 082 920 0007 e-mail: dhugo@leikomsa.net (Neighbours)	28 Oct 2020	No objection, see signed consultation letter	
Mr. H.C. Coetzer P.O. Box 202, Villiers, 9840 Cell: 082 327 1692 e-mail: chris@windfield.co.za (Neighbour)	28 Oct 2020	No objection, see signed consultation letter	
Municipal councillor			
Municipality	X		
Mafube Local Municipality (Acting) Municipal Manager: Andrew Hlubi Fax: 058 813 3072 e-mail: info@mafubemun.org andrewhl@mafube.gov.za	28 Oct 2020	Consultation letter sent via e-mail sent	
Organs of state (Responsible for infrastructure that may be affected Roads Department, Eskom, Telkom, DWA.			
Eskom			
Communities			
Dept. Land Affairs	X		
Cindy Benyane cindy.benyane@drdlr.gov.za	28 Oct 2020 29 Oct 2020	E-mail sent – Acknowledgement received and request for windeed search Windeed search sent via e-mail	
Traditional Leaders			
NIA			
Dept. of Environmental Affairs & Dept of Agriculture, Forestry & Fisheries	X		

November 18, 2020

[RAUBEX CONSTRUCTION (PTY) LTD. # MINSAAAM 1074# FS30/5/1/3/2/10322MP]

Grace Mkhosana Building 113, St Andrew Street, Bloemfontein, 9391 Tel: 051 400 4904 Cell: 066 487 2840		10 Nov 2020	BAR/EMPT was sent with Fastway couriers for comments
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Other Competent Authorities	X		
OTHER AFFECTED PARTIES			
INTERESTED PARTIES			

Advertisement in the Vrystaatskroon of 11 November 2020

(iv) The Environmental attributes associated with the alternatives.*(The environmental attributes described must include socio-economic, social, heritage, cultural, geographical, physical and biological aspects)***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 a certain area of the farm Minsaam 1074. This area can be described as virgin agricultural grazing area, see **Figure 3** Google Earth Images.

Magisterial District:

Frankfort.

Direction from neighbouring town:

The site is situated approximately 14 min (11.4 km) via N3 from the SAPS 32 Pieter St, Villiers, 9840. Head northeast on Pieter Street toward Strand Street for 280 m. Turn right at the 2nd cross street onto Market Street for 190 m. At the roundabout, take the 1st exit and continue for 270 m. At the roundabout, take the 2nd exit onto Main Street drive for 2.0 km. Turn left onto R26 and continue for 1.2 km. Turn right to merge onto N3 toward Harrismith/ Partial toll road drive for 7.4 km. The proposed mining permit area will be situated on your right hand side. See location of proposed site on Locality Map attached as **Appendix 1(a)** and **Figure 3** for Google Earth Images.

Longitude (approximate center of mining site):

28.6579 E

Latitude (approximate centre of mining site):

-27.0949 S

Existing Surface Infrastructure:

There is no infrastructure on site. See **Appendix 1(a)** for Infrastructure Map and **Figure 3** for Google Earth Images.

(a) Type of environment affected by the proposed activity.*(its current geographical, physical, biological, socio-economic, and cultural character).*

According to VEGMAP (2006) this area is classified as part of the (Gm 7) Northern Free State Shrubland area. VT 48 Cymbopogon—Themeda Veld (sandy) (40%), VT 53 Themeda Veld to Cymbopogon—Themeda Veld Transition (patchy) (34%) (Acocks 1953), LR 39 Moist Cool Highveld Grassland (89%) (Low & Rebelo 1996).

Distribution: Free State Province and marginally also into Free State Province: Northeastern regions of the Free State in the surrounds of Lindley (southwest), Bethlehem, Reitz, Frankfort and Vrede (northeast). Altitude 1 460-1 800 m, mostly 1 540-1 640 m.

Climate:

Summer-rainfall region, with 627 mm MAP. Much of the rainfall is convective. The frost incidence is around 40 days.

Geology and Soils:

Outcrops of especially Adelaide Subgroup (Beaufort Group, Karoo Supergroup) sandstones and to a lesser extent dolerite sills that protect sedimentary layers of sandstone, mudstone and siltstone from erosion. Soil forms that are typical of these rocky outcrops are the Glenrosa and Mispah forms. Ea land type is dominant (more than 50% of the area), accompanied by Dc and Bb.

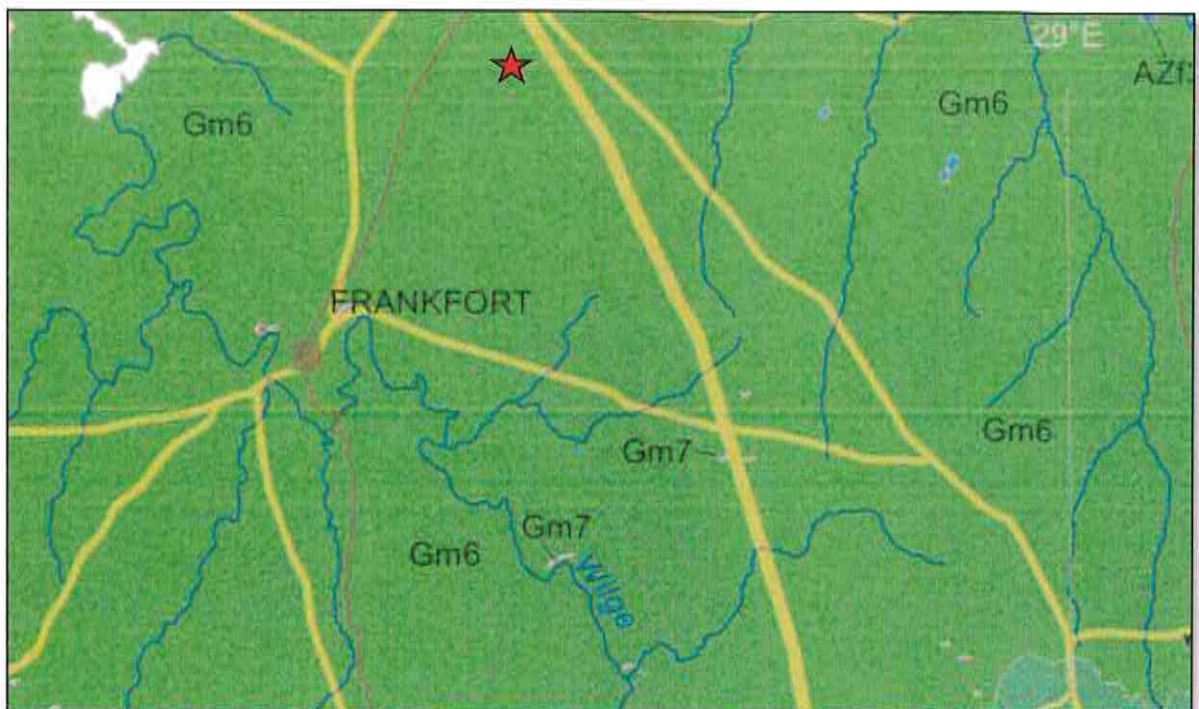
Vegetation [Flora] and Landscape Features:

Mainly restricted (as isolated pockets) to south-facing slopes of koppies, butts and tafelbergs as well as steep slopes of deeply incised rivers, where sandstone outcrops occur. Typically a two-layered, closed-canopy shrubland dominated by tall shrubs such as *Rhamnus prinoides*, *Leucosidea sericea*, *Buddleja salviifolia*, *Rhus dentata*, *Euclea crispa* subsp. *crispa*, *Diospyros lycioides* and *Kiggelaria africana*. The lower layer is sparse grassland.

Important Taxa: Small Trees: *Kiggelaria africana* (d), *Cussonia paniculate*. Tall Shrubs: *Diospyros austro-africana* (d), *D. lycioides* subsp. *lycioides* (d), *Heteromorpha arborescens* var. *abyssinica* (d), *Leucosidea sericea* (d), *Rhamnus prinoides* (d), *Buddleja salviifolia*, *Calpurnia villosa*, *D. whyteana*, *Euclea crispa* subsp. *crispa*, *E. undulate*, *Grewia occidentalis*, *Melianthus dregeanus*, *Rhus dentata*, *R. pyroides*. Woody Climbers: *Asparagus asparagoides* (d), *Clematis oweniae*, *Dioscorea sylvatica*. Low Shrubs: *Anthospermum rigidum* subsp. *pumilum*, *Clutia affinis*, *C. hirsute*, *C. pulchella*, *Euphorbia striate* var. *cuspidata*, *Felicia muricata*, *F. petiolata*, *Garuleum woodii*, *Indigofera filipes*, *I. woodii*, *Myrsine africana*, *Rhus discolor*, *Rubus rigidus*, *Senecio burchellii*, *S. harveianus*, *Solanum panduriforme*, *Sutera polelensis* subsp. *polelensis*. Succulent Shrub: *Crassula dependens*. Semiparasitic Shrub: *Osyris lanceolata*. Graminoids: *Elionurus muticus* (d), *Eragrostis chloromelas* (d), *Hyparrhenia hirta* (d), *Microchloa caffra* (d), *Themeda triandra* (d), *Aristida congesta*, *A. diffusa*, *A. junciformis* subsp. *galpinii*, *Brachiaria serrata*, *Cymbopogon pospischilii*, *Eragrostis capensis*, *E. curvula*, *E. gummiflua*, *E. plane*, *Harporchloa falx*, *Helictotrichon turgidulum*, *Heteropogon contortus*, *Koeleria capensis*, *Melinis nerviglumis*, *Panicum gilvum*, *Pennisetum sphacelatum*, *Schoenoxiphium rufum*, *Setaria sphacelata*, *Tragus racemosus*, *Tristachya leucothrix*. Herbs: *Ajuga ophrydis*, *Centella asiatica*, *Chamaesyce inaequilatera*, *Cineraria aspera*, *Commelina africana*, *Convolvulus dregeanus*, *Conyza podocephala*, *Cyathula cylindrica*, *Erucastrum austroafricanum*, *Geranium schlechteri*, *Helichrysum cephaloideum*, *H. rugulosum*, *Hermannia depressa*, *Hibiscus aethiopicus* var. *ovatus*, *Lactuca inermis*, *Pollichia campestris*, *Pseudognaphalium undulatum*, *Rubia horrida*, *Salvia runcinata*, *Senecio hieracioides*, *S. isatideus*, *Solanum retroflexum*, *Stachys hyssopoides*, *S. natalensis*, *Trifolium africanum*, *Vernonia natalensis*. Geophytic Herbs: *Agapanthus campanulatus*, *Asclepias multicaulis*, *Cheilanthes quadripinnata*, *Eucomis autumnalis* subsp. *autumnalis*, *Hypoxis hemerocallidea*, *Mohria caffrorum*, *Oxalis corniculata*, *Pellaea calomelanos*, *Zantedeschia albomaculata* subsp. *albomaculata*. Succulent Herbs: *Crassula lanceolata*, *C. setulosa* var. *setulosa*. See Figure 4 below.

Conservation: Least threatened. Target 28%. None conserved in statutory conservation areas. Erosion very low (65%), low (23%) and moderate (12%). References Fuls (1993), Fuls et al. (1993a, b), Eckhardt et al. (1997).

Figure 4: Northern Free State Shrubland:(Gm7)



Animal Life /Fauna:

Small animals common in this area include: Steenbuck, Duiker, Jackal and Meerkat and Guinea Fowl.

Topography:

Mainly restricted (as isolated pockets) to south-facing slopes of koppies, butts and tafelbergs as well as steep slopes of deeply incised rivers, where sandstone outcrops occur. The slope varies around <0.1% to not more than 1%.

Surface Water:

This site falls in Upper Vaal (8) water management area as classified by the Department of Water Affairs, under tertiary drainage region C82 and quaternary catchment C82H. There is no open water or streams within the 4 hectares application area. River diversion is not applicable.

Ground Water:

Presence of water boreholes and springs: There are no boreholes on the application area.

Ground water use: The applicant intends to use water from current boreholes. The water uses will be 2m³ a day for the dust suppression only. The current ground water uses in the vicinity of the study area are mining and residential.

Air Quality:

The air quality of the pre-mining period is expected to have been of a better quality than current. However, mining activities in the surrounding areas also contribute to the air quality degradation. The impact on air quality will only start with the bulk sampling, where dust from excavating and from the roads will occur. This impact will be low and will be monitored and mitigated through suppressing the dust by wetting the roads.

Noise:

The impact of noise will only start where noise from the mining equipment will be generated. This operation will only be in day time working hours and will have a low impact on current surroundings.

Sites of Archaeological and Cultural Interest:

No graves or other archaeological/cultural sites were identified on the application area. However, should any archaeological sites be discovered, all work will be ceased and the relevant specialist will be contacted in conjunction with SAHRA, and the appropriate steps will be taken to protect the identified resource.

According to Section 36(3) of the National Heritage Resources Act 25 of 1999 no person may, without a permit issued by SAHRA or a provincial heritage resources authority—

(a) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;

(b) destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or

(b) bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation equipment, or any equipment which assists in the detection or recovery of metals.

It is recommended that the graveyard is included in the overall management plan of the mine development. Preservation of the site will require that the area is properly demarcated with at least a 20m buffer zone placed around the graveyard in order to avoid potential damage during mining activities. It will be necessary to ensure that the graveyard is accessible to the relatives of the deceased.

There are no major archaeological grounds to halt the proposed development. 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.

Sensitive Landscapes

There were no sensitive landscapes identified on the site visit.

Visual Aspects

These mining activities will be clearly visible from the R34 and to passersby and adjacent neighbor. There are no mitigated as the site is situated next to the road.

Social

The proposed activity will employ 10 people, of which a few are resident around the operation. Various social amenities are available close to the operation. These include schools, hospitals churches, recreation facilities as well as a Police Station at Frankfort, which is located approximately 11.4 km north-east of the operation.

(a) Description of the current land uses.

The current land use is agricultural grazing land. The surrounding areas are also used as agricultural grazing land.

(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. The existing infrastructure on site consists only out of agricultural grazing land. See **Figure 3** of existing infrastructure.

(c) Environmental and current land use map.

(Show all environmental and current land use features)

Current land use of the application area consists of agricultural grazing land. See **Appendix 1a [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

(Provide a list of the potential impacts identified of the activities described in the initial site layout that will be undertaken, as informed by both the typical known impacts of such activities, and as informed by the consultations with affected parties together with the significance, probability, and duration of the impacts. Please indicate the extent to which they can be reversed, the extent to which they may cause irreplaceable loss of resources, and can be avoided, managed or mitigated).

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 Minzaam 1074

PHASE	Components Impacts Activity, Product or Service	ABiotic										Biotic			K Visual	L Archaeological & Socio-economic	M Socio-economic	N Affected	
		A	B	C	D	E	F	G	H	I	J	Vegetati	Wildlife	Sensitive					
		Geology	Topography	Soil	Land	Land	Surface	Ground	Air	Noise	Vegetati								Wildlife
Construction	Demarcation of site boundary area																		
	Establishment of site preparation, vegetation clearance, approval removal and stockpiling of proper access roads (grapple loading mats), forest vegetation clearance, approval removal & stockpiling, earth fill operations/stockpiling within the mine lease areas.		M	H	H	H	H	H	H	H	H	H	H	H	M				
	Establishment of bonded diesel and oil/chemical storage tanks for chemical tanks.		M	M	H	H	M	M	M	M	M	M	M	M	M				
	Provision of storage tanks for available (drinking water) and process water (acid suppression)		H	H	H	H	L	M	M	M	H	H	M	M	L				
	Provision of water handling/ disposal facilities (for waste & industrial water bins)			L			L	L	L	L	L	L	L	L					
	Fencing – of active mining site in an required in terms of the MINSAA. (Eriose access control gates), etc.		M	H	H	M									M			H+	
Operational	Vegetation clearance, topsoil removal & stockpiling within open-pit/stockpiles within the mine lease areas (15 ha of surface area disturbed at any given time)		M	H	H	M	L	L	L	L	L	L	L	L			M	H	
	Increasingly increasing vegetation with an excavator and stockpiles separately from topsoil stores. Retrieve sand with excavator and stockpile on side of pit to backfill in boxes.		M+	H	H	H	L	M	M	L	L	L	L	L	L+			M	H
	Transport of sand away from the site		H	H	H	H	L	H	H	L	L	L	L	L	M			M	H
Decommissioning and closure	Final slopes of all vegetation areas		H+	H+	H+	H+	H+	H+	H+	L	L	L	L	L	L			H+	H+
	Reclaim and spread all topsoil evenly over disposed sites.		H+	H+	H+	H+	H+	H+	H+	H+	L	L	L	L	H+			H+	H+
	Establishment of vegetation cover.			H+	H+	H+	H+	H+	H+	H+	H+	H+	H+	H+	H+			H+	H+
	Removal of all temporary & demolition of all permanent structures (Section 44 of the MPRDA).			H+	H+	H+	H+	H+	H+	H+	L	L	L	L	H+			H+	H+
	Rehabilitation of all access roads, congested areas, etc.			H+	H+	H+	H+	H+	H+	H+	L	L	L	L	H+			H+	H+

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

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

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

IMPACT ASSESSMENT

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

ACTIVITIES:

1. Access Roads (Existing farm 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 (as part of bulk sampling)

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 be a new land use over this area. The site that is earmarked for mining represents $\pm 100\%$ of the total area applied for. And it is further not foreseen that mining activities would disturbed an area of more than 0.8 ha at any given time. The rest of the terrain would continue to be used for agriculture purposes by the landowner.

- **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 Frankfort.
Regional	Direct and indirect impacts affecting environmental elements within Free State 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.

(Provide a discussion in terms of advantages and disadvantages of the initial site layout compared to alternative layout options to accommodate concerns raised by affected parties)

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 Stone Aggregate & Gravel. The no-go option entails the continuation of the current land use (natural grazing) on the study site. The project will contribute towards providing continued jobs for current staff. Should the proposed project therefore not be authorized to proceed, it is anticipated that current employment opportunities will be terminated once the mineral reserves have been depleted.

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 and the plant 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 Stone Aggregate & Gravel (product) and the screening/crushing 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.

(With regard to the issues and concerns raised by affected parties provide a list of the issues raised and an assessment/ discussion of the mitigations or site layout alternatives available to accommodate or address their concerns, together with an assessment of the impacts or risks associated with the mitigation or alternatives considered).

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 (Stone Aggregate & Gravel) will be extracted from mineral deposits. Waste rock material/overburden material is disposed off/backfilled in existing 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	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: level plains some relief. * Disturbance of the surface drainage: The mining of the mineral deposits will result in the creation of excavations (20 x 10 m x 3-5 m or less), that act as depressions in the environment that captures run-off. Mining activities will be concentrated as indicated on Appendix 4 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	Phase 1	Phase 2	Phase 3	Closure	
		X	X	X	

3. SOIL	IMPACTS	CUMULATIVE IMPACTS		
Nature of the impact	The surface area is characterized by various soil depths as the area was disturbed before. 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	Phase 1	Phase 2	Phase 3	Closure
		X		X

3. SOIL	IMPACTS	CUMULATIVE IMPACTS		
Nature of the impact	The establishment, construction, operation and eventually rehabilitation (demolition) of listed structures such as the access roads, stockpiles /tailings dumps, 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 ±0.8 ha at any given time (in relation to area of application of the mining permit of 4 ha) 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 (spillages from 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 grazing. The small area (0.8ha) where the active mining activities occur (excavations, tailings dumps, 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 back-filled. The rest of the application area will still be used by the landowner as agricultural land.				
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

ASPECT	IMPACTS	CUMULATIVE IMPACTS			
5. LAND USE					
Nature of the impact	The rehabilitation of the historically disturbed areas will have a positive impact on land use. This is a new mining operation on an old disturbed area and therefore will lose its land use to support grazing on a certain portion of the 5 ha during the next 2 years. Only a small portions of land (0.8 ha at a time) would be affected by the mining operation relative to the total mining right application area of 4 ha. 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	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 area 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 of the groundwater system.				
Extent	Site	Activity causing the impact			
Duration	Long				
Probability	Definite				
Significance	High				
Phase responsible for the impact	Phase 1		Phase 2	Phase 3	Closure
		X		X	X

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 dust suppression. The volume of water needed is small (2 000 Lit/hr) in comparison to other water use and will have a small impact on the surrounding aquifer.			
Extent	Site			
Duration	Long			
Probability	Low			
Significance	High			
Phase responsible for the impact	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 on to a dump truck) and transportation to the plant (screen & crushing plant) and on gravel/dirt/farm roads. The crushing of the Stone Aggregate & Gravel is 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	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 (loading with an excavator on to a dump truck) and transportation to the plant (screen & crushing plants). The mine itself is located in rural landscape. 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	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	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	Phase 1	Phase 2	Phase 3	Closure	

ASPECT	IMPACTS				CUMULATIVE IMPACTS
14. VISUAL ASPECTS					
Nature of the impact	Mining will be partly visible to the neighbours living there. 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	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 10 workers would be assured of a job for some time. Job creation plays a major role in increasing the economic well being of employees and their dependants in the Frankfort 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 Frankfort 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	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 4 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 Free State 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	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. Loss of cattle due to falling of animals in mine workings if not fenced. No negative impact is expected that could be appropriately mitigated, such as the eventual rehabilitation of the excavations.				
Extent	Local				Activity 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) Motivation where no alternative sites were considered.

Alternative is not applicable. The current land use is agricultural grazing land. The option to explore the possibility for mining is an alternative land use. The applicant, Raubex Construction (Pty) Ltd. is not interested in any other alternative land use over this land aside of mining of Stone Aggregate & Gravel or any other activity, or method use other than mining for the aforementioned minerals in the conventional way, which is the most cost effective. Please note that no additional infrastructure will be established, and therefore no alternatives for the location of infrastructure were identified

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

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.

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 (Including (i) a description of all environmental issues and risks that are identified during the environmental impact assessment process and (ii) an assessment of the significance of each issue and risk and an indication of the extent to which the issue and risk could be avoided or addressed by the adoption of mitigation measures.)

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. 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 (Stone Aggregate & Gravel deposits) 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 gravel deposits 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 exploration 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 MWP (only disturbing an area that is really necessary). As part of the MWP 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 farm 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 MWP) 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 backfilling 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 analyzed 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	
<p>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.</p>	
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 grazing.	

Environmental Component	Vegetation
Environmental Management/Mitigation Measures/Action Plans/Commitments	
<p>No mitigation exists except to replace the vegetation by reseeding of grasses and natural growth. Mining should be done in a well-planned manner (according to a PWP) and in the process ensuring that activities are only restricted to surface areas really required.</p>	
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	
<p>Habitat change, loss of species, spread of alien and invasive species: No mitigation exists except to replace the vegetation by reseeding of grasses. Mining should be done in a well-planned manner (according to a PWP) and in the process ensuring that activities are only restricted to surface areas really required. 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. An invasive and alien control programme must be implemented by the mine.</p>	
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	
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.	
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	
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.	
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	
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 MWP must be strictly adhered to. Re-vegetation to be done as quickly as possible. Final re-vegetation to be done as per rehabilitation plan.	
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
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.
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 N4 tar road.

Environmental Component	Ground Water (quality)
Environmental Management/Mitigation Measures/Action Plans/Commitments	
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. Drp 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.	
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 bulk 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 prospect 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

(This section of the report must consider all the known typical impacts of each of the activities, including those that could or should have been identified by knowledgeable persons) and not only those that were raised by registered interested and affected parties).

Table 12: Identified Potentially Significant Impacts & Risks

NAME OF ACTIVITY (E.g. For prospecting - drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office, access roads etc., etc., etc. E.g. For mining - excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control berms, roads, pipelines, power lines, conveyor, etc., etc., etc.	POTENTIAL IMPACT (Including the potential impacts for cumulative impacts) E.g. dust, noise, drainage, surface disturbance, fly rock, surface water contamination, groundwater pollution, air etc., etc., etc.)	ASPECTS AFFECTED	PHASE (in which impacts is anticipated)	SIGNIFICANCE if not mitigated	MITIGATION TYPE (modify, remedy, control or stop) through (e.g. noise control measures, stormwater control, dust control, re-vegetation, design measures, blasting controls, avoidance, relocation, alternative activity etc. etc)	SIGNIFICANCE if mitigated
Excavations for gravel, stone aggregate and dolomite	1.1 Removal of the gravelstone up to 3-5 m. Disturbance of 0.8 hectare at any given time. 1.2 Change in landform. The entire mining area will be lowered by 3-5 m and normal surface drainage will be disturbed at this specific point. The pit will not be backfilled	Geology & soil Topography	Operational Operational and closure	High - Moderate -	The bulk of the material mined will be sold. The impact will be mitigated by sloping the sides and stabilizing the soil to prevent erosion. The pit will not be backfilled. The sides will be sloped and top soaked and vegetated. A surface water cut-off trench should be put in place around the active mining site in order to prevent surface run-off water on the mining site. Rehabilitation of the new sloped landscape in such a way that it would blend in with the surrounding landscape.	Low + Moderate +
	1.3 Stripping of all available topsoil and stockpiled Stockpile and plant area of 0.8 hectares 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	Soil Soil	Construction Operational Construction	Low - and Low - Low -	Any area on the mining area where disturbance will take place the top soil must be removed and stockpiled for rehabilitation purposes in a demarcated area. To take preventative steps against erosion. Implement and maintain cut-off trenches and or berms around the mining area to prevent water entering that can cause erosion. Concurrent rehabilitation and re-vegetation of mined areas must happen as soon as the particular area is mined out. Rehabilitated areas must be inspected and managed in such a way that any signs of erosion can be mitigated immediately.	Low + Low + Low +
	1.5 Land capability and land use. Loss of land to support grazing.	Land capability & Land use	Operational and closure	Low -	As this is only a very small area of 5 hectares, the impact is not so big. As the sides will be sloped and vegetated the rehabilitated area must be treated as sensitive when grazed as overgrazing can trigger erosion and infiltration of desecrates weeds.	
	1.6 Generation of dust by excavating crushing and vehicle movement	Air quality	Operational	Low -	The mining method will serve as mitigation measure because it will limit dust to the active mining area, where the excavator and trucks operating. Daily spraying of the roads with water.	

K) SUMMARY OF SPECIALIST REPORTS.

(This summary must be completed if any specialist reports informed the impact assessment and final site layout process and must be in the following tabular form)

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.
Vegetation & Wetlands	None, activity can continue		

L) ENVIRONMENTAL IMPACT STATEMENT

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

The small scale gravel and stone aggregate 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 Stone Aggregate & Gravel resource will be mined over a period of 2 years or less.

The existing land-use is agricultural grazing land.

This is a small operation and for the next 2 years only a small portion of the farm 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 4 hectares, the top at least 30 cm topsoil where available needs to be removed prior to mining of the underlying Stone Aggregate & Gravel (up to 3-5 m depth). This will be used again as growth medium during the rehabilitation phase of the quarry. Topsoil will be stored in berm walls on the border of the quarry in order 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**

Provide a map at an appropriate scale which superimposes the proposed overall activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffers.

See Appendix 1(b).

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 establishment of a grass cover again. The rest of the farm will still be continued to be used for grazing for game.

Although this is a small Stone Aggregate & Gravel mining operation it would also add to the increased economic activity within the farming and exiting mining community around Villiers. Jobs for 10 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 Stone Aggregate & Gravel deposit dictates the selection of the specific mining site.

M) **Proposed impact management objectives and the impact management outcomes for inclusion in the EMP;**

Based on the assessment and where applicable the recommendations from specialist reports, the recording of proposed impact management objectives, and the impact management outcomes for the development for inclusion in the EMP as well as for inclusion as conditions of authorisation.

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, 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 (grazing);
- 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.

Any aspects which must be made conditions of the Environmental Authorisation

None

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

(Which relate to the assessment and mitigation measures proposed)

None

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

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

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.

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

R) UNDERTAKING

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

The undertaking will be part of the EMPR.

S) FINANCIAL PROVISION

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

R157 160.00 for rehabilitation. See quantum attached as **Appendix 3**.

(i) Explain how the aforesaid amount was derived.

There will be opencast excavation of 0.4 hectare open at any given time and surface disturbance for the crushing plant of 0.3 hectares. The excavation area will be concurrently rehabilitated as the excavation progress.. The guarantee amount according to the quantum tables is R157 160.

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

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

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

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

T) SPECIFIC INFORMATION REQUIRED BY THE COMPETENT AUTHORITY

- (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.

(Provide the results of investigation, assessment, and evaluation of the impact of the mining, bulk sampling or alluvial diamond prospecting on any directly affected person including the landowner, lawful occupier, or, where applicable, potential beneficiaries of any land restitution claim, attach the investigation report as an Appendix .

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

(Provide the results of investigation, assessment, and evaluation of the impact of the mining, bulk sampling or alluvial diamond prospecting on any national estate referred to in section 3(2) of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) with the exception of the national estate contemplated in section 3(2)(vi) and (vii) of that Act, attach the investigation report as Appendix 2.19.2 and confirm that the applicable mitigation is reflected in 2.5.3, 2.11.6 and 2.12 herein).

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.

(The EAP managing the application must provide the competent authority with detailed, written proof of an investigation as required by section 24(4)(b)(i) of the Act and motivation if no reasonable or feasible alternatives, as contemplated in sub-regulation 22(2)(h), exist. The EAP must attach such motivation as Appendix 1).

None

PART B

ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

1. DRAFT ENVIRONMENTAL MANAGEMENT PROGRAMME.

A) DETAILS OF THE EAP

(Confirm that the requirement for the provision of the details and expertise of the EAP are already included in PART A, section 1(a) herein as required).

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

Yes see Part A.

B) DESCRIPTION OF THE ASPECTS OF THE ACTIVITY

(Confirm that the requirement to describe the aspects of the activity that are covered by the draft environmental management programme is already included in PART A, section 1)(h) herein as required)

Yes see Part A.

C) COMPOSITE MAP

(Provide a map (Attached as an Appendix 1 (b)) at an appropriate scale which superimposes the proposed activity, its associated structures, and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that any areas that should be avoided, including buffers)

See Appendix 1(b).

D) DESCRIPTION OF IMPACT MANAGEMENT OBJECTIVES INCLUDING MANAGEMENT STATEMENTS

(i) Determination of closure objectives

(ensure that the closure objectives are informed by the type of environment described)

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.

Raubex Construction (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.

Raubex Construction (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 (Stone Aggregate & 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

2000 litres a day will be used for dust suppression.

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

N/A.

(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 (E.g. For prospecting - drill site, site camp, alluvion facility, accommodation, equipment storage, sample storage, site office, access road etc... etc... etc. E.g. For mining - excavations, blasting, stockpiles, discard dumps or tips, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, adit, shafts, workshops, processing plant, storm water control, bents, roads, pipelines, power lines, conveyors etc. etc. etc.)	PHASE (of operation in which activity will take place. Scale, Planning and design, Pre-Construction, Construction, Operational Rehabilitation, Closure, Post closure)	SIZE AND SCALE of disturbance (volumes, tonnages and hectares or m ²)	MITIGATION MEASURES (describe how each of the recommendations herein will remedy the cause of pollution or degradation and migration of pollutants)	COMPLIANCE WITH STANDARDS (A description of how each of the recommendations herein will comply with any prescribed environmental management standards or practices that have been identified by competent Authorities)	TIME PERIOD FOR IMPLEMENTATION (Describe the time period when the measures in the environmental management programme must be implemented. Measures must be implemented when required. With regard to Rehabilitation specifically this must take place at the earliest opportunity. With regard to Rehabilitation, therefore, state either: As part of concurrent rehabilitation. Concurrent with mining Concurrent with lime mixing
1. Excavations	Operational	6000 m ² a month and 0.4 hectares at any stage	Concurrent rehabilitation by sloping the sides of the excavation to be stable/sustainable and covered with topsoil and vegetation.	Sides of pit to be sloped to 1:4 degrees for stability and providing a base for the replacement of topsoil.	As part of concurrent rehabilitation.
2. Stone Aggregate & Gravel Stockpile area	Operational	0.3 hectares at any stage	Keep this area as small as possible within the demarcated area. Prevent spillages of fuels by machines	Immediate cleaning of spillages	Concurrent with mining
3. Screening and crushing	Operational	0.3 hectares at any stage	Keep this area as small as possible. Prevent spillages of fuels by equipment	Immediate cleaning of spillages	Concurrent with lime mixing

E) IMPACT MANAGEMENT OUTCOMES

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

ACTIVITY (Whether listed or not listed) (E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ahluhan, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc. etc. etc.)	POTENTIAL IMPACT (e.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc., etc.,)	ASPECTS AFFECTED	PHASE In which impact is anticipated (e.g. Construction, commissioning, operational, decommissioning, closure, post-closure)	MITIGATION TYPE (Prevent, remedy, control, or stop) (e.g. Noise control measures, storm water control, dust control, rehabilitation, design measures, blasting control, avoidance, relocation, alternative activities, etc.) E.g. 1. Modify through alternative methods. 2. Control through noise control 3. Control through management and monitoring 3. Remedy through rehabilitation.	STANDARD TO BE ACHIEVED (Impact avoided, noise levels, dust levels, rehabilitation standards, and the objectives) etc.
1. Excavations for Stone Aggregate & Gravel and stone	1.1 Removal of the Stone Aggregate & Gravel up to 3-5m	Geology & soil	Operational	The bulk of the material removed will be sold. The impact will be mitigated by sloping the sides of the excavation and stabilizing the soil to prevent soil erosion.	Stable slopes that can sustain erosion without excessive erosion.
	1.2 Change in landform. The entire mining area will be lowered by 3-5m and normal surface drainage will be disturbed at this specific point. The pit will not be backfilled but will be sloped.	Topography	Operational and closure	The side of pit will be sloped and the soil stabilized to prevent erosion. A surface water cut-off trench should be put in places 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.	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.	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.	Soil	Construction and operational	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.	No excessive erosion that cannot be stabilized.
	1.5 Loss of Land capability & land use.	Land capability & land use	Operational and closure	As this is only a very small area of 4 hectares, the impact is low. As the sides will be sloped and vegetated, the rehabilitated area must be treated as sensitive when grazed as overgrazing can trigger erosion and infiltration of declared weeds.	Sustainable rehabilitated area.
	1.6 Generation of dust by excavating, crushing/screening and vehicle movement	Air quality	Operational	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

(A description of impact management actions, identifying the manner in which the impact management objectives and outcomes contemplated in paragraphs (c) and (d) will be achieved.)

<p>ACTIVITY (whether listed or not listed) (e.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation offices, ablution, stores, workshops, processing plant, storm water control, beams, roads, pipelines, power lines, conveyors, etc...etc...etc.)</p>	<p>POTENTIAL IMPACT (e.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc...etc...)</p>	<p>MITIGATION TYPE (modify, remedy, control, or stop) Through (e.g. noise control measures, dust control, dust control, rehabilitation, design measures, training controls, avoidance, relocation, alternative activities, etc.) E.g. : Modify through alternative method. : Control through noise control containing : Manage through rehabilitation.</p>	<p>TIME PERIOD FOR IMPLEMENTATION Describe the time period when the measures in the environmental management programme must be implemented. Measures must be implemented when required. With regard to rehabilitative activities, this must take place at the earliest opportunity. With regard to Rehabilitation, activities shall either: : Upon cessation of the individual activity or : Upon the cessation of mining bulk sampling or alluvia diamond prospecting as the case may be.</p>	<p>COMPLIANCE WITH STANDARDS (A description of how each of the recommendations in 2.11.5 read with 2.12 and 2.15.2 herein will comply with any prescribed environmental management standards or practices that have been identified by Competent Authorities)</p>
<p>Excavations for Stone Aggregate & Gravel and stone.</p>	<p>1.1 Removal of the Stone Aggregate & Gravel up to 3-5m</p>	<p>The bulk of the material removed will be sold. The impact will be mitigated by sloping the sides of the excavation and stabilizing the soil to prevent soil erosion.</p>		
	<p>2 Change in landform. The entire mining area will be lowered by 3-5 m and normal surface drainage will be disturbed at this specific point. The pit will not be backfilled</p>	<p>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.</p>		
	<p>1.3 Stripping of all available topsoil and stockpiled</p>	<p>The top soil must be removed before any disturbance take place. The top soil must be removed and stockpiled in a demarcated area for rehabilitation purposes</p>		
	<p>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.</p>	<p>To take preventative 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.</p>		
	<p>1.5 Loss of Land capability & land use</p>	<p>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 when grazed as overgrazing can trigger erosion and infiltration of declared weeds.</p>		
	<p>1.6 Generation of dust by excavating, crushing/screening and vehicle movement</p>	<p>The generation of dust will only be localized at the mining site. Daily spraying of roads with water</p>		

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.

Raubex Construction (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.

Raubex Construction (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 (SAND);
- 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 quarry 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 quarry floor 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;

- revegetation (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

The excavations will be rehabilitated concurrently by sloping the sides and make it stable for grass cover.

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

R157 160.00

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

The financing for this project will be done from the account Raubex Construction (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 (FOR THE EXECUTION OF THE MONITORING PROGRAMMES)	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 sloping of the sides to 14 degrees	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.

Raubex Construction (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

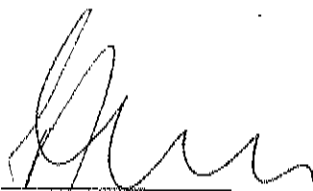
(Among others, confirm that the financial provision will be reviewed annually)

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

4. 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:

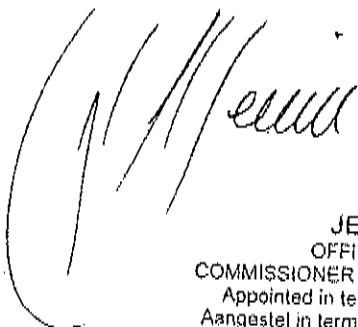
DERA Omgewingskonsultante (Pty) Ltd.

Name of company:

18 November 2020

Date:

-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
Centraal 32 Central Avenue, Flamwood, Klerksdorp
Appointed/Aangestel: 23 Oktober 2012
Reference/Verwysing: 9/1/8/2 Klerksdorp

APPENDIX 1 (a)

LOCALITY MAP



Coordinates:

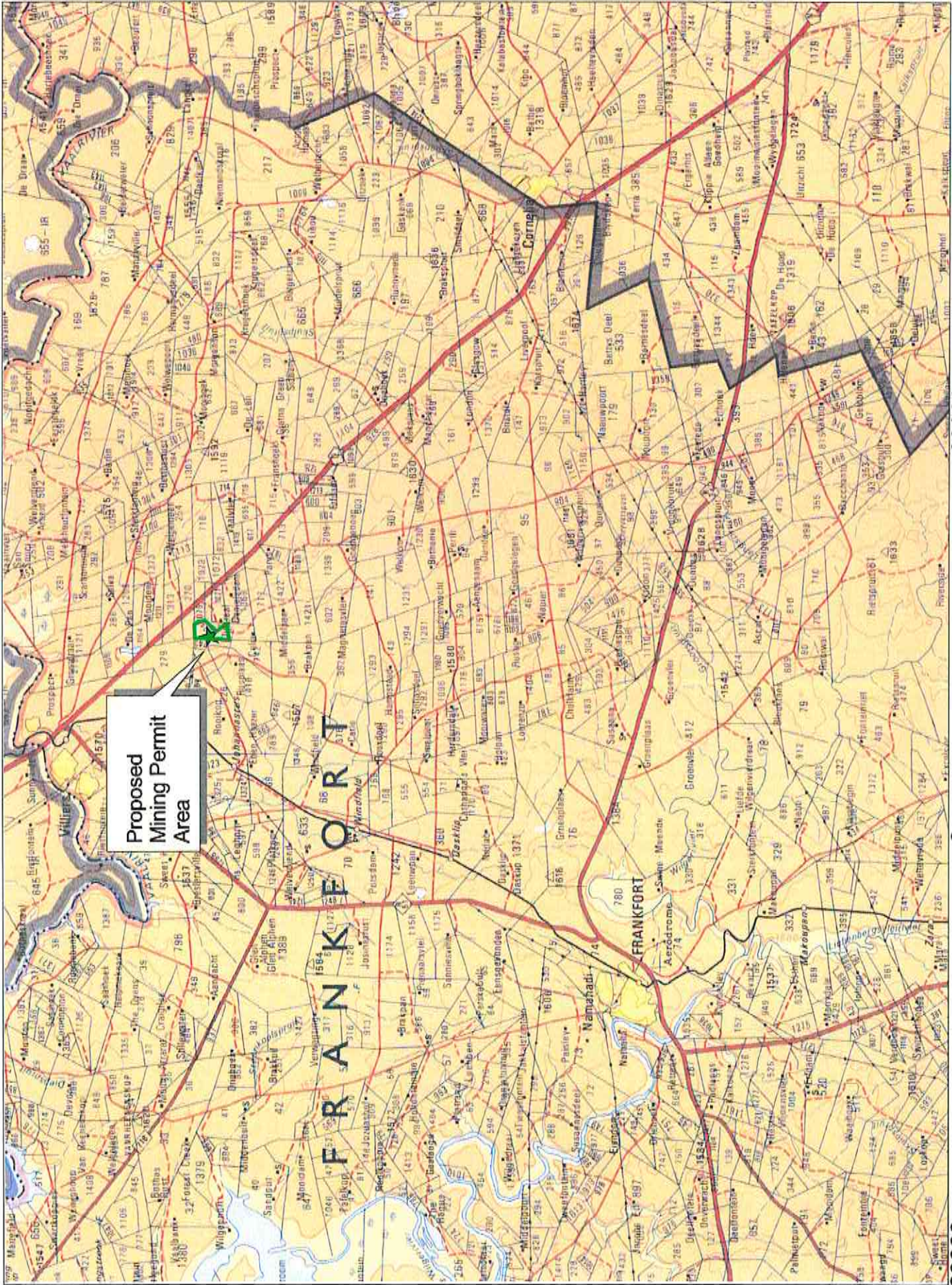
UGS HANCS 14



View 2: 1:250000

Legend:

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



Proposed Mining Permit Area

40000 Meters

20000

0

20000

OFFICIAL PURPOSES
DMR REF. No.: FS 3015/13/21 (.....) MP



SurvMap cc
Survey and Mapping
Engineering Survey
Pretoria, 2020/02/20

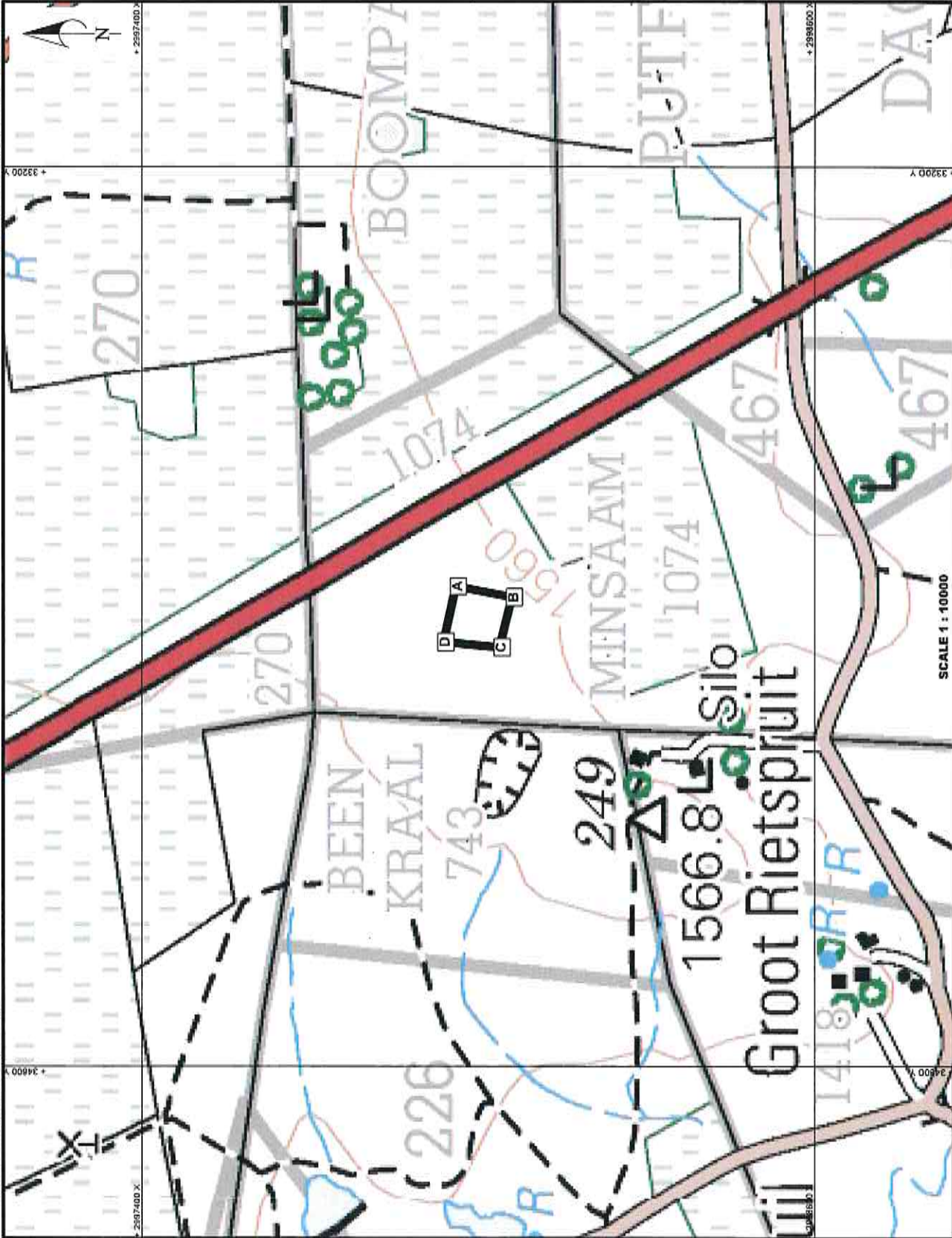
REG. No.: S0626
79 Pilsa Street
Cairns
POLORWANE
809

Call : 082 933 3223
Tel : 015 297 8850
Fax : 086 659 4192

J.B. Venter
14-10-2020
Date

DMR: _____
DATE: _____
APPLICANT: *[Signature]*
DATE: 2020/10/15

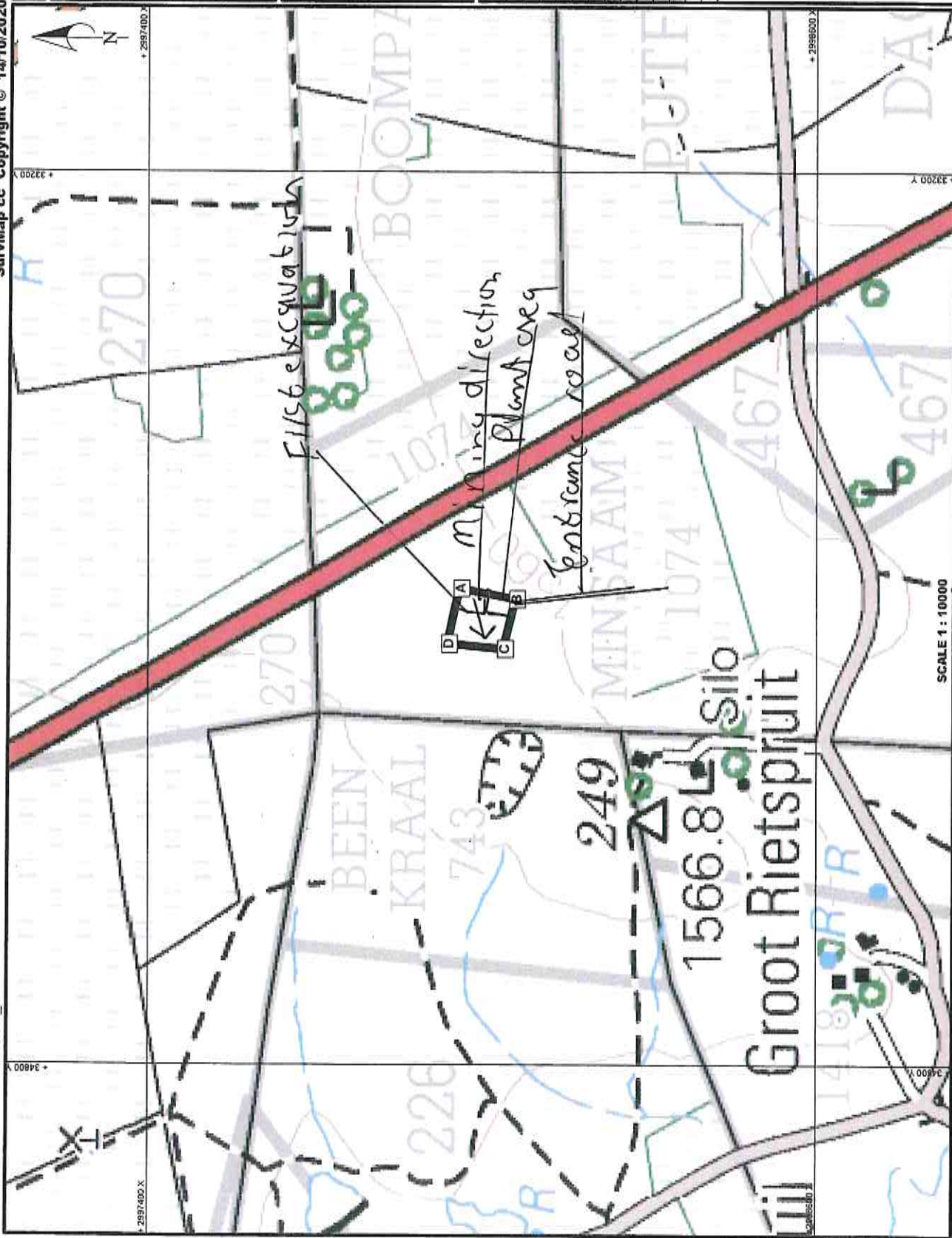
CO-ORDINATE LIST		WG 29°	
NAME	Y	X	
Constant	0.00		0.00
A	33947.13	2987956.11	
B	33966.70	2998036.89	
C	34056.01	2998036.97	
D	34046.37	2987957.22	
NAME	LAT	LONG	
A	-27.092860	28.657700	
B	-27.093700	28.657500	
C	-27.093500	28.656600	
D	-27.092860	28.656700	
A	-27.092860	28.657700	



SCALE 1 : 10000

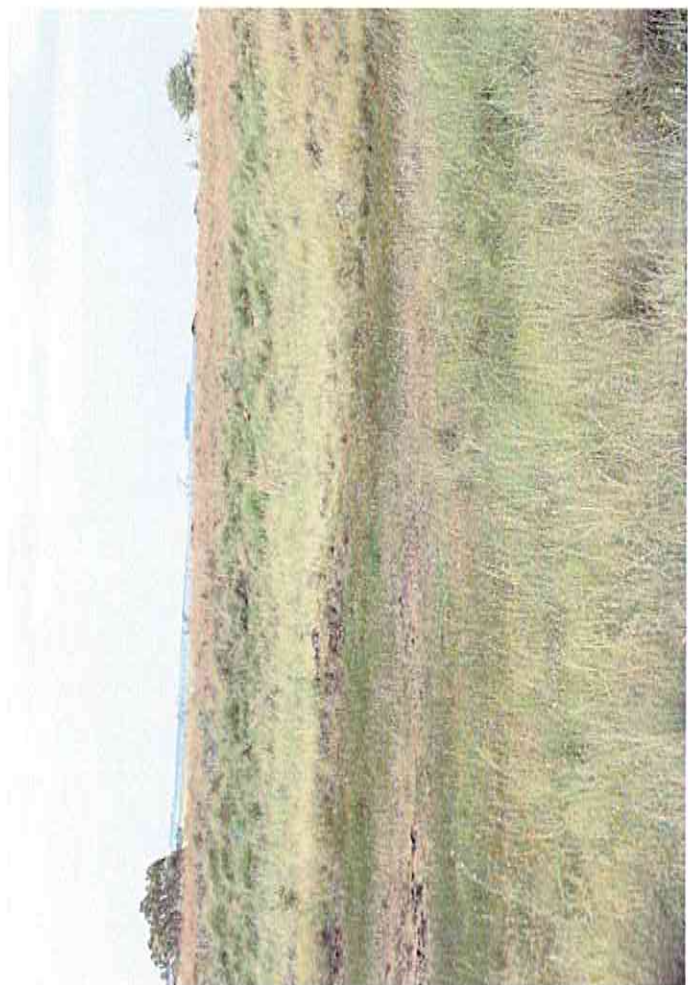
The mining area lettered (A, B, C, D, A) approximately 5 hectare in extent
Situating on REMAINING EXTENT of the farm MINSAAAM 1074, VILLIERS DISTRICT, FREE-STATE PROVINCE.
Applied for a mining permit by
RAUBEX CONSTRUCTION (Pty) Ltd (1993/07002/07)

OFFICIAL PURPOSES DMR REF. No.: FS 3015/13/21 (.....) MP																																		
 SurvMap cc Survey and Mapping Engineering Survey																																		
REG. No.: 50526 Cell : 032 933 3223 Tel : 015-297 8950 Fax : 086 659 4992	79 Pleas Street Central POLKWANE 009																																	
J.B. Vooster Date: 14-10-2020																																		
DMR: _____ DATE: _____	APPLICANT: <i>[Signature]</i> DATE: 2020/10/15																																	
CO-ORDINATE LIST WG 29°																																		
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NAME</th> <th>Y</th> <th>X</th> </tr> </thead> <tbody> <tr> <td>Constant</td> <td>0.00</td> <td>0.00</td> </tr> <tr> <td>A</td> <td>33947.13</td> <td>2997959.11</td> </tr> <tr> <td>B</td> <td>33666.70</td> <td>2996058.89</td> </tr> <tr> <td>C</td> <td>34056.01</td> <td>2998036.97</td> </tr> <tr> <td>D</td> <td>34046.37</td> <td>2997937.22</td> </tr> </tbody> </table>	NAME	Y	X	Constant	0.00	0.00	A	33947.13	2997959.11	B	33666.70	2996058.89	C	34056.01	2998036.97	D	34046.37	2997937.22	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NAME</th> <th>LAT</th> <th>LONG</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>-27.092800</td> <td>28.657700</td> </tr> <tr> <td>B</td> <td>-27.093700</td> <td>28.657500</td> </tr> <tr> <td>C</td> <td>-27.093500</td> <td>28.656600</td> </tr> <tr> <td>D</td> <td>-27.092800</td> <td>28.656700</td> </tr> </tbody> </table>	NAME	LAT	LONG	A	-27.092800	28.657700	B	-27.093700	28.657500	C	-27.093500	28.656600	D	-27.092800	28.656700
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SCALE 1 : 10000

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 Applied for a mining permit by
 RAUBEX CONSTRUCTION (Pty) Ltd (1993/07002/07)







APPENDIX 2 – PROOF OF CONSULTATION

Interested and Affected Parties <small>List the names of persons consulted in this column, and mark with an "X" where those who must be consulted were in fact consulted.</small>	Date sent and/or Comments Received	Issues raised	EAP's response to the applicant
AFFECTED PARTIES Me.A. du Plessis) Mr. Org du Plessis Cell: 082 784 0167 E-mail: org@dup3agri.co.za (Landowner)	X 28 Oct 2020 27 Nov 2020 11 Dec 2020	Consulted personally, telephonically and via e-mail with the landowner. No objection, awaiting signed consultation letter.	
Lawful occupier/s of the land			
Landowners or lawful occupiers on adjacent properties Dr. H.B. Hugo P.O. Box 55, Frankfort, 9830 Cell: 082 920 0007 e-mail: dthugo@telkomsa.net (Neighbours)	X 28 Oct 2020	No objection, see signed consultation letter	
Mr. H.C. Coetzer P.O. Box 202, Villiers, 9840 Cell: 082 327 1692 e-mail: chris@windfield.co.za (Neighbour)	28 Oct 2020	No objection, see signed consultation letter	
Municipal councillor			
Municipality Mafube Local Municipality (Acting) Municipal Manager : Andrew Hlubi Fax: 058 813 3072 e-mail: info@mafubemun.org andrewh@mafube.gov.za	X 28 Oct 2020	Consultation letter sent via e-mail sent	
Organs of state (Responsible for infrastructure that may be affected Roads Department, Eskom, Telkom, DWA.			
Eskom			
Communities			
Dept. Land Affairs Cindy Benyane cindy.benyane@dir.gov.za	X 28 Oct 2020 29 Oct 2020	E-mail sent – Acknowledgement received and request for windeed search Windeed search sent via e-mail	
Traditional Leaders N/A			
Dept. of Environmental Affairs & Dept of Agriculture, Forestry & Fisheries	X		
Grace Mkhosana Building 113, St Andrew Street, Bloemfontein, 9391 Tel: 051 400 4904 Cell: 066 487 2840	10 Nov 2020	BAR/EMPR was sent with Fastway couriers for comments	

APPENDIX 2 – PROOF OF CONSULTATION

Dept. Water and Sanitation	X	10 Nov 2020	BARJEMPR was sent with Fastway counters for comments
Dr. T. Ntjini 2 nd Floor, Bloem Plaza Building, Chr East Burger & Charlotte Maxeke, Bloemfontein, 9300 Tel: 051 405 9109 E-mail: groblenw@dws.gov.za			
Other Competent Authorities	X		
OTHER AFFECTED PARTIES			
INTERESTED PARTIES			

Notice published in Vrystaat Kroon 11 November 2020

Gerda

From: Fanie Ferreira <Fanie.F@raubex.com>
Sent: Friday, 11 December 2020 08:03
To: org@dup3agri.co.za
Cc: Daan (daane@dera.co.za); Gerda
Subject: FW: Konsultasie briewe - Minsaam - FS10322MP
Attachments: Konsultasie briewe - Minsaam - FS10322MP.pdf

Hi org--sien weer aangeheg--groete

-----Original Message-----

From: Fanie Ferreira
Sent: 27 November 2020 07:24 AM
To: org@dup3agri.co.za
Cc: Daan (daane@dera.co.za); Office (dera.office@dera.co.za)
Subject: FW: Konsultasie briewe - Minsaam - FS10322MP

More Org--sien aanheg--sal jy weer so gaaf wees om vir ons die te reel

Ons moet die permit weer henu vir die volgende "job" daar by die rivier brug by Villiers plaza

Baie dankie

Fanie Ferreira
Operations Manager
Raubex Construction (Pty) Ltd
Tel: +27 12 648 9400 | Cell: +27 72 591 8878 | Email: fanie.f@raubex.com | Web: www.raubex.com -----Original Message-----

From: Gerda [mailto:dera.office@dera.co.za]
Sent: 16 November 2020 12:12 PM
To: Fanie Ferreira
Subject: Konsultasie briewe - Minsaam - FS10322MP

Goeie dag Fanie

Aangeheg is die konsultasie briewe vir die nuwe Mynpermit aansoek op Minsaam - FS10322MP.

Sal jy asseblief vir my die briewe weer laat teken deur Mev. A. du Plessis (grondeienaar) en een van die aangrensende bure.

Groete.

Gerda Els
Cell: 083 225 1593

Daan Erasmus

Gerda

From: Fanie Ferreira <Fanie.F@raubex.com>
Sent: Friday, 27 November 2020 07:24
To: org@dup3agri.co.za
Cc: Daan (daane@dera.co.za); Office (dera.office@dera.co.za)
Subject: FW: Konsultasie briewe - Minsaam - FS10322MP
Attachments: Konsultasie briewe - Minsaam - FS10322MP.pdf

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Ons moet die permit weer henu vir die volgende "job" daar by die rivier brug by Villiers plaza

Baie dankie

Fanie Ferreira
Operations Manager
Raubex Construction (Pty) Ltd
Tel: +27 12 648 9400 | Cell: +27 72 591 8878 | Email: fanie.f@raubex.com | Web: www.raubex.com -----Original
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(grondeienaar) en een van die aangrensende bure.

Groete.

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

.....

P O Box 6499
Flamwood
2572
Mobile: 082 895 3516
E-mail: dera_office@dera.co.za
daana@dera.co.za

DERA

28 October 2020

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 AREA OF THE REMAINING EXTENT OF THE FARM MINSAAM 1074, IN THE DISTRICT OF FRANKFORT.

You are herewith informed that **Raubex Construction (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, Free State Region in respect of **Stone Aggregate; Gravel & Gravel (grav) G5** in the magisterial district of Frankfort.

Raubex Construction (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. See attached the Sketch plan and Environmental Authorisation.

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.

Raubex Construction (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. FS30/5/1/3/2/10322MP**) 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

P.P. 
Daan Erasmus

DERA Environmental Consultants

.....

REGISTRATION FORM AND COMMENT FOR THE PUBLIC PARTICIPATION PROCESS
PROPOSED MINING PERMIT APPLICATION ON A CERTAIN AREA OF THE REMAINING EXTENT OF THE FARM
MINSAAAM 1074, MAGISTERIAL DISTRICT OF FRANKFORT.

Daan Erasmus
P.O. Box 6499
KLERKSDORP
2572

Tel. 018-468 5355
Fax: 018-468 4015
Mobile: 082 895 3516
E-mail: dera.office@dera.co.za or daane@dera.co.za

PERSONAL INFORMATION:

Title/Titel: Dr Initials/Voorletters: H.B. First Name/Eerste naam: Hennie
Surname/Van: HUGO
E-mail/E-pos: dr.hugo@telkomsa.net
Telephone/Telefoon: 0829200007 Fax/Faks: _____
Organisation (if applicable)/Organisasie (indien van toepassing): _____
Capacity (member, etc.)/Kapasiteit (lid ens): _____
Landowner/Grondseigneur/Buurman/Neighbour/Interested and/or affected parties on the farm/op die plaas: Buurman
Postal Address/ Posadres: Box 55
Town/City/Dorp/Stad: Frankfort Code/Kode: 9830

COMMENT/OBJECTION:

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

Eiensent van Buur plaas.

2. Do you have any ground for objection or do you support the proposed project/Het u enige gronde tot beswaar of ondersteun u die bogenoemde projek?

Geen beswaar

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 self of die omgewing?

YES/NO JA/NEE

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

Filled in on/Ingevol op: 12^e day of /dag van: November (month)/(maand) 2020

Name and Surname/ Company

Naam en Van/Maatskappy

Signature/Handtekening

H Hugo

REGISTRATION FORM AND COMMENT FOR THE PUBLIC PARTICIPATION PROCESS
PROPOSED MINING PERMIT APPLICATION ON A CERTAIN AREA OF THE REMAINING EXTENT OF THE FARM
MINSAM 1074, MAGISTERIAL DISTRICT OF FRANKFORT.

Daan Erasmus
P.O. Box 6499
KLERKSDORP
2572

Tel: 018-468 5355
Fax: 018-468 4015
Mobile: 082 895 3516
E-mail: dera.office@dera.co.za or daana@dera.co.za

PERSONAL INFORMATION:

Title/Titel: MAR. Initials/Voorletters: HC First Name/Eerste naam: HERSCHELS CHRISTIAN
Surname/Van: COETZEE
E-mail/E-pos: chris@windfield.co.za
Telephone/Telefoon: 082 327 1692 Fax/Faks: _____
Organisation (if applicable)/Organisasie (indien van toepassing): CADACAP PTY. LTD.
Capacity (member, etc)/Kapasiteit (lid ens): DIREKTOR
Landowner/Grondelenaar/Buurman/Neighbour/Interested and/or affected parties on the farm/op die plaas: _____
Postal Address/ Posadres: PO BOX 202
Town/City/Dorp/Stad: VILLERIAS Code/Kode: 9410

COMMENT/OBJECTION:

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

Beerying

2. Do you have any ground for objection or do you support the proposed project/Het u enige gronde tot beswaar of ondersteun u die bogenoemde projek?

Nee, Ek ondersteun die projek.

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

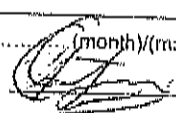
If "Yes", please describe shortly/Indien 'JA', verduidelik asseblief kortliks.

Filled in on/Ingeful op: 28 day of/dag van: October (month)/(maand) 2020

HC Coetzee

Name and Surname/ Company

Naam en Van/Maatskappy


Signature/Handtekening

Gerda

From: Gerda <dera.office@dera.co.za>
Sent: Wednesday, 28 October 2020 12:50
To: 'andrewh@mafube.gov.za'
Subject: Consultation letter - Mafube Local Municipality
Attachments: Consultation letter - Mafube Local Municipality.pdf

Good day Sir

Please see attached the consultation letter for a proposed mining permit on a certain area of the farm Minsaam in the Frankfort district.

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

Kind regards.

Gerda Els
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 - Mafube Local Municipality

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

.....
DERA

28 October 2020

Environmental Consultants

Mafube Local Municipality

Attention: Mr. Andrew Hlubi (acting) Municipal Manager

E-mail: andrewh@mafube.gov.za

RE: CONSULTATION WITH INTERESTED & AFFECTED PARTIES

It is hereby confirmed that Raubex Construction (Pty) Ltd has applied for a mining permit on a certain area of the Remaining extent of the farm Minsaam 1074, magisterial district of Frankfort.

The Department of Mineral Resources has requested that the Mafube Local Municipality must be informed about the proposed mining permit application.

Please find attached the consultation letter with the information regarding the proposed mining permit application.

It would be highly appreciated if you could return the attached consultation letter to Dera Environmental Consultants at dera.office@dera.co.za

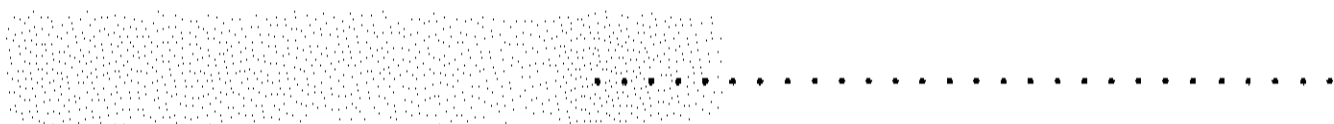
Should you have any questions regarding the above, please call Mr. Erasmus at 082 895 3516

DERA Environmental Consultants can be contacted for any further enquiries.

Yours sincerely

p.p. 

Daan Erasmus
DERA Environmental Consultants



DERA

28 October 2020

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 AREA OF THE REMAINING EXTENT OF THE FARM MINSAM 1074, IN THE DISTRICT OF FRANKFORT.

You are herewith informed that **Raubex Construction (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, Free State Region in respect of **Stone Aggregate; Gravel & Gravel (grav) G5** in the magisterial district of Frankfort.

Raubex Construction (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. See attached the Sketch plan and Environmental Authorisation.

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.

Raubex Construction (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. FS30/5/1/3/2/10322MP**) 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

P.P. 
Daan Erasmus
DERA Environmental Consultants

.....

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:
:
:
:
:
:

**REGISTRATION FORM AND COMMENT FOR THE PUBLIC PARTICIPATION PROCESS
PROPOSED MINING PERMIT APPLICATION ON A CERTAIN AREA OF THE REMAINING EXTENT OF THE FARM
MINSAAM 1074, MAGISTERIAL DISTRICT OF FRANKFORT.**

Daan Erasmus
P.O. Box 6499
KLERKSDORP
2572

Tel. 018-468 5355

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 or do you support the proposed project/Het u enige gronde tot beswaar of ondersteun u die 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 uself 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) 2020

Name and Surname/ Company

Naam en Van/Maatskappy

Signature/Handtekening

.....

Gerda

From: Gerda <dera.office@dera.co.za>
Sent: Wednesday, 28 October 2020 12:44
To: Cindy Benyane
Subject: Verification of land claims - Minsaam
Attachments: Verification of land claims - Minsaam.pdf

Good day Cindy

See attached our request for verification of land claims on the farm Minsaam 1074 in the district of Frankfort.

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 - Minsaam

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.....

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

28 October 2020

Environmental Consultants

Department of Land Affairs & Rural Development

Attention: Ms. Cindy Benyane

Re: Verification of Land Claims

We are Environmental Consultants situated in Klerksdorp and has applied on behalf of Raubex Construction Pty) Ltd. for a mining permit on the following farm in the **Frankfort district**.

Mafube Local Municipality

➤ **A certain portion of the remaining extent of the farm Minsaam 1074**

Could you please be so kind to verify if there are any land claims over the farm 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

.....

Gerda

From: Gerda <dera.office@dera.co.za>
Sent: Thursday, 29 October 2020 09:57
To: 'Cindy Benyane'
Subject: RE: Verification of land claims - Minsam
Attachments: Title Deed - Minsam 1074.pdf; image001.png

Good day

See attached the deed search as requested

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

From: Cindy Benyane [mailto:cindy.benyane@drdlr.gov.za]
Sent: Wednesday, 28 October 2020 13:03
To: Gerda
Cc: Edith Mokgoko
Subject: RE: Verification of land claims - Minsam

Good day

Please send a Deeds Search so we can ascertain the property description and province.

Thank you



Rebaone Moatshe

Office Assistant

Office of the Deputy Land Claims Commissioner

Tel: 012 407 4544 | Cell: 083 311 3482 | E-mail: Rebaone.Moatshe@drdlr.gov.za

Address: 266 c/o Pretorius and Thabo Sehume Street, Pretoria, Gauteng Province, 0001, South Africa
www.drdlr.gov.za

-----Original Message-----

From: Gerda <dera.office@dera.co.za>
Sent: Wednesday, 28 October 2020 12:44
To: Cindy Benyane <cindy.benyane@drdlr.gov.za>
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Good day Cindy

See attached our request for verification of land claims on the farm Minsaam 1074 in the district of Frankfort.

Regards.

Gerda Els
Cell: 083 225 1593

Daan Erasmus
Dera Omgewingskonsultante (Pty) Ltd.
Reg no: 2014/051013/07
P.O. Box 6499, Flamwood, 2572
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Cell: 082 895 3516
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Deeds Office Property



MINSAAM, 1074, 0 (REMAINING EXTENT) (BLOEMFONTEIN)

GENERAL INFORMATION

Deeds Office BLOEMFONTEIN
 Date Requested 2017/11/07 10:10
 Information Source DEEDS OFFICE
 Reference -



PROPERTY INFORMATION

Property Type FARM
 Farm Name MINSAAM
 Farm Number 1074
 Portion Number 0 (REMAINING EXTENT)
 Local Authority MAFUBE LOCAL MUNICIPALITY
 Registration Division FRANKFORT RD
 Province FREE STATE
 Diagram Deed T1078/1923
 Extent 77.3095H
 Previous Description -
 LPI Code P0140000000107400000

OWNER INFORMATION

Owner 1 of 1
 Person Type PRIVATE PERSON
 Name DU PLESSIS ANNEKIE
 ID Number 5510050064008
 Title Deed T2113/1989
 Registration Date 1989/03/08
 Purchase Price (R) -
 Purchase Date -
 Share -
 Microfilm Reference -
 Multiple Properties NO
 Multiple Owners NO

ENDORSEMENTS (2)

#	Document	Institution	Amount (R)	Microfilm
1	T-724/2010C	T2113/1989	UNKNOWN	
2	FFT RD, 1074		UNKNOWN	

HISTORIC DOCUMENTS

No documents to display

DISCLAIMER

This report contains information gathered from our suppliers and we do not make any representations about the accuracy of the data displayed nor do we accept responsibility for inaccurate data. Windeed will not be liable for any damage caused by reliance on this report. This report is subject to the terms and conditions of the [Windeed End User License Agreement \(EULA\)](#).

Gerda

From: Cindy Benyane <cindy.benyane@drdlr.gov.za>
Sent: Wednesday, 28 October 2020 13:03
To: Gerda
Cc: Edith Mokgoko
Subject: RE: Verification of land claims - Minsaam

Good day

Please send a Deeds Search so we can ascertain the property description and province.

Thank you



Rebaone Moatshe

Office Assistant

Office of the Deputy Land Claims Commissioner

Tel: 012 407 4544 | Cell: 083 311 3482 | E-mail: Rebaone.Moatshe@drdlr.gov.za

Address: 266 c/o Pretorius and Thabo Sehume Street, Pretoria, Gauteng Province, 0001, South Africa
www.drdlr.gov.za

-----Original Message-----

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Good day Cindy

See attached our request for verification of land claims on the farm Minsaam 1074 in the district of Frankfort.

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

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Gerda

From: Cindy Benyane <cindy.benyane@drdlr.gov.za>
Sent: Thursday, 29 October 2020 14:47
To: Gerda
Subject: RE: Verification of land claims - Minsaam

Good day

Please note that your enquiry has been referred to the Free State office for response.

For follow-up purposes, please contact Thibi Monokoane on Thibi.Monokoane@drdlr.gov.za

Kind regards



Rebaone Moatshe

Office Assistant

Office of the Deputy Land Claims Commissioner

Tel: 012 407 4544 | Cell: 083 311 3482 | E-mail: Rebaone.Moatshe@drdlr.gov.za

Address: 266 c/o Pretorius and Thabo Sehume Street, Pretoria, Gauteng Province, 0001, South Africa
www.drdlr.gov.za

From: Gerda <dera.office@dera.co.za>
Sent: Thursday, 29 October 2020 09:57
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Subject: RE: Verification of land claims - Minsaam

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Regards.

Gerda Els
Cell: 083 225 1593

Daan Erasmus
Dera Omgewingskonsultante (Pty) Ltd.
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P.O. Box 6499, Flamwood, 2572

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Tel: 018 468 5355

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Sent: Wednesday, 28 October 2020 13:03

To: Gerda

Cc: Edith Mokgoko

Subject: RE: Verification of land claims - Minsaam

Good day

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Thank you



Rebaone Moatshe

Office Assistant

Office of the Deputy Land Claims Commissioner

Tel: 012 407 4544 | Cell: 083 311 3482 | E-mail: Rebaone.Moatshe@drdlr.gov.za

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Regards.

Gerda Els

Cell: 083 225 1593

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Dera Omgewingskonsultante (Pty) Ltd.
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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 Raubex Construction (Pty) Ltd.
- **Ref. no:** FS30/5/1/3/2/10322MP
- **Property description:** The proposed mining area is over a certain area of the Remaining extent of the farm Minsaam 1074, Frankfort district. The total extent of the mining area is 5 hectares. (21 SG digital code: F01400000000107400000)
- **Location:** The property is situated ±45 km north-east of Frankfort
- **Date submitted:** 16 October 2020
- **Project description:** The purpose of the application is to obtain the required authorisation from the Department to successfully: undertake opencast excavations.
- **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:** Stone Aggregate, gravel and Gravel (grav) G5
- **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 and may contact Dera Environmental Consultants for any further information. 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
Flamwood
2572

E-mail: daane@dera.co.za
Tel: 018 468 5355
Cell: 082 895 3516

- **Date of advertisement:** 11 November 2020
- **Date of meeting:** Wednesday 18 November 2020
- **Venue:** On the farm Minsaam 1074, coordinates: 28.65770 -27.092800
- **Time:** 9H00

AGENDA OF PUBLIC MEETING

Mining Permit over a certain area of the remainder of the farm Minsaam 1074, Frankfort district
 Raubex Construction (Pty) Ltd.

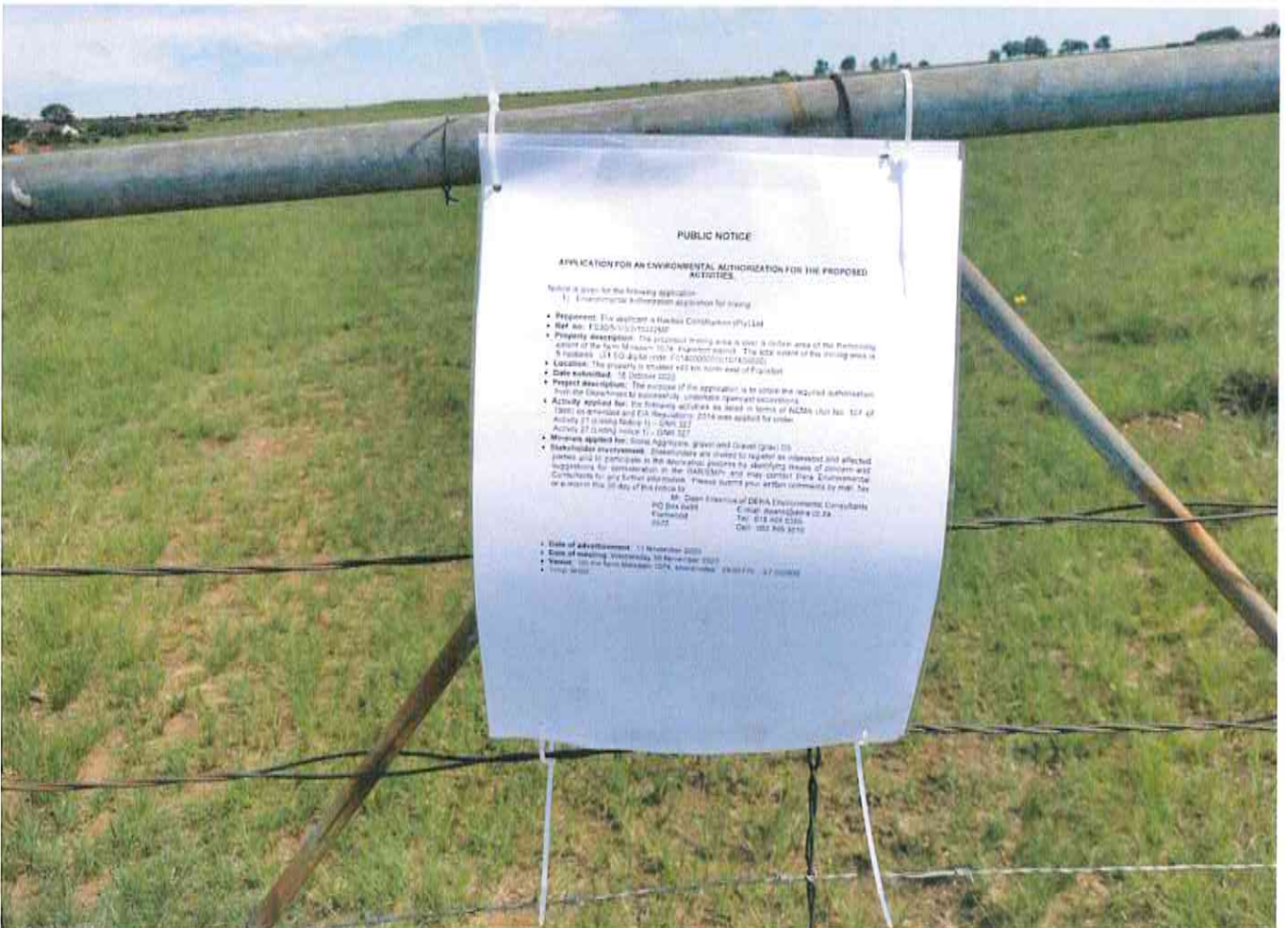
Venue: On the farm Minsaam 1074, coordinates: 28.65770 -27.092800
Date: 18 November 2020
Time: 9H00

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

ATTENDANCE REGISTER OF PUBLIC MEETING					
No.	Name	Capacity	Cell No.	e-mail address	Signature
1	Daan Erasmus	DERA Environmental Consultants	0828953516	daane@dera.co.za	
2					
3					
4					
5					

Comments:

Date: 18 November 2020 Signature: 
DERA



PUBLIC NOTICE

APPLICATION FOR AN ENVIRONMENTAL AUTHORIZATION FOR THE PROPOSED ACTIVITIES.

- Notice is given for the following application:
- 1) Environmental Authorization application for mining
- **Applicant:** The applicant is **Heidelberg Cement (Pty) Ltd**
 - **Ref No:** EZA/06/11/21/022/AM
 - **Property description:** The proposed mining area is over a certain area of the Farming 8 Holdings of the Farm 10 near the 107th Easement. The EZA cover of the mining area is 8 Holdings of 10 700 square meters (107/022/AM/000).
 - **Location:** The property is situated 400 km north-east of Ficksburg.
 - **Date submitted:** 18 October 2009
 - **Project description:** The purpose of the application is to obtain the required authorization from the Department to lawfully undertake proposed activities.
 - **Activity applied for:** The following activities as listed in terms of AECMA (Act No. 107 of 1998) on environmental and EA Regulations 2014 will be applied for under Activity (1) (Mining 8) (1) - (AM) 022
 - **Activities of Mining 8 (1) - (AM) 022**
 - **Minerals applied for:** Stone Aggregate, Gravel and Crushed Gravel (Class II)
 - **Environmental Impacts:** Stakeholders are invited to register as interested and affected parties and to participate in the consultative process by identifying areas of concern and suggestions for consideration in the IAREMAP, and make comment there. Environmental Comments for any further information. Please submit your written comments by email. See the website via: www.dema.gov.za

Dr. Coen Erasmus of DEHA Environmental Consultants
PO Box 84895 Cape Town, South Africa
Kuneneb
021 456 8300
021 456 8310

- **Date of advertisement:** 10 November 2009
- **Date of closing advertisements:** 10 November 2009
- **Times:** 09:00 am to 12:00 pm, 01 December 09:00 to 12:00 pm
- **Time:** 09:00 am

CALCULATION OF THE QUANTUM

Applicant: Raubex Construction
 Evaluators: DERA

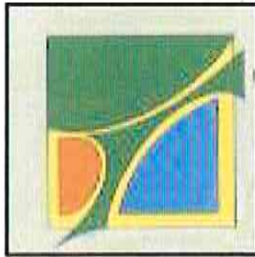
10322MP
 Nov-20

No.	Description	Unit	A Quantity	B Master Rate	C Multiplication factor	D Weighting factor 1	E=A*B*C*D Amount (Rand)
1	Dismantling of processing plant and related structures (including overland 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	500	41	1	1	20500
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	Opencast rehabilitation including final yards and ramps	ha	0.4	238697	0.52	1	49648.976
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 (polluting potential)	ha	0	494971.55	1	1	0
9	Rehabilitation of subsided areas	ha	0	114572.93	1	1	0
10	General surface rehabilitation	ha	0.3	126059	1	1	37817.7
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	0.3	16776	1	1	5032.8
15 (A)	Specialist study	Sum	0			1	0
15 (B)	Specialist study	Sum				1	0
Sub Total 1							112999.476

1	Preliminary and General	13559.93712	weighting factor 2	13559.93712
2	Contingencies	11299.9476	1	11299.9476
			Subtotal 2	137899.36

VAT (15%) 19300.31

Grand Total 157160



CELTIS ENVIRONMENTAL SOLUTIONS

To: DERA Environmental Consultants

Attention: Mr.Daan Erasmus

Re: Proposed STONE QUARRY mining operations on 4 hectares of the Remaining extent of the Farm MINSAAM 454, District of Frankfort

Applicant: Raubex Construction (Pty) Ltd.

The original undisturbed vegetation type of the proposed stone quarry mining site could be described as the " Frankfort Highveld Grassland (**Gm6**), namely as follows:

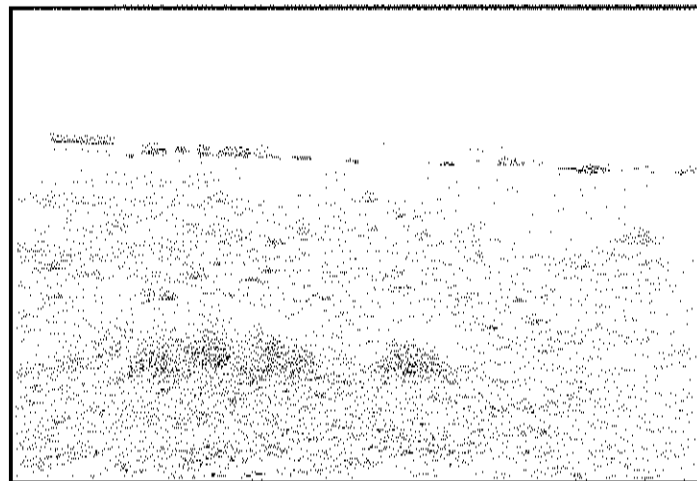
Gm 6 Frankfort Highveld Grassland

VT 53 Themeda Veld to Cymbopogon–Themeda Veld Transition (patchy) (79%) (Acocks 1953). LR 39 Moist Cool Highveld Grassland (95%) (Low & Rebelo 1996).

Distribution Free State and marginally Mpumalanga Provinces: Northeastern Free State—south and southeast of the Vaal Dam in the vicinity of Heilbron, Frankfort and Vrede. Altitude 1 460–1 800 m (mostly below 1 660 m).

Vegetation & Landscape Features:

Flat to slightly undulating and undulating terrain, with grassland dominated by *Eragrostis curvula* and *Themeda triandra*, accompanied by *E. capensis*, *E. plana*, *E. racemosa*, *Cymbopogon pospischilii*, *Elionurus muticus* and *Aristida junciformis*.



Geology & Soils Mudstone or shale with sandstone of the Adelaide Subgroup (Beaufort Group) with **Jurassic Karoo dolerite intrusions**. **Soils are Glenrosa, Bonheim and Avalon**, with Mayo forms dominating the outcrops and slightly elevated areas, while the Sepane, Arcadia and Rensburg forms dominate the moist bottomlands. Much of the area (three quarters) is classified as Ea, while the rest is Ca land type.

Climate Summer-rainfall region, with MAP of 638 mm (much of which falls in the form of thunderstorms). MAT 14–15°C, indicating a cool to warm-temperature climate, characterised by great temperature differences between summer and winter (thermic continentality due to the deep-inland situation and high altitude of the unit). Occurrence of frost is frequent in winter. See also climate diagram for Gm 6 Frankfort Highveld Grassland (Figure 8.36).

Important Taxa Graminoids: *Aristida bipartita* (d), *A. diffusa* (d), *Brachiaria serrata* (d), *Cymbopogon pospischilii* (d), *Cynodon dactylon* (d), *Digitaria tricholaenoides* (d), *Elionurus muticus* (d), *Eragrostis chloromelas* (d), *E. curvula* (d), *E. plana* (d), *E. racemosa* (d), *Harporchloa falx* (d), *Heteropogon contortus* (d), *Hyparrhenia hirta* (d), *Setaria nigrirostris* (d), *S. sphacelata* (d), *Themeda triandra* (d), *Tristachya leucothrix* (d), *Andropogon appendiculatus*, *Aristida congesta*, *A. junciformis* subsp. *galpinii*, *Cymbopogon caesius*, *Cynodon hirsutus*, *Diheteropogon amplexans*, *Eragrostis capensis*, *Helictotrichon turgidulum*, *Koeleria capensis*, *Melinis nerviglumis*, *Microchloa caffra*, *Panicum stapfianum*, *Pennisetum sphacelatum*. Herbs: *Dicoma anomala* (d), *Vernonia oligocephala* (d), *Berkheya onopordifolia* var. *onopordifolia*, *B. pinnatifida*, *Crabbea acaulis*, *Geigeria aspera* var. *aspera*, *Haplocarpha scaposa*, *Helichrysum nudifolium* var. *nudifolium*, *H. rugulosum*, *Hermannia depressa*, *Jamesbrittenia aurantiaca*, *Kohautia amatymbica*, *Rhynchosia effusa*, *Selago densiflora*. Geophytic Herbs: *Boophone disticha*, *Hypoxis rigidula* var. *pilosissima*. Herbaceous Climber: *Rhynchosia totta*. Low Shrubs: *Anthospermum hispidulum*, *A. rigidum* subsp. *pumilum*, *Berkheya annectens*, *Solanum panduriforme*.

Conservation Vulnerable. Target 24%. None conserved in statutory conservation areas. More than a third already transformed for cultivation (maize) or flooded by dams (Vaal Dam). Erosion is very low (95%). References Eckhardt et al. (1993a, b), Fuls et al. (1993c).

The mining site will have a total size of 4 hectares.

Surface area disturbed by existing and historical land uses:

The majority of the sites vegetation cover has been disturbed by:

- exiting agricultural activity (for grazing for cattle, sheep, and cultivation), including existing farm infrastructure such roads, farm dwelling, stores, etc.(See satellite image and topographical map for extent of surface area affected by activities);
- evidence of opencast mining activities (prosed new and historical) (see extent of the area affected by mining activities, indicated on the satellite image).

No historical mining activities have taken place on the farm. The site is a brownfields site with the majority of the original vegetation cover on the surface area disturbed by agriculture activities.

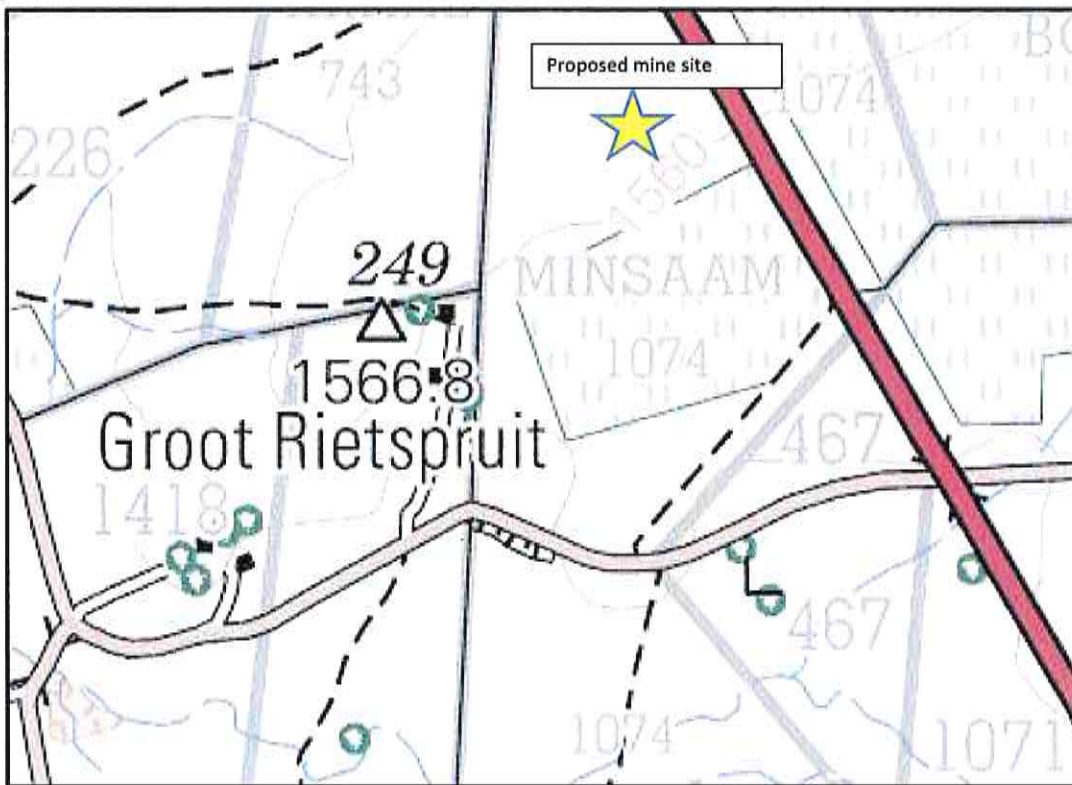
The existing farm infrastructure (store, houses, etc.) need to be avoided during mining. The existing land use on the rest of the farm is still agricultural (grazing for cattle, sheep, crop cultivation). **No wetlands could be found on the site** (See satellite image, topographical SANBI wetland location map).

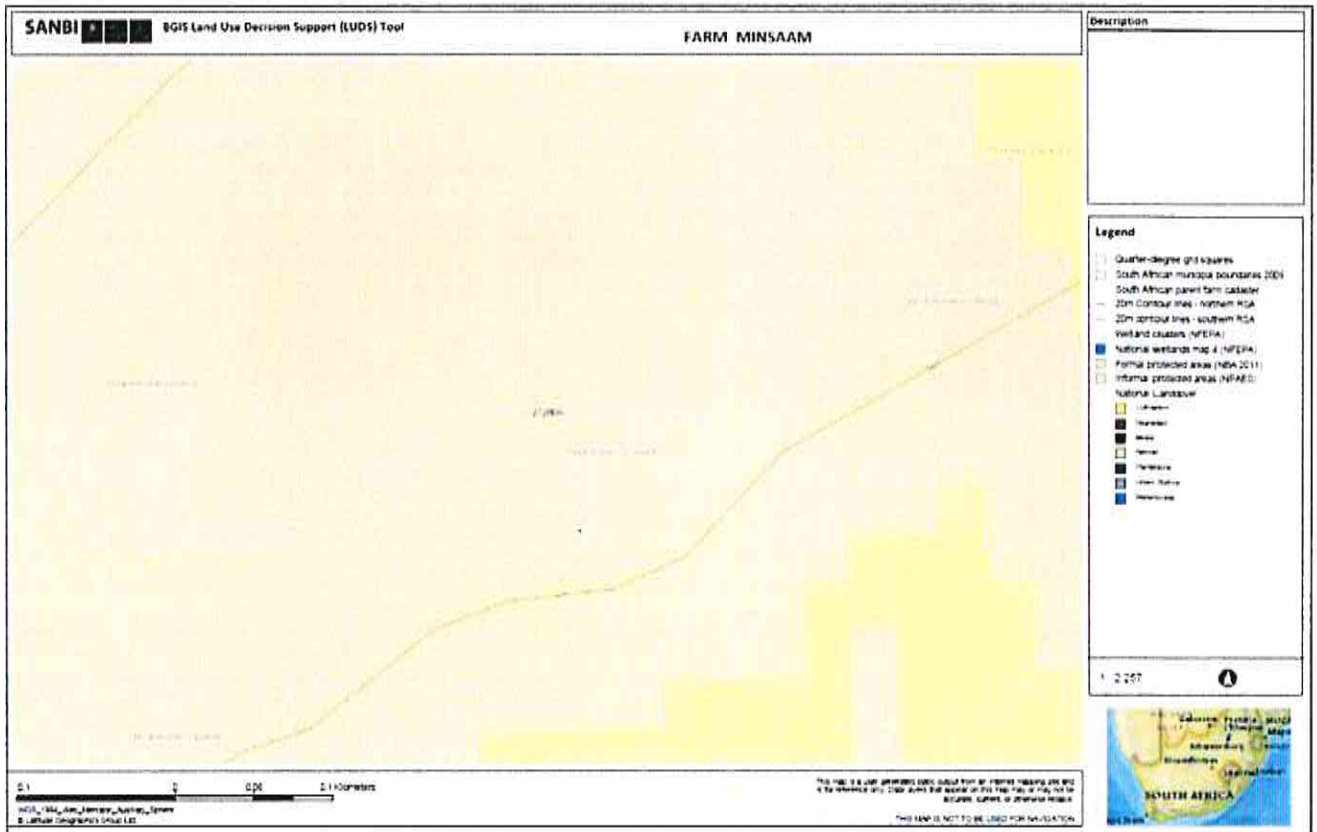
FARM MINSAAM: SURFACE AREA DISTURBED BY EXITING LAND USES (CHANGE IN THE ORIGINAL VEGETATION COVER)





TOPOGRAPHICAL MAP OF THE STUDY AREA





As can be deduced from the above findings that an detailed ecological and biodiversity assessment for the Farm Minsaam is not required for this development, as the majority of the surface area is already disturbed by existing and historical land uses.

Having said this the required mitigation measures should still be implemented in order to divert runoff around the active portion of the mining area, keeping topsoil separate, rehabilitating the site to adequate standards and weed eradication.

Regards



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