



# mineral resources

Department:  
Mineral Resources  
**REPUBLIC OF SOUTH AFRICA**

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**From:** Directorate: Mineral Development: Northern Cape      **Date:** 11 November 2010  
**Enquiries:** Ms M.S Makoele      **E-mail:** maphakiso.makoele@dmr.gov.za  
**Ref No.:** NC 30/5/1/3/3/2/1/1977EM

The Director  
South African Heritage Resources Agency  
PO Box 4637  
CAPE TOWN  
8000

**Attention: Mary Leslie**

**CONSULTATION IN TERMS OF SECTION 40 OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT 2002, (ACT 28 OF 2002) FOR THE APPROVAL OF AN ENVIRONMENTAL MANAGEMENT PLAN FOR MINING PERMIT IN RESPECT OF BORROW PIT NO.1 ON RIEMVASMAAK 498,SITUATED IN THE MAGISTERIAL DISTRICT OF KAKAMAS: NORTHERN CAPE REGION.**

**APPLICANT: DEPARTMENT OF TRANSPORT, ROADS, AND PUBLIC WORKS.**

Attached herewith, please find a copy of an EMP received from the above-mentioned applicant, for your comments.

It would be appreciated if you could forward any comments or requirements your Department may have to this office and to the applicant **05 January 2011** as required by the Act.

Consultation in this regard has also been initiated with other relevant State Departments. In an attempt to expedite the consultation process please contact **Sylvia Makoele** of this office to make arrangements for a site inspection or for any other enquiries with regard to this application.

Your co-operation will be appreciated.

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**REGIONAL MANAGER: MINERAL REGULATION**

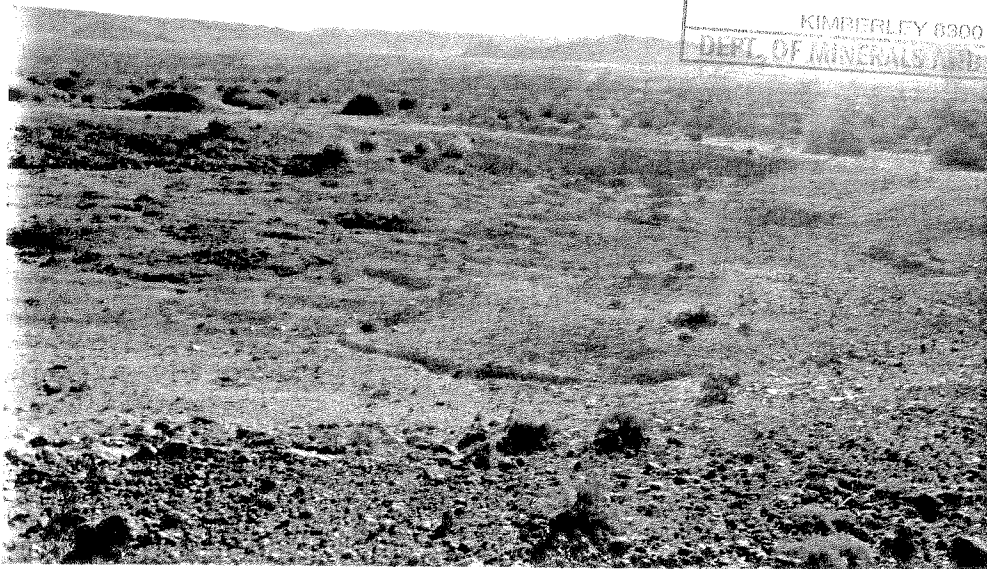
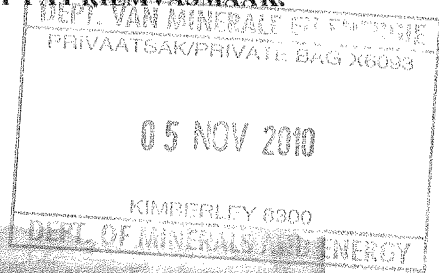
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# BURROW PIT 1

## ENVIRONMENTAL MANAGEMENT PLAN

PROPOSED EXTENSION OF EXISTING BURROW PIT 1 AT RIEMVASMAAK.

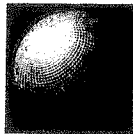
20<sup>th</sup> August 2010



For Our Client:

**Department of Transport, Roads & Public Works**

By:



**S P A T I A L S O L U T I O N S**  
**I N C O R P O R A T E D**

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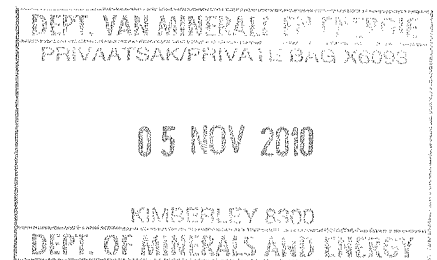
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## DEPARTMENT OF MINERALS AND ENERGY

## ENVIRONMENTAL MANAGEMENT PLAN

Submitted in support of application for a prospecting right or mining permit.  
 Section 39 and Regulation 52 of the Minerals and Petroleum Resources Development  
 Act, 2002 (Act 28 of 2002)



Application for a:

Prospecting Right	
Mining Permit	x

Applicant: Department of Transport, Roads and Public Works

Farm: Riemvasmaak 498

District: Kakamas

Mineral: Calcrete and weathered granite

Date: August 2010

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## A.1 INTRODUCTION

This document aims to provide a simplified national standard for applicants for prospecting rights and mining permits to comply with the relevant legislation and environmental regulations as apply to their respective applications in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002)(MPRDA).

Applicants in this sector of the mining industry typically disturb smaller surface areas of land, whether drilling boreholes, small trenches, or mining on a small area, less than 1,5 hectares of land, under a mining permit as contemplated in Section 27 of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002)

## A.2 SCOPE

This document is intended for use by applicants for mining permits and prospecting rights. Typically, operations in this sector of the mining industry:

- Use little or no chemicals to extract mineral from ore,
- Work on portions of land of 1,5 hectares in size or smaller,
- Disturb the topography of an area somewhat but have no significant impact on the geology

## A.3 PURPOSE

This document aims to :

- Provide a national standard for the submission of Environmental Management Plans for the types of applications mentioned above.
- Ensure compliance with Regulation 52 of the MPRDA.
- Assist applicants by providing the information that the Department of Minerals and Energy (DME) requires in a simple language and in a structured, prescribed format, as contemplated in Regulation 52 (2) of the (MPRDA).
- Assist regional offices of the DME to obtain enough information about a proposed prospecting/ reconnaissance or mining permit operation to assess the possible environmental impacts from that operation and to determine corrective action even before such right is granted and the operation commences.

This document aims both to provide the DME regional offices with enough information about applicants for mining permits and applicants with guidance on environmental management matters pertaining to the mitigation of environmental impacts arising from their operations. Given this dual focus and the generic nature of the document, it might not be sufficient for all types of operations under various circumstances.

The document may therefore be altered or added to as the particular circumstances of the application in question may require.

#### A.4 USE OF THE DOCUMENT:

This document is designed for use by non-professionals and newcomers to the environmental management industry and it incorporates a *very simple* Environmental Impact Assessment (EIA). The EIA is contained in Section C of this document and was designed specifically with the target sectors of the mining industry (described in A.2 above) in mind.

The aim is ultimately to (a) gather information from applicants themselves; (b) to assess the impact of the operation based on that information and then (c) to guide the applicant to mitigate environmental impacts to limit damage to the environment.

Section B of the document gathers demographic information about the applicant. Section C gathers the information that will be used in the Environmental Impact Assessment. The applicant must complete the relevant sections of this document, but the regional office of the DME will do the scoring of these for the impact assessment rating in Section D.

Section F (the Environmental Management Plan) of the document is prescriptive and gives guidance to the miner or prospector on how to limit the damage of the operation on the environment. This part may be added to by the regional manager, who has the prerogative to decide whether this Environmental Management Plan will adequately address the environmental impacts expected from the operation or whether additional requirements for proper environmental management need to be set. Where these additional requirements are set, they will appear in Section G of this document. The Environmental Management Plan (Section F) of the document is legally binding once approved and, in the undertaking contained in Section H, the applicant effectively agrees to implement all the measures outlined in this Environmental Management Plan.

#### A.5 LEGISLATION/ REGULATIONS

The relevant sections of Mineral and Petroleum Resources Development Act and its supporting Regulations are *summarised below* for the information of applicants. The onus is on the applicant to familiarise him/herself with the provisions of the full version of the Mineral and Petroleum Resources Development Act and its Regulations.

Section of Act	Legislated Activity/ Instruction/ Responsibility or failure to comply	Penalty in terms of Section 99
5(4)	No person may prospect, mine, or undertake reconnaissance operations or any other activity without an approved EMP, right, permit or permission or without notifying land owner	R 100 000 or two years imprisonment or both
19	Holder of a Prospecting right must: lodge right with Mining Titles Office within 30 days; commence with prospecting within 120 days, comply with terms and conditions of prospecting right, continuously and actively conduct prospecting operations; comply with requirements of approved EMP, pay prospecting fees and royalties	R 100 000 or two years imprisonment or both
20(2)	Holder of prospecting right must obtain Minister's permission to remove any mineral or bulk samples	R 100 000 or two years imprisonment or both

Section of Act	Legislated Activity/ Instruction/ Responsibility or failure to comply	Penalty in terms of Section 99
26(3)	A person who intends to beneficiate any mineral mined in SA outside the borders of SA may only do so after notifying the Minister in writing and after consultation with the Minister.	R 500 000 for each day of contravention
28	Holder of a mining right or permit must keep records of operations and financial records AND must submit to the DG: monthly returns, annual financial report and a report detailing compliance with social & labour plan and charter	R 100 000 or two years imprisonment or both
29	Minister may direct owner of land or holder/applicant of permit/right to submit data or information	R 10 000
38(1)(c)	Holder of permission/permit/right MUST manage environmental impacts according to EMP and as ongoing part of the operations	R 500 000 or ten years imprisonment or both.
42(1)	Residue stockpiles must be managed in prescribed manner on a site demarcated in the EMP	A fine or imprisonment of up to six months or both
42(2)	No person may temporarily or permanently deposit residue on any other site than that demarcated and indicated in the EMP	A fine or imprisonment of up to six months or both
44	When any permit/right/permission lapses, the holder may not remove or demolish buildings, which may not be demolished in terms of any other law, which has been identified by the Minister or which is to be retained by agreement with the landowner.	Penalty that may be imposed by Magistrate's Court for similar offence
92	Authorised persons may enter mining sites and require holder of permit to produce documents/ reports/ or any material deemed necessary for inspection	Penalty as may be imposed for perjury
94	No person may obstruct or hinder an authorised person in the performance of their duties or powers under the Act.	Penalty as may be imposed for perjury
95	Holder of a permit/right may not subject employees to occupational detriment on account of employee disclosing evidence or information to authorised person (official)	Penalty as may be imposed for perjury
All sections	Inaccurate, incorrect or misleading information	A fine or imprisonment of up to six months or both
All sections	Failure to comply with any directive, notice, suspension, order, instruction, or condition issued	A fine or imprisonment of up to six months or both

## A.6 OTHER RELEVANT LEGISLATION

Compliance with the provisions of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) and its Regulations does not necessarily guarantee that the applicant is in compliance with other Regulations and legislation. Other legislation that may be immediately applicable includes, but are not limited to:

- National Monuments Act, 1969 (Act 28 of 1969).
- National Parks Act, 1976 (Act 57 of 1976)
- Environmental Conservation Act, 1989 (Act 73 of 1989)
- National Environmental Management Act, 1998 (Act No. 107 of 1998)
- Atmospheric Pollution Prevention Act, 1965 (Act 45 of 1965)

- The National Water Act, 1998 (Act 36 of 1998)
- Mine Safety and Health Act, 1996 (Act 29 of 1996)
- The Conservation of Agricultural Resources Act, 1983 (Act 43 of 1983).

## A.7 WORD DEFINITIONS

In this document, unless otherwise indicated, the following words will have the meanings as indicated here:

<b>Act (The Act)</b>	Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002)
<b>Borehole</b>	A hole drilled for the purposes of prospecting i.e. extracting a sample of soil or rock chips by pneumatic, reverse air circulation percussion drilling, or any other type of probe entering the surface of the soil.
<b>CARA</b>	The Conservation of Agricultural Resources Act
<b>EIA</b>	An Environmental Impact Assessment as contemplated in Section 38(1) (b) of the Act
<b>EMP</b>	an Environmental Management Plan as contemplated in Section 39 of the Act
<b>Fauna</b>	All living biological creatures, usually capable of motion, including insects and predominantly of protein-based consistency.
<b>Flora</b>	All living plants, grasses, shrubs, trees, etc., usually incapable of easy natural motion and capable of photosynthesis.
<b>Fence</b>	A physical barrier in the form of posts and barbed wire and/or "Silex" or any other concrete construction, ("palisade"- type fencing included), constructed with the purpose of keeping humans and animals within or out of defined boundaries.
<b>House</b>	any residential dwelling of any type, style or description that is used as a residence by any human being
<b>NDA</b>	National Department of Agriculture
<b>NWA</b>	National Water Act, Act 36 of 1998
<b>Pit</b>	Any open excavation
<b>"Porrel"</b>	The term used for the sludge created at alluvial diamond diggings where the alluvial gravels are washed and the diamonds separated in a water-and-sand medium.
<b>Topsoil</b>	The layer of soil covering the earth which- <ol style="list-style-type: none"> <li>provides a suitable environment for the germination of seed;</li> <li>allows the penetration of water;</li> <li>is a source of micro-organisms, plant nutrients and in some cases seed; and</li> <li>is not of a depth of more than 0,5 metres or such depth as the Minister may prescribe for a specific prospecting or exploration area or mining area.</li> </ol>
<b>Trench</b>	A type of excavation usually made by digging in a line towards a mechanical excavator and not pivoting the boom – a large, U-shaped hole in the ground, with vertical sides and about 6 – 8 metres in length. Also a prospecting trench.
<b>Vegetation</b>	Any and all forms of plants, see also Fauna
<b>DWAF</b>	The Department of Water Affairs and Forestry – both national office and their various regional offices, which are divided across the country on the basis of water catchment areas.
<b>MPRDA</b>	the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002)
<b>EMPlan</b>	An Environmental Management Plan as contemplated in Regulation 52 of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) – this document.



**B. BIOGRAPHIC DETAILS OF THE APPLICANT:**

<b>B 1.1</b> Full name (and surname) of person or company applying for permit or right	Department of Transport, Roads and Public Works
<b>B 1.2</b> ID number of person or company/ CC registration number	Mr Bulani - 7306295325082
<b>B 1.3</b> Postal address	P O Box 3132 KIMBERLEY 8300
<b>B 1.4</b> Physical/ residential address	45 Schmidtsdrift Road KIMBERLEY 8301
<b>B 1.5</b> Applicant's telephone number	053 – 861 9655/26/83
<b>B 1.6</b> Applicant's cellular phone number	072 086 6241
<b>B 1.7</b> Alternative contact's name	Mr P Volstruis
<b>B 1.8</b> Alternative contact's telephone/cell phone numbers	053 – 861 9655/26/83 082 924 3680
<b>B 2.1</b> Full name of the property on which mining/ prospecting operations will be conducted	Within the Farm Bounding of Riemvasmaak 498/0 Kakamas, Siyanda District Municipality.
<b>B 2.2</b> Name of the subdivision	0
<b>B 2.3</b> Approximate center of mining/prospecting area: Latitude	20 o 19 min 28 sec East
Longitude	28 o 27 min 56 sec South
<b>B 2.4</b> Magisterial district	Kakamas, Siyanda District Municipality
<b>B 2.5</b> Name of the registered owner of the property	Riemvasmaak Community Development Trust Mr R Matthews
<b>B 2.6</b> His/her Telephone number	054 - 832 8222 & Cell. 072 215 2028.

<b>B 2.7</b> His/ her Postal address	P O Box 10118
	Beaconsfield
	8315
<b>B 2.8</b> Current uses of surrounding areas	
Open veldt used for goat farming.	
<b>B 2.9</b> Are there any other, existing land uses that impact on the environment in the proposed mining/ prospecting area?	
Old burrow pit. To the east of the old burrow pit one finds an existing water pipeline as well as a telephone line. See the attached photographs taken of the existing burrow pit.	
<b>B 2.10</b> What is the name of the nearest town?	
Kakamas	

### C. ENVIRONMENTAL IMPACT ASSESSMENT:

The information provided in this section will enable officials to determine how serious the impact of the prospecting/mining operation will be.

**DESCRIBE THE ENVIRONMENT THAT WILL BE AFFECTED BY THE PROPOSED PROSPECTING/MINING OPERATIONS UNDER THE FOLLOWING HEADINGS:**

<b>C.1 DESCRIPTION OF THE ENVIRONMENT LIKELY TO BE AFFECTED BY PROPOSED PROSPECTING/MINING OPERATIONS: (REGULATION 52(2)(a))</b>			
ENVIRONMENTAL ELEMENT/ IMPACTOR	VALUE	TICK	OFFICE USE
<b>C 1.1</b> What does the landscape surrounding the proposed operation look like? (Open veldt/ valley/ flowing landscape/ steep slopes)			
Open veldt with an old burrow pit with a gentle slope. To the east of the existing burrow pit one finds an existing water pipeline and telephone line running towards the Riemvasmaak community. To the west of the old burrow pit one finds the existing gravel road leading towards the Riemvasmaak community. It is this road that will be upgraded to a surfaced standard road.			
<b>C 1.2</b> Describe the type of soil found on the surface of the site	Moist reddish brown decomposed granite and pebbles.		
	VALUE	TICK	OFFICE USE
<b>C 1.3</b> How deep is the topsoil?	0 – 300mm	<input checked="" type="checkbox"/>	8
	300 – 600mm		4
	600mm +		2

<b>C 1.4 What <i>plants, trees and grasses</i> grow naturally in the area around the site?</b>			
...plants,etc...			
<p>The proposed study area is located within the Nama Karoo biome. This biome can be divided in to six vegetation types. The proposed burrow pit occurs within the Orange River Nama Karoo (51) vegetation type. Key reference species within this vegetation type includes the following:</p> <ol style="list-style-type: none"> <li>1. The Quiver Tree (<i>Aloe dichotoma</i>), Bushman Poison Tree (<i>Euphorbia avasmontana</i>) and Aggenys Milkbush (<i>E. gregaria</i>) is normally associated with the steep slopes of the mountains and hills of the area.</li> <li>2. The pediments mainly host Spike-flowered Black Thorn (<i>Acacia mellifera</i>), Threethorn (<i>Rhigozum trichotomum</i>), Shepherd's Tree and Stink Shepherd's Tree (<i>Boscia albitrunca</i> &amp; <i>B. foetida</i>). After good summer rains, Silky Bushman Grass (<i>Stipagrostis uniplumis</i>) will dominate the plains.</li> <li>3. Thickets occur along the banks of the Orange River within this vegetation type, but are not applicable in this study area.</li> </ol> <p>The proposed area for the burrow pit extension has no important/protected species that have to be noted. The rest of the vegetation is mostly perennial grass species and does not have any need for conservation.</p>			
<b>C 1.5 What <i>animals</i> naturally occur in the area?</b>			
Rodents, reptiles and birds. No red data animal was identified to occur in the proposed area.			
	VALUE	TICK	OFFICE USE
<b>C 1.6</b> Are there any <i>protected areas</i> (game parks/nature reserves, monuments, etc) close to the proposed operation?	Yes		4
	No	<input checked="" type="checkbox"/>	0
<b>C 1.7</b> What mineral are you going to prospect or mine for?		Calcrete and weathered granite	
<b>C 1.8</b> Describe the type of equipment that will be used:			
Excavators and TLB			

<b>C.2 HOW WILL THE PROPOSED OPERATION IMPACT ON THE NATURAL ENVIRONMENT? (REGULATION 52(2)(b))</b>			
ENVIRONMENTAL ELEMENT/ IMPACTOR	VALUE	TICK	OFFICE USE
<b>C 2.1</b> What will the ultimate depth of the proposed prospecting/mining operations be?	0 – 5m	<input checked="" type="checkbox"/>	2
	6 – 10m		4
	10 – 25m		8
	25m +		10
<b>C 2.2</b> How large will the <i>total</i> area of all excavations be?			0.25   ha
<b>C 2.3</b> How large will each excavation be before it is filled up?	<10 X 10m		2
	<20 X 20m		4
	>20 X 20m	<input checked="" type="checkbox"/>	8
<b>C 2.4</b> How many <i>prospecting</i> boreholes or trenches will there be?	2		

	VALUE	TICK	OFFICE USE
<b>C 2.5</b> Will employees prepare food on the site and collect firewood?	Yes		4
	No	<input checked="" type="checkbox"/>	0
<b>C 2.6</b> Will water be extracted from a river, stream, dam or pan for use by the proposed operation?	Yes	<input checked="" type="checkbox"/>	4
<b>Boreholes</b>	No		2
<b>C 2.7</b> If so, what is the name of this water body?	N/A		
<b>C 2.8</b> If water will not be extracted from an open surface source, where will it be obtained?	Boreholes situated at Riemvasmaak		
	VALUE	TICK	OFFICE USE
<b>C 2.9</b> How much water per day will the <i>mineral processing</i> operation require?	1000 – 10 000 Liters		2
	20 000 – 40 000 L		3
	40 000 – 60 000 L	<input checked="" type="checkbox"/>	5
	60 000 – 100 000L		8
	More		10

<b>C 2.10</b> How far is the proposed operation from open water (dam, river, pan, lake)?	0 – 15m		8
	16 – 30m		6
	31 – 60m		4
	More than 60 metres	<input checked="" type="checkbox"/>	2
<b>C 2.11</b> What is the estimate depth of the water table/ borehole?		> 30	metres
<b>C 2.12</b> How much water per day will the proposed operation utilize <i>for employees</i> ?		2500	Liters
<b>C 2.13</b> What toilet facilities will be made available to workers?	None		8
<b>Chemical toilets will be available at the construction site and contractors camp.</b>	Pit latrine (longdrop)		4
	Chemical toilet	<input checked="" type="checkbox"/>	2
<b>C 2.14</b> Would it be necessary to construct roads to access the proposed operations?	Yes		4
<b>Existing burrow pit with an existing access road. See attached photographs.</b>	No	<input checked="" type="checkbox"/>	0

	VALUE	TICK	OFFICE USE
<b>C 2.15</b> How long will these access road(s) be (from a public road to the proposed operations)	0 – 0,5 km	<input checked="" type="checkbox"/>	4
<b>Existing road.</b>	0,6 – 1,5 km		2
	1,6 – 3 km		4
<b>C 2.16</b> Will trees be uprooted to construct these access road(s)?	Yes		4
<b>Existing road.</b>	No	<input checked="" type="checkbox"/>	0
<b>C 2.17</b> Will any foreign material, like crushed stone, limestone, or any material other than the naturally occurring topsoil be placed on the road surface?	Yes		4
	No	<input checked="" type="checkbox"/>	0
<b>C.3 TIME FACTOR</b>			
<b>C 3.1</b> For what time period will prospecting/mining operations be conducted on this particular site?	0 – 6 months		2
	6 – 12 months	<input checked="" type="checkbox"/>	4
	12 – 18 months		6
	18 – 24 months		8
	>24 months		10

<b>C.4 HOW WILL THE PROPOSED OPERATION IMPACT ON THE SOCIO-ECONOMIC ENVIRONMENT? (REGULATION 52(2)(b))</b>			
ELEMENT/ IMPACTOR	VALUE	TICK	OFFICE USE
C 4.1 How many people will be employed?	• ±80		
C 4.2 How many men?	• ±30		
C 4.3 How many women?	• ±50		
C 4.4 Where will employees be obtained? (Own or employed from local communities?)	Own		2
	Local	<input checked="" type="checkbox"/>	4
C 4.5 How many hours per day will employees work?	Sunrise→ Sunset		4
9 Hours	Less	<input checked="" type="checkbox"/>	2
	More		8
	VALUE	TICK	OFFICE USE
C 4.6 Will operations be conducted within 1 kilometer from a residential area	Yes	<input checked="" type="checkbox"/>	6
	No		1
C 4.7 How far will the proposed operation be from the nearest fence/windmill/house/dam/built structure?	0 – 50 metres	<input checked="" type="checkbox"/>	8
The edge of the existing burrow pit is about 10m from the existing water pipeline.	51 – 100 metres		4
	150 or more metres		2
<b>C.5 HOW WILL THE PROPOSED OPERATION IMPACT ON THE CULTURAL HERITAGE OF THE SURROUNDING ENVIRONMENT? REGULATION 52(2)(b)</b>			
ELEMENT/ IMPACTOR	VALUE	TICK	OFFICE USE
C 5.1 Are there any graveyards or old houses or sites of historic significance within 1 kilometer of the area?	Yes		8
See the attached First Phase Heritage Impact Assessment	No	<input checked="" type="checkbox"/>	0

## C.6 SPECIFIC REGULATORY REQUIREMENTS

<b>C.6.1 Air quality Management and Control (Regulation 64)</b>	
Describe how the operation will impact on the quality of the air, taking into account predominant wind direction and other affected parties in the downwind zone:	
Dust will be generated during the mining operation & transporting it onto the road. Mitigation shall include watering during the dry season.	
<b>C.6.2 Fire Prevention (Regulation 65)</b>	
Applicants for permits, rights or permissions involving <u>coal or bituminous rock</u> must:	
<ul style="list-style-type: none"> <li>• <b>Indicate on a plan</b> where the coal or rock discard dump will be located (If applied for a permit to mine or prospect for coal or bituminous rock, indicate the exact location of the discard dump on the plan and write "EMPlan C6.2" next to it)</li> </ul>	
N/A – Fire fighting equipment will be available on site.	
<b>C.6.3 Noise control (Regulation 66)</b>	
Indicate how much noise the operation will generate, and how it will impact on the surrounding environment, who might be influenced by noise from your operation.	
Minor noise impact during both the mining and transportation. There is however no immediate neighbours in the vicinity of the burrow pit.	
<b>C.6.4 Blasting, vibration and shock (Regulation 67)</b>	
Please indicate whether any blasting operations will be conducted.	
Blasting:	Yes/ No
	How often? No Blasting will take place.
<b>C.6.5 Disposal of waste material (Regulation 69)</b>	
<b>Indicate on your plan</b> where waste will be dumped in relation to the beneficiation works/ washing pans Also indicate below how domestic waste material will be managed.	
Domestic waste will be taken away daily to the contactors camp. From where it will be disposed of at a registered landfill site. There will be no other waste.	

<b>C.6.6 Soil pollution and erosion control (Regulation 70)</b>
6.6.1 Indicate how topsoil will be handled on the area.
Topsoil will be stockpiled separate from the mineral stockpiles. The stockpiles will not be higher than 1.5m and not steeper than 1:3. Topsoil will be vegetated to retain its properties and will be replaced over the entire area during rehabilitation.
6.6.2 Describe how spills of oil, grease, diesel, acid or hydraulic fluid will be dealt with.
Any spills must be cleared immediately (including the contaminated soils) and taken to the nearest registered hazardous landfill site.
6.6.3 Briefly describe the storage facilities available for the above fluids:
There will be no storage of any fluid on the site. Fuels will be stored at the contractor's camp site.



C.6.7 If significant impacts on any element of the environment mentioned in Section C 1 to C 6.6 above have been identified, summarise all of them here: (Regulation 52(2)(c))	C.6.8 How will the negative impacts on the environment be mitigated or managed (as described in C 6.11 to the left? (Regulation 57(2)(c))
<p><b>Example:</b> Section C 6.4 Blasting. I have identified that the people living on the neighbouring property are sensitive to loud noises as they have children that must study during the afternoons</p>	<p><b>Example:</b> I will mitigate the impact of my blasting operations on the Interested Parties by limiting blasting operations to school hours, when no one in the affected area is at home.</p>
<p>1 Section C.6.1 Dust will be generated during mining and transportation onto the gravel road.</p>	<p>1 Mitigate by watering during the dry season.</p>
<p>2 Section C.6.3. Minor noise impact from the mining of gravel material.</p>	<p>2 There are no close neighbours in the vicinity of the site. The working hours will be limited from sunrise to sunset (9 Hours).</p>
<p>3 Extraction of water from existing boreholes. The community lives within a very dry area and are very dependant of the boreholes. Water should be used sparingly.</p>	<p>3 Water should be used sparingly. Make use of water from a another source should there be any signs that the boreholes yield is affected by the extraction of water for this project's use.</p>
4	4
5	5
6	6
7	7
8	8

**C.7 Financial provision: (Regulation 54)**

The amount that is necessary for the rehabilitation of damage caused by the operation, both sudden closure during the normal operation of the project and at final, planned closure will be estimated by the regional office of the DME, based on the information supplied in this document. This amount will reflect how much will it cost the Department to rehabilitate the area disturbed in case of liquidation or abscondence.

Enter the amount of financial provision required here: <b>R20 700.00</b>
--

What method will be used to furnish DME with this financial provision?

Cash deposit	<input checked="" type="checkbox"/>
Bank guarantee	<input type="checkbox"/>
Trust Fund	<input type="checkbox"/>
Other: (specify) (Note: other methods must be approved by the Minister)	<input type="checkbox"/>

The standard formats for each of these types of guarantees are available from your regional office of the DME.

**C.8.1 Monitoring and performance assessment.**

Regulation 55 of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) clearly describes the process and procedure as well as requirements for monitoring and auditing of the performance of this plan to adequately address environmental impacts from the operation. The following information must be provided:

<b>C.8.2 Please describe how the adequacy of this programme will be assessed and how any inadequacies will be addressed. (Regulations 55(1) and 52(2)(e))</b>
---

<i>Example: I will, on a bi-monthly basis, check every aspect of my operation against the prescriptions given in Section F of this document and, if I find that certain aspects are not addressed or impacts on the environment are not mitigated properly, I will rectify the identified inadequacies immediately.</i>
---

<b>A monthly check up by the environmental control officer (ECO) should be carried out.</b>

**C.9 Closure and Environmental objectives: (Regulation 52(2)(f))**

Clearly state the intended end use for the area prospected/mined after closing of operations
<b>The end use of the site after rehabilitation will be open veldt.</b>

<b>C.9.1 Describe, in brief terms, what the environment will look like after a closure certificate has been obtained.</b>
The site will comprise a box type cutting with a flat base. The entire area will be top soiled and grassed. Weeding and watering shall be implemented for one year after mining cessation or until a 70% vegetation coverage has been established.

Note: The proposed end-state of your area must be consulted with interested and affected parties in terms of Regulation 52(2)(g). Details of the acceptability of the end-state must appear in the section below.

## **C 10 CLOSURE**

Regulations 56 to 62 outline the entire process of mine closure, and these are copied in Section F of this document, both as a guide to applicants on the process to be followed for mine closure, and also to address the legal responsibility of the applicant with regard to the proper closure of his operation. In terms of Section 37 of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002), the holder of a permit is liable for any and all environmental damage or degradation emanating from his/her operation, until a closure certificate is issued in terms of Section 43 of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002).

### **C.11 Public Participation: (Regulation 52(2)(g))**

In terms of the above regulation consultation with interested and affected person or persons must take place prior to the approval of the environmental management plan. This regulation is quoted below for ease of reference.

***"a record of the public participation undertaken and the results thereof"***

- C 11.1** Any comments lodged by an interested and affected person or persons in terms of section 10(1)(b) of the Act, must be in writing and addressed to the relevant Regional Manager.
- C 11.2** Any objections lodged by an interested and affected person or persons against the application for a right or permit in terms of the Act, must set out clearly and concisely the facts upon which it is based and must be addressed to the relevant Regional Manager in writing.
- C 11.3** The Regional Manager must make known by way of publication in a local newspaper or at the office of the Regional Manager, that an application for a right or permit in terms of the Act has been received.

In the table below, please list the names of people or organisations likely to be influenced by the proposed operations (these might include neighbours, other water users, etc.) Kindly indicate how these people were consulted (eg. By letter or by phone) *and provide proof* of that consultation. What were the main concerns/ objections raised by the interested and affected parties to the proposed operation?

Name of interested/ affected party	Contact details: Address & telephone number	How did consultation take place?	What was his/her main concern about the operation?
1 General Public		Advert in the Gemsbok Newspaper on 26 September 2009 as well as site notices at the Mission Community and Vredesvallei Community Offices. The Draft Report was made available to the Riemvasmaak Community through the Riemvasmaak Community Development Trust for comments.	No Comments received.
2 Riemvasmaak Community Trust (Owner) Contact Person - Mr Rodger Matthews.	P O Box 10118 Beaconsfield 8315  Cell: 072 215 2028	Telephonic conversation on the 11 <sup>th</sup> August 2010.	All concern from the owner of the land is that all fences to be disturbed should be fixed or replaced.
3 Andreas Adams - Riemvasmaak Community Trust	078 101 4148	Telephonic conversation on the 21 <sup>st</sup> July 2010 & 4 <sup>th</sup> August 2010.	No concerns.
4 Mr Plessis (Adjacent Land Owner - Farm Omdraai)	omd@omdraai.co.za Tel: 082 307 0349	Telephonic conversation on the 11 <sup>th</sup> August 2010. Email sent inviting comments on the 11 <sup>th</sup> August 2010.	No concerns regarding the proposed project.
5 Mr Philip Louwrens - Schroder Farmers Union	Tel: 082 561 5236	Telephonic conversation on the 11 <sup>th</sup> August 2010. Email sent inviting comments on the 11 <sup>th</sup> August 2010.	No concerns regarding the proposed project.

6 Mr F Burger (Adjacent Land Owner – Bakenrand Farm)	frans@bakenrant. co.za Tel: 082 775 4838	Telephonic conversation on the 28 <sup>th</sup> February 2007.	No concerns regarding the proposed project.
7 Pebble Trading (Adjacent Land Owner – Tierkop Farm)	Thomas@fsmaize. co.za Thomas Tel: 083 635 4214	Telephonic conversation on the 11 <sup>th</sup> August 2010. Email sent inviting comments on the 11 <sup>th</sup> August 2010.	No concerns regarding the proposed project.
8 A Yapi – Department of Tourism, Environment and Conservation	Tel: 054 – 332 2885	Telephonic conversation and email sent on the 3 <sup>rd</sup> August 2010.	Whe must consult DME in regard to the Burrow Pits.
9 A Hall – Northern Cape Provincial Department of Sport, Arts & Culture	Tel: 053 - 807 4710	Telephonic conversation and email sent on the 3 <sup>rd</sup> August 2010.	No feedback received.
10 Colette Scheermeyer – SAHRA	Tel: 021 - 462 4502	Telephonic conversation and email sent on the 3 <sup>rd</sup> August 2010.	Forwarded it to o Ms Mariagrazia Galimberti who deals with impact assessments for the Northern Cape. No feedback received.
11 Mr Nico Toerien – Department of Agriculture	epotgieter@ncpg. gov.za	Telephonic conversation and email sent on the 3 <sup>rd</sup> August 2010.	No feedback received.
12 Mr Abbott – Department of Water Affairs and Forestry	abbotth@dwa.gov .za Tel: 054 338 5800	Telephonic conversation and email sent on the 3 <sup>rd</sup> August 2010.	No feedback received.
13 Department of Health	Mr M Motlatla mmotlatla@ncpg.	Telephonic conversation and and email sent on	No feedback received.

	gov.za dstander@ncpg.gov.za Tel: 053 - 8300500	the 13 <sup>th</sup> August 2010.	
14 Municipal Manager – Siyanda District Municipality	etollis@siyanda.gov.za	Email sent on the 3 <sup>rd</sup> August 2010.	No feedback received.
15 Mr Mackay – Municipal Manager Kai Garib Local Municipality	mackayj@kaigarib.co.za	Email sent on the 3 <sup>rd</sup> August 2010.	No feedback received.
<b>D SCORING OF EIA– FOR OFFICIAL USE ONLY</b>			
<b>Instructions for officials:</b>			
In this table, complete the totals of each section indicated below and do the calculation. <b>Remember to first add all the values of sections C 1,2,4 and 5 and then to multiply it by the time factor in Section C 3</b>			
Note that the value for the time factor element of the impact rating appears in Section C3. This is the total amount of time that the operation is expected to impact on the environment and all other factors are MULTIPLIED by this value. Compare the score (Impact rating) with the table below to help you make a decision on the total impact of the operation and also on the sufficiency of this programme to address all expected impacts from the operation on the environment.			

**D 1.1 CALCULATION TABLE**

Section C 1 Total	+	Section C 2 Total	+	Section C 4 Total	+	Section C 5 Total	=	<u>Subtotal</u>	X	Time Factor Section C 3	=	Score (Impact rating)
	+		+		+		=		X		=	

**D 1.2 IMPACT RATING SCALE**

SCORE ATTAINED	IMPACT RATING	REMARKS
46 – 300	Low	No additional objectives needed – this programme is sufficient
301 - 800	Medium	Some specific additional objectives to address focal areas of concern may be set.
801 - 1160	High	Major revision of Environmental Management Plan for adequacy and full revision of objectives.

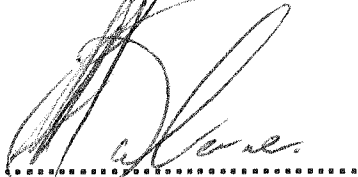
**Additional Objectives:**

Based on the information provided by the applicant and the regional office's assessment thereof, combined with the interpretation of the scoring and impact rating attained for the particular operation above, the Regional Manager of the regional office of the DME may now determine additional objectives /requirements for the mine owner/manager to comply with. *These measures will be specific and will address specific issues of concern that are not adequately covered in the standard version of this document.* These requirements are not listed here, but are specified under Section G of this document, so as to form part of the legally binding part of this Environmental Management Plan.

**E UNDERTAKING:**

I, Mr Bulane....., the applicant for a Mining permit/ right hereby declare that the above information is true, complete and correct. I undertake to implement the measures as described in Sections F and G hereof. I understand that this undertaking is legally binding and that failure to give effect hereto will render me liable for prosecution in terms of Section 98 (b) and 99 (1)(g) of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002). I am also aware that the Regional Manager may, at any time but after consultation with me, make such changes to this plan as he/she may deem necessary.

Signed on this 3rd..... day of September 2010 at Blaauwbaai..... (Place)

  
.....

**Signature of applicant**

## **F. ENVIRONMENTAL MANAGEMENT PLAN:**

### **INTRODUCTION**

This Environmental Management Plan contains guidelines, operating procedures and rehabilitation/pollution control requirements which will be binding on the holder of the mining permit/ prospecting permission/ reconnaissance permission after approval of the Environmental Management Plan. It is essential that this portion be carefully studied, understood, implemented and adhered to at all times.

### **F 1 GENERAL REQUIREMENTS**

#### **F 1.1 MAPPING AND SETTING OUT**

##### **F 1.1.1 LAYOUT PLAN**

- A copy of the layout plan as provided for in Regulation 2.2 must be available at the prospecting/mining site for scrutiny when required.
- The plan must be updated on a regular basis with regard to the actual progress of the establishment of surface infrastructure, mining operations and rehabilitation (a copy of the updated plan shall be forwarded to the Regional Manager on a regular basis).
- A final layout plan must be submitted at closure of the mine or when operations have ceased.

NOTE: Regulation 2.2 of the regulations promulgated in terms of the Act requires:

*"An application contemplated in sub-regulation (1) must be accompanied by a plan that must contain –*

- (a) *the co-ordinates of the land or area applied for;*
- (b) *the north point;*
- (c) *the scale to which the plan has been drawn;*
- (d) *the name, number and location of the land or area covered by the application;*  
*and*
- (e) *in relation to farm boundaries and surveyed points-*
  - (i) *the size and shape of the proposed area;*
  - (ii) *the boundaries of the land or area comprising the subject of the application concerned;*
  - (iii) *the layout of the proposed reconnaissance, prospecting, exploration, mining or production operations;*
  - (iv) *surface structures and servitudes;*
  - (v) *the topography of the land or area; "*

##### **F 1.1.2 DEMARCATING THE MINING/ PROSPECTING AREA**

- The mining/ prospecting area must be clearly demarcated by means of beacons at its corners, and along its boundaries if there is no visibility between the corner beacons.
- Permanent beacons as indicated on the layout plan or as prescribed by the Regional Manager must be firmly erected and maintained in their correct position throughout the life of the operation.



- Mining/ prospecting and resultant operations shall only take place within this demarcated area.

### **F 1.1.3 DEMARCATING THE RIVER CHANNEL AND RIVERINE ENVIRONMENT**

**The following is applicable if operations are conducted within the riverine environment (See F 3.2):**

- Beacons as indicated on the layout plan or as prescribed by the Regional Manager must be erected and maintained in their correct position throughout the life of the operation.
- These beacons must be of a permanent nature during the operations and must not be easily removable, especially those in a river channel. The beacons must, however, be removed at the end of the operations.
- The mining of and prospecting for any mineral shall only take place within this demarcated mining area.
- If riverine vegetation is present in the form of reeds or wetland vegetation, the presence of these areas must be entered in Part C 1.45 of the EMPlan and indicated on the layout plan.
- The holder of the mining permit/ prospecting right will also be required to permanently demarcate the areas as specified in F 1.1.2.

### **F 1.2 RESTRICTIONS ON MINING/ PROSPECTING**

- On assessment of the application, the Regional Manager may prohibit the conducting of mining or prospecting operations in vegetated areas or over portions of these areas
- In the case of areas that are excluded from mining or prospecting, no operations shall be conducted within 5 m of these areas.

### **F 1.3 RESPONSIBILITY**

- The environment affected by the mining/ prospecting operations shall be rehabilitated by the holder, as far as is practicable, to its natural state or to a predetermined and agreed to standard or land use which conforms with the concept of sustainable development. The affected environment shall be maintained in a stable condition that will not be detrimental to the safety and health of humans and animals and that will not pollute the environment or lead to the degradation thereof.
- It is the responsibility of the holder of the mining permit/ prospecting right to ensure that the manager on the site and the employees are capable of complying with all the statutory requirements which must be met in order to mine, which includes the implementation of this EMP.
- If operations are to be conducted in an area that has already been disturbed, the holder must reach specific agreement with the Regional Manager concerning the responsibilities imposed upon himself/herself pertaining to the rehabilitation of the area and the pollution control measures to be implemented.

## F 2 INFRASTRUCTURAL REQUIREMENTS

### F 2.1 TOPSOIL

- Topsoil shall be removed from all areas where physical disturbance of the surface will occur.
- All available topsoil shall be removed after consultation with the Regional Manager prior to the commencement of any operations.
- The topsoil removed, shall be stored in a bund wall on the high ground side of the mining/prospecting area outside the 1:50 flood level within the boundaries of the mining area/ prospecting.
- Topsoil shall be kept separate from overburden and shall not be used for building or maintenance of access roads.
- The topsoil stored in the bund wall shall be adequately protected from being blown away or being eroded.

### F 2.2 ACCESS TO THE SITE

#### F 2.2.1 Establishing access roads on the site

- The access road to the mining/prospecting area and the camp-site/site office must be established in consultation with the landowner/tenant and existing roads shall be used as far as practicable.
- Should a portion of the access road be newly constructed the following must be adhered to:
  - The route shall be selected that a minimum number of bushes or trees are felled and existing fence lines shall be followed as far as possible.
  - Water courses and steep gradients shall be avoided as far as is practicable.
  - Adequate drainage and erosion protection in the form of cut-off berms or trenches shall be provided where necessary.
- If imported material is used in the construction or upgrading of the access road this must be listed in C 2.17
- The erection of gates in fence lines and the open or closed status of gates in new and existing positions shall be clarified in consultation with the landowner/tenant and maintained throughout the operational period.
- No other routes will be used by vehicles or personnel for the purpose of gaining access to the site.

**NOTE: The design, construction and location of access to provincial roads must be in accordance with the requirements laid down by the Provincial or controlling authority.**

### **F 2.2.2 Maintenance of access roads**

- In the case of dual or multiple use of access roads by other users, arrangements for multiple responsibility must be made with the other users. If not, the maintenance of access roads will be the responsibility of the holder of the mining permit/ prospecting right.
- Newly constructed access roads shall be adequately maintained so as to minimise dust, erosion or undue surface damage.

### **F 2.2.3 Dust control on the access and haul roads**

- The liberation of dust into the surrounding environment shall be effectively controlled by the use of, inter alia, water spraying and/or other dust-allaying agents. The speed of haul trucks and other vehicles must be strictly controlled to avoid dangerous conditions, excessive dust or excessive deterioration of the road being used.

### **F 2.2.4 Rehabilitation of access roads**

- Whenever a mining permit/ prospecting right 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/ prospecting 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/prospecting operation, be corrected and the area be seeded with a seed mix to the Regional Manager's specification.

## **F 2.3 OFFICE/CAMP SITES**

### **F 2.3.1 Establishing office / camp sites**

- Office and camp sites shall be established, as far as is practicable, outside the flood plain, above the 1 in 50 flood level mark within the boundaries of the mining/ prospecting area.
- The area chosen for these purposes shall be the minimum reasonably required and which will involve the least disturbance to vegetation. Topsoil shall be handled as described in F 2.1 above

- No camp or office site shall be located closer than 100 metres from a stream, river, spring, dam or pan.
- No trees or shrubs will be felled or damaged for the purpose of obtaining firewood, unless agreed to by the landowner/tenant.
- Fires will only be allowed in facilities or equipment specially constructed for this purpose. If required by applicable legislation, a fire-break shall be cleared around the perimeter of the camp and office sites.
- Lighting and noise disturbance or any other form of disturbance that may have an effect on the landowner/tenant/persons lawfully living in the vicinity shall be kept to a minimum.

### **F 2.3.2 Toilet facilities, waste water and refuse disposal**

- As a minimum requirement, the holder of a mining permit/ prospecting right shall, at least, provide pit latrines for employees and proper hygiene measures shall be established.
- Chemical toilet facilities or other approved toilet facilities such as a septic drain shall preferably be used and sited on the camp site in such a way that they do not cause water or other pollution.
- The use of existing facilities must take place in consultation with the landowner/tenant.
- In cases where facilities are linked to existing sewerage structures, all necessary regulatory requirements concerning construction and maintenance should be adhered to.
- All effluent water from the camp washing facility shall be disposed of in a properly constructed French drain, situated as far as possible, but not less than 200 metres, from any stream, river, pan, dam or borehole.
- Only domestic type wash water shall be allowed to enter this drain and any effluents containing oil, grease or other industrial substances must be collected in a suitable receptacle and removed from the site, either for resale or for appropriate disposal at a recognised facility.
- Spills should be cleaned up immediately to the satisfaction of the Regional Manager by removing the spillage together with the polluted soil and by disposing of them at a recognised facility.
- Non-biodegradable refuse such as glass bottles, plastic bags, metal scrap, etc., shall be stored in a container at a collecting point and collected on a regular basis and disposed of at a recognised disposal facility. Specific precautions shall be taken to prevent refuse from being dumped on or in the vicinity of the camp site.
- Biodegradable refuse generated from the office/camp site, processing areas vehicle yard, storage area or any other area shall either be handled as indicated above or be buried in a pit excavated for that purpose and covered with layers of soil, incorporating a final 0,5 metre thick layer of topsoil (where practicable). Provision should be made for future subsidence of the covering.

### F 2.3.3 Rehabilitation of the office/camp 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) *which may not be demolished in terms of any other law;*
    - (b) *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*
- Where office/camp sites have been rendered devoid of vegetation/grass or where soils have been compacted owing to traffic, the surface shall be scarified or ripped.
- Areas containing French drains shall be compacted and covered with a final layer of topsoil to a height of 10cm above the surrounding ground surface.
- The site shall be seeded with a vegetation seed mix adapted to reflect the local indigenous flora.
- 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/prospecting operation be corrected and the area be seeded with a vegetation seed mix to his or her specification.
- Photographs of the camp and office sites, before and during the mining/prospecting operation and after rehabilitation, shall be taken at selected fixed points and kept on record for the information of the Regional Manager.

## F 2.4 VEHICLE MAINTENANCE YARD AND SECURED STORAGE AREAS

### F 2.4.1 Establishing the vehicle maintenance yard and secured storage areas

- The vehicle maintenance yard and secured storage area will be established as far as is practicable, outside the flood plain, above the 1 in 50 flood level mark within the boundaries of the mining/prospecting area.
- The area chosen for these purposes shall be the minimum reasonably required and involve the least disturbance to tree and plant life. Topsoil shall be handled as described in F 2.1 above.

- The storage area shall be securely fenced and all hazardous substances and stocks such as diesel, oils, detergents, etc., shall be stored therein. Drip pans, a thin concrete slab or a facility with PVC lining, shall be installed in such storage areas with a view to prevent soil and water pollution.
- The location of both the vehicle maintenance yard and the storage areas are to be indicated on the layout plan.
- No vehicle may be extensively repaired in any place other than in the maintenance yard.

#### **F 2.4.2 Maintenance of vehicles and equipment**

- The maintenance of vehicles and equipment used for any purpose during the mining/prospecting operation will take place only in the maintenance yard area.
- Equipment used in the mining/prospecting process must be adequately maintained so that during operations it does not spill oil, diesel, fuel, or hydraulic fluid.
- Machinery or equipment used on the mining/prospecting area must not constitute a pollution hazard in respect of the above substances. The Regional Manager shall order such equipment to be repaired or withdrawn from use if he or she considers the equipment or machinery to be polluting and irreparable.

#### **F 2.4.3 Waste disposal**

- Suitable covered receptacles shall be available at all times and conveniently placed for the disposal of waste.
- All used oils, grease or hydraulic fluids shall be placed therein and these receptacles will be removed from the site on a regular basis for disposal at a registered or licensed disposal facility.
- All spills should be cleaned up immediately to the satisfaction of the Regional Manager by removing the spillage together with the polluted soil and by disposing of them at a recognised facility.

#### **F 2.4.4 Rehabilitation of vehicle maintenance yard and secured storages areas**

- On completion of mining/prospecting operations, the above areas shall be cleared of any contaminated soil, which must be dumped as referred to in section F 2.4.3 above.
- All buildings, structures or objects on the vehicle maintenance yard and secured storage areas shall be dealt with in accordance with section 44 of the Mineral and Petroleum Resources Development Act, 2002.
- The surface shall then 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. The area shall then be fertilised if necessary (based on a soil analysis).
- The site shall be seeded with a vegetation seed mix adapted to reflect the local indigenous flora.

- 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/prospecting operation be corrected and the area be seeded with a seed mix to his or her specification.

### F 3 OPERATING PROCEDURES IN THE MINING AREA

#### F 3.1 Limitations on mining/prospecting

- The mining of or prospecting for precious stones shall take place only within the approved demarcated mining or prospecting area.
- Mining/ prospecting may be limited to the areas indicated by the Regional Manager on assessment of the application.
- The holder of the mining permit/ prospecting right shall ensure that operations take place only in the demarcated areas as described in section F 1.1.2 above.
- Operations will not be conducted closer than one and a half times the height of the bank from the edge of the river channel and in such manner that the stability of the bank of the river is effected.
- Precautions shall also be taken to ensure that the bank of the river is adequately protected from scouring or erosion. Damage to the bank of the river caused by the operations, shall be rehabilitated to a condition acceptable to the Regional Manager at the expense of the holder.
- Restrictions on the disturbance of riverine vegetation in the form of reeds or wetland vegetation must be adhered to. The presence of these areas must be entered in Part of the programme and indicated on the layout plan.

#### F 3.2 Mining/ prospecting operations within the riverine environment

**NOTE: The Department of Water Affairs and Forestry may impose additional conditions which must be attached to this EMP. In this regard, please see the Best Practice Guideline for small scale mining developed by DWAF (BPG 2.1)**  
(available from <http://www.dwaf.gov.za>)

- The mining of or prospecting for precious stones in the river or the banks of the river will be undertaken only after the Regional Manager has consulted with the Department of Water Affairs and Forestry.
- The canalisation of a river will not be undertaken unless the necessary permission has been obtained from the Department of Water Affairs and Forestry. Over and above the conditions imposed by the said Department, which conditions shall form part of this EMPlan, the following will also apply:
  - ❖ The canalisation of the flow of the river over different parts of the river bed shall be constructed in such a manner that the following are adhered to at all times:

- ◆ The flow of the river may not be impeded in any way and damming upstream may not occur.
  - ◆ The canalisation of the flow may not result in scouring or erosion of the river-bank.
  - ◆ Well points or extraction pumps in use by other riparian users may not be interfered with and canalisation may not impede the extraction of water at these points.
- Access to the riverbed for the purpose of conducting excavations in the river-bed, shall be through the use of only one access at a time. The location of the access to the river channel across the river-bank shall be at a point of the river-bank where the least excavation and damage to vegetation will occur and shall not be wider than is reasonably required. The position of the river access together with all planned future access points, must be indicated on the layout plan.

### **F 3.2.1 Rehabilitation of access to river-bed**

- When rehabilitating the access point, the original profile of the river-bank will be re-established by backfilling the access point with the original material excavated or other suitable material.
- The topsoil shall then be returned over the whole area to its original depth and if necessary fertilised and the vegetation allowed to grow.
- 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/prospecting operation be corrected and the area be seeded with a seed mix to his or her specification.
- In the event of damage from an occurrence where high flood waters scour and erode access points in the process of rehabilitation over the river-bank or an access point currently in use, repair of such damage shall be the sole responsibility of the holder of the mining permit or prospecting right.
- Repair to the river-bank to reinstate its original profile to the satisfaction of the Regional Manager must take place immediately after such event has occurred and the river has subsided to a point where repairs can be undertaken.
- Final acceptance of rehabilitated river access points will be awarded only after the vegetation has re-established to a point where the Regional Manager is satisfied that the river-bank is stable and that the measures installed are of durable nature and able to withstand high river-flow conditions.

### **F 3.2.2 Rehabilitation of mining/prospecting area in the bed of the river**

- The goal of rehabilitation with respect to the area where mining/prospecting has taken place in the river-bed is to leave the area level and even, and in a natural state containing no foreign debris or other materials and to ensure the hydrological integrity of the river by not attenuating or diverting any of the natural flow.
- All scrap and other foreign materials will be removed from the bed of the river and disposed of as in the case of other refuse (see section F 2.3.2 above), whether



these accrue directly from the mining/prospecting operation or are washed on to the site from upstream.

- Removal of these materials shall be done on a continuous basis and not only at the start of rehabilitation.
- Where reeds or other riverine vegetation have been removed from areas, these shall be re-established systematically in the approximate areas where they occurred before mining/prospecting.
- An effective control programme for the eradication of invader species and other exotic plants, shall be instituted on a regular basis over the entire mining/prospecting area under the control of the holder of the mining permit/prospecting right, both during mining/prospecting and at the stage of final rehabilitation.

## 2. THE WATER USE LICENCE

The National Water Act, (Act 36 of 1998), is based on the principles of sustainability, efficiency and equity, meaning that the protection of water resources must be balanced with their development and use.

In addition to being issued with a prospecting right or mining permit a small-scale miner may also need to get a **water use licence** for the proposed water uses that will take place, except in certain cases.

*NOTE: The Department of Water Affairs and Forestry (DWAF) developed specific Best Practice Guideline for small scale mining that relates to stormwater management, erosion and sediment control and waste management. Copies of these guidelines can be obtained from the regional office of DME or DWAF.*

Applications for a water use licence must be made in good time, such that approval can be granted before a water use activity can begin. The appropriate licence forms for each kind of expected water use should be completed together with supporting documentation. The main supporting document required is a technical report. To make the technical report easier, you can refer to sections in this EMPlan, as most of what the technical report requires has already been done in the EMPlan. If you refer to the EMPlan it must be attached to the technical report.

### F 3.3 EXCAVATIONS

#### F 3.3.1 Establishing the excavation areas

- Whenever any excavation is undertaken for the purpose of locating and/or extracting ore bodies of all types of minerals, including precious stone-bearing gravels, the following operating procedures shall be adhered to:
  - ❖ Topsoil shall, in all cases (except when excavations are made in the river-bed), be handled as described in F 2.1 above.
  - ❖ Excavations shall take place only within the approved demarcated mining/prospecting area.
  - ❖ Overburden rocks and coarse material shall be placed concurrently in the excavations or stored adjacent to the

excavation, if practicable, to be used as backfill material once the ore or gravel has been excavated.

- ❖ Trenches shall be backfilled immediately if no ore or precious stone-bearing gravel can be located.

### **F 3.3.2 Rehabilitation of excavation areas**

The following operating procedures shall be adhered to:

- The excavated area must serve as a final depositing area for the placement of tailings during processing.
- Rocks and coarse material removed from the excavation must be dumped into the excavation simultaneously with the tailings.
- Waste, as described in paragraph F 2.3.2 above, will not be permitted to be deposited in the excavations.
- Once excavations have been refilled with overburden, rocks and coarse natural materials and profiled with acceptable contours and erosion control measures, the topsoil previously stored, shall be returned to its original depth over the area.
- The area shall be fertilised if necessary to allow vegetation to establish rapidly. The site shall be seeded with a local or adapted indigenous seed mix in order to propagate the locally or regionally occurring flora.
- 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/ prospecting operation, be corrected and the area be seeded with a vegetation seed mix to his or her specification.

### **F 3.4 PROCESSING AREAS AND WASTE PILES (DUMPS)**

#### **F 3.4.1 Establishing processing areas and waste piles**

- Processing areas and waste piles shall not be established within 100 metres of the edge of any river channel or other water bodies.
- Processing areas should be established, as far as practicable, near the edge of excavations to allow the waste, gravel and coarse material to be processed therein.
- The areas chosen for this purpose shall be the minimum reasonably required and involve the least disturbance to vegetation.
- Prior to development of these areas, the topsoil shall be removed and stored as described in paragraph F 2.1 above.
- The location and dimensions of the areas are to be indicated on the layout plan and once established, the processing of ore containing precious stones shall be confined to these areas and no stockpiling or processing will be permitted on areas not correctly prepared.
- Tailings from the extraction process must be so treated and/or deposited that it will in no way prevent or delay the rehabilitation process.

### F 3.4.2 Rehabilitation of processing areas

- Coarse natural material used for the construction of ramps must be removed and dumped into the excavations.
- On completion of mining/prospecting operations, the surface of the processing areas especially if compacted due to hauling and dumping operations, shall be scarified to a depth of at least 300mm and graded to an even surface condition and the previously stored topsoil will be returned to its original depth over the area.
- Prior to replacing the topsoil the material that was removed from the processing area will be replaced in the same order as it originally occurred.
- The area shall then be fertilised if necessary to allow vegetation to establish rapidly. The site shall be seeded with a local, adapted indigenous seed mix.
- 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/prospecting operation be corrected and the area be seeded with a seed mix to his or her specification.

### F 3.5 TAILINGS DAM(S) (SLIMES DAM)

The permission of the Regional Manager must be obtained should a tailings dam be constructed for the purpose of handling the tailings of the mining/prospecting operations. The construction, care and maintenance of tailings dams have been regulated and the relevant regulation is copied herewith, both for your information and as a guideline to the commissioning, management, operation, closing and aftercare of a tailings deposition facility.

**Regulation 73 promulgated under the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) requires the following:**

#### **Management of residue stockpiles and deposits**

56. (1) *The assessment of impacts relating to the management of residue stockpiles and deposits, where appropriate, must form part of the environmental impact assessment report and environmental management programme or the environmental management plan.*
- (2) *Residue characterisation*
- (a) *Mine residue must be characterised to identify any potentially significant health and safety hazard and environmental impact that may be associated with the residue when stockpiled or deposited at the site(s) under consideration.*
- (b) *Residue stockpiles and deposits must be characterised in terms of its –*
- (i) *physical characteristics, which may include –*
- (aa) *the size distribution of the principal constituents;*
  - (bb) *the permeability of the compacted material;*
  - (cc) *void ratios of the compacted material;*
  - (dd) *the consolidation or settling characteristics of the material under its own weight and that of any overburden;*
  - (ee) *the strength of compacted material;*
  - (ff) *the specific gravity of the solid constituents; and*

- (gg) the water content of the material at the time of deposition, after compaction, and at other phases in the life of the deposit.
- (ii) chemical characteristics, which may include -
- (aa) the toxicity;
  - (bb) the propensity to oxidize and /or decompose;
  - (cc) the propensity to undergo spontaneous combustion;
  - (dd) the pH and chemical composition of the water separated from the solids;
  - (ee) stability and reactivity and the rate thereof; and
  - (ff) neutralising potential.
- (iii) mineral content, which include the specific gravity of the residue particles and its impact on particle segregation and consolidation;
- (3) Classification of residue stockpiles and deposits
- (a) All residue stockpiles and deposits must be classified into one or a combination of the following categories -
- (i) the safety classification to differentiate between residue stockpiles and deposits of high, medium and low hazard on the basis of their potential to cause harm to life or property; and
  - (ii) the environmental classification to differentiate between residue stockpiles and deposits with -
    - (aa) a potentially significant impact on the environment due to its spatial extent, duration and intensity of potential impacts; or
    - (bb) no potentially significant impact on the environment.
- (b) All mine residue stockpiles and deposits must be classified by a suitably qualified person(s).
- (c) The classification of residue stockpiles and deposits shall determine the -
- (i) level of investigation and assessment required;
  - (ii) requirements for design, construction, operation, decommissioning, closure and post closure maintenance; and
  - (iii) qualifications and expertise required of persons undertaking the investigations, assessments, design, construction thereof.
- (d) The safety classification of residue stockpiles and deposits shall be based on the following criteria -

Number of residents in zone of influence	Number of workers in zone of influence	Value of third party property in zone of influence	Depth to underground mine workings	Classification
0	< 10	0 – R2 m	> 200m	Low hazard
1 – 10	11 – 100	R 2 m – R20 m	50 m – 200 m	Medium hazard
> 10	> 100	> R20 m	< 50 m	High hazard

- (e) A risk analysis must be carried out and documented on all high hazard residue stockpiles and deposits.
- (f) The environmental classification of residue stockpiles and deposits must be undertaken on the basis of -
- (i) the characteristics of the residue;
  - (ii) the location and dimensions of the deposit (height, surface area);
  - (iii) the importance and vulnerability of the environmental components that are at risk; and
  - (iv) the spatial extent, duration and intensity of potential impacts.

- (g) *An assessment of the environmental impacts shall be done on all environmental components which are significantly affected.*
  - (h) *The assessment of impacts and analyses of risks shall form part of the environmental assessment and management programme.*
- (4) *Site selection and investigation:*
- (a) *The process of investigation and selection of a site must entail -*
    - (i) *the identification of a sufficient number of possible candidate sites to ensure adequate consideration of alternative sites;*
    - (ii) *qualitative evaluation and ranking of all alternative sites;*
    - (iii) *qualitative investigation of the top ranking sites to review the ranking done in (ii);*
    - (iv) *a feasibility study to be carried out on the highest ranking site(s), involving -*
      - (aa) *a preliminary safety classification;*
      - (bb) *an environmental classification;*
      - (cc) *geotechnical investigations; and*
      - (dd) *groundwater investigations.*
  - (b) *The geotechnical investigations may include-*
    - (i) *the characterization of the soil profile over the entire area to be covered by the residue facility and associated infrastructure to define the spatial extent and depth of the different soil horizons;*
    - (ii) *the characterization of the relevant engineering properties of foundations soils and the assessment of strength and drainage characteristics.*
  - (c) *The groundwater investigations may include-*
    - (i) *the potential rate of seepage from the residue facility;*
    - (ii) *the quality of such seepage;*
    - (iii) *the geohydrological properties of the strata within the zone that could potentially be affected by the quality of seepage;*
    - (iv) *the vulnerability and existing potential use of the groundwater resource within the zone that could potentially be affected by the residue facility.*
  - (d) *From these investigations, a preferred site must be identified.*
  - (e) *Further investigation on the preferred site, shall include -*
    - (i) *land use;*
    - (ii) *topography and surface drainage;*
    - (iii) *infrastructure and man-made features;*
    - (iv) *climate;*
    - (v) *flora and fauna;*
    - (vi) *soils;*
    - (vii) *ground water morphology, flow, quality and usage; and*
    - (viii) *surface water.*
  - (f) *The investigations, laboratory test work, interpretation of data and recommendations for the identification and selection of the most appropriate and suitable site for the disposal of all residue that have the potential to generate leachate that could have a significant impact on the environment and groundwater must be carried out by a suitably qualified person.*

(5) *Design of residue stockpile and deposit*

- (a) *The design of the residue stockpile and deposit shall be undertaken by a suitably qualified person.*
- (b) *An assessment of the typical soil profile on the site is required for residue stockpiles and deposits which -*
- (i) have a low hazard potential; and*
  - (ii) have no significant impact on the environment.*
- (c) *The design of the residue stockpile and deposit must take into account all phases of the life cycle of the stockpile and deposit, from construction through to closure and must include -*
- (i) the characteristics of the mine residue;*
  - (ii) the characteristics of the site and the receiving environment;*
  - (iii) the general layout of the stockpile or deposit, whether it is a natural valley, ring dyke, impoundment or a combination thereof and its 3-dimensional geometry at appropriate intervals throughout the planned incremental growth of the stockpile or deposit;*
  - (iv) the type of deposition method used; and*
  - (v) the rate of rise of the stockpile or deposit.*
- (d) *Other design considerations, as appropriate to the particular type of stockpile and deposit must be incorporated -*
- (i) the control of storm water on and around the residue stockpile or deposit by making provision for the maximum precipitation to be expected over a period of 24 hours with a frequency of once in a 100 years, in accordance with the regulations made under section 8 of the National Water Act, 1998;*
  - (ii) the provision, throughout the system, of a freeboard of at least 0.5 m above the expected maximum water level, in accordance with regulations made under the National Water Act, 1998, to prevent overtopping;*
  - (iii) keeping the pool away from the walls; where there are valid technical reasons for deviating from this, adequate motivation must be provided and the design must be reviewed by a qualified person as required in terms of sections 9(6) or 9(7) of the Mine Health and Safety Act, 1996;*
  - (iv) the control of decanting of excess water under normal and storm conditions;*
    - (aa) the retention of polluted water in terms of polluted water in terms of GN R991(9), where measures may be required to prevent water from the residue deposit from leaving the residue management system unless it meets prescribed requirements;*
    - (bb) the design of the penstock, outfall pipe, under-drainage system and return water dams;*
    - (cc) the height of the phreatic surface, slope angles and method of construction of the outer walls and their effects on shear stability;*
    - (dd) the erosion of slopes by wind and water, and its control by (ee) vegetation, berms or catchment paddocks; and*
    - (ee) the potential for pollution.*
- (e) *A design report and operating manual shall be drawn up for all residue stockpiles and deposits which -*
- (i) have a medium to high hazard; and*
  - (ii) have a potentially significant impact on the environment.*
- (f) *Relevant information must be included in the draft environmental management programme or environmental management plan.*

(6) *Construction and operation of residue deposits:*

- (a) *The holder of any right or permit in terms of the Act, must ensure that-*
- (i) *the residue deposits, including any surrounding catchment paddocks, is constructed and operated in accordance with the approved environmental management programme or environmental management plan;*
  - (ii) *the design of the residue deposit is followed implicitly throughout the construction thereof, and that any deviations from the design be approved by the Regional Manager and the environmental manage programme and environmental management plan be amended accordingly;*
  - (iii) *as part of the monitoring system, measurements of all residues transported to the site and of all surplus water removed from the site are recorded;*
  - (iv) *the provision for appropriate security measures be implemented to limit unauthorised access to the site and intrusion into the residue deposit;*
  - (v) *specific action be taken in respect of any sign of pollution;*
  - (vi) *adequate measures be implemented to control dust pollution and erosion of the slopes; and*
  - (vii) *details of rehabilitation of the residue deposit be provided in the draft environmental management programme or environmental management plan.*
- (b) *A system of routine maintenance and repair in respect of the residue deposit must be implemented to ensure the ongoing control of pollution, the integrity of rehabilitation and health and safety maters at the site.*

(7) *Monitoring of residue stockpiles and deposits:*

- (a) *A monitoring system for residue stockpiles and deposits with respect to potentially significant impacts as identified in the environmental assessment must be included in the environmental management programme or environmental management plan.*
- (b) *In the design of a monitoring system for a residue stockpile or deposit, consideration must be given to –*
- (i) *baseline and background conditions with regard to air, surface and groundwater quality ;*
  - (ii) *the air, surface and groundwater quality objectives;*
  - (iii) *residue characteristics;*
  - (iv) *the degree and nature of residue containment;*
  - (v) *the receiving environment and secifically the climatic, local geological, hydrogeological and geochemical conditions;*
  - (vi) *potential migration pathways;*
  - (vii) *potential impacts of leachate;*
  - (viii) *the location of monitoring points and the prescribed monitoring protocols; and*
  - (ix) *the reporting frequency and procedures.*

(8) *Decommissioning, closure and after care:*

- (a) *The decommissioning, closure and post closure management of residue deposits must be addressed in the closure plan, which must contain the following -*
- (i) *the environmental classification, including assumptions on which the classification were based;*
  - (ii) *the closure objectives, final land use or capability;*
  - (iii) *conceptual descrption and details for closure and post closure management;*
  - (iv) *cost estimates and financial provision for closure and post-closure management; and*
  - (v) *residual impacts, monitoring and requirements to obtain mine closure in terms of the Act.*

### F 3.6 FINAL REHABILITATION

- All infrastructure, equipment, plant, temporary housing and other items used during the mining period will be removed from the site (section 44 of the MPRDA)
- Waste material of any description, including receptacles, scrap, rubble and tyres, will be removed entirely from the mining area and disposed of at a recognised landfill facility. It will not be permitted to be buried or burned on the site.
- Final rehabilitation shall be completed within a period specified by the Regional Manager.

## F 4 MONITORING AND REPORTING

### F 4.1 Inspections and monitoring

- Regular monitoring of all the environmental management measures and components shall be carried out by the holder of the prospecting right, mining permit or reconnaissance permission in order to ensure that the provisions of this programme are adhered to.
- Ongoing and regular reporting of the progress of implementation of this programme will be done.
- Various points of compliance will be identified with regard to the various impacts that the operations will have on the environment.
- Inspections and monitoring shall be carried out on both the implementation of the programme and the impact on plant and animal life.
- Visual inspections on erosion and physical pollution shall be carried out on a regular basis.

Regulation 55 promulgated in terms of the MPRDA requires the following:

**Monitoring and performance assessments of environmental management programme or plan**

- (1) *As part of the general terms and conditions for a prospecting right, mining right or mining permit and in order to ensure compliance with the approved environmental management programme or plan and to assess the continued appropriateness and adequacy of the environmental management programme or plan, the holder of such right must-*
  - (a) *conduct monitoring on a continuous basis;*
  - (b) *conduct performance assessments of the environmental management programme or plan as required; and*
  - (c) *compile and submit a performance assessment report to the Minister to demonstrate adherence to sub-regulation (b).*
- (2) *The frequency of performance assessment reporting shall be-*
  - (a) *in accordance with the period specified in the approved environmental management programme or plan, or, if not so specified;*
  - (b) *as agreed to in writing by the Minister; or*
  - (c) *biennially (every two years).*
- (3) *The performance assessment report, shall be in the format provided in guidelines that will from time to time be published by the Department and shall as a minimum contain-*
  - (a) *information regarding the period that applies to the performance assessment;*
  - (b) *the scope of the assessment;*



- (c) *the procedure used for the assessment;*
  - (d) *the interpreted information gained from monitoring the approved environmental management programme or plan;*
  - (e) *the evaluation criteria used during the assessment;*
  - (f) *the results of the assessment; and*
  - (g) *recommendations on how and when deficiencies that are identified and/or aspects of non-compliance will be rectified.*
- (4) *The holder of a prospecting right, mining right or mining permit may appoint an independent qualified person(s) to conduct the performance assessment and compile the performance assessment report provided that no such appointment shall relieve the holder of the responsibilities in terms of these regulations.*
- (5) *Subject to section 30(2) of the Act, the performance assessment report submitted by the holder shall be made available by the Minister to any person on request.*
- (6) *If upon consideration by the Minister, the performance assessment executed by the holder is not satisfactory or the report submitted by the holder is found to be unacceptable, the holder must-*
- (a) *repeat the whole or relevant parts of the performance assessment and revise and resubmit the report; and/or*
  - (b) *submit relevant supporting information; and/or*
  - (c) *appoint an independent competent person(s) to conduct the whole or part of the performance assessment and to compile the report.*
- (7) *If a reasonable assessment indicates that the performance assessment cannot be executed satisfactorily by the holder or a competent person(s) appointed by the holder, the Minister may appoint an independent performance assessment person(s) to conduct such performance assessment. Such appointment and execution shall be for the cost of the holder.*
- (8) *When the holder of a prospecting right, mining right or mining permit intends closing such operation, a final performance assessment shall be conducted and a report submitted to the Minister to ensure that -*
- (a) *the requirements of the relevant legislation have been complied with;*
  - (b) *the closure objectives as described in the environmental management programme or plan have been met; and*
  - (c) *all residual environmental impacts resulting from the holder's operations have been identified and the risks of latent impacts which may occur have been identified, quantified and arrangements for the management thereof have been assessed.*
- (9) *The final performance assessment report shall either precede or accompany the application for a closure certificate in terms of the Act.*

#### **F 4.2 Compliance reporting / submission of information**

- *Layout plans will be updated on a regular basis and updated copies will be submitted on a biennial basis to the Regional Manager*
- *Reports confirming compliance with various points identified in the environmental management programme will be submitted to the Regional Manager on a regular basis and as decided by the said manager .*
- *Any emergency or unforeseen impact will be reported as soon as possible.*
- *An assessment of environmental impacts that were not properly addressed or were unknown when the programme was compiled shall be carried out and added as a corrective action.*

## F 5 CLOSURE

When the holder of a prospecting right, mining permit or reconnaissance permission intends closing down his/her operations, an environmental risk report shall accompany the application for closure. The requirements of such a risk report is contained in Regulation 60 of the Regulations promulgated in terms of the Act and is quoted below :

### F 5.1 ENVIRONMENTAL RISK REPORT

*"An application for a closure certificate must be accompanied by an environmental risk report which must include-*

- (a) *the undertaking of a screening level environmental risk assessment where-*
  - (i) *all possible environmental risks are identified, including those which appear to be insignificant;*
  - (ii) *the process is based on the input from existing data;*
  - (iii) *the issues that are considered are qualitatively ranked as –*
    - (aa) *a potential significant risk; and/or*
    - (bb) *a uncertain risk; and/or*
    - (cc) *an insignificant risk.*
- (b) *the undertaking of a second level risk assessment on issues classified as potential significant risks where-*
  - (i) *appropriate sampling, data collection and monitoring be carried out;*
  - (ii) *more realistic assumptions and actual measurements be made; and*
  - (iii) *a more quantitative risk assessment is undertaken, again classifying issues as posing a potential significant risk or insignificant risk.*
- (c) *assessing whether issues classified as posing potential significant risks are acceptable without further mitigation;*
- (d) *issues classified as uncertain risks be re-evaluated and re-classified as either posing potential significant risks or insignificant risks;*
- (e) *documenting the status of insignificant risks and agree with interested and affected persons;*
- (f) *identifying alternative risk prevention or management strategies for potential significant risks which have been identified, quantified and qualified in the second level risk assessment;*
- (g) *agreeing on management measures to be implemented for the potential significant risks which must include-*
  - (i) *a description of the management measures to be applied;*
  - (ii) *a predicted long-term result of the applied management measures;*
  - (iii) *the residual and latent impact after successful implementation of the management measures;*
  - (iv) *time frames and schedule for the implementation of the management measures;*
  - (v) *responsibilities for implementation and long-term maintenance of the management measures;*
  - (vi) *financial provision for long-term maintenance; and*
  - (vii) *monitoring programmes to be implemented."*

### F 5.2 CLOSURE OBJECTIVES

Closure objectives form part of this EMPlan and must-

- (a) identify the key objectives for mine closure to guide the project design, development and management of environmental objectives;
- (b) provide broad future land use objective(s) for the site; and
- (c) provide proposed closure cost

### F 5.3 CONTENTS OF CLOSURE PLAN

A closure plan forms part of the EMP and must include the following:

- (a) a description of the closure objectives and how these relate to the prospecting or mine operation and its environmental and social setting;
- (b) a plan contemplated in Regulation 2(2), coordinated according to generally accepted standards, showing the land or area under closure;
- (c) a summary of the regulatory requirements and conditions for closure negotiated and documented in the environmental management programme or plan;
- (d) a summary of the results of the environmental risk report and details of identified residual and latent impacts;
- (e) a summary of the results of progressive rehabilitation undertaken;
- (f) a description of the methods to decommission each prospecting or mining component and the mitigation or management strategy proposed to avoid, minimize and manage residual or latent impacts;
- (g) details of any long-term management and maintenance expected;
- (h) details of financial provision for monitoring, maintenance and post closure management, if required;
- (i) a plan or sketch at an appropriate scale describing the final land use proposal and arrangements for the site;
- (j) a record of interested and affected persons consulted; and
- (k) technical appendices, if any.

### F 5.4 TRANSFER OF ENVIRONMENTAL LIABILITIES TO A COMPETENT PERSON

Should the holder of a prospecting right, mining permit or reconnaissance permission wish to transfer any environmental liabilities and responsibilities to another person or persons, the following will pertain:

- (1) An application to transfer environmental liabilities to a competent person in terms of section 48) of the Act, must be completed on Form O as set out in Annexure 1 to the Regulations and be lodged to the Minister for consideration.
- (2) The holder of a prospecting right, mining right or mining permit may transfer liabilities and responsibilities as identified in the environmental management plan and the required closure plan to a competent person as contemplated in Regulation 58.
- (3) When considering the transfer of environmental liabilities and responsibilities in terms of section 48) of the Act, the Minister must consult with any State department which administers any law relating to matters affecting the environment.
- (4) No transfer of environmental liabilities and responsibilities to a competent person may be made unless the Chief Inspector of Mines and the Department of Water Affairs and Forestry have confirmed in writing that the person to whom the liabilities and responsibilities is transferred to, have the necessary qualifications pertaining to health and safety and management of potential pollution of water resources.

## F 5.5 NOTES ON LEGAL PROVISIONS

**NOTE:** The holder of a prospecting right, mining permit or reconnaissance permission must also take cognisance of the provisions of other legislation dealing with matters relating to conservation, and which include, *inter alia*, the following:

- \* National Monuments Act, 1969 (Act 28 of 1969).
- \* National Parks Act, 1976 (Act 57 of 1976)
- \* Environmental Conservation Act, 1989 (Act 73 of 1989)
- \* National Environmental Management Act, 1998 (Act No. 107 of 1998)
- \* Atmospheric Pollution Prevention Act, 1965 (Act 45 of 1965)
- \* The National Water Act, 1998 (Act 36 of 1998)
- \* Mine Safety and Health Act, 1996 (Act 29 of 1996)
- \* The Conservation of Agricultural Resources Act, 1983 (Act 43 of 1983).

## G. SPECIFIC ADDITIONAL REQUIREMENTS DETERMINED BY THE REGIONAL MANAGER.

Officials in regional offices may use the following matrix to determine the necessity for additional objectives to be included in this Section of the document:

POTENTIAL ENVIRONMENTAL IMPACTS OF MINING										
Activity	Disturbance					Pollution				Visual
	Landform	Soil	Flora	Fauna	Heritage	Land	Water	Air	Noise	
Mining										
Access										
Topsoil removal										
Overburden removal										
Mineral Extraction										
Tailings disposal										
Water Abstraction										
Pipeline route										
Transport										
Accommodation										
Waste Disposal										
Electricity										
Hydrocarbon storage										
Workforce										

Please indicate VL, L, M, H, and VH for Very Low, Low, Medium, high and Very High in each column to determine the main area and severity of impact.

G. This section outlines the specific additional requirements that may be set for the operation by the Regional Manager. Additional requirements will only have been set if the Regional Manager is of the opinion that there are specific impacts on the environment which will not be adequately mitigated by the provisions set within the standard version of the Environmental Management Plan. These requirements form part of the Environmental Management Plan and all elements and instructions contained herein must be complied with by the applicant.

[Empty lined area for additional requirements]

**H. UNDERTAKING**

I, Mr Bulane ..... the undersigned and duly authorised thereto by Department of Transport, Roads and Public Works ..... Company/~~Close Corporation~~/Municipality (Delete that which is not applicable) have studied and understand the contents of this document in it's entirety and hereby duly undertake to adhere to the conditions as set out therein including the amendment(s) agreed to by the Regional Manager in Section G and approved on .....

Signed at Bluffton this September 3rd day of September 2010.

[Signature]  
.....  
Signature of applicant

Director  
.....  
Designation

**Agency declaration:** This document was completed by Spatial Solutions Inc on behalf of Department of Transport, Roads and Public Works.

**J. APPROVAL**

Approved in terms of Section 39(4) of the Mineral and Petroleum Resources Development Act,  
2002 (Act 29 of 2002)

Signed at.....this.....day of.....20.....

.....  
**REGIONAL MANAGER**

**REGION:**.....

This document has been compiled by the Directorate: Mine Environmental Management of the Department of Minerals and Energy at their Head Office in Pretoria. Any comments, suggestions or inputs will be sincerely appreciated. If you have any comments or suggestions regarding this document or its application, please forward your contribution to:

The Director: Mine Environmental Management  
Private Bag X 59  
PRETORIA  
0001

Tel : 012 317 9288  
Fax: 012 320 6786  
E-mail: dorothy@mepta.pwv.gov.za

Locality Map

Annexure

**A**

NO.	BEHOORLIJKE	OPMERKINGEN	OPMERKINGEN
1	...	...	...
2	...	...	...
3	...	...	...
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De afgeleverde tekening is niet te kopiëren.

**PLAN No 8832/1994**

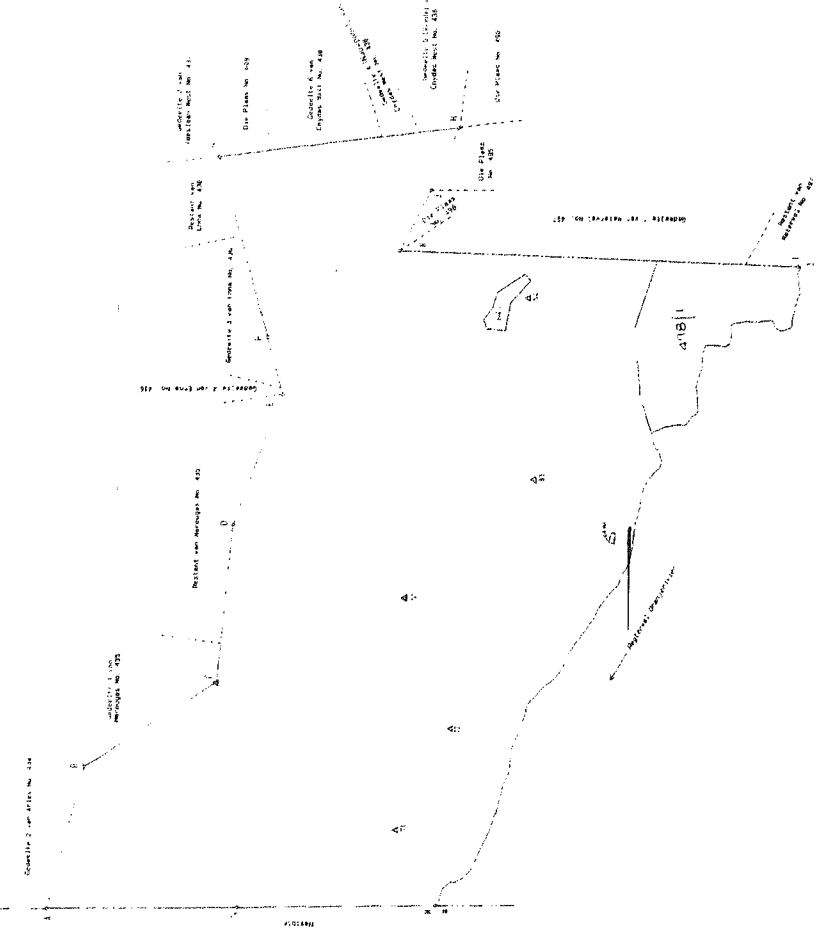
De afgeleverde tekening is niet te kopiëren.  
 Die Plaas Rieevassak No 698  
 Gemeente van die Administratiewe Distrik van Modisaotsi  
 Gemeente van die Administratiewe Distrik van Modisaotsi  
 Gemeente van die Administratiewe Distrik van Modisaotsi

Die Plaas Rieevassak No 698  
 Gemeente van die Administratiewe Distrik van Modisaotsi  
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 Gemeente van die Administratiewe Distrik van Modisaotsi

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Die afgeleverde tekening is niet te kopiëren.  
 Die Plaas Rieevassak No 698  
 Gemeente van die Administratiewe Distrik van Modisaotsi  
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 Gemeente van die Administratiewe Distrik van Modisaotsi

NO.	BEHOORLIJKE	OPMERKINGEN	OPMERKINGEN
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SKAAL 1:100000

Die afgeleverde tekening is niet te kopiëren.  
 Die Plaas Rieevassak No 698  
 Gemeente van die Administratiewe Distrik van Modisaotsi  
 Gemeente van die Administratiewe Distrik van Modisaotsi  
 Gemeente van die Administratiewe Distrik van Modisaotsi

Die afgeleverde tekening is niet te kopiëren.  
 Die Plaas Rieevassak No 698  
 Gemeente van die Administratiewe Distrik van Modisaotsi  
 Gemeente van die Administratiewe Distrik van Modisaotsi  
 Gemeente van die Administratiewe Distrik van Modisaotsi

S



Borrowpit nr2



K, Kal IGarlb Rural, South Africa

Borrowpit nr1



© 2010 Tele Atlas  
Image © 2010 DigitalGlobe  
© 2010 Google

682556 Atlas 210145/00E atlan 00

Borrowpit nr2

Rlemvasmaak, Kal I Garb Rural, South Africa

Borrowpit nr1






00:00

Imagery Dates: Feb 18, 2004 - Mar 2, 2004

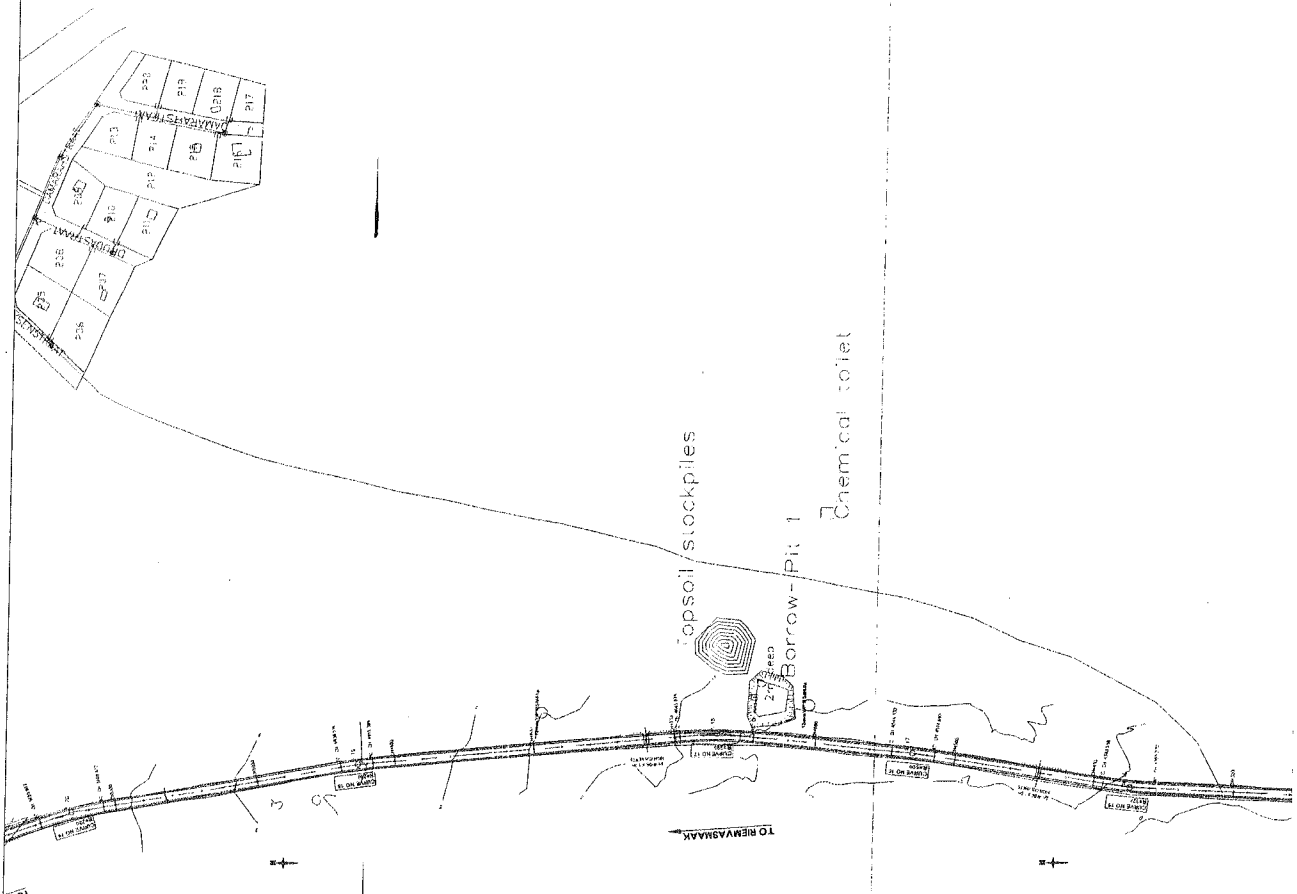
© 2010 Tele Atlas  
 Image © 2010 DigitalGlobe  
 © 2010 Google

28°28'47.23"S 20°19'45.86"E elev 0ft

on Google

Eye alt 26855ft

# IRIG. GIBRALTAR



NO.	DESCRIPTION	DATE	BY

PROVINCIALE ADMINISTRASIE VAN NOORD-KAMP  
 DEPARTEMENT VAN VERVOER, PAKKE EN OPBERGWERK  
 PROVINCIALE ADMINISTRASIE VAN NOORD-KAMP  
 DEPARTEMENT VAN VERVOER, PAKKE EN OPBERGWERK



UPGRADING OF ACCESS ROAD  
 FROM MISSION STATION  
 TO MAIN GATE



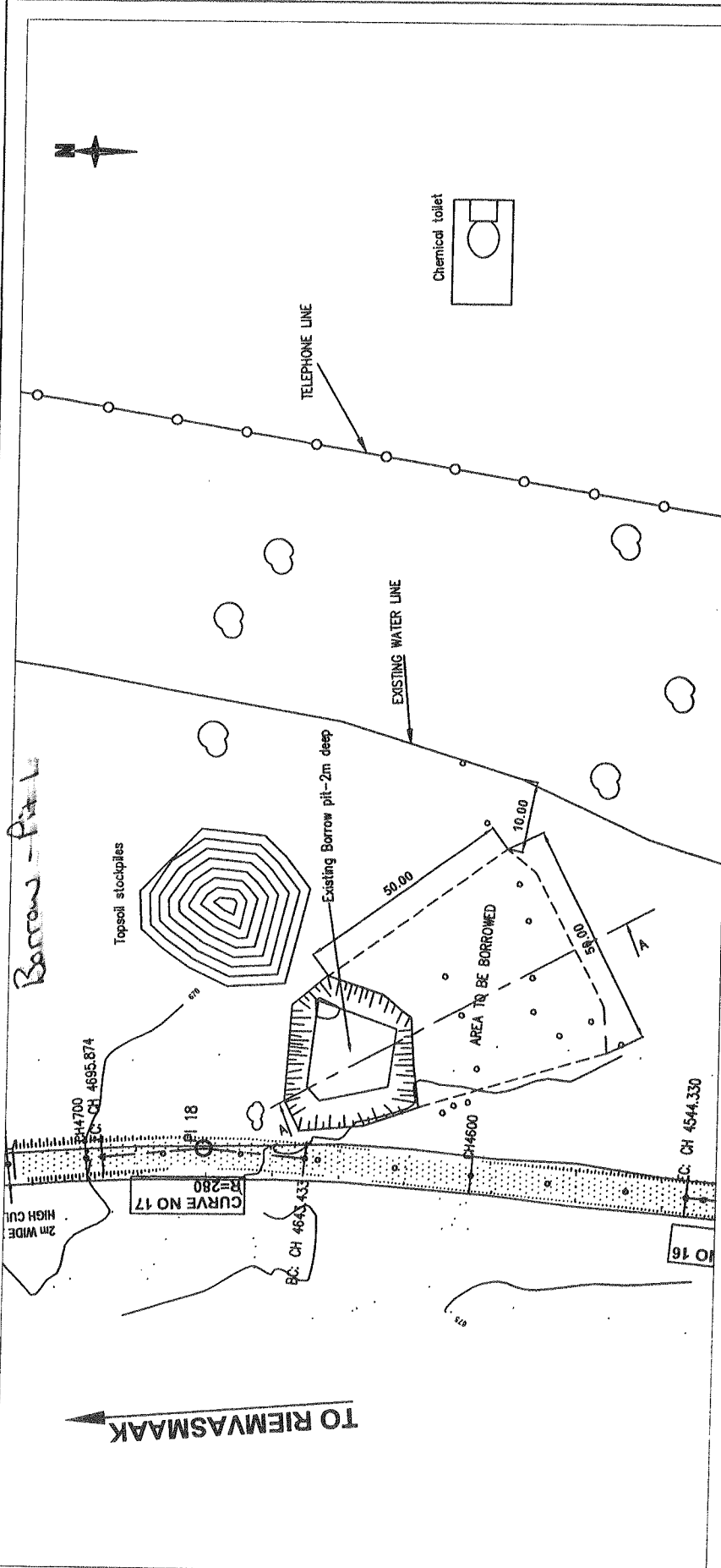
IR Consulting Engineers  
 101 Buitenkant, Cape Town  
 Tel: 021 435 1111

PROJECT NO.	7/2007/10
DATE	15/07/07
SCALE	1:100
PROJECT NAME	UPGRADING OF ACCESS ROAD FROM MISSION STATION TO MAIN GATE
CLIENT	PROVINCIALE ADMINISTRASIE VAN NOORD-KAMP DEPARTEMENT VAN VERVOER, PAKKE EN OPBERGWERK
DESIGNER	IR CONSULTING ENGINEERS
DRAWN BY	
CHECKED BY	
DATE OF ISSUE	

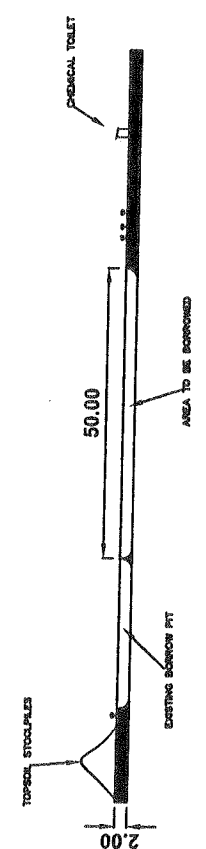
# Site Layout Map of the Burrow Pit

Annexure

# B



SECTION A-A



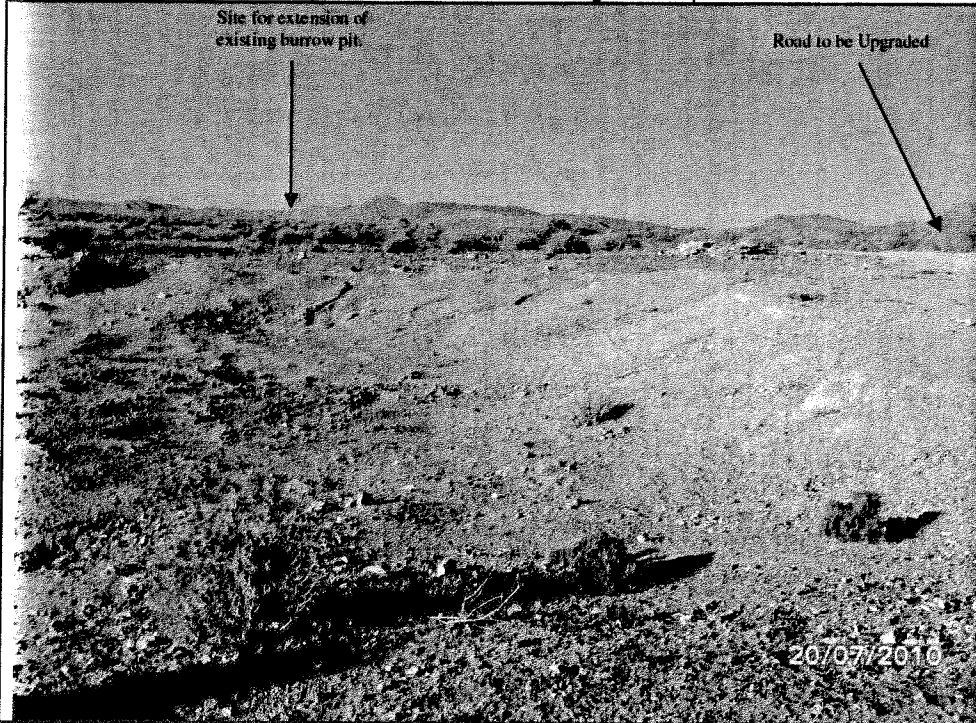
PROJECT NO. / PRINKE DE	DATE	BY	SCALE	NO. OF SHEETS	TOTAL NO. OF SHEETS	DATE	PROJECT NO. / PRINKE DE
000103/0							
							
UPGRADING OF ACCESS ROAD FROM MISSION STATION TO MAIN GATE							
PROVINSIALE ADMINISTRASIE VAN NOORD-KAAP DEPARTEMENT VAN VERVOER, PAAN EN OPENBARE WERKE PROVINCIAL ADMINISTRATION OF NORTHERN CAPE DEPARTMENT OF TRANSPORT, ROADS AND PUBLIC WORKS							
NO. OF SHEETS	NO. OF SHEETS	NO. OF SHEETS	NO. OF SHEETS	NO. OF SHEETS	NO. OF SHEETS	NO. OF SHEETS	NO. OF SHEETS

# Photographs

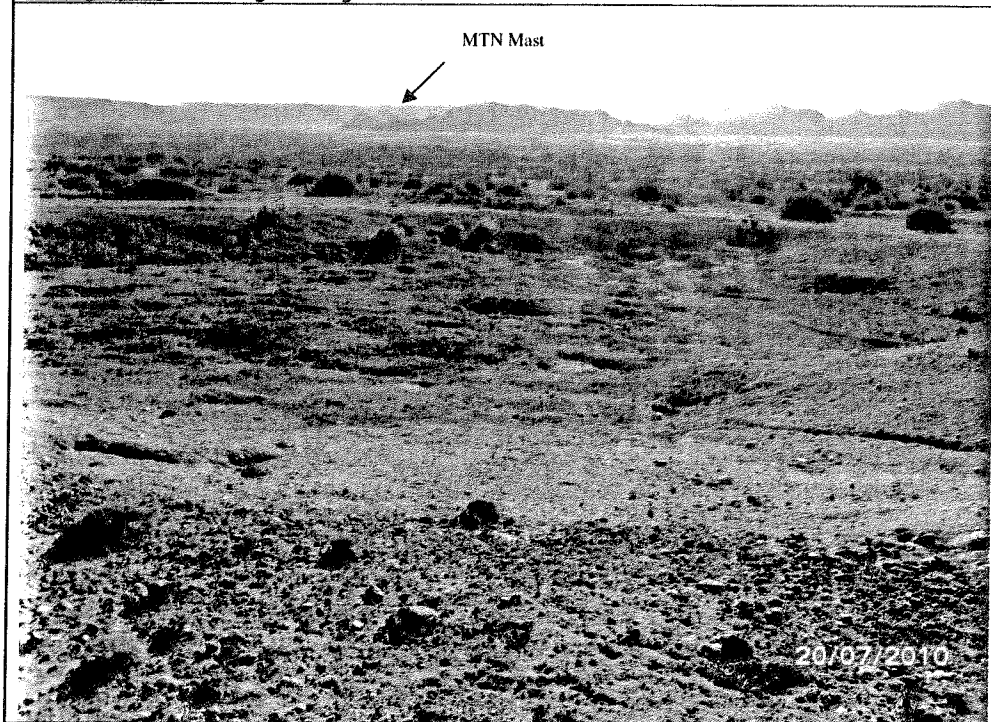
Annexure

# C

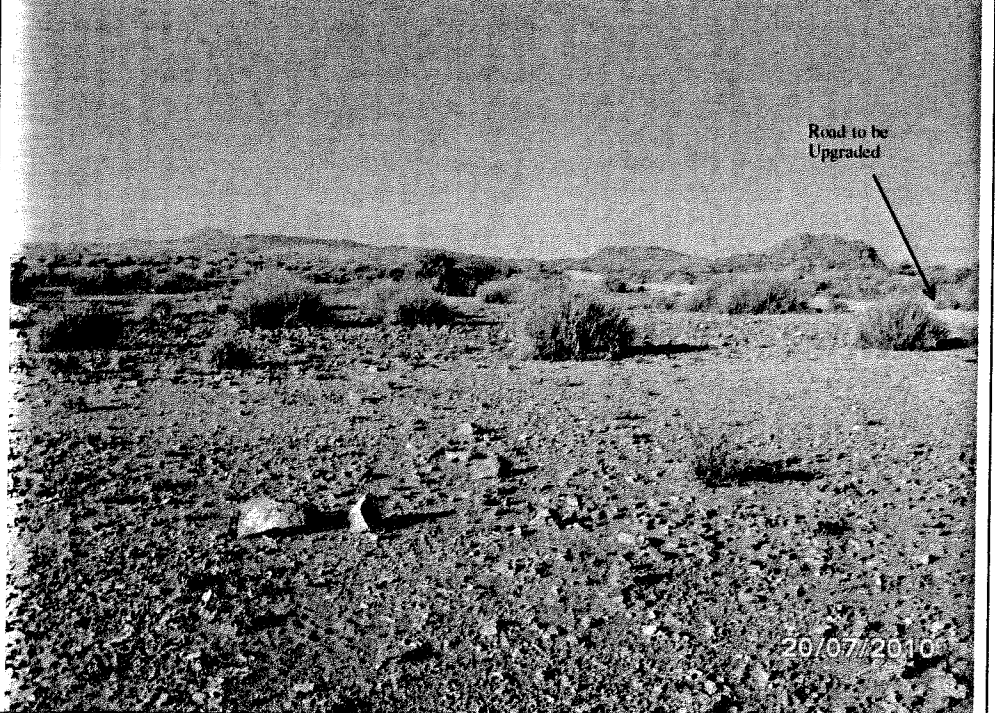
**Photograph 1:** Showing the existing Burrow Pit 1 in a southern direction. The Burrow Pit is situated directly next to the Riemvasmaak Road to be Upgraded. The site to extend the burrow pit is situated directly to the south of the existing burrow pit.



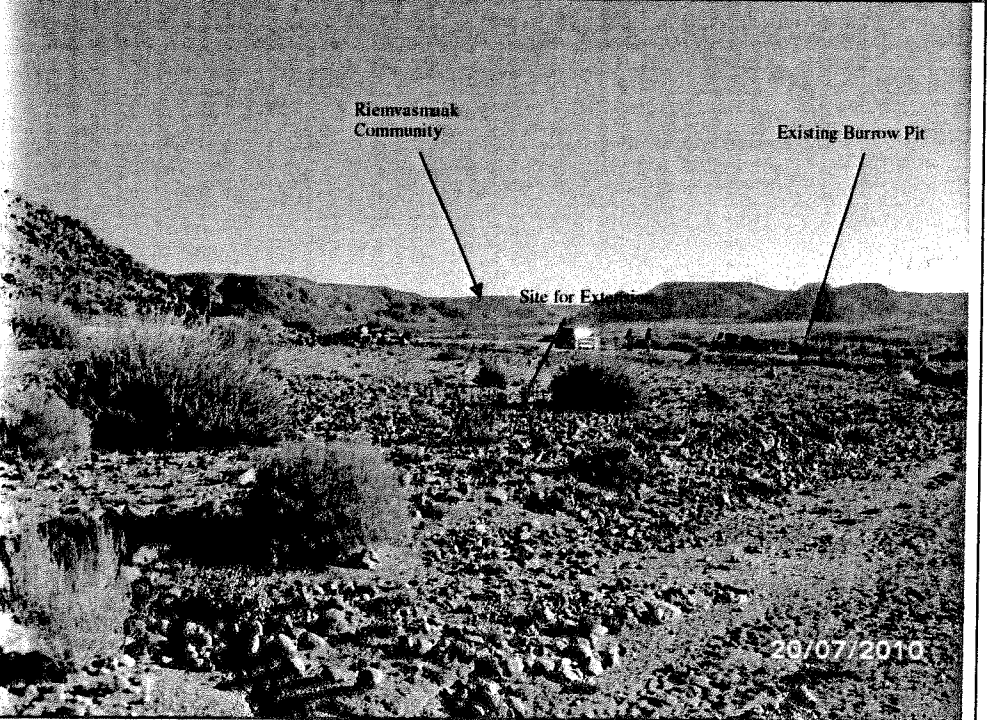
**Photograph 2:** Showing existing Burrow Pit 1 in a north eastern direction.



Photograph 3: Showing the site for the extension of Burrow Pit 1 in a southern direction.

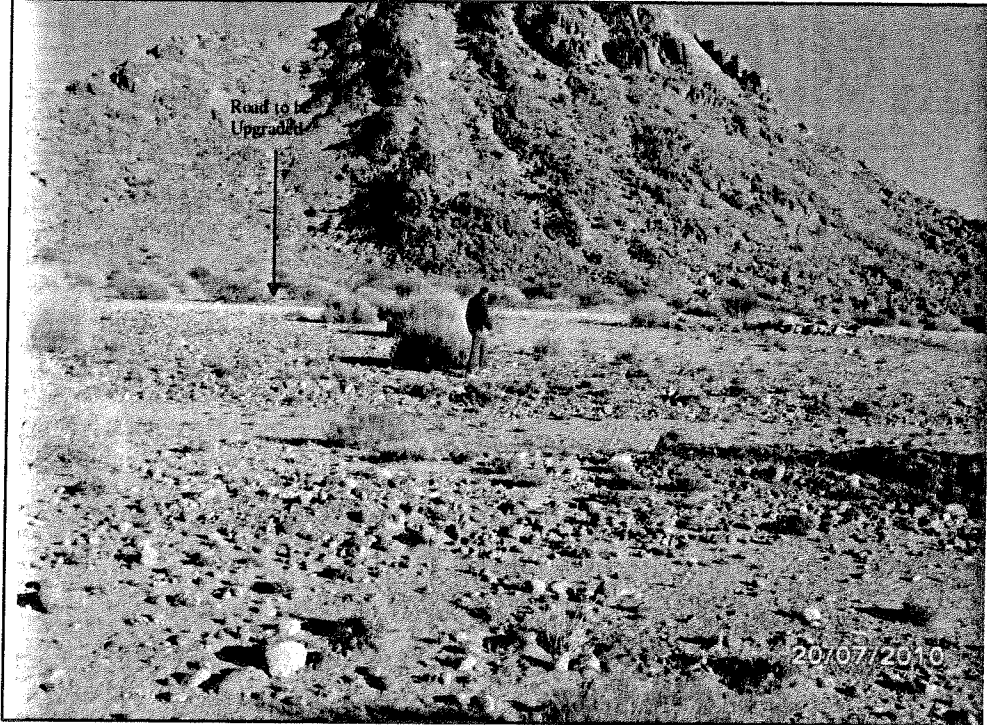


Photograph 4: Showing the in a north western direction. The extension site is in the foreground with the existing burrow pit in the background.

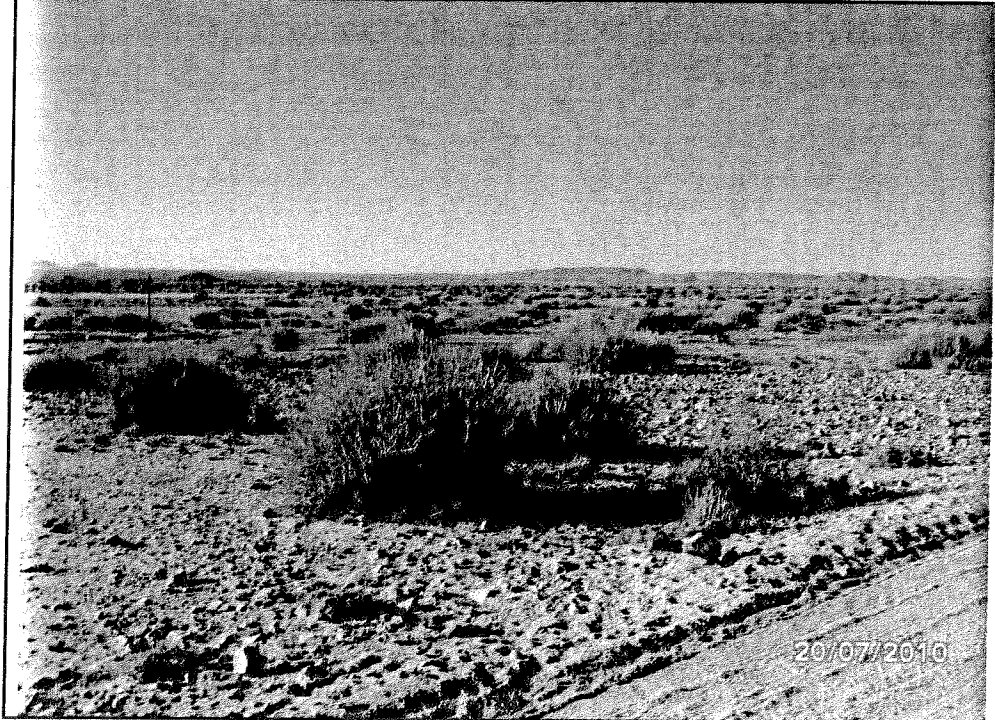




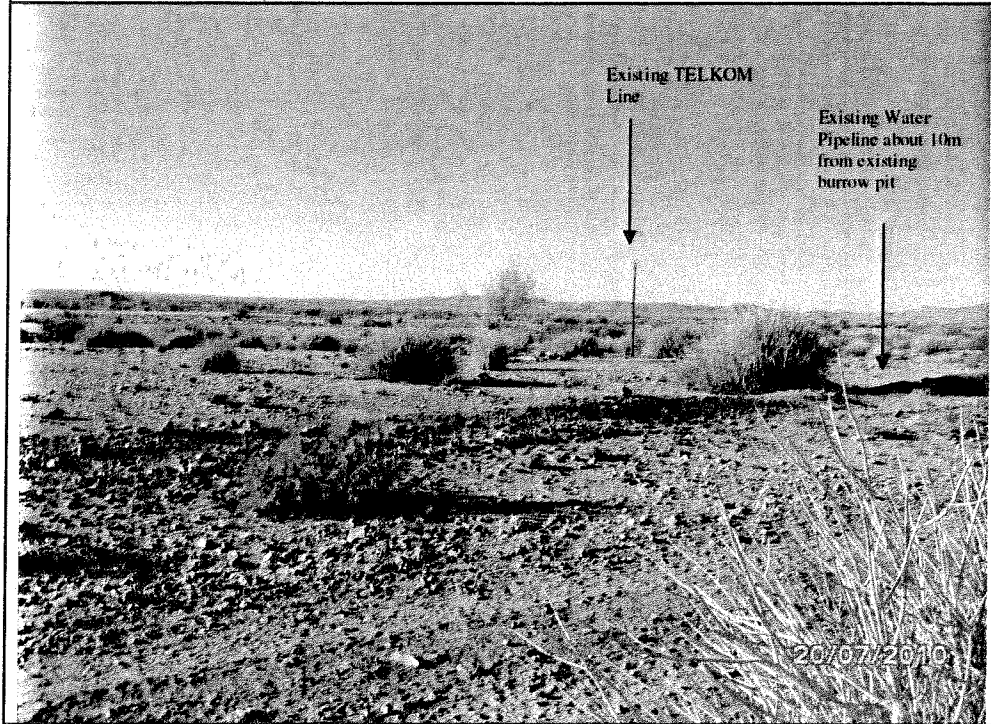
Photograph 5: Showing the site for the extension of the existing burrow pit in a western direction.



Photograph 6: Showing the proposed site for the extension of the burrow pit in a south eastern direction. Photograph taken from the road to be upgraded.



**Photograph 7:** Showing existing infrastructure in close proximity to the burrow pit situated to the east of the burrow pit.

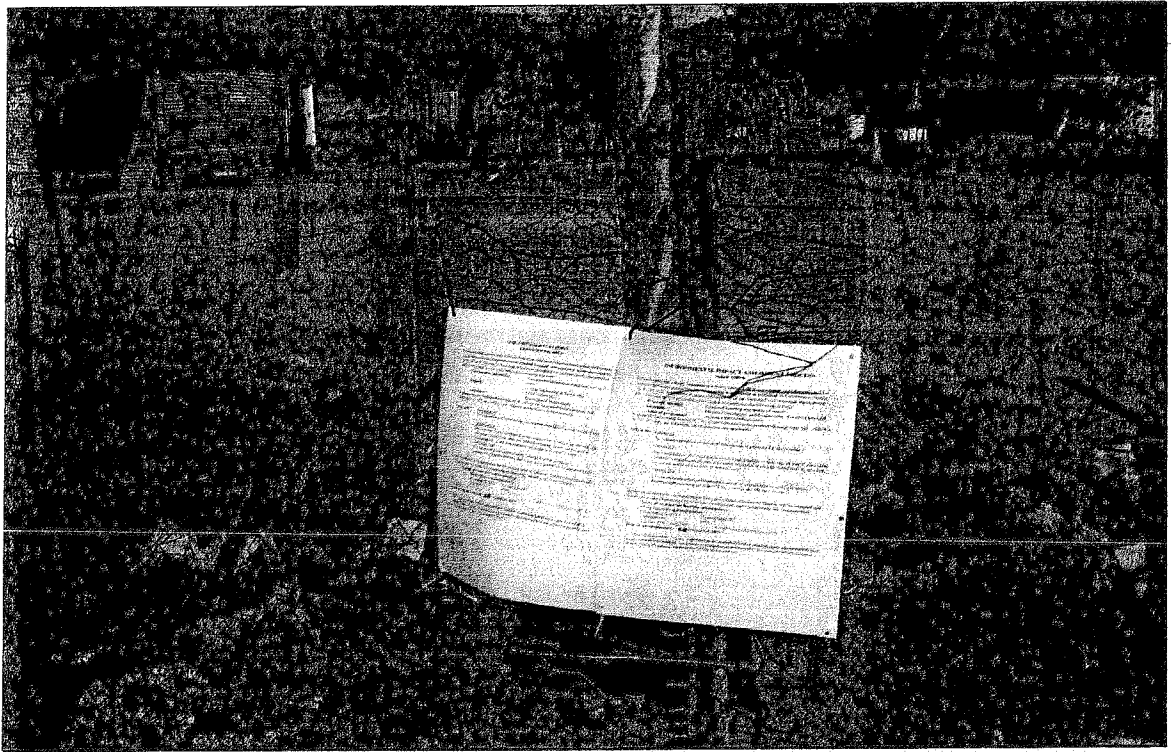


# Landowners Consent and Public Participation Documentation

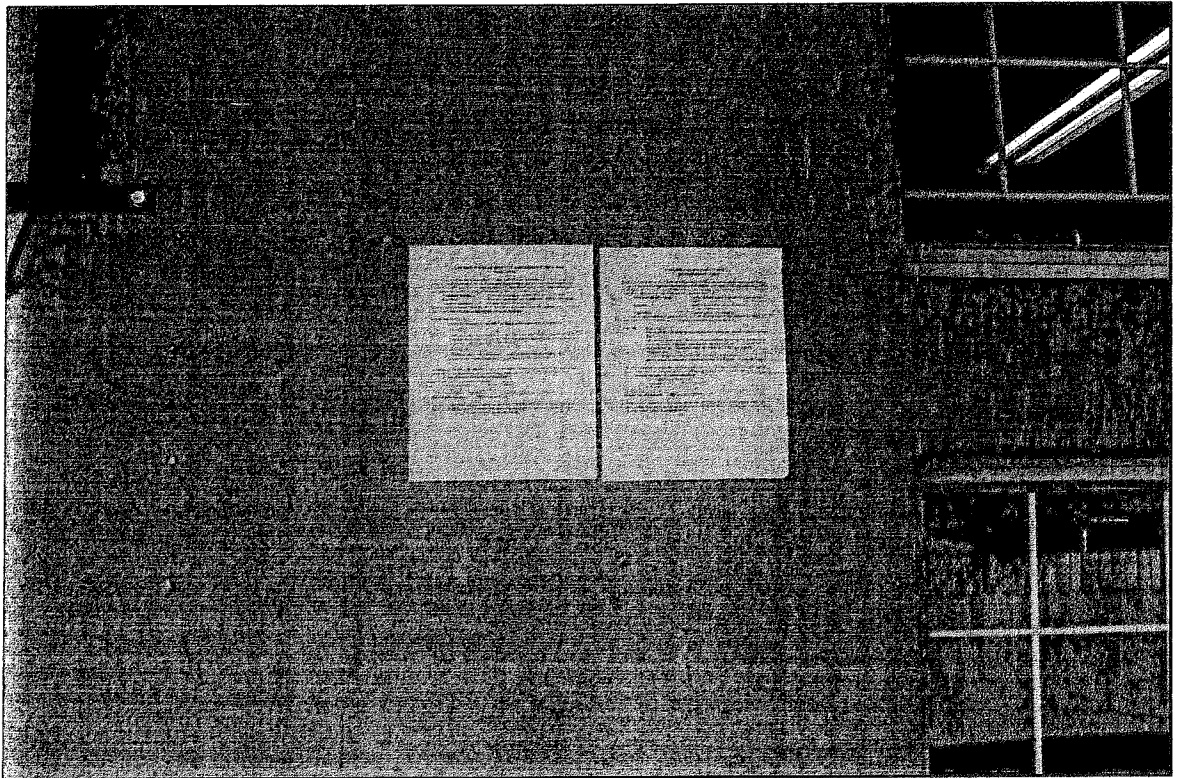
Annexure

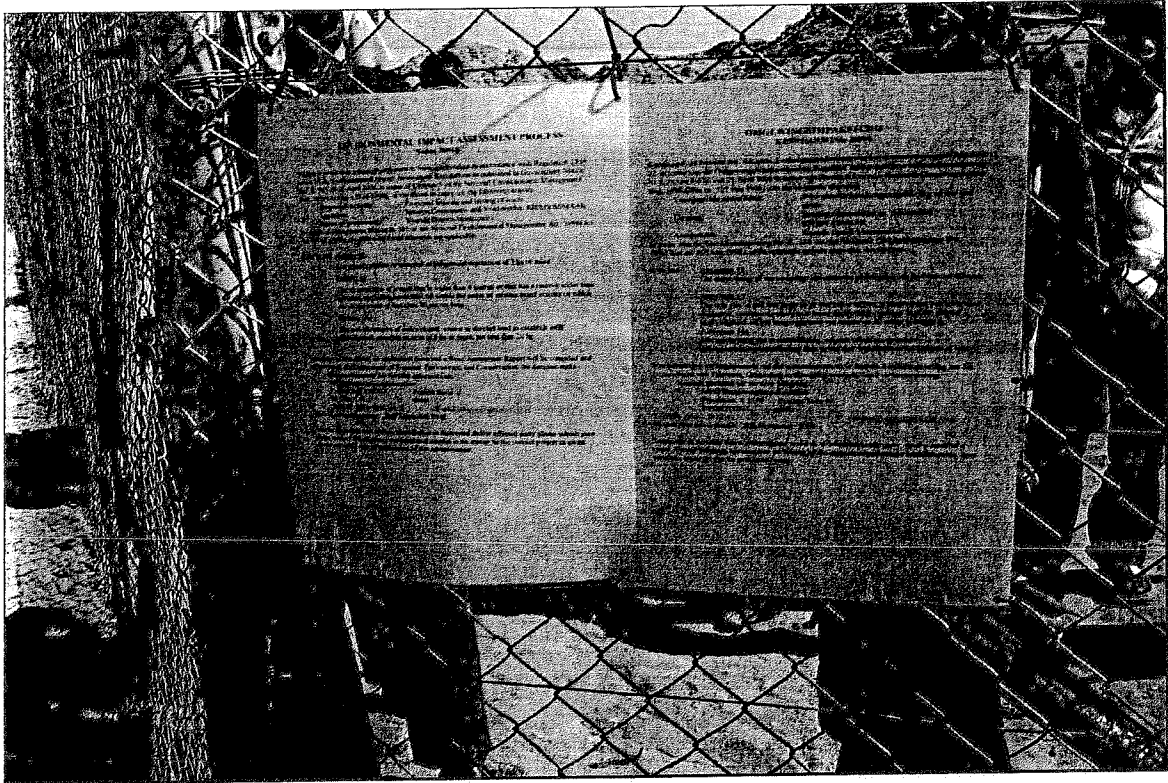
# D



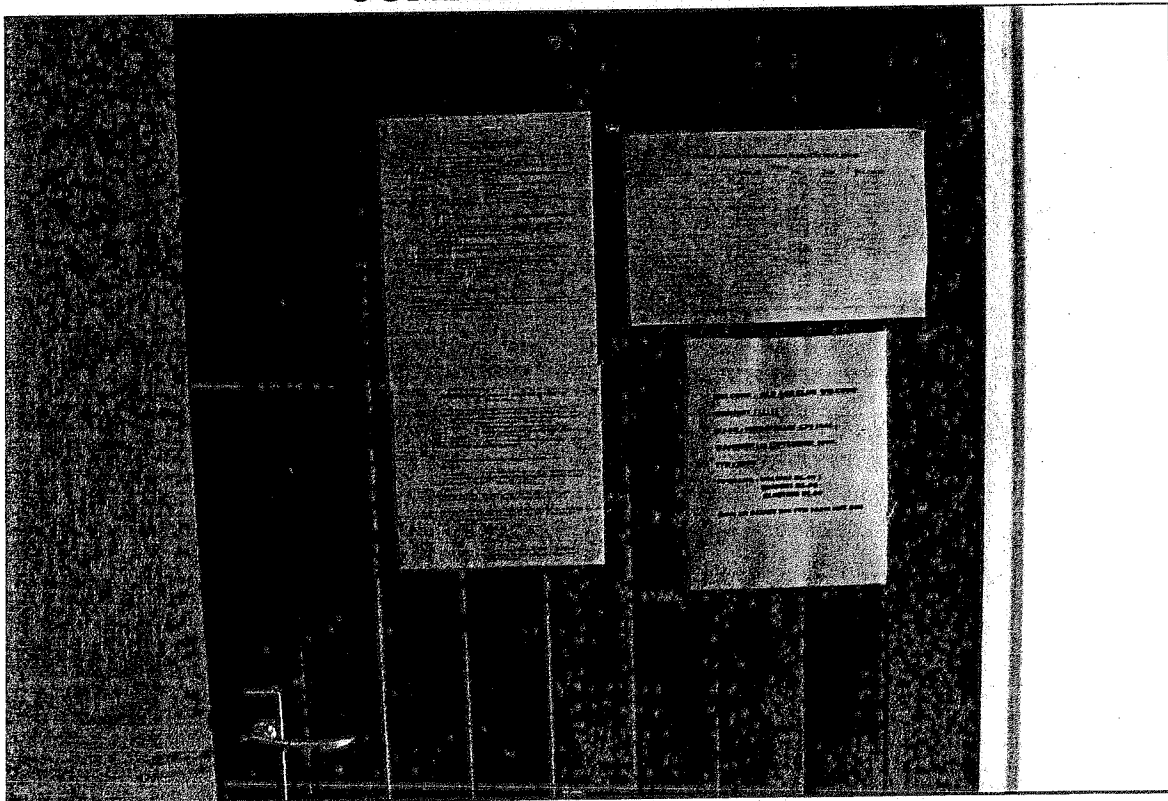


**ON-SITE NOTICE AND AT MISSION COMMUNITY  
OFFICES**





**ON-SITE NOTICE AND AT VREDESVALLEI  
COMMUNITY OFFICES**



789226

ANMIRE CIVIL WORKS CC  
P.O. BOX 509  
KAKAMAS  
8870

Attention: Mr. Andreas Adams

Per e-mail: [anmirecivilworks@yahoo.com](mailto:anmirecivilworks@yahoo.com)

29 July 2010

Dear Sir

**UPGRADING OF 4KM RIEMVASMAAK ROAD**

1. Your letter dated 29 July 2010 refers.
2. You are hereby granted permission to excavate gravel op from the gravel quarry for the construction of the above road.

Yours faithfully



**R.B. MATTHEWS  
CHAIRPERSON AND ADMINISTRATOR: RIEMVASMAAK COMMUNITY DEVELOPMENT TRUST**

**RIEMVASMAAK GEMEENSKAPS  
ONTWIKKELINGS TRUST  
Postbus 10118, Beaconsfield 8315  
33 Park Road, Belgravia  
KIMBERLEY 8301**

## Spatial Solutions Inc

**From:** Spatial Solutions Inc [ssi@iafrica.com]

**Sent:** 13 August 2010 11:03

**To:** 'matthewslaw@telkomsa.net'

**Subject:** Riemvasmaak Landowners Consent Letter - Burrow Pits

Mr Matthews

Can you please send me the original Landowner Consent Letter for the use of the two Burrow Pits at Riemvasmaak to the postal address as indicated below.

Can you please also provide me with a copy of the title deed for the property. This is all needed in the Environmental Management Plan that I must submit to the Department of Mineral and Energy Affairs.

Thank you for your help in this regard.

Regards

Manie van Wyk



## SPATIAL SOLUTIONS INC

Town Planners and Environmental Consultants

P O Box 13578

NOORDSTAD

9302

Tel: 051 - 433 1024

Faks: 051 - 433 1025

Email: [ssi@iafrica.com](mailto:ssi@iafrica.com)



## Spatial Solutions Inc

---

**From:** Mail Delivery System [MAILER-DAEMON@rrba-ip-smtp-2-3.saix.net]  
**Sent:** 13 August 2010 11:03  
**To:** ssi@iafrica.com  
**Subject:** Successful Mail Delivery Report

**Attachments:** details.txt; Message Headers.txt



details.txt (524 B)



Message  
Headers.txt (1 KB)

This is the mail system at host rrba-ip-smtp-2-3.saix.net.

Your message was successfully delivered to the destination(s) listed below. If the message was delivered to mailbox you will receive no further notifications. Otherwise you may still receive notifications of mail delivery errors from other systems.

The mail system

<matthewslaw@telkomsa.net>: delivery via mail.telkomsa.net[196.25.211.70]: 25:  
250 ok: Message 135086938 accepted

## Spatial Solutions Inc

---

**From:** Matthews & Partner [matthewslaw@telkomsa.net]  
**To:** Spatial Solutions Inc  
**Sent:** 13 August 2010 11:07  
**Subject:** Read: Riemvasmaak Landowners Consent Letter - Burrow Pits

This is a receipt for the mail you sent to  
<matthewslaw@telkomsa.net> at 2010/08/13 11:03 AM

This receipt verifies that the message has been displayed on the recipient's computer at 2010/08/13 11:06 AM

**Spatial Solutions Inc**

**From:** Spatial Solutions Inc [ssi@iafrica.com]  
**Sent:** 13 August 2010 10:25  
**To:** 'mmotlatla@ncpg.gov.za'  
**Cc:** 'dstander@ncpg.gov.za'  
**Subject:** Comments Required on Proposed Burrow Pits for Upgrading of Riemvasmaak Road  
**Attachments:** Borrow pit2 Layout1 (1).pdf; Borrow pit1 Layout1 (1).pdf; Layout Master Plan 22 04 10 2nd Section.pdf; Layout Master Plan 22 04 10 1st Section.pdf

Mr M Motlatla

Our telephonic conversation today has reference. Can you please provide us with the Departments of Health's comments or concerns regarding the proposed mining of two existing burrow pits situated within Riemvasmaak for use in the upgrade of the 8km road between the gate and Riemvasmaak.

Find attached a map showing the positions of the burrow pits to be extended. Please note that the EIA for the road upgrade has already been approved in December 2009.

Please call me should you require more information in this regard.

Regards

Manie van Wyk



**SPATIAL SOLUTIONS INC**

Town Planners and Environmental Consultants

P O Box 13578

NOORDSTAD

9302

Tel: 051 - 433 1024  
Faks: 051 - 433 1025  
Email: [ssi@iafrica.com](mailto:ssi@iafrica.com)

## Spatial Solutions Inc

---

**From:** Mail Delivery System [MAILER-DAEMON@rrba-ip-smtp-1-1.saix.net]  
**Sent:** 13 August 2010 10:27  
**To:** ssi@iafrica.com  
**Subject:** Successful Mail Delivery Report

**Attachments:** details.txt; Message Headers.txt



details.txt (756 B)



Message  
Headers.txt (1 KB)

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Your message was successfully delivered to the destination(s) listed below. If the message was delivered to mailbox you will receive no further notifications. Otherwise you may still receive notifications of mail delivery errors from other systems.

The mail system

<dstander@ncpg.gov.za>: delivery via  
mailgategctn02.sita.co.za[196.36.153.12]:25: 250 ok: Message 35310640  
accepted

<mmotlatla@ncpg.gov.za>: delivery via  
mailgategctn02.sita.co.za[196.36.153.12]:25: 250 ok: Message 35310640  
accepted

## Spatial Solutions Inc

**From:** Spatial Solutions Inc [ssi@iafrica.com]  
**Sent:** 03 August 2010 10:42  
**To:** 'mackayj@kaigarib.co.za'  
**Subject:** Commnets Required for 2 Burrow Pits - Riemvasmaak  
**Attachments:** hpsc204.pdf

The Municipal Manager – Kai Garib Local Municipality

Can you please provide us with your Municipalities comments or concerns regarding the proposed extension of the two existing burrow pits near the Riemvasmaak Community. The material extracted will be used in the upgrading of the road between the Mission Station and The Gate (8km) at Riemvasmaak.

Find attached hereto maps showing the locality and proposed operations.

Thank you for your help in this regard.

Regards

Manie van Wyk



### SPATIAL SOLUTIONS INC

Town Planners and Environmental Consultants

P O Box 13578

NOORDSTAD

9302

Tel: 051 - 433 1024  
Faks: 051 - 433 1025  
Email: [ssi@iafrica.com](mailto:ssi@iafrica.com)

## Spatial Solutions Inc

---

**From:** Mail Delivery Subsystem [MAILER-DAEMON@mail2.kaigarib.co.za]  
**Sent:** 03 August 2010 10:45  
**To:** ssi@iafrica.com  
**Subject:** Return receipt

**Attachments:** details.txt; ATT00010.txt



details.txt (461 B) ATT00010.txt (2  
KB)

The original message was received at Tue, 3 Aug 2010 10:42:30  
+0200 from rrba-ip-smtp-5-1.saix.net [196.25.240.218]

----- The following addresses had successful delivery notifications -----  
<mackayj@kaigarib.co.za> (successfully delivered to mailbox)

----- Transcript of session follows ----- <mackayj@kaigarib.co.za>... Successfully  
delivered

## Spatial Solutions Inc

**From:** Spatial Solutions Inc [ssi@iafrica.com]  
**Sent:** 03 August 2010 10:42  
**To:** 'etollis@siyanda.gov.za'  
**Subject:** Commnets Required for 2 Burrow Pits - Riemvasmaak  
**Attachments:** hpsc204.pdf

The Municipal Manager – Siyanda District Municipality

Can you please provide us with your Municipalities comments or concerns regarding the proposed extension of the two existing burrow pits near the Riemvasmaak Community. The material extracted will be used in the upgrading of the road between the Mission Station and The Gate (8km) at Riemvasmaak.

Find attached hereto maps showing the locality and proposed operations.

Thank you for your help in this regard.

Regards

Manie van Wyk



### SPATIAL SOLUTIONS INC

Town Planners and Environmental Consultants

P O Box 13578

NOORDSTAD

9302

Tel: 051 - 433 1024  
Faks: 051 - 433 1025  
Email: [ssi@iafrica.com](mailto:ssi@iafrica.com)

## Spatial Solutions Inc

---

**From:** Mail Delivery System [MAILER-DAEMON@rrba-ip-smtp-5-1.saix.net]  
**Sent:** 03 August 2010 10:58  
**To:** ssi@iafrica.com  
**Subject:** Successful Mail Delivery Report

**Attachments:** details.txt; Message Headers.txt



details.txt (512 B)



Message  
Headers.txt (1 KB)

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The mail system

<etollis@siyanda.gov.za>: delivery via mail.siyanda.gov.za[41.203.18.83]:25:  
250 OK id=10gDJy-0007qq-U1



**Spatial Solutions Inc**

**From:** Post Master [postmaster@siyanda.gov.za]

**Sent:** 03 August 2010 12:47

**To:** ssi@iafrica.com

**Subject:** Delivery Confirmation RE: Commnets Required for 2 Burrow Pits - Riemvasmaak

**Spatial Solutions Inc**

**From:** Spatial Solutions Inc [ssi@iafrica.com]  
**Sent:** 03 August 2010 10:02  
**To:** 'abboth@dwa.gov.za'  
**Subject:** Commnets Required for 2 Burrow Pits - Riemvasmaak  
**Attachments:** hpsc204.pdf  
Att: Mr Abbott

Our telephonic conversation this morning has reference.

Can you please provide us with your departments comments or concerns regarding the proposed extension of the two existing burrow pits near the Riemvasmaak Community. The material extracted will be used in the upgrading of the road between the Mission Station and The Gate (8km) at Riemvasmaak.

Find attached hereto maps showing the locality and proposed operations.

Thank you for your help in this regard.

Regards

Manie van Wyk



**SPATIAL SOLUTIONS INC**

Town Planners and Environmental Consultants  
P O Box 13578  
NOORDSTAD  
9302

Tel: 051 - 433 1024  
Faks: 051 - 433 1025  
Email: [ssi@iafrica.com](mailto:ssi@iafrica.com)

## Spatial Solutions Inc

---

**From:** Mail Delivery System [MAILER-DAEMON@rrba-ip-smtp-5-1.saix.net]  
**Sent:** 03 August 2010 10:09  
**To:** ssi@iafrica.com  
**Subject:** Successful Mail Delivery Report

**Attachments:** details.txt; Message Headers.txt



details.txt (516 B)



Message  
Headers.txt (1 KB)

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The mail system

<abbotth@dwa.gov.za>: delivery via mailgate01.sita.co.za[196.34.195.8]:25: 250  
ok: Message 153335971 accepted

## Spatial Solutions Inc

**From:** Spatial Solutions Inc [ssi@iafrica.com]  
**Sent:** 03 August 2010 11:02  
**To:** 'epotgieter@ncpg.gov.za'  
**Subject:** Comments Required for 2 Burrow Pits - Riemvasmaak  
**Attachments:** hpsc204.pdf

Mr Nico Toerien

Our telephonic conversation this morning has reference.

Can you please provide us with your departments comments or concerns regarding the proposed extension of the two existing burrow pits near the Riemvasmaak Community. The material extracted will be used in the upgrading of the road between the Mission Station and The Gate (8km) at Riemvasmaak.

Find attached hereto maps showing the locality and proposed operations.

Thank you for your help in this regard.

Regards

Manie van Wyk

 **SPATIAL SOLUTIONS INC**  
Town Planners and Environmental Consultants  
P O Box 13578  
NOORDSTAD  
9302

Tel: 051 - 433 1024  
Faks: 051 - 433 1025  
Email: [ssi@iafrica.com](mailto:ssi@iafrica.com)

**Spatial Solutions Inc**

---

**From:** Mail Delivery System [MAILER-DAEMON@rrba-ip-smtp-2-2.saix.net]  
**Sent:** 03 August 2010 11:13  
**To:** ssi@iafrica.com  
**Subject:** Successful Mail Delivery Report

**Attachments:** details.txt; Message Headers.txt



details.txt (526 B)



Message  
Headers.txt (1 KB)

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The mail system

<epotgieter@ncpg.gov.za>: delivery via  
mailgatectn02.sita.co.za[196.36.153.12]:25: 250 ok: Message 34370592  
accepted

## Spatial Solutions Inc

---

**From:** Spatial Solutions Inc [ssi@iafrica.com]  
**Sent:** 03 August 2010 14:37  
**To:** 'cscheermeyer@sahra.org.za'  
**Subject:** Heritage Impact Assessment - Riemvasmaak Burrow Pits

**Attachments:** hpsc206.pdf



hpsc206.pdf (3 MB)

olette Scheermeyer

Please find hereto attached the first phase heritage impact assessment for the extension of the two existing burrow pits near Riemvasmaak in the Northern Cape Province. The burrow pits will be used for the upgrading of the road between the gate and the Mission at Riemvasmaak (8km) to a surfaced standard.

Can you please provide us with SAHRA's comments and concerns regarding this project.

Regards

Manie van Wyk

Spatial Solutions Inc  
P O Box 13578  
NOORDSTAD  
9302

Tel: 051 - 433 1024  
Fax: 051 - 433 1025  
Email: ssi@iafrica.com

## Spatial Solutions Inc

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**From:** Mail Delivery System [MAILER-DAEMON@rrba-ip-smtp-1-4.saix.net]  
**Sent:** 03 August 2010 14:43  
**To:** ssi@iafrica.com  
**Subject:** Successful Mail Delivery Report

**Attachments:** details.txt; Message Headers.txt



details.txt (519 B)



Message  
Headers.txt (1 KB)

This is the mail system at host rrba-ip-smtp-1-4.saix.net.

Your message was successfully delivered to the destination(s) listed below. If the message was delivered to mailbox you will receive no further notifications. Otherwise you may still receive notifications of mail delivery errors from other systems.

The mail system

<cscheermeyer@sahra.org.za>: delivery via  
inbound.mn.mweb.net[196.28.101.20]:25: 250 OK id=1OgGpu-000BM4-VV

## Spatial Solutions Inc

---

**From:** Spatial Solutions Inc [ssi@iafrica.com]  
**Sent:** 03 August 2010 14:26  
**To:** 'AHALL@ncpg.gov.za'  
**Subject:** Heritage Impact Assessment

**Attachments:** hpsc206.pdf



hpsc206.pdf (3 MB)

A Hall

Please find hereto attached the first phase heritage impact assessment for the extension of the two existing burrow pits near Riemvasmaak in the Northern Cape Province. The burrow pits will be used for the upgrading of the road between the gate and the Mission at Riemvasmaak (8km) to a surfaced standard.

Can you please provide us with your department's comments and concerns regarding this project.

Regards

Manie van Wyk

Spatial Solutions Inc  
P O Box 13578  
NOORDSTAD  
9302

Tel: 051 - 433 1024  
Fax: 051 - 433 1025  
Email: ssi@iafrica.com



## Spatial Solutions Inc

---

**From:** Mail Delivery System [MAILER-DAEMON@rrba-ip-smtp-1-4.saix.net]  
**Sent:** 03 August 2010 14:32  
**To:** ssi@iafrica.com  
**Subject:** Successful Mail Delivery Report

**Attachments:** details.txt; Message Headers.txt



details.txt (515 B)



Message  
headers.txt (1,017 B)

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Your message was successfully delivered to the destination(s) listed below. If the message was delivered to mailbox you will receive no further notifications. Otherwise you may still receive notifications of mail delivery errors from other systems.

The mail system

<AHALL@ncpg.gov.za>: delivery via mailgatectn01.sita.co.za[196.36.153.11]: 25:  
250 ok: Message 41333612 accepted

**Spatial Solutions Inc**

**From:** Spatial Solutions Inc [ssi@iafrica.com]  
**Sent:** 03 August 2010 11:02  
**To:** 'ayaphi@upprov.ncape.gov.za'  
**Subject:** Commnets Required for 2 Burrow Pits - Riemvasmaak  
**Attachments:** hpsc204.pdf

Att: A Yaphi

Our telephonic conversation this morning has reference.

Can you please provide us with your departments comments or concerns regarding the proposed extension of the two existing burrow pits near the Riemvasmaak Community. The material extracted will be used in the upgrading of the road between the Mission Station and The Gate (8km) at Riemvasmaak.

Find attached hereto maps showing the locality and proposed operations.

Thank you for your help in this regard.

Regards

Manie van Wyk



**SPATIAL SOLUTIONS INC**

Town Planners and Environmental Consultants

P O Box 13578

NOORDSTAD

9302

Tel: 051 - 433 1024

Faks: 051 - 433 1025

Email: [ssi@iafrica.com](mailto:ssi@iafrica.com)

## Spatial Solutions Inc

---

**From:** Mail Delivery System [MAILER-DAEMON@rrba-ip-smtp-2-2.saix.net]  
**Sent:** 03 August 2010 11:06  
**To:** ssi@iafrica.com  
**Subject:** Successful Mail Delivery Report

**Attachments:** details.txt; Message Headers.txt



details.txt (534 B)



Message  
Headers.txt (1 KB)

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Your message was successfully delivered to the destination(s) listed below. If the message was delivered to mailbox you will receive no further notifications. Otherwise you may still receive notifications of mail delivery errors from other systems.

The mail system

<ayaphi@upprov.ncape.gov.za>: delivery via  
mailgatectn02.sita.co.za[196.36.153.12]:25: 250 ok: Message 34369417  
accepted

**Spatial Solutions Inc**

**From:** Spatial Solutions Inc [ssi@iafrica.com]  
**Sent:** 04 August 2010 08:15  
**To:** 'Anga Yaphi'  
**Subject:** RE: Commnets Required for 2 Burrow Pits - Riemvasmaak

Hi

We are currently in the process of compiling the emp's to be submitted to DME. We already had a pre consultation meeting with them in this regard.

Regards

Manie van Wyk

---

**From:** Anga Yaphi [mailto:ayaphi@upprov.ncape.gov.za]  
**Sent:** 04 August 2010 20:05  
**To:** 'Spatial Solutions Inc'  
**Subject:** RE: Commnets Required for 2 Burrow Pits - Riemvasmaak

Morning

Have you consult the Department of Mineral Resources with regard to burrow pits?

Regards

Anga

---

**From:** Spatial Solutions Inc [mailto:ssi@iafrica.com]  
**Sent:** 03 August 2010 11:02 AM  
**To:** ayaphi@upprov.ncape.gov.za  
**Subject:** Commnets Required for 2 Burrow Pits - Riemvasmaak

Att: A Yaphi

Our telephonic conversation this morning has reference.

Can you please provide us with your departments comments or concerns regarding the proposed extension of the two existing burrow pits near the Riemvasmaak Community. The material extracted will be used in the upgrading of the road between the Mission Station and The Gate (8km) at Riemvasmaak.

Find attached hereto maps showing the locality and proposed operations.

Thank you for your help in this regard.

Regards

Manie van Wyk



**SPATIAL SOLUTIONS INC**

Town Planners and Environmental Consultants

P O Box 13578

NOORDSTAD

9302

Tel: 051 - 433 1024  
Faks: 051 - 433 1025  
Email: [ssi@iafrica.com](mailto:ssi@iafrica.com)

2010/08/04

## Spatial Solutions Inc

---

**From:** Mail Delivery System [postmaster@upprov.ncape.gov.za]  
**Sent:** 04 August 2010 08:12  
**To:** ssi@iafrica.com  
**Subject:** Delivery Confirmation

With reference to your message with the subject:  
"RE: Commnets Required for 2 Burrow Pits - Riemvasmaak"

Your message was successfully delivered to the following addresses:  
<ayaphi@upprov.ncape.gov.za>

----- Beginning of message follows -----

Return-path: <ssi@iafrica.com>  
Received: from upprov.ncape.gov.za (10.243.5.61) by upprov.ncape.gov.za (Mercury 1.48);  
4 Aug 10 08:11:59 +0200  
Received: from gbrl.gov.za ([10.191.220.125]) by upprov.ncape.gov.za (NAVGW 2.5.2.12) with SMTP id M2010080414261128815 for <ayaphi@upprov.ncape.gov.za>; Wed, 04 Aug 2010 14:26:11 +0200  
Received: from mailgatectn01.sita.co.za ([196.36.153.11])  
by gbrl.gov.za with esmtp (Exim 4.69)  
(envelope-from <ssi@iafrica.com>)  
id 1OgXFt-000NDu-U8  
for ayaphi@upprov.ncape.gov.za; Wed, 04 Aug 2010 08:15:09 +0200  
X-IronPort-Anti-Spam-Filtered: true  
X-IronPort-Anti-Spam-Result:  
AkAKAMuhWEzEGfDckWdsb2JhbACBRIcriVGLMoIqFQEBAQEHDQoHEQMfwleDDIIvBitw  
X-IronPort-AV: E=Sophos;i="4.55,313,1278280800";  
d="jpg'145?scan'145,208,217,145";a="41411846"  
d="jpg'145?scan'145,208,217,145";a="41411846"

## Spatial Solutions Inc

**From:** Spatial Solutions Inc [ssi@iafrica.com]  
**Sent:** 11 August 2010 10:55  
**To:** 'philip@omdraai.co.za'  
**Subject:** Comments Required on Proposed Burrow Pits for Upgrading of Riemvasmaak Road  
**Attachments:** Borrow pit2 Layout1 (1).pdf; Borrow pit1 Layout1 (1).pdf; Layout Master Plan 22 04 10 2nd Section.pdf; Layout Master Plan 22 04 10 1st Section.pdf

Mr P Lourens (Schroder Farmers Union)

Our telephonic conversation today has reference. Can you please provide us with the Farmers Union's comments or concerns regarding the proposed mining of two existing burrow pits situated within Riemvasmaak for use in the upgrade of the 8km road between the gate and Riemvasmaak.

Find attached a map showing the positions of the burrow pits to be extended.

Please call me should you require more information in this regard.

Regards

Manie van Wyk



## SPATIAL SOLUTIONS INC

Town Planners and Environmental Consultants

P O Box 13578  
NOORDSTAD  
9302

Tel: 051 - 433 1024  
Faks: 051 - 433 1025  
Email: [ssi@iafrica.com](mailto:ssi@iafrica.com)

## Spatial Solutions Inc

---

**From:** Mail Delivery System [MAILER-DAEMON@rrba-ip-smtp-1-2.saix.net]  
**Sent:** 11 August 2010 10:57  
**To:** ssi@iafrica.com  
**Subject:** Successful Mail Delivery Report

**Attachments:** details.txt; Message Headers.txt



details.txt (512 B)



Message  
Headers.txt (1 KB)

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Your message was successfully delivered to the destination(s) listed below. If the message was delivered to mailbox you will receive no further notifications. Otherwise you may still receive notifications of mail delivery errors from other systems.

The mail system

<philip@omdraai.co.za>: delivery via mx.lantic.net[196.41.30.122]:25: 250 ok:  
Message 368654231 accepted

**Spatial Solutions Inc**

**From:** Spatial Solutions Inc [ssi@iafrica.com]  
**Sent:** 11 August 2010 11:05  
**To:** 'omd@omdraai.co.za'  
**Subject:** Comments Required on Proposed Burrow Pits for Upgrading of Riemvasmaak Road  
**Attachments:** Borrow pit2 Layout1 (1).pdf; Borrow pit1 Layout1 (1).pdf; Layout Master Plan 22 04 10 2nd Section.pdf; Layout Master Plan 22 04 10 1st Section.pdf  
Mr Plessis (Adjacent Land Owner)

Our telephonic conversation today has reference. Can you please provide us with your comments or concerns regarding the proposed mining of two existing burrow pits situated within Riemvasmaak for use in the upgrade of the 8km road between the gate and Riemvasmaak.

Find attached a map showing the positions of the burrow pits to be extended.

Please call me should you require more information in this regard.

Regards

Manie van Wyk



**SPATIAL SOLUTIONS INC**

Town Planners and Environmental Consultants

P O Box 13578

NOORDSTAD

9302

Tel: 051 - 433 1024

Faks: 051 - 433 1025

Email: [ssi@iafrica.com](mailto:ssi@iafrica.com)



## Spatial Solutions Inc

---

**From:** Mail Delivery System [MAILER-DAEMON@rrba-ip-smtp-2-2.saix.net]  
**Sent:** 11 August 2010 11:06  
**To:** ssi@iafrica.com  
**Subject:** Successful Mail Delivery Report

**Attachments:** details.txt; Message Headers.txt



details.txt (506 B)



Message  
Headers.txt (1 KB)

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The mail system

<omd@omdraai.co.za>: delivery via mx.lantic.net[196.41.30.122]:25: 250 ok:  
Message 368658405 accepted

## Spatial Solutions Inc

---

**From:** Stefanie Wandrag [omd@omdraai.co.za]  
**To:** 'Spatial Solutions Inc'  
**Sent:** 13 August 2010 10:35  
**Subject:** Read: Comments Required on Proposed Burrow Pits for Upgrading of Riemvasmaak Road

Your message

To: omd@omdraai.co.za  
Subject: Comments Required on Proposed Burrow Pits for Upgrading of Riemvasmaak Road  
Sent: 11/08/2010 11:04

was read on 13/08/2010 10:22.

## Spatial Solutions Inc

**From:** Spatial Solutions Inc [ssi@iafrica.com]  
**Sent:** 11 August 2010 11:22  
**To:** 'frans@bakenrant.co.za'  
**Subject:** Comments Required on Proposed Burrow Pits for Upgrading of Riemvasmaak Road  
**Attachments:** Borrow pit2 Layout1 (1).pdf; Borrow pit1 Layout1 (1).pdf; Layout Master Plan 22 04 10 2nd Section.pdf; Layout Master Plan 22 04 10 1st Section.pdf

Mr Burger (Adjacent Land Owner)

Our telephonic conversation today has reference. Can you please provide us with your comments or concerns regarding the proposed mining of two existing burrow pits situated within Riemvasmaak for use in the upgrade of the 8km road between the gate and Riemvasmaak.

Find attached a map showing the positions of the burrow pits to be extended.

Please call me should you require more information in this regard.

Regards

Manie van Wyk



### SPATIAL SOLUTIONS INC

Town Planners and Environmental Consultants

P O Box 13578

NOORDSTAD

9302

Tel: 051 - 433 1024

Faks: 051 - 433 1025

Email: [ssi@iafrica.com](mailto:ssi@iafrica.com)

## Spatial Solutions Inc

---

**From:** Mail Delivery System [MAILER-DAEMON@rrba-ip-smtp-1-3.saix.net]  
**Sent:** 11 August 2010 11:24  
**To:** ssi@iafrica.com  
**Subject:** Successful Mail Delivery Report

**Attachments:** details.txt; Message Headers.txt



details.txt (514 B)



Message  
Headers.txt (1 KB)

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The mail system

<frans@bakenrant.co.za>: delivery via mx.lantic.net[196.41.30.122]:25: 250 ok:  
Message 368666126 accepted

## Spatial Solutions Inc

---

**From:** frans [frans@bakenrant.co.za]  
**To:** 'Spatial Solutions Inc'  
**Sent:** 11 August 2010 11:44  
**Subject:** Read: Comments Required on Proposed Burrow Pits for Upgrading of Riemvasmaak Road

Your message

To: frans@bakenrant.co.za  
Subject: Comments Required on Proposed Burrow Pits for Upgrading of Riemvasmaak Road  
Sent: 11/08/2010 11:22 AM

was read on 11/08/2010 11:43 AM.



## Spatial Solutions Inc

---

**From:** Thomas Esterhuyse [thomas@fsmaize.co.za]  
**To:** Spatial Solutions Inc  
**Sent:** 11 August 2010 20:20  
**Subject:** Read: Comments Required on Proposed Burrow Pits for Upgrading of Riemvasmaak Road

This is a receipt for the mail you sent to  
<thomas@fsmaize.co.za> at 2010/08/11 11:55 AM

This receipt verifies that the message has been displayed on the recipient's computer at 2010/08/11 08:20 PM

## Spatial Solutions Inc

---

**From:** COLETTE SCHEERMAYER [CSCHEERMAYER@sahra.org.za]  
**Sent:** 03 August 2010 15:06  
**To:** Spatial Solutions Inc  
**Subject:** Re: Heritage Impact Assessment - Riemvasmaak Burrow Pits

Dear Mr van Wyk,

I have forwarded the HIA (Dreyer, 2010) to Ms Mariagrazia Galimberti who deals with impact assessments for the Northern Cape.

Kind regards

Colette

Mrs Colette Scheermeyer  
Assistant Archaeologist  
South African Heritage Resources Agency  
PO Box 4637, Cape Town 8000, South Africa  
E-mail: cscheermeyer@sahra.org.za  
Phone : 27 (0)21 462 4502  
Fax : 27 (0)21 462 4509  
Web : www.sahra.org.za

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This message may contain information which is confidential, private or privileged in nature. If you are not the intended recipient, you may not peruse, use, disseminate, distribute or copy this message or file which is attached to this message. If you have received this message in error, please notify the sender immediately by e-mail, facsimile or telephone and thereafter return and/or destroy the original message.

Any views of this communication are those of the sender except where the sender specifically states them to be those of South African Heritage Resources Agency (SAHRA).

Please note that the recipient must scan this email and any attached files for viruses and the like. SAHRA accepts no liability of whatever nature for any loss, liability, damage or expense resulting directly or indirectly from the access and/or downloading of any files which are attached to this e-mail message.  
~~~~~

>>> "Spatial Solutions Inc" <ssi@iafrica.com> 03/08/2010 02:37 PM >>>  
Colette Scheermeyer

Please find hereto attached the first phase heritage impact assessment for the extension of the two existing burrow pits near Riemvasmaak in the Northern Cape Province. The burrow pits will be used for the upgrading of the road between the gate and the Mission at Riemvasmaak (8km) to a surfaced standard.

Can you please provide us with SAHRA's comments and concerns regarding this project.

Regards

Manie van Wyk

Spatial Solutions Inc  
P O Box 13578  
NOORDSTAD  
9302

Tel: 051 - 433 1024  
Fax: 051 - 433 1025  
Email: ssi@iafrica.com



## Spatial Solutions Inc

**From:** Anga Yaphi [ayaphi@upprov.ncape.gov.za]  
**Sent:** 04 August 2010 20:05  
**To:** 'Spatial Solutions Inc'  
**Subject:** RE: Commnets Required for 2 Burrow Pits - Riemvasmaak

Morning

Have you consult the Department of Mineral Resources with regard to burrow pits?

Regards

Anga

**From:** Spatial Solutions Inc [mailto:ssi@iafrica.com]  
**Sent:** 03 August 2010 11:02 AM  
**To:** ayaphi@upprov.ncape.gov.za  
**Subject:** Commnets Required for 2 Burrow Pits - Riemvasmaak

Att: A Yaphi

Our telephonic conversation this morning has reference.

Can you please provide us with your departments comments or concerns regarding the proposed extension of the two existing burrow pits near the Riemvasmaak Community. The material extracted will be used in the upgrading of the road between the Mission Station and The Gate (8km) at Riemvasmaak.

Find attached hereto maps showing the locality and proposed operations.

Thank you for your help in this regard.

Regards

Manie van Wyk



## SPATIAL SOLUTIONS INC

Town Planners and Environmental Consultants

P O Box 13578

NOORDSTAD

9302

Tel: 051 - 433 1024  
Faks: 051 - 433 1025  
Email: [ssi@iafrica.com](mailto:ssi@iafrica.com)

## Spatial Solutions Inc

---

**From:** Spatial Solutions [ssi@iafrica.com]  
**Sent:** 25 August 2010 10:53  
**To:** 'admirecivilworks@yahoo.com'; 'mmotlatla@ncpg.gov.za'; 'dstander@ncpg.gov.za'; 'mackayj@kaigarib.co.za'; 'etollis@siyanda.gov.za'; 'abboth@dwa.gov.za'; 'epotgieter@ncpg.gov.za'; 'COLETTE SCHEERMEYER'; 'AHALL@ncpg.gov.za'; 'ayaphi@upprov.ncape.gov.za'; 'philip@omdraai.co.za'; 'omd@omdraai.co.za'; 'frans@bakenrant.co.za'; 'thomas@fsmaize.co.za'; 'irose@mweb.co.za'  
**Subject:** Draft Environmental Management Plans - Burrow Pits Riemvasmaak  
**Attachments:** EMP Burrow Pit 2.pdf; EMP Burrow Pit 1.pdf; Borrow pit2 Layout1 (1).pdf; Borrow pit1 Layout1 (1).pdf; Riemvasmaak Road.jpg; Riemvasmaak Borrow pits.jpg

To the Interested and Affected Party

Please find attached the draft EMP's for the two burrow pits at Riemvasmaak to be used during the road upgrade. Please note that i could not forward you the attachments as they are too large to email. Please let me know should you require any attachments so that a can forward it to you. They include the following:

- Annexure A – Locality Maps
- Annexure B – Site Layout Maps
- Annexure C – Photographs of the site
- Annexure D – Public Participation Documentation and Landowners Consent
- Annexure E – Other information that includes first phase heritage impact assessment and Environmental Authorisation and Title Deed.

Can you please provide this us with any comments/concerns that you might have on the attached draft Environmental Management Plans on or before 24 September 2010 as the final EMP's will be submitted to the Department of Mineral and Energy Affairs for review on the 25<sup>th</sup> September 2010.

Regards

Manie van Wyk



**SPATIAL SOLUTIONS INC**

Town Planners and Environmental Consultants  
 P O Box 13578  
 NOORDSTAD  
 9302

Tel: 051 - 433 1024  
 Faks: 051 - 433 1025  
 Email: [ssi@iafrica.com](mailto:ssi@iafrica.com)

## Spatial Solutions Inc

---

**From:** Mail Delivery System [MAILER-DAEMON@vodamail.co.za]  
**Sent:** 25 August 2010 10:55  
**To:** ssi@iafrica.com  
**Subject:** [SPAM]Successful Mail Delivery Report

**Attachments:** details.txt; Message Headers.txt



details.txt (3 KB)



Message  
Headers.txt (2 KB)

This is the mail system at host relay2.vodamail.co.za.

Your message was successfully delivered to the destination(s) listed below. If the message was delivered to mailbox you will receive no further notifications. Otherwise you may still receive notifications of mail delivery errors from other systems.

The mail system

<irose@mweb.co.za>: delivery via mx-mweb.smp.mweb.co.za[196.28.76.20]:25: 250  
OK id=10oBk8-0002SH-F0

<CSCHEERMEYER@sahra.org.za>: delivery via  
inbound.mm.mweb.net[196.28.101.20]:25: 250 OK id=10oBk8-0000L1-EX

<abbotth@dwa.gov.za>: delivery via mailgate01.sita.co.za[196.34.195.8]:25: 250  
ok: Message 160035501 accepted

<omd@omdraai.co.za>: delivery via mx.lantic.net[196.41.30.122]:25: 250 ok:  
Message 368284499 accepted

<philip@omdraai.co.za>: delivery via mx.lantic.net[196.41.30.122]:25: 250 ok:  
Message 368284499 accepted

<frans@bakenrant.co.za>: delivery via mx.lantic.net[196.41.30.122]:25: 250 ok:  
Message 367435623 accepted

<ayaphi@upprov.ncape.gov.za>: delivery via  
mailgatactn01.sita.co.za[196.36.153.11]:25: 250 ok: Message 43870645  
accepted

<AHALL@ncpg.gov.za>: delivery via mailgatactn02.sita.co.za[196.36.153.12]:25:  
250 ok: Message 36508729 accepted

<dstander@ncpg.gov.za>: delivery via  
mailgatactn02.sita.co.za[196.36.153.12]:25: 250 ok: Message 36508729  
accepted

<epotgieter@ncpg.gov.za>: delivery via  
mailgatactn02.sita.co.za[196.36.153.12]:25: 250 ok: Message 36508729  
accepted

<mmotlatla@ncpg.gov.za>: delivery via  
mailgatactn02.sita.co.za[196.36.153.12]:25: 250 ok: Message 36508729  
accepted

<etollis@siyanda.gov.za>: delivery via mail.siyanda.gov.za[41.203.18.83]:25:  
250 OK id=10oBkB-00064H-Ko

## Spatial Solutions Inc

---

**From:** Spatial Solutions [ssi@iafrica.com]  
**Sent:** 25 August 2010 10:32  
**To:** 'matthewslaw@telkomsa.net'  
**Cc:** 'irose@mweb.co.za'  
**Subject:** Environmental Management Plans - Burrow Pits Riemvasmaak  
**Attachments:** EMP Burrow Pit 2.pdf; EMP Burrow Pit 1.pdf; Borrow pit2 Layout1 (1).pdf; Borrow pit1 Layout1 (1).pdf; Riemvasmaak Road.jpg; Riemvasmaak Borrow pits.jpg

Mr Matthews

Please find attached the draft EMP's for the two burrow pits at Riemvasmaak to be used during the road upgrade. Please note that i could not forward you the attachments as they are too large to email. Please let me know should you require any attachments so that a can forward it to you. They include the following:

Annexure A – Locality Maps  
Annexure B – Site Layout Maps  
Annexure C – Photographs of the site  
Annexure D – Public Participation Documentation and Landowners Consent  
Annexure E – Other information that includes first phase heritage impact assessment and Environmental Authorisation and Title Deed.

Can you please provide this Draft EMP's to the Riemvasmaak Community for feedback as soon as possible.

PS: I still require the original landowners consent forms from Riemvasmaak as well as the title deed. Can you please as a matter of urgency forward them to me.

Regards

Manie van Wyk



**SPATIAL SOLUTIONS INC**

Town Planners and Environmental Consultants

P O Box 13578

NOORDSTAD

9302

Tel: 051 - 433 1024

Faks: 051 - 433 1025

Email: [ssi@iafrica.com](mailto:ssi@iafrica.com)

## Spatial Solutions Inc

---

**From:** Mail Delivery System [MAILER-DAEMON@vodamail.co.za]  
**Sent:** 25 August 2010 10:33  
**To:** ssi@iafrica.com  
**Subject:** Successful Mail Delivery Report

**Attachments:** details.txt; Message Headers.txt



details.txt (751 B)

Message

Headers.txt (2 KB)

This is the mail system at host  
mtafscbe0608relay4.vodamail.internal.

Your message was successfully delivered to the destination(s) listed below. If the message was delivered to mailbox you will receive no further notifications. Otherwise you may still receive notifications of mail delivery errors from other systems.

The mail system

<irose@mweb.co.za>: delivery via mx-mweb.smp.mweb.co.za[196.28.76.20]:25: 250  
OK id=1OoBQE-0004z4-5j

<matthewslaw@telkomsa.net>: delivery via mx2.telkomsa.net[196.25.211.172]:25:  
250 ok: Message 138598664 accepted

Other Information

Annexure

**E**



# **COBUS DREYER**

**Pr. Archaeologist/Heritage Specialist**

**P.O. Box 12910  
BRANDHOF 9324  
Bloemfontein  
dreyerj@telkomsa.net**

**Tel: 051-444 1187  
Fax: 051-444 4395  
Cell: 083 357 7982**

21 JULY 2010

## **FIRST PHASE ARCHAEOLOGICAL AND HERITAGE ASSESSMENT OF THE BORROW PITS FOR THE PROPOSED UPGRADING OF THE ROAD FROM THE MISSION GATE TO RIEMVASMAAK, NORTHERN CAPE**

### **EXECUTIVE SUMMARY**

The road from the Mission Gate to Riemvasmaak, Northern Cape, will be upgraded in the near future.

Two existing borrow pits will be exploited for material for the road building.

No archaeological or historical material was found at the proposed sites.

The developments will not require any mitigation measures and I recommend that the planning of the road may proceed.

### **INTRODUCTION AND DESCRIPTION**

#### **Scope and Limitations**

The investigation provided an opportunity to examine the borrow pit sites.

No limitations or obstacles were experienced during site visit.

#### **Methodology**

1. The different sites were inspected on foot.
2. GPS points were taken and the surrounding area and features were recorded on camera.

## INVESTIGATION

Two existing borrow pits were selected for the supply of road building material at Riemvasmaak, Northern Cape. The sites were visited on 20 July 2010. Manie van Wyk from Spatial Solutions Incorporated Environmental Consultants, Bloemfontein, accompanied me to the site.

The site was examined for any possible traces of cultural and historical remains to establish the potential impact of the developments on any archaeological and cultural historical material. The Heritage Impact Assessment (HIA) is done in terms of the National Heritage Resources Act (NHRA), (25 of 1999) and under the Environmental Conservation Act, (73 of 1989).

The report aims to locate and evaluate the significance of cultural heritage sites, archaeological material, manmade structures older than 60 years, and sites associated with oral histories and graves that might be affected by the proposed developments.

Geological and palaeontological deposits are not included as a subject of this report.

## LOCALITY

The two borrow pits are located along the road from the Mission Gate to Riemvasmaak, Northern Cape (Map 2).

Riemvasmaak lies on the Molopo River, about 11km north east of its confluence with the Orange River. The village is situated between the Augrabies National Park and the southern Kalahari and is reached by road over a 56km distance from Kakamas on the N14 between Upington and Pofadder (Map 1).

The soil surface is covered with lumps of quartz and rose quartz in abundance (Figs.4&9). *Acacia erioloba* (Kameeldoring) trees (Fig.13) are indigenous to this region and a significant number of individual trees grow right in the road reserve.

The following GPS coordinates (Cape scale) were taken (Map 2):

<b>BP1</b>	28°27'56"S 020°19'28"E	Altitude 665m	(Figs.1-4).
<b>BP2</b>	28°27'04"S 019°59'21"E	Altitude 640m	(Figs.5-9).
<b>GATE</b>	28°30'20"S 020°20'19"E	Altitude 641m	(Fig.10).
<b>END</b>	28°26'59"S 020°18'29"E	Altitude 660m	(Figs.11&12).



## **RESULTS**

### **FINDS**

The sites consist of a deep sandy gritty soil deposit with veins of quartz and rose quartz and boulders in clusters (Figs.2&3).

No archaeological material was found at the sites, nor were there any engravings or other relics or historical material discovered at the different sites.

### **ASSESSMENT OF IMPACT**

I am convinced that the proposed developments will have no impact on any cultural and historical heritage remains of the area.

### **RECOMMENDATIONS**

I recommend that the planning and upgrading of the road at Riemvasmaak may proceed.

### **MITIGATION**

Concerning the area for the proposed developments, no mitigation measures will be required.

No obvious reasons could be found to delay the commencement of further planning and development of the site.

### **ACKNOWLEDGEMENTS**

I thank Manie van Wyk from Spatial Solutions International Environmental Consultants, Bloemfontein, for taking me to the site.

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## LIST OF ILLUSTRATIONS



Map 1 Riemvasmaak near Augrabies National Park, Northern Cape.

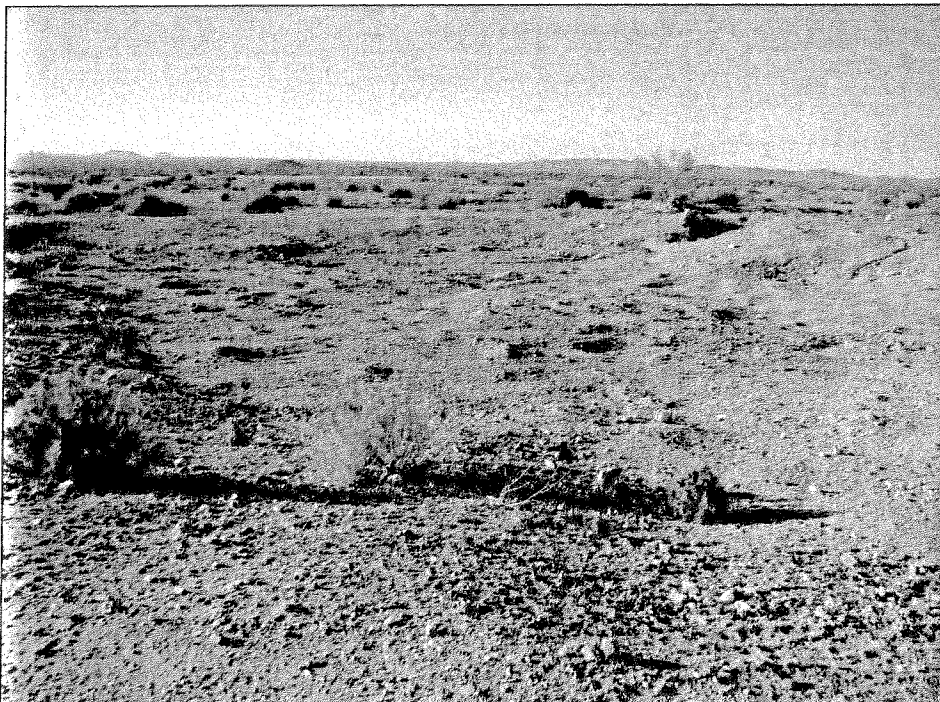
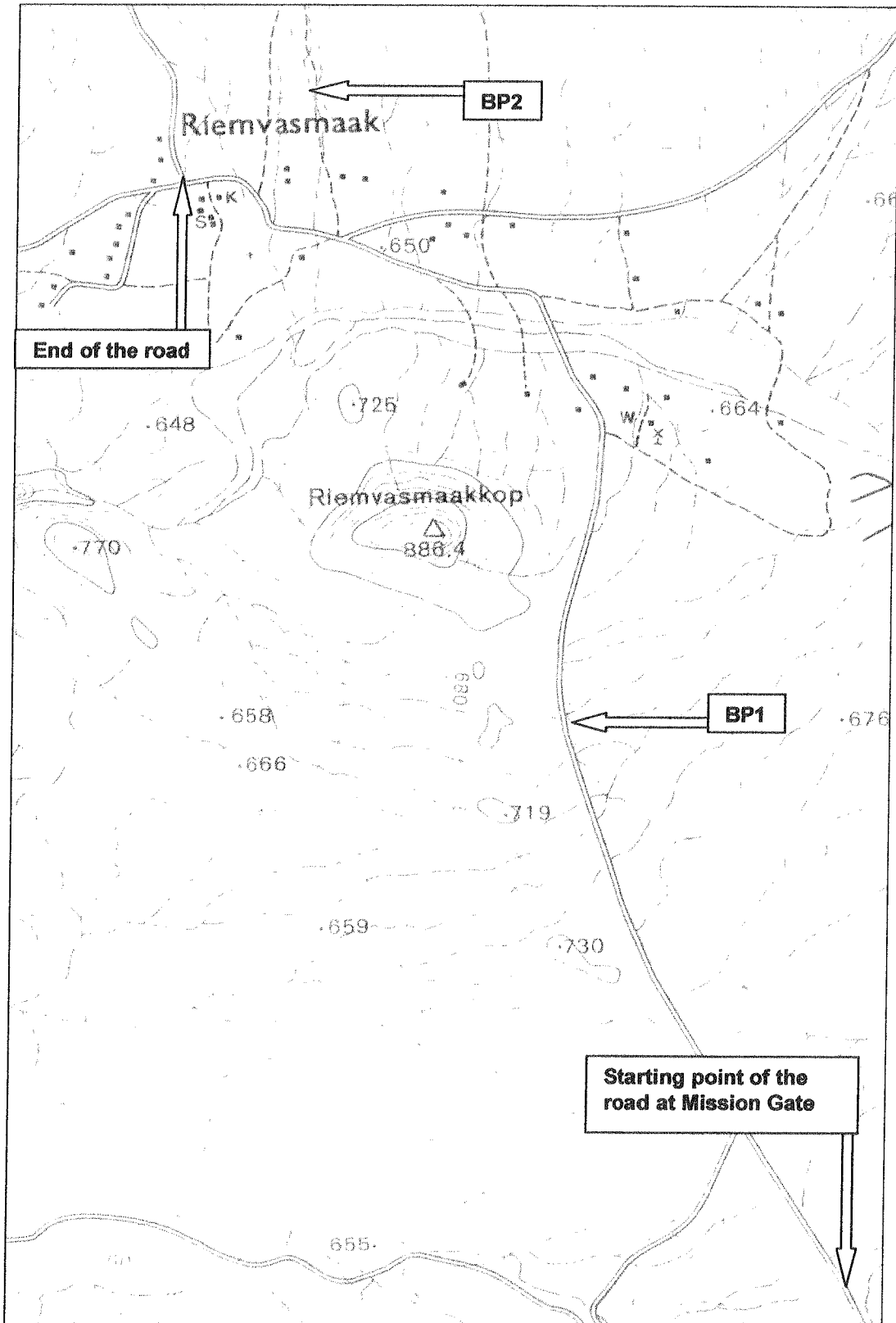


Fig.1 BP1 along the road from the Mission Gate to Riemvasmaak.



Map 2 Locality of Riemvasmaak (2820AD).

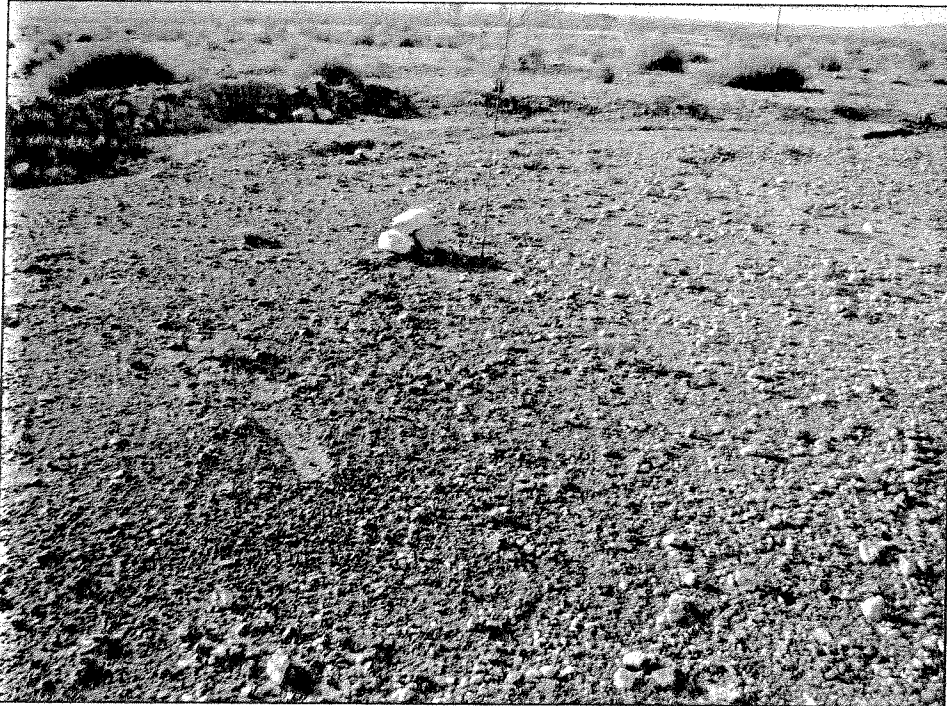


Fig.2 BP1 along the road from the Mission Gate to Riemvasmaak, Northern Cape.

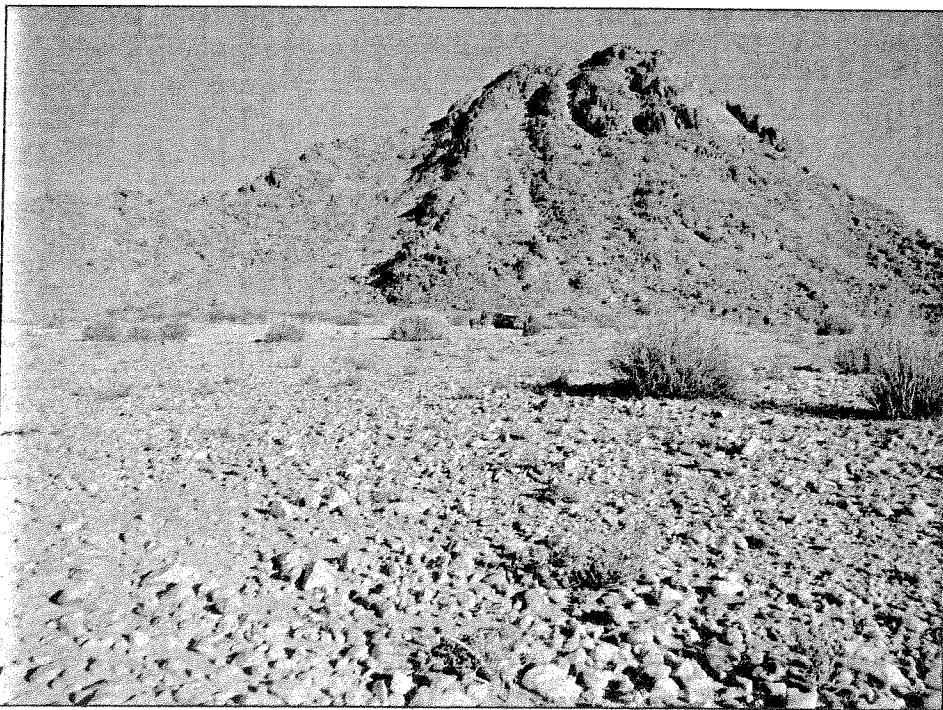


Fig.3 BP1 along the road to Riemvasmaak. Riemvasmaak Kop at the back.



Fig.4 Quarts and rose quarts on the surface at BP1.

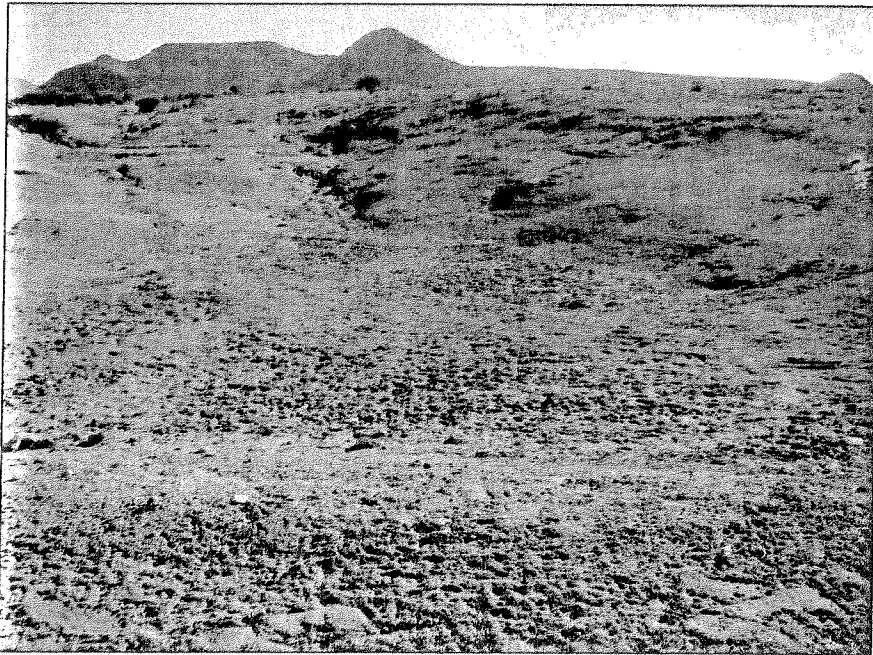


Fig.5 BP2 at Riemvasmaak.

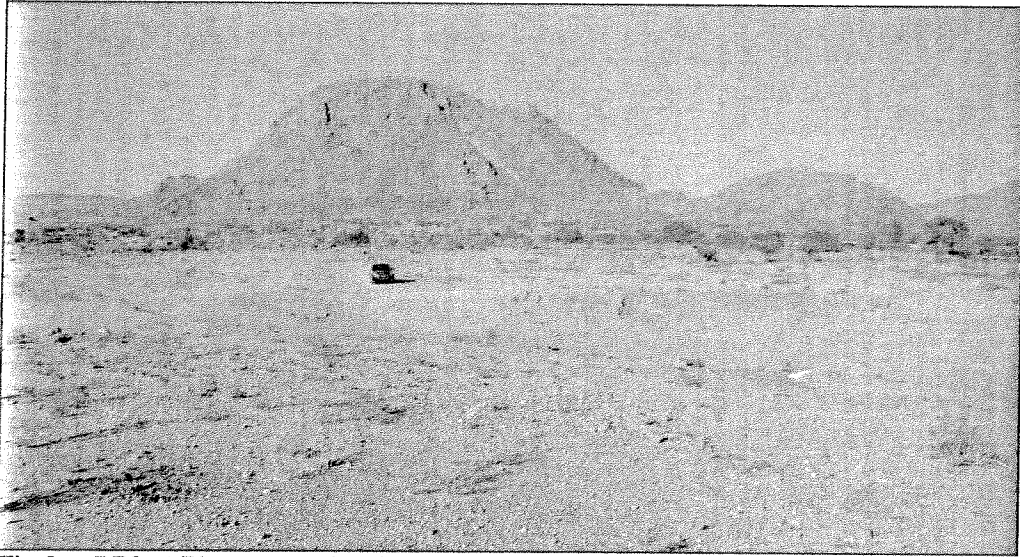


Fig.6 BP2 at Riemvasmaak. Riemvasmaak Kop at the back.

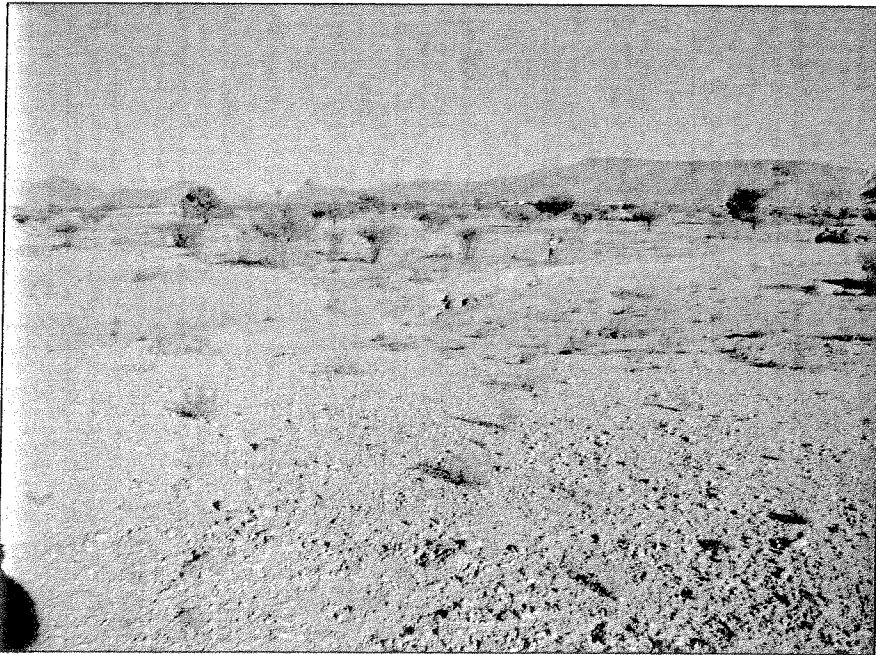


Fig.7 BP2 at Riemvasmaak.



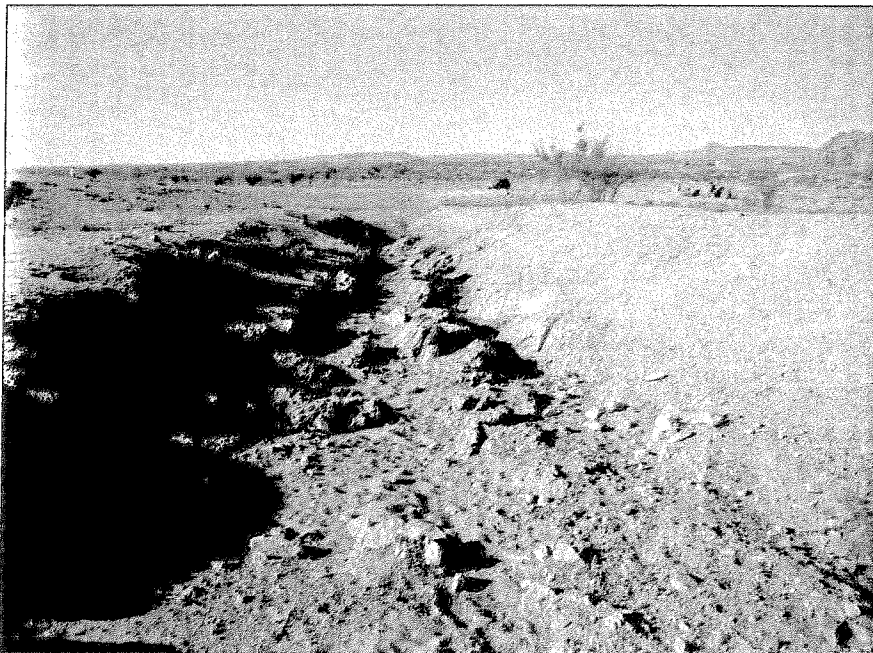


Fig.8 Donga running towards BP2 at Riemvasmaak.

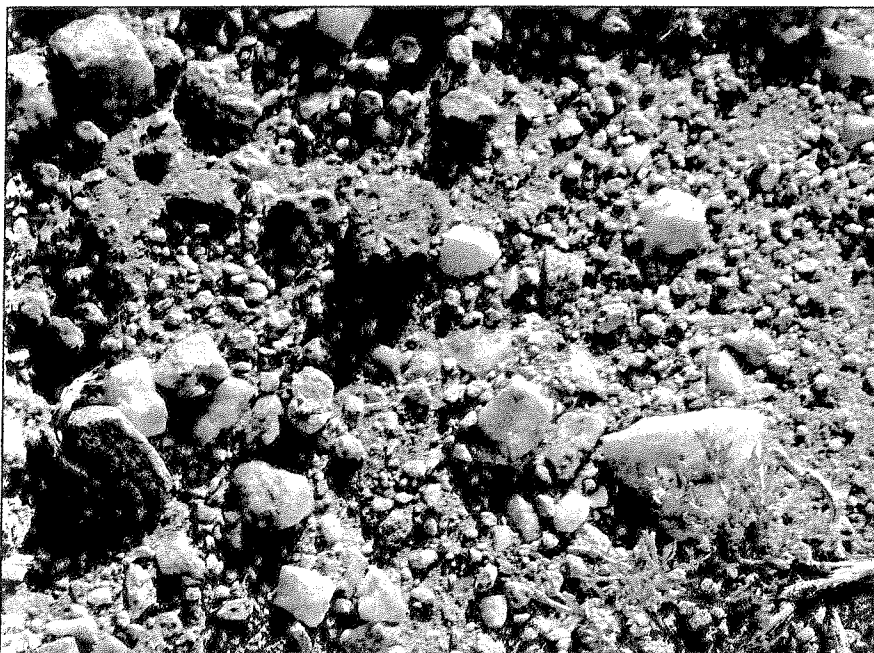


Fig.9 Quarts and rose quarts on the surface around BP2 at Riemvasmaak.

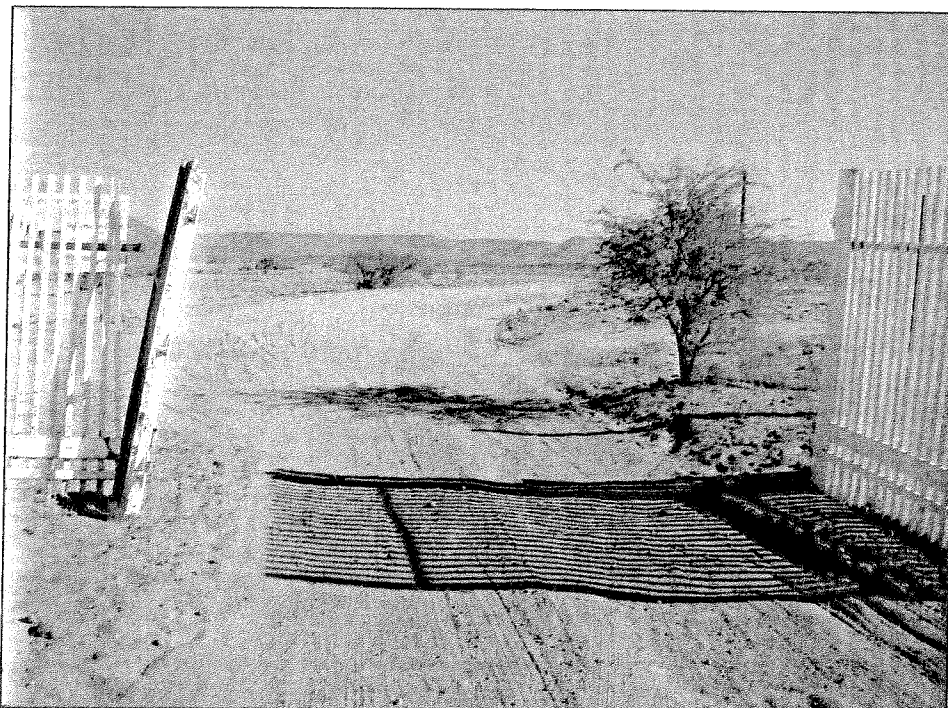


Fig.10 Starting point of the road to Riemvasmaak.

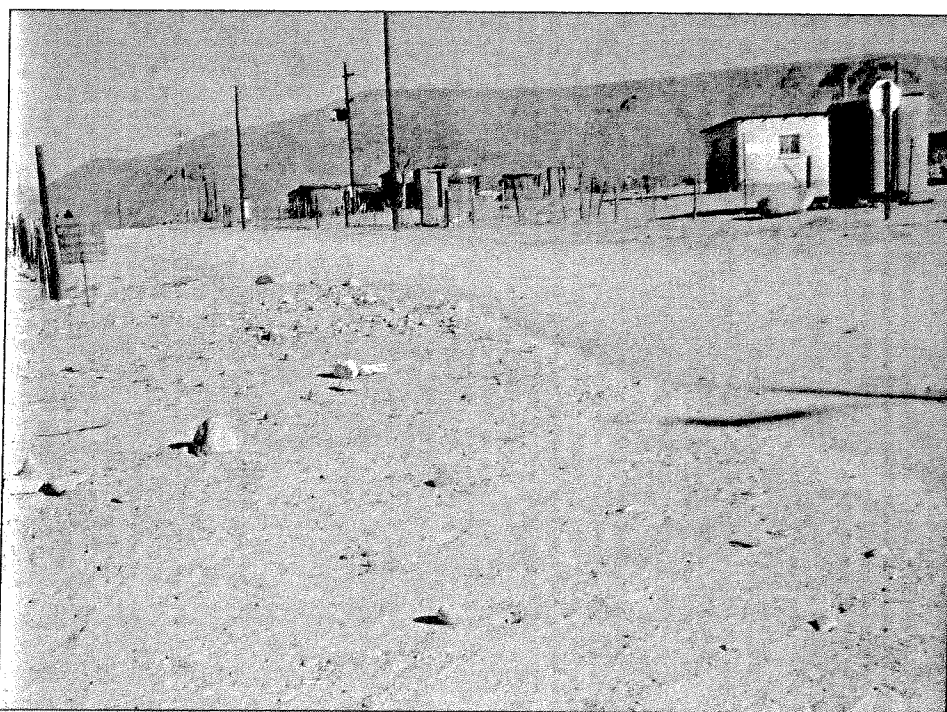


Fig.11 End of the road near the school at Riemvasmaak.

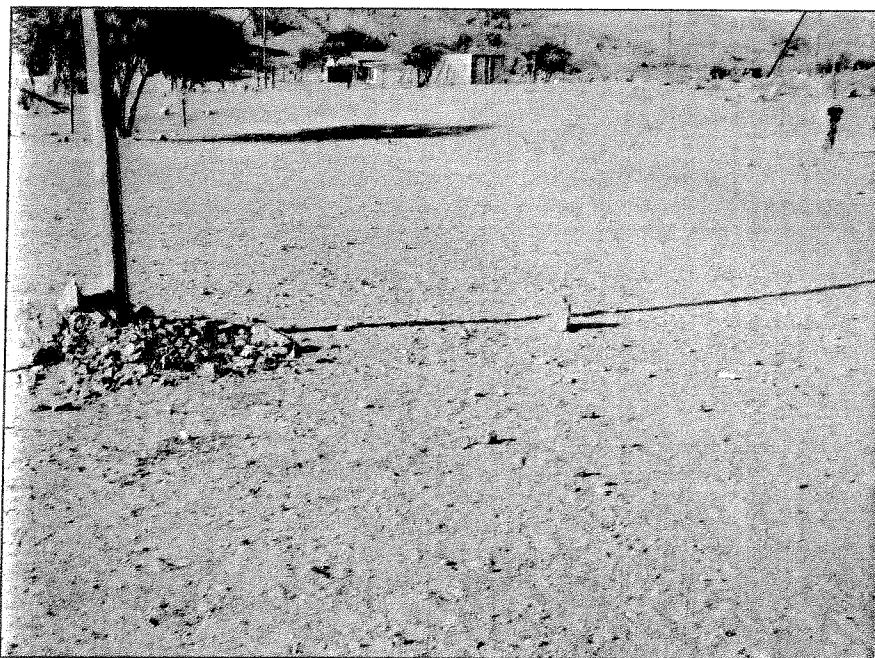


Fig.12 End of the road near the school at Riemvasmaak.

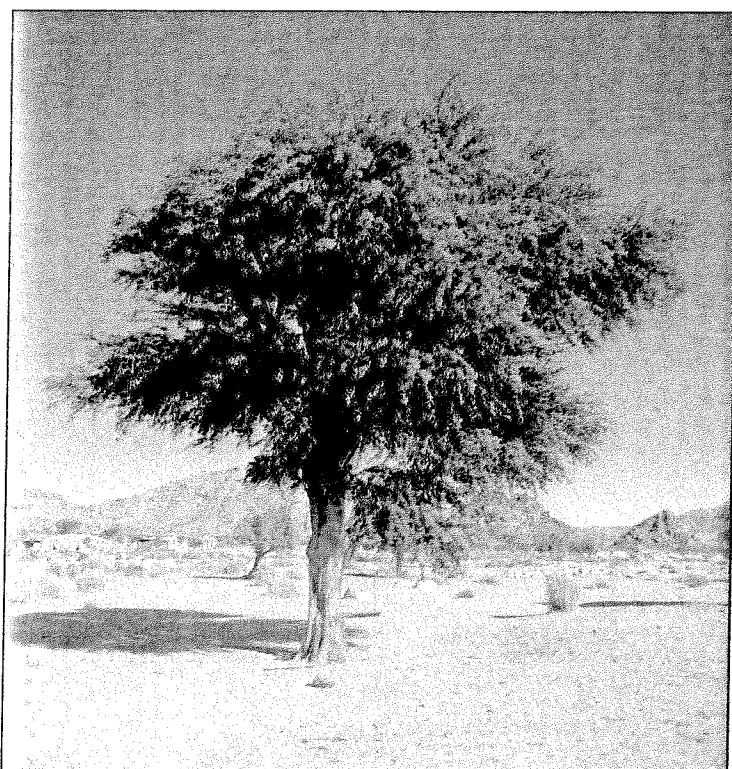
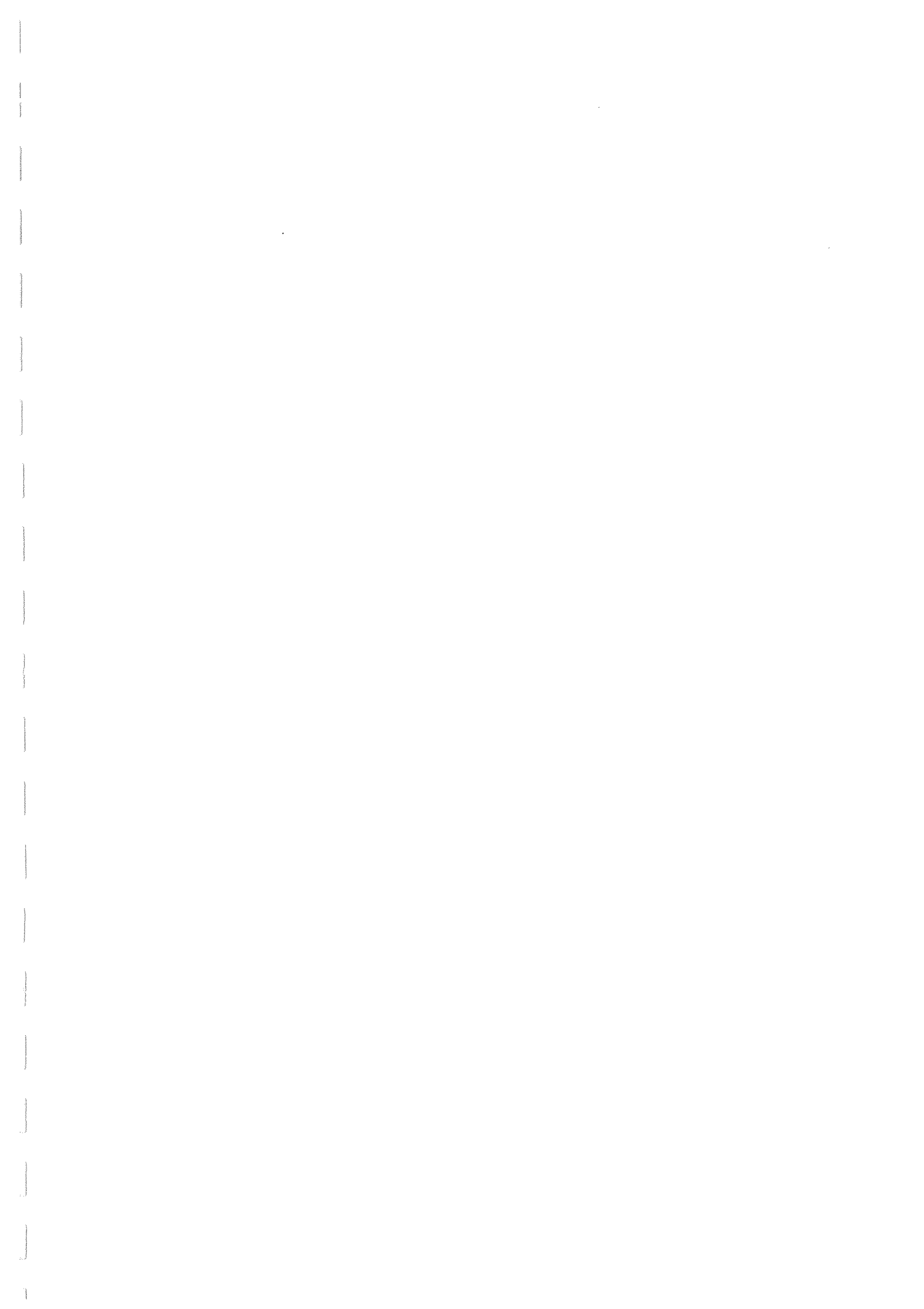
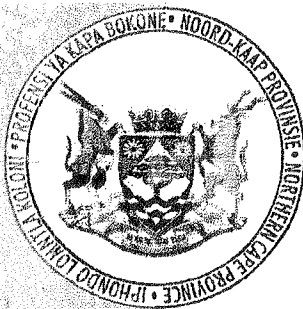


Fig.13 *Acacia erioloba* trees in the road reserve at Riemvasmaak.





DEPARTMENT OF TOURISM,  
ENVIRONMENT AND CONSERVATION

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Navrae :

Date :  
Letlha :  
Umhla :  
Datum :

**01<sup>st</sup> December 2009**

Reference :  
Tshupelo : **NNO 25/19**  
Isalathiso :  
Verwysings : **NC/SIY/KAI! GARIB/RIEM/2009**

**Mr. J Nakoo**  
**Siyanda District Municipality**  
**P.O. Box 6039**  
**Upington**  
**8801**

**Fax: 054 – 337 2888**

**APPLICATION FOR AUTHORIZATION: GNR386: ACTIVITIES 16 (a),12,15: THE CONSTRUCTION OF HOUSES AT RIEMVASMAAK MISSION COMMUNITY AND THE CONSTRUCTION OF HOUSES AND TARE ROAD AT RIEMVASMAAK VREDESVALLEI COMMUNITY, ERVEN AS INDICATED WITHIN THE FARM BOUNDING OF RIEMVASMAAK 498/0,KAKAMAS,SIYANDA DISTRICT MUNICIPALITY NORTHERN CAPE PROVINCE.**

By virtue of power conferred to me by the National Environmental Management Act, 1998 (Act No. 107 of 1998) and the Environmental Impact Regulations, 2006, the Department hereby granted **APPLICATION FOR AUTHORIZATION: GNR386: ACTIVITIES 16 (a),12,15: THE CONSTRUCTION OF HOUSES AT RIEMVASMAAK MISSION COMMUNITY AND THE CONSTRUCTION OF HOUSES AND TARE ROAD AT RIEMVASMAAK VREDESVALLEI COMMUNITY, ERVEN AS INDICATED WITHIN THE FARM BOUNDING OF RIEMVASMAAK 498/0,KAKAMAS,SIYANDA DISTRICT MUNICIPALITY NORTHERN CAPE PROVINCE.** A detailed description of the activity is given in the Basic Assessment Report Dated November 2009, subject to the conditions listed in the environmental authorisation. The environmental authorisation and reasons for the decision are attached herewith.

In terms of regulation 10(?) of the Environmental Impact Assessment Regulations, 2006, you are instructed to notify all registered interested and affected parties, in writing and within Seven (7) calendar days of the date of this letter, of the Department's decision in respect of your application as well as the provisions regarding the making of appeals that are provided for in the regulations.

Permit No **7/2009**

**A DESTINATION IN HARMONY WITH NATURE**

Your attention is drawn to Chapter 7 of the Regulations which regulates appeal procedures. Should you / any person affected by this decision wish to appeal any aspect of the decision, you or a person affected by this decision must, inter alia, lodge a notice of intention to appeal, as prescribed in regulation 62 of Environmental Impact Assessment Regulations, 2006, with the Member of the Executive Council, Ministry of Tourism, Environment and Conservation within 10 days of receiving this letter, by means of one of the following methods:

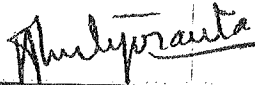
By facsimile: (053) 832 1026;

By post: Private Bag x 6102, Kimberley, 8300 or

By hand: T-Floor, MetLife Towers, Kimberley, 8300.

Should you decide to appeal, you must serve a copy of your notice of intention to appeal on all registered interested and affected parties as well as a notice indicating where, and for what period, the appeal submission will be available for inspection.

Yours faithfully



MR. JJ MUTYORAUTA – DIRECTOR  
ENVIROMENTAL MANAGEMENT

DEPARTMENT OF ENVIRONMENT AND NATURE CONSERVATION

Date of Decisions: 01<sup>st</sup> December 2009

CC: MEG  
054-4518006

Northern Cape Province  
DEPARTMENT OF TOURISM,  
ENVIRONMENT &  
CONSERVATION



Porofensi Ya Kapa Bokone  
LEFAPHA LA BOJANALA,  
TIKOLOGO LE  
SHOMARELO

**ENVIRONMENTAL AUTHORISATION**  
in terms of National Environmental Management Act, 1998 (Act No. 107 of 1998) and the  
Environmental Impact Assessment Regulations, 2006

Authorisation Register  
Number:

PERMIT 74/2009

Reference Number:

NC/SIY/KAI!GARIB/RIEM/2009

Last Amended:

Holder of Authorisation:

SIYANDA DISTRICT MUNICIPALITY

Location of activity:

RIEMVAASMAK VREDESVALLEI  
COMMUNITY

## DEFINITIONS

**"Activity"** means an activity identified in Government Notice No. R. 386 and No. R. 387 of 2006 as a listed activity.

**"Applicant"** means a person who has submitted an application

**"Application"** means an application for an environmental authorization in terms of chapter 3 of these regulations.

**"Basic assessment"** means a process contemplated in regulation 22

**"Basic assessment report"** means a report contemplated in regulation 23

**"EAP"** means an environmental assessment practitioner as defined in section 1 of the Act

**"Environmental management plan"** means an environmental management plan in relation to identified or specified activities envisaged in chapter 5 of the Act and described in regulation 34

**"Interested and affected party"** means a interested and affected party contemplated in section 24(4)(d) of the Act, and which in terms of that section includes

- ◆ Any person, group of persons or organisation interested in or affected by an activity, and
- ◆ Any organ of state that may have jurisdiction over any aspect of the activity

**"Public participation process"** means a process in which potential interested and affected parties are given an opportunity to comment on, or raise issues relevant to, specific matters

**"The Act"** means the National Environmental Management Act, 1998 (Act No. 107 of 1998)

## DECISION

The Department is satisfied, on the basis of information available to it and subject to compliance with conditions of this environmental authorisation, that the applicant should be authorised to undertake the activity specified below.

Details regarding the basis on which the Department reached this decision are set out in Annexure 1.

## ACTIVITIES AUTHORISED

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998) and the Environmental Impact Assessment Regulations, 2006 the Department hereby authorises –

SIYANDA DISTRICT MUNICIPALITY  
With the following contact details

Mr.J Nakoo  
P.O Box 6039  
P.O Box 6039  
Upington  
8801  
Tel: 054 337 2800  
Fax: 054 337 2888

to undertake the following activity (hereafter referred to as "the activity") in terms of the scheduled activities listed below:



Activity 12 described as the transformation or removal of indigenous vegetation of 3 hectares or more, Activity 15 described as the construction of the road that has the road reserve wider than 6m and Activity 16(a) described as transformation of undeveloped, vacant or derelict land to establish an infill development covering an area of 5 hectares or more but less than 20 hectares, which falls within the jurisdiction of Kait-Karib local Municipality of Siyanda District Municipality Northern Cape, hereafter referred to as "the property".

The granting of this environmental authorisation is subject to the conditions set out below.

### **CONDITIONS**

#### **Scope of authorisation:**

1. Authorisation of the activity is subject to the conditions contained in this authorisation, which conditions form part of the environmental authorisation and are binding on the holder of the authorisation.
2. The holder of the authorisation shall be responsible for ensuring compliance with the conditions by any person acting on his or her behalf, including but not limited to, an agent, sub-contractor, employee or person rendering a service to the holder of the authorisation.
3. The activity(s) which is authorised may only be carried out at the property indicated above.
4. Any changes to, or deviations from, the project description set out in this authorisation must be approved, in writing, by the Department before such changes or deviations may be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the authorisation to apply for further authorisation in terms of the regulations.
5. This authorisation does not negate the holder of the authorisation's responsibility to comply with any other statutory requirements that may be applicable to the undertaking of the activity.

#### **General conditions:**

6. A copy of this authorisation must be kept at the property where the activity will be undertaken. The authorisation must be produced to any authorised official of the Department who requests to see it and must be made available for inspection by any employee or agent of the holder of the authorisation who works or undertakes work at the property.
7. Where any of the applicant's contact details change, including the name of the responsible person, the physical or postal address and/ or telephonic details, the applicant must notify the Department as soon as the new details become known to the applicant.
8. The holder of the authorisation must notify the Department, in writing and within 24(TWENTY FOUR) hours, if conditions 16 of this authorisation cannot be or is not adhered to. In all other cases, the holder of the authorisation must notify the

Department, in writing, within seven (7) days if any condition of this authorisation is not adhered to. Any notification in terms of this condition must be accompanied by reasons for the non-compliance.

9. Non-compliance with a condition of this authorisation may result in criminal prosecution or other actions provided for in the National Environmental Management Act, 1998 and the regulations.
10. This authorization is subject to the approval by the relevant local authorities i.e. in terms of any relevant legislation administered by those local authorities.
11. The activity may not commence without the necessary permits/licenses/approvals and/or service agreements, where it is relevant, from or with the relevant regulatory authorities whether national, provincial or local (these include but are not limited to National Department of Environmental Affairs & Tourism, National Department of Agriculture, Department of Housing & Local Government, Department of Water Affairs & Forestry, Department of Minerals and Energy, Department of Transport, Roads & Public Works, Department Arts, Sports & Culture, South African Heritage Resources Agency, South African Civil Aviation Authority).
12. The activity, including site preparation, may not commence before the thirty (30) day appeal period expires or until such time as the Department has considered any appeals that have been lodged.
  - a. One week's written notice must be given to the Department before commencement with the activity.
  - b. Such notice shall make clear reference to the site location details and the reference number given above.
  - c. The said notice must also include proof of compliance with the following conditions described herein:
    - i. Conditions:11
13. The applicable conditions of this authorization must form part of all contractors' and sub-contractors' conditions of contract. A performance-based requirement with regard to environmental impact management must be included in all contracts related to any aspect of this authorization.
14. The applicant must carry out regular environmental audits to establish compliance with the conditions of this authorization and contracts.
15. Any complaints regarding the said development must be brought to the attention of the Department within 24 hours after receiving the complaint. A complaints register must be kept up to date for inspection by the Department.
16. Officials in the employ of the Department shall be given access to the property as described above (see detailed description of the activity) for the purposes of assessing and/or monitoring compliance with the conditions contained in this Record of Decision. Where the activity is located on a third party's property the applicant shall be responsible to arrange access for departmental officials.
17. This Department may add to, change and/or amend any of the conditions in this authorization if, in the opinion of the Department, the addition, change of amendment is environmentally justified. In event that such impacts exceed its significance as predicted in the independent consultant's environmental scoping report and supporting documentation, the authorization may be withdrawn after proper procedures were followed.

18. In the event of any dispute concerning the significance of a particular impact, the opinion of this department in respect of its significance will prevail.
19. This Department and any national department, provincial department, local authorities or committees appointed in terms of the conditions of this application or any other public authority or organization shall not be held responsible for any damage or losses suffered by the applicant or his successor in title in any instance where construction or operation subsequent to construction be temporarily or permanently stopped for reasons of non-compliance by the applicant with the conditions of approval as set out in this document or any other subsequent document emanating from these conditions of approval.
20. The applicant shall be responsible for all costs necessary to comply with the above conditions unless otherwise specified.
21. The applicant must apply the principle of best practicable environmental option for all technologies used/ implemented during construction.
22. All camps and stockpile and similar areas must be rehabilitated to their original or better condition as soon as construction is complete.
23. Access routes are to be kept as dust free as possible particularly during the construction period by using watering trucks.
24. To address the issue of erosion, number of access routes must be restricted, only to those that are strictly necessary for constructing the development and construction vehicles must not be allowed to move off these roads.

**Appeal of authorisation:**

25. The holder of the authorisation must notify every registered interested and affected party, in writing and within 7 (SEVEN) calendar days, of receiving notice of the Department's decision to authorise the activity.
26. The notification referred to in 24 must –
  - specify the date on which the authorisation was issued;
  - inform the interested and affected party of the appeal procedure provided for in Chapter 8 of the regulations; and
  - advise the interested and affected party that a copy of the authorisation and reasons for the decision will be furnished on request.
27. If the applicant should appeal against this record of decision, he/she must inform all interested and affected persons that such an appeal is being lodged with the MEC and if requested, the applicant/appellant must provide those persons with reasonable access to a full copy of the appeal within a reasonable time before expiry of the thirty day appeal period.

**Management of activity:**

27. The Environmental Management Plan (EMP) must be submitted to this department prior to any construction and must be implemented and adhered to throughout the life cycle of the project.
28. All areas disturbed during the commissioning of the activity must be rehabilitated.
29. Best practice of waste avoidance, minimisation and disposal of waste at an appropriate facility must be implemented.

**Monitoring:**

30. The monitoring of the constructors, compliance with conditions of this Environmental Authorization is essential and must be done on a weekly basis. Any deviances from the conditions of this Environmental Authorization must be rectified immediately.
31. A copy of this Authorization and an EMP must always be available on site so as to monitor compliance with the conditions outlined in both the documents (ROD and EMP). Both copies of an EMP and ROD must be used as on-site reference documents during all phases of this development.

**Recording and Reporting to the Department:**

32. Records relating to compliance or non-compliance with any condition of this authorization must be kept in good order. Such records must be made available to any Official from Compliance and Monitoring section of the Directorate: Environmental Management within seven (7) days of written request by the said Officer.
33. Adequate preventative measures must be undertaken to avoid groundwater contamination when installing septic tanks; they must be put in bunded concrete walls
34. Any complaints regarding the said development must be brought to the attention of the Department within 24 hours after receiving the complaints register must be kept up to date for inspection by the Department. Where any of the applicant's contact details change, including the name of the responsible person, the physical or postal address and/ or telephonic details, the applicant must notify the Department as soon as the new details become known to the applicant

**Commissioning of the activity:**

35. Seven (7) days written notice must be given to the Department that the activity will commence. Commencement for the purposes of this condition includes site preparation. The notice must include a date on which it is anticipated that the activity will commence.
36. General waste must be collected in containers disposed of regularly at a permitted landfill site. Recyclable waste must be recovered for recycling purpose. NB: No temporary dumping of waste is allowed on site. Precautionary measures should be taken to prevent refuse from spreading from or on the site.
37. Should protected trees be destructed, relocated and /or disturbed, permit must be obtained from Department of Water Affairs and Forestry(DWAF) and Department of Tourism, Environment and Conservation(DTEC).
38. Any complaint from the public during the construction and operation of this project must be attended to by the holder of this authorisation as soon as possible to the satisfaction of parties concerned.
39. The authorized activities, including site preparation shall not commence before the statutory 30 days of an appeal period has expired.
40. The safety of the participants must be ensured by having regular safety inspection and ensuring participants are equipped with necessary safety equipments.
41. Open fire is strictly prohibited on site.
42. The uncovering of previously undetected archaeological or cultural remains must be reported immediately to the South African Heritage Resources Agency (SAHRA)

failure to do so constitute an offence in terms of the National Heritage Resources Act, Act 25 of 1999 as amended.

43. Untreated sewage must not be discharged directly into the natural environment.
44. Spillage of petroleum products (fuel and lubricants) must be avoided. Temporary storage of petrochemical products and servicing of machinery and vehicles on site will be allowed except at a site specifically designed for that purpose. In terms of accidental spillage, contaminated soil must be removed for bioremediation or disposed of at a recognized facility for the substance concerned. Disturbed land must be rehabilitated and seeded with vegetation seed naturally occurring on the site.
45. The development must comply with the Municipal by-law
46. Chemical toilets must be available for workers on site during construction phase only, i.e. sewage waste must be disposed off at the Municipal sewage plant on a regular basis. No "long drop" toilets will be allowed. No open space or surrounding bush shall be used as toilet facility under any circumstances.
47. It is the holder of this authorization's responsibility to ensure that an ongoing management and monitoring of the impacts of the activity on the Environment throughout the life cycle of the activity is put into practice.
48. All the areas (e.g. stockpiling of material, machines, workshop etc) in the construction site must be clearly defined.
49. The contractor must ensure that drip trays are always available to collect any fluid that may result from accidental spillage, overflow and/or servicing. All equipments that leak must be repaired immediately and/or removed from site when necessary.
50. It is the contractor's responsibility that all staff/employees are familiar with all the emergency procedures. The contractor must also ensure that emergency numbers are visible and available and always updated.
51. The contractors must use Ready-Mix concrete. Alternatively, concrete can be mixed on mixing trays only and not on exposed soil. Concrete must be mixed only in areas, which have been specially demarcated for this purpose.
52. The contractor must take all the necessary precautionary measures to ensure that no fires are caused as a result of construction activities.
53. Old cement bags, mixing bags, platforms etc should be discarded in a wind and spill proof container. No cement bags closed or open should be left lying around the site. All visible remains of concrete should be physically removed as soon as possible, and disposed of at a suitable site.
54. All vehicles, equipments and other assets belonging to the contractor must be removed from the property upon completion of the construction works.
55. Topsoil removed during excavations must be kept separate from other material. Topsoil must be placed above other material during backfilling.
56. Precautionary principles must be followed as people's lives depend on the project.

57. The central waste collection point must be specific —where it will be situated to ensure that no soil or underground water contamination takes place this should be done at least on weekly basis.

58. Habitat Fragmentation and Alien plant infestation should be prevented at all cost.

**Operation of the activity:**

59. All forms of pollution must be prevented, or where it cannot, should be minimized or remedied.

60. General waste must be collected in drums containers disposed of weekly at a permitted Municipal landfill site. Recyclable waste must be recovered for recycling purpose. NB: No temporary dumping of waste is allowed on site. Precautionary measure should be taken to prevent refuse from spreading from or on the site

61. The location of the Housing development must remain at the co-ordinates 28° 27'00,3"S, 20° 18'27,1"E

62. The development must conform the design and the specifications of Appendix A which is named as site plans, Appendix B named as photographs and Appendix C which is the facility illustration.

**Site Closure and Decommissioning:**

63. Should the development no longer be required, or if decommissioning is required for whatsoever reason then the applicant must ensure that the structures are, removed from site and the area rehabilitated to its original or better condition.

64. All construction and storage sites and all areas disturbed by the project must be rehabilitated to their former or better condition. Those sites and areas must be re-vegetated with indigenous plants upon completion of base station and must take place where necessary.

65. And should the project be abandoned or decommissioned, a Closure Management Plan must be compiled and the holder of the Environmental Authorization must rehabilitate the site to the satisfaction of this Department.

**Non-compliance**

66. In the event of non-compliance by employees and contractors during the construction, operation and decommissioning phases of the project, the applicant will be held liable.

67. The applicant shall be responsible for all the costs necessary to comply with the above conditions unless otherwise stated.

68. Provincial Government, Local Authority or committees appointed in terms of the application or any other public authority or organization shall not be held responsible for any damages or losses suffered by the developer or his/her successor in title in any instance where construction or operation subsequent to construction are to be temporarily or permanently stopped for reasons of non-compliance by the developer with conditions of approval as set out in the document or any other subsequent document emanating from this approval.

### DURATION AND PERIOD OF VALIDITY

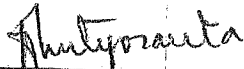
This activity(s) must commence within a period of three (3) years from the date of issue. If commencement of the activity does not occur within that period, the authorisation lapses and a new application for environmental authorisation must be made in order for the activity to be undertaken.

### APPEAL

In terms of Chapter 7 of Environmental Impact Assessment Regulations, 2006, if the applicant or a person affected by this Decision wishes to appeal this decision, a notice of intention to appeal must be lodged within ten (10) days of being notified of the decision, and an appeal must be lodged within thirty (30) days of lodging of the notice to appeal to:

The Member of the Executive Council  
Ministry of Tourism, Environment & Conservation  
Private Bag X6102  
Kimberley  
8300  
Fax: (053) 8321032

Appeals must comply with the provisions of Chapter 7 of Environmental Impact Assessment Regulations, 2006 Government Notice No. R. 385 of 21 April 2006.



Mr. JJ Mutyorauta – Director  
Environmental Management  
DEPT. OF ENVIRONMENTAL & NATURE CONSERVATION

DATE OF ENVIRONMENTAL AUTHORISATION: 01<sup>st</sup> December 2009

## ANNEXURE 1: REASONS FOR DECISION

### 1. Background

The applicant, Siyanda District Municipality, applied for Authorisation to carry on the following activity—

The Construction of Houses and tarred road at Riemvaasmak Mission Community, Vredesvallei at Siyanda District in the Northern Cape {Activities 12, 15 and 16(a) of GN. No. R.386 of 21 April 2006}

(Co-ordinates 28°27'00,3s", 20° 18'27.1" which falls within the jurisdiction of Kail-Karib local Municipality of the Siyanda District Municipality), hereafter referred to as "the property"

The applicant appointed Ms M.E Geldenhuys to undertake a screening process.

- a) The process followed is a Basic Assessment
- b) The Environmental Assessment Practitioner did submit the intent to apply before submitting the Basic Assessment Report.
- c) Proof of Public Participation was submitted together with the Basic Assessment Report and received by the Department on the 03 November 2009.

### 2. Information considered in making the decision

In reaching its decision, the Department took, *inter alia*, the following into consideration

- a) The information contained in the Basic Assessment Report submitted and reviewed by Ms Anga Yaphi;
- b) The comments received from interested and affected parties as included in the Basic Assessment Report;
- c) The objectives and requirements of relevant legislation, policies and guidelines, including section 2 of the National Environmental Management Act, 1998 (Act No.107 of 1998).
- d) The findings of the site visit undertaken by Ms Anga Yaphi on 16<sup>th</sup> September 2009 and Ms.M.E. Geldenhuys

### 3. Key factors considered in making the decision

All information presented to the Department was taken into account in the Department's consideration of the application. A summary of the issues which, in the Department's view, were of the most significance is set out below.



- a. The potential environmental impacts associated with the proposed construction of houses and tarred roads as described in the Basic Assessment report are adhered to.
- b) The legal and procedural requirements have been complied with and the information contained in the Basic Assessment Report to satisfaction of this Department.

#### **4. Findings**

After consideration of the information and factors listed above, the Department made the following findings -

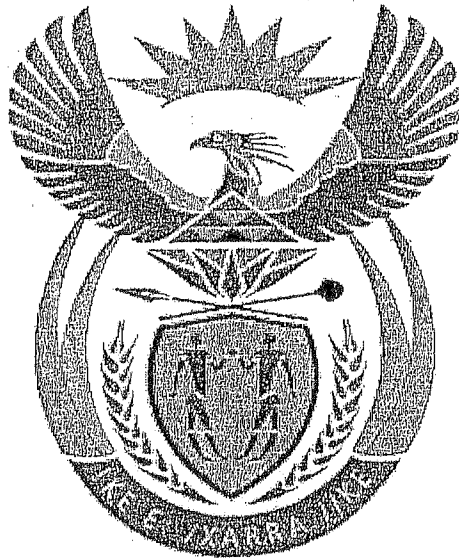
- a. The potential environmental impacts can be kept to acceptable limits.
- b. The proposed activity is accepted by all interested and affected parties.
- c. The proposed activity will improve greater access, better way of living to the communities and schools in the area.
- d. The impact will be reduced because the area of the development is in an existing area with the built up infrastructure.

In view of the above, the Department is satisfied that, subject to compliance with the conditions contained in the environmental authorisation, the proposed activity will not conflict with the general objectives of integrated environmental management laid down in Chapter 5 of the National Environmental Management Act, 1998 and that any potentially detrimental environmental impacts resulting from the proposed activity can be mitigated to acceptable levels. The application is accordingly granted.

**rural development  
& land reform**

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Department:  
Rural development & Land Reform  
REPUBLIC OF SOUTH AFRICA



Certified Copy / Gesertifiseerde Afskrif  
Issued by / Uitgereik deur

**REGISTRAR OF DEEDS  
REGISTRATEUR VAN AKTES**

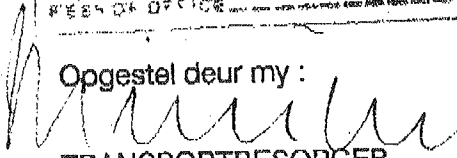
Private Bag / Privaatsak X20613 Bloemfontein 9300

Tel: 051 403 0300

Fax / Faks: 051 403 0308 – 051 447 4746

**KOTZE LOW & SWANEPOEL**  
Prokureurs, Notarisse en Akteutmakers  
VRYBURG

0 R22.470
STAMP DUTY
KANTOORFOON R75.00
FEE OF OFFICE

Opgestel deur my :  
  
**TRANSPORTBESORGER**  
**MEINTJES H**

FOR INFORMATION ONLY  
SLEGS VIR INLICHTING

GESERTIFISEER 'n julete afskrif van die duplikaat-  
 CERTIFIED a true copy of the duplicate of a  
 ooreenkomstige...  
 2010-10-18  
**66, Act 47/37**  
 AKTEKANTOOR  
 DEEDS OFFICE  
 VRYBURG  
 REGISTRATEUR VAN AKTES  
 REGISTRAR OF DEADS

DATAVALLENGING/DATA CAPTURE
DATE/TIME
1996-05-31

**TRANSPORTAKTE NO.**

T 818A 1996

Hiermee word bekend gemaak:

**DAT HENRI MEINTJES**

verskyn het voor my, die Registrateur van Aktes te VRYBURG waartoe hy, die genoemde Komparant behoorlik gemagtig is deur 'n Volmag geteken te KIMBERLEY op 14 Junie 1995. en aan hom verleen deur

**REPUBLIEK VAN SUID-AFRIKA**

En die genoemde Komparant het verklaar dat sy Prinsipaal voormeld die hiernagelnde eiendom gratis geskenk het aan die hiernagelnde transportnemer op 6 Mei 1995.

2

FOR INFORMATION ONLY  
SLEGS VIR INLIGTING

NOU DUS sedeer en transporteer die Komparant in sy voornoemde  
hoedanigheid hiermee in volkome en vrye eiendom aan en ten gunste van

**RIEMVASMAAK GEMEENSKAPSONTWIKKELINGSTRUST**

Nr. T 56/95

Die se Opvolgers in Titel of Regverkrygendes

Die plaas RIEMVASMAAK 498

GELEE in die Afdeling GORDONIA  
Provinsie NOORDKAAP

GROOT Vier en Sewentigduisend Vyfhonderd Twee en Sestig  
komma Agt Een Twee Vier (74 562,8124) Hektaar

AANVANKLIK GEREKISTREER en GEHOU kragtens Sertifikaat van  
Geregistreeerde Staatstitel Nr. T 817A /1996  
met Kaart Nr. 8832/1994 wat daarop betrekking het



3

WESHALWE die komparant afstand doen van al die regte en titel wat die genoemde

REPUBLIEK VAN SUID-AFRIKA

voorheen op genoemde eiendom gehad het en gevolglik ook erken dat die genoemde

REPUBLIEK VAN SUID-AFRIKA

geheel en al uit die besit daarvan onthef is en nie meer daartoe geregtig is nie; en dat, kragtens hierdie Akte, die genoemde

**DIE RIEMVASMAAK GEMEENSKAPSONTWIKKELINGSTRUST**

Die se Opvolgers in Titel of regsverkrygendes tans en voortaan daartoe geregtig is ooreenkomstig plaaslik gebruik, behoudens die Regte van die Staat;

TEN BEWYSE WAARVAN ek, die genoemde Registrateur tesame met die Komparant hierdie Akte onderteken en met die ampseel bekragtig het.

ALDUS GEDOEN en GETEKEN op die Kantoor van die Registrateur van Aktes te VRYBURG op 1996-05-02

In my teenwoordigheid:

REGISTRATEUR VAN AKTES

q.q.

1. Hereregtevrystellingsertifikaat uitgereik te KIMBERLEY OP 29 November 1995

Nagesien: 1. ....  
2. ....

2. Belastinguitklaringsertifikaat: Munisipaliteit van GEEN

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REGISTERED FOR INFORMATION ONLY

254 1111 - 1007: 11,686 H.  
 1007: 257,840 H.

GETHANGPORTEER AAN TRANSFERRED TO  
 BENEVE - ORANJE DISTRICTS RAAD

RESTANT/REMAINDER 74 293,81594

<del>T</del> 174 2001	<del>H. C. BAVEN</del>
<del>2001-01-23</del> <del>2001-01-23</del>	REGISTRATEUR/REGISTRAR

INFORMATION  
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