mineral resources
Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

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Ref: NCS 30/5/1/3/3/2/1(852)MP

23 May 2011

REGISTERED MAIL
The Director
SAHRA
P O Box 4637
CAPE TOWN
8000

CONSULTATION IN TERMS OF SECTION 40 OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (ACT 28 OF 2002) FOR THE APPROVAL OF THE ENVIRONMENTAL MANAGEMENT PLAN IN RESPECT OF A PORTION OF REMAINDER OF PORTION 2 (WITKOPPIES NOORD) OF THE FARM WITKOPJES NO 258 ADMINISTRATIVE DISTRICT: KENHARDT

APPLICANT: ROBOW INVESTMENTS NO 100 (PTY)LTD

1. Attached herewith, please find a copy of the Environmental Management Plan received from the above-mentioned applicant, for your comments.
2. It would be appreciated if you could forward any written comments or requirements your department may have in the case in hand to this office on or before **30 June 2011.**
3. Consultation in this regard has also been initiated with other relevant Sate departments.

4. Your co-operation will be appreciated.

Yours faithfully

REGIONAL MANAGER: MINERAL REGULATION
NORTHERN CAPE REGION

SA HERITAGE RESOURCES AGENCY
RECEIVED
27 MAY 2011

SA HERITAGE RESOURCES AGENCY
RECEIVED
27 MAY 2011

File number: NCS 30/5/1/3/2/852MP

DEPARTMENT OF MINERALS AND ENERGY

ENVIRONMENTAL MANAGEMENT PLAN

Submitted in support of application for a 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: ROBOW INVESTMENTS NUMBER 100 (PTY) Ltd

FARM: A PORTION OF REMAINDER OF PORTION 2 (WITKOPPIES NOORD) (PTN OF PTN 1) OF THE FARM WITKOPJES 258

DISTRICT: KENHARDT

MINERAL: ROSE QUARTZ (GEMSTONE)

DATE: APRIL 2011

Contents

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:

Act (The Act)	Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002)
Borehole	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.
CARA	The Conservation of Agricultural Resources Act
EIA	An Environmental Impact Assessment as contemplated in Section 38(1) (b) of the Act
EMP	an Environmental Management Plan as contemplated in Section 39 of the Act
Fauna	All living biological creatures, usually capable of motion, including insects and predominantly of protein-based consistency.
Flora	All living plants, grasses, shrubs, trees, etc, usually incapable of easy natural motion and capable of photosynthesis.
Fence	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.
House	any residential dwelling of any type, style or description that is used as a residence by any human being
NDA	National Department of Agriculture
NWA	National Water Act, Act 36 of 1998
Pit	Any open excavation
"Porrel"	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.
Topsoil	The layer of soil covering the earth which- (a) provides a suitable environment for the germination of seed; (b) allows the penetration of water; (c) is a source of micro-organisms, plant nutrients and in some cases seed; and (d) 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.
Trench	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.
Vegetation	Any and all forms of plants, see also Fauna
DWAF	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.
MPRDA	the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002)
EMPlan	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 1.1 Full name (and surname) of person or company applying for permit or right	Robow Investments no 100 Pty Ltd
B 1.2 ID number of person or company/ CC registration number	1960/001900/06
B 1.3 Postal address	P.O Box 6724 Klerksdorp 2572
B 1.4 Physical/ residential address	18 Dawn Street Klerksdorp 2570
Name	Charles Kingsley
B 1.5 Applicant's telephone number	
B 1.6 Applicant's cellular phone number	082 3164444
Fax number	018 468 7885
B 1.7 Alternative contact's name	M.E Ratlabala
B 1.8 Alternative contact's telephone/cell phone numbers	+27 72 319 2334
B 2.1 Full name of the property on which mining/ prospecting operations will be conducted	A portion of remainder of portion 2 (witkoppies noord) of the farm Witkopjes 258
B 2.2 Name of the subdivision	Witkoppies Noord
B 2.3 Approximate center of mining/prospecting area: Latitude	E 21 32 12.0
Longitude	S 29 33 47.2
B 2.4 Magisterial district	Kenhardt
B 2.5 Name of the registered owner of the property	Mr Chris Kung
Contact Person Name	Chris
B 2.6 His/her Telephone number	0833973569
B 2.7 His/ her Postal address	P.O Box 7 Grootdrink

B 2.8 Current uses of surrounding areas	
The land has been used for mining quartzite by the same company, The mining permit expired and could not be renewed more than three times	
B 2.9 Are there any other, existing land uses that impact on the environment in the proposed mining/ prospecting area?	
No	
B 2.10 What is the name of the nearest town?	
Kenhardt	

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:

C.1 DESCRIPTION OF THE ENVIRONMENT LIKELY TO BE AFFECTED BY PROPOSED PROSPECTING/MINING OPERATIONS: (REGULATION 52(2)(a))			
ENVIRONMENTAL ELEMENT/ IMPACTOR	VALUE	TICK	OFFICE USE
C 1.1 What does the landscape surrounding the proposed operation look like? (Open veldt/ valley/ flowing landscape/ steep slopes)			
It Is an opencast quarry that was mined by the same mining company			
C 1.2 Describe the type of soil found on the surface of the site			
The soils of the study area are predominantly shallow and rocky to non-existence. Deeper soils occur on the pediments of the study area. **Quartzite outcrops** Quartzite banded outcrops occur on the area.			
	VALUE	TICK	OFFICE USE
C 1.3 How deep is the topsoil?	0 – 300mm	X	8
	300 – 600mm		4
Over burden is from 0m to 2m, underlaid by 5m to 20m quartzite rock			2
C 1.4 What *plants, trees and grasses* grow naturally in the area around the site?			

The most dominant species include the *grasses Themeda triandra, Melinis nervilumis, Loudetia simplex, Schizachyrium sanguineum, Eragrostis racemosa, Eragrostis chloromelas, Panicum deustrum, Heteropogon contortus. Aristida diffusa and Aristida conescens,* the trees *Acacia Senegal subsp. Leiorhachis, A. karoo, A. caffra, A. sieberana, A. tortilis, A. nilotica, Sclerocarya caffra, Ehretia rigida, Balanites pedicellaris, Ozoroa sphaerocarpa, Maytenus heterophylla, Sterculia rogersii, Commiphora pyracanthoides;*

C 1.5 What *animals* naturally occur in the area?

The animal life at the study area include the following game:

- Goats;
- Red Squirrel
- Cattle.

	VALUE	TICK	OFFICE USE
C 1.6 Are there any *protected areas* (game parks/nature reserves, monuments, etc) close to the proposed operation?	Yes		4
	No	X	0

C 1.7 What mineral are you going to prospect or mine for? Rose Quartz

C 1.8 Describe the type of equipment that will be used:

Excavators; Dump Trucks, Dozer, Front-end loader

C.2 HOW WILL THE PROPOSED OPERATION IMPACT ON THE *NATURAL* ENVIRONMENT? (REGULATION 52(2)(b))

ENVIRONMENTAL ELEMENT/ IMPACTOR	VALUE	TICK	OFFICE USE
C 2.1 What will the ultimate depth of the proposed prospecting/mining operations be?	0 – 5m		2
	6 – 10m	X	4
	10 – 25m		8
	25m +		10
C 2.2 How large will the *total* area of all excavations be?	1.5 ha		
C 2.3 How large will each excavation be before it is filled up?	<10 X 10m		2
	<20 X 20m		4
	>20 X 20m	X	8
C 2.4 How many trenches will there be?	3		

	VALUE	TICK	OFFICE USE
C 2.5 Will employees prepare food on the site and collect firewood?	Yes		4
			0
C 2.6 Will water be extracted from a river, stream, dam or pan for use by the proposed operation?			4
	No		2
C 2.7 If so, what is the name of this water body?			
C 2.8 If water will not be extracted from an open surface source, where will it be obtained?	Existing Borehole		

	VALUE	TICK	OFFICE USE
C 2.9 How much water per day will the *mineral processing* operation require?	1000 – 10 000 Liters	X	2
	20 000 – 40 000 L		3
	40 000 – 60 000 L		5
No water will be used for mineral processing but only for dust suppression	60 000 – 100 000L		8
	More		10
C 2.10 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	X	2
C 2.11 What is the estimate depth of the water table/ borehole?	No record of water table		metres
C 2.12 How much water per day will the proposed operation utilize *for employees*?	1 000		Liters
C 2.13 What toilet facilities will be made available to workers?	None		8
	Pit latrine (longdrop)		4
	Chemical toilet	X	2
C 2.14 Would it be necessary to construct roads to access the proposed operations?	Yes		4
Existing roads	No	X	0

	VALUE	TICK	OFFICE USE
C 2.15 How long will these access road(s) be (from a public road to the proposed operations)	0 – 0,5 km		4
	0,6 – 1,5 km		2
	1,6 – 3 km		4
C 2.16 Will trees be uprooted to construct these access road(s)?	Yes		4
	No	X	0
C 2.17 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	X	0
C.3 TIME FACTOR			
C 3.1 For what time period will prospecting/mining operations be conducted on this particular site?	0 – 6 months		2
	6 – 12 months		4
	12 – 18 months		6
	18 – 24 months	X	8
	>24 months		10
C.4 HOW WILL THE PROPOSED OPERATION IMPACT ON THE *SOCIO-ECONOMIC ENVIRONMENT*? (REGULATION 52(2)(b))			
ELEMENT/ IMPACTOR	VALUE	TICK	OFFICE USE
C 4.1 How many people will be employed?	• 15		
C 4.2 How many men?	• 10		
C 4.3 How many women?	• 5		
C 4.4 Where will employees be obtained? (Own or employed from local communities?)	Own		2
	Local	X	4
C 4.5 How many hours per day will employees work?	Sunrise→ Sunset	X	4
	Less		2
	More		8
	VALUE	TICK	OFFICE USE
C 4.6 Will operations be conducted within 1 kilometer from a residential area	Yes		6

	No	X	1
C 4.7 How far will the proposed operation be from the nearest fence/windmill/house/dam/built structure?	0 – 50 metres		8
	51 – 100 metres		4
	150 or more metres	X	2
C.5 HOW WILL THE PROPOSED OPERATION IMPACT ON THE *CULTURAL HERITAGE* OF THE SURROUNDING ENVIRONMENT? REGULATION 52(2)(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
	No	X	0

C.6 SPECIFIC REGULATORY REQUIREMENTS

C.6.1 Air quality Management and Control (Regulation 64)

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:

Prevailing winds blow in a north- westerly and south- easterly direction. Water will be sprayed regularly on the roads using a water tanker. This will also be done at the mobile crushing plant. Water spraying will reduce dust generated by the operation significantly. Employees will be provided with dust masks for their protection. Because of construction of the dam the nearest residential area is more than 20 km away .Any excess dust will not have a detriment effect on the environment.

C.6.2 Fire Prevention (Regulation 65)

Applicants for permits, rights or permissions involving ***coal or bituminous rock*** must:

- ***Indicate on a plan*** 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)

N/A

C.6.3 Noise control (Regulation 66)

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.

The mining area is remotely located and no major settlements occur in the vicinity of the proposed mining site. The closest settlement is more than 20 km away. Noise levels from vehicles are not expected to increase significantly with respect to ambient noise levels emanating from vehicular traffic along a major road.

C.6.4 Blasting, vibration and shock (Regulation 67)

Please indicate whether any blasting operations will be conducted.

Blasting:	YES	Twice a week

C.6.5 Disposal of waste material (Regulation 69)

Indicate on your plan where waste will be dumped in relation to the beneficiation works/ washing pans Also indicate below how domestic waste material will be managed.

The mine will manage solid and liquid waste during prospecting operations in accordance with preferential hierarchy of minimization, re use, recycling and finally disposal. This includes adopting waste conscious design principles and planning prior to commencement of mining activities. The mine will be rehabilitating while mining (backfilling). Waste rock from mining will be stockpiled in a demarcated area and protected with berms for pollution and erosion purposes. The waste stockpile will be filled back into the pit within two months of stock pilling. The waste rock will be laid first in the trench then followed by topsoil.

Domestic waste will be collected and removed from the mining site and deposited at the Municipal dumping site in Kenhardt.

C.6.6 Soil pollution and erosion control (Regulation 70)

6.6.1 Indicate how topsoil will be handled on the area.

Top soil will be stripped and stockpiled on demarcated areas upslope of areas of disturbance to prevent contamination of stockpiled soil by run off or seepage and sloped at 11 degrees to avoid erosion during rainy days. Berms will also be erected around the stockpiles. The stockpiles will not exceed a maximum height of five meters. Dangerous opening will be fenced off with appropriate danger signs displayed conspicuously on the fencing.

6.6.2 Describe how spills of oil, grease, diesel, acid or hydraulic fluid will be dealt with.

Oil, grease, diesel, acid or hydraulic fluid are significant environmental issues and they are the main potential sources of water and soil contamination. Hydrocarbons are expensive to clean up. The policy will be: prevention is better than cure.

Prevention of Spillages

- Ensure all hydrocarbon storage facilities/containers are correctly labelled and stored;
- Follow procedure designed to minimize spills
- Remain vigilant whilst refuelling machinery so as to prevent spillages;
- Inspect equipment for rock damage, blown hoses or seals as part of the daily vehicle inspection;
- Use drip trays during refuelling to prevent spillages
- Report and clean-up any spill immediately.

A sump system will be used at the storage area and at all areas were there is a high risk potential of spillage of fluids. Spillages will be removed and stored separately and contract specialist for cleaning

6.6.3 Briefly describe the storage facilities available for the above fluids:

Oil and diesel will be stored in a shed and sealed, labelled tank in the designated area at the mine. The surface of the shed will be concrete to avoid spillage and further soil contamination.

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))
Example: 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	**Example:** 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.
1. Top soil and waste stock piling will lead to erosion of top soil and pollution	1 Top soil will be stock piled at the right angle to minimize erosion
2. Waste rock will lead to visual impacts.	2. All waste rock will be used for backfilling during rehabilitation.l.
3. Top soil and waste stock piling will lead to erosion of top soil and pollution .	3. Waste and top soil stock piles will be separated and stored at demarcated areas. The slope of the stock pile will be 12 degrees to avoid erosion. Berms will be created around the stock piles to separate clean water and dirty water
4. Blasting will lead to damage to infrastructure	4. Blasting will only be done during the day. There is no infrastructure in the vicinity..
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 closures 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 it will cost the Department to rehabilitate the area disturbed in case of liquidation or abscondence.

Enter the amount of financial provision required here: R 30 000

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

Cash deposit	X
Bank guarantee	
Trust Fund	
Other: (specify) (Note: other methods must be approved by the Minister)	

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:

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))
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.
Every aspect of the mining operation will be checked every six months against the prescription in Section F of this document. During the mining phase daily inspections will be made by the mine manger in charge. Should an aspect not be addressed or impacts on the environment not be mitigated properly, the inadequacies will be rectified immediately.

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
The area will be used for grazing
C.9.1 Describe, in brief terms, what the environment will look like after a closure certificate has been obtained.

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?
2 Chris Kunz	P.O Box 7 Grootdrink	Telephonical	Rent the farm from him
3			
4			
5			

D SCORING OF EIA– FOR OFFICIAL USE ONLY

Instructions for officials:
In this table, complete the totals of each section indicated below and do the calculation. ***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***
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	=	*Subtotal*	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, ...Charles S. Kingsley..., 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 ..22nd..day of ...April..... 2011...at Klerksdorp.. (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 uses 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.