mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

NAME OF APPLICANT: Kaboep River Resources (Pty) Ltd

REFERENCE NUMBER: NC 30/5/1/1/2/10929 PR

ENVIRONMENTAL MANAGEMENT PLAN

SUBMITTED
IN TERMS OF SECTION 39 AND OF REGULATION 52 OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002, (ACT NO. 28 OF 2002) (the Act)

STANDARD DIRECTIVE

Applicants for prospecting rights or mining permits, are herewith, in terms of the provisions of Section 29 (a) and in terms of section 39 (5) of the Mineral and Petroleum Resources Development Act, directed to submit an Environmental Management Plan strictly in accordance with the subject headings herein, and to compile the content according to all the sub items to the said subject headings referred to in the guideline published on the Departments website, within 60 days of notification by the Regional Manager of the acceptance of such application. This document comprises the standard format provided by the Department in terms of Regulation 52 (2), and the standard environmental management plan which was in use prior to the year 2011, will no longer be accepted.

IDENTIFICATION OF THE APPLICATION IN RESPECT OF WHICH THE ENVIRONMENTAL MANAGEMENT PLAN IS SUBMITTED.

ITEM	**COMPANY CONTACT DETAILS**
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1 REGULATION 52 (2): Description of the environment likely to be affected by the proposed prospecting or mining operation

1.1 The environment on site relative to the environment in the surrounding area.

Status of the cultural environment that may be affected

The Namaqualand copper mines and their associated infrastructure and cultural landscape reflect the beginnings of the mining industry in South Africa in all the myriad ways in which that industry influenced and continues to influence society through the movement and housing of people, the development of transport and other infrastructure and industries and in the development of technological and scientific endeavour.

It also reflects the very close links between the development of the Southern African mining industry and mining technology pioneered in Britain, particularly in the counties of Cornwall and Devon, and the landscapes and social structures that went with them.

In its socio-cultural aspects, the Namaqualand copper mines saw the development of the first company towns of the industrial era in South Africa and the movement of people from various parts of the Cape Colony to Namaqualand to provide labour and to serve the trade that developed here. As importantly, the development of the copper mines was undertaken using British technology developed on the mines of Cornwall and West Devon and in fact the development of the mines around O'okiep contributed significantly to the demise of copper mining in south-west of England, with the resulting transfer not only of technology and skills, but also of numbers of Cornishmen to Namaqualand and other parts of the world. There is and remains a strong historical connection between these two great former copper producing regions of the world. As such it is anticipated that the Namaqualand Copper Mining Landscape will be nominated as an extension of the Cornwall and West Devon Mining Landscape World Heritage Site along with similar sites that share the same connection in Mexico, Australia, Brazil and India.

Any form of mining or prospecting will therefore be a continuation of the socio-cultural aspects of the area.

Status of any heritage environment that may be affected

With regard to sites of archaeological interest the proposed prospecting operation will only consist of non-invasive activities. The possibility to unearth any fossils or artefacts is therefore zero. No other heritage resources such as built structures over 60 years old, sites of cultural significance associated with oral histories, burial grounds and graves of victims of conflict, and cultural landscapes or viewscapes are present on the prospecting area applied for.

Status of any current land uses and the socio-economic environment that may be directly affected

Approximately 90% of the region is used for livestock grazing and production, with the remainder comprising of agriculture and urban development. Tourism is a seasonal but rapidly growing feature – with visitors to the region arriving almost exclusively between July and October in order take in the world renowned yearly flower display. Urban development is not a major feature of the landscape, and is not expected to increase much in the coming years.

Prospecting will only be a temporary land use where after land use will revert back to the pre-mining land use grazing. Productivity of the land with regard to land use is very low and prospecting will have no impact on the productivity of the area.

Status of any infrastructure that may be affected

No infrastructure will be affected as only non-invasive activities will take place. Existing roads and tracks will be used for field work. Prospecting will consist of reconnaissance geological traverses and the observation and measuring of any significant deposits of industrial minerals encountered. As the prospecting area is very rugged, the field vehicle will be left along the farm roads and the traverses conducted entirely on foot. .

Status of the biophysical environment that may be affected

Topography

Namaqualand is a unique and diverse environment – owing in large part to the presence of four distinct biogeographically regions within its boundaries. The Orange River valley lies to the north and is characterized by very dry desert conditions. In the west the area is composed of coastal plains – which transition into granite hills that straddle the escarpment, before transforming into low lying Bushmanland plains to the East of Springbok.

The area is characterized by an expansive, undulating landscape. The area is dominated by a plain of dry grasslands with scattered ancient rocky outcrops, named Inselbergs.

Soil

The sands and calcrete are of Quarternary sediments. The area is mostly representing the Af land type, with deep red sands predominant. Rainfall is low, 70-110 mm per annum, mostly falling in late summer to autumn. Average minimum and maximum temperatures in the area are 15°C to 38°C in summer and 0°C to 18°C in winter. The days in the summer are long (sunrise at around 6:00am, sunset close to 8:00pm), and short in the winters (sunrise after 07:30am, sunset before 6:00pm). The soils in a regional context are reddish, moderately shallow, sandy, and often overlay layers of calcrete of varying depths and thickness. The soils are typically weakly structured with low organic content. These soils drain freely which results in a soil surface susceptible to erosion, especially wind erosion when the vegetation cover is sparse and gulley erosion in areas where storm-water is allowed to concentrate. The soils in the area are generally not suitable for dry land crop production and the only area where intensive crop cultivation is feasible is along the Orange River where irrigation is possible therefore the pre-prospecting land capacity is categorized as Class III grazing land. The productivity of the area is very low at 8Ha/SSU.

The prospecting area has been classified into the following classes of land capability:

Arable land:	0 %
Grazing land:	100%
Wetland:	0 %
Wilderness land:	0 %
Urban and mining	0%

Natural vegetation / plant life

The prospecting area is situated within the Nama-Karoo Biome. The vegetation consist of Bushmanland Arid Grassland vegetation type covering an area of 45478.96 Ha that is rated as least threatened with little of the area transformed less than 0.6%. Erosion is very low (60%) and low (33%). Altitude varies mostly from 600–1 200 m

The dominant vegetation is sparse open grassland, with *Stipagrostis* species prominent, together with scattered, drought resistant dwarf shrubs. Prominent species are as follow:

Dwarf shrubs

Aridaria noctiflora	*Eriocephalus microphyllus*	*Galenia fruticosa*
Lycium bosciifolium	*Pentzia spinescens*	*Plinthus karroicus*
Pteronia mucronata	*Rhigozum trichotomum*	*Rosenia humilis*
Sarcostemma viminale	*Tetragonia arbuscula*	

Grasses

Aristida adscensionis	*Aristida congesta*	*Centropodia glauca*
Enneapogon desvauxii	*Schmidtia kalahariensis*	*Stipagrostis brevifolia*
Stipagrostis ciliate	*Stipagrostis obtusa*	

Forbs

Barleria rigida	*Berkheya spinosissima*	*Crassula muscosa*
Dicoma capensis	*Gazania lichtensteinii*	*Grielum humifusum*
Hermannia spinosa	*Hirpicium echinus*	*Manulea nervosa*
Monechma incanum	*Peliostomum leucorrhizum*	*Requienia*
sphaerosperma	*Ruschia robusta*	*Salsola tuberculata*
Senecio cotyledonis	*Sesamum capense*	*Tribulus zeyheri*
Zygophyllum flexuosum	*Zygophyllum microphyllum*	

Animal Life

Various small mammals and reptiles occur. Larger herbivore species are absent due to the conflicting land use. The habitat is well represented in the surrounding area.

Surface Water

No drainage channels occur within the prospecting area and there is no dendritic system which could be disturbed. Surface water only accumulates in the drainage channels after exceptional good rains. Given the variability of semi-arid rainfall, the calculation of the mean annual runoff (MAR) would be of no use. The MAR is in any event very low given the low rainfall less than 200 mm per year occurring mainly in the summer months, high evaporation rates, and shallow grade of the slope toward the drainage channels and the permeability of the soils

The surface water quality (when available) is suitable for animal consumption but not for potable water.

Groundwater

The majority of towns and farms rely on groundwater resources for potable water. Thus, the higher rainfall areas are key recharge zones for these groundwater resources. Consequently, land use management of these catchment areas is critical for the maintenance of the quality and quantity of water sourced from each area. For example, water courses and wetlands that have been cleared for agricultural purposes, or overgrazed, will not only cause soil erosion, but most importantly cause

increased water runoff, thus reducing the amount of water that feeds back into the water table for consumption.
The average water level measured at 'rest' in the region is about 120m depending on the season. No water will however be used during the prospecting operation and if this change water will be obtained from one of the land owners.

Air Quality
The air background quality in the area is very good due to low industrial activity and very low population density. Given the surrounding extent of semi-desert, dust generation is high under windy conditions (dust storm) however under normal conditions no extreme dust conditions are noted on site.

Noise
Background noise level is the same as for other small settlements and at present such noise levels are low, below 55dBA.

1.2 The specific environmental features on the site applied for which may require protection, remediation, management or avoidance.

Description of potential impacts identified on the cultural heritage environment
Prospecting will only consist of non-invasive work therefore no phase 1 archaeological study is deemed necessary. Should any fossils be discovered or unearthed in the process of prospecting, the prospecting right holder will contact a South African Museum or University which employs palaeontologists so that the necessary paleontological salvage operations can take place. No other heritage resources such as built structures over 60 years old, sites of cultural significance associated with oral histories, burial grounds and graves, graves of victims of conflict, and cultural landscapes or viewscapes are present on the mining area.

Description of potential impacts identified on the socio- economic conditions
The only other land use in the area is small stock grazing and due to the small extends of the prospecting operation there will be no impact on productivity. Any mining operation developed as a result of prospecting operations will however have a positive impact on the socio-economic environment in the form of skills development and job creation.

Description of potential impacts identified on: employment opportunities, community health, and community proximity
The prospecting operation itself will not create many employment opportunities but if economic viable ore bodies are discovered the spinoffs due to the larger mining operation will contribute to employment and skills development.

Description of potential impacts identified on the biophysical environment
This impact assessment only deals with significant impacts and as prospecting will only consist of non-invasive field work the overall impact on the biophysical environment will be insignificant.

Prospecting will consist of reconnaissance geological traverses and the observation and measuring of any significant deposits of industrial minerals encountered. As the prospecting area is very rugged, the field vehicle will be left along the farm roads and the traverses conducted entirely on foot. At the completion of each phase, if no mineral deposits of interest have been identified, that portion of the prospecting area will be written off.
The prospecting program does not include soil sampling, which is not applicable to the minerals sought, or geophysical surveys. However, geophysical data is available (aeromagnetic, E-M), which may enable the prior recognition of major zones of meta-sedimentary rocks, potential hosts for the minerals to be sought. Panning along stream-beds may indicate the presence of high density mineral sources further upstream.
Interpretation of data, updating maps and planning further work will be conducted on an on-going basis between field visits.
No bulk sampling work or any other form of invasive prospecting including drilling is to be carried out during this prospecting program.

The implementation of the mitigating and management measures prescribed in the EMP will address all the existing impacts and after implementation of the mitigating measures most impacts can be classified as insignificant especially when looking at the current state of the environment

Topography

Significance/Magnitude	Duration	Probability	Timing
Low	Long term	Certain	Activity

The small volume of soil and stream sampling (panning) will have an insignificant negative impact on the visual aspect of the topography.

1.3 Map showing the spatial locality of all environmental, cultural/heritage and current land use features identified on site.

Diagram 1: Locality plan (contemplated in regulation 2(2) read with regulation 2(3) of the MPRD Act, 2002 (Act No. 30 of 2002)

Diagram 2: Layout (contemplated in regulation 2(2) of the MPRD Act, 2002 (Act No. 30 of 2002)

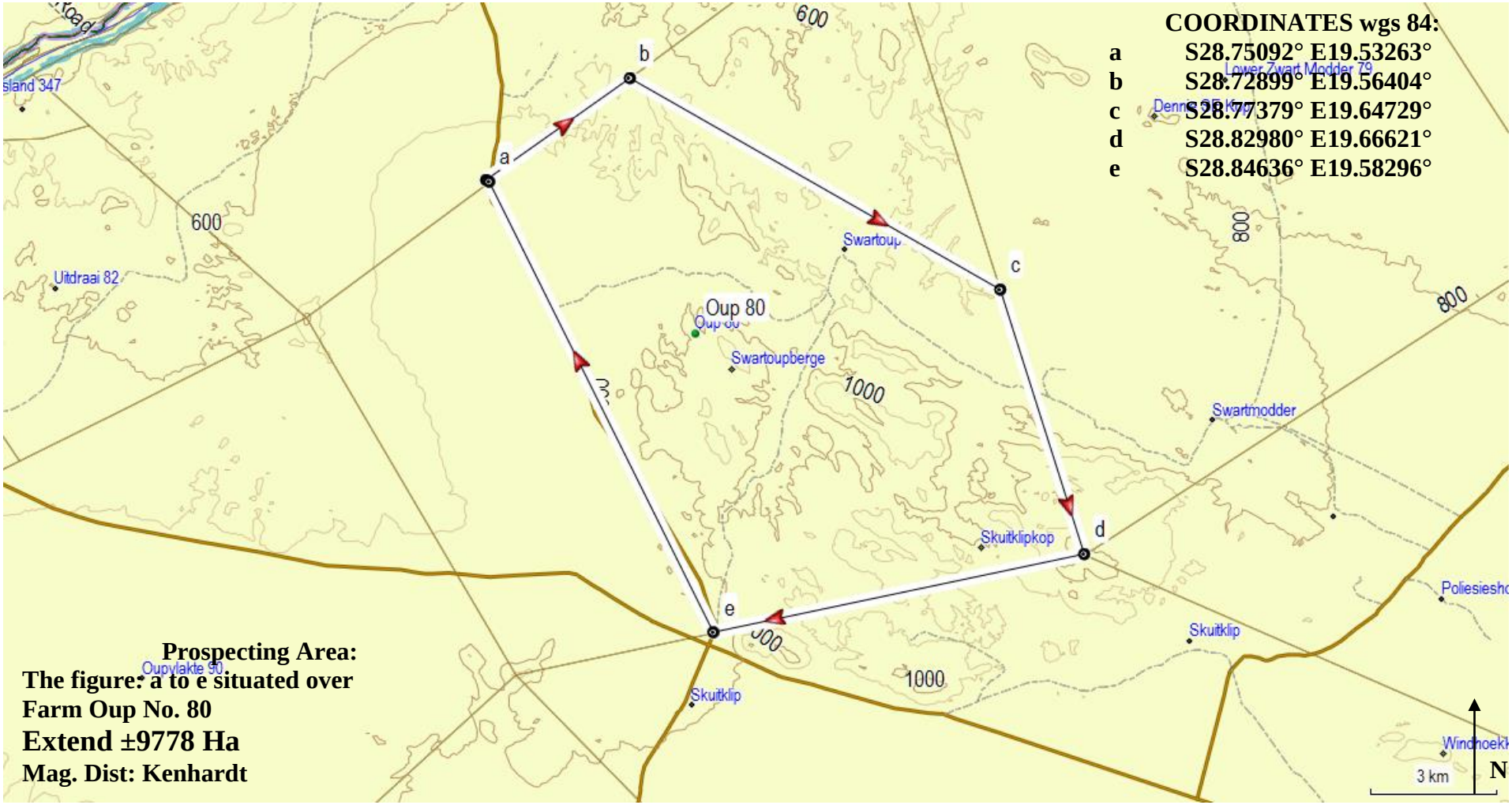
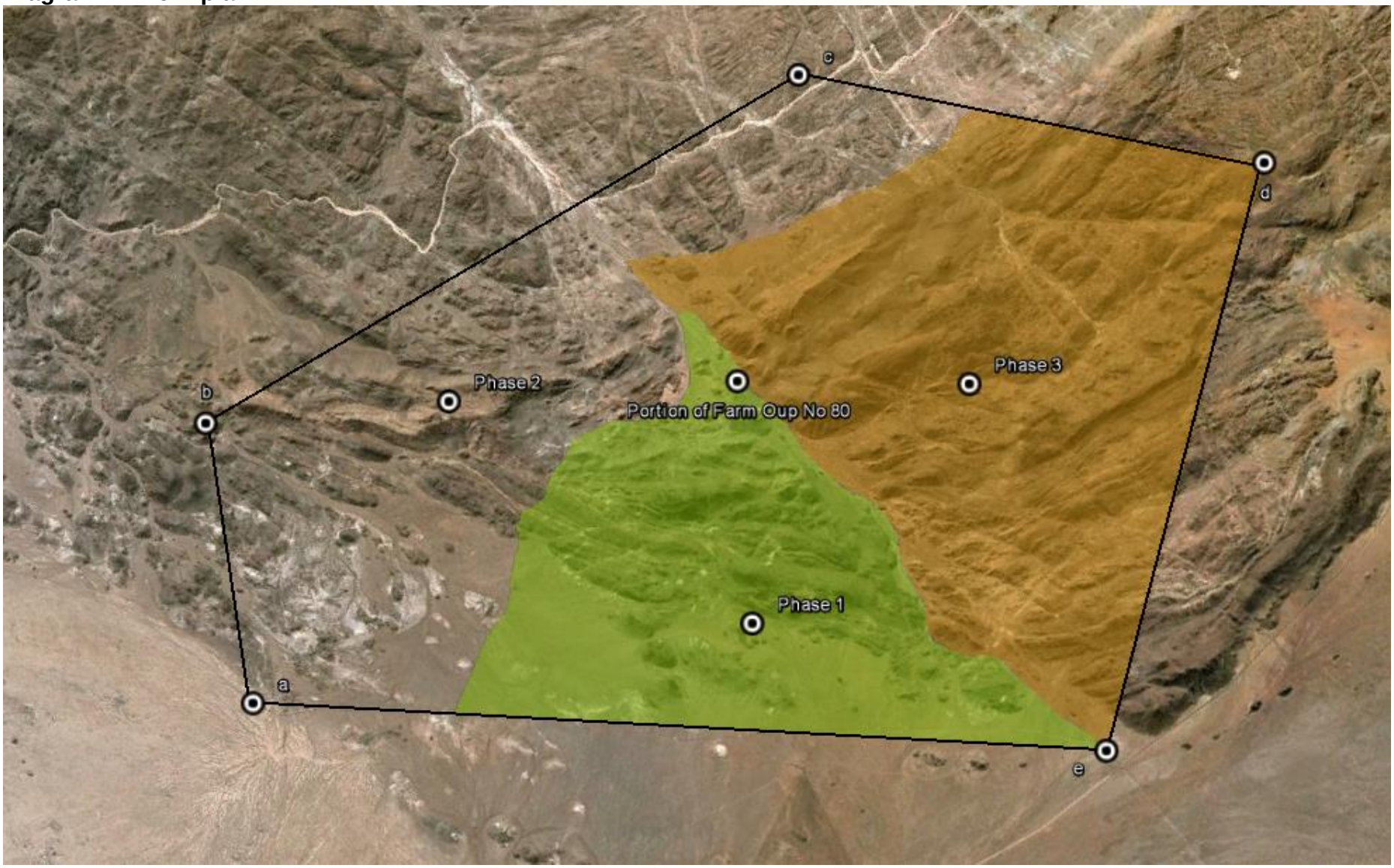


Diagram 3: Landscape (contemplated in regulation 2(2) of the MPRD Act, 2002 (Act No. 30 of 2002)

Diagram 4: Work plan



1.4 Confirmation that the description of the environment has been compiled with the participation of the community, the landowner and interested and affected parties,

The consultation report was made available to the landowners and all other interested parties for comment. All comments received were addressed in this EMPR.

2 REGULATION 52 (2) (b): Assessment of the potential impacts of the proposed prospecting or mining operation on the environment, socio-economic conditions and cultural heritage.

2.1 Description of the proposed prospecting operation.

2.1.1 Plan of the main activities with dimensions

The plan submitted under paragraph 1.3 show the main land uses on the proposed prospecting area and as can be seen the complete area is zoned as agricultural or unspecified land use. With regard to the proposed prospecting activities no additional infrastructure including roads will be constructed that needs to be indicated on the plan.
This application employs a phased approach, where the work program is divided into several sequential sections. At the end of each section there will be a brief period of compiling and evaluating results. These results will not only determine whether the project proceeds, but also the manner in which it will go forward. Essentially, the Company will only action the next stage once satisfied with the results obtained. In addition, smaller, non-core parts of the work program will be undertaken if warranted. The plans as contemplated in regulation 2.2, of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) will be updated on an annual basis with regard to the actual progress of the establishment of surface infrastructure, prospecting operations and rehabilitation together with an Performance assessment report as contemplated in regulation 55(1) (c) on the implementation of the Environmental Management Plan.

2.1.2 Description of construction, operational, and decommissioning phases

Construction phase
No infrastructure or roads will be constructed due to the small scale of operations that will only include field investigations as described in the operational phase below. No processing or bulk sampling will take place that need infrastructure to be constructed.

Operational phase

NON-INVASIVE ACTIVITIES:

This application applies a phased approach, but the continuation to successive phases is independent of the results obtained from completed phases.

For field work the prospecting area is divided up into three areas of about 3 000 hectares (30 square kilometers) each, to be investigated systematically in succession. The areas are demarcated by existing farm roads, as shown on diagram 4.

Prospecting will consist of reconnaissance geological traverses and the observation and measuring of any significant deposits of industrial minerals encountered. As the prospecting area is very rugged, the field vehicle will be left along the farm roads and the traverses conducted entirely on foot. At the completion of each phase, if no mineral deposits of interest have been identified, that portion of the prospecting area will be written off.

The prospecting program does not include soil sampling, which is not applicable to the minerals sought, or geophysical surveys. However, geophysical data is available (aeromagnetic, E-M), which may enable the prior recognition of major zones of meta-sedimentary rocks, potential hosts for the minerals to be sought. Panning along stream-beds may indicate the presence of high density mineral sources further upstream.

Interpretation of data, updating maps and planning further work will be conducted on an on-going basis between field visits.

Decommissioning phase

Regulations 56 to 62 outline the entire process of mine closure, both as a guide to the process to be followed for mine closure, and also to address the legal responsibility with regard to the proper closure of operations. In terms of Section 37 of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002), the holder of a right is liable for any and all environmental damage or degradation emanating from his 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).

"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-

(b) the undertaking of a second level risk assessment on issues classified as

(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-

Phase	Activity	Skill(s) required	Timeframe	Outcome	Timeframe for outcome	What technical expert will sign off on the outcome?
Phase 1	**NON – INVASIVE**					
	Desk-top survey	Geologist	6 months	All past information & results.	Months 6	Geologist
Phase 2	**NON - INVASIVE**					
	Geological traverses	Geologist	24 months	Identification of mineral deposits	Months 30	Geologist
Phase 3	**NON INVASIVE**					
	Completion report Preparation of mining right or decommissioning and closure	Geologist	6 months	Decision	Months 36	Geologist Consultants

2.1.3 Listed activities (in terms of the NEMA EIA regulations)

None of the activities listed above is a listed activity in terms of the Environmental Impact Assessment Regulations published in terms of Chapter 5 the National Environmental Management Act (Act No. 107 of 1998).

2.2 Identification of potential impacts

2.2.1 Potential impacts per activity and listed activities

This impact assessment only deals with significant impacts and as prospecting will only consist of non-invasive field work the overall impact on the biophysical environment will be insignificant. The implementation of the mitigating and management measures in paragraph 3.2 will address all impacts and after implementation of the mitigating measures most impacts can be classified as insignificant.

Sampling

The small volume of soil and stream sampling by means of panning will have an insignificant negative impact on the visual aspect of the topography.

2.2.2 Potential cumulative impacts

The only identified land use is small stock grazing and due to the temporarily nature of change in land use and small scale of the operation prospecting will not have any impact and the land will revert back to its former use grazing with no impact on production.

2.2.3 Potential impact on heritage resources

Prospecting will only consist of non-invasive work and no phase 1 archaeological study is deemed necessary. Should any fossils be discovered or unearthed in the process of prospecting, the prospecting right holder will contact a South African Museum or University which employs palaeontologists so that the necessary palaeontological salvage operations can take place. No other heritage resources such as built structures over 60 years old, sites of cultural significance associated with oral histories, burial grounds and graves, graves of victims of conflict, and cultural landscapes or viewscapes are present on the mining area.

2.2.4 Potential impacts on communities, individuals or competing land uses in close proximity

The only identified land use is small stock grazing and due to the temporarily nature of change in land use and small scale of the operation prospecting will not have any impact and the land will revert back to its former use grazing with no impact on production. The area is farmland that is not close to any settlement therefore no land development projects are in progress.

2.2.5 Confirmation that the list of potential impacts has been compiled with the participation of the landowner and interested and affected parties

No proposals were received during the consultation process due to the non-invasive nature of the prospecting operation.

2.2.6 Confirmation of specialist report appended.
No specialist reports are deemed necessary as no sensitive areas are included in the proposed area and due to the non-invasive nature of the proposed project.

3 REGULATION 52 (2) (c): Summary of the assessment of the significance of the potential impacts and the proposed mitigation measures to minimise adverse impacts.

3.1 Assessment of the significance of the potential impacts
Prospecting will have no impact on the environment and hence no rehabilitation should be necessary. Fortuitously, this area is duplicated by large tracts of land on all sides which offer the same habitat to fauna and flora. It is also partly covered by sand and the prospecting is of such a nature that for the initial work there will be minimal change to the original land surface. Consequently there are no foreseen major environmental issues and no expectation of longer term impacts.

3.1.1 Criteria of assigning significance to potential impacts
All surface disturbances are rated high
Dust is rated low if only minimal dust is expected to accumulate over the prospecting period, medium if it is expected to require dust suppression such as watering, and high if there is a risk that it will migrate beyond the prospecting area.
Noise is rated low if no machinery is to be used, medium if machinery is to be used, and high if there is a potential for complaints from public and neighbours.
All drainage is rated high
All blasting is rated high
All dust and noise from loading, hauling and transport is rated high
Drainage from ablution facilities are rated high.

3.1.2 Potential impact of each main activity in each phase, and corresponding significance assessment

Construction phase
No construction activities therefore no potential impact.
No infrastructure or roads will be constructed due to the small scale of operations that will only include field investigations and limited drilling as described in the operational phase below. No processing or bulk sampling will take place that need infrastructure to be constructed.

Operational phase
Prospecting will consist of non-invasive activities that will have no impact on the environment. The latter part of the operation will include limited invasive activities in the form of panning and metallurgical sampling.
Topography

Significance/Magnitude	Duration	Probability	Timing
Low	Long term	Certain	Activity

The small volume of soil and stream sampling for panning purposes will have an insignificant negative impact on the visual aspect of the topography.
Decommissioning phase
Successful implementation of the Environmental Management Program during the life of the mine will cover all the significant aspects affecting the environment.

3.1.3 Assessment of potential cumulative impacts.

The only identified land use is small stock grazing and due to the temporarily nature of change in land use and small scale of the operation prospecting will not have any impact and the land will revert back to its former use grazing with no impact on production.

3.2 Proposed mitigation measures to minimise adverse impacts.

3.2.1 List of actions, activities, or processes that have sufficiently significant impacts to require mitigation.

Possible risk factor	Qualitative impact level	If Insignificant, Why?
Geology:	None	No excavations will be done
Topography (Safety):	None	Only panning of stream sediments will take place with no samples collected
Land Capability:	None	Only panning of stream sediments will take place with no samples collected
Soil:	None	Soil erosion will pose no riskl
Vegetation:	None	Due to the low rainfall the establishment of invader species and other exotic plants poses no risk.
Fauna.	None	Minimal risk given the low density of fauna and the fact that the habitat is well represented in the adjacent area for dispersal.
Surface water.	None	No surface water present on the site. The hydrological integrity of drainage channels will not be altered by attenuating or diverting any of the natural flow.
Groundwater:	None	Only panning of stream sediments will take place with no samples collected
Air Quality:	None	Isolation of site and small scale of operation precludes any impact in this regard No FRD will be created on site and no loading and hauling will take place.
Noise	None	No activities except for normal traffic that will be within the norm.
Archaeology:	None	No excavations will take place
Visual Impact:	None	Only panning of stream sediments will take place with no samples collected

3.2.2 Concomitant list of appropriate technical or management options

The goal of rehabilitation with respect to the area is to leave the area level and even, and in a natural state containing no foreign debris or other materials.

All scrap and other foreign materials will be removed and disposed of as in the case of other refuse whether these accrue directly from the prospecting operation or are brought on to the site from outside.

3.2.3 Review the significance of the identified impacts

No potential significant impacts were identified in paragraph 3.2.1.

4 REGULATION 52 (2) (d): Financial provision.

4.1 Plans for quantum calculation purposes.
No bulk sampling work or any other form of invasive prospecting including drilling is to be carried out during this prospecting program.

4.2 Alignment of rehabilitation with the closure objectives
No bulk sampling work or any other form of invasive prospecting including drilling is to be carried out during this prospecting program.

4.3 Quantum calculations.
The area will be rehabilitated with the original land use namely small stock farming in mind and the productivity of the area after closure will be the same as before prospecting operations started. Rehabilitation cost is estimated with the proposed end-state in mind and although no invasive prospecting is to take place the applicant is willing to supply an amount of R 10 000.00 that is more than is needed for the rehabilitation of damage caused by the operation, both at sudden closure during the normal operation of the project or at final, planned closure.

4.4 Undertaking to provide financial provision
Financial provision required under Regulation 54 for the amount of R 10 000.00 will be furnish to DME. The quantum will be updated again within a year or at a shorter interval if there is any deviation from the prospecting work program.

5 REGULATION 52 (2) (e): Planned monitoring and performance assessment of the environmental management plan.

5.1 List of identified impacts requiring monitoring programmes.
None of the impacts identified required specific monitoring programs but inspections and monitoring shall be carried out on both the implementation of the program and the impact on the natural and cultural environment. Visual inspections on erosion and physical pollution shall be carried out on a regular basis together with fixed point photography.

5.2 Functional requirements for monitoring programmes
Every aspect of the operation must be checked against the prescriptions given in this document and if find that certain aspects are not addressed or impacts on the environment are not mitigated properly, the identified inadequacies will be rectified immediately.
Regular monitoring of all the environmental management measures and components shall be carried out to ensure that the provisions of this program are adhered to.
Layout plans will be updated on a regular basis and updated copies will be submitted on an annual basis to the Regional Manager. The plans will also be updated before commencing with drilling and the rehabilitation quantum will also be updated.
Reports confirming compliance with various points identified in this program will be submitted to the Regional Manager on an annual basis together with an update of the rehabilitation cost. 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 program was compiled shall be carried out and added as a corrective action.

5.3 Roles and responsibilities for the execution of monitoring programmes
The project manager will be responsible for monitoring and Reports confirming compliance with various points identified in the environmental management program.

5.4 Committed time frames for monitoring and reporting
The project manager must on a bi-monthly basis, check every aspect of the operation against the prescriptions given in this document and, if find that certain aspects are not addressed or impacts on the environment are not mitigated properly, the project manager must rectify the identified inadequacies immediately.

6 REGULATION 52 (2) (f): Closure and environmental objectives.

6.1 Rehabilitation plan
Only non-invasive prospecting activities will take place.

6.2 Closure objectives and their extent of alignment to the pre-mining environment
The environment affected by the prospecting operations shall be rehabilitated, as far as is practicable, to its natural state. Land use will be the same as before prospecting with the same production with regard to grazing by livestock. 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.

6.3 Confirmation of consultation
A copy of the consultation report that includes environmental objectives in relation to closure was made available to the landowner and all other interested parties. All comments received were addressed in this EMPR.

7 REGULATION 52 (2) (g): Record of the public participation and the results thereof.

7.1 Identification of interested and affected parties.
7.1.1 Name the community or communities identified, or explain why no such community was identified.
No community identified as the property is privately owned farm land without any lands claim registered on the property.

7.1.2 Specifically state whether or not the Community is also the landowner.
No community identified as the property is privately owned farm land without any lands claim registered on the property.

7.1.3 State whether or not the Department of Land Affairs been identified as an interested and affected party.
No, the property is privately owned farm land.

7.1.4 State specifically whether or not a land claim is involved.
No land claim is registered against the property.

7.1.5 Name the Traditional Authority identified
No Traditional Authority only local municipality

7.1.6 List the landowners identified by the applicant. (Traditional and Title Deed owners)

Farm Oup No. 80 in extend 17727.4829Ha Registered in the name of HENQUE 1001 CC (Reg 199706014423) by virtue of title deed T46581/2001. LPI Code: C03600000000008000000

7.1.7 List the lawful occupiers of the land concerned.

According to a meeting with the Landowners Albertus Visser Claassens has a long term surface rental agreement.

7.1.8 Explain whether or not other persons' (including on adjacent and non-adjacent properties) socio-economic conditions will be directly affected by the proposed prospecting or mining operation and if not, explain why not.

The only other land use in the area is small stock grazing and due to the small extends of the operation there will be no impact on productivity. Prospecting will only consist of non-invasive activities, and the only impact on the socio-economic conditions will be positive through limited job creation

7.1.9 Name the Local Municipality identified by the applicant

Khai-Ma Municipality
PO Box 108, POFADDER, 8890, New Street, POFADDER
Tel: (054) 933 1000, Fax: (054) 933 0252

7.1.10 Name the relevant Government Departments, agencies and institutions responsible for the various aspects of the environment and for infrastructure which may be affected by the proposed project.

Department Environment and Conservation responsible for scrutinizing all EMP's for new developments.
No listed activity in terms of Nema will take place.
No water use that required registration or a water use license will take place.
No infrastructure is in close proximity of the prospecting operation.

7.2 The details of the engagement process.

7.2.1 Description of the information provided to the community, landowners, and interested and affected parties.

A copy of the PWP and the consultation report was supplied and or explained to them.

7.2.2 List of which parties identified in 7.1 above that were in fact consulted, and which were not consulted.

HENQUE 1001 (Reg 199706014423) as owner of the Farm Oup No. 80 CC
Albertus Visser Claassens (Id 4102185009008) as lawfull occupier of the Farm Oup No. 80 CC.
Municipal Manager of Khai-Ma Municipality
Any other I&A party by means of advertisement in local newspaper

7.2.3 Provide a list of their views raised in regard to the existing cultural, socio-economic or biophysical environment, as the case may be.

Letters of agreement and/or comments from I&A parties with regard to the content of the consultation report is attached. Concerns are addressed as part of the EMP.

7.2.4 Provide a list of their views raised on how their existing cultural, socio-economic or biophysical environment potentially will be impacted on by the proposed prospecting or mining operation.

All comments received on the content of the consultation report were included and addressed in the EMP. Letters of agreement and/or comments from I&A parties is attached.

7.2.5 Provide list of any other concerns raised by the aforesaid parties.

Letters of agreement and/or comments from I&A parties with regard to the content of the consultation report is attached. Concerns were addressed as part of the EMP.

8 SECTION 39 (3) (c) of the Act: Environmental awareness plan.

8.1 Employee communication process

General environmental awareness will be fostered among the project's workforce to encourage the implementation of environmentally sound practices throughout its duration. This will ensures that environmental accidents are minimized and environmental compliance maximized.

Environmental awareness will be fostered in the following manner:

a) Induction course for all workers on site, before commencing work on site.

b) Refresher courses as and when required

c) Daily toolbox talks at the start of each day with all workers coming on site, where workers can be alerted to particular environmental concerns associated with their tasks for that day or the area/habitat in which they are working.

d) Taking part in national and international environmental campaigns like National Marine Week, National arbour day, National Wetlands day exacta.

e) Displaying of information posters and other environmental awareness material in the general assembly points.

8.2 Description of solutions to risks

Specific environmental awareness performance criteria will form part of the job descriptions of employees, to ensure diligence and full responsibility at all levels of the organisational work force.

General environmental awareness will be fostered among the project's workforce to encourage the implementation of environmentally sound practices throughout its duration. This will ensures that environmental accidents are minimized and environmental compliance maximized.

8.3 Environmental awareness training.

The goal of training is to enable a shared understanding and common vision of the environment, the impact of a mining operation on the environment (and why this is important) and the role of mining personnel in terms of environmental management and compliance.

The induction course will compose of the following steps:

- The first step will include background discussion of the environment concept: of what it comprises and how we interact with it.
- The second step will be a description of the components and phases of the specific mining operation.
- The third step will be a general account of how the mining operation and its associated activities can affects the environment, giving rise to what we call Environmental Impacts.
- The fourth and most important step will be a discussion of what staff can do in order to help prevent the negative environmental impacts from degrading our environment. This is known as Environmental Impact Management.

9 SECTION 39 (4) (a) (iii) of the Act: Capacity to rehabilitate and manage negative impacts on the environment.

9.1 The annual amount required to manage and rehabilitate the environment.
Refer to section 4 that covers regulation 52 (2) (d) that handles with financial provision.

9.2 Confirmation that the stated amount correctly reflected in the Prospecting Work Programme as required.
This amount was provided for in the cost estimate for the implementation of the PWP and proof of access to the necessary funds were supplied with the prospecting work program.

10 REGULATION 52 (2) (h): Undertaking to execute the environmental management plan.

Herewith I, the person whose name and identity number is stated below, confirm that I am the person authorised to act as representative of the applicant in terms of the resolution submitted with the application, and confirm that the above report comprises EIA and EMP compiled in accordance with the guideline on the Departments official website and the directive in terms of sections 29 and 39 (5) in that regard, and the applicant undertakes to execute the Environmental management plan as proposed.	
Full Names and Surname	**Dirk Mostert le Roux**
Identity Number	**4802205040087**

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