



mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

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From: Directorate: Mineral Regulation: Northern Cape **Date:** 12 February 2013
Enquiries: Mr. N.V. Mula **E-mail:** vincent.mula@dmr.gov.za
Ref No: NCS 30/5/1/3/3/2/1/10105EM

The Director
Department of Water Affairs
Private Bag X 5912
UPINGTON
8800

Katle

Dear Sir/ Madam

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 ON A PORTION OF THE REMAINDER OF THE FARM DIKDOORN NO. 535, SITUATED IN THE MAGISTERIAL DISTRICT OF NAMAQUALAND: NORTHERN CAPE REGION.

APPLICANT: GROUP FIVE CIVIL ENGINEERING (PTY) LTD

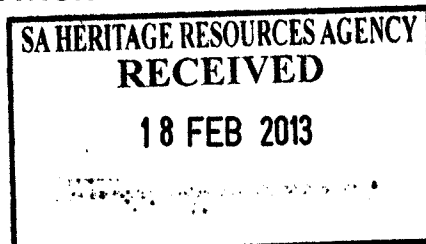
Attached herewith, please find a copy of an EMP received from the above-mentioned applicant, for your comments.

It would be appreciated if you could forward any comments or requirements your Department may have to this office and to the applicant **12 April 2013** 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 **Vincent Mula** 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.

[Signature]
.....
**ACTING REGIONAL MANAGER: MINERAL REGULATION
NORTHERN CAPE REGION**





mineral resources

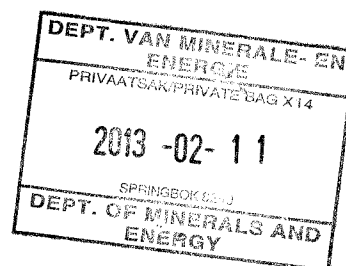
Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

NAME OF APPLICANT: Group Five Civil Engineering (Pty) Ltd

REFERENCE NUMBER: NC30/5/1/3/2/10105MP – Dikdoorn Quarry

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.

List of Appendices:

- Appendix A: Background Information Document
Appendix B: Farm ownership details.
Appendix C: Correspondence with the landowner and adjacent landowners
Appendix D: Advertising of the project and feedback
Appendix E: Notification and comments from Identified I&AP's
Appendix F: Content of Environmental Awareness Training

List of Figures:

- Figure 1: Surrounding Land Use and ownership - Dikdoorn Quarry
Figure 2: Overall Mine Layout Plan
Figure 3: Detailed Mine Layout Plan
Figure 4: Decommissioning Rehabilitation Plan

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

Name	Group Five Civil Engineering (Pty) Ltd Thomas Moolman
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Cellular no	082 496 6543
E-mail address	tfmoolman@groupfive.co.za
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Site plan Consulting Stephen van der Westhuizen 021 854 4260 021 854 4321 steve@siteplan.co.za PO Box 28 Strand 7139

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.

The photos below illustrate the disturbed nature of the site due to previous mining.

Rather than the establishment of a quarry on an entirely virgin landscape, these existing site conditions, together with the suitability of the rock for the required purpose, allow us to minimise overall environmental impact to the greater surrounding environment by limiting mining activities to predominantly previously disturbed areas.

Photo 1: The basalt hill as seen from the southern stockpiling area, showing haul road. Existing excavation in the east of the hill hidden from view.

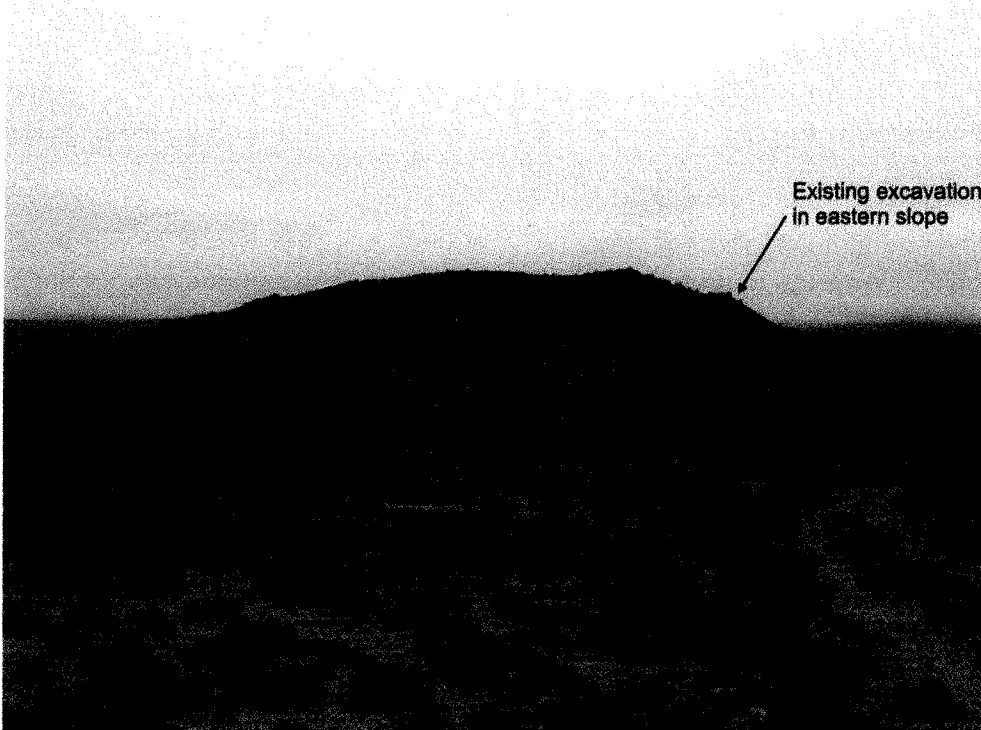


Photo 2: The existing excavation showing it's heavily disturbed nature



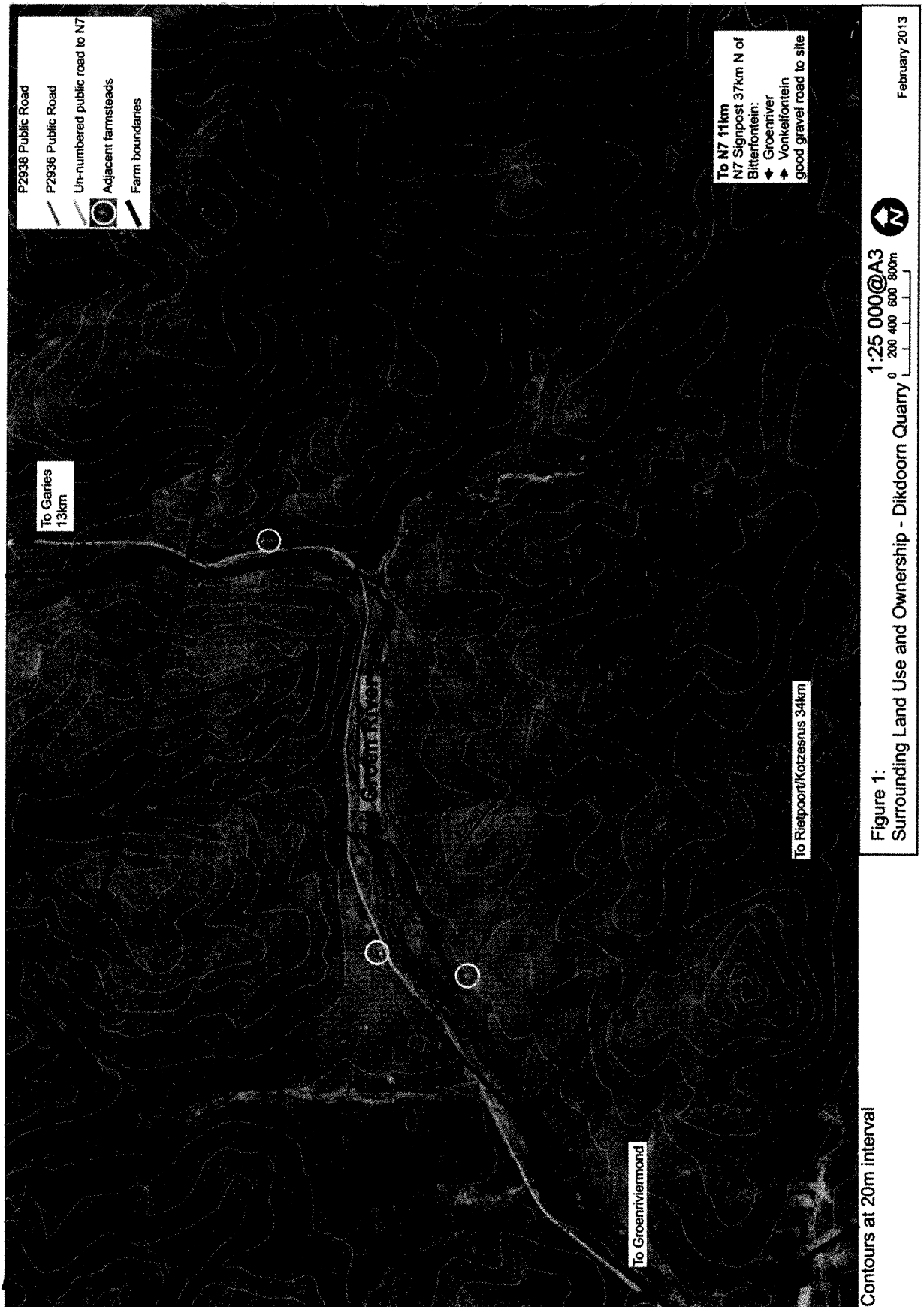
1.2 The specific environmental features on the site applied for which may require protection, remediation, management or avoidance.

To reduce the risk of any visual impact on road users of the P2938 and P2936 further mining should occur in the south east of the outcrop, with the western and northern slopes of the basalt plug maintained to act as a visual screen to road users.

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

Refer Figure 1 “surrounding land use” overleaf

Figure 1: Surrounding land use



- 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 public participation process was exhaustive and part of that process was the preparation of a so-called “Background Information Document” (BID). Such document is included in full in Appendix A. The BID document was sent via registered mail to the landowner and adjacent landowners, with all such persons contacted telephonically. (With the exception of SANRAL which has been contacted via email as attached in Appendix C). The landowner’s written consent for the project with his single comment is contained in Appendix C, wherein he suggests the option of locating the plant and stockpiling area to the east of the basalt plug, but he has no comment on the extent or the planning of the excavation. Such comment has been discussed with him and while he does not feel strongly about the matter two alternate plant and stockpiling areas will serve the NEMA and LUPO Applications at this stage. The landowner will be entering into a Surface Rental Agreement with Group Five prior to the commencement of any activities on-site.

In order to reach the general public, a notice of the Application was placed in the local newspaper, Die Plattelander, along with a hard copy of the BID document made available at the Garies Public library for perusal, with the BID being emailed to identified I&AP’s as well as persons who requested registration as I&AP’s (Only one telephonic enquiry to date but no further registered I&APs).

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 or mining operation.

2.1.1 The main ~~prospecting~~ mining activities (e.g. access roads, topsoil storage sites and any other basic prospecting design features)

Mining Method (Refer Figure 2: Overall Mine Layout Plan Overleaf, Figure 3: Detailed Mine Layout Plan and Mining Method in Figure 2.1.1 overleaf

Mining (quarrying) occurs as a drill and blast operation with faces of 9-11m high (average 10m) and a blast size of 20 000 – 30 000 tons/blast,

approximately once per month during maximum production. Note that drilling and blasting will be conducted by specialist contractor.

The drilling of holes by hydraulic track rig and the computer controlled blast detonation system represents the latest quarrying technology. Ahead of the face blasting, topsoil (where available above exposed bedrock) is removed to topsoil stockpile berms for later use in rehabilitation (Note that by its nature the rock outcrop to be mined contains very minimal soil cover and as such topsoil recovery will be minimal, but will be attempted where possible).

Shot rock is loaded by excavator into articulated dump trucks for hauling to the plant where it is crushed and screened and from which dump trucks drive it to stockpiles.

Product is then loaded from stockpiles by front-end loader into delivery vehicles, which are weighed on passing over the weigh-bridge prior to leaving the site directly to the adjacent P2936 gravel road for delivery, predominantly to the N7 via the P2936 to Garies or via the unproclaimed gravel road north of the quarry to the N7.

Rehabilitation Method

Once mining ceases, all disturbed surfaces will be rehabilitated and the excavation shaped as shown diagrammatically below, most notably with the following features:

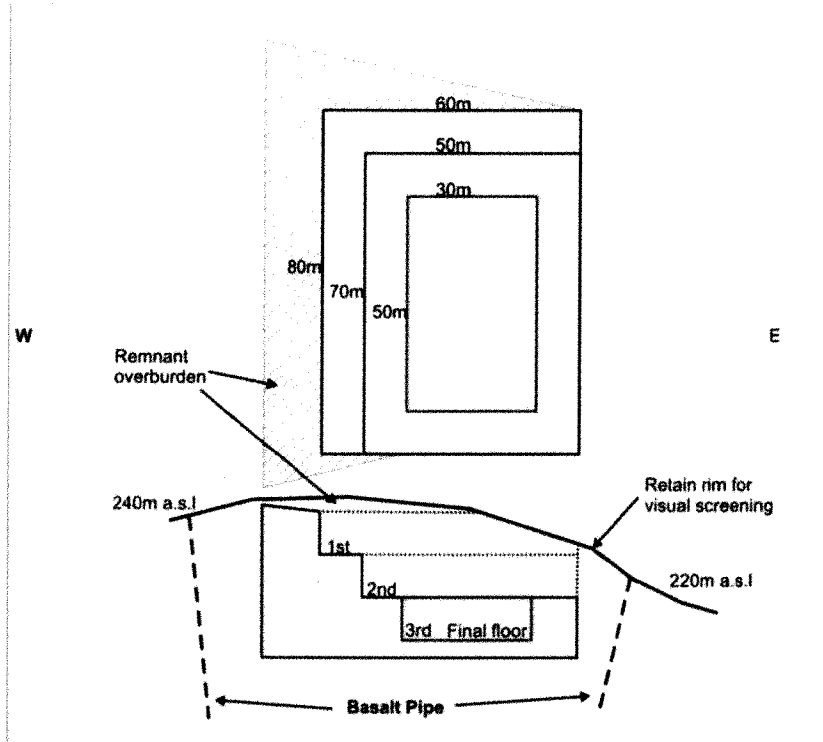
- A fence and safety berm around the excavation to negate accidental entrance to the quarry.
- An upper safety bench of minimal height (maximum 2.5m)
- A stormwater cut-off channel above the steep faces to limit erosion from surface water flow down these faces.
- Production faces to be left in place should the need arise for re-use of the quarry by future contractors as this material is unique in that it meets road-stone specifications and colour requirements.

Refer Figure 4 for overall decommissioning rehabilitation activities including the plant, logistical and stockpiling areas.

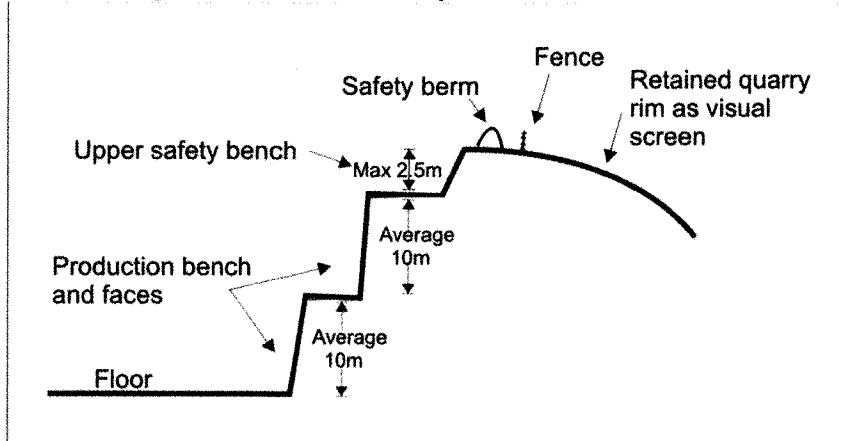
All disturbed surfaces in the stockpiling/logistical areas will be ripped, scarified, and re-topsoiled; following which they will be re-seeded with a localised pioneer species seed mix.

Figure 2.1.1: Diagrammatic representations of final excavation face conditions

a) Excavation extent



b) Face height limitations and safety considerations



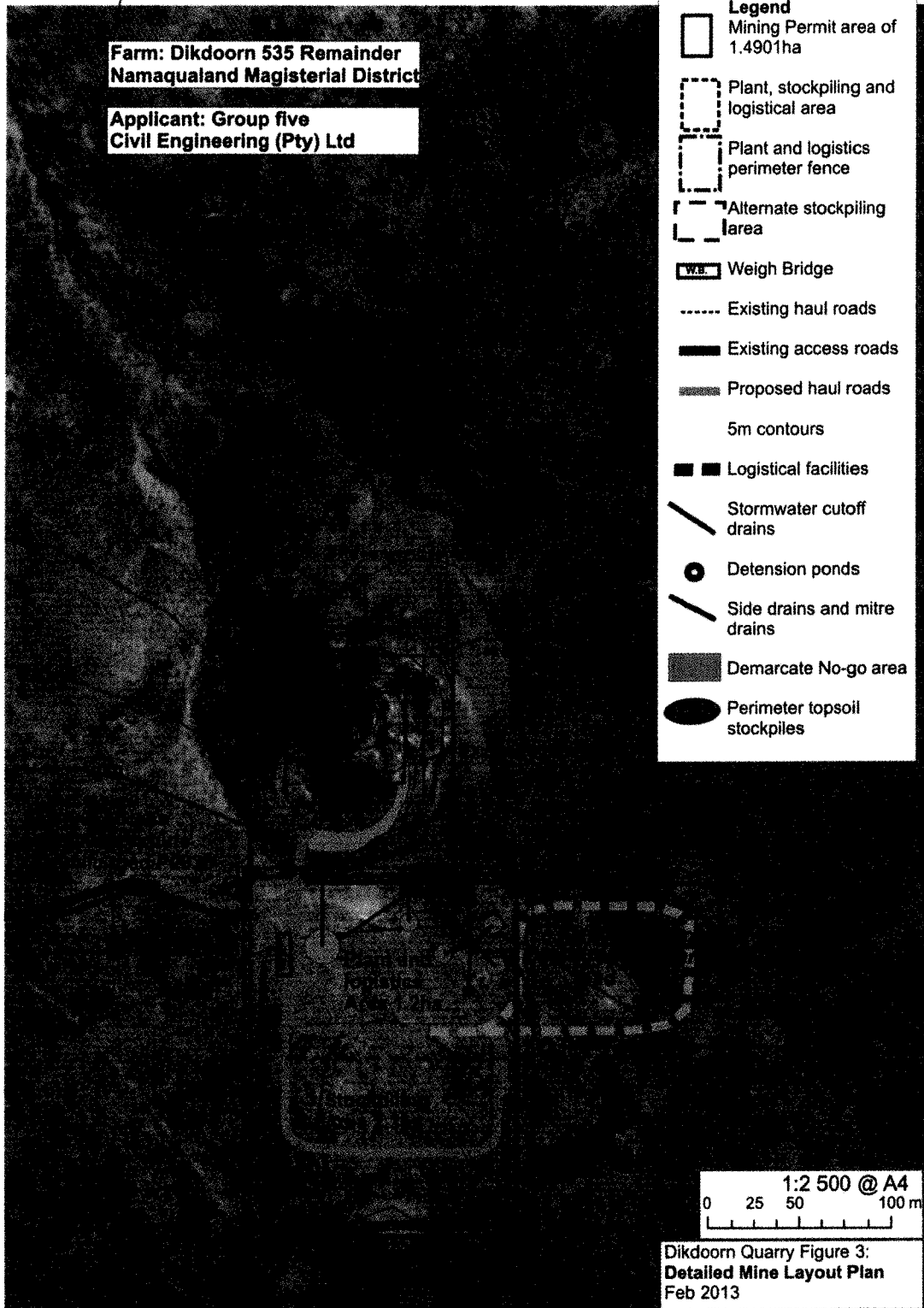
2.1.2 Plan of the main activities with dimensions

Refer Figure 2(rev(i): Mine Layout Plan and Figure 3: Detailed Mine Layout Plan, overleaf

Figure 2(rev(i)): Overall Mine Layout Plan



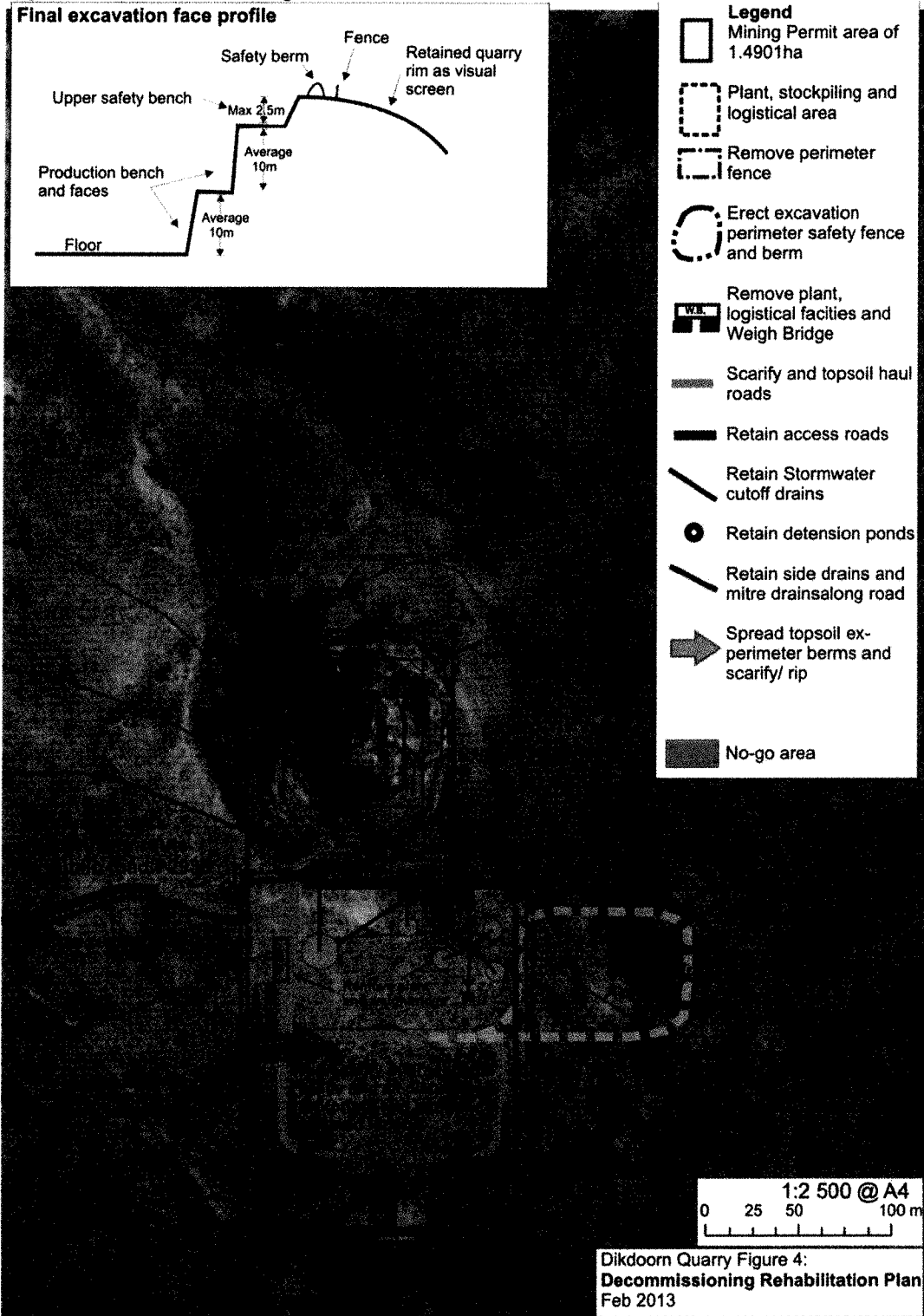
Figure 3: Detailed Mine Layout Plan



2.1.3 Description of construction, operational, and decommissioning phases.

Refer Figure 4: Decommissioning rehabilitation Plan below

Figure 4: Decommissioning rehabilitation Plan



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

- a) In respect of the excavation area (Mining Permit Area) the following applies:

Number R544 Listing Notice 1 (Requiring a **Basic Assessment**):

- Activity 20: Any activity requiring a Mining Permit in terms of Section 27 of the Mineral and Petroleum Resources Development Act 2002(Act No.28 of 2002), or renewal thereof
- Activity 23: Transformation of vacant land to... "industrial use", outside urban area where total area to be transformed is bigger than 1ha but less than 20ha

As the Minister of the Department of Mineral Resources is identified by NEMA as the Competent Authority, the entire Application process is dealt with i.t.o. the MPRDA guidelines of the listed activities 20 and 23 above.

- b) In respect of the plant and stockpiling area and access road however, which fall outside of the Mining Permit area and Application in terms of the MPRDA, the following holds:

Number R544 Listing Notice 1 (Requiring a **Basic Assessment**):

- Activity 23: Transformation of vacant land to... "industrial use", outside urban area where total area to be transformed is bigger than 1ha but less than 20ha.

Environmental Approval for these activities and areas is being made under separate parallel Basic Assessment Application to DEAT in terms of the NEMA under which all listed activities are being addressed for the plant and stockpiling areas and access roads.

2.2 Identification of potential impacts

(Refer to the guideline)

2.2.1 Potential impacts per activity and listed activities.

The potential environmental impacts considered in respect of the mining activities are as follows:

- 1: Soil
- 2: Topography
- 3: Visual Impact
- 4: Animal life
- 5: Land Capability
- 6: Surface Water
- 7: Ground Water
- 8: Natural Vegetation
- 9: Air quality (Dust)

10: Noise

2.2.2 Potential cumulative impacts.

Definition: "The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions"

While this 1.49Ha quarry acts to extend an existing excavation, there is no potential cumulative residual impact as a result of the proposed Mining and subsequent rehabilitation. The mining will not result in an incremental impact given the limited extent of this further use and limited time frame of the activities.

2.2.3 Potential impact on heritage resources

Given that quarrying activity will be limited to predominantly previously disturbed areas, the chance of any archaeological/cultural finds are minimal, and no impact is expected. (As the rock is an intrusive igneous volcanic plug, no palaeontology is relevant).

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

(If no such impacts are identified this must be specifically stated together with a clear explanation why this is not the case.)

Given the distances involved (a distance of 2.5km to the landowners farmstead and 2.7km to the nearest neighboring farmstead as seen in Figure 1) **there will be no impact on surrounding land users other than the landowner and his staff.**

Be that as it may, the following potential impacts (though low given distances in excess of 460m at the closest point) exist on road users of the adjacent P2936/8 public roads:

1. Dust
2. Noise
3. Visual Impact (of heavy machinery at work and temporary disturbed appearance of the site)
4. General nuisance factor of temporary road closures which will be required for 20-30minutes once/month during blasting.

Socio-economic Impact

Group Five Civil Engineering is an existing construction company, with an existing core labour force, but will as in previous contracts in this area again employ additional local labour. As such the Mining Permit will not bring about any negative change to the socio-economic impact of the area but will hold the positive impact of extending the period of

permanent employment of its own employees and the additional employment of local job seekers by a minimum of 2 years. No persons will live on the site.

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

The public participation process was exhaustive and part of that process was the preparation of a so-called "Background Information Document" (BID). Such document is included in full in Appendix A. The BID document was sent via registered mail to the landowner and adjacent landowners, with all such persons contacted telephonically. (With the exception of SANRAL which has been contacted via email as attached in Appendix C). The landowner's written consent for the project with his single comment is contained in Appendix C, wherein he suggests the option of locating the plant and stockpiling area to the east of the basalt plug, but he has no comment on the extent or the planning of the excavation. His comment has been discussed with him and while he does not feel strongly about the matter two alternate plant and stockpiling areas will serve the NEMA and LUPO Applications at this stage. The landowner will be entering into a Surface Rental Agreement with Group Five prior to the commencement of any activities on-site.

In order to reach the general public, a notice of the Application was placed in the local newspaper, Die Plattelander, along with a hard copy of the BID document made available at the Garies Public library for perusal, with the BID being emailed to identified I&AP's as well as persons who requested registration as I&AP's (Only one telephonic enquiry to date but no further registered I&APs).

2.2.6 Confirmation of specialist report appended.

(Refer to guideline)

It is noted that this Environmental Management Plan was prepared by:

- i) Stephen van der Westhuizen who is himself a specialist in most aspects of small mine development and rehabilitation as he has significant experience in this regard, and
- ii) Ecologist, Jaques van der Vyver, both of Site Plan Consulting.

(We note that the services of a specialist botanist will be employed in respect of the plant and stockpiling area in the NEMA application process with emphasis on the rehabilitation aspect of the site.

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

3.1.1 Criteria of assigning significance to potential impacts

<i>Significance</i>		<i>Criteria</i>
Negative	Significant (S)	<ul style="list-style-type: none"> • Recommended level always exceeded with associated widespread community action • Disturbance to areas that are pristine, have conservation value, are important resource to humans and will be lost forever • Complete loss of land capability • Destruction of rare or endangered specimens • May affect the viability of the project
	Moderate (M)	<ul style="list-style-type: none"> • Moderate measurable deterioration and discomfort • Recommended level occasionally violated – still widespread complaints • Partial loss of land capability • Complete change in species variety or prevalence • May be managed • Is insignificant if managed according to EMP provisions
	Minor/ (I) Insignificant ¹	<ul style="list-style-type: none"> • Minor deterioration. Change not measurable • Recommended level will rarely if ever be violated • Sporadic community complaints • Minor deterioration in land capability • Minor changes in species variety or prevalence
Positive	Minor	<ul style="list-style-type: none"> • Improvements in local socio-economics
	Significant	<ul style="list-style-type: none"> • Major improvements in local socio-economics with some regional benefits

- b) The **duration** is classified as
- Permanent (post-closure)
 - Life of Mine (LOM)
 - Temporary

- c) The **probability** is ranked as
- Definite/Certain
 - Possible
 - Unlikely

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

Note: The reader is reminded that the impact considerations in this document are only concerned in respect of the 1.5ha Mining Permit Area as those of the Plant and Stockpiling area are dealt with in terms of the NEMA Application for an ROD for this area, but nonetheless are reflected herein as background to the reader.

¹ Note there is another level known as negligible. This is more than no impact but does not justify any further comment.

Refer Paragraphs A-L hereafter

A) Soil:

Given:

- i) The previous disturbance of the site (refer Photo 2),
- ii) The hardrock outcrop nature of the area earmarked for quarrying,

very little topsoil is available in the excavation area. Be that as it may, standard mining practise calls for removal and storage of upper soils/gravel wherever possible prior to disturbance. Such topsoils, inclusive of the seedbank secured within them, are to be removed and stockpiled and then used during post-mining rehabilitation to rehabilitate all disturbance footprints, with the replaced seedbank acting to rejuvenate the natural vegetation cover over these areas.

<i>Activity</i>	<i>Spatial extent</i>	<i>Significance</i>	<i>Duration</i>	<i>Probability</i>	<i>Post-closure impact</i>
Quarry (planned excavation)	Minimum planned 0.48ha but max. 1.28ha (within the 230m contour rim) in 1.49ha Mining Permit Area	insignificant	Permanent	Definite	Insignificant
Logistics and stockpiling	3.5ha	Low given earlier disturbance	Permanent (if not rehabilitated)	definite	Low

B) Topography:

The excavation will by necessity impact on topography and will result in a permanent and moderate impact on topography through the extension of the existing excavation of 0.3ha within the 1.49ha Mining Permit Area.

<i>Activity</i>	<i>Spatial extent</i>	<i>Significance</i>	<i>Duration</i>	<i>Probability</i>	<i>Post-closure impact</i>
Quarry expansion	Minimum planned 0.48ha but max. 1.28ha (within the 230m contour rim) in 1.49ha Mining Permit Area	Moderate	Permanent	Definite	Permanent, Moderate
Logistics and stockpiling	3.5ha	Insignificant	Temporary	Definite	Insignificant

C) Visual Impact:

While the quarry is an existing feature of the landscape, it is relatively protected from view given its positioning in the south east of the basalt hill.

Ancillary mining activities (crushing, stockpiling, and logistics) are all temporary in nature, with their duration and

impact limited to the life of mine (24 months) to maximum 5 years.

<i>Activity</i>	<i>Spatial extent</i>	<i>Significance</i>	<i>Duration</i>	<i>Probability</i>	<i>Post-closure impact</i>
Quarry expansion	Minimum planned 0.48ha but max. 1.28ha (within the 230m contour rim) in 1.49ha Mining Permit Area	Low	permanent	definite	Low
Logistics and stockpiling	3.5ha	Moderate	temporary	definite	insignificant

D) Animal life:

Vast expanses of the vegetation types surrounding the site provide a habitat suitable for species typical of the area. These include buck, rodents (meerkat, mice, shrews etc), reptiles (snakes and tortoises), birds and insects. The large scale of the habitat type when compared to the extent of the proposed activities negates any significance of any impact in this regard. Furthermore the extent of the farm and distance between farm fences allow free migration of most animals. As is standard practice, an animal search and rescue will be undertaken prior to any activity on-site.

<i>Activity</i>	<i>Spatial extent</i>	<i>Significance</i>	<i>Duration</i>	<i>Probability</i>	<i>Post-closure impact</i>
Mining	Mining Area	insignificant	Life of mine	Definite	insignificant

E) Land Capability:

The expansion of the excavation will be limited to rock outcrop areas and areas of very shallow soil cover, which by their nature are of very low agricultural value.

While the stockpiling and logistical facilities will impact on areas which are of marginally higher grazing value, their impact is considered insignificant given:

- **temporary nature** of the disturbance.
- that standard rehabilitation practises are to be put in place as specified above in the case of soils to ensure that all available topsoil is maintained for re-use

<i>Activity</i>	<i>Spatial extent</i>	<i>Significance</i>	<i>Duration</i>	<i>Probability</i>	<i>Post-closure impact</i>
Excavation extent (permanent loss of grazing)	Minimum planned 0.48ha but max. 1.28ha (within the 230m contour rim) in 1.49ha Mining Permit Area	Insignificant	Permanent	Definite	Insignificant
Stockpiling and logistics	3.5ha	Insignificant (given rehabilitation)	Temporary, Life-of-mine	Definite	insignificant, after re-topsailing and revegetation

F) Surface Water:

No Surface water resources are in the Mining Permit Area and as such this will not be impacted in any way.

<i>Activity</i>	<i>Spatial extent</i>	<i>Significance</i>	<i>Duration</i>	<i>Probability</i>	<i>Post-closure impact</i>
Siltation	Mining Area	Insignificant	temporary	unlikely	Insignificant
Fuel/hydrocarbon contamination (spills/leaks)	Mining Area	Insignificant (given rehabilitation)	Temporary Life-of-mine	possible	insignificant, given rehabilitation

G) Ground Water:

Given that the excavation will occur in the hard rock basalt plug which forms a low hill above the surrounding ground level, it will not result in any impact on groundwater.

There are no boreholes in proximity to the site which could be affected by blasting.

<i>Activity</i>	<i>Spatial extent</i>	<i>Significance</i>	<i>Duration</i>	<i>Probability</i>	<i>Post-closure impact</i>
Quarry excavation	Mining Area	Insignificant	Permanent	Unlikely	Insignificant

H) Natural Vegetation:

The Area under Application for this Mining Permit falls within the Namaqualand Heuweltjieveld. The impact of this permanent loss must be seen as low, given the following factors:

- The *Least threatened status* afforded this vegetation type
- The *previously disturbed nature* of the vegetation, and
- The *large percentages of remaining extent* (96.5%) of the vegetation type

The expansion of the excavation will be limited to hardrock outcrop areas, which by their nature are of very low agricultural value.

While the stockpiling and logistical facilities will impact on areas which are of marginally higher grazing value, their impact is considered insignificant given:

- temporary nature of the disturbance.
- that standard rehabilitation practises are to be put in place as specified above in the case of soils, which are likely to restore the area to a greater degree than is currently the case.:

	<i>Spatial extent</i>	<i>Probability</i>	<i>Duration</i>	<i>Significance</i>	<i>Post-closure impact</i>
Excavation area	Minimum planned 0.48ha but max. 1.28ha (within the 230m contour rim) in 1.49ha Mining Permit Area	definite	Permanent	low	low
Stockpiling and logistical area	3.5ha	definite	Life of Mine	low	insignificant

I) Air quality (Dust):

The following sources of dust will arise due to quarrying activity:

- Blasting, loading, hauling, crushing & screening activities.
- Delivery vehicles between the quarry and the public road (P2936).
- Product hauling to stockpile and loading for despatch

It must be remembered that the site is very isolated and given that dust must be highly controlled in terms of employee health at the plant, plant and excavation dust impact on surrounding land users will be negligible from the site. The potential impact of delivery road generated dust will be avoided by scheduled wetting of the short gravel road to the P2936 whenever necessary in light of visual monitoring by quarry staff.

<i>Activity</i>	<i>Spatial extent of impact</i>	<i>Duration</i>	<i>Probability</i>	<i>Level of impact</i>	<i>Level of Impact beyond mine area</i>
Drill operation	Mining area and adjacent public road	Once/month	Possible	Insignificant	Insignificant
Blasting	Mining area only	Once/month	Possible	Insignificant	Insignificant
Loading and hauling of material	Mining area and adjacent public road	Life of mine	Certain	Low-moderate	Insignificant

J) Noise:

The following noise sources will occur during the envisioned life-of-mine:

- Drilling
- Blasting
- Loading and hauling of shot rock
- Product loading and delivery vehicle generated noise

Audibility of drilling, loading hauling, and vehicle noise will be limited primarily to the vicinity of the mine ($\pm 300\text{-}400\text{m}$ radius).

While blasting noise will have the most widespread impact, the farmsteads are so far from the quarry (in excess of 2.5km as per Figure 1) that at most blasting will have an insignificantly low startling effect primarily on the occasional presence of herdsmen or the landowner minding his farm in proximity to the quarry. It is important to note that such blasting activities will occur only once/month and will be strictly controlled in accordance with standard industry practices, namely:

- Avoid blasting under temperature inversion (mainly cold mornings)
- Avoid blasting under low cloud conditions
- Always try to blast at the same time of day so that it becomes expected by persons working in the veld
- Alerting of the landowner and surrounding land users by way of notifications/ telephone / SMS of pending blast date and time.

<i>Activity</i>	<i>Spatial extent of impact</i>	<i>Duration</i>	<i>Probability</i>	<i>Level of impact on Mine Area</i>	<i>Level of Impact beyond mine area</i>
Drilling	General mining area	On execution	Certain	Moderate	Insignificant
Blasting	General mining area	On execution	Certain	Moderate	Insignificant
Loading and hauling of rock	General mining area	On execution	Certain	Insignificant	Insignificant
Crushing, product loading and delivery vehicle generated noise	General mining area	Life of operation	Certain	Insignificant	Insignificant

K) Blast vibration

Due to the isolation of the site and the distance of the site from the nearest farmstead (The landowner's farmstead at 2.5km) and absence of boreholes in this area, there will be no impact as a result of blast vibration. However, be that as it may, continual blast monitoring will be put in place as is standard practice.

<i>Activity</i>	<i>Spatial extent of impact</i>	<i>Duration</i>	<i>Probability</i>	<i>Level of impact</i>	<i>Level of Impact beyond mine area</i>
Blasting	Mining area and surrounds	Once/month	definite	Insignificant	Insignificant

L) Fly rock

Fly rock is acknowledged as being a potential impact within a radius of up to 500m. While this operation will as such not impact on any surrounding land use or land user other than any lessee, his farm labour and livestock who may be in close proximity to the quarry at the time of blasting (which persons will by prescription of the EMP have been alerted in advance of such blast), given the relative proximity of the

blast to the adjacent gravel road (460m) it will be prudent and cautious to apply temporary closure of the P2936 gravel road by flagmen for the 20-30 minute period prior to and during blasting, given that the gravel road is at nearest 460m from the quarry. This condition may however be lifted should the blasting contractor deem it unnecessary or as the blasting hole positions move eastwards. As record-keeping for all blasts will be conducted, this decision will be fully based on the findings of the initial blasts.

It is again noted that such blasting is to occur *only once/month*, and such road closure will be no different to current stop-go conditions on many of the roads under construction/re-surfacing in the Northern Cape

<i>Activity</i>	<i>Spatial extent of impact</i>	<i>Duration</i>	<i>Probability</i>	<i>Level of impact on road users of the R27</i>	<i>Level of Impact beyond mine area</i>
Blasting	500m radius surrounding the blast site.	Once/month	definite	Moderate	Insignificant

3.1.3 Assessment of potential cumulative impacts.

Given the relative remoteness of the Mining Application site and the temporary nature of the disturbance, cumulative impacts of the proposed mining are assessed as being minor to insignificant.

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

Certain aspects of the mining could potentially result in moderate impacts on the surrounding land users and consequently, in order to eliminate even these low-level impacts, mitigation measures will be put in place to reduce such impacts

3.2.2 Concomitant list of appropriate technical or management options

(Chosen to modify, remedy, control or stop any action, activity, or process which will cause significant impacts on the environment, socio-economic conditions and historical and cultural aspects as identified. Attach detail of each technical or management option as appendices)

Refer Paragraphs A-J hereafter

A) Soils

Topsoil management

All topsoil/upper gravel will be removed to to undulating depth in excavation area and 300mm in the plant and stockpiling area (**where possible**) and will be stored temporarily in perimeter berms.

Rehabilitation of the area will be conducted after mining with any remaining gravel substrate to be pre-ripped, where-after stockpiled topsoil will be dozed over the mined out area to serve together with the ripped substrate as growing medium for revegetation.

Re-seeding will be conducted using a localised grass seed mix.

Hydrocarbon management

Fuel receipt, storage and dispensing:

Use will be made of an appropriately properly bunded mobile fuel tank to be placed on-site in the plant and stockpiling area.

Photo 3.2.2a: Example of an appropriately bunded mobile fuel tank. Note however that the dispensing pump and hose are to be internal to the bunding tank



Vehicle /pump leaks:

Vehicles and equipment must be checked on a daily basis for oil/diesel/hydraulic fluid leaks. Drip trays must be available on site and should any oil/fuel/lubricant leak from the equipment, then such leaked fluid is to be collected via the drip trays into drums for transport to Oilkol or similar depot for recycling.

Should such leaked oil contaminate the topsoil, then such topsoil and oil must be removed from site and spread on a concreted area where it can be treated with compost and chicken manure for a period of 3 months or a commercial product such as Spillsorbtm.

On-site repairs: All repairs other than minor repairs such as replacement of hydraulic hoses etc and daily greasing oil top-up will take place off-site in Garies or Bitterfontein.

Emergency repairs on site:

In the event of a breakdown repair being required in the field, the staff are

trained and will again be instructed in the use of drip trays and suitable funnels (not to drain oil into the sand) for filling and draining of lubricants and the staff shall be provided with such equipment to prevent oil contamination.

In addition:

- Used/replaced filters, hoses, belts, cloths, etc. are to be placed in the existing bins at the Mobile site offices for removal from site and disposal at a suitable facility. Used filters are not to be buried at the site of repair (nor discarded in adjacent veld).
- In the event of accidental intense soil contamination, the contaminated soils are to be removed and placed in suitable bags or drums for disposal at a licensed facility or depot.

All staff involved in mobile plant operation and maintenance are to be made aware of these oil and lubricant procedures. Staff will require instruction in the:

- Deleterious effects of oil / fuel on the environment
- Handling of oil leaks onto soil

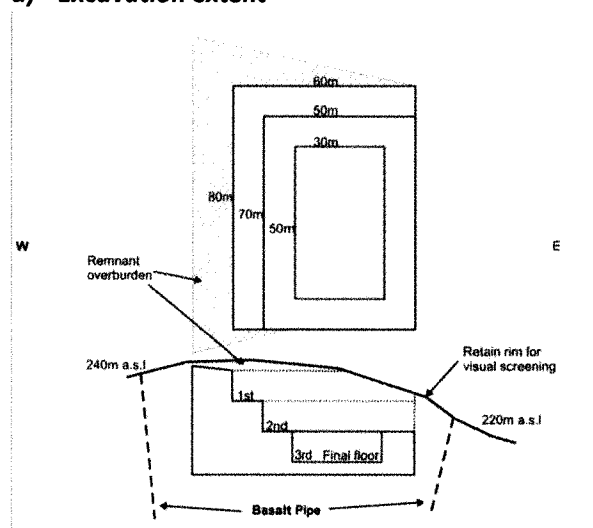
General Provisions

- All operators are to check their equipment for leaks and report such leaks on a daily basis (before and after morning start up, at lunch break and when parking the equipment for overnight shutdown).
- No used oils are to be used as dust suppressants on manoeuvring areas. Used oils will be deposited in the used oil drums at the equipment container.

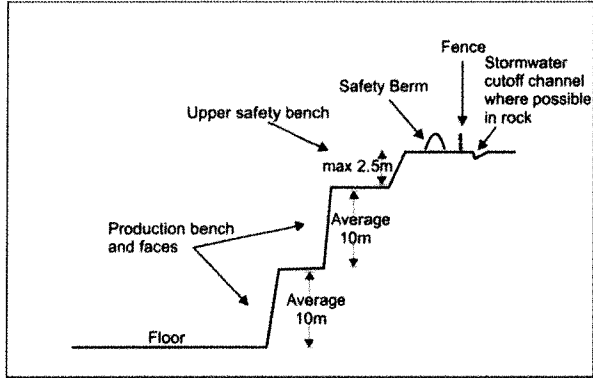
B) Topography

Rehabilitation shaping and re-topsoiling of the disturbance footprints will be conducted post-mining, to re-integrate the area more fully into the surrounding farm activities. The excavation faces will be benched as per figure 2.1.1 (repeated below), with final lower bench heights retained at maximum 10m high, and left in such a state that future re-use of the site may be easily facilitated.

Figure 2.1.1: Diagrammatic representations of final excavation face conditions
a) Excavation extent



b) Face height limitations and safety considerations



C) Visual Impact

With the logistical/stockpiling areas being moderately visible from the westerly public road, and while the site offers little options in the way of attenuation measures, topsoil berms are to be placed on westward sides of all activities to give limited visual protection.

The north and north-eastern as well as western slopes of the basalt hill are to be maintained to act as visual screens limiting visual impact to west and north/north east roads.

Photo 3.2.2c(i): Distant view of the quarry site from the P2938 gravel road

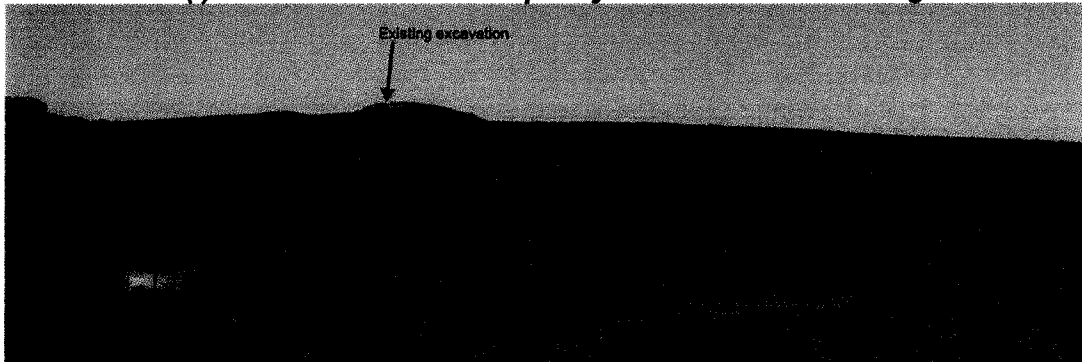
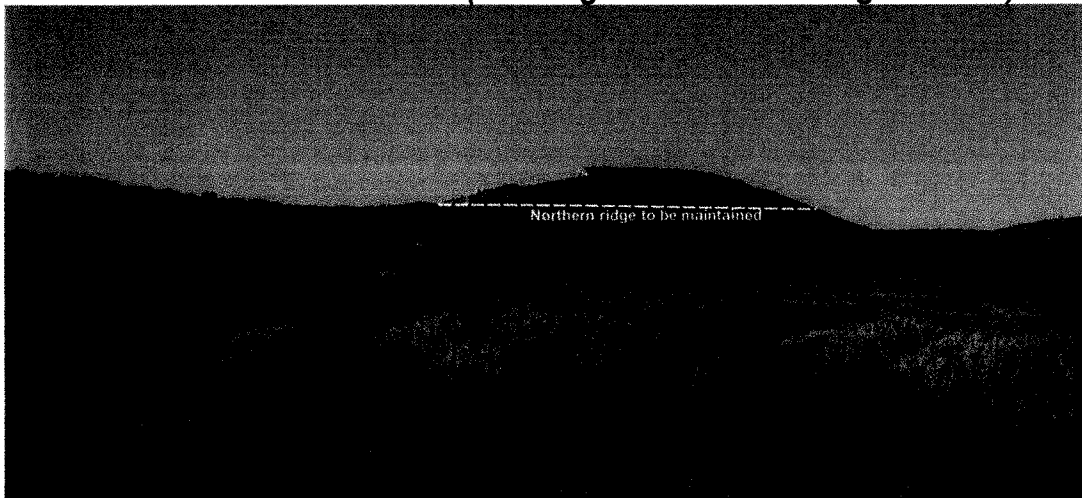


Photo .2.2c(ii): Close-up view of the quarry site from the un-named gravel road between the N7 and P2936 (refer Figure 1: Surrounding land use).



Ripping/scarification of hardened surfaces and re-topsoiling and seeding of all disturbance footprints is to be conducted at cessation of mining. Given the very minimal availability of topsoil on the excavation site, such re-topsoiling should focus primarily on slopes around the excavation rims which are visible to passing traffic and no disturbance of the hill-slopes below the set limit line should be allowed.

D) Land Capability

Proposed attenuation measures

All available topsoil is to be stored in perimeter topsoil berms for later re-use in re-topsoiling. Such re-topsoiling on the hill perimeter must be carefully conducted so as not to cause further vegetation disturbance while in the flat surrounding area of the plant and stockpiling areas all disturbed areas are to be ripped/scarified and re-seeded to promote the re-establishment of vegetation towards restoration of land capability (albeit minimal).

Note that the excavation (although not available as grazing area) will still form a wilderness area and will in fact lead to increased bio-diversity given the variation it provides in habitat type (Raptor nesting and temporary water fowl occupation of the ponded floor). No amount of rehabilitation will lead to the re-use of the excavation area for grazing.

E) Surface Water (refer Figures 3 and 4)

The contamination of stormwater will be avoided/ minimized through:

- i) Strict adherence to the fuel management as per 3.2.2A in the excavation (Mining Permit Area) and the plant and stockpiling areas, with;
- ii) Maintaining internal drainage of the excavation.
- iii) Provision of up-contour stormwater cut-off drains and down contour silt catchment drains both of which will lead to detention ponds which collect surface run-off and avoid siltation thereof.

F) Ground Water

Despite there being no immediate surrounding boreholes avoidance of contamination of ground water will be achieved by:

- i) Strict adherence to the Fuel management as per 3.2.2A, 8.2.1 and 8.3a.
- ii) Provision of chemical toilets and conservancy tanks once logistical facilities are finalized.

G) Air quality (Dust)

Attenuation Measures

Given that implementation of the following measures to control dust has become minimum standard practice, the consideration of dust impact (as described above) must assume that at least the following basic measures will be implemented.

- Dust generated off unsurfaced roadways (General): Wetting of unsurfaced roadways by water cart spray when required and limit speeds on the affected roads.
- Drilling generated dust: Drills to be provided with dust extraction equipment (This is now standard).

- Dust generated during blasting (No specific measure identified as it is expected that the blast dust will be low in the absence of weathered overburden and that given the surrounding land use, no users will be significantly impacted).

It must be remembered that dust impact must also be controlled / limited in terms of employee health (Mine health and safety).

Given the implementation of the above-listed control measures and the isolation of the site, dust impact from this site will be very low and will not impact on any residence (the closest of which is the landowner's residence some 2.5km to the west) i.e. dust levels will be well below the 600mg/m²/day recommended maximum.

Given the minimum 460m to the nearest public road dust will not impact on traffic.

H) Noise

Given the isolation of the site, there will be no noise impact on any surrounding land use or users barring the landowner, however Staff/ Operators will be made aware of noise considerations through induction training.

The only potential impact (startling effect) beyond the mining area is that of blast noise. Given the distances involved (the closest of which is the landowner's residence some 2.5km to the west) even this effect will be limited, but be that as it may, the following will be implemented:

- Never blast under temperature inversion (early cold windless mornings).
- Avoid blasting under low cloud conditions.
- Always try to blast at the same time of day so that it becomes expected
- Warn, by way of telephone / SMS, all neighbouring land owners.
- Temporary closure of the adjacent public gravel road for a period of 20-30 minutes at time of blasting during initial blasts while the risk is fully established by monitoring the initial blast noise, dust and flyrock.

I) Fly rock

As Fly rock is acknowledged as being a potential impact within a radius of up to 500m, it will require the temporary closure of the P2936 gravel road by flagmen for the 20-30 minute period prior to and during blasting for the first few blasts, during which the presence of fly rock impact on the road will be assessed as determination of the risk and thereafter consideration can be given to blasting without road closure.

It is again noted that such blasting is to occur only once/month, and such road closure will be no different to current stop-go conditions on many of the roads in the Northern Cape.

3.2.3 Review the significance of the identified impacts

(After bringing the proposed mitigation measures into consideration).

Note: "None" in post-closure means that no post-closure latent impacts will arise beyond the level of impact at time of closure.

A) Soil

After application of remediation measures as described in para 3.2.2 the revised expected table of impacts is as follows:

<i>Activity</i>	<i>Spatial extent</i>	<i>Remediation</i>	<i>Significance after remediation</i>	<i>Post-closure impact</i>
Topsoil Removal	Mining Area	Topsoil replacement	Insignificant	None
Refuelling	Mining Area	Fuel management	Insignificant	None

B) Topography

After application of remediation measures as described in para 3.2.2 the revised expected table of impacts is as follows:

<i>Activity</i>	<i>Spatial extent</i>	<i>Remediation</i>	<i>Significance after remediation</i>	<i>Post-closure impact</i>
quarrying	Excavation extent of the Mining Area lowering of hill top	Benching of the excavation faces	Insignificant	Low (permanent reduction of hill height)

C) Visual Impact

After application of remediation measures as described in para 3.2.2 the revised expected table of impacts is as follows:

<i>Activity</i>	<i>Spatial extent</i>	<i>Remediation</i>	<i>Significance after remediation</i>	<i>Post-closure impact</i>
Mining & Stockpiling	Mining Area	Keep stockpiles low Retain perimeter Topographic ridge	Insignificant	None

D) Land Capability

After application of remediation measures as described in para 3.2.2 the revised expected table of impacts is as follows:

<i>Activity</i>	<i>Spatial extent</i>	<i>Remediation</i>	<i>Significance after remediation</i>	<i>Post-closure impact</i>
Topsoil removal	Mining Area and excavation extent	Topsoil replacement and re-seeding	Insignificant	None

E) Surface Water

After application of remediation measures as described in para 3.2.2 the revised expected table of impacts is as follows:

<i>Activity</i>	<i>Spatial extent</i>	<i>Remediation</i>	<i>Significance after remediation</i>	<i>Post-closure impact</i>
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<i>Activity</i>	<i>Spatial extent</i>	<i>Remediation</i>	<i>Significance after remediation</i>	<i>Post-closure impact</i>
Siltation of stormwater from excavation activities	Mining Area and Excavation	Internal drainage	Insignificant	None
Oil/Fuel Leaks/Spills	Mining Area and excavation	Fuel management (including decontamination of spills)	Insignificant	None

F) Ground Water

After application of remediation measures as described in para 3.2.2 the revised expected table of impacts is as follows:

<i>Activity</i>	<i>Spatial extent</i>	<i>Remediation</i>	<i>Significance after remediation</i>	<i>Post-closure impact</i>
Mining	Mining Area and excavation	Fuel management (including decontamination of spills)	Insignificant	None

G) Air Quality (Dust)

After application of remediation measures as described in para 3.2.2 the revised expected table of impacts is as follows:

<i>Activity</i>	<i>Spatial extent</i>	<i>Remediation</i>	<i>Significance after remediation</i>	<i>Post-closure impact</i>
Topsoil removal	Mining Area	Avoid High east wind conditions	Minor/Insignificant	None
Mining including crushing	Mining and crushing area	Avoid High east wind conditions if dusty	Minor/Insignificant	None
Delivery	Delivery/Access roads	Water cart wetting of road	Minor/Insignificant	None

H) Noise

After application of remediation measures as described in para 3.2.2 the revised expected table of impacts is as follows:

<i>Activity</i>	<i>Spatial extent</i>	<i>Remediation</i>	<i>Significance after remediation</i>	<i>Post-closure impact</i>
Topsoil Dozing	Mining Area	Restrict to normal working hours	Insignificant	None
Loading and delivery	Mining Area and Delivery Road	Restrict to normal working hours	Insignificant	None
Blasting	Mining area and surrounds	As specified in 3.2.2H	low	None

I) Fly rock

After application of remediation measures as described in para 3.2.2 the revised expected table of impacts is as follows:

<i>Activity</i>	<i>Spatial extent</i>	<i>Remediation</i>	<i>Significance after remediation</i>	<i>Post-closure impact</i>
Blasting	Mining area and surrounds	Road closure and notification of all surrounding landowners	Low-moderate	None

4 REGULATION 52 (2) (d): Financial provision. The applicant is required to-

4.1 Plans for quantum calculation purposes.

(Show the location and aerial extent of the aforesaid main mining actions, activities, or processes, for each of the construction operational and closure phases of the operation).

Refer figure 3: Detailed Mine layout plan in para 2.1.2 and Figure 4: Decommissioning Rehabilitation Plan as well as Figure 2.1.1 hereafter.

4.2 Alignment of rehabilitation with the closure objectives (*Being grazing in the plant and stockpiling areas and future further use of the excavation*)

(Describe and ensure that the rehabilitation plan is compatible with the closure objectives determined in accordance with the baseline study as prescribed).

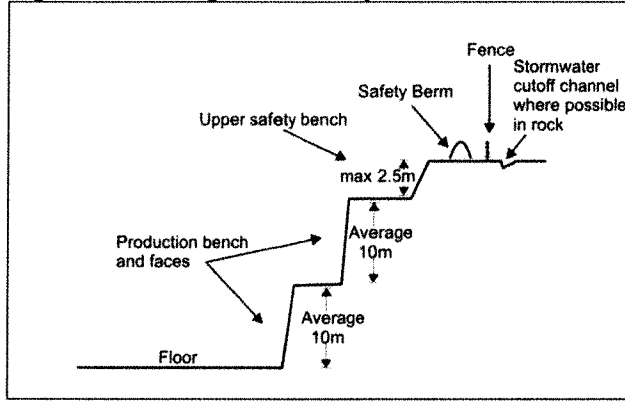
Rehabilitation Method

Once mining ceases, all disturbed surfaces will be rehabilitated and the excavation shaped as shown diagrammatically below, most notably with the following features:

- A fence and safety berm around the excavation to negate accidental entrance to the quarry.
- An upper safety bench of minimal height.
- The excavation will be internally draining.
- Production faces to be left in place should the need arise for re-use of the quarry by future contractors as this material is unique to this area in that it meets road-stone specifications and colour requirements.

All disturbed surfaces in the stockpiling/logistical areas will be ripped, scarified, and re-topsoiled, following which they will be re-seeded with suitable pioneer species to facilitate further natural reestablishment of veld.

Figure 2.1.1: Diagrammatic representation of final excavation face conditions



4.3 Quantum calculations.

(Provide a calculation of the quantum of the financial provision required to manage and rehabilitate the environment, in accordance with the guideline prescribed in terms of regulation 54 (1) in respect of each of the phases referred to).

As per the Financial and Technical Ability Report Table 2 (overleaf), an amount of R351 500 is specified for rehabilitation (note that the operational activities are scheduled for 2 quarters).

Note: While the Mining Permit Area contains only the excavation and not the plant and stockpiling areas, the rehabilitation cost calculation below includes these areas and the Applicant will provide a guarantee to the full amount to satisfy any fears any I&APs may have regarding post-mining rehabilitation being conducted.

2. ABILITY TO MANAGE AND REHABILITATE RELEVANT ENVIRONMENTAL IMPACTS

TABLE 2 Environmental cost estimate.

ACTIVITY Work with a visible production area	POTENTIAL IMPACT	MITIGATION MEASURE	STATE ESTIMATED QUANTUM OF REHABILITATION COSTS BY THE APPLICANT IN THE AVAILABLE SPACE RELIED ON IN R1000	STATE ESTIMATED QUANTUM OF REHABILITATION COST RELATED TO THE ACTIVITY IN THE AVAILABLE SPACE RELIED ON IN R1000
Excavating	Surface disturbance	Rehabilitation		161 716
	Dust	Dust control measures	R35 036	
	Noise	Noise control measures	R 8 000	
	Contaminated Discharge	Storm water system	R15 000	
Blasting	Fly Rock	Approved control measures	R13 600	
Stockpiling	Surface disturbance	Rehabilitation		Nil
	Dust	Dust Control Measures	Nil	
	Contaminated Discharge	Storm water system	Nil	
	Disposal dumps or dams	Surface Disturbance	Rehabilitation	
Loading, handling and transport	Dust	Dust control Measures	Nil	
	Contaminated Discharge	Storm water system	Nil	
	Noise	Noise control measures	8 000	
	Dust	Dust control Measures	R35 636	
Water supply dams and berseides	Surface disturbance	Rehabilitation		Nil
Accommodation, offices, sitehuts, stores, workshops etc.	Surface disturbance	Rehabilitation		R189 784
Processing Plant	Noise	Noise control measures	R8 000	
	Dust	Dust control Measures	R55 978	
	Contaminated Discharge	Storm water system	R10 000	
	Surface disturbance	Rehabilitation		
TOTAL			R209 250	R351 500

2x Operational Quarters environmental expenditure @R209 250.00
= R418 500.00

Decommissioning Rehabilitation cost @R351 500.00

4.4 Undertaking to provide financial provision

(Indicate that the required amount will be provided should the right be granted).

The required amount of R351 500.00 or alternate amount adjudicated by DMR will be provided by the applicant by way of Bank Guarantee. The applicant commits to the provision of such guarantee through the lodging and signing of this document.

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

5.1 List of identified impacts requiring monitoring programmes.

The only aspects of the operation that will require monitoring are as follows:

- 1. Topsoil management**
- 2. Fuel/Lubricant management**
- 3. Dust and Noise**
- 4. Blasting**
- 5. Stormwater management (Cut-off trench inspections)**
- 6. Vegetation management**

5.2 Functional requirements for monitoring programmes.

Fortunately this monitoring programme is a very simple operation with monitoring to be managed by the Mine manager. As such no specific functional requirements are deemed necessary but it will serve to note the following elements to be implemented and as such for their implementation to be monitored by the mine manager.

1. Topsoil management:

a) Excavation area

- Remove any available topsoil to small perimeter stockpiles for re-use in excavation bench rehabilitation and rehabilitation of the excavation rim.

b) Plant and stockpiling area

- Removal of to 300mm depth **where present** to perimeter stockpiles.
- Pre-ripping of disturbance footprints prior to topsoil replacement.
- Replacement of topsoil by dozing from perimeter topsoil berms.
- Re-ripping/blending of the replaced growing medium materials.
- Smoothing the surface by scarification, and reseeding with a localised pioneer species.

2. Fuel/Lubricant management As per paragraph 3.2.2A and 8.3a:

The appointed mine manager will ensure implementation of the fuel and lubricant management programme elements as per paragraph 3.2.2 on a daily basis. Additionally, the operators of the equipment must be instructed (para 8.3a) to report daily on

any fuel/lubricant incidents and the mine manager will be responsible for such daily verbal reporting. The mine manager shall record all "environmental incidents" in writing (Place of occurrence, date and time together with description of occurrence, remediation treatment applied and residual status etc).

3. Dust and Noise

Ambient conditions will be monitored visually and audibly daily and the Mine Manager will adapt operations so as to limit all noise and dust generation when conditions are unfavourable, and instruct on additional water cart wetting of manoeuvring areas and roads as required to control dust.

4. Blasting

Blasting will be conducted by a blasting contractor who shall be responsible for the ground vibration monitoring of each blast while the blaster and mine manager/production manager will inspect the distribution of fly rock as basis for risk assessment relating to continued road closures during blasting.

5. Stormwater cut-off channels and ponds

On a monthly basis and additionally during and after heavy rains the Mine Manger/Production Manager shall inspect the stormwater cut-off channel/detention pond and the silt cut-off channels and siltation pond to ensure that they are maintained and functioning.

6. Vegetation

On a monthly basis the mine manager/production manager shall conduct a site inspection to:

- Identify any alien vegetation and have it immediately eradicated (expected species are *Nicotiana glauca* ("wilde tabak") and cacti varieties including prickly pear as well as rooikrantz).
- Check that no unnecessary disturbance of natural vegetation takes place by either unauthorised tipping or movement of mobile plant outside of demarcated areas and roadway.

5.3 Roles and responsibilities for the execution of monitoring programmes.

Group Five will arrange for the conducting of monitoring during topsoil removal, mining and during substrate ripping and re-topsoiling and an Environmental Performance Assessment (EPA) will be conducted midway during rehabilitation, which EPA will be supplemented by a final rehabilitation inspection serving the purpose of closure motivation.

Implementation of the on-site daily monitoring by observation and internal verbal reporting will be conducted by the equipment operators and mine manager.

5.4 Committed time frames for monitoring and reporting.

- Daily monitoring by observation of:
 - I. Fuel and lubricant management
 - II. Dust levels
 - III. Restriction of equipment movement to demarcated areas
- Continuous visual monitoring of dust levels
- Ground vibration monitoring by contractor and fly rock monitoring by contractor and mine management during each blast (at least the first four blasts).
- Three stages of monitoring by Mine Management ie:
 - I. During topsoil removal
 - II. During mining
 - III. During rehabilitation sub-soiling and re-topsoiling
- Monthly monitoring by management inspection of:
 - I. Stormwater and siltation channels and ponds
 - II. Alien vegetation.

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

6.1 Rehabilitation plan

(Show the areas and aerial extent of the main prospecting activities, including the anticipated prospected area at the time of closure).

Refer Figure 4: Decommissioning rehabilitation Plan and para 2.1.1 above.

6.2 Closure objectives and their extent of alignment to the pre-mining environment.

To return the site outside of the excavation to its grazing use over the entire area of disturbance, and to leave the excavation in such a condition that its re-use in later contracts can be facilitated should the need arise.

6.3 Confirmation of consultation

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

Yes.

The public participation process was exhaustive and part of that process was the preparation of a so-called "Background Information Document" (BID). Such document is included in full in Appendix A. The BID document was sent via registered mail to the landowner and adjacent landowners, with all such persons contacted telephonically. (With the exception of SANRAL which has been contacted via email as attached in Appendix C). The landowner's written consent for the project with his single comment is contained in Appendix C, wherein he suggests the option of locating the plant and stockpiling area to the east of the basalt plug, but he has no comment on the extent or the planning of the excavation. Such comment has been discussed with him and while he does not feel strongly about the matter two alternate plant and stockpiling areas will serve the NEMA and LUPO Applications at this stage. The landowner will be

entering into a Surface Rental Agreement with Group Five prior to the commencement of any activities on-site.

In order to reach the general public, a notice of the Application was placed in the local newspaper, Die Plattelander, along with a hard copy of the BID document made available at the Garies Public library for perusal, with the BID being emailed to identified I&AP's as well as persons who requested registration as I&AP's (Only one telephonic enquiry to date but no further registered I&APs).

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

7.1 Identification of interested and affected parties.

(Provide the information referred to in the guideline)

As referred in the report on Consultation:

- a) Name the community or communities identified, or explain why no such community was identified.

The quarry is located in a rural farming area with the closest towns being Garies 18km to the north and Rietpoort some 34km to the south.

The Department Rural Development and Land Reform has been notified in respect of possible land claims and have confirmed that no land claims have been lodged in respect to the Property.

- b) Specifically state whether or not the Community is also the landowner.

No, the only community is the landowner (Land privately owned).

- c) State whether or not the Department of Land Affairs been identified as an interested and affected party.

The Department Rural Development and Land Reform has been notified in respect of possible land claims and have confirmed that no land claims have been lodged in respect to the Property.

- d) State specifically whether or not a land claim is involved.

The Department Rural Development and Land Reform was notified in respect of possible land claims and as per Appendix E have confirmed that no land claims are lodged in respect to the Property.

- e) Name the Traditional Authority identified

None

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

**Farm Dikdoorn 535 remainder is owned by:
Pieter Albertus Schreuder, in terms of Title deed
T84176/2005.**

- g) List the lawful occupiers of the land concerned.

Land owner currently utilizes this portion of the farm for grazing while the abandoned quarry site is unused.

- h) 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 proposed Mining Permit area of 1.49Ha combined with the 2-year lifespan (renewable to 5 years) of the operation results in a very limited impact arising from the operation. No "other persons" socio-economic conditions will be impacted negatively by the operation while the project together with all other projects conducted by Group Five Civil Engineering (Pty) Ltd contributes positively to further employment of Group Five employees who were employed on the previous road contracts and were drawn from this area.

- i) Name the Local Municipality identified by the applicant

Kamiesberg Local Municipality

- j) 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 Environmental Affairs and Nature Conservation**
- **Department of Water Affairs**
- **Department of Agriculture**
- **SANRAL (in its departmental capacity as well as that of adjacent landowner**

- k) Submit evidence that the landowner or lawful occupier of the land in question, and any other interested and affected parties including all those listed above, were notified.

The landowner

The landowner has been telephonically consulted by Site Plan Consulting, and has been posted a copy of the BID document and a letter of comment to be completed by himself (refer Appendix C for copies of correspondence) by Registered Mail. The landowner's written consent for the project with his single comment is contained in Appendix C, wherein he suggests the option of locating the plant and stockpiling area to the east of the basalt plug, but he has no comment on the extent or the planning of the excavation. Such comment has been discussed with him and while he does not feel strongly about the matter two alternate plant and stockpiling areas will serve the NEMA and LUPO Applications at this stage. He will further be entering into a surface rental agreement with Group Five prior to the commencement of any activities on-site.

Adjacent Landowners

Adjacent landowners have been either telephonically notified (in the case of Private Persons) or by email (in the case of SANRAL) and documentation posted to them for their perusal.

The written responses received to date are from two of the adjacent landowners. The third adjacent landowner who has not responded is a very distant neighbor who's farm lies north of the Groen River at closest some 2.7km north-west of the mine, which is not in view from his farmstead.

Of special note is that the closest farmstead (that of the landowner, Mr Schreuder) to the excavation area is at a long distance of 2.5km and as such there will be little to no impact on surrounding land users other than the landowner and his staff when herding sheep in proximity to the quarry.

General I&APs and general Public (notification by newspaper)
Refer Appendix D which includes:

- Copy of newspaper notice published in the Plattelander Newspaper on 18 January 2013.
- Copies of correspondence received in respect of the newspaper advert (Note that only a single telephonic enquiry has been received to date).

Refer Appendix E which includes notification of other identified I&AP's

- Department Rural Development and Land Reform confirming that no land claims are lodged in regard to the property.

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.

Refer Appendix A. The Background Information Document (BID) contained the following:

- General information regarding the application process with specific reference to where public participation takes place in the process.
- Brief project description
- Brief description of existing environment, anticipated impacts and impact attenuation (reduction) measures
- Way forward and request to comment/register as I&AP

This BID document was:

1. Sent by registered mail to the Landowner and adjacent landowners – Refer Appendix C
2. Provided by email to SANRAL as adjacent landowner – Refer Appendix C
3. Placed at the Public Library in Garies following notification in the press
4. Provided by Email or to all other parties who requested a copy (none requested to date).

The result is that every single person who wished to know more about the operation or comment thereon had access to the Background Information Document.

7.2.2 List of which parties identified in 6.1 above that were in fact consulted, and which were not consulted.

I&APs consulted were as follows:

- The registered Landowner – Pieter Schreuder
- Adjacent Landowner – Johannes Dreyer
- Adjacent Landowner – Johannes Nieuwoudt – no response to date
- Adjacent Landowner - SANRAL
- Department Rural Development and Land Reform

7.2.3 List of views raised by consulted parties regarding the existing cultural, socio-economic or biophysical environment.

None.

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

- i) **The landowner** responded positively but commented that consideration should be given to relocation of the plant and stockpile area to the east instead of south of the hill. This suggestion was assessed and for consideration of visual exposure and maximizing the use of earlier-disturbed veld south of the hill an adapted layout of the stockpiling area has been considered and will be finalized in the DEAT and LUPO applications and is shown in the EMP Figures 2, 3 and 4.
- ii) SANRAL has responded with comment regarding traffic entrance onto the N7 under the assumption that all traffic would use the unproclaimed gravel road to the N7 which is not the case as most of the delivery will go north to Springbok and accordingly the delivery traffic will be split between accessing the N7 via both the gravel road and the existing Garies intersections onto the N7 thereby reducing the number of vehicles using either intersection to well below SANRAL's threshold of 30 vehicles per day.

Regarding signage etcetera on the N7, these requirements of SANRAL will be met at the time of commencing production.

As per their letter attached hereto in Appendix C, SANRAL has requested that a traffic impact statement be compiled in regard to the intersection of (assumedly) the un-named public gravel road to the N7 (referenced as Haul Road in their letter).

Given:

- That the small-scale of the mining under this sought Mining Permit will give rise to well below the noted limit of 30 vehicles per day; and
- The route referenced by SANRAL will not be the primary delivery route to the N7 (as the material will primarily be transported on the P2938 route to Garies intersection onto the N7,

A full TIS is seen as unnecessary but the Applicant will provide SANRAL with the expected delivery traffic pattern via the respective intersections onto the N7.

The Applicant will thereby respond accordingly to SANRAL and determine their detailed requirements in respect of signage.

7.2.5 Other concerns raised by the aforesaid parties.

None

7.2.6 Confirmation that minutes and records of the consultations are appended.

Full copies of the notifications and responses are attached in the Appendices to this EMP

7.2.7 Information regarding objections received.

No objections have been received.

7.3 The manner in which the issues raised were addressed.

Refer 7.2.4 above.

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

8.1 Employee communication process

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

An Environmental Awareness Training Programme is contained in Appendix F setting out how the applicant will communicate the environmental sensitivities and requirements to all staff

8.2 Description of solutions to risks

(Describe the manner in which the risk must be dealt with in order to avoid pollution or degradation of the environment)t.

The only two risks which are evident are:

1. Hydrocarbon spills:

Fuel receipt, storage and dispensing:

Use will be made of an appropriately properly banded mobile fuel tank to be placed on-site.

Photo 3.2.2a: Example of an appropriately banded mobile fuel tank. Note however that the dispensing pump and hose are to be internal to the banded tank.



Vehicle /pump leaks:

Vehicles and equipment must be checked on a daily basis for oil/diesel/hydraulic fluid leaks. Drip trays must be available on site and should any oil/fuel/lubricant leak from the equipment, then such leaked fluid is to be collected via the drip trays into drums for transport to Oilkol or similar depot for recycling.

Should such leaked oil contaminate the topsoil, then such topsoil and oil must be removed from site and spread on a concreted area where it can be treated with compost and chicken manure for a period of 3 months or a commercial product such as Spillsorb™.

On-site repairs: All repairs and servicing will take place off-site at commercial facilities in either Garies or Bitterfontein.

Emergency repairs on site:

In the event of a breakdown repair being required in the field, the staff are trained and will again be instructed in the use of drip trays and suitable funnels (not to drain oil into the soil) for filling and draining of lubricants and the staff shall be provided with such equipment to prevent oil contamination.

In addition:

- Used/replaced filters, hoses, belts, cloths, etc. are to be placed in a designated bin at the Mobile site office/store for removal from site and disposal at a suitable facility. Used filters are not to be buried at the site of repair (nor discarded in adjacent veld).
- In the event of intense soil contamination, the contaminated soils are to be removed and placed in suitable bags or drums for disposal at a licensed facility or depot.

All staff involved in mobile plant operation and maintenance are to be made aware of these oil and lubricant procedures. Staff will require instruction in the:

- Deleterious effects of oil / fuel on the environment
- Handling of oil leaks onto soil

General Provisions

- All operators are to check their equipment for leaks and report such leaks on a daily basis (before and after morning start up, at lunch break and when parking the equipment for overnight shutdown).
- No used oils are to be used as dust suppressants on manoeuvring areas. Used oils will be deposited in the existing used oil tanks at the mobile stores and equipment container.

2. Risk of unnecessary disturbance to the lower hill slopes or other areas outside of the demarcated mining area

Attenuation measures include fencing the planned excavation expansion area with a 2-strand fence and suitable signage as a **No-Go area**. Additionally the plant and stockpile areas will be fenced to limit vehicular and pedestrian movement outside of the designated area.

3. Improper Topsoil/Growing Medium Management in the plant and stockpile areas

Topsoil/upper sands will be removed to 300mm wherever available and will be stored temporarily in perimeter topsoil berms.

Rehabilitation of the area will be conducted after mining with the retained substrate pre-ripped where after stockpiled topsoil will be dozed over the disturbances area, and such areas reseeded to serve as aid to natural re-vegetation.

8.3 Environmental awareness training.

(Describe the general environmental awareness training and training on dealing with emergency situations and remediation measures for such emergencies).

Only two high evidential risk probabilities/possibilities are identified namely:

- Fuel/oil spills; or
- Veld fires.

To this end the following procedures must be brought to the attention of all staff and suitable material/equipment provided to deal with them.

a) Fuel/oil spills

The reporting procedure in terms of which any person on site who sees an oil/fuel spill occurring must:

1. Ensure the safety of any person nearby by evacuating any such persons from the danger area.
2. Having assessed the volume of the spills and if safe, then:
 - Report the spill to the office personnel who shall notify the Manager
 - Use either shovels or mechanical equipment (loader, etc.) to either dig a low trench or construct a wall to contain the spill.
3. The Manager shall consult the literature as to the methods of clearing up the spill and treating the affected soil.

b) Fire

Should any fire derived from the mine or elsewhere be noted in the veld, the mine manager must immediately be notified and all available persons recruited on site to beat the fire or use the water cart if available to assist. The contact names and telephone numbers (office and after hours) of the following persons must be pinned up at the mobile offices and stores/equipment container.

EMERGENCY NUMBERS

	Name	Telephone
Mine Manager		
Surrounding Owners		
Land owner		
Municipal Fire Chief		

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.

(Provide a detailed explanation as to how the amount was derived)

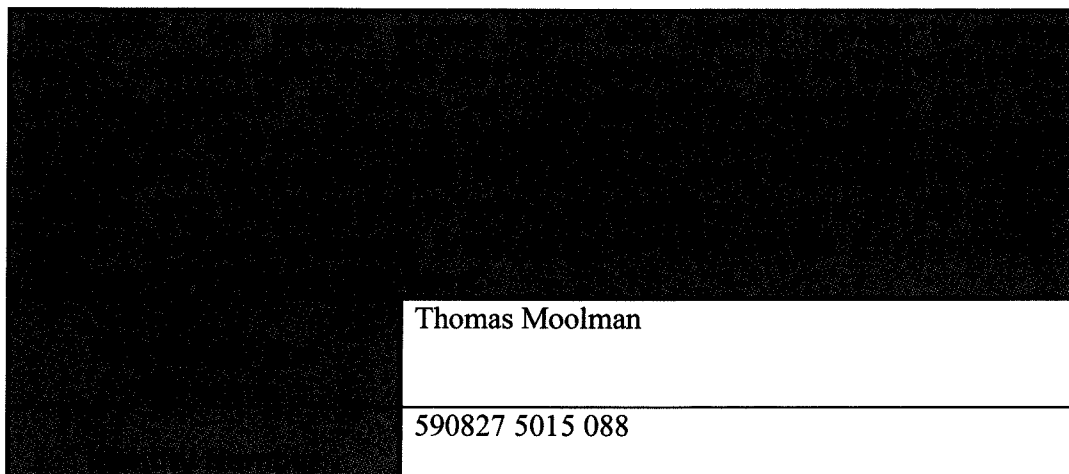
As per the table in paragraph 4.3 of this EMP which is a copy of table 2 in the Financial and Technical Ability section of the Mining Work programme, an amount of R209 250.00 per active quarter is provided for environmental management and operational rehabilitation.

The above-mentioned table in para. 4.3 also contains the cost derivation for closure rehabilitation ie; the R351 500.00 Quantum which is over and above the annual allocation to operational rehabilitation.

9.2 Confirmation that the stated amount correctly reflected in the ~~Prospecting~~ Work Programme as required.

Yes, it is confirmed

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



Thomas Moolman
590827 5015 088

-END-

**Appendix A:
Background Information Document**

Background Information Document (BID)

**Proposed reuse of abandoned hard rock quarry (road construction Borrow Pit)
On the Farm Dikdoorn 535 remainder in the Namaqualand District
18km South of Garies on the P2938/P2936.**

1.0 Purpose of this BID document

The purpose of this document is to provide Interested and Affected Parties (I&APs) with background information to the proposed project, and to inform the reader of the process of Application, its environmental assessment, and environmental prescriptions, reflecting on where the I&AP can give comment and raise matters which are of concern to the I&AP, as well as indicating any item which the I&AP feels has not been suitably assessed.

2.0 Background

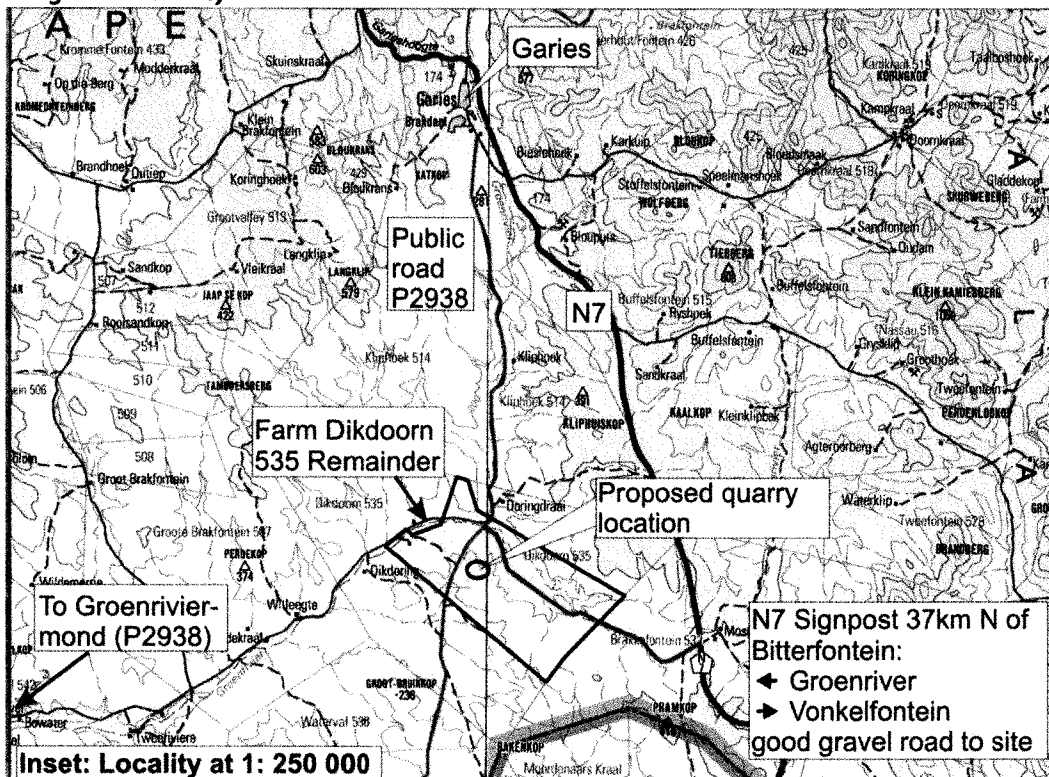
In order to provide road construction materials to road rehabilitation/maintenance contracts in the Garies area, Group Five Civil Engineering (Pty) Ltd have identified the reuse of the abandoned quarry as a site which could meet the materials requirements for the project.

Group Five has appointed Site Plan Consulting CC to conduct the Mining Permit Application on their behalf, which has entailed lodging of such Application with the Department Mineral Resources (DMR) and now further entails the identification and notification of Interested and Affected Parties (I&APs) in a public participation process; involving the Environmental Impact Assessment (EIA), identification of attenuation measures to limit impacts, and prescribing the environmental management to be set out in a forthcoming Environmental Management Plan (EMP).

3.0 Locality

As shown in Figure 1 below the project is located on the Farm Dikdoorn 535 Remainder, 500m east of the public (gravel) road P2936, some 8.5km west of the N7

Figure 1: Locality



4.0 Legislation

Both the Environmental Impact Assessment (EIA) and the Environmental management Plan (EMP) compilation are conducted in terms of the Mineral and Petroleum Resources Development Act (MPRDA) (Act 28 of 2002). In terms of the MPRDA the extent of the Mining Excavation is limited to a 1.5ha area for a Mining Permit as has been applied for, with DMR reference number NC30/5/1/3/2/10105MP, while the total extent of the project is ±4.99ha.

The environmental assessment and prescriptions for the crushing and stockpiling areas, and logistical facilities, are also dealt with in terms of the MPRDA as activities ancillary to the mine.

The following activities represent National Environmental Management Act (NEMA) listed activities which are applicable to the mine:

In terms of Listing Notice 1 (i.e. No.R. 544):

20	Any activity requiring a Mining Permit	
23	Transformation of vacant land to... industrial use, outside urban area where total area to be transformed is bigger than 1ha but less than 20ha	Bear in mind that the entire area to be used was previously used for quarrying activities.

Such listing calls for a basic assessment be done, which is included in this Mining Permit Application process as the EIA of the proposed operation.

As the Minister of the Department of Mineral Resources (DMR) is identified by NEMA as the Competent Authority, the entire Application process is dealt with i.t.o. the MPRDA guidelines of the listed activities 20 and 23 above.

THE APPLICATION PROCESS

As this is a Mining Permit Application, the process is as follows

- An Application for a Mining Permit, which has been completed and accepted by the DMR under their file reference no. NC30/5/1/3/2/10105MP.
- A basic public scoping process (currently being undertaken), calling for the identification of possible I&APs, inclusive of distribution of this BID document to identified I&APs as basis for comment by such I&APs.
- Receipt of comments/inputs by I&APs and their written consideration.
- An Environmental Impact Assessment of the quarrying activities.
- Conducting of Specialist Studies, where the need for such specialist assessments may be deemed necessary, due to either inputs obtained during the Scoping Process or by legislative prescriptions (NEMA)(listed activities considered in the MPRDA process).
- Consideration of attenuation measures to reduce impacts, inclusive of specific site recommendations in conjunction with "standard" industry practices (accepted as the norm during mining operations).
- Compilation of an EMP to guide all on-site activities, and the distribution of such draft EMP by the DMR for interdepartmental comment.
- Approval of a final EMP by DMR and issuing of the Mining Permit.

5.0 Mine (quarry) Plan and description of the works

5.1 Existing site following previous quarrying

The photos below illustrate the existing disturbed nature of the site due to historical mining.

Photo 1: The basalt hill as seen from the proposed stockpiling area, showing haul road. Existing excavation in the east of the hill hidden from view.

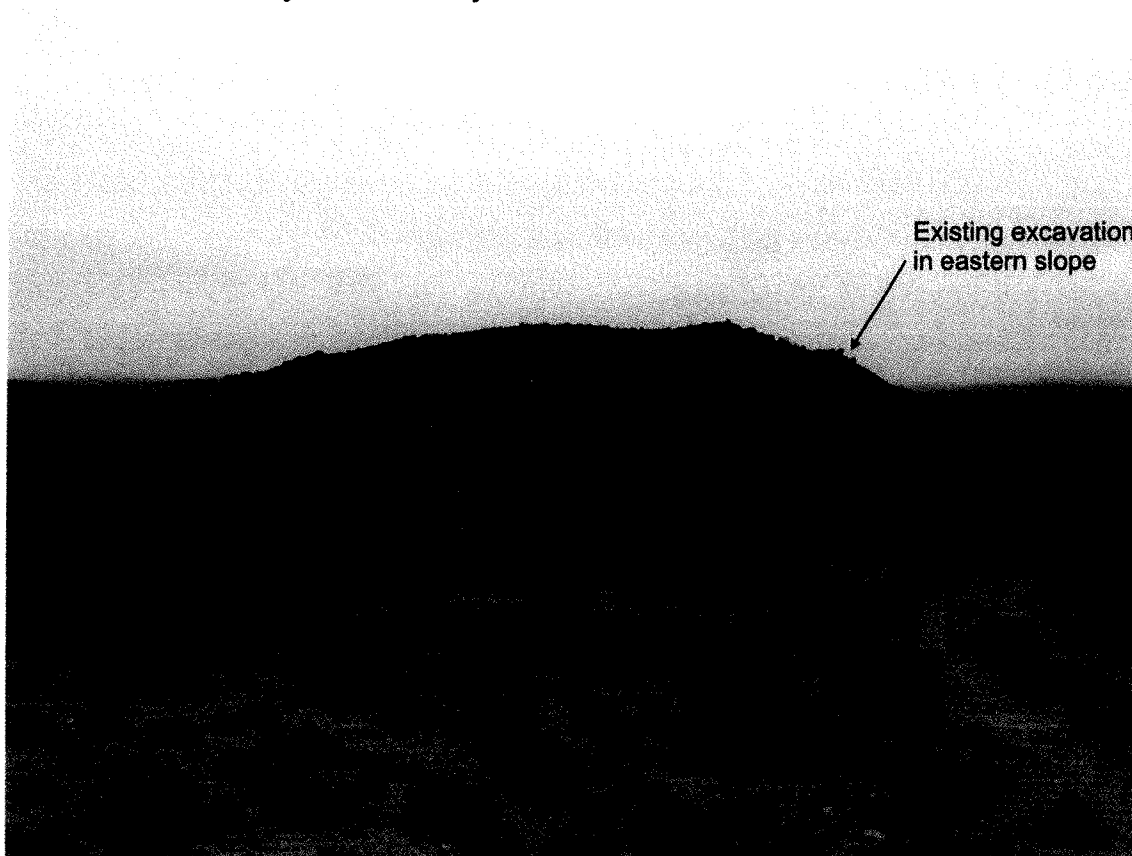


Photo 2: The existing excavation showing it's heavily disturbed nature



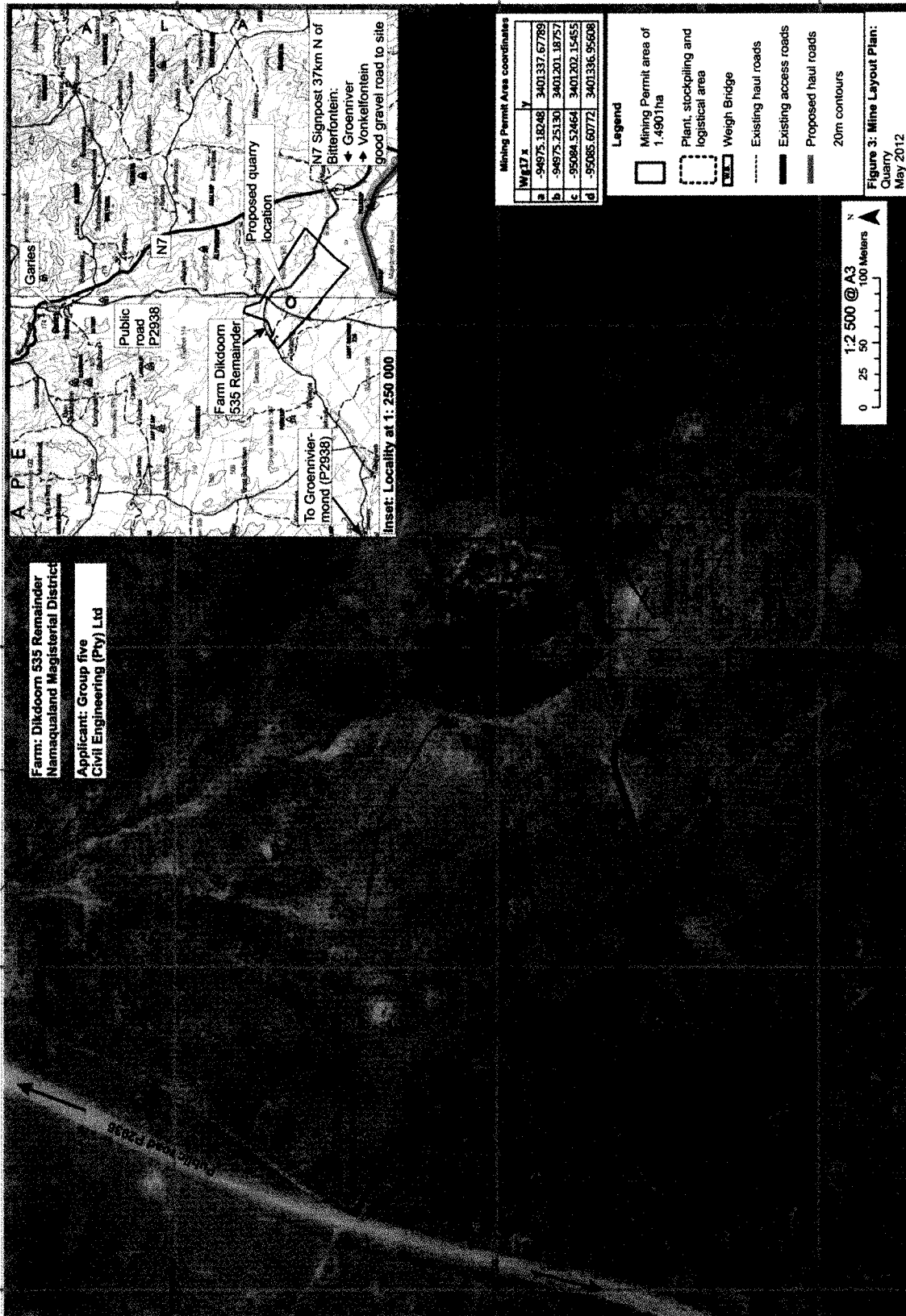
5.2 Mine Plan

The draft Mine Layout Plan as required to have been submitted during the Application is shown in Figure 2 overleaf, reflecting the following 4 major components and their related activities:

- i) **The excavation** which will be extended by hard rock drilling and blasting, with hauling of rock by truck to the crushing and screening plant, totalling 1.490ha (and serving as an expansion of the current excavation).
- ii) **Crushing and screening plant**
- iii) **Stockpiling area**
- iv) **Logistical facilities**, comprising containerised office, stores, workshop and mobile chemical toilet.

As shown in the Mine Layout plan, the excavation extension will occur in the south-east of the hill, with retention of the west and north-western slopes of the hill to act as visual barriers. As such there will be no increase in visual impact on road users of the P2938 or 2936.

Figure 2: Mine Layout Plan

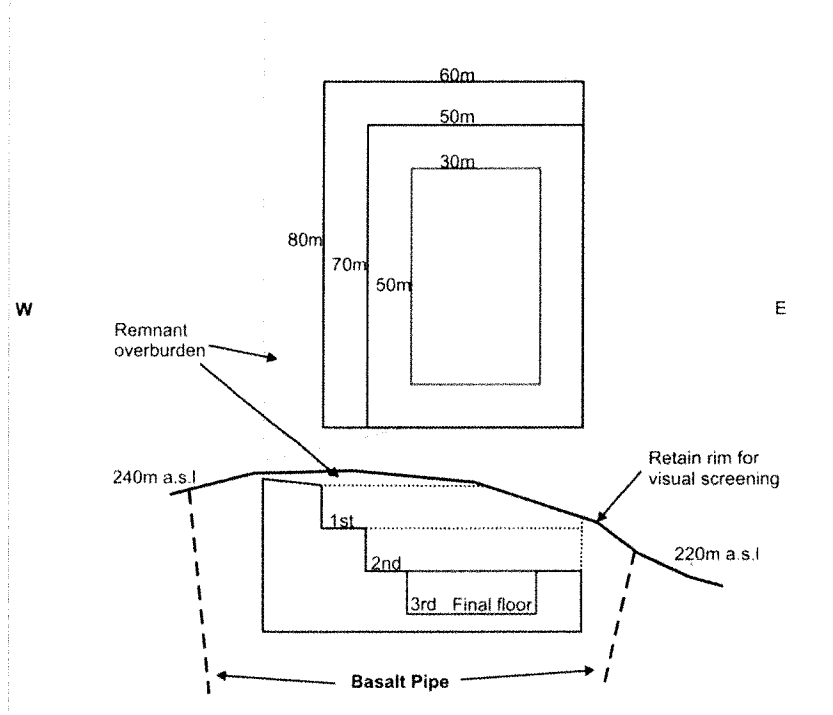


The mining activity will be limited to a maximum 24 month “life of mine” while a total of 6 months is identified as minimum drilling and blasting period, with possible further lifespan/renewal of the Mining Permit should additional materials be required or the road contract be delayed. Once mining ceases, all disturbed surfaces will be rehabilitated and the excavation perimeter shaped as shown diagrammatically overleaf, most notably with the following features:

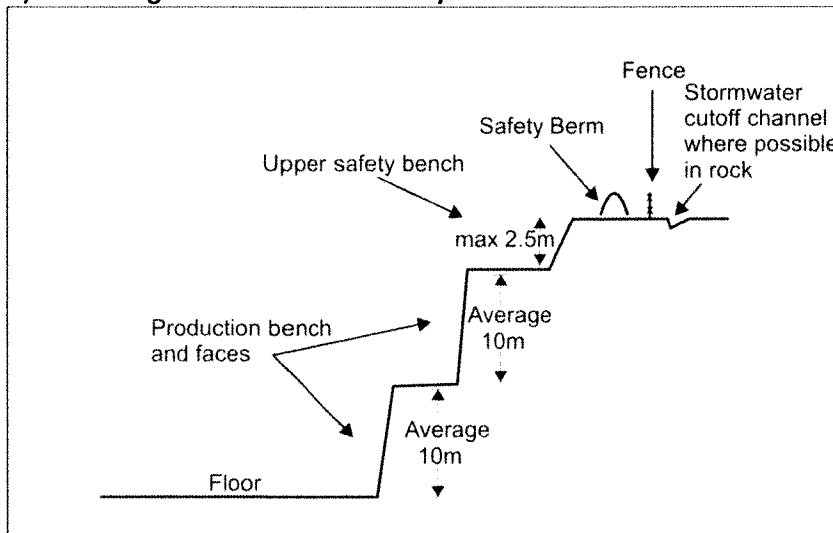
- A fence and safety berm around the excavation to negate accidental entrance to the quarry.
- An upper safety bench of minimal height.
- A stormwater cut-off channel above the steep faces to limit erosion from surface water flow down these faces.
- Production faces to be left in place should the need arise for reuse of the quarry by future contractors, as this material is unique in this area in that it meets road-stone specifications and colour requirements.

Diagrammatic representations of final excavation face conditions

a) Excavation extent



b) Face height limitations and safety considerations



6.0 Potential Impacts

The potential environmental impacts considered in respect of the mining activities are as follows:

1: Soil

Permanent loss of topsoils is considered a highly significant negative impact. As such standard mining practise calls for removal and storage of such upper soils/sands in all areas of disturbance. Such topsoils, inclusive of the seedbank secured within them, are then used during post-mining rehabilitation to rehabilitate all disturbance footprints, with the replaced seedbank acting to rejuvenate the natural vegetation cover over these areas.

2: Topography

The quarry excavation will by necessity impact on the surrounding topography.

3: Visual Impact

Given that the quarry is an existing feature of the landscape, and that much of the extension will occur below a surrounding rim to be retained level, minimal increase in visual impact will occur in this respect.

Ancillary mining activities (crushing and stockpiling, logistics) are all temporary in nature, with their duration and impact limited to the life of mine.

4: Animal life

Vast expanses of the vegetation types surrounding the site provide a habitat suitable for species typical of the area. These include buck, rodents (mice, shrews etc), reptiles (snakes and tortoises), birds and insects. The large scale of the habitat type when compared to the extent of the proposed activities negate any significance of any impact in this regard. Furthermore the low farm fences allow for relatively free migration of most animals. As is standard practice, an animal search and rescue will be undertaken prior to any activity on site.

5: Land Capability

The expansion of the excavation will be limited to rock outcrop areas, which by their nature are of very low agricultural value.

While the stockpiling and logistical facilities will impact on areas which are of higher grazing value, their impact is temporary and of minimal significance given that standard rehabilitation practises are to be put in place as specified above in the case of soils.

6: Surface Water

No surface water resources are in the Mining Permit Area and as such this will not be impacted in any way

7: Ground Water

The proposed 1.49ha excavation, to a depth of ± 20 m beyond the current ground level of the hill will not result in any impact on groundwater given the nature of the basalt plug which is to be mined.

8: Natural Vegetation

The extension of the excavation will result in the permanent loss of a 1.49ha portion of **Namaqualand Heuweltjieveld**. The impact of this permanent loss must be seen as low, given the following factors:

- **The Least threatened status** afforded this vegetation type; and
- **The 96.5% remaining of the original vegetation type**
- **The heavily disturbed nature of the vegetation given historical mining** (refer photo 2)

In addition, the stockpiling and logistical areas will result in a **temporary** loss of approximately 3.5ha of **Namaqualand Heuweltjieveld**. This loss can be seen as insignificant, given:

- **The temporary nature of the disturbance**
- **The Least threatened status** afforded this vegetation type
- **The large percentages of remaining extent of the vegetation type**

9: Air quality (Dust)

The following sources of dust will arise due to quarrying activity

- Quarrying, crushing & screening activities
- Delivery vehicles and vehicle movement between the quarry and the adjacent contractor stockpiling area
- Product loading at the quarry and at the adjacent contractor stockpiling area

It must be remembered that the site is isolated and given that dust must be highly controlled in terms of employee health at the plant, plant and excavation dust impact on surrounding land users will be negligible from the site.

10: Noise

The following noise sources will occur during the envisioned life-of-mine:

- Drilling
- Blasting
- Loading and hauling of rock
- Product loading and delivery vehicle generated noise

Drilling, loading hauling, and vehicle noise will be limited primarily to the vicinity of the mine.

While blasting noise will have the most widespread impact the farmsteads are so far from the quarry (nearest farmstead at 2.4km to the north-west) that at most blasting will have a low startling effect. It is important to note that such blasting activities will occur only once/month and will be controlled in accordance with standard industry practices, namely:

- Avoid blasting under temperature inversion (mainly cold mornings)
- Avoid blasting under low cloud conditions
- Always try to blast at the same time of day so that it becomes expected by persons working in the veld
- Alerting of the surrounding land users (primarily the landowner) by way of notifications/ telephone / SMS.
- Warning signage to be erected along the P2936 and P2938 public roads.

11: Blast vibration and fly rock

Blast vibration - Due to the isolation of the site and the distance of the site from the nearest farm buildings (minimum 2.4km), there will be no impact as a result of blast vibration. However, be that as it may, continual blast monitoring will be put in place as is standard practice.

Fly rock - Fly rock is legally acknowledged as being a potential impact within a radius of up to 500m. While this operation will as such not impact on any surrounding land use or land user other than any lessee, his farm labour and livestock who may be in close proximity to the quarry at the time of blasting (which persons will by prescription of the EMP have been alerted in advance of such blast), **it may require the temporary closure of the P2936 gravel public road by flagmen for the 20-30 minute period prior to and during blasting.** It is again noted that such blasting is to occur only once/month.

7.0 Your involvement as an I&AP

This BID document serves to give the reader basic information on which the reader can decide whether or not they wish to register as an I&AP in the environmental process of this Application.

You are therefore hereby given the opportunity to:

- 1) gain an understanding of the project from the BID document and from telephonic enquiry to Site Plan Consulting on any matter of which you would seek further clarity
- 2) register as an I&AP, in order to remain informed during the further process of the Application.
- 3) give comment in writing on any matter you feel should receive specific attention or to raise any matter which you feel has not been identified in this initial documentation

In order to register as an I&AP and/or to provide comment on the BID, you are invited to submit your name, contact information, and interest in the matter, in writing, **to reach the address below as soon as possible but no later than 31 January 2013:**

Site Plan Consulting
PO Box 28
Strand
7139

Email: Jaques@siteplan.co.za

Fax: 021 854 4321

Tel: 021 854 4260

Contact persons: Steve van der westhuizen
Jaques van der Vyver

**Appendix B:
Farm and ownership details.**

Deeds Office Property

DIKDOORN, 535, 0 (REMAINING EXTENT) (CAPE TOWN)

GENERAL INFORMATION

Deeds Office CAPE TOWN
Date Requested 2013/01/07 14:01
Information Source DEEDS OFFICE
Reference -

PROPERTY INFORMATION

Property Type FARM
Farm Name DIKDOORN
Farm Number 535
Portion Number 0 (REMAINING EXTENT)
Local Authority NAMAQUALAND DC
Registration Division NAMAQUALAND RD
Province NORTHERN CAPE
Diagram Deed CLQ7-29/1844
Extent 3246.2863H
Previous Description -
LPI Code C05300000000053500000

OWNER INFORMATION

Owner 1 of 1
Person Type INDIVIDUAL
Name SCHREUDER PIETER ALBERTUS
ID Number 7009195255082
Title Deed T84176/2005
Registration Date 2005/10/19
Purchase Price (R) 950,000
Purchase Date 2005/06/06
Share
Microfilm Reference 2005 2500 0620
Multiple Properties NO
Multiple Owners NO

ENDORSEMENTS (1)

#	Document	Description	Institution	Amount (R)	Microfilm
1	FARM NA 535	-	-	UNKNOWN	1985 0055 1554

HISTORIC DOCUMENTS (2)

#	Document	Description	Owner	Amount (R)	Microfilm
1	B12425/1987	BOND	LANDBANK	UNKNOWN	2002 0284 4143
2	T5961/1979	TRANSFER	SCHREUDER FLORIS JOHANNES GERHARDUS	UNKNOWN	2005 2500 0616

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**Appendix C:
Correspondence with the landowner
and Adjacent landowners**



SITE PLAN CONSULTING

ENVIRONMENTAL GEOLOGY, ENVIRONMENTAL IMPACT, STRATEGIC MANAGEMENT, MINE PLANNING, GIS MANAGEMENT / TRAINING

Shop 5 Goedehoop Shopping Centre, Broadway Boulevard Strand, 7140
PO Box 28 Strand 7139 Tel: 021 - 854 4260 Fax: 021 - 854 4321

Ons Verw : #2672 (Dikdoorn)

8 Januarie 2012

Departement Mineraal Hulpbronne (DMH) Verw: NC(10105)MP

Aan: Pieter Albertus Schreuder

Plaas Dikdoorn 535 restant in die Namaqualand-Distrik

Tel: (027) 501 1004

Sel: 081 270 9660

e-pos:

Aandag: Mnr Schreuder

KENNISGEWING AAN U AS GROND-EIENAAR VAN 'N AANSOEK DEUR GROUP FIVE CIVIL ENGINEERING (PTY) LTD OM KLIP TE MYN OP U PLAAS: DIKDOORN 535 RESTANT IN DIE NAMAQUALAND-DISTRIK

Verder tot ons telefoniese gesprek van 9 Januarie 2013, en in ooreenstemming met voorskrifte van die Departement Mineraal-Hulpbronne (DMH) onder die Wet op Ontwikkeling van Mineraal- en Petroleumhulpbronne, Wet 28 van 2002 (Seksie 27(5)) gee Group Five Civil Engineering (Pty) Ltd, as Aansoekers om Mynbou, hiermee kennisgewing aan U as grond-eienaar dat hulle 'n aansoek ingedien het by die DMH om pad aggregaat te myn op 'n ± 1.49 ha groef-area van U grond, met addisionele area vir klipbreker en voorraadhope, soos getoon in die aangehegde "Algemeene Inligtings Dokument" ("Basic Information Document" - BID).

'n Voorteenwoordiger van Group Five sal binnekort met U ontmoet om die aansoek, mynbou metodes, en rehabilitasie voorskrifte met U te bespreek soos wat algemeen beskryf word in die BID-dokument en soos verder verfyn sal word met U insette in die hangende Omgewings-Bestuurs Plan (OBP/EMP).

'n Oppervlakte Huur-ooreenkoms sal ook tydens sodanige vergadering bespreek word en in plek gesit word voordat mynbou begin. Aspekte soos geen verblyf op die perseel, toegangsbeheer, beskerming van vee, ensovoorts sal deel maak van die Ooreenkoms.

Ten einde die voorskrifte van die Wet te bevredig (30-dae kennisstelling) sal dit wardeer word as U terugvoering in beginsel skriftelik kan bevestig (op die aangehegte bevestigings-vorm), geadresseer aan Site Plan Consulting, vir deurvoer na die DMH, dat U as grond-eienaar U goedkeuring gee met of sonder kommentaar of voorwaardes vir die Aansoek, of beswaar maak daarteen, in watter geval U, asseblief U motivering vir die besware moet verklaar in U terugvoering.

Verder moet daar binnekort aansoek om 'n tydelike grondgebruik afwyking in terme van die Grondgebruikswetgewing (Development Facilitation Act - DFA) by die Kamiesberg Munisipaliteit ingedien word en gevolglik vra ons ook in die aangehegte vorm vir U ondersteuning aan Group Five om aansoek namens U as Grondeienaar in te dien vir sodanige grondgebruiks afwyking.

Ons sien uit daarna om met U hierdie saak verder te bespreek aangaande goeie huishouding op die perseel en vergoeding deur die aansoeker.

Dit sal baie waardeer word indien ons enige terugvoering van U kan ontvang per faks of e-pos teen Maandag 31 Januarie 2012.

Die uwe,

S van der Westhuizen

Site Plan Consulting Vir Group Five Civil Engineering (Pty) Ltd

Aangeheg:

BID-Dokument

Bevestigings-vorm vir U voltooiing en terugsending aan Site Plan Consulting voor 31 Januarie 2012

SPC ref: 2672 (Dikdoorn)
DMR Ref : NC(10105)MP

To: **Group Five Civil Engineering (Pty) Ltd**
For: Department Mineral Resources and Kamiesberg Municipality

Re: **Current Applications for:**

- 1) **Mining Permit on Farm Dikdoorn 535 remainder in the Namaqualand Magisterial District by Group Five Civil Engineering (Pty) Ltd**
- 2) **Departure Application in terms of the Development Facilitation Act (DFA)**

COMMENT OF LANDOWNER IN RESPONSE TO SPC LETTER OF NOTIFICATION OF APPLICATION; LETTER DD 8 JANUARY 2013

As the landowner of Farm Dikdoorn 535 remainder it is hereby confirmed that I, Pieter Schreuder, have been consulted by Site Plan Consulting in the matter of the Mining Permit Application as described in the Basic Information Document (BID) (Dikdoorn Quarry) dated January 2013.

It is hereby confirmed that as landowner, I, Mr Pieter Schreuder:

- i) have no objection to the application for a Mining Permit nor to the granting of the Right to mine road aggregate in the designated area nor to the conducting of crushing and stockpiling in the areas shown.

I recognise that the minerals to be mined are the property of the State and that I as landowner have no right to royalty in that regard but I am in favour of entering a Surface Rental Agreement with yourselves as Applicant for use of the land for the period of intended mining.

But that I make the following comments:

Relocated the plant & stockpiling area.

And

- ii) I support the lodging of an Application for Temporary Land Use Departure in terms of the Development Facilitation Act.

OR

- iii) I object to this Mining Application on the following grounds:
-
-
-

Signed by/on behalf of Pieter Schreuder:

[Signature] PA. SCHREUDER 31 Jan 2013
 Name Signature Date

Please fax/email to:

Site Plan Consulting fax: 021 854 4321 email: Jaques@siteplan.co.za tel: 021 854 4260



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ENVIRONMENTAL GEOLOGY, ENVIRONMENTAL IMPACT, STRATEGIC MANAGEMENT, MINE PLANNING, GIS MANAGEMENT / TRAINING

Shop 5 Goedehoop Shopping Centre, Broadway Boulevard Strand, 7140
PO Box 28 Strand 7139 Tel: 021 - 854 4260 Fax: 021 - 854 4321

Ons Verw: #2672(Dikdoorn)
(DMR Ver:NC(10105)MP

8 Januarie 2013

Voorgestelde Klipgroef Mynbou Permit aansoek op Dikdoorn 535 Restant: Kennisgewing aan en versoek vir kommentaar vanaf aangrensende grond- eienaars

Aan: Mr Johannes Dreyer
Tel: 027 531 1003

Eienaar van die Plaas Dikdoorn 535 Gedeelte 1 in die Namaqualand Landdros-
Distrik.

1.0 Kennisgewing

Group Five Civil Engineering (Pty) Ltd gee hiermee kennis aan U as aangrensende grond-eienaar dat ons aansoek ingedien het by die Departement Mineraal Hulpbronne (DMH) Noord-Kaap om Klip (pad aggregaat) te myn op 'n 1.49Ha area van die Plaas Dikdoorn 535 Restant, soos voorgelê in the Algemene Informasie Dokument "Basic Information Document" (BID) (Dikdoorn Quarry) gedateer Januarie 2012.

Soos getoon in die aangehegde dokument, maak sodanige aansoek voorsiening vir 'n Mynbou Permit wat beperk is tot 'n maksimum area van 1.5Ha groef area (plus vergruisings en voorraadhoop area) en 'n twee-jaar leeftyd ("Life-of-mine"), verlengbaar tot 5 jaar.

Terselfdetyd word 'n aansoek by Kamiesberg Munisipaliteit ingedien vir 'n Tydelike Afwyking van grondgebruik in terme van die Grondgebruikswetgewing (Development Facilitation Act - DFA).

U word hiermee versoek om: óf U ondersteuning vir die projek op rekord te stel óf besware teen hierdie aansoek te stel en kortliks te motiveer in die plek hierna voorsien.

Blaai om asseblief

2.0 Terugvoering as aangrensende grond-eienaar

Ek bevestig hiermee dat ek,, as
eienaar/verteenwoordiger van die plaas hiermee:

Geen beswaar teen die mynpermit aansoek of die tydelike afwykings aansoek het nie en gevolglik aanvaar ek die aansoek sonder verder kommentaar mits daar binne die algemene handleiding van die BID document gewerk sal word;

My goedkeuring gee tot die Aansoeke maar met die volgende kommentaar:
.....
.....
.....

of

Beswaar maak tot die Aansoeke, op die volgende gronde:
.....
.....
.....
.....

Volle naam

Geteken

Datum

Faks/e-pos asseblief die voltooide vorm **voor 31 Januarie 2013** aan:

Jaques van der Vyver
Jaques@siteplan.co.za
Faks: 021 854 4321

Dit sal baie waardeer word.

Skakel asseblief vir Jaques of Steve te Site Plan Consulting op 021 854 4260 as U enige verdere verduidelikings benodig.

2.0 Terugvoering as aangrensende grond-eienaar

Ek bevestig hiermee dat ek, Johannes Dreyer, as
eienaar/verteenwoordiger van die plaas Dikdoorn hiermee:

Geen beswaar teen die mynpermit aansoek of die tydelike afwykings aansoek het nie en gevolglik aanvaar ek die aansoek sonder verder kommentaar mits daar binne die algemene handleiding van die BID document gewerk sal word;

My goedkeuring gee tot die Aansoeke maar met die volgende kommentaar:
.....
.....
.....

of

Beswaar maak tot die Aansoeke, op die volgende gronde:
.....
.....
.....

Johannes Dreyer
Volle naam

Dreyer
Geteken

19-1-2013
Datum

Faks/e-pos asseblief die voltooide vorm voor 31 Januarie 2013 aan:

Jaques van der Vyver
Jaques@siteplan.co.za
Faks: 021 854 4321

Dit sal baie waardeer word.

Skakel asseblief vir Jaques of Steve te Site Plan Consulting op 021 854 4260 as U enige verdere verduidelikings benodig.

jaques

From: Kevin Rudd <kevinr@mhp.co.za>
Sent: 10 January 2013 02:39 PM
To: jaques
Cc: Shaun Hornby
Subject: RE: SANRAL property; notification of Mining Application on neighbouring Farm

Hi Jaques,

Your e-mail below refers.

The responsible person in the Cape Town Regional Office is currently on leave, and will only be back in the office on the 18th Jan 2013. I will forward the documentation to her, but will also copy it to a colleague in the same office, who should be able to look into the matter for you.

Kind regards

KEVIN RUDD
Assistant Property Manager
For and on behalf of
The MANCO-AURECON JV

Tel: +27 31 940 1206
or 087 941 6876
Fax: +27 31 267 2603
Cell: +27 82 886 8811
Email: kevinr@mhp.co.za

manco aurecon

From: jaques [<mailto:jaques@siteplan.co.za>]
Sent: 10 January 2013 09:01 AM
To: Kevin Rudd
Cc: Shaun Hornby
Subject: RE: SANRAL property; notification of Mining Application on neighbouring Farm

Hello Kevin,

Thank you for your prompt response. Attached please find a cover letter as well as Background Information Document in regard to the project.

Please note that given the deadlines set by the DMR we will require any comments to reach us by no later than 31 January 2013.

Please feel free to contact either myself or Stephen van der Westhuizen should you have any queries.

Regards,
Jaques van der Vyver
Site Plan Consulting
Tel: 021 854 4260
Fax 021 854 4321

From: Kevin Rudd [<mailto:kevinr@mhp.co.za>]

Sent: 10 January 2013 08:00 AM

To: jaques; Shaun Hornby

Cc: Colene Runkel (WR)

Subject: RE: SANRAL property; notification of Mining Application on neighbouring Farm

Good Morning Jaques,

Your e-mail below refers.

Please continue sending the relevant documentation to Shaun and myself, as the Property Managers for SANRAL.

Once we have perused the documentation, we will send it to the relevant person in SANRAL for their comment.

Kind regards

KEVIN RUDD
Assistant Property Manager
For and on behalf of
The MANCO-AURECON JV

Tel: +27 31 940 1206

or 087 941 6876

Fax: +27 31 267 2603

Cell: +27 82 886 8811

Email: kevinr@mhp.co.za

manco aurecon

From: jaques [<mailto:jaques@siteplan.co.za>]

Sent: 08 January 2013 10:36 AM

To: Shaun Hornby; Kevin Rudd

Subject: SANRAL property; notification of Mining Application on neighbouring Farm

Good Morning Shaun/Kevin,

We are conducting a Mining Permit Application in the Namaqualand District of the Northern Cape on behalf of Group Five Civil Engineering (Pty) Ltd, on the Farm Dikdoorn 535 remainder, South of Garies, and as SANRAL is an Adjacent Landowner (being the owner of Farm 535 Portion 3, as per the attached deed information sheet), they are thus identified as an Interested and Affected Party to the Application.

As you are listed as contacts in regard to properties on the NRA website, please confirm that we may send you the relevant information so as to receive your comments on the Mining Application, or indicate who would be the commenting person in regard to such neighbouring activities.

Thank you and kind regards,

Jaques van der Vyver,

Site Plan Consulting

Tel: 021 854 4260

Fax 021 854 4321

Information from ESET NOD32 Antivirus, version of virus signature database 7870
(20130107)

The message was checked by ESET NOD32 Antivirus.

<http://www.eset.com>

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(20130109)

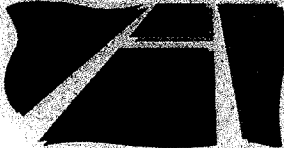
The message was checked by ESET NOD32 Antivirus.

<http://www.eset.com>

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Western Region
Parc du Cap, Building 5, cor. Mispel Street & Wille van Schoor Ave, Bellville, 7530
Private Bag x19, Bellville, South Africa, 7535
Tel +27 (0) 21 957 4600 Fax +27 (0) 21 946 1630
Head Office Tel +27 (0) 12 844 8000 Fax +27 (0) 12 844 8200
Offices in Cape Town, Pretoria, Pietermaritzburg, Port Elizabeth

Reference: W11/2/1 **Fax No:** +27 (0) 21 946 1630
Date: 17 January 2013 **Direct Line:** +27 (0) 21 957 4600
E-mail: runkelc@nra.co.za **Web site:** www.sanral.co.za

*Creating
wealth through
infrastructure*

Mr S van der Westhuizen
Site Plan Consulting
PO Box 28
STRAND
7139

Dear Mr van der Westhuizen

NATIONAL ROUTE 7 SECTION 6: NOTIFICATION OF AND REQUEST FOR COMMENT ON MINING PERMIT APPLICATION ON FARM DIKDOORN 535 REMAINDER IN THE NAMAQUALAND MAGISTERIAL DISTRICT.

Thank you for your notification to The South African National Roads Agency SOC Limited (SANRAL) dated 8 January 2013.

SANRAL requires a Traffic Impact Statement (TIS) to enable us to make an informed decision with regard to the intersection on the N7. If the total right turn volume of base case traffic and traffic generated by the mine exceed 30 vehicles per day, a right turn refuge lane and tapers will be required where the haul road intersects with the N7.

Appropriate warning signage will also be required at the intersection.

The TIS and signage proposals must be submitted to SANRAL for our consideration and approval.

Yours sincerely

MJ RUNKEL
STATUTORY CONTROL





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Shop 5 Goedehoop Shopping Centre, Broadway Boulevard Strand, 7140
PO Box 28 Strand 7139 Tel: 021 - 854 4260 Fax: 021 - 854 4321

Ons Verw: #2672(Dikdoorn)
(DMR Ver:NC(10105)MP

8 Januarie 2013

Voorgestelde Klipgroef Mynbou Permit aansoek op Dikdoorn 535 Restant: Kennisgewing aan en versoek vir kommentaar vanaf aangrensende grond- eienaars

Aan: Mr Johannes Nieuwoudt
Tel: 027 531 1001
Posbus 233
Garies,
8220

Eienaar van die Plaas Dikdoorn 535 Gedeelte 2 in die Namaqualand Landdros-
Distrik.

1.0 Kennisgewing

Group Five Civil Engineering (Pty) Ltd gee hiermee kennis aan U as aangrensende grond-eienaar dat ons aansoek ingedien het by die Departement Mineraal Hulpbronne (DMH) Noord-Kaap om Klip (pad aggregaat) te myn op 'n 1.49Ha area van die Plaas Dikdoorn 535 Restant, soos voorgelê in the Algemene Informasie Dokument "Basic Information Document" (BID) (Dikdoorn Quarry) gedateer Januarie 2012.

Soos getoon in die aangehegde dokument, maak sodanige aansoek voorsiening vir 'n Mynbou Permit wat beperk is tot 'n maksimum area van 1.5Ha groef area (plus vergruisings en voorraadhoop area) en 'n twee-jaar leeftyd ("Life-of-mine"), verlengbaar tot 5 jaar.

Terselfdetyd word 'n aansoek by Kamiesberg Munisipaliteit ingedien vir 'n Tydelike Afwyking van grondgebruik in terme van die Grondgebruikswetgewing (Development Facilitation Act - DFA).

U word hiermee versoek om: óf U ondersteuning vir die projek op rekord te stel óf besware teen hierdie aansoek te stel en kortliks te motiveer in die plek hierna voorsien.

Blaai om asseblief

2.0 Terugvoering as aangrensende grond-eienaar

Ek bevestig hiermee dat ek,, as
eienaar/verteenwoordiger van die plaas hiermee:

Geen beswaar teen die mynpermit aansoek of die tydelike afwykings aansoek het nie en gevolglik aanvaar ek die aansoek sonder verder kommentaar mits daar binne die algemene handleiding van die BID document gewerk sal word;

My goedkeuring gee tot die Aansoeke maar met die volgende kommentaar:

.....
.....
.....

of

Beswaar maak tot die Aansoeke, op die volgende gronde:

.....
.....
.....
.....

Volle naam

Geteken

Datum

Faks/e-pos asseblief die voltooide vorm **voor 31 Januarie 2013** aan:

Jaques van der Vyver
Jaques@siteplan.co.za
Faks: 021 854 4321

Dit sal baie waardeer word.

Skakel asseblief vir Jaques of Steve te Site Plan Consulting op 021 854 4260 as U enige verdere verduidelikings benodig.

**Appendix D:
Advertising of the project and feedback**

**KENNISGEWING VAN 'N AANSOEK OM MYNBOU
PERMIT TE GARIES-OMGEWING DEUR
GROUP FIVE CIVIL ENGINEERING (EDMS) BPK**

**VERSOEK OM KOMMENTAAR TE LEWER: Klipgroef
Mynbou op die Plaas Dikdoorn 535 Restant in die
Namaqualand Landdros Distrik: 18km Suid van Garies
op die P2938 pad**

Ingevolge Seksie 27(5) van die Wet op Mineraal en Petroleum Hulpbronne Ontwikkeling (Wet 28 van 2002), word U hiermee in kennis gestel dat aansoek om 'n Mynbou Permit deur Group Five Civil Engineering (Edms) Bpk by Department Mineraal-Hulpbronne Noordkaap gedoen is op die Plaas Dikdoorn 535 Restant. U word dus, indien relevant, hiermee uitgenooi om as geïnteresseerde of geaffekteerde party in die proses te registreer en/of kommentaar op die projek te lewer.

U word verder ingelig dat 'n Agtergrond Inligtings-dokument (BID) oor die beoogde Klipgroef-mynbou beskikbaar is vir U inligting by die Garies publieke biblioteek, 100 Genus Straat, Garies, en op ons website, www.siteplan.co.za.

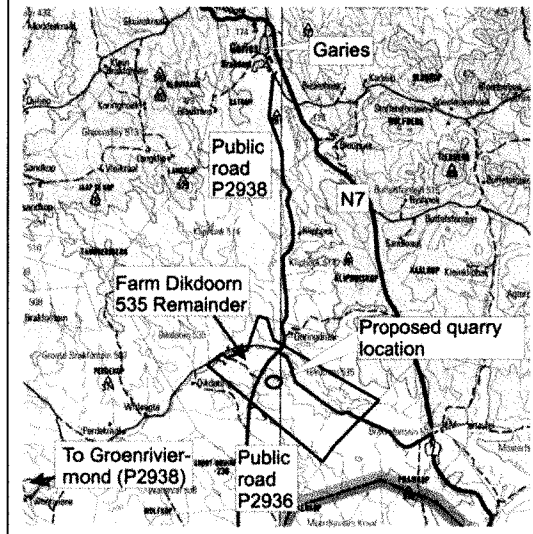
Om as 'n geïnteresseerde of geaffekteerde party te registreer, en/of kommentaar oor die projek te lewer, word U uitgenooi om U naam, kontakbesonderhede, en belang in die aangeleentheid of kommentaar oor die BID dokument skriftelik voor of op 31 Januarie 2013 te lewer aan die kontakadres hieronder:

Site Plan Consulting

Posbus 28 Strand 7139. Tel: (021) 854 4260. Fax:
(021) 854 4321. Epos: jaques@siteplan.co.za.

Kontakpersoon: Jaques van der Vyver

Slegs geregistreerde geïnteresseerde of geaffekteerde partye sal verder ingelig word en verdere dokumentasie ontvang. Verdere geleentheid vir kommentaar sal dus beskikbaar wees indien U registreer.



Appendix E:
Notification and comments from Identified I&AP's



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Shop 5 Goodhope Shopping Centre, Broeders Boulevard Strand, 7140
PO Box 28 Strand, 7139
Tel: 021 - 854 4260 Fax: 021 - 854 4321

8 January 2013

Attention: Ryan Oliver
Regional Land Claims Commission: Northern Cape and Free State
Fax: 053 831 6501
Tel: 053 807 5700

RE: enquiry as to the status of land claims

With regard to a Mining Permit Application currently being undertaken by Group Five Civil Engineering (Pty) Ltd, we request confirmation on whether there are any land claims on the following property:

- Farm Dikloorn 535 Remainder in the Namaqualand Administrative District.

Please contact me should there be any queries.

Thank you and regards,

Jaques van der Vyver
Site Plan Consulting
Tel: 021 854 4260
Fax: 021 854 4321

Site Plan Consulting CC (Reg No 1206400896/23)
MEMBERS: Jaques van der Vyver, TRP (SA), B.Sc (Geol), MTA/SP cum laude
Chris Daniels, MTA/SP, ND, Business Mine Management, MBA
CONSULTANTS: Nicola van der Westhuizen, TRP (SA), B. Agric, MTA/SP



**rural development
& land reform**

Department:
Rural Development & Land Reform
REPUBLIC OF SOUTH AFRICA

Regional Land Claims Commission: Free State and Northern Cape
4-8 Old Main Road, Hysco Arcade Building, KIMBERLEY 8300
P.O. Box 2458, KIMBERLEY, 8300
Tel: (053) 807 5700 Fax: (053) 831 6501

Reference: Ryan

Date: 21/01/2013

**APPLICANT: Site Plan Consulting
P. O. Box 28
Strand
7139
TEL: (021) 854 4260
FAX: (021) 854 4321**

ATT: Jaques van der Vyver

RE: LAND CLAIMS ENQUIRY[S]

PROPERTY[S] DESCRIPTION

- 1 Farm Dikdoorn No. 535 Remainder, Namaqualand District , Northern Cape Province.**

This communiqué serves to advise your company that according to our database there are no restitution claims lodged against the above-mentioned property[s] descriptions.

It should however be borne in mind that our database is continuously being updated, therefore this information may be subject to change and you will be informed accordingly.

Yours in service delivery

pp Hanjiso
Ms. Cindy Damons

Chief Director: Land Restitution Support-Northern Cape

Date: 22/01/2013

Appendix F:
Content of Environmental Awareness Training

ENVIRONMENTAL INDUCTION TRAINING

Dikdoorn Quarry:

February 2013

A. INTRODUCTION

Environmental management is a team effort. All management and staff are responsible for avoiding environmental damage and ensuring good environmental management.

The keys to achieving this are:

- Being aware of the environment and the need to protect it
- Understanding and recognising the things to protect and the do's and don'ts
- Knowing the reporting procedure
- Taking pride in good environmental housekeeping

Legal Requirements

- Requirement of the MPRDA
 - to have an EMP (EMPR) Environmental Management Plan (show the document, the approved EMP, to all staff in the induction and briefly note the items it covers)
- Additional laws
 - National Water Act
 - use of water
 - discharge of sewage
 - control of surface water
 - quality of stormwater discharged from site
 - avoidance of groundwater by oils, sewage or other
 - prevention of impact on groundwater aquifers
 - National Environment Management Act which will be made to apply if you do not work according to the EMP. *If you don't work according to the EMP the mine will be classified as non-conforming and may raise issues if / when applying for further mining rights or permits*

Targets:

- Understanding of what is contained in the EMP
- Buy-in by staff of the need for environmental protection (especially as it pertains to site rehabilitation and staying away from natural vegetation)
- Good results in Environmental Performance Assessment

Why do we need Environmental Management?

1. It is an integral part of normal good management (Good Housekeeping) on the prospect site together with
 - Safety
 - Efficiency (Productivity)
 - Planning (specific activities in specific areas)

2. The mining is part of the larger environment and may have an impact in terms of:
 - Visual impact from surrounding land-users
 - Dust generation
 - Noise

3. Any NO GO/fenced-off areas must be respected:
 - They are important to preserve sensitive areas (botanical or other)
 - Point these areas out to staff on the ground (i.e. not just from the EMP) as being all areas outside of the mining area.

4. Integration of the mining with surrounding land uses / users requires that the following be limited through proper action by the staff:
 - Lack of successful rehabilitation
 - Noise

5. **Who does the damage to the Environment?**
 - a) Management:**
 - (i) by not being fully informed themselves of the content of the EMP and other decisions/controls
 - (ii) by not informing the staff of proper procedure and the environmental consequences of incorrect activities
 - (iii) by not conducting regular monitoring
 - (iv) by not developing their own personal sensitivity to environmental impact

 - b) Equipment Operators:**
 - (i) by driving equipment or moving items like pipes or cables outside of demarcated roadways, movement areas.
 - (ii) by dumping material in veld (outside of demarcated areas)
 - (iii) by beginning to move material or dump other material before topsoil has been removed
 - (iv) By not reacting and not immediately reporting fuel, oil or hydraulic fluid leaks

 - c) General Staff:**
 - (i) Use of the veld as a toilet (NOT ALLOWED) (Acquaint staff with the facilities provided)
 - (ii) Littering with lunch wrappings, bottles (Acquaint staff with the procession of drums)
 - (iii) Short-cut walking paths through veld which we want to keep natural
 - (iv) Causing of fire or failure to report fire or threat of fire as soon as it is seen

6. **What the Staff should be aware of to look out for:**
 - Allocated storage or dump areas
 - Don't dump anywhere else!!
 - If in doubt ask first!!

 - No-go areas
 - Don't enter these areas and don't drive into them

 - Recognise NO GO areas and
 - Don't disturb them
 - Don't drive into them

- Don't walk through them
 - Don't use them as toilet areas
- Oil, fuel or hydraulic leaks
 - As soon as you see these, report them to the operator or the foreman/manager
 - Report littering
 - Recognise (know the difference between) domestic waste and industrial waste and use correct procedures for their disposal
 - Know the refuelling and oil change procedure if you are involved in it to know how to avoid pollution
 - Recognise the threat of fire
 - Immediately report any threat of fire or fire if seen
7. **Fire Reporting Procedure and Oil, Fuel, Hydraulic Leaks**
 If you see a fire/leak starting or threat of fire in the veld take the following action:
- Make safe what you are doing at the time
 - Leave your task and report the fire/leak to the nearest supervisor / manager
8. **Other non-urgent environmental incidents reporting procedure**
 These include littering, unnecessary damage to vegetation, etc. Report these at end of shift or lunch time to supervisor / manager
9. **Penalties for Environmental Damage**
- Fines
 - Conditions in employment contract