

DOORNEKRAAL MINE ON A PORTION OF PORTION 5 OF THE FARM DOORNEKRAAL NO 830, MALMESBURY, SWARTLAND DC, WESTERN CAPE PROVINCE

ENVIRONMENTAL AUDIT REPORT



DMR REFERENCE NUMBER:	WC30/5/1/3/2/10115MP
AUDIT PERIOD:	FEBRUARY 2021

PREPARED FOR:

Virtigo Properties 33 (Pty) Limited
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PREPARED BY:

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ENVIRONMENTAL PERFORMANCE ASSESSMENT DOORNEKRAAL

1. PROJECT SPECIFIC DETAIL

ITEM	MINING PERMIT HOLDER
Company Name	Virtigo Properties 33 (Pty) Limited
Contact Person	Mr. Jannie Burger
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ITEM	CONSULTANT DETAIL
Company Name	Greenmined Environmental
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Cell Number	079 979 8766
E-mail Address	murchellin.s@greenmined.co.za
Postal Address	Postnet Suite 62 Private Bag x15 Somerset West 7129
ITEM	LOCATION AND AREA INFORMATION
Site Name	Doornekraal
Property Description	Farm Doornekraal No 830
Location	The location is situated on a 4.9 ha area on a portion of portion 5 of the Farm Doornekraal No 830, Malmesbury, Swartland DC, Western Cape Province Approximately 10km south of Malmesbury.
Size of Mining Area	4.9 ha



ENVIRONMENTAL PERFORMANCE ASSESSMENT DOORNEKRAAL

TABLE OF CONTENTS

1. PROJECT SPECIFIC DETAIL.....	2
2. ENVIRONMENTAL AUDIT REPORT	4
PROJECT DETAIL.....	4
DETAIL OF AUDITOR.....	4
SCOPE & PURPOSE OF ENVIRONMENTAL AUDIT	5
ASSUMPTIONS, UNCERTAINTIES OR GAPS IN KNOWLEDGE	5
LOCATION	6
PROJECT DESCRIPTION	6
SITE CONDITIONS.....	6
REPORTABLE ENVIRONMENTAL INCIDENTS	7
ADOPTED METHODOLOGY	7
INSPECTION ASPECTS	8
COMMENTS OR COMPLAINTS RECEIVED FROM I&AP'S	14
AUDITING OF EA, EMPR AND REPORTING THEREOF	14
GENERAL REPORT	14
ECO SIGNATURE.....	16
PHOTOGRAPHS:.....	17

2. ENVIRONMENTAL AUDIT REPORT

PROJECT DETAIL

Right Number:	WC30/5/1/3/2/10115MP	Date of commencement:	26 February 2018
Site name:	Doornekraal	Inspection date:	26 February 2021
Right Holder:	Virtigo Properties Pty Ltd	Other authorisations:	Awaiting water authorisation
Report number:	30		

DETAIL OF AUDITOR

(APPENDIX 7 SUB-REGULATION 3(A) & (B)):

ECO:	Murchellin Saal
Expertise:	Mrs. MD Saal has 9 years of experience in environmental legal compliance audits, (GIS) geographic information system, mining right and permit applications and applications for environmental authorisations & Water use applications.
Declaration of independence:	<p>I Murchellin Saal declare that –</p> <ul style="list-style-type: none"> • I act as independent environmental control officer in this compliance audit; • I will perform the work relating to the audit in an objective manner, even if the results and findings are not favourable to the holder of the authorisation; • I have expertise in conducting environmental compliance audits, including knowledge of the Act and regulations that have relevance to the activity; • I will adhere to and comply with all responsibilities as indicated in the National Environmental Management Act and Environmental Impact Assessment Regulations. • I do not have and will not have any vested interest in the activity other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2014 (as amended 2017). <p align="center">  Signature of ECO </p> <p align="right">Date: 26 February 2021</p>



ENVIRONMENTAL PERFORMANCE ASSESSMENT DOORNEKRAAL

SCOPE & PURPOSE OF ENVIRONMENTAL AUDIT

(APPENDIX 7 SUB-REGULATION 3(C)):

This environmental audit report was compiled in terms of the requirements of the NEMA EIA Regulations, 2014 (as amended 2017).

OBJECTIVE:

The objective of the environmental performance assessment (EPA) is to evaluate compliance of the operational activities with the Environmental Management Programme Report (EMPR) and Environmental Authorisation as approved by the Department of Mineral Resources.

INSPECTED AREAS:

The inspection included an assessment of the mining footprint area.

ASSUMPTIONS, UNCERTAINTIES OR GAPS IN KNOWLEDGE

(APPENDIX 7 SUB-REGULATION 3(F)):

The assumptions made in this document, stem from specific information gathered during the site audit and background information gathered from the mining right holder. No uncertainties or gaps in knowledge could be identified that is applicable during this audit period.

ENVIRONMENTAL PERFORMANCE ASSESSMENT DOORNEKRAAL

LOCATION

Site location:	The location is situated on a 4.9 ha area on a portion of portion 5 of the Farm Doornekraal No 830, Malmesbury, Swartland DC, Western Cape Province Approximately 10km south of Malmesbury.	
Site map:		
Site coordinates:	A 33°33'40.53"S	18°43'45.01"E
	B 33°33'31.61"S	18°43'46.25"E
	C 33°33'32.78"S	18°43'54.09"E
	D 33°33'38.30"S	18°43'53.29"E

PROJECT DESCRIPTION

The project involves mining on an area previously used for agriculture. Virtigo Properties 33 (Pty) Limited holds a mining permit to mine 4.9 ha of a portion of portion 5 of the Farm Doornekraal No 830, Malmesbury, Western Cape Province. The procedure entails strip mining of the proposed footprint area with an excavator that will load the sand directly onto trucks transporting the sand from the site to the clients. The products are sold to civil, building constructions and local authorities on demand within the Western Cape.

SITE CONDITIONS

Warm weather conditions.

ENVIRONMENTAL PERFORMANCE ASSESSMENT DOORNEKRAAL

REPORTABLE ENVIRONMENTAL INCIDENTS

Incident date:	The site has a register in place in the event of incidents.
Incident no:	
Incident:	
How addressed:	
When addressed:	

ADOPTED METHODOLOGY *(APPENDIX 7 SUB-REGULATION 3(D)):*

COMPLIANCE SCORE	DESCRIPTION
1	Task not achieved
2	Task 20% achieved
3	Task 50% achieved
4	Task 80% achieved
5	Task 100% achieved in accordance with the EMP

NON-COMPLIANCE SCORE	DESCRIPTION
1	LOW – Mitigation not needed / mitigation measures to be maintained
2	MEDIUM – Mitigation should be considered
3	HIGH – Mitigation compulsory



ENVIRONMENTAL PERFORMANCE ASSESSMENT DOORNEKRAAL

INSPECTION ASPECTS

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
LEGISLATION COMPLIANCE:				
National Environmental Management Act, 1998 (Act No 107 of 1998) and the Environmental Impact Assessment Regulations, 2014 (as amended 2017)	5	-	Compliant	The competent authority deems the approved EMPR compatible with an Environmental Authorisation in terms of NEMA, 1998.
Copy of the EA and EMPR available on site	5	-	Compliant	Copy available in site file at the Doornekraal office.
Mineral and Petroleum Resources Development Act, 2002 (Act No 28 of 2002)	5	1	Partially Compliant	Open area will be rehabilitated as soon as stockpiles are sold. Screen to be removed from site.
Mining permit available on site	5	-	Compliant	Available at the office
Department of Water and Sanitation)Act 1998	5	3	Partially Compliant	Application submitted, awaiting feedback from DWS.
Mine Health and Safety Act , 1996 (Act no 29 of 1996)	5	-	Compliant	
Western Cape Land Use Planning Act, 2014 (Act No. 3 of 2014)	5	-	Compliant	Application Approved on 6 September 2018.
Swartland Municipality: Land Use Planning Bylaws, 2015 (No 264 of 2015) Swartland Municipal Spatial Development Framework	5	-	Compliant	The Swartland Municipality approved the application on the 18 th of December 2017.
Western Cape Provincial Spatial Development Framework	5	-	Compliant	
National Environmental Management: Air Quality Act, 2004 (Act No 39 of 2004)	5	-	Compliant	
ASPECTS OF THE AFFECTED ENVIRONMENT				
TOPSOIL AND OVERBURDEN MANAGEMENT (FBAR PG NO 73,74)				

ENVIRONMENTAL PERFORMANCE ASSESSMENT DOORNEKRAAL

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
Where applicable the first 300 mm of topsoil should be removed in strips and stored along the boundary of the Stockpiling area	5	-	Compliant	
Temporary topsoil stockpiles should be kept free of weeds.	5	4	-	Weeds to be removed from some stockpiles.
Topsoil stockpiles are to be placed on a levelled area and measures should be implemented to safeguard the piles from being washed away in the event of heavy rains/storm water.	5	-	Compliant	Stockpiles are within the approved mining area.
Topsoil removed at right angles to the slope	5	-	Compliant	
Topsoil storage (heaps not exceeding 1.5 m)	5	-	Compliant	
Should natural vegetation not establish on the heaps within 6 months of stockpiling it should be planted with an indigenous grass species.	5	-	Compliant	
Storm- and runoff water should be diverted around the topsoil stockpiles and access roads to prevent erosion.	5	-	Compliant	
All activities are within the approved boundaries	5	-	Compliant	
VEGETATION (EMPR – PG 2,10,16,9)				
No vegetation, alien species or other is dumped in areas with indigenous vegetation	5	-	Compliant	
Removal of invader or exotic plant species need to be done according to the weed and invader plant management plan.	5	-	Compliant	
Weed and invader plant management plan implemented	5	-	Compliant	
FAUNA (FBAR PG NO 109)				
All animals, birds and reptiles protected on site	5	-	Compliant	All animals, birds and reptiles protected on site
Operational areas daily inspected for signs of trapped animals	5	-	Compliant	Operational areas daily inspected for signs of trapped animals
AIR QUALITY AND NOISE				

ENVIRONMENTAL PERFORMANCE ASSESSMENT DOORNEKRAAL

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
Dust suppression implemented	5	-	Compliant	Dust suppression is implemented when needed.
Dust monitoring plan implemented	5	-	Compliant	Monthly dust monitoring is done, Thus far all results were within the allowance limits.
Dust monitoring equipment operational	5	-	Compliant	
Vehicles utilising the access road are adhering to the speed 40km/h limit	5	-	Compliant	The client has implemented a 20km/h speed restriction.
Employees and staff conducted themselves in an acceptable manner.	5	-	Compliant	
No load music permitted on site	5	-	Compliant	
All stockpiling vehicles must be equipped with silencers and maintained in a road worthy condition	5	-	Compliant	
ARCHAEOLOGICAL AND CULTURAL INTEREST				
Archaeological and/or cultural remnants protected.	5	-	Compliant	No archaeological or cultural remnants were discovered during the audit period.
SURFACE AND STORM WATER MANAGEMENT (FBAR PG NO.106,107)				
Storm water diverted around the stockpiled area and access roads to prevent erosion	5	-	Compliant	
Vehicle repairs contained to workshop, or drip trays used during emergency break downs	5	-	Compliant	
Damming of water at the mining area prevented.	5	-	Compliant	
VISUAL EXPOSURE				
Is the contractor implementing good visual and housekeeping standards	5	-	Compliant	The site was in a very good visual state.
MANAGEMENT OF FUEL AND HAZARDOUS CHEMICAL MANAGEMENT (FAR PG NO 184)				
Hazardous material stored in separate containers	5	-		The client does not have hazardous material, however the bins are put in place.
Hazardous waste stored in a sealed, non-leaking containers	5	-	Compliant	Three sealed, non-leaking containers are present on site.

ENVIRONMENTAL PERFORMANCE ASSESSMENT DOORNEKRAAL

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
All containers containing hazardous closed and store only in approved areas	5	-	Compliant	
Always put drip trays under vehicles and machinery	5	-	Compliant	No vehicles are serviced on site, but drip trays will be used should it be necessary.
WASTE MANAGEMENT (FBAR PG NO 71,107,110,184)				
Site free of day to day litter	5	-	Compliant	
Waste separated into labelled containers	5	-	Compliant	Three sealable bins are labelled and kept on site.
Non-biodegradable refuse such as glass bottles, plastic bags, metal scrap, etc, should be stored in a container with a closable lid.	5	-	Compliant	Three sealable bins are labelled and kept on site.
No waste stockpile area established outside the stockpiling site boundaries.	5	-	Compliant	All stockpiles are within the approved area.
Vehicle maintenance conducted within the service bay area.	5	-	Compliant	
POTABLE WATER AND ABLUTION FACILITIES				
Ablution facilities available on site more than 200m from a watercourse	5	-	Compliant	
Chemical toilets serviced regularly by an accredited waste handling contractor	5	-	Compliant	Proof of cleaning and invoicing kept on file.
FIRE MANAGEMENT				
Firefighting equipment available on site	5	-	Compliant	
No open fires at mining area allowed	5	-	Compliant	
MINE AND EQUIPMENT MANAGEMENT (EMPR PG NO 40,120,186)				
Mining will be done in daylight hours	5	-	Compliant	
Mining conducted within approved footprint area	5	-	Compliant	The mining takes place within the fenced an approved permit area.
Incident register maintained on site	5	-	Compliant	Register is kept on file, up to date no incidents were recorded.

ENVIRONMENTAL PERFORMANCE ASSESSMENT DOORNEKRAAL

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
Emergency preparedness plan and register implemented on site	5	-	Compliant	
ACCESS ROADS, VEHICLES AND TRANSPORTING OF MATERIAL (EMPR PG NO 138)				
Access road maintained	5	-	Compliant	
Storm water should be diverted around the access roads to prevent erosion	5	-	Compliant	
EMPLOYEE AND SAFETY MANAGEMENT: (EMPR PG NO 28,107)				
Access road maintained	5	-	Compliant	
Storm water should be diverted around the access roads to prevent erosion.	5	-	Compliant	
EMPLOYEE AND SAFETY MANAGEMENT				
Workers inducted and informed of EMPr conditions	5	-	Compliant	
Proof of training available	5	-	Compliant	Signatures of employees as proof of training kept in ECO file
No camping allowed on the mining area	5	-	Compliant	
Workers provided with PPE	5	-	Compliant	
Are there signs present, indicating the mining site and speed restrictions	5	-	Compliant	
Effective access control to prevent unauthorised entry.	5	-	Compliant	
Hauling routes clearly marked with appropriate signage.	5	-	Compliant	
Mining area fenced with 3 lockable gates	5	-	Compliant	



ENVIRONMENTAL PERFORMANCE ASSESSMENT DOORNEKRAAL



ENVIRONMENTAL PERFORMANCE ASSESSMENT DOORNEKRAAL

COMMENTS OR COMPLAINTS RECEIVED FROM I&AP'S

(APPENDIX 7 SUB-REGULATION 3(G) & (J)):

No written environmental related complaints were received during the audit period from December to February 2021.

AUDITING OF EA, EMPR AND REPORTING THEREOF

(REGULATION 34):

Date of previous EAR/EPA:	The previous EPA was submitted to DMRE on June 2020.
Proof of submission to DMR available:	DMRE acknowledged receipt of the last EAR/EPA.
EAR/EPA compiled by independent person with environmental auditing expertise:	The EAR was compiled by Mrs. Sonette Smit from Greenmined Environmental. The EPA was compiled by Mrs. Murchellin Saal from Greenmined Environmental.
Potential and registered I&AP's	This report can be viewed on website, www.greenmined.com

GENERAL REPORT

Compliance of the mining site with the EMP approved by DMR was reviewed during the site assessment. The Mining area recorded a compliance score of 96% for the month of February 2021.

No inspection was conducted in January 2021.

An Environmental Authorisation was obtained on the 6th of July 2017. The Mining Permit is dated 21 August 2017. First inspection was conducted on the 27th of June 2018.

The Swartland Municipality approved the zoning application on the condition that the client must adhere to other applicable legislations. The Department of Environmental Affairs and Development Planning approved the Land Use Application on 6 September 2018.

All mining activities and infrastructure are taking place within the permit boundary area.

DWS required a 2nd opinion from the internal groundwater specialist. Another presentation meeting is scheduled on the 15th of November 2019. Awaiting feedback from the Department of Water and Sanitation. Application has been with the Department of Water and Sanitation since 2018. Greenmined has requested the application to be escalated. Warren Dreyer telephonically confirmed that the application will be escalated on Monday the 29th of June 2020. Proof of escalation email is available at Greenmined. The groundwater specialist confirmed he will give his input before end of 2020. Ground water specialist send comments to official in December, application in final process. On the 19th of February the official Sbonelo Ndlovu confirmed that the he is busy preparing for a presentation of application.

Management of Dust Generation:

ENVIRONMENTAL PERFORMANCE ASSESSMENT DOORNEKRAAL

The fallout dust monitoring was implemented on the 27th of June 2018, Monitoring results has thus far proved that dust emissions are within the guidelines. This site has a monthly dust monitoring cycle that is changed on the same date as ECO inspection. No change was done in January 2021. Buckets were installed in December and removed on 26 February,

Waste Management:

The client has placed three sealable refuge bins on site. For hazardous waste, general waste and Non-biodegradable waste. Up to date no hazardous waste was generated on site. A register must be kept on site with proof of waste removals. ***An oil spill kit must be kept on site.***

Access roads:

Vehicles utilising the access road must restrict speed to 40km/h. The client implemented a 20km/h restriction.

These restrictions were erected and placed in all the areas which are highly visible.

Hauling routes for construction vehicles and machinery is clearly marked and appropriate signalling was posted.

Employee and Safety Management:

Workers were inducted and informed of EMP conditions. All workers signed as confirmation of understanding the induction. Appropriate notification signage was erected at the mining site. This gives a clear warning to the public about the hazard around the mining site and presence of heavy vehicles and machinery.

DOCUMENT CHECKLIST:

- | | |
|--|---|
| • Environmental Authorisation | - Present |
| • Mining Permit | - Present |
| • Environmental Management Plan | - Present |
| • Confirmation of Contractors | - Present |
| • Awareness of EA Conditions | - Present |
| • Environmental Induction and Awareness Training | - Present |
| • Letter of Enactment to DMR | - Present |
| • Alien Vegetation Control Programme | - Present |
| • Dust Monitoring Plan | - Present |
| • Emergency Preparedness Plan | - Present |
| • Complaints Register | - Present |
| • Waste Registers | - Present |
| • Reporting of Environmental Incidents | - Present |
| • Incidents and Accidents Register | - Present |
| • Environmental Audit Report | - Present |
| • Water authorisation | - Not Present (Application submitted, Delay at DWS-Communication proof available at Greenmined Environmental) |

ENVIRONMENTAL PERFORMANCE ASSESSMENT DOORNEKRAAL

MATTERS TO BE ADDRESSED ON SITE:

1. Remove the weeds that is currently visible on some of the stockpiles.
2. Stop screening activities
3. Rehabilitate open mining area.

**ABILITY OF EMPR TO ADEQUATELY MANAGE OR MITIGATE ENVIRONMENTAL IMPACTS
(APPENDIX 7 SUB-REGULATION 3(E)):**

It is believed that the EMPR currently adequately manage and/or mitigate environmental impacts at mining area. However, should the client wish to continue with screening they are advised to amend existing EMPR.

NEED FOR AMENDMENT OF THE EMPR:

The client has ignored the instruction to remove the screen several times and therefore an Amendment is required.

FINANCIAL PROVISION:

The previous calculations were undertaken by Greenmined Environmental (Pty) Ltd in 2019 and the financial provision value for the rehabilitation of the mining area was in the sum of R379 997.16. The permit holder has a bank guarantee to the value of R 380 000 with the DMRE.

The financial provision to be provided to the Department of Mineral Resources and Energy by Virtigo Properties 33 (Pty) Ltd to cover the financial provision amount for 2020 was calculated to be R424 143.17. The 2020 financial provision exceed the value of financial guarantee in place at the DMRE, and upon departmental approval, the permit holder may have to provide a shortfall of R 44 143.17.

The permit holder has a bank guarantee to the value of R 380 000 with the DMRE

ECO SIGNATURE

NAME:	SIGNATURE:	DATE:
Murchellin Saal		26 February 2021

ENVIRONMENTAL PERFORMANCE ASSESSMENT DOORNEKRAAL

PHOTOGRAPHS:

ENTRANCE TO THE FARM DOORNEKRAAL



MINING PERMIT AREA





SCREENING TO BE REMOVED – DOES NOT FORM PART OF THE APPROVED ENVIRONMENTAL AUTHORITY



TWO REHABILITATED AREAS



CURRENT OPEN AREAS TO BE REHABILITATED ONCE ALL THE MATERIAL IS SOLD. NO EXCAVATION WILL BE DONE UNTILL THIS SECTION IS REHABILITATED.



STOCKPILE AREAS



TOILET



WASTE CONTAINER BINS



STAFF EATING/BREAK AREA



MINING SIGNAGES



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PROOF OF TOILET CLEANING



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Reg. No. 2014/001391/07 VAT No. 4360240040

CUST No. VIR001	- CASH	TAX INVOICE	00130204						
VIRTIGO PROP 33 PTY LTD-CC P O BOX 536 WELLINGTON 7854		Site DOORNEKRAAL PLAAS R302 MALMESBURY-JANNIE BURGER 0824534345/LEJANDI BURGER 0825524087							
Date 2020-05-31 Client Ref Client Vat No. 4650220149	Our Ref 00012741 Rep ZG Fax								
Code	Description	From	To	Period	Qty	Unit	Price	Disc	Total
BT501196	AFLAK INCLUDING WEEKLY SERVICE	2020-06-01	2020-08-30	1.00	1.00	MONTH	793.48		793.48
Name : _____ Sign : _____ Paid In Full : NO									
 Bank Details Bank : NEDBANK Branch : INLAND GARDEN 198785 Account No. : 1285001221							Sub Total	793.48	
							VAT	15%	114.52
							Total	908.00	

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DUST MONITORING



UNIT 1



UNIT 2



UNIT 3



UNIT 4