

# MINING OF AGGREGATE ON PORTION 18 (PORTION 2) OF THE FARM LOUTERBRONNEN 250, THEUNISSEN DISTRICT FREE STATE PROVINCE

## ENVIRONMENTAL PERFORMANCE ASSESSMENT / ENVIRONMENTAL AUDIT REPORT



<b>DMR REFERENCE NUMBER:</b>	<b>FS 30/5/1/2/2/10040 MR</b>
<b>AUDIT PERIOD:</b>	<b>May 2023 – May 2024</b>

**PREPARED FOR:**

Vengablox (Pty) Ltd  
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**PREPARED BY:**

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**ANNUAL ENVIRONMENTAL PERFORMANCE ASSESSMENT  
LOUTERBRONNEN AGGREGATE QUARRY**

**1. PROJECT SPECIFIC DETAIL**

ITEM	MINING RIGHT/PERMIT HOLDER
<b>Company Name</b>	Vengablox (Pty) Ltd
<b>Contact Person</b>	Mr. M. du Plessis
<b>Tel Number</b>	N/A
<b>Cell Number</b>	083 410 8286
<b>Postal Address</b>	PO Box 202, Theunissen, 9410
ITEM	AUTHOR CONSULTANT DETAIL
<b>Company Name</b>	Greenmined Environmental (Pty) Ltd
<b>Contact Person</b>	Christine Fouche
<b>Cell Number</b>	082 811 8514
<b>E-mail Address</b>	<a href="mailto:Christine.f@greenmined.co.za">Christine.f@greenmined.co.za</a>
<b>Postal Address</b>	Postnet Suite 62 Private Bag x15 Somerset West 7129
ITEM	LOCATION AND AREA INFORMATION
<b>Site Name</b>	Louterbronnen Aggregate Quarry
<b>Property Description</b>	Farm Name: Portion 18 (Portion 2) of the farm Louterbronnen 250 21 Digit Surveyor General Code: F03300000000025000018
<b>Location</b>	±2 km south-east of Theunissen
<b>Size of Mining Area</b>	17.9 ha
<b>Site Coordinates:</b>	A. 28°24'44.18" S; 26°43'37.23" E
	B. 28°24'46.62" S; 26°43'32.64" E
	C. 28°24'49.91" S; 26°43'31.86" E
	D. 28°25'04.37" S; 26°43'39.34" E
	E. 28°24'57.48" S; 26°43'53.11" E



# ANNUAL ENVIRONMENTAL PERFORMANCE ASSESSMENT LOUTERBRONNEN AGGREGATE QUARRY

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**2. ENVIRONMENTAL AUDIT REPORT**

**PROJECT DETAIL**

<b>Permit / Right Number:</b>	FS 30/5/1/2/2/10040 MR	<b>Date of Commencement:</b>	15 May 2019
<b>Site Name:</b>	Louterbronnen Quarry	<b>Inspection Date:</b>	28 May 2024
<b>Permit / Right Holder:</b>	Vengablox (Pty) Ltd	<b>Other Authorisations:</b>	General Authorisation: 27/2/1/C741/13
<b>Report Number:</b>	EPA 05		

**DETAIL OF AUDITOR**

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

<b>ECO:</b>	Christine Fouché
<b>EXPERTISE:</b>	Ms Fouche has a Diploma in Nature Conservation and a BSc in Botany and Zoology with eighteen years experience in doing environmental impact assessments and compliance monitoring in South Africa.
<b>DECLARATION OF INDEPENDENCE:</b>	<p>I Christine Fouché declare that –</p> <ul style="list-style-type: none"> <li>• I act as independent environmental control officer in this compliance audit;</li> <li>• 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;</li> <li>• I have expertise in conducting environmental compliance audits, including knowledge of the Act and regulations that have relevance to the activity;</li> <li>• I will adhere to and comply with all responsibilities as indicated in the National Environmental Management Act and Environmental Impact Assessment Regulations.</li> <li>• 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.</li> </ul> <p align="center">   Signature of ECO <span style="float: right;">Date: 14 June 2024</span> </p>

## ANNUAL ENVIRONMENTAL PERFORMANCE ASSESSMENT LOUTERBRONNEN AGGREGATE QUARRY

### SCOPE & PURPOSE OF ENVIRONMENTAL AUDIT

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

This environmental performance assessment (EPA) / environmental audit report (hereafter referred to as the EPA) was compiled in terms of the requirements of the NEMA EIA Regulations, 2014, (as amended).

#### **OBJECTIVE:**

The objective of the EPA is to evaluate compliance of the operational activities with the environmental management programme (EMPR) and Environmental Authorisation as approved by the DMRE.

#### **INSPECTED AREAS:**

The inspection included an assessment of the following areas:

- Office and parking area;
- Workshop and wash bay;
- Diesel tank, and chemical storage area;
- Washing and screening plant area;
- Settlement pond for processing water;
- Quarry pit;
- Overburden and topsoil dumps;
- Stockpile area; and
- General working areas;

In order to establish the environmental compliance assessment of the operation, the mining site was inspected on foot by the Environmental Control Officer, Christine Fouche of Greenmined Environmental accompanied by site management.


### **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 site management.

## ANNUAL ENVIRONMENTAL PERFORMANCE ASSESSMENT LOUTERBRONNEN AGGREGATE QUARRY

### LOCATION

<b>Site Location:</b>	The mine is located ±2 km south-east of Theunissen. The mining footprint was approved over the entire extent of Portion 18 (Portion 2) of the farm Louterbronnen 250. The GPS coordinates to the entrance of the site are 28°24'44.17"S; 26°43'37.76"E.	
<b>Site Map:</b>		
<b>Site Coordinates:</b>	28°24'44.18" S	S 26°43'37.23" E
	28°24'46.62" S	S 26°43'32.64" E
	28°24'49.91" S	S 26°43'31.86" E
	28°25'04.37" S	S 26°43'39.34" E
	28°24'57.48" S	S 26°43'53.11" E

### PROJECT DESCRIPTION

The right holder mines the quarry for dolerite by blasting, using explosives in order to loosen the hard rock. The material is then loaded and hauled to the existing crushing, screening and washing plants where it is processed into different sized dolerite. The dolerite is stockpiled where after it is transported to clients using trucks and trailers via the existing access roads linking the farm to the R708. All activities are contained within the boundaries of the site.

### SITE CONDITIONS

Sunny windless day with dry soil conditions.

**ANNUAL ENVIRONMENTAL PERFORMANCE ASSESSMENT  
LOUTERBRONNEN AGGREGATE QUARRY**

**REPORTABLE ENVIRONMENTAL INCIDENTS**

<b>Incident Date:</b>	N/A
<b>Incident No:</b>	N/A
<b>Incident:</b>	No environmental incidents at this stage
<b>How addressed:</b>	N/A
<b>When addressed:</b>	N/A

**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	<b>LOW</b> – Mitigation not needed / mitigation measures to be maintained
2	<b>MEDIUM</b> – Mitigation should be considered
3	<b>HIGH</b> – Mitigation compulsory

**ENVIRONMENTAL PERFORMANCE ASSESSMENT  
LOUTERBRONNEN AGGREGATE QUARRY**

**INSPECTION ASPECTS**

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
<b>LEGISLATION COMPLIANCE:</b>				
National Environmental Management Act, 1998 (Act No 107 of 1998) and the Environmental Impact Assessment Regulations, 2014	5	-	Compliant	-
Copy of the EA and EMPR available on site	5	-	Compliant	-
Mineral and Petroleum Resources Development Act, 2002 (Act No 28 of 2002)	5	-	Compliant	-
Mining right available on site	5	-	Compliant	-
Mine plan annually reviewed	5	-	Compliant	-
National Environmental Management: Waste Act, 2008 (Act No 59 of 2008)	5	-	Compliant	-
National Water Act, 1998 (Act 36 of 1998)	5	-	Compliant	-
GA Authorisation on site	5	-	Compliant	-
National Environmental Management: Biodiversity Act, 2004 (Act No 10 of 2004) (NEM:BA)	5	-	Ongoing	Site management continuously remove the problem plants that germinate on site.
Hazardous Substances Act, 1973 (Act 15 of 1973)	5	-	Compliant	-
National Heritage Resources Act, 1999 (Act No 25 of 1999)	5	-	Compliant	The heritage site is fenced and protected from impacts.
Mine Works Programme	5	-	Compliant	-
Social Labour Plan	5	-	Compliant	-
Copies of Financial Provision Calculation (2023) and Annual Performance Audit (2023) present	5	-	Compliant	-
Waste register and Permits for waste removal	4	3	To be addressed	The waste manifest of Oilkol is available on site, but the latest proof of safe disposal from HazQuip must be obtained and filed.
Complaints Register Present	5	-	Compliant	-
Environmental Awareness training	5	-	Compliant	-
<b>ASPECTS OF THE AFFECTED ENVIRONMENT</b>				
<b>Topsoil: Overburden Management (EMP PG: 55, 97, 100)</b>				
Topsoil stripping	N/A	-	-	No topsoil was stripped during the audit period.
Topsoil storage (heaps not exceeding 1.5 m)	5	-	Compliant	-



## ENVIRONMENTAL PERFORMANCE ASSESSMENT LOUTERBRONNEN AGGREGATE QUARRY

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
Topsoil heaps that are stored for longer than 6 months: Naturally or artificially vegetated with, indigenous grass species.	5	-	Compliant	-
Overburden stripped & stockpiled	5	-	Compliant	-
Stockpiles monitored for erosion, weeds and foreign matter	5	-	Ongoing	Problem plants are continuously removed from the stockpiles and work areas.
Topsoil returned to rehabilitated area	N/A	-	-	No rehabilitation occurred during the audit period.
<b>Vegetation (EMP PG: 57, 100, 103)</b>				
Protected plants (if any) sheltered from mining activities	N/A	-	-	No protected, endangered or declining species have been recorded within the mining area.
Removal of vegetation limited to smallest possible area	5	-	Compliant	-
Aliens & weeds controlled on site	5	-	Ongoing	-
<b>Fauna (EMP PG: 58, 59, 103):</b>				
All animals, birds and reptiles protected on site.	5	-	Compliant	-
<b>Air Quality and Noise (EMP PG: 56, 98, 99):</b>				
Dust monitoring plan implemented	5	-	Compliant	-
Dust suppression implemented	5	-	Compliant	Water sprayers were added to the jaw, cone and section 3 of the processing plant. The site also has a water truck that sprays the denuded areas.
Speed on access road limited to 40 km/h	5	-	Compliant	This appeared to be true at the time of the inspection.
Dust monitoring equipment operational	5	-	Compliant	-
Mining equipment serviced regularly to ensure noise emissions are minimized	5	-	Compliant	-
Noise control	5	-	Compliant	The noise exposure of the employees are monitored by EEC.
Blasting vibration and blast noise monitoring implemented on site	5	-	Compliant	All blasting related documents are present on site.
I&AP and stakeholders informed prior to a blast.	5	-	Compliant	The proof of blasting notifications are available on site.
<b>Surface and Storm Water Management (EMP PG: 57, 101):</b>				
Storm water Management Plan implemented on site	5	-	Compliant	-
Storm water diverted around the mining area and access roads to prevent erosion	5	-	Compliant	Where possible.

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DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
Mining conducted in accordance with the Best Practice Guidelines for small scale mining	5	-	Compliant	At the time of the inspection this appeared to be true.
Areas with erosion reinstated	N/A	-	-	No areas of concern were noted on site.
<b>Visual Exposure (EMP PG: 55, 97, 55):</b>				
Is the contractor implementing good visual and housekeeping standards	5	-	Compliant	The housekeeping was to standard at the time of the inspection.
Height of product stockpiles determined based on the visibility of the site	5	-	Compliant	-
<b>Hazardous Chemical Management (EMP PG: 58, 102, 103):</b>				
Hazardous material stored within a bunded area (110% capacity)	5	-	Compliant	-
Regular vehicle management is done at the workshop	5	-	Compliant	-
Drip trays present when refuelling is done outside the service bay	5	-	Compliant	-
Mining equipment mechanically sound without visible oil leaks	5	-	Compliant	This appeared true at the time of the inspection.
Hazardous spills cleaned up, stored and disposed of according to the acceptable procedures and methods	5	-	Compliant	-
Hazardous waste removed by a registered waste handling contractor	5	-	Compliant	Oilkol (Pty) Ltd collects the used oil from the site, and HazQuip (Pty) Ltd collects the remaining hazardous waste.
<b>Waste Management (EMP PG: 58, 102):</b>				
Site free of day-to-day litter	5	-	Compliant	-
Suitable covered receptacles available at all times and conveniently placed for the disposal of waste	5	-	Compliant	-
General waste dumped at a recognised landfill site	5	-	Compliant	Records are available on site.
No waste stockpile area allowed outside the boundaries of the mining area	5	-	Compliant	-
Proper sanitation facilities available to employees	5	-	Compliant	-
<b>Potable Water and Ablution Facilities</b>				
Ablution facilities available on site more than 200 m from a watercourse	5	-	Compliant	-
Potable water available on site for use of workers	5	-	Compliant	-

**ENVIRONMENTAL PERFORMANCE ASSESSMENT  
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DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
Effluent water from the camp washing facility disposed of in a French drain, situated more than 200 m from a watercourse	N/A	-	-	-
<b>Fire Management</b>				
Firefighting equipment available on-site	5	-	Compliant	-
No open fires at mining site allowed	5	-	Compliant	-
<b>Mine and Equipment Management</b>				
Mining area demarcated with visible beacons	5	-	Compliant	The mining area is fenced.
Mining conducted within approved footprint area	5	-	Compliant	-
Unnecessary surface disturbance avoided	5	-	Compliant	-
<b>Access Roads, Vehicle and Transporting of Material (EMP PG: 59, 104, 105):</b>				
Access road maintained	5	-	Compliant	-
Movement of project related vehicles and machinery restricted to the approved mining area	5	-	Compliant	-
All trucks weighed before leaving the site in order to prevent overloading	5	-	Compliant	-
Speed limits enforced within the mining area	5	-	Compliant	-
Weighbridge slips filled on-site and are available for auditing	5	-	Compliant	-
<b>Employee and Safety Management (EMP PG: 59, 104):</b>				
Workers inducted and informed of EMP conditions	5	-	Compliant	The employees of the contractor that erected the warehouse roof were inducted prior to commencement.
Workers provided with PPE	5	-	Compliant	-
Appropriate notification signage erected at the mining site, warning the public about the hazard around the mining site & presence of heavy vehicles within the mining area.	5	-	Compliant	-
Weatherproof, durable, legible notices displayed at the entrance to the site.	5	-	Compliant	-
Effective access control to prevent unauthorised entry.	5	-	Compliant	-
Surrounding land users informed of blasting events	5	-	Compliant	-



## ENVIRONMENTAL PERFORMANCE ASSESSMENT LOUTERBRONNEN AGGREGATE QUARRY

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
Audible warning of a pending blast must be given at least 3 minutes in advance of the blast	5	-	Compliant	-
Measures implemented to limit fly rock	5	-	Compliant	-
Fly rock that falls beyond the working area collected and removed	5	-	Compliant	-

**ENVIRONMENTAL PERFORMANCE ASSESSMENT  
LOUTERBRONNEN AGGREGATE QUARRY**

**COMMENTS OR COMPLAINTS RECEIVED FROM I&AP' S**  
**(APPENDIX 7 SUB-REGULATION 3(G) & (J)):**

No written complaints were received during the audit period.

**AUDITING OF EMP AND REPORTING THEREOF**  
**(REGULATION 34):**

<b>Date of previous EAR/EPA:</b>	May 2023
<b>Proof of submission of previous EAR/EPA to DMRE available:</b>	The previous EPA was submitted to the DMRE on 13 June 2024.
<b>EAR/EPA compiled by independent person with environmental auditing expertise:</b>	Greenmined Environmental (Pty) Ltd compiled the EPA.
<b>Potential and registered I&amp;AP's notified within 7 days of the submission date, and report available on publicly accessible website</b>	No registered I&AP's exist that needs to be notified of the document. The EPA is however available on the Greenmined website that is a publicly accessible website.

**GENERAL REPORT**

Compliance of the mining site with the EMPR and EA approved by DMRE was reviewed during the site assessment. The mining area recorded a compliance score of 99% for the audit period.

The overall appearance of the site is neat and managed to standard. As mentioned earlier, the hazardous waste is removed from site by HazQuip. Oilkol collects the used oil from site, and the general waste is dumped at the municipal landfill site. HazQuip needs to provide the site with the latest proof of safe disposal that must be filed for auditing purposes.

During the audit period the site further improved the oil sump (of the wash bay) through the addition of a concrete apron around the sump. The flow bins were moved to the concrete lining that is sloped so any water falling on the lining flows back into the sump.

The traffic arrangements of the mine was changed to a one-way system where trucks enter the mine at a lower gate, get loaded at the stockpile area and then pass over the weighbridge before leaving the site through the main entrance.

The Category 1b (in terms of the Alien and Invasive Species List, 2016) weeds and/or invader plants are continuously removed from site.

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A warehouse roof was constructed adjacent to the visitors parking of the mine. Solar panels were added to this roof as well as the roof of the wash bay to augment the electricity supply of the mine. The wood of the trees removed from and behind the parking area (construction site) were donated to the community.

HazQuip trained the site employees in the use of the oil spill kit and awarded the attendees with certificates. The employees of the contractor (building the warehouse) were also inducted prior to commencement.

**DOCUMENT CHECKLIST:**

<u>RELEVANT DOCUMENTATION</u>	<u>PRESENT ON SITE</u>	<u>COMMENTS</u>
Mining right	Yes	-
Mine works programme	Yes	-
Social and labour plan	Yes	-
Approved EMPR	Yes	-
EA	Yes	-
Regulation 42 Mine Plan (annually updated)	Yes	-
Financial Provision Calculation (2023)	Yes	-
EPA (2023)	Yes	-
General Authorisation	Yes	-
Waste register and Permits for waste removal	Yes	-
Incidents register	Yes	-
Complaints register	Yes	-
Proof of environmental awareness training	Yes	-
MSDS's for chemicals	Yes	-
Written notice to neighbours of each blasting event	Yes	-
Appointment of an on-site ECO	Yes	-
Emergency Preparedness Plan	Yes	-
Invasive plant species plan (part of the EIAR and EMPr – appendix J)	Yes	-

**MATTERS TO BE ADDRESSED:**

HazQuip must provide the site with proof of safe disposal of the hazardous waste after each collection.

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

The approved EMPR and EA of the mine adequately manage/mitigate the environmental impacts on site, and no need was identified to amend the said documents.

**FINANCIAL PROVISION:**

This EPA is accompanied by the annual review of the financial provision amount for the rehabilitation of the mining area. The right holder has a financial guarantee of R 1 069 891.00 lodged with the DMRE. The 2024 financial provision required to rehabilitate the mining area in accordance with the Guideline Document for the Evaluation of the Quantum of Closure-related Financial Provision by a Mine and as prescribed in terms of Regulation 54 (1) is R 1 020 068.99. The 2024 financial provision does not exceed the value of rehabilitation amount in place at the DMRE, and the right holder therefore does not have to provide a shortfall.

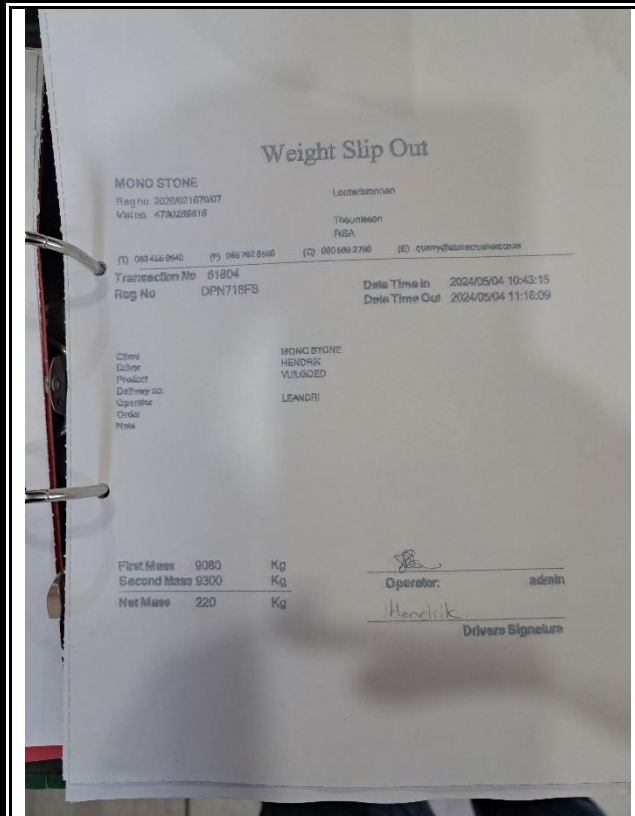
**ENVIRONMENTAL PERFORMANCE ASSESSMENT  
LOUTERBRONNEN AGGREGATE QUARRY**

**ECO SIGNATURE**

NAME:	SIGNATURE:	DATE:
Christine Fouche		14 June 2024

**PHOTOGRAPHS**

**PROOF OF DOCUMENTATION**



**Proof of general waste removal**

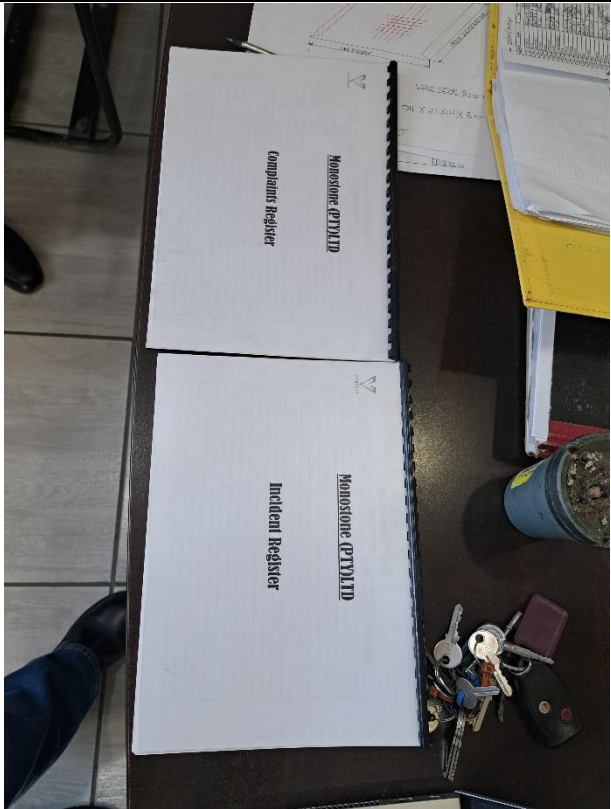


**2024 Mine plan**

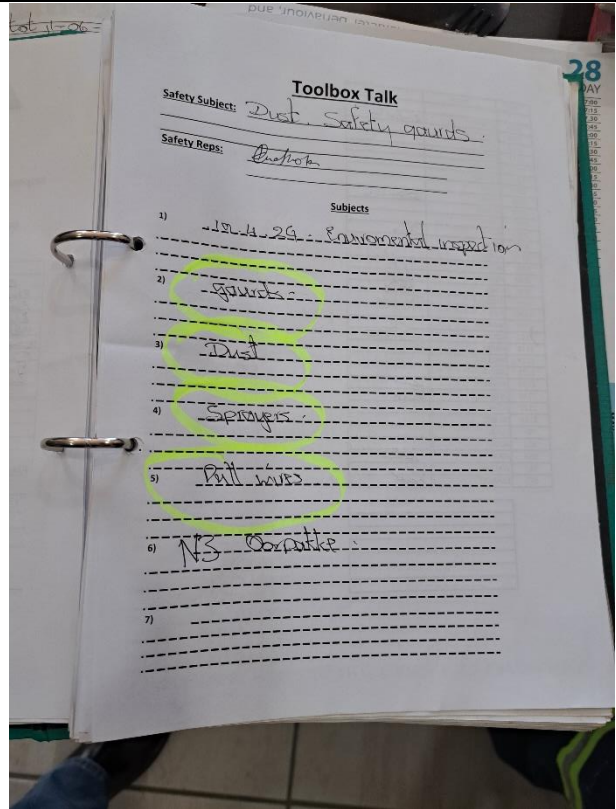


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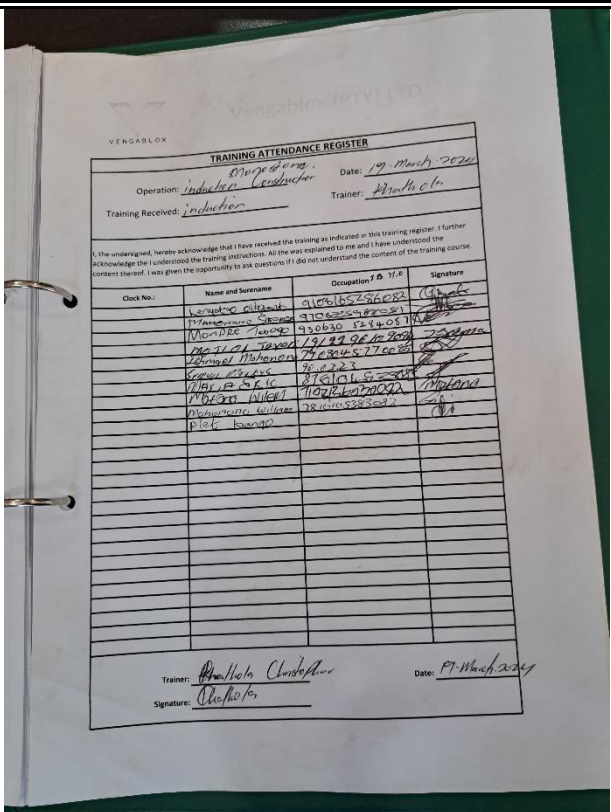
## PROOF OF DOCUMENTATION



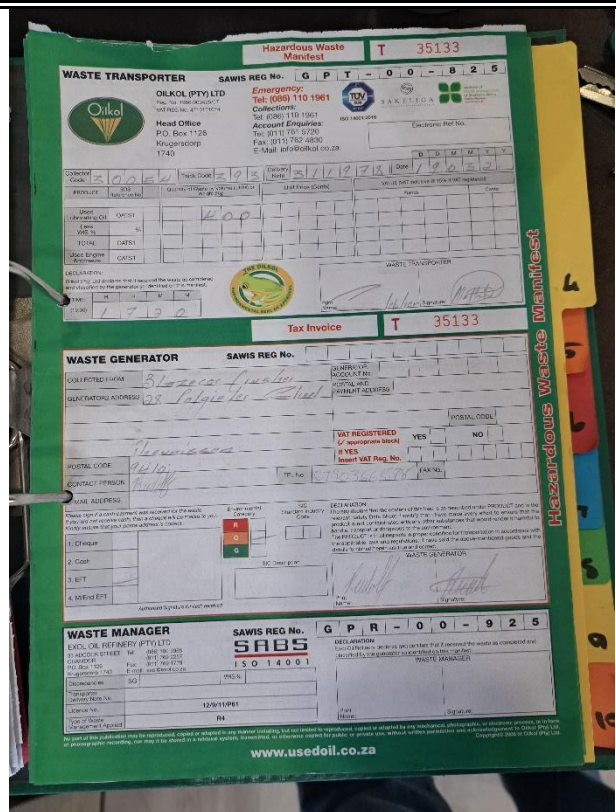
**Complaints- and Incident Registers**



**Toolbox talks with employees**



**Environmental induction with employees**



**Proof of hazardous waste removal - Oilkol**



**ENVIRONMENTAL PERFORMANCE ASSESSMENT  
LOUTERBRONNEN AGGREGATE QUARRY**

**SITE RELATED PHOTOS**



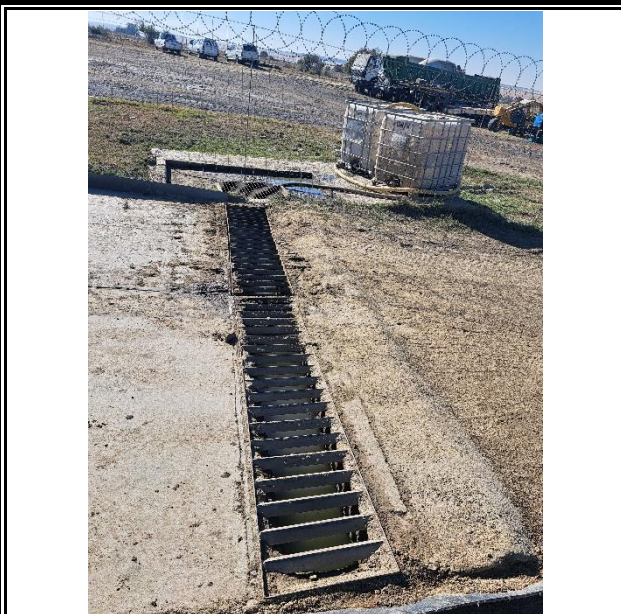
**Weigh bridge**



**Dust suppression implemented**



**Roofed structures fitted with solar panels**



**Wash bay draining into the oil sump**



SITE RELATED PHOTOS



Oil sump pumped into the flow bins



Waste bins of the wash bay



Contaminated soil storage area



Used oil storage



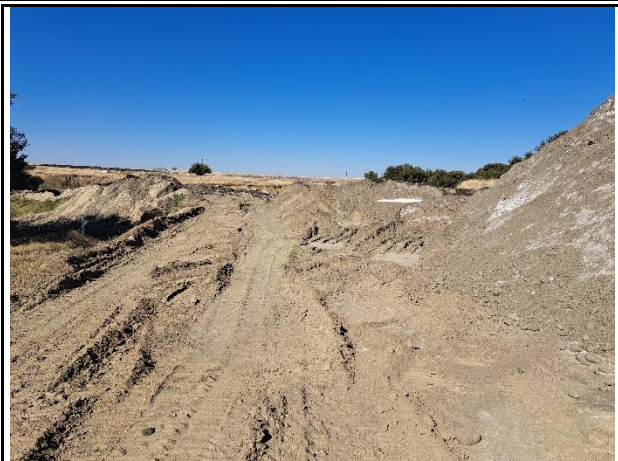
Salvage yard



SITE RELATED PHOTOS



Parking area where drip trays are in use





**SITE RELATED PHOTOS**



**Problem plants removed from the berms**



**Dust suppression implemented**