GRAHAMSTOWN BRICK (PTY) LTD T/A MAKANA BRICK PORTION 3 OF THE FARM ORCHARDS 233 GRAHAMSTOWN, EASTERN CAPE PROVINCE

ENVIRONMENTAL PERFORMANCE ASSESSMENT



DMRE REFERENCE NUMBER:	EC 30/5/1/3/2/10397 MP
AUDIT PERIOD:	JULY 2021 – AUGUST 2022

PREPARED FOR:

Grahamstown Brick (Pty) Ltd t/a Makana Brick

Contact Person: Mr C Meyer

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PREPARED BY:

Greenmined Environmental (Pty) Ltd

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1. PROJECT SPECIFIC DETAIL

ITEM	MINING PERMIT HOLDER			
Company Name	Grahamstown Brick (Pty) Ltd t/a Makana Brick			
Contact Person	Mr Colin Meyer			
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Postal Address	P.O. Box 7068 Grahamstown North 6141			
ITEM	CONSULTANT DETAIL			
Company Name	Greenmined Environmental (Pty) Ltd			
Contact Person	Ms Christine Fouché			
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Cell Number	082 811 8514			
E-mail Address	christine.f@greenmined.co.za			
Postal Address	Postnet Suite 62 Private Bag x15 Somerset West 7129			
ITEM	LOCATION AND AREA INFORMATION			
Site Name	Makana Brick – Collingham Quarry			
Property Description	Portion 3 of the farm Orchards 233			
Location	The mining area is located ±4 km northeast from the King Flats residents in Grahamstown, between the N2 national road (south) and the Botha's River (north) on Portion 3 of the farm Orchards 233.			
Size of Mining Area	4.95 ha			





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2. ENVIRONMENTAL AUDIT REPORT

PROJECT DETAIL

Permit Number:	16/2018 (EC 30/5/1/3/2/10397 MP)	Date of commencement:	August 2018
Site name:	Makana Brick – Collingham Quarry	Inspection date:	11 August 2022
Permit Holder: Report number:	Grahamstown Brick (Pty) Ltd t/a Makana Brick 03	Other authorisations:	N/A

DETAIL OF AUDITOR

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

ECO:	Christine Fouche	
Expertise:	Ms Fouche has a Diploma in Nature Conserva with fourteen years' experience in doing environmental compliance monitoring in South Africa.	, ,
Declaration of independence:	 I, Christine Fouche, in my capacity as environ I act as independent environmental control I will perform the work relating to the audresults and findings are not favourable to I have expertise in conducting environ knowledge of the Act and regulations that I will adhere to and comply with all responsant Environmental Management Act and Regulations. I do not have and will not have any vest remuneration for work performed in the Assessment Regulations, 2014 (as amen) Also see attached declaration of independent Christine Fouché 	ol officer in this compliance audit; dit in an objective manner, even if the the holder of the authorisation; mental compliance audits, including thave relevance to the activity; nsibilities as indicated in the National Environmental Impact Assessment atted interest in the activity other than therms of the Environmental Impact ded).





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).

OBJECTIVE:

The objective of the environmental audit report (EAR) is to evaluate compliance of the operational activities with the Environmental Management Programme Report (EMPR) and Environmental Authorisation (EA) as approved by the Department of Mineral Resources and Energy.

INSPECTED AREAS:

The active mining areas were inspected during the audit. Ms Fouché was accompanied by site management.

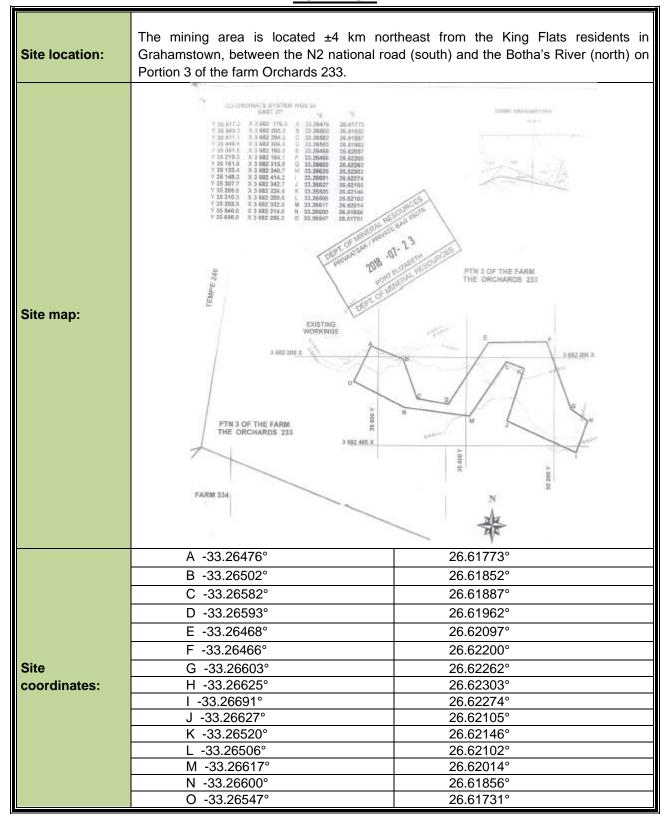
ASSUMPTIONS, UNCERTAINTIES OR GAPS IN KNOWLEDGE (APPENDIX 7 SUB-REGULATION 3(F)):

The assumptions made in this document, stem from background information gathered during the meeting with the Permit Holder and the inspection of the mining footprint. At this stage no uncertainties were identified that need to be disclosed here.





LOCATION







PROJECT DESCRIPTION

Grahamstown Brick (Pty) Ltd t/a Makana Brick holds a mining permit over 4.95 ha of Portion 3 of the farm Orchards No 233 in the Grahamstown area. The mining footprint was identified between two older quarries, over an area that was previously disturbed.

The Permit Holder extracts the material from the western and middle section of the approved footprint through open-cast excavation. The material is then loaded onto trucks that deliver it to the Makana brick making facility (off-site). No processing plant, permanent infrastructure or buildings were constructed/established on site. The Permit Holder is busy with the mining of Phase 1 (as prescribed in the approved EMPR).

SITE CONDITIONS

Sunny day with wet soil conditions in some areas due to rain received.

REPORTABLE ENVIRONMENTAL INCIDENTS

Incident date:	
Incident no:	Makana Brick keeps an incident register. No environmental incidents occurred
Incident:	during the audit period.
How addressed:	
When addressed:	

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

COMPLIANCE SCORE DESCRIPTION Task not achieved Task 20% achieved

Task 100% achieved in accordance with the EMP

Task 50% achieved Task 80% achieved

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

1

2

3

4 5





INSPECTION ASPECTS

DESCRIPTION	COMPLIANCE SCORE	NON- COMPLIANCE SCORE	STATUS	COMMENTS		
		LEGISLATION CO	MPLIANCE:			
National Environmental Management Act, 1998 (Act No 107 of 1998) and the Environmental Impact Assessment Regulations, 2014 (as amended 2017)	5	-	Compliant	DMRE issued an environmental authorisation (EA) for the activities on 05 June 2018.		
Copy of the EA and EMPR available on site	5	-	Compliant	Site documents are kept at the main offices of Makana Brick (Beaconsfield Farm).		
Mineral and Petroleum Resources Development Act, 2002 (Act No 28 of 2002)	5	-	Compliant	The third renewal application was submitted to the DMRE in July 2022.		
Mining permit available on site	5	-	Compliant	Site documents are kept at the main offices of Makana Brick (Beaconsfield Farm).		
National Environmental Management: Air Quality Act, 2004 (Act No 39 of 2004)	N/A	-	-	The operations does not trigger the NEM:AQA.		
National Environmental Management: Waste Act, 2008 (Act No 59 of 2008)	5	-	Compliant	Although the mining activities do not trigger listed activities in terms of the NEM:WA, the operation is managed in accordance with the said act.		
National Water Act, 1998 (Act 36 of 1998)	N/A	-	-	The operations does not trigger the NWA.		
Copy of Water Use Authorisation available on site.	N/A	-	-	-		
National Environmental Management: Biodiversity Act, 2004 (Act No 10 of 2004) (NEM:BA)	5	-	Compliant	Site management controls the invader plant species on site in accordance with the requirements of the NEM:BA, 2004.		
Hazardous Substances Act, 1973 (Act 15 of 1973)	N/A	-	-	No chemicals are stored within the mining footprint.		
ASPECTS OF THE AFFECTED ENVIRONMENT						
PROCEDURES, PLANS & EA CONDITIONS:						
Alien eradication programme established and implemented (EA Condition 10).	5	-	Compliant	-		
Name and contact details of the ECO (on-site) sent to DMRE within 30 days of commencement.	5	-	Compliant	-		
Emergency preparedness plan available on site.	5	-	Compliant	-		





DESCRIPTION	COMPLIANCE SCORE	NON- COMPLIANCE SCORE	STATUS	COMMENTS
Incident register up to date.	5	-	Compliant	The Permit Holder keeps an incident register at his offices. To date no environmental incidents occurred that could be recorded.
Complaints register available on site.	5	-	Compliant	The Permit Holder keeps a complaints register at his offices. To date no complaints were received.
Notices, compliant with EA condition 6.2 placed at site entrance.	5	-	Compliant	-
	TOPO	GRAPHY (APPEND	IX 6 PG 101, 102)	
Mining conducted in accordance with the approved mine development plan (four phases)	5	-	Compliant	Mining of Phase 1 and Phase 2 as prescribed in Appendix 6 of the BAR were in progress at the time of the inspection.
Mining contained to designated mining area	5	-	Compliant	-
Faces >10 m high benched	N/A	-	-	Not applicable.
Boundary sides <5 m profiled to 1:2 gradient & >5 to 1:2.5/3 m gradient	N/A	-	-	Not yet applicable.
Quarry floor sloped at 2% to allow water to drain into the retention pond.	5	-	Compliant	-
Boundary pillars removed as per mine development plan.	5	-	Compliant	-
Benches profiled within 14 days after mining ceased and vegetated within 9 months.	N/A	-	-	Not yet applicable.
GEOLOGY / SO	IL MANAGEMENT	T (EMPR PG 54, 55 /	APPENDIX 6 PG 1	102 – 104, EA CONDITIONS):
Topsoil stripping done	5	-	Compliant	
Topsoil storage (1 m high)	4	1	No mitigation needed	Some of the topsoil heaps are higher than 1 m. However, the stockpiled topsoil has a well-established vegetation layer and disturbance/correction of the topsoil height is therefore not recommended. Any future topsoil storage must be kept to a height of 1 m.
Stockpiled topsoil heaps vegetated	5	-	Compliant	-
Shade cloth screens used to cover stockpiled topsoil	N/A	-	-	Not applicable as the topsoil heaps has re-vegetated.
Overburden stripped	5	-	Compliant	-
Overburden storage	5	-	Compliant	-
Product stockpiles lower than 2 m	5	-	Compliant	-
Erosion reinstated, area compacted and an erosion-monitoring programme implemented.	5	-	Compliant	Implemented when needed.





DESCRIPTION	COMPLIANCE SCORE	NON- COMPLIANCE SCORE	STATUS	COMMENTS
Each horizontal platform re-vegetated to curb erosion.	N/A	-	-	Not yet applicable.
Horizontal platforms sloped to no more than 1% gradient forwards to enable drainage of storm water.	N/A	-	-	Not yet applicable
Clay sub-layer prepared prior to the return of overburden and topsoil. (Appendix 6 pg. 103).	N/A	-	-	Not yet applicable.
Topsoil returned to rehabilitated area	N/A	-	-	Not yet applicable.
VEGETA	ATION (EMPR PG	53, 57, APPENDIX (6 PG 103, 106, 10	7, EA CONDITIONS):
Vegetation removal restricted to mine boundary.	5	-	Compliant	-
Unnecessary surface disturbance avoided.	5	-	Compliant	-
Weeds and invader plants controlled on site.	5	-	Compliant	Site management must take note of the Wattle trees germinating in and around the mining area.
Indigenous groundcovers used to re-vegetate reinstated areas.	N/A	-	1	Not yet applicable.
Indigenous plant species and trees transplanted to the area between phase 1 & 2 (no mining) or potted	5	-	Compliant	-
	F	AUNA (APPENDIX 6	PG 108, 109):	
All animals, birds and reptiles protected on site	5	-	Compliant	-
Nesting sites temporarily excluded from the mining area / relocated.	N/A	-	1	Not yet applicable.
Fauna identification walk-through prior to bush clearance/topsoil stripping to identify reptiles, amphibians and other slow moving individuals.	5	-	Compliant	-
Operational pits providing an escape route for trapped animals.	5	-	Compliant	-
Operational areas daily inspected for signs of trapped animals.	5	-	Compliant	-
An appropriately qualified contractor used to remove species that cause harm to employees.	N/A	-	-	Not yet applicable
No poisoning of scavengers / varmints allowed.	5	-	Compliant	
Electrical wires isolated to prevent animals from being shocked.	N/A	-	-	At the time of the inspection, there were no machinery or equipment with electrical wires that may cause harm to animals.





DESCRIPTION	COMPLIANCE SCORE	NON- COMPLIANCE SCORE	STATUS	COMMENTS				
	AIR QUALITY (APPENDIX 6 PG 110, 111, EA CONDITIONS):							
Denuded areas limited to operational areas.	5	-	Compliant	-				
Haul roads and denuded areas dampened to reduce dust.	N/A	-	-	Site management mentioned that very little to no dust is generated at the site and to date no dust suppression was needed. At the time of the inspection, no mining took place and the site was dust free.				
No brick making facilities or kilns established on site.	5	-	Compliant	-				
Mining stopped during periods of high winds.	5	-	Compliant	When applicable.				
Vehicles transporting kaolin, spoil, topsoil or other dust material on public roads covered.	4	3	Mitigation to be implemented	Site management indicated that covering the trucks is impractical, but proposed the spraying of the clay with water to prevent windblown dust during transport.				
	NOIS	SE CONTROL (APPI	ENDIX 6 PG 111):					
Machinery and equipment in good working order (silencers, slipping fan-belts, bearings).	TBC	-	-	No machinery/equipment were present at the mine during the				
Equipment turned off when not in use.	TBC	-	-	inspection.				
Operation following normal working hours (Weekdays 7:00 – 18:00 summer, 7:30 – 17:00 winter, Saturdays 8:00 – 13:00). No work on Sundays and holidays.	5	-	Compliant	Although no mining took place during the audit, site management confirmed that the work hours of the mine correspond with those of the EMPR.				
No amplified music allowed.	5	-	Compliant	-				
Hearing protection available to employees.	5	-	Compliant	-				
HERITAGE MANAGEMENT (APPENDIX 6 PG 114):								
Archaeological, cultural and/or heritage remnants protected.	N/A	-	-	No archaeological, cultural or heritage remnants were discovered or reported on during the audit period.				
WATER MANAGEMENT (EMPR PG 42, 55 APPENDIX 6 PG 105, 109, EA CONDITIONS):								
100 m buffer zone between the mining area and the Botha's River maintained.	5	-	Compliant	-				
Mining from Botha's River prohibited.	5	-	Compliant	-				





DESCRIPTION	COMPLIANCE SCORE	NON- COMPLIANCE SCORE	STATUS	COMMENTS
Retention pond created within the excavations (<2 m deep).	N/A	-	-	Due to the presence of the nearby retention pond, to the north of the mining area, there is no need for another pond in the mining footprint.
Water from the retention pond used for irrigation and dust suppression on site.	N/A	-	-	No yet applicable.
	VISUA	L EXPOSURE (API	PENDIX 6 PG 112):
Is the contractor implementing good visual and housekeeping standards?	5	-	Compliant	-
Cuts follow curvilinear lines rather than straight geometric lines.	5	-	Compliant	-
MANA	GEMENT OF FUE	L AND HAZARDOU	S PRODUCTS (AF	PPENDIX 6 PG 112):
No chemicals stored on site.	5	-	Compliant	-
Complete oil/fuel spill kits available on site.	N/A	-	-	Due to the nature of the site, it is recommended that the spill kit / absorbent material is kept at the main office of Makana Brick until needed.
Management of fuel and oil spills	N/A	-	-	According to site management no spills occurred during the audit period that had to be cleaned, and no spills were noted during the inspection.
	FIRE I	MANAGEMENT (AP	PENDIX 6 PG 106):
No open fires permitted on site	5	=	Compliant	-
Adequate & appropriate fire-fighting equipment	5	-	Compliant	-
Employees trained in firefighting	5	-	Compliant	-
WAS	STE MANAGEME	NT (EMPR PG 56, 57	7, APPENDIX 6 PC	G 105, 110 - 112):
No site toilet, septic tank near a watercourse	5	-	Compliant	-
Proper sanitation facilities available to employees	1	3	To be addressed	As discussed during the inspection, site management must ensure that there is at least a chemical toilet on site when mining takes place. The toilet must be in walking distance from the employees, and must be serviced by a registered sewerage handling contractor that supplies the site with a safe disposal certificate after each service.
Waste collected in sealable containers	N/A	-	-	General solid waste (if any) is kept in the site vehicles until it is incorporated into the waste system at the main offices of Makana Brick (Beaconsfield Farm).





DESCRIPTION	COMPLIANCE SCORE	NON- COMPLIANCE SCORE	STATUS	COMMENTS		
Site free of day-to-day litter.	5	-	Compliant	-		
Spillages not disposed of into the environment, ditches, drains or water courses.	N/A	-	-	According to site management no spillages occurred during the audit period.		
Burning of waste prohibited.	5	-	Compliant	-		
Normal repair work done at the off-site workshop.	5	-	Compliant	-		
Drip trays used when emergency repairs is needed.	5	-	Compliant	-		
Waste separation implemented (general / hazardous).	N/A	-	-	Not applicable as the site generates very little to no general waste and no hazardous waste. Any waste that may be generated at the site is removed to Makana Brick where it is incorporated into the existing waste streams.		
General waste dumped at a recognised landfill site.	5	-	Compliant	Any waste removed from the site is incorporated into the existing waste disposal system at the Makana Brick Plant (Beaconsfield Farm) that is removed by Skipgo to the Makhanda municipal dump.		
Hazardous waste removed by a registered waste handling contractor.	N/A	-	-	Not applicable as the site has not generated hazardous waste.		
Hazardous waste daily removed from site.	N/A	-	-			
No washing of vehicles allowed on site.	5	-	Compliant	-		
No scrap metal / dysfunctional machinery stored on site.	5	-	Compliant	-		
No waste stockpile area allowed outside the boundaries of the mining area.	5	-	Compliant	-		
MINE AND EQUIPMENT MANAGEMENT (BAR PG 40, APPENDIX 6 PG 102, 111 EA CONDITIONS):						
Mining area demarcated with visible beacons.	5	-	Compliant	Site management added beacons to the mining boundaries.		
No camp site established on site.	5	-	Compliant	-		
VEHICLE AND TRAFFIC MANAGEMENT (BAR PG 43, EMPR PG 54, 55, APPENDIX 6 PG 105, 111 - 113, EA CONDITIONS):						
Overloading prevented.	5	-	Compliant	-		
Movement of project related vehicles & machinery restricted to existing roads. No crisscrossing through undisturbed areas.	5	-	Compliant	-		
Vehicle speed restricted to 30 km/h.	5	-	Compliant	Signage reducing the speed of site vehicles to 30 km/h was add to the entrance road.		





DESCRIPTION	COMPLIANCE SCORE	NON- COMPLIANCE SCORE	STATUS	COMMENTS	
Refuelling done off-site.	3	1	No mitigation needed	The bulldozer working on site is filled from a small diesel bowser when applicable. Site management confirmed that drip trays are used each time refuelling is done.	
Vehicles entering the N2/other public road come to complete standstill (stop) before entering the road.	TBC	-	-	As the site was not operational during the inspection, compliance to this condition needs to be confirmed.	
Contractors signed a letter of agreement to the above effect (complete stop).	5	-	Compliant	-	
Access and haul roads maintained and protected against erosion.	5	-	Compliant	-	
Signage erected both sides of the quarry entrance and access to the N2.	5	-	Compliant	-	
Traffic restricted from driving in rehabilitated areas.	N/A	-	-	Not yet applicable as no areas were rehabilitated yet.	
	SOCIAL IMPACT MANAGEMENT (APPENDIX 6 PG 113):				
Access to other sections of the landowner's property prohibited.	5	-	Compliant	-	
Theft, fishing or poaching in adjacent areas prohibited and perpetrators prosecuted.	5	-	Compliant	-	
No wood / plants collected from neighbouring areas.	5	-	Compliant	-	
Gates to the landowner's property kept closed (where required).	5	-	Compliant	-	
EMPLOYEE AND SAFETY MANAGEMENT (EA CONDITIONS):					
Workers provided with PPE.	5	-	Compliant	-	
Employees attended environmental induction training.	5	-	Compliant	-	
Proof of training available for auditing purposes.	5	-	Compliant	-	





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.

<u>AUDITING OF EA, EMPR AND REPORTING THEREOF</u> (REGULATION 34):

Date of previous EAR/EPA:	16 July 2021				
Proof of submission to	The EAR/EPA was submitted to the DMRE on 13 August 2021, and proof				
DMRE available:	of submission is available from Greenmined Environmental (Pty) Ltd.				
EAR/EPA compiled by	The 2022 performance assessment were compiled by Greenmined				
independent person with	Environmental (Pty) Ltd.				
environmental auditing					
expertise:					
Potential and registered	This report will be loaded onto the Greenmined Environmental website,				
I&AP's notified within 7 days	and the landowner will be informed of the availability of the report.				
of the submission date, and					
report available on publicly					
accessible website					

GENERAL REPORT

Compliance of the mining site with the EMPR and EA conditions were reviewed during this assessment. The mining operation recorded a compliance score of 98% for the audit period which is a 1% increase from the last audit.

As mentioned earlier, at the time of the inspection the permit holder was mining in Phase 1 and Phase 2 of the mining area; with the remaining footprint left undisturbed. At the time of the inspection, no mining took place and there were no machinery/equipment on site.

Site management commenced with monthly environmental checklists that are filed at the main offices.

Large boulders were painted white to indicate the boundaries of the mining area as requested in the previous audit report.

Site management must still ensure that the employees working at the mine has access to at least a chemical toilet that is regularly (weekly when mine is operational) serviced by an accredited sewerage handling contractor. The contractor must provide the mine with a safe disposal certificate, each time the toilet is services.

As discussed on site, the Wattle trees germinating in and around the mining area must be controlled and removed as soon as possible.





DOCUMENT CHECKLIST:

Mining permit
 Approved EMPR
 Regulation 2(2) plan
 Financial provision
 Environmental Audit Report
 Present
 Present
 Present

Plan highlighting rehabilitation - Part of the EMPR

Alien eradication programme - Present

Non-conformance recording - Not yet applicable

Complaints Register - Present
 Incident Register - Present
 Environmental Awareness Training - Present
 Emergency Preparedness Plan - Present

MATTERS TO BE ADDRESSED:

- 1. Ensure that the employees have access to a chemical toilet that is within walking distance when the site is operational;
- 2. Ensure a dust alleviating measure is implemented to prevent clay blowing from transport trucks;
- 3. Control the wattles germinating on site.

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 the mining area.

NEED FOR AMENDMENT OF THE EMPR:

No need was identified for the amendment of the EMPR.

FINANCIAL PROVISION:

The permit holder has a financial guarantee to the value of R 255 000 lodged with the DMRE.

The NEMA Financial Provision Regulations, 2015 stipulates that a holder of permit must annually review/assess/adjust the financial provision of the site. The 2022 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 63 019.76. The 2022 financial provision is less than the value of financial guarantee in place at the DMRE, and the permit holder therefore does not have to provide a shortfall.

ECO SIGNATURE

NAME:	SIGNATURE:	DATE:
Christine Fouche	Jamalo	25 August 2022





PHOTOGRAPHS



View of the Phase 1 mining area where the existing quarry (outside the mining footprint) can be seen at the back.



View of the Phase 2 mining area.









Wattles to be removed from site



Signage present at entrance to the site