

**GN 704 COMPLIANCE AUDIT REPORT FOR EXXARO COAL
GROOTEGELUK MINE**

CONDUCTED BY



MARCH 2021

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1. INTRODUCTION

1.1. Scope of Mandate

1.1.1 Exxaro Coal (Pty) Ltd: Grootegeluk Mine has commissioned Inlexso to conduct an external GN 704 Compliance Audit applicable to its mining activities on the following properties in the Limpopo Province:

- Leeuwdrif 312 LQ;
- Grootegeluk 459 LQ;
- Hieromtrent 460 LQ;
- Turfvlakte 463 LQ;
- Enkelbult 462 LQ;
- Daarby 428 LQ;
- Appelvlakte 448 LQ;
- Goedehoop 457 LQ.

1.1.2 The mine holds two Water Use Licences,

1.1.2.1 No. 01/A41J/G/5318 issued on 5 June 2017.

1.1.2.2 No. 01/A42J/CICI/6418 issued 15 October 2019

1.1.3 This compliance audit was necessitated by virtue of the legal obligations set out in the Regulations on Use of Water for Mining and Related Activities Aimed at the Protection of Water Resources published under Government Notice 704 in Government Gazette 20119 in terms of the National Water Act 36 of 1998 (“GN 704”).

1.1.4 The objective of this audit report is to verify the mine’s existing management measures and to determine whether it is compliant with the obligations under GN 704.

- 1.1.5 This GN 704 compliance Audit Report (“audit report”) is prepared by Selvan Subroyen and reviewed by Andries Kabeng who are employed by Inlexso, Environmental Law Department and have prepared this report in an independent capacity.
- 1.1.6 Selvan Subroyen has 13 years environmental auditing expertise and holds the following degrees: LLB, University of South Africa; BSc Honours in Environmental Science, University of KwaZulu Natal and B Paed (Geography), University of Durban-Westville.
- 1.1.7 Andries Kabeng has 6 years environmental auditing expertise and holds the following degrees: University of Pretoria (Bcom Law) and Unisa (LLB).

1.2. Methodology and Approach

- 1.2.1 This audit report will provide verifiable findings, in a structured and systematic manner, on the level of performance and compliance with the legal obligations as set out under GN 704.
- 1.2.2 This audit report will assess whether the GN 704 measures employed by the mine adequately avoids, manages and mitigates impacts on water resources.
- 1.2.3 This audit report is the result of certain conclusions reached, based on visual on- site observations of the Grootegeluk mining right area, as well as desktop audit sessions conducted by Inlexso on the 11th and 12th of March 2021 at the Grootegeluk Mine. Inlexso was accompanied during site visits by Exxaro functionaries, Filomaine Swanepoel (Senior Environmental Specialist); Simon Mashele (Environmental Specialist); Chris Labuschagne (Project Manager) and Charles Linstrom (Hydrologist) and who assisted with additional or supplemental information where required.
- 1.2.4 The specific evaluation criteria used in the audit are:

- The regulations stipulated in GN 704 and
- The DWA's M6.1 guideline for interpreting GN 704.

1.2.5 Instances of non – compliances in terms of GN 704 are highlighted in this report followed by proposed steps for rectification and/or preventative measures by the mine. It is necessary to regard that this approach necessarily resulted in a certain level of repetition in the report.

1.3. Summary of Findings

1.3.1 Non-Compliances pertains to the following:

- The use of mine residue in the form of Overburden in the construction of Road & berms. The overburden needs to be classified and if shown to be a Type 3 waste like the overburden on Turfvlakte the mine will need to request exemption for this use under point 3 of GN 704.
- The fact that the Olifantskop dam is not a lined facility, the Project plan for the lining of the facility was shared.
- The fact that portions of the Reductant Product & Feed Stockpiles are not lined. The plan to line the facilities was shared and it was also agreed that should the areas not be lined; the areas will need to be cleaned-up.
- The loss of containment of the dirty storm water channel at the Slimes dam facility where it flows into the cement dam. The project for the upgrade for the area was shared with the auditor.

1.3.2 Observations & Partial Compliances.

- The upgrade of the Access and Signage around the PCD's and Slimes dam Facility work was visible on site and was thus captured as compliant since the process is underway.
- It was noted that the Slimes dam facility has recently gone over to a new contractor, however, the channels around the Slimes dam 1&2 needs to be cleaned since they are silted up with material and vegetation.

- The Cyclic pond areas are well managed; however, the side berms show signs of contamination that needs to be cleaned as part of housekeeping in the area.
- The Erosion Control Plan was noted as well as the various actions which need to be implemented during the dry season of 2021 to address the areas of concern.
- It was observed that some of the Plant Storm water channels are also silted and need to be cleaned by the cleaning contractor.
- At the pool workshop it was also observed that the channels taking the wash water to the separator is silted up and requires cleaning.
- At the corner of the GG1 Stock yards, one of the sumps have been cleaned of silt, however, the material was left to dry on the open soil.

1.4. Indemnity

- 1.4.1 In consideration of the fact that Inlexso has, in preparation of this report to a large degree, relied on information received from functionaries of the mine, Inlexso shall incur no liability for any claims for loss of damage which Exxaro may suffer in respect of this report and its contents. Inlexso shall however be liable for and shall indemnify Exxaro in respect of any such loss or damage which arises as result of fraud, dishonesty or gross negligence of Inlexso or any director, employee, officer, servant or agent of Inlexso.
- 1.4.2 The contents of this report address the identified issues from an environmental legal perspective and conditions may exist which were undetectable considering the limitations of this investigation. Any scientific findings alluded to in this report or documents reviewed, as adduced by Exxaro's functionaries, were on its face value accepted as correct and to be in order and relevant.

1.5. Confidentiality

- 1.5.2 The contents of this audit report shall be treated as confidential and is for sole use by Exxaro and is confidential to it and its professional advisers and shall

not be disclosed to any person or party, provided that the information may be disclosed:

1.5.2.1 by Exxaro to its officers, directors, employees, consultants and professional advisers on a need-to-know basis as confidential information;

1.5.2.2 if required by the provision of any law, statute, regulation or court proceedings, or by rules or regulations of any licensed stock exchange or any other applicable regulatory body with whose rules such party is accustomed to comply.

1.6. Legal Privilege

1.6.1 It is recorded that, in view of the contemplated use and application of information incorporated in this report, the contents hereof may be regarded as legally privileged

1.7. Copyright

1.7.1 Copyright subsists in the contents and format of this Report. Any unauthorised use, re – production, editing or publication of the contents and/or format of this report are acts of copyright infringement and makes the infringer liable for civil law copyright infringement and may in certain circumstances make the infringer liable to criminal prosecution in terms of Section 27 of the Copyright Act 98 of 1978.

1.8. Findings

1.8.1 An Audit Compliance Matrix as utilised during the desktop audit sessions lists all legal obligations under GN 704 and is found under paragraph 2 of this report. The action plan in respect of each finding is also contained in the Audit Compliance Matrix as found under paragraph 2 and contains the proposed rectification and/or management comment in respect of such finding.

1.8.2 Findings were rated in terms of the following classification:

1.8.2.1 **Compliant:** Indicates compliance with the relevant section of GN 704 conditions

1.8.2.2 **Partial Compliance:** Indicates partial compliance with the relevant sections of GN 704 and the IWUL conditions. The mine must improve the implementation of measures to ensure compliance with the relevant conditions;

1.8.2.3 **Non-Compliant:** Indicates non – compliance with the relevant sections of GN 704 and conditions stipulated in the IWUL.

1.8.2.4 **Note/Not applicable:** Indicates that the relevant GN 704 section is not applicable by virtue of various circumstances and/or the phase(s) of operations or that the condition is noted or that exemption is received in terms of IWUL.

2. AUDIT COMPLIANCE MATRIX

GROOTEGELUK COAL MINE COMPLIANCE AUDIT 2021 ON REGULATIONS ON USE OF WATER FOR MINING AND RELATED ACTIVITIES AIMED AT THE PROTECTION OF WATER RESOURCES

Published under Government Notice 704 in Government Gazette 20119. Commencement date: 4 June 1999 made in terms of the National Water Act 36 of 1998

Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
Definitions					
	In these regulations any expression to which a meaning has been assigned in the Act, shall have the meaning so assigned, and unless the context indicates otherwise-	Note			
	"activity" , means –				
	(a) any mining related process on the mine including the operation of washing	Note			

Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	plants, mineral processing facilities, mineral refineries and extraction plants, and				
	(b) the operation and the use of mineral loading and off-loading zones, transport facilities and mineral storage yards, whether situated at the mine or not,	Note			
	(i) in which any substance is stockpiled, stored, accumulated or transported for use in such process; or	Note			
	(ii) out of which process any residue is derived, stored, stockpiled,	Note			

Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	accumulated, dumped, disposed of or transported;				
	" clean water system ", includes any dam, other form of impoundment, canal, works, pipeline and any other structure or facility constructed for the retention or conveyance of unpolluted water;	Note			
	" dam ", includes any settling dam, slurry dam, evaporation dam, catchment or barrier dam and any other form of impoundment used for the storage of unpolluted water or water containing waste;	Note			
	" dirty area ", means any area at a mine or activity	Note			

Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	which causes, has caused or is likely to cause pollution of a water resource;				
	" dirty water system ", includes any dam, other form of impoundment, canal, works, pipeline, residue deposit and any other structure or facility constructed for the retention or conveyance of water containing waste;	Note			
	" environmental management programme ", means an environmental management programme submitted in terms of section 39 of the Minerals Act, 1991 (Act No. 50 of 1991);	Note			

Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	<p>"facility", in relation to an activity, includes any installation and appurtenant works for the storage, stockpiling, disposal, handling or processing of any substance;</p>	Note			
	<p>"manager", "mine" and "mineral", have the meanings assigned to them in the Mine Health and Safety Act, 1996 (Act No. 29 of 1996);'</p>	Note			
	<p>"person in control of a mine or activity", in relation to a particular mine or activity, includes the owner of such mine or activity, the lessee and any other lawful occupier of the mine, activity or any part thereof; a tributer for</p>	Note			


Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	<p>the working of the mine, activity or any part thereof; the holder of a mining authorisation or prospecting permit and if such authorisation or permit does not exist, the last person who worked the mine or his or her successors-in-title or the owner of such mine or activity; and if such person is not resident in or not a citizen of the Republic of South Africa, an agent or representative other than the manager of such a mine or activity must be appointed to be responsible on behalf of the person in control of such a mine or activity;</p>				


Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	<p>"residue", includes any debris, discard, tailings, slimes, screenings, slurry, waste rock, foundry sand, beneficiation plant waste, ash and any other waste product derived from or incidental to the operation of a mine or activity and which is stockpiled, stored or accumulated for potential re-use or recycling or which is disposed of;</p>	Note			
	<p>"residue deposit", includes any dump, tailings dam, slimes dam, ash dump, waste rock dump, in-pit deposit and any other heap, pile or accumulation of residue;</p>	Note			

Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	" stockpile ", includes any heap, pile, slurry pond and accumulation of any substance where such substance is stored as a product or stored for use at any mine or activity;	Note			
	" the Act ", means the National Water Act, 1998 (Act No. 36 of 1998);	Note			
	" water system ", includes any dam, any other form of impoundment, canal, works, pipeline and any other structure or facility constructed for the retention or conveyance of water;	Note			
2	Information and notification				
	(1) Any person intending to operate a new mine or conduct any	Did the holder notify the Department of the intention to operate a	NA, Mine has been operational since 1982		


Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	new activity must notify the Department of such intention not less than 14 days before the start of such operation or activity.	new mine or conduct any new activity, within 14 days before starting the operation?			
	(2) Any person in control of an existing mine or activity must-				
	(a) Submit a copy of all amendments of their environmental management programme to the Department;	Did the holder submit a copy of all amendments of the environmental management programme to the Department?	Compliant IWWMP that indicates the water management plans for GG is updated and submitted annually as per the IWUL requirements. Current requirements according the NEMA is that all amendments be submitted to DWS for their comment before approval, by the lead authority (DMRE).		
	(b) notify the Department in writing 14 days before the temporary or permanent	Has the holder notified the Department in writing with regards to the cessation of	NA		


Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	cessation of the operation of a mine or the conducting of an activity, or the resumption of such operation or activity;	<p>operation of a mine or the conducting of an activity; or the resumption of such operation or activity?</p> <p>Did the holder ensure that the notification was made within 14 days?</p>			
	(c) notify the Department by the fastest possible means of any emergency incident or potential emergency incident involving a water resource at or incidental to the operation of a mine or the conducting of any activity, furnishing	Did the holder notify the Department of any emergency incident or potential emergency incident involving a water resource at or incidental to operation of a mine or the conducting of any activity, furnishing information?	Compliant, Exxaro notified DWS of the PCD dam overflows on 5 Feb 21 & the official letter of notification was submitted 8 Feb 21 <i>GG.DWS.003.2021- Notification of Overflow of Pollution Control Dams at GG</i>		

Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	information regarding-		 <p data-bbox="999 895 1263 922">Bosbok dam overflow.</p>		

Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
			 <p data-bbox="999 890 1328 919">Phase 2 Attenuation Dam 4</p>		
	(i) the date and time of the incident;	Did the holder notify the Department of the date and time of the incident?	Compliant		
	(ii) a description of the incident;	Did the holder provide a description of the incident?	Compliant		
	(iii) the source of the pollution or potential pollution;	Did the holder provide the source of the	Compliant		


Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
		pollution or potential pollution?			
	(iv) the impact or potential impact on the water resource and the relevant water users;	Did holder notify the Department of the impact or potential impact on water resource and the relevant water users?	Compliant		
	(v) remedial action taken or to be taken by the person in control of the mine or activity to remedy the effects of the incident; and	Has the holder notified the Department of any remedial action taken by themselves of the mine or activity to remedy the effects of the incident?	Compliant		
	(d) within 14 days after the date of an incident contemplated in paragraph (c) inform the Department in writing of measures taken to correct and	Did the holder notify the Department in writing of measures taken to correct and prevent a recurrence of an incident involving a water resource at or incidental to the operation of a mine or	Compliant, Feedback on root causes and remedial action was submitted (23 Feb 21) GG.DWS.004.2021 - Grootegeluk Dam Overflow <i>Feedback</i>		


Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	prevent a recurrence of such incident.	the conducting of any activity? Did the holder make this notification within 14 days after the incident?	 <p data-bbox="1001 834 1155 863">Bosbok Dam</p>		


Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
			 <p data-bbox="1003 975 1328 1007">Phase 2 Attenuation Dam 4</p>		
3. Exemption from requirements of regulations					
	The Minister may in writing authorise an exemption from the requirements of regulations 4, 5, 6, 7, 8, 10 or 11 on his or her own initiative or on application,	Exxaro to note.	Noted		


Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	subject to such conditions as the Minister may determine.				
4. Restrictions on locality					
	No person in control of a mine or activity may-				
	(a) locate or place any residue deposit, dam, reservoir, together with any associated structure or any other facility within the 1:100-year flood-line or within a horizontal distance of 100 metres from any watercourse or estuary, borehole or well, excluding boreholes or wells drilled specifically to monitor the pollution of groundwater, or on	Did the holder ensure that no residue deposit, dam, reservoir, together with any associated structure or any other facility was located or placed within the 1:100-year flood-line or within a horizontal distance of 100 metres from any watercourse or estuary, borehole or well, excluding boreholes or wells drilled specifically to monitor the pollution of groundwater,	Compliant, Grootegeluk is in possession of an approved Sec 21(c&i) license to mine through the seasonal pans occurring inside the LOM footprint area. (18 October 2019 no. 07/A42J/CICI/6418)		


Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	water-logged ground, or on ground likely to become water-logged, undermined, unstable or cracked;	or on water-logged ground, or on ground likely to become water-logged, undermined, unstable or cracked?			
	(b) except in relation to a matter contemplated in regulation 10, carry on any underground or opencast mining, prospecting or any other operation or activity under or within the 1:50 year flood-line or within a horizontal distance of 100 metres from any watercourse or estuary, whichever is the greatest;	Did the holder ensure that any underground or opencast mining, prospecting or any other operation or activity under or within the 1:50 year flood-line or within a horizontal distance of 100 metres from any watercourse or estuary, whichever is the greatest was not carried out?	Compliant		
	(c) place or dispose of any residue or	Did the holder ensure that any residue or	Compliant, the mine is authorized to Backfill the plant Mine residue into the Grootegeluk pit as part		


Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	<p>substance which causes or is likely to cause pollution of a water resource, in the workings of any underground or opencast mine excavation, prospecting diggings, pit or any other excavation; o</p>	<p>substance which causes or was likely to cause pollution of a water resource, in the workings of any underground or opencast mine excavation, prospecting diggings, pit or any other excavation was placed or disposed of?</p>	<p>of the rehab activities. (Sec 21g) (01/A41E/ABCGIJ/4057)</p> 		
	<p>or depots for any substance which causes or is likely to cause pollution of a water resource within the 1:50 year flood-line of any watercourse or estuary.</p>		<p>Compliant, The GG fuel Depot is not near any water course.</p>		


Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
					
5 Restrictions on use of material					
	<p>No person in control of a mine or activity may use any residue or substance which causes or is likely to cause pollution of a water resource for the construction of any dam or other impoundment or any embankment, road or</p>		<p>Non-compliant</p> <p>Currently overburden is used for the construction of roads and berms in and around the pit footprint area. It is recommended that the mine seek exemption under Reg 3 of GN704.</p>	F Swanepoel	30 Dec 21

Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	railway, or for any other purpose which is likely to cause pollution of a water resource.				
6. Capacity requirements of clean and dirty water systems					
	Every person in control of a mine or activity must-				
	(a) confine any unpolluted water to a clean water system, away from any dirty area;	Has the holder confined unpolluted water to a clean water system, away from any dirty area?	Compliant, storm water channels are in place. Clean and dirty water is separated on site with channels or berms.		


Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
					
	<p>(b) design, construct, maintain and operate any clean water system at the mine or activity so that it is not likely to spill into any dirty water system more than once in 50 years;</p>	<p>Has the holder designed, constructed, maintained and operated more than once in 50 years any clean water system at the mine or activity so that it was not likely to spill into any dirty water system?</p>	<p>Compliant, during the site visit it was observed that all storm-water infrastructure was designed adequately to prevent spillage. Cleaning contractors are continuously cleaning the channels.</p>		

Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
					
	<p>(c) collect the water arising within any dirty area, including water seeping from mining operations, outcrops or any other activity, into a dirty water system;</p>	<p>Did the holder collect the water arising within any dirty area, including water seeping from mining operations, outcrops or any other activity, into a dirty water system?</p>	<p>Compliant, dirty is contained on site. During the site visit it was observed that the dirty water channels reporting to the pit is effective. Abstraction boreholes are in place to recover and contain the seepage water inside basalt aquifer.</p>		


Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
					
	<p>(d) design, construct, maintain and operate any dirty water system at the mine or activity so that it is not likely to spill into any clean water system more than once in 50 years; and</p>	<p>Has the holder designed, constructed, maintained and operated more than once in 50 years any dirty water system at the mine or activity so that it is not likely to spill into any clean water system?</p>	<p>Compliant, during the site visit it was observed that all storm-water infrastructure was designed adequately to prevent spillage.</p> <p>Cleaning contractors are continuously cleaning the channels.</p>		


Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	(e) design, construct, maintain and operate any dam or tailings dam that forms part of a dirty water system to have a minimum freeboard of 0.8 metres above full supply level, unless otherwise specified in terms of Chapter 12 of the Act.	Has the holder designed, constructed, maintained and operated any dam or tailings dam that forms part of a dirty water system to have a minimum freeboard of 0.8 metres above full supply level, unless otherwise specified in terms of Chapter 12 of the Act?	<p>Compliant. The freeboard is maintained in all the PCD's visited.</p> 		
	(f) design, construct and maintain all water systems in such a manner as to guarantee the serviceability of such conveyances for	Has the holder designed, constructed, and maintained all water systems in such a manner as to guarantee the serviceability of such conveyances for	Compliant, As built drawing are available indicating the designs consider the 1:50 year flood. The as-built drawings for Mamba dam indicates that could be smaller however the dam is operated at less than 50% to compensated for this.		


Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	flows up to and including those arising as a result of the maximum flood with an average period of recurrence of once in 50 years.	flows up to and including those arising because of the maximum flood with an average period of recurrence of once in 50 years?			
7. Protection of water resources					
	Every person in control of a mine or activity must take reasonable measures to-				
	(a) prevent water containing waste or any substance which causes or is likely to cause pollution of a water resource from entering any water resource, either by natural flow or by seepage, and must retain or collect such	Has the holder taken reasonable measures to prevent water containing waste or any substance which causes or is likely to cause pollution of a water resource from entering any water resource, either by natural flow or by seepage? Has the holder taken reasonable measures to	Non-Compliant All PCD's and RDW's facilities at GGC have been licensed and are part of the approved WUL. They are all suitably lined as per the IWUL requirement, except for the Olifantskop dam. Currently the mine is in the process of lining this dam and there is a registered capital project for this.	Chris Labuschagne &	31 Dec 2022


Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	<p>substance or water containing waste for use, re-use, evaporation or for purification and disposal in terms of the Act;</p>	<p>retain or collect such substance or water containing waste for use, re-use, and evaporation or for purification and disposal in terms of the Act?</p>	 <p>The Reductant Product and Feed Stockpile expansions at the Reductant facility also still needs to be lined according to the WUL requirements. These is currently a Capital project that is aimed doing so. If this is not implemented the areas needs to be cleaned.</p>	<p>Armand Bezuidenhout</p>	<p>31 Aug 2021</p>
	<p>(b) design, modify, locate, construct and maintain all water systems, including</p>	<p>Has the holder taken reasonable measures to design, modify, locate, construct and maintain</p>	<p>Compliant No instream Infrastructure. Storm Water systems are however maintained to prevent pollution of water resources.</p>		


Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	residue deposits, in any area so as to prevent the pollution of any water resource through the operation or use thereof and to restrict the possibility of damage to the riparian or in-stream habitat through erosion or sedimentation, or the disturbance of vegetation, or the alteration of flow characteristics;	all water systems, including residue deposits, in any area so as to prevent the pollution of any water resource through the operation or use thereof and to restrict the possibility of damage to the riparian or instream habitat through erosion or sedimentation or the disturbance of vegetation, or the alteration of flow characteristics?			
	(c) cause effective measures to be taken to minimise the flow of any surface water or floodwater into mine workings, opencast workings,	Has the holder taken reasonable measures to cause effective measures to be taken to minimise the flow of any surface water or floodwater into mine	Compliant Water is prevented from entering the pit via a range of berms. The mine has two licensed in Pit sumps where in-pit water is captured for reuse in the plants. These sumps are also part of the water reticulation system.		


Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	<p>other workings or subterranean caverns, through cracked or fissured formations, subsided ground, sinkholes, outcrop excavations, audits, entrances or any other openings;</p>	<p>workings, opencast workings other workings or subterranean caverns, through cracked or fissured formations, subsided ground, sinkholes, outcrop excavations, audits, entrances or any other openings?</p>			
	<p>d) design, modify, construct, maintain and use any dam or any residue deposit or stockpile used for the disposal or storage of mineral tailings, slimes, ash or other hydraulic transported</p>	<p>Has the holder taken reasonable measures to design, modify, construct, maintain and use any dam or any residue deposit or stockpile used for the disposal or storage of mineral tailings, slimes, ash or other hydraulic</p>	<p>Compliant.</p> <p>Quarterly Stability Audits are conducted for the Slimes dam facility.</p> <p>The approved As-built designs are available for the Cyclic ponds.</p>		


Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	<p>substances, so that the water or waste therein, or falling therein, will not result in the failure thereof or impair the stability thereof; entering and polluting any water resources;</p>	<p>transported substances, so that the water or waste therein, will not result in the failure thereof or impair the stability thereof?</p>			
		<p>Has the holder taken reasonable measures to prevent the erosion or leaching of materials from any residue deposit or stockpile from any area and contain material or substances so eroded or leached in such area by providing suitable barrier dams, evaporation dams or</p>	<p>Compliant, Erosion Control Plan is in place. Areas of concern were identified in the 2020 Audit and there is an action plan that needs to be implemented in the Dry season on 2021. Erosion is managed accordingly.</p>		

Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
		<p>any other effective measures to prevent this material or substance from entering and polluting any water resources?</p>			
	<p>(f) ensure that water used in any process at a mine or activity is recycled as far as practicable, and any facility, sump, pumping installation, catchment dam or other impoundment</p>	<p>Did the holder take reasonable measures to ensure that water used in any process at a mine or activity was recycled as far as practicable?</p> <p>Did the holder ensure that any facility, sump,</p>	<p>Compliant</p> <p>The mines water reticulation system for process water is in place. The workshops also use recycled water from the oil separators & washing for washing of floors etc.</p>		

Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	used for recycling water, is of adequate design and capacity to prevent the spillage, seepage or release of water containing waste at any time;	pumping installation, catchment dam or other impoundment used for recycling water, was of adequate design and capacity to prevent the spillage, seepage or release of water containing waste at any time?			
	g) at all times keep any water system free from any matter or obstruction which may affect the efficiency thereof; and	Did the holder take reasonable measures to keep any water system free from any matter or obstruction which may affect the efficiency thereof at all times?	Partially compliant, some channels observed are silted up, even with vegetation growing. There is a contract in place to clean the channels.	A Molauzi	Ongoing

Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
			 <p data-bbox="1010 898 1608 975">Storm water drainage Channel at the slimes dam facility</p>		
	(h) cause all domestic waste, including wash-water, which cannot be disposed of in a municipal sewage system, to be disposed of in terms	Did the holder take reasonable measures to cause all domestic waste, including wash water, which cannot be disposed of in a municipal sewage system, to be disposed	<p data-bbox="1010 991 1137 1023">Compliant</p> <p data-bbox="1010 1038 1608 1118">Domestic waste water is disposed at the mins SWWTP. All process water is recovered for reuse.</p>		

Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	of an authorisation under the Act.	of in terms of an authorisation under the Act?			
8. Security and additional measures					
	Every person in control of a mine or activity must-				
	a) cause any impoundment or dam containing any poisonous, toxic or injurious substance to be effectively fenced-off so as to restrict access thereto, and must erect warning notice boards at prominent locations so as to warn persons of the hazardous contents thereof;	<p>Has the holder caused any impoundment or dam containing any poisonous, toxic or injurious substance to be effectively fenced off so as to restrict access thereto?</p> <p>Has the holder erected warning notice boards at prominent locations so as to warn persons of the hazardous contents thereof?</p>	<p>Compliant</p> <p>Project in place to upgrade fencing and signage.</p> 		

Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	(b) ensure access control in any area used for the stockpiling or disposal of any residue or substance which causes, has caused or is likely to cause pollution of a water resource so as to protect any measures taken in terms of these regulations;	Did the holder ensure access control in any area used for the stockpiling or disposal of any residue or substance which causes, has caused or is likely to cause pollution of a water resource so as to protect any measures taken in terms of these regulations?	<p>Compliant</p> <p>Access control is in place</p> 		
	(c) not allow the area contemplated in paragraph (a) and (b) to be used for any other purpose, if such use causes or is likely to cause pollution of a water resource; and	Did the holder ensure that the area contemplated in paragraph (a) and (b) was not used for any other purpose which would cause or likely to	<p>Compliant</p> <p>Areas are only used for licensed activities.</p>		

Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
		cause pollution of a water resource?			
	d) protect any existing pollution control measures or replace any existing pollution control measures deleteriously affected, damaged or destroyed by the removing or reclaiming of materials from any residue deposit or stockpile, and establish additional measures for the prevention of pollution of a water resource which might occur, is occurring or has occurred as a	<p>Did the holder ensure that any existing pollution control measures were protected? Or did the mine replace any existing pollution control measures deleteriously affected, damaged or destroyed by the removing or reclaiming of materials from any residue deposit or stockpile?</p> <p>Did the mine establish additional measures for the prevention of pollution of a water resource which might occur, is occurring or</p>	<p>Partially compliant. Some channels damaged and not yet fixed:</p> <p>Cement Dam inflow at the Slimes Facility</p>	A Nyambi	30 May 21

Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	result of such operations.	has occurred as a result of such operations?			
9. Temporary or permanent cessation of mine or activity					
	(1) Any person in control of a mine or activity must at either temporary or permanent cessation of operations ensure that all pollution control measures have been designed, modified, constructed and maintained so as to comply with these regulations.	Did the holder ensure that all pollution control measures have been designed, modified, constructed and maintained so as to comply with these regulations at either temporary or permanent cessation of operations?	NA		
	(2) Any person in control of a mine or activity must ensure that the in-stream and riparian habitat of any water resource, which may have been	Did the holder ensure that the in-stream and riparian habitat of any water resource, which may have been affected or altered by a mine or activity, is remedied so	NA		


Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	affected or altered by a mine or activity, is remedied so as to comply with these regulations.	as to comply with these regulations?			
	(3) On either temporary or permanent cessation of a mine or activity the Minister may request a copy of any surface or underground plans as required in terms of the Minerals Act, 1991.	Exxaro to note.	NA		
10.	Additional regulations relating to winning sand and alluvial minerals from watercourse or estuary				
	(1) No person may-				
	(a) extract sand, alluvial minerals or other materials from the channel of a watercourse or estuary, unless	Has the holder ensured that no person has extracted sand, alluvial minerals or other materials from the channel of a	NA		


Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	reasonable precautions are taken to-	watercourse or estuary, unless reasonable precautions were taken?			
	(i) ensure that the stability of the watercourse or estuary is not affected by such operations;	Has the holder ensured that the stability of the watercourse or estuary was not affected by such operations?	NA		
	(ii) prevent scouring and erosion of the watercourse or estuary which may result from such operations or work incidental thereto;	Has the holder ensured that scouring and erosion of the watercourse or estuary which may result from such operations or work incidental thereto was prevented?	NA		
	(iii) prevent damage to in-stream or riparian habitat through erosion, sedimentation,	Has the holder ensured that damage to instream or riparian habitat through erosion, sedimentation,	NA		

Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	alteration of vegetation or structure of the watercourse or estuary, or alteration of the flow characteristics of the watercourse or estuary; or	alteration of vegetation or structure of the watercourse or estuary, or alteration of the flow characteristics of the watercourse or estuary was prevented?			
	(b) establish any slimes dam or settling pond within the 1:50 year flood-line or within a horizontal distance of 100 metres of any watercourse or estuary.	Did the holder establish any slimes dam or settling pond within the 1:50 year flood-line or within a horizontal distance of 100 metres of any watercourse or estuary?	NA		
	(2) Every person winning sand, alluvial minerals or other materials from the bed of a watercourse or estuary must-	Did the holder ensure that every person winning sand, alluvial minerals or other materials from the bed of a watercourse or	NA		

Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
		estuary has complied with the questions below?			
	(a) construct treatment facilities to treat the water to the standard prescribed in Government Notice No. R.991 dated 26 May 1984 as amended or by any subsequent regulation under the Act before returning the water to the watercourse or estuary;	Has the holder constructed treatment facilities to treat the water to the standard prescribed in Government Notice No. R.991 dated 26 May 1984 as amended or by any subsequent regulation under the Act before returning the water to the watercourse or estuary?	NA		
	(b) limit stockpiles or sand dumps established on the bank of any watercourse or estuary to that	Has the holder limited stockpiles or sand dumps established on the bank of any watercourse or estuary to that realised in two days of production?	NA		

Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	realised in two days of production, and all other production must be stockpiled or dumped outside of the 1:50 year flood-line or more than a horizontal distance of 100 metres from any watercourse or estuary; and	Has the holder dumped or stockpiled all other production outside of the 1:50 year flood-line or more than a horizontal distance of 100 metres from any watercourse or estuary?			
	(c) implement control measures that will prevent the pollution of any water resource by oil, grease, fuel or chemicals.	Did the holder implement control measures that would prevent the pollution of any water resource by oil, grease, fuel or chemicals?	NA		
11. Additional regulations for rehabilitation of coal residue deposits					
	Any person mining or establishing coal residue deposits must rehabilitate				

Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	such residue deposits so that-				
	(a) all residue deposits are compacted to prevent spontaneous combustion and minimise the infiltration of water; and	Did the holder ensure that all residue deposits were compacted to prevent spontaneous combustion and minimise the infiltration of water?	<p>Compliant</p> <p>The placing of the Residue Material results in sufficient compaction and is approved in the EMPR.</p> <p>During the site visit there was no Spontaneous combustion evident. Red sand is used to control any Spontaneous Combustion that does occur.</p> 		

Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	b) the rehabilitation of the residue deposits is implemented concurrently with the mining operation.	Did the holder ensure that the rehabilitation of the residue deposits is implemented concurrently with the mining operation?	<p>Compliant</p> <p>The concurrent rehab of the pit area as part of the Backfill activities was observed. The mine has also submitted a Rehabilitation EA and WL application for Dum 4&5 (Dec 2019), the process is still underway and with the DMRE for Approval.</p> 		
12. Technical investigation and monitoring					

Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	<p>(1) The Minister may, after consultation with the Department of Minerals and Energy and the Department of Environmental Affairs and Tourism, in writing require any person in control of a mine or activity to arrange for a technical investigation or inspection, which may include an independent review, to be conducted on any aspect aimed at preventing pollution of a water resource or damage to the in-stream or riparian</p>	<p>Did the holder ensure to arrange for a technical investigation or inspection, which may include an independent review, to be conducted on any aspect aimed at preventing pollution of a water resource or damage to the in-stream or riparian habitat connected with or incidental to the operation or any part of the operation of a mine or activity?</p>	<p>Noted</p>		

Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	habitat connected with or incidental to the operation or any part of the operation of a mine or activity.				
	(2) Such investigation must be conducted and a report thereon compiled in the manner and within the time period that the Minister may specify.	Exxaro to note.	Noted		
	(3) The person in control of the mine or activity must inform the Minister as to the expertise and qualifications of the persons who are to conduct an investigation or inspection	Did the holder ensure that the Minister was informed to the expertise and qualifications of the persons who are to conduct an investigation or inspection contemplated in subregulation (1) before	Noted		

Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	<p>contemplated in subregulation (1) before the commencement thereof.</p>	<p>the commencement thereof?</p>			
	<p>(4) The Minister may in writing require any person in control of a mine or activity to submit a programme of implementation to prevent or rectify any pollution of a water resource or damage to the in-stream or riparian habitat as recommended by the investigation contemplated in subregulation (1) within the time period that the Minister may specify.</p>	<p>Did the holder ensure that a programme of implementation to prevent or rectify any pollution of a water resource or damage to the in-stream or riparian habitat as recommended by the investigation contemplated in subregulation (1) within the time period that the Minister may specify was submitted?</p>	<p>Noted</p>		

Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	<p>5) The Minister may in writing direct any person in control of a mine or activity to implement a compliance monitoring network to monitor the programme of implementation contemplated in subregulation (4), through establishing, operating and maintaining monitoring installations of a type, at the locations and in the manner specified by the Minister and to submit the monitoring information and</p>	<p>Did the holder implement a compliance monitoring network to monitor the programme of implementation contemplated in subregulation (4), through establishing, operating and maintaining monitoring installations of a type, at the locations and in the manner specified by the Minister and to submit the monitoring information and results to the Minister for evaluation?</p>	Noted		

Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	results to the Minister for evaluation.				
	(6) Subject to Chapter 4 of the Act, any person in control of a mine or activity must submit plans, specifications and design reports approved by a professional engineer to the Minister, not later than 60 days prior to	Did the holder submit plans, specifications and design reports approved by a professional engineer to the Minister?	Compliant Design Report are submitted to the Department as part of all new IWUA & all As-build drawings are also submitted as a condition of the Grootegeluk IWUL		
	(a) the construction of any surface dam for the purpose of impounding waste, water containing waste or slurry, so as to prevent the pollution of a water resource;	Did the holder submit plans, specifications and design reports approved by a professional engineer to the Minister relating to the construction of any surface dam for the purpose of impounding waste, water containing	Compliant		

Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
		waste or slurry, so as to prevent the pollution of a water resource?			
	(b) the implementation of any pollution control measures at any residue deposit or stockpile, so as to prevent the pollution of a water resource; and	Did the holder submit plans, specifications and design reports relating to the implementation of any pollution control measures at any residue deposit or stockpile, so as to prevent the pollution of a water resource?	Compliant		
	(c) the implementation of any water control measures at any residue deposit or stockpile, so as to prevent the pollution of a water resource	Did the holder submit plans, specifications and design reports relating to the implementation of any water control measures at any residue deposit or stockpile, so as to prevent the pollution of a water resource?	Compliant		

Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
13. General					
	The person in control of a mine or activity must provide the manager with the means and afford him or her every facility required to enable the manager to comply with the provisions of these regulations.	Did the holder provide the manager with the means and afford him or her every facility required to enable the manager to comply with the provisions of these regulations?	Compliant Various Capital project are in place to ensure GN704 Compliance and the maintenance of systems are also part of the approved budgets for the areas.		
14. Offences and penalties					
	(1) Any person who contravenes or, subject to regulation 3, fails to comply with regulation 2, 4, 5, 6, 7, 8, 9, 10, 11, 12 or 13 is guilty of an offence and liable on conviction to a fine or to imprisonment for a period not exceeding five years.	Exxaro to note.	Noted		

Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	(2) Whenever an act or omission by a manager or employee of a mine or activity-	Exxaro to note.	Noted		
	(a) constitutes an offence in terms of these regulations, and takes place with the express or implied permission of the person in control of a mine or activity, that person is, in addition to the manager or employee, liable to conviction for that offence; or	Exxaro to note.	Noted		
	(b) would constitute an offence by the person in control of a mine or activity in terms of	Exxaro to note.	Noted		

Ref #	Condition	Audit Question	Compliant/Non-Compliant	Responsible Person	Date
	these regulations that manager or employee is, in addition to that person, liable to conviction for that offence.				

I Ronald Mafoko (name and surname), as the General Manager of Grootegeluk Coal Mine, confirm that I have read and understand the content of this report.

Signed at Grootegeluk Lephallale (place) on this _____ (day) of May (month) 2021

General Manager

Witness