



# Goedehoop Colliery South Final Environmental Audit Report

Submitted as contemplated in section 24N(7)(d) of the Regulation 34 under National Environmental Management Act, 1998 (Act 107 of 1998) (NEMA) and Regulation 34 under Part 3 of Chapter 5 of the amended Environmental Impact Assessment Regulations, 2014 (Government Notice No. 982) (EIA Regulations, 2014)

**DMRE Reference No.:**

**MP 30/5/1/2/1/22 MR, MP 30/5/1/2/3/2/1 (122) EM, 17/2/3N- 281 and 17/2/3N-238**

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As of 7 June 2021, following the completion of the demerger of high-quality export thermal coal operations from Anglo American, Thungela has successfully listed on the Johannesburg and London stock exchanges. As such, we will now legally change our name from Anglo Operations Proprietary Limited ("AOPL") to Thungela Operations Proprietary Limited ("TOPL"). Thungela offers investors access to a high-quality thermal coal business with low cash cost and high-margin assets, as well as a strong balance sheet, underpinned by a robust environmental, social and governance ("ESG") framework. Thungela owns interests in and produces thermal coal predominantly from six collieries located in Mpumalanga, South Africa. The business address has changed to **25 Bath Avenue; Rosebank; 2196; South Africa** however, the specific mines addresses remain unchanged. It is important to note that the legal name change from Anglo Operations (Pty) Ltd to Thungela Resources (Pty) Limited will officially be effective early 2022.

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## 1. INTRODUCTION

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Goedehoop Colliery operated by Thungela Operations (Pty) Ltd situated approximately 15 - 25 km south-east of eMalahleni in the Mpumalanga Province, and is one of the largest mining complexes in Mpumalanga. It falls within the Steve Tshwete Local Municipality of the Nkangala District. The site covers an area of over 20 000 ha and is located in the Olifants river catchment within the Upper Olifants river management area (WMA 4) which forms part of the Witbank Dam catchment area.

Goedehoop Colliery comprises of two (2) sections namely the Goedehoop North Section (previously known as Bank Colliery) and Goedehoop South Section (previously known as Goedehoop Colliery), operated under mining rights with Department of Mineral Resources and Energy (“DMRE”) reference numbers MP 30/5/1/2/2/ 143) MR and MP 30/5/1/2/2/1 (122) MR, respectively and approved Environmental Management Programmes (“EMPr”) in terms of the largely repealed Section 39 (6) of the Mineral and Petroleum Resources Development Act, 2002 (“MPRDA”).

This environmental audit will only be focusing on the South Section of the Goedehoop Colliery.

In terms of the National Environmental Management Act, 1998 (“NEMA”), the amended NEMA Environmental Impact Assessment Regulations, 2014 and the EMPr approval letter Thungela Operations (Pty) Limited must assess its compliance with the conditions of the EAs and approved EMPrs for its activities at Goedehoop Colliery.

Thungela Operations (Pty) Limited appointed Geovicon Environmental (Pty) Limited to assess the compliance of Goedehoop Colliery’s operation against conditions/commitments of the EAs and the EMPrs issued and approved in terms of the NEMA and the MPRDA (for further details on the scope, please see Item 3 further below).

This report was compiled after completion of the above-mentioned virtual environmental audit, site visit and is hereby submitted to the competent authority in line with regulation 34(1)(b).

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## 2. LEGAL FRAMEWORK

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### 2.1. NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998), AS AMENDED (“NEMA”)

Regulation 34 of the EIA Regulations, 2014 states that the holder of an EA must, for the period during which the EA and EMPr remain valid, ensure that compliance with the conditions of the EA and the approved EMPr is audited and that an environmental audit report, prepared by an independent person, is submitted to the relevant competent authority, which in the case of Goedehoop Colliery is the DMRE, Mpumalanga Regional Office. The above-mentioned environmental audit report must determine the ability of the approved EMPr to sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the mining operation on an ongoing basis and the level of compliance with the provisions of EAs and the approved EMPr.

With the amendment of the EIA Regulations, 2014, on 7 April 2014, regulation 54A was introduced. Regulation 54A (2) of the EIA Regulations, 2014 which has also been amended<sup>1</sup>, further states that:

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<sup>1</sup> Government Notice R517 in Government Gazette 44701 of 11 June 2021)

“Where a right or permit issued in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) for –

(a) prospecting or exploration of a mineral or petroleum resource; or

(b) extraction and primary processing of a mineral or petroleum resource;

and the associated Environmental Management Programme or Environmental Management Plan approved in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) is still in effect after 8 December 2014, the requirements contained in Part 3 of Chapter 5 of these Regulations apply to such Environmental Management Programmes or Environmental Management Plans and where (a) the audit or performance assessment cycle of the Environmental Management Programme or Environmental Management Plan exceeds five years, an audit report will be required to be submitted at least every five years commencing from the date of submission of the last audit, for the period during which the right or permit remains in effect; or (b) no audit or performance assessment requirement was set in the Environmental Management Programme or Environmental Plan, an audit report required to be submitted to the competent authority no later than 7 December 2021 and at least every 5 years thereafter for the period during which the right or permit remains in effect”.

In view of the above and in complying with the above approval conditions of the EAs, EMPr and relevant regulations of the NEMA EIA Regulations, a compliance assessment for Goedehoop Colliery's approved EMPs and NEMA EAs are undertaken.

### 3. SCOPE AND PURPOSE OF THE ENVIRONMENTAL AUDIT

The purpose of this assessment is to undertake an audit in terms of section 24N(7)(d) of NEMA read with regulation 34 of the NEMA EIA Regulations in order to verify the Mine's compliance with and adequacy of the following EAs and EMPs –

- **EMPs:**
  - Goedehoop Colliery Aligned EMPr (DMRE Reference number MP 30/5/1/2/122 MR).
  - Goedehoop Colliery (Goedehoop South) EMPR Amendments (Reference number MP 30/5/1/2/3/2/1 (122) EM).
  - Goedehoop colliery's mineral residue deposit expansion, binderless briquetting plant and coal transfer facility.
- **EAs:**
  - Integrated Environmental Authorisation (“IEA”) issued in terms of the NEMA as amended, the EIA Regulations, 2014 and the National Environmental Management: Waste Act, 2008 (“NEMWA”) and Government Notice 921 of 2013 for proposed mining and associated infrastructure (Hope 4 Seam) (Reference Number (MP 30/5/1/2/3/2/1/ (122) EM).
  - Amendment of environmental authorisation for detailing the risk and significance related to wetlands, detailing updated strategies and investigations with regards to groundwater, aligning the EMPR reference number with that of the mine's mining right and inclusion of the proposed discard washing plant (Reference Number (MP 30/5/1/2/3/2/1/ (122) EM).
  - Environmental authorisation for the up-cast ventilation shaft (Reference number: 17/2/3N-281).
  - Environmental authorisation for mineral residue expansion and briquetting plant (Reference number 17/2/3N-238).

The environmental audit was conducted to determine the level of performance against and compliance of the mining operation with the provisions of the issued EAs and approved EMPs. The audit was

conducted to further determine the ability of the measures contained in the EMPs to sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with Goedehoop Colliery's operation and associated surface infrastructure and activities.

In view of the above, the scope of this compliance assessment is as follows:

- To report on the compliance of the mine with the conditions, commitments and/or mitigation measures in the EMPs and EAs, and the extent to which the avoidance, management and mitigation measures provided for in the EMPs and EAs, achieve the objectives and outcomes of the EMPs and EAs.
- To identify and assess any new impacts and risks arising from the Goedehoop Colliery mining activities;
- To evaluate the effectiveness of the EMPs and EAs,
- To identify any inadequacies in the EMPs and EAs, and
- To identify the need for any changes to the avoidance, management and mitigation measures provided for in the EMPs and EAs.

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#### 4. METHODOLOGY ADOPTED IN PREPARING THE ENVIRONMENTAL AUDIT REPORT

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##### 4.1. AUDIT TEAM

**Auditor 1:** Mr. Ornassis Tshepo Shakwane (Pr.Sci.Nat. & Registered EAP)

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**Experience of the Auditor**

Mr. O.T. Shakwane obtained his BSc (Microbiology and Biochemistry) from the University of Durban Westville in 1994, and completed his honours degree in Microbiology in 1995. Mr O.T. Shakwane has also completed short courses on environmental law, environmental impact assessment, environmental risk assessment and environmental management systems with a number of tertiary institutions. He has worked within the three state departments tasked with mining and environmental management i.e. Department of Water and Sanitation (Gauteng and Mpumalanga Region), Department of Mineral Resources (Mpumalanga Region) and Department of Agriculture, Conservation and Environment

(Gauteng Region). Mr. Shakwane has been in the consulting field since 2004 and has undertaken environmental audits for mining operations similar to Goedehoop Colliery. Mr. Shakwane is one of the auditors that audited Goedehoop Colliery's compliance with their EAs and EMPs. Mr. Shakwane has been involved in the field of environmental auditing for the past sixteen years.

He is registered with the Environmental Assessment Practitioners Association of South Africa and South African Council for Natural Scientific Professions as an Environmental Assessment Practitioner and a Professional Natural Scientist in terms of section 24H of the National Environmental Management Act, (Act 107 of 1998) and section 20(3) of the Natural Scientific Professions Act, 2003 (Act 27 of 2003), respectively. He is also a member of the International Association for Impact Assessment, South Africa.

Mr. Ornassis Tshepo Shakwane of Geovicon Environmental (Pty) Limited, hereby declares that he is an independent auditor and that Geovicon Environmental (Pty) Limited and himself have no business, financial, personal or other interest in this project in respect of which Geovicon Environmental (Pty) Limited is appointed. Furthermore, no circumstances exist that may compromise the objectivity of Geovicon Environmental (Pty) Limited, excluding fair remuneration for work performed in connection with this environmental audit.

**Auditor 2:** Ms Reinnie Ntokozo Maseko

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**Experience of the auditor:**

Ms Maseko obtained her BSc Degree in Geological Sciences (2018) as well as a BSc honours in Geological sciences (2019) from the University of KwaZulu-Natal. Ms Maseko has since joined Geovicon Environmental (Pty) Ltd in 2020. Her responsibilities include but not limited to ensuring compliance with the legislation i.e National Water Act, (No: 36 of 1998), National Environmental Management Act, (No: 107 of 1998), National Environmental Management: Waste Act (Act: 59 of 2008), National Environmental Management: Air Quality Act (Act: 39 of 2004) and other Legislative Developments. He is also involved in Application of Integrated Water Use Licenses, conducting of internal and external Water Use Licenses audits as well as Environmental Management Programmes (EMPr), Compiling and updating of Integrated Water and Wastewater Management Plans (IWWMP). She also conducts monthly environmental inspections at several mining companies. Ms Maseko is one of the auditors that audited Goedehoop Colliery (South) compliance with their EAs and EMPs.

**4.2. FREQUENCY OF REPORTING**

Since Goedehoop Colliery did not provide an approval letter for the EMP, which would determine the auditing frequency for the approved EMP, it was assumed that the required frequency for the approved EMP would be annually.

In terms of regulation 34(2)(d) of the NEMA EIA Regulations "*the environmental audit report contemplated in sub-regulation (1) must be conducted and submitted to the competent authority at intervals as indicated in the environmental authorisation*". In the NEMA environmental authorisations, exemption and the approved EMPs, no auditing frequency was indicated. In view of the above and

since the authorisations did not comply with the requirements of regulation 26 (e) of the NEMA EIA Regulations which requires an environmental authorisation to specify the frequency of auditing of compliance with the conditions of the environmental authorisation and compliance with the approved EMPr, the maximum auditing interval allowed is five years

#### **4.3. PERIOD THAT APPLIES TO THIS COMPLIANCE ASSESSMENT**

. The audit review period for this environmental audit report is April 2021 to March 2022.

#### **4.4. PROCEDURE USED DURING THE COMPLIANCE ASSESSMENT**

The following was used as a procedure for the compliance assessment i.e.:

- Desktop assessment of the approved Goedehoop Colliery EMPrs and NEMA EAs. The desktop assessment was used to list all commitments and conditions indicated in the EMPrs, and NEMA EAs. Also, as part of the desktop assessment, we had access to previous audit reports in order to establish the “direction of travel” where possible (i.e., has the mine progressed or regressed in its compliance status).
- The Environmental Audit was conducted by reviewing and abstracting the commitments (management and mitigation measures) from the approved EMPrs and conditions from the approved EAs in cases where the commitments had not yet been fulfilled, either because the applicable phase is not reached or some other reason, such has been indicated in this report. As described further below, we also had extensive electronic interviews with the relevant Goedehoop Colliery personnel. These interviews were held over a period of two (2) days, a day comprising at least six hours.
- To assess the compliance with the conditions and commitments of the EAs and EMPrs and reach our findings, we conducted extensive interviews with the mine personnel. We also reviewed comprehensive documentation which was provided by the mine on a collaboration platform.
- Additional to the audit interview, a site visit was undertaken to confirm the state of compliance at the mine site. The above-mentioned site visit was however, used to finalise the audit findings from the virtual audit and no inconsistencies were identified between comprehensive virtual and site visits.
- In addition to assessing the compliance to commitments, the adequacy of the information was also assessed through evaluating activities and verifying such against the descriptions and risk assessments provided in the EMPrs, and whether location specific risks and the necessary specialist assessments had been considered.

#### **4.5. EVALUATION CRITERIA USED DURING THE COMPLIANCE ASSESSMENT**

. Evaluation criteria used during the compliance assessment include the following:

- Are the measures and structures as indicated in the EMPrs and NEMA EAs in place?
- Are the measures adequate and structures maintained, and at what frequency?
- Has the monitoring as indicated in the EMPrs and NEMA EAs been conducted? (Data, reports).
- Is the reported frequency of the monitoring in accordance with the EMPrs and NEMA EAs? (Reports)
- Determining whether any new measures are required to prevent or mitigate the existing environmental impacts and/or other potential impacts.

Evaluation of the appropriateness and adequacy of the EMPs and NEMA EAs included the following:

- Compliance with relevant laws pertaining to the environment.
- Compliance of mining and associated activities with the EMPs and NEMA EAs. (Is the mine conducting activities that are not indicated in the EMPs and the EAs?)

#### 4.6. RATING OF FINDINGS

The compliance category was rated as indicated in the table below:

Compliance category	Findings
Condition/mitigation measure/commitment has been achieved with evidence provided in the form of a document.	Compliant
The failure to comply with, or satisfy the requirements of an applicable condition, commitment and/or mitigation measure. When site visits are finally conducted, non-compliances will include instances where although the current condition or mitigation measure has been achieved, there have been new impacts and risks arising from the activity; whether the current measures are effective and whether there are any shortcomings which need to be address through changes in the systems or amendments of the relevant EMPs and/or EAs.	Non-Compliant
The condition, commitment and/or mitigation measure is Not Applicable. A "Not Applicable" finding is also noted in events where such condition, commitment and/or mitigation measure is either obsolete, alternative effective measure is utilised or commitment and/or mitigation measure is not yet relevant but is still relevant for future activities.	Not applicable
The condition, commitment and/or mitigation measure that does not require any specific action.	Noted

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## 4 ASSUMPTIONS, UNCERTAINTIES AND GAPS IN KNOWLEDGE

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Although all reasonable attempts were made to verify comments made during interviews held with relevant Goedehoop Colliery personnel as well as the review of documentation, it is assumed that such comments and documents provided are a true and accurate reflection of the audit.

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## 5 EMPr RECOMMENDATION REPORT

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Regulation 34(4) of the EIA regulation, 2014 state the following:

Where findings of the Environmental Audit Report indicate:

- insufficient mitigation of environmental impacts associated with the undertaking of activity;

- insufficient levels of compliance with the environmental authorisation or EMPs and where applicable the closure plan;

The holder of the must when submitting the environmental audit report to the competent authority in terms of sub regulation (1), submit recommendations to amend the EMP or closure plan in order to rectify shortcomings identified in the environmental audit report and such recommendations must have been subjected to a public participation process as agreed to by the competent authority.

Based on the findings and the fact that Goedehoop Colliery has already undertaken an amendment process to address some of the non-compliances, no recommendation for amendment outside what has been submitted is proposed.

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## **6 RESULTS OF THE ENVIRONMENTAL AUDIT**

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The results of the environmental audit are given in the Tables below. The tables below outline the EMP's and the EA's for each of the authorised activities at Goedehoop Colliery.

### 6.1 GOEDEHOOP COLLIERY'S AMENDED EIA AND ENVIRONMENTAL MANAGEMENT PROGRAMME (DMRE REFERENCE NUMBER: MP30/5/1/2/2/1(122) MR.

GOEDEHOOP COLLIERY AMENDED EIA AND ENVIRONMENTAL MANAGEMENT PROGRAMME (DMRE REFERENCE NO. MP30/5/1/2/2/1(122) MR)				
ACTIVITY	ENVIRONMENTAL COMPONENT	MITIGATION PRINCIPLE	FINDINGS	OBSERVATIONS/AUDIT EVIDENCE
<b>CONSTRUCTION PHASE</b>				
<b>Excavation of the initial box cuts and Development of the Access and Ventilation Shafts</b>	<b>Geology</b>	No mitigation measures can be undertaken for the predicted impact. However, the mine will use removed material to backfill the opencast voids, access ramps, the shafts portals. All carbonaceous material from the overburden will be placed at the bottom of the mining pits/shafts and should be backfilled with the rest of the overburden material.  This will reduce the exposure of the carbonaceous material to free oxygen, hence limiting the formation of acid mine generation.	Compliant	There are no mitigation measures to remediate impact on geology. Goedehoop Colliery is currently undergoing rehabilitation/decommissioning and there is currently no carbonaceous material on site excluding the old slurry dams, discard dump and its related activities. All voids and carbonaceous stockpiles have been rehabilitated thus has reduced the exposure of carbonaceous materials.
	<b>Topography</b>	Use material from the successive cuts to backfill the voids created by the construction of the initial box cuts. Note that since concurrent rehabilitation will be used at the mine, only three to four cuts will at all times be open at any of the opencast mining area.	Not applicable	No opencast mining activities are currently undertaken at Goedehoop South Colliery. The opencast voids are fully rehabilitated therefore, the number of box cuts that were open at any given time can no longer be accessed. This condition is no longer applicable.
		Material removed during shaft construction will be used for the backfilling of the void created by the shafts construction upon closure.	Compliant	There's no material stockpiled on site from the construction of shafts, the shafts are fully rehabilitated.
	<b>Soil</b>	Topsoil removed during construction will be stockpiled as per the recommendation from the soil specialist.  The stockpiled topsoil or soils remove from successive cuts/shafts will be used for rehabilitation of the mined-out areas/ decommissioned shafts.  During rehabilitation, soil amelioration should be done by liming and fertilizer applications based on soil analysis.	Compliant	No construction activities are currently taking place at Goedehoop Colliery, the mine is under decommissioning thus no stockpiles observed on site. It was also confirmed during the site visit that there are no more topsoil stockpiles available on site. All soils were used during the rehabilitation process.  Soil amelioration was undertaken in accordance with the vegetation establishment, maintenance and monitoring procedure (AATC008790).
		The topsoil used to cover the areas must be seeded with the recommended seed mix to ensure natural vegetation remaining in the soil (seed bank) is re- established.	compliant	Farmer's method statement was provided for review and it indicates that Oulands and Teff seedmix was used to seed the area. From the 2012 soil study and 2019 vegetation assessment, no seedmix recommendation was made; however, the planting of palatable plants was recommended in the 2019 vegetation assessment and these plants are very palatable to livestock.  For the areas to be rehabilitated, a seedmix was recommended and a study by the university of North West is still underway to determine the type of plants to be planted at Springbok dump area.
	Stockpile topsoil to appropriate height hence reducing loss of fertility.  Avoid mining activity at stockpiles. Use of topsoil for rehabilitation of the backfilled opencast pits, hence rehabilitated areas can be used for other purposes.	Not applicable	No construction activities are currently taking place at Goedehoop Colliery. It was also confirmed during the site visit that there are no more topsoil stockpiles available on site. All soils were used during the rehabilitation process.	

		In addition to the above, the following will be done to enhance the rehabilitation work i.e. construction of soil conservation measures at construction sites and along roads (i.e. enhanced vegetation growth by fertilisation of soil stockpiles/berms, soil stockpiles will be constructed to have storm water berms to prevent soil erosion on the stockpiles, soil stockpile heights will be restricted to five meters, soil berms will be restricted to 1.5 meters and equipment/human movement will be limited on soil stockpiles), avoidance of bare, disturbed surfaces or embankments for long periods (i.e. re-vegetate as soon as possible) and avoidance of undue storm water concentration (i.e. construct runoff measures according to soil conservation principles).	Not applicable	No construction activities are currently taking place at Goedehoop Colliery. It was also confirmed during the site visit that there are no more topsoil stockpiles available on site. All soils were used during the rehabilitation; process. Goedehoop south colliery is under the decommissioning phase. 1.5 meters and equipment/human movement will be limited on soil stockpiles), avoidance of bare, disturbed surfaces or embankments for long periods (i.e., re-vegetate as soon as possible) and avoidance of undue storm water concentration (i.e. construct runoff measures according to soil conservation principles).
		No machinery repairs will be conducted at the mining area. If emergency repairs have to be undertaken, they will be conducted on protected ground.	Not applicable	No construction activities are taking place; therefore, no construction machineries are currently being repaired at Goedehoop Colliery except at the South Co disposal facility where Nasonti is reclaiming the discard dump. Therefore, this condition is not applicable.
	<b>Natural vegetation</b>	The construction of the initial box cuts and shafts will be conducted at the designated area and will not encroach into the clean water environment and areas with identified endangered plant species.	Not applicable	Construction of the initial box cuts and shafts was completed and the area is fully rehabilitated. Therefore, this commitment is not applicable.
		Dust suppression should be done for the prevention of the plant from being affected by the dust generated from the construction sites.	Not applicable	No construction activities are currently taking place at the Goedehoop Colliery.
	<b>Animal Life</b>	The rehabilitation of the disturbed areas must be conducted such the rehabilitated areas will encourage the migration of animals back into the rehabilitated areas.	Compliant	A <i>Biodiversity Action Plan</i> prepared by Digby Wells Environmental, dated February 2014, was compiled and is implemented to ensure compliance with this condition. Moreover, palatable vegetation is used to reseed the area thus encouraging the migration of animals back into the rehabilitated areas. It was confirmed that part of the action plan is to conduct a biodiversity study within a year after the rehabilitation process to evaluate animal life in the area.
	<b>Surface Water</b>	Divert clean runoff water away from the initial box cuts and shafts complexes.	Not applicable	The boxcuts and shafts complexes are fully rehabilitated and considered as a clean water catchment, this condition is no longer applicable.
		Construct dirty water dams and silt traps in which all dirty water from the opencast pits and shaft sites will be pumped/drained to, respectively.	Not applicable	The opencast pits and shafts site are fully rehabilitated and considered as a clean water catchment. Moreover, Goedehoop south colliery is under the decommissioning phase; therefore, this condition is no longer applicable.
		Ensure that the initial box cuts and shafts are sited to be away from any sensitive landscapes. These must at least be more than one hundred meters away from the nearby streams. The buffer from wetlands must be determined by a wetland specialist. If the siting of the box cuts outside wetlands cannot be achieved, relevant authorization will be sought from relevant authorities.	Not applicable	The opencast pits and shafts site are fully rehabilitated; therefore, this condition is no longer applicable.
		In addition to the above, the affected wetlands will be rehabilitated in accordance to a wetland rehabilitation plan that is approved by the Department of Water Affairs.	Compliant	A <i>Wetland Rehabilitation Strategy and Management Plan</i> was also developed by The Biodiversity Company, dated August 2017. The mine is still in the process of wetland rehabilitation.

	<b>Air Quality</b>	Conduct dust suppression daily.	Not applicable	No construction activities are currently taking place. Goedehoop south colliery is under the decommissioning phase therefore, this condition is no longer applicable.
		Enforce appropriate speed limits for the mine vehicles.	Not applicable	
		Implement a dust and noxious gas minimization strategy.	Not applicable	
	<b>Noise</b>	Direct line of sight from receptors to be obscured by a berm/barrier for both day and night-time operations. The material location and dimensions of the barrier must be constructed as per recommendation by the noise specialist.	Not applicable	No construction activities are currently taking place. Goedehoop south colliery is under the decommissioning phase therefore, this condition is no longer applicable.
	<b>Vibration and Noise</b>	Best practices must be used during blasting to ensure that the ground vibration and air blast pressure is within acceptable limits.	Not applicable	No construction activities are currently taking place. Goedehoop south colliery is under the decommissioning phase therefore, this condition is no longer applicable.
		In order to ensure that levels of ground vibration and that of air blast are within acceptable limits (not to induce damage), reduce charge mass per delay limit as specified by the blasting specialist where necessary.	Not applicable	
		Proper stemming and use of stemming material.	Not applicable	
		Blasts can be delayed when prevailing wind is blowing towards the area of concern and not leaving blasts standing for long periods of time.	Not applicable	No construction activities are currently taking place. Goedehoop south colliery is under the decommissioning phase therefore, this condition is no longer applicable.
		Ensure that the mine employees are issued with earplugs and that they are instructed to use them.	Not applicable	
		Educate employees on the dangers of hearing loss due to mine machinery noise.	Not applicable	
		Undertake an ambient noise monitoring programme and any deviation from the normal and acceptable levels should be addressed promptly.	Not applicable	
	<b>Visual Effects</b>	Ensure that all property owners are made aware of the activities to be undertaken at the site.	Compliant	Proof was provided that all I & APs were always notified of activities to be undertaken at the mine including property owners. In addition to this, Goedehoop Colliery started a farmers day initiative where they meet with the farmers on an annual basis. Therefore, before the Covid 19 pandemic, owners were made aware of the activities undertaken on site.
		A perimeter berm will be constructed around the initial box cuts to shield the cuts away from the nearby traffic and farm owners. If topsoil is used, such a berm will not exceed a height of five meters.	Not applicable	The initial boxcut was fully rehabilitated, Goedehoop south colliery is under the decommissioning phase therefore, this condition is no longer applicable.
		Ensure that the box cuts, successive cuts and the associated stockpiles are removed or rehabilitated during the decommissioning phase.	Compliant	It was confirmed during the site visit that all opencast and associated stockpiling areas are fully rehabilitated.
		Siting of the shafts must as much as possible attempt to site the shafts on areas not visible to the surrounding homesteads.	Not applicable	The shafts are fully rehabilitated. Goedehoop south colliery is under the decommissioning phase therefore, this condition is no longer applicable.
	Ensure that all wetland areas are identified and demarcated.	Not applicable	No construction activities are currently taking place thus it cannot be assessed if the wetlands were demarcated during the construction phase. Goedehoop	

	<b>Sensitive Landscape</b>			South Colliery is under the decommissioning phase therefore, this condition is no longer applicable.
		No mining must be allowed within a distance specified by the wetland specialist from any wetland areas.	Not applicable	No construction activities are currently taking place thus this condition cannot be assessed. It must be noted that relevant WULs were obtained and a Wetland Rehabilitation Strategy and Management Plan was also developed.
		If this cannot be avoided, a water use license application will be submitted where permission to mine within the wetland area will be sought. Together with the application, a rehabilitation programme must be submitted, whereby a method will be described how the affected wetland areas will be rehabilitated	Not applicable	.
		In addition to the above, the following will be undertaken: <ul style="list-style-type: none"> <li>• Minimization of the removal of/damage to vegetation in riparian and wetland areas, especially on the areas if the complexes will be within the wetlands.</li> <li>• Wetlands disturbed during construction should be re-vegetated using site-appropriate indigenous vegetation and/or seed mixes Alien vegetation should not be allowed to colonize the disturbed wetland areas</li> <li>• Rehabilitation of disturbed wetland habitat should commence immediately after construction is completed</li> <li>• Debris and sediment trapping, as well as energy dissipation control structures, should be put in place where storm water enters the wetland</li> </ul>	Not applicable	No construction activities are currently taking place. Goedehoop south colliery is under the decommissioning phase (commenced in 2019). It must be noted that wetlands are still in the rehabilitation process.
<b>Construction of the Binderless Coal Briquetting Plant</b>	<b>Topography</b>	The proposed binderless coal briquetting plant was designed by suitably qualified persons. The plant is designed to occupy as small space as possible. The design will be approved by the relevant personnel at the mine and by the relevant authorities before their construction. The plant is being designed such that it blends well with the existing topographical features of the sites.	Not applicable	The construction of the Binderless Coal Briquetting Plant was not undertaken; therefore, this condition is not applicable.
		The proposed plant has been sited at areas that have already been degraded either by the mine activities or previously farming practices. The plants are also cited in close proximity to the existing mine surface infrastructure.	Not applicable	
		The mine will ensure that the construction contractors will be made familiar with the design's specifications before commencement of the construction of the plants.	Not applicable	
		Construction of the plant and associated infrastructure will be conducted in accordance with the approved detailed design specifications of the plant.	Not applicable	
	All topsoil removed from the plant construction sites will be stockpiled roused to construct a push up berm around the construction sites. The pushup berm will not be more than 1.5-meter high. Removed soils will be	Not applicable		

	<b>Soil</b>	stockpiled separately and used during the rehabilitation of the disturbed areas. This will be conducted in accordance with the soil utilization programme compiled by a soil specialist.		The construction of the Binderless Coal Briquetting Plant was not undertaken; therefore, this condition is not applicable.	
		Topsoil from the binderless coal briquetting plant construction area will be stockpiled as a topsoil stockpile to the south east of the plant area. The stockpile will not exceed the height of five meters with side slopes at a gradient not exceeding 1:4. This is done to ensure that the fertility and seed bank of the soils are sustained.	Not applicable		
		Subsoil removed will either be stockpiled or used in the construction of the plant site foundations.	Not applicable		
		All areas where wetland soils have been delineated in close proximity to the project area will be demarcated and protected from disturbance by the construction activities.	Not applicable		
		During rehabilitation of the sites, soil amelioration will be done by liming and fertilizer applications based on soil analysis.	Not applicable		
		All construction sites will be demarcated and no construction activity will be allowed beyond the demarcated area.	Not applicable		
		The mine and construction personnel will ensure that the existence of bare and disturbed surfaces or embankments for long periods area voided.	Not applicable		
		The mine and construction personnel will ensure that undue storm-water concentration (i.e. construct runoff measures according to soil conservation principles) are avoided.	Not applicable		
		Traffic will be limited to definite road zones and the mine will refrain movement over soil surface during very wet conditions.	Not applicable		
	Mine vehicles, machinery and equipment will be regularly serviced to reduce risk of leaks. Any leakages should be reported and treated immediately in a reputable manner with spill kits which should be provided for onsite. For large spills a hazardous materials specialist will called in.	Not applicable			
	<b>Natural Vegetation</b>	The construction of the plants and associated infrastructure will be conducted within the designated construction sites, which will avoid all areas where rare or endangered plant species are identified.	Not applicable		The construction of the Binderless Coal Briquetting Plant was not undertaken; therefore, this condition is not applicable.
		Construction activities will be conducted such that areas where wetland were identified are avoided. All areas where wetlands will be affected will be rehabilitated to the satisfactory of the environmental co-coordinator.	Not applicable		
Dust suppression should be conducted for the protection of the surrounding plant community from the dust generated at the constructionists.		Not applicable			

	<b>Land Use and Capability</b>	The area will be rehabilitated such that it approximates the pre-mining land use and capability during mine closure.	Not applicable	The construction of the Binderless Coal Briquetting Plant was not undertaken; therefore, this condition is not applicable.
		The soils should be monitored for its fertility before use for rehabilitation purposes.	Not applicable	
	<b>Surface and Ground Water</b>	Divert all dirty water within the construction site to Goedehoop Colliery existing dirty storm water management structures. Divert all clean water away from the infrastructure construction site to the nearby streams.	Not applicable	The construction of the Binderless Coal Briquetting Plant was not undertaken; therefore, this condition is not applicable.
		The timing of the topsoil stripping should be optimised to limit the time between stripping and construction. Where practical constraints exist areas needs to be left stripped for long periods, contour ploughing or ripping should be practice, which will assist in the reduction of runoff and erosion. Preferably construction should be conducted during dry season.	Not applicable	
		All waste generated during the construction activities will be collected in bins and disposed properly. Note that the site's waste management will be done in compliance with the mine waste management procedures.	Not applicable	
		Where necessary, a temporary area will be dedicated for the emergency repair of vehicles until proper workshops are constructed other than that the existing mine's workshops will be used for that particular purpose.	Not applicable	
		The coal stockpiling areas will be bunded around and the floors compacted to allow water drainage to the pollution control structures hence limiting seepage into the groundwater.	Not applicable	
	<b>Air Quality</b>	Water carts will be used or the suppression of dust from the construction site.	Not applicable	The construction of the Binderless Coal Briquetting Plant was not undertaken; therefore, this condition is not applicable.
		Dust fallout will be monitored regularly. New areas will be included in the current dust monitoring network.	Not applicable	
		If it can be proven that the dust suppression does not yield satisfactory results, another method of dust suppression will be investigated and used at the mine site on approval by mine personnel.	Not applicable	
	<b>Noise</b>	Well serviced vehicles will be used on site.	Not applicable	The construction of the Binderless Coal Briquetting Plant was not undertaken; therefore, this condition is not applicable.
		Where necessary (noise levels not complying top set standards), methods of noise reduction from the construction vehicles should be investigated and implemented on approval by mine personnel.		
		Direct line of sight from receptors to be obscured by a berm/barrier for both day and night-time operations. The material, location, and dimensions of the barrier must be constructed as per recommendation by the noise specialist.	Not applicable	The construction of the Binderless Coal Briquetting Plant was not undertaken; therefore, this condition is not applicable.

	<b>Sensitive Landscape</b>	The sitting of the plants was conducted such that wetland areas are avoided. These areas will be demarcated and construction activities will be limited within these areas. If it can be found that the nearby wetland areas are affected, the mine will ensure that the affected areas are rehabilitated.	Not applicable	The construction of the Binderless Coal Briquetting Plant was not undertaken; therefore, this condition is not applicable.
		A water use license will also be obtained from the Department of Water Affairs if the construction of the plants and associated infrastructure will be within 500 meters from the edge of the identified wetlands.	Not applicable	
	<b>Visual</b>	The plants will be constructed in accordance to the approved designs, which would have been presented to the surrounding land owners or occupiers during the public participation process.	Not applicable	
<b>Expansion and Reclamation of the Goedehoop Colliery Mineral Residue Deposit</b>	<b>Topography</b>	The expansion of the mineral residue deposit will be designed by a suitably qualified person before commencement of the expansion project. This design must also be approved by the relevant authorities and mine personnel before commencement of the expansion.	Not applicable	The expansion of the MRD has not yet commenced. Only the re-working of the MRD is being undertaken by Nasonti Coal (Pty) Limited and Nasonti Coal (Pty) Limited, and who have separately obtained an EA and GA for the reclamation of the discard dump and a plant on top of the discard dump.
		The contractors involved in the physical work of the facility expansion will be made familiar with the design's specifications before commencement of the residue deposit expansion.	Not applicable	
		Construction of the facility will be conducted in accordance with the detailed design specifications of the infrastructure approved by the relevant personnel at the mine. This will cover as small space as possible.	Not applicable	
		The expansion will be constructed to have heights that are within acceptable standards and that will not have detrimental effects on the surrounding land users. This should blend well with the topographical features of the surrounding area.	Not applicable	
	<b>Soils</b>	All topsoil removed from the construction site will be stockpiled at an existing topsoil stockpile. Some of the soils will be used to construct diversion berms around the expansion area. The push up berm (if any) will not be more than 1.5 meters high. Where new topsoil stockpiles are formed, such stockpile will not be more than five meters high with side slopes at a gradient not exceeding 1:4. Removed soils will be used during the rehabilitation of the mineral residue deposit. This will be conducted in accordance with the mineral residue rehabilitation designs.	Not applicable	The expansion of the MRD has not commenced yet and there was no topsoil removed for construction purposes on the Nasonti's site and it was confirmed during the site visit that there are no topsoil stockpiles on site. Only the re-working of the MRD is being undertaken by Nasonti Coal (Pty) Limited and it has separately obtained an EA and GA for the reclamation of the discard dump and build a plant on top of the discard.
		With the exception of the affected portion of the wetlands, all areas where wetland soils have been delineated in close proximity to the expansion area will be demarcated and no expansion will be allowed within the delineated wetland soils	Not applicable	
		Mine vehicles, machinery and equipment will be regularly serviced to reduce risk of leaks. Any leakages should be reported and treated immediately in a	Compliant	

		reputable manner with spill kits which should be provided for onsite. For large spills a hazardous materials specialist will be called in.		discard. That will be audited separately. However, proof that the mine vehicles, machinery and equipment are regularly inspected was not provided.
<b>Natural Vegetation</b>		The mineral residue deposit expansion will be conducted within the designated construction site. This will ensure that the planned footprint of the expansion is adhered to.	Not applicable	The expansion of the MRD has not yet commenced. Only the re-working of the MRD is being undertaken by Nasonti Coal (Pty) Limited and it has an EA and GA for the reclamation of the discard dump and build a plant on top of the discard.
		The construction activities will be conducted such that wetland areas outside the expansion area are avoided. Note that a portion of the wetland will be affected by the proposed development.	Not applicable	
		Dust suppression should be conducted for the protection of the surrounding plant community from the dust generated at the construction sites.	Compliant	The expansion of the MRD has not yet commenced. Only the re-working of the MRD is being undertaken by Nasonti Coal (Pty) Limited and although there are no construction sites, dust suppression is being undertaken on site.
		Diversion berms will be constructed to control any sedimentation from the construction from entering the areas outside the mineral residue deposit expansion area.	Not applicable	The expansion of the MRD has not yet commenced. Only the re-working of the MRD is being undertaken by Nasonti Coal (Pty) Limited.
<b>Land Use and Capability</b>		The expansion area will be designed and constructed such that it blends the existing facility, which will ensure that the mineral residue deposit is rehabilitated as one facility.  Soils removed from the expansion area will be stockpiled and used during the rehabilitation of the facility. The soils should be monitored for its fertility before use for rehabilitation purposes.	Not applicable	The expansion of the MRD has not yet commenced. Only the re-working of the MRD is being undertaken by Nasonti Coal (Pty) Limited.
<b>Surface Water</b>		The storm water management system of the expansion area will be designed such that it connects to Goedehoop Colliery's existing dirty water management system. The mineral residue deposit is designed such that a toe drains will be constructed along the perimeter of the expansion area, which will connect to a sump. The sump will be fitted with a pump, which will be used to pump water to the mine's dirty water dams i.e. Kevin's farm dam and Return water dam.	Not applicable	The expansion of the MRD has not yet commenced. Only the re-working of the MRD is being undertaken by Nasonti Coal (Pty) Limited.
		All storm water management structures will be designed to comply with the requirements of the GN704 and will be constructed in accordance to the designs approved by the relevant authorities and mine personnel.	Not applicable	The expansion of the MRD has not yet commenced. Only the re-working of the MRD is being undertaken by Nasonti Coal (Pty) Limited and there are no new stormwater management structures constructed by Nasonti Coal (Pty) Limited.
		During the construction phase of the expansion project, all dirty water (silted) within the construction site will be diverted away from the clean water environment. Goedehoop Colliery will ensure that silt from the site is controlled. Use measures such as silt traps to control the silt.	Not applicable	The expansion of the MRD has not yet commenced. Only the re-working of the MRD is being undertaken by Nasonti Coal (Pty) Limited.
		Divert all clean water away from the construction areas to the nearby streams.	Not applicable	The expansion of the MRD has not yet commenced. Only operational activities (re-mining of the existing MRD) have commenced, with such activities utilising

				existing infrastructure. All mine dirty water is diverted to the existing south return water dam and clean water is allowed to flow to the natural environment.
		All waste generated during the construction activities either from the site or the construction crew camp will be collected in bins or sellable bags and disposed properly. The site will also manage any other waste generated in accordance to the mine's waste management procedures.	Not applicable	The expansion of the MRD has not yet commenced therefore, there is no waste generated during construction activities. Only operational activities (re-mining of the existing MRD) have commenced, with such activities utilising most of the existing infrastructure. We note that during the site visit maintenance and pipelines scrap material was not disposed of in designated areas and was left next to Erikson dam 1 at Nasonti's site.
		No concrete mixing will be allowed on site unless it is conducted on protected ground.	Not applicable	The expansion of the MRD has not yet commenced. Only operational activities (re-mining of the existing MRD) have commenced, with such activities utilizing the existing infrastructure; thus, no concrete mixing taking place on site and none was observed.
		Hydrocarbon spills on site will be cleaned up immediately and disposed of properly. Spill kits with hydrocarbon absorbent material should be available at the site at all times.	Compliant	There were no spillages observed during the site visit and based on the records, spill kits are provided for spillage control and remediations incidental to hydrocarbon spillages.
	<b>Groundwater</b>	The floor of the mineral residue deposit expansion area will be constructed such the area is ripped and compacted. The floor will be connected to a toe drain that will collect and drain the seepage and contaminated storm water runoff from the mineral residue deposit to a sump with a pump that will convey the water to the mine's dirty dams (Kevin's farm dam and Return Water Dam). This will ensure that seepage water from the site that would have resulted in the contamination of the groundwater aquifer is collected.	Not applicable	The expansion of the MRD has not yet commenced. Only the re-working of the MRD is being undertaken by Nasonti Coal (Pty) Limited.
	<b>Air Quality</b>	Water carts will be used or the suppression of dust from the construction site.	Compliant	The expansion of the MRD has not yet commenced. Only the re-working of the MRD is being undertaken by Nasonti Coal (Pty) Limited and although there are no construction sites, dust suppression is being undertaken on site.
		Dust fallout will be monitored regularly. New areas will be included in the current dust monitoring network.	Compliant	Dust fallout is monitored on a monthly basis and an air quality monitoring report was prepared by WSP Group Africa (Pty) Ltd for Goedehoop Colliery dated March 2022 was provided for review. There were no new monitoring areas, the current activities at Nasonti's site are occurring within the existing monitoring network.
		If it can be proven that the dust suppression does not yield satisfactory results, another method of dust suppression will be investigated and on approval used at the mine.	Not applicable	Based on the dust monitoring results, the average dust fallout is within the stipulated standards proving that water dust suppression is effective.
	<b>Noise</b>	Well serviced vehicles will be used on site.	Compliant	Proof that the mine vehicles, machinery and equipment are regularly inspected and serviced was provided.
		Work will be conducted during the day and will be stopped at night time. Arrangements will be made with the land owner if work will be continued at night.	Compliant	Nasonti is operating on Thungela -Goedehoop South colliery on a 4 by 4 shift and there were no complaints from the I&APs.

		Direct line of sight from receptors to be obscured by a berm/barrier for both day and night-time operations. The material, location, and dimensions of the barrier must be constructed as per recommendation by the noise specialist.	Not applicable	The expansion of the MRD has not yet commenced. Only operational activities (re-mining of the existing MRD) have commenced, with such activities utilising existing infrastructure. The mine has a berm shielding and screening the receptors from the activities.
	<b>Sensitive Landscape</b>	All areas where wetlands will be affected will be demarcated and no activity will be allowed within the remaining wetland areas. The remaining wetland areas in close proximity to the expansion area will be protected from disturbance by the construction activities. Debris and sediment trapping, as well as energy dissipation control structures, should be Put in place where storm water enters the wetland areas. If it can happen during the construction phase that the remaining wetland is directly affected, the affected wetland area will be rehabilitated immediately.  Disturbed wetlands will be re-vegetated using site-appropriate indigenous vegetation and/or seed mixes.	Not applicable	The re-mining of the MRD and its related activity utilizes the existing infrastructure on site.
		Alien vegetation should not be allowed to colonize the identified wetland areas.	Not applicable	The expansion of the MRD has not yet commenced. During the site visit, there were no alien invasive species at the Nasonti MRD reclamation working area.
		The expansion and associated water management structures will be designed and constructed such that as much of the seepage and dirty runoff water from the mineral residue does not report to the wetlands areas. The floor of the expansion area will be ripped and compacted as per recommendation from the appointed civil engineer and the sump and toe drain will be lined and operated such that they do not seepage and overflow to the surrounding wetland areas.	Not applicable	The expansion of the MRD has not yet commenced. Only operational activities (re-mining of the existing MRD) have commenced.
		A water use licence will also be obtained from the Department of Water Affairs if the expansion of the mineral residue deposit will be conducted within the identified wetlands or 500 meters from the edge of such wetlands.	Compliant	A water use licence (03/B11B/CGI/4702) was obtained from the DWS for the expansion of the South Co-disposal Facility as well as a GA referenced 27/2/2/B211/32/3 for coal handling and placing a processing plant within 500m radius of a wetland.
<b>Construction of the Elders Coal Transfer Facility</b>	<b>Topography</b>	The designs of the facility will be conducted by a suitably qualified person. This design must also be approved by the relevant authorities before construction.	Not applicable	Construction of the Elders Coal Transfer Facility has not commenced. Therefore, associated EMP commitments are not yet applicable.
		The contractors will be made familiar with the designs specifications before commencement of the construction.	Not applicable	
		Construction of the facility will be conducted in accordance with the detailed design specifications of the infrastructure approved by the relevant personnel at the mine. This will cover as small space as possible. The facility will be constructed to have heights that are within acceptable	Not applicable	

		standards and that will not have detrimental effects on the surrounding land users.			
<b>Soils</b>		All topsoil removed from the construction sites will be stockpiled or used to construct a push up berm along the roads. The push up berm will not be more than 1.5 meters high. Removed soils will be stockpiled separately and used during the rehabilitation of the disturbed areas. This will be conducted in accordance with the soil utilisation programme compiled by a soil specialist.	Not applicable	Construction of the Elders Coal Transfer Facility has not commenced. Therefore, associated EMPr commitments are not yet applicable.	
		The height of the stockpiles will be such that the fertility and seed bank of the soils are sustained. The soil stockpile will be approximately four meters high with side slopes at a gradient not exceeding 1:4.	Not applicable		
		As much as possible, areas of degraded status will be used for the sitting and construction of the elder's coal transfer facility	Not applicable		
		All areas where wetland soils have been delineated in close proximity or within the project areas will be demarcated and if the wetland soils will be directly affected, such soils will be removed and stockpiled separately for rehabilitation. Such rehabilitation must be approved by the Department of Water Affairs.	Not applicable		
		The remaining wetland areas in close proximity to the elder's coal transfer facility will be protected from disturbance by the construction activities. This will be done by separating clean and dirty water at the site and by avoiding conducting any activity within the remaining wetlands.	Not applicable		
		During rehabilitation of the sites, soil amelioration will be done by liming and fertilizer applications based on soil analysis.	Not applicable		
		Mine vehicles, machinery and equipment will be regularly serviced to reduce risk of leaks. Any leakages should be reported and treated immediately in a reputable manner with spill kits which should be provided for onsite. For large spills a hazardous materials specialist will called in.	Not applicable		
	<b>Natural Vegetation</b>		The construction of the elder's coal transfer facility will be conducted within the designated construction sites, which will avoid all areas where rare or endangered plant species were identified.		Not applicable
			As much as possible the construction activities will be conducted such that areas where wetland was identified are avoided. Where wetlands cannot be avoided, the affected areas will be rehabilitated to the satisfactory of the environmental co-ordinator.		Not applicable
			Dust suppression should be conducted for the protection of the surrounding plant community from the dust generated at the construction sites.		Not applicable

	<b>Land Use and Capability</b>	The area will be rehabilitated such that it approximates the pre-mining land use and capability.	Not applicable	Construction of the Elders Coal Transfer Facility has not commenced. Therefore, associated EMPr commitments are not yet applicable.
		The soils should be monitored for its fertility before use for rehabilitation purposes.	Not applicable	
	<b>Surface and Groundwater</b>	Divert all dirty water within the construction site to connect to the existing Goedehoop Colliery storm water management system. Ensure that then Silt from the site is controlled on site before connecting to the storm water management system. Use measures such as silt traps to control the silt.	Not applicable	Construction of the Elders Coal Transfer Facility has not commenced. Therefore, associated EMPr commitments are not yet applicable.
		The coal stockpiling areas will be bunded around and the floors compacted to allow water drainage to the pollution control structures hence limiting seepage into the groundwater.	Not applicable	
		Divert all clean water away from the construction areas to the nearby streams. All storm water management structures will be designed to the requirements of the GN704 and will be constructed in accordance to the designs approved by the relevant authorities and mine personnel.	Not applicable	
		All waste generated during the construction activities either from the site or the construction crew camp (applicable to all camp sites at the mine) will be collected in bins and disposed properly. They will manage waste in accordance to the mine's waste management procedures.	Not applicable	
		A temporary area will be dedicated for the emergency repair of vehicles until a proper workshop is constructed.	Not applicable	
	<b>Air Quality</b>	Water carts will be used or the suppression of dust from the construction site.	Not applicable	Construction of the Elders Coal Transfer Facility has not commenced. Therefore, associated EMPr commitments are not yet applicable.
		Dust fallout will be monitored regularly. New areas will be included in the current dust monitoring network.	Not applicable	
		If it can be proven that the dust suppression does not yield satisfactory results, another method of dust suppression will be investigated and on approval used at the mine.	Not applicable	
	<b>Noise</b>	Well serviced vehicles will be used on site.	Not applicable	Construction of the Elders Coal Transfer Facility has not commenced. Therefore, associated EMPr commitments are not yet applicable.
		Work will be conducted during the day and will be stopped at night time. Arrangements will be made with the land owner if work will be continued at night.	Not applicable	
		Direct line of sight from receptors to be obscured by a berm/barrier for both day and night-time operations. The material, location, and dimensions of the barrier must be constructed as per recommendation by the noise specialist.	Not applicable	

	<b>Sensitive Landscape</b>	<p>All areas where wetland have been delineated in close proximity or within the project areas will be demarcated and if the wetland will be directly affected, soils from these areas will be removed and stockpiled separately for rehabilitation.</p>	Not applicable	<p>Construction of the Elders Coal Transfer Facility has not commenced. Therefore, associated EMPr commitments are not yet applicable.</p>
		<p>The remaining wetland areas in close proximity to the elder's coal transfer facility will be protected from disturbance by the construction activities.</p>	Not applicable	
		<p>A water use licence will also be obtained from the Department of Water Affairs if the construction of the complexes and associated buildings result in the impedance, diversion of alteration of the wetland.</p>	Not applicable	
		<p>In addition to the above, the following must be undertaken: Wetlands disturbed during construction should be re-vegetated using site-appropriate indigenous vegetation and/or seed mixes Alien vegetation should not be allowed to colonize the disturbed wetland areas.</p> <p>Rehabilitation of disturbed wetland habitat should commence immediately after construction is completed or after the use of the facility Debris and sediment trapping, as well as energy dissipation control structures, should be put in place where storm water enters the wetland</p>	Not applicable	
<p><b>Preparation and establishment of the topsoil, subsoil and overburden stockpiling areas</b></p>	<b>Topography</b>	<p>Ensure the stockpiles are planned and constructed such that they cover as little space as possible and that the height of the overburden stockpiles is not excessive when compared to the surrounding landscapes and surface infrastructure.</p> <p>The planned sites for the stockpiles will be made known to the contractors and relevant mine personnel before construction commences.</p>	Not applicable	<p>There are no stockpiles left on site, Goedehoop south colliery is under decommissioning phase and only the operational activities (re-mining of the existing MRD by Nasonti) have commenced and there are no new stockpiles at the Nasonti site. Therefore, this condition is not applicable anymore.</p>
	<b>Soils</b>	<p>The positions of the overburden stockpiles will be demarcated before placing of material on stockpiling area.</p>	Not applicable	<p>There are no stockpiles left on site, Goedehoop south colliery is under decommissioning phase and only the operational activities (re-mining of the existing MRD by Nasonti) have commenced and there are no new stockpiles at the Nasonti site. Therefore, this condition is not applicable anymore.</p>
		<p>All topsoil from the subsoil and hard overburden will be removed from the demarcated positions and used to construct a perimeter berm around the stockpiles. Visual and perimeter berms will be seeded to ensure that soil erosion is prevented. The berm will not exceed the height of five meters.</p>	Not applicable	
		<p>Where new topsoil stockpiles are formed, such stockpile will not be more than five meters high with side slopes at a gradient not exceeding 1:4.</p>	Not applicable	
<p>All overburden material removed from the mining area will then be stockpiled on the demarcated areas as per planned specifications. This will not be mixed with the removed topsoil.</p>	Not applicable			

		Mine vehicles, machinery and equipment will be regularly serviced to reduce risk of leaks. Any leakages should be reported and treated immediately in a reputable manner with spill kits which should be provided for onsite. For large spills a hazardous materials specialist will be called in.	Not applicable	
<b>Land Use and Capability</b>		Ensure that the topsoil stockpile is stockpiled to have of not more than five meters, with side slopes at a gradient not exceeding 1:4, which will prevent the reduction in the fertility of the topsoil.	Not applicable	There are no stockpiles left on site, Goedehoop south colliery is under decommissioning phase and only the operational activities (re-mining of the existing MRD by Nasonti) have commenced and there are no new stockpiles at the Nasonti site. Therefore, this condition is not applicable anymore.
		The establishment of the overburden stockpiles will be conducted such that it covers a small area as possible. This will be sited not to mix with the topsoil stockpiles.	Not applicable	There are no stockpiles left on site, Goedehoop south colliery is under decommissioning phase and only the operational activities (re-mining of the existing MRD by Nasonti) have commenced and there are no new stockpiles at the Nasonti site. Therefore, this condition is not applicable anymore.
<b>Surface Water</b>		Design and construct berms or trenches along the stockpiles and disturbed areas to reduce the levels of silt that may report to the nearby wetlands and surrounding streams.	Not applicable	There are no stockpiles left on site, Goedehoop south colliery is under decommissioning phase and only the operational activities (re-mining of the existing MRD by Nasonti) have commenced and there are no new stockpiles at the Nasonti site. Therefore, this condition is not applicable anymore.
		This will also include dirty water diversion berms or trenches with silt traps that will be constructed to keep dirty water within dirty water site of the mine.	Not applicable	
		During the construction of the stockpiles, ensure that hydrocarbon spillages from the mine vehicles are limited. This should be achieved by removing all used oil after emergency vehicle servicing and by ensuring that the mine vehicles are well maintained. Any spillages will be reported and removed as soon as possible.	Not applicable	There are no stockpiles left on site, Goedehoop south colliery is under decommissioning phase and only the operational activities (re-mining of the existing MRD by Nasonti) have commenced and there are no new stockpiles at the Nasonti site. Therefore, this condition is not applicable anymore.
<b>Air Quality</b>		Conduct dust suppression on haul and access roads on a regular basis.	Not applicable	There are no stockpiles left on site, Goedehoop south colliery is under decommissioning phase and only the operational activities (re-mining of the existing MRD by Nasonti) have commenced and there are no new stockpiles at the Nasonti site. Therefore, this condition is not applicable anymore.
		Monitor the dust fall out concentration.	Not applicable	
		If it can be proven that the dust suppression does not yield satisfactory results, another method of dust suppression will be investigated and on approval used at the mine.	Not applicable	
<b>Noise</b>		The mine will ensure that mine vehicles are in good repair order.	Not applicable	There are no stockpiles left on site, Goedehoop south colliery is under decommissioning phase and only the operational activities (re-mining of the existing MRD by Nasonti) have commenced and there are no new stockpiles at the Nasonti site. Therefore, this condition is not applicable anymore.
		The movement of mine vehicles will be limited at night time and will be undertaken after arrangement with affected land owners.	Not applicable	There are no stockpiles left on site, Goedehoop south colliery is under decommissioning phase and only the operational activities (re-mining of the

				existing MRD by Nasonti) have commenced and there are no new stockpiles at the Nasonti site. Therefore, this condition is not applicable anymore.
	<b>Visual Aspects</b>	Ensure the stockpiles are designed and constructed such that their height is not excessive when compared to the surrounding landscapes and surface infrastructure.	Not applicable	There are no stockpiles left on site, Goedehoop south colliery is under decommissioning phase and only the operational activities (re-mining of the existing MRD by Nasonti) have commenced and there are no new stockpiles at the Nasonti site. Therefore, this condition is not applicable anymore.
	<b>Sensitive Landscapes</b>	All stockpiling areas will be sited to be away from the identified wetlands.	Not applicable	There are no stockpiles left on site, Goedehoop south colliery is under decommissioning phase and only the operational activities (re-mining of the existing MRD by Nasonti) have commenced and there are no new stockpiles at the Nasonti site. Therefore, this condition is not applicable anymore.
		Areas that may affect wetlands will be marked and soils removed from such areas will be stockpiled separately and used for rehabilitation after mining. A water use licence will also be obtained from the Department of Water Affairs for the construction of the overburden stockpiles that will impede, divert or alter the wetlands.		
		In addition to the above, the following must be undertaken: Minimization of the removal of/damage to vegetation in riparian and wetland areas, especially on the areas where the hard overburden will be stockpiled in close proximity to the wetlands. The construction of overburden stockpiles in or adjacent to the wetland/riparian zone is to be managed and strictly controlled to minimize damage to remaining wetlands Debris and sediment trapping, as well as energy dissipation control structures, should be put in place where storm water enters the wetland	Not applicable	There are no stockpiles left on site, Goedehoop south colliery is under decommissioning phase and only the operational activities (re-mining of the existing MRD by Nasonti) have commenced and there are no new stockpiles at the Nasonti site. Therefore, this condition is not applicable anymore.
		Wetlands disturbed during construction should be re-vegetated using site-appropriate indigenous vegetation and/or seed mixes Alien vegetation should not be allowed to colonize the disturbed wetland Areas	Not applicable	There are no stockpiles left on site, Goedehoop south colliery is under decommissioning phase and only the operational activities (re-mining of the existing MRD by Nasonti) have commenced and there are no new stockpiles at the Nasonti site. Therefore, this condition is not applicable anymore.
		Rehabilitation of disturbed wetland habitat should commence immediately after construction is completed	Not applicable	
<b>Construction, Extension or Widening of Roads (Access and Haul Roads) and the Overland Conveyor Belts</b>	<b>Soils</b>	All areas where wetland soils have been delineated in close proximity or within the project areas will be demarcated and if the soils will be directly affected, such soils will be removed and stockpiled separately for rehabilitation. Such rehabilitation will be approved by the Department of Water Affairs.	Not applicable	No new wetland soils have been disturbed. The activities conducted by Nasonti are occurring on existing disturbed areas and no new stockpiles are created on site.
		The demarcated wetland areas in close proximity to the roads will be protected from disturbance by the road construction or widening.	Not applicable	

		All topsoil removed from the road and belt construction areas will be used to construct a push up berm along the roads. The push up berm will not be more than 1.5 meters high. Existing push up berms will be relocated where roads are widened.	Not applicable	
		The topsoil used to construct the berm will be used during rehabilitation of the infrastructure.	Compliant	Topsoil used for the construction of berms will be used for rehabilitation activities of the roads.
		As much as possible, use areas of degraded status for the sitting and construction of the mine access and haul roads.	Compliant	No new soils have been disturbed. The activities conducted by Nasonti are occurring on existing disturbed areas and no new stockpiles are created on site.
		As small an area as possible will be used for the belt and road construction.	Compliant	No new soils have been disturbed. The activities conducted by Nasonti are occurring on existing disturbed areas and there's no new overland conveyor belt constructed on site. All the old overland conveyor belt are decommissioned.
		During rehabilitation of the belts and roads, soil amelioration will be done by liming and fertilizer applications based on soil analysis.	Not applicable	Overland conveyor belts are already decommissioned and rehabilitated therefore this condition cannot be assessed, however roads are not yet rehabilitated therefore this condition is not yet applicable for the roads.
		Mine vehicles, machinery and equipment will be regularly serviced to reduce risk of leaks. Any leakages should be reported and treated in a reputable manner with spill kits which should be provided for onsite. For large spills a hazardous materials specialist will be called in.	Compliant	Proof that trucks, machinery and equipment maintenance register was not provided for review. However, there were no spillages observed during the site visit and based on the records, spill kits are being ordered and provided for spillage control and remediations.
		Once workshops are constructed, all water contaminated with hydrocarbons fluids will be drained to an oil separator where the oil will be siphoned and waste oil sold to a recycling company.	Not applicable	The mine is under decommissioning phase and these infrastructures were decommissioned.
		All new and old oils will be stored in containers on protected ground. Diesel will also be stored in diesel tanks that are properly designed and constructed by suitably qualifies persons.	Compliant	Hydrocarbons are stored on top of the dump and in bunded containers at the Nasonti plant.
	<b>Natural Vegetation</b>	The construction of the roads and overland conveyor belts will be conducted within the designated routes, which will avoid all areas where rare or endangered plant species were identified.	Compliant	Overland conveyor belts are already decommissioned. The haul roads constructed by Nasonti are constructed on disturbed areas.
		Road and conveyor belt construction will be conducted such that areas where wetland were identified are avoided. All areas where wetlands will be affected will be rehabilitated to the satisfactory of the environmental co-ordinator.	Compliant	Overland conveyor belts are already decommissioned. The haul roads constructed by Nasonti are constructed on disturbed areas.
		Dust suppression should be conducted for the protection of the surrounding plant community from the dust generated at the construction sites.	Not applicable	No construction activities are undertaken at Goedehoop Colliery. However, dust suppression is being conducted on a regular basis.

	<b>Animal Life</b>	The construction of roads and conveyor belts within streams (including stream crossings) will be designed and constructed such that access of ground dwelling organisms to the water resources is achieved.	Not applicable	The conveyor belt is decommissioned, no stream crossing or roads within a stream were observed on site; therefore, this condition is not applicable.
		The designs will be developed by a suitably qualified person and will be approved by the relevant authorities before construction.	Not applicable	The conveyor belt is decommissioned, and no stream crossing or roads are constructed within a stream; therefore, this condition is not applicable.
		The constructed roads and conveyor belts will be rehabilitated such that the migration of animals back into the disturbed area is encouraged. This will include ensuring that proper cover and good vegetation distribution over the rehabilitated areas are achieved.	Not applicable	The roads are not yet rehabilitated; therefore, this condition is not yet applicable. It must be noted however, that a <i>Biodiversity Action Plan</i> prepared by Digby Wells Environmental, dated February 2014, was compiled and is implemented to ensure compliance for all the rehabilitated areas. Moreover, palatable vegetation is used to reseed the area thus encouraging the migration of animals back into the rehabilitated areas. It was confirmed that part of the action plan is to conduct a biodiversity study within a year after the rehabilitation process to evaluate animal life in the area.
	<b>Surface Water</b>	The roads and conveyor belts will be constructed to have diversion berms for the diversion of storm water runoff. The berms will be constructed such that any exit point for the water will have silt trap that will settle the silt from the roads before allowing the water to enter the clean water environment.	Non-compliant	The conveyor belt has already been decommissioned, however, the roads constructed by Nasonti do not have a diversion berm which separates clean and dirty water that leads to the dirty water containment facility, in addition to this, the road is constructed over a trench thus blocking the flow of water. The trenches are currently being cleaned after which it is planned to install culverts to allow for water flow in the trenches.
		All roads will be constructed to be away from the 1:100-year flood line of the nearby streams or 100 meters away from the identified water courses except for authorised stream/ wetland crossings.	Compliant	Several roads at Goedehoop Colliery were constructed over rivers and streams and these activities were authorized. These following activities were included in the WUL: <ul style="list-style-type: none"> <li>• Block 20 – Road crossing.</li> <li>• Block 8 – Access road crossing.</li> <li>• Hope Shaft – Haul road crossing and access road crossing.</li> <li>• Block 7 – Access road crossing.</li> <li>• Access road to the explosives storage area.</li> <li>• Block 11 – Access Road crossing.</li> </ul>
		Where streams are crossed the following will be conducted:	Not applicable	The mine is now under decommissioning; therefore, this condition is no longer applicable, it cannot be assessed if concrete mixing, vehicles maintenance and waste storage was not conducted near streams.
		No concrete mixing, vehicles maintenance and waste storage will be allowed	Not applicable	The roads and river crossings were designed by a registered engineer (Semane Consulting Engineers (Pty) Ltd) and were submitted to the DWS for approval. But the condition is no longer applicable since the mine is under decommissioning.
		The roads and conveyor belts stream crossing will be designed by a suitably qualified person and such designs will be approved by the relevant authorities before construction.	Not applicable	

		The conveyor belt drive and transfer infrastructure at either end of the conveyor will be paved with concrete, bunded to prevent run-on of clean water and to contain dirty runoff.	Not applicable	The conveyor belt is decommissioned already therefore these conditions are no longer applicable.
		The belt will be designed and constructed to have belt scrubbers at either end to clean the belt to prevent carbonaceous material from being dropped along the route.	Not applicable	
		The conveyor will be completely enclosed at the bridge crossing to prevent any spillage of water or coal into the watercourses.	Not applicable	
		Watercourse crossings will be designed to accommodate at least the 1:100-year event without overtopping.	Not applicable	
		A shroud will be provided along the entire conveyor length, on the upwind side, to prevent rain from falling directly onto the conveyor and to protect it from wind.	Not applicable	
		Monitoring will be implemented downstream of all watercourse crossings along the conveyor route.	Not applicable	
	<b>Air Quality</b>	A water cart will be used to wet all affected areas during the construction of the roads and conveyor belts. Water of suitable quality will be used for dust suppression. If it can be proven that the use of a water cart does not yield satisfactory results, alternative proven environmentally friendly dust suppression methods must be considered and implemented on approval by the mine ECO.	Not applicable	No construction activities pertaining to the widening of roads and the construction of overland conveyors are undertaken at Goedehoop Colliery. Therefore, this condition is not applicable. However, dust suppression is being conducted on a regular basis in all operational areas.
	<b>Sensitive Landscape</b>	The mine environmental co-ordinator will inform all personnel and contractors of the importance of the wetlands as indicated in this document.	Not applicable	No new wetland soils have been disturbed. The activities conducted by Nasonti are occurring on existing disturbed areas and there's no new overland conveyor belt constructed on site. All the old overland conveyor belt are decommissioned.
		As much as possible all wetland areas will be avoided. All areas where the roads will affect wetlands will be marked and soils removed from such areas will be stockpiled separately and used for rehabilitation purposes. A water use licence will also be obtained from the Department of Water Affairs for the construction of the roads within the buffer zone of the identified wetlands.	Not applicable	

		<p>In addition to the above, the following must be undertaken:</p> <p>Minimization of the removal of/damage to vegetation in riparian and wetland areas, especially on the areas where the hard overburden will be stockpiled in close proximity to the wetlands.</p> <p>The construction of overburden stockpiles in or adjacent to the wetland/riparian zone is to be managed and strictly controlled to minimize damage to remaining wetlands</p> <p>Debris and sediment trapping, as well as energy dissipation control structures, should be put in place where storm water enters the wetland.</p>	Not applicable	No new wetland soils have been disturbed. The activities conducted by Nasonti are occurring on existing disturbed areas and there are no newly disturbed areas on site.
		<p>Wetlands disturbed during construction should be re-vegetated using site-appropriate indigenous vegetation and/or seed mixes</p> <p>Alien vegetation should not be allowed to colonize the disturbed wetland Areas</p> <p>Rehabilitation of disturbed wetland habitat should commence immediately after construction is completed</p>	Not applicable	No new wetland soils have been disturbed. The activities conducted by Nasonti are occurring on existing disturbed areas and there are no newly disturbed areas on site. Wetlands that were disturbed by Goedehoop South Colliery are still to be rehabilitated. An Annual Rehabilitation Plan for Goedehoop Colliery compiled by Golder Associates Africa (Pty) Ltd indicated that wetlands will be part of the 2022 planned rehab.
	<b>Visual Aspects</b>	<p>Sites where surface mining activities will be performed will occupy a small space as possible.</p>	Not applicable	All mining areas are rehabilitated, only the reworking of the discard dump is being undertaken. This is occurring on already disturbed areas.
		<p>The construction activities will as much as possible be undertaken during day time.</p>	Not applicable	No construction activities pertaining to the widening of roads and the construction of overland conveyors are undertaken at night by Goedehoop Colliery and/or Nasonti.
		<p>If any work must be done during night time, arrangements will be made with the relevant land owners.</p>	Not applicable	
	<b>Construction of infrastructure connected to new project (overland conveyor belt infrastructure, office/workshop, other buildings, fencing, contractor campsite and coal crushing/screening plants)</b>	<b>Topography</b>	<p>The designs of the infrastructure will be conducted by a suitably qualified person. This design must also be approved by the relevant authorities before construction.</p>	Not applicable
<p>As far as possible, the positions of the infrastructure should be sited on areas with degraded environmental conditions.</p>			Not applicable	
<p>The contractors will be made familiar with the designs specifications before commencement of the construction.</p>			Not applicable	
<p>Construction of the infrastructure and associated buildings will be conducted in accordance with the detailed design specifications of the infrastructure approved by the relevant personnel at the mine.</p>			Not applicable	
<p>The infrastructure and associated buildings will be constructed to have heights that are within acceptable standards and that will not have detrimental effects on the surrounding land users.</p>			Not applicable	

	<b>Soils</b>	All topsoil removed from the construction sites will be stockpiled or used to construct a push up berm along the roads. The push up berm will not be more than 1.5 meters high. Removed soils will be stockpiled separately and used during the rehabilitation of the disturbed areas.  Where new topsoil stockpiles are formed, such stockpile will not be more than five meters high with side slopes at a gradient not exceeding 1:4.	Not applicable	The activities listed in this section are related to the construction of the Binderless Coal Briquetting Plant. Construction of the plant has not commenced. Therefore, these EMPr commitments are not yet applicable.
		The height of the stockpiles will be such that the fertility and seed bank of the soils are sustained. The height of the stockpile will be determined by soil specialist.	Not applicable	
		As much as possible, use areas of degraded status for the sitting and construction of the infrastructure sites.	Not applicable	
		Use as small area as possible for the construction of the surface Infrastructure.	Not applicable	
		All areas where wetland soils have been delineated in close proximity or within the project areas will be demarcated and if the wetland soils will be directly affected, such soils will be removed and stockpiled separately for rehabilitation.	Not applicable	
		The demarcated wetland areas in close proximity to the roads will be protected from disturbance by the construction activities.	Not applicable	
		During rehabilitation of the sites, soil amelioration will be done by liming and fertilizer applications based on soil analysis.	Not applicable	
		Mine vehicles, machinery and equipment will be regularly serviced to reduce risk of leaks. Any leakages should be reported and treated immediately in a reputable manner with spill kits which should be provided for onsite. For large spills a hazardous materials specialist will be called in.	Not applicable	
	<b>Natural Vegetation</b>	The construction of the infrastructure will be conducted within the designated construction sites, which will avoid all areas where rare or endangered plant species were identified.	Not applicable	The activities listed in this section are related to the construction of the Binderless Coal Briquetting Plant. Construction of the plant has not commenced. Therefore, these EMPr commitments are not yet applicable.
		Construction activities will be conducted such that areas where wetland is identified are avoided. All areas where wetlands will be affected will be rehabilitated to the satisfactory of the environmental co-ordinator.	Not applicable	
		Dust suppression should be conducted for the protection of the surrounding plant community from the dust generated at the construction sites.	Not applicable	
	The area will be rehabilitated such that it approximates the pre-mining land use and capability.	Not applicable		

	<b>Land Use and Capability</b>	The soils should be monitored for its fertility before use for rehabilitation purposes.	Not applicable	The activities listed in this section are related to the construction of the Binderless Coal Briquetting Plant. Construction of the plant has not commenced. Therefore, these EMPr commitments are not yet applicable.	
	<b>Surface Water</b>	Divert all dirty water within the construction site to a temporary storage dam or silt traps for settling of the silt.	Not applicable		
		Divert all clean water away from the infrastructure construction areas to the nearby streams.	Not applicable		
		All waste generated during the construction activities either from the site or the construction crew camp (applicable to all camp sites at the mine) will be collected in bins and disposed properly.	Not applicable		
		A temporary area will be dedicated for the emergency repair of vehicles until a proper workshop is constructed.	Not applicable		
	<b>Air Quality</b>	Water carts will be used or the suppression of dust from the construction site.	Not applicable		
		Dust fallout will be monitored regularly. New areas will be included in the current dust monitoring network.	Not applicable		
		If it can be proven that the dust suppression does not yield satisfactory results, another method of dust suppression will be investigated and on approval used at the mine.	Not applicable		
	<b>Noise</b>	Well serviced vehicles will be used on site.	Not applicable		
		Work will be conducted during the day and will be stopped at night time. Arrangements will be made with the land owner if work will be continued at night.	Not applicable		
		Direct line of sight from receptors to be obscured by a berm/barrier for both day and night-time operations. The material, location, and dimensions of the barrier must be constructed as per recommendation by the noise specialist.	Not applicable		
	<b>Sensitive Landscapes</b>	Areas where the infrastructure complexes and associated buildings will be constructed will be marked and soils removed from such areas will be stockpiled separately and used for rehabilitation after mining. The siting of the complexes will be conducted to ensure that wetland areas are avoided. A water use licence will also be obtained from the Department of Water Affairs if the construction of the complexes and associated buildings will be within the identified wetlands or 500 meters from the edge of such wetlands.	Not applicable		The activities listed in this section are related to the construction of the Binderless Coal Briquetting Plant. Construction of the plant has not commenced. Therefore, these EMPr commitments are not yet applicable.

		<p>In addition to the above, the following must be undertaken:</p> <p>Minimization of the removal of/damage to vegetation in riparian and wetland areas, especially on the areas where the hards overburden will be stockpiled in close proximity to the wetlands.</p> <p>The construction of overburden stockpiles in or adjacent to the wetland/riparian zone is to be managed and strictly controlled to minimize damage to remaining wetlands</p> <p>Wetlands disturbed during construction should be re-vegetated using site-appropriate indigenous vegetation and/or seed mixes</p> <p>Alien vegetation should not be allowed to colonize the disturbed wetland Areas</p> <p>Rehabilitation of disturbed wetland habitat should commence immediately after construction is completed</p> <p>Debris and sediment trapping, as well as energy dissipation control structures, should be put in place where storm water enters the wetland.</p>	Not applicable	The activities listed in this section are related to the construction of the Binderless Coal Briquetting Plant. Construction of the plant has not commenced. Therefore, these EMPr commitments are not yet applicable.
<b>Construction of water management structures (dirty water dams and diversion structures)</b>	<b>Topography</b>	Design the water management system to cover as small space as possible.	Not applicable	Construction of water management structures is completed. The construction was undertaken in designated areas as described in the EMPr and shown in the mine layout plans. However, the mine is under decommissioning; therefore, these conditions are no longer applicable.
		The designs, approved by DWA, must be made familiar to the contractors who will be responsible for the construction.	Not applicable	
		The construction of the water management systems must be conducted in accordance to the detailed designed approved by the designated persons at Goedehoop Colliery.	Not applicable	
	<b>Soils / Land Capability</b>	All removed soils will be stockpiled separately and used during the rehabilitation of the disturbed areas. The soils can also be used for the establishment of a perimeter berms, which should not be more than 1.5-meter high. This will be conducted in accordance with the soil utilisation programme compiled by a soil specialist.	Not applicable	No construction activities are currently taking place at Goedehoop Colliery, the mine is under decommissioning thus no stockpiles observed on site
		The height of the stockpiles will be such that the fertility and seed bank of the soils are sustained. The height of the stockpile will not exceed five meters.	Not applicable	
	<b>Natural Vegetation</b>	The construction of the structures will be conducted within the designated areas, which will avoid all areas where rare or endangered plant species were or would be identified.	Not applicable	Construction of water management measures is completed. Site observations confirmed that the construction was undertaken in designated areas as described in the EMPr. But this condition is no longer applicable since the mine is under decommissioning.
Dust suppression should be conducted for the protection of the surrounding plant community from the dust generated at the construction sites.		Not applicable	No construction activities are undertaken at Goedehoop Colliery. Compliance to this condition could not be assessed.	

	<b>Surface and Ground Water</b>	The water management systems will be designed to ensure that their operation or use does not pose risk to the surface and groundwater environments.	Non-compliant	Waste water management structures are not kept in good order. The dam is silted and road was constructed over trenches on site.
		The construction of the water management systems must be conducted in accordance to the detailed designed approved by the designated persons at Goedehoop Colliery.	Compliant	The water management systems are designed according to the detailed designs compiled by Semane Consulting Engineers. It should be noted that construction of water management structures is completed. No new water management systems are being constructed.
	<b>Flood Events</b>	The dirty water dams and diversion structures will be designed to comply with the requirements of the regulations of GN704 that pertains to the ability of the structures to withstand volumes of water during flood events.	Non-compliant	Waste water management structures are not kept in good order. The dam was silted during the site observation.
	<b>Air Quality</b>	Conduct dust suppression daily.	Not applicable	No construction activities are undertaken at Goedehoop Colliery. Compliance to this condition could not be assessed; however, dust suppression is being conducted at operational sites.
		Enforce appropriate speed limits for the mine vehicles.	Not applicable	
	<b>Noise</b>	Direct line of sight from receptors to be obscured by a berm/barrier for both day and night-time operations.	Not applicable	
		The material location and dimensions of the barrier must be constructed as per recommendation by the noise specialist.		
	<b>Sensitive Landscapes</b>	The water management systems will be sited to be away from identified sensitive landscapes. The distances from the sensitive landscapes will be determined by suitably qualified wetland specialists.	Non- Compliant	Existing water management measures (i.e. pollution control dams) are within the 100-meter buffer zone e.g. the Kevin's farm dam (no longer utilised) (Constructed March 2011). It is noted that the wetland specialist recommended a 100 m buffer zone. It must be noted that the farm dam is an existing lawful water use and was constructed before the NEMWA; however, the farm dam will be included for C and I application for future use.
A water use licence will also be obtained from the Department of Water Affairs if the construction of the water management structures will impede, divert or alter the wetlands.		Compliant	The following water management infrastructure were included in the WUL as Section 21(c) and (i) water use activities due to their location towards sensitive landscapes (wetland and rivers): <ul style="list-style-type: none"> <li>• Vlaklaagte river diversion.</li> <li>• Vlaklaagte clean water holding facility.</li> </ul>	

		<p>In addition to the above, the following must be undertaken:</p> <p>Minimization of the removal of/damage to vegetation in riparian and wetland areas, especially on the areas where the hard overburden will be stockpiled in close proximity to the wetlands.</p> <p>The construction of overburden stockpiles in or adjacent to the wetland/riparian zone is to be managed and strictly controlled to minimize damage to remaining wetlands</p> <p>Debris and sediment trapping, as well as energy dissipation control structures, should be put in place where storm water enters the wetland</p>	Not applicable	The activities conducted by Nasonti are occurring on existing disturbed areas and there are no newly disturbed areas on site. No new stockpiles are created on site.
		<p>Wetlands disturbed during construction should be re-vegetated using site-appropriate indigenous vegetation and/or seed mixes</p> <p>Alien vegetation should not be allowed to colonize the disturbed wetland Areas</p> <p>Rehabilitation of disturbed wetland habitat should commence immediately after construction is completed</p>	Not applicable	No new wetland soils have been disturbed. The activities conducted by Nasonti are occurring on existing disturbed areas and there are no newly disturbed areas on site. Wetlands that were disturbed by Goedehoop South Colliery are still to be rehabilitated. An Annual Rehabilitation Plan for Goedehoop Colliery compiled by Golder Associates Africa (Pty) Ltd indicated that wetlands will be part of the 2022 planned rehab.
<b>OPERATIONAL PHASE</b>				
<b>Systemic Removal of Coal by Underground Mining Methods</b>	Geology	<p>Limited drilling and blasting in the underground workings are used to limit the risk of damaging the geology above and below the target mining seams.</p> <p>Blasting are kept to a minimum and undertaken under controlled conditions.</p>	Not applicable	Goedehoop South Colliery is under the decommissioning phase; therefore, this condition is no longer applicable.
	Topography	<p>All areas in which sinkholes occur are backfilled, levelled, top soiled and vegetated. These areas are monitored to detect any further subsidence that may occur.</p> <p>Areas where local subsidence occurs are re-shaped and made free draining. No ponding is allowed on these areas.</p>	Not applicable	<p>There are no sinkholes and/or subsidence identified during this audit period as per the incident's register provided for review (5 May 2020 – 18 March 2021); however, in the event that an area exhibits signs of subsidence, the area is fenced off to prevent access. The mine then reviews all mine plans to determine if the area of subsidence in question corresponds with previously rehabilitated shafts or old underground workings. Should the area correspond with old shafts, the shaft is opened, backfilled, levelled and reshaped. Should the area of subsidence correspond with underground workings the following procedure is followed:</p> <ul style="list-style-type: none"> <li>• Areas identified are fenced off to prevent access to the areas.</li> <li>• Signs are erected to warn people of the dangers associated with the areas.</li> <li>• The extent of identified subsidence areas is evaluated on an annual basis as part of the annual subsidence fly over to determine whether the subsidence has stabilised.</li> <li>• Once the area has stabilised, backfilling, levelling and rehabilitation will occur.</li> </ul>

				No ponding was observed during the site visit.
	<b>Soils</b>	Areas where local subsidence occurs are rehabilitated to have topsoil that can support natural vegetation.	Not applicable	There are no sinkholes and/or subsidence identified during this audit period as per the reports provided for review. Sinkholes were identified in March 2020 and rehabilitation measures were in place to rehab the sinkholes identified. A report dated December 2021 titled "Mine Closure Plan for Goedehoop Colliery, aligned with the Requirements of NEMA GN R. 1147 and the Anglo American Mine Closure Toolbox Version 3" indicates on Table 11 any subsided areas will have been rehabilitated to be free draining before the cessation of the mine.
	<b>Natural Vegetation</b>	Areas where local subsidence occurs are rehabilitated to re-establish natural vegetation.	Not applicable	
	<b>Land Use</b>	Sound contracts and ad hoc inspections will be agreed to and conducted, respectively to ensure that appropriate land uses are conducted on properties leased to third parties.	Compliant	Parts of the fully rehabilitated land is being leased to farmers in the area and specific requirements to land use, including maintenance of rehabilitated areas, are included in the lease agreements. A review of a lease agreement for portion 3 Haasfontein 28 IS, confirmed such.
		Backfill any sinkholes that may occur timeously.	Not applicable	Refer to previous discussions with regards to the rehabilitation strategies for areas of subsidence. However, there are no sinkholes and/or subsidence identified during this audit period.
		Shape any subsidence areas to prevent ponding, and promote free surface runoff.	Not applicable	
	<b>Surface Water</b>	Avoid undermining pans, streams and rivers. If these are undermined, the pans, streams and the stability of the pillars in the underground workings will be monitored.	Not applicable	<p>For the Goedehoop Colliery South Section, 24 mining areas have been identified as undermining surface water bodies (<i>Saxum Mining, December 2015</i>). When the mine was operational, for every area to be mined, a panel risk assessment was undertaken to determine if standard safety factor is still applicable to an area. The following primary factors were used to determine and monitor the for these areas:</p> <ul style="list-style-type: none"> <li>• Pillar Stability,</li> <li>• Pillar Load,</li> <li>• Coal Pillar Strength,</li> <li>• Pillar width to height ratio,</li> <li>• Pillar factor of safety,</li> <li>• Multi-seam consideration, and</li> <li>• Shallow mining.</li> </ul> <p>A water use license was obtained for undermining at Block 20 and further GN 704 exemptions were obtained from the DWS (<i>Exemption Number: 27/2/2/B11G/254</i>).</p> <p>It should be noted that there are no underground workings being undertaken at GHS, the areas have been fully rehabilitated; therefore, this is no longer applicable.</p>
	<b>Groundwater</b>	With the exception of Kevin's farm dam, all pollution control dams are lined and all future supplemental dams will be engineer designed and lined. The construction of these dams will comply with GN704.	Non-compliant	Kevin's farm dam was confirmed as the only dam that is not lined. However, part of the lining of the Return water dam was stolen so the dam is not fully lined as per the original design. The dam has been recently fenced after which it is planned to repair / replace the stolen liner. It is important that the necessary

				actions are implemented and preventative measures taken to prevent seepage from taking place.
		Due to the depth of the No 2 and No 4 seam workings and except No. 2 coal mining area at Block 11, no decant from the workings is expected.  Recharge of the aquifers associated within these workings is expected to occur only after all mining has ceased, and will take approximately 40 to 150 years to fill the underground workings (dependent on the proximity to old underground workings). No management is necessary.	Noted	The colliery takes noted of this condition.
		Decant is expected from the old 5 seam workings once the workings have filled with water. At present, some underground dewatering takes place at Hope section that is used as make-up water in the plant. This area and any other areas predicted to decant will be monitored for signs of decant.	Compliant	Golder associate is monitoring the level of decant. An updated groundwater and Geochem assessment is yet to be conducted; a quote has been issued by Delta H water system modelling (Pty) Limited to update the said studies which will include the identification of decant areas and plausible mitigation measures.
		In the event that decant occurs, the affected area will be rehabilitated and reshaped and made free draining to discourage infiltration of runoff water into the groundwater regime. In essence all ponding and eroding areas will also be reshaped. See management under the closure phase for the management of decant water.	Compliant	
		In the event that fracturing promulgating to surface occurs, the fractures will be sealed and the area rehabilitated such that it is free draining.	Not applicable	Goedehoop Colliery confirmed that no incidents of fracturing to surface have occurred to date, there are also no fracturing incident recorded in the incident's register provided for review (11 January 2022 – 01 August 2022). should fracturing occur, rehabilitation of such will be the same as for subsidence incidents at Goedehoop Colliery.
		Static groundwater levels and quality of boreholes within the zone or two kilometres around the mining area are measured. This ensures that a sound database is established	Compliant	As previously described, groundwater level monitoring is conducted at Goedehoop Colliery. A Quarterly Water Quality Assessment Report compiled by aquatico (January 2022 – March 2022) was provided for review and the findings were that the range of the groundwater level depths as measured in June 2021 varied between 0.8 m and 14.8 m. An increase in water level was recorded at UG3.
		If proven that the mining operation is indeed affecting the quantity of the groundwater available to users, the affected parties would be compensated. Currently Mr. C.J Schoeman is supplied with water by Goedehoop Colliery.	Compliant	More than 10 farmers are being supplied with water by the mine. Water obtained from the Nooitgedacht Scheme is treated at the Reverse Osmosis Plant where after it is distributed to the farmers. Water is also being provided to Mr. C.J. Schoeman. The mine is also looking at identifying long term water supply strategies for the affected parties.
		Any major structures of preferred groundwater flow such as dykes and fault zones should be grouted if excessive groundwater inflow is encountered.	Not applicable	Goedehoop Colliery confirmed that grouting of dykes and fault zones was not yet necessary. Groundwater inflow was managed through dewatering to surface and pumping between underground compartments. There are no underground workings anymore; therefore, this condition is not applicable.
		Groundwater pollution at the shafts and underground workings are being kept to a minimum by limiting the time the underground water is exposed to the open rock faces where mining takes place.	Not applicable	Goedehoop South Colliery decommissioned all the underground workings including shafts; therefore, this condition is no longer applicable.

		Underground water is continuously pumped out of the workings to surface (dams such as Erickson dams or dirty water dams) as mining continues and does not leave the premises of the mine, since it is reused within the mining area.	Not applicable	
		A groundwater model is being undertaken to determine the overall direction and rate of the pollution plume from the mine and its surface infrastructure.	Not applicable	
	<b>Air Quality</b>	Air quality is monitored at the workings and sufficient dust suppression is undertaken to reduce the impacts of dust on employees.	Not applicable	
	<b>Sensitive Landscape</b>	Sensitive areas will be avoided during mining and if such were previously undermined and areas where local subsidence occurs, these areas will be rehabilitated.	Compliant	
		If planned mining cannot avoid the sensitive landscapes, relevant authorisations must be obtained before commencement of the undermining of the sensitive landscapes. In addition to the above safety factor of more than 3.1 will be used for the pillars. The stability of the pillars and undermined areas will be monitored.	Not applicable	A water use licence was obtained for undermining at Block 20 and further GN 704 exemptions were obtained from the DWS ( <i>Exemption Number: 27/2/2/B11G/254</i> ).  The following minimum safety factors are specified in the <i>Rock Engineering Risk Assessment</i> , dated December 2015 and compiled by Saxum Mining: <ul style="list-style-type: none"> <li>• Dams, pans and reservoirs – safety factor of 2.0</li> <li>• Rivers, streams and watercourses – safety factor of 2.0 (D/2.7 to be calculated from 50yr flood level line).</li> <li>• Pillar safety factors are being monitored on a monthly basis.</li> </ul> It should be noted that there are no underground workings being undertaken at GHS, the areas have been fully rehabilitated; therefore, this is no longer applicable.
<b>Systematic Removal of Coal by Opencast Mining Methods</b>	<b>Geology</b>	As much of the exposed coal as possible will be removed. Replacement of the removed overburden will be undertaken such that as much of the carbonaceous material as possible is placed at the bottom of the mined out opencast pits. The replacement of the overburden material will be done according to the sequence of the removed structure.	Not applicable	No opencast mining activities are currently being undertaken at Goedehoop Colliery and previously opencast mining areas were rehabilitated. Therefore, this condition is not applicable.
	<b>Topography</b>	The Mine Surveyor will survey the opencast pit area. This will ensure that the operation does not encroach into the sensitive areas.	Not applicable	

		Mine surveyor will also survey successive cuts to be constructed.	Not applicable	No opencast mining activities are currently being undertaken at Goedehoop Colliery and previously opencast mining areas were rehabilitated. Therefore, this condition is not applicable.
		Rehabilitation of the pit will be conducted concurrently with mining. Only three cuts will be open at any given time with successive cuts used to systematically backfill preceding cuts. This will minimise the size of the void. This will also ensure that the rehabilitation progress is measured on a regular basis.	Not applicable	No opencast mining activities are currently being undertaken at Goedehoop Colliery and previously opencast mining areas were rehabilitated. Therefore, this condition is not applicable.
		The Mine Surveyor will survey backfilled cuts to ensure that these are filled and rehabilitated according to the rehabilitation plan.	Not applicable	No opencast mining activities are currently being undertaken at Goedehoop Colliery and previously opencast mining areas were rehabilitated. Therefore, this condition is not applicable.
	<b>Soils</b>	Topsoil and subsoil removed from successive cuts will be used to backfill preceding cuts. Cuts will be filled with overburden material first, then subsoil and finally topsoil. This will minimise loss of soil and top soil will be placed to a minimum depth of 300mm. Note that topsoil from the two successive cuts from the initial box cut will be placed in the top soil stockpiles.	Not applicable	GHS Colliery is under decommissioning and these areas are already rehabilitated; therefore, this condition is no longer applicable.
		Rehabilitated workings will be seeded in accordance with identified suitable seed mixture. This will reduce loss of topsoil to wind and water erosion.	Compliance	Rehabilitation workings were seeded with the Anglo Seed Mix as per the Post-Mining Land Capability Determination compiled by Digby Wells Environmental, dated March 2019.
		If necessary, topsoil stockpiled during the construction phase will be used as final cover on backfilled workings. The fertility of this soil will be determined before its use. Organic fertilisers will be used if fertility of the topsoil has been reduced during the stockpiling period.	Not applicable	No opencast mining activities are currently being undertaken at Goedehoop Colliery and previously opencast mining areas were rehabilitated. Therefore, this condition is not applicable.
		Manage the dirty water structures not to leak or discharge the dirty water to the clean water environments. The dirty water diversion trenches and pollution control dams will be lined and operated in accordance with the requirements of the regulations under the GN704.	Not applicable	
	<b>Land Use</b>	Consult with relevant Eskom personnel before undertaking any activities under or in close proximity to the power lines are undertaken.	Not applicable	Consultation with Eskom was undertaken before undertaking the activities under or in close proximity to power lines. However, there are no opencast mining activities are currently being undertaken at Goedehoop Colliery and previously opencast mining areas were rehabilitated. Therefore, this condition is not applicable.
		Obtain Eskom's conditions and requirements for undertaking the activities.	Not applicable	
		Adhere to the conditions and requirements as stipulated by Eskom. If the above-mentioned conditions are provided during the consultation process this section of the draft EMP will amended to add the Eskom's conditions and requirements.	Not applicable	
	<b>Natural Vegetation</b>	Backfilled and rehabilitated workings will be seeded with an appropriate seed mixture. Ensure also that the soil fertility is fine for seeding.	Compliant	Farmer's method statement was provided for review and it indicates that Oulands and Teff seedmix was used to seed the area. From the 2012 soil study and 2019 vegetation assessment, no seedmix recommendation was made;

				however, the planting palatable plants was recommended in the 2019 vegetation assessment and these plants are very palatable to livestock.
		Vegetation cover inspections on rehabilitated land will be conducted.	Compliant	Goedehoop Colliery have appointed Digby Wells to undertake vegetation cover inspections on rehabilitated areas. A report titled <i>Post-Mining Land Capability Determination for Goedehoop Colliery; Mpumalanga Province Vegetation Assessment</i> dated December 2021 was provided for review.
		Maintain the vegetation cover by re-seeding or applying fertilisers or conducting any other measures recommended by suitably qualified persons on areas showing sparse or unsatisfactory vegetation cover.	Compliant	Goedehoop Colliery have appointed Digby Wells to undertake vegetation cover inspections on rehabilitated areas. A report titled <i>Post-Mining Land Capability Determination for Goedehoop Colliery; Mpumalanga Province Vegetation Assessment</i> dated December 2021 was provided for review and it indicated that rehabilitation is completed at mini-pit areas and opencast area.
		The overland conveyor belt and haul road routes will be monitored regularly for the determination of any coal spillages that could have detrimental effects on the surrounding vegetation cover.	Not applicable	No opencast mining activities are currently being undertaken at Goedehoop Colliery and previously opencast mining areas were rehabilitated. Therefore, this condition is not applicable.
		Any coal spillages identified will be removed and that area rehabilitated.		
		The pipeline used to convey dirty water from the opencast pit must be monitored for leakages.	Not applicable	No opencast mining activities are currently being undertaken at Goedehoop Colliery and previously opencast mining areas were rehabilitated. Therefore, this condition is not applicable.
		Any leakages must be reported to the project manager.	Not applicable	
		The noted leakage must be stopped by either temporary or permanent measures. Where temporary measures were used permanent measures must be used as soon as possible.	Not applicable	
		If it was found that the leaked water has detrimentally affected the vegetation cover, the area will be rehabilitated and re-seeded with appropriate seed mixture.	Not applicable	
		The overland conveyor belt and haul road routes will be monitored regularly for the determination of any coal spillages that could have detrimental effects on the surrounding vegetation cover.	Not applicable	No opencast mining activities are currently being undertaken at Goedehoop Colliery and previously opencast mining areas were rehabilitated. Therefore, this condition is not applicable.
	<b>Animal Life</b>	Limit extensive hauling of the ROM coal by trucks. As much as possible, make use of conveyor belts to transport coal from the respective satellite opencast areas.	Not applicable	No opencast mining activities are currently being undertaken at Goedehoop Colliery and previously opencast mining areas were rehabilitated. Therefore, this condition is not applicable.
		Utilise the smallest practical area for the respective mining activities.	Not applicable	
		Rehabilitate and or remove all mining affected areas and or structures as soon as it is practically possible.	Compliant	Site observations confirmed that all mining infrastructure related to opencast mining was removed during decommissioning.
		Goedehoop Colliery ensures that staff is instructed that no hunting/poaching or unnecessary disturbance of wildlife are allowed on mine property.	Not applicable	Based on the environmental topics and induction provided for review, there is no mention or instruction about hunting/poaching. However, the activities

		Hunting or poaching by mine personnel on adjacent properties are also not be permitted.		concerning the systematic removal of coal by opencast mining methods were rehabilitated; therefore, this commitment is no longer applicable.
<b>Surface Quantity</b>	<b>Water</b>	The mining will be conducted according to the mining plan i.e. preceding cuts are filled and rehabilitated. This will reduce the size of the void resulting in less rainfall water in the open cuts. Only three cuts will be open at any given time.	Not applicable	No opencast mining activities are currently being undertaken at Goedehoop Colliery and previously opencast mining areas were rehabilitated. Therefore, this condition is not applicable.
		All clean water will be diverted around the mining area. The mine will maintain these diversion trenches to ensure that no blockage occurs.	Not applicable	
		A push-up berm will be constructed upslope of the open cuts to divert water around the pit. This berm will migrate forward with the opencast pit.	Not applicable	
		All rehabilitated areas will conform to the proposed rehabilitation model and be free draining. No ponding will occur on rehabilitated areas.	Compliant	The rehabilitated areas conform to the rehabilitation model. Areas visited did not show signs of erosion and ponding during the audit.
		All rehabilitated areas will be monitored for erosion gullies and ponding due to settlement. Identified erosion gullies and ponding areas will be rehabilitated accordingly.		
		The mining will be conducted according to the mining plan i.e. preceding cuts are filled and rehabilitated. This will reduce the size of the void resulting in less rainfall water in the open cuts. Only three cuts will be open at any given time.	Not applicable	No opencast mining activities are currently being undertaken at Goedehoop Colliery and previously opencast mining areas were rehabilitated. Therefore, this condition is not applicable.
<b>Surface Quality</b>	<b>Water</b>	Water within the pit will not be discharged into the natural environment.	Not applicable	No opencast mining activities are currently being undertaken at Goedehoop Colliery and previously opencast mining areas were rehabilitated. Therefore, this condition is not applicable.
		Water within the pit will be pumped to the settling dam/pollution control dam and dirty water collection manhole. All excess water from the manhole and dirty water will be pumped into the existing Goedehoop Colliery dirty water management structure.	Not applicable	
		Regular water quality monitoring will be conducted at the settling demand dirty water collection manhole.	Not applicable	
		The pipeline used to convey dirty water from the opencast pit must be monitored for leakages.	Not applicable	No opencast mining activities are currently being undertaken at Goedehoop Colliery and previously opencast mining areas were rehabilitated. Therefore, this condition is not applicable.
		Any leakages must be reported to the project manager.	Not applicable	
		The noted leakage must be stopped by either temporary or permanent measures. Where temporary measures are used permanent measures must follow as soon as possible.	Not applicable	
		The operation of the settling dam/pollution control dam will be maintained at 0.8 meter below spillway level. Note that a one-meter operational level will also be maintained with the dirty water manhole at the Vlaklaagte Block 3 area.	Not applicable	

		Regular checks will be conducted on the maintenance and operation of the settling dam and dirty water manhole.	Not applicable	
		Regular water quality monitoring will be conducted at the settling dam dirty water manhole.	Not applicable	
		All runoff water from the infrastructure area will be diverted by a dirty water trench or pipeline to the settling dam.	Not applicable	No opencast mining activities are currently being undertaken at Goedehoop Colliery and previously opencast mining areas were rehabilitated. Therefore, this condition is not applicable.
		Trench will comply with the requirements of GN704.	Not applicable	
		All dirty water diversion and containment structures will be checked on a regular basis.	Not applicable	
		All damages, blockages and erosion will be repaired.	Not applicable	No opencast mining activities are currently being undertaken at Goedehoop Colliery South and previously opencast mining areas were rehabilitated. Therefore, this condition is not applicable.
		No water from the workshop areas will be discharged into the natural environment.	Not applicable	
		All water reporting in the bunted area will be drained to an oil separator and contained	Not applicable	
		Separated diesel will be disposed of in accordance with the relevant legislation.	Not applicable	
	<b>Flood Events</b>	All pollution control structures will be inspected after a flood event for signs of erosion. Water levels will be checked to ensure that the operational capacities are maintained.	Not applicable	No opencast mining activities are currently being undertaken at Goedehoop Colliery and previously opencast mining areas were rehabilitated. Therefore, this condition is not applicable.
		Pollution control design?	Noted	No mitigation measure provided.
		All damages and erosion will be rectified.	Not applicable	No opencast mining activities are currently being undertaken at Goedehoop Colliery and previously opencast mining areas were rehabilitated. Therefore, this condition is not applicable.
		All storm water control structures will be inspected after a flood event for signs of erosion, blockages and breakages.	Not applicable	
		All identified damages will be rectified.	Not applicable	
		Rehabilitated areas will be inspected after a flood event for erosion gullies and ponding areas.	Compliant	Visual inspections are conducted by the contractor responsible for rehabilitation and no erosion gullies and/or ponding was reported or noted in the incident report.
		Areas with erosion gullies and ponding will be rectified.	Not applicable	Visual inspections are conducted by the contractor responsible for rehabilitation and no erosion gullies and/or ponding was reported or noted in the incident report. Therefore, this condition is not applicable.
		All pollution control structures will be inspected after a flood event for signs of erosion. Water levels will be checked to ensure that the operational capacities are maintained.	Not applicable	No opencast mining activities are currently being undertaken at Goedehoop Colliery and previously opencast mining areas were rehabilitated. Therefore, this condition is not applicable.

		All damages and erosion will be rectified.	Not applicable		
		All storm water control structures will be inspected after a flood event for signs of erosion, blockages and breakages.	Not applicable		
		Clean and dirty water separation systems are constructed at all relevant surface infrastructure. All systems are constructed in such a manner as to contain the runoff from a 1:100 year 24 hour storm event with a 0,5meter freeboard.	Not applicable		
		All clean and dirty water separation systems are checked for blockages, leakages and breaches after each significant storm event and repair or maintenance is commencing timeously.	Not applicable		
		All vegetation in the trenches are cut or removed to ensure that the trench has the required operational capacity. For the purpose of definition, the heights of the vegetation within the trench will not exceeding 30 cm (unless otherwise prescribed by a Civil Engineer).	Not applicable		
		To ensure that the clean and dirty water trenches still have sufficient capacity to contain the runoff from a 1:100 years 24-hour storm event with a 0,5-meter freeboard over and above the normal design flow. A civil engineer audits all the trenches on Goedehoop Colliery.	Not applicable		
		After the initial audit, a bi-annual audit by a civil engineer is conducted on the clean and dirty water trenches and associated structures.	Not applicable		
		All future dams will be engineer designed according to specifications required within regulation GN704, which is to contain the water from a 1:50 year rainfall event with a 0.8m freeboard. It should be noted that all existing dams have been constructed to contain water from a 1:100-year rainfall event with a 0.8m freeboard and are thus of sufficient capacity (and comply under regulation GN704)	Not applicable		No opencast mining activities are currently being undertaken at Goedehoop Colliery and previously opencast mining areas were rehabilitated. Therefore, this condition is not applicable.
		Ensure that a one-meter-high diversion berm is constructed around the mining area to divert water around the mining area during the flood events. This berm will be designed and constructed to design specifications.	Not applicable		
<b>Groundwater</b>	Preceding cuts will be filled and rehabilitated to reduce void size. Only three cuts will be open at any given time.	Not applicable	No opencast mining activities are currently being undertaken at Goedehoop Colliery and previously opencast mining areas were rehabilitated. Therefore, this condition is not applicable.		
	All clean water runoff diversion systems will be maintained and a push up berm will be constructed upslope of the pit. This berm will divert runoff water from the pit area.	Not applicable			
	To reduce contamination of groundwater, replacement of material will be as follows: overburden covered by subsoil and finally covered by 300mm topsoil	Compliant	According to the <i>Post-Mining Land Capability Determination</i> compiled by Digby Wells Environmental, dated March 2019, "The depth of soils in all mini-pit areas averaged 300 mm". No soil stockpiles are present at Goedehoop Colliery.		

		Groundwater monitoring will be conducted on the proposed mining area. The monitoring will detect any groundwater contamination from the proposed mining activity. The mine must use obtained monitoring data to update the groundwater models.	Compliant	Groundwater monitoring is conducted by Aquatico Services (Pty) Ltd. An updated groundwater and Geochem assessment is yet to be conducted; a quote has been issued by Delta H water system modelling (Pty) Limited to update the said studies which will include the detection of any groundwater contamination and suggest plausible mitigation measures.
		If it can be proven that mining operation is indeed affecting a groundwater user, the affected groundwater user will be compensated.	Compliant	More than 10 farmers are being supplied with water by the mine. Water obtained from the Nooitgedacht Scheme is treated at the Reverse Osmosis Plant where after it is distributed to the farmers. Water is also being provided to Mr. C.J. Schoeman. The mine is also looking at identifying long term water supply strategies for the affected parties.
<b>Air Quality</b>		Dust suppression are undertaken during the operational of the opencast pits where movement of machinery is generating dust.	Not applicable	No opencast mining activities are currently being undertaken at Goedehoop Colliery and previously opencast mining areas were rehabilitated. These conditions are no longer applicable.
		Blasting holes will be stemmed prior to blasting.	Not applicable	
		A dust fallout monitoring network has been installed at Goedehoop Colliery to quantify dust fallout.	Not applicable	
		As much as possible ensure that the wind direction is away from the residents of the informal settlement and Springbok Village when blasting. Consult with the residents in close proximity to the mine a few hours before any blasting. If necessary, evacuations should be conducted.	Not applicable	
		Avoid expose of coal on high walls to free oxygen for extended periods	Not applicable	
		Cover burning areas at the high wall with soil material	Not applicable	
		Rehabilitate mined out areas as soon as possible to limit spoils areas from spontaneous combustion risks	Compliant	
		Dust suppression must be undertaken at the mine and if the suppression does not yield satisfactory results, the mine should investigate the use of other proven dust suppression methods	Not applicable	No opencast mining activities are currently being undertaken at Goedehoop Colliery and previously opencast mining areas were rehabilitated. These conditions are no longer applicable.
<b>Vibration and Noise</b>		All residences and structures within a 1km radius of the proposed mining operation will be surveyed and a photographic record of these taken to determine a pre-mining condition.	Not applicable	No opencast mining activities are currently being undertaken at Goedehoop Colliery and previously opencast mining areas were rehabilitated. These conditions are no longer applicable.
		All such structures will also be inspected for signs of vibration or blasting damage.	Not applicable	
		Mine Management will repair any damage, which arises as a result of blasting or activities at the mine, at the mine's expense.	Not applicable	
		Designs of blasts to ensure safe levels of ground vibration and air blast is maintained.	Not applicable	

		When blasting approaches, the area of concern, (south eastern side of Vlaklaagte Block 3) the actual depths to be drilled must be determined carefully and expected ground vibrations and air blast re-calculated to ensure safe levels is maintained. Redesign with alternative diameter blast holes and charge masses to accomplish safe blasting.	Not applicable		
		All Interested and Affected Parties identified during the Interested and Affected Party survey will be notified within One (1) hour prior to Blasting. The traffic at the R544 provincial road will be controlled during the blasting. This will be done in consultation with the Department of Mineral Resources and the Department of Transport.	Not applicable		
		Precision electronic blasting will be applied as and when required. Single hole blasting will be conducted when in close proximity to the road.	Not applicable	No opencast mining activities are currently being undertaken at Goedehoop Colliery and previously opencast mining areas were rehabilitated. These conditions are no longer applicable.	
		Blasting will be conducted between the hours of 06H00 and 18H00 to minimise the impact on persons dwelling within close proximity to the mine.	Not applicable		
		Ground vibration monitoring must be undertaken during each blast at the proposed mining project area. Results of the monitoring must be used to modify the blast in case the allowable levels are not attained.	Not applicable		
<b>Visual Effects</b>		Additional operational phase activities that were not identified as having visual impacts on residents, land users and the associated private and government road users, during construction phase, must be identified. This may include vehicle movement and infrastructure construction on areas that is not surrounded by visual berms.	Not applicable		No opencast mining activities are currently being undertaken at Goedehoop Colliery and previously opencast mining areas were rehabilitated. These conditions are no longer applicable.
		Areas at which such activities are taking place must be shielded with appropriate screens.	Not applicable		
		The mined out, backfilled, levelled and topsoil shaped areas will be seeded with the seed mix recommended in this document. This will reduce dust and will improve the aesthetics of the area resulting in the reduction of the visual impacts.	Compliant	The mine personnel confirmed during the audit that the mined-out areas have been backfilled, leveled and top soiled. These areas have further been seeded and vegetation has established.	
		All trucks transporting material on the mining areas will be required to obey a maximum 30 km/h speed limit. This will reduce dust generation.	Not applicable	No opencast mining activities are currently being undertaken at Goedehoop Colliery and previously opencast mining areas were rehabilitated. These conditions are no longer applicable.	
		The mine will adopt a clean-house policy. All stockpiles will be maintained at specified heights to reduce visual impact.	Not applicable		
	<b>Sensitive landscape</b>		Ensure that all wetland areas are identified and demarcated.	Not applicable	No opencast mining activities are currently being undertaken at Goedehoop Colliery and previously opencast mining areas were rehabilitated. These conditions are no longer applicable.
		No mining must be allowed within a distance specified by the wetland specialist from any wetland areas.	Not applicable		

		<p>If this cannot be avoided, a water use licence application will be submitted where permission to mine within the wetland area will be sort. Together with the application, a rehabilitation programme must be submitted, whereby a method will be described how the affected wetland areas will be rehabilitated.</p>	Compliant	<p>The following water management infrastructure are included as Section 21(c) and (i) water use activities in the WUL due to their location towards sensitive landscapes (wetland and rivers):</p> <ul style="list-style-type: none"> <li>• Vlaklaagte river diversion.</li> <li>• Vlaklaagte clean water holding facility.</li> </ul>
		<p>On addition to the above, the following will be undertaken:</p> <p>Minimization of the removal of/damage to vegetation in riparian and wetland areas, especially on the areas where the hard overburden will be stockpiled in close proximity to the wetlands.</p> <p>The construction of overburden stockpiles in or adjacent to the wetland/riparian zone is to be managed and strictly controlled to minimize damage to remaining wetlands</p> <p>Debris and sediment trapping, as well as energy dissipation control structures, should be put in place where storm water enters the wetland</p>	Not applicable	<p>No opencast mining activities are currently being undertaken at Goedehoop Colliery and previously opencast mining areas were rehabilitated including all the stockpiles and associated infrastructures. These conditions are no longer applicable.</p>
		<p>Wetlands disturbed during construction should be re-vegetated using site-appropriate indigenous vegetation and/or seed mixes. Alien vegetation should not be allowed to colonize the disturbed wetland Areas Rehabilitation of disturbed wetland habitat should commence immediately after construction is completed.</p>	Non-compliant	<p>Wetlands are not yet rehabilitated; however, a rehabilitation plan and programme for the wetland is in place. Currently the rehabilitation of wetlands is prioritized for the North section (Goedehoop Bank Colliery) and the rehabilitation of wetlands on the South section will be done in phases.</p>
<b>Operation of Borrow Pits for Construction and Rehabilitation Purposes</b>	<b>Topography</b>	<p>All established borrow pit areas are reshaped with 1:5 slopes, and the soils remediated by application of agricultural lime and fertiliser onto the soils (through ploughing), and establishment of vegetation as per specialist's recommendations. After rehabilitation, all borrow pits are free draining</p>	Not applicable	<p>There are no borrow pits at Goedehoop South Colliery. They were included in the EMPr as potential future activities. Therefore, these conditions are not applicable</p>
	<b>Soils</b>	<p>All borrow pit areas are reshaped with 1:5 slopes, and the soils remediated by application of agricultural lime and fertiliser into the soils (through ploughing), and establishment of vegetation. After rehabilitation, all borrow pits are free draining.</p>	Not applicable	
	<b>Natural Vegetation Re-established.</b>	<p>All borrow pits will be rehabilitated to ensure that natural vegetation is</p>	Not applicable	
	<b>Surface water</b>	<p>All borrow pits will be rehabilitated to ensure that the areas are free draining and that no excessive silts are generated.</p>	Not applicable	
	<b>Sensitive landscape</b>	<p>The borrow pits will be sited to be away from any sensitive landscapes.</p>	Not applicable	
	<b>Topography</b>	<p>The area where R.O.M. coal stockpiling, roads and overland conveyor belt areas to be constructed will be surveyed and the position/height of the areas</p>	Not applicable	<p>Transportation and Stockpiling of Run of Mine Coal, Product Coal and Coal Discards in respect to Coal mining by Goedehoop South Colliery are not being</p>

<p><b>Transportation and Stockpiling of Run of Mine Coal, Product Coal and Coal Discards</b></p>		<p>communicated to the responsible mine personnel who will ensure that the areas do not exceed the determined limits (boundary and height).</p>		<p>undertaken. Only the re-working of the MRD is being undertaken by Nasonti and will be audited under its approved EMPr and granted EA. Therefore, this commitment is not applicable.</p>																	
		<p>The R.O.M. coal stockpiles will be operated not to exceed the predetermined heights and will occupy as small area as possible. This will ensure that the ROM coal has minimum impact on the topography of the area. Note: The coal stockpiles at the opencast mining and elder's coal transfer facility will not be higher than designed heights.</p>	Not applicable																		
		<p>The amount of R.O.M coal to be stockpiled at the R.O.M coal stockpiling area will not exceed capacity designed for the area.</p>	Not applicable	<p>Transportation and Stockpiling of Run of Mine Coal, Product Coal and Coal Discards in respect to Coal mining by Goedehoop South Colliery are not being undertaken. Only the re-working of the MRD is being undertaken by Nasonti and will be audited under its approved EMPr and granted EA. Therefore, this commitment is not applicable.</p>																	
	<p><b>Soils</b></p>	<p>Erosion control structures and surface water velocity breaks will be installed in areas adjacent to the conveyors and erosion prone areas to prevent erosion during the life of mine. The spacing of such structures are based on parameters indicated below:</p> <table border="1"> <thead> <tr> <th>Slope angle (°)</th> <th>Spacing between erosion control structures (m)</th> </tr> </thead> <tbody> <tr> <td>&lt; 3</td> <td>Not necessary/none</td> </tr> <tr> <td>3 – 6</td> <td>100</td> </tr> <tr> <td>6 – 8</td> <td>80</td> </tr> <tr> <td>8 – 10</td> <td>60</td> </tr> <tr> <td>10 – 12</td> <td>40</td> </tr> <tr> <td>12 – 14</td> <td>30</td> </tr> <tr> <td>14 – 18</td> <td>20</td> </tr> <tr> <td>&gt; 18</td> <td>10</td> </tr> </tbody> </table>	Slope angle (°)	Spacing between erosion control structures (m)	< 3	Not necessary/none	3 – 6	100	6 – 8	80	8 – 10	60	10 – 12	40	12 – 14	30	14 – 18	20	> 18	10	<p>Transportation and Stockpiling of Run of Mine Coal, Product Coal and Coal Discards in respect to Coal mining by Goedehoop South Colliery are not being undertaken. Only the re-working of the MRD is being undertaken by Nasonti and will be audited under its approved EMPr and granted EA. Therefore, this commitment is not applicable.</p>
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14 – 18	20																				
> 18	10																				
<p>According to mine personnel all conveyor belts and haul routes are monitored for coal spills. No concerns were identified with coal spillages. Goedehoop Colliery have developed a <i>Conveyor Belt Coal Spillage Cleaning Procedure (AATC008790)</i> for the clearing of coal spillages.</p>	Not applicable																				
<p>All coal spillages and encroachment outside the routes boundary identified must be reported. The spills and affected areas will be removed and rehabilitated as soon as possible. Areas where wetland soils have been affected must be rehabilitated to ensure that the affected wetland soils are restored.</p>	Not applicable																				

	Undertake measures such as rock cladding and vegetation on areas that have been exposed to wind and water erosion.	Not applicable	Transportation and Stockpiling of Run of Mine Coal, Product Coal and Coal Discards in respect to Coal mining by Goedehoop South Colliery are not being undertaken. Only the re-working of the MRD is being undertaken by Nasonti and will be audited under its approved EMPr and granted EA. Therefore, this commitment is not applicable.
	All vehicles used at the mining site will be required to undergo regular check-ups. This will ensure that the vehicles are in good repair order.	Not applicable	
	No maintenance or refuelling of mine vehicles will be conducted on site. Any emergency repairs and refuelling will need to be conducted on protected ground. Tarpaulins or similar material must be used for protecting the ground.	Not applicable	
	All emergency repairs must be reported to the project manager.	Not applicable	
	The area on which the repairs were done must be inspected.	Not applicable	
	All haulage trucks will be required to obey speeds of 30 km per hour. This will ensure that possibilities for accidents, which result in the spillage of coal, are minimised	Not applicable	
	All truck drivers will be required to report any accidental spillage of coal.	Not applicable	
	All access and haul roads will be monitored for spilled coal. Spilled coal must be removed from the roads.	Not applicable	
	The designed perimeters such as the footprint of the stockpile must be communicated to the teams responsible for the stockpiling of the coal	Not applicable	
	The use of the run of mine coal stockpile must ensure that the stockpiling of the coal do not encroach beyond the footprint of the stockpiling area	Not applicable	
	All coal received from the mining areas and coal removed must be properly recorded.	Not applicable	
	Exceedance of the limits must be reported to the project manager. This could be spillage of the coal into the dirty water trenches or even outside the dirty water trenches.	Not applicable	

		All spilled coal must be removed and the area cleaned up. The mine will also have conducted regular cleaning and maintenance of the storm water diversion structures including their sumps and pumping infrastructures.	Not applicable	
<b>Natural Vegetation</b>		Measures will be taken by the mine to ensure that areas beyond the designed boundaries are not affected by the operation of the coal stockpiling areas, roads and overland conveyor belts. No activities will be allowed beyond the boundary of the designed areas.	Not applicable	Transportation and Stockpiling of Run of Mine Coal, Product Coal and Coal Discards in respect to Coal mining by Goedehoop South Colliery are not being undertake, all the areas with its related infrastructures are rehabilitated. Only the re-working of the MRD is being undertaken by Nasonti and will be audited under its approved EMPr and granted EA. Therefore, this commitment is not applicable.
		Development of erosion gullies must be monitored in the vicinity of the infrastructure area	Not applicable	Transportation and Stockpiling of Run of Mine Coal, Product Coal and Coal Discards in respect to Coal mining by Goedehoop South Colliery are not being undertake, all the areas with its related infrastructures are rehabilitated. Only the re-working of the MRD is being undertaken by Nasonti and will be audited under its approved EMPr and granted EA. Therefore, this commitment is not applicable.
		Measures must be taken to prevent the pollution of the area outside the affected areas.	Not applicable	Transportation and Stockpiling of Run of Mine Coal, Product Coal and Coal Discards in respect to Coal mining by Goedehoop South Colliery are not being undertake, all the areas with its related infrastructures are rehabilitated. Only the re-working of the MRD is being undertaken by Nasonti and will be audited under its approved EMPr and granted EA. Therefore, this commitment is not applicable.
		Provide sufficient on-site ablution, sanitation and waste management and hazardous materials management facilities.	Not applicable	Transportation and Stockpiling of Run of Mine Coal, Product Coal and Coal Discards in respect to Coal mining by Goedehoop South Colliery are not being undertake, all the areas with its related infrastructures are rehabilitated. Only the re-working of the MRD is being undertaken by Nasonti and will be audited under its approved EMPr and granted EA. Therefore, this commitment is not applicable.
		Maintain access to water resources for ground dwelling organisms.	Compliant	The transportation and Stockpiling of Run of Mine Coal, Product Coal and Coal Discards areas do not restrict access to water resources for ground dwelling organisms.
		No animal may be hunted, trapped, snared or captured for any purpose whatsoever. Fences and boundaries should be patrolled in order to locate and remove snares and traps. Fences should be made visible, especially for flying fauna, specifically avifauna.	Compliant	Transportation and Stockpiling of Run of Mine Coal, Product Coal and Coal Discards in respect to Coal mining by Goedehoop South Colliery are not being undertake, all the areas with its related infrastructures are rehabilitated. Only the re-working of the MRD is being undertaken by Nasonti and during the site observation, there were no snares and traps. it must be noted that the environmental topics and induction provided for review, make no mention or instruction about hunting/poaching.
<b>Surface Water</b>		The coal stockpiling areas will be bunded around and the floors compacted to allow water drainage to the pollution control structures hence limiting seepage into the groundwater.	Compliant	Coal stockpiling is undertaken on top of the discard dump on the floors are compacted, and fall within the water management circuit. Any runoff from these areas is collected in sumps and re-used at the plant.

		The area will be operated such that all runoff from the site is diverted via diversions structures to a constructed dirty water dams or sumps that is connected to the mine's dirty water management systems.			
		These facilities will be maintained in good order.	Compliant		
		Silt traps will be situated at the silos and water captured will be pumped to the mine's dirty water containment facilities.	Not applicable	All these facilities are decommissioned; therefore, these conditions are not applicable.	
		Where the conveyor belt and road systems water runoff is not included into a dirty water system the potential is considered low and any spillage will be cleaned.	Not applicable		
		Clean water around the facilities will be diverted away from such facilities to the nearby streams.	Not applicable		
		All storm water management systems will be operated to comply with the requirements of the regulations under the GN704.	Not applicable		
		Where conveyor belts will be crossing a watercourse, the following will be conducted:			
		The belt drive and transfer infrastructure at either end of the conveyor will be paved with concrete, bunded to prevent run-on of clean water and to contain dirty runoff.	Not applicable		All these facilities are decommissioned; therefore, these conditions are not applicable.
		Loading and offloading of coal will take place only within the designated dirty water areas	Not applicable		
		Conveyor belts will be rotated at the either end to ensure that the dirty side faces upwards at all times	Not applicable		
		Belt scrubbers will be provided at either end to clean the belt to prevent carbonaceous material from being dropped along the route	Not applicable		
		The conveyor will be completely enclosed at the bridge crossing to prevent any spillage of water or coal into the watercourses.	Not applicable		
		Watercourse crossings will be designed to accommodate at least the 1:100-year event without overtopping	Not applicable	All these facilities are decommissioned; therefore, these conditions are not applicable.	
		Dust suppression will be employed at the either end of the conveyor to minimize dust emissions.	Not applicable		
		A shroud will be provided along the entire conveyor length, on the upwind side, to prevent rain from falling directly onto the conveyor and to protect it from wind	Not applicable		

		Loading of trucks will be carefully controlled to ensure that overloading will not take place.	Not applicable	
		Monitoring will be implemented downstream of all watercourse crossings along the conveyor route	Not applicable	
<b>Groundwater</b>		The foundation of the R.O.M stockpiling areas and overland conveyor belt route will be designed and constructed to reduce seepage or infiltration of water into the groundwater regime.	Not applicable	All these facilities are decommissioned; therefore, these conditions are not applicable.
		The coal stockpiles will be bunded around and the floors compacted to allow water drainage to the pollution control structures hence limiting seepage into the groundwater.	Not applicable	
<b>Air Quality</b>		Dust suppression will be undertaken on area showing increased dust generation. Should dust levels be exceeded as indicated in the air quality standards and regulations, management measures will be revised, such as spraying more frequently or using dust suppressants.	Compliant	Dust suppression is being conducted at operational sites.
		The coal stockpiling areas will be maintained and operated such that the probability of spontaneous combustion are reduced e.g., the coal stockpiles will not be left unattended for prolonged periods, the stockpiles will be removed as soon as possible.	Compliant	Coal stockpiling occurs on top of the dump and is transported for sales and not kept on site for longer periods. There are no coal stockpiling areas on site, these facilities were decommissioned.
		Conveyors and transfer points are constructed to be enclosed structures to reduce entrainment of dust into the atmosphere	Not applicable	All these facilities are decommissioned; therefore, these conditions are not applicable.
<b>Noise</b>		Trucks, machinery and equipment will be regularly serviced to ensure acceptable noise levels are not exceeded.	Compliant	The PPE register as well as proof of trucks, machinery and equipment maintenance register was provided for review.
		Silencers will be utilised where possible.	Compliant	
		Point sources will be enclosed where possible. Employees working in areas with generation of noise will be issued earplugs and instructed to use them.	Compliant	
		Ensure that all wetland areas are identified and demarcated.	Compliance	A wetland delineation study was undertaken as part of this EMP, with wetland areas identified and presented on maps ( <i>Wetland Assessment</i> , dated March 2012, and prepared by Digby Wells Environmental). The wetland areas at

	<b>Sensitive Landscapes</b>			Goedehoop Colliery were also verified and updated with an updated wetland delineation study ( <i>Ecological Assessment of Wetlands</i> , dated January 2016, and prepared by Digby Wells Environmental). Although such wetland areas were identified and no evidence of demarcation of wetland areas was identified. The mine personnel indicated that avoidance of such areas was practiced.
		No coal stockpiling and operation of the overland conveyor belt will be allowed within a distance specified by the wetland specialist from any wetland areas.	Non-compliant	The wetland specialist recommended a 100-meter buffer between wetland areas and mining activities. Several conveyor crossings are situated within the buffer area specified. These crossings are listed above.
		Where wetlands have been affected, the mine will ensure that the remaining wetlands are protected from the activities within the coal stockpiling and overland conveyor belt area.	Non-compliant	The following discard stockpiles are situated within the 100-meter buffer of wetlands: <ul style="list-style-type: none"> <li>• South Co-disposal Facility</li> </ul> It should be noted that the above-mentioned activities are existing activities and commenced prior to the delineation of wetland areas. Strategies are being implemented, mainly focused at storm water management and preventing activities within the wetland areas) to minimise the impact from the existing activities on the identified wetlands. A <i>Wetland Rehabilitation Strategy and Management Plan</i> was developed by the Biodiversity Company, dated August 2017.
<b>Usage and Maintenance of Mine Surface Infrastructures (Including Access/Ventilation Shafts) and Buildings (Workshops, Stores, Offices, Residential Areas)</b>	<b>Topography</b>	Spoils removed from the shafts (box cut) have been stockpiled adjacent to and immediately upslope of the box cut such that they have a low profile. These are maintained and used as berms that prevent surface runoff water from entering the box cut.	Not applicable	There shafts are fully decommissioned except for the stores area which is currently being used as offices by Nasonti; therefore, this condition is not applicable.
	<b>Soils</b>	Clean and dirty water are being kept separate within the mine infrastructure areas. Areas such as workshops, diesel storage bays and wash down areas are placed on concrete slabs and water from these areas is diverted to the oil traps.	Not applicable	
		Areas of storage for lubricants, chemicals and other hazardous substances as well as areas where fuel is handled are paved and bunded with concrete to prevent accidental contamination of the soils. Alternatively, an impermeable liner is placed beneath above-ground storage tanks.	Not applicable	
		All hydrocarbons entering and used at the workshops are recorded.	Not applicable	
		All vehicles used at the mining site will be required to undergo regular check-ups. This will ensure that the vehicles are in good repair order.	Compliant	Proof of trucks, machinery and equipment maintenance register was provided for review.
	Any spillages are contained and cleaned up.	Compliant	There is currently no workshop on site and all maintenance is undertaken offsite. During the site visit, no spillages were observed and according to the incident's	
	No maintenance or refueling of mine vehicles will be conducted on site. Any emergency repairs and refueling will need to be conducted on protected	Compliant		

		ground. Tarpaulins or similar material must be used for protecting the ground.		register spillages are being reported and remediated. Traffic control measures are also available on the haul roads.
		All emergency repairs must be reported to the project manager.	Compliant	
		The area on which the repairs were done must be inspected.	Compliant	
		All haulage trucks will be required to obey speeds of 30 km per hour. This will ensure that possibilities for accidents, which result in the spillage of coal, are minimised.	Compliant	
		All truck drivers will be required to report any accidental spillage of coal.	Compliant	
		All access and haul roads will be monitored for spilled coal. Spilled coal must be removed from the roads.	Compliant	
	<b>Land capability</b>	All areas necessary for the optimal operation of the mine are being kept as small as practically possible.	Compliant	Activities associated with the Goedehoop Colliery – South Section are within the designated areas as described in the EMP. No evidence of activities extending beyond the designated areas was noted during the site audit.
	<b>Animal life</b>	Goedehoop Colliery demarcated land where access by people is prohibited and the land is fallow. These areas are expected to provide havens for animal life in areas where, if the mine were not presently operating, agriculture would have intruded. In addition, game camps have been established at the colliery and contain species that would normally occur in the region.	Compliant	A <i>Biodiversity Action Plan</i> , dated February 2014, and prepared by Digby Wells Environmental is being implemented at Goedehoop Colliery. Actions are being implemented as part of this plan to protect and enhance biodiversity. As part of the action plan, emphasis is placed on providing safe havens for animals and to encourage migration back into rehabilitated areas.
	<b>Surface/ground water</b>	Waste generated from the buildings will be managed as per the mine's waste management policies.	Compliant	Although the waste facilities such as wheely bins are kept in good order.
		All dirty surface water runoff from the access shaft areas is diverted to pollution control facilities and clean water is diverted to the clean water environment. Note that no dirty water is generated from ventilation shafts.	Not applicable	The access shaft area is fully decommissioned; therefore, this commitment is not applicable.

		Roads constructed of carbonaceous material are removed of the carbonaceous material and reconstructed with appropriate material	Non-compliant	The new haul road used by Nasonti is constructed using carbonaceous material.
	<b>Sensitive landscapes</b>	Any wetlands that could have been disturbed should be re-vegetated using site-appropriate indigenous vegetation and/or seed mixes once the area is used. The footprint of the complex will not be extended, hence protecting the remaining wetlands.	Not applicable	Wetlands are not yet rehabilitated; this condition will be assessed once the wetlands are rehabilitated.
		Alien vegetation should not be allowed to colonize the disturbed and remaining wetland areas.	Compliant	No concerns regarding alien vegetation establishment within wetlands were noted.
		Where vegetation removal has occurred adjacent to the infrastructure complexes, monitoring should take place to ensure successful reestablishment of natural vegetation. Alien vegetation should be removed from these disturbed areas on an on-going basis to ensure the successful re-vegetation by indigenous species.	Compliant	Goedehoop Colliery monitors all rehabilitated areas until such a time that the rehabilitated area is leased to a farmer, where after maintenance thereof is the responsibility of the farmer. Goedehoop Colliery further implements measures to eradicate alien plant species. Several lease agreements were shown during the audit.
<b>Operation of the Mineral Residue Deposit and Associated Water/Waste Management Facilities</b>	<b>Topography</b>	During the life of the mine the mineral residue deposit with the expansion areas will be constructed in accordance with the mineral residue deposit operational manual. Management of the mineral residue deposits are controlled under the Mandatory Code of Practice for Residue Deposits. This includes the construction of the mineral residue deposit with a whaleback design, with sides sloped at a maximum of 1:5. In order to ensure stability, regular compaction tests are conducted on the freshly deposited discard. The minimum compaction is 1600kg/m <sup>3</sup> . All discard facilities are audited.	Compliant	The Mineral Residue Deposit (South Co-disposal Facility) is managed as per the <i>Goedehoop Mandatory Code of Practice for Mineral Residue Deposits</i> , dated February 2014. The current design of the Co-Disposal Facility is a whale back design and with a 1:5 slope. Bi-monthly compaction tests are performed on the South Co-disposal Facility (the only operational Co-Disposal Facility at Goedehoop Colliery – South Section). Goedehoop Colliery indicated that bi-annual audits are performed at the South Co-disposal Facility.
		Where possible, the mineral residue deposits are rehabilitated or removed as soon as possible and in such a manner as to reduce the impact on the environment. Rehabilitation has ensured that mineral residue deposits are top soiled and seeded.	Not applicable	The South Co disposal facility is currently under the operational phase; therefore, this condition is not applicable yet.
		Currently Hope dump, Springbok dumps and Kleinshaft dump are rehabilitated. The current mineral residue deposit will be mined and the reclaimed discard reprocessed with the final discards being re-deposited on to the facility.	Compliant	These dumps are rehabilitated and the MRD is being reclaimed.
		The Old slurry dams are being rehabilitated and/or re-processed. Material from the old slurry dams is being sold.	Non-compliant	It was confirmed during the site visit that the old slurry dam still exists; however, these are not being rehabilitated nor being reworked as indicated in this condition. The old slurry dams are set to be rehabilitated and financial provision has been made available for this; however, the mine is awaiting for guidance from the rehab and mine closure team.
		The soil stripped from the footprint of the mineral residue deposit is currently stockpiled, for use in mineral residue deposit cladding. Soil recovery during the extension of the mineral residue deposit to its final footprint is undertaken in accordance with the guidelines as set out in Appendix 3.	Compliant	A topsoil or subsoil stockpiles are available for rehabilitation of the mineral residue deposits and the reclaiming of the MRD is still underway.

		Topsoil and subsoil are stockpiled separately, to a maximum height of 3 m and 5 m respectively. Soil samples will be analysed to determine fertiliser requirements of the stockpiled soils prior to utilisation. A soil utilisation guide will be compiled for the extension areas, and these will be subject to audits.		
		On other construction sites, a topsoil layer of 300mm is being removed, stockpiled and used for rehabilitation of that site. Where new topsoil stockpiles are formed, such stockpile will not be more than five meters high with side slopes at a gradient not exceeding 1:4.	Not applicable	There are no construction activities undertaken on site. No topsoil stripping and stockpiling is being undertaken at other construction sites.
		Due to salinisation of soils from the mineral residue deposit exudates that occurred down slope of the Springbok and Hope dumps, the mineral residue deposits have subsequently been rehabilitated. Soils are being protected from further salinisation. Salinised soils are remediated by incorporation of lime and fertiliser into the soils (through ploughing), and vegetation established on the soil.	Non-compliant	Seepages from the mineral residue deposits, Springbok 1 and 2 and Hope Dumps are still occurring but, the issue is being addressed with subsequent salination of soils (as evident from vegetation die back). This is an ongoing concern. However, a phytoremediation strategy is being implemented at Hope Dump and the process is still at its infancy state.
		All areas affected by the use of carbonaceous material for construction and by coal spillages are being rehabilitated. Contaminating material is removed and placed on the mineral residue deposit and the remaining areas maintained to be free of contaminating material.	Compliant	Significant progress has been made in terms of surface rehabilitation, as supported by site observation. Should coal spillages be detected, these incidents are recorded in ENABLON for corrective actions.
		On areas that are not in use by the mine, the soils are tested, limed, fertilised and re-seeded. These areas are maintained to be in good condition.	Compliant	The areas that are not in use by the mine were fertilised and re-seeded. A Post-Mining Land Capability Determination was compiled by Digby Wells Environmental, dated March 2019.
	<b>Land Capability</b>	All areas necessary for the optimal operation of the mineral residue deposits are being kept as small as practically possible.	Compliant	The South Plant Co-disposal facility is managed as per the approved footprint, and activities undertaken thereto. No concerns with activities extending beyond the approved footprint were identified during the site audit.
		Contaminated water within dirty water areas of the mine residue (minimisation of seepage) will be contained	Non-compliant	From the provided surface water monitoring records and site visit, adverse impact on Koringspruit and Goedehoopspuit is noted. Measures have been implemented for containment of seepage and runoff from the co-disposal facility through implementation of cut-off trenches with final collection thereto contained within the South Plant Return Water Dam. However, seepage containment, including effective containment within the South Plant Return Water Dam is not effective, and evident from the impacts identified in the abovementioned surface water monitoring results. However, a phytoremediation strategy is set to be implemented at Hope Dump
		All carbonaceous material will be contained within designated areas (stockpiling areas, mineral residue deposits and slurry dams)	Compliant	No concerns regarding carbonaceous material being stored outside of designated areas was noted during the site observations.
		With the exception of the planned expansion of the mineral residue deposit, no additional mineral residue deposit is planned for the mine. Management of the operational and rehabilitated mineral residue deposits are conducted	Compliant	It was confirmed during the site visit that no new mineral deposits were constructed. With reference to previous discussions regarding seepage from the rehabilitated dumps, with specific mention to Springbok 1 and Springbok 2, definite impact on the adjacent land uses occurs. This impact has been identified in the form of die back of vegetation as a result of the acidic soils and the salinity

		such that the land uses adjacent to the mineral residue deposits are not affected.		of the soils. Action plans are drafted and boreholes are drilled to remediate seepage issues
	<b>Natural Vegetation</b>	Limit the mining related activities to be within the expansion area. No activities will be allowed beyond the planned expansion area.	Not-applicable	Expansion of the South Co-disposal Facility has not commenced. No concerns regarding this commitment were noted during the site visit.
		Development of erosion gullies must be monitored and maintained.	Compliant	The formation of any erosion gullies at the South Co-disposal Facility is monitored by ANDRU Mining as well as a mine Civil Engineer and concerns discussed in the monthly Co-Disposal Facility meetings. Concerns are captured on ENABLON and assigned for corrective actions. No erosion gullies were observed during the site visit and none were reported as per the incident's register provided for review.
		Prevent the pollution of the undisturbed areas by soil, air or water.	Non-Compliant	From the provided surface water monitoring records and site visit, adverse impact on Koringspruit and Goedehoopspruit as well as impacts that may occur arising from the seepage of the inactive dumps (die back of vegetation due to salinity and acidity of the soils). Measures have been implemented for containment of seepage and runoff from the co-disposal facility (through implementation of cut-off trenches with final collection thereto contained within the South Plant Return Water Dam. However, seepage containment, including effective containment within the South Plant Return Water Dam is not effective, and evident from the impacts identified in the abovementioned surface water monitoring results. Therefore, undisturbed soil and water is not protected against pollution. However, a phytoremediation strategy is set to be implemented at Hope Dump.
		Prevent all open fires, provide fire-safe zones, facilities and suitable fire control measures.	Compliant	No open fires are allowed at Goedehoop Colliery. Security personnel at Goedehoop Colliery are appointed as the fire team on the mine. In the event of a fire, the security team is notified and dispatched to the fire. The team makes use of vehicles that were fitted with water tanks to assist in firefighting. The fire team is also adequately trained in firefighting practices.
		Once the mineral residue deposits have been fully utilized, the affected areas will be rehabilitated with topsoil then seeded with a seed mixture of pasture and indigenous grasses.	Compliant	The mineral residue deposits not currently being utilized and have been rehabilitated, which include top soiling and revegetation. The following plant species is used for rehabilitation at the dumps ( <i>Vegetation Establishment, Maintenance and Monitoring Procedure</i> ):
		All rehabilitated areas will be seeded utilising a seed mix consisting of <i>Eragrostis gayana</i> (5kg/ha), <i>Digitaria eriantha</i> (5kg/ha), <i>Cynodon dactylon</i> (3kg/ha), <i>Pennisetum clandestinum</i> (2kg/ha) and <i>Eragrostis tef</i> (1kg/ha).	Compliant	<ul style="list-style-type: none"> <li>• <i>Eragrostis tef</i> - 1.0 kg/ha</li> <li>• <i>Cynodon dactylon</i> - 5.0 kg/ha</li> <li>• <i>Chloris gayana</i> - 5.0 kg/ha</li> <li>• <i>Digitaria eriantha</i> - 5.0 kg/ha</li> <li>• <i>Medicago sativa</i> - 5.0 kg/ha</li> </ul>
		The use of <i>P. clandestinum</i> (Kikuyu) is necessary on mineral residue deposits and pollution control water structures to ensure stabilisation of the soil, as kikuyu tends to spread more rapidly, and provide better cover than, most suitable indigenous species.		

				used for rehabilitation is considered optimal for climatic conditions at the operation.
		P. clandestinum controlled by the retraction of fertilisers, thus preventing it spreading into the natural veld. Inspections are undertaken on a yearly basis (at the end of the wet season) during life of mine to determine the extent of the P. Clandestinum aerial coverage on the mineral residue deposits and pollution control water structures. If it is found that the P. Clandestinum is migrating into the natural veld, mechanical control is used in conjunction with the retraction of fertilisers.	Compliant	<p>The mineral residue deposits not currently being utilized have been rehabilitated, which include top soiling and revegetation. The following plant species is used for rehabilitation at the dumps (<i>Vegetation Establishment, Maintenance and Monitoring Procedure</i>):</p> <ul style="list-style-type: none"> <li>• <i>Eragrostis tef</i> - 1.0 kg/ha</li> <li>• <i>Cynodon dactylon</i> - 5.0 kg/ha</li> <li>• <i>Chloris gayana</i> - 5.0 kg/ha</li> <li>• <i>Digitaria erantha</i> - 5.0 kg/ha</li> <li>• <i>Medicago sativa</i> - 5.0 kg/ha</li> </ul> <p>Although the species utilised do not fully coincide with the species as per the EMP commitment, it was indicated by Goedehoop Colliery that the seed mix used for rehabilitation is considered optimal for climatic conditions at the operation.</p>
		Vegetation cover will be maintained by annual application of fertiliser for at least 3 years after rehabilitation, combined with biennial cutting or burning for the first three years. After this period, fertilizer will be applied as and when required. This will be determined by monitoring the basal cover and fertilizer levels against Anglo Operations (Pty) Limited standards.	Compliant	<p>Goedehoop Colliery indicated that where applicable vegetation maintenance is done according to the <i>Vegetation Establishment, Maintenance and Monitoring Procedure</i>.</p> <p>Aftercare of the area will be done with a L.A.N. fertiliser application 6-8 weeks after sowing, depending on climatic conditions (not to be applied during long dry spells).</p> <p>Maintaining of new vegetation on slopes of 1:5 or greater should be done by irrigation until a 10% basal cover at ground level has been attained and the grass is on average 100 mm.</p>
		A site-specific declared weed and invader species eradication programme is undertaken on the AOL surface area under Goedehoop Colliery control. Declared weed and invader species to be eradicated are in accordance with Regulation 15 and 16 of the Conservation of Agricultural Resources Act, 1983. Note, that over and above this, <i>P. Clandestinum</i> (although not a declared weed species) is controlled as indicated above.	Compliant	The identification and control of alien invader and weed species are the responsibility of the various Mine Section Managers. Problem areas are also identified monthly, as part of environmental inspections, where after a tender is submitted for an external contractor to eradicate the species identified. Eradication methods implemented are dependent on the species and include mechanical and chemical control. It must be noted that there are no improvements/changes from the previous audit period.
	<b>Surface Water</b>	All water management structures constructed to isolate the facility from the clean water environment (toe drains, pipelines, sumps and pumping systems and storm water management systems) will be maintained in good order.	Non-compliant	Waste water management structures are not kept in good order. The dam is silted and the trenches are blocked and roads are constructed over trenches on site.
		Shallow seepage and contaminated storm water runoff from the mineral residue deposit will be collected and routed to a mine's dirty dams (Kevin's farm dam and Return Water Dam).	Compliant	Affected storm water management measures, i.e. cut off trenches, at the South Co-disposal Facility are being implemented and conveyed to South Plant Return Water Dam.

	All dirty water from the dirty water structures must be re-used at the coal processing facility.	Compliant	Affected mine water at the plant areas is being re-used and dirty runoff is contained within South Plant Return Water Dam.
	All clean water must be diverted around the mineral residue deposit to the nearby streams i.e. Goedehoopspruit and Koringspruit.	Compliant	The area situated to the east of the South Co-disposal Facility is occupied by a mine residue deposit from Glencore mining activities. Surface water runoff origination from the eastern side of the facility is considered affected water and is collected either in Goedehoop Colliery or Glencore affected water circuit. Clean water runoff from the north of the facility is effectively diverted into the clean water system.
	The re-mining of the mineral residue deposit, operation of the filter press plant, and dry discards disposal will also reduce the impact on the surface and groundwater.	Compliant	Remining is being undertaken by Nasonti and Nasonti has placed a plant on top of the discard dump to limit pollution. The amendment in this regard was approved. Goedehoop Colliery undertakes its surface water quality monitoring on monthly basis. Quarterly reports and an annual water quality report compiled by Aquatico Scientific Services (Pty) Ltd was made available for review.
	The above-mentioned water management facility must be maintained to be in compliance with the requirements of the GN704. If any activity is not complying with the requirements of the regulations under the GN704, exemptions will be sought from the DWA.	Not applicable	Kevin's Dam – within 500 m of a wetland area situated between south plant and the Goedehoop Colliery south dump. However, it was indicated that this dam it will no longer be in used for Goedehoop Colliery.
	Surface water monitoring must be conducted at the facility to determine their effects on the surface water environment.	Compliant	Water monitoring at Goedehoop Colliery is undertaken as part of the Water Monitoring Procedure. Aquatico conducts the water quality monitoring as per the Quarterly Water Quality Monitoring report cited for January 2022 to March 2022.
	Maintenance of all rehabilitated mineral residue deposits are conducted to ensure that the impacts are minimised. The areas' environment is being monitored and any deviations are investigated and addressed	Compliant	With reference to previous concerns regarding seepage concerns, records of monitoring (surface water and groundwater monitoring), with further evidence provided of investigations as have been undertaken to date were provided during the audit. Investigations are undertaken and strategies are in place to address the concerns.
	Additional pollution control measures have been undertaken at the Hope dump and Springbok 2 dump to prevent the impacts from flood events. This includes storm water structures to divert any storm water away from the mineral residue deposits.	Non-compliant	Dumps were rehabilitated and area must be considered as clean, however storm water management infrastructure could not allow effective separation Rehabilitation of Hope Dump and Springbok Dump 2 is completed. As a result, the areas associated with the dumps should be considered as clean water areas. Storm water management at the dumps does not allow for effective clean and affected water separation.
	Springbok Valley An investigation to determine the decant areas of the seepage at within the Springbokspruit was conducted. Based on the outcome of this investigation, engineer designed sub-surface cut-off drains will be installed to capture and divert this seepage water to the existing sump situated below the Springbok dump.	Compliant	The sub surface drains were installed to capture and divert seepage water to the sump below the Springbok Dump.
	The Hope and Goedehoop Areas With the exception of the Kevin's farm dam, all pollution control dams are lined. This was effected by October 2005.	Compliant	It was indicated that pollution control dams at Goedehoop Colliery are lined. The Kevin's farm dam is not lined and will no longer be in use.

		In the event that new/additional dams are required, the construction of these dams will comply with GN704 with regards to location, capacity and operation. Further, they will be engineer designed and lined. Water use registration/licensing will be applied for under section 21 of the National Water Act prior to the construction of any new dam. Note that no new dams are currently proposed.	Not applicable	Two additional Erickson dams were observed on site but these dams store clean portable water, there were no new pollution control dam
		Dam levels are checked and maintained at specified operating levels to ensure that no accidental discharge occurs. Note that the dams are designed with capacity over and above capacities specified within GN704.	Compliant	
		All storm water runoff diversion trenches are inspected for silt build-up or blockages. These are cleared and all material removed from the dirty water trenches and moved to the Mineral Residue Deposit facility.	Non-compliant	As mentioned severally above, waste water management structures are not kept in good order. The dam is silted and the trenches are blocked and roads are constructed over trenches on site.
		All silt traps are inspected and cleaned regularly.		
		The location of decant or seepage from the Mineral Residue Deposit facility were investigated in February 2004. Based on the outcome of this investigation, engineer designed sub-surface cut-off drains were installed to capture and divert this seepage water to the Kevin's farm dam. The sub-surface cut-off drains were completed by October 2004.	Not applicable	The Kevin's Dam is no longer in used for Goedehoop Colliery.
		Gravel roads leading to the Mineral Residue Deposit facility are being graded to remove any carbonaceous material. This material will be disposed of on the Mineral Residue Deposit facility.	Non-compliant	The roads appeared to be graded during the site visit it is however noted that the new haul road used by Nasonti is constructed using carbonaceous material.
		Areas below conveyor belts are cleaned to remove any carbonaceous build-up. This material is disposed of on the Mineral Residue Deposit facility.	Not applicable	GHS Colliery is under decommissioning and these structures are rehabilitated.
		The floor of the mineral residue deposit expansion area will be constructed such the area is ripped and compacted. The floor will be connected to a toe drain that will collect and drain the seepage and contaminated storm water runoff from the mineral residue deposit to a sump with a pump that will convey the water to the mine's dirty dams (Kevin's farm dam and Return Water Dam). This will ensure that seepage water from the site that would have resulted in the contamination of the groundwater aquifer is collected.	Not applicable	Expansion of the South Co-Disposal Facility has not commenced yet. Therefore, this EMPr commitment is not yet applicable.
		Monitor the groundwater in the vicinity of the mineral residue deposit. The monitoring results must be interpreted by a suitably qualified person and the monitoring network should be audited annually to ensure compliance with	Compliant	Groundwater monitoring is conducted within the vicinity of the mineral residue deposit. Groundwater monitoring data is being interpreted by a surface water specialist (Aquatico is appointed service provider) as part of the quarterly water

		regulations. Groundwater monitoring boreholes should be sited with the aid of geophysics at designated positions based on final infrastructure layout.		monitoring reports. The monitoring programme is also reviewed on an annual basis.
	Groundwater	The numerical groundwater model must be updated by calibrating the model with monitoring data	Compliant	Goedehoop Colliery has updated the post-closure groundwater and geochemical model and this was confirmed through review of the report <i>Goedehoop Colliery – Post-closure groundwater and geochemical model</i> , dated February 2017 and compiled by Delta h.
		Kinetic testing of the discard and tailings material should be conducted to aid in the prediction of geochemical conditions during mineral residue deposit operation.	Compliant	Interwaste was commissioned to classify the various discard dumps in terms of SANS 10234, as per provided records thereto, dated October 2015. Acid Base Accounting (“ABA”) tests were undertaken by Marlow Aquatec with report <i>Acid mine drainage prediction from the Australian Laboratory Services coal sample system – A shake flask kinetic test</i> , dated July 2013 as provided for review.
		With the exception of Kevin’s farm dam, all pollution control dams are lined and all future supplemental dams (including those at the opencast mining areas) will be engineer designed and lined. The construction of these dams will comply with GN704.	Non-compliant	Kevin’s farm dam was confirmed as the only dam that is not fully lined. However, part of the lining of the Return water dam was stolen so the dam is not fully lined as per the original design. The replacement of the liner is underway, the mine has fenced the Return water dam to prevent thieves. It is important that the necessary actions are implemented and preventative measures taken to prevent seepage from taking place.
		Engineer designed sub-surface cut-off drains have been installed and are used to capture and divert the seepage water from the Mine Residue Deposit to the Kevin’s Farm dam and the Return water dam. Kevin’s farm dam will be lined to reduce its seepage.	Compliant	The sub surface drains were installed to capture and divert seepage water from the mine residue deposit to Kevin’s Farm dam. The commitment to line Kevin’s Farm dam contradicts previous commitments stating the Kevin’s Farm dam will not be lined.
		The facilities use the principle of Mineral Residue Deposit where coarse discard is utilised to create an impoundment into which slurry is disposed. In order to reduce the permeability of the coarse discard, it is compacted in situ. The slimes are beached in a manner so that the water in the slimes compartment gravitates towards a central penstock, which is then recovered for re-use in the plant.	Compliant	It was observed that slurry is no longer deposited on the South Co-disposal Facility as the filter press plant was fully operational. Therefore, Goedehoop Colliery is only undertaking dry disposal of coarse and fine residue.
		Investigation into the decant point of seepage from the rehabilitated Springbok dumps (Springbok #1 and #2) was conducted, and the implementation of the recommendations of the investigation will be conducted in 2015.	Non-compliant	Seepages are still there on springbok 1 and springbok 2, recommended remediation measures are still in the process of being implemented.
		The Goedehoop Colliery Hope Dump has been rehabilitated and is being maintained and monitored to determine if it has any impacts on the groundwater regime. If it has, measures will be undertaken to minimise the impacts on the groundwater.	Compliant	As per the <i>Quarterly Water Quality Assessment Report for Goedehoop Colliery: January 2022 to March 2022</i> and prepared by Aquatico, evidence of improvement in groundwater quality at the Goedehoop Colliery South can be observed from the available information for the recent monitoring period.
			Groundwater monitoring around the rehabilitated Kleinshaft dump indicates negligible impacts on groundwater quality. Management is principally	Compliant

	involving maintenance of the vegetation cover on the mineral residue deposit and surrounding areas.		
	The coal stockpiles are bunded around and the floors are compacted to allow water drainage to the pollution control structures hence limiting seepage into the groundwater.	Not applicable	Only the re-mining of the MRD is being undertaken at the mine, there are no coal stockpiles on site. No concerns with containment of affected water runoff at the old coal stockpiling areas were noted on site.
	In the event that decant occurs, the affected area will be rehabilitated and reshaped and made free draining to discourage infiltration of runoff water into the groundwater regime. In essence all ponding and eroding areas will also be reshaped.	Not applicable	Golder associate is monitoring the level of decant. An updated groundwater and Geochem assessment is yet to be conducted; a quote has been issued by Delta H water system modelling (Pty) Limited to update the said studies which will include the identification of decant areas and plausible mitigation measures.
<b>Air quality</b>	Current mining practice in the construction and maintenance of coal stockpiles and mineral residue deposits prevent spontaneous combustion. This minimises emission of gaseous and particulate emissions. No additional management is necessary.	Compliant	Only the re-mining of the MRD is being undertaken at the mine, there are no coal stockpiles on site. However, if spontaneous combustion occurs on mine residue deposits, a front-end loader loads the material and redistribute it on the deposit The material is then compacted to prevent further spontaneous combustion
	All machinery employed on site are being kept in good repair, and well maintained.	Compliant	Proof of trucks, machinery and equipment maintenance register as well as exhaust systems was not provided for review; however, during the site visit machinery were in good.
	All machinery is fitted with the correct exhaust systems, which will be maintained and kept in good repair.	Compliant	
	All vehicles transporting material from the mining operation are required to obey a maximum 40km/h speed limit. This reduces the generation of dust on the haul roads.	Compliant	Traffic control measures are implemented on site such as speed limits etc. and employees are trained during induction about the traffic measures on site, cars are also fitted with cameras and monitoring systems to guide and monitor drivers while driving on site. Dust suppression is also conducted on site to reduce dust on haul roads.
	Dust suppression are undertaken during the operational phase on the Mineral Residue Deposit facilities; on transfer points on conveyor belts, on un-paved roads, stockpiling areas and on rehabilitation sites where movement of machinery is generating dust.	Compliant	Dust suppression is conducted on site to reduce dust on the mineral residue deposit facilities and haul roads. It must be noted that there are no transfer points on conveyor belts on site.
	The Hope Dump, Kleinshaft Dump and Springbok dumps were capped and vegetated.	Compliant	Goedehoop Colliery reported that sampling of the capping of the Springbok 1 and 2 has been undertaken as a project for Coaltech, as the capping of the dumps appears to be well suited for future capping of other discard dumps.
	Coal stockpiles and mineral residue deposits are constructed and maintained such that the probability of spontaneous combustion is reduced.	Compliant	Only the re-mining of the MRD is being undertaken at the mine, there are no coal stockpiles on site. However, if spontaneous combustion occurs on mine residue deposits, a front-end loader loads the material and redistribute it on the deposit The material is then compacted to prevent further spontaneous combustion
	The Rapid Loading Terminal at the plant is contained within a silo and therefore reduces dust generation.	Compliant	The rapid loading terminal at the plant is contained within a silo. It must be noted that these structures are under decommissioning and not being utilized.

		A dust fallout monitoring network has, however, been installed by AER (Pty) Ltd at Goedehoop Colliery to quantify dust fallout in the vicinity of the Mineral Residue Deposit facilities and the main plant complexes. This monitoring will continue for life of mine. The system of monitoring points will be reviewed on a 2-yearly basis, and additional monitoring points installed if necessary.	Compliant	Dust fallout is monitored on a monthly basis and an air quality monitoring report was prepared by WSP Group Africa (Pty) Ltd for Goedehoop Colliery dated March 2022 was provided for review. There were no new monitoring areas, the current activities at Nasonti's site are occurring within the existing monitoring network.
<b>Noise</b>		Personnel within the high noise confines are supplied with hearing protection.	Compliant	Proof of PPE register was provided for review including the noise monitoring report/study. Nevertheless, no employee was observed on site performing a task without appropriate PPE. It must be noted that education about noise and PPE is part of the training presentation provided for review.
		Noise levels are monitored at all strategic positions on Goedehoop Colliery.	Compliant	
<b>Sensitive Landscapes</b>		The operation of the mineral residue deposit will be conducted such that the remaining wetlands are protected from any activity from the mineral residue deposit. These will include ensuring that perimeter markers are placed for the mine personnel and instruction given to mine personnel not to work beyond the markers.	Compliant	The South Co-disposal Facility is fenced to prevent mine personnel from working beyond the approved footprint and to prevent further impact on wetland areas. It was also observed on site that the impact doesn't go beyond the approved footprint.
		Measures put in place for the management of waste and waste water from the mineral residue deposit will be maintained in good order.	Not-compliant	Although the training presentation specifies the management of waste on site, several sites were not properly kept on site; that includes, the disposal of waste/scrap pipes next to the Erickson Dam 1 and general waste disposed next to the return water dam. Affected water runoff from the facility is collected in the trenches around the dump that reports to the return water dam. However, these structures were not properly maintained, as mentioned the trench on site was blocked and the dam is still silted.
		If it happens that the remaining wetlands are affected during the operation of the facility, the mine will ensure that the affected wetlands are rehabilitated.	Not applicable	The reworking of the MRD is still operational and once the infrastructures are decommissioned, rehabilitation of the area will commence.
<b>Topography</b>		During the life of mine, the coal stockpiling areas will be operated under relevant Goedehoop Colliery mandatory codes. This will ensure that the facilities are not operated beyond the designed perimeters which stipulate the heights, which the stockpiles must be maintained.	Not applicable	Only the re-mining of the MRD is being undertaken at the mine, there are no coal stockpiles on site.

<p><b>Operation of the Coal Stockpiling Facility (Plant Area), Mineral Processing Plants, Binderless Coal Briquetting Plant, Water Treatment Plant and Associated Water/Waste Management Facilities.</b></p>	<p><b>Soils</b></p>	<p>The soil stripped from the footprint of the new project areas (coal stockpiling area and the binderless coal briquetting plant) will be stockpiled, for use in rehabilitation of the disturbed areas over the project areas. No activities that may contaminate, compact and reduce the fertility of the stockpiled topsoil will be allowed within the topsoil stockpiles.</p>	<p>Not applicable</p>	<p>The construction of the coal stockpiling facility (plant area), mineral processing plants, binderless coal briquetting plant, water treatment plant and associated water/waste management facilities was not undertaken; therefore, these conditions are not applicable yet.</p>
		<p>Limit all activities within the project areas such that they do not encroach outside the boundaries of the project areas. The perimeters of the project areas will be marked by either fence, berms, or any other visible markers.</p> <p>All areas affected by the use of carbonaceous material either by coal spillages and dirty water spillages and areas affected by other spillages (hydrocarbon, hydraulic fluids and cleaning agent's spillages, etc.) will be rehabilitated. Contaminating material will be removed and placed on the mineral residue deposit and the remaining areas maintained to be free of contaminating material.</p>	<p>Not applicable</p>	<p>The construction of the coal stockpiling facility (plant area), mineral processing plants, binderless coal briquetting plant, water treatment plant and associated water/waste management facilities was not undertaken; therefore, these conditions are not applicable yet.</p>
		<p>All areas affected by the use of carbonaceous material either by coal spillages and dirty water spillages and areas affected by other spillages (hydrocarbon, hydraulic fluids and cleaning agent's spillages, etc.) will be rehabilitated. Contaminating material will be removed and placed on the mineral residue deposit and the remaining areas maintained to be free of contaminating material.</p>	<p>Not applicable</p>	
		<p>On areas that are not in use by the mine, the soils will be tested, limed, fertilised and re- seeded. These areas will be maintained to be in good condition.</p>	<p>Not applicable</p>	
		<p>Any waste from the coal stockpiling areas, plant areas and water management facility areas will be managed in accordance to the mine waste management procedures.</p>	<p>Not applicable</p>	
	<p><b>Land capability Natural Vegetation</b></p>	<p>All areas necessary for the optimal operation of the coal stockpiling areas, plants area and the water management facilities are being kept as small as practically possible.</p>	<p>Not applicable</p>	<p>The construction of the coal stockpiling facility (plant area), mineral processing plants, binderless coal briquetting plant, water treatment plant and associated water/waste management facilities was not undertaken; therefore, these conditions are not applicable yet.</p>
		<p>Contaminated water within dirty water areas of the sites will either be contained within the sites for final disposal to the mine return water dam or re-used within the sites</p>	<p>Not applicable</p>	

		All carbonaceous material will be contained within designated areas (stockpiling areas, mineral residue deposits and slurry dams).	Not applicable	
		With the exception of the planned expansion of the mineral residue deposit, no additional mineral residue deposit is planned for the mine. Management of the operational and rehabilitated mineral residue deposits are conducted such that the land uses adjacent to the mineral residue deposits are not affected.	Not applicable	
		Limit these activities to be within the approved perimeter.	Not applicable	
		Development of erosion gullies must be monitored and maintained.	Not applicable	
		Prevent all open fires; provide fire-safe zones, facilities and suitable fire control measures.	Not applicable	
	<b>Surface water</b>	All water management structures constructed to isolate the coal stockpiling areas and the plants from the clean water environment (toe drains, pipelines, sumps and pumping systems, dirty water dams and storm water management trenches) will be maintained in good order.	Not applicable	The construction of the coal stockpiling facility (plant area), mineral processing plants, binderless coal briquetting plant, water treatment plant and associated water/waste management facilities was not undertaken; therefore, these conditions are not applicable yet.
		All dirty water from the dirty water structures must be re-used at the coal processing facility.	Not applicable	
		All clean water must be diverted around the coal stockpiling areas, plants and water management facilities to the nearby streams.	Not applicable	
		The mines water management facilities must be maintained to be in compliance with the requirements of the GN704. If any activity is not complying with the requirements of the regulations under the GN704, exemptions will be sought from the DWA.	Not applicable	
		Surface water monitoring must be conducted at the facilities and surrounding surface water bodies to determine their effects on the surface water environment.	Not applicable	
	<b>Ground water</b>	The floors of the new coal stockpiling areas, binderless coal briquetting plant and the water management structures will be constructed such the areas prevents the seepage and contamination of groundwater from the above-mentioned areas. The floors will be connected to a drainage channel that	Not applicable	The construction of the coal stockpiling facility (plant area), mineral processing plants, binderless coal briquetting plant, water treatment plant and associated water/waste management facilities was not undertaken; therefore, these conditions are not applicable yet.

		will collect the seepage and contaminated storm water runoff from the sites to the mine's Return Water Dam.		
		Monitor the groundwater in the vicinity of the sites. The monitoring results must be interpreted by a suitably qualified person and the monitoring network should be audited annually to ensure compliance with regulations. Groundwater monitoring boreholes should be sited with the aid of geophysics at designated positions based on final infrastructure layout.	Not applicable	The construction of the coal stockpiling facility (plant area), mineral processing plants, binderless coal briquetting plant, water treatment plant and associated water/waste management facilities was not undertaken; therefore, these conditions are not applicable yet.
		The numerical groundwater model must be updated by calibrating the model with monitoring data.	Not applicable	
<b>Air quality</b>		Current mining practice in the construction and maintenance of coal stockpiles and mineral residue deposits prevent spontaneous combustion. This minimises emission of gaseous and particulate emissions. No additional management is necessary.	Not applicable	
		The binder less coal briquetting plant will be operated such that the measures put in place to reduce gaseous emissions are maintained in good order.	Not applicable	
		A current air quality monitoring programme will be revised to include measurements of gaseous pollutants that may emanate from the binderless coal briquetting plant.	Not applicable	
		All machinery employed on site are being kept in good repair, and well maintained.	Not applicable	
		All machinery is fitted with the correct exhaust systems, which will be maintained and kept in good repair.	Not applicable	
		All vehicles transporting material from the mining operation are required to obey a maximum 40 km/h speed limit. This reduces the generation of dust on the haul roads.	Not applicable	
		Dust suppression will be undertaken during the operational phase on the coal stockpiling areas, plants and the water management facilities.	Not applicable	
		Coal stockpiles and mineral residue deposits are constructed and maintained such that the probability of spontaneous combustion is reduced.	Not applicable	
		The Rapid Loading Terminal at the plant is contained within a silo and therefore reduces dust generation.	Not applicable	
		A dust fallout monitoring network has been installed by AER (Pty) Ltd at Goedehoop Colliery to quantify dust fallout in the vicinity of the Mineral Residue Deposit facilities and the main plant complexes. This monitoring	Not applicable	

		will continue for life of mine. The system of monitoring points will be reviewed on a 2 yearly basis, and additional monitoring points installed if necessary.		
	<b>Noise</b>	Personnel within the high noise confines are supplied with hearing protection.	Not applicable	The construction of the coal stockpiling facility (plant area), mineral processing plants, binderless coal briquetting plant, water treatment plant and associated water/waste management facilities was not undertaken; therefore, these conditions are not applicable yet.
		Noise levels are monitored at all strategic positions on Goedehoop Colliery.	Not applicable	
	<b>Sensitive Landscapes</b>	The operation of the coal stockpiling areas, plants and water management facilities will be conducted such that a buffer specified by the wetland specialist is always maintained from any wetland areas.	Not applicable	The construction of the coal stockpiling facility (plant area), mineral processing plants, binderless coal briquetting plant, water treatment plant and associated water/waste management facilities was not undertaken; therefore, these conditions are not applicable yet.
		Measures put in place for the management of waste and waste water from the coal stockpiling areas, plants and water management facilities will be maintained in good order.	Not applicable	
		Where wetlands have been accidentally affected during the operation of the sites, the mine will ensure that the affected wetlands are rehabilitated and that the remaining wetlands are protected from the activities within the mineral residue deposit.  Ensure that appropriate land use is conducted on properties leased to third parties. This is achieved by sound contracts and ad hoc inspections.	Not applicable	
<b>General Management.</b>	<b>Land use</b>	Ensure that appropriate land use is conducted on properties leased to third parties. This is achieved by sound contracts and ad hoc inspections.	Compliant	Some of the rehabilitated land is being leased to farmers in the area and that specific requirements to land use, including maintenance of rehabilitated areas, are included in the lease agreements. Lease agreements for various farm portions were made available during the audit.
		Conduct weed and invader control or arrange for weed and invader control on areas leased to third parties.	Compliant	The identification and control of alien invader and weed species are the responsibility of the various Mine Section Managers. Problem areas are also identified monthly, as part of environmental inspections, where after a tender is submitted for an external contractor to eradicate the species identified. Eradication methods implemented are dependent on the species and include mechanical and chemical control.
		Actively conduct a declared weed and invader species eradication programme over the Anglo Operations (Pty) Limited surface rights area.	Compliant	
		Actively combat soil erosion if and when found.	Not applicable	No concerns with erosions were identified so far.

		Backfill any sinkholes that may occur timeously.	Not applicable	Fly-overs are done on a regular basis to identify all subsided areas. A sinkhole subsidence information (spreadsheet) was made available and no subsidence were identified at the areas under this EMPr.	
		Shape any subsidence areas to prevent ponding, and promote free surface runoff.	Not applicable		
		No domestic or hazardous waste is disposed of on Goedehoop Colliery. Domestic and hazardous waste is stored in separate containers and disposed of at registered waste disposal sites.	Non-compliant		Although the training presentation specifies the management of waste on site, several sites were not properly kept clean or well-managed on site; that includes, the disposal of waste/scrap pipes next to the Erickson Dam 1 and general waste disposed next to the return water dam.
	<b>Natural vegetation</b>	All rehabilitated areas will be seeded utilising a seed mix consisting of Eragrostis gayana (5kg/ha), Digitaria eriantha (5kg/ha), Cynodon dactylon (3kg/ha), Pennisetum clandestinum (2kg/ha) and Eragrostis tef (1kg/ha).	Compliant	<p>The following plant species is used for rehabilitation at the dumps (<i>Vegetation Establishment, Maintenance and Monitoring Procedure</i>):</p> <ul style="list-style-type: none"> <li>• Eragrostis tef - 1.0 kg/h</li> <li>• Cynodon dactylon - 5.0 kg/ha</li> <li>• Chloris gayana - 5.0 kg/ha</li> <li>• Digitaria erantha - 5.0 kg/ha</li> <li>• Medicago sativa - 5.0 kg/ha</li> </ul> <p>Although the species utilised do not fully coincide with the species as per the EMPr commitment, that the seed mix used for rehabilitation is considered optimal for climatic conditions at the operation.</p>	
		The use of P. clandestinum (Kikuyu) is necessary on mineral residue deposits and pollution control water structures to ensure stabilisation of the soil, as kikuyu tends to spread more rapidly, and provide better cover than, most suitable indigenous species.	Compliant		
		P. clandestinum is controlled by the retraction of fertilisers, thus preventing it spreading into the natural veld. Inspections are undertaken on a yearly basis (at the end of the wet season) during life of mine to determine the extent of the P. Clandestinum aerial coverage on the mineral residue deposits and pollution control water structures. If it is found that the P. Clandestinum is migrating into the natural veld, mechanical control is used in conjunction with the retraction of fertilisers	Compliant		
		Vegetation cover will be maintained by annual application of fertiliser for at least 3 years after rehabilitation, combined with biennial cutting or burning for the first three years. After this period, fertilizer will be applied as and when required. This will be determined by monitoring the basal cover and fertilizer levels against Anglo Operations (Pty) Limited standards.	Not applicable		GHS Colliery is still under the process of rehabilitation and decommissioning, this condition will be assessed once the rehabilitation process is done.
		A site-specific declared weed and invader species eradication programme is undertaken on the AOL surface area under Goedehoop Colliery control. Declared weed and invader species to be eradicated are in accordance with Regulation 15 and 16 of the Conservation of Agricultural Resources Act, 1983. Note, that over and above this, P. Clandestinum is controlled as indicated above.	Compliant		The identification and control of alien invader and weed species are the responsibility of the various Mine Section Managers. Problem areas are also identified monthly, as part of environmental inspections, where after a tender is submitted for an external contractor to eradicate the species identified. Eradication methods implemented are dependent on the species and include mechanical and chemical control. It must be noted that there are no improvements from the previous audit period.

		Areas affected by day lighting of saline or acidic water are rehabilitated first by liming, top soiling and the re-establishment of flora. However, the re-establishment of flora is only feasible once water management is improved.	Non-compliant	Areas affected by day lighting of acidic water were observed at the Hope Dump and Springbok Dumps 1 & 2 and these areas are not fully rehabilitated yet. However, actions are undertaken to remedy the situation.
		Consider planting Eucalyptus macarthurii may in designated areas at the base of the mineral residue deposit. This will serve the dual purpose of intercepting contaminated water as well as providing a visual screen for the mineral residue deposits.	Compliant	Grass species were planted at the base of the dumps in an effort to collect polluted water according to the site inspection but the grass species planted was ineffective and died, most likely due to the high levels of salt. The mine has applied for an amendment for the planting of indigenous phytoremediation trees and this amendment was approved and an EA was granted for this project. The project is currently on Phase 1.
		No open fires are allowed on any site throughout the mine area. The mine is monitoring the activities and firefighting capacities of its own staff and contractors.	Compliant	No open fires are allowed at Goedehoop Colliery. Security personnel at Goedehoop Colliery are appointed as the fire team on the mine. In the event of a fire, the security team is notified and dispatched to the fire. The team makes use of vehicles that were fitted with water tanks to assist in firefighting. The fire team is also adequately trained in firefighting practices.
		Roads to and on sites are serving as suitable firebreaks for part of the affected areas.	Compliant	
		Relevant mine staff and contractors are required to have ready access to suitable firefighting equipment such as water carts, fire beaters and extinguishers.	Compliant	
		Key members of staff are trained in firefighting and are available on call out basis for fighting runaway fires. The assistance of local farmers and mines are available to reinforce the Goedehoop Colliery's firefighting capacity.	Compliant	
		Maintain a clean and dirty water system on the property where clean water is kept separate from potentially pollution areas.	Non-compliant	
<b>Animal life</b>		As far as it is practically possible, the maximum amount of clean water runoff is being diverted around the mine infrastructure and contaminated areas and is released into the natural environment.	Non-compliant	Monitoring records show that there are impacts on Koringspruit and Goedehoopspuit. As observed, measures have been implemented for containment of seepage and runoff from the co-disposal facility through implementation of cut-off trenches with final collection thereto contained within the South Plant Return Water Dam. However, seepage containment is not effective, thus clean and dirty water systems are not kept separate.
		Actions to prevent dirty water from entering the natural environment are taken when and where necessary.	Non-compliant	
		Maintain the dirty water system in such a manner as to prevent the escape of contaminated water, and/or the migration of such water towards the natural environment.	Non-compliant	Refer also to previous discussions with regards to maintenance of the South Plant Return Water Dam, trenches as well as seepage from the Springbok 1 & 2 and Hope dumps.
		Report to the authorities, any actions that are conducted by a third party on the mineral rights area or immediately surrounding areas that may negatively impact on the macro-invertebrate diversity.	Not applicable	In the Springboklaagte area, clean water is not diverted around the seepage area thus contaminating the adjacent stream.

		Goedehoop Colliery is taking surface water samples on a monthly basis at selected sites from the respective streams within and subtending the mineral rights area to determine the water quality of the surface water.	Compliant	Water monitoring at Goedehoop Colliery is undertaken as part of the Water Monitoring Procedure. Aquatico conducts the water quality monitoring as per the Quarterly Water Quality Monitoring report cited for January 2022 to March 2022.
		Goedehoop Colliery is conducting a SASS 5 survey on selected sites in the respective streams within and subtending the mineral rights area to determine the macro-invertebrate diversity of the streams.	Compliant	Biannual biomonitoring studies are undertaken in selected streams across the Goedehoop Colliery mining operation. A SASS 5 survey was also included in the latest Goedehoop North and South Collieries Aquatic Biomonitoring High & Low Flow Report, dated January 2022, and prepared by The Biodiversity Company.
		Make extensive use of conveyor belts to transport coal from the respective satellite shafts (instead of hauling the ROM coal by truck).	Not applicable	The shafts, and conveyor belts are decommissioned and fully rehabilitated.
		Goedehoop Colliery ensures that staff is instructed that no hunting/poaching or unnecessary disturbance of wildlife are allowed on mine property. Hunting or poaching by mine personnel on adjacent properties are also not be permitted.	Non-compliant	Only the re-working of the MRD is being undertaken by Nasonti and during the site observation, there were no snares and traps. It must be noted that the environmental topics and induction provided for review, make no mention or instruction about hunting/poaching.
	<b>Surface water</b>	The water and salt balances are being further developed.	Compliant	The water balance for Goedehoop Colliery is updated on annual basis with the latest being compiled in July 2022 by Nasonti. The updated salt balance was not provided for review.
		Where water is pumped, a dual pump system with sufficient capacity to deal with the water make and function of the facility, is in place to ensure that water can be removed from the dams in the event of a breakdown within one of the pumps. This is necessary to ensure that dam operational capacities are maintained by water reticulation through the dirty water system (recycling).	Not applicable	Only the re-working of the MRD is being undertaken by Nasonti on site and during the site observation there were no pumping activities on site.
		Flow meters are installed on all major water pipelines and dirty water facilities.	Compliant	Currently the flow meters are only at Nasonti area (remining the dump), however there are no flow meters at the return water dam since there's no pumping occurring at the dam.
		Clean and dirty water separation systems are constructed at all relevant surface infrastructure. All systems are constructed in such a manner as to contain the runoff from a 1:100 years 24-hour storm event with a 0,5meter freeboard.	Compliant	The South Plant Return Water Dam was constructed with a freeboard greater than 0.5 m and is operated with a freeboard of more than 0.5 m above full supply level.
		The system has ensured that these facilities are isolated in terms of flow of water, hence all surface water runoff from these facilities is diverted via dirty water runoff trenches and pipelines to dirty water dams, for eventual re- use within the beneficiation facilities. Clean water is diverted around the dirty water areas to the nearby streams i.e., Hopespruit and Koringspruit. Surface water monitoring is also conducted at these facilities.	Non-compliant	All contaminated surface run-off from the infrastructure areas is diverted via a network of dirty water trenches and channels towards the containment dams for containment. However, systems to divert dirty seepage water from the rehabilitated dumps away from the nearby stream is not in place. It must be noted that an amendment report to include the remediation measures of the impact was approved and phase 1 of the project has already begun.
		Goedehoop Colliery commits to maintain a clean and dirty water separation system around all relevant surface infrastructure areas.	Non-compliant	Refer to previous discussions with regards to the concerns identified in diverting clean surface water runoff around / away from the dirty water management area.

		All clean and dirty water separation systems are checked for blockages, leakages and breaches and repair or maintenance is commencing timeously.	Non-compliant	Affected water runoff from the facility is collected in the trenches around the dump that reports to the return water dam. However, these structures were not properly maintained, as mentioned above, the trench on site was blocked and the dam is still silted.	
		All diversion trenches (clean or dirty) are cleaned regularly.	Non-compliant		
		All vegetation in the trenches is cut or removed to ensure that the trench has the required operational capacity. For the purpose of definition, the height of the vegetation within the trench is not exceeding 30cm (unless otherwise prescribed by a Civil Engineer).	Non-compliant		
		To ensure that the clean and dirty water trenches and dirty water dams still have sufficient capacity to contain the runoff from a 1:100 years 24hour storm event, the trenches and dams are constructed with a 0,5 and 0,8-meter freeboard over and above the normal design flow, respectively. After the initial audit as described above, a bi-annual audit by a civil engineer is conducted on the clean and dirty water trenches and associated structures.	Non-compliant	It was observed during the site visit that the south return water dam is silted and has vegetation growing inside it, which compromises the capacity of the dam, this means that the dam currently doesn't have the sufficient capacity to contain the run off from a 1:100 years 24hours storm event.	
		All future dams will be engineer designed according to specifications required within regulation GN704, which is to contain the water from a 1:50 year rainfall event with a 0.8 m freeboard. It should be noted that all existing dams have been constructed to contain water from a 1:100year rainfall event with a 0.5 m freeboard and are thus of sufficient capacity (and comply under regulation GN704).	Not applicable	Two additional Erickson dams were observed on site but these dams store clean portable water, there were no new pollution control dam.	
		All surface pollution control dams are lined with impermeable membranes to prevent water loss within the dirty water system. This leads to the primary benefit of reduced dirty water entering the natural environment.	Non-compliant	A part of the lining of the Return water dam is stolen so the dam is not fully lined as per the original design. It is important that the necessary actions are implemented and preventative measures taken to prevent seepage from taking place.	
		Silt traps are constructed upslope of the dirty water dams to ensure that a silt build-up does not occur within the dirty water dams. These silt traps are civil engineer designed. Construction dates for future silt traps will conform to the lining of the respective future dams.	Compliant	The silt traps were constructed upslope of the dirty water dams. Silt traps were designed by Semane Consulting Engineers (Pty) Ltd. However, these facilities were decommissioned.	
		All areas affected by coal spillages or usage of carbonaceous material for construction is lifted and coal spillages removed and laced into the mineral residue deposit facilities.	Non-compliant	The new haul road used by Nasonti is constructed using carbonaceous material.	
		<b>Sensitive Landscape</b>	Management activities are implemented to manage dirty water runoff and seepage into the natural environment hence resulting in improved water quality within the nearby watercourses, thus reducing stress within the wetland ecosystem.	Non-compliant	Evidence was provided of investigations that have been undertaken to manage the seepage at the dump and an amendment report to include the remediation measures of the impact was approved and phase 1 of the project has already begun. Phytoremediation strategy is being implemented at Hope Dump and the process is still at its infancy state.
			Eradication programs are instituted to remove all alien species occurring on the property including all identified wetlands.	Compliant	The identification and control of alien invader and weed species are the responsibility of the various Mine Section Managers. Problem areas are also identified monthly, as part of environmental inspections, where after a tender is submitted for an external contractor to eradicate the species identified.

				Eradication methods implemented are dependent on the species and include mechanical and chemical control. It must be noted that there are no improvements/changes from the previous audit period.
		The vegetation surveys are undertaken to give an indication of the vegetation dynamics within the wetland eco-systems and bio-monitoring is conducted within all wetlands (SASS 5 and vegetation surveys).	Compliant	Biannual biomonitoring studies are undertaken in selected streams across the Goedehoop Colliery mining operation. A SASS 5 survey was also included in the latest Goedehoop North and South Collieries Aquatic Biomonitoring High & Low Flow Report, dated January 2022, and prepared by The Biodiversity Company.
<b>Socio-economic</b>		Goedehoop Colliery is actively involved in community development projects including the development of small-scale farming by providing land lots (on property owned by Anglo Operations (Pty) Limited). See Social and labour plans for more projects.	Compliant	To ensure implementation of SLP commitments, Social and Labour Plan assessments are undertaken at Thungela Resources Head Office on a regular basis.
		As far as practically possible, all supplies are obtained from the Greater Middelburg/Witbank area as outlined in the Social and Labour Plan for Goedehoop Colliery.	Compliant	Thungela Resources has implemented employment and recruitment policies as well as procurement policies. Such policies are included in the Social and Labour Plan for Goedehoop Colliery.
		As far as practically possible, mine employees are recruited from the greater Middelburg/Witbank area as outlined in the Social and Labour Plan for Goedehoop Colliery.	Compliant	
<b>Sites of Cultural and Archaeological Importance</b>		Goedehoop Colliery monitors the state of the identified gravesites and should a site be found, that may be impacted on by future mining operations, Goedehoop Colliery will follow the process set out under the appropriate legislation.	Not applicable	There were no gravesites identified during this audit period; therefore, this condition is not applicable however noted by GHS.
<b>Interested and Affected Parties</b>		Adjacent landowners within a 2km radius, which show decreased borehole yields resulting from this mining venture, are compensated for by the drilling of new/additional boreholes to replace/supplement existing boreholes.	Compliant	More than 10 farmers are being supplied with water by the mine. Water obtained from the Nootgedacht Scheme is treated at the Reverse Osmosis Plant where after it is distributed to the farmers. The mine is also looking at identifying long term water supply strategies for the affected parties.
		Reports generated during the course of all monitoring programs will be made available, on request, to all interested and affected parties. This includes any water quality monitoring reports; dust fallout reports or results from noise studies.	Not applicable	No requests for reports have been received by the mine.
		No squatters are allowed on the property.	Compliant	No squatters are allowed on Goedehoop Colliery property. No concerns were identified during the site audit.
		Mine management is maintaining an open- door policy with all Interested and Affected Parties. Minutes of all meetings are kept and made available on request. All complaints received, are kept in complaints register.	Compliant	Communication between the mine and interested and affected parties is encouraged. Goedehoop Colliery implements a grievance procedure. A community liaison officer is also appointed at the mine.

		An Interested and Affected Parties Forum has been established. Minutes of all meetings are taken. These Minutes include a record of all parties in attendance.	Compliant	In addition to the measures listed above, Goedehoop Colliery also participates in an annual Farmers Day, where adjacent farmers are provided the opportunity to raise issues or concerns (refer also to the previous discussions in this regard).
<b>DECOMMISSIONING AND CLOSURE PHASE</b>				
<b>Decommissioning and Closure</b>	<b>Infrastructure Areas</b>	Whenever possible, residential areas and their infrastructure will not be demolished but left as viable urban areas. It is intended that ownership will be transferred to a third party. Should this not be possible, all buildings will be demolished and the area rehabilitated.	Compliant	All the residential areas associated with the mining operation are completely demolished and rehabilitated. The municipality will not be able to provide services to these areas. The areas will not be left as viable urban areas or be transferred to third parties.
		All concrete, steel works and structures will be removed so that the land can be returned to as near as practically possible to its original state. Concrete work that extends below ground level will be removed to a meter below the surface. Concrete, brick and mortar will be used as backfilling material in the audit and shaft areas. Steel will be sold as scrap metal.	Compliant	<p>GHS Colliery is still in the process of decommissioning, and below are the infrastructures that are already demolished: In addition to what's covered below, GHS demolished the office area as well. The concreted-floor stores area is now used by Nasonti thus not rehabilitated yet.</p> <p><b>Incline Shafts</b></p> <ul style="list-style-type: none"> <li>• A double brick wall bulk head filled with concrete was constructed approximately 10 meters of the shaft collar.</li> <li>• The upper portion of the shaft was backfilled to ground level with rubble, from demolished structures around the shaft.</li> <li>• The area was top soiled (500 mm thick) and re-vegetated.</li> </ul> <p><b>Roads</b></p> <ul style="list-style-type: none"> <li>• Access roads to the shaft were rehabilitated. All gravel roads were graded to remove carbonaceous material. The roads were cross-ripped to 300 mm at right angles to the natural slop, fertiliser added as per soil requirements and vegetated with a seed mix of indigenous and pasture grasses.</li> </ul> <p><b>Overland conveyor</b></p> <ul style="list-style-type: none"> <li>• All overland conveyors were dismantled and removed from the mineral rights area.</li> <li>• Areas underlying the conveyors were: <ul style="list-style-type: none"> <li>• Graded to remove all carbonaceous build-up;</li> <li>• Re-shaped to prevent erosion and promote free drainage;</li> <li>• Ripped to a minimum of 300 mm at right angles to prevent inherent slope;</li> <li>• Treated with an addition of fertiliser as per soil requirements.</li> </ul> </li> <li>• Where the conveyor crosses an area utilised for crop production, no seeding was undertaken (these areas were incorporated into the surrounding crop production area).</li> </ul>

				<ul style="list-style-type: none"> <li>□ Where the conveyor crosses natural grassland, the area underlying the conveyor was vegetated with a seed mix of indigenous and pastures grasses.</li> </ul> <p><b>Vertical shafts:</b></p> <ul style="list-style-type: none"> <li>All roadways at the immediate pit bottom were sealed by double thick brick walls filled with concrete and rock.</li> <li>Ladder ways were removed from the shafts after walls are completed.</li> <li>Shafts were backfilled with rubble from restoration operations in the vicinity.</li> </ul>
		<p>All rehabilitated areas will be shaped to be free draining without concentrating flow such that erosion occurs, fertilised and a mixture of indigenous and pasture grasses will be planted.</p> <p>Following this rehabilitation, the infrastructure areas will have a capability similar to the pre-mining environment.</p>	Compliant	The current rehabilitated areas observed on site are free draining, fertilised and revegetated. The capacity of the rehabilitated areas cannot be audited yet, it's too soon to evaluate this part of the condition.
		<p>All rehabilitated areas will be maintained for a period of 3 years, where after the frequency will be reassessed. Vegetation cover will be maintained by annual application of fertilizer combined with biennial cutting or burning for the first three years. After this period, fertilizer will be applied as and when required. This will be determined by monitoring the basal cover and fertilizer levels against Anglo Operations (Pty) Limited standards.</p>	Not applicable	GHS Colliery is still under the decommissioning process; therefore, this condition will be evaluated once all the areas are fully rehabilitated.
		<p>Maintenance with respect to erosion will be conducted on a minimum three-monthly bases if and where required. This frequency will be reassessed after a 3-year period. The final rehabilitated surface will be stable, self-sustaining and erosion-free.</p>		
		<p>All roads not required for residential or farming purposes, and overland conveyors will be removed and the ground restored as above.</p>	Compliant	All roads that were associated with the rehabilitated areas, were rehabbed as part of the area according to the stipulated standards
		<p><u>Roads:</u> Access roads to shafts, magazines, plant, etc., will be rehabilitated. All gravel roads will be graded to remove carbonaceous material (which will be removed to the Mineral Residue Deposit facility for disposal). The roads will be cross-ripped to 300 mm at right angles to the natural slope, fertiliser added as per soil requirements and vegetated with a seed mix of indigenous and pasture grasses. Maintenance will be conducted on the rehabilitated areas as indicated in the Policy, section points 3 – 5 above.</p>	Compliant	Roads associated with the shafts are graded to remove carbonaceous material, ripped, fertilised and revegetated. The remaining roads on site are still be utilized and will be audited once their related areas are being rehabilitated.
		<p>With the promise that residential areas and associated infrastructure will be left intact for non-mine use post closure; all access roads to the residential areas will be left in-situ. In this case, ownership and thus maintenance of these roads will be transferred to a third party.</p>	Not applicable	All the residential areas associated with the mining operation are completely demolished and rehabilitated. The municipality will not be able to provide services to these areas. The areas will not be left as viable urban areas or be transferred to third parties.

<b>Roads, Railways and Overland Conveyors</b>	<p>Note that if the ownership of the residential areas is not transferred to a third party, the buildings, roads and access roads will be removed, the areas rehabilitated and maintained as per point 1 above.</p>	Not applicable										
	<p><u>Railways:</u> Approximately 4000m of railway track occur that will require lifting. The standard of work required on closure will be as follows:</p> <ol style="list-style-type: none"> <li>1. All rails and sleepers will be removed;</li> <li>2. All ballast will be removed;</li> <li>3. Areas will be re-vegetated;</li> <li>4. Earthworks (embankments and cuttings) will be shaped to a maximum slope angle of 30° and vegetated.</li> <li>5. All hardened areas will be ripped to a minimum of 300 mm.</li> <li>6. Fertiliser will be added to the rehabilitated areas as per soil requirements and vegetated with a seed mix of indigenous and pasture grasses.</li> <li>7. Maintenance will be conducted on the rehabilitated areas as indicated in the Policy, section points 3 – 5 above</li> </ol>	Not applicable	<p>From the sections that were removed, the rails and sleepers were removed, ballasts were removed and the areas were rehabilitated. The land was not reshaped and ripped as yet; the mine is still in the process of rehabilitation.</p>									
	<p><u>Overland Conveyors:</u> The following conveyors are in use at Goedehoop Colliery.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Description</th> <th style="text-align: left;">Length (m)</th> </tr> </thead> <tbody> <tr> <td>Hope shaft plant</td> <td>1 400</td> </tr> <tr> <td>Shaft 11 to plant</td> <td>5 000</td> </tr> <tr> <td>Shaft 8 to plant</td> <td>7 500</td> </tr> <tr> <td>Vlaklaagte shaft to plant</td> <td>15 000</td> </tr> </tbody> </table> <p>During the decommissioning phase, the conveyors will be dismantled and removed from the mineral rights area. Areas underlying the conveyors will be: Graded to remove all carbonaceous build-up. Re-shaped to prevent erosion and promote free-runoff. Ripped to a minimum depth of 300 mm at right angles to the inherent slope. Treated with an addition of fertiliser as per soil requirements. Where the conveyor crosses an area utilised for crop production, no seeding will be undertaken (these areas will be incorporated into the surrounding crop production area). Where the conveyor crosses natural grassland, the area underlying the conveyor will be vegetated with a seed mix of</p>	Description	Length (m)	Hope shaft plant	1 400	Shaft 11 to plant	5 000	Shaft 8 to plant	7 500	Vlaklaagte shaft to plant	15 000	Compliant
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		indigenous and pasture grasses. Maintenance will be conducted on the vegetated rehabilitated areas as indicated in the Policy, section points 3 – 5 above. Note that the above will ensure that the areas affected by the conveyors approximate the adjacent land capability.		
		<u>Plants:</u> The bulk of the activity in removing the plant will be the demolition and disposal of concrete structures. Rubble will either be placed on the Mineral Residue Deposit facility or used as backfill in shafts (incline and vertical) and all scrap metal will be cleared from the area.	Compliant	Most of the plant infrastructures are already demolished; however, some infrastructure still remain on site and are yet to be demolished.
		All carbonaceous material will be removed from the plant and stockpile areas.	Not applicable	South Plant is not yet fully decommissioned. Therefore, these commitments are not yet applicable.
		All foundations and plant footings will be removed to a depth of 1,0 meter (thereafter covered with a minimum 1,0-meter soil layer). The entire area will be shaped to prevent erosion and promote free-runoff The entire area will be ripped to a minimum depth of 300 mm at right angle to the inherent slope.	Not applicable	
		Fertiliser will be applied to the rehabilitated area as per soil requirements and vegetated with a seed mix of indigenous and pasture grasses. Maintenance will be conducted on the rehabilitated areas as indicated in the Policy, section points 3 – 5 above.	Not applicable	
		<u>Workshops and Stores:</u> The bulk of the activity in removing the workshops, stores and administration buildings will be the demolition and disposal of concrete structures. Metal will be removed and sold. Rubble will either be removed to the Mineral Residue Deposit facility or used as shaft backfill and all scrap metal will be cleared from the area and sold.	Compliant	The workshops are removed, the other infrastructure is still in the process of being demolished and rehabilitated. It must be noted that the stores area is now being utilized as an office space by Nasonti.
		If any soils are contaminated with hydrocarbons, they will be bio remediated.	Not applicable	Bio-remediation of soils has not been undertaken yet at Goedehoop Colliery. No concerns on spills were noted on site thus dissolving the need for bio remediation.
	<b>Mineral Residue Deposits</b>	In the event that the seepage water from any disposal facilities is not of a quality suitable for downstream users, Goedehoop Colliery will initiate an investigation by a competent person or institution to determine the most appropriate actions to be undertaken, and the positions for such actions to be undertaken, to ensure that the water quality conforms to the downstream user's needs. Such actions and methods to be employed will be discussed with the Department of Water and Environmental Affairs to gain their approval prior to implementation.  In the event that any water purification activities are to be conducted, these activities and or methods will be based on best available technology at the	Compliant	Evidence was provided of investigations that have been undertaken to manage the seepage at the dump. Goedehoop Colliery also has conclusive strategies for implementation to address the identified concerns, and proof of discussion regarding the strategies with the department of Water and Environmental Affairs was provided.

		<p>time of commencement (of the activity), and will continue until such time as a self-sustaining acceptable water quality can be achieved.</p>		
		<p><u>Springbok area:</u></p> <p>The Springbok processing plant has been demolished and all associated disposal facilities removed, i.e., pipes, trenches, foundations, etc. The Springbok dumps (1 and 2) have been rehabilitated and are undergoing monitoring and maintenance. Additional seepage control measures (subsurface cut-off drains and a sump) were installed during 2003 to reduce seepage entering the natural environment. Note that all seepage captured within the sump will be pumped to the Goedehoop washing plant), and does not discharge into the natural environment. Note that the sump will be designed to retain all water in the event of a 1:100-year rainfall event.</p> <p>If the water monitoring conducted at this facility does not conform with a quality acceptable to the downstream user's needs, the actions will be undertaken as per the commitment above.</p> <p>Water quality monitoring will continue through the decommissioning phase.</p>	<p>Compliant</p>	<p>Evidence was provided of investigations that have been undertaken to manage the seepage at the dump. Goedehoop Colliery also has conclusive strategies for implementation to address the identified concerns and proof of discussion regarding the strategies with the department of Water and Environmental Affairs was provided.</p>
		<p><u>Kleinshaft area:</u></p> <p>The mineral residue deposit has been rehabilitated and is currently undergoing monitoring and maintenance. No impacts on groundwater quality have been detected to date. The area appears to be stable with low to negligible pollution loads generating from the facility.</p> <p>If the water monitoring conducted at this facility does not conform with a quality acceptable to the downstream user's needs, the actions will be undertaken as per the commitment above.</p>	<p>Compliant</p>	<p>Site observations confirmed that the mineral deposit at Kleinshaft was rehabilitated. No concerns regarding the groundwater monitoring results were noted.</p>
		<p><u>Hope Area:</u></p> <p>The Hope dump has been rehabilitated in accordance with relevant procedures.</p> <p>Note that the clean water diversion trench will remain in place during decommissioning to prevent pooling of water against the rehabilitated mineral residue deposit.</p> <p>If the water monitoring conducted at this facility does not conform with a quality acceptable to the downstream users' needs the actions will be undertaken as per the commitment above. Water quality monitoring will continue through the decommissioning phase.</p>	<p>Complaint</p>	<p>Rehabilitation of Hope Dump is completed.</p> <p>Concerns of seasonal seepage at the dump which is only observed as salts deposits on soil has been noted and no actual seepage samples can be taken.</p> <p>Evidence was provided of investigations that have been undertaken to manage the seepage at the dump. The mine has applied for an amendment for the planting of indigenous phytoremediation trees and this amendment was approved and an EA was granted for this project. The project is currently on Phase 1.</p>

		<p><u>Goedehoop/Spookspruit Area:</u></p> <p>The only remaining mineral residue deposits will be the Mineral Residue Deposit facilities at Goedehoop Colliery. During the operational phase, discard is compacted to a minimum 1600 kg/m<sup>3</sup> to reduce the risk of spontaneous combustion. The Goedehoop Mineral Residue Deposit facilities are shaped with side slopes of 1:5 maxima, which will be maintained at decommissioning. The facilities surface will undergo secondary compaction to the above specifications during decommissioning, and be capped with a minimum soil depth of 300m. A recommended seed mix is being applied to the rehabilitated mineral residue deposit. The soil and vegetation cover will be monitored and maintained until it can be shown that the surface is free-draining and maintenance no longer necessary.</p> <p>If the water monitoring conducted at this facility does not conform with a quality acceptable to the downstream user's needs, the actions will be undertaken as per the commitment above.</p>	<p>Not applicable</p>	<p>The South Co-disposal Facility is currently being reclaimed / re-worked and these conditions will be applicable once the area is under decommissioning.</p>
		<p>Clean and dirty water diversion trenches will thus remain in place during the decommissioning phase, but will be removed after rehabilitation.</p>	<p>Compliant</p>	<p>Although trenches were being blocked during the site visit, a clean-up programme is in place to clean up the trenches.</p>
		<p><u>Old Slurry Dams:</u></p> <p>The Old Slurry Dams will be removed and reprocessed during the operational phase. On closure, the footprint of this area will be rehabilitated and not pose a water quality pollution hazard.</p>	<p>Non-compliant</p>	<p>It was confirmed during the site visit that the old slurry dam still exists; however, these are not being rehabilitated nor being reworked as indicated in this condition. The old slurry dams are set to be rehabilitated and financial provision has been made available for this; however, the mine is awaiting for guidance from the rehab and mine closure team.</p>
		<p><u>Ongoing Seepage:</u></p> <p>During the decommissioning phase, detailed analysis will be conducted to determine decant points (from the underground workings), and the best practicable means of intercepting and management of such decant (such as engineer designed Evaporation dams or treatment) as determined during the study will be instituted.</p> <p><u>Commitment:</u></p> <p>In the event that the decant water from the underground workings is not of a quality suitable for downstream users, Goedehoop Colliery will initiate an investigation by a competent person or institution to determine the most appropriate actions to be undertaken, and the positions for such actions to be undertaken, to ensure that the water quality conforms to the downstream user's needs. Such actions and methods to be employed will be discussed with the Department of Water and Environmental Affairs to gain their approval prior to implementation.</p> <p>In the event that any water purification activities are to be conducted, these activities and or methods will be based on best available technology at the time of commencement (of the activity), and will continue until such time as a self-sustaining acceptable water quality can be achieved</p>	<p>Not applicable</p>	<p>Golder associate is monitoring the level of decant. An updated groundwater and Geochem assessment is yet to be conducted; a quote has been issued by Delta H water system modelling (Pty) Limited to update the said studies which will include the identification of decant areas and plausible mitigation measures.</p>

		<p><u>Long-term stability:</u></p> <p>At least four mineral residue deposits will remain at mine closure, viz. Goedehoop, Kleinshaft, Hope and Springbok. The Goedehoop and Kleinshaft dumps will have final side slopes of 1:5 maximum while the Springbok dump will have side slopes which are primarily 1:5 with some sections at the top of the mineral residue deposit which will be 1:3. These slopes will have been vegetated with a variety of grass species. The maintenance programme during the operational phase of the mine will ensure that the vegetation is well established and any potential erosion prone areas should have been identified with remedial actions implemented to remove the problem. Note that the Springbok and Kleinshaft dumps will have been rehabilitated in excess of 30 years by the time that closure is applied for. The track record of these rehabilitated mineral residue deposits will indicate the effectiveness of the rehabilitation measures implemented.</p>	<p>Compliant</p>	<p>Dumps at Goedehoop Colliery were rehabilitated with maximum slopes of 1:5 and were rehabilitated according to the <i>Vegetation Establishment, Maintenance and Monitoring Procedure</i>.</p>
		<p><u>Erosion and Dust Control:</u></p> <p>Vegetation established during the rehabilitation of all mineral residue deposits and infrastructure areas will be monitored and maintained during the operational and decommissioning phases and for a period of 3 years thereafter. No erosion or dust generation will occur in the short to long-term.</p>	<p>Not applicable</p>	<p>The MRDs are still being rehabilitated, once they are fully rehabilitated this condition will apply. It must be commended to GHS Colliery; since the vegetation in some of the rehabilitated areas is well established. No concerns regarding dust and erosion were noted on site.</p>
	<p><b>Sealing of underground workings and rehabilitation of dangerous areas</b></p>	<p><u>Subsidence:</u></p> <p><u>Prior to the decommissioning phase:</u></p> <p>Any sinkholes that may develop on the mineral rights area will be backfilled with non-carbonaceous material within 1 month after discovery.</p> <p>Any areas of local subsidence will be shaped to promote free surface runoff and prevent ponding.</p> <p>All subsidence areas will be recorded on a plan and will be monitored regularly until the issue of a closure certificate.</p> <p>An investigation into the best possible method to prevent subsidence over the areas with a high subsidence risk and based on the conclusions of this investigation, the appropriate methods will be instituted to minimise the subsidence risk.</p>	<p>Compliant</p>	<p>Refer to the scope of work for the rehabilitated shaft areas as provided by Goedehoop Colliery. There were no concerns regarding subsidence during this audit period and none were reported as per the incident register provided for review.</p>
		<p><u>Shafts - Incline Shafts:</u></p> <p>The following actions will be designed by a civil engineer and undertaken during the decommissioning phase:</p> <p>a) A double brick wall bulk head filled with concrete will be constructed approximately 10 meters of the shaft collar.</p> <p>b) The upper portion of the shaft will be backfilled to ground level with rubble, from demolished structures around the shaft.</p> <p>c) The area is top soiled (minimum 500 mm topsoil) and re-vegetated with the seed mix recommended by a specialist.</p>	<p>Compliant</p>	<p>It was confirmed on site that all the shafts were fully rehabilitated according to the standard stipulated in this condition.</p>

		<p><u>Borrow pits:</u> All borrow pit areas will be reshaped with maximum 1:5 slopes, and the soils remaining in the borrow pits remediated by application of agricultural lime and fertiliser onto the soils (through ploughing), and establishment of vegetation as recommended by a specialist. These areas will be treated as rehabilitated areas and thus be subject to after care and maintenance.</p>	<p>Not applicable</p>	<p>There were no borrow pits at GHS Colliery, this was included in the EMPr in case the need arises for borrow pits.</p>
	<p><b>Ongoing opencast groundwater management</b></p>	<p>After closure, the water table will rise in the rehabilitated pit to re-instate equilibrium with the surrounding groundwater systems. However, the backfilled opencast will have a large hydraulic conductivity compared to the pre-mining situation. This will result in the flattening of the groundwater table over the extent of the rehabilitated opencast, in contrast to the gradient that existed previously.</p> <p>The end result of this will be a permanent lowering of the groundwater level in the higher topographical area and a corresponding rise in lower areas.</p> <p>In some of the opencast areas it is expected that these changes of the groundwater will have any significant impact on the groundwater quantity, hence resulting in the decanting of the groundwater or lowering of boreholes used by the surrounding groundwater users.</p>	<p>Not applicable</p>	<p>This condition will be evaluated after closure, the GHS Colliery is currently under decommissioning</p>
		<p><u>Groundwater quantity:</u> The static groundwater levels will be monitored on a quarterly basis in all boreholes within a zone of two kilometers surrounding the mine to ensure that any deviation of the groundwater flow from the idealized predictions is detected in time and can be reached on appropriately. Preferred flow structures (dykes, sills, faults, etc) have not been included in the model due to the unknown hydraulic characteristics, and these structures could alter the actual effects considerably.</p> <p>If it can be proven that the mining operation is indeed affecting the quantity of groundwater available to certain users, the affected parties will be compensated. This will be done through the installation of additional boreholes for water supply purposes, or an alternative water supply</p>	<p>Compliant</p>	<p>The latest groundwater monitoring report (January 2022 to March 2022) prepared by Aquatico was provided for review and groundwater levels are being monitored.</p>
		<p><u>Groundwater quality:</u> Recharge into the rehabilitated opencast is a very important variable in both the decanting volumes of the pit and the rate of movement of the pollution originating from the pit. Thus, measures to reduce infiltration and increase run-off are of utmost importance for the reduction of pollution. These include the following i.e. engineer the final mine topography as such that run-off is directed away from the rehabilitated area and ensuring that the final layer (just below the topsoil cover) is as clayey as possible and compacted.</p> <p>It also important that groundwater quality be monitored regularly at strategic locations. This should be done at least on a quarterly basis to provide a reliable database to facilitate eventual closure of the mining operation. Water samples must be taken from all the monitoring boreholes by using</p>	<p>Compliant</p>	<p>An <i>Annual Rehabilitation Plan</i>, dated April 2016, was provided for review. The rehabilitation plan provides for the different sections and methodologies for amongst others rehabilitation of opencast pits. The Vlaklaagte mini pit has been reshaped to be free draining and topsoiled by the contractor. The area is then leased to a farmer who undertakes seeding and maintenance. Refer also to previous discussions with regards to the final mine closure plan is currently in the process of being compiled. Additionally, groundwater monitoring is being conducted and the water quality for the parameters stipulated in this condition are evaluated.</p>

		<p>approved sampling techniques and adhering to recognised sampling procedures. Samples should be analysed for at least the following water quality parameters:</p> <p>Major ions (Ca, K, Mg, Na, SO<sub>4</sub>, NO<sub>3</sub>, Cl, F); pH; Electrical Conductivity (EC); Total Petroleum Hydrocarbons (TPH) and Total Alkalinity.</p>		
		<p>These results should be recorded on a data sheet. It is proposed that the data should be entered into an appropriate computer database and reported to the Department of Water Affairs and Forestry. If it can indeed be proven that the opencast mined out areas will decant, the following is committed to by Anglo Operations (Pty) Limited.</p> <p>In the event that the decant water from the opencast workings is not of a quality suitable for downstream users, Goedehoop Colliery will initiate an investigation by a competent person or institution to determine the most appropriate actions to be undertaken, and the positions for such actions to be undertaken, to ensure that the water quality conforms to the downstream user's needs. Such actions and methods to be employed will be discussed with the Department of Water and Environmental Affairs to gain their approval prior to implementation.</p> <p>In the event that any water purification activities are to be conducted, these activities and or methods will be based on best available technology at the time of commencement (of the activity), and will continue until such time as a self-sustaining acceptable water quality can be achieved.</p>	Compliant	Water quality results are recorded in an Excel spreadsheet and were provided during the audit, however, proof of submission to the DWS was not provided. No decanting is currently taking place at Goedehoop Colliery. The mine takes note of the requirements for future decanting.
	<b>Rehabilitation of opencast</b>	<p>The final voids in the opencasts mining areas i.e. Haasfontein and Vlaklaagte 4 Seam opencast mining areas were sloped in and filled with residual (overburden stockpiles) from the initial box cut. The final contours of the mined-out areas are shown in the surface infrastructure plan. The mine has been since decommissioning of the opencasts, managing the mined-out areas, and will, as soon as the land has stabilised, return the land to its owners. All rehabilitated areas including haul and access roads have been seeded with a recommended seed mix recommended. The area is also monitored for erosion, groundwater levels and quality and any such erosion identified is repaired and hence no erosion is expected to occur following vegetation establishment. In view of the above, no dust control is necessary.</p>	Noted	No mitigation measure provided.
	<b>Final rehabilitation (Roads and Final Voids)</b>	<p>No roads will remain in place after the decommissioning phase. Note that the roads will be graded during this phase, in order to remove any fine carbonaceous material build-up from the roads. These will then be ripped to 150mm, at 90° to the inherent slope, and seeded with a seed mix recommended in this document.</p> <p>No final voids will therefore be formed.</p>	Compliant	Roads already rehabilitated were done according to the requirements stipulated in this condition, some roads are still utilized and will be audited once GHS has fully decommissioned the site.

	<p><b>Final land use</b></p>	<p>Rehabilitation will be ongoing during the operational phase. All topsoil material removed from the opencast mining areas was replaced during the concurrent rehabilitation of the area. Areas disturbed by surface infrastructure will be rehabilitated. It is not normally immediately possible to restore arable land to its former capability. However, it is possible to upgrade disturbed land to grazing land. Given sufficient time under a grass cover, it is anticipated that land, which has been disturbed, could become stable enough to allow cultivation. In view of the above, the final land use for the disturbed areas will be grazing land until such time that the land is stable enough for cultivation.</p> <p>Note that consultation with the surrounding landowners and land users will be undertaken to ensure that the post-closure uses of land occupied by mine infrastructure are identified; hence the current after mining land use may still change depending on the outcome of the consultation.</p>	<p>Compliant</p>	<p>Rehabilitation at Goedehoop Colliery was being undertaken concurrent with the operational phase, with reference to specific areas discussed in detail in the sections above.</p> <p>In general, final land capability assessment records for rehabilitated land is part of the Goedehoop Colliery's Post-Mining Land Capability Determination report compiled by Digby Wells Environmental dated March 2019 as well as a report dated December 2021 titled "Mine Closure Plan for Goedehoop Colliery, aligned with the Requirements of NEMA GN R. 1147 and the Anglo American Mine Closure Toolbox Version 3".</p>
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**6.2 GOEDEHOOP COLLIERY (GOEDEHOOP SOUTH) EMPR AMENDMENTS (REFERENCE NUMBER MP 30/5/1/2/3/2/1 (122) EM).**

Impact	Aspect	Mitigation Measures	Finding	Observations/Audit Evidence
<b>EMPr Amendments</b>				
<b>CONSTRUCTION PHASE</b>				
<b>Construction of the Discard (Coarse Residue) Washing Plant and its Associated Infrastructures (Buried Underground Pipeline, Overhead Power line and Product Dispatch area (coal stockpiling Area)</b>				
<p>During the construction phase of the GHS Discard Washing Plant and its associated infrastructures, there may increase the current baseline noise levels, which may potentially impact the surrounding properties.</p>	<p>Noise</p>	<p>Ensure that equipment/ machinery are well maintained and fitted correctly.</p>	<p>Not applicable</p>	<p>The GHS Discard Washing Plant and its associated infrastructures are already constructed and the project is under the operational phase.</p>
		<p>Ensure that ambient noise monitoring is conducted in accordance to relevant legislation.</p>	<p>Not applicable</p>	
<p>As part of the construction of the GHS Discard Washing Plant and its associated infrastructures, there will be construction vehicles accessing the proposed site. Spillages in terms of hydrocarbons and hydraulic fluid, polluting the surface water environment.</p>	<p>Surface Water</p>	<p>Demarcate the transport routes and the operations area to reduce unauthorised movement of mining vehicles.</p>	<p>Not applicable</p>	<p>The GHS Discard Washing Plant and its associated infrastructures are already constructed and the project is under the operational phase.</p>
		<p>Monitor the existing dirty water storm water structures (trenches and silt traps) to reduce blockages.</p>	<p>Not applicable</p>	
		<p>Service all vehicles in a well-constructed and concreted areas.</p>	<p>Not applicable</p>	
		<p>Regularly clean and maintain all haulage ways, conveyancing routes and service ways, drains and storm water control facilities.</p>	<p>Not applicable</p>	

Impact	Aspect	Mitigation Measures	Finding	Observations/Audit Evidence
		Contain and manage spillage.	Not applicable	
The construction of GHS Discard Washing Plant Project and associated infrastructure will result in the creation of topographical heights, which may change the landscape of the area. This may have impacts on surface water runoff.		The infrastructures will be constructed to have heights that are within acceptable standards and that will not have detrimental effects on the surrounding properties.	Not applicable	The GHS Discard Washing Plant and its associated infrastructures are already constructed and the project is under the operational phase.
During construction of the GHS Discard Washing Plant Project and its associated infrastructures, there is a possibility that soils may be loosened resulting an increase in erosion. This may increase siltation within clean water systems resulting in a decrease of the surface water quality of surrounding systems.		Construction should take place in the low flow period (dry season) as far as possible. Should erosion be observed during construction, erosion control measures should be implemented.	Not applicable	
		Emergency action plans should be developed to deal with spillages.	Not applicable	
The use, handling, transport and storage of hazardous materials (hydrocarbons & chemicals) as part of the GHS Discard Washing Plant Project may cause pollution of groundwater in the event of a hazardous materials spillage. This could have a negative impact on the groundwater and affect the surrounding areas.	Groundwater	Prevention of contamination through hazardous material spills and leaks and implementation of vehicle maintenance plan.	Not applicable	The GHS Discard Washing Plant and its associated infrastructures are already constructed and the project is under the operational phase.
		Spills management and clean-up procedures must be developed and implemented.	Not applicable	
		Implement a staff and contractor awareness training programme on the management of spillages.	Not applicable	
		Maintenance on all equipment to prevent leaks, abnormalities and risk of failure will be undertaken.	Not applicable	
Waste (general and hazardous) will be generated from the construction of the infrastructures. The waste, if not properly managed, will result in the contamination of the nearby properties, which may include sensitive landscapes.	Waste	All waste generated during the construction activities either from the site or the construction crew camps will be collected in bins and disposed properly.	Not applicable	The GHS Discard Washing Plant and its associated infrastructures are already constructed and the project is under the operational phase.
		The existing hard park which is currently used for repairs will be used for the duration of the proposed project.	Not applicable	
		Should machinery or vehicles breakdown on the MRD occur, these will be moved to the hard park before repairs commence unless if drip trays are used.	Not applicable	
Construction associated with the GHS Discard Washing Plant and its associated infrastructures such as earth moving activities may result in an increase in sediment load in the river systems. The extent and severity of this	Soils	Existing infrastructure to capture dirty water runoff and prevent silt transportation to the natural environment will be used.	Not applicable	The GHS Discard Washing Plant and its associated infrastructures are already constructed and the project is under the operational phase.

Impact	Aspect	Mitigation Measures	Finding	Observations/Audit Evidence
impact will be determined by appropriate measures to prevent dirty water runoff.				
Flora diversity - As a result of clearing vegetation some flora (alien invasive species) will be removed. The GHS Discard Washing Plant Project will be situated on an already disturbed area. Thus, all vegetation has been removed resulting in a very small impact on natural vegetation.	Biodiversity	Ensure that the removal of vegetation is conducted within the approved footprint areas.	Not applicable	The GHS Discard Washing Plant and its associated infrastructures are already constructed and the project is under the operational phase.
Over time alien invasive species may have established on the MRD. As part of the construction activities the MRD platform will be levelled resulting in the alien invasive species being removed.		Attention needs to be given to the rehabilitation and stabilisation of roads, revegetation of disturbed areas, stabilisation of waste rock stockpiles, and the control of alien vegetation.	Not applicable	
During the construction of the GHS Discard Washing Plant and its associated infrastructures, air quality may be affected by the generation of dust from the construction site.	Air Quality	Existing dust suppression programmes and procedures will be implemented for the duration of the proposed project.	Not applicable	The GHS Discard Washing Plant and its associated infrastructures are already constructed and the project is under the operational phase.
The construction of the infrastructure may have a positive socio-economic impact due to some employment opportunities created as a result of the new GHS Discard Washing Plant Project.	Social	Current Anglo employment/recruitment measures will be used as set out in the latest Goedehoop SLP.	Not applicable	The GHS Discard Washing Plant and its associated infrastructures are already constructed and the project is under the operational phase.
<b>OPERATIONAL PHASE</b>				
<b>Operation of the Discard (Coarse Residue) Washing Plant and its Associated Infrastructures (Buried Underground Pipeline, Overhead Power line and Product Dispatch area (coal stockpiling Area))</b>				
The GHS Discard Washing Plant and its associated infrastructures may potentially increase the noise levels within the area, especially as the plant will be situated on to the existing MRD, however, this increase in not anticipated to exceed current approved noise levels.	Noise	Goedehoop Colliery must supply personnel within the noisy areas with hearing protection.	Compliant	Proof of PPE register was provided for review. It must be noted that education about noise and PPE is part of the training presentation provided for review. Nevertheless, no employee was observed on site performing a task without appropriate PPE.
		Any exhaust fan from the processes must be directed away from the closest receptor.	Not applicable	There were no exhaust fans observed on site. Therefore, this commitment is not applicable.
		Noise levels will continue be monitored at all strategic positions on Goedehoop Colliery (attention given to the monitoring points located in close proximity to the plant area).	Non-compliant	Proof of noise monitoring was not provided for review. Therefore, it cannot be audited if noise levels are being monitored.
The GHS Discard Washing Plant and its associated infrastructures may have an impact on surface water within the associated catchments due to contamination of runoff.	Surface Water	The existing storm water management measures around the MRD (cut-off trenches and silt traps) will also be used to divert runoff	Non-compliant	The existing storm water management around the MRD are not used to divert run-off, in fact a new haul road has been constructed on top of a trench.

Impact	Aspect	Mitigation Measures	Finding	Observations/Audit Evidence
<p>However, as the GHS Discard Washing Plant Project will be situated on the existing MRD, the impact is anticipated to be low to negligible.</p>		<p>around the plant area and its associated infrastructures to the respective dams.</p>		
		<p>Dirty water will be reused where possible.</p>	<p>Compliant</p>	<p>Dirty water at the MRD area is collected through sumps and re-used at the plant.</p>
<p>The GHS Discard Washing Plant Project will reuse water used within the Goedehoop Colliery. Should there be a leakage or spill there is a possibility that the surrounding environment and clean water systems may become contaminated.</p>		<p>The existing storm water management measures around the MRD (cut-off trenches and silt traps) will also be used to divert runoff around the plant area and its associated infrastructures to the respective dams.</p>	<p>Non-compliant</p>	<p>The existing storm water management around the MRD are not used to divert run-off, in fact a new haul road has been constructed on top of a trench. See picture above. In addition to this, there are no effective clean and dirty water separation means on site. The new haul road is constructed using carbonaceous material and dirty water from the new constructed haul roads is allowed to mix with water from the clean areas and is not efficiently diverted to the PCD since the trench is blocked.</p>
		<p>Structures used to isolate these facilities will be maintained in good order. Goedehoop Colliery has isolated these facilities in terms of water flow which has resulting in the dirty water runoff from these areas to be diverted via dirty water runoff trenches and into the dirty water dams. This water is re-used as part of the mining operations so as not to use clean water.</p>		
		<p>Similarly, clean water runoff is diverted around the dirty areas to the nearby streams i.e. Hopespruit, Goedehoopspuit and Koringspruit. These facilities have the potential to ensure that clean and dirty water runoff is effectively separated. All dirty water from the new plants will be diverted to connect to the current dirty water system that will drain the dirty water to the mine return water dam.</p>		
		<p>Dirty water will be reused where possible.</p>		<p>Compliant</p>
		<p>Pipelines used for the supply of process water will be monitored for leaks. Any detected leaks will be repaired timeously.</p>	<p>Compliant</p>	<p>It was observed on site that pipelines are regularly repaired in case of leaks. The incident register was also provided for review and incidents related to pipe leaks were resolved.</p>
		<p>Surface water monitoring is undertaken at these facilities to determine their effects on the surface water environment.</p>	<p>Compliant</p>	<p>Surface water monitoring reports were submitted for review, which indicates that areas around the Nasonti area are monitored.</p>
	<p>Ground Water</p>	<p>The dirty water which infiltrates through the waste dump must be</p>	<p>Compliant</p>	<p>Water at the dump is collected to a sump and re-used at the plant.</p>

Impact	Aspect	Mitigation Measures	Finding	Observations/Audit Evidence
<p>The GHS Discard Washing Plant Project will be located on top of the existing MRD. There is a possibility that dirty water from the GHS Discard Washing Plant Project may infiltrate through the MRD causing groundwater contamination.</p>		<p>collected, drained and directed to the dirty water dams for re-use.</p>		
		<p>The existing groundwater monitoring must be undertaken in order to identify whether there is any groundwater contamination from the plant area and its associated infrastructures.</p>	<p>Compliant</p>	<p>Groundwater monitoring reports were submitted for review, which indicates that areas around the Nasonti area are monitored.</p>
<p>There is a possibility that soils may be impacted upon due to spilled hydrocarbons, hydraulic fluids, cleaning agents, chemicals and waste generated due to the operation of the GHS Discard Washing Plant Project.</p>	<p>Waste</p>	<p>The usage of hydrocarbons, hydraulic fluids, cleaning agents and chemicals must be controlled and managed according to the applicable procedures. Any spillages must be cleaned as soon as practically possible.</p>	<p>Compliant</p>	<p>The training presentation was provided for review provide adequate information on handling hydrocarbons on site. The incident register does indicate that relevant procedures are being undertaken to handle spillages and spill kits are also being provided at the Nasonti site.</p>
		<p>Ensure that the management of generated waste is managed in accordance with the mine's waste management procedures.</p>	<p>Non-compliant</p>	<p>Although the training presentation specifies the management of waste on site, several sites were not properly kept on site; that includes, the disposal of waste/scrap pipes next to the Erickson Dam 1 and general waste disposed next to the return water dam.</p>
<p>The GHS Discard Washing Plant Project will be situated on the existing mineral residue dump (MRD) which is within the existing GHS operations area and has already been disturbed due to mining activities. Therefore, limited disturbance to soils, land use and land capability will results.</p>	<p>Soils, Land Use and Land Capability</p>	<p>The Discard Washing Plant and its associated infrastructures will be situated on top of an existing dump. Therefore, no additional impact is anticipated on the surrounding land capacity. However, all disturbances to the area must be kept to a minimum and must be within the already disturbed mine operations.</p>	<p>Compliant</p>	<p>All the activities are undertaken on top of the existing dump except the offices and roads thus reducing the potential of additional impact. Water at the dump is directed to a sump and re-used for plant process.</p>
		<p>As practically as possible, containment of contaminated water within dirty water areas (minimisation of seepage) and containment of carbonaceous material within designated areas (stockpiling areas) must be minimised. In addition to this, as part of the closure plan, the area where the GHS Discard Washing Plant Project is situated will be rehabilitated.</p>		

Impact	Aspect	Mitigation Measures	Finding	Observations/Audit Evidence
During operations of the GHS Discard Washing Plant Project there is potential for in-situ soil contamination due to coal spillages, dirty water run-off and/or contaminated dust deposition/dispersion.		Demarcate the transport routes and the operation areas to reduce unauthorised movement of mining vehicles.	Compliant	The roads are clearly demarcated with traffic signages and are well graded. During the site visit, no signs of unauthorised pathways or vehicle tracks were observed.
		Monitor the existing dirty water storm water structures (trenches and silt traps) to avoid any blockages.	Non-compliant	The existing trenches are blocked due to the construction of the haul road over the trench.
		Dirty water trenches and silt traps must be cleaned regularly.	Non-compliant	It was observed during the site visit that the trenches are silted and blocked. Additionally, there are no records of trench blockages and proposed action plan (clean-ups) on the incident register.
		Service all vehicles in a well-constructed and bunded areas.	Not applicable	There are no workshops on site, all vehicles are serviced at an offsite workshop.
		Regularly clean and maintain all haulage ways, conveyancing routes and service ways, drains and storm water control facilities.	Non-compliant	It was observed during the site visit that the trenches are silted and. Additionally, there are no records of trench blockages and proposed action plan (clean-ups) on the incident register.
		Contain and manage spillage.	Compliant	There were no spillages observed on site and based on the
Various machinery and vehicles will be used as part of the operation of the GHS Discard Washing Plant Project which may lead to the compaction of soils. This may be due to uncontrolled movement of mine vehicles outside the demarcated stockpiling areas and transportation routes area. This may resulting in increased runoff as well as erosion (wind and water erosion) of unprotected areas.		Demarcate the transport routes and the operation areas to reduce unauthorised movement of mining vehicles.	Compliant	The roads are clearly demarcated with traffic signages and are well graded. During the site visit, no signs of unauthorised pathways or vehicle tracks were observed.
		Minimise areas that can potentially be impacted (eroded).	Compliant	All the activities are limited to already disturbed areas to minimise environment impact on site.
		Where possible, replace soils so as to minimise/reduce the area of affect and disturbance.	Not applicable	There are currently no areas requiring soils replacement; therefore, this condition is not applicable.
Soils may be further impacted on by the contamination with spilled hydrocarbons, hydraulic fluids, cleaning agents and chemicals on the surface infrastructure areas.		The usage of hydrocarbons, hydraulic fluids, cleaning agents and chemicals must be controlled.	Compliant	The mine has procedures in place for handling of chemicals on site and it also keeps records of chemicals kept on site and record all the purchases such chemicals.
		Any spillages must be cleaned up as soon as practically possible.	Compliant	There were no spillages observed during the site visit and based on the records, spill kits are being ordered and provided for spillage control and remediations.
The GHS Discard Washing Plant Project will be situated on an already disturbed area. Thus, all vegetation has been removed resulting in a very small impact on natural vegetation.	Biodiversity	Ensure that removal of vegetation is done in accordance in conjunction with the approved Alien Invasive Management.	Not applicable	The GHS Discard Washing Plant Project is situated on an already disturbed area and there are no vegetated surfaces at the discard dump.
		Plan mitigation for the Closure Phase should focus on the rehabilitation of disturbed areas.	Not applicable	
		The affected areas are to be rehabilitated such that the vegetation found within the affected areas will be restored back to the state in which it was found.	Not applicable	

Impact	Aspect	Mitigation Measures	Finding	Observations/Audit Evidence
		On-going management and control (monitoring) of vehicle maintenance, movement and the covering to loads during transportation must be undertaken.	Not applicable	
Due to the disturbance of the area as a result of mining activities, alien invasive species may have grown. Due to further disturbances as part of the operation of the GHS Discard Washing Plant Project there is a possibility that alien invasive species may increase.		Minimisation/prevention of spillage from waste delivery, pipelines and conveyancing systems and haulage, and controlled maintenance of vehicles.	Not applicable	
There is a potential for a decrease in flora diversity within the surrounding area as a result of continued mining activities and the introduction of alien invasive species.		A declared weed and invader eradication programme will be undertaken within the surface area under Goedehoop Colliery control and as per the existing eradication programmes.	Not applicable	
Based on previous studies it has been identified that sensitive receivers of concern are people residing up to 3 kilometres, downwind from the process.  While the GHS Discard Washing Plant Project will be a wet system, there is still a possibility of increased dust within the area as the GHS Discard Washing Plant Project is situated at a high altitude (on top of the MRD).  The project is, however, not expected to significantly increase dust deposition rates at the closest sensitive receivers.	Air Quality	Ensure that the removal of vegetation is conducted within the approved footprint areas.	Not applicable	Dust monitoring is being conducted on site.
		Attention must be given to the rehabilitation and stabilisation of roads, revegetation of disturbed areas, stabilisation of waste rock stockpiles, and the control of alien vegetation.	Not applicable	
		The discard washing plant is a wet process and it is not anticipated that there will be an increase in dust, however, the following needs to be implemented in order to ensure there is no increase in dust within the area: Source monitoring should be used in combination with modelling to assess the effectiveness of control measures at the receiving environment.	Compliant	

Impact	Aspect	Mitigation Measures	Finding	Observations/Audit Evidence
		Process emission testing as indicated in GN 893 of November 2013 should be performed annually to proof compliance and to assist effective air quality management both for the applicant (Anglo) and the licensing authority	Compliant	It was observed during the site visit that dust suppression is being conducted.
		Monitoring of ambient air quality will assist effective air quality management and open communication to all stakeholders	Compliant	
		Dust suppression is to be conducted on the plants and at the associated infrastructures.	Compliant	
The GHS Discard Washing Plant Project may have a positive impact on the surrounding socioeconomic structures as the project may create employment opportunities.	Social	Current Anglo employment/recruitment measures will be used as set out in the latest Goedehoop SLP.	Compliant	The SLP was provided for review and employment is done according to the measures stipulated in the SLP such as absorbing, training and providing mentorship for young professionals through the PIT programmes.
The GHS Discard Washing Plant Project will be situated on top of the existing MRD. Thus, the new plant will have a negative visual impact on the surroundings.	Visual	The GHS Discard Washing Plant Project must blend in with the current surroundings.	Compliant	The GHS Discard Washing Plant Project is situated on an already disturbed area.
<b>Systematic removal of economic coal by underground mining</b>				
The potential for subsidence of unconsolidated surface sediments during the operation is however, a risk and is a commonly observed phenomenon due to underground mining. If surface subsidence occurs within wetland areas, a loss of wetland habitat as well as a loss of connectivity between wetland areas is likely to occur.  The potential for subsidence of unconsolidated surface sediments during the operation is however, a risk and is a commonly observed phenomenon due to underground	Wetland and sensitive landscapes	Sensitive areas will be avoided during mining and if such were previously undermined and areas where local subsidence occurs, these areas will be rehabilitated.	Not applicable	There is currently no systematic removal of economic coal by underground mining at GHS; therefore, these conditions are not applicable during this audit period.
		If planned mining cannot avoid the sensitive landscapes, relevant authorisations must be obtained before commencement of the undermining of the sensitive landscapes. In addition to the above safety factor of more than 3.1 will be used for the pillars. The stability of the pillars and undermined areas will be monitored.	Not applicable	

Impact	Aspect	Mitigation Measures	Finding	Observations/Audit Evidence
mining. If surface subsidence occurs within wetland areas, modification of wetland habitat will occur. Habitat modification as a result of subsidence will be permanent. Wetlands will not naturally recover to their former PES.		A buffer of 50m should be placed around all wetlands associated with high risk areas for subsidence. These areas, as well as the buffers around them, should be excluded from the mine plan.	Not applicable	
		Undermined streams and the stability of pillars in workings should be monitored as per the EMP.	Not applicable	
		As per the EMP, the state of the pans and any development of sinkholes should be monitored using extensometers.	Not applicable	
The undermining of selected watercourses and associated wetlands (valley bottom with a channel, valley bottom without a channel, hillslope seepage, depression (pans and hillslopes) within Goedehoop Colliery mining right area. This will result in subsidence which will have a detrimental impact on the undermined wetlands.	Wetland and sensitive landscapes	A buffer zone of 50m should be assigned to all high risk areas. Similarly, a buffer zone of 50m should be assigned to the wetland areas which are permanently saturated, these include the dams, pans and valley bottom wetlands with a channel.	Not applicable	
The loss of wetland areas as a result of undermining the catchment will result in a loss of important ecological services, including the enhancement of water quality by wetland types.  Run-off of dirty water into the system.	Wetland and sensitive landscapes	Allocate a 50m buffer zone to wetlands.	Not applicable	
		Allocate a 20m buffer zone for cultivated field areas.	Not applicable	
		Maintain/inspection where necessary constructed dams and berms to prevent sedimentation.	Not applicable	
		Remove cultivation fields within priority areas.	Not applicable	
<b>Operation of mineral processing plants (Current Coal Washing Plant) and their Associated Surface Infrastructure, Waste/Dirty Water Management Facilities and Potable Water Treatment Plants. Operation of the mine's main coal stockpiling facility Operation of the Mineral Residue Deposit (Including Reclamation and Extensions of the facility). (Transportation of R.O.M coal, product coal, R.O.M slimes, coal discards and Stockpiling of R.O.M. coal, product coal, dried coal slimes and coal coarse discards)</b>				
Increased flow rate of run-off water from the mineral residue deposit, mineral processing plants, crushing/screening plant, overburden stockpiling area, waste/dirty water management facilities and potable water treatment plants and the run of mine coal stockpile area that may result in erosion gullies.	Wetland and sensitive landscapes	Ensure that all wetland areas are identified and demarcated.	Non-compliant	Wetlands were identified on the wetland study; however, no wetlands are demarcated on site.
		No coal stockpiling and operation of the overland conveyor belt will be allowed within a distance specified by the wetland specialist from any wetland areas.	Compliant	All activities are occurring within disturbed areas and there are no newly disturbed areas/wetlands. It must be noted that no overland conveyor belts on site.

Impact	Aspect	Mitigation Measures	Finding	Observations/Audit Evidence
		Where wetlands have been affected, the mine will ensure that the remaining wetlands are protected from the activities within the coal stockpiling and overland conveyor belt area.	Compliant	
		Any wetlands that could have been disturbed should be re-vegetated using site-appropriate indigenous vegetation and/or seed mixes once the area is used. The footprint of the complex will not be extended, hence protecting the remaining wetlands.	Compliant	
		Alien vegetation should not be allowed to colonize the disturbed and remaining wetland areas	Compliant	
		Where vegetation removal has occurred adjacent to the infrastructure complexes, monitoring should take place to ensure successful re-establishment of natural vegetation. Alien vegetation should be removed from these disturbed areas on an on-going basis to ensure the successful revegetation by indigenous specie.	Compliant	
		The operation of the mineral residue deposit will be conducted such that the remaining wetlands are protected from any activity from the mineral residue deposit. These will include ensuring that perimeter markers are placed for the mine personnel and instruction given to mine personnel not to work beyond the markers.	Compliant	
		The operation of the coal stockpiling areas, plants and water management facilities will be conducted such that a buffer specified by the wetland specialist is always maintained from any wetland areas.	Compliant	All activities are occurring within disturbed areas and there are no newly disturbed areas/wetlands.
		Measures put in place for the management of waste and waste water from the coal stockpiling areas, plants and water management facilities will be maintained in good order.	Non-compliant	Although the waste facilities such as wheely bins are kept in good order, waste water management structures are not kept in good order. The dam is silted and the trenches are blocked and roads are constructed over trenches on site.

Impact	Aspect	Mitigation Measures	Finding	Observations/Audit Evidence
		Where wetlands have been accidentally affected during the operation of the sites, the mine will ensure that the affected wetlands are rehabilitated and that the remaining wetlands are protected from the activities within the mineral residue deposit.	Not applicable	The activities associated with the re-working of the discard dump are being undertaken on already disturbed areas. There were no new disturbed wetland areas on site.
		Management activities are implemented to manage dirty water runoff and seepage into the natural environment hence resulting in improved water quality within the nearby watercourses, thus reducing stress within the wetland ecosystem.	Non-compliant	The existing storm water management around the MRD are not used to divert run-off, in fact a new haul road has been constructed with carbonaceous material and has been constructed on top of a trench. However, there are action plans in place to put culverts to allow the flow of water. Trenches were blocked during the site visit; however, a clean-up programme is currently in place.
		Eradication programs are instituted to remove all alien species occurring on the property including all identified wetlands.	Not applicable	All activities are occurring within disturbed areas and there is no vegetation at the South Co disposal facility. The alien invasive plants observed on site near the old slurry dams are not under Nasonti's care at the time of this audit.
		The vegetation surveys are undertaken to give an indication of the vegetation dynamics within the wetland eco-systems.		
		Bio-monitoring is conducted within all wetlands (SASS 5 and vegetation surveys).	Compliant	The bio-monitoring report conducted by The biodiversity company dated January 2022 was submitted for review. Which shows that bio-monitoring for this audit period was conducted.
		Infrastructure areas (footprints) will be kept as small as possible in order to keep the direct impact on non-wetland vegetation and soil as small as possible in order to maximise the buffer zone width.	Compliant	The activities associated with the re-working of the discard dump are being undertaken on already disturbed areas. There were no new disturbed wetland areas on site.
		Dirty run-off water will be contained within all infrastructure areas and diverted to the respective dams and clean run-off water will be directed around the infrastructural areas to report to the Koringspruit as well as the Goedehoopspuit.	Non-compliant	The existing storm water management around the MRD are not used to divert run-off, in fact a new haul road has been constructed on top of a trench. In addition to this, there are no effective clean and dirty water separation means on site. The new haul road is constructed using carbonaceous material and dirty water from the new constructed haul roads is allowed to mix with water from the clean areas and is not efficiently diverted to the PCD since the trench is blocked.
		Dust suppression will be conducted regularly at all infrastructure areas in order to have the least amount of dust settling on wetland vegetation within the identified wetland areas.	Compliant	Dust monitoring is being conducted on site.

Impact	Aspect	Mitigation Measures	Finding	Observations/Audit Evidence
		Operation and storage of equipment must be prevented in the wetland areas.	Compliant	As mentioned above, the activities associated with the re-working of the South co-disposal facilities are being undertaken on already disturbed areas.
		Spills of any kind, like pollutants from vehicles, coal from conveyor belts etc. must be cleaned up immediately in order to curb pollution to the wetland areas.	Compliant	There were no spillages observed during the site visit and based on the records, spill kits are being ordered and provided for spillage control and remediations
		Alien vegetation should not be allowed to colonize the wetland areas.	Not applicable	All activities are occurring within disturbed areas and there is no vegetation at the South Co disposal facility. The alien invasive plants observed on site near the old slurry dams are not under Nasonti's care at the time of this audit.
		The wetland PES assessment must be repeated annually to monitor the ongoing effect of all infrastructure on the identified wetland areas. This will ensure that the utilisation of the infrastructure areas is not decreasing the PES of the wetland areas.	compliant	The wetland PES assessment report conducted by The Biodiversity Company dated January 2022 was submitted for review to prove that the assessment was conducted during for this audit period.
		Environmental monitoring of surface water, groundwater and air quality will be conducted.	Compliant	Water and air quality monitoring is being conducted. The water monitoring report conducted by Aquatico dated January 2022 to March 2022 and an air quality monitoring assessment by April 2022 were submitted for review to prove that the assessments are regularly conducted.
		Dams and berms constructed will be Inspected.	Compliant	Erika Prinsloo is the responsible environmental personnel who conducts regular sites inspections in all areas and facilities associated with the re-working of the discard dump.
		Allocate a 50m buffer zone to wetlands.	Not applicable	All activities are occurring within disturbed areas and there are no newly disturbed areas/wetlands. Neither there are any cultivated fields where the reworking of the discard plant is being undertaken. Therefore, this condition is not applicable.
		Allocate a 20m buffer zone for cultivated field areas.		
		Make use of organic pesticides for agricultural activities.	Not applicable	
Remove cultivation fields within priority areas.				
<b>OPERATION OF THE MINERAL RESIDUE DEPOSIT</b>				
<b>HOPE MINERAL RESIDUE DEPOSIT</b>				
<b>Design, construction and operation of the scavenger pumping system and passive treatment system</b>				
Management of seepage of water from the Hope Mineral Residue Deposit may seep and enter the groundwater regime resulting in the contamination of the Groundwater and Surface Water and impacts on Sensitive Landscapes.	Groundwater, Sensitive Landscapes and Surface Water.	Review possible permitting requirements and apply for the required permits/licenses.	Compliant	GHS has applied for the necessary permits to manage the seepage from Hope Mineral Residue Deposit that includes the amendment of the EMPr to include more remediation measures to be implemented on site.
		Design the scavenger pumping/collection system, passive water treatment system and the cut-off trench.	Compliant	Cut out trenches and scavenger boreholes are already in place at the Hope Mineral Residue Deposit area, there is however, no water treatment system in place yet.

Impact	Aspect	Mitigation Measures	Finding	Observations/Audit Evidence
		Drill two scavenger boreholes to feed the trench for the passive treatment system and three monitoring boreholes.	Compliant	
		Construct a cut-off trench before the Hopespruit for the collection of seepage water from the Hope Dump to the passive treatment system.	Compliant	
		Construct the passive treatment system as per the approved detailed design plans.	Not applicable	
		Monitor/inspect and determine the performance of the passive collection and treatment system.	Not applicable	
		Address any non-performance issues encountered from the passive collection and treatment system either by redesigning or investigating/undertaking alternative water management strategy.	Not applicable	
<b>Planting of indigenous phytoremediation trees (Phase 1)</b>				
Management of seepage of water from the Hope Mineral Residue Deposit may seep and enter the groundwater regime resulting in the contamination of the Groundwater and Surface Water and impacts on Sensitive Landscapes.	Groundwater, Surface Water and Sensitive Landscapes	Develop a strategy for plantation of the phytoremediation trees.	Compliant	The strategy for planting phytoremediation trees is in place, GHS has partnered with the university of Free state to prepare, plant and monitor the effectiveness of the mitigation measure.
		Site preparation and planting of approximately 17000 indigenous trees of various site-specific species in 1 block covering 10 ha.	Compliant	
		Survival assessment and mapping of trees at the end of the first planting season.	Not applicable	The phytoremediation trees were recently planted and the survival assessment, measurement of seepage rates and the installation of a weather station are yet to be conducted.

Impact	Aspect	Mitigation Measures	Finding	Observations/Audit Evidence
		Measurement of seepage rates across Hope Dump toe area and chemical analysis of seepage will be undertaken.	Not applicable	
		Installation of a weather station at a suitable location in close proximity to Hope dump in order to obtain data required for hydrological modelling required for Phase 2.	Not applicable	
<b>Planting of indigenous phytoremediation trees (Phase 2)</b>				
Management of seepage of water from the Hope Mineral Residue Deposit may seep and enter the groundwater regime resulting in the contamination of the Groundwater and Surface Water and impacts on Sensitive Landscapes.	Groundwater, Surface Water and Sensitive Landscapes	Plant the rest of the landscape to contain whole area of plume and maximize evapotranspiration and phytostabilisation.	Not applicable	The planting of indigenous phytoremediation trees (Phase 2) has not begun yet, the mine is still implementing phase 1 of the project.
		Set up a passive wetland remediation strategies and designs to stabilize landscape and treat contaminant seepage by increasing microbial sulphate reduction, oxidation and precipitation reactions, sorption and sequestration of metals, and rhizofiltration	Not applicable	
		Construct the passive wetland remediation strategies as per the approved detailed design plans.	Not applicable	
		Monitor/inspect and determine the performance of the passive collection and treatment system.	Not applicable	
		Address any non-performance issues encountered from the passive collection and treatment system either by redesigning or investigating/undertaking alternative water management strategy.	Not applicable	
<b>SPRINGBOK 1 AND 2 MINERAL RESIDUE DEPOSITS</b>				
Seepage of water from the Springbok 1 and 2 may seep and enter the groundwater regime resulting in the contamination of the groundwater and further impact on surface water and wetlands.	Groundwater, Surface Water and Sensitive Landscapes	Test pits to be done at both Springbok 1 & 2 to verify where the seepage start and at what depth.	Not applicable	This EMPr amendment is recently approved and GHS is yet to implement the mitigation measures outlined in this EMPr.
		Conduct walk-about inspection at the dumps.	Compliant	Erika Prinsloo is the responsible environmental personnel who conducts regular sites inspections in all areas and facilities associated with the re-working of the discard dump.
		Conduct fly over inspection at the dumps.	Not applicable	This EMPr amendment is recently approved and GHS is yet to implement the mitigation measures outlined in this EMPr.

Impact	Aspect	Mitigation Measures	Finding	Observations/Audit Evidence
		Review possible permitting requirements and apply for the required permits/licenses.	Not applicable	This EMPr amendment is recently approved and GHS is yet to implement the mitigation measures outlined in this EMPr.
		Design the scavenger pumping/collection system, passive treatment system and the cut-off trench.	Not applicable	This EMPr amendment is recently approved and GHS is yet to implement the mitigation measures outlined in this EMPr.
		Construct the passive collection and treatment system as per the approved designs.	Not applicable	This EMPr amendment is recently approved and GHS is yet to implement the mitigation measures outlined in this EMPr.
		Drill two scavenger boreholes and three monitoring boreholes to feed the cut-off trench to the constructed passive treatment system and for monitoring purposes.	Not applicable	This EMPr amendment is recently approved and GHS is yet to implement the mitigation measures outlined in this EMPr.
		Monitor/inspect and determine the performance of the passive collection and treatment system.	Not applicable	This EMPr amendment is recently approved and GHS is yet to implement the mitigation measures outlined in this EMPr.
		Address any non-performance issues encountered from the passive collection and treatment system either by redesigning or investigating/undertaking alternative water management strategy.	Not applicable	This EMPr amendment is recently approved and GHS is yet to implement the mitigation measures outlined in this EMPr.
<b>GOEDEHOOP SOUTH MINERAL RESIDUE DEPOSIT</b>				
Seepage of water from the Goedehoop Mineral Residue Deposit may seep and enter the groundwater regime resulting in the contamination of the groundwater and further impact on surface water and wetlands.	Groundwater, Water and Landscapes Surface Sensitive	Review possible permitting requirements and apply for the required permits/licenses.	Not applicable	The south mineral residue deposit is currently operational/re-worked; therefore, these commitments are not yet applicable.
		Design the collection sump, passive treatment system and the trench.	Not applicable	
		Drill monitoring boreholes.	Not applicable	
		Construct the trench for the collection of seepage water from the MRD sump to the return water dam and silt-trap.	Not applicable	
		Construct the treatment system as per the approved detailed design plans.	Not applicable	
		Monitor/inspect and determine the performance of the passive collection and treatment system.	Not applicable	
		Address any non-performance issues encountered from the	Not applicable	

Impact	Aspect	Mitigation Measures	Finding	Observations/Audit Evidence
		passive collection and treatment system either by redesigning or investigating/undertaking alternative water management strategy.		
<b>DECOMMISSIONING AND CLOSURE PHASE</b>				
<b>Filling of final voids, Sealing of underground workings, Dismantling/demolishing and removal of the washing plant, silos, conveyors, workshop and administration buildings, Rehabilitation of the coal stockpile area, Rehabilitation of roads and overland conveyor belt areas, Rehabilitation of overburden stockpile areas, Rehabilitation of the Discard (Coarse Residue) Washing Plant ,Capping of plant residue disposal sites, Rehabilitation of the pollution control dams and the diversion trenches/berms, Seeding of rehabilitated areas, Maintenance and monitoring of rehabilitated and surrounding environments.</b>				
Sediment runoff from the mine rehabilitation site may be deposited into the wetland area thereby result in the loss of wetland habitat.	Wetland and sensitive landscapes	Ensure that the wetlands situated in close proximity of the mine site are not detrimentally affected by the runoff from the rehabilitation site.	Not applicable	The south mineral residue deposit is currently operational/re-worked; therefore, these commitments are not yet applicable.
		All decommissioning activities should be restricted to their disturbed footprints and use of existing access routes and roads strictly adhered to.	Not applicable	The south mineral residue deposit is currently operational/re-worked; therefore, these commitments are not yet applicable.
		Boundary markers around wetland areas should be maintained until completion of decommissioning and closure activities.	Not applicable	The south mineral residue deposit is currently operational/re-worked; therefore, these commitments are not yet applicable.
		All solid waste should be removed from site and disposed of at suitable waste disposal sites offsite and discard from Silos will be deposited to the discard dump/facility.	Not applicable	The south mineral residue deposit is currently operational/re-worked; therefore, these commitments are not yet applicable.
		Rehabilitate contaminated soils in situ if possible. If not possible, remove and dispose of off-site. If soil is contaminated by the discard material, such will be removed and disposed off at the discard dump/facility.	Not applicable	The south mineral residue deposit is currently operational/re-worked; therefore, these commitments are not yet applicable.
		Disturbance footprints should be revegetated as soon as possible following completion of demolition activities.	Not applicable	The south mineral residue deposit is currently operational/re-worked; therefore, these commitments are not yet applicable.
		Alien vegetation management plan should be implemented following re-vegetation to clear alien species.	Not applicable	The south mineral residue deposit is currently operational/re-worked; therefore, these commitments are not yet applicable.

**6.3 GOEDEHOOP COLLIERY'S MINERAL RESIDUE DEPOSIT EXPANSION, BINDERLESS BRIQUETTING PLANT AND COAL TRANSFER FACILITY.**

Environmental Component	Objectives/specific goals	Action	Finding	Observations/Audit Evidence
<b>Activity: Construction of Mineral Residue Deposit Expansion, Binderless Briquetting Plant and Coal Transfer Facility</b>				
Topography	To ensure that the construction of the Mineral Residue Deposit expansion area, Plants, coal transfer facility and associated infrastructure do not have detrimental impacts on the local topography of the area.	The designs of the infrastructure will be conducted by a suitably qualified person. These designs must also be approved by the relevant authorities before construction.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		As far as possible, the positions of the infrastructure should be sited on areas with degraded environmental conditions.	Not applicable	
		The contractors will be made familiar with the design specifications before commencement of the construction.	Not applicable	
		Construction of the infrastructure and associated buildings will be conducted in accordance with the detailed design specifications of the infrastructure approved by the relevant personnel at the mine.	Not applicable	
		The infrastructure and associated buildings will be constructed to have heights that are within acceptable standards and that will not have detrimental effects on the surrounding land users.	Not applicable	
Soil	Ensure that the construction of Mineral Residue Deposit expansion area, Plants, coal transfer facility and associated infrastructure do not have detrimental impacts on the soils of the affected area	Ensure that the construction of Mineral Residue Deposit expansion area, Plants, coal transfer facility and associated infrastructure do not have detrimental impacts on the soils of the affected area	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		The height of the stockpiles will be such that the fertility and seed bank of the soils are sustained. The height	Not applicable	

		of the stockpile will be determined by a soil specialist		
	Ensure that during construction hydrocarbon contamination of the soils is minimised or prevented.	Mine vehicles, machinery and equipment will be regularly serviced to reduce risk of leaks. Any leakages should be reported and treated immediately in a reputable manner with spill kits which should be provided for onsite. For large spills a hazardous materials specialist will be called in.	Not applicable	
Land Use and Capability	Ensure that the construction of Mineral Residue Deposit expansion area, Plants, coal transfer facility and associated infrastructure do not have detrimental impacts on the after mining land use and capability	The area will be rehabilitated such that it approximates the pre-mining land use and capability.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		The soils should be monitored for its fertility before use for rehabilitation purposes.	Not applicable	
Surface Water	Ensure that the construction of the Mineral Residue Deposit expansion area, Plants, coal transfer facility and associated infrastructure do not have detrimental impacts on the surface water environment.	Divert all dirty water within the construction site to a temporary storage dam or silt traps for settling of the silt.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		Divert all clean water away from the infrastructure areas to the nearby streams.	Not applicable	
		All waste generated during the construction activities either from the site or the construction crew camp (applicable to all camp sites at the mine) will be collected in bins and disposed properly	Not applicable	
		A temporary area will be dedicated for the emergency repair of vehicles until proper workshops are constructed.	Not applicable	
Air Quality	Ensure that the construction of the Mineral Residue Deposit expansion area, Plants, coal transfer facility and associated infrastructure do not have detrimental impacts on the air quality.	Set speed limits of 35km/hr or less for site traffic on paved roads and 10km/hr on unpaved surfaces. Speed control has a linear effect on dust emissions. Thus, by reducing speed from 30 to 15km/hr, emissions can be reduced by 50%.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.

		Wet suppression of unpaved areas should be applied during dry windy periods, using a water car and/or sprinklers at a rate of more than 2.0l/m2/hour.	Not applicable	
		Chemical suppression can also be used in conjunction with wet suppression. This involves the use of chemical additives in the water, which aids the formation of a binding crust. Repeated treatment is normally required.	Not applicable	
		Inspect road integrity and repair frequently	Not applicable	
		Dust fallout will be monitored regularly. New areas will be included in the current dust monitoring network.	Not applicable	
		If it can be proven that the dust suppression does not yield satisfactory results, another method of dust suppression will be investigated and on approval used at the mine.	Not applicable	
Noise	Ensure that the construction of the Mineral Residue Deposit expansion area, Plants, coal transfer facility and associated infrastructure do not have detrimental impacts on the noise levels within the vicinity of the construction site	Well serviced vehicles will be used on site.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		Work will be conducted during the day and will be stopped at night time. Arrangements will be made with the land owner if work will be continued at night.	Not applicable	
		Direct line of sight from receptors to be obscured by a berm/barrier for both day and night-time operations. The material, location, and dimensions of the barrier must be constructed as per recommendation by the noise specialist.	Not applicable	
Sensitive Landscapes		Areas where the infrastructure complexes and associated buildings will be constructed will be marked	Not applicable	

	<p>Ensure that the construction activities do not have detrimental impacts on the identified wetland areas</p>	<p>and soils removed from such areas will be stockpiled separately and used for rehabilitation after mining. The siting of the complexes will be conducted to ensure that wetland areas are avoided. A water use licence will also be obtained from the Department of Water Affairs if the construction of the complexes and associated buildings will be within the identified wetlands or 500 meters from the edge of such wetlands.</p>		<p>The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.</p>
		<p>In addition to the above, the following must be undertaken:</p>	<p>Not applicable</p>	
		<p>Minimization of the removal of/damage to vegetation in riparian and wetland areas, especially on the areas if the complexes will be within the wetlands.</p>	<p>Not applicable</p>	
		<p>Wetlands disturbed during construction should be re-vegetated using site-appropriate indigenous vegetation and/or seed mixes</p>	<p>Not applicable</p>	
		<p>Alien vegetation should not be allowed to colonize the disturbed wetland areas</p>	<p>Not applicable</p>	
		<p>Rehabilitation of disturbed wetland habitat should commence immediately after construction is completed</p>	<p>Not applicable</p>	
		<p>Debris and sediment trapping, as well as energy dissipation control structures, should be put in place where storm water enters the wetland</p>	<p>Not applicable</p>	
<p><b>Activity: Construction of Access and Haul Roads</b></p>				
<p>Soils</p>	<p>To ensure that the construction of the access and haul roads has the least possible effect on the immediate soils.</p>	<p>All topsoil removed from the roads will be used to construct a push up berm along the roads. The push up berm will not be more than one meters high.</p>	<p>Not applicable</p>	<p>The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.</p>

		All topsoil removed from the roads will be used to construct a push up berm along the roads. The push up berm will not be more than one meters high.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		As much as possible, use areas of degraded status for the sitting and construction of the mine access and haul roads	Not applicable	
		During rehabilitation of the roads, soil amelioration will be done by liming and fertilizer applications based on soil analysis.	Not applicable	
	Ensure that during construction hydrocarbon contamination of the soils is minimised or Prevented	Mine vehicles, machinery and equipment will be regularly serviced to reduce risk of leaks. Any leakages should be reported and treated in a reputable manner with spill kits which should be provided for onsite. For large spills a hazardous materials specialist will called in.	Not applicable	
		Once workshops are constructed, all water contaminated with hydrocarbons fluids will be drained to an oil separator where the oil will be siphoned and waste oil sold to a recycling company.	Not applicable	
		All new and old oils will be stored in containers on protected ground. Diesel will also be stored in diesel tanks that are properly designed and constructed by suitably qualifies persons.	Not applicable	
Natural vegetation	Ensure that the activity does not impact detrimentally on the surrounding natural vegetation	Ensure that the activity does not impact detrimentally on the surrounding natural vegetation	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		Ensure that the activity does not impact detrimentally on the surrounding natural vegetation	Not applicable	
Surface Water		The roads will be constructed to have diversion berms for the	Not applicable	

	<p>Surface water quality:</p> <p>To ensure that the runoff water from the access and haul roads during construction does not adversely affect clean water environment.</p>	<p>diversion of storm water runoff. The berms will be constructed such that any exit point for the water will have silt trap that will settle the silt from the roads before allowing the water to enter the clean water environment.</p>		<p>The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.</p>
		<p>All roads will be constructed to be away from the 1:100 year flood line of the nearby streams or 100 meters away from the identified water courses</p>	<p>Not applicable</p>	
<p>Air Quality</p>	<p>To ensure that the air quality of the mine and surroundings is not unduly affected by the construction of the access and haul roads</p>	<p>A water cart will be used to wet all affected areas during the construction of the roads.</p>	<p>Not applicable</p>	<p>The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.</p>
		<p>Set speed limits of 35km/hr or less for site traffic on paved roads and 10km/hr on unpaved surfaces. Speed control has a linear effect on dust emissions. Thus by reducing speed from 30 to 15km/hr, emissions can be reduced by 50%</p>	<p>Not applicable</p>	
		<p>Wet suppression of unpaved areas should be applied during dry windy periods, using a water car and/or sprinklers at a rate of more than 2.0l/m<sup>2</sup>/hour.</p>	<p>Not applicable</p>	
		<p>Chemical suppression can also be used in conjunction with wet suppression. This involves the use of chemical additives in the water, which aids the formation of a binding crust. Repeated treatment is normally required.</p>	<p>Not applicable</p>	
		<p>Inspect road integrity and repair frequently</p>	<p>Not applicable</p>	
		<p>Dust fallout will be monitored regularly. New areas will be included in the current dust monitoring network.</p>	<p>Not applicable</p>	

		If it can be proven that the dust suppression does not yield satisfactory results, another method of dust suppression will be investigated and on approval used at the mine.	Not applicable	
Sensitive Landscape	It is the mines objective to have no impact on the identified sensitive landscapes.	The mine environmental co-ordinator will inform all personnel and contractors of the importance of the wetlands as indicated in this document	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		As much as possible all wetland areas will be avoided. All areas where the roads and infrastructure will affect wetlands will be marked and soils removed from such areas will be stockpiled separately and used for rehabilitation purposes. A water use licence will also be obtained from the Department of Water Affairs for the construction of the roads within the buffer zone of the identified wetlands.	Not applicable	
		In addition to the above, the following must be undertaken:	Not applicable	
		Minimization of the removal of/damage to vegetation in riparian and wetland areas	Not applicable	
		The construction of roads and road servitudes (disturbance zones) in or adjacent to the wetland/riparian zone is to be managed and strictly controlled to minimize damage to remaining wetlands	Not applicable	
		Wetlands disturbed during construction should be revegetated using site-appropriate indigenous vegetation and/or seed mixes	Not applicable	
		Alien vegetation should not be allowed to colonize the disturbed wetland areas	Not applicable	

		Rehabilitation of disturbed wetland habitat should commence immediately after construction is completed	Not applicable	
		Debris and sediment trapping, as well as energy dissipation control structures, should be put in place where storm water enters the wetland	Not applicable	
Visual Aspects	To ensure that the activities have the least possible impact on the visuals of the surroundings.	Sites where surface infrastructure will be performed will occupy a small space as possible	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		The construction activities will as much as possible be undertaken during day time.	Not applicable	
		If any work must be done during night time, arrangements will be made with the relevant land owners.	Not applicable	
<b>Activities: Construction of overland conveyor belt infrastructure, office buildings, control rooms and weighbridge</b>				
Topography	To ensure that the construction of the infrastructure and associated buildings do not have detrimental impacts on the local topography of the area	<p>The designs of the infrastructure will be conducted by a suitably qualified person. These designs must also be approved by the relevant authorities before construction.</p> <p>As far as possible, the positions of the infrastructure should be sited on areas with degraded environmental conditions.</p> <p>The contractors will be made familiar with the designs specifications before commencement of the construction.</p> <p>Construction of the infrastructure and associated buildings will be conducted in accordance with the detailed design specifications of the</p>	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.

		<p>infrastructure approved by the relevant personnel at the mine.</p> <p>The infrastructure and associated buildings will be constructed to have heights that are within acceptable standards and that will not have detrimental effects on the surrounding land users.</p>		
Soils	Ensure that the construction of the infrastructure and associated buildings do not have detrimental impacts on the soils of the affected area	All removed soils will be stockpiled separately and used during the rehabilitation of the disturbed areas. This will be conducted in accordance with the soil utilisation programme compiled by a soil specialist.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		The height of the stockpiles will be such that the fertility and seed bank of the soils are sustained. The height of the stockpile will be determined by a soil specialist.	Not applicable	
	Ensure that during construction hydrocarbon contamination of the soils is minimised or prevented	Mine vehicles, machinery and equipment will be regularly serviced to reduce risk of leaks. Any leakages should be reported and treated immediately in a reputable manner with spill kits which should be provided for onsite. For large spills a hazardous materials specialist will be called in.	Not applicable	
Land Use and Capability	Ensure that the construction of the infrastructure and associated buildings do not have detrimental impacts on the after mining land use and capability	The area will be rehabilitated such that it approximates the pre-mining land use and capability.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		The soils should be monitored for its fertility before use for rehabilitation purposes.	Not applicable	
Surface Water	Ensure that the construction of the infrastructure and associated buildings do not have detrimental	Divert all dirty water within the construction site to a temporary storage dam or silt traps for settling of the silt.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.

	impacts on the surface water environment	Divert all clean water away from the infrastructure areas to the nearby streams.	Not applicable	
		All waste generated during the construction activities either from the site or the construction crew camp (applicable to all camp sites at the mine) will be collected in bins and disposed properly.	Not applicable	
		A temporary area will be dedicated for the emergency repair of vehicles until proper workshops are constructed.	Not applicable	
Air Quality	Ensure that the construction of the infrastructure and associated buildings do not have detrimental impacts on the air quality	A water cart will be used to wet all affected areas during the construction of the infrastructure and associated buildings.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		Set speed limits of 35km/hr or less for site traffic on paved roads and 10km/hr on unpaved surfaces. Speed control has a linear effect on dust emissions. Thus, by reducing speed from 30 to 15km/hr, emissions can be reduced by 50%.	Not applicable	
		Wet suppression of unpaved areas should be applied during dry windy periods, using a water car and/or sprinklers at a rate of more than 2.0l/m <sup>2</sup> /hour.	Not applicable	
		Chemical suppression can also be used in conjunction with wet suppression. This involves the use of chemical additives in the water, which aids the formation of a binding crust. Repeated treatment is normally required.	Not applicable	
		Inspect road integrity and repair frequently.	Not applicable	
		Dust fallout will be monitored regularly. New areas will be included	Not applicable	

		in the current dust monitoring network.		
		If it can be proven that the dust suppression does not yield satisfactory results, another method of dust suppression will be investigated and on approval used at the mine.	Not applicable	
Noise	Ensure that the construction of the infrastructure and associated buildings do not have detrimental impacts on the noise levels within the vicinity of the construction site	Well serviced vehicles will be used on site.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		Work will be conducted during the day and will be stopped at night time. Arrangements will be made with the land owner if work will be continued at night.	Not applicable	
		Direct line of sight from receptors to be obscured by a berm/barrier for both day and night-time operations. The material, location, and dimensions of the barrier must be constructed as per recommendation by the noise specialist.	Not applicable	
Sensitive Landscapes	Ensure that the construction activities do not have detrimental impacts on the identified wetland areas	Areas where the infrastructure and associated buildings will be constructed will be marked and soils removed from such areas will be stockpiled separately and used for rehabilitation after mining. The siting of the complexes will be conducted to ensure that wetland areas are avoided. A water use licence will also be obtained from the Department of Water Affairs if the construction of the complexes and associated buildings will be within the identified wetlands or 500 meters from the edge of such wetlands.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		In addition to the above, the following must be undertaken:	Not applicable	
		Minimization of the removal of/damage to vegetation in riparian and wetland areas, especially on the	Not applicable	

		areas if the complexes will be within the wetlands		
		Wetlands disturbed during construction should be re-vegetated using site-appropriate indigenous vegetation and/or seed mixes	Not applicable	
		Alien vegetation should not be allowed to colonize the disturbed wetland areas	Not applicable	
		Rehabilitation of disturbed wetland habitat should commence immediately after construction is completed	Not applicable	
		Debris and sediment trapping, as well as energy dissipation control structures, should be put in place where storm water enters the wetland	Not applicable	
<b>Activity: Construction of water management structures (silt trap and diversion structures)</b>				
Topography	To ensure that the construction of the water management structures do not have a detrimental impact on the local topography	Design the water management system to cover as small space as possible.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		The designs, approved by DWA, must be made familiar to the contractors who will be responsible for the construction.	Not applicable	
		The construction of the water management systems must be conducted in accordance to the detailed designed approved the designated persons at Goedehoop Colliery.	Not applicable	
Soils/Land Capability	To ensure that the construction of the water management structures do not have a detrimental impact on the soils	All removed soils will be stockpiled separately and used during the rehabilitation of the disturbed areas. The soils can also be used for the establishment of a perimeter berms, which should not be more than one meter high. This will be conducted in accordance with the soil utilisation	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.

		programme compiled by a soil specialist.		
		The height of the stockpiles will be such that the fertility and seed bank of the soils are sustained. The height of the stockpile will be determined by a soil specialist.	Not applicable	
Natural Vegetation	To ensure that the construction of the water management structures do not have detrimental impacts on the natural vegetation.	The construction of the structures will be conducted within the designated areas.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		Dust suppression should be conducted for the protection of the surrounding plant community from the dust generated at the construction sites	Not applicable	
Surface and Ground Water	To ensure that the construction of the water management structures do not have detrimental impacts on surface and groundwater environments	The water management systems will be designed to ensure that their operation or use does not pose risk to the surface and groundwater environments.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		The construction of the water management systems must be conducted in accordance to the detailed designed approved by the designated persons at Goedehoop Colliery.	Not applicable	
		The silt trap and diversion structures will be designed and constructed to have approved lining and silt control systems.	Not applicable	
Food Events	Ensure that the water management systems are designed to minimise the impacts on the environment during flood events	The dirty water dams and diversion structures will be designed to comply with the requirements of the regulations of GN704 that pertains to the ability of the structures to withstand volumes of water during flood events.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
Air Quality	To ensure that the construction of the water management systems does not have detrimental impacts on the air quality	A water cart will be used to wet all affected areas during the construction of the water management systems.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.

		Set speed limits of 35km/hr or less for site traffic on paved roads and 10km/hr on unpaved surfaces. Speed control has a linear effect on dust emissions. Thus by reducing speed from 30 to 15km/hr, emissions can be reduced by 50%.	Not applicable	
		Wet suppression of unpaved areas should be applied during dry windy periods, using a water car and/or sprinklers at a rate of more than 2.0l/m2/hour.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		Chemical suppression can also be used in conjunction with wet suppression. This involves the use of chemical additives in the water, which aids the formation of a binding crust. Repeated treatment is normally required.	Not applicable	
		Inspect road integrity and repair frequently.	Not applicable	
		Dust fallout will be monitored regularly. New areas will be included in the current dust monitoring network	Not applicable	
		If it can be proven that the dust suppression does not yield satisfactory results, another method of dust suppression will be investigated and on approval used at the mine.	Not applicable	
Noise	To ensure that the construction of the water management systems do not have detrimental impacts on the noise	Well serviced vehicles will be used on site.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		Work will be conducted during the day and will be stopped at night time. Arrangements will be made with the land owner if work will be continued at night. Direct line of sight from receptors to be obscured by a berm/barrier for both day and night time operations. The material	Not applicable	

		location and dimensions of the barrier must be constructed as per recommendation by the noise specialist.		
Sensitive Landscapes	Ensure that the construction of the water management systems do not have detrimental impacts on the identified wetland areas	The water management systems will be sited to be away from identified sensitive landscapes. The distances from the sensitive landscapes will be determined by suitably qualified wetland specialists.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		A water use licence will also be obtained from the Department of Water Affairs if the construction of the water management structures will be within the identified wetlands or 500 meters from the edge of such wetlands.	Not applicable	
		In addition to the above, the following must be undertaken:	Not applicable	
		Minimization of the removal of/damage to vegetation in riparian and wetland areas, especially on the areas if the complexes will be within the wetlands.	Not applicable	
		Wetlands disturbed during construction should be re-vegetated using site-appropriate indigenous vegetation and/or seed mixes	Not applicable	
		Alien vegetation should not be allowed to colonize the disturbed wetland areas	Not applicable	
		Rehabilitation of disturbed wetland habitat should commence immediately after construction is completed.	Not applicable	
		Debris and sediment trapping, as well as energy dissipation control structures, should be put in place where storm water enters the wetland.	Not applicable	

Preparation and establishment of the topsoil and subsoil stockpiling areas				
Topography	To ensure that the preparation and construction of the stockpiles do not have detrimental impacts on the local topography of the area	Ensure the stockpiles are planned and constructed such that they cover as little space as possible and that the height of the stockpiles are not excessive when compared to the surrounding landscapes and surface infrastructure.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		The planned sites for the stockpiles will be made known to the contractors and relevant mine personnel before construction commences	Not applicable	
Soils	Ensure that the preparation and construction of the stockpiles do not have detrimental impacts on the soils of the affected area.	The positions of the stockpiles will be demarcated before placing of material on stockpiling area	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		All topsoil from all construction areas will be removed from the demarcated positions and used to construct a perimeter berm around the stockpiles. Visual and perimeter berms will be seeded to ensure that soil erosion is prevented	Not applicable	
		The topsoil stockpile will be constructed to have a height that will discourage the reduction of the soil fertility as per the soils specialist recommendations	Not applicable	
	All subsoil material removed from the construction areas will then be stockpiled on the demarcated areas as per planned specifications. This will not be mixed with the removed topsoil.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.	
	Ensure that during construction hydrocarbon contamination of the soils is minimised or prevented	Mine vehicles, machinery and equipment will be regularly serviced to reduce risk of leaks. Any leakages should be reported and treated immediately in a reputable manner with spill kits which should be provided for onsite. For large spills a	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.

		hazardous materials specialist will called in.		
Land Use and Capability	Ensure that the preparation and construction of the stockpiles do not have detrimental impacts on the after mining land use and capability.	Ensure that the topsoil stockpile is stockpiled to have a height that will prevent the reduction in the fertility of the topsoil.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		The establishment of the stockpiles will be conducted such that it covers a small area as possible. This will be sited not to mix with the topsoil stockpiles.	Not applicable	
		Where possible allow the current land use to continue.	Not applicable	
Surface Water	Ensure that preparation and construction of the stockpiles do not have detrimental impacts on the surface and ground water environment	Design and construct berms or trenches along the stockpiles and disturbed areas to reduce the levels of silt that may report to the nearby wetlands and surrounding streams.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		This will also include dirty water diversion berms or trenches with silt traps that will be constructed to keep dirty water within dirty water site of the mine.	Not applicable	
		During the construction of the stockpiles, ensure that hydrocarbon spillages from the mine vehicles are limited. This should be achieved by removing all used oil after emergency vehicle servicing and by ensuring that the mine vehicles are well maintained. Any spillages will be reported and removed as soon as possible.	Not applicable	
Air Quality	Ensure that the preparation and construction of the stockpiles do not have detrimental impacts on the air quality	Limit the height and slope of stockpiles to reduce wind entrainment. The ideal stockpile is not higher than 3m, has a gentle slope (>45°) and has an irregular apex.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		Ideally stockpiles should be fully enclosed.	Not applicable	

		Minimise drop heights onto stockpiles.	Not applicable	
		Wind barriers can be effectively used to control pollution from stockpiles. Conduct dust suppression on haul and access roads on a regular basis.	Not applicable	
		Monitor the dust fall out concentration.	Not applicable	
		If it can be proven that the dust suppression does not yield satisfactory results, another method of dust suppression will be investigated and on approval used at the mine.	Not applicable	
Noise	Ensure that the preparation and construction of the stockpiles do not have detrimental impacts on the noise levels within the vicinity of the construction site.	The mine will ensure that mine vehicles are in good repair order.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		The movement of mine vehicles will be limited at night time and will be undertaken after arrangement with affected land owners.	Not applicable	
Visual Aspects	Ensure that the preparation and construction of the stockpiles do not have detrimental impacts on the visual aspects in the vicinity of the construction site.	Ensure the stockpiles are designed and constructed such that their height are not excessive when compared to the surrounding landscapes and surface infrastructure.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
Sensitive Landscapes	Ensure that the construction activities do not have detrimental impacts on the identified wetland areas.	All stockpiling areas will be sited to be away from the identified wetlands.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
<b>Operational Phase</b>				
<b>Environmental Component</b>	<b>Objectives/specific goals</b>	<b>Action</b>	<b>Finding</b>	<b>Observations/Audit Evidence</b>
Topography	Ensure that the operation of the coal stockpiles have a minimum impact on the local topography.	The area where coal stockpiling areas will be constructed will be surveyed and the position/height of the stockpile communicated with the mine personnel.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		The coal stockpiles at the Binderless Briquetting Plant and Coal Transfer	Not applicable	

		facility will be operated not to exceed the excessive heights and will as small area as possible. This will ensure that the coal has minimum impact on the topography of the area.		
		The amount of coal to be stockpiled at the coal stockpiling areas at the Binderless Briquetting Plant and Coal transfer facility will not exceed capacity designed for the area.	Not applicable	
Soils	Ensure that the use of the overland conveyor belt during transportation of coal has minimum impact on the soils.	Erosion control structures and surface water velocity breaks should be installed in areas adjacent to the conveyors and erosion prone areas to prevent erosion during the life of the project.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		The overland conveyor belt route will be monitored on a regular basis for the spillages of coal.	Not applicable	
		All coal spillages identified must be reported and removed as soon as possible.	Not applicable	
	Ensure that the operation of the coal stockpiles and dirty water structures do not have impacts on the soil.	The designed perimeters such as the footprint of the stockpile must be communicated to the teams to conduct the stockpiling of the coal.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		The use of the coal stockpile must ensure that the stockpiling of the coal must not encroach beyond the footprint of the stockpiling area.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		All coal discard removed from the Mineral residue deposit must be properly recorded.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		Any exceeding of the limits must be reported to the project manager. This could lead to spillage of the coal into the dirty water trenches or even outside the dirty water trenches.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.

		All spilled coal must be removed and the area cleaned up.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
Surface water	Ensure that the operation of the coal stockpiling areas (coal discard, coal product and ROM) and transportation of coal (coal discard, coal product and ROM) do not have detrimental impacts on the surface water environment.	The area will be operated such that all runoff from the sites is diverted via diversions structures to a constructed dirty water dams or sumps that is connected to the return water dam.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		Silt traps will be situated at the sites and water captured will be pumped to the existing dirty water dams.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		Where the conveyor belt systems water runoff is not included into a dirty water system the potential is considered low and any spillage is cleaned.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
Groundwater	Ensure that the stockpiling of coal and transportation of coal do not have detrimental impacts on the ground water environment.	The foundation of the coal stockpiling areas and overland conveyor belt route will be designed and constructed to reduce seepage or infiltration of water into the groundwater regime.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
Air Quality	Ensure that the stockpiling of coal and transportation of coal do not have detrimental effect on the surrounding air quality.	Dust suppression will be undertaken on area showing increased dust generation. Should dust levels be exceeded as indicated in the air quality standards and regulations, management measures will be revised, such as spraying more frequently or using dust suppressants.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		Conveyors belts are constructed to be enclosed structures to reduce entrainment of dust into the atmosphere.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
Noise	Ensure that the stockpiling of coal and transportation of coal do not have detrimental effect on the surrounding noise levels.	Trucks, machinery and equipment will be regularly serviced to ensure acceptable noise levels are not exceeded.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.

		Silencers will be utilised where possible.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		Point sources will be enclosed where possible. Employees working in areas with generation of noise will be issued earplugs and instructed to use them.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
<b>Activity: Use of Access and Haul Roads and stream crossing for the Transportation of Coal (Run Of Mine and Coal Discards).</b>				
Soils and Natural Vegetation	To ensure that during the transportation of coal, contamination of soils and vegetation is minimised.	All trucks used for the transportation of coal must be covered with tarpaulins during coal transportation.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		All spilled coal along the roads will be cleared within one day of spillage.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		Trucks will be required to obey certain road regulations when transporting coal at the mine.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		This will include speed limits etc.	Not applicable	
Noise	Ensure that the use of the access and haul roads do not have detrimental impacts on the nearby receptors	Ensure that all equipment is maintained and fitted with the required noise abatement equipment. Acoustical mufflers (or silencers) should be considered on equipment exhausts. A noise absorption braid could be mounted on the front of heavy equipment (ADT's, FEL's etc.) radiators to prevent excess mechanical fan noise. Engine bay covers over heavy equipment could be pre-fitted with sound absorbing material. Heavy equipment that fully encloses the engine bay should be considered, ensuring that the seam gap between the hood and vehicle body is minimised.  Limit the maximum speed on the haul roads to 30 km/h or less. Road	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.

		<p>speeds should be kept as consistent as is feasibly possible (i.e., no speed bumps to reduce noise or stop junctions). This would help in keeping road traffic noise more "linear" opposed to hearing different noise contributors from heavy vehicles (i.e., no ADT air brakes on long stretches of roads, no acceleration of vehicles from a stop junction using maximum capacity of engine in lower gears for pulling power etc.)</p>		
		<p>Road surface should preferably be bituminous Ultra-Thin Frictional Course sealed and semi dense, semi-open or open layers (relating to air void). Regardless of the road surface, it needs to be well maintained, smooth and homogenous in fashion relating to the surface layer elevation. Road surface irregularities should be immediately attendant to reduce vehicle tyre shock.</p>	<p>Not applicable</p>	<p>The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.</p>
		<p>If feasible road shoulders facing receptors should incorporate a kerb roughly half or more than the height of road vehicle tyres. The kerb could be constructed from any soil (likely the quickest and most feasible material option). The kerb most likely would help in reducing noise from vehicle tyre and road interaction</p>	<p>Not applicable</p>	<p>The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.</p>
		<p>If feasible roads should be planned so as to reduce heavy vehicles reversing when collecting or dumping at stockpiles/tips etc. This will minimise the activation of reverse alarms on vehicles. An example is to design a road loop around a stockpile dump, thus ensuring that once an ADT has released its load it will move forward around the loop and back onto the</p>	<p>Not applicable</p>	<p>The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.</p>

		haul road (i.e. no reversing at stockpile to get back to haul road).		
Sensitive landscape	Ensure that the use and maintenance of the roads do not result in detrimental impacts of the identified wetlands areas	Any wetlands that could have been disturbed during construction should be re-vegetated using site-appropriate indigenous vegetation and/or seed mixes.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		Alien vegetation should not be allowed to colonize the disturbed wetland areas.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		Rehabilitation of disturbed wetland habitat should commence immediately after construction is completed.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		Where vegetation removal has occurred adjacent to the new roads, monitoring should take place to ensure successful reestablishment of natural vegetation. Alien vegetation should be removed from these disturbed areas on an on-going basis to ensure the successful re-vegetation by indigenous species.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
<b>Activity: Operation of the Mineral Residue Deposit expansion, and Water/Waste Management Facilities</b>				
Topography	Ensure that the operation of the Mineral Residue Deposit expansion does not have detrimental effect on the local topography.	The Mineral Residue Deposit expansion will be designed and constructed to have profile that will easily blend with the surrounding topography. During the life of the projects the mineral residue deposit should be constructed in accordance with the Mineral Residue Deposit expansion operational manual. Management of the Mineral Residue Deposit expansion should be controlled under the Mandatory Code of Practice for Residue.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		Deposits. This includes the construction of the dump with a whaleback design, with sides sloped at a maximum of 1:5. In order to ensure stability, regular compaction	Not applicable	

		tests are conducted on the freshly deposited discard.		
Natural vegetation	Ensure that the operation of the Mineral Residue Deposit expansion does not have detrimental effect on the surrounding natural vegetation.	Limit the operation of the Mineral Residue Deposit expansion to area of disturbance and revegetate impacted areas as soon as possible.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
Soils	Ensure that the operation of the Mineral Residue Deposit expansion does not have detrimental effect on the surrounding soils	The Mineral Residue Deposit expansion and its associated structures should be limited to area of disturbance. Where required the compacted soils should be disked to an adequate depth and revegetated with indigenous plants. The soil stripped from the footprint of the Mineral Residue Deposit expansion should be stockpiled, for use in dump cladding.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
Surface Water	Ensure that the transportation of discards does not detrimentally impact on the surrounding water environment.	Truck, machinery and equipment will be regularly serviced to reduce risk of leaks. Any leakages should be reported and treated immediately in a reputable manner with spill kits which should be provided for onsite. For large spills a hazardous materials specialist will be called in.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
Surface Water	Ensure that the operation of the Mineral Residue Deposit expansion does not have detrimental effect on the surrounding water environment	During the operation of the Mineral Residue Deposit expansion, the mine will ensure that water management facilities are operating adequately in accordance with GN704.  All silt build up will be cleaned out over dry season.  The integrity of lining and management structures will be tested regularly.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
Groundwater	Ensure that the operation of the Mineral Residue Deposit expansion does not have detrimental effect on the surrounding groundwater environment	The Mineral Residue Deposit expansion will be designed and constructed to have a subsurface drains that will capture seepage water. This water will be diverted seepage to the makeup water and return water dams. The dams will be	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.

		<p>lined. The discard will be successively compacted in thin layers to reduce ingress of water and the sides will progressively be compacted, cladded and vegetated as the dump progresses to reduce infiltration on the sides and encourage runoff into the return water dams. This will also assist in reducing spontaneous combustion. The entire Mineral Residue Deposit expansion and associated infrastructure will be operated in accordance with GN704 requirements. Attention should be given to Koorfontein's old opencast area. This area should be avoided. Due to it being a disturbed area seepage of water from the mineral residue deposit expansion will occur at a faster rate in comparison to the undisturbed areas. The additional monitoring network as stated in the Geohydrological study (Appendix 5) should be implemented in order to monitor the quality of the ground water.</p>		
<p>Air Quality</p>	<p>Ensure that the operation of the Mineral Residue Deposit expansion does not have detrimental effect on the surrounding air quality</p>	<p>A water cart will be used to spray the area of relevance when dust levels are high. Speed limits will be established on the roads to minimise dust generation. Should dust levels be exceeded as indicated in the Air quality standards and regulations then management measures will be revised, such as spraying more frequently or using dust suppressants</p>	<p>Not applicable</p>	<p>The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.</p>
		<p>Machinery and equipment will be regularly serviced to ensure they are in proper working condition and to reduce risk of excessive emissions.</p>	<p>Not applicable</p>	
		<p>A priority must be given to continuous monitoring of ambient dust deposition rates for the full</p>	<p>Not applicable</p>	

		<p>duration of the project. Source monitoring stations should be positioned near the mineral residue deposit expansion and roads. The current monitoring network should be revised to consider the receivers identified as part of this study. Dust deposition monitoring is essential to determine spatial and temporal trends, and to track progress made by control measures implemented.</p>		<p>The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.</p>
		<p>A PM10 monitoring station should be established within 500m from the site. Data from the monitoring station will provide essential support for day-to-day air quality management functions.</p>	<p>Not applicable</p>	
		<p>An emissions inventory and annual modelling regime must be maintained throughout the life of the project.</p>	<p>Not applicable</p>	
		<p>Controlled emissions from process stacks should be confirmed through representative process emission testing at least once per year, in line with the requirements for listed activities.</p>	<p>Not applicable</p>	
<p>Noise</p>	<p>Ensure that the operation of the Mineral Residue Deposit expansion does not have detrimental effect on the surrounding noise quality</p>	<p>Trucks, machinery and equipment will be regularly serviced to ensure acceptable noise levels are not exceeded. Silencers will be utilised where possible.</p>	<p>Not applicable</p>	<p>The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.</p>
		<p>Point sources will be enclosed where possible. Screens will be considered if deemed necessary.</p>	<p>Not applicable</p>	
		<p>Consideration of limiting the operations on the Mineral Residue Deposit when a direct line of sight is achieved to receptors in the Koornfontein community. It is recommended that no night-time operations on the residue deposit occur near the Koornfontein</p>	<p>Not applicable</p>	

		community (direct line of sight from operations to community). Measured data indicated that ambient levels increased in the town of Koornfontein at 05:20, it is recommended that no work takes place near this receptor (or within direct line of sight) before 06:00. The best times in the afternoon to operate on the residue deposit (with a direct line of sight to Koornfontein community) is in the afternoon at roughly 17:00 when measured data in the area indicated higher ambient sound levels (LA90 measured data). At these times it is likely that other ambient noise contributor may slightly mask residue deposit activities (during rush hour times).		
		It is also recommended that the developer coordinate working times that do not interfere with worship times at the place of worship NSD05 (e.g. Sunday period, church services etc.). This is only relevant when operations on the residue deposits occur with a direct line of sight to the place of worship.	Not applicable	
<b>Activity: Operation of the Binderless Briquetting Plant and Coal Transfer Facility</b>				
Natural Vegetation	Ensure that the operation of the facilities do not detrimentally affect the surrounding Environment.	Trucks should be covered with tarpaulins before leaving the colliery along the road. Road must be inspected and cleared of all coal spillages which will be collected and disposed of onto stockpiles or discard facility.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
Soils	Ensure that the operation of the facilities does not have detrimental effect on the surrounding soils due to the release of dirty water	Ensure that water management facilities are operating adequately in accordance with GN704.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		Clean out silt build up over dry season.	Not applicable	
Air Quality		Dust suppression will be undertaken on area showing increased dust	Not applicable	

	<p>Ensure that the operation of the facilities does not have detrimental effect on the surrounding air quality</p>	<p>generation. Should dust levels be exceeded as indicated in the Air quality standards and regulations then management measures will be revised, such as spraying more frequently or using dust suppressants. Bag houses and scrubbers should be well maintained in order to reduce emissions into the atmosphere from the plants. A priority must be given to continuous monitoring of ambient dust deposition rates for the full duration of the project. Source monitoring stations should be positioned near the Binderless Briquetting Plant and roads. The current monitoring network should be revised to consider the receivers identified as part of this study. Dust deposition monitoring is essential to determine spatial and temporal trends, and to track progress made by control measures implemented.</p>		<p>The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.</p>
		<p>A PM10 monitoring station should be established within 500m from the site. Data from the monitoring station will provide essential support for day-to-day air quality management functions.</p>	<p>Not applicable</p>	
		<p>An emissions inventory and annual modelling regime must be maintained throughout the life of the project.</p>	<p>Not applicable</p>	
		<p>Controlled emissions from process stacks should be confirmed through representative process emission testing at least once per year, in line with the requirements for listed activities.</p>	<p>Not applicable</p>	
<p>Surface Water</p>	<p>Ensure that the transportation of coal to and from the facilities does not have detrimental effect on the surrounding surface water environment</p>	<p>Trucks should be covered with tarpaulins before leaving the colliery along the road. Road must be inspected and cleared of all coal spillages which will be collected and</p>	<p>Not applicable</p>	<p>The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.</p>

		disposed of onto stockpiles or discard facility.		
Surface Water	Ensure that the operation of the facilities does not have detrimental effect on the surrounding surface water environment	Saving water initiatives will be included in environmental awareness training.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		Water meters will be allocated at strategic points around the mine to monitor water transfer and consumption.	Not applicable	
Groundwater	Ensure that the operation of the facilities does not have detrimental effect on the surrounding groundwater environment	<p>Stockpile area will be properly compacted with sacrificial layer and graded to encourage runoff to drain into return water dam and the pollution control dam via diversion trenches. No ponding will be allowed on site.</p> <p>The dams will be lined with at least 2mm HDPE liner and entire area will be managed in accordance with GN704. The additional monitoring network as stated in the Geohydrological study (Appendix 5) should be implemented in order to monitor the quality of the ground water.</p>	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
Noise	Ensure that the operation of the infrastructure and associated buildings do not have detrimental impacts on the noise levels within the vicinity of the sites	Trucks, machinery and equipment will be regularly serviced to ensure acceptable noise levels are not exceeded.	Not applicable	The mineral residue expansion, binderless briquetting plant and coal transfer facility were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
		Silencers will be utilised where possible.	Not applicable	
		Point sources will be enclosed where possible. Employees working in areas with generation of noise will be issued earplugs and instructed to use them. Screens will be considered if deemed necessary. All equipment (especially heavy equipment) should be enclosed where practically possible. Galvanized metal cladding and double brick walls is a good example	Not applicable	

		<p>of such a screen to be considered around structural steel. Flanking is the transfer of noise through paths around a building element, rather than through the element directly. Flanking can describe the transfer of noise through gaps and cracks in a building element, or via incorrectly sealed junctions between two materials. Flanking gaps on cladding facing receptors could be sealed. The developer should minimise the amount of apertures (gaps) in the cladding sections facing receptors. These do not just include windows but also holes in walls for service fixtures such as plumbing and electrical etc.</p>		
		<p>It is recommended that a berm/barrier/screen be constructed around the conveyor belt drivetrain near closest house to receptors NSD02 (at Coal Transfer Facility). Refer to the mitigation section of this document stipulating barrier/screen specifications relating to acoustics.</p>	Not applicable	

**6.4 INTEGRATED ENVIRONMENTAL AUTHORISATION ISSUED IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (NEMA) AS AMENDED, THE ENVIRONMENTAL IMPACT ASSESSMENT (EIA) REGULATIONS, 2014 AND THE NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT AND GOVERNMENT NOTICE 921 OF 2013 FOR PROPOSED MINING AND ASSOCIATED INFRASTRUCTURE IN RESPECT OF PORTIONS 1, 2, 3, 4, 5, 6, 7, 8 AND 9 OF FARM GOEDEHOOP 46 IS, PORTION 7 AND 26 OF THE FARM GELUK 26 IS, PORTIONS 1, 2, 3, 6, 10, 11, 12, 13 AND 14 OF THE FARM BULTFONTEIN 187 IS, PORTIONS 6, 7, 10 AND 11 OF THE FARM WILMANSRUST 47 IS, PORTION 12 OF THE FARM KOORNFONTEIN 27 IS, REMAINING EXTENT OF THE FARM KOMATI POWER STATION 56 IS AND PORTION 27 OF THE FARM HAASFONTEIN 28 IS, SITUATED WITHIN THE MAGISTERIAL DISTRICT OF NKANGALA MPUMALANGA REGION. – (MP 30/5/1/2/3/2/1/(122) EM**

Condition Reference No	Condition of Environmental Authorisation (as stated in EA)	Finding	Observations/Audit Evidence
<b>8.1. Standard conditions</b>			
8.1.1.	Authorisation of the activity is subject to the conditions as obtained in this Authorisation, which forms part of the Environmental Authorisation and are binding on the holder of this Environmental Authorisation.	Noted	Goedehoop Colliery is aware of this condition and the requirements thereof are noted.
8.1.2.	The holder of the authorisation shall be responsible for ensuring compliance with the conditions by any person acting on his or her behalf, including but not limited to, an agent, sub-contractor, employee or person rendering a service to the holder of the authorisation.	Noted	Goedehoop Colliery is aware of this condition and the requirements thereof are noted.

8.1.3.	This activity must commence within a period of five (5) years from the date of issue. If commencement of the activity does not occur within that period, the authorisation lapses and a new application for Environmental Authorisation must be made in order for the activity to be undertaken.	Noted	Goedehoop Colliery is aware of this condition and the requirements thereof are noted.
8.1.4.	If the proponent anticipates that the commencement of the activity would not occur within the (5) five year period, he / she must apply and show good cause for an extension of the environmental authorisation (3) three months prior to its expiry date.	Noted	Goedehoop Colliery is aware of this condition and the requirements thereof are noted.
8.1.5.	If the proponent anticipates that the commencement of the activity would not occur within the (5) five year period, he / she must apply and show good cause for an extension of the environmental authorisation (3) three months prior to its expiry date.	Noted	Goedehoop Colliery is aware of this condition and the requirements thereof are noted.
8.1.6.	Where any of the applicant's contact details change, including the name of the responsible person, the physical or postal address and / or telephonic details, including the transfer of this authorisation, the applicant must in writing notify the regional manager of this department within (14) fourteen days of the above specified change.	Compliant	The department was notified that all Anglo's coal operations are now under Thungela Operations (Pty) Limited. However, it was confirmed that there have been no changes to the applicant's details and all the authorisations remain under Anglo Operations (Pty) Limited.
8.1.7.	A copy of this authorisation must be kept on site. The authorisation must be produced to any government official(s) who may request to see it for inspection purposes and must be made available to the contactor(s) / subcontractor(s) authorised to undertake work at the property.	Compliant	A copy of the environmental authorisation can be obtained from the Environmental Co Ordinator at Goedehoop Colliery.
8.1.8.	This authorisation does not negate the holder of the authorisation's responsibility to comply with any other statutory requirements that may be applicable to the undertaking of the activity.	Noted	Goedehoop Colliery is aware of this condition and the requirements thereof are noted.
8.1.9.	After an appeal period has expired and no good course to extend the appeal period has been submitted in accordance with Chapter 2 of the National Appeals Regulations, 2014, a thirty (30) day written notice must be given to the department that the activity will commence. Commencement for the purpose of this condition includes site preparation. The notice must include a date on which it is anticipated that the activity will commence.	Not applicable	The Hope 4 seam project never commenced; therefore, this condition is not applicable.
<b>8.2. Specific Conditions</b>			
<b>8.2.1. Commissioning of the activity</b>			
8.2.1.1.	This authorisation is hereby solely granted for the mining of coal using underground methods (board and pillar) with the following box cut, pipelines, conveyor belt, access roads, clearance of vegetation, storage of fly ash, overburden stockpile, septic tank, dirty water collection sump, crushing and screening of ROM, storm water diversion structure, ventilation facility, stone dust silo, guard house, security fence, electricity supply infrastructure, underground backfilling sites, reinstating of the batching plant site, storage of fly ash at the batching plant site in respect of portions 1, 2, 3, 4, 5, 6, 7, 8 and 9 of the farm Goedehoop 46 IS, portion 7 and 26 of the farm Geluk 26 IS, portions 1, 2, 3, 6, 10, 11, 12, 13 and 14 of the farm Bultfontein 187 IS, Portions 6, 7, 10 and 11 of the farm Wilmansrust 47 IS, portion 12 of the farm Koornfontein 27 IS, remaining extent of the farm Komati power station 56 IS, and Portion 27 of the farm Haasfontein 28 IS situated in the Magisterial District of Nkangala Mpumalanga Region.	Noted	Goedehoop Colliery is aware of this condition and the requirements thereof are noted.

8.2.1.2.	The activities may not commence without the necessary permits/licenses/approvals and/or service agreements where it is relevant, from or with the relevant regulatory authorities whether national, provincial or local.	Noted	Goedehoop Colliery is aware of this condition and the requirements thereof are noted.
8.2.1.8.	The applicant must apply the principle of best practicable environmental option for all technologies used/implemented during mining.	Noted	Goedehoop Colliery is aware of this condition and the requirements thereof are noted.
<b>8.2.1.9. Pre-construction phase</b>			
	a) The applicant must appoint an independent Environmental Control Officer (ECO) who will monitor contractors, compliance with EMP and EA (see 82.2 Management of the activity for more details).	Not applicable	The Hope 4 seam project never commenced; therefore, this condition is not applicable.
	b) The applicant must provide all contractors and sub-contractors with a copy of Environmental Management Plan and Environmental Authorisation prior to the mining activities.	Not applicable	The Hope 4 seam project never commenced; therefore, this condition is not applicable.
	c) All pre-construction phase mitigation measures as outlined in the Environmental Management Programme (EMP) attached in Environmental Impact Assessment report must be adhered to at all times.	Not applicable	The Hope 4 seam project never commenced; therefore, this condition is not applicable.
	d) In order to ensure safety, all employees must be given the necessary personnel protective equipment (PPE).	Not applicable	The Hope 4 seam project never commenced; therefore, this condition is not applicable.
	e) Appropriate notification sign must be erected at the mining area warning the public (residents, visitors etc.) about the hazard around the mining area and presence of heavy vehicles and machinery.	Not applicable	The Hope 4 seam project never commenced; therefore, this condition is not applicable.
	f) Construction must include design measures that allow surface and subsurface movement of water along the drainage lines so as not to impede natural surface and subsurface water flow, and drainage measures must promote the dissipation of storm water runoff.	Not applicable	The Hope 4 seam project never commenced; therefore, this condition is not applicable.
	g) Construction areas (e.g. material lay down areas), topsoil and subsoil must be protected from contamination or pollution. Stockpiling must not take place in drainage lines or areas where it will impede surface water runoff.	Not applicable	The Hope 4 seam project never commenced; therefore, this condition is not applicable.
	h) If any soil contamination is noted at any phase of the proposed activity(ies), the contaminated soil must be removed to a licensed waste disposal facility and the site must be rehabilitated to the satisfaction of the Department and Department of Water and Sanitation, the opportunity for the onsite remediation and re-use of contaminated soil must be investigated prior to the disposal and this Department must be informed in this regard.	Not applicable	The Hope 4 seam project never commenced; therefore, this condition is not applicable.
8.2.1.10.	<b>Access roads and traffic impact</b>		
	a) Necessary signage and traffic measures must be implemented for safe and convenient access to the site from adjacent roads.	Not applicable	The Hope 4 seam project never commenced; therefore, this condition is not applicable.
	b) Access roads must be well maintained throughout the mining operation.	Not applicable	
8.2.1.10.	<b>Air quality management</b>		

	a) Proper measures must be put in place to suppress dust in order to minimize nuisance conditions.	Not applicable	The Hope 4 seam project never commenced; therefore, this condition is not applicable.
	b) A speed restriction of 40km/h must be enforced and monitored on site for all mining vehicles	Not applicable	
8.2.1.12.	Proliferation of alien species		
	a) All mining/construction equipment and vehicles must be cleaned before entering and leaving the site to reduce the chances of spreading weeds and invasive species.	Not applicable	The Hope 4 seam project never commenced; therefore, this condition is not applicable.
8.2.1.13.	Noise		
	a) Mining/construction activity must be limited to normal working hours (7h00 17h00).	Not applicable	The Hope 4 seam project never commenced; therefore, this condition is not applicable.
	b) Mining vehicles must be fitted with standard silencers prior to beginning of construction	Not applicable	
8.2.1.14.	Erosion control measures		
	a) All soil surfaces compacted as a result of mining/construction activities must be ripped, and imported materials must be removed.	Not applicable	The Hope 4 seam project never commenced; therefore, this condition is not applicable.
	b) Any erosion channel developed during mining/construction period or during vegetation establishment must be restored to a proper condition.	Not applicable	
8.2.1.15.	Excavation activities		
	a) Topsoil must be stripped and stockpiled prior to excavation in a designated area.	Not applicable	The Hope 4 seam project never commenced; therefore, this condition is not applicable.
	b) Under no circumstances should material stockpiles be disposed of outside the boundary of the mining area.	Not applicable	
8.2.1.16.	Waste management		
	a) General waste must be kept in containers which are wind and scavenger proof, and disposed of at a permitted landfill site, No temporary dumping and littering of waste is allowed on site.	Not applicable	The Hope 4 seam project never commenced; therefore, this condition is not applicable.
	b) No waste must be disposed of through burying and burning.	Not applicable	
	c) All hazardous waste must be disposed of at an official registered site, or be removed by registered hazardous waste contractors.	Not applicable	
	d) An emergency preparedness plan to address any pollution incidents (i.e. such as oil spillage etc) that occur on site must be developed.	Not applicable	
8.2.1.17.	Surface and groundwater contamination must be prevented and/or mitigated by implementation of the following conditions		
	a) Specific area must be demarcated for fuelling and workshop services. And such area must be bunded to reduce the possibility of soil and water contamination.	Not applicable	The Hope 4 seam project never commenced; therefore, this condition is not applicable.
	b) Irrespective of the nature of a spillage (whether major or minor), all spillages must be cleaned up as soon as they occur.	Not applicable	

	c) In the case of accidental spillage, contaminated soil must be removed for bioremediation or disposed of at a facility for the substance concerned. Disturbed land must be rehabilitated and seeded with vegetation seed naturally occurring on site.	Not applicable	
	d) Untreated sewage water must not be discharged directly into the natural environment.	Not applicable	
8.2.1.18.	Fire prevention and management		
	a) Fire extinguishers that are in good working conditions must be made available at all times for their usage during the occurrence of accidental fires.	Not applicable	The Hope 4 seam project never commenced; therefore, this condition is not applicable.
	b) Workers must be adequately trained in the handling of firefighting equipment	Not applicable	
	c) Open fires must strictly be prohibited.	Not applicable	
	d) Smoking must be prohibited in the vicinity of flammable substances.	Not applicable	
8.2.1.19.	Storm water management		
	a) Storm water management plan must be developed, and implemented on site.	Not applicable	The Hope 4 seam project never commenced; therefore, this condition is not applicable.
8.2.1.20.	Safety		
	a) Potentially hazardous area must be demarcated with danger tape.	Not applicable	The Hope 4 seam project never commenced; therefore, this condition is not applicable.
	b) Appropriate signage must be placed to caution employees and contractors not to attempt to enter certain structures without being authorised.	Not applicable	
8.2.1.23.	Emergency Response Plan		
	a) An Emergency Response Plan should be available for accidental spills and firefighting during both construction and operation of the project.	Not applicable	The Hope 4 seam project never commenced; therefore, this condition is not applicable.
	b) In the event of emergency, the holder must notify the department within 24hrs, and contact relevant emergency services in the area.	Not applicable	
	c) All significant pollution incidents must be reported to this Department within forty-eight (48) hours of occurrences.	Not applicable	
8.2.1.24.	Compliance with other legislation		
	a) The National Water Act, 1998 (Act 36 of 1998), with particular reference to the sections pertaining to mining in the proximity of dams and their catchments areas, rivers, marshes, streams, pans and other water courses	Noted	The Hope 4 seam project never commenced; however, the mine take cognizance of these conditions.
	b) The Environmental Conservation Act, 1989 (Act 73 of 1989) with particular reference to the requirements of section 20 of the above-mentioned Act.	Noted	

	c) The National Environmental Management Air Quality Act (Act 36 of 2004), with particular reference to the sections pertaining to the liberation of dust, and other emissions, created by prospecting activities, into the atmosphere.	Noted	
	d) The Conservation of Agriculture Resources Act, 1983 (Act 43 of 1983) with particular references to the sections pertaining to soil conservation.	Noted	
	e) The National Heritage Resources Act, 1989 (Act No 25 of 1999), with particular reference to the protection of all historical and pre-historical cultural remains.	Noted	
	f) The Mine Health and Safety Act, 1996 (Act 29 of 1996) in conjunction with the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), with particular reference to those sections and regulations pertaining to health and safety at mines; mining within 100 m from structures that must be protected; as well as those sections pertaining to rehabilitation of the surface	Noted	
	g) The National Environmental Management Act, 1998 (Act 107 of 1998), with particular reference to the principles in chapter 2 of the said Act.	Noted	
	h) Firebreaks should be established in terms of the requirements and conditions of the National Veld and Forest Fires Act, 1998 (Act No. 101 of 1998).	Noted	
	i) All provisions of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) and any other applicable legislation must be adhered to by the holder of this Authorisation.	Noted	
8.2.1.25.	Liability of the holder of this Authorisation		
	a) The competent authority shall not be held responsible for any damages or losses suffered by the holder or his/her successor in title in any instance where mining/ construction or operation subsequent to construction are to be temporarily or permanently stopped for reasons of noncompliance by the holder with conditions of approval as set out in the document or any other subsequent document emanating from this Authorisation. The holder shall be responsible for all the costs necessary to comply with the above condition unless otherwise specified.	Noted	The Hope 4 seam project never commenced; however, the mine take cognizance of these conditions.
	b) Any complaint from the public during the life of mine must be attended to by the holder of this Authorisation as soon as possible to the satisfaction of parties concerned.	Not applicable	The Hope 4 seam project never commenced; therefore, this condition is not applicable. It must be noted that the mine does keep a complaints' register for all its operation using the Enablon system.
	c) The contractor must ensure that serviceable ablution facilities are available for employees. It is the responsibility of the holder of the Authorisation to see to it that this condition is adhered to.	Not applicable	The Hope 4 seam project never commenced; therefore, this condition is not applicable.
8.2.2.	Management of the Activity		
8.2.2.1.	A copy of an Environmental Authorisation and EMP must always be available on site so as to monitor compliance with conditions outlined in both the documents. Both documents must be used as on-site reference document during the life of mine.	Compliant	A copy of the environmental authorisation and the EMP can be obtained from the Environmental office department at Goedehoop Colliery.

8.2.2.2.	The Environmental Management Plan (EMP) prepared by Geovicon Environmental (Pty) Ltd (attached to the EIA Report) must be adhered to during the life of the mine.	Noted	This condition is not applicable since the Hope 4 Seam project never commenced.
8.2.2.3.	All duties and responsibilities as outlined in the EMP attached are binding throughout the life of the mine.	Noted	
8.2.2.4.	Any proposed amendments to the EMP (as a result of this authorisation or otherwise) must be submitted in writing to this Department for approval prior to the amendment being implemented. On approval of the proposed amendment the EMP must be accordingly amended and adhered to.	Noted	
8.2.3.	Appointment of Environment Control Officer		
a)	An Environmental Control Officer must be appointed, who will monitor and ensure compliance and correct implementation of all mitigation measures and provisions as stipulated in the Environmental Authorisation and Environmental Management Plan, prior to any commencement of mining activities on site.	Not applicable	The Hope 4 seam project never commenced; therefore, this condition is not applicable.
b)	The Environment Control Officer appointed must monitor the construction of the infrastructure to ensure that the layout plans are in accordance to the designs and record important findings of the site inspection.	Not applicable	
c)	The ECO must also monitor the implementation of specific elements of the Environmental Management Plan by contractors.	Not applicable	
d)	All duties and responsibilities as outlined in the EMP attached are binding throughout the life of mine.	Noted	Goedehoop Colliery is aware of this condition and the requirements thereof are noted.
8.2.4.	Site Closure and Decommissioning		
8.2.4.1.	The commissioning and decommissioning of individual activity within the overall listed mining activity must take place within the phases and timeframes as set out in EMP or EMPr.	Noted	Goedehoop Colliery is aware of this condition and the requirements thereof are noted.
8.2.4.2.	The application for closure indicated above must be submitted together with all relevant documents as indicated in Section 43 of Mineral and Petroleum Resources Development Act (Act 28 of 2002), as amended.	Noted	
8.2.4.3.	All mitigation measures for the decommissioning phase, as outlined in the EA. The holder of EA must apply for a closure certificate in terms of Section 43 of Mineral and Petroleum Resources Development Act (Act 28 of 2002), as amended within 180 days of occurrence of lapsing, abandonment, cancellation, cessation, relinquishment and completion of the operation.	Noted	
8.3.	Monitoring		
8.3.1	This Department reserves the right to monitor and audit the activity to ensure compliance with legislation and the conditions stipulated in this authorisation.	Noted	Goedehoop Colliery is aware of this condition and the requirements thereof are noted.
8.3.2.	It is the holder of this Authorisation's responsibility to ensure that an ongoing management and monitoring of the impacts of the activity on the environment throughout the life of the mine is put into practice.	Noted	
8.4.	Recording and Reporting to the Department		

8.4.1.	The authorization holder must submit monthly environmental audit reports during the construction phase and annual audit reports during the operation of the activity, unless otherwise requested by the department.	Not applicable	The Hope 4 seam project never commenced; therefore, this condition is not applicable.
8.4.2.	The audit report must convey the following:		
8.4.2.1.	The date in which the audit was carried out.	Not applicable	The Hope 4 seam project never commenced; therefore, this condition is not applicable.
8.4.2.2.	The outcome of the audit, in relation to the conditions stipulated in the environmental authorization and the approved EMPr as well as the actions taken to mitigate environmental impacts on site.	Not applicable	
8.4.3	Records of monitoring and for auditing must be made available for inspection to this Department and any other relevant authority inspecting the development activities.	Not applicable	
8.4.4.	Records relating to compliance and non-compliance with the conditions of this authorisation must be kept in good order. Such records shall be made available to this Department within seven (7) days of receipt of a written request by the Department. Environmental compliance will further be monitored through complaints received from the public.	Not applicable	
8.4.5.	All records relating to the implementation of the Environmental Management Plan must be kept in the office where it is safe and can be retrievable.	Not applicable	
8.5.	Non-Compliance		
8.5.1.	In the event of non-compliance by any contractor during the mining/construction of the authorised activity, the holder of this Authorisation will be liable.	Noted	Goedehoop Colliery is aware of this condition and the requirements thereof are noted.
8.5.2.	The holder shall be responsible for all costs necessary to comply with the above conditions unless otherwise specified.	Noted	
8.5.3.	The holder must in the event of non-compliance with any condition of this Authorisation inform the Regional Manager of Mpumalanga region of this Department, in writing, within forty-eight (48) hours	Noted	
8.5.4.	Records relating to compliance and non-compliance with the conditions of this Authorisation must be kept in good order. Such records shall be made available to this Department within seven (7) days of receipt of a written request by the Department. Environmental compliance will further be monitored through complaints received from the public	Noted	
8.5.5.	Non-compliance to this authorisation is an offence as provided for in terms of the National Environmental Management Act, 1998, Section 49(a) and Regulation 48. Any conviction of such offence may result in Section 49(a) being enforced.	Noted	
<b>9. Appeal of the Authorisation</b>			
9.1.	The holder of the authorisation must notify every registered interested and affected party, in writing and within fourteen (14) days, of receiving the Department's decision.	Compliant	A notice that was sent to all Interested and Affected parties published in the Middelburg Orbsever Newspaper on the 09 <sup>th</sup> of December 2016 was provided as proof.
9.2.	notification referred to in 9.1 must-		

9.2.1.	Specify the date on which the Authorisation was issued	Compliant	A notice that was sent to all Interested and Affected parties published in the Middelburg Orbsever Newspaper on the 09 <sup>th</sup> of December 2016 was provided during the audit.
9.2.2.	Inform the registered interested and affected parties of the appeal procedure provided for in Chapter 2 of the National Appeal Regulations of 2014.	Compliant	
9.2.3.	Advise the interested and affected parties that a copy of the Authorisation and reasons for the decision will be furnished on request.	Compliant	
9.2.4.	An appeal against the decision must be lodged in terms of Chapter 2 of the National Appeal Regulations of 2014.	Compliant	

**6.5 AMENDMENT OF ENVIRONMENTAL AUTHORISATION FOR DETAILING THE RISK AND SIGNIFICANCE RELATED TO WETLANDS, DETAILING UPDATED STRATEGIES AND INVESTIGATIONS WITH REGARDS TO GROUNDWATER, ALIGNING THE EMPR REFERENCE NUMBER WITH THAT OF THE MINE'S MINING RIGHT AND INCLUSION OF THE PROPOSED DISCARD WASHING PLANT (REFERENCE NUMBER (MP 30/5/1/2/3/2/1/ (122) EM).**

Condition Reference No	Condition of Environmental Authorisation (as stated in EA)	Finding	Observations/Audit Evidence
<b>8.1 STANDARD CONDITIONS</b>			
	The company must adhere to the amended EMPR submitted to this office on the 25th of May 2021.	Non-compliant	There are a few non-compliances identified during this audit period therefore the company doesn't fully adhere with the EMPr.
	The company must conduct an annual internal and external environmental performance audit and submit the report to this office (this should be for the whole mine).	Compliant	The company has appointed Geovicon Environmental (Pty) Limited to conduct external audit and this serves as the first external audit. Similarly, to internal audit, the audit was conducted for 20221/22 and still in the process of finalization.
	All recommendations in the specialist reports must be adhered to	Non-compliant	The EMPr report has recommendations from the specialists and some of the recommendations were not adhered to, such as monitoring and separating clean and dirty areas.
	All comments and recommendations from other state Departments must be adhered to.	Compliant	All comments and recommendations from the Departments were adhered to.
	Authorisation of the activity is subject to the conditions contained in this Authorisation, which forms part of the Environmental Authorisation and are binding on the holder of the Authorisation.	Noted	Thungela Resources together with Nasonti take cognizance of this condition.
	The holder of the Authorisation shall be responsible for ensuring compliance with the conditions by any person acting on his or her behalf, including but not limited to, an agent, sub-contractor, employee or person rendering a service to the holder of the Authorisation	Compliant	GHS has appointed Willencha Snyders and Aysel Maruschka to ensure compliance with the conditions of the authorization and Nasonti has appointed Erika Prinsloo to oversee the environmental aspect of the MRD reworking.
	Any changes to, or deviations from, the project description set out in this Authorisation must be approved, in writing, by the Department before such changes or deviations may be affected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the Authorisation to apply for further Authorisation in terms of the Regulations	Not applicable	There are currently no changes and/or deviation from the project description.
	Where any of the applicant's contact details change, including the name of the responsible person, the physical or postal address and/or telephonic details, including the transfer of this authorization, the applicant must in writing notify the Regional Manager of this Department, within fourteen (14) days of the above specified change	Not applicable	There are no changes to the applicant's contact details, including the name of the responsible person, the physical or postal address and/or telephonic details and there were no transfers of this authorization.
	A copy of this authorisation must be kept on site. The Authorisation must be produced to any Governmental official(s) who may requests to see it for inspection purposes and must be made available to the contractor(s) /subcontractor(s) authorised to undertake to undertake work at the property.	Compliant	A copy of the environmental authorisation can be obtained from the Environmental personnel at Goedehoop Colliery.
	This authorization does not negate the holder of the Authorisation's responsible to comply with any other statutory requirements that may be applicable to the undertaking of the activity	Noted	Thungela Resources together with Nasonti take cognizance of this condition.
	After an appeal period has expired and no good course to extent the appeal period has been submitted in accordance with Chapter 2 of the National Appeal Regulations of 2014, a thirty (30) day-written notice must be given to the Department that the activity will commence. Commencement for purpose of this condition includes site preparation. The notice must include a date on which it is anticipated that the activity will commence	Not applicable	This condition is no longer applicable.
<b>8.2. SPECIFIC CONDITIONS</b>			
<b>8.2.1. COMMISSIONING OF THE ACTIVITY</b>			
This Authorisation is hereby solely granted for the following:			
	a) Detailing of the risk and significance related to wetland areas and the associated management measures: During the initial assessment, a detailed sensitive landscape assessment was not conducted. This has resulted in the approved EMPr not having sufficiently identified risk and management measures related to sensitive landscapes occurring in the vicinity of Goedehoop colliery operation. A wetland study was conducted after the approval of the EMPr to identify the risk and mitigation measures related to wetland areas. All sensitive landscapes within the mining area and its surroundings were identified, assessed and	Noted	GHS Colliery takes cognizance of this condition and the mitigation measures associated with this condition are audited in the amended EMPr.

	all risk associated with the mine were identified and management measures recommended. The application for the amendment will ensure that measures required for the protection of the sensitive landscapes within the mining area and its surroundings are included in the approved EMPr.		
	b) Detaining of the updated strategies and investigations concerning groundwater (MRD Seepage) management: Assessment of the surface water monitoring records during the environmental audit assessment conducted in May 2019 indicated that the Koringspruit and Goedehoopspruit has been affected by mining operations. It was also revealed that areas of day lighting acid water were identified at the Hope dump, Goedehoop south MRD and Springbok Dump 1 & 2. Strategies were developed and were not included as one of the management measures in the approved EMPr for the mine, The mine is applying for an amendment of the EMPr to include additional strategies implemented around the current and rehabilitated mineral residue deposit facilities.	Noted	GHS Colliery takes cognizance of this condition and the mitigation measures associated with this condition are audited in the amended EMPr.
	c) Amending the approved EMPr to align the EMPr reference number with that of the mine's mining right: The company has applied and was granted approval of the EMPr alignment with the requirements of the MPRDA (Act 28 of 2002). During the compilation of the EMPr, a reference number different from the mine's mining right reference number was used for the EMPr. The amendment is for the reference number of the EMPr to be aligned with that one of the Mining Right.	Noted	GHS Colliery takes cognizance of this condition and the mitigation measures associated with this condition are audited in the amended EMPr.
	d) Inclusion of the discard washing plant and its associated activities, risks, impacts and mitigation measures: The company is permitted under the approved EMPr for the reclamation of the mineral residue deposit (slimes and coarse sections of the mineral residue deposit). Since the mine ceased its operation in December 2019, the reclamation activities were put on hold. The company intends to continue with the reclamation of coal discard material however, instead of using the existing and authorized plants, the mine proposes to establish a discard (coarse residue) washing plant on the rewash discard platform of the MRD	Noted	GHS Colliery takes cognizance of this condition and the mitigation measures associated with this condition are audited in the amended EMPr.
	The activity may not commence without the necessary permits/licenses/approvals and/or service agreements, where it is relevant, from or with the relevant regulatory authorities whether national, provincial or local.	Compliant	GHS has applied for the necessary environmental authorisations which included the approval of the amended EMPr.
	The company must apply the principle of best practicable environmental option for all technologies used/implemented during the project.	Compliant	GHS is engaged with several higher education institutions to investigate and implement the best practicable environmental option for all technologies.
<b>Pre-construction Phase</b>			
	a) The Environmental Control Officer (ECO) must monitor the activities and also monitor compliance with conditions of the EA and the submitted amended EMPr.	Compliant	Visual inspections are conducted by Willencha Snyders, Axsel Maruschka and Erika Prinsloo.
	b) In order to ensure safety, all employees must be given the necessary personnel protective equipment (PPE).	Compliant	Based on the site visit, employees were geared with the necessary PPE; however, the PPE register was not provided for review.
	c) Appropriate notification sign must be erected at all sites affected by this amendment warning the public (residents, visitors etc.) about the hazards that may occur.	Non-compliant	There were no signs observed at the seeping dumps warning the public about the hazards that may occur in those sites, the signs were stolen.
	d) If any soil contamination is noted at any phase of the proposed activity (ies), the contaminated soil must be removed to a licensed waste disposal facility and the site must be rehabilitated to the satisfaction of this Department and Department of Water and Sanitation. The opportunity for the onsite remediation and re-use of contaminated soil must be investigated prior to the disposal and this Department must be informed in this regard.	Not applicable	There were no contaminated soils due the proposed activities in the amendment report; therefore, this condition is not applicable.
<b>Access roads and traffic impact</b>			
	a) Existing roads and the authorized roads to be established as per the initial EA and this amendment must be used to relocate the dragline.	Not applicable	There are no dragline relocation activities associated with this amendment; therefore, this condition is not applicable.
	b) Necessary signage and traffic measures must be implemented for safety of other road users regarding the diversion of the main roads (if applicable.)	Not applicable	There are no road diversion activities associated with this amendment; therefore, this condition is not applicable.
	c) Necessary signage and traffic measures must be implemented for safe and convenient access to the site from adjacent roads.	Not applicable	

	d) Rehabilitation must be conducted simultaneously with the dragline walk. Not more than 500m of the disturbed area must be left rehabilitated during the dragline walk.	Not applicable	There are no dragline relocation activities associated with this amendment; therefore, this condition is not applicable.
	e) Access roads must be well maintained throughout the mining operation	Compliant	Access roads to the mining operations are well maintained.
<b>Air quality management</b>			
	a) Proper measures must be put in place to suppress dust in order to minimize nuisance conditions.	Compliant	Dust suppression is being undertaken on site.
	b) A speed restriction of 40km/h must be enforced and monitored on site for all mine vehicles.	Compliant	Traffic control measures are implemented on site such as speed limits etc and employees are trained during induction about the traffic measures on site, cars are also fitted with cameras and monitoring systems to guide and monitor drivers while driving on site.
<b>Noise</b>			
	a) Activities must be limited to normal working hours	Compliant	The operation is using a 4 by 4 shift.
	b) Mine vehicles must be fitted with standard silencers prior to beginning of construction.	compliant	Proof that mine vehicles are fitted with silencers was provided for review.
<b>Erosion control measures</b>			
	a) All soil surfaces compacted as a result of the navigation life extension project activities must be ripped, and imported materials must be removed.	Not applicable	There are no activities associated with navigation life extension project; therefore, this condition is not applicable.
	b) Any erosion channel developed must be restored to a proper condition		
<b>Excavation activities</b>			
	a) Topsoil must be stripped and stockpiled adjacent to the gravel roads prior the establishment of the road.	Not applicable	There was no topsoil stripped for construction purposes during this audit period and there are no topsoil stockpiles on site.
	b) Topsoil must be protected and used as part of rehabilitation.	Not applicable	
<b>Waste management</b>			
	a) General waste must be kept in containers which are wind and scavenger proof, and disposed of at a permitted landfill site. No temporary dumping and littering of waste is allowed along the dragline route.	Not applicable	There are no dragline relocation activities associated with this amendment; therefore, this condition is not applicable.
	b) No waste must be disposed of through burying and burning.	Not applicable	
	c) All hazardous waste must be disposed of at an official registered site, or be removed by registered hazardous waste contractors.	Not applicable	
	d) An emergency preparedness plan to address any pollution incidents (e.i such as oil spillage etc) that occur on site must be developed (along the dragline walk route).	Not applicable	
<b>Surface and groundwater contamination must be prevented and/or mitigated by implementation of the following conditions</b>			
	a) Mine vehicles that will be used as support to the dragline relocation must not be refuelled on bare ground. Specific areas must be demarcated for fuelling, workshop services and parking areas and such area must be bunded to reduce the possibility of soil and water contamination.	Not applicable	There are no dragline relocation activities associated with this amendment; therefore, this condition is not applicable.
	b) Irrespective of the nature of a spillage (whether major or minor), all spillages must be cleaned up as soon as they occur.	Compliant	There were no spillages observed during the site visit and based on the records, spill kits are being ordered and provided for spillage control and remediations.
	c) Spillage of petrochemical products must be avoided. In the case of accidental spillage, contaminated soil must be removed for bioremediation or disposed of at a facility for the substance concerned. Disturbed land must be rehabilitated and seeded with vegetation seed naturally occurring on site.	Compliant	
<b>Fire prevention and management</b>			
	a) Fire extinguishers that are in good working conditions must be made available at all times for their usage during the occurrence of accidental fires	Compliant	Fire extinguishers were observed in all operational site.
	b) Workers must be adequately trained in the handling of firefighting equipment.	Compliant	Based on the induction and employees training presentation provided for review, employees are well taught on how to handle and use firefighting equipment.
	c) Open fires must strictly be prohibited.	Compliant	Based on the induction and employees training presentation provided for review, education on fire is clear and adequately addresses all the prohibitions and permitted use of fire.
	d) Smoking must be prohibited in the vicinity of flammable substances	Compliant	
	e) Cooking and heating fires must be permitted only in designated areas with appropriate safety measures.	Compliant	
<b>safety</b>			
	a) Potentially hazardous area must be demarcated with danger tape	Compliant	Based on the site visit, there were no red zones observed on site.
	b) Appropriate signage must be placed to caution the public, employees and contractors not to attempt to enter certain areas without being authorised.	Non-compliant	It was observed during the site that there were no signages at the return water dam and seepages dumps areas. Most of the signages were stolen.
<b>Emergency Response Plan</b>			
	a) An Emergency Response Plan should be available for accidental spills and firefighting during both construction and operation of the project.	Not applicable	There were no reportable incidents at GHS Colliery during this audit period.

	b) In the event of emergency, the holder must notify the department within 24hrs, and contact relevant emergency services in the area.	Not applicable	
	c) All significant pollution incidents must be reported to this Department within forty-eight (48) hours of occurrences	Not applicable	
Compliance with other legislation			
	a) The National Environmental Management Act, 1998 (Act 107 of 1998), with particular reference to the principles in chapter 2 of the said Act.	Noted	
	b) The National Water Act, 1998 (Act 36 of 1998), with particular reference to the sections pertaining to any activity in the proximity of dams and their catchments areas, rivers, marshes, streams, pans and other water courses.	Compliant	There were no non-compliances pertaining to any activity in the proximity of dams and their catchments areas, rivers, marshes, streams, pans and other water courses.
	c) The issuance of this authorization does not exempt the license holder from compliance with any other legislation including Section 40 of the National Water Act, 1998 (Act 36 of 1998).	Noted	The mine is aware and take cognizance of this.
	d) The National Environmental Management Air Quality Act (Act 36 of 2004), with particular reference to the sections pertaining to the liberation of dust, and other emissions, created by mining related activities (stockpile), into the atmosphere.	Compliant	There were no non-compliances pertaining to air quality identified during this audit period.
	e) The Conservation of Agriculture Resources Act, 1983 (Act 43 of 1983), with particular references to the sections pertaining to soil conservation	Compliant	There were no non-compliances pertaining to soil conservation identified during this audit period.
	f) The National Heritage Resources Act, 1989 (Act No 25 of 1999), with particular reference to the protection of all historical and pre-historical cultural remains	Not applicable	There were no historical and pre-historical cultural remains identified during the EIA process; therefore, this condition is not applicable.
	g) The Mine Health and Safety Act, 1996 (Act 29 of 1996) in conjunction with the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), with particular reference to those sections and regulations pertaining to health and safety at mines; mining within 100 m from structures (silos), that must be protected; as well as those sections pertaining to rehabilitation of the surface (in this case the dragline relocation route).	Not applicable	There are no dragline relocation activities associated with this amendment; therefore, this condition is not applicable.
	h) All provisions of the Occupational Health and Safety Act, 1993 (Act No.85 of 1993) and any other applicable legislation must be adhered to by the holder of this Authorisation.	Compliant	There were no non-compliances pertaining to Occupational Health and Safety identified during this audit period.
	i) The National Environmental Management: Waste Act (Act No. 59 of 2008)	Non-compliant	There were non-compliances pertaining to waste that identified during this audit period. Such as road constructed with carbonaceous material and general waste found on site proving that the NEMWA is not fully adhered to.
Liability of the holder of this Authorisation			
	a) The competent authority shall not be held responsible for any damages or losses suffered by the holder or his/her successor in title in any instance where reclamation/ construction or operation subsequent to the operation being temporarily or permanently stopped for reasons of non-compliance by the holder with conditions of approval as set out in the document or any other subsequent document emanating from this Authorisation. The holder shall be responsible for all the costs necessary to comply with the above condition unless otherwise specified.	Noted	The mine is aware and take cognizance of this.
	b) Any complaint from the public during the period of the dragline walk must be attended to by the holder of this Authorisation as soon as possible to the satisfaction of parties concerned.	Not applicable	There are no dragline relocation activities associated with this amendment; therefore, this condition is not applicable.
	c) The holder and the contractor must ensure that serviceable ablution facilities are available for employees.	Compliant	It was observed during the site visit that ablution facilities are provided for employees.
MANAGEMENT OF THE ACTIVITY			
	a) A copy of an EA, amended EMPr and all other reports associated with this application must always be available on site so as to monitor compliance with conditions outlined in both the documents. Both documents must be used as on-site reference document during the life of mine.	Compliant	GHS has appointed Willencha Snyders and Aysel Maruschka to ensure compliance with the conditions of the authorization and Nasonti has appointed Erika Prinsloo to oversee the environmental aspect of the MRD reworking. The copy of the environmental authorisation and its associated reports can be obtained from the Environmental personnel at Goedehoop Colliery.
	duties and responsibilities as outlined in this EA are binding throughout the life of the mine.	Noted	The mine is aware and take cognizance of this.
	c) Any proposed amendments to the amended EMPr (as a result of this authorisation or otherwise) must be submitted in writing to this Department for approval prior to the amendment being implemented. On approval of the proposed amendment the EMP must be accordingly amended and adhered to.	Not applicable	There are currently no proposed amendments to the amended EMPr (as a result of this authorisation or otherwise).
Environment Control Officer			

	a) An Environmental Control Officer must monitor and ensure compliance and correct implementation of all mitigation measures and provisions as stipulated in the amended EMPr and this EA.	Compliant	GHS has appointed Willencha Snyders and Axsel Maruschka to ensure compliance with the conditions of the authorization and Nasonti has appointed Erika Prinsloo to oversee the environmental aspect of the MRD reworking.
	b) The Environment Control Officer must also monitor the implementation of specific elements of the amended EMPr and this EA.	Compliant	
	c) All duties and responsibilities as outlined in the amended EMPr and this EA are binding throughout the life of project/ mine.	Noted	The mine is aware and take cognizance of this.
<b>Site Closure and Decommissioning</b>			
	a) Rehabilitation must be conducted simultaneously with the dragline walk. Not more than 500m of the disturbed area must be left rehabilitated during the dragline walk.	Not applicable	There are no dragline relocation activities associated with this amendment; therefore, this condition is not applicable.
	b) The roads that will be established for the dragline walk must be rehabilitated and monitored until vegetation has established.	Not applicable	There are no dragline relocation activities associated with this amendment; therefore, this condition is not applicable.
	c) Invasive species must be eradicated, and the area must be monitored for a period of 1 year after the completion of the walk.	Not applicable	There are no dragline relocation activities associated with this amendment; therefore, this condition is not applicable.
<b>MONITORING</b>			
	a) This Department reserves the right to monitor and audit the activity to ensure compliance with legislation and the conditions stipulated in this authorisation.	Noted	The mine is aware and take cognizance of this.
	b) It is the holder of this Authorisation's responsibility to ensure that an ongoing management and monitoring of the impacts of the activity on the environment throughout the life of the mine is put into practice.	Noted	The mine is aware and take cognizance of this.
	c) Water monitoring		
	Water related impacts and management measures must be implemented as per the initial granted EA.	Non-compliant	Wastewater management structures are not kept in good order. The dam was silted during the site observation.
<b>RECORDING AND REPORTING TO THE DEPARTMENT</b>			
<b>AUDITING</b>			
<b>Audits and inspections</b>			
	o The responsible authority reserves the right to audit and / or inspect the site at any time and at such a frequency as the responsible authority may decide, or to have the site audited or inspected	Noted	The mine is aware and take cognizance of this.
	o The License Holder must make any records or documentation available to the responsible authority upon request , as well as any other information the responsible authority may require	Noted	The mine is aware and take cognizance of this.
<b>REPORTING</b>			
<b>Reporting of incidents</b>			
	The License Holder must, within 24 hours, notify the responsible authority of the occurrence or detection of any incident on the site which has the potential to cause or has caused water pollution.	Compliant	GHS return water dam overflowed on the xx and the incident was reported on the xx to the Department; therefore, compliant to these conditions.
	The license holder must, within 14 days, or a shorter period of time, if specified by the responsible authority, from the occurrence or detection of any incident to the responsible authority of measures taken to-  Correct the impact resulting from the incident Prevent the incident from causing any further impacts ; and Prevent a recurrence of a similar incident.	Compliant	
	o In the event that measures have not been implemented within 21 days to address impacts caused by the incident or measures which have been implemented are inadequate, the responsible authority may implement the necessary measures at the cost and risk of the license holder.	Noted	The mine is aware and take cognizance of this.
<b>Other reports</b>			
	The license holder must submit a written report to the responsible authority regarding any deviations from plans described in this authorization and must obtain written permission from the responsible authority before such deviations may be implemented.	Not applicable	There are currently no changes and/or deviation from the project description.
	The authorization holder must submit monthly reports on compliance during the dragline walk. The audit report must convey the following	Not applicable	There are no dragline relocation activities associated with this amendment; therefore, this condition is not applicable.
	The date in which the audit was carried out,	Not applicable	
	The outcome of the audit, in relation to the conditions stipulated amended EMPr and the actions taken to mitigate environmental impacts on site	Not applicable	

	Records of monitoring and [or auditing must be made available for inspection to this Department and any other relevant authority inspecting the development activities.	Not applicable	
	Records relating to compliance and non-compliance with the conditions of this authorisation must be kept in good order. Such records shall be made available to this Department within seven (7) days of receipt of a written request by the Department. Environmental compliance will further be monitored through complaints received from the public.	Not applicable	
	All records relating to the implementation of the amended EMPr must be kept in the office where it is safe and can be retrievable	Not applicable	
<b>NON-COMPLIANCE</b>			
	a) In the event of non-compliance by any contractor during the construction/operation of the authorized activity, the holder of this Authorisation will be liable.	Noted	The mine is aware and take cognizance of this.
	b) The holder shall be responsible for all costs necessary to comply with the above conditions unless otherwise specified	Noted	The mine is aware and take cognizance of this.
	c) The holder must in the event of non-compliance with any condition of this Authorisation inform the Regional Manager of Mpumalanga region of this Department, in writing, within forty-eight (48) hours	Compliant	GHS return water dam overflowed on the xx and the incident was reported on the xx to the Department; therefore, compliant to these conditions. The audit reports will be submitted to the department upon finalisations to inform the department regarding non-compliances identified.
	d) Non-compliance to this authorisation is an offence as provided for in terms of the National Environmental Management Act, 1998, Section 49(a) and Regulation 48. Any conviction of such offence may result in Section 49(a) being enforced.	Noted	The mine is aware and take cognizance of this.
<b>APPEAL OF AUTHORISATION</b>			
	The holder of the authorisation must notify every registered interested and affected party, in writing and within fourteen (14) days, of receiving the Department's decision. The notification must -	Compliant	The interested and affected parties were notified in writing and within fourteen (14) days, of receiving the Department's decision. The notification included the dates, appeal procedure and informed the interested and affected parties that the authorisations are available upon request.
	a) Specify the date on which the Authorisation was issued.	Compliant	
	b) Inform the registered interested and affected parties of the appeal procedure provided for in Chapter 2 of the National Appeal Regulations of 2014	Compliant	
	c) Advise the interested and affected parties that a copy of the Authorisation and reasons for the decision will be furnished on request.	Compliant	
	d) An appeal against the decision must be lodged in terms of Chapter 2 of the National Appeal Regulations of 2014.	Compliant	

### 6.6 ENVIRONMENTAL AUTHORISATION FOR THE UP-CAST VENTILATION SHAFT (REFERENCE NUMBER: 17/2/3N- 281)

Condition Reference No	Condition of Environmental Authorisation (as stated in EA	Finding	Observations/Audit Evidence
<b>3 Scope of authorization</b>			
3.1.	Authorisation of the activity is subject to the conditions contained in this authorisation, which form part of the environmental authorisation and are binding on the holder of the authorization.	Noted	Goedehoop Colliery is aware of this condition and the requirements thereof are noted.
3.2.	The holder of the authorisation must ensure compliance with these conditions by any person acting on his or her behalf, including but not limited to, an agent, sub-contractor, employee or person rendering a service to the holder of the authorisation.	Noted	Goedehoop Colliery is aware of this condition and the requirements thereof are noted.
3.3.	The activity which is authorised may only be carried out at the property indicated above.	Compliant	The ventilation shaft was constructed on Portion 9 of the farm Enkeldebosch 20 IS, Steve Tshwete Local Municipality, Mpumalanga Province, as per the environmental authorization.

3.4.	Any changes to, or deviations from, the project description set out in this authorisation must be approved, in writing, by the Department before such changes or deviations may be affected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the authorisation to apply for further authorisation in terms of the regulations.	Compliant	The vent shaft was constructed and now rehabilitated as per the project description with no deviations identified.
3.5.	In the event that the impacts exceed the significance as predicted in the environmental impact report, authorisation may be suspended after proper procedures have been followed.	Compliant	It was observed during the site visit that there's no evidence of significant environmental impacts.
3.6.	In the event of any dispute concerning the significance of a particular impact, the opinion of the Department in respect of its significance will prevail	Noted	Goedehoop Colliery is aware of this condition and the requirements thereof are noted.
3.7.	The Department may change or amend any of the conditions of this authorisation if, in the opinion of Department, it is environmentally justifiable.	Noted	Goedehoop Colliery is aware of this condition and the requirements thereof are noted.
3.8.	This activity must commence within a period of three (3) years from the date of issue. If commencement of the activity does not occur within that period, the authorisation lapses and a new application for environmental authorisation must be made in order for the activity to be undertaken.	Compliant	The authorization was granted in March and the activity commenced in July 2014, within a period of three years from the date of issue of this environmental authorisation.
3.9.	The holder of this authorisation is responsible for compliance with the provisions for Duty of Care and Remediation of Environmental Damage contained in Section 28 of the National Environmental Management Act, 1998 (Act 107 of 1998).	Compliant	Goedehoop Colliery is aware of the responsibility in line with this condition. Activities are undertaken in accordance with several procedures to minimise degradation of the environment. Action plans with mitigation measures are drafted and implemented to remediate any negative environmental impact.
3.10.	This authorisation does not negate the holder of the authorisation, responsibility to comply with any other statutory requirements that may be applicable to the undertaking of the activity.	Noted	Goedehoop Colliery is aware of this condition and the requirements thereof are noted.
3. Appeal of authorization			
3.12.	The holder of the authorisation must notify every registered interested and affected party, in writing and within twelve (12) days of the date of this decision, of the outcome of the application.	Compliant	An advertisement, notifying interested and affected parties of the outcome of this authorisation, was placed in the Middelburg Observer on 8 April 2014 which is within twelve days of the date of the decision.
3.13.	The notification referred to above, must- Specify the date on which the authorisation was issued; Inform the interested and affected party of the appeal procedure provided for in Chapter 7 of the Regulations; and Advise the interested and affected party to the manner in which the decision can be accessed; Be published in the newspaper contemplated in Regulation 54(2) (c) and which newspaper was used for the placing of advertisements as part of the public participation process.	Compliant	An advertisement, notifying interested and affected parties of the outcome of this authorisation, was placed in the Middelburg Observer on 8 April 2014.  The advertisement correctly: <ul style="list-style-type: none"> <li>Specified the date on which the authorisation was issued (31 March 2014);</li> <li>Informed the interested and affected parties of the appeal procedure provided for in Chapter 7 of the Regulations; and</li> </ul>

			<ul style="list-style-type: none"> <li>Advised the interested and affected parties to the manner in which the decision can be accessed. It was specified that a copy of the authorisation and reasons for the decision will be furnished upon request from the consultant and the consultants contact details were provided.</li> </ul>
3. Management and monitoring of the activity.			
3.14.	The Environmental Management Programme (EMPr) dated 28th November 2013 submitted as part of the Final Basic Assessment Report is hereby approved and must be implemented and adhered to throughout the lifecycle of the activity.	Compliant	It was confirmed during the site visit and in compiling this audit report that the EMPr for the Up Cast ventilation shaft is adhered, no non-compliances were identified regarding the Up-cast ventilation shaft.
3.15.	The applicant must appoint an independent Environmental Control Officer (ECO) that will have the responsibility of monitoring and reporting on compliance with the conditions of this environmental authorisation as well as monitoring and reporting on the implementation of the approved EMPr.	Not applicable	The construction of the vent shaft was long completed and it has now been demolished and fully rehabilitated. It must be noted however, that GHS appoints an ECO for all the authorisations of the Colliery including the up-cast ventilation shaft.
3.16.	The ECO must be appointed before the commencement of construction and the Department must be notified of such an appointment for communication purposes.	Not applicable	Proof that the department was notified of the appointment ECO was not provided. However, the construction of the vent shaft was long completed and it has now been demolished and fully rehabilitated.
3.17.	The ECO must oversee and monitor the success of all rehabilitation activities. During the construction phase, the ECO must submit monthly compliance reports to the Department in writing and copy the applicant with reports. Where applicable, the ECO may negotiate the required frequency for the submission of reports with the Department, which must be agreed to in writing by the Department. The reports must include a description of all activities on site, problems identified, transgressions noted and remedial action implemented. All reports must reflect the Department's reference number of the project on the cover page.	Not applicable	The construction of the vent shaft was long completed and it has now been demolished and fully rehabilitated. It must be noted however, that ECOs (currently Willenchia Snyders and Maruschka Axsel) is appointed to oversee all the environmental aspects.
3.18.	The ECO must maintain the following on site: - A site diary - Copies of all reports submitted to the Department;	Not applicable	

			The construction of the vent shaft was long completed and it has now been demolished and fully rehabilitated; however, all the reports are available at the environmental department office and on the Enablon system which can be accessed on any time.
	- A complaints' register of all environmental complaints regarding the proposed project and the remedies applied to such complaints.	Not applicable	The construction of the vent shaft was long completed and it has now been demolished and fully rehabilitated; however, all complaints are received by security, who contacts the correct representative as soon as a complaint is received. Complaints are further logged as incidents on Enablon and assigned to the correct representative for actioning and close-out.
3.19.	The holder of the authorisation must submit an environmental audit report to the Department upon completion of the construction and rehabilitation activities. The environmental audit report must be compiled by an independent environmental auditor and must indicate the date of the audit, the name of the auditor and the outcome of the audit in terms of compliance with the conditions of this authorisation as well as the requirements of the EMPr.	Not applicable	The construction of the vent shaft was long completed and it has now been demolished and fully rehabilitated; however, the GHS Colliery is still under decommissioning; therefore, the environmental audit report is yet to be submitted upon completion of all the decommissioning activities.
3.20.	The ECO must remain employed until all rehabilitation measure as well as site clean-up are completed and the site is handed over to the applicant by the contractor for operation.	Compliant	ECOs (currently Willenchia Snyders Maruschka Axsel) is appointed to oversee all the environmental aspects at GHS Colliery.
3.21.	The Department retains the right to monitor and/or inspect the proposed development during both construction and operational phases.	Noted	The holder of the environmental authorisation is aware of this condition and the requirements thereof are noted.
<b>3. Commissioning and operation of the activity</b>			
3.22.	Fourteen (14) days written notice must be given to the Department that the activity will commence. Commencement for the purposes of this condition includes site preparation. The notice must include a date on which it is anticipated that the activity will commence.	Not applicable	The construction of the vent shaft was long completed and it has now been demolished and fully rehabilitated.
3.23.	Planning and design of all elements of the application to be in accordance with acceptable and approved standards as required by the relevant authorities.	Compliant	Evidence was provided of infrastructure plans (layout, roads, storm water drains, fencing etc.) by Semane Consulting Engineers (Pty) Ltd. The plans provided were designed and approved in accordance with the SANS 1200 Civil engineering specifications and AA specifications where applicable.
3.24.	The appointed contractor must be contractually bound to these conditions as well as the provisions of the EMP.	Not applicable	The construction of the vent shaft was long completed and it has now been demolished and fully rehabilitated.
3.25.	The contractor must demarcate the boundaries of the actual construction areas on the site in order to restrict their construction activities.	Not applicable	The construction of the vent shaft was long completed and it has now been demolished and fully rehabilitated.
3.26.	The environmental authorisation as well as any licence or permits must be obtained before construction commences and any recommendation contained in these permits, licences and/or authorisation must be incorporated into the project design.	Compliant	The construction of the vent shaft commenced after the environmental authorisation was obtained and the project did not require any waste management-, water use- and/or atmospheric emission licences.
3.27.	No work must be undertaken on Sundays and normal working hours of 8am to 5pm must be adhered to, to avoid disturbance outside of these times.	Not applicable	The construction of the vent shaft was long completed and it has now been demolished and fully rehabilitated.

3.28.	No vehicles, machinery or equipment with leaks or causing spills may be allowed to operate on the construction site.	Not applicable	The construction of the vent shaft was long completed and it has now been demolished and fully rehabilitated.
3.29.	The main contractor is responsible for ensuring that used oils/lubricants are not disposed of on or near the site and that contractors purchasing these materials understand the liability under which they must operate.	Not applicable	The construction of the vent shaft was long completed and it has now been demolished and fully rehabilitated.
3.30.	All cement or mortar mixing must be done in already impacted areas and on trays or sealed areas to prevent any water pollution.	Not applicable	The construction of the vent shaft was long completed and it has now been demolished and fully rehabilitated.
3.31.	All roads that will not be surfaced prior to the development must be sprayed with water to keep the road moist and to eliminate dust.	Not applicable	The construction of the vent shaft was long completed and it has now been demolished and fully rehabilitated.
3.32.	The relevant policing and security forces that are responsible for the area must be approached and become involved in the monitoring of activities on the site	Compliant	It was confirmed during the site visit that the site is clearly demarcated and fenced off to prevent unauthorised access and the mine has security guards who monitor (patrol) the place
3.33.	All waste streams (building rubble and litter) must be disposed of, as stated in the EMPr.	Not applicable	The construction of the vent shaft was long completed and it has now been demolished and fully rehabilitated.
3.34.	All waste streams (building rubble and litter) must be disposed of, as stated in the EMPr.	Not applicable	The construction of the vent shaft was long completed and it has now been demolished and fully rehabilitated.
3.35.	A fire monitoring and prevention response plan must be put in place.	Not applicable	The construction of the vent shaft was long completed and it has now been demolished and fully rehabilitated.
3.36.	All top soil removed for any reason during construction must be used for landscaping or to rehabilitate any areas scarred by construction works.	Not applicable	The construction of the vent shaft was long completed and it has now been demolished and fully rehabilitated.
3.37.	The applicant is responsible for the rehabilitation of any damage caused to the environment due to the construction activities.	Compliant	No concerns regarding environmental degradation were noted during the site observations. All areas that were disturbed during construction are rehabilitated.
3.38.	No accumulation of water is allowed on site and the entire development must be properly drained.	Compliant	It was observed during the site visit that the area is free draining and no ponding was observed on site.
3.39.	A storm water management plan together with details regarding erosion control measures must be developed before construction commences.	Not applicable	Construction activities have been completed and, therefore, compliance to construction conditions is no longer applicable.
3.40.	All reasonable measures must be taken to prevent the introduction of storm water runoff containing waste or waste water emanating from the site into a watercourse.	Not applicable	The construction of the vent shaft was long completed and it has now been demolished and fully rehabilitated.
3.41.	During construction any possible archaeological findings must be protected and the operations on site must be stopped immediately and the South African Heritage Resources Agency (SAHRA) must be notified of the situation.	Not applicable	Construction activities have been completed and, therefore, compliance to construction conditions is no longer applicable.
3.42.	All disturbed areas must be fully rehabilitated and protected from erosion. Rehabilitation measures must be aimed at the prevention of soil erosion and re-establishment of vegetation.	Compliant	All disturbed areas were rehabilitated and no concerns regarding erosion were noted.

3.43.	Any complaints received from the public during the construction and operational phases of the activity must be attended to as soon as possible and addressed to the satisfaction of all concerned.	Compliant	The construction of the vent shaft was long completed and it has now been demolished and fully rehabilitated; however, all complaints are received by security, who contacts the correct representative as soon as a complaint is received. Complaints are further logged as incidents on Enablon and assigned to the correct representative for actioning and close-out.
3.44.	The contractor must be familiar with and adhere to, any local by-laws and regulations regarding the generation of noise and hours of operation.	Not applicable	Construction activities have been completed and, therefore, compliance to construction conditions is no longer applicable.
<b>3. General</b>			
3.45.	A copy of this authorisation must be kept at the property where the activity will be undertaken. The authorisation must be produced to any authorised official of the Department who requests to see it and must be made available for inspection by any employee or agent of the holder of the authorisation who works or undertakes works at the property.	Compliant	A copy of the environmental authorisation can be obtained from the Environmental coordinator at Goedehoop Colliery.
3.46.	Where any of the applicant's contact details change, including the name of the responsible person, the physical or postal address and/or telephonic details, the applicant must notify the Department as soon as the new details become known to the applicant.	Compliant	The department was notified that all Anglo's coal operations are now under Thungela Resources (Pty) Limited. However, it was confirmed that there have been no changes to the applicant's details and all the authorisations remain under Anglo Operations (Pty) Limited.
3.47.	Non-compliance with a condition of this authorisation may result in criminal prosecution or other actions provided for in the National Environmental Management Act, 1998 and the regulations.	Noted	Goedehoop Colliery is aware of this condition and the requirements thereof are noted.
3.48.	National government, provincial government, local authorities or committees appointed in terms of the conditions of this authorisation or any other public authority shall not be held responsible for any damages or losses suffered by the applicant or his successor in title in any instance where construction or operation subsequent to construction be temporarily or permanently stopped for reasons of non-compliance by the applicant with the conditions of authorisation as set out in this document or any other subsequent document emanating from these conditions of authorisation.	Noted	Goedehoop Colliery is aware of this condition and the requirements thereof are noted.

### 6.7 ENVIRONMENTAL AUTHORISATION FOR MINERAL RESIDUE EXPANSION AND BRIQUETTING PLANT (17/2/3N-238)

Condition Reference No.	Condition of Environmental Authorisation (as stated in EA)	Finding	Observations/Audit Evidence
<b>3 Scope of authorisation</b>			
3.1.	Authorisation of the activity is subject to the conditions contained in this authorisation, which form part of the environmental authorisation and are binding on the holder of the authorisation.	Noted	Goedehoop Colliery is aware of this condition and the requirements thereof are noted.
3.2.	The holder of the authorisation must ensure compliance with these conditions by any person acting on his or her behalf, including but not limited to, an agent, sub-contractor, employee or person rendering a service to the holder of the authorisation.	Compliant	Goedehoop Colliery understands these conditions and ensures that people are compliant to this authorisation. The mine conducts an environmental induction to ensure that any person within the mine ensures compliance of the authorisation. A proof of an environmental awareness induction (2021) was provided for this audit.

3.3.	The activity which is authorised may only be carried out at the property indicated above.	Not applicable	The activities associated with the mineral residue expansion and briquetting plant were not undertaken therefore this condition cannot be audited.
3.4.	Any changes to, or deviations from, the project description set out in this authorisation must be approved, in writing, by the Department before such changes or deviations may be affected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the authorisation to apply for further authorisation in terms of the regulations.	Not applicable	The activities associated with the mineral residue expansion and briquetting plant were not undertaken therefore this condition cannot be audited.
3.5.	In the event that the impacts exceed the significance as predicted in the Environmental Impact Assessment Report, authorisation may be suspended after proper procedures have been followed.	Noted	Goedehoop Colliery is aware of this condition and the requirements thereof are noted.
3.6.	In the event of any dispute concerning the significance of a particular impact, the opinion of the Department in respect of its significance will prevail.	Noted	Goedehoop Colliery is aware of this condition and the requirements thereof are noted.
3.7.	The Department may change or amend any of the conditions of this authorisation if, in the opinion of the Department, it is environmentally justified.	Noted	Goedehoop Colliery is aware of this condition and the requirements thereof are noted.
3.8.	This activity must commence within a period of three (3) years from the date of issue. If commencement of the activity does not occur within that period, the authorisation lapses and a new application for environmental authorisation must be made in order for the activity to be undertaken. The Environmental Authorisation was issued on 29 January 2016, therefore activities associated with this environmental authorisation were to commence by 29 January 2019.	Compliant	The Environmental Authorisation was issued on 29 January 2016, therefore activities associated with this environmental authorisation were to commence by 29 January 2019. Re-working of the South Co-disposal Facility has commenced (2018). However, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
3.9.	The holder of this authorisation is responsible for compliance with the provisions for Duty of Care and Remediation of Environmental Damage contained in Section 28 of the National Environmental Management Act, 1998 (Act 107 of 1998).	Compliant	Goedehoop Colliery is aware of the responsibility in line with this condition.
3.10.	This authorisation does not negate the holder of the authorization, responsibility to comply with any other statutory requirements that may be applicable to the undertaking of the activity.	Noted	Goedehoop Colliery is aware of this condition and the requirements thereof are noted.
<b>3 Appeal of authorisation</b>			
3.11.	The holder of the authorisation must notify every registered interested and affected party, in writing and within twelve (12) days of the date of this decision, of the outcome of the application.	Compliant	Proof was provided of a newspaper advertisement notifying registered interested and affected parties of the environmental authorisation for the Mine Residue Deposit Expansion and Briquetting Plant project. The advertisement was placed 14 days after receiving the environmental authorisation.
3.12.	The notification referred to above, must -	Compliant	The newspaper advertisement specifies the date on which the authorisation was issued; they inform the interested and affected parties of the appeal procedure; they advise on the manner in which the decision can be accessed and was published in a newspaper contemplated in Regulation 54 (2) (C).
	a) Specify the date on which the authorisation was issued;		
	b) Inform the interested and affected party of the appeal procedure provided for in Chapter 7 of the Regulations; and	Compliant	

	c) Advise the interested and affected party to the manner in which the decision can be accessed;	Compliant	
	d) Be published in the newspaper contemplated in Regulation 54(2) (c) and which newspaper was used for the placing of advertisements as part of the public participation process.	Compliant	
<b>3 Management and monitoring of the activity</b>			
3.13.	The Environmental Management Programme (EMPr) dated 10th November 2014 and submitted as part of the Environmental Assessment Report is hereby approved and must be implemented and adhered to throughout the lifecycle of the activity.	Compliant	The EMPr for the Mineral Residue Deposit Expansion and Briquetting Plant (section 7.3 below) was audited and reviewed, it was clear from the audit that the EMPr was adhered to during this audit period.
3.14.	The applicant must appoint an independent Environmental Control Officer (ECO) that will have the responsibility of monitoring and reporting on compliance with the conditions of this environmental authorisation as well as monitoring and reporting on the implementation of the approved EMPr.	Not applicable	The construction the briquetting plant and the expansion is not yet constructed. It must be noted however, that ECOs (currently Willenchia Snyders and Maruschka Axsel) are appointed to oversee all the environmental aspects of Goedehoop Colliery.
3.14.1	The ECO must be appointed before the commencement of construction and the Department must be notified of such an appointment for communication purposes.	Not applicable	
3.14.2	The ECO must oversee and monitor the success of all rehabilitation activities.	Not applicable	
3.14.3	During the construction phase, the ECO must submit monthly compliance reports to the Department in writing and copy the applicant with such reports. Where applicable, the ECO may negotiate the required frequency for the submission of reports with the Department, which must be agreed to in writing by the Department. The reports must include a description of all activities on site, problems identified, transgressions noted and remedial action implemented. All reports must reflect the Department's reference number of the project on the cover page.	Not applicable	
3.14.4	The ECO must maintain the following on site: A site diary Copies of all reports submitted to the Department A complaints' register of all environmental complaints regarding the proposed project and the remedies applied to such complaints	Not applicable	
3.14.5	The ECO must remain employed until all rehabilitation measures as well as site clean-up are completed and the site is handed over to the applicant by the contractor for operation.	Not applicable	
3.15	The holder of the authorisation must submit an environmental audit report to the Department upon completion of the construction and rehabilitation activities. The environmental audit report must be compiled by an independent environmental auditor and must indicate the date of the audit, the name of the auditor and the outcome of the audit in terms of compliance with the conditions of this authorisation as well as the requirements of the EMPr.	Not applicable	

3.16	The Department retains the right to monitor and/ or inspect the proposed development during both construction and operational phases.	Noted	Goedehoop Colliery is aware of this condition and the requirements thereof are noted.
3. Commissioning and operation of the activity			
3.17	Fourteen (14) days written notice must be given to the Department that the activity will commence. Commencement for the purposes of this condition includes site preparation. The notice must include a date on which it is anticipated that the activity will commence.	Compliant	The operation notified the department of the commencement of the activities (re-mining) associated with the environmental authorisation. A proof of notification dated 17 March 2017 was provided during the audit. However, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
3.17	Construction personnel must be made aware of the sensitivity of the area and their movements must be limited to the construction areas only and must be enforced in terms of the contracts of appointment.	Not applicable	The mineral residue expansion and briquetting plant were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
3.18	The perimeter of the construction site must be defined and demarcation of material lay down areas must precede all activities on site.	Not applicable	The mineral residue expansion and briquetting plant were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
3.19	The clearing of vegetation must be minimised and phased to reduce the risk of significant runoff of sediments into watercourses. Where large areas of vegetation are cleared, strips of intact vegetation must be left to bind soils and reduce the risk of erosion dongas developing.	Not applicable	The mineral residue expansion and briquetting plant were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
3.20	Topsoil must be stockpiled at a height not exceeding 1.5m at a pre-designated location close to backfill area for use during rehabilitation and landscaping.	Not applicable	The mineral residue expansion and briquetting plant were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
3.21	Stringent measures must be applied to suppress dust emanating from the construction site.	Not applicable	The mineral residue expansion and briquetting plant were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
3.22 Storm water management must adhere to the following:			
3.22.4	No surface storm water generated as a result of the development may be channelled directly into a riparian zone. All surface runoff generated during both construction and operation phases must be managed prior to entering any natural drainage system, wetland or riparian zone so as not to impact on the natural hydrology and morphology of the watercourse.	Not applicable	The mineral residue expansion and briquetting plant were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
3.22.	Any point of overland discharge must be located at least 30m away from a watercourse, wetland, riparian zone or dam and overland discharge must occur over areas that have a minimum vegetation cover of 80%.	Not applicable	The mineral residue expansion and briquetting plant were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
3.22.6	All mechanisms for dissipating water energy must be implemented at the inception of the construction phase	Not applicable	

3.22.7	Flows leaving the site must be suitably attenuated, specifically for storm events with a return frequency of up to the 1:5-year return frequency. The instantaneous discharge volume and peaks may not exceed 20% of the pre-development conditions measured at the point where the current flows leave the property.	Not applicable	
3.22.8	The rate of storm water runoff must be reduced by using mechanisms such as the construction of earth berms, grassed swales and armourflex lined channels and the construction of energy breakers at storm water outlet structures.	Not applicable	
3.22.9	Sediment trapping facilities must be employed during the construction phase	Not applicable	
3.23.	Increased runoff due to vegetation clearance and/or soil compaction and/or any hardened surfaces must be managed.	Not applicable	The mineral residue expansion and briquetting plant were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
3.24	Soils that become compacted through the activities of the development must be loosened to an appropriate depth to allow seed germination.	Not applicable	The mineral residue expansion and briquetting plant were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
3.25	The storage and handling of fuel, lubricants and other chemicals must be in especially demarcated impervious and bunded areas.	Not applicable	The mineral residue expansion and briquetting plant were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
3.26	The mixing of cement, asphalt, chemicals or other noxious materials must be undertaken in designated areas on an impermeable layer such as a concrete slab or in a container suitable for this.	Not applicable	The mineral residue expansion and briquetting plant were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
3.27	Construction vehicles and equipment must be checked and maintained regularly to ensure that there is no environmental contamination as a result of oil, fuel or hydraulic fluid leakages.	Not applicable	The mineral residue expansion and briquetting plant were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
3.28	It is the responsibility of the holder of the authorisation to rectify any source of pollution from their undertaking and to take appropriate measures to prevent any pollution of surface as well as ground water.	Noted	Goedehoop Colliery is aware of this condition and the requirements thereof are noted.
3.29	All disturbed areas must be fully rehabilitated and protected from erosion. Rehabilitation measures must be aimed at the prevention of soil erosion and the re-establishment of indigenous vegetation.	Not applicable	The mineral residue expansion and briquetting plant were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
3.30	No construction material or any other waste material may be dumped into any watercourse or surrounding area.	Not applicable	The mineral residue expansion and briquetting plant were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
3.31	All general waste generated on the site must be disposed of at a registered landfill site or as directed by any other relevant authority.	Not applicable	The mineral residue expansion and briquetting plant were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.

3.32	Pollution due to improper storage of construction materials or any hazardous substances is strictly prohibited.	Not applicable	The mineral residue expansion and briquetting plant were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
3.33	All hazardous waste must be disposed of at an official registered site, or be removed by registered hazardous waste contractors.	Not applicable	The mineral residue expansion and briquetting plant were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
3.34	All hydrocarbons and hazardous chemicals storage must be stored and storage material must be banded as according to SANS specifications.	Not applicable	The mineral residue expansion and briquetting plant were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
3.25	All hydrocarbons and hazardous chemicals must be transported according to SANS specifications.	Not applicable	
3.36	An Air Quality Management system and monitoring programme must be in place during all phases of the development.	Not applicable	The mineral residue expansion and briquetting plant were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
3.37	Construction personnel must be sensitized to the requirements of the South African Heritage Resources Act. Should any material of cultural or archaeological significance be encountered during construction, all activities must cease immediately and the South African Heritage Resources Agency (SAHRA) must be informed accordingly.	Not applicable	The mineral residue expansion and briquetting plant were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
3.38	Complaints received from the public during the construction and operational phases of the activity must be attended to as soon as possible and addressed to the satisfaction of all concerned	Not applicable	The mineral residue expansion and briquetting plant were not constructed, the re-working of the South Co-disposal Facility is authorised under a separated EA and EMPr which are audited separately.
<b>3. General</b>			
3.39	A copy of this authorisation must be kept at the property where the activity will be undertaken. The authorisation must be produced to any authorised official of the Department who requests to see it and must be made available for inspection by any employee or agent of the holder of the authorisation who works or undertakes work at the property	Compliant	A copy of the environmental authorisation can be obtained from the Environmental coordinator at Goedehoop Colliery.
3.40	Non-compliance with a condition of this authorisation may result in criminal prosecution or other actions provided for in the National Environmental Management Act, 1998 and the regulations.	Noted	Goedehoop Colliery is aware of this condition and the requirements thereof are noted.
3.41	National government, provincial government, local authorities or committees appointed in terms of the conditions of this authorisation or any other public authority shall not be held responsible for any damages or losses suffered by the applicant or his successor in title in any instance where construction or operation subsequent to construction be temporarily or permanently stopped for reasons of non-compliance by the applicant with the conditions of authorisation as set out in this document or any other subsequent document emanating from these conditions of authorisation.	Noted	

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## 7 DELIBERATIONS

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### 8.1. ADEQUACY AND COMPLIANCE WITH THE EMPRS

#### 8.1.1. Adequacy and compliance with the Goedehoop Colliery Aligned EMPr (DMRE Reference number MP 30/5/1/2/122 MR).

- **Adequacy**
  - An assessment was conducted for the determination of the ability of the EMPr to adequately address the impacts that are arising from the Goedehoop Colliery South operations. The EMPr sufficiently provides for the avoidance, management and mitigation of environmental impacts associated with the mining activities.
- **Compliance**

**The following non-compliances were identified**

  - The expansion of the MRD has not yet commenced. Only operational activities (re-mining of the existing MRD) have commenced, with such activities utilising most of the existing infrastructure and during the site visit maintenance and pipelines scrap material was not dispose of in designated areas and was left next to Erikson dam 1 at Nasonti's site
  - The conveyor belt is decommissioned already, the roads constructed by Nasonti however, do not have a diversion berm which separates clean and dirty water that leads to the dirty water containment facility, in addition to this, the road is constructed over a trench thus blocking the flow of water.
  - Waste water management structures are not kept in good order.
  - Existing water management measures (i.e. pollution control dams) are within the 100-meter buffer zone and the wetland specialist recommended a 100 m buffer zone.:
  - Kevin's farm dam (no longer utilised) (Constructed March 2011).
  - It must be noted that the farm dam is an existing lawful water use and was constructed before the NEMWA; however, the farm dam will be included for C and I application for future use.
  - Kevin's farm dam was confirmed as the only dam that is not lined. However, part of the lining of the Return water dam is stolen so the dam is not fully lined as per the original design.
  - Wetlands are not yet rehabilitated; however, a rehabilitation plan and programme for the wetland is in place; moreover, the IWWMP and RSIP also make provisions for the rehabilitation of wetlands.
  - The wetland specialist recommended a 100-meter buffer between wetland areas and mining activities. Several conveyor crossings are situated within the buffer area specified. These crossings are listed above. The following discard stockpiles are situated within the 100-meter buffer of wetlands: South Co-disposal Facility It should be noted that the above-mentioned activities are existing activities and commenced prior to the delineation of wetland areas. Strategies are being implemented, mainly focused at storm water management and preventing activities within the wetland areas) to minimise the impact from the existing activities on the identified wetlands. A Wetland Rehabilitation Strategy and Management Plan was developed by the Biodiversity Company, dated August 2017.
  - Although the waste facilities such as wheely bins are kept in good order, waste water management structures are not kept in good order. The dam is silted and the trenches are blocked and roads are constructed over trenches on site.
  - The new haul road used by Nasonti is constructed using carbonaceous material.

- Seepages from the mineral residue deposits, Springbok 1 and 2 and Hope Dumps are still occurring but, the issue is being addressed with subsequent salination of soils (as evident from vegetation die back). This is an ongoing concern. However, a phytoremediation strategy is being implemented at Hope Dump and the process is still at its infancy state.
- Dumps were rehabilitated and area must be considered as clean, however storm water management infrastructure could not allow effective separation. Rehabilitation of Hope Dump and Springbok Dump 2 is completed. As a result, the areas associated with the dumps should be considered as clean water areas. Storm water management at the dumps does not allow for effective clean and affected water separation.
- Seepages are still there on springbok 1 and springbok 2, recommended remediation measures are still in the process of being implemented.
- Although the training presentation specifies the management of waste on site, several sites were not properly kept on site; that includes, the disposal of waste/scrap pipes next to the Erickson Dam 1 and general waste disposed next to the return water dam.
- Areas affected by day lighting of acidic water were observed at the Hope Dump and Springbok Dumps 1 & 2 and these areas are not fully rehabilitated yet. However, actions are undertaken to remedy the situation.
- Monitoring records show that there are impacts on Koringspruit and Goedehoopspruit. As observed, measures have been implemented for containment of seepage and runoff from the co-disposal facility (through implementation of cut-off trenches with final collection thereto contained within the South Plant Return Water Dam. However, seepage containment is not effective, thus clean and dirty water systems are not kept separate. Refer also to previous discussions with regards to maintenance of the South Plant Return Water Dam, trenches as well as seepage from the Springbok 1 & 2 and Hope dumps. In the springboklaagte area, clean water is not diverted around the seepage area thus contaminating the adjacent stream.
- Only the re-working of the MRD is being undertaken by Nasonti and during the site observation, there were no snares and traps. It must be noted that the environmental topics and induction provided for review, make no mention or instruction about hunting/poaching.
- All contaminated surface run-off from the infrastructure areas is diverted via a network of dirty water trenches and channels towards the containment dams for containment. However, systems to divert dirty seepage water from the rehabilitated dumps away from the nearby stream is not in place. It must be noted that an amendment report to include the remediation measures of the impact was approved and phase 1 of the project has already begun.
- Affected water runoff from the facility is collected in the trenches around the dump that reports to the return water dam. However, these structures were not properly maintained, as mentioned above, the trench on site was blocked and the dam is still silted.
- It was observed during the site visit that the south return water dam is silted and has vegetation growing inside it, which compromises the capacity of the dam, this means that the dam currently doesn't have the sufficient capacity to contain the run off from a 1:100 years 24-hour storm event.
- A part of the lining of the Return water dam is stolen so the dam is not fully lined as per the original design.
- Evidence was provided of investigations that have been undertaken to manage the seepage at the dump and an amendment report to include the remediation measures of

the impact was approved and phase 1 of the project has already begun. Phytoremediation strategy is being implemented at Hope Dump and the process is still at its infancy state.

#### **8.1.2. Adequacy and compliance with the Goedehoop Colliery (Goedehoop South) EMPR Amendments (Reference number MP 30/5/1/2/3/2/1 (122) EM).**

- **Adequacy**

- An assessment was conducted for the determination of the ability of the EMPr to adequately address the impacts that are arising from the Goedehoop Colliery South operations. The EMPr sufficiently provides for the avoidance, management and mitigation of environmental impacts associated with the mining activities.

- **Compliance**

**The following non-compliances were identified**

- Proof of noise monitoring was not provided for review. Therefore, it cannot be audited if noise levels are being monitored.
- The existing storm water management around the MRD are not used to divert run-off, in fact a new haul road has been constructed on top of a trench. In addition to this, there are no effective clean and dirty water separation means on site. The new haul road is constructed using carbonaceous material and dirty water from the new constructed haul roads is allowed to mix with water from the clean areas and is not efficiently diverted to the PCD since the trench is blocked.
- Although the training presentation specifies the management of waste on site, several sites were not properly kept on site; that includes, the disposal of waste/scrap pipes next to the Erickson Dam 1 and general waste disposed next to the return water dam.
- The existing trenches are blocked due to the construction of the haul road over the trench.
- It was observed during the site visit that the trenches are silted and blocked. Additionally, there are no records of trench blockages and proposed action plan (clean-ups) on the incident register.
- Wetlands were identified on the wetland study; however, no wetlands are demarcated on site.

#### **8.1.3. Adequacy of and compliance with the Goedehoop colliery's mineral residue deposit expansion, binderless briquetting plant and coal transfer facility.**

- **Adequacy**

- An assessment was conducted for the determination of the ability of the EMPr to adequately address the impacts that are arising from the Goedehoop Colliery South operations. The EMPr sufficiently provides for the avoidance, management and mitigation of environmental impacts associated with the mining activities.

- **Compliance**

- No non-compliances were identified during this audit period.

### **8.2. ADEQUACY AND COMPLIANCE WITH THE GOEDEHOOP COLLIERY'S ENVIRONMENTAL AUTHORISATION**

**8.2.1. Adequacy of and compliance with the Integrated Environmental Authorisation (“IEA”) issued in terms of the NEMA as amended, the EIA Regulations, 2014 and the National Environmental Management: Waste Act, 2008 (“NEMWA”) and Government Notice 921 of 2013 for proposed mining and associated infrastructure (Hope 4 Seam) (Reference Number (MP 30/5/1/2/3/2/1/ (122) EM).**

- **Adequacy**

- An assessment was conducted for the determination of the ability of the IEA to adequately address the impacts that are arising from the Goedehoop Colliery South operations. The IEA sufficiently provides for the avoidance, management and mitigation of environmental impacts associated with the mining activities.

- **Compliance**

- No non-compliances were identified during this audit period.

**8.2.2. Adequacy and compliance with the amendment of environmental authorisation for detailing the risk and significance related to wetlands, detailing updated strategies and investigations with regards to groundwater, aligning the EMPr reference number with that of the mine's mining right and inclusion of the proposed discard washing plant (reference number (MP 30/5/1/2/3/2/1/ (122) EM).**

- **Adequacy**

- An assessment was conducted for the determination of the ability of the IEA to adequately address the impacts that are arising from the Goedehoop Colliery South operations. The IEA sufficiently provides for the avoidance, management and mitigation of environmental impacts associated with the mining activities.

- **Compliance**

**The following non-compliances were identified**

- There are a few non-compliances identified during this audit period therefore the company doesn't fully adhere with the EMPr.
- The EMPr report has recommendations from the specialists and some of the recommendations were not adhered to, such as Monitoring and cleaning the existing dirty water storm water structures (trenches and silt traps) to avoid any blockages. Construction of haul roads with carbonaceous material.
- Proof of the 30 day-written notice of notification to the Department was not submitted for review.
- There were no signs observed at the seeping dumps warning the public about the hazards that may occur in those sites.
- It was observed during the site that there were no signages at the return water dam and seepages dumps areas.
- There were non-compliances pertaining to waste that identified during this audit period. Such as road constructed with carbonaceous material and general waste found on site proving that the NEMWA is not fully adhered to.
- Waste water management structures are not kept in good order. The dam is silted and the trenches are blocked and roads are constructed over trenches on site.

### **8.2.3. Adequacy of and compliance with the Environmental authorisation for the up-cast ventilation shaft (Reference number: 17/2/3N- 281).**

- **Adequacy**
  - An assessment was conducted for the determination of the ability of the EA to adequately address the impacts that are arising from the Goedehoop Colliery South operations. The EA adequacy sufficiently provides for the avoidance, management and mitigation of environmental impacts associated with the mining activities.
- **Compliance**
  - No non-compliances were identified during this audit period.

### **8.2.4. Adequacy of and compliance with the Environmental authorisation for mineral residue expansion and briquetting plant (Reference number 17/2/3N-238).**

- **Adequacy**
  - An assessment was conducted for the determination of the ability of the EA to adequately address the impacts that are arising from the Goedehoop Colliery South operations. The EA sufficiently provides for the avoidance, management and mitigation of environmental impacts associated with the mining activities.
- **Compliance**
  - No non-compliances were identified during this audit period.

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## **8 CONCLUSION**

This environmental audit report was compiled to comply with the relevant legislative requirements specifically the NEMA, with the main objectives to report on the compliance status of the commitments and conditions, as well as the appropriateness and adequacy of the various EMPr and EAs. This audit report will be submitted to the competent authority. Within 7 days of submission of this Audit Report to the competent authority (DMRE), Thungela Operations (Pty) Limited, Goedehoop Colliery, must notify all potential and registered I&APs of the submission, and make this report immediately available to anyone on request and on a publicly accessible website.

It is recommended that Goedehoop Colliery develop action plans to address non-compliances to the EMPr commitments, and EAs conditions, reported in this audit report and the actions be implemented to ensure compliance.

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## **9 DISCLAIMER**

This report has been produced by Geovicon Environmental (Pty) Limited, with the skill and care normally exercised by a reasonable Independent Environmental Consultant during the rendering of the service. The service provided by Geovicon Environmental (Pty) Limited should not be considered as a legal opinion of any kind but shall be a representation of the findings. The work performed was based on the Client's scope of work, time and resource allocations, as well as information provided by the

Client. Any reference to legislation in this report should not be considered as a substitute for the provisions of such legislation.

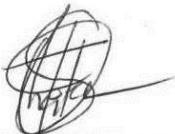
Geovicon Environmental (Pty) Limited ensures by all means, that information provided by management and/or representatives is correct and relevant, and that this report is based on information that could reasonably have been sourced within the time period allocated to the audit performed. It should not be assumed that all possible and applicable findings are included in this report as this report represents a sample of the audit. Therefore, should additional information become available, Geovicon Environmental (Pty) Limited reserves the right to amend its findings accordingly.

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## 10 DECLARATION

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Mr. Ornassis Tshepo Shakwane of Geovicon Environmental (Pty) Limited, hereby declares that he is an independent auditor and that Geovicon Environmental (Pty) Limited and himself have no business, financial, personal or other interest in this project in respect of which Geovicon Environmental (Pty) Limited is appointed. Furthermore, no circumstances exist that may compromise the objectivity of Geovicon Environmental (Pty) Limited, excluding fair remuneration for work performed in connection with this audit.

Signed:  \_\_\_\_\_

Date: 05 December 2022

O.T. Shakwane

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