mineral resources & energy

Department:
Mineral Resources and Energy
REPUBLIC OF SOUTH AFRICA

FINAL BASIC ASSESSMENT REPORT (BAR) AND ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT (EMPR) FOR VAALBANK COLLIERY, RUM COAL (PTY) LTD

SUBMITTED FOR ENVIRONMENTAL AUTHORISATIONS IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT IN RESPECT OF LISTED ACTIVITIES THAT HAVE BEEN TRIGGERED BY APPLICATIONS IN TERMS OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (MPRDA) (AS AMENDED)

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Final Basic Assessment Report and Environmental Management Programme Report for Vaalbank Colliery, Rum Coal (Pty) Ltd

Version – Final

24 November 2025

GCS Project Number:25-0327

Client Reference: KZN30/5/1/2/2/286MR / KZN30/5/1/1/2/11154PR

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Draft Basic Assessment Report and Environmental Management Programme Report for Vaalbank Colliery, Rum Coal (Pty) Ltd
Report
Version -Final

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Director	Daniel Kriel		24 November 2025

IMPORTANT NOTICE

In terms of the Mineral and Petroleum Resources Development Act (Act 28 of 2002 as amended), the Minister must grant a prospecting or mining right if among others the mining "will not result in unacceptable pollution, ecological degradation or damage to the environment".

Unless an Environmental Authorisation (EA) can be granted following the evaluation of an Environmental Impact Assessment and an Environmental Management Programme report in terms of the National Environmental Management Act (Act 107 of 1998) (NEMA), it cannot be concluded that the said activities will not result in unacceptable pollution, ecological degradation or damage to the environment.

In terms of section 16(3)(b) of the Environmental Impact Assessment (EIA) Regulations, 2014, any report submitted as part of an application must be prepared in a format that may be determined by the Competent Authority and in terms of section 17 (1) (c) the Competent Authority must check whether the application has taken into account any minimum requirements applicable or instructions or guidance provided by the Competent Authority to the submission of applications.

It is therefore an instruction that the prescribed reports required in respect of applications for an EA for listed activities triggered by an application for a right or a permit are submitted in the exact format of, and provide all the information required in terms of, this template. Furthermore, please be advised that failure to submit the information required in the format provided in this template will be regarded as a failure to meet the requirements of the Regulation and will lead to the EA being refused.

It is furthermore an instruction that the Environmental Assessment Practitioner must process and interpret his/her research and analysis and use the findings thereof to compile the information required herein. (Unprocessed supporting information may be attached as appendices). The Environmental Assessment Practitioner (EAP) must ensure that the information required is placed correctly in the relevant sections of the Report, in the order, and under the provided headings as set out below, and ensure that the report is not cluttered with un-interpreted information and that it unambiguously represents the interpretation of the applicant.

Objective of the Basic Assessment Process

The objective of the Basic Assessment process is to, through a consultative process—

(a) determine the policy and legislative context within which the proposed activity is located and how the activity complies with and responds to the policy and legislative context;

(b) identify the alternatives considered, including the activity, location, and technology alternatives;

(c) describe the need and desirability of the proposed alternatives;

(d) the undertaking of an impact and risk assessment process inclusive of cumulative impacts which focused on determining the geographical, physical, biological, social, economic, heritage, and cultural sensitivity of the sites and locations within sites and the risk of impact of the proposed activity and technology alternatives on these aspects to determine:

(i) the nature, significance, consequence, extent, duration, and probability of the impacts occurring to; and

(ii) the degree to which these impacts:

aa) can be reversed;

bb) may cause irreplaceable loss of resources; and

(cc)can be managed, avoided or mitigated;

(e) through a ranking of the site sensitivities and possible impacts the activity and technology alternatives will impose on the sites and location identified through the life of the activity to—

(i) identify and motivate a preferred site, activity and technology alternative;

(ii) identify suitable measures to manage, avoid or mitigate identified impacts; and

(iii) identify residual risks that need to be managed and monitored.

EXECUTIVE SUMMARY

Project Background

Rum Coal (Pty) Ltd (Rum Coal) is the holder of the Vaalbank Colliery, situated within the AbaQulusi Local Municipality in the Vryheid Magisterial District of KwaZulu-Natal Province of KwaZulu-Natal Province, approximately 25 km east of the town of Vryheid. The company currently holds a Mining Right (MR) (KZN30/5/1/2/2/286 MR) and a Prospecting Right (PR) (KZN30/5/1/1/2/11154 PR). The MR applies to a portion of the Remainder of Portion 1 of the Farm Vaalbank 38 HU (now Portion 25 (of 1) of the Farm Vaalbank No. 38 HU) and a portion of Portion 5 of the Farm Hlobane 506 HT. The PR is held over the Remainder of Portion 6 (of Portion 2) of the Farm Rietvlei 150 HU.

To support the continuation of mining operations, Rum Coal has applied for a Section 102 amendment in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA). The application seeks to incorporate the 36.64-hectare (ha) prospecting area on Rietvlei 150 HU into the existing MR.

The proposed amendment will expand the colliery's operational footprint while maintaining the approved production rate. This extension will also increase the mine's operational life from approximately five years to ten years, ensuring the sustained supply of coal to the trading company with whom Rum Coal has an offtake agreement. Coal will continue to be transported either by haul trucks over a distance of approximately 6 kilometres (km) to the Hlobane railway siding or directly via road.

In terms of the Environmental Impact Assessment (EIA) Regulations, 2014, promulgated under the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), the proposed amendment triggers Activity 21(d) of Listing Notice 1 (Government Notice Regulation (GN R) 983), which relates to any activity (including the continued operation thereof) requiring an amendment or variation of a right or permit in terms of Section 102 of the MPRDA. As such, a Basic Assessment (BA) process must be undertaken in accordance with the procedural requirements set out in GN R 982.

GCS Environment SA (Pty) Ltd (GCS) has been appointed as the independent Environmental Assessment Practitioner (EAP) to manage the BA process.

Purpose and Need for the Project

The proposed amendment is motivated by economic, social, and environmental considerations. Economically, the colliery sustains more than 120 permanent jobs and provides procurement opportunities for local suppliers and contractors. Socially, the mine supports livelihoods in surrounding communities and funds local economic development (LED)

projects. Environmentally, the amendment does not introduce new mining methods or infrastructure but extends operations within an already authorised and disturbed area. Nationally, the project secures a consistent supply of high-quality coal required by the ferroalloy and metallurgical sectors.

Project Description

Mining will continue using a combination of underground bord-and-pillar methods and small-scale opencast truck-and-shovel operations. Coal seams of interest include the Alfred, Gus, and Dundas Seams, with the Dundas Seam forming the primary mining target. Run-of-mine coal will be transported either to the Hlobane railway siding or directly via road to markets.

Existing surface infrastructure includes offices, access roads, stockpiles, ventilation fans, stormwater control systems, sewage management, and a diesel generator supplemented by solar PV with battery storage. Waste streams include general, hazardous, inert mine-related, and sewage waste, which will be managed through established facilities and licensed disposal routes.

Water use is limited to municipal supply for domestic use and borehole or mine workings for industrial water. Stormwater management is based on clean and dirty water separation, with continued use of the Exxaro Water Use Licence for drainage discharge. Power is supplied by diesel generators and solar PV, with a future Eskom connection under consideration.

Baseline Environmental Conditions

The table below summarises the key baseline conditions for each environmental aspect considered. This provides the context for identifying potential risks, designing appropriate mitigation measures, and ensuring compliance with applicable environmental legislation.

Aspect	Baseline Description
Geology and Landform	The site lies within the northern KwaZulu-Natal coalfields, underlain by the Ecca Group of the Karoo Supergroup. Dolerite sills and dykes intrude the coal seams, affecting seam quality, geometry, and stability. Historical mining has altered natural landforms, leaving boxcuts, discard dumps, and voids that increase erosion potential and disrupt drainage.
Soils and Land Capability	Soils are shallow, sandy, and low in natural fertility, making them vulnerable to erosion, compaction, and contamination. Topsoil is limited in quantity but essential for rehabilitation and must be carefully stripped and stockpiled. Post-mining land capability is best suited to grazing or forestry rather than intensive cultivation.
Surface Water	The project falls within the Nkongolwana and Sithebe River catchments of the Pongola–Mzimkhulu Water Management Area. Streams are shallow and seasonal, with declining baseflows linked to mining and forestry activities. Risks include sedimentation, dirty water runoff, and acid mine drainage (AMD). Effective clean/dirty water separation and containment facilities are critical.
Groundwater	Groundwater occurs in fractured dolerite and sandstone aquifers. Shallow levels exist near historical workings where decant is observed. Aquifers are moderately vulnerable to contamination from seepage, blasting residues, and hydrocarbons. Mine voids act as conduits for groundwater movement, necessitating continuous monitoring.

Aspect	Baseline Description
Air Quality	Background air quality is typical of rural areas but influenced by historic mining and agriculture. Dust (PM_{10}) is the primary concern, particularly during blasting, hauling, and stockpiling. Gaseous emissions from diesel-powered equipment contribute to localised impacts. Sensitive receptors include nearby homes, schools, and farms.
Noise Environment	Baseline noise levels are low, reflecting the rural setting. Occasional disturbances occur from mining, forestry, and road traffic. Sensitive receptors include households and farm dwellings, where blasting and heavy vehicles are most noticeable.
Biodiversity	The area lies within the Savanna and Grassland Biomes. Much of the vegetation has been disturbed by agriculture, forestry, and mining, though some grassland and riparian areas remain. Fauna includes small mammals, reptiles, amphibians, and birds. Invasive alien species, especially *Acacia mearnsii* (black wattle), are widespread. Sensitive habitats include riparian corridors and wetlands.
Heritage and Archaeology	No formally protected heritage sites were identified in the footprint during screening. However, chance finds of graves, artefacts, or archaeological features remain possible. The area falls under the South African Heritage Resources Agency/ AMAFA aKwaZulu-Natali Heritage Council jurisdiction, and a chance find protocol will be implemented.
Visual Landscape	The visual setting is characterised by agriculture, forestry, rural settlements, and historic mining. Existing spoil dumps and infrastructure are prominent. Key receptors include local residents and road users. The natural landscape quality is already degraded, but rehabilitation presents opportunities for progressive visual improvement.
Socio-Economic Environment	The AbaQulusi Local Municipality is marked by high unemployment and limited alternative livelihoods. Communities rely on mining, agriculture, and forestry. Housing shortages and limited access to services are evident. The colliery contributes significantly to household incomes, municipal revenue, and local business procurement, making it a vital socio-economic driver.

Key Environmental and Social Impacts

Construction Phase

During the construction phase, the most significant impacts will stem from site preparation and infrastructure development. Geological disturbance will occur through the creation of boxcuts, access roads, and platforms, permanently altering local landforms and drainage patterns. Shallow, sandy soils will be stripped and stockpiled, exposing them to erosion, compaction, and contamination. Vegetation clearance will result in the loss of indigenous plant cover and habitats, displacing fauna and creating opportunities for invasive alien species such as *Acacia mearnsii* (black wattle)to spread. Surface water systems face risks of sedimentation and contamination from dirty water runoff, hydrocarbons, and accidental spills, while groundwater remains vulnerable to localised seepage.

Air quality will be temporarily affected by dust generated during earthworks, haulage, and stockpiling, and noise will increase due to machinery and blasting activities. The visual landscape will also be altered as cleared areas, construction traffic, and early infrastructure become visible to receptors such as local residents and road users. Despite these environmental pressures, the construction phase offers meaningful socio-economic benefits, including the creation of approximately 150 temporary jobs, procurement opportunities for local suppliers, and the provision of skills training for community members in an area of high

unemployment.

Operational Phase

The operational phase introduces sustained and cumulative environmental pressures. Mining will permanently deplete coal resources, and opencast operations will reshape natural topography, increasing erosion risks and altering surface water dynamics. Underground bord-and-pillar mining, while designed with a high safety factor, carries a residual risk of subsidence. Soil fertility will decline further due to compaction, disturbance, and contamination, though concurrent rehabilitation and careful topsoil management can restore land capability, particularly for grazing and forestry.

Biodiversity impacts will persist as vegetation clearance and faunal disturbance continue throughout the life of mine, with habitat fragmentation and alien plant encroachment representing significant risks. Water resources are among the most vulnerable receptors: surface water could be affected by sedimentation, acid mine drainage (AMD), and dirty water runoff, while groundwater is at risk from seepage, blasting residues, and spills. Air quality impacts will intensify through dust emissions from blasting, hauling, and stockpiles, as well as gaseous emissions from diesel-powered equipment. Noise and vibration from blasting and machinery will elevate ambient levels, while overburden dumps, stockpiles, and infrastructure will create permanent changes to the visual character of the area.

In contrast, the operational phase delivers the most significant socio-economic benefits. Long term employment will be sustained for approximately 120 workers, with additional opportunities through local procurement and contracting. The colliery will generate royalties and municipal revenue while funding LED projects that improve community infrastructure and services. Skills training, bursaries, and human resource development programmes will strengthen the local skills base, building long term social capital. These benefits must, however, be balanced against community concerns relating to nuisance impacts, safety, and competition for natural resources, particularly water. Transparent stakeholder engagement and grievance mechanisms will therefore remain critical.

Decommissioning and Closure Phase

The closure phase presents a different set of environmental and socio-economic challenges. From an environmental perspective, residual voids, sealed adits, and mine infrastructure can pose long term risks if not managed correctly. Soils remain at risk of erosion or infertility if rehabilitation is incomplete, and vegetation loss persists until restoration efforts take hold. Water quality concerns, particularly related to decant, seepage, and AMD, continue beyond active mining. Air quality and noise impacts will be limited to short term demolition activities, while visual scars from dumps and infrastructure will remain until rehabilitation achieves full groundcover and integration with the surrounding landscape.

Socio-economically, the most significant challenge is workforce downscaling and the associated retrenchment of employees, which can negatively impact local livelihoods and cause economic contraction. To mitigate these risks, the mine has committed to staged demobilisation, portable skills training, supplier diversification, and the implementation of a comprehensive social closure plan. Community asset handovers and support for small, medium, and micro enterprises are also included to create alternative livelihoods. If successfully implemented, these measures will ensure that socio-economic benefits continue after mine closure, while rehabilitation improves ecological function, landscape quality, and land capability for post-mining uses such as grazing and forestry.

Mitigation and Management Measures

Mitigation and management measures have been designed to address the identified environmental and socio-economic risks of the Vaalbank Colliery and to ensure compliance with the National Environmental Management Act, 1998 (Act No. 107 of 1998), the MPRDA, the National Water Act, 1998 (Act No. 36 of 1998), and associated regulations. These measures are embedded in the Environmental Management Programme (EMPr) and will be implemented throughout the life cycle of the project.

- Geology and Landform
    - Seal underground adits and portals with engineered plugs to prevent access and reduce residual hazard risks.
    - Backfill voids using non-acid generating material, and contour overburden dumps to blend with natural topography.
    - Apply erosion control structures such as berms, silt fences, and contour drains to stabilise reshaped slopes.
- Soils and Land Capability
    - Strip and stockpile topsoil separately, maintaining stockpile heights below 2 m to preserve fertility.
    - Implement concurrent rehabilitation by respreading topsoil and establishing vegetation as soon as areas become available.
    - Undertake soil monitoring and rehabilitation trials to ensure target land capability (grazing/forestry) is achievable post-mining.
- Surface Water
    - Maintain strict clean and dirty water separation across the site through diversion berms, silt traps, and containment dams.
    - Capture and treat dirty water before controlled release to natural streams.

- Regularly monitor surface water quality upstream and downstream of the site to detect and respond to contamination early.

- Groundwater
  - Establish a groundwater monitoring network to track water levels, quality, and trends in nearby boreholes.
  - Line or contain areas where hydrocarbon storage, processing, or hazardous waste handling occurs to prevent seepage.
  - Implement triggers for early response, including pumping, treatment, or containment, if contamination is detected.
- Air Quality
  - Apply dust suppression techniques including water spraying on haul roads, covering of stockpiles, and progressive rehabilitation.
  - Maintain vehicles and machinery to minimise exhaust emissions.
  - Monitor dust fallout at sensitive receptor points such as homes, schools, and farms.
- Noise and Vibration
  - Schedule blasting to avoid sensitive times of day and notify communities in advance.
  - Maintain silencers and mufflers on equipment to reduce mechanical noise.
  - Establish noise monitoring points at key receptors and adjust operations if thresholds are exceeded.
- Biodiversity
  - Demarcate and protect riparian zones and patches of intact vegetation as no-go areas.
  - Undertake alien invasive plant management programmes, focusing on *Acacia mearnsii* (black wattle) and other priority species.
  - Use indigenous grasses, shrubs, and trees for rehabilitation to re-establish habitat and ecological functioning.
  - Implement faunal relocation protocols where sensitive species are encountered.

- Waste Management
    - Classify all waste streams.
    - Recycle general waste wherever possible and dispose of residual waste at licensed facilities.
    - Collect, store, and dispose of hazardous waste (e.g., oils, solvents) in line with South African National Standard (SANS) standards and legislation.
    - Manage sewage via septic systems or municipal collection, ensuring no untreated discharge.
- Visual Impacts
    - Round the crests of dumps and break up uniform slopes to create more natural landforms.
    - Establish indigenous vegetation cover to screen infrastructure from key viewpoints.
    - Prioritise visual screening along public roads and settlement viewpoints.
- Socio-Economic Measures
    - Prioritise local employment and procurement, with explicit targets for historically disadvantaged South Africans and women.
    - Implement skills development programmes, including adult education and training, learnerships, and bursaries.
    - Stage demobilisation and retrenchment during closure to avoid sudden economic shocks.
    - Support Small Medium, and Micro Enterprises (SMME) development through procurement diversification, mentoring, and access to finance.
    - Maintain grievance mechanisms and regular community engagement, publishing monitoring results and response actions.
- Heritage Resources
    - Train workers in chance find procedures for archaeological materials and graves.
    - Halt work immediately if artefacts are discovered, and notify South African Heritage Resources Agency/ AMAFA aKwaZulu-Natali Heritage Council for investigation.

- Closure and Rehabilitation
    - Establish progressive rehabilitation targets for each operational year, ensuring land is returned to stable, self-sustaining conditions.
    - Develop closure objectives in consultation with stakeholders, aligning with Exxaro and national closure standards.
    - Maintain adequate financial provision to cover all rehabilitation and closure liabilities.
    - Monitor rehabilitation success post closure, including vegetation cover, erosion stability, and water quality.

Public Participation

Public participation has been conducted in accordance with Regulations 41–44 of the EIA Regulations, 2014. The Draft Basic Assessment Report (BAR) and EMPr was made available for a 30-day review period from 20 October to 22 November 2025. Copies of the reports were accessible at the Vryheid Public Library and on the GCS website. Notices were placed in the Northern Natal News and on site, and registered stakeholders have been notified directly. Comments and response are provided in Table 11-4.

Conclusion and Recommendation

The proposed amendment is administrative in nature and does not involve new mining methods or infrastructure. The environmental risks, particularly relating to water resources, biodiversity, and socio-economic transition at closure, are recognised but are considered manageable through the mitigation measures outlined in the EMPr.

The project offers significant socio-economic benefits through employment, procurement, skills development, and royalties. In a region with limited economic opportunities, these benefits are substantial. With compliance to legislation, robust environmental management, and transparent stakeholder engagement, the project is considered environmentally acceptable and socio-economically desirable.

Accordingly, it is recommended that the amendment to incorporate the PR into the MR be authorised, subject to the conditions and mitigation measures outlined in the BAR and EMPr.

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LIST OF ABBREVIATIONS

Abbreviation	Description
AMD	Acid mine drainage
BA	Basic Assessment
BAR	Basic Assessment Report
BID	Background Information Document
CA	Competent Authority
DMPR	Department of Mineral and Petroleum Resources
DWS	Department of Water and Sanitation
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
EAPASA	Environmental Assessment Practitioners Association of South Africa
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme Report
E&S	Environmental and Social
FOS	Factor of Safety
GCS	GCS Environment SA (Pty) Ltd
GHS	Globally Harmonised System
GN R	Government Notice Regulation
I&APs	Interested and Affected Parties
IAP	Invasive Alien Plant
ICP	Inductively Coupled Plasma
IEM	Integrated Environmental Management
LED	Local Economic Development
KPI	Key Performance Indicators
LoM	Life of Mine
MR	Mining Right
MPRDA	Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002)
MS	Mass Spectrometry
NBSAP	National Biodiversity Strategy and Action Plan
NDP	National Development Plan
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998)
NEM:BA	National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)
NGO	Non-Governmental Organisation
PM	Particulate matter
PR	Prospecting Right
ROM	Run-of-Mine
Rum Coal	Rum Coal (Pty) Ltd
SACNASP	South African Council for Natural Scientific Professions
SANS	South African National Standard
SASS	South African Scoring System
SAHRA	South African Heritage Resources Agency
SLP	Social and Labour Plan
SMME	Small Medium, and Micro Enterprises

UNITS OF MEASUREMENT

Unit	Description
ha	Hectare
km	Kilometre
km^2	Square kilometre
m	Metre
m^2	Square metre
m^3	Cubic metre
mamsl	Metres above sea level
mbgl	Metres below ground level

Unit	Description
t	Metric tonne
tpa	Tonnes per annum
Ml	Megalitres
MVA	Megavolt-Ampere
MW	Megawatt
%	Percent
R	South African Rand

CHEMICAL ELEMENTS

Symbol	Element
S	Sulphur
P	Phosphorus
C	Carbon
H	Hydrogen
O	Oxygen
N	Nitrogen
Fe	Iron
Ca	Calcium
Mg	Magnesium
Na	Sodium
K	Potassium
Cl	Chlorine
Si	Silicon

PART A

SCOPE OF ASSESSMENT AND BASIC ASSESSMENT REPORT

1 INTRODUCTION

Rum Coal (Pty) Ltd (Rum Coal) is the holder of the Vaalbank Colliery, situated within the AbaQulusi Local Municipality in the Vryheid Magisterial District of KwaZulu-Natal Province of KwaZulu-Natal Province, approximately 25 km east of the town of Vryheid (Figure 3-1). The company currently holds a Mining Right (MR) (KZN30/5/1/2/2/286 MR) and a Prospecting Right (PR) (KZN30/5/1/1/2/11154 PR). The MR applies to a portion of the Remainder of Portion 1 of the Farm Vaalbank 38 HU (now Portion 25 (of 1) of the Farm Vaalbank No. 38 HU) and a portion of Portion 5 of the Farm Hlobane 506 HT. The PR is held over the Remainder of Portion 6 (of Portion 2) of the Farm Rietvlei 150 HU.

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GCS Environment SA (Pty) Ltd (GCS) has been appointed as the independent Environmental Assessment Practitioner (EAP) to manage the BA process. The assessment will be conducted in line with the applicable legislative framework to ensure compliance with NEMA and its regulations, and to provide the Competent Authority with the necessary information to make an informed decision on the proposed amendment.

2 CONTACT PERSON AND CORRESPONDENCE ADDRESS

2.1 Details of the Applicant

The contact details of the applicant are provided in Table 2-1.

Table 2-1: Applicant Details

Name of Applicant:	Rum Coal (Pty) Ltd
Contact Person:	Richard Collins
Tel Number:	+27 83 609 1529
Postal Address:	P O Box 924993, Mooikloof, 0059
Physical Address:	21 Radcliffe Heights, Corner of Radcliffe and Korhaan Streets, Sterrewag, 0181
File Reference Number SAMRAD:	KZN30/5/1/2/2/286 MR

2.2 Details of the Environmental Assessment Practitioner

The contact details of the EAP are provided in Table 2-2 below.

Table 2-2: Contact Details of the Environmental Assessment Practitioner

Name of Environmental Assessment Practitioner:	Paula Jane Tolksdorff
Professional Affiliation / Registration:	Professional affiliation/registration: Environmental Assessment Practitioners Association of South Africa (2019/509) South African Council for Natural Scientific Professions (152904) International Association for Impact Assessment South Africa (1745) International Association Public Participation (IAP2SA014)
Company Name:	GCS Environment SA (Pty) Ltd
Physical Address:	63 Wessels Road, Rivonia, 2128
Postal Address:	P.O. Box 2597 Rivonia 2128
Telephone No.:	+27 (0)11 803 5726
Facsimile No.:	+27 (0)11 803 5745
E-mail Address:	paulat@gcs-sa.biz

2.3 Expertise of the Environmental Assessment Practitioner

This section provides the qualifications and experience of the EAP. The EAP's Curriculum Vitae and qualifications are attached in Appendix A.

2.3.1 The Qualifications of the Environmental Assessment Practitioner

Paula Tolksdorff holds the following qualifications:

- National Diploma: Civil Engineering, University of the Witwatersrand, 1993.
- National Higher Diploma: Civil Engineering, University of the Witwatersrand, 1994.
- Baccalaureus Technologiae, Engineering Civil, Urban and Rural Development, University of the Witwatersrand, 1997.
- MSc. Environmental Management, University of North-West (two years course work complete 2011/2012).

2.3.2 Summary of the Environmental Assessment Practitioner's Past Experience

Paula brings over 30 years of specialised experience in the environmental sector, working across various industries, including global industrial and mining clients, as well as commercial developments. Her career has taken her through significant projects across Africa, where she has gained a deep understanding of how environmental and social licences to operate impact both operations and project outcomes.

With a strong foundation in sustainability, Paula applies her expertise to integrate and maintain effective, sustainable practices across a wide range of operational contexts. As an Environmental Assessment Practitioner and Professional Natural Scientist, her skills are both robust and multifaceted. She excels in conducting environmental and social (E&S) impact assessments and in developing comprehensive E&S management programmes tailored to the specific needs of each project. Her work includes crafting and implementing E&S management systems for both construction and operational phases, ensuring they adhere to international standards, as well as local regulatory requirements.

Paula is also highly experienced in stakeholder engagement, ensuring clear communication and collaboration across all parties involved in a project. Her capabilities extend to due diligence and compliance auditing, where she provides critical oversight to ensure regulatory compliance and operational integrity. Additionally, she has extensive experience managing water and waste resources, promoting responsible and sustainable practices.

Through her well-honed project management skills, Paula effectively leads complex projects, consistently ensuring that sustainability goals are met. Her career and diverse background demonstrate a deep commitment to advancing environmental stewardship and sustainable development across challenging and diverse environments.to advancing environmental stewardship and sustainable development across challenging and diverse environments.

Professional Affiliations:

- Environmental Assessment Practitioners Association of South Africa (EAPASA) (2019/509).
- South African Council for Natural Scientific Professions (SACNASP) (152904).
- International Association for Impact Assessment South Africa (1745).
- International Association Public Participation (IAP2SA014).

2.4 Details of the Specialist

The contact details of the specialist are provided in Table 2-3.

Table 2-3: Specialist Details

Name of Specialist:	Gerrie Muller
Name of the Study:	Social and Labour Plan
Company Name:	Strategy4Good
Physical Address:	19 Barkly Road Parktown Johannesburg
Telephone No.:	+27 (0)82 619 2205
E-mail Address:	sgmuller@s4g.co.za

3 LOCATION OF THE OVERALL ACTIVITY

The existing MR (KZN30/5/1/2/2/286 MR) and PR (KZN30/5/1/1/2/11154 PR) are situated in the KwaZulu-Natal Province, in the AbaQulusi Local Municipality in the Vryheid Magisterial District (Figure 3-1). The project area is located approximately 25 km east of the town of Vryheid.

3.1 Location and Farm Portions

Table 3-1 details the location of the overall activity, including the details of the farm portions included in the application as illustrated in Figure 3-2.

Table 3-1: Project Locality Details

<table>
<tr><td>Farm name</td><td>• Portion of the Remainder of Portion 1 of Vaalbank 38 HU (now known as Portion 25 (of 1) of the Farm Vaalbank No. 38 H.U)
• Portion of Portion 5 of Farm Hlobane 506 HT
• Remainder of Portion 6 (of Portion 2) of Farm Rietvlei 150 HU</td></tr>
<tr><td>Application area (ha)</td><td>Mining Right Reference No. and Extent of Mining Area:
• KZN30/5/1/2/2/286 MR
• 231.491 ha

Prospecting Right Reference, No and Extent of Prospecting Area
• KZN30/5/1/1/2/11154 PR
• Approximately 36.64 ha

The total application area encompasses the existing Mining Right and Prospecting Right areas, covering approximately 268.131 ha.</td></tr>
<tr><td>Magisterial district</td><td>AbaQulusi Local Municipality in the Vryheid Magisterial District of KwaZulu-Natal Province</td></tr>
<tr><td>Distance and direction from nearest town</td><td>Approximately 25 km east of the town of Vryheid in KwaZulu-Natal.</td></tr>
<tr><td>21. digit Surveyor General Code for each farm portion</td><td>
<table>
<tr><th>Farm</th><th>Surveyor General Code</th></tr>
<tr><td>Portion of the Remainder of Portion 1 of Vaalbank 38 HU (now known as Portion 25 (of 1) of the Farm Vaalbank No. 38 H.U)</td><td>N0HU00000000003800025</td></tr>
<tr><td>Portion of Portion 5 of Farm Hlobane 506 HT</td><td>N0HT00000000050600005</td></tr>
<tr><td>Remainder of Portion 6 (of Portion 2) of Farm Rietvlei 150 HU</td><td>N0HU00000000015000006</td></tr>
</table>
</td></tr>
</table>

3.2 Locality Map

The mine is located 25 km south of the town of Virginia in the AbaQulusi Local Municipality in the KwaZulu-Natal Province as shown in Figure 3-1.

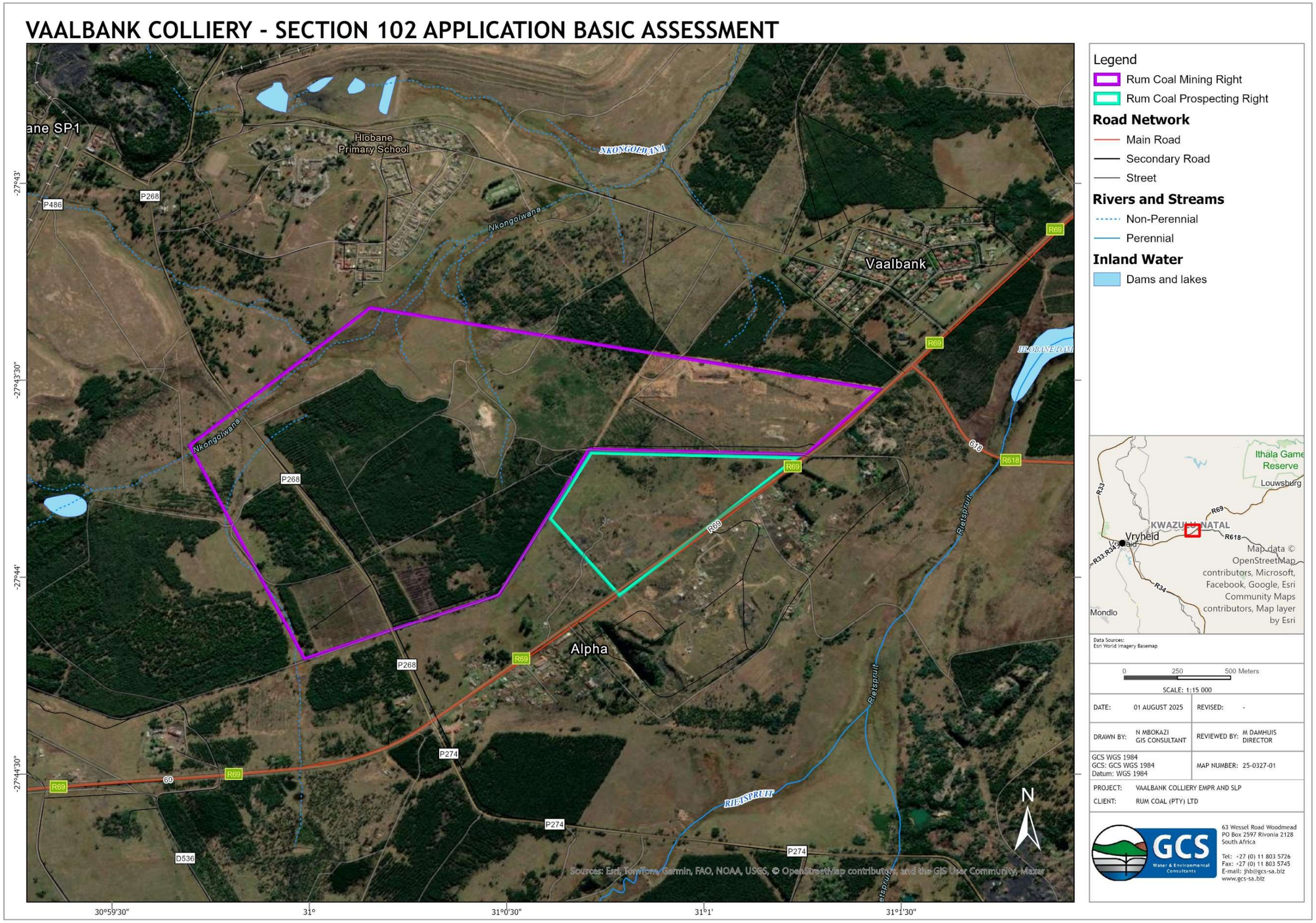

Figure 3-1:Locality Map noting Vaalbank Collery Mining Right and Prospecting Right

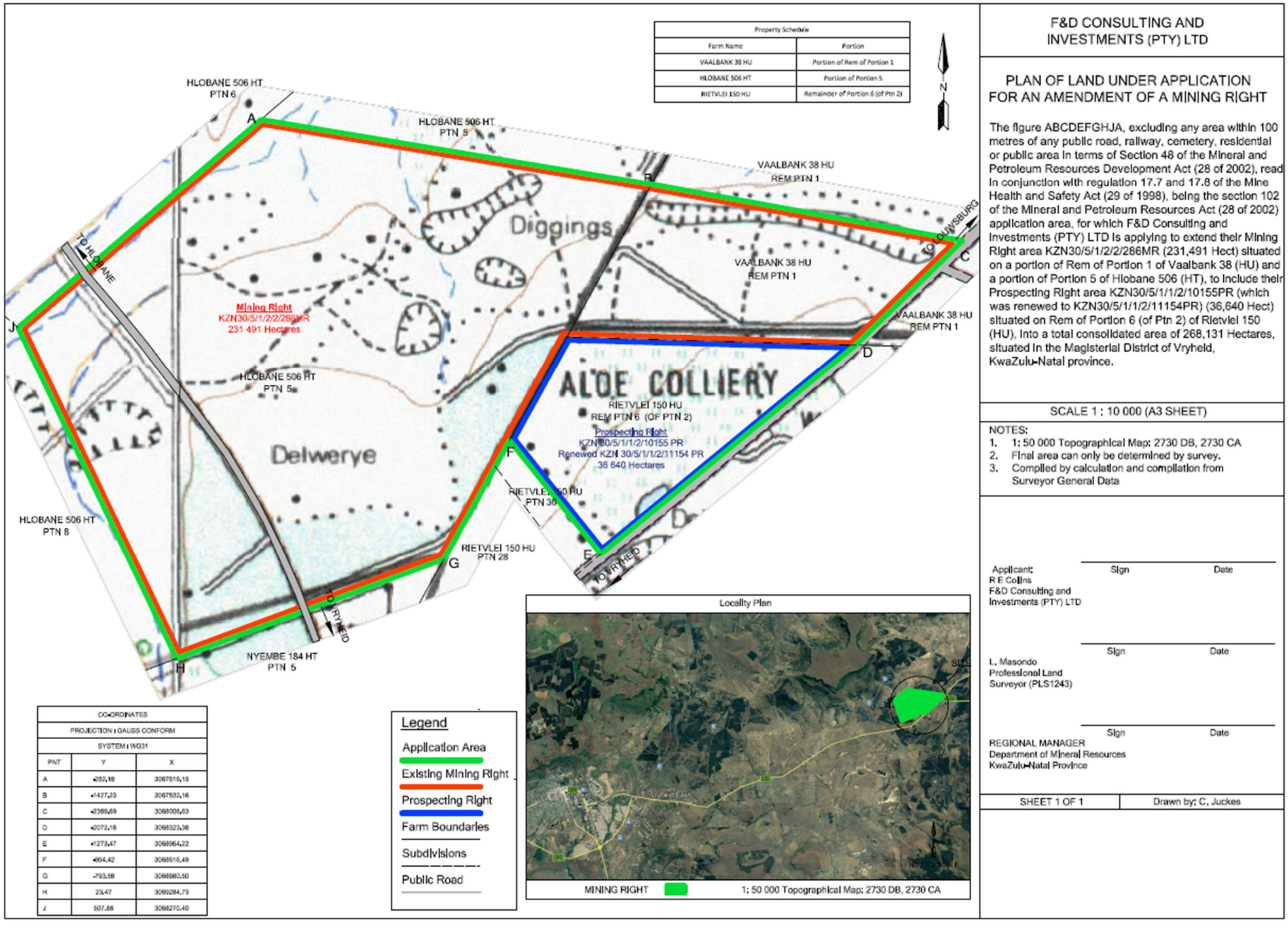

Figure 3-2: Farm portions associated with Vaalbank Collery

4 DESCRIPTION OF THE SCOPE OF THE PROPOSED OVERALL ACTIVITY

4.1 Existing Authorisations

Rum Coal holds the following authorisations for its operations in the AbaQulusi Local Municipality:

4.1.1 Mining Right

Rum Coal is the holder of Mining Right KZN30/5/1/2/2/286 MR, which applies to a portion of Subdivision of the Farm Hlobane No. 506 HT and a portion of the Remainder of Portion 1 of the Farm Vaalbank No. 38 HU. The associated Environmental Management Programme (EMPr) was approved in terms of Section 39 of the MPRDA on 6 September 2018.

4.1.2 Prospecting Right

Rum Coal also holds Prospecting Right KZN30/5/1/1/2/11154 PR, granted over the Remainder of Portion 6 (of Portion 2) of the Farm Rietvlei No. 150 HU, in terms of Regulation 52 of the MPRDA approved on 28 May 2013.

4.2 Required Authorisations

In terms of the NEMA, read together with the EIA Regulations, 2014, an EA is required for the following listed activity:

- GN R 983 (Listing Notice 1), Activity 21D: Any activity including the operation of that activity which requires an amendment or variation to a right or permit in terms of section 102 of the Mineral and Petroleum Resources Development Act, as well as any other applicable activity contained in this Listing Notice or in Listing Notice 3 of 2014, required for such amendment.

As such, a BA process must be undertaken in accordance with the procedures set out in the EIA Regulations, 2014.

4.3 Listed and Specified Activities

Table 4-1 below provides details of the listed activity that forms the basis of this application for authorisation.

Table 4-1: Listed Activity to be Authorised under the National Environmental Management Act, 1998

Name of Activity	Aerial Extent of Activity (hectares (ha) or square metres (m^2))	Listed Activity	Applicable Listing Notice	Listed Activity Description as per Regulations / Notice
Listed Activities in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) Environmental Impact Assessment (EIA) published in Government Notice Regulations (GN R) 982 of 4 December 2014, as amended				
An amendment is required to the Mining Right KZN30/5/1/2/2/286 MR	268.131 ha.	Activity 21 D	Listing Notice 1 (GN R 983)	Any activity including the operation of that activity which requires an amendment or variation to a right or permit in terms of section 102 of the Mineral and Petroleum Resources Development Act, as well as any other applicable activity contained in this Listing Notice or in Listing Notice 3 of 2014, required for such amendment.

5 DESCRIPTION OF THE ACTIVITIES TO BE UNDERTAKEN

5.1 Purpose of Project

The primary purpose of the project is to extend the life of mine (LoM) and the associated MR, thereby enabling the continuation and expansion of coal production at Vaalbank Colliery. Extending the LoM will allow Rum Coal to sustain and optimise existing operations, secure the mine's long term viability, and strengthen its contribution to the regional and national economy.

From an economic perspective, the project will support the company's profitability, ensuring its ability to remain competitive in both local and international markets. Increased production levels are expected to enhance revenue streams, generate higher tax contributions to the national fiscus, and deliver royalties to government. These benefits align with national objectives for economic stability and growth.

From a community development perspective, the extended mining period will create opportunities for local employment, skills development, and supplier engagement. The project will sustain and potentially expand business for local service providers, transport operators, and contractors, thereby fostering socio-economic upliftment in the AbaQulusi Municipal area and surrounding communities.

From a national energy security perspective, the project will contribute to a more reliable supply of coal for industrial use. This ensures continuity of supply to domestic markets while also supporting South Africa's export potential through coal trading houses. By providing a consistent, high-quality energy and reductant source, the project strengthens the country's industrial base.

From an operational perspective, scaling up and extending the LoM will allow the company to improve mining and processing efficiencies, optimise resource recovery, and implement environmental and social management measures. This approach will ensure that production is not only commercially viable but also environmentally compliant and socially responsible.

5.2 Coal Seams at Vaalbank Colliery

The coal resources within the Vaalbank Colliery area comprise three principal seams: Alfred, Gus, and Dundas (Lower Dundas). Each seam has been mapped separately (Figure 5-1 to Figure 5-3) to illustrate the extent of historical mining, the presence of geological structures, and the potential for further extraction.

The Alfred Seam has been almost entirely mined out by previous operators, with only small remnants remaining, by historical opencast activities undertaken by Aloe Minerals. The Gus Seam has also been partially exploited through both underground and opencast methods, with old workings linked to Hlobane Colliery and Glentaggart CC. The remaining reserves in the Gus Seam will be mined by the bord-and-pillar underground method. In contrast, the Dundas Seam remains largely intact and represents the main target for continued operations. It contains well defined proved and probable reserves, which form the basis of Rum Coal's 10-year LoM plan.

Together, the proven and probable reserves across the project area are estimated at approximately 1.19 million tonnes Run-of-Mine (ROM), of which about 743,000 tonnes are expected to be recoverable as saleable coal when washed at a specific gravity of 1.6. These reserves will be mined using a combination of underground and small-scale opencast methods.

The comparative summary provided in Table 5-1 consolidates the key characteristics of each seam, highlighting their status, geological context, remaining reserves, and mining potential. This comparison demonstrates why the Dundas Seam is prioritised for future mining, while the Alfred and Gus seams are regarded as depleted or supplementary in economic importance.

Table 5-1: Comparative Summary of Coal Seams at Vaalbank Colliery

Aspect	Alfred Seam (Figure 5-1)	Gus Seam (Figure 5-2)	Dundas Seam (Lower Dundas) (Figure 5-3)
Status	Largely depleted, previously mined by Aloe Minerals (opencast).	Partially mined historically (Hlobane Underground/Opencast, Glentaggart CC).	Still contains significant reserves, main seam for future operations.
Extent and Workings	Estimated workings shown; most seam already removed.	Historic underground and opencast workings from 1968–1996. Drainage tunnels mapped.	Historic workings (1978–1981). Reserve blocks clearly defined for future mining.
Geological Features	Not significant due to depletion.	Dyke intrusions and sill positions mapped, affecting seam continuity.	Dykes and sill traced from Gus workings; influences reserve layout.
Remaining Reserves	Minimal to none.	Classified as lean coal; some reserves remain, though limited and disrupted.	Main contributor to ~10-year life of mine plan. Proved and probable reserves well defined.
Mining Potential	Not economically viable for new mining.	Potential for selective opencast and underground recovery of remaining blocks.	Main seam for underground (scoop mining) and staged reserve extraction.

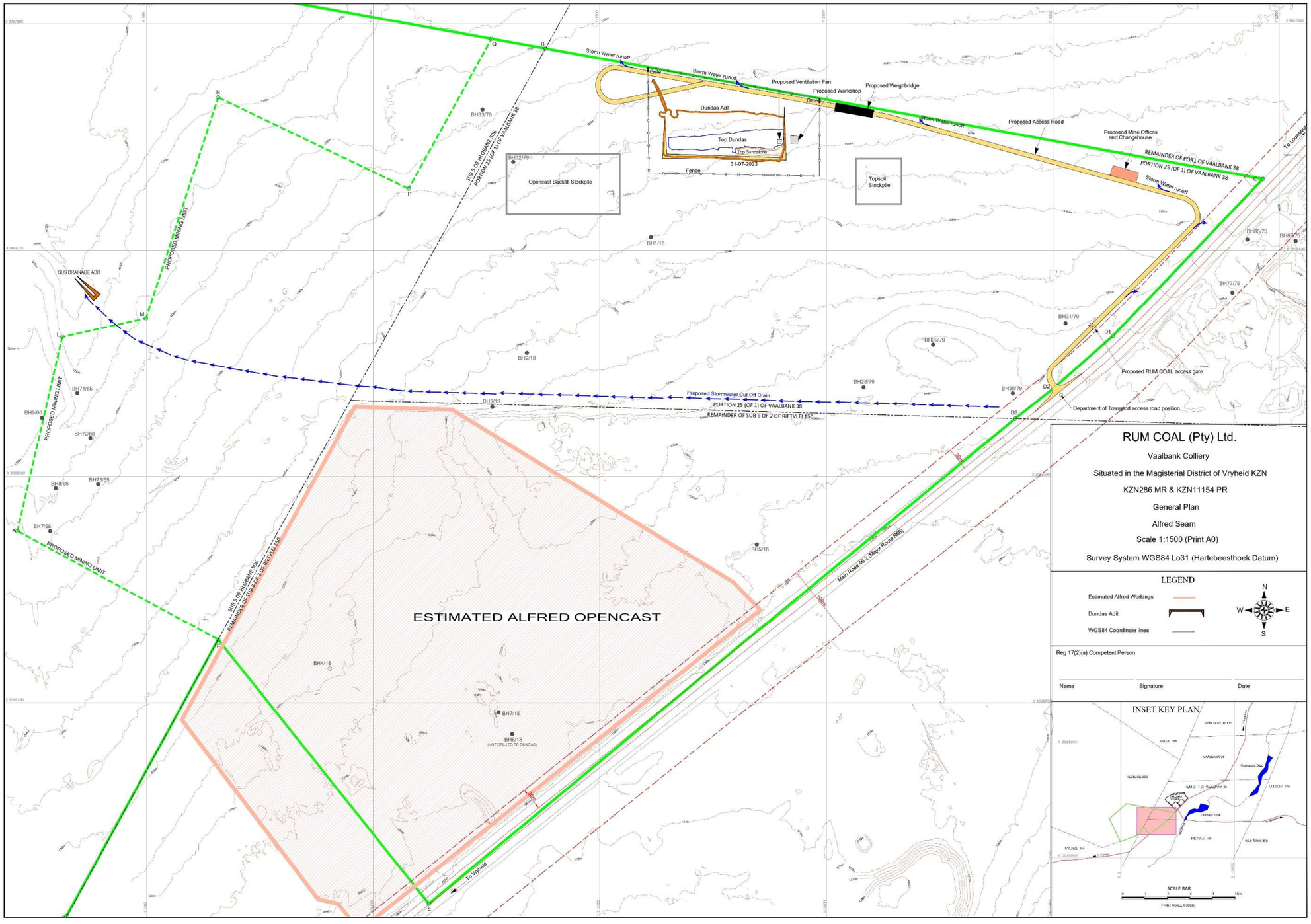

Figure 5-1: General Plan Alfred Seam

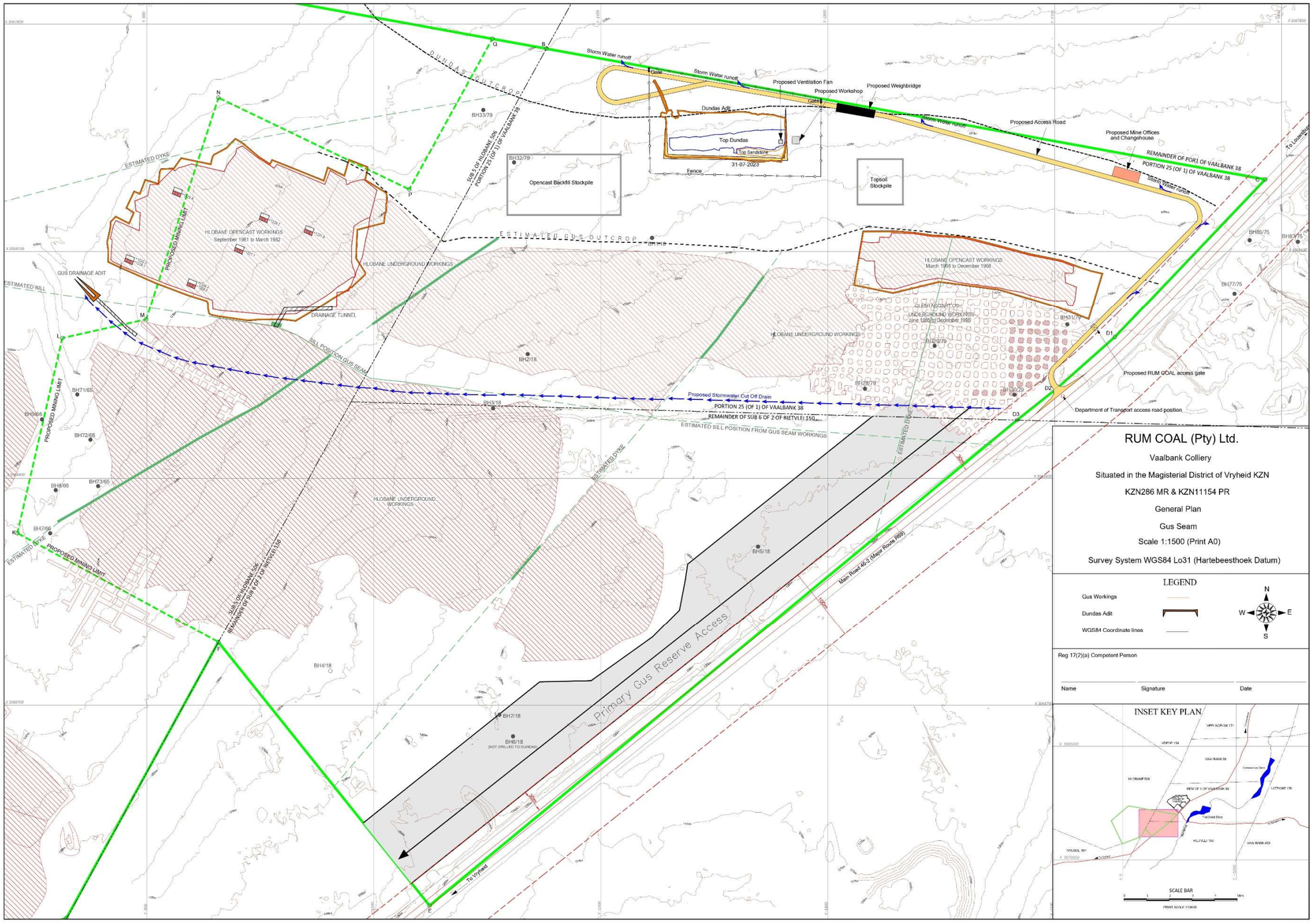

Figure 5-2: General Plan Gus Seam

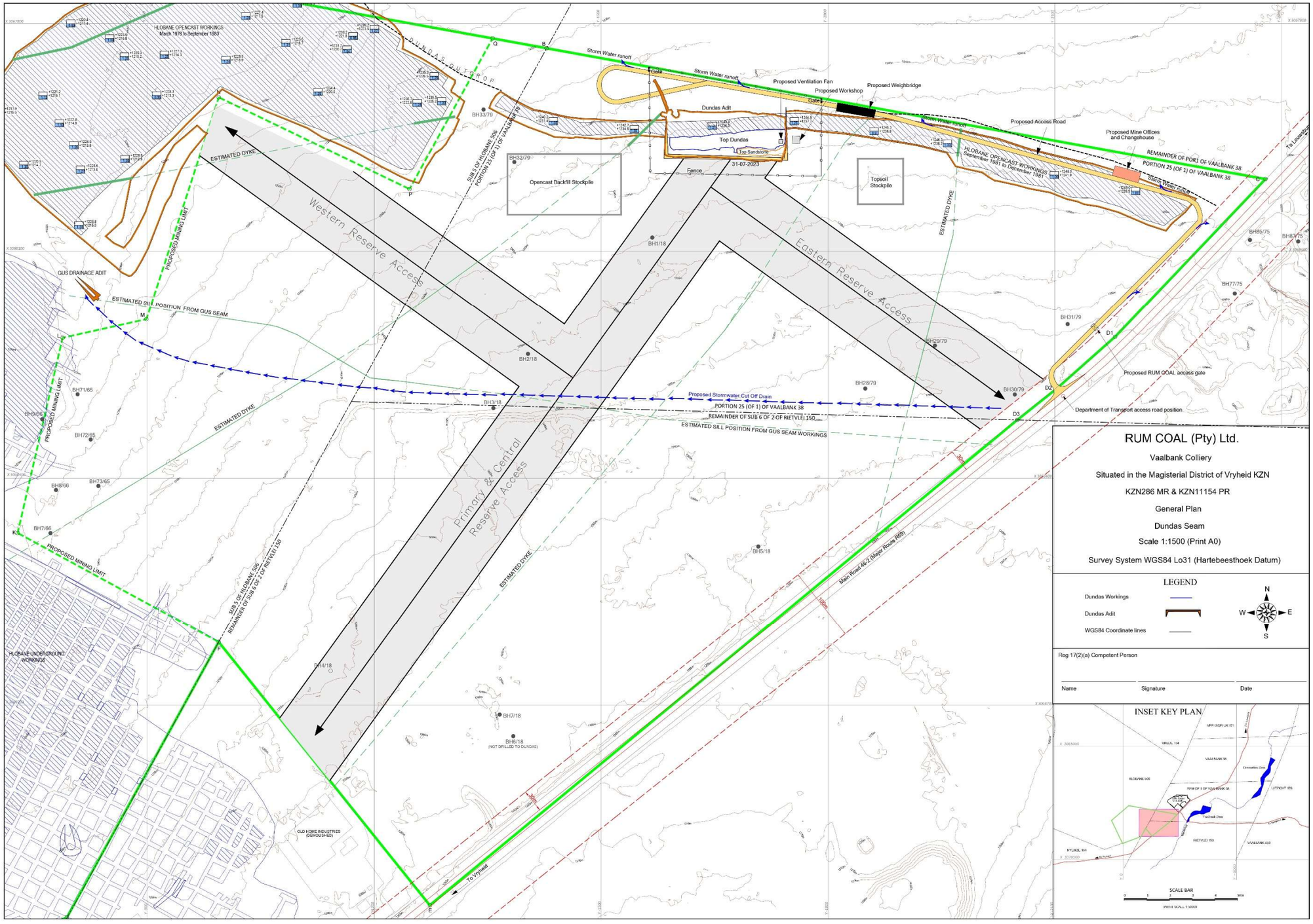

Figure 5-3: General Plan Dundas Seam (Lower Dundas)

5.3 Mining Methods

Mining at Vaalbank Colliery is undertaken through both underground and small-scale opencast methods, depending on the seam and resource characteristics. The Dundas and Gus seams are mined underground using the scoop mining method. This involves cutting, drilling and blasting of the coal face, after which the roof is supported with roof bolts. Each scoop section includes a 6-metre (m) wide travelling roadway, with the roof brushed to a height of 1.8 m to allow safe access and equipment movement.

In addition to underground extraction, the outcrop of the Gus Seam is mined using a small truck-and-shovel opencast operation. A roll-over or strip mining technique is applied: the first strip is mined out, and subsequent strips are backfilled with overburden from the next cut. The initial overburden is placed in the final cut at closure. This opencast activity disturbs approximately 0.76 ha, which equates to about 3% of the total MR area.

5.4 Coal Processing

The coal qualities, derived from historical and recent boreholes, confirm suitability for both export and domestic markets. The washed product is low in sulphur and phosphorus and is particularly suited to the ferroalloy sector. ROM coal will be sold at an average free on truck price of R600/tonne, either directly or via third party beneficiation plants in the area. Forecast annual production is 120 000 tonnes ROM, equating to roughly 10 000 tonnes per month.

A small crushing and screening plant may be established within the MR area to process ROM material. The plant will not include coal washing facilities; however, coal recycling or reprocessing may be undertaken to recover additional saleable product. During processing, unwanted stone (sandstone and dolerite) will be separated and placed onto the existing opencast overburden stockpile.

5.5 Duration, Sequence and Timing of Mining Activities

The excavation of a boxcut to gain access to the Dundas Seam in the MR area is largely complete. This area has been fenced. The remaining construction activities should be completed in the first half of 2026, with production commencing in the second half of 2026. The colliery has an anticipated LoM of approximately ten years.

5.6 Mine Infrastructure

A range of surface infrastructure supports operations at Vaalbank Colliery. This infrastructure is all located in the existing MR area and is detailed in the approved EMPr (Figure 5-1 to Figure 5-3 above). Authorised infrastructure under the MR includes:

- Road access.
- Fencing.
- Security office.
- Offices, change house and ablutions.

- Adit portals.
- Main ventilation fan.
- Coal stockpile area.
- Truck loading area and weighbridge.
- Workshop (minor mechanical and electrical works).
- Backup diesel generator (1 megavolt-ampere (MVA)) diesel generator.
- Bunded diesel storage area (less than 80 cubic metres ($m^{3)}$).
- Electrical substation, switchgear and distribution network.
- Solar panels a battery storage system (less than 1 megawatt (MW)).
- Water storage dam (rain water run off).

No infrastructure will be constructed in the PR area (expansion area).

5.7 Employment

The mine is expected to operate on a 2-shift, 6-day schedule, following a 12-month construction phase. Full production is anticipated within 6 months of commissioning. The LoM is estimated at 10 years, with a two-year closure and rehabilitation phase to follow.

The total workforce at full production is projected to reach 120 employees, including contractors. Rum Coal has committed to employing a significant portion of its unskilled and semi-skilled labour from local communities within AbaQulusi Municipality.

5.8 Water Use

Potable water will be sourced from the municipal supply via the Vaalbank Water Purification Plant. Industrial water for dust suppression and mining activities will be obtained from existing old workings and boreholes, which fall within the General Authorisation limits. Water discharged from the old workings through the Gus Seam drainage adit onto Exxaro property is included under the Water Use Licence held by Exxaro.

5.9 Electricity

Electricity is currently supplied by a 1 MVA diesel generator, together with solar panels and a battery storage system located within the MR area. No electrical infrastructure will be established within the PR (expansion area). A future connection to the Eskom grid may be considered.

5.10 Waste Management

5.10.1 General Waste

General waste, such as domestic, business and inert waste, is stored in covered skips on concrete pads and disposed of at a licensed facility.

5.10.2 Hazardous waste

Hazardous waste, including oils, solvents and grease, is stored in bunded areas and disposed of at the Holfontein Hazardous Waste Site.

5.10.3 Mine-related Waste

An existing opencast overburden stockpile is located within the MR area and consists of sandstone and clay, which are classified as inert materials (Figure 5-1 to Figure 5-3 above). Sandstone and dyke material (dolerite) generated from underground mining operations will be stored underground. As no coal processing plant is present on site, no coal discard material or mine-related waste will be produced. Similarly, no mine-related waste will be generated within the PR (expansion area).

5.10.4 Sewage

Sewage is removed by tanker and treated at the licensed sewerage treatment plant on Hlobane.

5.11 Stormwater Management

Existing stormwater trenches, excavated by the previous owners (now Exxaro), divert clean stormwater away from the mining area. The proposed underground mining within PR (expansion area) will not impact the current stormwater management system.

6 POLICY AND LEGISLATIVE CONTEXT

The South African environmental regulatory framework was promulgated with the aim of environmental protection. The regulatory framework provides requirements and guidelines for environmental and social management. Table 6-1 provides a list of applicable legislative requirements, guidelines as well as a description of how the project complies with and responds to the policy and legislation context.

Table 6-1: Applicable Legislation, Policies and Guidelines Applicable to the Project

Applicable Legislation and Guidelines used to compile the Report	Description	Reference where applied in Report	How Does this Development Comply with and Respond to the Policy and Legislative Context
Legislation			
Chapter 2, section 24 and section 32 of the Constitution of the Republic of South Africa, 1996 (Act No. 108 of 1996).	Chapter 2 of the Constitution is the cornerstone of democracy in South Africa. The Chapter enshrines the rights of all people living in South Africa and affirms the democratic values of human dignity, equality and freedom. Section 24 of the Constitution states that everyone has the right to an environment that is not harmful to their health or wellbeing; and to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that - • Prevent pollution and ecological degradation; • Promote conservation; and • Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development. Section 24 guarantees the protection of the environment through reasonable legislative (and other measures), and such legislation is continuously in the process of being promulgated. Section 32 provides for access to information, held by any person or organ of state, where such information is required to exercise or protect the rights of any other person. The Promotion of Access to Information Act (Act No. 2 of 2000) gives effect to the provisions of this right.	This report was prepared, submitted and considered within the constitutional framework.	A Basic Assessment (BA) process has been undertaken to identify and assess potential impacts associated with the project. Mitigation measures and monitoring measures as provided in this report have been recommended to ensure that any potential impacts are managed to acceptable levels to support the rights as enshrined in the Constitution.
Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA). Mineral and Petroleum Resources Development Regulations (GN R 527 of 2004, as amended) [1].	The MPRDA makes provision for equitable access to and sustainable development of the nation's mineral and petroleum resources; and to provide for matters connected therewith. The Act also aims to ensure the promotion of economic and social development through exploration and mining-related activities. The Act prohibits any person from conducting mining and petroleum operations except with prior Environmental Authorisation. The Minister of Mineral Resources and Energy is responsible for implementing environmental provisions relating to the mining or petroleum operations in terms of the NEMA. The Act requires that mining companies assess the socio-economic impacts of their activities from start to closure and beyond. Companies must develop and implement a comprehensive Social and Labour Plan (SLP) to promote socio-economic development in their host communities and to prevent or lessen negative social impacts.	This report.	The BA will be compiled in accordance with the MPRDA read with the EIA Regulations, 2014.
National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA)[2]. • Environmental Impact Assessment (EIA) Regulations, 2014 (Government Notice Regulation (GN R) 982 of 2014, as amended in June 2021)[3]. • EIA Regulations Listing Notice 1 of 2014 (GN R 983 of 2014, as amended)[4]. • EIA Regulations Listing Notice 2 of 2014 (GN R 984 of 2014, as amended)[5]. • EIA Regulations Listing Notice 3 of 2014 (GN R 985 of 2014, as amended)[6].	The NEMA can be regarded as the most important piece of general environmental legislation. The overarching principle of the Act is sustainable development. It defines sustainability as meaning the integration of social, economic and environmental factors into planning, implementation and decision-making so as to ensure the development serves present and future generations. The Act provides a framework for environmental law reform and covers three areas, namely: • Land, planning and development; • The use and conservation of natural and cultural resources; and • Pollution control and waste management. Section 24 of the NEMA sets out the provisions which are to give effect to the general objectives of Integrated Environmental Management (IEM) and laid down in Chapter 5 of the NEMA. In terms of Section 24(1), the potential impact on the environment of listed activities must be considered, investigated, assessed and reported on to the Competent Authority (CA) charged by the NEMA with granting of the relevant EA. In terms of Section 24F(1) of the NEMA no person may commence an activity listed or specified in terms of Section 24(2)(a) or (b) unless the CA has granted an EA for the activity. The Minister published the EIA Regulations comprising the EIA Regulations GN R 982, and three Listing Notices namely GN R 983 (Listing Notice 1), GN R 984 (Listing Notice 2) and GN R 985 (Listing Notice 3) in terms of sections 24(2) and 24D of the NEMA. The Regulations make provision	This report.	The BA process will be undertaken in compliance with the NEMA requirements read with the EIA Regulations, 2014. In terms of Section 24(1) of the NEMA, the potential consequences for or impacts on the environment of inter alia 'listed activities' must be considered, investigated, assessed and reported on to the Minister responsible for mineral resources, except in respect of those activities that may commence without having to obtain an EA in terms of the NEMA. As such, an application for EA in terms of NEMA 'listed activities' as contemplated in GN R 983, will be submitted to the Department of Mineral and Petroleum Resources (DMPR). The listed activities which are potentially triggered under the Listing Notices are provided in Table 4-1 of this Report. This report outlines the impacts associated with the activities and the proposed measures in which to mitigate and manage the impacts including the monitoring programme.

[1] GN 527 in GG 26275 of 23 April 2004 as amended by GN R 1288 in GG 26942 of 29 October 2004; GN R 1203 in GG 29431 of 30 November 2006; GN R349 in GG 34225 of 18 April 2011; GN R466 in GG 38855 of 3 June 2015; and GN R420 in GG 43172 of 27 March 2020.
[2] The National Environmental Laws Amendment Act, 2022 (Act No 2 of 2022) was signed into law on 24 June 2022. Except for sections 11, 35(a), 57, 60, 61(c), 61(j), 61(k), 62, 63, 64, 65, 66, 72, 76, 77, 86, 87 and 88 pertaining mostly to changes to the NEMWA, the NEMLAA came into effect on 30 June 2023 as per Proclamation Notice 125 of 2023, published in GG 48869.
[3] GN R982 of 4 December 2014 as amended by GN R326 of 7 April 2017, GN 706 of 13 July 2018, GN 599 of 29 May 2020 and GN 517 of 11 June 2021.
[4] GN R 983 in GG 38282 of 4 December 2014 as amended by GN R327 in GG 40772 of 7 April 2017, GN 706 in GG 41766 of 13 July 2018 and GN 517 in GG 44701 of 11 June 2021.
[5] GN R 984 in GG 38282 of 4 December 2014, as amended by GN R325 in 40772 of 7 April 2017 and GN 517 in GG 44701 of 11 June 2021.
[6] GN R 985 in GG 38282 of 4 December 2014, as amended by GN R324 in 40772 of 7 April 2017, GN 706 in GG 41766 of 13 July 2018 and GN 517 in GG 44701 of 11 June 2021.

Applicable Legislation and Guidelines used to compile the Report	Description	Reference where applied in Report	How Does this Development Comply with and Respond to the Policy and Legislative Context
	for the regulation of the procedure and criteria as contemplated in Chapter 5 of the Act relating to the preparation, evaluation, submission, processing and consideration of, and decision on, applications for EA for the commencement of activities, subjected to EIA, in order to avoid or mitigate detrimental impacts on the environment, and to optimise positive environmental impacts, and for matters pertaining thereto.		
National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) (NEMWA)[7]. • List of waste management activities that have, or are likely to have, a detrimental effect on the environment (GN 921 of 2013, as amended)[8]. • National Waste Information Regulations, 2012 (GN R 625 of 2012)[9]. • Regulations Regarding the Planning and Management of Residue Stockpiles and Residue Deposits, 2015 (GN R 632 of 2015, as amended)[10]. • Waste Classification and Management Regulations, 2013 (GN R 634 of 2012)[11]. • National Norms and Standards for the Assessment of Waste for Landfill Disposal (R635 of 2012)[12]. • National Norms and Standards for the Disposal of Waste to Landfill (R636 of 2012)[13]. • National Norms and Standards for the Storage of Waste (GN 926 of 2013)[14]. • National Norms and Standards for the Remediation of Contaminated Land and Soil Quality – GN 331 in Government Gazette No. 37603 dated 2 May 2014.	The NEMWA commenced on 1 July 2009 and as a result of its commencement the relevant provisions in the Environment Conservation Act, 1989 (Act No. 73 of 1989) (ECA) in respect of waste management, were repealed. The Act sets out to reform the law regulating waste management and deals with waste management and control more comprehensively than was dealt with in the ECA. It also introduces new and distinct concepts never canvassed within the realm of waste management in South Africa, such as the concept of contaminated land and extended producer responsibility. It also provides for more elaborate definitions to assist in the interpretation of the Act. In terms of Section 19(1) of the NEMWA, the Minister, published in GN R 921, a list of waste management activities that have, or are likely to have a detrimental effect on the environment. Section 20 of the NEMWA pertains to the consequences of listed waste management activities and states that no person may commence, undertake or conduct a waste management activity, except in accordance with the requirements or standards for that activity as determined by the Minister or in accordance with a Waste Management Licence (WML) issued in respect of that activity, if a licence is required. In accordance with Section 19(3), the Schedule to GN R 921 provides that a WML is required for those activities listed in Category A and B thereof and compliance with the Norms and Standards is required for those activities listed in Category C thereof prior to the commencement, undertaking or conducting of same. In addition, GN R 921 differentiates between Category A, B, and Category C waste management activities. Category A waste management activities are those which require the conducting of a basic assessment process as stipulated in the EIA Regulations, (GN R 982) promulgated in terms of the NEMA as part of the WML application and Category B waste management activities are those that require the undertaking of S&EIR process stipulated in the GN R 982 as part of the WML application. Category C waste management activities do not require a WML, however a person who wishes to commence, undertake or conduct a waste management activity listed under this category, must comply with, amongst others, the relevant National Norms and Standards for the Storage of Waste (GN R 926 of 29 November 2013) published in terms of the NEMWA.	Section 13. Section 16. Part B.	Activities associated with the project do not require an WML. Waste will need to be managed according to the Act and regulations.
National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) (NEMAQA). • Listed Activities and Associated Minimum Emission Standards Identified in terms of Section 21 of the NEMAQA (GN R 893 of 2013, as amended)[15]. • National Dust Control Regulations,	The Act aims to regulate and protect the environment, by "providing reasonable measures for the prevention of air pollution and ecological degradation, and for securing ecologically sustainable development while promoting justifiable economic and social development; to provide for national Norms and Standards regulating air quality monitoring, management and control by all spheres of government; for specific air quality measures; and for matters incidental thereto". The Minister published Listed Activities and Associated Minimum Emission Standards Identified in terms of Section 21 of the NEMAQA in 2013. Part 3 of the Notice makes provision for a list of activities in the following categories which the Applicant must review to determine whether an	Section 13. Section 16. Part B.	Activities associated with the Vaalbank Colliery do not require an AEL. The project will need to comply with the National Dust Control Regulations, 2013.

[7] As amended by the National Environmental Management: Waste Amendment Act 26 of 2014. As stated above, the National Environmental Laws Amendment Act, 2022 (Act No 2 of 2022) was signed into law on 24 June 2022 and will come into operation on a date to be fixed and proclaimed by the President. Once the amendment act comes into operation residue stockpiles and residue deposits will be removed from NEMWA and regulated in terms of the provisions of NEMA. Residue stockpiles and residue deposits will therefore no longer be regarded as waste for which a waste management licence is required. Residue stockpiles and residue deposits will in future be authorized in terms of the NEMA under the EIA Listing Notices. In terms of the transitional provisions any approval granted, or waste management licence issued in relation to residue deposits and residue stockpiles remain valid until it lapse or replaced under the provisions of the NEMA.
[8] GN 921 in GG 37083 of 29 November 2013 as amended by GN 332 in GG 37604 of 2 May 2014; GN R 633 in GG 39020 of 24 July 2015; and GN 1094 in GG 41175 of 11 October 2017.
[9] GN R 625 in GG 35583 of 13 August 2012.
[10] GN R 632 in GG 39020 of 24 July 2015 as amended by the Planning and Management of Residue Stockpiles and Residue Deposits Amendment Regulations, 2018 published under GN 990 in GG 41920 of 21 September 2018. Once the relevant sections in the National Environmental Laws Amendment Act, 2022 (Act No 2 of 2022) comes into effect, residue stockpiles and residue deposits will be excluded from NEMWA and will be regulated in terms of the provisions of NEMA. The Residue Regulations will remain operational and will be deemed to have been made under NEMA.
[11] GN R 634 in GG 36784 of 23 August 2012.
[12] R635 in GG 36784 of 23 August 2012.
[13] R636 in GG 36784 of 23 August 2012.
[14] GN 926 in GG 37088 of 29 November 2013.
[15] GN R 893 in GG 37054 of 22 November 2013, as amended by GN 551 in GG 38863 of 12 June 2015; GN 1207 in GG 42013 of 31 October 2018; GG 687 in GG 42472 of 22 May 2019; GN 421 in GG 43174 of 27 March 2020.

Applicable Legislation and Guidelines used to compile the Report	Description	Reference where applied in Report	How Does this Development Comply with and Respond to the Policy and Legislative Context
2013 (GN R 827 of 2013)[16]. • National Atmospheric Emission Reporting Regulations, 2015 (GN R 283 of 2015)[17]. • Atmospheric Dispersion Modelling Regulations, 2014 (GN R 533 of 2014)[18]. • National Greenhouse Gas Emission Reporting Regulations (GN R 275 of 2017 as amended)[19].	application for an Air Emissions Licence (AEL) is required: • Category 1: Combustion Installations; • Category 2: Petroleum Industry, the production of gaseous and liquid fuels as well as petrochemicals from crude oil, coal, gas or biomass; • Category 3: Carbonisation and Coal Gasification; • Category 4: Metallurgical Industry; • Category 6: Organic Chemicals Industry; • Category 7: Inorganic Chemicals Industry; • Category 8: Thermal Treatment of Hazardous and General Waste; • Category 9: Pulp and Paper Manufacturing Activities, including By-Products Recovery; and • Category 10: Animal Matter Processing.		
National Water Act, 1998 (Act No. 36 of 1998) (NWA). Regulations on the use of water for mining and related activities aimed at the protection of water resources (GN 704 of 1999)[20]. • Water Use Licence Application and Appeals Regulations, 2017 (GN R 267 of 2017)[21]. • Regulations regarding the safety of dams in terms of Section 123(1) of the NWA (GN R 139 of 2012)[22]. • General Authorisations: o General Authorisation: 21(c) and (i) water use for the purpose of rehabilitating a wetland for conservation purposes (GN 1198 of 2009)[23]. o General Authorisation: 21(c) and (i) water uses (GN 509 of 2016)[24]. o Revision of General Authorisation for the Taking and Storing of Water (GN 538 of 2016)[25]. o Revision of General Authorisation in terms of Section 39 of the National Water Act 36 of 1998 (GN 665 of 2013)[26].	The national government, acting through the Minister of Water and Sanitation (previously the Minister of Water Affairs), is the public trustee of South Africa's water resources, and must ensure that water is protected, used, developed, conserved, managed, and controlled in a sustainable and equitable manner for the benefit of all persons (Section 3(1)). Section 19 of the NWA places an obligation on landowners, persons in control of land, occupants of land and land users of land on which: • Any activity or process is or was performed or undertaken; or • Any other situation exists, which causes, has caused or is likely to cause pollution of a water resource, to take all reasonable measures to prevent any such pollution from occurring, continuing, or recurring. In terms of the NWA a person may only use water without a licence under certain circumstances. All other use, provided that such use qualifies as a use listed in Section 21 of the Act, require a Water Use Licence (WUL). A person may only use water without a licence if such water use is permissible under Schedule 1 (generally domestic type use) if that water use constitutes a continuation of an existing lawful water use (water uses being undertaken prior to the commencement of the NWA, generally in terms of the Water Act of 1956), or if that water use is permissible in terms of a general authorisation issued under Section 39 (general authorisations allow for the use of certain Section 21 uses provided that the criteria and thresholds described in the general authorisation is met). The Minister published Regulations Regarding the Procedural Requirements for Water Use Licence Applications and Appeals in GN R 267 of 2017. The Regulations serve to prescribe the procedure and requirements of Water Use Licence Applications (WULAs) as contemplated in Sections 41 of NWA, as well as an appeal against a decision made by a Responsible Authority in terms of Section 41(6) of the NWA. The Regulations provide the requirements for the WULA and state that consideration and decision for a WUL must be undertaken within a period of 300 days of submitting such application. A procedure for public participation must also be conducted as contemplated in Section 41(4) of the NWA, as part of the WULA process.	Section 13. Section 16. Part B.	Both the MR and PR areas contain old workings in the Gus and Dundas seams, previously mined by The Vryheid (Natal) Railway, Coal and Iron Company Proprietary Limited, a subsidiary of Exxaro. Water from these workings drains westwards through the old Gus drainage adit, into a wetland, and ultimately to the Sithebe River. Exxaro currently holds a Water Use Licence for the Hlobane Colliery (now closed and under rehabilitation), which covers the discharge of water from the MR and PR areas. In line with discussions at a meeting held at the DMPR offices on 3 September 2019, and the subsequent Sale Agreement between The Vryheid (Natal) Railway, Coal and Iron Company Proprietary Limited (Hlobane Colliery) and Rum Coal, the responsibility for latent and residual water-related impacts remains with Hlobane Colliery.
National Environmental Management: Biodiversity Act, 2004 (Act No. 39 of 2004) (NEM:BA). • Threatened or Protected Species	The Act aims to provide for the management and conservation of South Africa's biodiversity within the framework of the NEMA. The Act allows for the protection of species and ecosystems that warrant national protection; the sustainable use of indigenous biological resources; the fair and equitable sharing of benefits arising from bioprospecting involving indigenous biological resources; the establishment and functions of a South African National Biodiversity Institute; and for matters	Section 12. Section 13. Section 16. Part B.	The project will maintain existing environmental controls and manage Invasive Alien Plant (IAPs).

[16] GNR 827 in GG 36974 of 1 November 2013.
[17] GN R 283 in GG 38633 of 2 April 2015.
[18] GN R 533 in GG 37804 of 11 July 2014.
[19] GN R 275 in GG 40762 of 3 April 2017 as amended by GN R 994 in GG 43712 of 11 September 2020.
[20] GN 704 in GG 20119 of 4 June 1999.
[21] GN R 267 in GG 40713 of 24 March 2017.
[22] GN R 139 in GG 35062 of 24 February 2012.
[23] GN 1198 in GG 32805 of 18 December 2009.
[24] GN 509 in GG 40229 of 26 August 2016.
[25] GN 538 in GG 40243 of 2 September 2016.
[26] GN 665 in GG 36820 of 6 September 2013.

Applicable Legislation and Guidelines used to compile the Report	Description	Reference where applied in Report	How Does this Development Comply with and Respond to the Policy and Legislative Context
Regulations, 2007 (GN R 152 of 2007)[27]. • Alien and Invasive Species Regulations (GN R1020 of 2020)[28]. • Alien and Invasive Species Lists, 2020 (GN 1003 of 2020)[29].	connected therewith. In terms of section 57 of the Act, no person may carry out any restricted activity involving any species which has been identified by the Minister as "critically endangered species", "endangered species", "vulnerable species" or "protected species" without a permit. The Act defines "restricted activity" in relation to such identified species so as to include, but not limited to, "hunting, catching, capturing, killing, gathering, collecting, plucking, picking parts of, cutting, chopping off, uprooting, damaging, destroying, having in possession, exercising physical control over, moving or translocating". The Minister has made regulations in terms of section 97 of the NEM:BA with regards to Threatened and Protected Species which came into effect on 1 June 2007. Furthermore, the Minister published lists of critically endangered, endangered, vulnerable, and protected species in terms of section 56(1) of the NEM:BA.		
Section 25 of the Environment Conservation Act, 1989 (Act No. 73 of 1989) (ECA). Noise Control Regulations (GN R 154 of 1992)[30].	These Regulations set out rules relative to the control of noise as provided for in Section 25 of the ECA. The Regulations, among other things: define powers of local authorities to control noise; define general prohibitions in relation with activities that produce noise; define and prohibit noise nuisance; and concern the use of noise measuring instruments.	Section 12. Section 13. Section 16. Part B.	The project will have to ensure that employees, contractors and subcontractors adhere to the requirements of this Act.
National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA).	The NHRA established the South African Heritage Resources Agency (SAHRA) as well as provincial heritage resources agencies. In terms of the NHRA, no person may destroy, damage, deface, excavate, alter, remove from its original position, subdivide, or change the planning status of any heritage site without a permit issued by the heritage resources authority responsible for the protection of such site. Section 38 of the NHRA states that any person who intends to undertake developments categorised in Section 38 of the NHRA must at the very earliest stages of initiating such development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development. By way of example, the developments referred to in Section 38 of the NHRA include: The construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300 metres in length; The construction of a bridge or similar structure exceeding 50 metres in length; • Any development or other activity which will change the character of a site – o Exceeding 5000 m^2 in extent; or o Involving three or more existing erven of subdivisions thereof; or o Involving three or more erven or divisions thereof which have been consolidated within the past five years; or o The costs of which will exceed a sum set in terms of Regulations by SAHRA or a Provincial Heritage Resources Authority (PHRA); or o The rezoning of a site exceeding 10 000 m^2 in extent; or Any other category of development provided for in the Regulations by SAHRA or the PHRA.	Section 13. Section 16. Part B.	The project will develop and implement a Chance Finds Procedure.
Hazardous Substances Act, 1973 (Act No. 15 of 1973) (HAS).	The Act aims to provide for the control of substances which may cause injury or ill-health to or death of human beings by reason of their toxic, corrosive, irritant, strongly sensitising or flammable nature or the generation of pressure thereby in certain circumstances, and for the control of certain electronic products; to provide for the division of such substances or products into groups in relation to the degree of danger; to provide for the prohibition and control of the importation, manufacture, sale, use, operation, application, modification, disposal or dumping of such substances and products; and to provide for matters connected therewith.	Section 13. Section 16. Part B.	Rum Coal will have to ensure that employees, contractors and subcontractors adhere to the requirements of this Act.
Policies and Plans			
National Development Plan (NDP) 2030	South Africa's NDP 2030 outlines the country's long term goals to eliminate poverty and reduce inequality by 2030. It emphasises inclusive economic growth, sustainable environmental practices, and the responsible use of natural resources.	Section 7.	The project is in alignment with the NDP through its potential to create employment and its plans to develop infrastructure.
National Biodiversity Strategy and Action Plan (NBSAP).	The NBSAP aims to conserve biodiversity and ensure the sustainable use of biological resources.	Section 12. Section 13. Section 16. Part B.	The project will maintain existing environmental controls.

[27] GN R152 in GG 29657 on 23 February 2007.
[28] GN R1020 in GG 43735 of 25 September 2020.
[29] GN 1003 in GG 43726 of 18 September 2020. Notice replaced the previous Alien and Invasive Species Lists (GN 864 in GG 40166 of 29 July 2016).
[30] GN R 154 of January 1992.

Applicable Legislation and Guidelines used to compile the Report	Description	Reference where applied in Report	How Does this Development Comply with and Respond to the Policy and Legislative Context
Tools, Standards and Guidelines			
Department of Forestry, Fisheries and the Environment (DFFE) Environmental Screening Tool.	The DFFE requires that their National Environmental Screening Tool be utilised prior to undertaking an application for any EA and that the report generated by the tool be submitted with the EA Application. The tool is a geographically based web-enabled application which allows a proponent intending to submit an application for an EA to pre-screen their proposed site for any environmental sensitivities. Regulation 16(1)(b)(v) of the (as amended) requires a screening report to accompany an application for an EA.		The BA process will be undertaken in respect of the authorisation process of the project and is in compliance with the NEMA requirements read with the EIA Regulations, 2014. An BA application together with the Screening Tool Report was submitted to the DMPR.
Waste management standards: South African National Standard (SANS) 10234:2019, Edition 2: Globally Harmonised System of Classification and Labelling of Chemicals (GHS)[31].	SANS 10234:2008 South Africa has moved a step forward in regard to mandating that Globally Harmonised System (GHS) of Classification and Labelling of Chemicals, be implemented within the country. Standard SANS 10234:2019 (edition-2) was published through the South Africa Bureau of Standards on December 17, 2019. This Standard supersedes Standards: SANS 10265 edition-1 of 1999 and SANS 10234 edition-1.01 of 2008. This Standard is aligned with the 4th revision of the UN GHS Purple book and is cross referenced in the NEM:WA and National Health Act, 2003 (Act No. 61 of 2003). The National Committee for Standards for Dangerous Goods, including hazardous chemical substances and dangerous goods, is in charge of preparing this Standard. The Committee has decided to permanently remove the Supplement (List of Classification and Labelling of Chemicals in Accordance with GHS), to the SANS 10234:2008 (edition-1), since the Committee believes that the chemicals on this list are constantly changing. This Standard is also mandated by the South Africa Department of Environment Affairs and Department of Health. This Standard will be considered a minimum requirement to adhere to when the draft Regulation of Hazardous Substances Agents (2018) is published, which is projected for 2020, under the authority of the Department of Labour. The Standard provides guidelines for classifying chemicals based on their physical, health, and environmental hazards, as well as standardised labelling elements such as pictograms, signal words, hazard statements, and precautionary statements.	Section 13. Section 16. Part B.	The standard was consulted when compiling the Environmental Management Programme (EMPr).
Hazardous substances management standards: • SANS 10089-1:2008 - Specifications for aboveground storage facilities for petroleum products[32]. • SANS 310: 2011 - Storage tank facilities for hazardous chemicals: Aboveground storage tank facilities for flammable, combustible and non-flammable chemicals[33].	SANS 10089-1:2008 The SANS 10089-1:2008 specifies requirements for aboveground storage facilities used for storing petroleum products in South Africa. This standard outlines technical specifications and safety requirements to ensure the safe and efficient storage of petroleum products, including gasoline, diesel, and other fuels. The SANS 10089-1 covers various aspects of aboveground storage facilities, including design criteria, construction materials, tank installation, maintenance procedures, and safety measures. SANS 310:2011 The SANS 310:2011 sets out specifications for aboveground storage tank facilities intended for hazardous chemicals, including flammable, combustible, and non-flammable substances, in South Africa. This standard establishes requirements for the design, construction, operation, and maintenance of storage tank facilities to ensure the safe handling and storage of hazardous chemicals. It covers various aspects such as tank design, material selection, installation procedures, containment systems, ventilation, fire protection, and emergency response measures.	Section 13. Section 16. Part B.	The standards were consulted when compiling the EMPr.
Noise standards: • SANS 10103:2008 The measurement and rating of environmental noise with respect to annoyance and to speech communication[34].	SANS 10103:2008 outlines guidelines for the measurement and assessment of environmental noise concerning its potential to cause annoyance and disrupt speech communication. This standard provides a framework for objectively evaluating noise levels in various environments to ensure they meet acceptable thresholds for human comfort and communication.	Section 13. Section 16. Part B.	The standard was consulted when compiling the EMPr.
IEM guidelines:	The IEM guidelines serve as a comprehensive framework for managing environmental	This report.	The BA process has been undertaken in accordance with the

[31] Standard SANS 10234:2019 (edition-2), South African Bureau of Standards
[32] South African Bureau of Standards - SANS 10089-1: The petroleum industry Part 1: Storage and distribution of petroleum products in above-ground bulk installations, 2008.
[33] South African Bureau of Standards - SANS 310: 1ED 2011: Storage Tank Facilities for Hazardous Chemicals - Aboveground Storage Tank Facilities for Flammable, Combustible And Non-Flammable Chemicals, 2011.
[34] South African Bureau of Standards - •SANS 10103:2008 The measurement and rating of environmental noise with respect to annoyance and to speech communication, 2008.

Applicable Legislation and Guidelines used to compile the Report	Description	Reference where applied in Report	How Does this Development Comply with and Respond to the Policy and Legislative Context
• Integrated Environmental Management Information Series – Impact Significance. Information Series 5, 2004[35]. • Integrated Environmental Management Information Series – Cumulative Effects Assessment. Information Series 7, 2004[36]. • Integrated Environmental Management Information Series – Criteria for Determining Alternatives in EIA. Information Series 11, 2004[37]. • Review in EIA, Integrated Environmental Management, Information Series 13, 2004[38]. • Public Participation guideline in terms of NEMA EIA Regulations, 2017[39]. • Guidelines on Need and Desirability, 2017[40]. • Guideline on the Administration of Appeals, 2015[41].	considerations across various sectors and activities. These guidelines emphasise the integration of environmental considerations into decision-making processes at all stages of planning, implementation, and monitoring. By adopting an integrated approach, IEM seeks to balance socio-economic development with environmental protection, ensuring that development activities are sustainable and minimise adverse environmental impacts. Key components of IEM include stakeholder engagement, EIA, environmental management plans, monitoring, and adaptive management strategies.		principles of IEM.

[35] DEAT (2002) Impact Significance, Integrated Environmental Management, Information Series 5, Department of Environmental Affairs and Tourism (DEAT), Pretoria.
[36] DEAT (2004) Cumulative Effects Assessment, Integrated Environmental Management, Information Series 7, Department of Environmental Affairs and Tourism (DEAT), Pretoria.
[37] DEAT (2004) Criteria for determining Alternatives in EIA, Integrated Environmental Management, Information Series 11, Department of Environmental Affairs and Tourism (DEAT), Pretoria.
[38] DEAT (2004) Review in Environmental Impact Assessment, Integrated Environmental Management, Information Series 13, Department of Environmental Affairs and Tourism (DEAT), Pretoria.
[39] Department of Environmental Affairs (2017), Public Participation guideline in terms of NEMA EIA Regulations, Department of Environmental Affairs, Pretoria, South Africa.
[40] DEA (2017), Guideline on Need and Desirability, Department of Environmental Affairs (DEA), Pretoria, South Africa.
[41] Department of Environmental Affairs (2015), Guidelines on the Administration of Appeals, Department of Environmental Affairs, Pretoria, South Africa.

7 NEED AND DESIRABILITY OF THE PROPOSED ACTIVITIES

7.1 Economic Consideration

The Vaalbank Colliery is situated within South Africa's premier high-grade coalfield and contains an in situ resource of 1.81 million tonnes, including 1.19 million tonnes of proven ROM reserves.

Current approvals allow for a 5-year underground mining operation producing approximately 10 000 tonnes of ROM coal per month (equivalent to 6 300 tonnes per month of washed metallurgical coal). By incorporating the adjacent PR area (KZN30/5/1/1/2/10155PR) into the existing MR (KZN30/5/1/2/2/286MR), the LoM can be extended to 10 years, maintaining the same production rate

The project has a valuation of R 2.2 billion if sold as washed coal (R 1.2 billion if sold as ROM) and offers the opportunity to establish a sustainable, profitable, high-grade colliery in KwaZulu-Natal. The colliery benefits from convenient logistics and transportation advantages, including proximity to the Hlobane railway siding (5 km), existing mining infrastructure at Hlobane Colliery (3 km away), and arterial access via the R69 and R618 roads.

7.2 Social Consideration

The Vaalbank Colliery is located within the Vryheid Coalfield, approximately 25 km east of Vryheid, in a region where the economy relies heavily on farming, timber, and mining. The inclusion of the PR area will ensure the continuation of mining activities that are vital for sustaining employment in an area characterised by limited economic diversity and high unemployment levels.

The colliery will employ approximately 120 people directly and a further 30 contractors for road transport. Extending the LoM from 5 years to 10 years secures these employment opportunities for a longer period, providing much-needed stability for local livelihoods.

In addition to direct and indirect employment, the project represents a rare opportunity to establish a leading, profitable, high-grade coal producer in the area. By doubling the LoM, the colliery will not only sustain jobs but also stimulate secondary business opportunities in the region, while generating significant fiscal contributions to the State through royalties and various forms of taxation.

7.3 Environmental Consideration

This application is administrative in nature and does not involve any physical modifications to existing operations, infrastructure, footprint, or mining processes. All current activities will continue as previously authorised, in accordance with the approved EMPr and existing licences, permits, and approvals. No new or additional environmental impacts are anticipated. All environmental aspects have already been assessed, authorised, and are effectively managed under the current EMPr.

8 MOTIVATION FOR THE OVERALL PREFERRED SITE, ACTIVITIES AND TECHNOLOGY ALTERNATIVE

8.1 Consideration of Alternatives

In terms of the EIA Regulations, 2014, applicants are required to provide sufficient information on feasible and reasonable alternatives to enable informed decision-making. In this case, however, the consideration of alternatives is limited by the nature of the resource and the existing authorisations.

8.1.1 Site Alternatives

The geographic location of the coal resource is fixed and cannot be relocated. The coal seams and associated reserves occur only within the delineated MR and PR areas, and extraction can therefore only take place within these boundaries. No alternative site is possible.

8.1.2 Activity Alternatives

The only viable activity associated with the rights is coal mining, which has already been authorised and is the industry-appropriate method given the depth and characteristics of the resource. Alternative land uses are not relevant within the scope of this application, as the rights to the coal resource have already been granted and proven to be of strategic and economic significance.

8.1.3 Technology Alternatives

No alternative technology is feasible. The mining methods and supporting infrastructure have already been authorised in the approved EMPr. These methods are appropriate for the safe, efficient, and environmentally responsible extraction of the coal seams.

8.1.4 Conclusion

The current application is administrative in nature and seeks only to amend the existing MR to incorporate the adjoining PR area. No new mining methods, processes, or infrastructure are proposed. Accordingly, no meaningful alternatives exist or can reasonably be considered.

8.2 "No-Go" Alternative

The "No-Go" alternative would mean that the PR area is not converted into a MR. In such a scenario, the LoM would remain at 5 years, and the additional coal reserves identified in the PR area would not be mined. This would result in the premature cessation of operations, with the loss of approximately 120 direct jobs and 30 contractor positions, in an area already characterised by high unemployment.

In addition, the economic and social benefits associated with extending the LoM to 10 years would not be realised. These include continued fiscal contributions to the State through taxes and royalties, as well as the ongoing supply of high-grade metallurgical coal to the South African market, where there is an existing shortage. The "No-Go" option would therefore have negative socio-economic consequences and is not considered desirable.

9 FULL DESCRIPTION OF THE PROCESS FOLLOWED TO REACH THE PROPOSED PREFERRED ALTERNATIVES WITHIN THE SITE

9.1 Existing Authorisations

The MR (KZN30/5/1/2/2/286 MR) and PR (KZN30/5/1/1/2/11154 PR) have already been granted by the Department of Mineral and Petroleum Resources (DMPR). The current application is administrative in nature, seeking only to amend the MR to include the PR area.

9.2 Resource Location and Geology

The coal seams are geologically fixed and cannot be relocated. Extraction is only possible from within the MR and PR areas, which define the extent of the resource.

9.3 Mining Method Selection

Underground mining has already been authorised in the approved EMPr as the appropriate method, given the depth and quality of the coal seams. Alternative methods, such as opencast mining, are not viable.

9.4 Infrastructure Considerations

All required surface infrastructure has already been authorised within the MR area. Using existing facilities minimises additional disturbance and avoids the need for new construction.

9.5 Environmental and Regulatory Compliance

The approved EMPr has been amended to include the PR area, ensuring that environmental impacts have already been assessed and authorised. Compliance with environmental and social obligations is maintained under the existing framework.

9.6 Conclusion

Based on these considerations, the only practical and feasible option is to extend the MR to include the PR area. This approach secures additional reserves, extends the LoM from 5 years to 10 years, and maximises socio-economic benefits without introducing new or additional environmental impacts.

10 DETAILS OF THE DEVELOPMENT FOOTPRINT ALTERNATIVES CONSIDERED

10.1 Consideration of Development Footprint Alternatives

In terms of the EIA Regulations, development footprint alternatives must be considered where different layouts, positioning, or spatial arrangements could reasonably avoid or reduce environmental impacts. In the case of the Vaalbank Colliery, however, the consideration of such alternatives is inherently constrained by the fixed location of the coal seams and the existing authorisations.

10.2 Existing Authorised Footprint

The MR (KZN30/5/1/2/2/286 MR) and PR (KZN30/5/1/1/2/11154 PR) have already been granted by

the DMPR. The authorised surface and underground infrastructure is confined to the MR area and has been approved in the EMPr. The current application is administrative in nature, seeking to amend the MR to include the adjoining PR area, without any new physical modifications to the existing footprint.

10.3 Infrastructure and Land Use Considerations

All surface infrastructure required to support operations has already been authorised within the MR area. The inclusion of the PR area does not require the construction of new infrastructure or expansion of the surface footprint.

10.4 Environmental and Social Constraints

The approved EMPr has considered environmental sensitivities and prescribed mitigation measures for the existing footprint. These measures remain applicable, as no new infrastructure or expanded development footprint is proposed. By relying on the authorised footprint, the project avoids additional land disturbance and minimises additional impacts.

10.5 Conclusion

No alternative development footprints were considered feasible, as the coal resource can only be accessed from within the existing MR and PR boundaries, and all necessary infrastructure is already in place. The preferred option is therefore to maintain the existing authorised development footprint while extending the LoM through the inclusion of the PR area into the MR.

11 DETAILS OF THE PUBLIC PARTICIPATION PROCESS FOLLOWED

11.1 Approach and Methodology

The public participation approach adopted for this project is in line with the processes contemplated in Chapter 6 (regulation 39 to 44) of the EIA Regulations, 2014. A phased approach for the public participation activities has been adopted as aligned with requirements of NEMA, namely:

- Application Phase.
- Announcement Phase.
- BA Phase.
- Decision Phase.

Table 11-1 notes the public consultation phases, objectives for each interaction with Interested and Affected Parties (I&APs), key activities undertaken and outputs.

Table 11-1: Public Consultation Phases, Objectives, Key Activities and Outputs

Phases	Objectives	Key Activities	Key Outputs
Application Phase.	To initiate the process by identifying triggered listed activities and submitting the required application.	• Conduct site screening to confirm applicable listed activities. • Prepare and submit the Environmental Authorisation (EA) Application to Department of Mineral and Petroleum Resources (DMPR).	Submission and formal acceptance of the EA Application by the DMPR.
Announcement Phase.	To inform stakeholders of the project and initiate the public participation process.	• Publish advertisements in a local newspaper. • Erect site notices. • Distribute a Background Information Document (BID).	Public awareness of the project. Receipt of initial comments and concerns from Interested and Affected Parties (I&APs).
Basic Assessment Phase.	To assess the potential environmental impacts of the project and propose mitigation measures.	• Conduct specialist studies and compile the Draft Basic Assessment Report (BAR). • Circulate the Draft BAR for 30-day public review. • Submit Final BAR.	Submission of a comprehensive BAR outlining potential impacts and proposed mitigation measures.
Decision-making Phase.	To enable the Competent Authority to evaluate the Final BAR and issue a decision.	• DMPR reviews the Final BAR. • Conditions of authorisation may be included to ensure compliance.	EA granted.

11.2 Public Participation Activities

11.2.1 Stakeholder

Existing stakeholder and I&AP databases was obtained from Rum Coal. The database was updated to include representatives from the following sectors of society, who will be notified of these applications:

- National, provincial and local government and tribal authorities.
- Landowners and neighbouring landowners.
- Agriculture, water bodies and farmers' organisations.
- National and local media.
- Neighbouring industry and mining, business and commerce.
- Conservation and environmental bodies, both as authorities and Non-Governmental Organisations (NGOs).
- Community representatives, Community-Based Organisation, development bodies.
- Representatives for disadvantaged people, women and youth.

Refer to Appendix E for list registered stakeholders.

11.2.2 Competent Authority Consultation

The DMPR was consulted to confirm the appropriate application process to be followed.

11.2.3 Announcement Phase

The primary objectives of the this Phase are threefold: firstly, to disseminate pertinent information regarding the project to both the general public and I&APs; secondly, to encourage members of the public to formally register as I&APs for the project, thereby facilitating their engagement and participation in the process; and finally, to afford registered I&APs the opportunity to offer feedback and commentary on the draft BAR, ensuring their voices are heard and considered in the ongoing development of the project.

Table 11-2 provides details of the public participation activities undertaken during the Announcement Phase.

Table 11-2: Public Participation Activities Undertaken During the Announcement Phase

Activity	Details
Identification of stakeholders.	A comprehensive stakeholder database was compiled, including individuals and groups with vested interests, referred to as Interested and Affected Parties (I&APs). The database represents a broad cross-section of society and includes those directly affected by the project as well as adjacent landowners within and around the project area. Refer to Appendix E for list registered stakeholders.

Activity	Details
Distribution of announcement letter and BID.	A BID was prepared, summarising the project and outlining the process to be undertaken. The BID and announcement letter were distributed to all identified I&APs via e-mail and SMS. Refer to Appendix H for the BID.
Placement of site notices.	Site notices were erected at key, accessible locations around the project site to inform surrounding communities of the project and participation opportunities. Refer to Appendix G for the site notices.
Placement of newspaper advertisements.	A newspaper advertisement was published in the Northern Natal News (on 23 October 2025) notifying the public of the project and the availability of the Draft BAR for a 30-day public review period. Refer to Appendix F for newspaper advertisement.

11.2.4 Basic Assessment Phase

Table 11-3 provides details of the public participation activities undertaken during the BA Phase.

Table 11-3: Public Participation Activities Undertaken During the Scoping Phase

Activity	Details
Availability of the Draft BAR.	The Draft BAR was made available to Interested and Affected Parties (I&APs) either electronically or in hard copy at publicly accessible locations, including public libraries. The report was also accessible electronically on the GCS website at https://www.gcs-sa.biz/public-documents/ Hard copies were placed at the Vryheid Public Library, Mark Street, Vryheid, KwaZulu-Natal. Soft copies were provided on request. Comment and responses are noted in Table 11-4.
Announcement of submission of the Final BAR.	A notification will be distributed to I&APs informing them of the submission of the Final BAR and advising that the report is available on the GCS website.

11.2.5 Decision-making Phase

The DMPR will make the final decision on the EA Application for the project and registered I&APs will be notified via e-mail and SMS of the outcome and how and by when the decision may be appealed, should they wish to.

11.3 Summary of Issues Raised by Interested and Affected Parties

Comments received are noted in Table 11-4.

Table 11-4: Comment and Response Table

Interested and Affected Parties	Date Comments Received	Issues Raised	EAPs Response to Issues as Mandated by the Applicant	Section and Paragraph Reference in this Report where the Issues and or Response were Incorporated
Mulalo Kolani Department of Mineral and Petroleum Resources	10 November 2025	In terms of Regulation 15 of the 2014 NEMA Regulations, an Environmental Assessment Practitioner (EAP) must identify whether a basic assessment or scoping & environmental impact reporting process must be applied to the application taking into account any notices published in terms of section 24D of the Act.	In terms of the Environmental Impact Assessment (EIA) Regulations, 2014, promulgated under the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), the proposed amendment triggers Activity 21(D) of Listing Notice 1 (Government Notice Regulation (GN R) 983), which relates to any activity (including the continued operation thereof) requiring an amendment or variation of a right or permit in terms of Section 102 of the MPRDA. As such, a Basic Assessment (BA) process must be undertaken in accordance with the procedural requirements set out in GN R 982.	Refer to Section 6.
Mulalo Kolani Department of Mineral and Petroleum Resources	10 November 2025	The investigation, assessment and communication of the potential impact of activities must therefore follow the procedure as prescribed in EIA regulations, 2014 as amended in line with the listed activities as identified by your EAP. Also take into account the minimum requirements with regard to relevant specialist studies which should be undertaken for any development or projects. It is the EAP's responsibility to identify the specialist studies required in order to avoid delay in processing and finalisation of the application.	The investigation, assessment, and communication of the potential impacts of the proposed activities have been undertaken in full compliance with the EIA Regulations, 2014. The Basic Assessment process identified all listed activities triggered by the proposed amendment (Listing Notice 1, Activity 21D) and assessed their environmental and socio-economic implications in accordance with the prescribed methodology. Impacts were evaluated across all phases of the project — construction, operation, decommissioning, and closure — with significance determined based on nature, extent, duration, intensity, probability, and reversibility. Supporting mitigation and monitoring measures and associated Environmental Management Programme (EMPr) outcomes are included in Part A: Section 13, Section 16, and Part B: EMPr of the report. To meet the minimum requirements of the EIA Regulations regarding specialist input, the Environmental Assessment Practitioner (EAP) identified all environmental components potentially sensitive or at risk and incorporated the relevant specialist findings into the impact assessment. These include surface water, groundwater, soils and land capability, biodiversity (flora and fauna), socio-economic conditions, heritage resources, air quality, and noise. The outputs of each specialist study and their integration into the Basic Assessment Report are reflected in Section 12 and Table 14-1. The EAP has ensured that specialist recommendations are translated into binding mitigation measures and enforceable EMPr actions, with performance indicators and monitoring frequencies detailed in Part B: EMPr, Sections 1.4– 1.8 and Section 2: Monitoring Programme. Accordingly, the specialist studies and resulting impact assessment have been used to: • Identify key environmental and socio-economic sensitivities and risks • Inform the preferred layout and technology alternatives • Develop practical, measurable impact management outcomes • Avoid delays during decision-making and finalisation of the application through early identification of risks and legally required management responses The above demonstrates that the EAP has fulfilled the responsibility to identify and integrate all necessary specialist studies and that the assessment has followed the prescribed procedure, providing the Competent Authority with sufficient information to make an informed decision.	Refer to Part A Section 12, Section 13, Section 16, Table 14-1 and Part B: EMPr, Sections 1.4–1.8 and Section 2: Monitoring Programme.
Mulalo Kolani Department of Mineral and Petroleum Resources	10 November 2025	It must be noted that acknowledgement of your application does not grant you permission to commence with MINING activities. Commencement of a listed activity without an environmental authorisation constitutes an offence in terms of Section 49A (1)(a) of NEMA, 1998 (Act 107 of 1998) as amended and upon conviction for such an offence, a person is liable to a fine not exceeding R10 million or to imprisonment for a period not exceeding ten years, or to both such fine and such imprisonment.	Noted.	-
Mulalo Kolani Department of Mineral and Petroleum Resources	10 November 2025	Your attention is drawn to Point 3 on page 1 of the EA application form read with Section 8 in respect of the need to lodge proof of an application for a right or permit.	Exxaro currently holds a Water Use Licence for the Hlobane Colliery (now closed and under rehabilitation), which covers the discharge of water from the Mining Right (MR) (KZN30/5/1/2/2/286 MR) and a Prospecting Right (PR) (KZN30/5/1/1/2/11154 PR) areas. In line with discussions at a meeting held at the Department of Mineral and Petroleum Resources (DMPR) offices on 3 September 2019, and the subsequent Sale Agreement between The Vryheid (Natal) Railway, Coal and Iron Company Proprietary Limited (Hlobane Colliery) and Rum Coal, the responsibility for latent and residual water-related impacts remains with Hlobane Colliery. An application has been lodged on SAMRAD record number KZN-000035-MR/102, refer to Appendix C.	Appendix C.

<table>
<tr><th>Interested and Affected Parties</th><th>Date Comments Received</th><th>Issues Raised</th><th>EAPs Response to Issues as Mandated by the Applicant</th><th>Section and Paragraph Reference in this Report where the Issues and or Response were Incorporated</th></tr>
<tr><td>Mulalo Kolani Department of Mineral and Petroleum Resources</td><td>10 November 2025</td><td>The Public Participation Process must comply with regulation 40 – 44 of the EIA Regulations, 2014 (as amended).</td><td>The Public Participation Process has been undertaken in terms of the Environmental Impact Assessment Regulations, 2014.</td><td>Section 11.</td></tr>
<tr><td>Mulalo Kolani Department of Mineral and Petroleum Resources</td><td>10 November 2025</td><td>You are advised that in terms of Regulation 40 (2)(b) & (c) of the NEMA EIA Regulations
“The public participation process contemplated in this regulation must provide access to all information that reasonably has or may have the potential to influence any decision with regard to an application unless access to that information is protected by law and must include consultation with – (b) every State department that administers a law relating to a matter affecting the environment relevant to an application for an environmental authorisation, (c) all organs of state which have jurisdiction in respect of the activity to which the application relates”.</td><td>The table below details notification to stakeholders and availability of information.
<table>
<tr><th>Activity</th><th>Details</th></tr>
<tr><td>Identification of stakeholders.</td><td>A comprehensive stakeholder database was compiled, including individuals and groups with vested interests, referred to as Interested and Affected Parties (I&APs).

The database represents a broad cross-section of society and includes those directly affected by the project as well as adjacent landowners within and around the project area. Refer to Appendix E for list registered stakeholders.</td></tr>
<tr><td>Distribution of announcement letter and BID.</td><td>A BID was prepared, summarising the project and outlining the process to be undertaken.

The BID and announcement letter were distributed to all identified I&APs via e-mail and SMS. Refer to Appendix H for the BID.</td></tr>
<tr><td>Placement of site notices.</td><td>Site notices were erected at key, accessible locations around the project site to inform surrounding communities of the project and participation opportunities. Refer to Appendix G for the site notices.</td></tr>
<tr><td>Placement of newspaper advertisements.</td><td>A newspaper advertisement was published in the Northern Natal News (on 23 October 2025) notifying the public of the project and the availability of the Draft BAR for a 30-day public review period. Refer to Appendix F for newspaper advertisement.</td></tr>
<tr><td>Availability of the Draft BAR.</td><td>The Draft BAR was made available to Interested and Affected Parties (I&APs) either electronically or in hard copy at publicly accessible locations, including public libraries. The report was also accessible electronically on the GCS website at https://www.gcs-sa.biz/public-documents/

Hard copies were placed at the Vryheid Public Library, Mark Street, Vryheid, KwaZulu-Natal.

Soft copies were provided on request. To date, comments have only been received from the Department of Mineral and Petroleum Resources (DMPR). Refer to Table 11-4.</td></tr>
<tr><td>Announcement of submission of the Final BAR.</td><td>A notification will be distributed to I&APs informing them of the submission of the Final BAR and advising that the report is available on the GCS website.</td></tr>
</table></td><td>Section 11.</td></tr>
<tr><td>Mulalo Kolani Department of Mineral and Petroleum Resources</td><td>10 November 2025</td><td>This aforementioned consultation with Organs of State must include but not be limited to Ezemvelo KZN Wildlife, Department of Water and Sanitation, National Department of Agriculture, Land Reform and Rural Development, AMAFA KZN and South African Heritage Resources Agency (SAHRA).</td><td>Noted. Refer to Appendix E for list registered stakeholders.</td><td>Refer to Appendix E.</td></tr>
<tr><td>Mulalo Kolani Department of Mineral and Petroleum Resources</td><td>10 November 2025</td><td>Kindly note that you will be required to upload a copy of the final environmental reports and its supporting documentation online and must lodge 3 hard copies at the Regional Office as required by regulation 32 (1)(a) of EIA Regulations, 2014 as amended. The report must comply with minimum requirements as outlined in Appendix 1 of EIA Regulations, 2014 (as amended).</td><td>Noted.</td><td>Appendix C.</td></tr>
</table>

12 THE ENVIRONMENTAL ATTRIBUTES ASSOCIATED WITH THE ALTERNATIVES

The information from this section was derived from Rum Coal Environmental Management Programme Report (Rum Coal, 2021) and Specialist Study of Physical Environment (African Litany, 2012).

12.1 Climate

Vaalbank Collery is situated in the Highveld climatic zone characterised by cold winters and summer rainfall. The regional climate can be described as subtropical in the summer and dry in winter. Summers are warm to hot with temperatures ranging from 25 to 33 ° C. The winter has warmer days with temperatures ranging from 16 to 22 °C and cold nights with temperatures ranging from 0 to 4 °C.

Table 12-1: Mean monthly rainfall (African Litany, 2012)

Month	Rainfall	Evaporation	
		Mean (mm/month)	Mean (mm/d)
January	112.5	164.3	5.3
February	101.1	134.4	4.8
March	89.9	136.4	4.4
April	41.8	108.0	3.6
May	20.5	86.8	2.8
June	10.4	72.0	2.4
July	9.2	77.5	2.5
August	15.5	93.0	3.0
September	40.1	111.0	3.7
October	81.7	133.3	4.3
November	118.3	141.0	4.7
December	127.3	164.3	5.3

The region experiences summer rainfall with 80% of rainfall occurring between the months of October and March of each year. Figure 12-1 shows data from observed rainfall measured at Hlobane from 1913 to 2006.

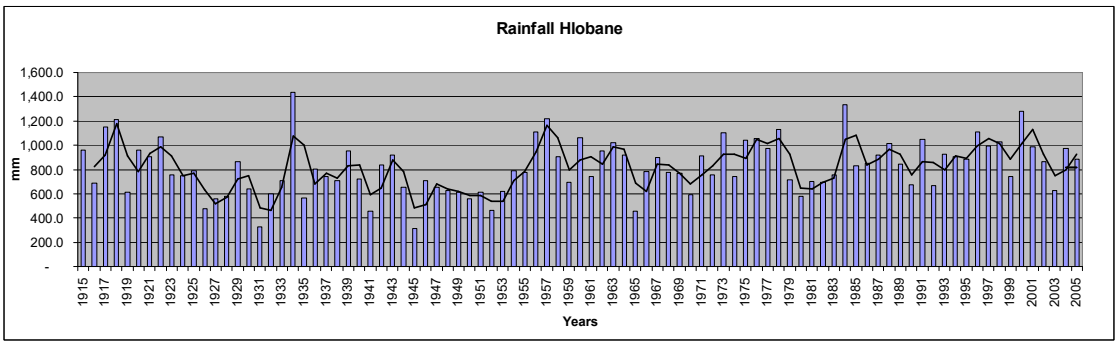

Figure 12-1: Rainfall from March 1913 to 2006 (Pulles Howard and de Lange, 2008)

Table 12-2: Mean monthly, maximum and minimum temperatures (African Litany, 2012)

Month	Temperature		
	Mean max (°C)	Mean min (°C)	Mean month (°C)
January	25.9	14.3	20.1
February	25.3	14.2	19.8

Month	Temperature		
	Mean max (°C)	Mean min (°C)	Mean month (°C)
March	24.7	13.8	19.3
April	22.8	11.1	17.0
May	20.7	8.9	14.8
June	19.1	6.3	12.7
July	19.3	6.0	12.6
August	20.8	7.4	14.1
September	22.5	9.3	15.9
October	23.7	11.2	17.5
November	23.8	12.3	18.1
December	25.3	13.4	19.4

The wind direction is prevalently north-easterly.

12.2 Topography and Drainage

The topography of the area surrounding the Vaalbank Colliery is uneven, largely due to the presence of dolerite sills. Most of the mountains in the region are capped with dolerite, which contributes to the rugged landscape. The most prominent feature is Hlobane Mountain, situated to the northwest of the colliery, which strikes in a north-east to south-west direction and reaches an elevation of approximately 1 625 metres above sea level (mamsl).

The irregular relief gives rise to a dendritic drainage pattern. Drainage to the north flows into the Manzana River, while to the south, runoff reports into the Tshoba River and Sithebe River. To the east, drainage enters the Nkongolwana River.

The Vaalbank Colliery itself is located on a relatively flat plain, approximately 4 km from Hlobane Mountain. Surface drainage from the colliery area flows into the Nkongolwana River via the Sithebe River.

12.3 Geology

12.3.1 Regional Geological Setting

The project area is characterised by a typical Karoo landscape, with dolerite sill-capped mountains rising approximately 500 m above the plains. These sills exhibit columnar jointing in outcrop and overlie or intrude a succession of sandstones. The Zungwini Sill (±96 m thick) forms the crest of Hlobane Mountain, while the Mashongololo Sill (±50 m thick) intruded lower down into the Karoo sediments.

The coal-bearing sediments belong to the Vryheid Formation of the Middle Ecca Subgroup within the Karoo Supergroup. This succession is dominated by massive, coarse-grained arkosic sandstones.

Coal seams were deposited in fluvial and lacustrine environments, with partings within seams resulting in splits. Between seams, massive sandstones are typically 12–16 m thick. The seams are relatively thin, gently undulating, and occur approximately 200–250 m below the hilltops at Hlobane Colliery.

12.3.2 Coal Seam Stratigraphy

The coal zone comprises the following seams (from top to bottom):

- Eland Seam.
- Bonas Seam.
- Fritz Seam.
- Alfred Seam.
- Gus Seam.
- Upper Dundas Seam.
- Lower Dundas Seam.
- Coking Seam.

Historically, the Dundas, Alfred, and Gus seams were mined at Hlobane Colliery. Of these, the Gus Seam is the most significant due to its high-grade anthracite, particularly where devolatilisation has occurred.

12.3.3 Economically Viable Seams

12.3.3.1 Dundas Seam

Named after H.J. Dundas, one of the first directors of the Vryheid (Natal) Railway, Coal and Iron Company Proprietary Limited, a subsidiary of Exxaro, the Dundas Seam has historically produced good quality coking coal. It consists of two distinct seams: the Upper Dundas (thin, usually un-mineable) and the Lower Dundas (main economic unit).

- The Lower Dundas contains shale and sandstone partings up to 1 m thick, resulting in reduced mining yield.
- Roof strata comprise fine-grained, shaley sandstones, often with a thin mudstone band.
- The floor is generally micaceous mudstone or laminated sandstone.
- The Upper Dundas is situated 1.5–6.5 m above the Lower Dundas, with fine-grained micaceous sandstones forming roof and floor.
- Sulphur content in both is generally <1%, mainly associated with pyrite in bright coal bands.
- Thickness of the Upper Dundas is typically 1.0–1.2 m at Hlobane 2 Colliery (PHD, 2000).

12.3.3.2 Gus Seam

Named after Gustave Bonas, who helped establish the Vryheid (Natal) Railway, Coal and Iron Company Proprietary Limited, a subsidiary of Exxaro, the Gus Seam lies above the Dundas Seam.

- Characterised by absence of stone partings, resulting in higher yields compared to Dundas.

- Sulphur content <1%.
- Roof strata are well-bedded, coarse-grained sandstones.
- Floor lithology consists of fine- to medium-grained sandstone, locally interbedded with thin shaley bands.

12.3.3.3 Alfred Seam

Named after Alfred Bonas, this bituminous seam occurs above the Gus Seam and has been extensively mined, with only thin remnant areas remaining.

- Primarily mined as a steam-raising coal due to weak coking properties.
- Roof consists of mudstone and inferior coal layers.
- Floor is typically medium-grained, well-bedded sandstone.
- Sulphur content can reach up to 2%.

12.3.4 Mineral Impurities

Across all seams, common mineral impurities include:

- Clay minerals (primarily illite).
- Sulphide minerals (pyrite, marcasite, pyrrhotite).
- Quartz.

12.3.5 Dolerite Intrusions

The area is extensively intruded by dolerite sills and dykes:

- At least five sill types have been identified. Early intrusions are concordant and persistent, while younger ones are dyke-like, sinuous, and erratic.
- Dykes are generally 2 m thick, but the thickest recorded is 30 m.
- The Alfred East fault/dyke has been traced for at least 5 km along strike.
- Water yields exceeding 15 m^3/h have been recorded from boreholes intersecting dyke contacts in the Vaalbank area.
- Karoo dolerite is predominantly ophitic to subophitic in texture, with mineral assemblages including plagioclase, clinopyroxene, orthopyroxene, and iron oxides, as well as alteration minerals such as sericite and chlorite.

12.4 Soil

A wide variety of soil forms occur within the study area. Of these, three dominant soil types are distinguished: Mispah, Clovelly, and Valsrivier, with Mispah being by far the most prevalent. The soils are generally shallow and not suited to ploughing, rendering both dryland and irrigated crop production unfeasible.

Areas previously disturbed by opencast workings show soils that are highly compacted, with little to no horizon differentiation, weak structure, and very low organic matter content. These areas have limited agricultural potential. In many of these disturbed zones, *Acacia mearnsii* (Black wattle) plantations have been established on land where open-pit mining previously occurred.

12.5 Land Use and Land Capability

The existing land capability within the mining area is primarily suited to forestry and grazing. Areas previously disturbed by opencast mining at Hlobane Colliery have been rehabilitated and planted with commercial forestry species. Since 1995, these plantations have been managed by Ferroland Grondtrust (Pty) Ltd, which cultivates *Eucalyptus spp.* (Blue gum) and *Acacia mearnsii* (Black wattle).

In South Africa, several soil forms are characteristic of the region, notably Mispah, Clovelly, and Valsrivier:

- Mispah soils are typically shallow and rocky, overlying lithic material or hard rock. Their limited depth restricts root development and makes them poorly suited to arable agriculture.
- Clovelly soils occur in red apedal profiles with moderate drainage and root penetration potential. While better developed than Mispah soils, their agricultural potential remains moderate.
- Valsrivier soils, and other duplex forms, are characterised by clay-enriched B horizons that limit drainage and restrict root penetration.

Overall, these soil forms are associated with low to moderate land capability, primarily due to limitations in depth, structure, and moisture retention capacity.

In areas previously subjected to opencast operations, the soils are severely degraded. They are highly compacted, lack horizon differentiation, contain little organic matter, and display poor fertility and structure. Such soils are considered unsuitable for arable production.

Considering the soil limitations, climatic conditions, and local topography, the agricultural potential of the Vaalbank area is constrained. Crop cultivation is not feasible, and the most appropriate post-mining land uses remain forestry and low-intensity grazing, consistent with the current land use practices.

12.6 Flora

12.6.1 Dominant Vegetation

The Vaalbank Colliery falls within bioclimatic group 6(a) and the moist upland phase of the Tall Grassland of Natal. Two veld types occur in the project area:

- Veld Type 44a – Highland Sourveld, a species-rich montane grassland associated with cooler conditions and periodic fires.

- Veld Type 64 – Northern Tall Grassveld, which is dominated by tall grasses and adapted to high summer rainfall.

The natural grassland vegetation in this region is largely composed of perennial grasses such as *Themeda triandra* (Red grass), *Hyparrhenia hirta* (Common thatching grass), and *Eragrostis curvula* (Weeping lovegrass). These species form the structural backbone of the veld, providing grazing for herbivores and cover for ground-nesting birds.

Scattered forbs and herbs, including species in the *Helichrysum, Vernonia,* and *Hypoxis* genera, are also common, enhancing biodiversity and seasonal floral displays. Indigenous woody plants are sparse but may include *Cussonia paniculata* (Highveld cabbage tree) and *Protea caffra* (Common protea) on ridges and rocky outcrops. Table 12-3 shows the vegetation species occurring at Hlobane..

Table 12-3:Vegetation species occurring at Hlobane

Grass Name	Common Name
Tristachya leucothrix	Hairy Trident grass
Eragrostis racemosa	Narrow Heart Love grass
Microchloa caffra	Pincushion grass
Diheteropogon amplectens	Broad-leaved Bluestem
Rendlia altera	Mahern's crest
Trachypogon spicatus	Giant Spear grass
Themeda triandra	Red grass
Hyparrhenia hirta	Common Thatching grass
Digitaria tricholaenoides	Purple Finger grass
Heteropogon contortus	Spear grass
Monocymbium ceresiiforme	Boat grass
Setaria nigrirostris	Black-seed Bristle grass
Brachiaria serrata	Velvet Signal grass
Trees	
Cussonia spicata	Cabbage tree
Greyia sutherlandii	Natal bottlebrush
Podocarpus latifolius	Yellowwood
Ficus lutea	Giant-leaved fig
Erythrina lysistemon	Sacred Coral tree
Acacia tortilis	Umbrella acacia
Acacia nilotica	Scented thorn acacia
Acacia karroo	Sweet thorn
Acacia sieberiana woodii	Paperback acacia
Shrubs and other plants	
Gnidia sp	
Euryops sp	Star Flower / African Potato (for some spp.)
Selago densiflora (= Walafrida densiflora)	
Hypoxis sp	
Aster perfoliatus	
Indigofera hedyantha	
Sebaea grandis	
Moraea spathulata	
Crassula vaginata	
Androcymbium melanthioides	Common Sugarbush
Tetraselago natalensis	
Protea caffra	
Anthericum haygarthii	Zeyher's Carnation
Vernonia natalensis	Small-flowered Pink Plume
Dianthus zeyheri	Pink Arum Lily
Syncolostemon parviflorus	Sagewood / Wild Sage
Zantedeschia rehmannii	
Buddleia salviifolia	

Jamesbrittenia sielinioides	Golden Orchid
Erica austroverna	Sagewood / Wild Sage
Disa chrysostachya	Golden Orchid

12.6.2 Endangered or rare species

To date, no endangered or rare flora has been confirmed on the Vaalbank property. However, the broader KwaZulu-Natal grassland biome includes threatened vegetation units such as the KwaZulu-Natal Sandstone Sourveld, which is listed as endangered. This vegetation type supports species of conservation concern, including *Kniphofia pauciflora* (Dwarf red-hot poker) and B*rachystelma gerrardii* (Gerrard's brachystelma).

Although these species have not been recorded at Vaalbank Collery, their potential presence in undisturbed grassland patches warrants further botanical surveys prior to any disturbance.

12.6.3 Intruder or exotic species

Large portions of the property are managed as forestry plantations dominated by exotic species such as *Acacia mearnsii* (Black wattle) and *Eucalyptus spp.* (Blue gum). These species, while cultivated, are invasive and require strict control to prevent spread into natural grasslands.

An alien plant management programme is implemented by Ferroland Grondtrust (Pty) Ltd, targeting invasive plants including:

- *Lantana camara* (Lantana).
- *Sesbania punicea* (Red sesbania).
- *Solanum mauritianum* (Bugweed).
- *Acacia dealbata* (Silver wattle).

This programme also monitors and removes *A. mearnsii* and *Eucalyptus spp.* that establish outside plantation boundaries. Alien species pose a significant risk to grassland biodiversity by altering fire regimes, hydrology, and nutrient cycling.

12.7 Fauna

12.7.1 Avifauna

At least **98 bird species** have been recorded in the Vaalbank/Hlobane area (Maclean, 1993). This diversity reflects the mosaic of habitats available: vleis, grasslands, mountain slopes, patches of forest, and plantations.

Key species include:

- *Sagittarius serpentarius* (Secretary bird) – a large terrestrial raptor, listed as vulnerable in South Africa.
- *Haliaeetus vocifer* (African fish eagle) – an apex predator associated with dams and rivers.

- *Anthropoides paradiseus* (Blue crane) – South Africa's national bird and vulnerable due to habitat loss.
- *Ciconia ciconia* (White stork) and *Geronticus calvus* (Bald ibis) – both listed in red data books, highlighting conservation significance.

Other common species include *Ardea cinerea* (Grey heron), *Threskiornis aethiopicus* (Sacred ibis), *Bostrychia hagedash* (Hadeda ibis), *Pelecanus onocrotalus* (Great white pelican), and granivores such as *Streptopelia capicola* (Cape turtle dove).

The diversity of avifauna indicates the area supports both wetland-associated birds and grassland specialists, many of which are indicators of ecosystem health. Table 12-4 contains a list of common names of the birds observed at Hlobane.

Table 12-4: List of common names of birds observed at Hlobane

Scientific Name	Common Name
Tachybaptus ruficollis	Little Grebe
Phalacrocorax lucidus	White-breasted Cormorant
Microcarbo africanus	Reed Cormorant
Anhinga rufa	African Darter
Ardea cinerea	Grey Heron
Ardea melanocephala	Black-headed Heron
Bubulcus ibis	Cattle Egret
Scopus umbretta	Hamerkop
Ciconia ciconia	White Stork
Threskiornis aethiopicus	African Sacred Ibis
Geronticus calvus	Southern Bald Ibis
Bostrychia hagedash	Hadeda Ibis
Platalea alba	African Spoonbill
Alopochen aegyptiaca	Egyptian Goose
Anas undulata	Yellow-billed Duck
Anas sparsa	African Black Duck
Anas capensis	Cape Teal
Anas erythrorhyncha	Red-billed Teal
Anas smithii	Cape Shoveler
Plectropterus gambensis	Spur-winged Goose
Sagittarius serpentarius	Secretarybird
Milvus aegyptius	Yellow-billed Kite
Elanus caeruleus	Black-shouldered Kite
Hieraaetus wahlbergi	Wahlberg's Eagle
Haliaeetus vocifer	African Fish Eagle
Buteo buteo vulpinus	Steppe Buzzard
Buteo rufofuscus	Jackal Buzzard
Falco amurensis	Amur Falcon (Eastern Red-footed Kestrel)
Falco rupicolus	Rock Kestrel
Pternistis swainsonii	Swainson's Spurfowl (Francolin)
Numida meleagris	Helmeted Guineafowl
Anthropoides paradiseus	Blue Crane
Fulica cristata	Red-knobbed Coot
Charadrius tricollaris	Three-banded Plover
Vanellus armatus	Blacksmith Lapwing
Vanellus senegallus	African Wattled Lapwing
Actitis hypoleucos	Common Sandpiper
Tringa glareola	Wood Sandpiper
Columba livia (feral/domestic)	Rock Pigeon
Streptopelia semitorquata	Red-eyed Dove
Streptopelia capicola	Cape Turtle Dove
Spilopelia senegalensis	Laughing Dove

Scientific Name	Common Name
Tauraco porphyreolophus	Purple-crested Turaco (Lourie)
Cuculus solitarius	Red-chested Cuckoo
Cuculus clamosus	Black Cuckoo
Chrysococcyx caprius	Diederik Cuckoo
Bubo africanus	Spotted Eagle-Owl
Tachymarptis melba	Alpine Swift
Colius striatus	Speckled Mousebird
Ceryle rudis	Pied Kingfisher

12.7.2 Mammals

No formal mammal survey has been undertaken for Vaalbank Colliery, but species observed at the adjacent Hlobane Colliery are representative of those likely to occur. These include:

- *Redunca fulvorufula* (Mountain reedbuck).
- *Sylvicapra grimmia* (Common duiker).
- *Raphicerus campestris* (Steenbok).
- *Genetta tigrina* (Large-spotted genet).
- *Atilax paludinosus* (Water mongoose).
- *Galerella sanguinea* (Slender mongoose).
- *Orycteropus afer* (Aardvark).
- *Hystrix africaeaustralis* (Porcupine).
- *Procavia capensis* (Rock dassie).

These species represent a mix of grazers, browsers, and small carnivores typical of KwaZulu-Natal grassland and savanna mosaics.

12.7.3 Reptiles and Fish

No reptile survey has been carried out to date. However, fish species recorded in the Vaalbank Dam include both indigenous and exotic taxa:

- Indigenous: *Barbus natalensis* (Natal yellowfish), *Barbus gurneyi* (Red-tail minnow), *Oreochromis mossambicus* (Mozambique tilapia).
- Exotic: *Cyprinus carpio* (Common carp), *Micropterus salmoides* (Largemouth bass), *Lepomis macrochirus* (Bluegill).

The presence of alien fish, particularly *M. salmoides* and *C. carpio*, is a concern due to their impacts on indigenous aquatic species and ecosystems.

12.7.4 Endangered Species

Two bird species of conservation concern are confirmed in the area:

- *Ciconia ciconia* (White stork).

- *Geronticus calvus* (Bald ibis).

Both species are considered sensitive to habitat alteration. While no other red data fauna have been confirmed on site, the grassland biome in KwaZulu-Natal is a recognised biodiversity hotspot, suggesting potential for additional species of conservation importance, particularly among amphibians and grassland bird specialists.

12.8 Groundwater

12.8.1 Water Table Characteristics

In the lower-lying plains, borehole data indicate that the water table varies from artesian conditions to approximately 28 metres below ground level (mbgl). Several boreholes drilled to depths of up to 50 m were recorded as dry, indicating localised variability in groundwater occurrence and yield.

On the higher elevations of Hlobane Mountain, the aquifer system is largely dewatered due to extensive fracturing and subsidence associated with historical mining. This has altered groundwater storage and flow pathways in the area.

12.8.2 Boreholes, Springs, and Yields

The crest of Hlobane Mountain is capped by dolerite, which exhibits columnar jointing, resulting in a blocky, paved appearance. Rainfall infiltration readily percolates through the network of columnar joints until it reaches the contact zone with the underlying Vryheid Formation sandstones.

Given that the vertical hydraulic conductivity of Karoo sediments is significantly lower than the horizontal conductivity, seepage tends to move laterally along the dolerite–sandstone contact. Groundwater emerging along this contact has historically given rise to springs and fountains, which were important water sources in the past.

Evidence of groundwater movement along these contact zones is supported by the presence of iron staining on sandstone cliff faces, which is a common indicator of sustained seepage.

12.8.3 Groundwater Quality

No recent borehole water quality data is available. Table 12-5 shows the analyses of boreholes taken in 1985.

Table 12-5: Groundwater Quality

Borehole	BH-3	BH-4	River below BH-4	BH-8	Seepage below BH-8	BH-9	BH-10	Nearby farm
pH value	7.15	7.55	6.95	6.70	6.10	6.30	7.50	7.35
Conductivity @ 25°C (mS/m)	37.1	50.3	156	10.1	3.87	132	41.6	39
Suspended solids	-	-	-	-	-	-	-	-
Total dissolved solids	344	444	1248	168	88	1264	332	320
Total hardness (as $CaCO_3$)	70	41	514	32.4	9.2	666	62	150
Total alkalinity (as $CaCO_3$)	188	272	184	40	16	88	232	200
Calcium	17.8	10.4	126	7.7	1.2	178	16,2	36.1

Borehole	BH-3	BH-4	River below BH-4	BH-8	Seepage below BH-8	BH-9	BH-10	Nearby farm
Magnesium	6.2	3.6	55	3.2	1.5	54	5.3	14.5
Sodium	68	103	185	5.7	2.3	85	83	27
Potassium	8.7	40	12.9	8.2	6.5	7.9	4.3	6.2
Bicarbonate	229	332	224	49	19.5	107	283	-
Chloride	11	12.2	51	7.1	4.7	66	8.1	10.2
Sulphate	11	8	700	3	1	700	1	3
Nitrate	0.4	0.2	1.0	1.3	<0.1	<0.1	<0.1	<0.1
Fluoride	0.2	0.5	0.3	0.1	0.1	0.1	0.2	0.2
Phosphate	0.3	0.8	2.8	0.2	0.1	0.1	0.2	0.1
Total Iron	0.6	1.9	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Manganese	<0.01	<0.01	0.39	<0.01	<0.01	1.4	<0.01	<0.01
Copper	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Lead	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cadmium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Molybdenum	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Boron	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Chromium	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Hexavalent Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

12.8.4 Groundwater Use

Vaalbank Colliery underground mining footprint represents only 0.3 % of the total Hlobane underground mining footprint, and an even smaller fraction if nearby mining operations are also considered (including Vrede Coronation, Coronation Proper, MCVcc to the east of Rum Coal, and Buekes and Prew to the south) (Figure 12-2).

The sandstone partings between coal seams are largely impervious, which significantly restricts vertical water movement. Instead, groundwater movement is predominantly horizontal. Historically, at Hlobane Colliery, this led to the formation of underground water compartments. These compartments had to be carefully identified before mining could proceed, as they posed potential safety risks. Mining operations beneath such compartments were typically developed at depths between 16 and 30 metres, after which the compartments were drilled into and drained before stoping could commence.

One example is the Alfred compartment, recorded as containing 454.6 megalitres (Ml) on statutory mine plans. It was undermined by the Boomlager IV Dundas workings. Although it was due to be drilled and drained, this never occurred due to the closure of the Iscor mine in 1998.

The adit associated with the horizontal mining operation will serve as a surface water monitoring point following the closure of the Vaalbank Colliery. However, it is not expected to yield surface water. The anticipated impact of Vaalbank Colliery on groundwater quality is negligible, for the following reasons:

- The mining footprint constitutes less than 0.3% of the surrounding mining activity.
- The impervious sandstone partings between coal seams prevent vertical water movement. Furthermore, as no stoping is planned for Vaalbank Colliery, which could otherwise cause cracks to reach the surface, minimal surface or groundwater is expected to infiltrate the

workings.

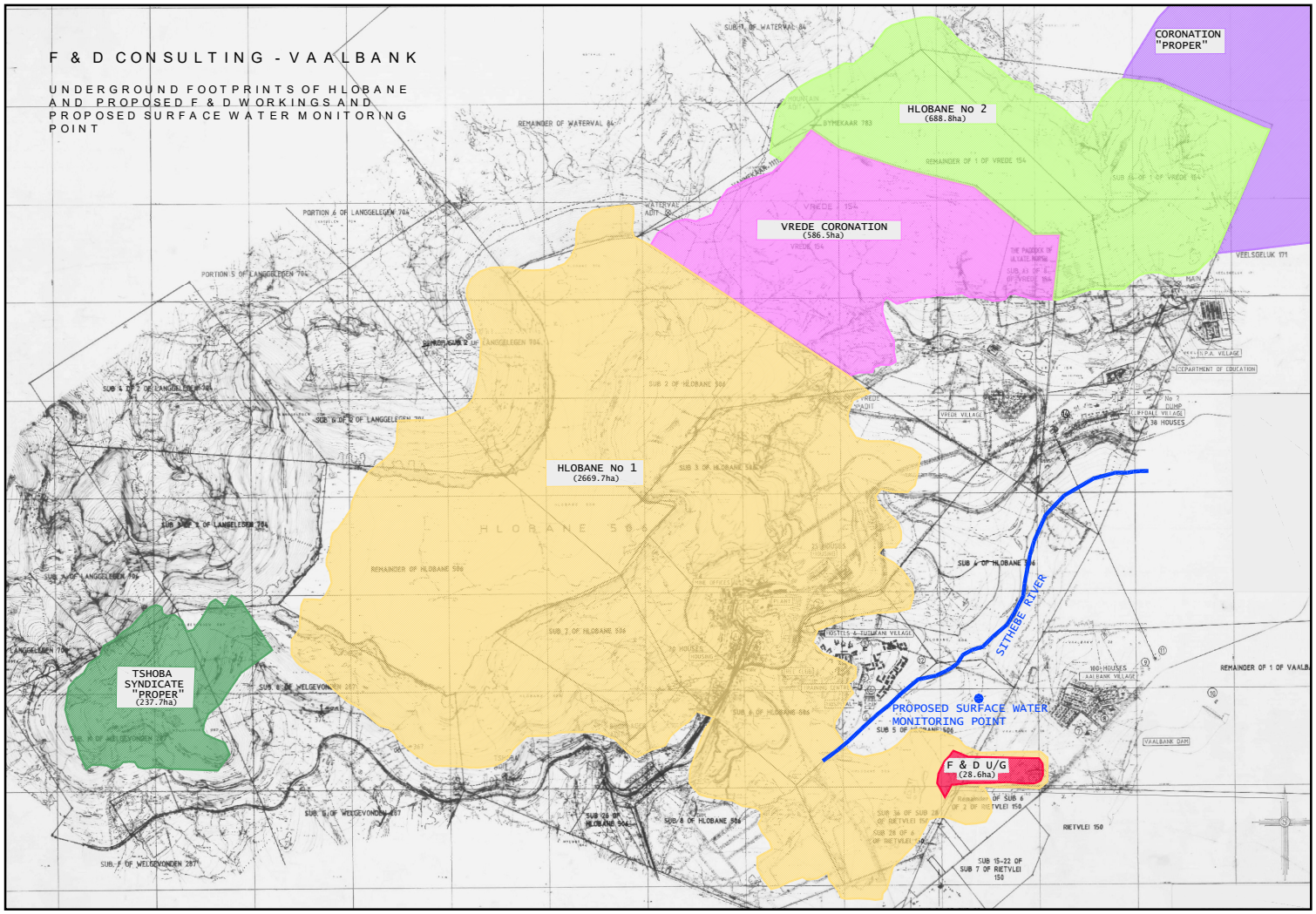

Figure 12-2: Underground footprint of Hlobane Colliery and proposed Vaalbank Mine workings (F and D U/G in red)

12.8.5 Groundwater Zones

12.8.5.1 Ecca Sandstones

The Ecca sandstones are laterally extensive across the mine area, with thicknesses of up to 200 m. Texturally, they are generally fresh, fine- to medium-grained, with some coarser-grained horizons. The sandstones are well-cemented, poorly sorted, and interbedded with shale layers. The lower sandstone horizon (beneath the Dundas Seam) is particularly hard. With the exception of the coarser-grained horizons, these features make the sandstone a poor aquifer. Weathering extends to approximately 9 m, producing thin perched or unconfined aquifers.

12.8.5.2 Coal Seams

Coal seams may once have functioned as good aquifers; however, their limited thickness (up to 1.8 m) and disrupted lateral continuity (due to numerous dyke intrusions) result in poor storage capacity. These aquifers were likely semi-confined.

12.8.5.3 Dyke Contact Zones

The potential of dyke contact zones to act as aquifers depends on their thickness, orientation, frequency of intersections, and continuity. Numerous dolerite dykes occur in the mine area. Most are about 2 m thick, with the widest known dyke measuring 30 m. Although a definitive dyke distribution map is not available, two principal sets of dykes are apparent: one trending northwest–southeast and the other northeast–southwest, resulting in numerous intersections. The Alfred East fault dyke is the most extensive mapped example, with continuity for at least 5 km along its strike. Boreholes drilled into dyke contacts in the Vaalbank area have yielded more than 15 m^3/h, confirming their aquifer status. Dyke intersections may form groundwater compartments hydraulically isolated from surrounding formations.

12.8.5.4 Fault Zones

Major faults are typically expressed as discrete linear zones of displacement rather than single planes. Their aquifer potential is similar to that of dyke contact zones. However, fault gouge material can sometimes reduce permeability, limiting aquifer potential.

The Alfred East fault, which traverses the mine area, generally strikes north–south but is not straight. It is down-faulted by 23 m to the east and intruded by a dolerite dyke. Its exact southern extent remains uncertain. It is therefore probable that the area hosts a multi-layered aquifer system, including perched, semi-confined, and confined types, intersected by numerous vertically oriented fractured aquifers. Water strikes have been reported in sandstone dyke contact zones and coal seams, further confirming their aquifer status. No tested aquifer data is available from which to derive aquifer parameters for assessing the overall groundwater resource potential.

12.8.6 Groundwater Flow

A meaningful piezometric map cannot be prepared from historical records or the currently available borehole data. In general, groundwater flow directions reflect subdued surface topography. Local

variations are influenced by the presence of dykes, faults, and fracture zones, which can redirect groundwater flow at a local scale.

12.9 Surface Water

12.9.1 Catchment Context

The Vaalbank Colliery is located in an area historically influenced by opencast and underground coal mining activities at Hlobane Colliery and other nearby coal operations. The Hlobane Colliery is situated on the catchment divide between three quaternary catchments (Figure 12-1), namely:

- W41F – Manzana River sub-catchment.
- W31A – Sithebe and Nkongolwana River sub-catchment.
- W21B – Tshoba River sub-catchment.

12.9.2 Drainage Patterns and Flow Directions

- A small portion of water from the Hlobane mining area drains westwards into the Manzana River, which in turn flows into the Pongola River.
- Another small portion drains southwards into the Tshoba River, a tributary of the White Umfolozi River.
- The largest proportion of runoff from the Hlobane mining area flows eastwards into the Sithebe and Nkongolwana Rivers, which eventually join the Mkuzi River.

Water from the Vaalbank Coal Mine Project will also contribute to the Sithebe and Nkongolwana Rivers, thereby reporting to the Mkuzi River as the main receiving water body.

12.9.3 Drainage Density

The drainage densities of catchments affected by historical mining operations in the project area are as follows:

- Sithebe River: 0.88 square kilometres (km^2).
- Nkongolwana River: 1.67 km^2.

12.9.4 Receiving Water Bodies

The concept of the receiving water body is central to catchment assessment, as it represents the point beyond which the mine's impact is considered negligible. For the Vaalbank Coal Mine, the Mkuzi River is identified as the first large receiving water body downstream of the project area.

For completeness:

- The Tshoba River, receiving runoff from the Hlobane 1 mining area, flows into the White Umfolozi River, which acts as its receiving water body.
- The Manzana River flows into the Pongola River, serving as its receiving water body.

However, since the proposed Vaalbank Coal Mine activities drain exclusively towards the Sithebe and Nkongolwana Rivers (and ultimately the Mkuzi River), the Tshoba and Manzana Rivers are outside the direct influence of the project. Consequently, water quantity and quality considerations for these two river systems are not addressed further in this study.

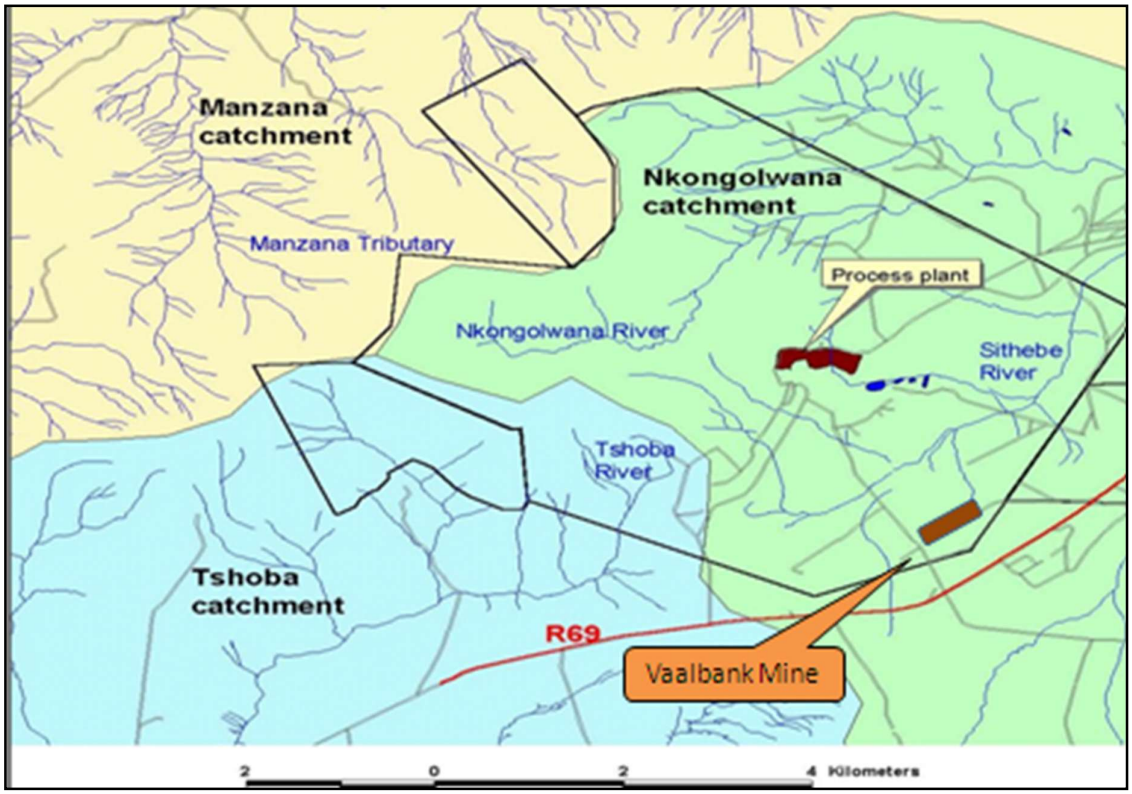

Figure 12-3: Quaternary Catchments

12.9.5 Surface Water Quantity

This section presents information on the volumes of water for the Nkongolwana and Sithebe catchments, which are the areas most likely to be influenced by the Vaalbank mining activities.

The Sithebe River drains an area of approximately 24.87 km^2 before joining the Nkongolwana River, 1.5 km west of the R69 Bridge.

Normal dry weather flows in both the Sithebe and Nkongolwana Rivers have been monitored continuously since February 2000 at designated monitoring points, as shown in Figure 12-4. The principal water users in these catchments include domestic households, livestock watering, agricultural irrigation, and natural aquatic ecosystems.

Results from flow monitoring are presented in Figure 12-5 for the Sithebe River and in Figure 12-6 for the Nkongolwana River. Current land use on the Vaalbank property is dominated by wattle plantations, although evidence of previous opencast mining associated with Hlobane Colliery is still visible.

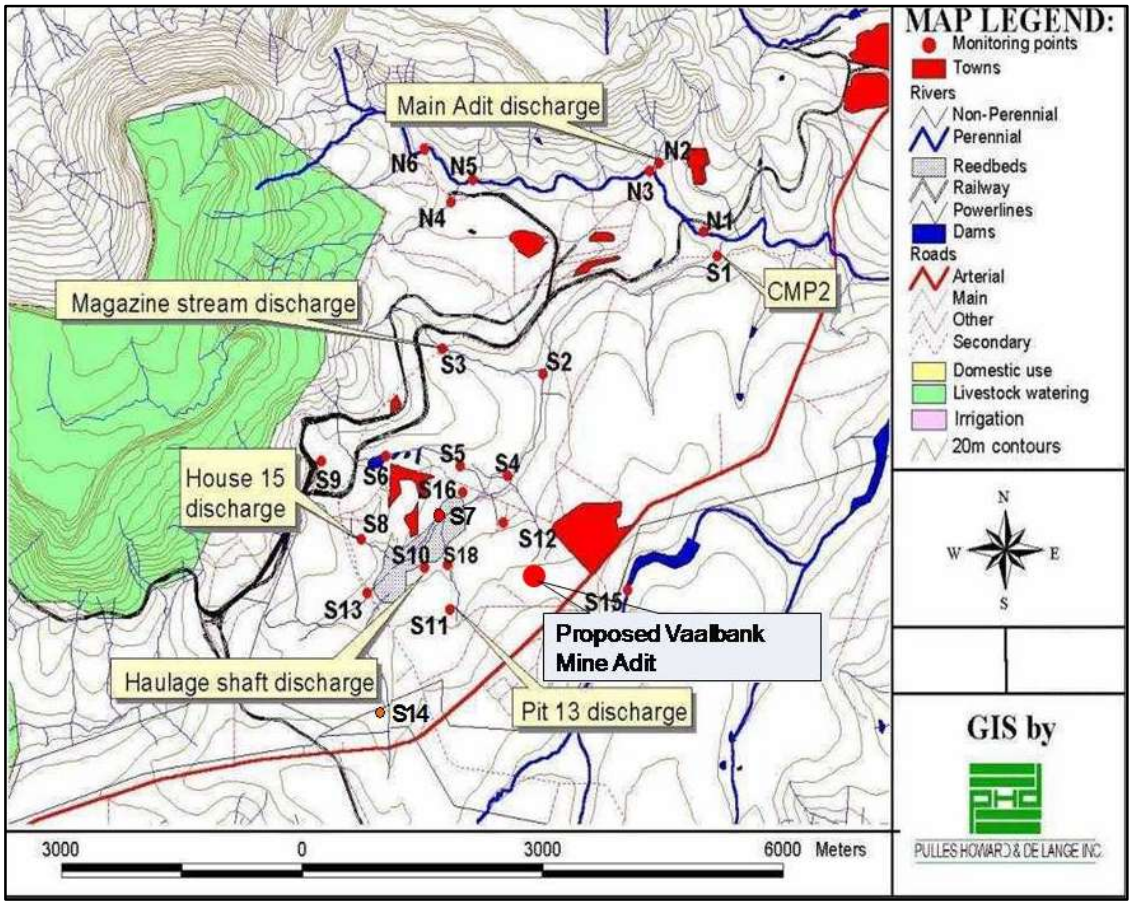

Figure 12-4: Surface Water Monitoring Points

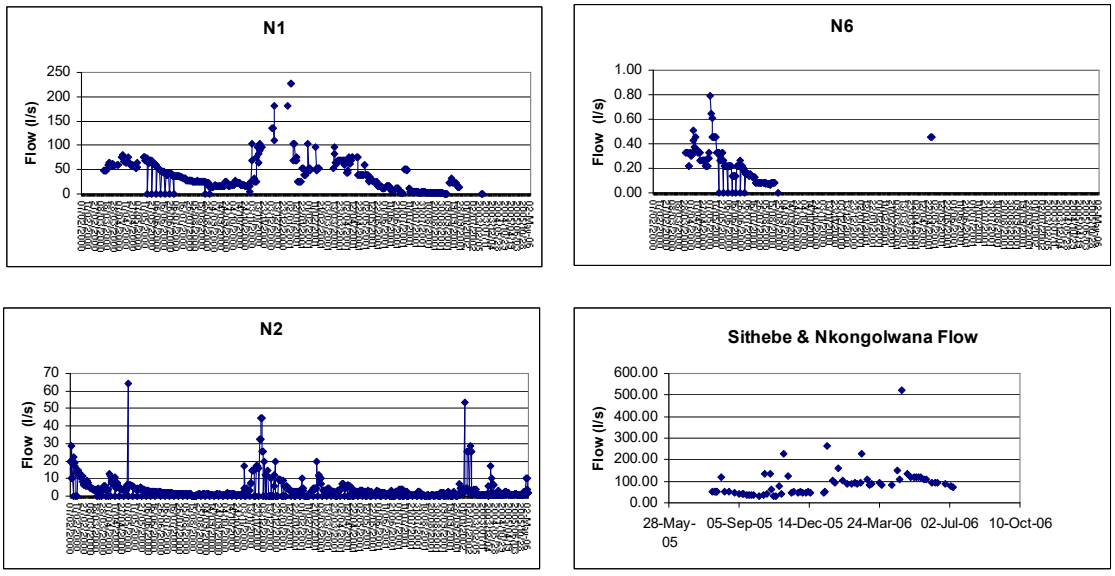

Figure 12-5: Dry weather flow for the Nkongolwana River (Pulles Howard and de Lange, 2008)

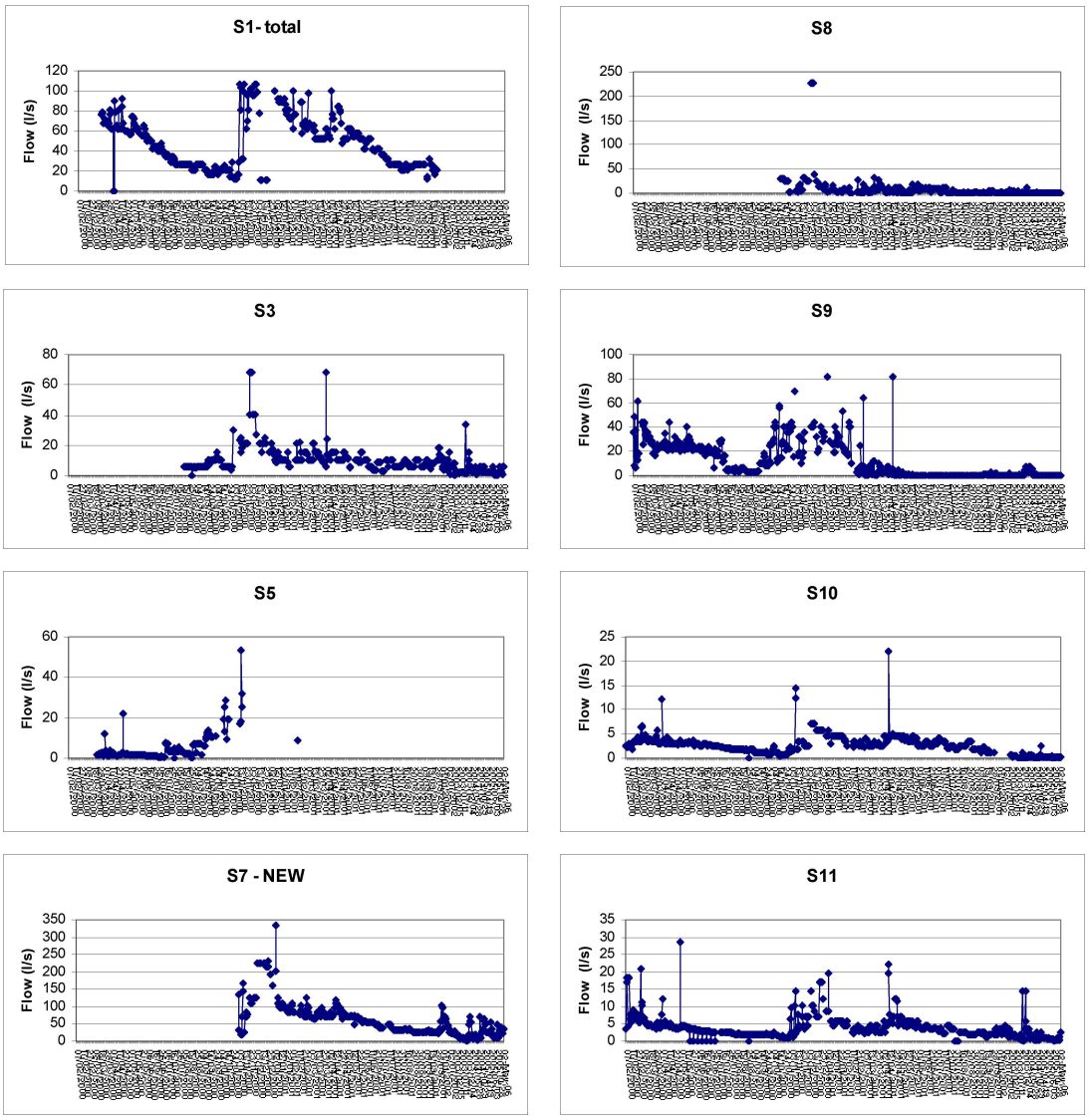

Figure 12-6: Dry weather flow for the Sithebe River (Pulles Howard and de Lange, 2008)

12.9.5.1 Surface Water Quality

The locations of the surface water monitoring points are indicated in Figure 2.3. There are two major types of water – rock interaction that dictate seepage quality emanating from old Hlobane Colliery:

- Firstly, the dissolution, precipitation and ion exchange processes taking place in the overlying sedimentary rocks enrich the groundwater in elements such as sodium.
- Secondly, the oxidation of sulphide minerals in the coal seams contributes towards the deterioration of water quality in terms of acidity, sulphate and metals. This process includes the dissolution of neutralising minerals within the mine workings resulting in the removal of acidity and precipitation of secondary minerals along the flow paths.

Table 12-6: A description of current surface water quality monitoring points reads as follow (Monitored by Hlobane Colliery and Vryheid Coronation Colliery)

Name	Description	Monitored for	Full description	Catchment
N1	From VCC	Modelling	The Compliance Monitoring Point upstream of the Sithebe / Nkongolwana confluence. VCC v-notch	Manzana
N2	Main Adit	Compliance	The first major tributary entering the Nkongolwana, upstream of the confluence	Nkongolwana
N3	Koekoepan bridge	Modelling	The Nkongolwana upstream from the tributary noted above	Nkongolwana
N4	Waterfall seepage dam	Modelling	The Nkongolwana just upstream from the tributary flowing from the liming plant (also sampled as "Sect 54")	Nkongolwana
N5	Vrede Coronation	Modelling	The tributary flowing from the liming plant into the Nkongolwana, upstream from the confluence (also sampled as "Liming Plant")	Nkongolwana
N6	Bubbling hole	Modelling	VCC decant	Nkongolwana
S1	CMP 2	Compliance	The Compliance Monitoring Point (CMP2) immediately upstream of the Sithebe / Nkongolwana confluence. Will be added to N7 and N2 for future compliance	Sithebe
S2	Downstream of Claude's breached Dam	Modelling	The Sithebe just before the confluence with the tributary (Magazine Stream) immediately north of No. 1 dump	Sithebe
S3	Stream from Magazine	Modelling	The tributary north of the No. 1 Dump, before the confluence with the Sithebe River. Stream from magazine. Contains seepage from pits 3/4	Sithebe
S4	From No. 1 Dump	Modelling	The trench with seepage water from the No. 1 Dump, southwest of the dump	Sithebe
S5	Under slurry dams	Modelling	The outflow of the sewage work effluent. Slurry dam's overflow. Taken over by Municipality	Sithebe
S6	Under evaporation ponds	Modelling	A position just upstream from the sewage effluent	Sithebe
S7	Wetlands	Modelling	The Compliance Monitoring Point in the wetland (CMP wetland)	Sithebe
S8	House 15	Modelling	Stream decanting from the underground below House 15	Sithebe
S9	Under Gus Dump	Modelling	Discharge from the dump, stockpiles and out loading area	Sithebe
S10	Koekoepan Shaft	Modelling	Haulage shaft decant	Sithebe
S11	Louw's Dump	Modelling	Louw's dump	Sithebe
S12	No name	Modelling	Pit 14. Was found to be natural flow, not decant	Sithebe
S13	Spillway underground	Modelling	HCP decant	Sithebe
S14	Nyembe Pit	Modelling	Nyembe pit	Sithebe
S15	Vaalbank Dam	Modelling	Vaalbank inflow	Sithebe
S16	Sewerage decant	Modelling	Sewerage outflow	Sithebe
S17	Borehole 16 Shaft	Modelling	Borehole 16 shaft. Used for top up water for plant. Measured levels in underground comp	Sithebe
S18	Below Pit 14	Modelling	W Pit 14 Decant from Pit 14	Sithebe
S19	Borehole 14	Modelling	Used to measure levels in opencast pit no. 14	Sithebe
S21	Seepage Vaalbank Dam	Modelling	Vaalbank seepage	Rietspruit

Vaalbank Colliery will install monitoring points between the mining operation and the Sithebe River to monitor the quality of any runoff surface water that the mining operation may cause which may enter the Sithebe River. This can also be controlled by Hlobane as it would be reflected in the Hlobane measurements at S1 and S2.

12.9.5.2 Drainage Density of Areas to be Disturbed

The drainage densities of the catchment areas affected by mining operations is Sithebe 0.88 km^2.

12.9.5.3 Surface Water Use

Mining activities are the dominant land use factor influencing the Sithebe catchment. Approximately 1.47 km^2, or 6% of the catchment, is occupied by discard dumps from the former Hlobane Colliery, while a further 1.83 km^2, or 7%, consists of rehabilitated opencast pits. In addition, forestry, primarily wattle plantations, covers about 11.41 km^2, representing 46 % of the catchment.

12.9.5.4 Water Authorities

The water authority is the regional Department of Sanitation (DWS) office based in Dundee.

12.10 Wetlands

A relatively small wetland with reed cover is present along the Sithebe River. This wetland is situated to the south-east of the discard dumps associated with Hlobane Colliery. It lies upstream of Vaalbank Colliery and is therefore not expected to be directly affected by those activities.

12.10.1 Biological Surveys

Biological surveys have been undertaken on rivers associated with Hlobane Colliery on a regular basis. The most recent assessments were carried out by Allestons Ecologicals in April 2003 and again in July 2006.

The April 2003 survey found that sustained streamflows over the preceding seasons contributed to an improvement in aquatic biodiversity. This was evident from the diversity of aquatic macroinvertebrate communities, as assessed using the South African Scoring System (SASS) monitoring procedure. However, the survey also noted that streamflow alone could not account for this improvement if water quality had remained poor. The findings therefore suggest that there had also been a measurable improvement in water quality.

Because these rivers are directly influenced by mining activities, the improvements point to the effectiveness of rehabilitation and management measures that were implemented at the collieries. Despite these positive results, broader catchment-level impacts unrelated to mining continue to place pressure on water quality. These impacts appear to be linked to other land use practices in the region.

For example, the Nkongolwana Catchment was recorded as being in decline. At the lowest survey site, river conditions were poor, with algal and fungal mats clogging the channel. This corresponded with lower scores under the SASS. By contrast, a new monitoring site on the Nkongolwana River

produced relatively good scores, indicating that the main pressures on water quality and ecological health are more closely associated with the Sithebe portion of the catchment.

12.11 Noise

Following the cessation of mining activities at Hlobane in June 1998, noise levels in the surrounding environment have decreased. Ambient noise is now primarily associated with natural sources, local community activities, and occasional agricultural operations.

Vaalbank Collery is significantly smaller in scale compared to historical mining at Hlobane. While the type of noise generated (such as blasting, vehicle movement, and machinery operation) may be similar in character, the intensity, frequency, and spatial extent of noise are expected to be considerably reduced.

12.12 Site of Archaeological Interest

No formal archaeological surveys or records exist for the property. Nonetheless, the area holds cultural and historical significance. The Battle of Hlobane (1879), a key event in the Anglo–Zulu War, took place here, and monuments commemorating this battle are situated within the Hlobane Colliery area.

Another noteworthy feature is Zwane's Stone, a prominent landmark visible from the road to Boomlager 4, which is locally recognised for its cultural interest. In addition, when mining activities at Hlobane ceased, much of the obsolete equipment was donated to the Talana Museum in Dundee, where it forms part of the region's preserved mining heritage. These elements highlight the need for cultural and historical sensitivity in land management, even in the absence of documented archaeological resources.

12.13 Sensitive Landscapes

No landscapes within the property are formally protected under statutory frameworks. Similarly, no natural wetlands or ecologically sensitive habitats occur within the project area. Although no designated sensitive landscapes are present, the site's proximity to heritage features such as the Hlobane battle monuments and Zwane's Stone underscores the importance of integrating cultural considerations into ongoing land use planning.

12.14 Visual Landscapes

Mining activities at Hlobane are currently limited to underground operations. Opencast mining has ceased, with only limited rehabilitation of historical pits still outstanding. Consequently, visual impacts are primarily linked to existing surface infrastructure rather than active mining.

The most noticeable visual intrusions occur along the Vryheid–Louwsburg Road, where infrastructure such as the beneficiation plant, workshops, office buildings, railway lines, rehabilitated discard dumps, stockpiles, and access roads are visible on the slopes of Hlobane Mountain. These features interrupt the natural landscape and reinforce the industrial character of the area.

12.15 Regional Socio-Economic Aspects

12.15.1 Population density, growth and location

The economy of the Vryheid sub-region was dominated by the mining industry. With the closure of mines since 1992 the unemployment rate has risen dramatically. At the same time employment opportunities decreased accordingly. This region has been identified as poverty–stricken. The average personal disposable income is less than R1500 per year. This region also has one of the highest population densities, with concomitant deleterious consequences on community health, social welfare provision, income and the environment.

At Hlobane, Mining Contractors Vryheid employed approximately 400 people from the region during their operational phase (up until the end of 2005). Ferroland Grondtrust employs approximately 120 people to do the rehabilitation on the mine. Only people living / housed in villages of Vaalbank, Hlobane, and Thuthukani, as well as Nkonqolwana Township near the No. 2 Mine are employed by Ferroland. An effort is made, with the assistance of the local counsellors, to employ only one person per family and in a rotational manner to ensure a fair distribution of income in the community.

The major economic activities and sources of employment of the area are:

- Mining.
- Forestry.
- Farming.
- Transport.
- Telkom.
- Rehabilitation.
- Retail.

12.15.2 Unemployment estimate for area

Unemployment is estimated at 80% (Stats SA, 2021).

12.15.3 Housing – demand and availability

Hlobane upgraded the existing infrastructure when mining activities ceased in 1998 and subsequently all three villages at Hlobane were proclaimed as a township and incorporated into the AbaQulusi Municipal area as Ward 7. These houses and buildings were sold to the community at reduced prices and some were donated. With the increasing influx of people from outside areas, there is still a general housing shortage in the Hlobane region and many people have resorted to squatting.

12.15.4 Social infrastructure

The following social infrastructure exists at Hlobane:

- Three primary schools.
- One secondary school.
- Shopping facilities, i.e. general dealer, liquor store, butchery and petrol station.
- Sporting facilities: Soccer field.
- Clinic.
- Police station.
- Post office.

12.15.5 Water supply

The Vaalbank Dam is located on the mine property of the closed Hlobane Colliery. It is situated in the bed of the Rietspruit, southeast of the mine. This earth-walled dam has a maximum capacity of 840 000 m^3. During June 2000, Hlobane upgraded the dam to comply with DWS requirements for a Category 2 dam. During 2002, the dam was subdivided from the farm and donated to the AbaQulusi Municipality with an Operations and Maintenance Manual and Emergency Plan.

The mine was authorised to draw 3152 m^3 per day from this potable water source (previously 3 500 m^3/day in terms of Permit No. 162 N, dated 27 June 1984 and issued in terms of Section 12(5) of the Water Act, 1956 (Act 54 of 1956). Water drawn from the dam is pumped to the purification plant that is located on the Vryheid - Louwsburg Road on the eastern side of Vaalbank Village. From this point, approximate average daily distribution is as follows:

- Vaalbank Village — 172 m^3 per day.
- Old Mine offices, hostels and Hlobane Village — 576 m^3 per day.
- Thuthukani Village — 377 m^3 per day.

12.15.6 Boreholes

Four boreholes, two equipped with pumps, lie to the east of the Vaalbank Dam wall. These are used only during dry seasons and emergencies. The mine was authorised to draw 772 m^3 per day for industrial and domestic use. The boreholes are 100 m to 120 m deep, with an average water level at 24 m.

12.15.7 Power supply

Eskom supplies electricity.

13 IMPACTS AND RISKS IDENTIFIED INCLUDING THE NATURE, SIGNIFICANCE, CONSEQUENCE, EXTENT, DURATION AND PROBABILITY OF THE IMPACTS, INCLUDING THE DEGREE TO WHICH THESE IMPACTS

13.1 Methodology used in Determining and Ranking the Nature, Significance, Consequences, Extent, Duration and Probability of Potential Environmental Impacts and Risks

Activities within the framework of Vaalbank Colliery may give rise to certain impacts during the construction, operational and decommissioning phases. For the purposes of assessing these impacts, this chapter has been divided into two phases from which impacts can be identified, namely:

- Construction phase: This phase includes all activities relating to the infrastructure of Vaalbank Colliery.
- Operational phase: This phase includes all activities including operation and maintenance.
- Decommissioning phase: This phase includes all the decommissioning and decommissioning-related activities on site.

Assessment criteria: The assessment of potential environmental impacts was conducted according to the criteria required by the EIA Regulations as described below.

Nature of impact: This is an appraisal of the type of effect the activity would have on the affected environment. This description should include what is being affected and how.

Extent: A description of whether the impact would be local extending only as far as the activity, will be limited to the site and its immediate surroundings, will have an impact on the region, or will have an impact on a national scale or across international borders.

Duration: A prediction of whether the duration of the impact would be short term, (0 to 5 years); medium term (5 to 15 years); long term (>15 years, with the impact ceasing after the operational life of the development); or should be considered as permanent.

Probability: A description of the likelihood of the impact occurring indicated as:

- Improbable (low possibility);
- Probable (distinct possibility);
- Highly probable (most likely); or
- Definite (impact would occur regardless of any prevention measures).

Significance: The significance of impacts can now be determined through a synthesis of the aspects produced in terms of their nature, duration, extent and probability and be described as:

- Low, where the impact would not have an influence on the project design.
- Medium, where it could have an influence on the environment unless it is mitigated.
- High, where it would influence the decision regardless of any possible mitigation.

13.2 The Positive and Negative Impacts that the Proposed Activity (in Terms of the Initial Site Layout) and Alternatives will have on the Environment and the Community that may be Affected

13.2.1 Construction Phase

The construction phase of the Vaalbank Colliery will involve the establishment of the boxcut, development of surface infrastructure such as haul roads and workshops, and preparation of the underground access points. These activities introduce short- to medium term environmental and social changes that must be carefully managed.

13.2.1.1 Geology and Topography

The excavation of the boxcut and associated earthworks will cause permanent, localised disturbance to the geological strata. Although these disturbances are confined to the MR boundary, they alter the natural layering and structural integrity of the exposed area. Topographical change is unavoidable as slopes are cut and drainage lines disrupted, increasing the potential for erosion, especially during storm events. If unmanaged, this may cause sedimentation in nearby streams and gullies. However, the design of engineered slopes and the early application of erosion control measures provide an opportunity to stabilise disturbed areas and reduce long term risk.

13.2.1.2 Soil and Land Capability

Soil stripping exposes shallow, low fertility soils to wind and water erosion. The disturbance also leads to compaction from heavy machinery, which reduces infiltration and agricultural potential. Without correct handling, the biological and structural qualities of topsoil may degrade rapidly, compromising its suitability for future rehabilitation. On the positive side, careful stockpiling and management preserve soil resources for later reuse. If stripping is phased and stockpiles are vegetated promptly, soils can be conserved effectively for rehabilitation and closure.

13.2.1.3 Vegetation and Fauna

Clearing of natural vegetation will remove habitat for a range of indigenous species, reducing biodiversity and opening areas to invasive alien plant colonisation. Faunal species such as small mammals, reptiles, and birds will be displaced, while some may suffer mortality from construction traffic and blasting. These impacts are negative but localised. At the same time, this phase allows for alien invasive plant removal and relocation of any species of conservation concern, which can strengthen long term biodiversity outcomes.

13.2.1.4 Surface and Groundwater Resources

Surface water bodies are vulnerable to sedimentation and contamination during construction, especially from hydrocarbon spills and uncontrolled runoff from cleared areas. Groundwater contamination is possible if hydrocarbons or explosives are improperly stored and not adequately bunded. These risks are serious given the history of legacy mining impacts in the Hlobane area. However, the installation of clean/dirty water separation infrastructure, bunded storage, and dams at the start of construction will significantly reduce potential long term risks.

13.2.1.5 Air Quality, Noise, and Visual Impacts

Dust emissions from stripping, exposed stockpiles, and heavy traffic are expected to be high in the early stages of construction. Noise from machinery and blasting will also increase, affecting workers and nearby residents. These are temporary but can generate nuisance impacts. Visual disturbance is also likely, as cleared areas, exposed soils, and construction traffic contrast with the surrounding landscape. Effective dust suppression, noise scheduling, and visual screening measures will be critical to minimising impacts.

13.2.1.6 Socio-economic Impacts

Social impacts during construction are twofold. On the negative side, local communities may experience nuisance effects from dust, noise, and increased traffic, as well as concerns over safety. On the positive side, construction delivers direct and indirect benefits. Approximately 150 jobs (direct and contractor) will be created, procurement opportunities will arise, and local businesses can supply services. Given the high unemployment in the AbaQulusi Local Municipality, these socio-economic benefits are significant. Early training programmes will also help develop skills transferable to other sectors, enhancing long term resilience.

13.2.1.7 Stakeholder Engagement

Engagement with I&APs is especially important during construction to address concerns, provide transparent information, and build trust. Maintaining open communication channels ensures that grievances are captured and resolved quickly, reducing the risk of conflict and fostering cooperation.

13.2.2 Operational Phase

The operational phase is characterised by sustained environmental pressures as the mining of the seams progresses through underground scoop mining and a limited opencast component. While the activity delivers substantial socio-economic benefits, it also represents the most intensive period of environmental impact.

13.2.2.1 Geology and Topography

The extraction of coal results in permanent alteration of the geological resource base. Underground bord-and-pillar mining with a high Factor of Safety (FOS) greatly reduces the likelihood of subsidence, maintaining stability in the surrounding strata. The opencast portion, however, alters slopes and natural drainage patterns, introducing higher erosion potential. Progressive backfilling and contouring of mined out areas mitigate these effects and ensure landforms are stabilised over time.

13.2.2.2 Soil and Land Capability

Operational activities, particularly haulage and stockpiling, increase risks of soil compaction, contamination, and fertility decline. Hydrocarbons and explosives, if mismanaged, may further degrade soil quality. Despite these pressures, concurrent rehabilitation offers a clear positive

pathway: soils replaced progressively can support grazing and forestry, ensuring that disturbed land is returned incrementally to productive use.

13.2.2.3 Vegetation and Fauna

Vegetation loss will continue in active mining areas, resulting in habitat fragmentation and reduced ecological connectivity. However, invasive alien species control and active revegetation with indigenous plants provide long term ecological benefits. Fauna remain disturbed by blasting, noise, and vehicle movement, but the implementation of buffer zones, speed limits, and habitat rehabilitation allows gradual adaptation and recovery.

13.2.2.4 Surface and Groundwater Resources

Water resources are among the most sensitive receptors during operation. Surface water may be negatively affected by dirty water runoff, sedimentation, and acid mine drainage (AMD). Groundwater risks include contamination from blasting residues, seepage, and potential hydrocarbon spills. These risks are serious but can be controlled through dams, clean/dirty water separation, lined facilities, and continuous monitoring. The positive aspect is that water infrastructure designed to regulatory standards can actually improve baseline conditions compared to unregulated legacy mining sites.

13.2.2.5 Air Quality, Noise, and Visual Impacts

Dust emissions from haul roads, stockpiles, and blasting are continuous risks, with potential health and nuisance effects. Dust suppression and routine monitoring of particulate matter (PM_{10}) are essential. Noise impacts are more sustained during operation, with drilling, hauling, and blasting contributing to elevated ambient levels. These impacts can extend beyond the site if not well managed. Visual impacts increase as infrastructure, discard dumps, and stockpiles dominate the landscape. Rehabilitation and screening will be required to soften long term visual scars.

13.2.2.6 Socio-economic Impacts

The operational phase provides the most substantial socio-economic benefits. Direct and indirect employment continues, procurement opportunities expand, and fiscal contributions are made through royalties and taxes. Local economic development (LED) projects enhance livelihoods, improve infrastructure, and strengthen community resilience. On the negative side, communities may still experience dust, noise, traffic, and safety issues. Regular engagement, transparent disclosure of monitoring results, and a robust grievance mechanism are essential to balance impacts and maintain positive relations.

13.2.2.7 Stakeholder Engagement

Stakeholders expect regular communication and proof of compliance during operation. Transparent reporting on air, water, and rehabilitation performance builds trust and reduces opposition.

13.2.3 Decommissioning Phase

The decommissioning phase represents the transition from active mining to closure and

rehabilitation. While certain residual risks remain, this phase provides the opportunity to restore the environment and prepare land for sustainable post-mining uses.

13.2.3.1 Geology and Topography

No new geological disturbance occurs during closure, though residual impacts from mined seams remain permanent. Topography is reshaped through backfilling, profiling, and contouring, with the aim of restoring natural slope stability and drainage patterns. If poorly managed, risks of erosion and slumping persist, but with effective engineering, long term landform stability can be achieved.

13.2.3.2 Soils and Land Capability

Soils disturbed during operations must be remediated and restored. Compaction is reduced by scarification, while fertility is improved through topsoil replacement and vegetation establishment. The goal is to return land to sustainable use, primarily grazing and forestry, aligned with regional land use capability.

13.2.3.3 Vegetation and Fauna

Demolition and rehabilitation activities initially cause disturbance to vegetation and fauna. However, the long term outcome is strongly positive: indigenous vegetation is re-established, alien invasives are controlled, and faunal communities gradually recolonise restored habitats. Biodiversity conservation becomes a central closure objective.

13.2.3.4 Surface and Groundwater Resources

Water risks remain the most significant during closure. Surface water may be impacted by decant from underground workings and seepage from discard dumps. Groundwater contamination from sulphates and metals may also persist. Long term monitoring and water treatment, where required, are essential to protect downstream users. Rehabilitation of catchment areas and diversion of clean water around disturbed zones reduce risks further.

13.2.3.5 Air Quality, Noise, and Visual Impacts

Dust from demolition and soil movement is a short term concern but manageable with watering and rapid revegetation. Noise levels from demolition equipment are temporary and reduce significantly once closure is complete. Visual impacts initially increase as infrastructure is removed, but progressively diminish as rehabilitation establishes vegetation and restores the landscape.

13.2.3.6 Socio-economic Impacts

The most significant negative impact during closure is job loss. Retrenchments affect household income and can increase local unemployment. Positive measures, such as reskilling, retraining, and LED projects, are vital to offset these effects. In the long term, communities benefit from restored land, reduced legacy risks, and new opportunities for sustainable use.

13.2.3.7 Stakeholder Engagement

Transparent engagement is essential during closure to manage expectations, provide reassurance, and demonstrate compliance with closure objectives. This ensures that communities understand the

process, feel included in decision-making, and are prepared for the post-mining future.

13.2.4 Cumulative Impacts

Cumulative impacts refer to the combined effect of the proposed Vaalbank Colliery operations with existing and foreseeable activities in the surrounding region. These impacts extend beyond site-specific changes, encompassing the long term interactions of mining, agriculture, forestry, and settlement within the Vryheid coalfield landscape. The cumulative assessment considers the construction, operational, and closure phases, as well as residual impacts from historical and concurrent mining activities.

13.2.4.1 Landform, Geology and Soils

Cumulative impacts on landform and soils stem from repeated disturbance of the shallow, sandy soils and the reshaping of natural topography by both historical and current mining operations. Erosion potential increases as slopes are cut and drainage patterns altered, with soil compaction and contamination reducing land capability over time. While concurrent rehabilitation is proposed, the cumulative effect of multiple disturbed areas across the coalfield reduces the overall resilience of soils, limiting their long term potential for intensive cultivation and confining post-mining land uses to grazing and forestry.

13.2.4.2 Water Resources

Surface water and groundwater resources represent the most sensitive receptors of cumulative impact. Regional catchments already show declining baseflows due to historic mining and forestry activities. Additional contributions from the Vaalbank Colliery, including risks of AMD, dirty water runoff, and groundwater seepage, will add to existing pressures. Without robust clean and dirty water separation, treatment systems, and long term monitoring, the cumulative risk of degraded water quality and reduced availability for downstream users remains significant.

13.2.4.3 Air Quality, Noise and Visual Environment

Air quality impacts, particularly from dust (PM_{10} and $PM_{2.5}$) and gaseous emissions, will accumulate with emissions from other local mines, agriculture, and transport. Sensitive receptors such as schools, households, and farms may experience sustained nuisance levels if dust suppression and emission controls are not rigorously applied. Noise and vibration from blasting and heavy vehicles will add to the rural soundscape, further elevating ambient levels. Visually, cumulative impacts manifest as a progressively industrialised landscape, with overburden dumps, haul roads, and infrastructure dominating natural vistas. Rehabilitation and visual screening are therefore critical to mitigate long term cumulative landscape effects.

13.2.4.4 Biodiversity

Biodiversity impacts are cumulative in nature due to the fragmentation of habitats, displacement of fauna, and encroachment of alien invasive species across the coalfields. Although individual mining footprints may appear limited, their combined effect reduces the integrity of grassland and riparian habitats. Invasive Alien Plant (IAP) such as *Acacia mearnsii* (black wattle) are already

widespread and will likely expand without systematic management. Rehabilitation with indigenous species and protection of riparian corridors are key measures to address these cumulative pressures.

13.2.4.5 Socio-Economic Environment

From a socio-economic perspective, cumulative impacts are dual in character. On the positive side, the colliery supports employment, procurement, royalties, and skills development, which collectively enhance household incomes and municipal revenue in a region with limited economic opportunities. However, the cumulative negative impacts include heightened competition for natural resources, especially water, and repeated exposure of communities to dust, noise, and traffic risks. At closure, cumulative effects are most pronounced: workforce retrenchments and reduced procurement add to regional unemployment unless carefully managed through retraining, diversification, and the implementation of a social closure plan.

13.2.4.6 Conclusion

The cumulative impacts of the Vaalbank Colliery reflect the legacy of historic and ongoing mining in the Vryheid coalfields. While socio-economic benefits are considerable, particularly in sustaining livelihoods and municipal revenues, these must be balanced against long term environmental pressures on soils, water, biodiversity, and visual quality. The effective implementation of the EMPr, with a strong emphasis on water resource protection, progressive rehabilitation, and socio-economic transition, is essential to ensure that cumulative impacts are managed within acceptable thresholds.

13.3 The Possible Mitigation Measures that could be Applied and the Level of Risk

Mitigation measures have been identified to reduce the potential environmental and social risks associated with the proposed mining activities. For geology and topography, backfilling, profiling, and slope stabilisation will be undertaken to ensure a safe and stable landform, with rehabilitation reducing the risk to low levels post closure. In relation to soils and land capability, careful stripping and stockpiling of soil types according to depth, protection of stockpiles from erosion and contamination, and the replacement of topsoil on reshaped areas will be implemented. These measures, supported by fertility monitoring, reduce soil risks from medium during operation to low after rehabilitation.

For biodiversity, vegetation clearance will be confined to the authorised footprint, and progressive revegetation with indigenous species, combined with an alien invasive control programme, will reduce ecological risks to low levels over time. Surface water risks will be managed through clean and dirty water separation, the construction of pollution control dams, and regular monitoring of upstream and downstream water quality, reducing operational risks from medium to low following closure. Groundwater risks, due to their long term uncertainty, will be addressed by lining hydrocarbon and hazardous storage areas, conducting baseline and routine monitoring, and applying adaptive management if contaminants are detected. Although residual risks remain medium in the long term, continued monitoring will manage these effectively.

Air quality will be managed through watering of haul roads, enforcing vehicle speed restrictions,

and monitoring dust fallout and PM10, reducing risks to low levels. Noise and vibration impacts will be mitigated by restricting blasting to daylight hours and maintaining machinery with silencers, ensuring low residual risk. For heritage resources, the implementation of a chance find procedure and engagement with the South African Heritage Resources Agency (SAHRA) where necessary will keep risks at very low levels. Visual impacts will be managed through progressive rehabilitation and, where feasible, the screening of infrastructure with berms or vegetation, reducing impacts from medium during operation to low post closure.

From a socio-economic perspective, preferential employment of local labour, skills development and training initiatives, and the implementation of the Social and Labour Plan (SLP) will manage retrenchment risks and enhance long term benefits. Overall, with the application of these mitigation measures, most risks can be reduced to low or acceptable levels, with some residual medium risks remaining for biodiversity and groundwater due to their inherent sensitivity and the need for ongoing monitoring.

13.4 Motivation where no Alternative Sites were Considered

No alternative sites were considered for this project. The location of the coal resource is geologically fixed and extraction is only possible within the delineated MR and PR areas. The coal seams and associated reserves occur exclusively within these boundaries, making relocation or consideration of alternative geographic sites infeasible. The mining operations are therefore restricted to the defined MR and PR areas, in line with the rights granted by the DMPR.

13.5 Statement Motivating the Alternative Development Location within the Overall Site

The development location within the overall site is motivated by the presence of the coal resource and the existing authorised mining footprint. Underground mining has already been approved in the EMPr as the most appropriate method, given the depth, quality, and characteristics of the coal seams. Supporting surface infrastructure has also been authorised and established within the MR area, ensuring that no new facilities are required.

The proposed inclusion of the PR area into the MR is an administrative amendment that enables the continuation of mining activities in a manner that is technically feasible, economically viable, and environmentally responsible. This approach secures additional reserves, extends the LoM from 5 years to 10 years, sustains employment opportunities, and maintains compliance with the approved EMPr. It represents the only practical development location within the site boundaries, while avoiding unnecessary new disturbances or environmental impacts.

13.6 Full Description of the Process Undertaken to Identify, Assess and Rank the Impacts and Risks the Activity will Impose on the Preferred Site (in Respect of the Final Site Layout Plan) Through the Life of the Activity

The identification, assessment, and ranking of potential environmental impacts and risks associated with the Vaalbank Colliery were undertaken as part of the approved EMPr prepared for the mine. The methodology followed the principles of Integrated Environmental Management (IEM) and was

applied consistently across all phases of the project lifecycle.

Activities within the framework of Vaalbank Colliery may give rise to impacts during the construction, operational, and decommissioning phases. For assessment purposes, the life cycle of the project was divided into the following phases:

- Construction phase: All activities relating to the establishment of infrastructure at the Vaalbank Colliery.
- Operational phase: All activities associated with the ongoing operation, production, and maintenance of the mine.
- Decommissioning phase: All activities relating to the closure and rehabilitation of the mine and associated infrastructure.

13.6.1 Assessment Criteria

Each potential impact was assessed using the following criteria in line with IEM procedures:

- Nature of Impact: The type of effect on the receiving environment, describing what aspect is affected and how.
- Extent: The spatial scale of the impact, assessed as local (limited to the site), regional, national, or international.
- Duration: The predicted length of time for which the impact will persist, categorised as short term (0–5 years), medium term (5–15 years), long term (>15 years), or permanent.
- Probability: The likelihood of the impact occurring, described as improbable (low possibility), probable (distinct possibility), highly probable (most likely), or definite (will occur regardless of mitigation).
- Significance: Determined as a synthesis of the above criteria and expressed as:
    - Low – impact would not influence project design.
    - Medium – impact could influence the environment unless adequately mitigated.
    - High – impact would influence the decision irrespective of mitigation.

13.6.2 Application of Methodology

This methodology was applied systematically to all project phases. Construction impacts were evaluated alongside operational impacts and decommissioning impacts.

By ranking each identified impact according to the above criteria, the assessment provided a balanced, transparent framework for determining the significance of potential environmental and social effects. This ensured that mitigation measures could be appropriately targeted, and that the final site layout and activities at the Vaalbank Colliery remain environmentally responsible and compliant with regulatory requirements.

13.7 Assessment of Each Identified Potentially Significant Impact and Risk

In line with the assessment methodology described above, each potentially significant impact and risk associated with the Vaalbank Colliery has been systematically identified, evaluated, and ranked. The assessment considered the construction, operational, and decommissioning phases of the project and applied the defined criteria of nature, extent, duration, probability, and significance.

The tables below provide a summary of this process, presenting the outcomes of the impact and risk assessment in a clear and comparative format. The table highlights where mitigation measures are required to reduce the significance of impacts and identifies those residual impacts that remain even after the application of reasonable and practical mitigation.

Table 13-1: Impact and Risk Assessment - Construction Phase

Aspects Affected	Activity UG: Underground OC: Opencast	Potential Impact	Extent (Pre)	Duration (Pre)	Probability (Pre)	Significance (Pre)	Mitigation Measures	Extent (Post)	Duration (Post)	Probability (Post)	Significance (Post)	Management Commitment	Monitoring (Indicators/Methods)
Geology	UG: Underground access via highwall (boxcut)	Disturbance of geological formations	Localised	Permanent	Definite	Low	• Confirm geotechnical model and factors of safety before excavation; update with face mapping as works advance. • Use progressive excavation and benching; maintain safe batter angles and bench widths per design. • Install real-time slope monitoring (survey prisms/crack gauges); apply trigger-action levels. • Prepare a Geotechnical Risk Management Plan (failure modes, exclusion zones, emergency egress). • Permanently record as-built geometry (survey) and geotechnical logs for closure files.	Localised	Permanent	Definite	Low	• Implement Environmental Management Programme (EMPr) and maintain compliance across all activities.	• Routine geotechnical inspections. • Prism/crack-gauge trend reviews. • Corrective action close-outs. • Toolbox talks.
Topography	UG: Portal/bench preparation	Surface disturbance and minor subsidence risk (no stooping)	Localised	Medium term	Unlikely	Low	• Backfill and regrade immediately after each work package; tie into natural contours to avoid ponding. • Construct temporary stormwater controls (diversion berms, toe drains, dams) before earthworks. • Apply erosion controls on new slopes (hydroseed, biodegradable mats, brush-packing) and rip on contour to break compaction. • Place sacrificial drains/outfall armouring where flows concentrate until permanent drainage is established. • Verify surface levels with as-built drone/LiDAR survey prior to handover.	Localised	Short term	Unlikely	Low	• Implement EMPr and maintain compliance across all activities.	• Weekly erosion and drainage inspections. • Rainfall event checks. • Drone/LiDAR verification. • Settlement peg readings.
Soils	UG: Site clearing and platforms	Soil loss, compaction and erosion	Localised	Long term	Definite	Low	• Strip topsoil separately to mapped depths; keep stockpiles ≤2 m, free-draining, with perimeter berms and site fencing. • Label and map each soil stockpile (volumes, horizon) and cover with mulch/temporary vegetation to conserve seed bank. • No trafficking on wet soils; designate haul routes and laydown to avoid unnecessary compaction. • Install clean water cutoff drains upslope of platforms; maintain dirty water containment downslope. • Replace soils in the correct horizon order during early rehab; scarify subsoil to ≥300 mm before topsoiling.	Localised	Medium term	Probable	Low	• Minimise disturbance and preserve soil quality for rehabilitation.	• Checks of stripping depths and stockpile heights. • Photographic records. • Erosion inspections. • DCP/penetrometer spot tests.
Land capability and land use	UG: Establishment of laydown and access	Loss of grazing/plantation land capability	Localised	Permanent	Definite	Low	• Micro-site to avoid high-potential soils and sensitive land uses where feasible. • Minimise permanent surface footprint; use temporary mats/geo-grids for laydown to reduce compaction. • On demobilisation, rip, re-profile and revegetate with locally adapted species; install grazing exclusion until cover targets reached. • Where forestry/grazing is the end use, apply soil amelioration (lime/gypsum/organic matter) to reach target capability classes.	Localised	Long term	Probable	Low	• Implement EMPr and maintain compliance across all activities.	• Monthly rehabilitation audits. • Vegetation cover percentage. • Erosion incidence. • Spot soil fertility pre-handover.
Natural vegetation	UG: Vegetation clearance and traffic	Loss of natural vegetation; edge effects	Local-Regional	Medium term	Probable	Low	• Conduct pre-clearance walkdowns; peg no-go buffers around wetlands, drainage lines and Species of Conservation (SCC) patches. • Phase clearing to the minimum area/time needed; immediately stabilise bare soils (mulch/seed). • Implement Invasive Alien Plant (IAP) control plan per Conservation of Agricultural Resources Act (early detection, mechanical/chemical methods, schedule). • Enforce speed limits, designate tracks, and keep traffic off un-authorised areas; fit drip trays on plant to avoid drips on vegetation margins.	Localised	Medium term	Unlikely	Low	• Avoid unnecessary biodiversity loss and prevent spread of invasive species.	• Environmental Control Officer (ECO) inspections (weekly during peak clearing). • IAP mapping and removal records. • Habitat disturbance log with GPS/photo points.

Aspects Affected	Activity UG: Underground OC: Opencast	Potential Impact	Extent (Pre)	Duration (Pre)	Probability (Pre)	Significance (Pre)	Mitigation Measures	Extent (Post)	Duration (Post)	Probability (Post)	Significance (Post)	Management Commitment	Monitoring (Indicators/Methods)
Fauna	UG: Construction activity	Faunal disturbance and displacement	Localised	Medium term	Probable	Low	• Implement a faunal relocation protocol (trained handlers, permits where required); time works outside critical breeding seasons where practicable. • Demarcate no-go buffers around nests, burrows and den sites; install temporary fauna fencing to keep animals out of work zones. • Prohibit domestic animals, hunting or persecution; include fauna awareness in toolbox talks. • Keep night works and lighting to a minimum; use down-lighting to reduce disturbance.	Localised	Short term	Unlikely	Low	• Protect fauna and reduce disturbance during construction.	• ECO inspections. • Fauna incident/relocation logs. • Checks of lighting levels and working hours near sensitive habitats.
Surface water	UG: Earthworks and runoff	Siltation/contamination of surface water	Regional	Long term	Definite	Low	• Construct clean/dirty water separation before bulk works; line dirty water channels where velocities are high. • Provide sediment control (silt fences, sumps, lamella/settlement) and oil-water separators at workshops/refuelling. • Bund all hydrocarbons/chemicals to 110% capacity; keep on impermeable pads with controlled drainage. • Spill prevention and response: spill kits at risk points; drill crews trained; incident log and root-cause corrective action. • Maximise reuse of contained dirty water for dust suppression and compaction.	Localised	Medium term	Probable	Low	• Prevent contaminated runoff and protect downstream users.	• Post-rainfall inspections of berms/dams. • Monthly upstream/downstream water quality (Year 1) then quarterly. • Bund/separator maintenance logs. • Spill register.
Groundwater	UG: Portal development	Aquifer drawdown/contamination risk	Regional	Long term	Unlikely	Medium	• Line and bund hydrocarbon/explosives stores with leak detection; keep refuelling over lined pads with absorbent mats. • Seal preferential pathways (contact zones/fractures) with pressure grouting where required. • Minimise recharge by rapidly capping exposed ground and directing surface flows away from openings. • Install up- and down-gradient monitoring boreholes; develop baseline chemistry and water levels before works.	Localised	Medium term	Unlikely	Low	• Prevent subsurface contamination and detect changes early.	• Quarterly groundwater levels and chemistry; trend analysis and trigger-action responses.
Air quality	UG: Earthworks and traffic	Dust fallout and PM10 increase	Localised	Short term	Probable	Low	• Prepare a Dust Management Plan. • Continuous road watering (or polymer suppressants where water constrained); cover loads; enforce site speed limits. • Stabilise exposed surfaces within 14 days (mulch/seed/crusting agents); wheel wash at exits to prevent track-out. • Stage works to keep active disturbed area as small as practicable.	Localised	Short term	Unlikely	Low	• Keep dust within statutory limits at receptors; act on exceedances.	• Dust fallout (ASTM D1739) and PM_{10} at key receptors. • Visual surveillance. • Met data correlation. • Corrective action records.
Noise	UG: Construction plant and works	Construction noise	Localised	Short term	Probable	Low	• Restrict high-noise activities to daytime hours; implement quiet-hours near sensitive receptors. • Fit/maintain silencers and acoustic shrouds; locate plant behind temporary acoustic screens/berms where feasible. • Provide advance notices for blasting or unusually noisy work; keep and action complaints register. • Optimise equipment selection and maintenance to reduce tonal noise.	Localised	Short term	Unlikely	Low	• Prevent nuisance noise to sensitive receptors.	• Baseline and periodic boundary noise vs SANS 10103. • Seismograph PPV/air blast where applicable. • Complaint investigations and close-outs.
Archaeological and cultural aspects	UG: Groundworks	Damage to archaeological resources	Localised	Not relevant	Unlikely	None	• Enforce a written Chance Finds Procedure with stop-work authority; secure area, notify AMAFA/SAHRA immediately. • Brief all contractors on recognising artefacts; keep a finds register (GPS, photos, description). • Micro-site tracks and pads to avoid mapped sensitivity zones; hand-clear in high-risk patches if directed by specialist.	Localised	Short term	Improbable	Low	• Protect heritage resources and comply with AMAFA requirements.	• Induction attendance. • Chance-find/incident logs. • Authority correspondence. • Specialist audit confirmation if triggered.
Visual	UG: Portal and laydown visuals	Visual intrusion	Localised	Permanent	Definite	Low	• Use low-reflectance, earth-tone finishes; keep site tidy (waste segregation, regular removal). • Install screening berms and vegetative screens along public viewpoints; progressively shape stockpiles. • Down-light temporary lighting; avoid high-mast glare onto receptors.	Localised	Medium term	Probable	Low	• Minimise visual intrusion from temporary works.	• Fixed photographic viewpoints (monthly during bulk works). • Compliance checks against approved layout and crest heights.
Socio-economic	UG: Recruitment and procurement	Job creation and local spend (positive)	Regional	Short term (+)	Definite	High	• Implement SLP actions: local hiring targets, gender-inclusive recruitment, accredited training. • Preferential procurement from local Small Medium, and Micro Enterprises (SMMEs); unbundle packages; fair payment terms. • Road safety programmes for workforce and community (speed control, visibility, defensive-driving training). • Maintain an accessible grievance mechanism; track closure rates and themes.	Regional	Medium term (+)	Definite	High	• Deliver equitable local benefits while maintaining safe, compliant construction.	• Key Performance Indicators (KPIs). Jobs by local origin and gender. • Percentage local procurement. • Grievance numbers and closure time. • Road incident statistics.

Aspects Affected	Activity UG: Underground OC: Opencast	Potential Impact	Extent (Pre)	Duration (Pre)	Probability (Pre)	Significance (Pre)	Mitigation Measures	Extent (Post)	Duration (Post)	Probability (Post)	Significance (Post)	Management Commitment	Monitoring (Indicators/Methods)
IAPs	UG: Stakeholder mobilisation	I&AP concerns and expectations	Regional	Long term	Definite	High	• Issue construction notices, traffic updates, and site contact details; hold kick-off and milestone briefings. • Disclose monitoring summaries (water, dust, noise) on a routine schedule. • Maintain grievance redress with defined response times; close out in writing.	Regional	Long term	Definite	High	• Maintain open engagement and responsive grievance redress throughout construction.	• Engagement calendar adherence. • Attendance registers. • Grievance register with resolution times. • Satisfaction surveys.
Geology	OC: Boxcut and access ramp establishment	Geological disturbance	Localised	Permanent	Definite	Low	• Limit excavation to design footprint; geotechnical oversight of face angles and benching. • Progressive ramp construction with catch berms and rockfall control. • Maintain as-built QA/QC (survey) and keep daily face mapping records. • Establish exclusion zones and emergency egress routes; brief crews daily.	Localised	Permanent	Definite	Low	• Implement EMPr and maintain compliance across all activities.	• Daily face stability checks; bench width/slope angle verification. • Corrective actions.
Topography	OC: Vegetation and topsoil stripping	Major topographic alteration	Localised	Medium Term	Definite	High	• Phase stripping and keep ahead of forecast rainfall; install diversion berms and temporary outfalls before stripping. • Early backfilling of completed cuts; restore functional drainage with grade controls. • Apply erosion control on all new slopes and rip on contour before topsoiling.	Localised	Medium Term	Probable	Medium	• Implement EMPr and maintain compliance across all activities.	• Weekly erosion/ponding inspections. • Post-storm checks. • Drone survey spot checks of drainage tie-ins.
Soils	OC: Topsoil/overburden handling	Soil loss/compaction/erosion	Localised	Long term	Definite	Low	• Separate horizons; haul short to nearby, mapped stockpiles; keep piles ≤2 m with windrow berms. • Cover or seed piles immediately; keep moist if >2 days; plant if >1 year. • Avoid wet haul/placement to prevent smearing; designated tracks only; no parking on topsoil.	Localised	Medium term	Probable	Low	• Preserve soil function and fertility for rehabilitation.	• Verify stripping depths. • Check stockpile heights/erosion. • Photographic records. • Soil moisture/compaction spot checks.
Land capability and land use	OC: Site establishment	Loss of land capability/use	Localised	Permanent	Definite	Low	• Constrain site to approved footprint; temporise laydown with mats to reduce compaction. • Recontour to pre-mining form where feasible; restore grazing/forestry potential with species mixes and fertiliser plan. • Exclusion fencing and phased hand-back when cover and stability criteria are met.	Localised	Long term	Probable	Low	• Implement EMPr and maintain compliance across all activities.	• Rehabilitation progress maps. • Vegetation cover percentages. • Erosion incidence logs.
Natural vegetation	OC: Vegetation clearance	Loss of natural vegetation	Local-Regional	Medium term	Probable	Low	• Pre-clearance ecological walkdowns; tag SCCs; relocate feasible species. • Limit clearing to immediate needs; demarcate no-go buffers; promptly replace topsoil and seed. • Implement IAP control programme (inspection cadence, treatment methods, disposal).	Localised	Medium term	Unlikely	Low	• Avoid unnecessary biodiversity loss; prevent invasive spread.	• ECO inspections (weekly during peak clearing). • IAP mapping and removal records. • Habitat disturbance log with GPS/photo points.
Fauna	OC: Traffic and clearing	Fauna disturbance	Localised	Medium term	Probable	Low	• Seasonal timing to avoid breeding; fauna spotters during clearing. • Speed management, fauna signage, one-way haul routes to reduce conflicts. • No night-time vegetation clearing; restrict night haulage where practicable.	Localised	Short term	Unlikely	Low	• Reduce wildlife conflict and disturbance during construction.	• Traffic observations and incident logs. • Fauna incident records. • Speed enforcement logs.
Surface water	OC: Earthworks and runoff to adjacent pan	Siltation/contamination of surface water	Regional	Long term	Definite	High	• Commission clean/dirty water systems prior to bulk cut; line high-risk drains/sumps. • Install silt fencing and toe drains near the pan; maintain freeboard in dams; inspect embankments weekly. • Bund hazardous storage, use oil-water separators, and keep spill kits at all risk nodes. • Maximise reuse of dirty water for dust suppression/compaction; no uncontrolled discharge.	Localised	Medium term	Probable	Medium	• Prevent contaminated runoff and protect downstream users.	• Visual checks of berms/dams; monthly upstream/downstream sampling (Y1) then quarterly; bund/separator inspections; spill logs.

Aspects Affected	Activity UG: Underground OC: Opencast	Potential Impact	Extent (Pre)	Duration (Pre)	Probability (Pre)	Significance (Pre)	Mitigation Measures	Extent (Post)	Duration (Post)	Probability (Post)	Significance (Post)	Management Commitment	Monitoring (Indicators/Methods)
Groundwater	OC: Excavation near water table (if intersected)	Groundwater contamination/drawdown	Regional	Long term	Unlikely	Medium	• Maintain stand-off to groundwater where feasible; if intersected, dewater under licence with silt control. • Double-line hydrocarbon/explosive storage; grout sealing of preferential pathways where indicated. • Rapidly cap exposed pit floors/walls when inactive to limit recharge.	Localised	Medium term	Unlikely	Low	• Protect aquifers and detect changes early.	• Quarterly groundwater levels and chemistry; trend analysis and trigger-action responses.
Air quality	OC: Haul and dozing	Dust and fallout	Localised	Short term	Probable	Low	• Water carts on primary routes; apply chemical suppressants at high-traffic nodes. • Cover loads, enforce speed limits, and install wheel wash at the exit. • Rapidly vegetate stockpiles; keep topsoil moist if >2 days; establish long term stockpiles with nurse grasses.	Localised	Short term	Unlikely	Low	• Keep dust within statutory limits at receptors; act on exceedances.	• Dust fallout (gravimetric) and PM_{10} at key receptors. • Visual surveillance. • Corrective action records.
Noise	OC: Construction plant	Noise increase	Localised	Short term	Probable	Low	• Service silencers, keep daytime schedule, and screen noisy plant where practicable. • Pre-notify community of blasting or intensive works; maintain and action complaints register. • Use low-reversing-alarm technologies where safe.	Localised	Short term	Unlikely	Low	• Prevent nuisance noise to sensitive receptors.	• Baseline and periodic boundary noise vs SANS 10103. • Complaint investigations and close-outs.
Archaeological and cultural aspects	OC: Groundworks	Damage to archaeological resources	Localised	Not relevant	Unlikely	None	• Enforce a written Chance Finds Procedure with stop-work authority; secure area, notify AMAFA/SAHRA immediately. • Brief all contractors on recognising artefacts; keep a finds register (GPS, photos, description). • Micro-site tracks and pads to avoid mapped sensitivity zones; hand-clear in high-risk patches if directed by specialist.	Localised	Short term	Improbable	Low	• Protect heritage resources and comply with authority requirements.	• Induction attendance. • Chance-find/incident log. • Authority correspondence. • Specialist audit confirmation if triggered.
Visual	OC: Boxcut and stockpiles	Visual intrusion (stockpiles visible)	Localised	Permanent	Definite	Medium	• Form screening berms early; round slopes/crests; maintain a tidy site (orderly stockpiles, no waste). • Down-light temporary lighting and shield toward the pit; seed visual berms promptly.	Localised	Medium term	Probable	Low	• Minimise visual intrusion from temporary works.	• Fixed photographic viewpoints. • Compliance checks against layout (crest heights, footprints).
Traffic	OC: Logistics and deliveries	Traffic safety and congestion	Localised to regional routes	Short to Medium term	Probable	Medium	• Implement a Construction Traffic Management Plan (routes, marshal points, time-of-day restrictions). • Speed limits, temporary signage, and flag personnel at crossings/intersections. • Abnormal load permitting and escorted movements; condition surveys on public roads pre/post works.	Localised	Short to Medium term	Unlikely	Low	• Provide a safe environment for road users.	• Speed checks. • Incident logs. • Road condition inspection records (pre/post works).
Socio-economic	OC: Recruitment and procurement	Job creation and local spend (positive)	Regional	Short term (+)	Definite	High	• Implement SLP actions: local hiring targets, gender-inclusive recruitment, accredited training. • Preferential procurement from local SMMEs; unbundle packages; fair payment terms. • Road safety programmes for workforce and community (speed control, visibility, defensive-driving training). • Maintain an accessible grievance mechanism; track closure rates and themes.	Regional	Medium term	Definite	High	• Deliver equitable local benefits while maintaining safe, compliant construction.	• KPIs: jobs by local origin and gender. • Percentage local procurement. • Grievance numbers and closure time. • Road incident statistics.
IAPs	OC: Stakeholder mobilisation	I&AP concerns and expectations	Regional	Long term	Definite	High	• Issue construction notices, traffic updates, and site contact details; hold kick-off and milestone briefings. • Disclose monitoring summaries (water, dust, noise) on a routine schedule. • Maintain grievance redress with defined response times; close out in writing.	Regional	Long term	Definite	High	• Maintain open engagement and responsive grievance redress throughout construction.	• Engagement calendar adherence. • Attendance registers. • Grievance register with resolution times. • Satisfaction surveys.

Table 13-2: Impact and Risk Assessment – Operational Phase

Aspects Affected	Activity UG: Underground OC: Opencast	Potential Impact	Extent (Pre)	Duration (Pre)	Probability (Pre)	Significance (Pre)	Mitigation Measures	Extent (Post)	Duration (Post)	Probability (Post)	Significance (Post)	Management Commitment	Monitoring (Indicators/Methods)
Geology	UG: Scoop mining (no stooping)	Disturbance of geological strata (extraction)	Localised	Permanent	Definite	Low	• Strictly comply with mine design specifications and maintain high Factor of Safety (FOS) in pillar design. • Conduct real-time geotechnical monitoring of stress and deformation in pillars. • Keep updated pillar maps and geotechnical inspection records. • Implement emergency procedures for potential pillar failure or unexpected ground movement.	Localised	Permanent	Definite	Low	• Operate to approved design and keep auditable stability records.	• Scheduled geotechnical inspections. • Pillar map updates. • Trigger-action response records.
Topography	UG: Underground operations	Limited surface deformation risk	Localised	Medium term	Unlikely	Low	• Maintain bord-and-pillar layout with no stooping to prevent subsidence. • Undertake annual LiDAR or drone surveys to check for subtle surface deformation. • Keep functional drainage channels to prevent ponding or erosion. • Implement progressive backfilling and contouring in Opencast areas.	Localised	Short term	Unlikely	Low	• Prevent subsidence and maintain drainage functionality.	• Subsidence markers. • Drainage inspections. • Erosion surveys. • Annual terrain survey report.
Soils	UG: Surface facilities and maintenance	Soil contamination at surface facilities	Localised	Long term	Definite	Low	• Install impermeable liners and bunding in all fuel and chemical storage areas. • Keep a spill prevention and emergency response plan, with kits accessible at all times. • Train staff in spill handling and reporting protocols. • Inspect and maintain soil stockpile integrity (height, drainage, erosion cover). • Regularly test soils near facilities for hydrocarbon and heavy metal contamination.	Localised	Medium term	Probable	Low	• Prevent contamination and preserve soil for rehabilitation.	• Spill logs; inspection checklists. • Soil sampling at risk nodes where contamination suspected.
Land capability and land use	UG: Operations footprint	Constrained land capability/use	Localised	Permanent	Definite	Low	• Apply concurrent rehabilitation to unused areas to limit permanent loss of capability. • Replace topsoil in correct horizons, with scarification below. • Apply indigenous seed mixes and fertilisation as required to restore grazing/forestry potential. • Validate against soil fertility and vegetation cover benchmarks.	Localised	Long term	Probable	Low	• Restore capability proportionate to pre-mining baseline.	• Rehabilitation progress maps. • Vegetation cover percentage. • Erosion incidence. • Soil fertility spot tests.
Natural vegetation	UG: Access and roads	Vegetation loss and fragmentation	Local-Regional	Medium term	Probable	Low	• Establish buffer zones around sensitive habitats and enforce no-go areas. • Apply roadside invasive species monitoring and clearing programme. • Enforce strict speed limits and install fauna crossing signage. • Provide environmental awareness training for all drivers and workers.	Localised	Medium term	Unlikely	Low	• Limit habitat loss and prevent invasive spread.	• Invasive Alien Plant (IAP) mapping/clearance records. • Fauna incident log. • Periodic biodiversity inspection reports.
Fauna	UG: Vehicle movement	Faunal disturbance and mortality risk	Localised	Medium term	Probable	Low	• Restrict vehicle speeds and movements, particularly at night. • Create fauna underpasses or overpasses where roads cross migration routes. • Monitor and record faunal incidents and mortalities. • Implement seasonal restrictions to avoid breeding/nesting periods where applicable. • Conduct regular biodiversity audits with photographic and GIS mapping.	Localised	Short term	Unlikely	Low	• Reduce wildlife conflict and mortality risk.	• Speed enforcement logs. • Fauna incident register with GIS/photo evidence. • Biodiversity audits.
Surface water	UG: Dirty water and process water	Surface water quality/quantity impacts	Regional	Long term	Definite	High	• Operate clean/dirty water separation systems to design requirements. • Maintain adequate dam freeboard. • Ensure all plant areas are on impermeable surfaces with oil separators. • Treat out-of-spec water before release and monitor upstream/downstream monthly (first year). • Maximise reuse of process water in dust suppression and plant operations.	Localised	Medium term	Probable	Medium	• Meet catchment targets, maximise clean runoff, reuse dirty water.	• Water quality results (Y1 monthly → quarterly). • Dam level/integrity checks. • Separator maintenance logs.
Groundwater	UG: Seepage pathways	Groundwater contamination/drawdown	Regional	Long term	Unlikely	Medium	• Line all waste areas. • Ensure all chemicals/explosives storage complies with legislation (bunding, lining). • Minimise recharge by capping inactive areas with low-permeability covers. • Maintain a network of groundwater monitoring boreholes. • Conduct quarterly trend analyses of nitrates, sulphates, EC, and metals.	Localised	Medium term	Unlikely	Low	• Safeguard aquifers and detect seepage/drawdown early.	• Groundwater network data; trend analysis. • Trigger exceedance responses.

Aspects Affected	Activity UG: Underground OC: Opencast	Potential Impact	Extent (Pre)	Duration (Pre)	Probability (Pre)	Significance (Pre)	Mitigation Measures	Extent (Post)	Duration (Post)	Probability (Post)	Significance (Post)	Management Commitment	Monitoring (Indicators/Methods)
Air quality	UG: Material handling	Dust and emissions (PM10/PM2.5)	Localised	Short term	Probable	Low	• Apply dust suppression on roads (watering or chemical suppressants). • Cover all trucks transporting fine materials. • Stabilise exposed surfaces within 14 days (mulch, vegetation, or crusting agents). • Install real-time PM_{10}/$PM_{2.5}$ monitors. • Undertake quarterly dust fallout monitoring (ASTM D1739).	Localised	Short term	Unlikely	Low	• Keep dust within standards at receptors; rapid corrective action.	• Dust fallout (gravimetric) and PM_{10} at key receptors. • Visual surveillance. • Corrective action records.
Noise	UG: Plant and equipment	Operational noise	Localised	Short term	Probable	Low	• Design and schedule blasts to minimise nuisance: daytime only, reduced charge mass, delayed initiation. • Fit mufflers and silencers to equipment; maintain acoustic barriers where needed. • Notify communities of blast schedules in advance. • Keep a complaint register and investigate each case. • Monitor PPV and air blast with seismographs at sensitive receptors.	Localised	Short term	Unlikely	Low	• Control blasting and operational noise at boundaries.	• Seismograph PPV/air blast records. • Boundary noise surveys vs SANS 10103. • Complaint investigations.
Visual	UG: Lighting and structures	Visual intrusion	Localised	Permanent	Definite	Low	• Construct screening berms and plant vegetation to reduce visibility. • Apply slope rounding and progressive shaping of dumps and stockpiles. • Use low-intensity, downward-directed lighting to minimise night sky glow. • Monitor light spill with photometers and adjust as required.	Localised	Medium term	Probable	Low	• Reduce visibility of mining features and lighting.	• Fixed photo points. • Light-spill measurements. • Non-conformance/corrective actions.
Socio-economic	UG: Employment and procurement	Socio-economic benefits	Regional	Short term (+)	Definite	High	• Implement Social and Labour Plan (SLP) commitments in full. • Prioritise local employment and supplier development (KPIs tracked). • Invest in training, apprenticeships, and bursaries. • Run road safety awareness programmes for workers and local communities.	Regional	Medium term (+)	Definite	High	• Maintain and grow local employment and procurement; equitable benefits.	• KPIs on jobs/procurement. • Training hours. • Road incident statistics. • SLP audit reports.
IAPs	UG: Ongoing PPP	I&AP concerns and grievances	Regional	Long term	Definite	High	• Maintain transparent stakeholder engagement throughout operations. • Share monitoring results (water, dust, noise) with I&APs regularly. • Keep grievance channels open with clear timelines for resolution. • Conduct annual independent audits and disclose outcomes to stakeholders.	Regional	Long term	Definite	High	• Maintain responsive engagement and close-out processes.	• Engagement calendar. • Attendance registers. • Grievance register and closure times. • Audit action tracking.
Topography	OC: Topsoil/overburden removal and stockpiling	Topographic alteration	Localised	Medium Term	Definite	High	• Strip topsoil separately; limit stockpiles to ≤2 m height. • Stabilise stockpiles with vegetation or mulch cover. • Implement stormwater control berms around stockpiles. • Reapply topsoil progressively to disturbed areas. • Inspect stockpiles regularly for erosion or invasive species.	Localised	Medium Term	Probable	Medium	• Maintain functional drainage and stable landforms.	• Subsidence markers where applicable. • Drainage and erosion inspections. • Monthly status reports.
Air quality	OC: Material handling and exposed surfaces	Dust emissions and fallout	Localised	Short term	Probable	Low	• Continuous dust suppression (watering/chemical). • Cover loads during haulage; install wheel washes at site exits. • Stabilise long term stockpiles with seeding or crusting agents. • Monitor dust fallout and PM_{10}; correlate with meteorological data.	Localised	Short term	Unlikely	Low	• Keep dust (PM_{10}) within standards at receptors.	• Dust fallout (gravimetric) and PM_{10} at key receptors. • Visual surveillance. • Corrective action records.
Noise / Vibration	OC: Drilling and blasting (hard overburden)	Noise, air blast and vibration; structural nuisance risk	Localised to beyond boundary	Medium term	Definite	High	• Use electronic initiation to reduce air blast/vibration. • Adjust charge mass and burden spacing based on vibration modelling. • Restrict blasting to midday hours only. • Conduct pre- and post-blast surveys of nearby structures. • Notify communities of schedules and keep a complaint response log.	Localised	Short term	Probable	Medium	• Control blasting/operational noise at boundaries.	• Seismograph PPV/air blast. • Boundary noise surveys. • Complaint log and close-outs.

Aspects Affected	Activity UG: Underground OC: Opencast	Potential Impact	Extent (Pre)	Duration (Pre)	Probability (Pre)	Significance (Pre)	Mitigation Measures	Extent (Post)	Duration (Post)	Probability (Post)	Significance (Post)	Management Commitment	Monitoring (Indicators/Methods)
Visual	OC: Stockpiles and discard dumps (if any)	Visual prominence (~30 m stockpiles)	Localised	Permanent	Definite	Medium	• Shape dumps with gentle slopes and rounded crests. • Establish screening berms and plant indigenous vegetation. • Keep stockpiles lower and longer to reduce vertical prominence. • Progressive rehabilitation to reduce visible disturbed areas.	Localised	Medium term	Probable	Low	• Reduce visibility of stockpiles/dumps over time.	• Photo points. • Visual compliance checks. • Vegetation cover percentage on faces/berms.
Surface water	OC: Dirty water system	Surface water quality/quantity impacts	Regional	Long term	Definite	High	• Operate stormwater controls in line with design requirements. • Maintain dam freeboard and inspect embankments monthly. • Treat dirty water before discharge; reuse as much as possible. • Sample upstream/downstream water monthly (year 1), then quarterly.	Localised	Medium term	Probable	Medium	• Meet catchment targets; maximise clean runoff; reuse dirty water.	• Water quality (Y1 monthly → quarterly). • Dam level/integrity logs. • Discharge authorisation checks.
Groundwater	OC: Pit and perimeter	GW drawdown; nitrate seepage from explosives	Regional	Long term	Unlikely	Medium	• Line all waste areas. • Install perimeter drains and groundwater interception trenches. • Monitor nitrate levels linked to blasting; adjust explosive use accordingly. • Maintain borehole monitoring network; apply early intervention if triggers exceeded.	Localised	Medium term	Unlikely	Low	• Safeguard aquifers; detect and respond early.	• Groundwater network monitoring; trend analysis; triggers.
Socio-economic	OC: Haulage and workforce	Socio-economic benefits	Regional	Short term (+)	Definite	High	• Implement SLP commitments in full. • Prioritise local employment and supplier development (KPIs tracked). • Invest in training, apprenticeships, and bursaries. • Run road safety awareness programmes for workers and local communities.	Regional	Medium term (+)	Definite	High	• Maintain benefits and equitable opportunities for locals.	• KPIs: jobs/procurement. • Training hours. • Road incident stats. • SLP audits.
IAPs	OC: Stakeholder engagement	I&AP concerns and grievances	Regional	Long term	Definite	High	• Ensure quarterly updates to stakeholders on operational impacts. • Maintain grievance mechanisms with transparent resolution tracking. • Include I&AP representatives in annual monitoring review meetings.	Regional	Long term	Definite	High	• Maintain open engagement and transparent reporting.	• Engagement calendar. • Attendance registers. • Grievance and action logs.

Table 13-3: Impact and Risk Assessment – Decommissioning Phase

Aspects Affected	Activity UG: Underground OC: Opencast	Potential Impact	Extent (Pre)	Duration (Pre)	Probability (Pre)	Significance (Pre)	Mitigation Measures	Extent (Post)	Duration (Post)	Probability (Post)	Significance (Post)	Management Commitment	Monitoring (Indicators/Methods)
Geology	UG: Closure works	Permanent geological change persists	Localised	Permanent	Definite	Low	• Compile as-built geotechnical maps of portals, drives and support; sign off by a competent person. • Permanently seal openings with engineered plugs or caps, fence and signpost residual hazard zones. • Backfill voids with non-acid generating material; verify compaction with field density tests. • Establish crack and settlement markers; implement trigger actions for any movement. • Keep a geotechnical risk register and close out all actions before sign off.	Localised	Permanent	Definite	Low	• Routine closure inspections, corrective actions, and compliance checks against closure criteria.	• Monitoring: Crack gauges and settlement markers (quarterly). • Geotechnical risk register close out. • Final as-built survey verification.
Topography	UG: Regrading and void stability	Surface deformation / subsidence risk	Localised	Medium term	Unlikely	Low	• Regrade to pre-mining contours; tie into natural drainage lines to avoid ponding. • Construct diversion berms and contour banks to manage runoff velocities. • Apply erosion control (biodegradable mats, brush-packing, rock check structures) on steeper slopes. • Use progressive backfilling and track-walking to stabilise surfaces as you go. • Rip compacted areas on the contour to break pans and promote infiltration.	Localised	Short term	Unlikely	Low	• Deliver stable, erosion-resistant landforms approximating pre-mining drainage.	• Slope stability inspections. • Erosion mapping; drainage functionality checks.
Soils	UG: Remediation	Residual soil contamination/compaction	Localised	Long term	Definite	Low	• Strip, test and reapply topsoil in correct horizons; minimum 300–500 mm where available. • Ameliorate subsoil with lime/gypsum and organic compost per laboratory recommendations. • Establish nurse crops and mulch cover to protect against raindrop erosion. • Exclude traffic from re-topsoiled areas with temporary fencing and signage. • Install temporary contour drains above new soil placements to keep clean water off.	Localised	Medium term	Probable	Low	• Re-establish soil function to support agreed land uses.	• Soil thickness grid. • pH/EC/sulphate per 4 ha. • Fertility per 16 ha. • Erosion inspections.
Land capability and land use	UG: Landform rehabilitation	Land capability constraints	Localised	Permanent	Definite	Low	• Align target capability to approved post-mining land use and pre-disturbance baseline. • Design ripping and contouring to prevent perched water tables and hardpans. • Use locally adapted seed mixes; introduce pioneer species first, then succession species. • Place coarse woody debris and micro-catchments to aid moisture retention and plant establishment. • Implement a grazing exclusion period until vegetation cover targets are achieved.	Localised	Long term	Probable	Low	• Monitoring to include inspections, sampling, and record-keeping aligned with mitigation measures.	• Routine closure inspections. • Corrective actions.
Natural vegetation	UG: Revegetation	Vegetation recovery trajectory	Local–Regional	Medium term	Probable	Low	• Apply site-specific indigenous seed mixes sourced locally; avoid monocultures. • Phase seeding to match rainfall windows; re-seed patch failures promptly. • Implement ongoing alien plant surveillance and clearing with approved methods. • Protect sensitive areas with buffer fencing and clearly marked no-go zones. • Introduce habitat features (logs, rock piles) to accelerate ecological recovery.	Localised	Medium term	Unlikely	Low	• Monitoring to include inspections, sampling, and record-keeping aligned with mitigation measures.	• Routine closure inspections. • Corrective actions.
Fauna	UG: Reduced activity	Fauna recolonisation disturbance	Localised	Medium term	Probable	Low	• Fence rehabilitated areas temporarily; install fauna gaps where appropriate. • Prohibit domestic animals and wildlife feeding; remove attractants. • Phase access reopening as vegetation stabilises; keep speed limits and signage in place. • Install small fauna shelters and perches to encourage recolonisation. • Include faunal awareness in contractor inductions.	Localised	Short term	Unlikely	Low	• Monitoring to include inspections, sampling, and record-keeping aligned with mitigation measures.	• Routine closure inspections. • Corrective actions.

Aspects Affected	Activity UG: Underground OC: Opencast	Potential Impact	Extent (Pre)	Duration (Pre)	Probability (Pre)	Significance (Pre)	Mitigation Measures	Extent (Post)	Duration (Post)	Probability (Post)	Significance (Post)	Management Commitment	Monitoring (Indicators/Methods)
Surface water	UG: Residual discharges	Surface water quality risk	Regional	Long term	Definite	High	• Keep clean/dirty water separation until discharge criteria are met. • Maintain dams; convert to evaporation where required by the licence. • Construct seepage interception trenches and pumps where acid mine drainage (AMD) is detected. • Treat non-compliant water before release; only decommission dams after verified compliance. • Re-establish natural drainage lines and stabilise banks with bioengineering.	Localised	Medium term	Probable	Medium	• Prevent contaminated discharges. • Transition dams to evaporation dams until clean closure.	• Monthly water quality first year then quarterly. • Discharge authorisation checks. • Flow monitoring.
Groundwater	UG: Seepage/decant risk	Groundwater quality impacts	Regional	Long term	Unlikely	Medium	• Cap discard areas with low-permeability covers and vegetated top layers. • Install toe drains and seepage collection systems with lined sumps for recovery and treatment. • Double-line remaining chemical/fuel storage with leak detection until removal. • Apply infiltration minimisation measures over potential recharge zones. • Adopt adaptive management triggers for any upward trends in key analytes.	Localised	Medium term	Unlikely	Low	• Minimise recharge, capture and treat decant/seepage. • Long-term trend confirmation.	• Groundwater network monitoring; trend analysis; triggers.
Air quality	UG: Demolition and earthworks	Dust emissions	Localised	Short term	Probable	Low	• Sequence demolition in small cells; pre-wet structures and working faces. • Use water carts or fog cannons on haul routes and tipping points; apply polymer suppressant if needed. • Cover trucks. • Stabilise exposed soils quickly with mulch, tackifier or rapid-germinating grasses. • Position laydown and crushing away from receptors; screen with windbreaks.	Localised	Short term	Unlikely	Low	• Limit demolition/rehabilitation dust to protect receptors.	• Dust fallout. • Visual inspections.
Noise	UG: Demolition	Noise nuisance	Localised	Short term	Probable	Low	• Restrict to daytime hours; avoid weekends and public holidays where possible. • Fit and maintain mufflers; shut down idling equipment. • Use lower-impact demolition methods where practicable; schedule short, predictable windows. • Provide prior notice to receptors and maintain a complaints-response protocol.	Localised	Short term	Unlikely	Low	• Limit demolition noise to acceptable hours and levels.	• Spot noise checks. • Complaint log.
Archaeological and cultural aspects	UG: Residual heritage risk	Chance finds during earthworks	Localised	Not relevant	Unlikely	None	• Enforce a written Chance Finds Procedure with stop-work authority. • Secure finds area, notify heritage authority, and appoint a specialist if needed. • Brief all contractor and employees on artefact recognition and reporting before works start. • Avoid ground disturbance in flagged sensitivity zones; micro-site access tracks accordingly.	Localised	Short term	Improbable	Low	• Protect heritage during earthworks.	• Incident log. • Audit confirmation.
Visual	UG: Rehabilitation landscape	Visual change (improvement over time)	Localised	Permanent	Definite	Low	• Remove all redundant infrastructure and waste. • Round slopes and create irregular edges to mimic natural landforms. • Plant mixed indigenous trees and shrubs in clumps to break up lines of sight. • Keep materials yards tidy during demobilisation; remove all temporary signage and fencing.	Localised	Medium term	Probable	Low	• Achieve progressive visual improvement through rehabilitation.	• Photo points. • Vegetation cover percentage.
Socio-economic	UG: Downscaling	Job losses and transition impacts	Regional	Short term (-)	Definite	High	• Implement social closure plan covering retraining, placements and enterprise support. • Prioritise local Small Medium and Micro Enterprises (SMMEs) for closure works; provide mentorship and payment terms that support cash flow. • Establish a transition helpdesk for affected workers for at least 12-36 months. • Coordinate with municipal LED and relevant agencies to align opportunities.	Regional	Medium term (-)	Definite	Medium	• Implement a humane, compliant social closure process with led support.	• Track placements. • Training completions. • SMME uptake. • Community feedback.
IAPs	UG: Post closure engagement	Residual I&AP concerns	Regional	Long term	Definite	High	• Maintain an accessible grievance mechanism and publish closure progress updates. • Hold scheduled community sessions through the post closure monitoring period. • Share independent audit summaries on water, air, land and safety performance. • Track commitments in a public-facing register until all are closed.	Regional	Long term	Definite	Medium	• Monitoring to include inspections, sampling, and record-keeping aligned with mitigation measures.	• Routine closure inspections. • Corrective actions.

Aspects Affected	Activity UG: Underground OC: Opencast	Potential Impact	Extent (Pre)	Duration (Pre)	Probability (Pre)	Significance (Pre)	Mitigation Measures	Extent (Post)	Duration (Post)	Probability (Post)	Significance (Post)	Management Commitment	Monitoring (Indicators/Methods)
Air quality / Noise	OC: Demolition of infrastructure	Dust and noise during demolition	Localised	Short term	Probable	Low	• Plan method statements to minimise breaks, drops and cutting; use dust-suppressed tools. • Pre-wet and encapsulate during structure takedown; stage work in calm weather windows. • Maintain speed limits and designate one-way haul routes to reduce braking noise. • Install temporary acoustic screens near sensitive receptors when feasible. • Stabilise exposed pads immediately after removal.	Localised	Short term	Unlikely	Low	• Limit demolition/rehabilitation dust to protect receptors.	• Dust fallout. • Visual inspections.
Topography / Soils	OC: Final backfilling and profiling	Landform instability and erosion	Localised	Medium Term	Definite	High	• Backfill with competent, non-acid generating material in lifts; compact to design densities. • Recreate catchment divides and reconnect drainage lines; install armouring at outfalls. • Rip on contour and bench long slopes to reduce flow energy. • Replace topsoil and micro-contour surfaces to trap seed and moisture. • Apply erosion controls and progressive vegetation cover to meet stability targets.	Localised	Medium Term	Probable	Medium	• Deliver stable, erosion-resistant landforms approximating pre-mining drainage.	• Slope stability inspections. • Erosion mapping. • Drainage functionality checks.
Surface water	OC: Discard dump closure (legacy)	Seepage and siltation to surface water	Regional	Long term	Definite	High	• Install engineered cover systems with drainage layers and gas relief where required. • Construct toe drains and silt traps; maintain freeboard in dams through closure. • Capture and treat toe seepage; recycle to evaporation where permissible. • Only decommission water infrastructure after multiple rounds of compliant results. • Restore natural channels with grade control and bio-stabilisation.	Localised	Medium term	Probable	Medium	• Prevent contaminated discharges. • Transition dams to evaporation dams until clean closure.	• Monthly water quality first year then quarterly. • Discharge authorisation checks. • Flow monitoring.
Groundwater	OC: Post closure pit area	Groundwater recharge/decant potential	Regional	Long term	Unlikely	Medium	• Reduce recharge with low-permeability covers and surface shaping. • Capture decant at low points using cutoff trenches and lined sumps for treatment. • Remove all hydrocarbons and chemicals; remediate any impacted soils. • Maintain the groundwater monitoring network and update the conceptual model as data accrue. • Implement trigger-level responses for rising nitrate, sulphate or metals.	Localised	Medium term	Unlikely	Low	• Minimise recharge, capture and treat decant/seepage. • Long-term trend confirmation.	• Groundwater network monitoring; trend analysis; triggers.
Visual	OC: Revegetation	Visual improvement over time	Localised	Permanent	Definite	Low	• Remove all visible remnants. • Round dump crests and break up uniform slopes; create visual berms where needed. • Establish mixed indigenous shrub/tree clusters and groundcovers for texture. • Prioritise screening along public viewpoints and travel corridors.	Localised	Medium term	Probable	Low	• Achieve progressive visual improvement through rehabilitation.	• Photo points. • Vegetation cover percentage.
Socio-economic	OC: Workforce downscaling	Retrenchment and local economy impacts	Regional	Short term (-)	Definite	High	• Stage demobilisation to avoid sudden local economic shocks. • Provide accredited training and certification that match regional labour demand. • Support supplier diversification to non-mining markets; facilitate access to finance. • Formalise a community handover plan for any shared assets.	Regional	Medium term (-)	Definite	Medium	• Implement a humane, compliant social closure process with led support.	• Track placements. • Training completions. • SMME uptake. • Community feedback.
IAPs	OC: Post closure engagement	Residual I&AP concerns	Regional	Long term	Definite	High	• Keep grievance channels open and staffed; publish response times and outcomes. • Share rehabilitation KPIs and monitoring dashboards with stakeholders. • Invite community representatives to annual site walk-throughs during monitoring. • Close out issues in writing and archive records for regulator review.	Regional	Long term	Definite	Medium	• Monitoring to include inspections, sampling, and record-keeping aligned with mitigation measures.	• Routine closure inspections. • Corrective actions.

14 SUMMARY OF SPECIALIST REPORTS

The following table summarises the specialist study undertaken in support of the Vaalbank Colliery application. The Vaalbank Colliery 2026–2030 Social and Labour Plan (Strategy4Good, 2025) constitutes the primary supporting study. It provides detailed recommendations relating to human resource development, LED, housing and living conditions, procurement, downscaling and retrenchment, and financial provisioning. These recommendations have been reviewed and incorporated into the BAR to ensure that socio-economic and regulatory requirements are addressed.

Table 14-1: Specialist Study Undertaken and Incorporation into the Basic Assessment Report

List of Studies Undertaken	Recommendations of Specialist Reports	Specialist Recommendations that have been Included in the BAR (Mark with an X Where Applicable)	Reference to Applicable Section of Report Where Specialist Recommendations have been Included
Vaalbank Colliery 2026–2030 Social and Labour Plan (SLP), as attached in Appendix A.	• Implement a comprehensive Human Resource Development programme, including Adult Education and Training, learnerships, bursaries, mentorship, career path planning, and equity targets for Historically Disadvantaged South Africans and women. • Support local economic development (LED) projects such as small, medium and micro-enterprise development, local procurement initiatives, and community infrastructure improvements. • Improve housing standards and introduce nutrition support programmes for employees. • Increase procurement from suppliers owned by Historically Disadvantaged South Africans. • Establish a Future Forum and introduce downscaling strategies, portable skills training, and retrenchment management programmes. • Maintain adequate financial provisioning for human resource development, LED, and mine closure.	X	Part B

15 ENVIRONMENTAL IMPACT STATEMENT

15.1 Summary of the Key Findings of the Environmental Impact Assessment

The proposed Vaalbank Colliery activities will generate a combination of negative and positive impacts across the construction, operational, and decommissioning phases. These impacts will affect the physical environment, ecological systems, and social and economic conditions of surrounding communities. The initial site layout and design alternatives each present specific risks

and opportunities that must be carefully managed to minimise harm and maximise long term benefits.

15.1.1.1 Construction Phase

During construction, the establishment of the boxcut, surface infrastructure, and access roads will result in localised but permanent geological disturbance. The excavation of slopes and exposure of strata alters natural landforms and drainage patterns, creating erosion risks if not stabilised. Soils, already shallow and of low fertility, will be stripped and stockpiled, increasing susceptibility to erosion, compaction, and degradation. Vegetation clearance will remove habitat, leading to biodiversity loss and displacement of fauna, while opening disturbed areas to colonisation by invasive alien species. Water resources face contamination risks from runoff, sedimentation, and possible hydrocarbon or chemical spills. Dust and noise will temporarily affect air quality and community wellbeing, while the visual intrusion of cleared areas and construction traffic will alter the landscape character.

Despite these negative pressures, the construction phase also delivers significant positive social outcomes. Approximately 150 direct and contractor jobs will be created, alongside opportunities for local procurement and skills training. This is of particular importance in the Vryheid area where unemployment is high.

15.1.1.2 Operational Phase

Operation introduces sustained environmental pressures. Geologically, mining of the seams permanently depletes resources, though the use of bord-and-pillar methods with a high FOS minimises risks of subsidence and structural instability. In opencast areas, topographical changes from overburden removal and stockpiling increase erosion potential and alter surface water flow dynamics. Soils continue to degrade under compaction and contamination, though concurrent rehabilitation and topsoil management can restore fertility and support grazing and forestry post-mining. Vegetation loss and faunal disturbance persist but can be managed through alien plant control, progressive rehabilitation, and the creation of buffer zones.

Water resources represent one of the most critical risks. Surface water may be impacted by sedimentation, dirty water runoff, and potential AMD, while groundwater faces risks of contamination from blasting residues, seepage, and spills. Dams, clean/dirty water separation, and continuous monitoring are essential. Dust emissions from haul roads and stockpiles, combined with noise from blasting and machinery, will elevate ambient levels, while the presence of dumps and infrastructure significantly alters visual landscapes.

On the positive side, the operational phase offers the strongest socio-economic benefits. Sustained employment, royalties, and procurement opportunities stimulate the local economy. LED projects provide infrastructure and service upgrades that benefit surrounding communities. Skills transfer and training programmes build long term human capital. Nonetheless, these benefits must be balanced against nuisance impacts, safety concerns, and resource competition raised by

communities, requiring transparent engagement and robust grievance mechanisms.

15.1.1.3 Decommissioning Phase

Decommissioning is characterised by closure of operations, demolition of infrastructure, and rehabilitation of disturbed land. While no new geological disturbance occurs, residual impacts from mined seams remain permanent. Topography is reshaped through backfilling, contouring, and profiling to restore natural slope stability and drainage. If poorly managed, erosion and slumping could create long term risks. Soils disturbed during mining require remediation through scarification, topsoil replacement, and revegetation to restore capability. Land use transitions to sustainable forestry or grazing, consistent with regional land potential. Vegetation and faunal habitats can recover as indigenous species are re-established, biodiversity is enhanced, and ecological connectivity is restored.

The greatest risks in this phase are water-related, particularly surface water decant and groundwater seepage containing sulphates and metals. Long term monitoring and, where required, water treatment must be implemented to protect downstream users. Demolition generates short term dust and noise, but these diminish as rehabilitation stabilises the site. Visual disturbance initially increases but reduces significantly with progressive greening of the landscape.

From a social perspective, the major negative outcome is employment loss through retrenchment, which could create economic hardship in surrounding communities. Positive measures, such as retraining, reskilling, and LED initiatives, are essential to cushion these impacts. In the long term, successful rehabilitation leaves a legacy of stable land use, reduced environmental risk, and opportunities for sustainable post-mining development. Continued community engagement during closure ensures transparency, maintains trust, and supports a just transition beyond mining.

15.2 Final Site Map

The final site layouts are presented in Figure 5-1 to Figure 5-3, while the environmental sensitivities are shown in Figure 1-1.

15.3 Summary of the Positive and Negative Impacts and Risks of the Proposed Activity and Identified Alternatives

The assessment, in terms of the site layout and alternatives, demonstrates that the project will result in a combination of positive and negative impacts, with varying levels of significance across the construction, operational, and decommissioning phases.

Positive impacts include:

- Sustained employment opportunities for approximately 120 permanent workers and 30 contractors, as well as additional jobs during construction and closure phases.
- Socio-economic upliftment through procurement from local suppliers, skills transfer, and investment in LED projects, in line with the SLP.
- Fiscal contributions to the State through royalties, corporate tax, and indirect economic

stimulation.

- Opportunities for concurrent rehabilitation and progressive land restoration that will reduce long term liability and improve post-mining land capability.
- Strengthened community resilience through training, infrastructure support, and transparent stakeholder engagement.

Negative impacts include:

- Localised, permanent geological and topographical changes from the boxcut, underground access, and opencast activities.
- Loss of natural vegetation, displacement of fauna, and biodiversity impacts, including the risk of IAP colonisation.
- Risks to surface water and groundwater quality from runoff, sedimentation, AMD, and potential hydrocarbon or chemical spills.
- Dust and noise emissions affecting both workers and neighbouring communities, especially during construction and operational blasting.
- Visual intrusion from stockpiles, infrastructure, and disturbed land, particularly during operation.
- Socio-economic risks during decommissioning, especially job losses and retrenchments.

15.3.1 Impact / Risk Profile

Most environmental risks are localised to the MR area and are considered low to medium in significance after mitigation. The most sensitive receptors are water resources and socio-economic conditions, requiring continuous monitoring and adaptive management. Importantly, no new surface disturbance or additional infrastructure is proposed beyond the already approved footprint, and all activities remain within the existing authorised area.

15.3.2 Alternatives Considered

No alternative sites were assessed, as the coal resource is geologically fixed within the MR and PR boundaries. The only viable alternative relates to mining method, with bord-and-pillar mining underground (without stooping) and limited opencast mining confirmed as the most technically and environmentally feasible. This approach reduces risks of subsidence and limits surface disturbance.

15.3.3 Overall Conclusion

With the implementation of the mitigation, management, and monitoring measures detailed in the EMPr, the negative impacts of the proposed activity can be effectively managed, while the positive socio-economic contributions provide significant regional benefits.

16 PROPOSED IMPACT MANAGEMENT OBJECTIVES AND THE IMPACT MANAGEMENT OUTCOMES FOR INCLUSION IN THE EMPR

The table below consolidates the impact management objectives and expected outcomes by environmental component and project phase. It provides a structured reference to ensure that all commitments made are measurable, achievable, and aligned with sustainable development principles.

Table 16-1: Environmental Components, Phases, and Impact Management Objectives

Environmental Component	Phase	Objective
Geology	Construction and Operational	Maintain geological stability by applying bord-and-pillar mining with a high Factor of Safety (FOS), avoiding stooping, and limiting disturbance to the mineral right footprint.
	Decommissioning	Ensure no further disturbance occurs and confirm long term stability through monitoring.
Topography	Construction	Minimise slope alteration during boxcut and bench formation; apply stormwater controls.
	Operational	Prevent uncontrolled subsidence; restore slope stability through progressive backfilling and contouring in opencast areas.
	Decommissioning	Restore safe landforms by profiling, contouring, and reinstating drainage networks.
Soils	Construction	Conserve and protect soil resources through controlled stripping, stockpiling, and compaction prevention.
	Operational	Prevent soil contamination and maintain fertility to support concurrent rehabilitation.
	Decommissioning	Rehabilitate soils to restore post-mining land capability and long term productivity.
Land Capability and Land Use	Construction	Minimise displacement of forestry and grazing land.
	Operational	Progressively rehabilitate disturbed areas to restore grazing/forestry use.
	Decommissioning	Return land to agreed capability and sustainable post-mining use.
Natural Vegetation	Construction	Restrict clearance to essential areas; rescue/protect sensitive species.
	Operational	Control alien invasive species and rehabilitate progressively with indigenous cover.
	Decommissioning	Re-establish indigenous vegetation and ecological functioning.
Fauna	Construction	Minimise displacement and mortality through fauna walkdowns, speed limits, and training.
	Operational	Reduce disturbance from blasting, traffic, and noise; maintain habitat connectivity.
	Decommissioning	Enable fauna recolonisation of rehabilitated areas.
Surface Water	Construction	Prevent sedimentation and contamination through clean/dirty water separation and bunded storage.
	Operational	Maintain water quality and protect downstream users; manage acid mine drainage risks.
	Decommissioning	Control decant and seepage with capping, diversion, and long term monitoring.
Groundwater	Construction	Prevent hydrocarbon and explosive contamination via bunded and lined storage.
	Operational	Reduce ingress of contaminated water; monitor water quality and maintain dams.
	Decommissioning	Monitor and manage sulphate/metal contamination; minimise recharge and treat seepage.
Air Quality	Construction	Reduce dust fallout through watering, covering loads, and stabilising stockpiles.
	Operational	Suppress dust on haul roads, dumps, and stockpiles; monitor PM10 and fallout.

Environmental Component	Phase	Objective
	Decommissioning	Minimise dust during demolition and backfilling through water spraying and rapid revegetation.
Noise	Construction	Control machinery and blasting noise through mufflers, scheduling, and monitoring.
	Operational	Manage continuous noise and blasting vibration through design and timing.
	Decommissioning	Restrict noisy activities to daylight hours and maintain equipment to reduce disturbance.
Archaeological and Cultural Resources Visual	All Phases	Protect heritage resources by implementing chance finds protocols and liaising with AMAFA.
	Construction	Minimise visual intrusion through screening, berms, and phased rehabilitation.
	Operational	Limit prominence of dumps and stockpiles; apply vegetation cover.
	Decommissioning	Reduce long term visual intrusion through demolition, re-contouring, and revegetation.
Traffic and Safety	Construction	Ensure safe vehicle movement and pedestrian safety through speed limits and designated routes.
	Operational	Manage haul road safety; implement safe intersections and protect communities.
	Decommissioning	Restrict demolition traffic to daylight hours; maintain vehicles and enforce safety.
Socio-economic	Construction	Maximise local employment, procurement, and skills development.
	Operational	Sustain employment and procurement; enhance LED and fiscal contributions.
	Decommissioning	Manage retrenchments fairly; support alternative livelihoods and community resilience.
I&APs	All Phases	Ensure transparent communication, maintain grievance mechanisms, and promote participatory engagement.

17 ASPECTS FOR INCLUSION AS CONDITIONS OF AUTHORISATION

Should the CA grant EA, the following conditions must be included to ensure compliance and minimise residual impacts:

- Implementation of Mitigation Measures
    - All mitigation measures identified in the approved EMPr must be implemented in full.
    - Any additional site-specific mitigation measures arising from monitoring results must also be adopted.
- Implementation of Management Measures
    - Environmental management commitments contained in the EMPr must be adhered to throughout the LoM.
    - Progressive rehabilitation must be undertaken concurrently with mining to reduce final closure liability.
    - All infrastructure not required post closure must be decommissioned and rehabilitated in accordance with the closure objectives.

- Monitoring Programmes
    - Surface and groundwater monitoring must continue and extend for a period (to be determined) post closure, or longer if residual impacts persist.
    - Rehabilitation success must be monitored through vegetation establishment, erosion control, and land capability assessments.
    - Socio-economic monitoring must be undertaken to track the effectiveness of employment and skills transfer commitments.
- Reporting Obligations
    - Annual performance assessment and environmental audit reports must be submitted to the DMPR, confirming compliance with the EMPr and conditions of authorisation.

18 DESCRIPTION OF ANY ASSUMPTIONS, UNCERTAINTIES AND GAPS IN KNOWLEDGE

In compiling this report, GCS has relied exclusively on information provided by the client. No independent site inspections were undertaken as part of this assessment. The following assumptions, uncertainties, and knowledge gaps are noted:

- Reliance on client data: Information on mining methods and operational schedules was supplied by the client and is assumed to be accurate and up to date.
- Baseline information: Baseline environmental conditions are based on existing reports and available data. It is assumed that this information remains valid and representative of current site conditions.
- Closure cost estimation: The quantum of the financial provision is based on the most recent GCS calculation (GCS, 2023), adjusted using Consumer Price Index (CPI). It is assumed that these costs reflect current market conditions, but annual updates will be required to account for inflation, disturbance changes, and rehabilitation progress.
- Socio-economic conditions: Assumptions have been made that current employment levels, regional economic reliance on mining, and community dynamics will remain broadly consistent over the operational life of the mine.
- Uncertainties in long term trends: Certain uncertainties remain with respect to long term groundwater quality, surface water trends, climate variability, and vegetation succession after rehabilitation. These will be addressed through ongoing monitoring and adaptive management as required.
- Adaptive closure planning: The closure plan will be progressively refined as additional operational and environmental data becomes available during the LoM.

Overall, while assumptions and uncertainties exist due to the reliance on secondary information,

they are consistent with the level of detail required for this stage of the application and do not affect the overall confidence in the findings and recommendations presented.

19 REASONED OPINION AS TO WHETHER THE PROPOSED ACTIVITY SHOULD OR SHOULD NOT BE AUTHORISED

19.1 Reasons why the activity should be Authorised or Not

It is the reasoned opinion of the EAP that the proposed activity should be authorised. The key reasons are as follows:

- The application does not involve any new surface land disturbance or additional infrastructure development.
- No further or significant environmental impacts are anticipated, as all potential impacts have already been assessed and are effectively managed under the approved Environmental Management Programme (EMPr).
- The activity secures the continuation of mining operations that contribute substantially to local socio-economic conditions, including the direct employment of approximately 120 people and an additional 30 contractor positions. Extending the LoM ensures socio-economic stability in a region characterised by limited economic opportunities.
- The project represents a viable and sustainable economic venture, supported by a proven resource base and favourable logistics, while also contributing royalties and taxes to the State and maintaining compliance with applicable legislation and regulatory requirements.

Based on the above, the continuation of mining operations is considered both environmentally manageable and socio-economically desirable.

19.2 Conditions that must be Included in the Authorisation

Should the CA grant EA, the following conditions must be included to ensure compliance and minimise residual impacts:

- Implementation of Mitigation Measures
    - All mitigation measures identified in the approved EMPr must be implemented in full.
    - Any additional site-specific mitigation measures arising from monitoring results must also be adopted.
- Implementation of Management Measures
    - Environmental management commitments contained in the EMPr must be adhered to throughout the LoM.
    - Progressive rehabilitation must be undertaken concurrently with mining to reduce final closure liability.

- All infrastructure not required post closure must be decommissioned and rehabilitated in accordance with the closure objectives.

- Monitoring Programmes
  - Surface and groundwater monitoring must continue and extend for a period (to be determined) post closure, or longer if residual impacts persist.
  - Rehabilitation success must be monitored through vegetation establishment, erosion control, and land capability assessments.
  - Socio-economic monitoring must be undertaken to track the effectiveness of employment and skills transfer commitments.
- Reporting Obligations
  - Annual performance assessment and environmental audit reports must be submitted to the DMPR, confirming compliance with the EMPr and conditions of authorisation.

20 PERIOD FOR WHICH THE ENVIRONMENTAL AUTHORISATION IS REQUIRED

The EA is required for a period of 20 years to enable the Vaalbank Colliery to operate in accordance with its MR, LoM schedule, and associated closure planning. This period aligns with the projected operational life of the mine, including progressive rehabilitation, decommissioning, and final closure activities.

21 UNDERTAKING

It is confirmed that the undertaking required to meet the requirements of this section is provided at the end of the EMPr and is applicable to both the BA Report and the EMPr Report.

22 FINANCIAL PROVISION

22.1 Explain how the Aforesaid Amount was Derived

The financial provision quantum for closure and rehabilitation was derived using the Department of Mineral Resources and Energy's Guideline for the Evaluation of the Quantum of Closure-Related Financial Provision (2004), adjusted annually for inflation through the CPI.

The calculation considered all relevant closure activities, including:

- Dismantling of processing plants, conveyors, and power lines.
- Demolition of steel and concrete structures.
- Rehabilitation of access roads, spoil areas, stockpiles, discard dumps, and general disturbed areas.
- Sealing of shafts and demolition of housing/administration facilities.
- Surface water management, maintenance, and aftercare.

- Specialist studies, including water monitoring and alien vegetation eradication.

Rates were applied to the measured quantities of disturbance areas and infrastructure, using updated aerial imagery and site inspections. Preliminary and general costs (12%) and contingencies (10%) were added to the base calculation to account for indirect expenses and uncertainties. VAT at 15% was included to determine the final liability.

The resulting closure cost quantum is R 895,315.05 (including VAT), as calculated in July 2023 (GCS, 2023).

22.2 Confirm that this Amount can be Provided for from Operating Expenditure

The mine confirms that the required closure and rehabilitation provision can be secured and maintained through operating expenditure. The financial provision is made available in the form of a Bank Guarantee, consistent with Regulation 53 of the NEMA Financial Provision Regulations.

The Bank Guarantee (Lombard Rehabilitation Guarantee No. M-64259 of R 429 320.00) is currently held by the DMPR, while the balance of the financial provision is maintained by Lombard Insurance Company in an interest-bearing account. Annual updates to the closure liability ensure that the provision remains aligned with the extent of disturbance, and these updates are incorporated into the mine's financial planning and budgeting process. This ensures that sufficient funds are continuously set aside for closure liabilities without compromising operational sustainability

23 SPECIFIC INFORMATION REQUIRED BY THE COMPETENT AUTHORITY

The sections below provide additional information in support of the application and should be considered by the CA for Vaalbank Colliery.

23.1 Impact on the Socio-Economic Conditions of any Directly Affected Person

The Vaalbank Colliery contributes significantly to the socio-economic stability of the surrounding community. The mine currently employs approximately 120 permanent employees and 30 contractors for transport and related services. By extending the LoM from 5 years to 10 years through incorporation of the adjacent PR (KZN30/5/1/1/2/10155PR) into the existing MR (KZN30/5/1/2/2/286MR), these employment opportunities are secured for a longer period.

This continuity provides direct benefits to employees and their families, many of whom reside in an area characterised by high unemployment and limited economic diversity. The operation also stimulates indirect socio-economic benefits, including demand for local goods and services, transport, and secondary business opportunities.

Furthermore, the colliery contributes to fiscal revenues through royalties, taxes, and local procurement, strengthening the broader regional and national economy. Without the continuation of mining activities, directly affected persons would experience significant socio-economic hardship due to the loss of jobs and income streams.

23.2 Impact on any National Estate Referred to in Section 3(2) of the National Heritage Resources Act

As no new ground disturbance, infrastructure development, or expansion of the authorised mining footprint will take place, there will be no impact on any heritage resources as defined under Section 3(2) of the National Heritage Resources Act, 1999 (Act 25 of 1999).

24 OTHER MATTERS REQUIRED IN TERMS OF SECTIONS 24(4)(A) AND (B) OF THE ACT

No additional matters are required in terms of Section 24(4)(A) and (B) of the Act.

PART B

ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

1 DRAFT ENVIRONMENTAL MANAGEMENT PROGRAMME

1.1 Details of the Environmental Assessment Practitioner

Name of Environmental Assessment Practitioner:	Paula Jane Tolksdorff
Professional Affiliation / Registration:	Professional affiliation/registration: Environmental Assessment Practitioners Association of South Africa (2019/509) South African Council for Natural Scientific Professions (152904) International Association for Impact Assessment South Africa (1745) International Association Public Participation (IAP2SA014)
Company Name:	GCS Environment SA (Pty) Ltd
Physical Address:	63 Wessels Road, Rivonia, 2128
Postal Address:	P.O. Box 2597 Rivonia 2128
Telephone No.:	+27 (0)11 803 5726
Facsimile No.:	+27 (0)11 803 5745
E-mail Address:	paulat@gcs-sa.biz

1.2 Description of the Aspects of the Activity

The activities are described in Section 5 in Part A of this report.

1.3 Composite Map

The composite map (Figure 1-1) for the Vaalbank Colliery illustrates the spatial relationship between the authorised MR and PR areas and the surrounding environmental sensitivities identified in the National Wetland Map 5 and provincial biodiversity planning tools. Wetland systems, including channelled and unchannelled valley-bottom wetlands, depressions, and seep wetlands, are clearly delineated alongside Critical Biodiversity Areas classified as either Optimal or Irreplaceable. These features highlight zones of ecological importance that require avoidance, protection, or strict mitigation in accordance with the NEMA, the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) (NEM:BA), and associated guidelines. The inclusion of wind-rose data further supports impact assessment by indicating prevailing wind directions, which are critical for evaluating dust dispersion and identifying potential downwind receptors.

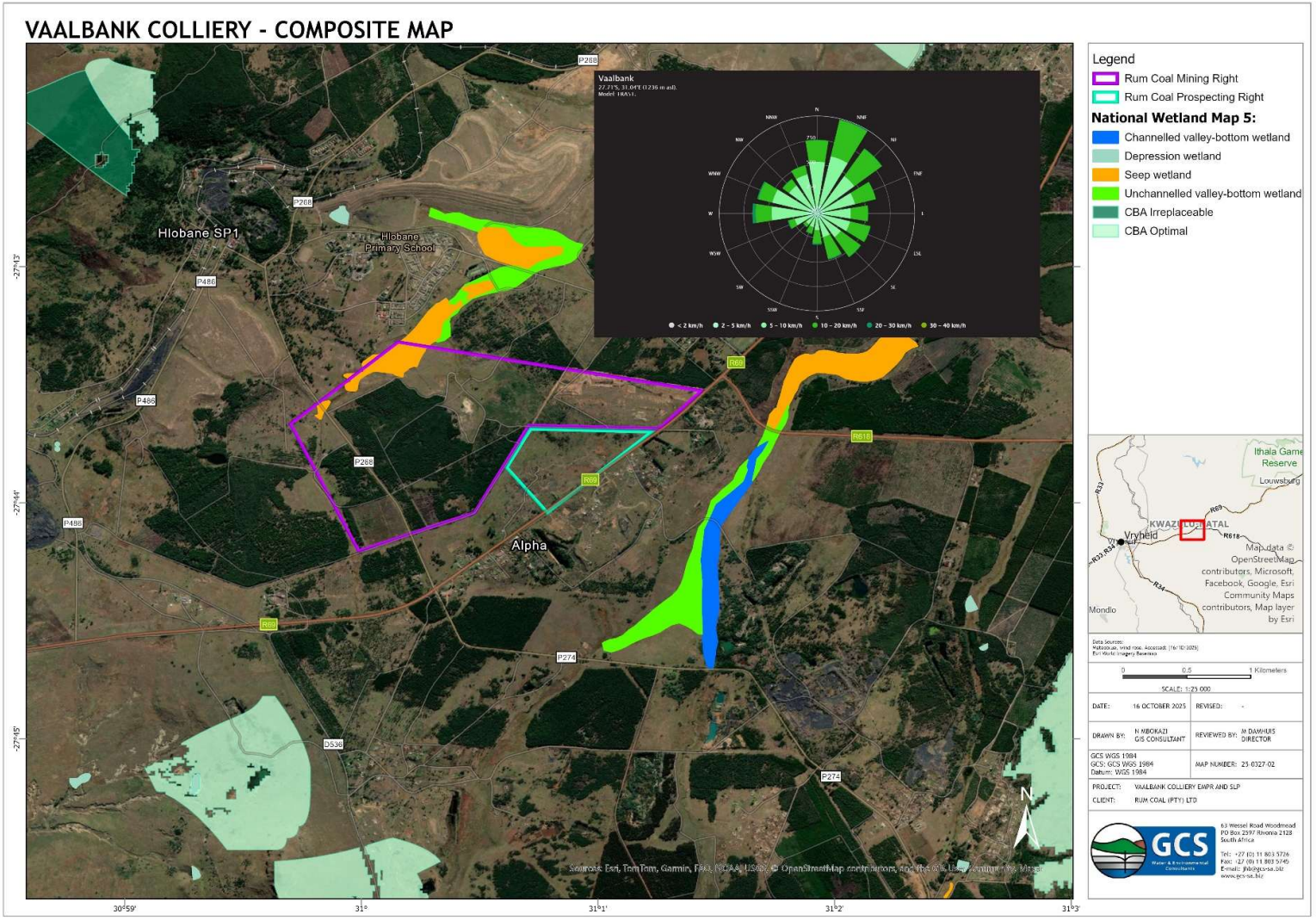

Figure 1-1:Composite Map

1.4 Description of Impact management objectives including management statements

The purpose of impact management objectives is to provide a structured framework for preventing, minimising, and remedying environmental and social impacts arising from mining activities. These objectives are linked to specific management statements which outline the commitments of the Applicant in ensuring compliance with applicable legislation, conditions of authorisation, and best practice standards.

Overall Objective: To undertake mining in a manner that prevents unacceptable environmental degradation, protects human health and safety, ensures sustainable post-mining land use, and maximises socio-economic benefits for directly affected stakeholders and surrounding communities.

1.4.1 Soil and Land Capability

- Objective:
    - To conserve soil resources for rehabilitation, prevent erosion, and maintain or restore post-mining land capability to pre-mining potential.
- Management Statements:
    - Topsoil will be stripped separately from subsoil, stockpiled in designated areas, and protected against erosion or contamination.
    - Stockpiles will be clearly demarcated, vegetated where possible, and monitored for degradation.
    - During rehabilitation, soil will be replaced in correct sequence and depth (minimum 300 mm of topsoil), compacted appropriately, and seeded with indigenous vegetation.
    - Rehabilitation success will be evaluated through fertility tests, soil thickness mapping, and erosion inspections.

1.4.2 Surface Water

- Objective:
    - To prevent pollution of surface water systems and ensure compliance with water quality standards/limits.
- Management Statements:
    - Clean and dirty water separation will be implemented in line with the legal requirements of the NWA.
    - Dirty water will be contained in pollution control dams and treated if required before release.
    - Runoff from stockpiles, haul roads, and infrastructure will be directed to

containment facilities.

- Surface water quality will be monitored monthly in year one and quarterly thereafter, upstream and downstream of the site.
- Monitoring results will be benchmarked against the legislated standards/limits.

1.4.3 Groundwater

- Objective:
  - To protect groundwater resources from contamination and monitor potential interactions with underground workings.
- Management Statements:
  - Hydrocarbon storage and hazardous materials will be stored in bunded, lined facilities.
  - Groundwater will be monitored at boreholes around the site using Inductively Coupled Plasma (ICP)/Mass Spectrometry (MS) scans for cations, anions, and trace elements.
  - Monitoring data will be reviewed quarterly and corrective actions implemented if contamination is detected.
  - Post closure monitoring will continue for at least 3 years or until stable water quality trends are established.

1.4.4 Air Quality

- Objective:
  - To reduce dust and particulate emissions to within acceptable limits and prevent nuisance or health risks to communities.
- Management Statements:
  - Watering of haul roads and exposed areas will occur daily during dry or windy conditions.
  - Speed restrictions of 30 km/h will be enforced on all site roads.
  - Dust fallout will be monitored monthly in accordance with SANS 1929; PM_{10} concentrations will be assessed quarterly.
  - Complaints related to dust will be recorded in a grievance register and addressed within 7 days.

1.4.5 Noise and Vibration

- Objective:

- To minimise noise and vibration impacts on workers and neighbouring communities.

- Management Statements:
  - All blasting will take place during daylight hours and will be preceded by public notification.
  - Silencers will be fitted to equipment and machinery maintained in good working condition.
  - Noise levels will be monitored against SANS 10103 guidelines for acceptable community noise.
  - Corrective measures will be implemented if exceedances are recorded or complaints received.

1.4.6 Biodiversity

- Objective:
  - To limit the loss of natural vegetation and habitats, and to facilitate recovery through rehabilitation.

- Management Statements:
  - Vegetation clearance will be restricted to the approved mining footprint.
  - IAPs will be controlled according to an ongoing programme.
  - Progressive rehabilitation will be implemented, with disturbed areas seeded with indigenous species.
  - Post closure monitoring will assess vegetation cover, species diversity, and habitat recovery.

1.4.7 Waste Management

- Objective:
  - To ensure all waste is managed according to the waste hierarchy (reduce, reuse, recycle, dispose) and disposed of legally.

- Management Statements:
  - Waste will be separated at source into general, recyclable, and hazardous streams.
  - General waste will be stored in covered skips and disposed of at licensed facilities.
  - Hazardous waste will be stored in bunded facilities, labelled according legal requirements, and disposed of at Holfontein.
  - Records of all waste movements will be kept and reported to authorities as required.
  - No waste will remain on site post closure.

1.4.8 Stormwater Management

- Objective:
    - To prevent erosion and uncontrolled discharges from disturbed areas.
- Management Statements:
    - Clean and dirty stormwater systems will be kept separate.
    - Clean water will be diverted away from disturbed areas using diversion drains.
    - Dirty water will be confined to containment structures sized for a 1:50 year storm event.
    - All stormwater infrastructure will be inspected monthly and after major rainfall events.

1.4.9 Heritage Resources

- Objective:
    - To protect heritage and cultural resources in compliance with the National Heritage Resources Act (Act 25 of 1999).
- Management Statements:
    - A chance find procedure will be implemented for archaeological or palaeontological resources.
    - All chance finds will be reported to SAHRA and work in the affected area will stop until clearance is obtained.

1.4.10 Socio-Economic

- Objective:
    - To ensure that the project contributes positively to local socio-economic development and minimises adverse effects on livelihoods.
- Management Statements:
    - At least 120 direct jobs and 30 contractor positions will be sustained, with priority given to local employment.
    - Training and portable skills development will be provided in line with the SLP.
    - Procurement opportunities will be extended to local suppliers where feasible.
    - Retrenchment impacts will be managed through consultation with the Future Forum, retraining, and redeployment initiatives.
    - A grievance mechanism will be available to community members, with issues resolved transparently.

1.4.11 Closure and Rehabilitation

- Objective:
    - To achieve safe, stable, and non-polluting post-mining conditions that enable sustainable land use.
- Management Statements:
    - Progressive rehabilitation will occur during the LoM to reduce final liability.
    - Final rehabilitation will include the removal of infrastructure, backfilling, regrading, topsoiling, and revegetation.
    - Monitoring of rehabilitated areas will continue for a minimum of 3 years to verify success.
    - Closure will only be certified once the land is stable and meets regulatory standards in terms of the MPRDA Section 43 and GN R1147 Financial Provision Regulations.

1.5 Determination of Closure Objectives

1.5.1 Potable and Industrial Water Consumption

Potable water consumption, used for drinking and the change house, has been estimated at 75 litres per person per day. At full production, this equates to approximately 54 m^3 per week or 234 m^3 per month over the life of the mine.

Industrial (polluted) water required for drilling and dust suppression will be sourced from the old Hlobane Colliery workings as well as from boreholes. The estimated demand for these activities is 35 m^3 per day for the duration of the mine's life.

1.5.2 Legacy Workings and Water Discharge

Both the MR and PR areas contain old workings in the Gus and Dundas seams, previously mined by The Vryheid (Natal) Railway, Coal and Iron Company Proprietary Limited, a subsidiary of Exxaro. Water from these workings drains westwards through the old Gus drainage adit, into a wetland, and ultimately to the Sithebe River.

Exxaro currently holds a Water Use Licence for the Hlobane Colliery (now closed and under rehabilitation), which covers the discharge of water from the MR and PR areas. In line with discussions at a meeting held at the DMPR offices on 3 September 2019, and the subsequent Sale Agreement between The Vryheid (Natal) Railway, Coal and Iron Company Proprietary Limited (Hlobane Colliery) and Rum Coal, the responsibility for latent and residual water-related impacts remains with Hlobane Colliery.

1.6 Impacts to be mitigated in their respective phases

The table below outlines the impacts to be mitigated in their respective phases, together with the measures required to rehabilitate the environment affected by the undertaking of listed and associated activities. It specifies the size and scale of disturbance, mitigation measures, relevant South African standards, and the timeframe for implementation.

Table 1-1: Impacts, Mitigation Measures, Standards and Implementation Timeframes

Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with South African Standards and Legislation	Time Period for Implementation
Underground mining (bord-and-pillar, Dundas and Gus seams)	Construction; Operation	Limited to underground footprint within Mining Right area.	• Develop access portal and benches per geotechnical design. • Roof bolting, mesh and support installed to Mine Health and Safety Act, 1996 (Act 29 of 1996) (MHSA) specifications. • Avoid stooping; only bord-and-pillar used to reduce subsidence. • Progressive backfilling of mined panels where possible. • Routine geotechnical inspections with trigger-action responses. • Concurrent rehabilitation of disturbed surface footprints.	• National Environmental Management Act, 1998 (Act 107 of 1998) (NEMA). • Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) (MPRDA). • MHSA.	From construction start; continuous through operations; rehabilitation concurrent with mining and finalised at closure.
Opencast strips on Gus outcrop	Construction; Operation; Decommissioning	±0.76 ha disturbed at any one time (about 3% of total Mining Right).	• Strip mining in narrow roll-over cuts. • Place initial overburden into final mined cut. • Backfill, shape, compact, and contour to blend with natural topography. • Replace 300 mm topsoil. • Seed with indigenous vegetation immediately after backfilling. • Implement erosion control (silt traps, berms, drainage lines).	• NEMA. • National Water Act, 1998 (Act 36 of 1998) (NWA).	Concurrent rehabilitation after each strip is mined; final shaping and revegetation at cessation of mining.
Coal handling and stockpiles	Operation	Stockpile and loading area within approved surface infrastructure footprint.	• Maintain clean/dirty water separation; dirty water directed to pollution control dam. • Construct stockpiles with compacted surfaces to reduce infiltration. • Vegetate inactive faces of stockpiles • Regular housekeeping to prevent windblown coal and sediment. • Install containment drains and silt fences.• Apply dust suppression (water spraying).	• NWA. • National Environmental Management: Waste Act, 2008 (Act 59 of 2008) (NEM:WA). • National Environmental Management: Air Quality Act, 2004 (Act 39 of 2004) (NEM:AQA). • South African National Standard (SANS) 1929: Ambient Air Quality – Dustfall (Guidelines for the measurement of dustfall and the establishment of dustfall monitoring programmes) (SANS 1929).	Continuous during operation; strengthened prior to wet season.
Hydrocarbon storage and refuelling	Construction; Operation	Bunded storage capacity <80 m^3; generators and refuelling area.	• Store all hydrocarbons in bunds sized at 110% of the largest tank. • Bund floors impervious and sloped to sump. • Spill kits available at all refuelling points. • Regular inspection of bunds and tanks. • Emergency response plan activated in case of spillage. • Staff trained in spill prevention and clean up procedures.	• NEMA. • SANS 10089-1: The Petroleum Industry – Storage and distribution of petroleum products in aboveground bulk installations (SANS 10089-1). • SANS 310: Storage and handling of hazardous substances (SANS 310). • Hazardous Substances Act, 1973 (Act 15 of 1973) (Hazardous Substances Act).	From first delivery; continuously during operations; inspections monthly.
General and hazardous waste management	Operation; Decommissioning	Routine operational wastes; hazardous waste (oils, solvents, rags).	• Segregate waste streams at source. • General waste stored in covered skips on hardstand. • Hazardous waste stored in bunded containers, labelled per GHS. • All hazardous waste transported by licensed contractor to Holfontein. • Record-keeping of waste manifests. • Remove all waste at closure; no legacy waste left.	• NEMA. • NEM:WA. • SANS 10234: Globally Harmonised System of Classification and Labelling of Chemicals (GHS) (SANS 10234).	Continuous during operations; final clean-out at decommissioning.
Stormwater management	All phases	Entire disturbed footprint; diversion drains.	• Construct and maintain clean water diversion trenches upslope. • Dirty water confined to containment facilities. • Regular inspections and clearing of drains after rainfall. • No prospecting activities to interfere with stormwater infrastructure. • Design according to legal requirements.	• NEMA. • NWA.	Continuous during construction, operations and decommissioning; inspections after major storms.
Sewage handling	Operation	Ablutions and domestic wastewater.	• Chemical toilets or septic tanks serviced by vacuum tanker. • Sewage disposed at licensed Hlobane sewage works. • No sewage discharge on site.	• NEMA. • NWA.	Continuous during operation.
Air quality (dust fallout and PM_{10})	Construction; Operation; Decommissioning	Haul roads, open areas, blasting sites.	• Water unpaved haul roads. • Enforce speed limits (30 km/h). • Rapid revegetation of exposed areas.	• NEMA. • NEM:AQA. • SANS 1929.	Daily watering during dry periods; monthly monitoring; continuous throughout operation.

Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with South African Standards and Legislation	Time Period for Implementation
			• Dust fallout buckets placed and analysed monthly (SANS 1929). • PM^{10} monitoring using accredited methods. • Address complaints in grievance register.		
Noise and blasting	Construction; Operation	Haul roads, blasting zones.	• Restrict blasting to daylight hours. • Fit silencers to all equipment. • Maintain equipment to manufacturer's specifications. • Notify surrounding communities of blasting schedule. • Monitor noise levels to SANS 10103 standard.	• NEMA. • MHSA. • SANS 10103: The Measurement and Rating of Environmental Noise with Respect to Land Use, Health, Annoyance and Speech Communication (SANS 10103).	Throughout noisy activities during construction and operation.
Closure and final rehabilitation	Decommissioning; Closure	All disturbed areas (surface infrastructure, pits, stockpiles).	• Remove all non-required infrastructure to 1 m below ground level. • Demolish hard park areas; dispose rubble appropriately. • Backfill pits and regrade spoils. • Replace 300 mm topsoil. • Revegetate with indigenous species. • Long term monitoring of vegetation, erosion and water quality for minimum of 3 years. • Apply adaptive management if objectives not met.	• NEMA • MPRDA • Government Notice Regulation 1147 of 20 November 2015: Financial Provision Regulations for Prospecting, Exploration, Mining or Production Operations.	Immediately upon cessation of activities; monitoring for 3 years post closure (minimum).

1.7 Impact Management Outcomes

The table below describes the impact management outcomes to be achieved through implementation of mitigation measures. It identifies the activity, potential impact, affected aspects, project phase, mitigation type, and the standard of management required.

Table 1-2: Impact Management Outcomes

Activity (Listed / Not Listed)	Potential Impact	Aspects Affected	Phase	Mitigation Type	Standard / Outcome to be Achieved (Legislation / SANS)
Underground mining (bord-and-pillar)	Subsidence; instability of workings; dust emissions; noise from blasting and machinery	Landform stability; air quality; community health	Construction; Operation	• Control through geotechnical support and design (roof bolting, trigger-action response). • Control dust via watering, enclosed transfer points, PPE for workers. • Control noise by restricting blasting to daylight hours, silenced equipment. • Remedy subsidence risks by backfilling accessible panels.	• No unsafe subsidence; MHSA compliance. • Dust levels within South African National Standard (SANS) 1929: Ambient Air Quality – Dustfall (Guidelines for the measurement of dustfall and the establishment of dustfall monitoring programmes) (SANS 1929) and National Environmental Management: Air Quality Act, 2004 (Act 39 of 2004) (NEM:AQA). • Noise levels within SANS 10103: The Measurement and Rating of Environmental Noise with Respect to Land Use, Health, Annoyance and Speech Communication (SANS 10103). • Compliance with NEMA duty of care.
Opencast strips (roll-over mining)	Loss of topsoil; erosion; visual scarring; sedimentation of watercourses	Soil resources; land capability; surface water; visual landscape	Construction; Operation; Decommissioning	• Modify mining by using roll-over technique. • Remedy soil loss by immediate replacement of 300 mm topsoil. • Control erosion with berms, silt traps, drainage. • Control visual impact by reshaping land and revegetation with indigenous species.	• Post-mining land capability restored to pre-mining level. • Vegetation cover ≥80 % within 2 growing seasons. • No uncontrolled sediment release to watercourses.
Coal stockpiles and handling	Dust fallout; dirty runoff; contamination of stormwater	Air quality; water quality; soils	Operation	• Control dust via water sprays and vegetation on inactive slopes. • Control runoff with containment drains and dam. • Remedy impacts through routine cleaning and housekeeping.	• Dust fallout below SANS 1929 thresholds. • No uncontrolled dirty water releases. • Compliance with National Water Act, 1998 (Act 36 of 1998) (NWA).

Hydrocarbon storage and refuelling	Spills and leaks contaminating soil and water; fire hazards	Soil quality; surface and groundwater; health and safety	Construction; Operation	• Control via bunding (110% capacity), impervious flooring, spill kits.
				• Remedy by removing contaminated soil and treating.
				• Control fire risk by signage, extinguishers, training.
					• Zero hydrocarbon migration beyond bund.
					• Hydrocarbons below Department of Water and Sanitation (DWS) water quality standards/limits.
					• Storage compliant with:
					  ○ SANS 10089-1: The Petroleum Industry – Storage and distribution of petroleum products in aboveground bulk installations (SANS 10089-1).
					  ○ SANS 310: Storage and handling of hazardous substances (SANS 310).

Activity (Listed / Not Listed)	Potential Impact	Aspects Affected	Phase	Mitigation Type	Standard / Outcome to be Achieved (Legislation / SANS)
					○ Hazardous Substances Act, 1973 (Act 15 of 1973) (Hazardous Substances Act).
Waste management (general and hazardous)	Pollution, litter, unlawful disposal	Land quality; water quality; human health	Operation; Closure	• Control via segregation, covered skips, bunded hazardous storage, manifests. • Remedy through clean-ups and final waste removal at closure.	• All waste disposed at licensed facilities. • Hazardous waste labelled per SANS 10234: Globally Harmonised System of Classification and Labelling of Chemicals (GHS) (SANS 10234). • No residual waste remaining post closure.
Stormwater management	Erosion, uncontrolled runoff	Surface water; soils	All phases	• Control by clean/dirty separation; maintain diversion trenches; inspect after rainfall.	• Legal compliance (separation of clean/dirty water). • No uncontrolled discharges. • Erosion minimised.
Sewage handling	Health risk from untreated waste	Human health; surface water	Operation	• Control by vacuum removal to Hlobane sewage works. • Remedy spills with immediate clean up.	• No on site sewage disposal. • Compliance with NWA and municipal bylaws.
Air quality (dust and PM10)	Dust nuisance; health impacts	Air quality; community wellbeing	Construction; Operation; Closure	• Control by watering haul roads, limiting speeds, seeding bare areas. • Remedy through monitoring and adaptive management.	• Dust fallout < SANS 1929 residential guideline. • PM10 within NEM:AQA ambient standards. • Compliance with Environmental Management Programme (EMPr).
Noise and blasting	Community nuisance; worker hearing loss	Community receptors; occupational health	Construction; Operation	• Control by restricting blasting to daylight, silencers on equipment, maintenance, community notifications.	• Noise levels within SANS 10103 standards. • MHSA compliance for occupational exposure.
Closure and rehabilitation	Residual contamination; unstable landform; incomplete rehabilitation	Land capability; water; biodiversity	Closure; Post closure	• Remedy via demolition, regrading, topsoiling, revegetation with indigenous species. • Control through 3–5 years of post closure monitoring (soils, vegetation, water).	• Land stable, safe, non-polluting (Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) (MPRDA) Section 43). • Closure certificate requirements met. • Vegetation established and erosion under control.

1.8 Impact Management Action

The table below sets out the specific actions to achieve the outcomes in Table 1.2. It identifies the activity, potential impact, detailed mitigation action, timeframe for implementation, and the compliance standards required.

Table 1-3: Impact Management Actions

Activity	Potential Impact	Mitigation Action (How)	Time Period for Implementation	Compliance with Standards and Legislation
Underground mining	Subsidence, dust, noise	• Geotechnical support (roof bolts, mesh, monitoring). • Trigger-action response plans. • Dust suppression through watering. • PPE. • Noise reduction via silencers and scheduling. • Progressive rehabilitation of surface areas.	From start of portal construction; continuous throughout operations; rehabilitation concurrent and at final closure.	• National Environmental Management Act, 1998 (Act 107 of 1998) (NEMA). • Mine Health and Safety Act, 1996 (Act 29 of 1996) (MHSA). • South African National Standard (SANS) 1929: Ambient Air Quality – Dustfall (Guidelines for the measurement of dustfall and the establishment of dustfall monitoring programmes) (SANS 1929). • SANS 10103: The Measurement and Rating of Environmental Noise with Respect to Land Use, Health, Annoyance and Speech Communication (SANS 10103).
Opencast strips	Soil loss, erosion, sedimentation	• Roll-over method to reduce disturbed footprint. • Backfilling with overburden. • Replace 300 mm topsoil. • Revegetate with indigenous species immediately. • Erosion controls (silt fences, berms, diversion drains).	Concurrent with mining of each strip; final shaping and revegetation at closure.	• NEMA. • National Water Act, 1998 (Act 36 of 1998) (NWA).
Coal stockpiles	Dust; dirty water runoff	• Compaction of surfaces. • Vegetation of inactive slopes. • Stormwater containment drains. • Dust suppression (water sprays). • Housekeeping to prevent coal dust accumulation.	Continuous during operation; reinforced before wet season.	• NWA. • National Environmental Management: Air Quality Act, 2004 (Act 39 of 2004) (NEM:AQA). • SANS 1929.
Hydrocarbon storage and refuelling	Spills, soil/water contamination	• Bunding 110% largest tank volume. • Impervious floors with sump. • Spill kits on site. • Staff training. • Emergency spill response plan.	From first delivery of hydrocarbons; continuous during operations.	• NEMA. • SANS 10089-1: The Petroleum Industry – Storage and distribution of petroleum products in aboveground bulk installations (SANS 10089-1).

Activity	Potential Impact	Mitigation Action (How)	Time Period for Implementation	Compliance with Standards and Legislation
				• Hazardous Substances Act, 1973 (Act 15 of 1973) (Hazardous Substances Act).
Waste management	Pollution; contamination	• Segregation of waste streams. • Hazardous waste in bunded stores, labelled per GHS. • Transport by licensed contractors with manifests. • All waste disposed to licensed facilities (Holfontein). • Final clean-out at closure.	Continuous during operations; clean-out upon decommissioning.	• National Environmental Management: Waste Act, 2008 (Act 59 of 2008) (NEM:WA). • SANS 10234: Globally Harmonised System of Classification and Labelling of Chemicals (GHS) (SANS 10234).
Stormwater management	Erosion; uncontrolled runoff	• Construct clean/dirty water separation drains. • Maintain monthly and after rainfall events. • Dirty water contained in pollution control dam.	Continuous during all phases; final reinstatement at closure.	• NWA.
Sewage handling	Health risks	• Ablutions serviced by vacuum tanker. • Sewage removed to Hlobane sewage works. • Spills immediately cleaned up.	Continuous during operations until closure of facilities.	• NWA.
Air quality	Dust fallout, PM10	• Water unpaved roads. • Enforce 30 km/h speed limits. • Rapid seeding of bare areas. • Dust fallout monitoring monthly (SANS 1929). • PM10 monitoring quarterly.	Daily watering in dry/windy periods; monthly monitoring during operations; continue until rehabilitation stabilises soil.	• NEM:AQA. • SANS 1929.
Noise and blasting	Nuisance noise	• Restrict blasting to daylight hours. • Maintain silencers on vehicles and equipment. • Community notified prior to blasting.• Noise monitoring conducted.	Throughout blasting and noisy operations.	• MHSA. • SANS 10103.
Closure and final rehabilitation	Residual contamination; unstable landform	• Remove infrastructure. • Regrade spoils. • Replace 300 mm topsoil. • Revegetate with indigenous species. • Monitor soils, vegetation, surface and groundwater for ≥3 years. • Adaptive management if standards not met.	Immediately on cessation of mining; monitoring post closure.	• Government Notice Regulation 1147 of 20 November 2015: Financial Provision Regulations for Prospecting, Exploration, Mining or Production Operations.

2 MONITORING

The information from this section was derived from Rum Coal Environmental Management Programme Report (Rum Coal, 2021).

2.1 Soil Monitoring

Progressive monitoring of soil stripping, stockpiling, spoil shaping, and topsoil replacement is critical to achieving successful post-mining land and soil reclamation. While post-mining assessments are necessary, they do not provide opportunities to correct failures during rehabilitation. It is therefore essential that soil monitoring is integrated into the rehabilitation plan.

The rehabilitation plan must include:

- The location of soil types that can be stripped and stockpiled together.
- Stripping depths of different soil types.
- The location, dimensions, and volumes of planned stockpiles for each soil type.

Quarterly monitoring should be conducted and must include:

- Inspection of stripping depths.
- Inspection of stockpiles for signs of degradation or contamination.
- Inspection of spoil surfaces prior to soil replacement to ensure pre-mining topography is replicated.

Final rehabilitation performance assessment must include:

- Assessment of rehabilitated soil thickness and soil characteristics using auger observations on a 100 m x 100 m grid.
- Development of a post-mining land capability map based on soil thickness and characteristics.
- Preparation of a proposed post-mining land use map.
- Identification of erosion occurrences.
- Soil acidity and salinity analyses (pH, electrical conductivity, sulphate) at a depth of 0–250 mm, every 4 ha (200 m x 200 m).
- Soil fertility analyses (exchangeable cations K, Ca, Mg, Na, and phosphorus) every 16 ha (400 m x 400 m).

2.2 Noise Monitoring

It is recommended that the monitoring plan be implemented to determine potential sources of noise, increases and decreases in noise levels, and determine level of mitigation required.

2.3 Surface Water Monitoring

Objective: To monitor potential pollution from mining operations through continuous water quality assessments.

Surface water monitoring will be conducted at strategic points, including:

- Downstream of possible decant points.
- Downstream of stockpile areas.
- Downstream of opencast pits to detect potential pollution of streams.
- Downstream of infrastructure that may cause surface water contamination (e.g., hydrocarbon storage facilities).

Frequency:

- Monthly sampling during the first year of operation to establish seasonal trends.
- Quarterly sampling from the second year onwards.

Parameters and reporting:

- Water quality is the primary monitoring parameter, with laboratory analysis undertaken by an accredited facility.
- Fluctuations in water quality will inform management reviews and updates to mitigation measures.
- A comprehensive water quality report must be submitted annually to mine management.

2.4 Groundwater Monitoring

Objective: To understand short-, medium-, and long term impacts of mining on the integrated surface and groundwater system. Groundwater monitoring provides an early-warning mechanism for necessary mitigative actions.

Given the sensitive hydrogeological context and historic issues at Hlobane Colliery, groundwater monitoring at Vaalbank Colliery must be both quantitative and qualitative.

Baseline requirement:

> Conduct an initial sampling run covering a broad range of determinants, analysed using ICP and MS techniques. This provides a rapid, accurate spectrum of major cations, anions, and trace elements.

Ongoing monitoring:

- Frequency and scope will be refined based on baseline results.
- Monthly water quality monitoring must include:

- Methodologies and protocols.
- Comparison with legislative standards and guidelines.
- Results presented in diagrams and graphs (e.g., Piper, Durov plots).
- Recommendations and conclusions.
- Mitigative measures, where required.
- Maps showing the project area and monitoring point locations.

2.5 Air Quality Monitoring

The air quality monitoring programme will track:

- Dust fallout, with analysis of weight characteristics.
- Particulate matter concentrations (PM_{10}).

Monitoring must commence with the start of construction and continue through the operational phase.

2.6 Performance Assessment

Annual performance assessments will be undertaken by independent professional consultants throughout the life of the mine. These assessments will provide an objective evaluation of environmental performance and ensure continual improvement.

The audits will specifically evaluate:

- Compliance with the EA and the EMPr.
- The effectiveness of rehabilitation measures implemented on site.
- The adequacy of existing monitoring and management programmes, including any amendments required to address emerging risks or deficiencies.

Reporting:

- An annual performance assessment report will be prepared and submitted to mine management. This report will document audit findings, assess progress with rehabilitation, and provide recommendations for improvements.
- In addition, the annual performance assessment report must be submitted to the DMPR, confirming compliance with the EMPr and the conditions of authorisation.

3 FINANCIAL PROVISION

The financial provision quantum for closure and rehabilitation was derived using the Department of Mineral Resources and Energy's Guideline for the Evaluation of the Quantum of Closure-Related Financial Provision (2004), adjusted annually for inflation through the CPI.

The calculation considered all relevant closure activities, including:

- Dismantling of processing plants, conveyors, and power lines.
- Demolition of steel and concrete structures.
- Rehabilitation of access roads, spoil areas, stockpiles, discard dumps, and general disturbed areas.
- Sealing of shafts and demolition of housing/administration facilities.
- Surface water management, maintenance, and aftercare.
- Specialist studies, including water monitoring and alien vegetation eradication.

Rates were applied to the measured quantities of disturbance areas and infrastructure, using updated aerial imagery and site inspections. Preliminary and general costs (12%) and contingencies (10%) were added to the base calculation to account for indirect expenses and uncertainties. VAT at 15% was included to determine the final liability.

The resulting closure cost quantum is R 895,315.05 (including VAT), as calculated in July 2023 (GCS, 2023).

3.1 Determination of the Amount of Financial Provision

3.1.1 Describe the Closure Objectives and the Extent to Which They Have Been Aligned to the Baseline Environment Described Under the Regulation

Mine closure at the Vaalbank Colliery is an ongoing programme designed to restore the physical, chemical, and biological quality of the air, land, and water systems disturbed by mining to a condition acceptable to regulators and post-mining land users. The overall closure objectives are to:

- Return mined land to a capability as close as possible to its pre-mining condition, particularly for grazing and plantation use.
- Prevent or treat seepage from the mine to ensure compliance with statutory water quality standards.
- Remove infrastructure that cannot be sustainably used by the landowner or a third party, while repurposing structures that may benefit post-mining users.
- Clean up coal stockpiles and loading areas.
- Leave a safe and stable environment for both humans and animals.
- Ensure compliance with national and local environmental legislation.
- Integrate closure planning into the LoM to allow progressive rehabilitation. (Rum Coal, 2021)

3.1.2 Confirm Specifically that the Environmental Objectives in Relation to Closure Have Been Consulted with Landowner and Interested and Affected Parties

The environmental objectives for closure have been presented and discussed with the landowners (The Vryheid (Natal) Railway, Coal and Iron Company Proprietary Limited, a subsidiary of Exxaro and Phillips and David Tyre Brothers cc) and I&APs. Ongoing engagement is conducted with the landowners and communities to ensure that closure objectives remain aligned with their expectations.

3.1.3 Provide a Rehabilitation Plan that Describes and Shows the Scale and Aerial Extent of the Main Mining Activities, Including the Anticipated Mining Area at the Time of Closure

Rehabilitation activities address all disturbed areas of the mine, including opencast pits, spoils, discard dumps, infrastructure footprints, stockpiles, and water management structures. The plan includes (Rum Coal, 2021):

- Opencast areas: Infilling of pits and strips as mining progresses, with material placed back in the reverse order of removal. Final profiling ensures slope stability.
- Spoil and discard dumps: Placement, shaping, and compaction of coal discard dumps during operations, covered with soil, re-vegetated with woody species to minimise water ingress, and protected with engineered stormwater controls.
- Stockpiles and sacrificial coal layers: Removal, followed by topsoiling and vegetation establishment to prevent erosion.
- Infrastructure: Removal of portable infrastructure; demolition of permanent structures (e.g., workshops, hardstands) to one metre below ground level; rubble disposal on site where safe.
- Water management: The mine water dam is managed as an evaporation dam post closure. Once vegetation is established and runoff water is proven to be clean, the dam is rehabilitated and natural drainage lines are restored.
- Roads: Access roads are ripped unless required for post closure land use.

The aerial extent of these areas has been quantified through updated aerial imagery and annual disturbance assessments, which are also used for closure cost calculations.

3.1.4 Explain Why It Can Be Confirmed that the Rehabilitation Plan Is Compatible with the Closure Objectives

The rehabilitation plan is fully compatible with the closure objectives. Activities such as backfilling, topsoiling, and vegetation establishment directly support land capability restoration and erosion prevention. Water management measures, including evaporation dams and post closure monitoring, align with objectives to prevent pollution. Removal or sustainable transfer of infrastructure supports safe and beneficial post-mining land use. Progressive rehabilitation carried out during operations reduces final liability and ensures alignment with closure goals throughout the LoM.

3.1.5 Calculate and State the Quantum of the Financial Provision Required to Manage and Rehabilitate the Environment in Accordance with the Applicable Guideline

Two financial provision calculations support the mine's closure liability:

- Initial provision: For the first year of operation, the closure cost assessment calculated a liability of R 429,320, covered by Lombard Rehabilitation Guarantee No. M-64259.
- Updated provision (GCS, 2023): Using the Department of Mineral Resources and Energy's Guideline for the Evaluation of the Quantum of Closure-Related Financial Provision (2004) adjusted for CPI, the current closure liability quantum has been calculated as R 895,315.05 (including VAT). This figure accounts for dismantling of infrastructure, demolition, spoil rehabilitation, general surface rehabilitation, water management, aftercare, and specialist monitoring.

Table 3-1 shows the Quantum Calculation for the Financial Provision for rehabilitation as calculated in July 2023.

Table 3-1: Quantum Calculation for the Financial Provision for rehabilitation (GCS, 2023)

CALCULATION OF THE QUANTUM							
Mine: F and D Consulting and Investments (Pty) Ltd		Location: Ptn of Sub 5 of Hlobane No. 506 and Ptn of the Rem of 1 of Vaalbank No. 38					
Evaluators: M van Rooyen from GCS Water and Environment (Pty) Ltd		Date: July 2023					
No.	Description	Unit	A	B	C	D	Amount (Rand)
			Quantity	Master rate	Multiplication factor	Weighting factor 1	E=A*B*C*D
			Step 4.5	Step 4.3	Step 4.3		
1	Dismantling of pro-cessing plant and related structures (including overland conveyors and power lines)	m^3		R 17.82	1.00	1.10	
2(A)	Demolition of steel buildings and structures	m^2		R 248.21	1.00	1.10	
2(B)	Demolition of reinforced concrete building and structures	m^2		R 365.79	1.00	1.00	
3	Rehabilitation of access roads	m^2		R 44.42	1.00	1.10	
4(A)	Demolition and rehabilitation of electrified railway lines	m		R 431.11			
4(B)	Demolition and rehabilitation of non-electrified railway lines	m		R 235.14			
5	Demolition of housing and / or administration facilities	m^2		R 496.43			
6	Opencast rehabilitation including final voids and ramps	ha	0.25	R 260 232.73	1.00	1.00	R 65 058.18
7	Sealing of shafts, adits and inclines	m^3		R 133.25	1.00	1.00	
8(A)	Rehabilitation of overburden and spoils	ha	1.10	R 173 488.48	1.00	1.00	R 190 837.32
8(B)	Rehabilitation of processing waste deposits and evaporation ponds (basic, salt-producing waste)	ha		R 216 076.77	1.00	1.00	
8(C)	Rehabilitation of processing waste deposits and evaporation ponds (acidic, metal rich waste)	ha		R 627 589.35			
9	Rehabilitation of subsided areas	ha		R 145 270.47			
10	General surface rehabilitation	ha	2.25	R 137 432.14	1.00	1.00	R 309 222.31
11	River diversions	ha		R 137 432.14			
12	Fencing	m		R 156.77	1.00	1.10	
13	Water Management	ha		R 52 255.57	1.00	1.10	
14	2 to 3 years of maintenance and aftercare	ha	2.25	R 18 289.45	1.00	1.00	R 41 151.26
15 (A)	Specialist study	Sum		Water and Environmental Monitoring			R 24 981.35
15(B)	Specialist study	Sum		Eradication of Black Wattle			R 12 490.62
	Sum of items 1 to 15 above R =						R 643 741.05
	Multiply Sum * of 1-15 by weighting factor 2 (step 4.4) (WF 2 = 1.00)	Subtotal 1					R 643 741.05
	Preliminary and General	Add 12% of subtotal 1 if subtotal 1< R100,000,000.00					R 77 248.93
	Contingencies	Add 10% of subtotal 1					R 64 374.10
	Subtotal 1 plus sum of management and contingency: Subtotal 2						R 785 364.08
		Subtotal 3					R 785 364.08
		VAT @ 15% of Subtotal 3					R 117 804.61
		GRAND TOTAL (Subtotal 3 plus VAT)					R 895 315.05

3.1.6 Confirm that the Financial Provision will be provided as Determined

The mine confirms that the required closure and rehabilitation provision can be secured and maintained through operating expenditure. The financial provision is made available in the form of a Bank Guarantee, consistent with Regulation 53 of the NEMA Financial Provision Regulations.

The Bank Guarantee (Lombard Rehabilitation Guarantee No. M-64259 of R 429 320.00) is currently held by the DMPR, while the balance of the financial provision is maintained by Lombard Insurance Company in an interest-bearing account. Annual updates to the closure liability ensure that the provision remains aligned with the extent of disturbance, and these updates are incorporated into the mine's financial planning and budgeting process. This ensures that sufficient funds are continuously set aside for closure liabilities without compromising operational sustainability

3.1.7 Mechanisms for monitoring compliance with and Performance Assessment against the Environmental Management Programme and reporting thereon

Compliance with the EMPr and closure plan is monitored through:

- Surface and groundwater monitoring, extending post closure, or longer if impacts persist.
- Vegetation establishment monitoring to confirm revegetation success.
- Annual inspections of rehabilitated discard dumps, spoil areas, and drainage lines.
- Social monitoring for three years post closure to assess staff resettlement and landowner capacity to manage rehabilitated land.
- Internal audits and external environmental audits submitted to the DMPR.

Monitoring data is used to verify compliance, adapt management measures, and confirm when closure objectives have been met

3.1.8 Indicate the Frequency of the Submission of the Performance Assessment / Environmental Audit Report

Performance assessment and environmental audit reports are submitted annually to the DMPR, in accordance with regulatory requirements.

4 ENVIRONMENTAL AWARENESS PLAN

The Environmental Awareness Plan (EAP) sets out the methodology used to inform mine employees of environmental risks associated with their work, and the measures required to prevent pollution or environmental degradation. The plan functions as a tool to introduce and explain the requirements of the various environmental and social management plans to all construction and operational personnel.

All employees and managers undergo environmental awareness training upon arrival on site. Refresher courses are conducted at appropriate intervals, and all new contract staff or employees complete training before commencing work.

The training programme includes:

- An overview of the social and environmental context within which the Vaalbank Coal Mine operates.
- Identification of key issues and related mitigation measures.
- A description of relevant procedures and protocols.
- A clear definition of roles and responsibilities.

Contractors are responsible for training and skills transfer to local labour. They submit training plans to mine management, who review their adequacy and monitor their effectiveness. Training is site- and job-specific, based on legal requirements, productivity needs, safe working practices, and aligned with best practice and international standards.

Environmental risks are communicated across all levels of the workforce, including management, administrative staff, and mine workers. Open communication with adjacent landowners is maintained at all times, particularly regarding environmental issues and blasting schedules. A grievance logbook is available for any person wishing to register a complaint about the mine's activities, and management responds to these grievances promptly.

4.1 Manner in which the Applicant Intends to Inform His or Her Employees of Any Environmental Risk which may result from their Work

4.1.1 Emergency Response Plan

The EMPr and associated measures minimise environmental risks as far as possible. However, when unacceptable risks arise, an emergency response system and procedures are implemented to prevent or mitigate environmental damage. The contingency plan addresses reasonably anticipated failures across the mining area, with a focus on incidents that could trigger environmental emergencies.

A critical component of the emergency system is the prompt identification and communication of the emergency to responsible personnel. The names and contact details of relevant persons are prominently displayed throughout the site and updated regularly. First-response staff, such as security personnel, safety officers, overseers, and environmental officers, are trained to alert and coordinate with the designated responsible individuals.

Each person's responsibilities are clarified in advance, and all affected stakeholders (including those not directly associated with the mine) receive copies of the contingency plan. This includes:

- Disaster management and firefighting agencies.
- Downstream water supply authorities and users (e.g., farmers, communities, neighbouring mines).
- Relevant government authorities (e.g., DWS, DMPR).
- An appointed professional engineer.

Emergency procedures form part of the mine induction programme, and refresher sessions are conducted regularly. The emergency response plan is updated whenever operational procedures change, following any incident, or at least annually. Updates also reflect recommendations from professional engineers, annual safety inspections, environmental audits, and monitoring results.

Emergencies and risks covered include: accidents, fires, hydrocarbon spillages, and flooding.

Where emergencies have the potential to affect surrounding communities, residents are alerted via alarm systems or direct communication. Communities are also informed in advance of potential risks and response actions. Communication devices such as mobile phones, radios, and landlines are available throughout the site.

A checklist of emergency response participants is maintained, including:

- Fire department.
- Police services.
- Emergency medical services (ambulances, paramedics, poison centres).
- Local and specialist hospitals.
- Public health authorities.
- Environmental agencies responsible for air, water, and waste.
- Local industrial facilities with emergency capacity.
- Public works, transport, port, and airport authorities.
- Media and public information offices.

The emergency response plan is reviewed annually or after any incident to ensure adequacy and to minimise liability.

4.1.2 Emergency Situations

- Accidents
    - In the event of medical incidents, first aid kits are available on site.
    - Emergency services are contacted as required, with Vryheid serving as the nearest response hub.
- Fire
    - Fire extinguishers are strategically placed around the mine.
        - Procedures:
        - The alarm is activated to alert all staff.
        - For minor fires, extinguishers are used to suppress the flames.

        - For major fires, the local fire department is contacted immediately.
        - All staff receive training in fire response procedures.

- Hydrocarbon Spillages
    - Fuels and oils are stored on site. Procedures include:
    - For small spills, contaminated soil is excavated and treated.
    - For large spills, spill containment equipment (booms, absorbents) is deployed, and a specialist clean up crew is called in if necessary.
    - Following a major spill, monthly water quality monitoring for hydrocarbons is undertaken at nearby water sources (within 500 m) for three months, with further remediation implemented if required.

- Flooding
    - Seasonal heavy rainfall may cause flooding, particularly between November and January. Floodwaters can damage equipment, endanger employees, and lead to contaminated overflows from dams.
    - Procedures:
    - The DWS' flood warning system is reviewed annually.
    - Emergency pumps are deployed to remove water from contaminated pits.
    - Mine management is notified immediately to implement mitigation measures and reduce production losses.
    - All employees are trained on flood response procedures during induction.

Rum Coal ensures emergency contact numbers are posted at accessible points across the site and that all employees know their locations for easy access.

4.2 Manner in which Risks will be dealt with in Order to Avoid Pollution or the Degradation of the Environment

The mine actively implements measures to prevent pollution and environmental degradation, as outlined in the approved EMPr. All operational risks are addressed through site-specific mitigation strategies, with responsibilities assigned to relevant personnel and monitored by the mine.

Key areas of risk management include:

- Dust Suppression
    - Dust is controlled through the application of mitigation measures detailed in the EMPr, including regular watering of haul roads, the use of dust suppressants, speed controls for vehicles, and progressive rehabilitation of disturbed areas.

- Waste Handling
    - Waste generated on site is managed in strict accordance with the EMPr. This includes the separation of hazardous and general waste, safe storage, regular collection, and disposal at licensed facilities. Waste minimisation, recycling, and record-keeping are implemented as standard practice.
- Water Management
    - Water is managed through the measures prescribed in the EMPr. Stormwater controls, clean and dirty water separation, monitoring of dams, and regular sampling of surface and groundwater are undertaken to prevent contamination of surrounding water resources.
- Rehabilitation
    - Progressive rehabilitation is carried out in accordance with the EMPr to stabilise disturbed areas, prevent erosion, and restore ecological function. This includes topsoil management, revegetation with indigenous species, and monitoring to ensure successful rehabilitation outcomes.

All mitigation measures are reviewed and updated as part of the mine's adaptive management process, ensuring compliance with legal requirements, environmental authorisations, and international best practice.

5 SPECIFIC INFORMATION REQUIRED BY THE COMPETENT AUTHORITY

No specific information has been requested by the DMPR in relation to this application.

6 UNDERTAKING

The EAP herewith confirms

a) the correctness of the information provided in the reports;

b) the inclusion of comments and inputs from stakeholders and I&APs;

c) the inclusion of inputs and recommendations from the specialist reports where relevant; and

d) that the information provided by the EAP to I&APs and any responses by the EAP to comments or inputs made by interested and affected. parties are correctly reflected herein.

Signature of the Environmental Assessment Practitioner:

Name of company: GCS Environment SA (Pty) Ltd

Date:24 November 2025

7 REFERENCES

African Litany. (2012). *Vaalbank Coal Mine, Specialist Study of Physical Environment for New Opencast and Underground Mining Operations.* African Litany.

GCS. (2023). *Quantum Calculation for the Financial Provision.*

Maclean, G. L. (1993). Roberts Birds of Southern Africa, .

Pulles Howard and de Lange. (2008). *Environmental Management Programme Report for proposed Mphemba Investments CC.*

Rum Coal. (2021). *Amended Environmental Management Programme Report for Vaalbank Colliery.*

Stats SA. (2021).

Strategy4Good. (2025). *Social and Labour Plan Cycle 2026-2030 Accompanying Section 102 Application by Vaalbank Colliery owned by Rum Coal (Pty) Ltd (Previously F and D Consulting And Investments (Pty) Ltd).*

APPENDIX A : ENVIRONMENTAL ASSESSMENT PRACTITIONER CURRICULUM VITAE

Paula Tolksdorff

SENIOR TECHNICAL MANAGER

CORE SKILLS

- Environmental Legislation
- Equator Principles, IFC Performance Standards, World Bank EHS Guidelines
- Environmental and Social Impact Assessments
- Stakeholder Engagement and Management
- Environmental Management Programmes
- Operation and Construction Environmental Management Plans and Procedures
- Management Systems and Frameworks incl. ISO 14001
- Compliance Auditing, Due Diligence & Project Management
- Waste & Water Management

DETAILS

Academics

- Baccalaureus Technologiae (B-Tech), Engineering Civil, Urban and Rural Development, University of the Witwatersrand, 1997
- National Higher Diploma: Civil Engineering, University of the Witwatersrand, 1994
- National Diploma: Civil Engineering, University of the Witwatersrand, 1993
- MSc. Environmental Management, University of North West (two years course work complete 2011/2012)

Short Courses

- Certificate in Public Participation, International Association of Public Participation
- Centre of Environmental Management SAATCA approved course in Implementing Environmental Management Systems (ISO 14001)
- IEMA Approved Foundation course in Environmental Auditing
- IEMA Approved Carbon Footprint Management Course
- CESA, Developing Mentorship Skills for Management and Professionals
- Water Governance Course, Carin Bosman Sustainable Solutions

Languages

- English
- Afrikaans

Countries Worked In

Botswana, Democratic Republic of the Congo, Guinea, Liberia, Mozambique, Russia, Saudi Arabia, South Africa, Tanzania, Zambia and Zimbabwe

PROFILE

Paula brings over 30 years of specialised experience in the environmental sector, working across various industries, including global industrial and mining clients, as well as commercial developments. Her career has taken her through significant projects across Africa, where she has gained a deep understanding of how environmental and social licenses to operate impact both operations and project outcomes.

With a strong foundation in sustainability, Paula applies her expertise to integrate and maintain effective, sustainable practices across a wide range of operational contexts. As an Environmental Assessment Practitioner and Professional Natural Scientist, her skills are both robust and multifaceted. She excels in conducting environmental and social (E&S) impact assessments and in developing comprehensive E&S management programs tailored to the specific needs of each project. Her work includes crafting and implementing E&S management systems for both construction and operational phases, ensuring they adhere to international standards, as well as local regulatory requirements.

Paula is also highly experienced in stakeholder engagement, ensuring clear communication and collaboration across all parties involved in a project. Her capabilities extend to due diligence and compliance auditing, where she provides critical oversight to ensure regulatory compliance and operational integrity. Additionally, she has extensive experience managing water and waste resources, promoting responsible and sustainable practices.

Through her well-honed project management skills, Paula effectively leads complex projects, consistently ensuring that sustainability goals are met. Her career and diverse background demonstrate a deep commitment to advancing environmental stewardship and sustainable development across challenging and diverse environments.to advancing environmental stewardship and sustainable development across challenging and diverse environments.

Professional Affiliations:

- Environmental Assessment Practitioners Association of South Africa (2019/509)
- South African Council for Natural Scientific Professions (152904)
- International Association for Impact Assessment South Africa (1745)
- International Association Public Participation (IAP2SA014)

Work Experience

Period	Employer	Position	Role/ Responsibility
Oct 24 – Current	GCS	Senior Technical Manager – Environmental Group	As Technical Manager, Paula is responsible for overseeing the development and growth of environmental services. She leads business development efforts, builds and maintains client relationships, and develops and implements business strategies to drive the organisation's success. Paula manages a wide range of responsibilities, including overall project management, team leadership, and financial oversight, ensuring that projects are delivered on time and within budget while aligning with the organisation's long-term goals. In her technical capacity, Paula conducts environmental and social impact assessments, designs and implements environmental management programmes, and develops operational and construction environmental management plans and procedures. She plays a key role in establishing environmental management systems and engages with stakeholders to foster collaboration and ensure compliance. Her duties also include conducting compliance audits, due diligence assessments, and managing water and waste programs. Additionally, Paula provides environmental training and oversees project management from inception to completion. Her combined experience in technical and managerial roles equips her with a deep understanding of environmental practices and strategic leadership in various operational contexts.
Sep 2023 – Jun 2024	OMI Solutions (Pty) Ltd, Pretoria	Principal Environmental Assessment Practitioner	As a Principal Environmental Assessment Practitioner, Paula was responsible for leading business development efforts, managing client relationships, and developing business strategies to ensure the growth and success of the environmental services offered. She oversaw project management, guiding teams through the delivery of projects, and maintained financial oversight to ensure budgets and timelines were adhered to. In her technical capacity, Paula's role as an Environmental Assessment Practitioner and Professional Natural Scientist involved conducting environmental and social impact assessments, designing environmental management programmes, and developing both operational and construction environmental management plans. She was also responsible for implementing environmental management systems, managing stakeholder engagement, conducting compliance audits, performing due diligence assessments, and overseeing water and waste management. Her work included delivering environmental training and managing projects through their entire lifecycle, providing strategic guidance and ensuring regulatory compliance throughout.
Nov 2022 – Aug 2023	Digby Wells Environmental (Pty) Ltd	Principal Environmental Assessment Practitioner	

Period	Employer	Position	Role/ Responsibility
Nov 2019-Aug 2022	Current Hatch Africa (Pty) Ltd, Johannesburg	Regional Director Africa for the Environmental Services Group	As Regional Director, Paula was tasked with leading the development and growth of the Environmental Services Group across Africa. This role involved overseeing business development efforts, building and maintaining client relationships, and developing and implementing the business strategy to drive the organisation's success in the region. She managed a broad spectrum of responsibilities, including overall project management, team leadership, and financial oversight, ensuring that projects were delivered on time and within budget, while aligning with the group's long-term goals. In her role as an Environmental Practitioner, Paula was deeply involved in conducting environmental and social impact assessments, designing and implementing environmental management programmes, and developing operational and construction environmental management plans and procedures. She also played a key role in establishing environmental management systems and engaging with stakeholders to foster collaboration and ensure compliance. Her duties further extended to conducting compliance audits, due diligence assessments, and managing water and waste programs. Paula's work also encompassed delivering environmental training and overseeing the management of various projects from inception to completion. Her experience in both technical and managerial capacities equipped her with a comprehensive understanding of environmental practice and strategy in diverse operational contexts.
2005-2019	Terra Pacis Environmental (Pty) Ltd	Managing Director (founding member)	As a Director of Terra Pacis, Paula was responsible for the development of the Environmental Impact Assessment discipline, the management of business development, client relationship management, the development of the business strategy, overall project management, team management and financial management. As an Environmental Practitioner, Paula duties included: environmental and social impact assessments, environmental management programmes, operation and construction environmental management plans and procedures, environmental management systems, stakeholder engagement and stakeholder management, compliance auditing, due diligence, water and waste management, environmental training and project management.
2006-2009	Cymbian Environmental and Social Consulting Services	Director (founding member)	As a Director of Cymbian, Paula was responsible for the development of the Environmental Impact Assessment discipline, the management of

Period	Employer	Position	Role/ Responsibility
			business development, client relationship management, the development of the business strategy, overall project management, team management and financial management. As an Environmental Practitioner, Paula duties included: environmental and social impact assessments, environmental management programmes, operation and construction environmental management plans and procedures, environmental management systems, stakeholder engagement and stakeholder management, compliance auditing, due diligence, water and waste management, environmental training and project management.
2005-2008	Contract to: Golder Associates Africa Pty Ltd	Environmental Consultant	Paula assisted on environmental and social impact assessments and environmental management programmes.
2005	ERM Southern Africa, Johannesburg	Snr Environmental Consultant	As an Environmental Practitioner, Paula duties included: environmental and social impact assessments, environmental management programmes, operation and construction environmental management plans and procedures, environmental management systems, stakeholder engagement and stakeholder management, compliance auditing, due diligence, water and waste management, environmental training and project management.
1998-2005	Contract to Anglo Gold Ashanti Limited, Johannesburg	Environmental Consultant	As an Environmental Practitioner, Paula duties included: environmental and social impact assessments, environmental management programmes, operation and construction environmental management plans and procedures, environmental management systems, stakeholder engagement and stakeholder management, compliance auditing, due diligence, water and waste management, environmental training and project management.
1996–1998	Anglo American, Johannesburg	Civil Engineering Technician and Environmental Consultant	As an Environmental Practitioner, Paula duties included: environmental and social impact assessments, environmental management programmes, operation and construction environmental management plans and procedures, environmental management systems, stakeholder engagement and stakeholder management, compliance auditing, due diligence, water and waste management, environmental training and project management.
1996–1996	Hamilton Associates, Rosebank	Civil Engineering Technician	Assisted civil engineers plan, design, and build residential development projects including services (access roads/ water/sewage/stormwater).

Period	Employer	Position	Role/ Responsibility
1990-1996	Stuart Scott Incorporated, Sandton	Civil Engineering Technician	Assisted civil engineers plan, design, and build highways, bridges, and services (water/sewage/stormwater). Worked on the site of a large highway construction project and a infrastructure development project.

Key Experience

Environmental and social impact assessments (including the development of environmental and social management programmes/plans/systems)

- Environmental Management Plan Update for North Mara Gold Mine Limited, Tanzania, Barrick Gold Corporation.
- Environmental Impact Study and Management Plan Kisanfu Project, Democratic Republic of the Congo, Phelps Dodge Congo SPRL.
- Environmental and Social Impact Assessment for the Proposed Chirundazi Dam and Associated Supporting Infrastructure, Karo Platinum, Zimbabwe.
- Environmental and Social Impact Assessment for the Opencast Expansion Project, Karo Platinum, Zimbabwe.
- Scoping and Environmental Impact Assessment for the Sasol Destoning Project, Mpumalanga Province, South Africa.
- Scoping and Environmental Impact Assessment for the Sasol Syferfontein Tweedraai Expansion, Mpumalanga Province, South Africa.
- Scoping and Environmental Impact Assessment for the 100 MW Namane Solar PV Plant, South Africa, Namane Generation (Pty) Ltd.
- Environmental Authorisation and Atmospheric Emissions Licence for the Copper Nickel Recovery Plant, Rand Refinery Limited, South Africa.
- Environmental Authorisation and Water Use Licence (by way of a Basic Assessment) for the Light Industrial Development on proposed Kya Sand Extension 104, Randburg, South Africa.
- Environmental Authorisation and Atmospheric Emissions Licence (by way of Scoping and Environmental Impact Assessment) for Mamatwan Mine New Sinter Plant, Samancor Manganese (Pty) Limited (BHP Billiton), South Africa.
- Environmental Authorisation, Waste Management Licence and Atmospheric Emissions Licence (by way of Scoping and Environmental Impact Assessment) for the M14 Furnace, Metalloys Samancor Manganese (Pty) Ltd (BHP Billiton), South Africa.
- Environmental Authorisation and Waste Management Licence (by way of Scoping and Environmental Impact Assessment) for the upgrade of the existing Pelletising Plant to an Agglomeration Plant, Metalloys Samancor Manganese (Pty) Ltd (BHP Billiton), South Africa.
- Environmental Authorisation and Atmospheric Emissions Licence (by way of Scoping and Environmental Impact Assessment) for the Medium Carbon Ferro Manganese Converter Project, Transalloys (Pty) Ltd, South Africa.
- Environmental Authorisation and Atmospheric Emissions Licence (by way of Scoping and Environmental Impact Assessment) for the Construction and Operation of Two Furnaces and Associated Infrastructure, Transalloys (Pty) Ltd.
- Environmental Authorisation and Atmospheric Emissions Licence (by way of Scoping and Environmental Impact Assessment) for Proposed Phosphoric Acid Plant, Hi-Fos (Pty) Ltd, South Africa.
- Waste Management Licence (by way of a Basic Assessment) for the Refurbishment of West Plant Sludge Dam 3 and Associated Mixing facility, Metalloys Samancor Manganese (Pty) Ltd (BHP Billiton).
- Water Use Licences for the Nyakallong and Virginia Wastewater Treatment Works Upgrade, Matjhabeng Local Municipality, Free State, South Africa.
- Water Use License Application, Metalloys Samancor Manganese (Pty) Ltd (BHP Billiton), South Africa.

Risk assessments

- Environmental Risk Assessment for the Hard Ice Plant at Mponeng Mine, AngloGold Ashanti, South Africa.
- Environmental Risk Assessment for the Surface Cooling System Expansion for Ventersdorp Contact Reef B120 Level Project, West Wits Mponeng Mine, AngloGold Ashanti, South Africa.
- Dam Risk Assessment Goedgevonden Colliery, Xstrata Coal, South Africa.
- Environmental Risk Assessment for the Coal fired boilers, Newlands, SAB Miller, South Africa.

Feasibility studies

- Zimplats Selous Base Metals Refinery (BMR) Feasibility Study; Supporting Environmental Studies (environmental legal opinion and permitting requirements, environmental impact analysis, energy management and GHG emissions reduction study, water management study), Zimplats, Zimbabwe.
- Water Supply Feasibility Study (environmental legal opinion and permitting requirements), for Mondi South Africa (Pty) Ltd, South Africa.
- Port Durnford Prefeasibility Study Project, Tronox KZN Sands (Pty) Ltd, Richards Bay, South Africa.
- Prefeasibility study for the construction of a new converting facility, (environmental design criteria, regulatory review and permitting requirements, emissions

modelling for technology selection, opportunities to improve GHG emissions and energy management), Confidential Project, South Africa.
- Establishment of an Aluminium Recycling Plant (site sensitivity analysis, regulatory review and permitting requirements, provision of cost estimates to obtain environmental permits and licences), (Confidential Project), South Africa.
- Feasibility study for the processing of a by-product in the platinum industry, (environmental design criteria, environmental legal opinion and permitting strategy, environmental legal register, environmental and human health impact analysis, water management, contractor social management plan, construction environmental management plan), Confidential Project, South Africa.

Environmental engineering and monitoring

- Review of Environmental Design Criteria for the Development of an Iron Ore Mine in Mauritania, El Aouj Mining Company, Northern Africa.
- Review of the Environmental Protection Measures developed for the construction and operation of a Gold Mine in Russia with particular focus on identifying relevant monitoring requirements, Kinross Gold.
- Environment Design Criteria for an SO2 Abatement Plant, Anglo American Platinum, South Africa.
- Sustainable design options study for the Nimba Iron Ore Project, Société des Mines de Fer de Guinée (SMFG) Guinea and Liberia.
- Onshore and offshore environmental baseline studies, compilation of environmental monitoring/management plans and procedures, and environmental compliance monitoring for the construction of a LNG plant in the Afungi Peninsula in the Palma District of Cabo Delgado Province, CCSJV, Mozambique.
- Product and waste storage areas upgrade project at the Port of Durban, Bidvest Tank Terminals, KwaZulu-Natal, South Africa.
- Salvage Yard Layout, Detailed Design and Stormwater Management, Metalloys Samancor Manganese (Pty) Ltd (BHP Billiton), South Africa.
- Development of Water Balances for 1) Free State Operations, 2) Vaal River Operations and 3) West Wits Operations, AngloGold Ashanti, South Africa.
- Clean and Dirty Water Separation Studies for 1) Vaal River Operations (Mines and Processing Plants) and 2) West Wits Operations (Mines and Processing Plants), AngloGold Ashanti, South Africa.

Circular economy

- Scoping exercise to develop and Extended Producer Responsibility Scheme for a multi-national drink and brewing company (Confidential Project), South Africa.
- Concept Study for the Hillside Used Beverage Can (UBC) Recycling Project, South32, South Africa.

Environmental management systems and auditing

- Development of an Environmental Management System at Lumwana Mine, Zambia, Barrick Gold Corporation.
- Development of an Environment Management System (ISO 14001) including assurance of certification for ERGO, Anglogold Ashanti
- Environmental Management System (ISO 14001) development for Scaw Metals.
- Development of an Environment Management System (ISO 14001), Kimberley Mines, De Beers Consolidated Mines.
- Review and updating of the Environmental Management System (ISO 14001) at Newlands, SAB Miller.
- The Development and Implementation of processes and tools to comply with conditions defined in the Waste Management Licences, Metalloys Samancor Manganese (Pty) Ltd (BHP Billiton).
- Vegetation Control Procedure; Metalloys Samancor Manganese (Pty) Ltd (BHP Billiton).
- The Development of Standard Operating Procedures for the Materials Management Department, Metalloys Samancor Manganese (Pty) Ltd (BHP Billiton).
- Admox Bagging Plant, Admox Bagging Plant, Admox Pelletising Plant and OBC Fume Extraction Operation Environmental Management Plan; Metalloys Samancor Manganese (Pty) Ltd (BHP Billiton).
- Internal ISO 14001 Audit, Venetia Mine, De Beers Consolidated Mines.
- Internal ISO 14001 Audit, Voorspoed Mine, De Beers Consolidated Mines.
- Internal ISO 14001:2015 Audit Report for Harmony Central Gold Plant in the Free State Province.
- Internal ISO 14001:2015 Audit Report for Harmony One Gold Plant in the Free State Province.

Environmental policy and legislation
• Review the NEOM Environmental Standards and Policies, Saudi Arabia. • Developing a Greenhouse Gas reporting framework for Department of Mineral Resources and the Department of Energy, Northern Cape Province, South Africa. • Legal Opinion on Requirement for Environmental Authorisation of the Proposed Emergency Diesel Power Generation Project at Wessels Mine, Samancor Manganese (Pty) Limited (BHP Billiton), South Africa. • Environmental Legal Opinion Proposed Soya and Sunflower Bean Operations, Boksburg, South Africa. • Strategic Planning on New Furnace Location, Samancor Manganese (Pty) Ltd (BHP Billiton), South Africa.
Due diligence and technical advisory
• Independent Expert Report Roggeveld Wind Farm Phase 1 And Associated Infrastructure, South Africa. • Technical Advisory services for a Power Purchase Agreement (PPA) for a gas to power plant near Maputo, Mozambique (Confidential Project). • Environmental Due Diligence for an in-land and port side bauxite facility, Republic of Guinea (Confidential Project). • Environmental Due Diligence for the Brush-Arc UG2 Smelting at Richards Bay Alloys, Anglo American Marketing Ltd. • Environmental component of the Independent Engineering Review, for the New Generation Capacity Under the Risk Mitigation IPP Procurement Program (Confidential Project).
Auditing
• Bi-annual Environmental Performance Assessment Audit of the Tailings Facility and associated infrastructure at Harmony Kareerand Operations, Harmony Gold Mining. • Water Use Licence Compliance Audit at Farms K/Kraal 342 JQ, Rooikoppies 297 JQ and Elandsdrift 467 JQ, south of Marikana in the North West Province, Tharisa Minerals (Pty) Ltd. • Peer Review of Audits on the Construction Environmental Management Programme for Anglo American Platinum's Polokwane Metallurgical Complex within the province of Limpopo. • Audit of the Waste Management Practice at Mponeng and Kopanang Mine, AngloGold Ashanti. • External Audit Reports for the Waste Management Licences, Metalloys Samancor Manganese (Pty) Ltd (BHP Billiton). • Audit of the Water Use Licence held by Goedgevonden Colliery, Xstrata Coal South Africa. • Annual Internal Audit of the Water Use Licence for Xstrata Coal South Africa (Pty) Ltd Tweefontein Division. • Annual External Water Use Licence Audit, Metalloys Samancor Manganese (Pty) Ltd (BHP Billiton). • Annual Audit of the Record of Decision and Environmental Management Plan for the Fouriespruit Stream Diversion and Old Slag Area, Metalloys Samancor Manganese (Pty) Ltd (BHP Billiton). • Annual Environmental Performance Audit for the Pelletising Plant, Metalloys Samancor Manganese (Pty) Ltd (BHP Billiton). • Environmental Legal Compliance Assessment for the Construction Phase of the M14 Furnace Project Environmental Authorisation, Metalloys Samancor Manganese (Pty) Ltd (BHP Billiton). • Waste Management License Audit for the Slagment Operation, AfriSam Southern Africa (Pty) Ltd. • Environmental-Legal Compliance Assessment Report SCE Ashman (Proprietary) Limited: Vanderbjilpark Plant. • Environmental-Legal Compliance Assessment of the Waste Management Licence and Atmospheric Emission Licence for A-Thermal Retort Technologies (Pty) Ltd.

DECLARATION

I, Paula Tolksdorff hereby declare that the details furnished above are true and correct to the best of my knowledge and belief and I

undertake to inform you of any changes therein, immediately. In case any of the above information is found to be false or untrue or misleading or misrepresenting, I am aware that I may be held liable for it.

Signature:  Date: 17 March 2025

Environmental Assessment Practitioners Association of South Africa

Registration No. 2019/509

Herewith certifies that

PAULA JANE TOLKSDORFF

is registered as an

Environmental Assessment Practitioner

Registered in accordance with the prescribed criteria of Regulation 15. (1) of the Section 24H Registration Authority Regulations (Regulation No. 849, Gazette No. 40154 of 22 July 2016, of the National Environmental Management Act (NEMA), Act No. 107 of 1998, as amended).

Effective: 01 March 2025

Expires: 31 March 2026

Chairperson

Registrar

SAQA
SOUTH AFRICAN QUALIFICATIONS AUTHORITY

SACNASP

South African Council for Natural Scientific Professions

herewith certifies that

Paula Jane Tolksdorff

Registration Number: 152904

is a registered scientist

in terms of section 20(3) of the Natural Scientific Professions Act, 2003
(Act 27 of 2003)
in the following field(s) of practice (Schedule 1 of the Act)

Environmental Science (Professional Natural Scientist)

Effective **12 June 2024** Expires **31 March 2026**

Chairperson

Chief Executive Officer

To verify this certificate scan this code

TECHNIKON WITWATERSRAND

BACCALAUREUS TECHNOLOGIAE

ENGINEERING: CIVIL (URBAN)

INGENIEURSWESE: SIVIEL (STEDELIK)

is awarded to / word toegeken aan

PAULA-JANE LEWIS

Date of Birth / Geboortedatum

1971-01-24

Student Number / Studentenommer

8913463

with effect from / met ingang van

1997-07-01

I certify that this document is a true copy of the original which was examined by me and that, from my observations, the original has not been altered in any manner.

SIGNATURE

Commissioner of Oaths - Ryan Harold Currie

BD No: 38232 Date: 7 Sept 2024

New Life Church, 1 Grosvenor Road, Bryanston, Johannesburg, 2191

Vice-Chancellor & Principal
Visekanselier & Prinsipaal

Deputy Vice-Chancellor & Vice-Principal
Adjunkvisekanselier & Viseprinsipaal

Issued with the approval of the Certification Council for Technikon Education (SERTEC) in terms of section 9 of The Certification Council for Technikon Education Act 1986 (Act 88 of 1986)
Uitgereik met die goedkeuring van die Sertifiseringsraad vir Technikononderwys (SERTEC) ingevolge artikel 9 van die Wet op die Sertifiseringsraad vir Technikononderwys, 1986 (Wet 88 van 1986)

No. / Nr. B 0524

NORTH-WEST UNIVERSITY ®
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
POTCHEFSTROOM CAMPUS

Private Bag X6001, Potchefstroom
South Africa, 2520

Tel: (018) 299-1111/2222
Web: http://www.nwu.ac.za

MRS PJ TOLKSDORFF
P O BOX 41409
CRAIGHALL
2024

2011/12/14

23119128 - 2011

Dear MRS TOLKSDORFF

EXAMINATION RESULTS

Web address: http://www.nwu.ac.za/admin/index.html

NB Any errors and/or omissions on your 2011 record must be reported before 17 February 2012.

Herewith the results of the past examination. We trust that you were rewarded for your effort and hard work.

Qualification : 2181061 M IN ENVIRON MAN
Curriculum Code : N824P ENVIRONMENTAL ANALYSIS AND MANAGEMENT

Date	Module Name	Module Code	Module Type	Mark	Result
201111	ENVIRONMENTAL MANAGEMENT II	OMBO 8 78	Core module	69	Passed

2012 Graduate students: In the case of an exception, if we have to re-schedule your ceremony, we will inform you in February per SMS and letter.

DIRECTOR : ACADEMIC ADMINISTRATION

I certify that this document is a true copy of the original which was examined by me and that, from my observations, the original has not been altered in any manner.

SIGNATURE

Commissioner of Oaths - Ryan Harold Currie

ID No: 38232 Date: 7 Sept 2024

New Life Church, 1 Grosvenor Road, Bryanston, Johannesburg, 2191

NORTH-WEST UNIVERSITY ®
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
POTCHEFSTROOM CAMPUS

Private Bag X6001, Potchefstroom
South Africa, 2520

Tel: (018) 299-1111/2222
Web: http://www.nwu.ac.za

MRS PJ TOLKSDORFF
P O BOX 41409
CRAIGHALL
2024

2012/12/11

23119128 - 2011

Dear MRS TOLKSDORFF

EXAMINATION RESULTS

Web address for examination results: http://www.nwu.ac.za/content/exam-results

Herewith the results of the past examination. We trust that you were rewarded for your effort and hard work.

Qualification : 2181061 M IN ENVIRON MAN
Curriculum Code : N824P ENVIRONMENTAL MANAGEMENT
Method of Delivery : PART TIME

Date	Module Name	Module Code	Module Type	Mark	Result
201211	ENIVORMENT ANALYSIS 2	OMBO 8 79	Core module	75	Distinction

Registration schedule 2013:
Undergraduate and Honours students see :
http://www.nwu.ac.za/content/nwu-potchefstroom-campus-current-students-intranet-and-portal

NB: Any errors and/or omissions on your 2012 record must be reported before 18 January 2013.

CAMPUS REGISTRAR

I certify that this document is a true copy of the original which was examined by me and that, from my observations, the original has not been altered in any manner.

SIGNATURE

Commissioner of Oaths - Ryan Harold Currie

CD No: 38232 Date: 7 Sept 2024

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NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
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CEM

SAATCA D15

Centre for Environmental Management

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Commissioner of Oaths - Ryan Harold Currie

ID No: 38232 Date: 7 Sept 2024

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This is to certify that

PJ TOLKSDORFF
7101240049089

successfully completed and
passed SAATCA approved examination

Implementing Environmental Management Systems (ISO 14001)

CEM-03.1/0117/2011

22-24 June 2011

NQF Level: 7

Prof. JG Nel
Executive Manager:
Centre for Environmental Management
Course Leader

Prof. JJ Pienaar
Dean Faculty of Natural Science

Carin Bosman
Sustainable Solutions

This Certificate is issued to
certify that

Paula Tolksdorff

has attended a 3 day Training Workshop entitled

Water Governance in South Africa

held on

9-11 May 2023

I certify that this document is a true copy of the original which was examined by me and that, from my observations, the original has not been altered in any manner.

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Commissioner of Oaths - Ryan Harold Curtis

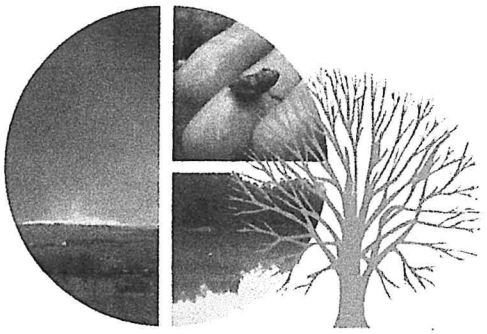
ID No: 38232 Date: 7 Sept 2024

New Life Church, 1 Grosvenor Road, Bryanston, Johannesburg, 2191

WISA

Water Institute of Southern Africa

Carin Bosman, Director: CBSS
SACNASP: WISA2023-0412-002542
ECSA: WISA2023-0412-002542 (3pt)



Our environmental- and water governance solutions help you to take sustainable management decisions

PO Box 26442 ♦ Gezina ♦ 0031 ♦ http://www.cbosss.com/training/

CESA

Consulting Engineers South Africa

This is to acknowledge that

Paula Tolksdorff

Attended the Online

Developing Mentorship Skills for

Management and Professionals

On 21-22 February 2022

This qualifies for 2 CPD Points
for Continuing Professional Development
CESA-2049-11/2024

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Commissioner of Oaths - Ryan Harold Currie

No: 38232 Date: 7 Sept 2024

New Life Church, 1 Grosvenor Road, Bryanston, Johannesburg, 2191

Chris Campbell
School of Consulting Engineering
Signed on 22 February 2022
Certificate number 29764

NETWORX
For Career Development

Certificate of Competence

This is to certify that

Paula Jane Tolksdorff

ID Number: 7101240049089

Has successfully completed the

Assessor Course

115753 Conduct outcomes-based assessment NQF Level 5 Credits 15

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Commissioner of Oaths - Ryan Harold Currie

ID No: 38232 Date: 7 Sept 2024

New Life Church, 1 Grosvenor Road, Bryanston, Johannesburg, 2191

Mylet Ursula Bhengu
Chief Executive Officer

29 November 2019

Date

ETDP SETA SAQA

Certificate Number: NETW/00001902/2019

ETDP SETA Accreditation Number: 10222

LEGISLATIVE COMPLIANCE SPECIALISTS

REG NO. 2006/014854/07

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Commissioner of Oaths - Ryan Harold Curtis

ID No: 38272 Date: 7 Sept 2021

New Life Church, 1 Grosvenor Road, Bryanston, Johannesburg, 2191

This is to certify that

P. Tolksdorff

Name

710124 0049 089

ID Number

Has successfully completed the following LCS course

Legal Liability

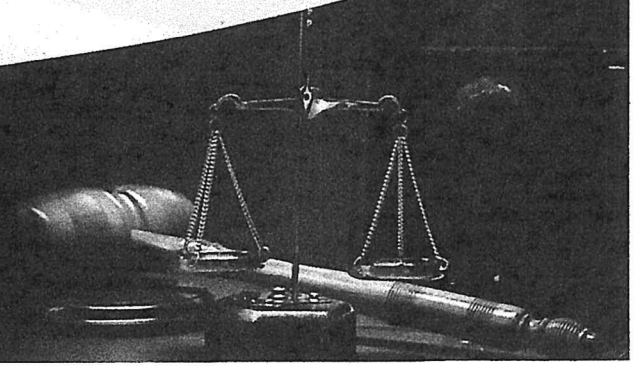
31 May 2021

Date

Facilitator / Assessor

ETDP SETA, SOR No: 61101, US Code: 7978, Endorsement No: US-10

OHS-ACT No. 85 of 1993



Aspects International

IEMA Approved Foundation Course in Environmental Auditing (South Africa)

This is to certify that

Paula Tolksdorff

Attended and Successfully Completed
the above Training Programme on
19 - 23 October 2009
and achieved 87% at Examination

I certify that this document is a true copy of the original which was examined by me and that, from my observations, the original has not been altered in any manner.

SIGNATURE

Commissioner of Oaths - Ryan Harold Currie

BD No: 38232 Date: 7/9/2024

New Life Church, 1 Grosvenor Road, Bryanston, Johannesburg, 2191

Signed .....

Chief Examiner

Certificate No: SA/0911/9
Issue Date 05/11/09

iema Approved Training Provider

Signed .....

Course Tutor

ASP/FLEA/01109/SOUTH AFRICA

Aspects International Ltd. Trelawna, Daleside Park, Darley, Harrogate, North Yorkshire, HG3 2PX. United Kingdom. T: +44 (0)1423 781 218 E: info@aspexint.com W: www.aspexint.com

Aspects International

IEMA Approved Carbon Footprint Management Course : An Introductory Programme

This is to certify that

Paula Jane Tolksdorff

Attended and Successfully Completed the above Training Programme on

6-7 July 2009

Certificate No: PubCF2/SA/0907/23

I certify that this document is a true copy of the original which was examined by me and that, from my observations, the original has not been altered in any manner.

SIGNATURE

Commissioner of Oaths - Ryan Harold Curtis

ID No: 38232 Date: 7 Sept 2024

New Life Church, 1 Grosvenor Road, Bryanston, Johannesburg, 2191

Signed .....

Chief Examiner

iema Approved Training Provider

Signed .....

Course Tutor

Aspects International Ltd. Trelawna, Dalside Park, Darley, Harrogate, North Yorkshire, HG3 2PX. United Kingdom. T: +44 (0)1423 781 218 E: info@aspexint.com W: www.aspexint.com

I certify that this document is a true copy of the original which was examined by me and that, from my observations, the original has not been altered in any manner.

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Commissioner of Oaths - Ryan Harold Curtis

ID No: 38232 Date: 7 Sept 2024

New Life Church, 1 Grosvenor Road, Bryanston, Johannesburg, 2191

The International Association for Public Participation

Certificate in Public Participation awarded to

Paula Tolksdorff

October 2009

iap2

International Association for Public Participation

President, IAP2

Training Committee Chair, IAP2

I certify that this document is a true copy of the original which was examined by me and that, from my observations, the original has not been altered in any manner.

SIGNATURE

Commissioner of Oaths - Ryan Harold Currie

BD No: 38232 Date: 9 Sept 2024

New Life Church, 1 Grosvenor Road, Bryanston, Johannesburg, 2191

The International Association for Public Participation

Paula Tolksdorff

has completed IAP2's

Communication for Effective Public Participation

October 2009

iap2

International Association for Public Participation

President, IAP2

Training Committee Chair, IAP2

I certify that this document is a true copy of the original which was examined by me and that, from my observations, the original has not been altered in any manner.

SIGNATURE

Commissioner of Oaths - Ryan Harold Curtis

ID No: 38232 Date: 7 Sept 2021

New Life Church, 1 Grosvenor Road, Bryanston, Johannesburg, 2191

The International Association for Public Participation

Paula Tolksdorff

has completed IAP2's

Techniques for Effective Public Participation

October 2009

International Association for Public Participation

President, IAP2

Training Committee Chair, IAP2

I certify that this document is a true copy of the original which was examined by me and that, from my observations, the original has not been altered in any manner.

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Commissioner of Oaths - Ryan Harold Currie

ID No: 38232 Date: 7 Sept 2024

New Life Church, 1 Grosvenor Road, Bryanston, Johannesburg, 2191

The International Association for Public Participation

Paula Tolksdorff

has completed IAP2's

Planning for Effective Public Participation

October 2009

iap2

International Association for Public Participation

President, IAP2

Training Committee Chair, IAP2

UNIVERSITY OF THE WITWATERSRAND JOHANNESBURG

Certificate of Attendance

I certify that this document is a true copy of the original which was examined by me and that, from my observations, the original has not been altered in any manner.

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Commissioner of Oaths - Ryan Harold Cl

No: 38232 Date: 7 Sept 2024

New Life Church, 1 Grosvenor Road, Bryanston Johannesburg, 2191

Faculty of Engineering and the Built Environment
(School of Mining Engineering)

This is to certify that

P Tolksdorff

during the period

16 January 2007

has attended and participated in the course

1 Day Report Back from the 1st International Seminar on Mine Closure, Perth Australia 2006

Huw R Phillips

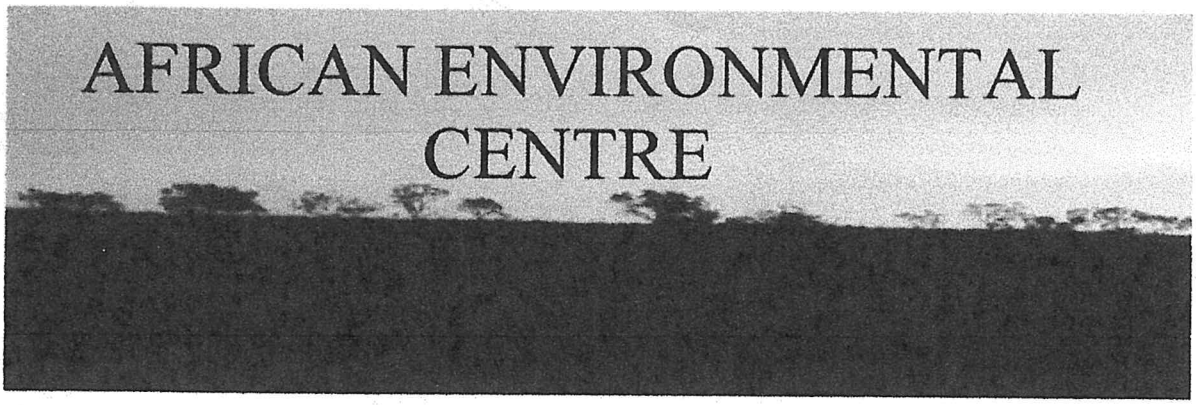
Head, School of Mining Engineering

B M Mhaquel

Dean, Faculty of Engineering & the Built Environment

Date of Issue: 16th January 2007

AFRICAN ENVIRONMENTAL CENTRE



This is to certify that

Paula Tolksdorff

has successfully completed
the following short course

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Commissioner of Oaths - Ryan Harold Currie

SD No: 38232 Date: 7 Sept 20xx

New Life Church, 1 Grosvenor Road, Bryanston, Johannesburg, 2191

NEMA EIA Regulations

on the

23 October 2006

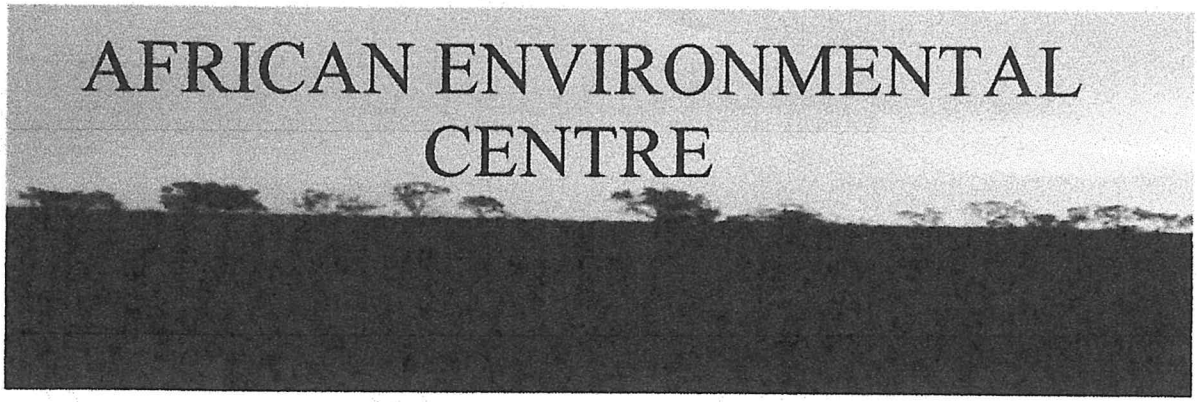
Director

AFRICAN ENVIRONMENTAL CENTRE FOR TRAINING RESEARCH AND CONSULTING

certificate number

2006/10/001/008

CC reference number 2006/212059/23



This is to certify that

Paula Tolksdorff

has successfully completed
the following short course

NEMA EIA Regulations

on the

~~***23 October 2006***~~

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SIGNATURE

Commissioner of Oaths - Ryan Harold Currie

No: 38232 Date: 7 Sept 2024

New Life Church. 1 Grosvenor Road, Bryanston, Johannesburg, 2191

Director

AFRICAN ENVIRONMENTAL CENTRE FOR TRAINING RESEARCH AND CONSULTING

certificate number

2006/10/001/008

CC reference number 2006/212059/23

APPENDIX B: VAALBANK COLLIERY 2026-2030 SOCIAL AND LABOUR PLAN

Document Title	SOCIAL AND LABOUR PLAN CYCLE 2026-2030 ACCOMPANYING SECTION 102 APPLICATION BY VAALBANK COLLIERY OWNED BY RUM COAL (PTY) LTD (PREVIOUSLY F AND D CONSULTING AND INVESTMENTS (PTY) LTD Submitted with an application for the consent of the Minister to amend rights, permits, programmes or plans in terms of Section 102 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002)
Existing Mine Rights	Existing Mining Right No. KZN30/5/1/2/2/286MR. Area: Remainder of Portion 1 of the Farm Vaalbank 38 HU and a portion of Portion 5 of the Farm Hlobane 506 HT, situated in the Vryheid Magisterial/Administrative District of Vryheid, measuring 231.491 hectares in extent.
Additional Mine Rights	Farms and Mine Right Numbers to be added to this SLP: Portion of Portion 5 of Hlobane 506 (KZN286MR); Portion of Rem of Portion 1 of Vaalbank 38 (KZN286MR) Remainder of Sub 6 of 2 of Rietvlei 150 (KZN11154PR)
SLP Life Cycle	2026-2030
Date of this compilation:	21 Aug 2025
Compiled by:	SLP4Good/Rum Coal

1 CONTENT

‘

‘

2 ACRONYMS AND ABBREVIATIONS

AET	Adult Education and Training
ATR	Annual Training Report
B-BBEE	Broad-Based Black Economic Empowerment
BCEA	Basic Conditions of Employment Act
DHET	Department of Higher Education and Training
DMPR	Department of Mineral Resources and Energy
EE	Employment Equity
EMP	Environmental Management Programme
EMPr	Environmental Management Programme report
FOT	Free on Truck (pricing term)
HDSA	Historically Disadvantaged South African
HRD	Human Resource Development
IDP	Integrated Development Plan
MPRDA	Mineral and Petroleum Resources Development Act
MQA	Mining Qualifications Authority
MWP	Mining Work Programme
NEMA	National Environmental Management Act
NQF	National Qualifications Framework
NSDP	National Skills Development Plan
OHSA	Occupational Health and Safety Act
PoE	Portfolio of Evidence
QCTO	Quality Council for Trades and Occupations
ROM	Run-of-Mine (unprocessed coal)
SDL	Skills Development Levy
SETA	Sector Education and Training Authority
SDF	Skills Development Facilitator
SLP	Social and Labour Plan
TVET	Technical and Vocational Education and Training
WSP	Workplace Skills Plan

‘

3 UPDATE NOTE ON VAALBANK SLP REVISIONS

A directive was issued by the DMPR on 8 July 2025, listing specific items that required attention in the Vaalbank Colliery (Rum Coal Pty Ltd) SLP. In response, a fully revised SLP was submitted to the DMPR Durban Office on 14 August 2025, addressing all the items raised.

The updated SLP was then discussed with the DMPR on 18 August 2025 at their Durban Office, attended by Richard Collins (Rum Coal / Vaalbank Colliery), Moleboheng Sekhonyana (DMPR) and her colleague, and Gerrie Muller (SLP4Good).

The DMPR requested further revisions as an outcome of the above meeting, and these revisions included amongst others:

- Cumulative targets and budgets across all HRD components
- Adjustments to the AET approach (substituting community AET with bricklaying and other skills training)
- Updated learnership and bursary plans, an expanded internship framework
- Financial provision aligned to HRD, LED, and closure requirements
- Restructuring of the LED component, with the soccer field proposal replaced by school-based infrastructure projects such as a library and computer lab, ensuring alignment with the IDP and municipal support

This is therefore an updated SLP report based on the meeting dated 18 August 2025.

‘

4 DMPR'S SLP GUIDELINE FRAMEWORK

The table below has been included in this Social and Labour Plan (SLP) to align with the Department of Mineral Resources and Energy (DMPR) guidelines and the Mining Charter Scorecard criteria. This structured approach not only underscores Vaalbank Colliery's (the mine)'s commitment to meeting regulatory requirements but also reflects our proactive engagement in understanding and addressing each critical area of the SLP. By providing detailed responses to each criterion, we aim to demonstrate our thoroughness in planning and our dedication to compliance, thereby ensuring that all aspects of the SLP are fully addressed in accordance with the expectations set forth by the DMPR.

Table 1: DMPR SLP Guideline

	SLP Guideline Criteria	Scorecard (Mining Charter) Criteria
1	Human Resource Development Programme	
1.1	Skills Development Plan	Skills Development
	Provide a detailed skills development plan that offers employees opportunities to be functionally literate and numerate (ABET Level 4/Grade 9/Std 7).	Has the mine offered every employee the opportunity to be functionally literate and numerate and are employees receiving training?
	Training employees on: Learnerships; Skills programmes; Portable skills (skills utilizable beyond mining industry); and Any other core business training.	Has the mine implemented Skills Development Plans for HDSA employees?
	Outline participation in the processes of skills development legislation including: Developing and submitting Workplace Skills Plan; Annual Training Reports; and Paying levies and claiming grants.	
	Supporting forms to be included: Numbers and levels of literacy – Form Q Hard-to-fill vacancies – Form R.	

‘

	SLP Guideline Criteria	Scorecard (Mining Charter) Criteria
1.2	Career Progression Plan	**Career paths for HDSA Employees**
	Outline a career plan and its implementation to progress the employees through the employment levels in line with the Skills Development Plan.	Has the mine developed systems to mentor empowerment groups?
1.3	Mentorship Plan	Mentorship
	Outline a mentorship plan and its implementation for employees and empowerment groups in line with the Skills Development Plan.	Has the mine developed systems through which empowerment groups can be mentored?
1.4	Internship and Bursary Plan	
	Outline an internship and bursary plan and its implementation in line with the Skills Development Plan.	
1.5	Employment Equity Plan	Employment Equity
	Outline the process to publish its Employment Equity Plan and report on the progress annually. Outline the plan and its implementation to ensure: 40% participation of HDSA in management and 10% participation of women in mining. Outline the process to identify and fast track the talent pool. Supporting form – Form S.	Has the mine published its annual employment equity plan? Has the mine established a plan to achieve a target for HDSA participation in management of 40% within 5 years and is implementing the plan? Has the mine established a plan to achieve the target for women participation in mining of 10% within the 5 years and is implementing the plan? Has the mine identified a talent pool and is it fast-tracking it?
2	Local Economic Development Programme	
2.1	Social and Economic Background Information	
	Provide the baseline social and economic background information of	

‘

	SLP Guideline Criteria	Scorecard (Mining Charter) Criteria
	the area of operation and sending in terms of Province, District and Local Municipality.	
2.2	Key Economic Activities	
	Provide the key economic activities and needs of the area of operation.	
2.3	Impact of the Mining Right on Communities in and around the mine and Communities that are source/s of Major Labour	Mine Community and Rural Development
	Provide the impact the operation would have on the community and area in line with the duration of the right including: Job creation; SMME Development; Infrastructure development; Community development; and Poverty eradication.	Has the mine co-operated in the implementation of the integrated development plans for communities where mining takes place and for major labour-sending areas? Has the mine made an effort to engage the local mine community and major labour sending area communities? (Required to provide record of consultation, indicate expenditure and provide a plan).
2.4	Housing and Living Conditions	Housing and Living Conditions
	Provide a plan to establish the preferred requirements for housing and living conditions for employees. New mines to look at unsustainable settlements. Existing mine to look at measures to improve standard of housing and living conditions.	Has the mine in consultation with stakeholders established measures for improving the standard of housing, including upgrading of hostels, conversion of hostels into family units and promotion of home ownership options for employees? Companies are required to indicate what they have done to improve housing, provide a plan, and show progress.
2.5	Nutrition	Nutrition
	Provide a plan and its implementation to establish measures for improving nutrition of employees.	Has the mine put in place measures for improving the nutrition of mine employees? Companies are required to indicate what they have done to improve

‘

	SLP Guideline Criteria	Scorecard (Mining Charter) Criteria
		nutrition, provide a plan, and show progress.
2.6	Procurement Progression	Procurement
	Indicate the current level of procurement from HDSA companies - Form T.	Has the mine given HDSAs preferred supplier status? Has the mining company identified current level of procurement from HDSA companies in terms of capital goods, consumables and services? Has the mining company indicated a commitment to a progression of procurement from HDSA companies over a 3-5 year time frame in terms of capital goods, consumables and services and to what extent has the commitment been implemented?
3	Processes Pertaining to Management of Downscaling and Retrenchment	
3.1	Establishment of a Future Forum	
	Provide an undertaking to establish the Future Forum	
3.2	Saving Jobs and Avoiding job losses and a Decline in Employment	
	Process to include but is not limited to: Consultations; Implementation of section 189 of the Labour Relations Act; Notification to the Board; and Complying with Ministerial directives.	
3.3	Alternative Solutions where Job Losses cannot be avoided	

‘

	SLP Guideline Criteria	Scorecard (Mining Charter) Criteria
	Process to include but is not limited to: Consultations; Implementation of section 189 of Labour Relations Act; Notification to the Board; and Complying with Ministerial directives	
3.4	Ameliorating the Impact of Retrenchment	
	Outline a process to be followed to ameliorate the social and economic impact on individuals, regions and economies. Process must include but is not limited to: Assessment and counselling services; Comprehensive self-employment training programmes; and Comprehensive training and re-employment programmes.	
4	Financial Provision (Section 23 (1) (e))	
	Human Resource Development Programme	
	Local Economic Development Programme	
	Processes pertaining to management of downscaling and retrenchments	
	An undertaking by the holder of the mining right to ensure compliance with the social and labour plan and to make it known to the employees	
		Scorecard (Charter) Specific Requirements
		Ownership and Joint ventures

‘

	SLP Guideline Criteria	Scorecard (Mining Charter) Criteria
		Has the mine achieved 26% HDSA participation in terms of ownership and production?
		Beneficiation
		Has the mine identified its current level of beneficiation? Has the mine indicated to what extent it can grow its base line of beneficiation?
		Reporting
		Has the mine annually reported its progress towards achieving its commitments in its annual report?

‘

5 EXECUTIVE SUMMARY

This Social and Labour Plan (SLP) has been prepared to accompany a Section 102 application submitted by Rum Coal (Pty) Ltd, trading as Vaalbank Colliery, to amend its existing mining right. The application seeks approval to expand operations across additional properties near Vryheid, KwaZulu-Natal, and aligns with the Mineral and Petroleum Resources Development Act (MPRDA), 2002, and the Mining Charter.

The proposed mining operation, focused on extracting lean coal from the Gus and Dundas seams, anticipates a 10-year life of mine with an annual run-of-mine production of 120,000 tonnes. Approximately 120 individuals—employed via a mining contractor—will constitute the operational workforce, with a commitment to sourcing at least 80% from within the AbaQulusi Local Municipality. Although these workers are contractually employed by third parties, they are fully included under the obligations of this SLP.

The SLP is structured to fulfil regulatory requirements under Regulation 46 of the MPRDA, with a focus on the following:

- **Human Resource Development (HRD):** A comprehensive HRD programme targets functional literacy through Adult Education and Training (AET), technical upskilling via MQA-aligned learnerships, and progressive internal career development. Special emphasis is placed on employment equity, mentorship, and inclusion of Historically Disadvantaged South Africans (HDSAs), including women.
- **Local Economic Development (LED):** Socio-economic assessments of the AbaQulusi region inform the identification and planning of community-aligned LED projects. The plan prioritises local procurement, SMME support, and infrastructure contributions aimed at sustainable upliftment of affected villages.
- **Housing and Nutrition:** The mine commits to improving employee living standards and ensuring adequate nutrition through structured programmes aligned with regulatory and charter expectations.
- **Procurement and Transformation:** Targets are set for increasing procurement from HDSA-owned suppliers in capital goods, consumables, and services over the SLP period.
- **Downscaling and Retrenchment:** A Future Forum will be established to pre-empt and mitigate potential job losses. The plan outlines job preservation strategies, alternative employment support, and portable skills training to cushion socio-economic impacts of closure.
- **Financial Provisioning:** The mine has budgeted for all SLP activities, including downscaling obligations and HRD investments, with a strategy to leverage discretionary grants, tax incentives, and partnerships with accredited training institutions.

In essence, this SLP reflects Vaalbank Colliery's strategic intent to ensure compliance, foster regional economic benefit, and embed long-term socio-economic development within its mining footprint. It demonstrates a balanced commitment to workforce development, community upliftment, and regulatory integrity under South Africa's evolving mining governance framework.

‘

6 PREAMBLE REGULATION 46(A)

6.1 INTRODUCTION

In terms of Section 102 of the Mineral and Petroleum Resources Development Act (MPRDA), 2002, any amendment to an existing mining right—whether in respect of the right itself or its associated programmes and plans, including the Social and Labour Plan (SLP), Mining Work Programme (MWP), or Environmental Management Programme (EMP)—requires the written consent of the Minister of Mineral Resources and Energy. This provision ensures that substantive changes, such as the inclusion of additional properties or operational components (e.g. the expansion to include Rietvlei), are subjected to regulatory scrutiny and formal approval. Accordingly, this SLP has been prepared to align with the amended scope of the mining right application and to reflect the full extent of the mine's projected socio-economic obligations over the life of mine.

This Social and Labour Plan therefore has been compiled to support an application by Rum Coal (Pty) Ltd t/a Vaalbank Colliery (previously F and D Consulting and Investments (Pty) Ltd t/a Vaalbank Colliery) for an amended mining right in terms of the Mineral and Petroleum Resources Development Act (MPRDA). The total workforce will comprise approximately 120 individuals, who will be employed by a mining contractor responsible for production and coal beneficiation (including crushing and screening) at the Vaalbank Colliery. Although these individuals will technically be employed by a contractor, they will be regarded as forming part of the Vaalbank Colliery workforce for the purposes of this Social and Labour Plan. All obligations and commitments set out in this SLP will apply equally to these employees, irrespective of their contractual employer.

The appointed contractor has not yet been finalised but will be identified in due course and communicated to the DMPR at the appropriate time.

As stated in the DMPR's SLP Guidelines of 2010, the objectives of the Social and Labour Plan are to promote economic growth and the development of mineral and petroleum resources within the Republic, in line with Section 2(e) of the MPRDA. Additionally, it aims to foster employment and enhance the social and economic well-being of all South Africans, as mentioned in Section 2(f) of the MPRDA. The plan also seeks to ensure that holders of mining or production rights contribute to the socio-economic upliftment of the communities in which they operate, as well as the areas from which most of their workforce is drawn, as outlined in Section 2(i) of the MPRDA and the Mining Charter. Furthermore, it strives to utilise and broaden the existing skills base to empower historically disadvantaged South Africans (HDSA) and benefit the wider community.

Regulation 46(a) to the MPRDA states that the contents of a social and labour plan must include the a preamble which provides background information to the mine in question.

This, and other salient aspects is outlined below.

‘

Table 2: PREAMBLE REGULATION 46(A) INFORMATION

Aspect	Information
Name of Mine	Vaalbank Colliery
Name of Company	Rum Coal (Pty) Ltd (previously F and D Consulting and Investments (Pty) Ltd).
Existing Mining Rights	Existing Mining Right No. KZN30/5/1/2/2/286MR. Area: Remainder of Portion 1 of the Farm Vaalbank 38 HU and a portion of Portion 5 of the Farm Hlobane 506 HT, situated in the Vryheid Magisterial/Administrative District of Vryheid, measuring 231.491 hectares in extent.
Application for amendment of a mining right under section 102 of the MPRDA	Farms and Mine Right Numbers to be added to this SLP: Portion of Portion 5 of Hlobane 506 (KZN286MR) Portion of Rem of Portion 1 of Vaalbank 38 (KZN286MR) Remainder of Sub 6 of 2 of Rietvlei 150 (KZN11154PR)
Company Postal Address	PO Box 92493, Mooikloof Pretoria 0059
Telephone Number	083-609-1529
Fax Number	083-609-1529
Location of Mine	+/- 20 kilometres from Vryheid (see location map below)
Commodity	Coal
Life of Mine	10 Years
Estimated no of employees	120
Estimated breakdown of employees per labour sending area	Large portion from local municipality, the balance from skill-appropriate areas in South Africa.
Financial year end: 31 May	

‘

6.2 SKILLS DEVELOPMENT FACILITATOR

Table 3: Skills development facilitator

Name of SETA.	Mining Qualifications Authority (MQA)
Skill Development Facilitator	Tanya Thiart
Confirmation of having appointed a Skills Development Facilitator.	Yes
Proof of submission of workplace skills plan and date of submission.	To be provided

‘

7 BACKGROUND INFORMATION

7.1 Mining Work Programme Summary

Rum Coal t/a Vaalbank Colliery intends to extract coal (mineral code C) across a defined area located within the magisterial district of Vryheid, KwaZulu-Natal. The current mining right covers portions of the farms Vaalbank 38 and Hlobane 506. An application has been submitted to amend this right to include the Remainder of Subdivision 6 of Portion 2 of Rietvlei 150, where Rum Coal also holds a valid prospecting right (KZN10155PR), registered on 8 December 2020.

The mining operation targets the Gus and Dundas coal seams, both of which are present across the mining area and classified as lean coal. While sections of the Alfred Seam have been previously mined out, substantial resources and reserves remain within the Gus and Dundas seams. Proven and probable reserves total approximately 1.19 million ROM tonnes, with an estimated 743,000 tonnes recoverable as saleable coal (washed at a specific gravity of 1.6). The mining method will consist of drill and blast techniques using a bord-and-pillar layout, accessed via the previously rehabilitated Hlobane opencast highwall.

The coal qualities, derived from historical and recent boreholes, confirm suitability for both export and domestic markets. The washed product is low in sulphur and phosphorus and is particularly suited to the ferroalloy sector. Run-of-mine coal will be sold at an average FOT price of R600/tonne, either directly or via third-party beneficiation plants in the area. Forecast annual production is 120,000 tonnes ROM, equating to roughly 10,000 tonnes per month.

The mine is expected to operate on a 2-shift, 6-day schedule, following a 12-month construction phase. Full production is anticipated within 6 months of commissioning. The life-of-mine is estimated at 10 years, with a two-year closure and rehabilitation phase to follow.

The total workforce at full production is projected to reach 120 employees, including contractors. Rum Coal has committed to employing a significant portion of its unskilled and semi-skilled labour from local communities within AbaQulusi Municipality, supported by a training and human resource development programme as outlined in this SLP.

All regulatory obligations, including those relating to environmental management (EMPr approved in 2018), social investment, and mine rehabilitation (secured via Lombard Guarantee No. M-64259), have been fully costed and integrated into the economic model.

The images below show the mine's location.

In addition, this mining programme supports SLP objectives including local economic development (LED), Human Resource Development (HRD), and compliance with downscaling and retrenchment protocols.

Furthermore, the project is anticipated to generate socio-economic benefits in the AbaQulusi area through employment creation, local procurement, and skills development.

Moreover, the mine will be fully aligned with Social and Labour Plan commitments, including LED, skills development, and downscaling protocols. Regulatory compliance under the MPRDA and Mining Charter has been ensured. The project anticipates meaningful socio-economic benefits for communities in AbaQulusi Local Municipality.

Image 1: Vaalbank Colliery and Extension Application

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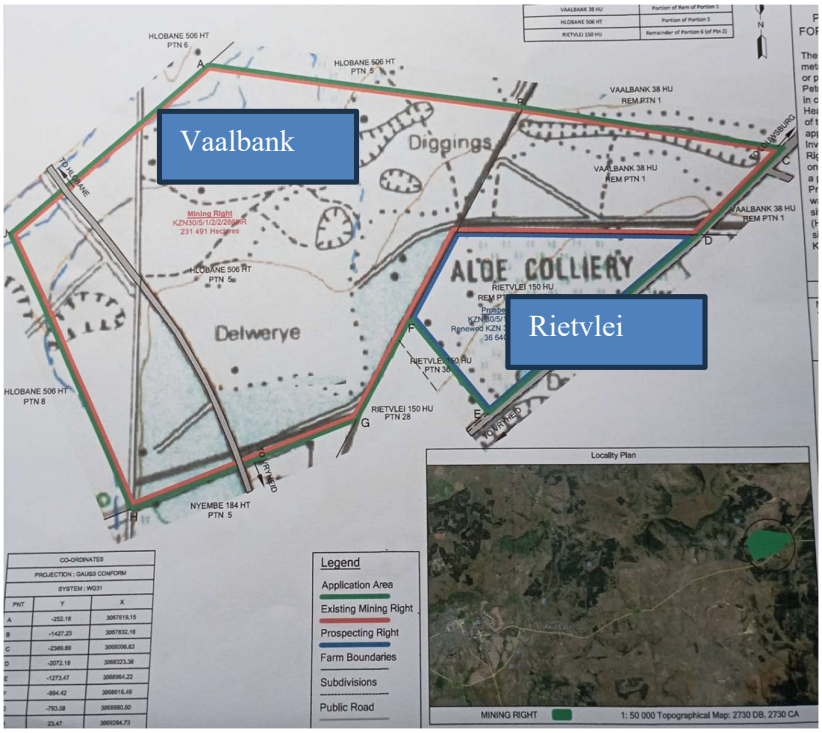

Image 2: Vaalbank (red pin) 20 km's from Vryheid

In conclusion, the proposed mining operation by Rum Coal (Pty) Ltd is technically and economically feasible, with proven reserves, established infrastructure access, and a defined market for the product. The mine will operate within a robust regulatory and environmental compliance framework and has committed to maximising local socio-economic benefit through employment, training, and procurement initiatives aligned with the Social and Labour Plan. With all necessary permits, geological data, and implementation timelines in place, the project is positioned to contribute meaningfully to both regional development and national energy objectives over its 10-year operational horizon.

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7.2 MINING CHARTER CONTEXT

7.2.1 HISTORY AND EVOLVEMENT OF THE MINING CHARTER

Including the history of the Mining Charter in this Social and Labour Plan (SLP) serves to demonstrate the mine's understanding of the evolving regulatory landscape in South Africa's mining industry. By acknowledging the milestones and changes in the Charter, we highlight our commitment to aligning with the broader socio-economic objectives of transformation and empowerment set forth by the government. This historical context underscores the mine's proactive approach to compliance, ensuring that its operations not only meet current requirements but also contribute meaningfully to the ongoing transformation of the industry.

THE ORIGINS (POST-1994)

Following the end of apartheid in 1994, South Africa embarked on a journey to redress the economic inequalities entrenched by decades of racially discriminatory policies. The mining sector, a cornerstone of the South African economy, was a key focus for transformation. the mineral and Petroleum Resources Development Act (MPRDA) of 2002 laid the groundwork, establishing state custodianship of mineral resources and requiring mining companies to demonstrate a commitment to social and economic development, including the participation of historically disadvantaged South Africans (HDSAs), to secure mining rights.

THE FIRST MINING CHARTER (2002)

The first Mining Charter, officially named the Broad-Based Socio-Economic Empowerment Charter for the South African Mining Industry, was introduced in 2002 alongside the MPRDA. It set specific targets and timelines for mining companies to achieve broad-based black economic empowerment (B-BBEE), focusing on:

- Ownership: A target of 26% black ownership within 10 years.
- Employment Equity: Increasing HDSA representation in management positions.
- Skills Development: Promoting skills development for HDSAs.
- Procurement: Encouraging procurement from BEE-compliant suppliers.
- Socio-Economic Development: Implementing SLP's to benefit mining communities.

THE REVISED MINING CHARTER (2010)

By 2010, it became evident that many companies were struggling to meet the targets set by the original Charter. In response, the government revised the Mining Charter to address these challenges. The revised Charter retained the 26% black ownership target but introduced more stringent measures for monitoring compliance and emphasised:

- Sustainable Development: A greater focus on environmental sustainability and social responsibility.
- Beneficiation: Encouraging local processing of minerals before export.
- Housing and Living Conditions: Improving the living conditions of mineworkers.

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The 2014 Review

In 2014, the Department of Mineral Resources (DMR) conducted a comprehensive review of the progress made under the 2010 Mining Charter. The review highlighted that while some progress had been achieved, many mining companies were still falling short of the Charter's targets, particularly in ownership and community development. This review did not result in a new Mining Charter but was instrumental in shaping the discussions and consultations that followed, laying the groundwork for the more stringent 2017 Mining Charter.

The 2017 Mining Charter (Charter III)

The Mining Charter was significantly revised again in 2017, resulting in the introduction of Mining Charter III. This version aimed to accelerate transformation but was met with controversy and opposition from the industry. Key provisions included:

- Increased Ownership: A requirement for new mining rights to have 30% black ownership.
- Increased Employment Equity: More aggressive targets for HDSA representation.
- Community Development: A requirement for mining companies to contribute a reasonable % of their annual turnover to community development projects (exact % never specified).
- - Supplier and Enterprise Development: A stronger focus on procurement from black-owned and women-owned businesses.

The 2017 Charter faced legal challenges and significant pushback, leading to delays in its implementation.

The Amended Mining Charter (2018)

In response to the legal challenges and industry concerns, the government, led by then Mineral Resources Minister Gwede Mantashe, amended the 2017 Charter. The amended Mining Charter, gazetted in September 2018, sought to balance the need for transformation with the sustainability of the mining sector. Its key features included:

- Ownership: Retention of the 30% black ownership target with more flexible conditions for existing mining rights holders.
- Community Development: Enhanced focus on community development with clearer guidelines on company engagement with local communities.
- Procurement: A stronger emphasis on procurement from BEE-compliant companies.
- Employment Equity: Continued focus on increasing HDSA representation, particularly for women.

Legal Challenges and Court Rulings

Following the implementation of the 2018 Mining Charter, various aspects of the Charter were legally challenged by the mining industry. One of the most significant outcomes was the ruling by the Pretoria High Court in September 2021, which set aside several key provisions of the 2018 Mining Charter:

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- "Once Empowered, Always Empowered" Principle: The court ruled in favour of the principle that once a mining company had met its black ownership targets, it would not be required to continuously maintain that ownership level, even if black shareholders sold their shares.
- Ministerial Powers: The court found that certain provisions of the Charter, which effectively amended the MPRDA, were beyond the powers of the Minister of Mineral Resources, as they were not legislatively sanctioned. These in particular applied to the inclusive procurement provisions.

These rulings have significant implications for the future application of the Mining Charter and have prompted ongoing discussions about the balance between regulatory requirements and legal certainty for mining companies.

Current and Future Developments

The Mining Charter remains a central tool in South Africa's broader socio-economic transformation agenda. It is regularly reviewed and subject to amendments as the government and industry stakeholders seek to balance economic growth with social justice and equity. The Charter is monitored by the Department of Mineral Resources and Energy (DMPR), with mining companies required to submit annual reports on their compliance.

The ongoing evolution of the Mining Charter reflects the dynamic nature of South Africa’s efforts to ensure that the benefits of the country’s mineral wealth are shared more equitably among all its citizens.

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Education is a companion which no future can depress, no crime can destroy, no enemy can alienate it and no nepotism can enslave. – Ropo Oguntimehin –

There is nothing training cannot do. Nothing is above its reach. It can turn bad morals to good; it can destroy bad principles and recreate good ones; it can lift men to angelship. – Mark Twain –

The main hope of a nation lies in the proper education of its youth. – Erasmus –

Our best chance for happiness is education. – Mark VanDorn –

What sculpture is to a block of marble, education is to a human soul. – Joseph Addison, 1711 –

Education is the point at which we decide whether we love the world enough to assume responsibility for it and by the same token to save it from that ruin, which, except for renewal, except for the coming of the new and the young, would be inevitable. An education, too, is where we decide whether we love our children enough not to expel them from our world and leave them to their own devices, nor to strike from their hands their choice of undertaking something new, something unforeseen by us, but to prepare them in advance for the task of renewing a common world. –

8 HUMAN RESOURCE DEVELOPMENT PROGRAMME REGULATION 46(B)

8.1 INTRODUCTION

The Human Resource Development Programme (HRDP) under Regulation 46(b) of the Mineral and Petroleum Resources Development Act (MPRDA) is a crucial component of a mining right holder's Social and Labour Plan (SLP). This programme is designed to ensure that mining operations contribute meaningfully to the socio-economic development of the communities in which they operate. The HRDP specifically focuses on the upskilling, education, and empowerment of both employees and the broader community.

By mandating mining companies to invest in human capital, the HRDP aims to enhance the skills base of the local workforce, thereby fostering sustainable development and economic resilience in mining regions. The programme encompasses various initiatives, including but not limited to, adult education and training (AET), learnerships, bursaries, internships, and skills development programmes. These initiatives are tailored to meet the specific needs of the mining operation and the surrounding communities, ensuring that the benefits of mineral extraction extend beyond the life of the mine and contribute to the long-term socio-economic upliftment of the region.

In addition, the mine firmly believes that the competence of its human capital is of utmost importance to the future success of the organisation. It furthermore recognises that to address the skill deficit faced by the workforce, considerable effort and investment should be directed towards the education, training and skill development of its employees.

In realising the vision of a competent workforce, the mine takes full cognisance of the importance of aligning its Human Resource Development Programme to the following national legislation and strategic frameworks:

a. Mineral and Petroleum Resources Development Act (MPRDA), 2002 (Act No. 28 of 2002)

Regulation 46(b): Requires mining companies to include a Human Resource Development Programme in their Social and Labour Plan (SLP). This programme must outline how the mine will contribute to the skills development of its employees and the local community.

b. Mine Health and Safety Act (MHSA), 1996 (Act No. 29 of 1996)

Section 10: Mandates the provision of health and safety training to employees to ensure they are aware of the risks and dangers associated with their work and how to mitigate them.

Regulation 11.4: Requires mining companies to ensure that all employees, including contractors, receive adequate and ongoing training to ensure safe working conditions.

c. Skills Development Act, 1998 (Act No. 97 of 1998)

Promotes skills development in the workplace and establishes mechanisms like the National Skills Authority, Sector Education and Training Authorities (SETAs), and the National Skills Fund.

Requires employers to develop a Workplace Skills Plan and report on its implementation.

d. Skills Development Levies Act, 1999 (Act No. 9 of 1999)

Imposes a levy on employers to fund the National Skills Fund and Sector Education and Training Authorities (SETAs), which are responsible for skills development in various industries, including mining.

e. National Qualifications Framework Act, 2008 (Act No. 67 of 2008)

Establishes the framework for setting qualifications standards in South Africa, including those relevant to the mining industry.

Promotes the alignment of education and training with the needs of the labour market, including the mining sector.

f. Employment Equity Act, 1998 (Act No. 55 of 1998) – **now amended**

Aims to achieve equity in the workplace by promoting equal opportunities and fair treatment in employment through the elimination of unfair discrimination.

Requires employers to implement affirmative action measures, including targeted training and development programs to advance historically disadvantaged groups.

g. Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003)

Encourages the economic participation of historically disadvantaged South Africans, including through HRD and training initiatives.

Mining companies are expected to meet specific targets related to skills development and training as part of their compliance with the Mining Charter.

h. Mining Charter (Revised in 2018)

Sets out specific targets for mining companies regarding HRD, including the percentage of payroll to be spent on skills development.

Includes provisions for training in technical skills, portable skills for workers' careers beyond mining, and management skills.

i. Occupational Health and Safety Act, 1993 (Act No. 85 of 1993)

Section 13: Obligates employers to provide information, instruction, training, and supervision necessary to ensure the health and safety of employees at work.

j. Basic Conditions of Employment Act, 1997 (Act No. 75 of 1997)

‘

Regulates working hours, leave, and other employment conditions, including provisions for training leave where applicable.

k. Labour Relations Act, 1995 (Act No. 66 of 1995)

Provides a framework for collective bargaining in the workplace, which can include agreements on HRD and training initiatives.

l. Adult Basic Education and Training (AET) Act, 2000 (Act No. 52 of 2000)

Promotes adult basic education and training as part of lifelong learning and skills development in the workplace, particularly relevant in sectors like mining with low levels of formal education among employees.

m. National Skills Development Plan (NSDP), 2020-2030

Replaces the National Skills Development Strategy (NSDS) III and sets out the priorities for skills development in South Africa, including those in the mining sector.

Focuses on aligning skills development initiatives with the needs of the economy and includes provisions for HRD in various industries, including mining.

n. Workplace Skills Plan (WSP) and Annual Training Report (ATR)

Mining companies are required to submit a Workplace Skills Plan (WSP) and Annual Training Report (ATR) to their respective SETA, outlining planned and actual training for the year.

o. SETAs (Sector Education and Training Authorities)

SETAs are responsible for implementing the National Skills Development Strategy and are key to HRD in the mining industry. *The Mining Qualifications Authority (MQA) is the SETA responsible for the mining and minerals sector.*

8.1.1 KEY OUTCOMES

This mine's HRD programme intends to facilitate the achievement of four key outcomes:

1. To provide skills training opportunities to mine workers during their employment in order to improve their income earning capacity after mine closure
2. To promote employment and skills development in the local communities and major labour sending areas
3. To ensure substantially higher levels of inclusiveness and advancement of HDSAs[1], including women, in the mining industry
4. To contribute to the development of a pool of skilled South African workers in support of National Economic and Skills Development strategies

8.1.2 OVERARCHING FRAMEWORK

With meticulous planning and implementation of the HRD Programme, the desired outcomes are inevitable. A crucial point to note is that no facet of the programme will be initiated in isolation. All manpower planning and skills development initiatives will be aligned to the

[1] Historically Disadvantaged South Africans

‘

mine's strategic business plan. The mine's operational requirements, stemming from the Mine Works Plan, will form the basis for establishing the organisations skill development priorities. These priorities will include the following plans for implementation:

- Adult Education and Training (AET)
- Learnerships
- Core Skills Training (relevant to the core business functions)
- Portable Skills Training (promoting employment beyond mine closure)
- Internships and Bursaries
- Career Progression and Mentorship Programmes

The theme of *Employment Equity* will be interwoven through each of the abovementioned initiatives, expanding the skills base and opportunities of HDSA employees (including women).

The diagram below provides a graphical depiction of this framework.

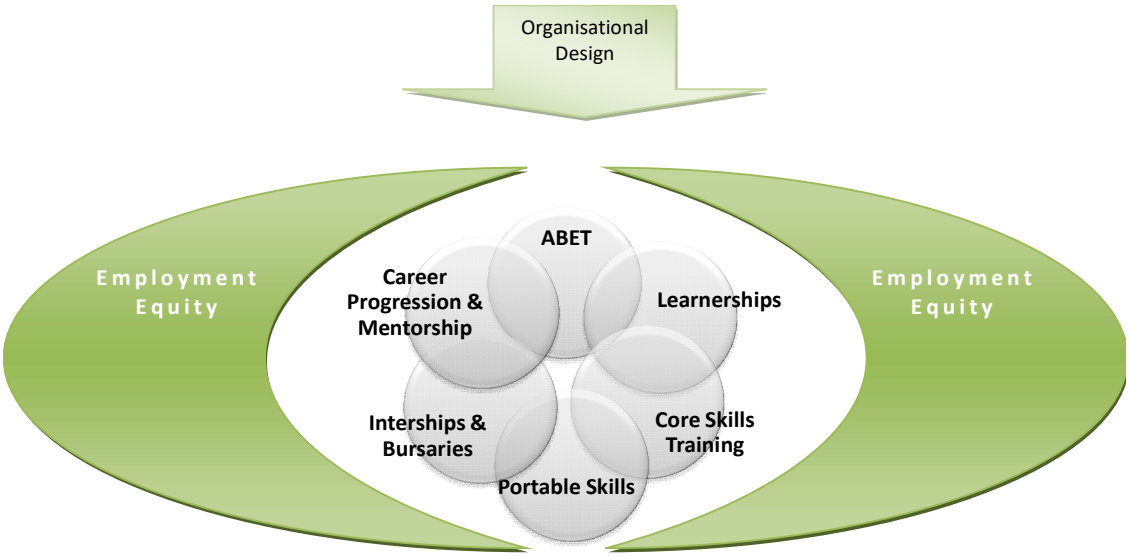

Figure 1 HRD Programme – Overarching Framework

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8.2 SKILLS DEVELOPMENT PLAN REGULATION 46(B)(I)

8.2.1 WORKFORCE

Table 4: Workforce by Occupational Level

Occupational Level	2026	2027	2028	2029	2030
Top Management	0	0	2	2	2
Senior Management	0	0	4	4	4
Professionally Qualified	0	0	8	8	8
Skilled Technical	0	0	26	26	26
Semi-Skilled	0	0	40	40	40
General Labour / Support	0	0	40	40	40
Total Employees	0	0	120	120	120

8.2.2 SKILLS IN LOCAL AREA

The mine intends to source at least 80% of its unskilled and semi-skilled workforce from the AbaQulusi Local Municipality As outlined below, demographic and labour data from the AbaQulusi Local Municipality confirms that a sufficient pool of potential labour exists—particularly among the unemployed youth and adults with partial schooling or matric—providing a strong local supply base for targeted employment and training initiatives.

Base Assumptions from the IDP (CS2016):

- Total Population: 243,795
- Working-age population (15–64): ~57.8% → ±141,000
- Labour Force Participation Rate: 34.5% → ±48,700 in labour force
- Unemployment Rate: 35.4% → ±17,260 unemployed
- Youth Unemployment: 45.1% (subgroup of above)

Estimated Education Levels Among the Unemployed

Table 5: Estimated no of potential employees in municipality

Education Level	% of Unemployed (est.)	Estimated No. of People
No schooling	12–14%	±2,070
Some Primary/Secondary	55–60%	±9,500
Completed Matric	25–28%	±4,650
Higher Education	2–3%	±520

Assumptions:

- Unemployment is concentrated among those with incomplete schooling.
- Matriculants face youth entry barriers and make up a significant portion.

‘

- Higher education holders are few in number and relatively more employable.
- Estimates based on CS2016 and national labour force trends (QLFS).

8.2.3 SKILLS AUDIT FOR FULL TIME EMPLOYEES AND CONTRACTORS

Figure 2: Steps in a skills audit

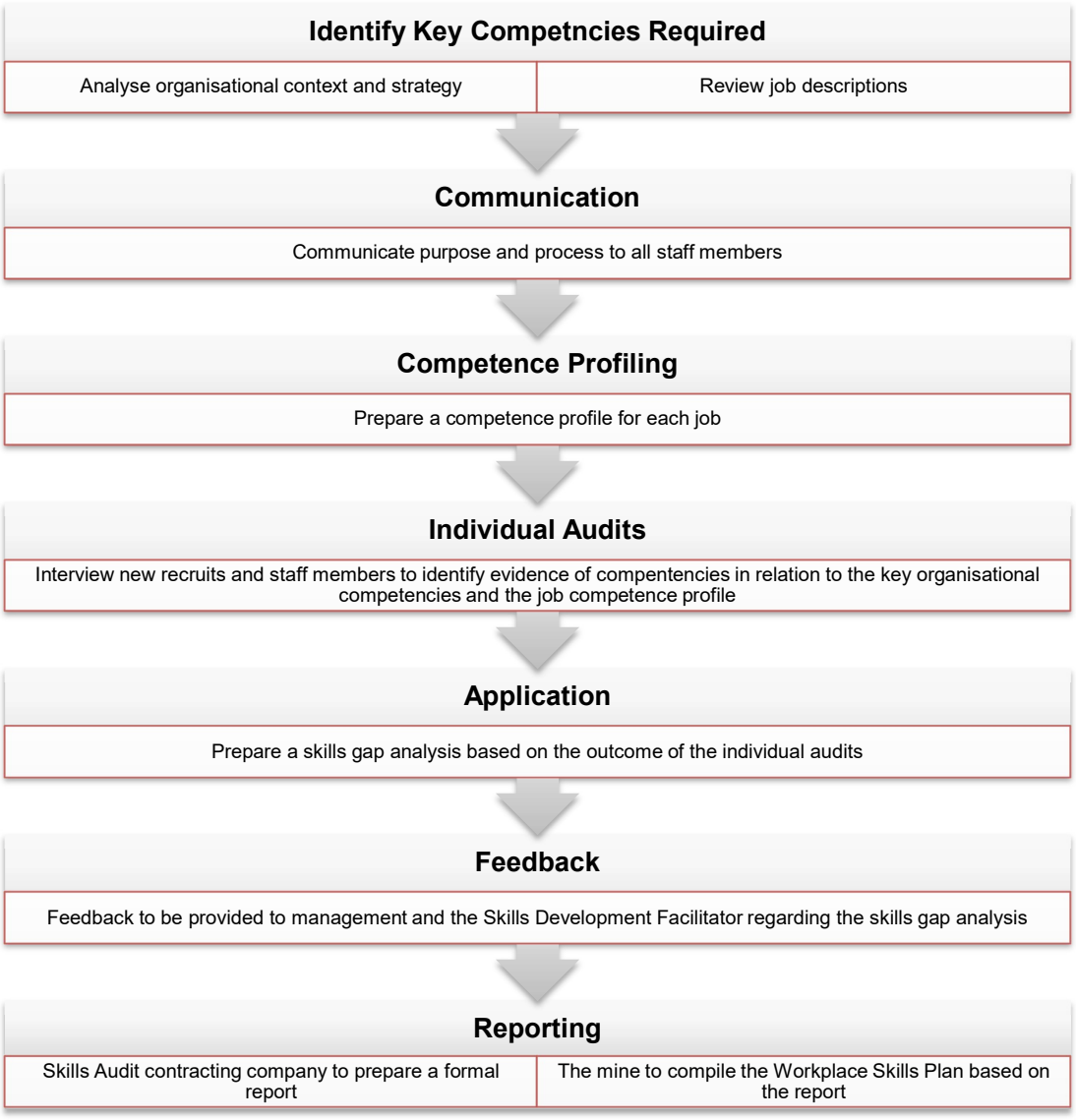

Figure 3: Integration of Skills Audit

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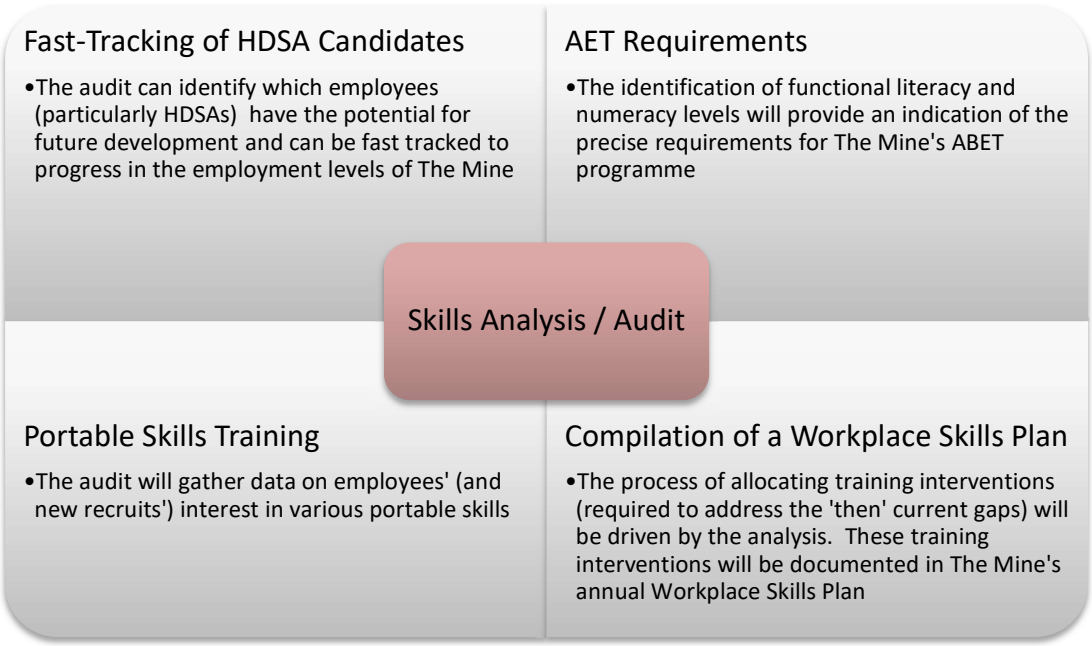

The above illustration portrays the themes of *employment equity*, *portability of skills*, *a literate workforce*, and *the advancement of employee skills in South Africa* – all of which are inherent to this HRD Programme.

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AET	2026 New	2026 Cuml	2027 New	2027 Cuml	2028 New	2028 Cuml	2029 New	2029 Cuml	2030 New	2030 Cuml
AET	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Average Cost (Rand)	60 000	60 000	63 000	63 000	66 150	66 150	69 458	69 458	72 930	72 930
Total (Rand)	-	-	-	-	-	-	-	-	-	-

AET - Budget	2026	2027	2028	2029	2030
Annual Budget	-	-	-	-	-

A bricklaying course will be provided to the unemployed in the community in lieu of AET, as discussed with the DMPR.

Learnership	2026 New	2026 Cuml	2027 New	2027 Cuml	2028 New	2028 Cuml	2029 New	2029 Cuml	2030 New	2030 Cuml
NQF 2: Underground Coal Mining Operations	0	0	0	0	1	1	1	2	1	3
NQF 3: Electrical Engineering (Mining & Minerals)	0	0	0	0	1	1	0	1	1	2
NQF 4: Community Development & Environmental Practice	0	0	0	0	1	1	0	1	0	1
Total	0	0	0	0	3	3	1	4	2	6
Average Cost (Rand)	60 000	60 000	63 000	63 000	66 150	66 150	69 458	69 458	72 930	72 930
Total (Rand)	-	-	-	-	198 450	198 450	69 458	277 832	145 860	437 580

Learnership - Budget	2026	2027	2028	2029	2030
Annual Budget	-	-	198 450	277 832	437 580

Internships	2026 New	2026 Cuml	2027 New	2027 Cuml	2028 New	2028 Cuml	2029 New	2029 Cuml	2030 New	2030 Cuml
Geology Graduate Intern	0	0	0	0	1	1	1	1	1	1
Environmental Science Graduate Intern	0	0	0	0	1	1	1	1	1	1
Human Resources / Industrial Psychology Graduate Intern	0	0	0	0	1	1	1	1	1	1
Total	0	0	0	0	3	3	3	3	3	3
Average Cost (Rand)	73344	73344	77011	77011	80862	80862	84905	84905	89150	89150
Total (Rand)	0	0	0	0	242586	242586	254715	254715	267450	267450

Internships - Budget	2026	2027	2028	2029	2030
Annual Budget	-	-	242 586	254 715	267 450

Bursaries (Internal or external to mine)	2026 New	2026 Cuml	2027 New	2027 Cuml	2028 New	2028 Cuml	2029 New	2029 Cuml	2030 New	2030 Cuml
Engineering Studies	0	0	0	0	1	1	0	1	0	1
Environmental and Sustainability Studies	0	0	0	0	1	1	0	1	0	1
Total	0	0	0	0	2	2	0	2	0	2
Average Cost (Rand)	138500	138500	145425	145425	152696	152696	160331	160331	168348	168348
Total (Rand)	0	0	0	0	305392	305392	0	320662	0	336696

Bursaries - Budget	2026	2027	2028	2029	2030
Annual Budget	-	-	305 392	320 662	336 696

Total HRD	2026	2027	2028	2029	2030
Annual Budget	-	-	746 428	853 209	1 041 726

8.2.4 OVERALL HRD TARGETS

Find the overall HRD Targets and budgets.

Note: In the case of learnerships, one candidate exits during the period reflected, which is why the active total shown under "Cuml" does not equal the sum of all new intakes over time. Internships are one-year programmes; therefore, participants from the previous year exit when their term ends.

8.2.5 ADULT EDUCATION AND TRAINING

INTRODUCTION

The Adult Education and Training (AET) program under the Mineral and Petroleum Resources Development Act (MPRDA) is designed to enhance the literacy, numeracy, and foundational education levels of employees in the mining sector. This training is a critical component of the Social and Labour Plan (SLP) obligations, ensuring that employees have the necessary basic education to operate safely and effectively in a mining environment. The goal of AET is to provide individuals with the skills required to progress within the industry and to contribute meaningfully to both the workplace and society.

8.2.6 FORM Q: NUMBER AND EDUCATION LEVELS OF THE WORKFORCE

Table 6: VAALBANK Colliery Estimated Workforce qualification as at 1 January 2028

Qualification Type	Estimated Employees	% of Total
Below Grade 9 (Pre-AET or none)	0	6.7%
Grade 9 / ABET Level 4 / NQF Level 1	20	10.0%
Grade 10 / NCV Level 2 / N1	20	16.7%
Grade 11 / NCV Level 3 / N2	24	20.0%
Grade 12 / Matric / NCV Level 4 / N3	34	28.3%
Occupational Certificate (NQF 4–5)	6	5.0%
Certificate (NQF Level 5)	3	2.5%
Diploma / National Diploma (NQF 6)	6	5.0%
Advanced Certificate (NQF 6)	2	1.7%
Bachelor's Degree / Advanced Diploma (NQF 7)	5	4.2%
Honours Degree / Postgraduate Diploma (NQF 8)	0	0.0%
Master's Degree (NQF 9)	0	0.0%
Doctoral Degree (NQF 10)	0	0.0%
Total	120	100.0%

Following consultation with the DMPR, it was agreed that the implementation of Adult Education and Training (AET) for employees is unnecessary, as all employees at Vaalbank Colliery meet the required literacy and numeracy standards. Instead, the DMPR advised that the mine's social and labour obligations would be more effectively met by prioritising skills development programmes for unemployed community members. This approach directly

supports local socio-economic upliftment, addressing high unemployment rates and equipping individuals with practical skills relevant to construction, small enterprise development, and local service provision.

These programmes will prioritise practical, demand-driven skills that align with opportunities in construction, small-scale agriculture, and ancillary services that support both mining and local development projects.

SKILLS DEVELOPMENT PRIORITIES

1. **Bricklaying and Masonry**
   Training in bricklaying will address a critical demand for housing and community infrastructure projects in the AbaQulusi Local Municipality. Participants will learn blockwork, foundation preparation, and finishing techniques to SANS standards. This skill opens pathways to both formal construction employment and small contractor enterprise development.
2. **Fencing and Basic Carpentry**
   Secure perimeters are essential for agricultural plots, homesteads, and community facilities. Training will cover wooden and wire fencing installation, gate fabrication, and basic carpentry, including the use of hand and power tools.
3. **Plumbing Essentials**
   Basic plumbing skills, including pipe fitting, leak repair, and sanitation installation, will enable participants to service rural households and small businesses. This aligns with the municipality's push to improve water access and sanitation infrastructure.
4. **Vegetable Gardening and Permaculture**
   Participants will gain skills in soil preparation, crop rotation, and organic pest control, enabling household food security and small-scale market gardening initiatives. Training will integrate water-wise techniques and composting to address local climate conditions.
5. **Welding and Metal Fabrication (Introductory Level)**
   Welding is a versatile trade with applications in construction, agriculture, and maintenance. The programme will introduce participants to safe handling of welding equipment, basic joints, and small repairs.

DELIVERY MODEL

The programmes will be implemented by the mine itself and structured as practical short courses with competency-based assessments. Training venues will include local community halls and mobile classroom units, supported by practical fieldwork on identified municipal or community projects.

A participant selection process will be undertaken in consultation with local stakeholders.

‘

TARGETS AND IMPLEMENTATION PLAN

- **Annual Intake:** 20 community members across multiple skills programmes.
- **Duration:** Courses staggered across the next 5-years.

Year	Programme Name	Focus Area
2026	Bricklaying and Masonry	Blockwork, foundation preparation, finishing techniques to SANS standards
2027	Fencing and Basic Carpentry	Wooden/wire fencing installation, gate fabrication, basic carpentry
2028	Plumbing Essentials	Pipe fitting, leak repair, sanitation installation for rural and small businesses
2029	Vegetable Gardening and Permaculture	Soil preparation, crop rotation, organic pest control, water-wise gardening
2030	Welding and Metal Fabrication	Safe welding practices, basic joints, small repairs for construction and maintenance

MONITORING AND REPORTING

Progress will be tracked through attendance registers, assessment results, and post-training placement monitoring. Quarterly reports will be submitted to the HRD department for inclusion in SLP compliance submissions to the DMPR.

This community-focused approach not only strengthens local capabilities but also fosters enterprise development, aligning with the mine's broader commitment to socio-economic upliftment in the Vryheid region.

BUDGET

See LED Projects for budgets.

8.2.7 LEARNERSHIPS

INTRODUCTION

A learnership in the South African context, particularly under the Mining Qualifications Authority (MQA), is a structured learning programme that combines theoretical learning with practical workplace experience. It is designed to provide learners with the skills and qualifications necessary to perform specific tasks within the mining and minerals sector.

Learnerships are a key component of South Africa's skills development strategy, aiming to address the critical skills shortages in the industry while also providing individuals with the opportunity to gain valuable work experience. These programmes typically lead to a registered qualification on the National Qualifications Framework (NQF) and are aligned

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with the needs of the sector, ensuring that learners acquire competencies that are directly applicable to their chosen career paths.

In the MQA context, learnerships are often geared towards occupations within the mining sector, such as mining operations, engineering, metallurgy, and other technical and support roles. The duration of a learnership can vary, typically lasting between 12 to 24 months, depending on the complexity of the qualification being pursued.

The programme involves a tripartite agreement between the learner, the employer, and the training provider. The learner spends part of their time attending structured educational and training sessions (theoretical learning) and the other part gaining practical, hands-on experience at the workplace (practical learning). Successful completion of the learnership results in a formal qualification, enhancing the learner's employability within the mining sector.

Learnerships under the MQA are critical in promoting workplace learning and ensuring that the mining industry in South Africa remains competitive, with a workforce that is skilled, knowledgeable, and capable of meeting the demands of the industry.

Table 7: Learnership Targets

Learnership	2026 New	2026 Cuml	2027 New	2027 Cuml	2028 New	2028 Cuml	2029 New	2029 Cuml	2030 New	2030 Cuml
NQF 2: Underground Coal Mining Operations	0	0	0	0	1	1	1	2	1	3
NQF 3: Electrical Engineering (Mining & Minerals)	0	0	0	0	1	1	0	1	1	2
Development & Environmental Practice	0	0	0	0	1	1	0	1	0	1
Total	0	0	0	0	3	3	1	4	2	6
Average Cost (Rand)	60 000	60 000	63 000	63 000	66 150	66 150	69 458	69 458	72 930	72 930
Total (Rand)	-	-	-	-	198 450	198 450	69 458	277 832	145 860	437 580

Learnership - Budget	2026	2027	2028	2029	2030
Annual Budget	-	-	198 450	277 832	437 580

The above table sets out planned learnerships aligned with key skills required for mining operations and sustainable development. Three streams have been identified:

- NQF Level 2: Underground Coal Mining Operations;
- NQF Level 3: Electrical Engineering (Mining & Minerals);
- NQF 4: Development and Environmental Practice.

Targets commence in 2028 to coincide with operational demand and community readiness. A total of six learnership opportunities will be rolled out by 2030, progressively increasing from three in 2028 to six cumulatively by 2030. Average costs are based on industry benchmarks with an annual inflation adjustment. The total estimated expenditure for the period is R437,580, reflected in the bottom summary. These learnerships aim to build local capacity, enhance employability, and comply with DMPR Social and Labour Plan obligations under the Mining Charter.

PRACTICAL PLANNED WORK STEPS

The learnership programme at Vaalbank Colliery aims to enhance the underground operational capability of selected employees through structured occupational training aligned

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to the National Qualifications Framework. The programme focuses on developing core mining and production skills relevant to the safe extraction and handling of run-of-mine (ROM) coal.

The learnerships will be delivered in partnership with Colliery Training College (CTC) in eMalahleni, a QCTO- and MQA-accredited training provider with a long-standing record of technical instruction in the coal mining industry. The following worksteps outline the process:

1. Candidate Selection from Workforce
Each year, one internal employee will be nominated for a registered learnership at NQF Level 2–4, in disciplines such as Underground Coal Mining Operations, Blasting Assistant, or Coal Processing. Candidates will be selected based on aptitude, literacy level (minimum Grade 9), and potential for advancement. Nominations will be endorsed by both line management and HRD.

2. Learnership Agreement and Enrolment
The learner will be enrolled in a formal learnership programme facilitated by CTC. A tripartite agreement will be signed between the employee (as learner), the mine (as employer), and CTC (as provider). The agreement will be registered with the Mining Qualifications Authority and aligned to the relevant curriculum code.

3. Blended Delivery Model
The learnership will comprise two complementary components:

- **Theoretical instruction** delivered at CTC's facilities in eMalahleni through block-release modules. This will cover mining legislation, occupational safety, drilling and blasting principles, material handling, and structured unit standards aligned to the qualification.
- **Workplace practicals** conducted on-site at Vaalbank Colliery under guided supervision. Here the learner will apply competencies in actual operational settings, supported by a workplace coach and documented through a Portfolio of Evidence.

4. Assessment and Competency Tracking
CTC will oversee all formative and summative assessments in accordance with MQA requirements. A workplace logbook will be maintained and verified by the on-site mentor. Site assessments will be scheduled quarterly to review workplace application and sign off competencies.

5. Time Management and Support
Training will be coordinated to minimise disruption to operational duties. Block-release sessions will be scheduled in consultation with production planning, and learners will receive full logistical and administrative support from HRD. No additional stipend is paid, as the learner remains in salaried employment, but travel, accommodation, and meals during training blocks at CTC will be covered by the SLP training budget.

6. Completion and Certification
Upon successful completion of the full curriculum and external moderation by CTC, the learner will be issued a recognised occupational qualification registered on the NQF. This will support eligibility for internal promotion or future supervisory development, depending on operational needs.

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7. Ongoing Monitoring and Reporting
Learnership progress will be captured in quarterly SLP reports and aligned to annual skills development and transformation targets. Post-training placement will be monitored as part of the mine's succession planning and internal workforce development strategy.

This approach supports structured advancement within the mine's production workforce and reflects best practice in underground skills development for coal operations.

8.2.8 CORE SKILLS TRAINING

INTRODUCTION

Core skills training within the MQA framework is essential for equipping workers in the mining sector with the fundamental skills and knowledge required to perform their roles effectively and safely. The primary purpose of this training is to ensure that all employees possess the basic competencies needed to meet industry standards, comply with regulatory requirements, and contribute to the overall productivity and safety of mining operations. Core training covers critical areas such as workplace safety, equipment operation, and essential technical skills, ensuring a consistent level of competence across the workforce. This foundational training not only reduces the risk of accidents and enhances operational performance but also serves as a stepping stone for further professional development. By providing a solid grounding in the basics, core training supports career advancement and ensures that the industry maintains high standards of safety, efficiency, and compliance.

The mine contends that all the training discussed in this report can indeed be classified as core training within the context of the MQA. These training programmes are essential for equipping workers with the foundational skills and knowledge necessary to perform their roles effectively and safely in the mining sector. Whether focused on specific technical competencies, management practices, or transferable skills, each of these training types contributes to establishing a baseline level of competence across the workforce.

8.2.9 COMMITMENT TO COMPLY WITH SKILLS DEVELOPMENT LEGISLATION

CRITICAL HRD COMPLIANCE ASPECTS

Basic Conditions of Employment Act (BCEA)

- Purpose: Regulates minimum employment standards (working hours, leave, remuneration, overtime, termination)
- HRD Impact: Training time, learnership hours, and AET attendance must comply with BCEA provisions (e.g. rest periods, working time limits)
- Key Compliance Actions:
    - Contracts must specify learnership-related duties and hours
    - No learner may work excessive overtime or unscheduled shifts during study blocks

Skills Development Act (No. 97 of 1998, as amended)

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- Purpose: Governs workplace training and the national skills system
- Core Obligations:
    - Appoint a registered Skills Development Facilitator (SDF)
    - Submit an Annual Workplace Skills Plan (WSP) and Annual Training Report (ATR) to the relevant SETA (MQA) each year
    - Implement structured training aligned to priority skills areas
    - Participate in national skills planning (e.g. SETA Sector Skills Plans)

Skills Development Levies Act (No. 9 of 1999)

- Purpose: Establishes the 1% payroll levy used to fund training in South Africa
- HRD Compliance Actions:
    - Register with SARS as a levy-paying employer if payroll > R500 000/year
    - Pay 1% of total payroll monthly via EMP201 submissions
    - Levy distributed to MQA for mining-related grants
    - Reclaim up to 20% through Mandatory Grant
    - Apply for Discretionary Grants for learnerships, AET, bursaries

Mining Charter III (2018) – as amended by the High Court

- Purpose: Sets transformation targets for mining right holders, including HRD
- Critical HRD Provisions:
    - Minimum of 5% of annual payroll must be spent on Skills Development
        - Includes employees, communities, and host youth
    - Must cover: AET, learnerships, bursaries, portable skills, internships
    - Proof of spend must be auditable
    - Includes career progression planning, talent pipelines, and community training investments

Sector Education and Training Authority (SETA) Compliance – MQA

- Purpose: The MQA oversees all training, qualifications, and grants in the mining sector
- Must Haves:
    - SETA registration as a levy-paying company
    - A Skills Development Facilitator (SDF) registered with the MQA
    - Provider accreditation for internal or contracted training delivery
    - Maintain evidence of training: attendance registers, Portfolio of Evidence, logbooks
    - Participate in SETA audits, grant evaluations, and reporting

Quality Council for Trades and Occupations (QCTO)

- Purpose: Oversees occupational qualifications, learnerships, apprenticeships
- Implication: All learnerships must align with QCTO-registered qualifications
- Key Compliance:
    - Use QCTO-accredited providers for artisan and occupational training
    - Participate in external summative assessments
    - Maintain valid agreements with assessment centres and moderators

Broad-Based Black Economic Empowerment Act (B-BBEE) – Skills Scorecard

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- Overlap with Mining Charter, but separately assessed if mine seeks B-BBEE certification
- Spending on skills development for black employees and unemployed black youth counts toward B-BBEE points

Occupational Health and Safety Act (OHSA)

- Any training involving workplace exposure (e.g. underground practicals) must meet safety competency requirements — including induction, hazard awareness, and equipment handling certification
- Learners on site must be trained in health and safety protocols relevant to the operation

Table 8: Summary: Critical HRD Compliance Checklist

Requirement	Governing Body	Frequency / Trigger
Appoint Skills Development Facilitator (SDF)	MQA	Once-off, update as needed
Register for SDL (1% payroll)	SARS	Monthly levy payment
Submit WSP and ATR	MQA	Annually (typically April–May)
Pay 1% SDL via EMP201	SARS	Monthly
Strive to spend 5% payroll on skills (Charter)	DMPR	Annually, with proof in reports
Use QCTO-aligned qualifications	QCTO	For all learnerships and artisans
Ensure training is BCEA-compliant	Department of Labour	Ongoing
Provide Portfolio of Evidence for learners	SETA / QCTO	Per learner
Apply for Discretionary Grants	MQA	Annually during call window
Maintain training records for audits	MQA / DMPR / DMR	Ongoing

Financial Assistance Mechanisms for Skills Development and Learnerships

To strengthen the implementation of skills development initiatives under the SLP and meet the requirements of both the Skills Development Levies Act and the Mining Charter, Vaalbank Colliery will actively pursue multiple funding and tax-support mechanisms. These instruments are intended to supplement internal training budgets and improve the sustainability of long-term learning programmes for both employees and targeted beneficiaries.

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Mandatory Grants (SETA – 20% SDL Reclaim)

All qualifying employers, including Vaalbank Colliery, pay a 1% Skills Development Levy (SDL) on total payroll to SARS. By submitting a compliant Workplace Skills Plan (WSP) and Annual Training Report (ATR) to the Mining Qualifications Authority (MQA), the mine may reclaim up to 20% of the annual SDL through Mandatory Grants.

- Applies to: Internal employee training (AET, learnerships, skills programmes)
- Value: Paid quarterly; amount depends on levy total
- Condition: On-time WSP and ATR submission

Discretionary Grants (MQA – Competitive Funding)

Each year, the MQA issues a call for Discretionary Grant applications to support national training priorities. Vaalbank Colliery intends to apply annually for discretionary support for learnerships, AET, bursaries, and internships that form part of its SLP and HRD commitments.

- Applies to: Learnerships, internships, AET, bursaries
- Value: R40 000 to R120 000 per learner (depending on qualification)
- Notes: Awarded based on application strength, relevance to sectoral priorities, and budget availability

Section 12H Tax Allowance (Income Tax Act)

Under Section 12H of the Income Tax Act, Vaalbank Colliery may claim a tax deduction for each registered learnership, further reducing the net cost of training.

- Applies to: Learnerships (internal or external, 12+ months duration)
- Value:
    - R40 000 per learner per year (general)
    - R60 000 per learner with disabilities
    - Plus an additional R40 000/R60 000 on completion
- Claimable in the mine's annual SARS tax submission

QCTO / SETA Co-Funded Artisan Development Support

For formal artisan trades now managed under the Quality Council for Trades and Occupations (QCTO), discretionary co-funding models exist. These are particularly relevant for mining-related trades such as Electrical, Boilermaking, Fitting, and Diesel Mechanic.

- Vaalbank Colliery will provide the workplace, mentors, PPE, and tools
- Accredited providers and SETAs may fund tuition, assessment and moderation

National Skills Fund (NSF) and Bursary Partnerships

In select cases, additional support may be accessed through NSF initiatives or via partnerships with TVET colleges and training providers. These often target community-based learners in rural or priority development areas.

- Applies to: External training, portable skills, bursaries;
- Value: Project-specific; subject to national funding cycles;
- Notes: May require long lead times and multi-stakeholder engagement.

Table 9: Financial Assistance Mechanisms for Skills Development

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Mechanism	Covers	Funder / Reclaim Body	Estimated Value
Mandatory Grant	Internal employee training	MQA	~20% of SDL
Discretionary Grant	Learnerships, AET, bursaries	MQA	R40 000–R120 000 per learner
Section 12H Tax Deduction	Learnerships (registered, >12 months)	SARS	R40 000–R120 000 deduction
QCTO Co-Funding	Artisan and apprenticeship training	SETA / QCTO	Partial cost coverage
NSF / Third-Party Support	Community bursaries, portable skills	NSF / Colleges / Providers	Project-based, discretionary

8.3 Form R hard to fill vacancies

To be completed end of 2028.

8.4 Career Path Plan Regulation 46(b)(ii)

INTRODUCTION

The purpose of career development in the South African mining industry is to provide workers with clear pathways for progression, enabling them to advance within their careers while contributing more effectively to the industry. Career development initiatives are designed to address the existing skills gaps, promote continuous learning, and support employees in acquiring the competencies needed for both current and future roles. This is particularly important in a sector where technological advancements and regulatory requirements are continuously reshaping job roles and responsibilities.

Furthermore, career development in the mining industry serves to enhance employee retention by offering growth opportunities and improving job satisfaction. By investing in the development of their workforce, mining companies can ensure a steady pipeline of skilled professionals who are prepared to take on leadership roles and drive innovation within the sector. Additionally, career development programmes help to foster inclusivity and diversity by providing all employees with equal access to training and advancement opportunities, thus supporting the broader socio-economic goals of transformation and empowerment in South Africa.

In summary, career development in the South African mining industry is essential for maintaining a skilled, adaptable, and motivated workforce that can meet the evolving needs of the sector. It plays a crucial role in addressing skills shortages, promoting inclusivity, and ensuring that the industry remains competitive in a rapidly changing global market.

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THE MINE'S CAREER PROGRESSION TARGETS

Once the mine is operational, the following career development targets will be set, as guided by the table below.

Table 10: THE MINE'S CAREER PROGRESSION TARGETS

Training Programmes within Career Progression Paths	Core Mining Occupations	Position Starting From	Target Position Working Towards	Year 1 (2028)	Year 2 (2029)	Year 3 (2030)
UG Miner to Team Leader	Underground Operators	Semi-Skilled Miner	Team Leader (Stoping)	1	1	1
Plant Operator to Supervisor	Processing Plant Operators	Plant Operator	Shift Supervisor	1	1	1
Artisan Aide to Artisan	Mechanical & Electrical	Artisan Aide	Qualified Artisan	1	1	1
General Worker to Equipment Operator	Surface Labour	General Worker	TMM Operator	1	1	1
Admin Clerk to HR Officer	Admin & HR Support	Admin Clerk	Junior HR Officer	1	1	1
Sampler to Quality Controller	Technical Services	Coal Sampler	Quality Controller	1	1	1

OVERALL TARGETS

Table 11: Talent Pool, Career Development and Mentees Targets

Talent Pool	2026	2027	2028	2029	2030	Internal/External
No of staff members	6	6	6	6	6	Internal
Total	**6**	**6**	**6**	**6**	**6**	

Career Development	2026	2027	2028	2029	2030	Internal/External
No of staff members	6	6	6	6	6	Internal
Total	**6**	**6**	**6**	**6**	**6**	

Mentees	2026	2027	2028	2029	2030	Internal/External
No of staff members	6	6	6	6	6	Internal
Total	**6**	**6**	**6**	**6**	**6**	

THE MINES CAREER PROGRESSION PLAN

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The graphic below outlines the key components of the Career Progression Plan, which is designed to support the development and advancement of employees within an organisation. It highlights the critical elements necessary for creating a structured and effective career growth process. These elements include development, employee involvement, open communication, realistic feedback, a robust record system, and continuous improvement. Each component plays a vital role in ensuring that employees are equipped with the skills and knowledge needed for their current roles, as well as for future opportunities, while fostering an environment of transparency, realistic expectations, and ongoing development.

Once operational staffing reaches its full complement from January 2028, the mine will implement a structured internal career progression programme aligned to the Mining Charter and the Skills Development Act. This programme is designed to upskill employees within core mining occupations and enable movement from entry-level or support roles into higher-skilled or supervisory positions over a five-year horizon.

Career development pathways will focus on six occupational groupings:

- Underground miners progressing to team leaders through structured blasting and leadership training;
- Processing plant operators trained towards supervisory responsibilities via targeted coal handling and control room programmes;
- Artisan aides enrolled in formal apprenticeships leading to certified mechanical or electrical artisan qualifications;
- General workers upskilled into equipment operation roles through accredited operator training (e.g., front-end loader or TMM certification);
- Administrative staff trained for junior HR functions through short internal and external courses;
- Technical support staff such as samplers groomed into quality control roles through focused QA/QC certification.

The implementation will be phased. In Year 1 (2028), selected employees will be identified in each stream and enrolled into accredited programmes or mentorship tracks. Each subsequent year, the intake will expand incrementally, with annual progress reviews and adaptation based on operational needs and employee performance.

The selection process will prioritise designated groups and ensure alignment with the mine's Employment Equity targets. Employees demonstrating aptitude, reliability and long-term commitment will be given priority, and career progression will be supported through a mix of in-house training, partnerships with accredited training providers, and mentorship by senior staff.

This approach ensures that the mine builds a skilled and promotable workforce over time, improving retention, productivity, and transformation outcomes.

The general approach to career development are set out below.

Figure 4: Career Development Plan

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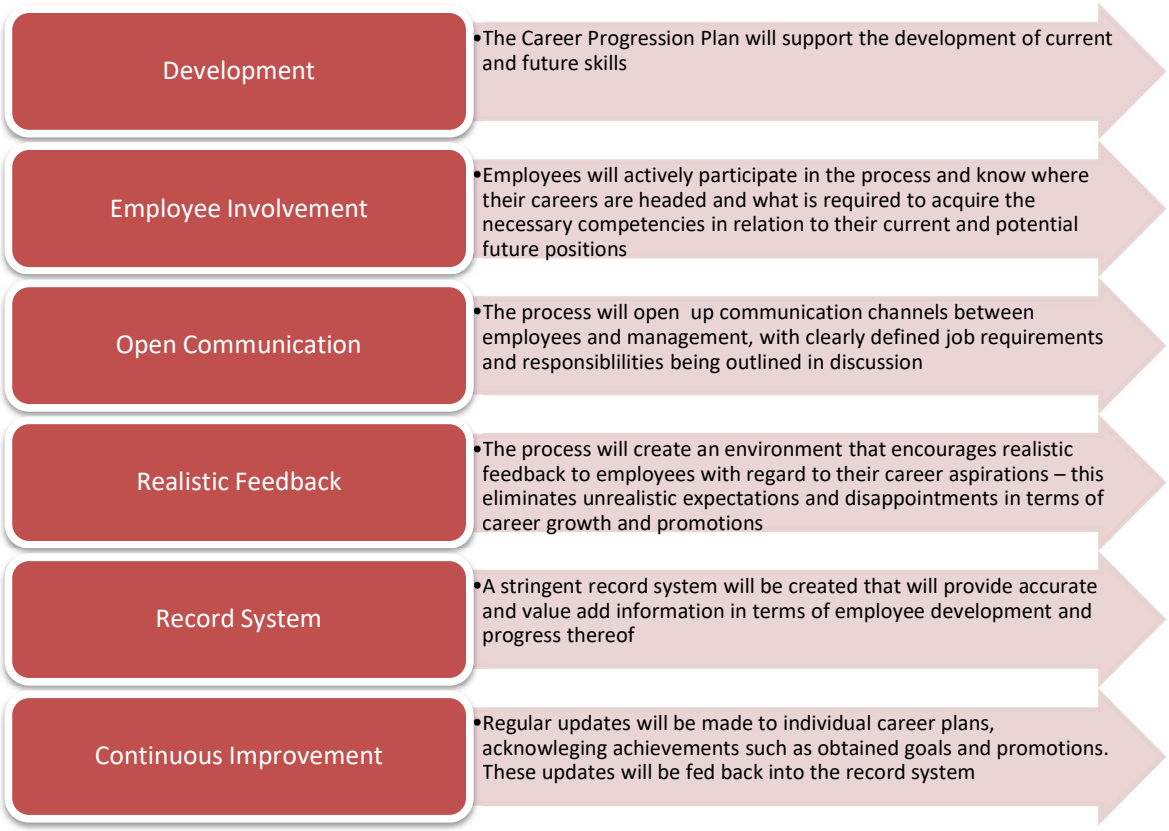

GENERIC CAREER PATH PROGRESSION

The figure below illustrates a career development pathway specifically tailored for employees at the mine. This pathway is depicted as an upward arrow, symbolising the progressive nature of career advancement in a mining context.

At the base of the arrow is the "Admin/Entry Level," where individuals typically start their careers in the mine. At this stage, employees engage in foundational tasks that provide them with a solid grounding in the operational aspects of the mining environment. This is a critical phase where they acquire essential skills and knowledge that will support their future career growth.

As employees gain experience, they progress to the "Specific Functional Roles" level. Here, they begin to specialise in particular areas of mining operations, such as technical support, safety management, or equipment maintenance. This stage allows them to develop expertise in specific functions that are crucial to the mine's operations. Career development at this level often involves targeted training programmes that help employees deepen their knowledge and enhance their specialised skills.

Advancement to the "Management/Specialist Level" marks a significant step in an employee's career within the mine. At this stage, individuals either assume leadership roles, such as supervising teams or managing projects, or they become specialists in a particular area of mining operations. This level requires a higher degree of responsibility and strategic thinking, as employees are expected to lead initiatives, optimise operations, and contribute to

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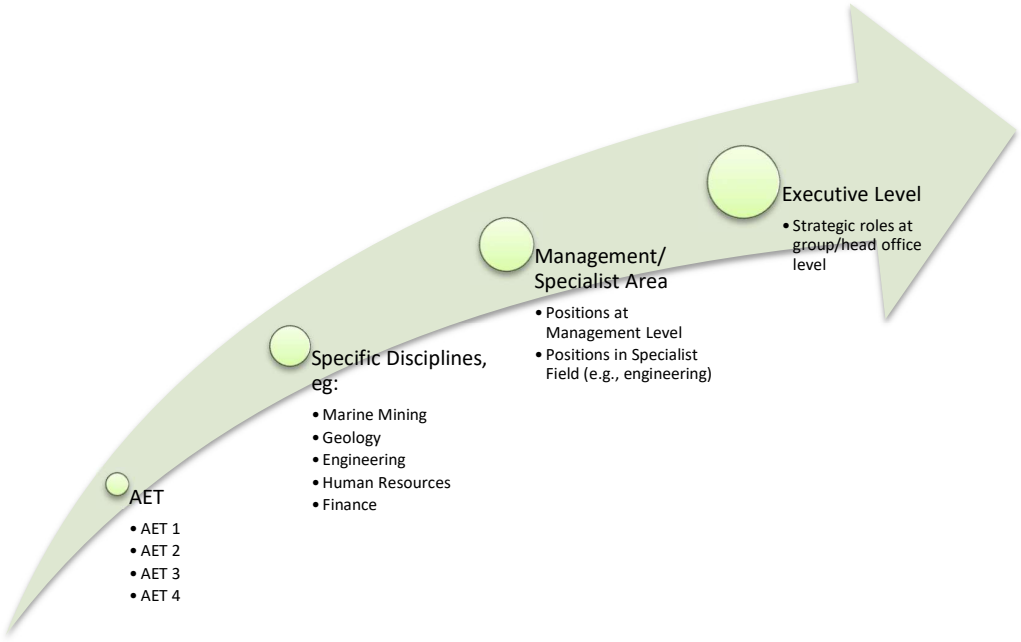
the mine's overall success. Career development at this stage is focused on developing leadership abilities and strategic management skills.

At the peak of the arrow is the "Executive Level," representing the highest stage of career development within the mine. Employees at this level take on strategic roles, often at the group or head office level, where they are responsible for making decisions that shape the direction of the entire mining operation. This level demands a deep understanding of the mining industry, strong leadership capabilities, and the ability to navigate complex challenges. Career development at this stage includes advanced leadership training, strategic planning, and corporate governance.

In summary, the graphic in the figure below demonstrates the structured career development pathway available within the mine, highlighting the progression from entry-level positions to executive leadership. Each stage of this pathway builds on the previous one, emphasising the importance of continuous learning, skill development, and adaptability. This structured approach ensures that employees are equipped to meet the evolving demands of the mining industry and contribute to the mine's long-term success.

Figure 5: Generic Career Path Illustration



An employee of the mine will be granted the opportunity to follow the career path of his/her choice (should vacancies exist), if he/she meets the inherent requirements of the job and is considered to be most suitable for the position.

CONCLUSION

In conclusion, the comprehensive approach to career development within the mine is designed to ensure that not only are employees equipped with the necessary skills for their current roles but are also prepared for future opportunities and leadership positions. By providing clear career pathways, targeted training, and ongoing support, the mine fosters a culture of continuous learning and professional growth. This strategic focus on career progression enhances employee retention, job satisfaction, and overall organisational

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performance. Moreover, it aligns with broader industry goals of building a skilled, adaptable workforce that can navigate the complexities of the mining sector while contributing to the long-term success of the operation. The structured career development plans, as outlined, underscores the mine's commitment to investing in its people, and ensures that every employee can advance and contribute meaningfully to the industry's future.

8.5 MENTORSHIP PLAN REGULATION 46(B)(III)

Mentorship at the mine plays a crucial role in the professional development and growth of employees, particularly in an industry as complex and demanding as mining. The concept of mentorship has long been recognised as an effective way to transfer knowledge, skills, and industry-specific insights from experienced professionals to less experienced colleagues. In the mining sector, where safety, technical proficiency, and leadership are paramount, the value of mentorship cannot be overstated.

As is known, the mining industry in South Africa has faced numerous challenges, including transformation, skills shortages, high turnover rates, and the need for continuous adaptation to technological advancements and regulatory changes. In response, mentorship programmes have been implemented as a strategic tool to address these issues by fostering a culture of learning and development within the workforce.

Mentorship is particularly important in a mining environment, where the transfer of practical knowledge and on-the-job experience is critical to maintaining high standards of safety and efficiency. Experienced miners, engineers, and managers have accumulated a wealth of knowledge that is invaluable to the next generation of workers. Mentorship provides a structured way to pass on this expertise, ensuring that new employees and those advancing in their careers are well-prepared for the challenges they will face.

The primary purpose of mentorship at the mine is to support the professional development of employees by providing them with guidance, encouragement, and practical insights from more experienced colleagues. Mentorship helps to bridge the gap between theoretical knowledge and real-world application, enabling mentees to develop the competencies and confidence needed to perform their roles effectively. By pairing less experienced employees with seasoned professionals, the mine ensures that valuable institutional knowledge is preserved and passed on, which is essential for maintaining operational continuity and excellence.

Mentorship also plays a key role in career progression, helping employees to identify and pursue their career goals within the mining industry. Through regular interactions with mentors, mentees receive personalised advice on how to navigate the complexities of the industry, from technical challenges to leadership and decision-making. This guidance is instrumental in helping employees grow within the organisation, advancing to roles of greater responsibility and influence.

Furthermore, mentorship supports the mine's broader objectives of fostering a skilled, motivated, and loyal workforce. It enhances employee engagement by providing a sense of belonging and investment in the mine's success. Mentorship programmes also contribute to inclusivity and diversity by ensuring that all employees, regardless of background, have access to the guidance and support needed to succeed.

In summary, mentorship at the mine is a strategic initiative designed to develop the next generation of leaders and skilled professionals. It facilitates the transfer of critical knowledge,

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supports career advancement, and contributes to a positive, inclusive workplace culture. Through mentorship, the mine not only ensures the ongoing development of its workforce but also strengthens its overall operational performance and long-term sustainability.

MENTORSHIP PLAN

The mentorship programme at the mine is designed to harness the experience and expertise of seasoned professionals to guide and develop less experienced employees, preparing them for skilled and management positions within the organisation. The goal of this programme is not only to enhance the individual growth of mentees but also to broaden their overall contribution to the mine's success.

Selection of Mentors:

Mentors will be carefully selected based on their extensive experience in the mining industry, their proven track record of success, and, most importantly, their genuine interest in developing the potential of others. These individuals will be committed to sharing their knowledge and experience with mentees, helping them to navigate the complexities of their roles and the mining industry.

Focus Areas:

The mentorship programme will concentrate on developing competencies that are essential for both current job requirements and future career opportunities. This includes technical skills, safety practices, leadership abilities, and other critical areas that contribute to the overall effectiveness and safety of mining operations. The programme will also encourage mentees to take an active role in their development, fostering a proactive approach to learning and career advancement.

Mentor-Mentee Relationship:

A key component of the mentorship programme is the establishment of a relationship built on trust and confidentiality. Mentors will work to create a secure environment where mentees feel comfortable expressing their thoughts, challenges, and aspirations. This open communication is essential for the mentees' growth, as it allows them to explore new ideas and receive constructive feedback in a supportive setting.

Successful mentorship hinges on the ability to engage in meaningful and effective conversations. Mentors will be equipped with strong listening, speaking, and questioning skills, allowing them to guide discussions in a way that encourages mentees to think critically and independently. The programme will emphasise a less directive approach to mentoring, which empowers mentees to take ownership of their development, ultimately leading to greater growth and self-confidence.

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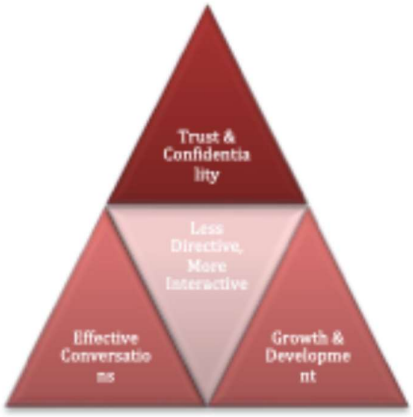
The mentorship programme at the mine is not just about meeting current needs; it is also about preparing mentees for future challenges and opportunities. Through regular interactions and continuous guidance, mentors will help mentees improve their competencies and performance, enabling them to grow into new roles within the organisation. This forward-looking approach ensures that the mine develops a pipeline of skilled professionals who are ready to step into leadership positions as they arise.



Programme Evaluation and Continuous Improvement:

To ensure the success and sustainability of the mentorship programme, regular evaluations will be conducted to assess its impact on both mentors and mentees. Feedback from participants will be used to refine the programme, making adjustments as necessary to better meet the needs of the mine and its workforce. This commitment to continuous improvement will help to maintain the effectiveness of the mentorship programme over time.

MENTORSHIP TARGETS

Table 12:Mentees Targets

MENTORING PROGRAMME	CAREER DELIVERABLES	DURATION	Target
Blasting Assistant to Team Leader	Competency A & B; Supervisory	24 months	1
Plant Operator to Shift Supervisor	Process control; shift coordination	18 months	1
Artisan Aide to Qualified Artisan	Section 13/28 Trade Certification	36 months	1
General Worker to TMM Operator	Machine operating certificate	12 months	1
Admin Clerk to Junior HR Officer	Basic HR, payroll & reporting	12 months	1
Sampler to Quality Controller	QA/QC and sampling analysis	18 months	1
Total			6

CONCLUSION

In conclusion, the mentorship plan outlined above is a strategic initiative designed to foster the professional growth of employees at the mine, with a particular emphasis on empowering women in the industry. By pairing experienced mentors with less experienced mentees, the mine aims to create a supportive environment where knowledge, skills, and industry insights

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can be effectively transferred. This plan is not only about addressing current skill gaps but also about preparing the next generation of leaders and skilled professionals to take on future challenges within the mining sector.

8.6 INTERNSHIP AND BURSARY PLAN - REGULATION 46(B)(IV)

8.6.1 INTERNSHIPS

INTRODUCTION

The MQA internship programme is a structured work-based learning initiative designed to provide graduates or final-year students with practical experience in the mining and minerals sector. This programme is particularly aimed at individuals who have completed or are nearing the completion of their academic studies in fields related to mining, engineering, geology, environmental science, and other disciplines pertinent to the industry.

In this context, the internship serves as a crucial bridge between academic learning and professional practice. It offers interns the opportunity to apply their theoretical knowledge in real-world mining operations, projects, or research environments. During the internship, participants work under the guidance of experienced professionals within the industry, allowing them to gain hands-on experience and exposure to various aspects of mining operations, safety standards, regulatory compliance, and technical processes.

Typically, internships last between six to twelve months, depending on the specific requirements of the host company and the complexity of the tasks assigned to the intern. Throughout this period, interns are integrated into the day-to-day operations of the mining company, contributing to actual projects while simultaneously learning the practical skills necessary for their future careers. Additionally, interns may receive mentorship and participate in further training sessions designed to enhance their professional development.

The primary purpose of the MQA internship programme is to equip young professionals with the practical skills and experience needed to transition effectively from academic environments to the mining and minerals industry. By providing hands-on experience, the internship significantly enhances the employability of interns, making them more competitive candidates for full-time positions within the mining sector. Moreover, the programme helps develop the practical competencies required for effective performance in their chosen fields, including technical skills, problem-solving abilities, and a deep understanding of industry standards and best practices.

Furthermore, internships facilitate career exploration, allowing participants to explore different career paths within the mining industry and helping them identify their strengths and areas of interest. This exposure can guide their future career choices and professional development. In addition to benefiting the interns, the programme supports the industry's need for qualified personnel, which is particularly important in addressing skills shortages and ensuring the sustainability of the sector.

Finally, the MQA internship programme promotes compliance with South Africa's broader skills development goals, as outlined in the National Skills Development Strategy and the Skills Development Act. By participating in the programme, companies contribute to the development of a skilled workforce, fulfilling their obligations under the Mining Charter and

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other regulatory frameworks. In summary, the MQA internship programme is a vital pathway for young professionals to gain the necessary experience and skills to succeed in the mining industry, while also supporting the industry's long-term sustainability and compliance with national skills development objectives.

INTERNSHIP TARGETS

Table 13: Internship Targets

Internships	2026 New	2026 Cuml	2027 New	2027 Cuml	2028 New	2028 Cuml	2029 New	2029 Cuml	2030 New	2030 Cuml
Geology Graduate Intern	0	0	0	0	1	1	1	1	1	1
Environmental Science Graduate Intern	0	0	0	0	1	1	1	1	1	1
Human Resources / Industrial Psychology Graduate Intern	0	0	0	0	1	1	1	1	1	1
Total	0	0	0	0	3	3	3	3	3	3
Average Cost (Rand)	73344	73344	77011	77011	80862	80862	84905	84905	89150	89150
Total (Rand)	0	0	0	0	242586	242586	254715	254715	267450	267450

Internships - Budget	2026	2027	2028	2029	2030
Annual Budget	-	-	242 586	254 715	267 450

The table above outlines the mine's internship programme for the period 2026 to 2030. No internships are scheduled for 2026 and 2027. From 2028 onward, three internships will be implemented annually, with the cumulative total remaining at three throughout the period.

These internships are intended to provide structured workplace exposure for graduates in fields relevant to the mining sector. Although categorised as internal placements, they are open to external candidates from universities and technical colleges, supporting both practical experience and professional development.

The average cost per internship has been adjusted each year to accommodate inflation. Budget allocations begin at R242,586 in 2028, rising to R267,450 by 2030. This cost structure reflects training support, mentoring, and programme administration.

The phased introduction of internships aligns with the mine's staffing ramp-up and operational priorities. This approach ensures that graduate integration is sustainable while contributing to talent development, employment equity objectives, and compliance with the DMPR's Social and Labour Plan requirements.

IN CONCLUSION

In conclusion, the MQA internship programme plays a vital role in bridging the gap between academic learning and practical application within the mining sector. By providing structured, hands-on experience, these internships prepare young professionals for the complexities of the industry, enhancing their employability and ensuring they are well-equipped to contribute to the workforce. Through targeted training and mentorship, interns gain valuable insights into the operational, safety, and regulatory aspects of mining, which are essential for their future careers. The programme not only benefits the interns by fostering their professional growth but also supports the mining industry by developing a pipeline of skilled, knowledgeable, and capable professionals ready to meet the sector's evolving needs.

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8.6.2 BURSARIES

INTRODUCTION AND DESCRIPTION

Bursaries play a critical role in supporting the development of skilled professionals within the South African mining and minerals sector. Under the framework of the Mining Qualifications Authority (MQA), bursaries are designed to provide financial assistance to deserving students who are pursuing studies in fields related to the mining industry. These bursaries are a strategic investment aimed at addressing the skills shortages within the sector, promoting educational advancement, and ensuring that the industry has access to a well-educated and competent workforce.

In the context of the MQA, bursaries are financial awards granted to students who demonstrate academic potential and a strong interest in pursuing careers within the mining and minerals sector. These bursaries typically cover a range of educational expenses, including tuition fees, textbooks, accommodation, and sometimes living allowances, thereby alleviating the financial burden on students and enabling them to focus fully on their studies.

Bursaries under the MQA are targeted at students enrolled in higher education institutions, such as universities and technical colleges, in disciplines that are critical to the mining industry. These fields may include mining engineering, geology, metallurgy, environmental science, occupational health and safety, and other related areas. By offering bursaries in these key areas, the MQA aims to cultivate a new generation of professionals who possess the knowledge and skills necessary to contribute to the sustainability and growth of the mining sector.

Recipients of MQA bursaries are often selected based on a combination of academic performance, financial need, and the relevance of their chosen field of study to the mining industry. In return for the financial support provided, bursary recipients are typically required to work in the mining sector for a specified period upon completion of their studies, ensuring that their skills directly benefit the industry.

The MQA bursary programme not only supports individual students but also aligns with broader national objectives of increasing access to education, promoting skills development, and fostering economic growth. By investing in the education of future professionals, the MQA helps to ensure that the South African mining industry remains competitive and capable of meeting the challenges of a rapidly evolving global landscape.

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BURSARY TARGETS

The table below illustrates the targets set by the mine.

Table 14: Bursary Targets

Bursaries (Internal or external to	2026 New	2026 Cuml	2027 New	2027 Cuml	2028 New	2028 Cuml	2029 New	2029 Cuml	2030 New	2030 Cuml
Engineering Studies	0	0	0	0	1	1	0	1	0	1
Environmental and Sustainability	0	0	0	0	1	1	0	1	0	1
Total	0	0	0	0	2	2	0	2	0	2
Average Cost (Rand)	138500	138500	145425	145425	152696	152696	160331	160331	168348	168348
Total (Rand)	0	0	0	0	305392	305392	0	320662	0	336696

Bursaries - Budget	2026	2027	2028	2029	2030
Annual Budget	-	-	305 392	320 662	336 696

Table 15: Bursary Budget

Cost Component	Est ZAR pa
Tuition Fees	60000
Accommodation	35000
Food & Living Expenses	18000
Transportation	9000
Books, Study Materials & Tools	7500
Miscellaneous	9000
Total (Rounded)	**138500**

The bursary programme for the period 2026 to 2030 is designed to support academic studies in fields critical to the mine's long-term operational and sustainability objectives. No bursaries are allocated for 2026 and 2027. From 2028, two bursaries will be awarded annually—one in Engineering Studies and one in Environmental and Sustainability Studies—maintaining a total of two active bursaries through the cycle.

The average cost per bursary has been adjusted annually to account for inflation, starting at R152,696 in 2028 and increasing to R168,348 by 2030. The total planned expenditure for the period amounts to R962,750, distributed across the three active years.

This initiative strengthens the mine's talent pipeline while contributing to transformation and skills development in specialised disciplines. By supporting students both internally and externally, the programme enhances employment prospects for youth and promotes sustainable resource management within the mining sector.

CONCLUSION

In conclusion, the bursary programme at the mine represents a significant investment in the future of the South African mining industry. By providing financial support to students pursuing education in key areas related to mining, the programme addresses critical skills

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shortages and promotes the development of a well-educated, competent workforce. The focus on external candidates reflects the mine's commitment to contributing to the broader community and supporting individuals who have the potential to make meaningful contributions to the industry.

The planned bursaries will enable deserving students to overcome financial barriers and fully dedicate themselves to their studies, ensuring that they acquire the necessary knowledge and skills to succeed in the mining sector. Over the five-year period, the mine will continue to allocate resources to this important initiative, recognising that the future sustainability and competitiveness of the mining industry depend on the continuous development of skilled professionals. By supporting education through bursaries, the mine not only fulfils its corporate social responsibilities but also ensures that it remains a key player in the advancement of South Africa's mining industry.

8.7 Employment Equity Plan

The mine's Employment Equity Plan has been structured in alignment with the amended 2025 sector targets for Mining and Quarrying, as gazetted under the Employment Equity Amendment Act. These targets apply nationally and set minimum percentage requirements for the representation of designated groups at each occupational level. The table below applies these targets to the mine's planned workforce of 120 employees from 2028 onward, using a conservative rounding method to determine minimum compliance thresholds.

Table 16: Employment Equity Targets

Occupational Level	Employees (2028–2030)	EE % Targets[2] (2025)	Required Designated Group (Headcount)	Resultant Non-Designated Group (Headcount)
Top Management	2	57.5%	1	1
Senior Management	4	64.5%	2	2
Professionally Qualified / Middle Management	8	77.6%	6	2
Skilled Technical Workers	26	86.7%	22	4
Semi-Skilled	40	88.6%	35	5
Unskilled / General Labour	40	93.2%	37	3
Total	120	—	103	17

[2] New Amended EE Act 2025

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8.7.1 INTRODUCTION

The Employment Equity Plan for the mining industry is a critical component of South Africa's broader transformation agenda, as outlined in the Mining Charter. The purpose of this plan is to address historical inequalities within the industry, promote fair and equitable representation of all South Africans, and ensure that the workforce is reflective of the country's diverse population. The Mining Charter mandates that mining companies implement strategies to enhance the participation of historically disadvantaged South Africans (HDSAs) in all levels of employment, with a particular focus on increasing the representation of women and individuals from previously marginalized communities in managerial and technical roles.

In the context of the mining industry, employment equity is not just a legal requirement but a strategic imperative. The sector has traditionally been dominated by a specific demographic, often excluding many South Africans from meaningful participation and advancement opportunities. The Employment Equity Plan seeks to rectify these imbalances by setting clear targets for the inclusion of HDSAs and by implementing measures that promote equal opportunity and fair treatment in hiring, promotions, and training.

The purpose of the Employment Equity Plan is twofold: firstly, to ensure compliance with the regulatory framework established by the Mining Charter and other relevant legislation, and secondly, to create a more inclusive and representative workforce that can drive the industry forward. By focusing on employment equity, mining companies can tap into a broader talent pool, foster innovation through diversity, and contribute to the socio-economic development of the communities in which they operate. The plan serves as a roadmap for achieving these objectives, detailing the specific actions, targets, and timelines that will guide the mine's efforts to build a more equitable and inclusive workplace.

8.7.2 THE EVOLVEMENT OF EMPLOYMENT EQUITY TARGETS

The Employment Equity (EE) targets in the South African mining industry have evolved over the years, reflecting the country's broader commitment to transformation and inclusivity. These targets are set out in various iterations of Government Gazette regulations under the MPRDA, which provides a framework for achieving a more equitable distribution of opportunities within the sector. The stages of EE targets have been designed to progressively increase the representation of historically disadvantaged South Africans (HDSAs) across all levels of employment, with particular emphasis on management, technical, and skilled positions.

Initial Stages (Early 2000s)

In the early stages of implementing employment equity in the mining industry, the focus was primarily on setting foundational targets for the inclusion of HDSAs in management and skilled positions. The initial Mining Charter, introduced in 2002, required that by 2009, 40% of management positions should be occupied by HDSAs. This was a significant shift, considering the historical underrepresentation of these groups in leadership roles within the industry. During this period, companies were also encouraged to develop plans to ensure

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gender diversity, aiming to increase the number of women in mining, which traditionally had been a male-dominated field.

Intermediate Stages (2010-2018)

As the industry progressed, the Mining Charter was revised to include more stringent targets and broaden the scope of employment equity. The 2010 version of the Mining Charter introduced additional targets, such as achieving a minimum of 40% HDSA representation in all management levels, including top management, senior management, middle management, and junior management. There was also a stronger emphasis on increasing the representation of women, with a target of ensuring that women made up 10% of the total workforce in the mining industry. Companies were required to submit annual EE reports and demonstrate their progress towards these targets, with penalties for non-compliance becoming more clearly defined.

During this period, the focus also began to shift towards not just meeting numerical targets but ensuring that HDSAs and women were being developed and prepared for leadership roles through skills development, mentorship, and succession planning. This was essential to sustain the progress made and ensure that the representation of HDSAs in higher levels of management was not just a token effort but part of a broader strategy for meaningful transformation.

Current Stages (2018-Present)

The latest iterations of the Mining Charter, particularly the Mining Charter III introduced in 2018, have continued to push the boundaries of employment equity in the mining sector. The current targets require that at least 50% of all top management positions be occupied by HDSAs, with specific sub-targets for black South Africans, women, and individuals from local communities.

In addition to management positions, there is also a strong focus on increasing the representation of HDSAs in professional, skilled, and semi-skilled categories, with clear targets set for each level. Women's representation has been further prioritized, with the expectation that they should constitute at least 20% of the workforce across all levels by 2023.

The current stage also sees a more integrated approach to achieving EE targets, with companies required to demonstrate not only compliance with numerical goals but also the effectiveness of their transformation strategies. This includes the development of inclusive workplace cultures, anti-discrimination policies, and initiatives that promote diversity and inclusion at all levels of the organization.

Looking ahead, the trajectory of employment equity in the mining sector will be guided not only by evolving transformation charters but increasingly by the legislative framework introduced under the Employment Equity Amendment Act of 2023, which comes into force on 1 September 2025. This amended Act empowers the Minister of Employment and Labour to set sector-specific numerical targets for the representation of designated groups at all occupational levels. These targets are now mandatory and enforceable, with direct implications for mining companies operating across South Africa.

Under the new regime, employers with more than 50 employees must align with the published targets for the Mining and Quarrying Sector, which set designated group thresholds
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ranging from 57.5% at top management to 93.2% at general labour levels, alongside a 3% minimum for persons with disabilities across all levels. Non-compliance may affect a company's ability to obtain an Employment Equity Certificate, which is now a prerequisite for government contracting and procurement eligibility.

The emphasis going forward will therefore be not only on the representation of historically disadvantaged South Africans (HDSAs), but also on the effectiveness and sustainability of transformation strategies. Mining companies will need to integrate employment equity into long-term workforce planning, succession pathways, and digital upskilling initiatives — particularly as the industry shifts towards automation, decarbonisation, and data-driven operations.

In this context, the Employment Equity Plan becomes a strategic instrument: a blueprint for driving equitable access to the economic and technological frontier of mining. Transformation is no longer a compliance obligation alone — it is a prerequisite for resilience, relevance, and inclusive growth within South Africa's evolving socio-economic landscape.

Table 17: Mining Charter 2018 EE Targets

Organisational Level	Group	Gender	MC Target	Weigh-ting
a) Board	Black (All HDP)	Both	50.0%	2.0%
a) Board	Black (All HDP)	Female	20.0%	2.0%
b) Executive management	Black (All HDP)	Both	50.0%	4.0%
b) Executive management	Black (All HDP)	Female	20.0%	3.0%
c) Senior management	Black (All HDP)	Both	60.0%	3.0%
c) Senior management	Black (All HDP)	Female	25.0%	3.0%
d) Middle management, professionals and specialists	Black (All HDP)	Both	60.0%	2.0%
d) Middle management, professionals and specialists	Black (All HDP)	Female	25.0%	2.0%
e) Junior Management	Black (All HDP)	Both	70.0%	2.0%
e) Junior Management	Black (All HDP)	Female	30.0%	2.0%
h) Core and Critical Skills	Black (All HDP)	Both	60.0%	3.0%
i) Employees with disabilities	All	Both	1.5%	2.0%

8.7.3 FORM S: EMPLOYMENT EQUITY STATISTICS

Once the mine is fully operational, Form S will be submitted.

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8.7.4 CONCLUSION

The Employment Equity Plan is a fundamental component of South Africa's transformation agenda within the mining industry, as mandated by the Mining Charter. The primary goal of this plan is to address historical inequalities and ensure fair representation of all South Africans, particularly historically disadvantaged South Africans (HDSAs), within the mining workforce. This includes increasing the participation of women and individuals from previously marginalized communities in managerial and technical roles.

8.8 ESTABLISHMENT OF A TALENT POOL

The context of the talent pool in the Social and Labour Plan (SLP) is focused on addressing the critical need for a skilled, diverse, and sustainable workforce that can support the long-term success of the mining industry. The mining sector in South Africa faces ongoing challenges, including skills shortages, an aging workforce, and the need for greater representation of historically disadvantaged South Africans (HDSAs) and women in technical and leadership roles. The SLP's talent pool strategy is designed to respond to these challenges by fostering the development of a workforce that is both capable and representative of the broader population.

To implement a robust talent pool strategy, the mine will undertake several key initiatives. Firstly, the mine will invest in comprehensive skills development and training programs to enhance the technical and managerial capabilities of its workforce. This includes offering learnerships, and bursaries to young professionals, particularly those from historically disadvantaged backgrounds, to build a pipeline of skilled workers. Additionally, specialised training programs will be introduced to equip employees with the skills needed to operate new technologies and adhere to evolving safety and environmental standards, ensuring that the workforce is prepared for the future demands of the industry.

Furthermore, the mine will implement targeted recruitment strategies to attract top talent from diverse backgrounds, with a focus on increasing the representation of historically disadvantaged South Africans and women in technical and leadership roles. Recruitment efforts will include outreach programs in local communities to identify and nurture talent from underrepresented groups, ensuring that the mine's workforce reflects the diversity of the broader South African population.

Moreover, as indicated above, a structured mentorship program will be established to support the development of emerging leaders within the mine. Experienced professionals will mentor less experienced employees, particularly those from historically disadvantaged backgrounds, to prepare them for future leadership roles. Succession planning will also be a key focus, ensuring that there is a continuous supply of qualified individuals ready to step into critical roles as the need arises, thereby maintaining operational continuity and fostering a culture of internal growth and development.

Finally, the mine will prioritise employee retention by offering clear career development pathways and opportunities for advancement within the organisation. This will include regular performance evaluations, career counselling, and access to further education and training. Competitive compensation packages and benefits will also be provided to retain top talent and reduce turnover, particularly in critical roles where skills shortages are most acute.

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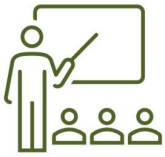
By implementing these strategies, the mine aims to build a diverse, skilled, and resilient talent pool that can drive its long-term success while contributing to the broader socio-economic development goals of South Africa. This approach will ensure that the mine not only complies with regulatory requirements but also positions itself as a leader in sustainable and inclusive mining practices.

8.9 School Support and post matric programs



The mine will demonstrate its commitment to supporting the local community by focusing on educational support and community development initiatives. A key component of this support will be the provision of bursaries targeted at students from the local community, aimed at promoting educational advancement and addressing skills shortages in the mining sector. These bursaries will be offered to deserving students pursuing studies in fields relevant to the industry, helping to build a pipeline of skilled professionals who will contribute to the mine's long-term success and the broader socio-economic development of the region.

8.10 Women in Mining

8.10.1 INTRODUCTION

The mine is committed to promoting and ensuring equity in the workplace. In line with the South African Mining Charter's attempt to redress the imbalance from the past, the mine embraces the challenge to include women in non-traditional roles that are directly linked to the business of mining. The targets for women in mining at present is shown in the table below, and the mine will strive to meet these targets.

Table 18: Women in Mining Targets

Organisational Level	Gender	MC Target
a) Board	Female	20.0%
b) Executive management	Female	20.0%
c) Senior management	Female	25.0%
d) Middle management, professionals and specialists	Female	25.0%
e) Junior Management	Female	30.0%

8.10.2 STRATEGIES

The strategies discussed throughout this report are pivotal in advancing the development of women in mining, both in terms of increasing their representation (quantity) and enhancing their skills and leadership capabilities (quality). These strategies reflect a comprehensive approach to creating a more inclusive and equitable workplace within the mine, addressing

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the unique challenges faced by women in the industry, and fostering their professional growth.

Bursaries and Educational Support

The provision of bursaries targeted at women, particularly those from historically disadvantaged backgrounds, plays a crucial role in developing a pipeline of skilled female professionals. By supporting women in pursuing studies in fields related to mining, engineering, and other critical areas, the mine is actively investing in the future female workforce. This approach not only increases the number of women entering the industry but also ensures they have the necessary qualifications and expertise to excel in technical and leadership roles.

Mentorship Programs

The structured mentorship programs we discussed are essential for supporting women in their professional journeys. By pairing less experienced female employees with seasoned professionals, particularly in technical and leadership positions, the mine creates opportunities for women to gain valuable insights, build confidence, and develop the skills needed to advance in their careers. The focus on mentorship specifically for women in mining ensures that they receive the guidance and support necessary to overcome industry-specific challenges and thrive in a traditionally male-dominated field.

Targeted Recruitment and Talent Attraction

Implementing targeted recruitment strategies to attract women to technical and leadership roles is another critical component of the mine's strategy. By actively seeking out female candidates and promoting the mining industry as a viable and rewarding career path for women, the mine is working to increase the representation of women at all levels of the organisation.

Skills Development and Training

Investing in comprehensive skills development programs tailored to the needs of women in mining is vital for enhancing their competencies and preparing them for future challenges. These programs, which include apprenticeships, learnerships, and specialized training, are designed to equip women with the technical and managerial skills needed to succeed in the industry. By focusing on the continuous professional development of women, the mine ensures that female employees are well-prepared to take on leadership roles and contribute meaningfully to the organisation's success.

Career Development and Succession Planning

The mine's emphasis on career development and succession planning is crucial for ensuring that women have clear pathways to advancement within the organisation. By identifying and nurturing female talent, particularly through mentorship and targeted training, the mine creates opportunities for women to progress into senior management and executive positions. This approach not only enhances the quality of female leadership within the mine but also

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ensures that women are represented in decision-making processes, contributing to a more inclusive and balanced leadership team.

In summary, the strategies discussed throughout this report collectively form a robust framework for developing women in the mine, both in terms of increasing their numbers and enhancing their professional capabilities. By focusing on education, mentorship, targeted recruitment, skills development, career advancement, and community support, the mine is not only complying with regulatory requirements but also leading the way in creating a more equitable and inclusive mining industry. These efforts will contribute to the long-term sustainability and success of the mine, while also promoting gender diversity and empowering women to achieve their full potential.

8.11 HRD CONCLUSION

In conclusion, the Human Resource Development Programme at Vaalbank Colliery reflects a deliberate and integrated approach to building a capable, inclusive, and future-ready workforce. Through its focus on foundational education, accredited technical training, career progression, mentorship, and equity, the programme not only meets regulatory obligations but actively contributes to the transformation and long-term sustainability of the mining sector. By aligning skills development with operational needs and national priorities, the mine positions itself as both a compliant employer and a catalyst for socio-economic upliftment in the communities it serves.

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9 LOCAL ECONOMIC DEVELOPMENT PROGRAMME REGULATION 46(C)

9.1 STAKEHOLDER CONSULTATIONS

Extensive stakeholder engagement was undertaken during the preparation of the amended Vaalbank Colliery Social and Labour Plan. Consultations were held with key institutional and community representatives to ensure alignment with municipal and educational priorities, as well as to confirm community endorsement of the proposed SLP projects.

• Educational consultation: A meeting was held with Mr W.S. Mdlalose, Principal of Hlobane Primary School, who expressed support for the education-related SLP projects. He is liaising with the Department of Education to obtain the formal project approval letters.

• Municipal consultation: Mr S. Landman, Director: Planning and Development, AbaQulusi Municipality, confirmed that the municipality supports and is in a position to sign off on the Rum Coal SLP projects as presented.

• Ward councillor consultation: The Ward Councillor for the area reviewed and approved the proposed projects, confirming their alignment with ward development priorities and the municipal IDP.

• Community consultation: A stakeholder forum meeting was held at Hlobane on 8 November 2025. Representatives of local community structures endorsed the current SLP project portfolio and recorded their agreement in the attendance register.

These consultations confirm that the amended SLP reflects local needs, enjoys community and municipal support, and aligns with the relevant planning frameworks.

(SEE ANNEXURES TO THIS DOCUMENT FOR PROOF OF CONSULTATIONS.)

9.2 SOCIO-ECONOMIC OUTLINE REGULATION 46(C)(I)

9.2.1 INTRODUCTION

Abaqulusi Municipality—anchored by the regional centre of Vryheid—functions as the primary economic and administrative hub within the northern reaches of KwaZulu-Natal, and serves as the principal labour-sending and labour-receiving area for the Vaalbank Colliery. As the proposed mining operation is situated within this municipal boundary, any assessment of its prospective social impact must begin with a clear understanding of the socio-economic characteristics of the host area. The discussion that follows endeavours to provide a focused socio-economic snapshot of the municipality as contemplated under Section 46(d) of the MPRDA Regulations, with particular attention to demographics, livelihoods, infrastructure access, education, employment, and poverty dynamics, all of which frame the social baseline against which the mine's future obligations and opportunities should be gauged.

9.3 SOCIO-ECONOMIC PROFILE OF IMMEDIATELY IMPACTED VILLAGES

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9.3.1 SOCIO-ECONOMIC AND DEMOGRAPHIC PROFILE: HLOBANE–VAALBANK CLUSTER, ABAQULUSI MUNICIPALITY

The proposed Rum Coal operation is situated on the immediate doorstep of the Vaalbank settlement, placing the community—along with the adjacent former mining village of Hlobane—at the centre of the mine's first-order socio-economic impact zone. These settlements fall within Ward 7 of the Abaqulusi Local Municipality and represent one of the most densely populated and economically vulnerable parts of the municipality outside of Vryheid.

The Hlobane–Vaalbank cluster reflects a layered development history. Hlobane comprises formal housing stock laid out during the ISCOR mining era and still occupied today, while Vaalbank consists of more recent low-income residential development, with elements of informal expansion. Both settlements are now under municipal jurisdiction and exhibit persistent service delivery gaps, high levels of youth unemployment, and widespread dependence on social grants and informal income generation.

Despite these constraints, the cluster is serviced by some essential infrastructure, including a modern public clinic, a primary school, and road connectivity via the R69 regional corridor. Nonetheless, challenges around water, sanitation, road quality, and job access remain severe, and have positioned the area as a strategic focus for Local Economic Development (LED) and Human Resource Development (HRD) planning under the SLP.

Given its direct spatial proximity to the mine and its socio-economic vulnerability, the Hlobane–Vaalbank area has been identified as the primary beneficiary zone for Rum Coal's SLP implementation. LED and HRD interventions will prioritise this cluster in alignment with regulatory requirements and the long-term sustainability objectives of both the mine and the host municipality.

Table 19: Vaalbank Hlobane Key SEC Information (information inferred based on site visit)

Category	Key Information
Ward 7	As of the most recent demographic data, Ward 7 of the Abaqulusi Local Municipality is home to approximately 8,607 residents, accommodated across 1,631 households. The gender distribution is relatively balanced, with 51% female (4,442 individuals) and 49% male (4,165 individuals). The population is predominantly young. Children aged 0 to 14 years make up 3,210 residents, while the youth and young adults (15–34 years) number 3,158, together accounting for nearly 75% of the total population. The working-age population between 35 and 64 years comprises 1,869 individuals, and the elderly population (65 years and older) accounts for 370 residents, or just over 4% of the ward total. This age structure reinforces the high dependency ratio observed across the Hlobane–Vaalbank zone, with a substantial portion of the population either too young or too old for formal employment, and a large youth cohort facing limited access to jobs or further education. These dynamics directly inform local

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Category	Key Information
	development priorities, particularly around youth employment, education access, and social infrastructure investment. Total Abaqulusi LM population: ±110,000.
Population Estimate Hlobane/Vaalbank Cluster	Estimated population of old Hlobane village: 2,050 – 2,665 people (based on 500–650 households). Estimated population of Vaalbank: ±1,800 – 2,200 people. Combined population (Hlobane–Vaalbank area): ±4,000 – 4,900.
Age Structure	Youth-dominated: 42–46% under the age of 35. High dependency ratio, with children under 15 representing over a third of the population.
Gender Split	±55% female to 45% male. Large number of female-headed households, particularly in post-mining zones.
Household Composition	Average household size is ±4.1. Multi-generational and extended families are common. Vaalbank mirrors the structure seen in Hlobane with informal backyard units.
Housing Types	Hlobane features old mine housing (ISCOR era) and RDP stock; Vaalbank consists of planned low-income formal housing with some informal expansion at the periphery.
Access to Water	Inconsistent across both areas. Approximately 60–70% have piped water access; others rely on standpipes, tanks or boreholes.
Sanitation	Mostly pit latrines in Vaalbank; a mix of flush toilets and VIPs in Hlobane. Maintenance and hygiene concerns persist in both zones.
Electricity Access	Over 80% of households are connected to the Eskom grid, though load issues and informal connections are present in both settlements.
Education Levels	Primary attendance is high in both areas (±85%). Secondary schooling drops below 60%. Less than 4% of adults hold tertiary qualifications.
School Infrastructure	One primary school and one secondary school in Hlobane. Vaalbank has early childhood development (ECD) infrastructure via Hlobane Pre-Primary Crèche.
Healthcare	Hlobane is served by a modern public clinic. Vaalbank residents rely on access to this clinic or travel to Vryheid for more advanced services.
Employment Rate	Formal employment across both settlements is below 20%. The informal economy (trade, services, piecework) dominates household income strategies.

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Category	Key Information
Income Sources	Heavy reliance on social grants (child support, old age, disability, and SRD). Informal work, domestic labour, and seasonal jobs supplement this.
Estimated Household Income	±38% earn under R1,600/month; ±35% earn R1,

9.3.2 NARRATIVE DESCRIPTION OF SOCIO-ECONOMIC PROFILE: VAALBANK, ABAQULUSI (HLOBANE AREA)

VAALBANK

Vaalbank is a modest peri-urban settlement located along the R69 regional road, adjacent to Hlobane within the Abaqulusi Local Municipality. The area sits within a landscape shaped by its mining history and bordered by pine plantations, with remnants of past economic activity still visible in its spatial layout and land use.

The residential core, as seen in aerial imagery, reflects formal planning—structured streets, consistent stand sizes, and a predominantly low- to middle-income housing typology. While the settlement is relatively compact, commercial activity remains minimal, represented by small enterprises such as *Khumalo Traders* and services like *Nethu Aerials*.

Educational infrastructure is limited but present. The *Hlobane Pre-Primary Crèche* serves as an early childhood development node, though primary and secondary schooling is likely accessed in surrounding townships, placing a transport burden on families. The absence of a visible health facility underscores the IDP's findings: healthcare access in settlements like Vaalbank is constrained, with most residents reliant on clinics in Hlobane or Vryheid, often requiring minibus taxi transport.

Basic services are uneven. While many households appear connected to the electricity grid, supply interruptions and informal connections remain a concern. Water provision is inconsistent across Abaqulusi's rural settlements, and Vaalbank is likely to rely on communal standpipes, boreholes, or tanker deliveries. Sanitation, where available, is typically non-waterborne—mostly pit latrines—with limited investment in infrastructure upgrades.

The local economy is fragile. With Hlobane's mining operations long closed, employment opportunities in the immediate vicinity are scarce. A large share of the population depends on social grants—child support, old-age pensions, and disability payments—indicative of both economic hardship and limited private sector absorption. Informal trade and piecework remain the primary forms of income.

Transport infrastructure is partially supportive. The R69 provides vital connectivity to Vryheid and beyond, and is frequently used by taxis. However, internal roads within Vaalbank appear unpaved, reducing accessibility, especially during the rainy season.

Demographically, the area is dominated by youth, with over 40% of residents estimated to be under the age of 35. Many households are female-headed, often with dependants and few reliable income streams.

From a development perspective, the IDP identifies several persistent challenges:

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- High youth unemployment and limited skills development opportunities;
- Inadequate access to primary healthcare and basic sanitation;
- Ageing or insufficient water infrastructure;
- Poor internal roads and stormwater management;
- A lack of recreational and social facilities.

Environmental risks include uncontrolled dumping, fire hazards from unmanaged bushland, and legacy land degradation from previous mining activity.

Despite these constraints, the area presents opportunities for targeted investment—particularly in infrastructure, early childhood education, and community-based job creation. Any Local Economic Development (LED) or SLP initiative in Vaalbank would benefit from a spatially targeted, services-led approach, aligned with existing ward priorities and municipal strategies.

HLOBANE: NARRATIVE DESCRIPTION BASED ON SITE VISIT

Set against the backdrop of Hlobane Mountain and flanked by layers of pine plantations and mined-over earth, the old Hlobane mining village stands as a quiet remnant of an era when coal powered both industry and livelihoods. Once owned and operated by ISCOR, the mine was a major employer in the region. Its closure left behind not only geological scars and disused infrastructure, but a community whose social and economic patterns were shaped by the rhythms of extraction and the structure of company housing.

Today, the property falls under the administration of the Abaqulusi Local Municipality, and the remaining housing stock—visible in linear clusters and cul-de-sacs—has become home to many residents of Ward 7. The spatial layout reflects its origins: distinct blocks for staff and workers, connected by an internal road network that once served a tightly managed workforce. These roads still hold, though much of the surrounding terrain bears the unmistakable marks of mine rehabilitation done in haste, or not at all.

Infrastructure varies. Many of the homes are formal and structurally intact, a legacy of ISCOR's standards at the time, but maintenance has faltered under municipal custodianship. Internal services—such as electricity, water and sewerage—are uneven. While some connections have been upgraded, others remain rudimentary, with interruptions and informal extensions commonplace. Public infrastructure, including streetlights, stormwater drainage, and waste removal, is limited or degraded.

Economically, the area mirrors much of post-mining rural South Africa. The collapse of the coal economy left behind high unemployment, generational poverty, and few alternative opportunities. Informal trading, piecework, and seasonal migration remain central to household survival. Social grants serve as the backbone of household income, with high dependency ratios—particularly among female-headed households and pensioners.

The built environment retains its industrial memory: to the west, darkened spoils and tailings are clearly visible from satellite imagery. Encroachment of housing into unsafe zones, while not yet severe, is a growing risk—particularly if land use is not clearly demarcated and rehabilitation remains incomplete. The area offers limited formal public amenities; there are no obvious schools, clinics, or community centres within walking distance, although some support may be accessed in nearby Hlobane or Vryheid via the regional road network.

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Demographically, the population is youthful, with high levels of underemployment and low tertiary education uptake. Skills erosion is a key concern, as mining-dependent communities often lacked diversified occupational exposure.

HLOBANE SEC DEVELOPMENT OBSERVATIONS

Area of Concern	Observation
Land Tenure & Housing	Properties are municipally owned; some residents may lack formal tenure or title. Long-term regularisation could improve housing security.
Service Infrastructure	Aging or incomplete municipal services require upgrading. Key gaps include sanitation, waste removal, and electricity stability.
Economic Activity	Limited. High reliance on informal trade and grants. LED programmes focused on micro-enterprise, SMME training, or agro-processing could assist.
Social Infrastructure	The area is serviced by a primary school and a recently developed, well-equipped clinic. These facilities significantly improve access to education and basic healthcare within walking distance. Further support may be required through additional recreational amenities or youth centres.
Environmental Risks	Proximity to unrehabilitated mine shafts, spoil heaps, and unstable ground presents a safety and health concern. Monitoring is essential.
Transport Access	Reasonable via tarred roads connecting to R69 and Vryheid. However, internal routes remain gravel and often degraded.

9.4 SOCIO-ECONOMIC PROFILE OF GREATER ABAQULUSI

9.4.1 DEMOGRAPHIICS

The Vaalbank Colliery, located approximately 20 km outside Vryheid within the Abaqulusi Local Municipality, falls within a spatial region characterised by a predominantly young, rural and economically vulnerable population. According to the 2016 Community Survey, Abaqulusi hosts a population of 243,795 people, up from 211,060 in 2011—reflecting a steady growth trajectory. Youth under 35 years make up nearly 78% of the population, with 39.8% aged between 15 and 34, and 37.9% below 15. This demographic profile signals a significant developmental burden in terms of education, employment and basic service provision. While formal urban settlements account for just under 39% of the population, the majority reside in rural traditional areas and on farms—particularly relevant given the mine's likely proximity to such outlying communities. The area's dependency ratio remains high at 70.8[2], and although access to electricity (79.7%) and sanitation (87.8%) has improved markedly since 2011, piped water access has declined from 83.5% to 72.7%, suggesting strain on municipal infrastructure. Households are typically large (average size 4.7), with more than half headed by women, and 2% by children. This socio-demographic context underscores the imperative for Rum Coal's social planning to be inclusive, responsive to

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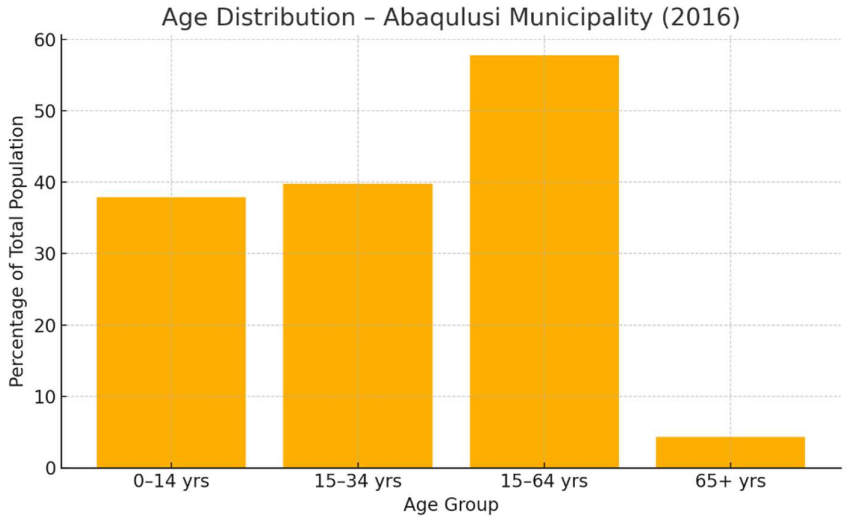
youth unemployment, and aligned with infrastructure and service realities in the receiving area.

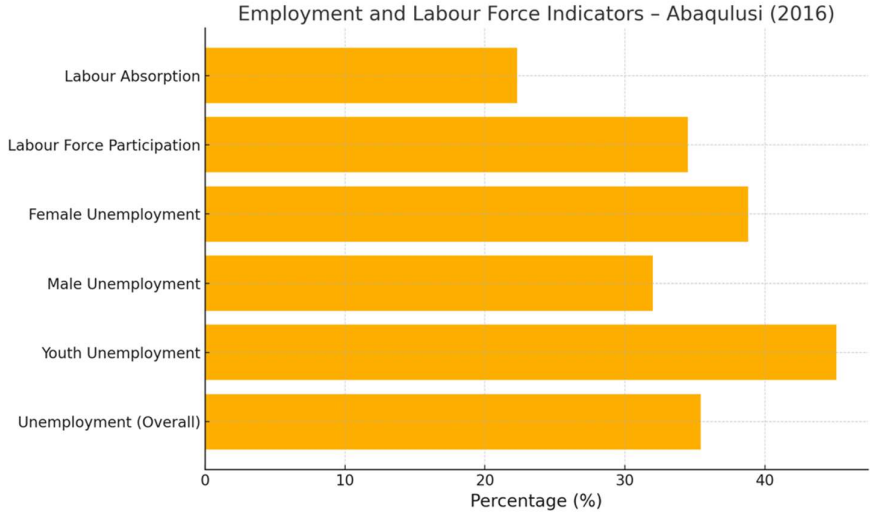
Graph 1: Age Distribution



9.4.2 UNEMPLOYMENT, POVERTY AND LIVELIHOODS IN THE RECEIVING AREA

The socio-economic terrain into which the Vaalbank Colliery is being introduced is one marked by persistent poverty, fragile livelihoods, and a structurally constrained labour market. According to the 2016 Community Survey, 43.3% of those classified as poor experience high poverty intensity, meaning that not only are households below the poverty line, but their deprivation spans multiple dimensions—including access to income, services, and employment. Although the poverty headcount ratio is relatively moderate at 11.4%, the burden falls disproportionately on households headed by women—who account for over half (50.2%) of all households—and those led by children (2.0%), which are especially vulnerable in rural traditional settlements.

Graph 2: Employment and Labour Force Indicators



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Employment remains elusive for many, with an overall unemployment rate of 35.4%, rising to 45.1% among youth. The labour force participation rate is just 34.5%, suggesting a discouraged work-seeking population, while the labour absorption rate—which captures the share of the working-age population actually employed—stands at 22.3%. Women remain disproportionately excluded, with a female unemployment rate of 38.8%, compared to 32.0% among men.

In this context, the establishment of the Vaalbank Colliery represents both an obligation and an opportunity. Its labour demand, procurement practices, and infrastructure commitments must be sensitive to a landscape defined not merely by economic scarcity but by unequal access and entrenched marginalisation.

The mine's Social and Labour Plan therefore aligns its commitments with this baseline reality—targeting women- and youth-headed households for meaningful economic inclusion, investing in foundational services where gaps persist (e.g. piped water and tenure security), and prioritising capacity-building interventions that can shift the area's employment trajectory beyond temporary income support.

9.4.3 HOUSING AND INFRASTRUCTURE IN THE RECEIVING AREA

Abaqulusi's infrastructure profile presents a mixed picture of progress and fragility—characteristics that have direct implications for the Vaalbank Colliery, particularly in light of its intention to source approximately 80% of its workforce from the surrounding communities. While service delivery indicators have improved in some areas, pressure on existing infrastructure remains high and unevenly distributed.

As of the most recent survey data, access to electricity has reached nearly 80% of households, and sanitation services have expanded dramatically—from just 40.9% in 2011 to 87.8% in 2016. However, access to piped water has declined, falling from 83.5% to 72.7%, signalling potential weaknesses in bulk water infrastructure, municipal capacity, or network maintenance—each of which may affect both household resilience and the mine's own operational reliability.

The housing profile is equally instructive. Although 72.7% of residents live in formal dwellings, a significant portion still reside in traditional (18.1%) or informal housing (9.0%), especially in the peri-urban and rural areas surrounding Vryheid. Tenure security is also uneven: only 63.3% of households report owning their dwelling, which raises concerns about legal recognition, planning certainty, and suitability for service upgrades or accommodation investments. With an average household size of 4.7 persons, any migration or employment-driven settlement expansion linked to the colliery will intensify existing land-use pressure unless properly planned for.

Given that the Vaalbank Colliery plans to draw the majority of its workforce from within the municipality, these infrastructure and housing conditions must be explicitly factored into its Social and Labour Plan (SLP), Human Resource Development strategy, and employment localisation commitments. The mine will need to assess the settlement patterns of its host communities not only to inform transport, safety and skills development logistics, but also to anticipate potential socio-economic friction—particularly where informal or insecure housing arrangements intersect with job creation expectations.

Investments in community infrastructure, particularly housing support, water access, and road connectivity, may need to form part of the mine's indirect economic footprint—whether

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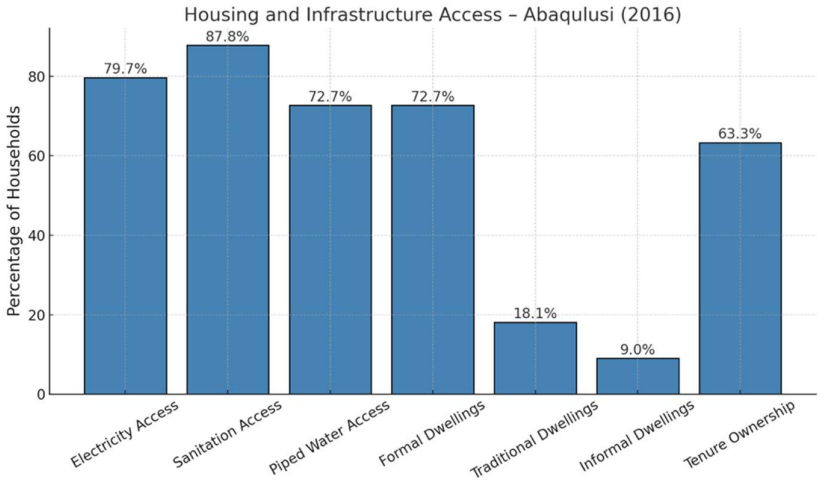
through partnerships, local procurement strategies, or spatial alignment with municipal IDP priorities. Ultimately, if the mine intends to operate with a locally sourced workforce, it must contribute to building the structural conditions that enable that workforce to live, commute, and participate in the economy with dignity.

Informal settlements are widespread across several wards, underscoring persistent inequality in land tenure and service access. The backlog in RDP housing delivery remains high, with projects delayed by a combination of weak spatial planning and underperformance in human settlements implementation. Unregulated settlement sprawl has intensified pressure on bulk infrastructure networks, exacerbating existing service delivery gaps and complicating future planning. For Vaalbank Colliery, these dynamics are crucial when considering labour sourcing, housing support measures, and the sustainable integration of workers into the local settlement fabric.

Graph 3: Housing and Infrastructure Access



9.4.4 HEALTH PROFILE AND IMPLICATIONS FOR WORKFORCE SUSTAINABILITY

The public health profile of Abaqulusi is inseparable from the socio-economic conditions into which the Vaalbank Colliery is being embedded—marked by service backlogs, a high disease burden, and constrained institutional capacity. The municipality's population is heavily reliant on the public health system, with only limited access to private care, especially in rural and peri-urban wards where transport and infrastructure challenges compound health access disparities.

According to the IDP, the area is served by a small number of district hospitals and primary healthcare clinics, many of which are under-resourced relative to population density. The prevalence of communicable diseases, particularly HIV/AIDS and tuberculosis, remains high, and intersects with widespread poverty, poor nutrition, and household overcrowding—especially in traditional and informal settlements. Additionally, the rate of child-headed and female-headed households, and the ageing care economy, heightens vulnerability to untreated illness and care gaps.

For Vaalbank Colliery, these conditions carry direct implications for both workforce health resilience and social obligation. An unwell workforce reduces operational reliability,

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increases absenteeism, and weakens productivity across the value chain. Moreover, mine-related activity may place additional pressure on local clinics and transport networks if no parallel investment is made.

In response, the mine will consider aspects such as proactive occupational health screening, workplace wellness programmes, and, where feasible, collaborative investment in primary care infrastructure or mobile health outreach, particularly in wards identified as high-labour source zones. Where staff accommodation is not provided, commuting workers will remain embedded in vulnerable community settings—further underscoring the need for mine-supported interventions on water quality, waste management, and HIV/AIDS awareness.

Vaalbank Colliery accepts that the existing health system in Abaqulusi cannot be taken for granted as a stable foundation for a mine-dependent workforce. Health is therefore not an externality, but a core operational and developmental consideration.

9.4.5 LOCAL ECONOMY AND HOUSEHOLD INCOME: CONSTRAINTS AND CONSIDERATIONS FOR VAALBANK COLLIERY

The economy of Abaqulusi Municipality remains dominated by low-wage, low-value sectors, with agriculture (timber, field crops, livestock), community services, and retail trade forming the economic backbone—despite the municipality being classified as low in agricultural potential.

Estimated economic output (GGP): while no precise current figure is published, Abaqulusi contributes over 40 % of the Zululand District's Gross Geographic Product (GGP)—which was estimated around R10 billion in 2019. Adjusted to 2025 rand values (assuming average 5% inflation annually), Zululand's GGP is estimated at approximately R13 billion, placing Abaqulusi's proportional contribution in the range of R5.2–5.6 billion (2025).

Household income: median annual household income is estimated at approximately R22,600 in 2025—rising from R14,600 in 2016 after applying an inflation adjustment of ~5% per annum over nine years—equating to around R1,880 per month. This remains less than half of the statutory monthly income floor defined by the national minimum wage.

Table 20: Comparison with 2025 National Minimum Wage

Indicator	Value (2025)
Median monthly household income	~R1,880
National minimum wage (per hour)	R28.79
Equivalent minimum monthly wage	R4,333 (for 35 hrs/week × 4.3 weeks)

This highlights the severe income disparity and the limited purchasing power within the local economy—underscoring both the economic vulnerability of host communities and the potential developmental impact of Vaalbank Colliery's wage policies and procurement opportunities.

Table 21: Economic Sector Contribution Table (2019 estimates adjusted to 2025 rands)

Sector	Approximate % Share of District GGP	Estimated Share of Abaqulusi GGP (R Millions, 2025)	% of Total GGP

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Agriculture, forestry & fishing	≈12%	R624 m	10.7%
Mining & quarrying	≈10%	R520 m	8.9%
Manufacturing	≈9%	R468 m	8.1%
Wholesale & retail trade	≈15%	R780 m	13.4%
Transport & communication	≈11%	R572 m	9.8%
Finance, insurance, real estate	≈12%	R624 m	10.7%
General government & community svcs	≈22%	R1,144 m	19.7%
Total		R5,812 m	100%

Note 1: (Based on 2019 Zululand District data adjusted to 2025 values and scaled to Abaqulusi's ~40% share of total output)

Labour market data reveal structural weakness. The labour absorption rate sits at just 22.3%, with a participation rate of 34.5%, reflecting a discouraged workforce and a scarcity of formal employment channels. While the poverty headcount is 11.4%, income data paint a starker picture of financial precarity: over 56% of households earn less than R4,800 per month (±R7,430 in 2025 rands), and only 5.9% exceed R19,600 monthly income (±R30,370 in 2025 rands). Notably, 14.5% report no income at all. These figures underscore the limited capacity of the local economy to generate upward mobility or stable demand.

For Vaalbank Colliery, these dynamics are pivotal. The mine's anticipated wage injections, local sourcing, and contractor appointments will significantly shape household livelihoods in the area. However, without deliberate planning, the mine may unintentionally reinforce existing inequalities—by drawing labour disproportionately from better-connected urban areas or by concentrating economic benefits in select wards.

The colliery will work at aligning its supply chain, employment practices, and Enterprise Development support with the lowest-income brackets and most marginalised zones. This will include preferential sourcing from micro-enterprises, structured inclusion of informal traders, and targeted financial literacy training for new income earners.

In short, while the local economy is underpowered, it is also highly responsive to catalytic investment. If guided by equity and localisation principles, the Vaalbank Colliery could shift the income curve in ways that both stabilise its operating environment and fulfil its developmental obligations under the MPRDA and Mining Charter frameworks.

9.4.6 EDUCATION PROFILE AND RELEVANCE TO WORKFORCE READINESS

The educational profile of Abaqulusi Municipality reflects both marked improvement and deep structural limitations—factors that are central to the workforce strategy of the Vaalbank Colliery, particularly given its commitment to employ 80% of its labour from the surrounding region. According to the 2016 Community Survey, the proportion of adults (aged 20 and

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above) with no formal education declined significantly from 16.9% in 2011 to 8.1%, indicating steady progress in basic literacy access. Simultaneously, the percentage of those who have completed matric rose from 28.1% to 33.4%, yet only 6.2% attained any form of post-school qualification, a figure that has in fact slightly declined.

This distribution reveals a narrow post-secondary pipeline and a persistent skills mismatch—particularly for artisanal, technical, and supervisory roles often associated with mining operations. While the majority of the potential workforce has basic schooling, relatively few possess the formal training or certification needed to access skilled or semi-skilled positions without structured support.

For the Vaalbank Colliery, these realities heighten the importance of integrating targeted skills development, learnerships, and portable skills training into its Social and Labour Plan (SLP). Investments in ABET (Adult Basic Education and Training) and foundational numeracy/literacy programmes will be necessary to broaden the eligible labour pool, while partnerships with local TVET colleges or accredited private providers could expand access to mine-relevant qualifications over time. In parallel, the mine's HRD strategy should include mechanisms to identify trainable candidates within the underqualified population—many of whom may lack paper credentials but possess the aptitude for practical technical work.

Ultimately, education in Abaqulusi sets both a floor and a ceiling for workforce development. Unless actively addressed, its current limitations will constrain the mine's localisation ambitions and entrench social exclusion. With thoughtful planning, however, the colliery can act as a driver of educational opportunity—transforming a deficit into a long-term asset for both community and operation.

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9.5 SOCIO-ECONOMIC IMPACT ASSESSMENT REGULATION 46(C)(III)

9.5.1 INTRODUCTION

The table below presents a consolidated assessment of the socio-economic impacts associated with the development and operation of Vaalbank Colliery within the Abaqulusi Local Municipality. It quantifies both direct and indirect economic contributions—such as Gross Geographic Product (GGP), employment creation, and municipal revenue—alongside broader social and spatial implications arising from the mine's presence. Each indicator is evaluated in terms of baseline conditions, projected impact, and relative significance. In parallel, practical mitigation and enhancement strategies are proposed to ensure that economic benefits are maximised while adverse outcomes are proactively managed. The assessment is intended to inform integrated planning, strengthen stakeholder engagement, and ensure alignment with the objectives of the Social and Labour Plan (SLP), the Integrated Development Plan (IDP), and national sustainable development priorities.

#	Indicator	Baseline	Impact	Significance	Mitigation Strategy
1	Total GGP (Abaqulusi)	R5.0 billion (2025 estimate)	R42 million direct (0.84%), R84 million incl. multiplier (1.68%)	Moderate	Maximise local procurement of goods and services
2	Mining GGP (Abaqulusi)	R400 million (2025 estimate)	R42 million direct (10.5%)	High	Implement 'buy local' policy targeting suppliers within Abaqulusi
3	Total Employment (Abaqulusi)	60,000 (2025 estimate)	72 jobs direct (0.12%)	Low	Align recruitment with LED forums and advertise locally
4	Mining Employment (Abaqulusi)	2,000 (2025 estimate)	72 jobs direct (3.6%)	Moderate	Restrict recruitment points to Vryheid town; train locals in relevant skills

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#	Indicator	Baseline	Impact	Significance	Mitigation Strategy
5	Local Taxes and Rates Contribution	R250 million (2025 estimate)	Estimated R2.5 million annually in rates, utilities, and indirect tax contributions	Moderate	Negotiate service delivery partnerships with municipality for targeted reinvestment
6	Job-Seeking In-Migration	N/A	Likely increase in population influx and informal settlement pressure	Moderate	Develop communication strategy discouraging unmanaged in-migration; partner with Home Affairs
7	Pressure on Public Services	Constrained public health, water, housing systems	Increased burden due to workforce growth and dependent households	Low	The influx of direct population due to increased employment will be low guven that employment increase will be only 120 workers.
8	Environmental Health and Safety Risks	Low baseline exposure in rural zones	Increased exposure to dust, noise, and water quality issues	Loq	Regular monitoring and community reporting mechanisms; environmental management plans
9	Gender and Inequality Disparities	Persistent wage and employment gaps	Risk of mining jobs reinforcing male wage advantage unless mitigated	Low	Adopt gender equity hiring targets; support female workforce mentorship
10	Closure Risk and Long-Term Dependency	Previous mine closures	Risk of economic collapse post-	High	Establish post-mining land use and enterprise

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#	Indicator	Baseline	Impact	Significance	Mitigation Strategy
		destabilised local economy	mining without diversification		support programmes
11	Livelihood Displacement	Agriculture and informal economy predominant	Potential conflict over land and reduced access to arable space	Moderate	Avoid productive land, offer compensation, promote shared-use planning
12	Social Cohesion and Community Tension	Stable but fragmented local networks	Risk of friction due to employment competition and benefit disparities	Low	Transparent employment process; establish grievance redress and community liaison forums
14	Education and Skills Training	Low access to formal industry training	Vaalbank will educate and train local employees in critical skills	High	Partner with SETAs and local FET colleges; deliver accredited skills programmes on-site
16	Housing and Accommodation	Sufficient accommodation infrastructure from Hlobane exist for accommodation.	A minute amount of labourers require accommodation.	Low	Upgrade existing accommodation buildings in Hlobane.

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9.6 PROPOSED LED PROJECTS REGULATION 46(C)(IV)

9.6.1 HLOBANE PRIMARY SCHOOL LIBRARY INSTALLATION

Table 22: Hlobane Primary School Library Installation

<table>
<tr><th colspan="3">Project Name</th><th colspan="3">Project classification</th></tr>
<tr><td colspan="3">Hlobane Primary School Library Installation</td><td colspan="3">Infrastructure and Education</td></tr>
<tr><td>Background</td><td colspan="5"> 
Hlobane Primary School, situated in Ward 7 within Abaqulusi Local Municipality, faces critical gaps in educational infrastructure. The absence of a dedicated library limits learners' access to books, digital resources, and structured reading programmes. This challenge perpetuates low literacy levels and restricts opportunities for academic growth in the region.

To address these gaps, the proposed project aims to install a (one) modern modular classroom designed as a library facility. This intervention provides a cost-effective, rapid-deployment alternative to traditional brick-and-mortar structures while ensuring durability, functionality, and aesthetic quality. The facility will serve as a central literacy hub for learners and educators, supporting curriculum outcomes and fostering a culture of reading.</td></tr>
<tr><td>Project Location</td><td>District Municipality</td><td>Local Municipality</td><td>Village</td><td>Project Start</td><td>Project end</td></tr>
<tr><td></td><td>Zululand District Municipality</td><td>Abaqulusi Local Municipality</td><td>Hlobane–Vaalbank Ward 7</td><td>1 January 2027</td><td>March 2027</td></tr>
</table>

Output	Key Performance Area	Key Performance Indicator	Responsible Entity	Trimester 1	Trimester 2	Trimester 3	Budget K=000
Install modular library classroom (fitted with insulation, lighting, ventilation)	Infrastructure Activation	Completed and fully equipped library	Rum Coal LED + Contractor	Design + Site prep	Delivery + Assembly	Final finishes + Handover	R400k
Supply library furniture (shelves, desks, chairs)	Learning Environment Enhancement	Furniture delivered and installed	Rum Coal CSR + Supplier	Design approval	Procurement	Installation	R70k
Procure books and starter digital content	Educational Support	Resources available for learners	Ward 7 LED Forum + NGO Partner	Needs assessment	Procurement	Distribution	R80k
Launch Reading Club and Literacy Programme	Community Ownership	Reading sessions operational	School Management + Ward Councillor	Committee formation	Training volunteers	Launch event	R30k
					Total Budget	K=1000	R580k

Classification of Jobs	No. of Jobs	Male Adults	Female Adults	Male Youth	Female Youth	Total	Comments
Short Term	12	3	2	4	3	12	Includes site prep crew, assembly workers, and delivery assistants

9.6.2 CLASSROOM TECHNOLOGY ENHANCEMENT PROJECT

Project Name				Project classification	
Classroom Technology Enhancement Project				**Infrastructure and Education**	
Background	Hlobane Primary School, located in Ward 7 within Abaqulusi Local Municipality, faces significant challenges in improving teaching quality and classroom engagement. Many lessons rely on outdated, text-heavy methods due to the absence of modern teaching aids. To address this gap, the proposed project introduces five data projectors with matching whiteboards for use in classrooms. These tools will enhance lesson delivery, enable visual learning, and support interactive pedagogy, aligning with the Department of Education's vision for tech-integrated education in rural schools. The project promotes technology-enabled teaching practices, ensuring learners experience a richer, more engaging curriculum. The installation of these tools will benefit both educators and students by creating a dynamic learning environment that fosters comprehension and critical thinking.				
Prooject Location	District Municipality	Local Municipality	Village	Project Start	Project end
	Zululand District Municipality	Abaqulusi Local Municipality	Hlobane–Vaalbank Ward 7	1 January 2027	March 2027

Output	Key Performance Area	Key Performance Indicator	Responsible Entity	Trimester 1	Trimester 2	Trimester 3	Budget (K=000)
Supply and deliver 5 data projectors with ceiling mounts and cabling	Technology Provision	All projectors delivered to school	Rum Coal LED + Contractor	Procurement planning	Delivery to site	Quality check and handover	R250k
Supply and install 5 high-quality whiteboards	Learning Environment Enhancement	Whiteboards mounted and functional	Rum Coal CSR + Supplier	Procurement approval	Installation	Handover	R50k
Teacher orientation on using projectors and whiteboards	Teacher Capacity Building	At least 10 educators trained	School Management + Ward Councillor	Identify trainers and participants	Conduct training	Post-training review	R30k
Launch of Tech-Enabled Lesson Programme	Community Engagement	First tech-supported lessons delivered	School + NGO Partner	Design teaching schedule	Pilot sessions	Full integration	R20k
Total							**R350k**

Classification of Jobs	No. of Jobs	Male Adults	Female Adults	Male Youth	Female Youth	Total	Comments
Short Term	3	2	1	0	0	3	Includes installers, trainers, and logistics support

9.6.3 COMMUNITY SKILLS DEVELOPMENT PROGRAMME

SCOPE AND APPROACH

The Community Skills Development Programme is designed to equip residents of Ward 7 (Hlobane–Vaalbank area) within the AbaQulusi Local Municipality with practical, accredited, and portable skills that can create self-employment and micro-enterprise opportunities. The programme will target unemployed youth and women, particularly from households affected by historical mine closures and limited access to formal training.

The project will be implemented over a five-year cycle (2027 – 2031) and will cover five core skills areas aligned with the AbaQulusi Integrated Development Plan:
• Bricklaying and Masonry
• Fencing and Basic Carpentry
• Plumbing Essentials
• Vegetable Gardening and Permaculture
• Welding and Metal Fabrication

Each course will accommodate approximately 20 participants per year, drawn from communities surrounding the Vaalbank and Hlobane areas. Rum Coal (Pty) Ltd will coordinate the programme through its LED unit, in partnership with accredited training institutions and relevant local organisations.

Approach to Implementation

• Consultation and Alignment: The project was developed in consultation with the AbaQulusi Local Municipality (Director of Planning and Development Mr S. Landman) and the Hlobane Stakeholder Forum, ensuring alignment with IDP priorities on local employment creation and youth skills development.
• Partnerships: Training delivery will be implemented through partnerships with accredited MQA or CETA-registered providers, local contractors, and NGOs experienced in community development.
• Targeting and Recruitment: Beneficiaries will be selected in coordination with Ward 7 Councillor structures, prioritising unemployed youth and women with potential for micro-enterprise development.
• Training Methodology: Each module will combine classroom instruction, practical on-site training, and post-training mentorship. Successful

participants will receive certificates of competence and assistance in linking with small-scale construction and maintenance opportunities.
• Sustainability and Exit Support: Graduates will be encouraged to form cooperatives or micro-enterprises, with municipal support for access to markets and small-project tenders. The programme will also link participants to Rum Coal's portable skills and enterprise-development initiatives to extend employment prospects beyond the life of mine.
• Monitoring and Evaluation: Progress will be tracked through attendance registers, assessment records, participant feedback, and quarterly reports to the DMPR and municipality, using measurable outputs and key performance indicators defined in the table below..

Table 22: Community Skills Development Programme

Project Name				**Project classification**					
Community Skills Development Programme				**Education and Skills Development**					
Background	The Abaqulusi Local Municipality faces persistent unemployment challenges, especially among youth and women. Limited access to vocational skills constrains income generation and household resilience. The Community Skills Development Programme will provide structured training across multiple trades to empower residents with practical skills that align with local economic opportunities, fostering self-employment and micro-enterprise growth.								
Prooject Location	District Municipality	Local Municipality	Village	Project Start			Project end		
	Zululand District Municipality	Abaqulusi Local Municipality	Hlobane–Vaalbank Ward 7	1 January 2027			31 December 2031		
Output	Key Performance Area	Key Performance Indicator	Responsible Entity	2027	**2028**	2029	2030	2031	Budget K=1000
Bricklaying and Masonry Training	Skills Transfer	20 participants trained	Rum Coal LED + Accredited Training Provider	Training	—	—	—	—	R180 k

Output	Key Performance Area	Key Performance Indicator	Responsible Entity	2027	**2028**	2029	2030	2031	Budget K=1000
Fencing and Basic Carpentry	Skills Transfer	20 participants competent in fence installation and carpentry basics	Rum Coal LED + Local Contractor	—	Training	—	—	—	R150 k
Plumbing Essentials	Skills Transfer	20 participants equipped for household plumbing maintenance	Rum Coal LED + Training Partner	—	—	Training	—	—	R150 k
Vegetable Gardening and Permaculture	Livelihood Development	20 participants practicing permaculture principles	NGO Partner + Ward Forum	—	—	—	Training	—	R100 k
Welding and Metal Fabrication (Introductory)	Skills Transfer	20 participants trained in safe welding and basic joints	Rum Coal LED + Technical College	—	—	—	—	Training	R180 k
							Total	R760 k	

Classification of Jobs	No. of Jobs	Male Adults	Female Adults	Male Youth	Female Youth	Total	Comments
Short Term	8	2	2	2	2	8	Trainers and facilitators for each annual session

10 MEASURES TO ADDRESS THE HOUSING AND LIVING CONDITIONS REGULATION 46(C)(V)

10.1 INTRODUCTION

The mine must adhere to the new measures regarding housing and living conditions as outlined in Government Gazette No. 42326, dated 20 March 2019. This summary highlights the key aspects of the Gazette, offering an overview of the requirements and expectations for mining right holders.

The vision of this policy is to ensure that mine employees in South Africa have access to adequate housing, healthcare services, balanced nutrition, and clean water. It seeks to give effect to the relevant sections of the Mineral and Petroleum Resources Development Act, the Constitution, the National Housing Act, the National Housing Code, and other related legislation and policies. Addressing the historical marginalization of mine employees and upholding their basic constitutional right to human dignity is central to this mission. This includes providing adequate access to housing, improving living conditions, and ensuring related amenities are available.

To achieve these goals, the document mandates that mining right holders provide decent and integrated human settlements, healthcare services, balanced nutrition, water, and related amenities to their employees.

Several principles guide the provision of housing for mine employees. These include the development of socially, physically, and economically integrated housing developments within mine communities. Additionally, the policy addresses housing demand through a variety of housing options, including rental accommodation, home ownership, and living out allowances. Furthermore, it emphasizes the importance of involving employees in housing administrative systems and educating them about available housing options. Promoting compliance with minimum norms and standards for housing delivery and management is also a key focus, along with ensuring transparency and accountability in financing schemes for housing. Best practices and compliance with basic service standards are encouraged throughout the process.

Regarding housing options, the policy outlines various avenues for mine employees, such as private home ownership, government-led home ownership through the Finance Linked Individual Subsidy Programme (FLISP), rental accommodation, and living out allowances. Emphasis is placed on integration with existing human settlements and the provision of differentiated financial solutions that cater to the diverse needs of mine employees.

In terms of basic services, mining right holders must adhere to the minimum standards set by the Department of Human Settlements. These include the provision of water, electricity, roads, sanitation, and other essential services, ensuring a decent living environment for employees. Furthermore, mining right holders are encouraged to form partnerships with government departments, entities, and other mining companies to deliver decent human settlements for mine employees. These partnerships aim to leverage resources and expertise to maximize the impact of housing initiatives.

Mining right holders are required to develop and submit a comprehensive Housing and Living Conditions Plan. This plan must address the specific housing needs of employees, integrate with municipal plans, outline preferred housing options, and include provisions for mine closure and post-mining development. Compliance with the plan is mandatory, and failure to adhere to its provisions may result in penalties.

10.2 CURRENT STATUS

HOUSING AND LIVING CONDITIONS – EXISTING INFRASTRUCTURE CONTEXT

The Vaalbank Coal Project is located in an area with extensive established mining housing and municipal infrastructure inherited from the former Hlobane Colliery operations. When Hlobane Colliery entered its closure phase in the late 1990s, the mining company (then ISCOR) upgraded the mine villages to municipal standards prior to transferring the housing stock and associated infrastructure to the local municipality. Employees were also given the opportunity to purchase their homes at discounted rates, thereby fostering private ownership and long-term settlement stability.

The former mine villages include:

Village	Key Features
Vaalbank	±100 houses transferred to the municipality; includes a primary school, church, Hlobane Dam, and a water purification plant serving the settlement.
Hlobane	Established residential area with municipal services and legacy mining infrastructure.
Cliffdale	Serviced residential zone historically linked to the mine.
Tutukani	Former mine hostel converted into family housing and married quarters; includes the former mine hospital, now operating as the Hlobane Clinic.

All these villages remain visible on Google Maps and are served by reliable municipal infrastructure, including an operating sewage works and a well-developed electrical network. The settlements are within easy commuting distance (less than 5 km) from the proposed Vaalbank Colliery site, ensuring that no new housing or hostel development is required for the mine workforce. The nearby village of Pumalanga (Driefontein) provides additional formal housing stock within the same radius.

Further detail on the settlement conditions, infrastructure, and housing backlog can be confirmed through the AbaQulusi Municipality Integrated Development Plan (IDP) under the Hlobane/Vaalbank spatial sections.

Conclusion:

Given the extent of formal housing, existing social amenities, and functioning service infrastructure in the Hlobane–Vaalbank area, the mine's employees will be able to secure sustainable accommodation within existing municipal settlements. No informal settlement development is anticipated, and the mine's housing strategy will therefore focus on supporting employees' access to existing housing markets rather than developing new accommodation units.

10.3 Housing and Living Conditions Strategy

The mine's housing and living-conditions strategy focuses on supporting employees' access to secure, dignified, and affordable homes in established settlements, rather than constructing or maintaining company housing.

Strategy and Measures

Focus Area	Implementation Measure	Outcome / Benefit
1 Secure, independent housing	All employees are encouraged to reside in privately owned or rented dwellings within the surrounding towns of Vryheid and Hlobane. Proof of residence is verified annually during HR audits to ensure formal housing arrangements.	Promotes dignity, family stability, and integration into sustainable local communities.
2 Living-out allowance and housing affordability	A Living-Out Allowance (LOA) forms part of the total wage package, enabling employees to secure formal accommodation in established residential areas. Management monitors usage trends and discourages informal settlements near the mine.	Supports financial independence and responsible housing choices.
3 Homeownership facilitation	Rum Coal provides written employment verification and payslips for use in housing-finance applications and offers guidance on accessing FLISP or other government housing subsidies during annual induction sessions.	Enables eligible employees to qualify for affordable housing finance and government-supported ownership schemes.
5 Monitoring of living standards	Annual socio-economic and HR surveys confirm that employees do not reside in informal or unsafe conditions. Where vulnerability is detected, referrals are made to municipal housing offices.	Ensures compliance with Mining Charter principles and promotes humane living conditions.
6 Collaboration with local authorities	The mine maintains contact with the AbaQulusi Municipality's Human Settlements Unit to align with IDP housing priorities and to identify affordable projects accessible to employees.	Strengthens cooperation between mine, municipality, and community for sustainable settlement planning.

SUMMARY

Rum Coal's approach is proportionate to its scale and local context. It promotes independent, decent housing, supports homeownership readiness, and aligns with the AbaQulusi

Municipality's human-settlement framework. This practical model satisfies Regulation 46(c)(v) by ensuring that all employees have access to secure and progressively improved living conditions, without creating unaffordable long-term obligations for the mine.

11 MEASURES TO ADDRESS THE NUTRITION OF MINE EMPLOYEES REGULATION 46(C)(VI)

The mine will implement comprehensive measures to address the nutrition of its employees, in line with Regulation 46(c)(vi). These measures are designed to ensure that all mine workers have access to balanced, nutritious meals that support their overall health and well-being. The mine recognizes the critical importance of proper nutrition in maintaining a healthy workforce, enhancing productivity, and reducing health-related absenteeism.

To achieve this, the mine will establish dietary guidelines that align with national health standards and ensure that meals provided in on-site canteens or mess facilities meet these nutritional requirements. The focus will be on offering a variety of meals that cater to different dietary needs and preferences, with an emphasis on fresh, locally sourced ingredients.

In addition to meal provisions, the mine will conduct regular nutritional assessments and health screenings for employees to monitor and address any potential deficiencies or health concerns. These assessments will help tailor the nutritional offerings to better meet the specific needs of the workforce.

Education on healthy eating habits will also form a part of the nutrition program, empowering employees to make informed dietary choices both at work and at home. By implementing these measures, the mine aims to foster a healthier and more productive workforce and to contribute to the overall well-being and satisfaction of its employees.

12 PROCUREMENT PROGRESSION PLAN REGULATION 46(C)(VII)

12.1 INTRODUCTION

The Procurement Progression Plan, as outlined in Regulation 46(c)(vii) of Government Gazette regulations under the MPRDA, is a critical component of South Africa's broader efforts to transform the mining industry. This plan is designed to ensure that historically disadvantaged South Africans (HDSAs) and women are meaningfully integrated into the mining supply chain, promoting economic empowerment and addressing the imbalances created by decades of apartheid.

Context and Purpose

The Procurement Progression Plan aims to increase the participation of HDSAs and women in the mining sector by mandating that mining companies procure a significant percentage of their goods and services from companies owned by these groups. The plan is part of a larger strategy to ensure that the economic benefits of mining are shared more equitably across South African society, particularly with those communities that have historically been marginalized.

This plan is intended to foster the development of small and medium enterprises (SMEs) owned by HDSAs, thereby creating opportunities for these businesses to grow and compete on a more level playing field. The broader goal is to create a more inclusive and diversified economy, where the benefits of mining extend beyond the traditional players to include a wider range of stakeholders.

Historical Background

The roots of the Procurement Progression Plan can be traced back to the introduction of the Mining Charter in 2002, which was developed as part of the Mineral and Petroleum Resources Development Act (MPRDA). The Charter was designed to address the inequalities in the mining sector by setting specific targets for the inclusion of HDSAs in ownership, management, and procurement.

Over the years, the Mining Charter has undergone several revisions to strengthen its impact and address challenges in implementation. The most recent iteration, Mining Charter III, introduced in 2018, includes more stringent procurement targets, requiring that a certain percentage of mining goods and services be procured from companies owned by HDSAs, women, and local communities. These measures are intended to accelerate transformation within the industry and ensure that the benefits of mining are more broadly shared.

Recent Court Cases and Legal Developments

The implementation of the Procurement Progression Plan has not been without controversy. The most notable legal challenge came in 2019, when the Minerals Council South Africa (formerly the Chamber of Mines) brought a case against the Department of Mineral Resources and Energy (DMPR) challenging certain provisions of Mining Charter III, particularly those related to procurement and ownership.

The council argued that the new targets imposed by the Charter were unconstitutional and would have negative economic consequences for the mining industry. In 2021, the Pretoria

High Court ruled that certain provisions of the Charter, including aspects of procurement, were policy rather than binding law. This ruling clarified that while the Charter sets important guidelines for transformation, its provisions are not enforceable in the same way as legislation.

This ruling has significant implications for the future of the Procurement Progression Plan, as it suggests that mining companies may have some discretion as to how they achieve the Charter's transformation goals. However, the DMPR has indicated that it remains committed to the principles of the Charter and will continue to push for greater inclusion of HDSAs in the mining industry.

The Procurement Progression Plan under Regulation 46(c)(vii) remains a key mechanism for driving transformation in South Africa's mining industry. Despite legal challenges, the plan continues to play a crucial role in ensuring that the economic benefits of mining are more equitably distributed, fostering the growth of HDSA-owned businesses and contributing to broader socio-economic development. As the industry evolves, the plan will likely continue to be a focal point of policy discussions and legal debates, reflecting the ongoing struggle to balance economic growth with social justice in South Africa.

12.2 PROCUREMENT TARGETS FOR THE MINE

The mine takes cognisance of the different targets in Mining Charter 2 and 3 and is committed to achieving the targets in Mining Charter 2.

Table 23: Mining Charter III targets

Aspect	Commitment	MC3 Targets
Goods (70%)	50% + 1 women and youth owned and controlled companies	5%
	50% + 1% Historically Disadvantaged Persons (HDP) owned and controlled	21%
	BBBEE compliant companies with a minimum of 25% + 1 HDP ownership and at level 4 of the BBBEE codes	44%
Research and Development	% Spend on SA research and development firms	70%
Sample Processing	% Spend on sample processing on SA based firm	100%
Services (80%)	50% + 1 women owned and controlled companies	15%
	50% + 1 youth owned and controlled companies	5%
	50% + 1% Historically Disadvantaged Persons (HDP) owned and controlled	50%
	BBBEE compliant companies with a minimum of 25% + 1 HDP ownership and at level 4 of the BBBEE codes	10%

Table 24: Mining Charter II Commitments

Element	Aspect	Commitment	MC II Targets
Procurement	Consumable Goods	BBBEE compliant companies with a minimum of 25% + 1 HDP ownership and at level 4 of the BBBEE codes	50%
Procurement	Capital Goods	BBBEE compliant companies with a minimum of 25% + 1 HDP ownership and at level 4 of the BBBEE codes	40%
Procurement	Services	BBBEE compliant companies with a minimum of 25% + 1 HDP ownership and at level 4 of the BBBEE codes	70%

12.2.1 FORM T: PROCUREMENT PROGRESSION

Form T for procurement progression will be completed once mining operations commence.

12.2.2 CONCLUSION

In conclusion, the Procurement Progression Plan as outlined in Regulation 46(c)(vii) of Government Gazette regulations under the MPRDA is a pivotal tool in driving the transformation agenda within South Africa's mining sector. It seeks to ensure that the economic benefits of mining are shared more equitably by fostering the inclusion of historically disadvantaged South Africans (HDSAs) and women in the mining supply chain. Despite facing legal challenges, the plan remains central to the industry's commitment to broadening participation, promoting economic empowerment, and addressing historical inequalities. The mine's commitment to achieving the targets set out in both Mining Charter II and III reflects its dedication to this transformative process, ensuring compliance while contributing to the broader socio-economic development of the country. As the industry continues to evolve, the Procurement Progression Plan will remain a key focus, guiding the efforts towards creating a more inclusive and equitable mining sector.

13 PROCESSES PERTAINING TO THE MANAGEMENT OF DOWNSCALING AND RETRENCHMENT REGULATION 46(D)

13.1 ESTABLISHMENT OF A FUTURE FORUM

A FUTURE FORUM *will be* established immediately after the start of operations. The establishment of the Future Forum is outlined in accordance with Regulation 46(d)(i) of the Mineral and Petroleum Resources Development Act (MPRDA). The purpose of the Future Forum is to implement and monitor the Social and Labour Plan of the mine.

Overall, the Future Forum is established as a joint consultative forum to facilitate dialogue, decision-making, and planning between the Company and it's employees, with the aim of addressing retrenchment and job loss issues while promoting business sustainability and growth.

The functions of the Future Forum, includes, *inter alia*, generating awareness of the Social and Labour Plan, acting as a communication mechanism between workers and management, implementing agreed-upon strategies and policies, addressing problems and challenges, discussing retrenchment and downsizing issues, negotiating to avoid job losses and implementing contingency plans, and coordinating the notification process.

The proposed constitution of the Future Forum includes representation from the Company and Employees, with a maximum of five representatives from each party. A quorum of the Future Forum is defined, and an independent chairman and a secretary are appointed. Social Plan assistance and support are provided, and the main objectives of the Future Forum are outlined, including promoting discussion, debating solutions, engaging in strategic planning, implementing solutions, and seeking to limit negative implications for employees.

The funding of the Future Forum is jointly decided, and the Forum is granted certain powers, such as receiving financial reports and exploring turnaround strategies. Participants have obligations and rights, including compliance with fair retrenchment procedures, and the duration of the Future Forum is agreed upon by the parties. Dispute resolution procedures are outlined, including mediation and arbitration.

13.2 MECHANISMS TO SAVE JOBS, AVOID JOB LOSSES AND A DECLINE IN EMPLOYMENT REGULATION 46(D)(II)

The mine is dedicated to promoting job security and mitigating job losses by implementing various mechanisms and initiatives in accordance with Regulation 46(d)(ii) of the Mineral and Petroleum Resources Development Act (MPRDA). Contractors will be expected to support these initiatives, particularly during retrenchment exercises, by endorsing policies focused on retaining skills rather than allowing them to be lost. Contractors will also be encouraged to seek alternative employment opportunities for their employees within their projects or companies, including possible transfers between mining and non-mining operations, if feasible. The mine will actively analyse contractor operations to identify opportunities for skill transfers in the event of retrenchment.

In addition, the mine's skills development strategy will emphasize providing portable skills throughout the mine's life, enabling employees who cannot be transferred to remain economically active during periods of downsizing or retrenchments. To avoid job losses, the mine will consider alternatives such as voluntary or compulsory retirement, voluntary retrenchment, shorter working hours, reduction of overtime, termination of temporary

employees and contractors, a moratorium on new recruitment, redeployment, job-sharing, and other suggestions identified during consultations.

If retrenchments become unavoidable, the mine will manage the process humanely and in full compliance with the Labour Relations Act, 1995. This will include consultations, the implementation of Section 189 of the Act, notification to the Minerals and Mining Development Board in terms of Section 52(1) of the MPRDA, and adherence to Ministerial directives.

The mine will establish communication and consultation platforms involving employees, local community representatives, government authorities, local businesses, and civil society structures. The Future Forum will facilitate employee consultations and report to the LED Forum, which is responsible for development plans. A Community Liaison Forum may also be established, and consultations with stakeholders will occur through the LED Forum. These consultations will address the reasons for potential reductions in the workforce, alternative solutions, the number of affected employees, timeframes, and the support available for affected communities and employees.

When retrenchments are contemplated, the mine will engage in formal Section 189 consultations with recognized employee representatives. Furthermore, a letter will be provided to the Department of Mineral Resources (DMR) for submission to the Minerals and Mining Development Board, as required by Section 52(1) of the MPRDA. Finally, the mine will comply with any Ministerial directives regarding corrective measures during downscaling and retrenchment, confirming the implementation of these measures in writing as required by Section 52(3) of the Act.

13.3 Mechanisms to Provide Alternative Solutions and Procedures for Creating Job Security where Job Losses cannot be Avoided Regulation 46(d)(iii)

Regulation 46(d)(iii) states that mechanisms and procedures must be provided to offer alternative solutions and ensure job security when job losses are unavoidable. To address this, the mine will undertake a comprehensive consultation process in line with the provisions of Section 189 of the Labour Relations Act. This will involve engaging relevant unions, employee representatives, and affected employees in ongoing discussions with the Future Forum. Retrenchment principles will be applied, and detailed information about the mine's financial and operational status will be shared with the Future Forum, unions, and employee representatives. Proposals from these parties will be carefully considered, and creative initiatives will be implemented to minimize the impact of retrenchments.

In cases where retrenchments are necessary, the mine will ensure that all relevant parties are adequately notified. This includes providing sufficient notice to the Minerals and Mining Development Board in terms of Section 52 of the MPRDA, the Future Forum at the mine, the Department of Labour, local municipalities, district municipalities, and the relevant authorities in major labour-sending areas as identified by labour-sending records.

The mine will also implement support mechanisms, within available resources, to assist employees affected by retrenchments. These may include retraining programs, entrepreneurship training, and other relevant development initiatives aimed at enhancing employability. Internal redeployment procedures will be established to guide employees in understanding and utilising opportunities for redeployment within the mine. Job search assistance will be provided, including helping employees access available job opportunities in

other companies or local mines, notifying neighbouring mines of ongoing retrenchments, and maintaining a database of retrenched employees for future vacancies at the mine.

In addition to these practical measures, the mine will offer various forms of counselling to support employees through the retrenchment process. This will include career transition counselling, outplacement counselling, and personal counselling to help address the emotional impact of retrenchment on both retrenched and remaining employees. Financial planning support will also be provided, offering advice on managing finances, accessing pension or provident fund payouts, and facilitating access to unemployment insurance or other state assistance.

These support mechanisms are designed to help affected employees transition to new employment opportunities, access necessary financial resources, and receive emotional support during the challenging process of retrenchment.

13.4 Mechanisms to Ameliorate the Social and Economic Impact of Retrenchment and/or Mine Closure Regulation 46(d)(iv)

Mechanisms will be implemented to manage and, wherever possible, minimise the social and economic impact that a retrenchment exercise may have on individuals, regions, and economies. Given the potential for downscaling and retrenchment exercises to affect not only the mine but also surrounding businesses and communities, careful advance planning and assessments will be required by the mine's management and the Future Forum. The LED section of this document specifically outlines processes that will facilitate sustainable social and economic growth in local communities during the life of the mine. These processes will need to be supported by additional measures to manage the impact of mine closure on both the surrounding communities and those from which labour is sourced.

Communication will be at the forefront of the process, ensuring that all affected parties are made aware of the downscaling and/or retrenchment exercise and the effects it will have on the community. Affected parties will receive feedback and have the opportunity to propose ways to minimise the impact on the socio-economic situation of the area. Before developing detailed closure management plans, specialist consultants will carry out the Socio-Economic Impact Assessment (SEIA). This assessment will involve interaction with both the Future Forum and relevant community structures to accurately gauge the impact of the mine closure.

The plans to manage the socio-economic impact of retrenchments and/or the mine closure must be comprehensive and include a variety of strategies. the mine is committed to conducting thorough and sensitive consultations with various stakeholders, including local communities, government departments, relevant parties, local businesses reliant on the mine, and independent local businesses. This consultation process is aimed at gathering input, addressing concerns, and ensuring open communication throughout the mining process.

The mine will assist retrenched employees in establishing their own businesses and support local businesses in expanding their operations. This includes providing guidance and support during the mine's lifespan, with a specific focus during the retrenchment process. Entrepreneurial initiatives with local businesses and interested employees will be encouraged to foster economic growth and sustainability. The mine will utilise existing mentorship structures established during its operation and align them with the needs of specific groups and structures during retrenchments. Continued mentorship will be provided to empowerment groups and local community structures, with ad hoc mentoring available for entrepreneurs based on project requirements.

The mine will focus on developing portable skills for employees facing retrenchment, supplementing the skills development initiatives implemented during the mine's lifespan. The objective is to enhance not only mine-related skills but also to provide opportunities for employees to transfer their skills to other industries, thereby promoting their employability. The skills development efforts will aim to build on existing skills, address skills gaps, enable employees to manage their careers, and offer relevant business-related training where applicable. Overall, the mine aims to engage in meaningful consultation, support capacity building, provide mentorship opportunities, and enhance skills portability to create sustainable employment and economic opportunities for both retrenched employees and the local community.

13.5 PORTABLE SKILLS

The mine aims to minimize the impact of job losses during downscaling and retrenchment by offering practical training opportunities that enhance employees' labour mobility. The focus is on providing portable skills training that increases employees' chances of finding employment in different sectors. the mine commits to identifying portable skills training options for vulnerable employees during downscaling and retrenchment.

In addition, the mine will consult with the Local Municipality to explore opportunities for collaboration in local economic development (LED) initiatives. The intention is to assist the municipality in their LED job creation activities, thereby reducing the impact of retrenchment on the local communities. The mine will also support its employees in initiating small businesses in the local area by providing portable entrepreneurial skills development training and guidance.

By offering portable skills training and supporting local economic development initiatives, the mine aims to enhance employees' employability, promote entrepreneurship, and mitigate the adverse effects of retrenchment on individuals and the local community.

13.5.1 PORTABLE SKILLS, CERTICATES AND SHORT COURSES

INTRODUCTION TO PORTABLE SKILLS

Portable skills refer to competencies and abilities that individuals can transfer from one job or industry to another, making them versatile and valuable across different sectors. Within the framework of the Mining Qualifications Authority (MQA), portable skills are particularly emphasised to enhance the employability of workers in the mining sector, both within and outside of mining operations. These skills are not limited to mining-specific tasks but are designed to provide workers with the flexibility to pursue career opportunities in various industries.

The primary purpose of portable skills training under the MQA is to equip workers with a broad set of competencies that can be applied beyond the mining sector. Given the cyclical nature of the mining industry and the potential for job displacement due to economic downturns, technological advancements, or mine closures, portable skills are crucial for ensuring that workers can transition into other roles or industries with greater ease. This not only enhances the long-term employability of individuals but also contributes to their economic stability and resilience.

Furthermore, portable skills training aligns with South Africa's broader skills development objectives, which aim to create a more flexible and adaptable workforce capable of meeting the evolving demands of the labour market. By investing in portable skills, the MQA supports the development of a skilled workforce that can contribute to a variety of industries, thereby promoting economic diversification and reducing the dependency on the mining sector.

In summary, the emphasis on portable skills within the MQA framework is designed to ensure that workers in the mining industry are not only proficient in mining-specific tasks but also possess a versatile skill set that enhances their employability across different sectors. This approach helps to secure the long-term livelihoods of workers and supports the broader economic development goals of South Africa.

PORTABLE SKILLS TARGETS

Table 25: Portable Skills Training Targets

Year	Portable Skill / Training Area	Target Group	No. of Trainees	Duration	Budget (4% p.a.)
2026	Bricklaying and Basic Construction Skills	Employees	25	12 weeks	
2027	Bricklaying and Basic Construction Skills	Employees	25	12 weeks	
2028	Bricklaying and Basic Construction Skills	Employees	25	12 weeks	54 080
2029	Bricklaying and Basic Construction Skills	Employees	25	12 weeks	56 243
2030	Bricklaying and Basic Construction Skills	Employees	25	12 weeks	58 493

Bricklaying is an ideal portable skill because it combines immediate employability with lasting practical value. It requires limited prior education, can be mastered through short structured courses, and produces visible, marketable outcomes. Across South Africa's urban and rural settings, there is consistent demand for brick and block work in housing, fencing, and small business construction, meaning trained workers can find or create employment almost anywhere.

The skill translates directly into livelihood opportunities: employees who gain bricklaying competence can apply it during off-season periods, at home, or in their communities, reducing dependency on mine operations. It also supports post-mining economic resilience, as trained staff can transition into self-employment or micro-enterprise ventures. For Ertoscape, this choice aligns naturally with its clay-based production process and uses existing on-site material and equipment, making the training cost-effective and practical.

In essence, bricklaying strengthens both household income security and the long-term sustainability goals of the SLP by linking industrial skill with community-level construction demand.

14 FINANCIAL PROVISIONING REGULATION 46(E)

The mine will provide adequate finances for the SLP projects through the formation of partnerships with possible contractors, employees, local organisations, government, business, non-governmental organisations and the local communities. In doing so, resources will be optimally pooled to provide strength in ensuring successful implementation of its Social and Labour Plan activities. The mine will fund the programmes mentioned below as follows.

14.1 FINANCIAL PROVISIONING FOR THE SLP PROGRAMME

Figure 6: Financial provisional budget

Component	**2026**	**2027**	**2028**	**2029**	**2030**	**Total**
HRD	R –	R –	R 746 428	R 853 209	R 1 041 726	R 2 641 363
LED	R –	R –	R 760 000	R 500 000	R 100 000	R 1 360 000
Portable Skills Training	R –	R –	R 54 080	R 56 243	R 58 493	R 168 816
Total	R –	R –	R 1 560 508	R 1 409 452	R 1 200 219	R 4 170 179

14.2 FINANCIAL PROVISIONING FOR THE MANAGEMENT OF DOWNSCALING AND RETRENCHMENT

In the event of downscaling and retrenchment, financial provisioning will be calculated in accordance with the following principles. These will be calculated per individual affected by downscaling and retrenchment:

Table 14-1 Downscaling and Retrenchment Financial Provisioning

Financial Provisioning	Detail
Severance Package	Severance package of one week's remuneration for every completed year of continuous service at the mine (NB: this will apply only for employees directly employed by the mine and specifically excludes employees employed by the mine's contractors)
Retrenchment Counselling	The cost of retrenchment counselling for retrenched employees
Portable Skills Training	A pre-determined amount per employee for training in a portable skill of the employee's choice as per the Human Resources Development Programme of this Social and Labour Plan

15 UNDERTAKING BY THE MINE RESOURCES REGULATION 46(F)

I _____, the undersigned and

duly authorised thereto by _____ (the mine Vaalbank Colliery)

undertakes to adhere to the information, requirements, commitments and conditions as set out

in the Social and Labour Plan.

Signed at _____.on this _____ day of _____20__

Signature of responsible person _____

Name_____Designation _____

Approved

Signed at _____.on this _____ day of _____20___

Signature _____

Name_____Designation _____

16 ANNEXURES

16.1 FORM Q

To be completed upon commencement of operations

	Employee 1	Employee 2	Employee 3	Employee 4	Employee 5	Employee 6	Contractor 1	Contractor 2	Contractor 3
Surname & Initials									
ID Number									
Race									
Gender									
Occupation / Designation									
Category (Top / Senior / Middle / Junior / Semi-skilled / Unskilled)									
Employment Type(Permanent / Contractor)									
Sending Area / Community / Municipality									
Province									
Date Employed									
Highest Qualification									
Skills Programme / Training Completed									
Remarks									

16.2 ANNEXURE A: EDUCATIONAL CONSULTATIONS

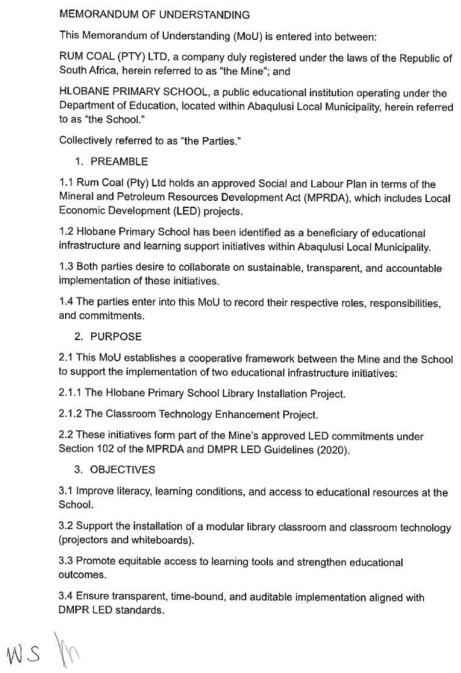
Figure 7: Proof of Consultation with Hlobane School Principal WS Mdlalose

HLOBANE

Rum Coal Stakeholder Attendance Register

NO.	NAME AND SURNAME	ORGANISATION / COMMUNITY	DESIGNATION / ROLE	CONTACT NUMBER	EMAIL ADDRESS	SIGNATURE
1	MS NDLALOSE	HLOBANI PRIMARY	PRINCIPAL	073 773 5946	[illegible]	
2						
3						

Figure 8: Signature of Memorandum of Understanding for School Projects



MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (MoU) is entered into between:

RUM COAL (PTY) LTD, a company duly registered under the laws of the Republic of South Africa, herein referred to as "the Mine"; and

HLOBANE PRIMARY SCHOOL, a public educational institution operating under the Department of Education, located within Abaqulusi Local Municipality, herein referred to as "the School."

Collectively referred to as "the Parties."

1. PREAMBLE

1.1 Rum Coal (Pty) Ltd holds an approved Social and Labour Plan in terms of the Mineral and Petroleum Resources Development Act (MPRDA), which includes Local Economic Development (LED) projects.

1.2 Hlobane Primary School has been identified as a beneficiary of educational infrastructure and learning support initiatives within Abaqulusi Local Municipality.

1.3 Both parties desire to collaborate on sustainable, transparent, and accountable implementation of these initiatives.

1.4 The parties enter into this MoU to record their respective roles, responsibilities, and commitments.

2. PURPOSE

2.1 This MoU establishes a cooperative framework between the Mine and the School to support the implementation of two educational infrastructure initiatives:

2.1.1 The Hlobane Primary School Library Installation Project.

2.1.2 The Classroom Technology Enhancement Project.

2.2 These initiatives form part of the Mine's approved LED commitments under Section 102 of the MPRDA and DMPR LED Guidelines (2020).

3. OBJECTIVES

3.1 Improve literacy, learning conditions, and access to educational resources at the School.

3.2 Support the installation of a modular library classroom and classroom technology (projectors and whiteboards).

3.3 Promote equitable access to learning tools and strengthen educational outcomes.

3.4 Ensure transparent, time-bound, and auditable implementation aligned with DMPR LED standards.

W.S

Note: Mr Mdlalose is busy obtaining the approval project letters for the school projects from the Dept of Education. It is estimated that this will take a while.

5

15. SIGNATURES

For and on behalf of Rum Coal (Pty) Ltd:

Name: _____

Designation: _____

Signature: _____

Date: _____

For and on behalf of Hlobane Primary School:

Name: WELCOME SIHLO MDLALOSE

Designation: PRINCIPA

Signature: _____

Date: 06/11/25

16.3 ANNEXURE B: MUNICIPAL CONSULTATIONS

Figure 9: Mr S Landman, Director Planning and Development

ABAQ. MUNICIPALITY

Rum Coal Stakeholder Attendance Register

NO.	NAME AND SURNAME	ORGANISATION / COMMUNITY	DESIGNATION / ROLE	CONTACT NUMBER	EMAIL ADDRESS	SIGNATURE
1	S. LANDMAN	ABAQ (LM)	DIR: PLANNING	0823054044	slandman@abaqulusi.gov.za	
2					slandman@abaqulusi.gov.za	
3						
4						
5						
6						
7						
8						
9						
10						

Note 2 Mr Landman indicated that he is in a position to sign off on the RUM Coal projects as outlined in this document.

16.4 WARD COUNCILLOR CONSULTATION

Figure 10: Ward Councillor approval of Rum Coal SLP projects

WARD COUNCILLOR

Rum Coal Stakeholder Attendance Register

NO.	NAME AND SURNAME	ORGANISATION / COMMUNITY	DESIGNATION / ROLE	CONTACT NUMBER	EMAIL ADDRESS	SIGNATURE
1	M.P KHUMALO	WARD 7 cllr		(073) 2228 9999	mzingenkosa khumalo@gmail.com	
2						
3	I hereby accept ~~the~~ and support the school					
4	development and community skills development					
5	project for this SLP. I understand that I will					
6	be consulted on any changes or new projects.					
7						
8				6/11/2025		
9						
10						

16.5 HLOBANE STAKEHOLDER FORUM

Figure 11: Stakeholder Consultation – agreed to current SLP projects

Rum Coal Stakeholder Attendance Register

NO.	NAME AND SURNAME	ORGANISATION / COMMUNITY	DESIGNATION / ROLE	CONTACT NUMBER	EMAIL ADDRESS	SIGNATURE
1	LINDELANI NTOMBELA	HLOBANE		0609025474	Lindelani 1340 @ gmail.com	
2	WETHU KHUMALO	HLOBANE		0714569647	[illegible]	
3	Zodwa Sindane	Hlobane		0724372137	[illegible]	
4	Riana Blanche'	Hlobane (PHO)		0840321903	rianablanche8@gmail.com	
5	Kebogang Kabini	Hlobane (PHO)		0711889448	bebalifekabini@gmail.com	
6						
7						
8						
9						
10						

Note 3: Dated - 8 November 2025

School Board Approval

HLOBANI PRIMARY MINE SCHOOL
40 Thuthukani, Hlobane, 3145
hlobani-ps@kznschools.gov.za
+27 8104 37410

HLOBANI PRIMARY SCHOOL
40 THUTHUKANI, HLOBANE
3145
13 November 2025

TO: MANAGEMENT OF RUM COAL(PTY) LTD

SUBJECT: APPROVAL FOR SPONSORSHIP-LIBRARY PROJECT

Dear Sir/Madam

The School Governing Body (SGB) of Hlobani Primary School hereby confirms and grants approval for RUM COAL (Pty) ltd to sponsor our school through the construction and establishment of a new school library.

The SGB has thoroughly considered your proposal and acknowledges the positive impact this sponsorship will have on our learners, teachers, and the wider community. The library will play a significant role in improving literacy, promoting a culture of reading, and supporting academic excellence within our school.

We appreciate your willingness to invest in the future of our learners and to contribute meaningfully to our educational environment. Your partnership aligns with our vision of providing quality education and adequate learning resources.
Kindly note that the school will fully cooperate with your team throughout the planning, implementation and handover phases of the project. Any additional documentation or compliance requirements can be communicated directly to the principal or the SGB chairperson.

On behalf of the School Governing Body, we express our sincere gratitude for your generous support and commitment to our school.

Yours faithfully,

Bongani Khumalo
SGB Chairperson
Cell No. 071 992 3727

Welcome Sfiso Mdlalose
Principal
Cell No. 073 773 5946/081 043 7410

DEPARTMENT OF EDUCATION
HLOBANI PRIMARY M. SCHOOL
13 NOV 2025
40 THUTHUKANI, HLOBANE 3145
081 043 7410
PRINCIPAL

APPENDIX C: SECTION APPLICATION – RECORD NUMBER: KZN-000035-MR/102

Welcome to the DMRE online aplication portal

Home | Update My Profile | FAQs | Contact | Log Off

Application ID:	2606	Record Number:	KZN-00035-MR/102

Reference Number of Right	KZN30/5/1/2/2/10049R	Region	Kwa Zulu Natal
Type of Right	Mining Right	Right Holder Name	T and D Consulting and Investments (Pty)
MPT Number	31/2021		

INDICATE THE TYPE OF AMENDMENT OR VARIATION REQUESTED IS MADE

Note* The extension or reduction of an area and the addition or subtraction of shares of seams, mineralised bodies or strata always require amendment of the applicable work programme and the applicable Environmental Management Plan or Programme. When acquiring a portion of another existing right the variation of that right and transfer thereof, also requires consent in terms of the provisions of sections 11 and 102 of the Act.

Reduction of an area or subtraction of minerals	
Is the area being reduced for purposes of abandonment?	N
Is the area being reduced in order to incorporate the balance into another right?	N

Addition or subtraction of shares of seams, mineralised bodies or strata	
Is the right being varied for purposes of abandonment?	N
Is the right being varied in order to incorporate the balance into another right?	N
Is the right being varied in order to acquire additional resources from another right?	N
Is the right being varied to accommodate a subletting, subcontracting, or tribute arrangement?	N

	All uploaded documents must be PDF		
Select the Document to Upload	Copy of the registered cession (section 11) in respect of the a	Choose File No file chosen	Upload
	The revised Social and Labour Plan (in cases of mining rights).(If applicable)		

Document Name	File Name	Delete Document	Download Document
	Section 102 application covering letter.pdf	Delete	Download
Completed Section 102 template.	Application in terms of Section 102.pdf	Delete	Download
Approved Regulation 42 plan of the existing right.	Plan of existing mining right.pdf	Delete	Download
Regulation 2(2) plan dipicting revised area.	Plan for Section 102 application.pdf	Delete	Download
Copy of the existing right.	Mining Right 06.09.2018.pdf	Delete	Download
The revised mining or prospecting work programme as the case may be.	Mining Work Programme.pdf	Delete	Download
Environmental Management Programme	EMPR.pdf	Delete	Download
The revised Social and Labour Plan (in cases of mining rights).(If applicable)	Social and Labour Plan.pdf	Delete	Download

Cancel Application | Submit Application

APPENDIX D: ACKNOWLEDGMENT OF RECEIPT OF AN APPLICATION FOR ENVIRONMENTAL AUTHORISATION

mineral & petroleum resources
Department:
Mineral and Petroleum Resources
REPUBLIC OF SOUTH AFRICA

Private Bag X 54307, DURBAN, 4000, 12 Joe Slovo Street Mansion House, DURBAN, Tel (031) 335 9600

Enquiries: Ms M. Kolani Email: mulalo.kolani@dmpr.gov.za Reference: KZN30/5/1/2/2/286MR

THE MANAGER
F& D CONSULTING AND INVESTMENTS (PTY) LTD (RUM COAL (PTY) LTD)
21 RADCLIFF HEIGHTS
CORNER OF RADCLIFFE AND KORHAAN STREETS
STERREWAG
0181

ACKNOWLEDGEMENT OF RECEIPT OF AN APPLICATION FOR AN AMENDMENT OF AN ISSUED ENVIRONMENTAL AUTHORISATION FOR A MINING RIGHT LODGED IN TERMS OF REGULATION 31 OF THE EIA REGULATIONS, 2014 AS AMENDED (HEREIN REFERRED TO AS THE "EIA REGULATIONS") TO EXPAND THE MINING AREA BY ADDING ADJACENT FARMS: PORTION OF REMAINDER OF PORTION 1 OF VAALBANK 38 HU, PORTION OF PORTION 5 OF FARM HLOBANE 506 HT AND REMAINDER OF PORTION 6 OF THE FARM RIETVLEI 150 HU SITUATED IN THE MAGISTERIAL DISTRICT OF VRYHEID, KWAZULU NATAL PROVINCE.

1. The application for an amendment of environmental authorisation lodged on 26 August 2025 and received by this office on 04/09/2025 is hereby acknowledged. Kindly note the following:

2. In terms of Regulation 15 of the 2014 NEMA Regulations, an Environmental Assessment Practitioner (EAP) must identify whether a basic assessment or scoping & environmental impact reporting process must be applied to the application taking into account any notices published in terms of section 24D of the Act.

3. The investigation, assessment and communication of the potential impact of activities must therefore follow the procedure as prescribed in EIA regulations, 2014 as amended in line with the listed activities as identified by your EAP. Also take into account the minimum requirements with regard to relevant specialist studies which should be undertaken for any development or projects. It is the EAP's responsibility to identify the specialist studies required in order to avoid delay in processing and finalisation of the application.

4. It must be noted that acknowledgement of your application does not grant you permission to commence with **MINING** activities. Commencement of a listed activity without an environmental authorisation constitutes an offence in terms of Section 49A (1) (a) of NEMA, 1998 (Act 107 of 1998) as amended and upon conviction for such an offence, a person is liable to a fine not exceeding R10 million or to imprisonment for a period not exceeding ten years, or to both such fine and such imprisonment.

5. Your attention is drawn to Point 3 on page 1 of the EA application form read with Section 8 in respect of the need to lodge proof of an application for a water use licence.

6. The Public Participation Process must comply with regulation 40 – 44 of the EIA Regulations, 2014 (as amended).

7. You are advised that in terms of Regulation 40 (2) (b) & (c) of the NEMA EIA Regulations *"The public participation process contemplated in this regulation must provide access to all information that reasonably has or may have the potential to influence any decision with regard to an application unless access to that information is protected by law and must include consultation with - (b) every State department that administers a law relating to a matter affecting the environment relevant to an application for an environmental authorisation, (c) all organs of state which have jurisdiction in respect of the activity to which the application relates"*.

8. This aforementioned consultation with Organs of State must include but not be limited to Ezemvelo KZN Wildlife, Department of Water and Sanitation, National Department of Agriculture, Land Reform and Rural Development, AMAFA KZN and South African Heritage Resources Agency (SAHRA).

KZN30/5/1/2/2/286MR – F&D CONSULTING AND INVESTMENTS (PTY) LTD (RUM COAL (PTY) LTD).

9. Kindly note that you will be required to upload a copy of the final environmental reports and its supporting documentation online and must lodge 3 hard copies at the Regional Office as required by regulation 32 (1) (a) of EIA Regulations, 2014 as amended. The report must comply with minimum requirements as outlined in Appendix 1 of EIA Regulations, 2014 (as amended).

Yours faithfully

pp.....
REGIONAL MANAGER: MINERAL REGULATION
KWAZULU NATAL REGION
DATE 10/11/2025

KZN30/5/1/2/2/286MR – F&D CONSULTING AND INVESTMENTS (PTY) LTD (RUM COAL (PTY) LTD).

APPENDIX E: STAKEHOLDER DATABASE

Contact Name	Organisation	Position Title
Mr Z.N. Dlamini	Agriculture and Rural Development	Head of Department
Mr Ntokozo Mdlalose	Agriculture and Rural Development	Head of Department: Executive Support
SE. Mkhwanazi	Abaqulusi Local Municipality	The Mayor, Cllr.
Nonkululeko P. Ndlela	Abaqulusi Local Municipality	Hon. Cllr. Nonkululeko P. Ndlela
MA Mazibuko	Abaqulusi Local Municipality	Hon. Cllr.
Mr Khumalo	Abaqulusi Local Municipality	Councillor Ward 7
Boomlaer Lethu Khumalo	Forum	Forum Member
Draaifontein Zodwa Simelane	Forum	Forum Member
Masikane Bonga Mdletshe	Forum	Forum Member
Hlobani Lindelani Xulu	Forum	Forum Member
Ms Thobile Mbatha	Department of Mineral and Petroleum Resources	Chief Director - Office of Director General
Mulalo Kolani	Department of Mineral and Petroleum Resources	Case Officer
Karoon Moodley	Department of Mineral and Petroleum Resources	
Moleboheng Sekhonyana	Department of Mineral and Petroleum Resources	
Ms. Halala L Mdletshe	Department of Water Affairs, Dundee office	
Mr.J.S. Mbhele	Head of Transport	
Nokukhanya Mkhize	AMAFA Institute	Deputy Director Heritage Identification & Management & Protection

Contact Name	Organisation
	Hlobane Police Station
	South African Heritage Resources Agency
Mampho Selokoma	African Litany
Melissa Moffett	African Litany
Andy Blackmore	Ezemvelo: KwaZulu Natal Wildlife
Nerissa Pillay	Ezemvelo: KwaZulu Natal Wildlife
Jenny Longmore	Ezemvelo: KwaZulu Natal Wildlife

Representative	Community
Representatives from Qedindlala	Qedindlala
Representatives from Khethukuthula	Khethukuthula

Contact Name	Organisation/Business Name
Geoff Silk	Geoff Silk Civil and Mining Consultants CC
Patrick Friend	Meat Master: Managing Director
Johann Boonzaaier	Impala Water Users Association: Chief Executive Manager
Sarel Swart	Exxaro – Manager Rehabilitation Development
Jacques Smit	Exxaro Resources Ltd.
Mike Seeger	MX Mining Capital Advisors

APPENDIX F: NEWSPAPER ADVERTISEMENT

Public works MEC inspects R84-mil problematic Nkonjeni Hospital project

On Friday, October 16, MEC for KZN Public Works and Infrastructure, Martin Meyer, conducted inspections at Nkonjeni Hospital (Ulundi), following several challenges and complaints around the progress of the project underway at the health facility.

Work at the facility commenced in July 2020 which, once completed, would see it boasting an upgraded maternity complex, mothers' lodge and support services.

The 207-bed hospital was to also benefit from additional power supply to ensure elimination of any disruptions.

The district hospital services a vast Northern KZN rural community as well 16 local clinics with residents and mothers benefitting the most from much-needed services offered.

Since its commencement in July 2020, the project has been plagued by several disruptions, including:

- Community unrest
- Late payments
- Substandard workmanship
- Continuously missed deadlines

Prior to the project commencement, the facility was found to have suffered roof and partial structural damage affecting the mothers' lodge.

Meyer's visit comes amidst KZN Public Works and Infrastructure's commitment to no longer tolerate substandard delivery by contractors which has led to the blacklisting of repeat offenders.

"This is one of the projects that the department will be placing under investigation," said Meyer. "It comes following a commitment, by the department, to clear long-standing stalled and disrupted projects which are the focus of structures like the Rapid Response Team whose purpose is to identify and investigate stalled projects so that communities can benefit sooner from services.

"So far, more than R260-million worth of stalled projects have been identified and resumed." Last month, Meyer divulged that the department had unearthed sufficient evidence of alleged financial collusion between contractors and department officials, as well as interference in the Supply Chain Management (SCM) processes which resulted in some projects being delayed by up to 10 years and costing the department millions of rands.

The Rapid Response Team (RRT) was established to address challenges of persistent Material Irregularities (MI), financial management, procurement process delays, fraud and corruption, and non-compliance with regulatory requirements, particularly in supplier payment.

"The issue of deliberately delayed and stalled projects is now a major burden on the province's fiscal budget, and it's costing taxpayers a lot of money which could be channelled towards building more critical infrastructure. As with the new Public Works and Infrastructure, the issue of not delivering in time is unavoidable and we need to work with speed and increase efforts.

We are aware that part of the reasons we have delayed projects is because of serious collusion between senior officials and prominent contractors.

We are also investigating the possible exchange of monies, and we will ensure that the perpetrators are brought to book," said Meyer.

NOTICE OF APPLICATION FOR ENVIRONMENTAL AUTHORISATION APPLICATION TO INCORPORATE THE EXISTING PROSPECTING RIGHT (KZN30/5/1/1/2/11154PR) INTO THE EXISTING MINING RIGHT (KZN30/5/1/2/2/286MR)

GCS REFERENCE NUMBER: 25-0327

NOTICE: Notice is hereby given in terms of Chapter 6 of Government Notice Regulation (GN R) 982 published under Sections 24(5) and 44 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), for the submission of an application for an Environmental Authorisation (EA) in respect of Activity 21D of GN R 983. This application forms part of a Section 102 amendment in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA) to amend the mining and prospecting rights listed below:

- Existing Mining Right (MR): KZN30/5/1/2/2/286MR;
- Existing Prospecting Right (PR): KZN30/5/1/2/11154PR.

LOCATION AND PROJECT DESCRIPTION: Rum Coal (Pty) Ltd (Rum Coal) is the holder of the Vaalbank Colliery, situated within the Abaqulusi Local Municipality in the Vryheid Magisterial District of KwaZulu-Natal Province, approximately 25 km east of the town of Vryheid. The company currently holds MR (KZN30/5/1/2/2/286 MR) and a PR (KZN30/5/1/2/11154 PR). The MR applies to a portion of the Remainder of Portion 1 of the Farm Vaalbank 38 HU (now Portion 25 (of 1) of the Farm Vaalbank No. 38 HU) and a portion of Portion 5 of the Farm Hlobane 336 HT. The PR is held over the Remainder of Portion 6 (of Portion 2) of the Farm Rietdal 150 HU. To support the continuation of mining operations, Rum Coal has applied for a Section 102 amendment in terms of the MPRDA. The application seeks to incorporate the 56.64 ha prospecting area on Rietdal 150 HU into the existing MR.

LEGISLATIVE REQUIREMENTS: In terms of the NEMA, read together with GN R 982, an EA is required for Activity 21D of GN R 983. As such, a Basic Assessment (BA) process must be undertaken in accordance with the procedures set out in the GN R 982.

ENVIRONMENTAL ASSESSMENT PRACTITIONER: GCS Environment SA (Pty) Ltd (GCS) has been appointed as the independent Environmental Assessment Practitioner to facilitate the application process with the KwaZulu-Natal Department of Mineral and Petroleum Resources.

INVITATION TO PARTICIPATE AND COMMENT ON THE DRAFT BASIC ASSESSMENT REPORT: The Draft BA Report will be available for public review and comment from 20 October 2025 to 22 November 2025 at the locations noted in the table below. Written comments and substantiated issues must be submitted to GCS by 22 November 2025.

Place	Address
Vryheid Library	Cnr Mark and High Street, Vryheid, KwaZulu-Natal
GCS Website	https://www.gcs-sa.biz/public-documents/

Interested and Affected Parties who wish to register, participate by contributing comments or who would like to obtain more information, should please contact:

GCS Environment South Africa (Pty) Ltd
Attention: Paula Volkwinkoff / Layanda Machoko
Tel: +27 (011) 805 5726, Fax: +27 (011) 805 5232
E-mail: pvp@gcs-sa.biz / lsgumbao@gcs-sa.biz
Postal Address: PO Box 2069, Rivonia, Johannesburg, 2128

IQBAL KHAN

Cape Town marathon is cancelled

OFF THE BALL
by Iqbal Khan

*The much-anticipated Cape Town marathon was cancelled due to bad weather. The marathon which was supposed to have taken place on Sunday morning, has been cancelled due to safety concerns after gale force winds blew over temporary structures along the route which could've jeopardised the safety of runners and spectators. Twenty-four thousand runners entered the race, some of whom had already arrived at the starting point when it was called off at 5 AM. It is also a set back for the organisers. This year's event was supposed to be phase two of their bid to secure Abbott World Marathon Major status. There are currently seven major city marathons, including New York, London, Tokyo and Sydney.

*Players refused to move for the first 15 seconds of matches in La Liga on Saturday as protests at the Spanish league's decision to stage a game in Miami continued. The high-profile fixtures involving Barcelona and Atletico Madrid, who had home games against Girona and Osasuna respectively, followed the precedent set by Oviedo and Espanyol on Friday evening. There were identical protests at Sevilla v Mallorca and Villarreal v Real Betis. In August, the Spanish football federation (RFEF) approved plans to move Villarreal's fixture against Barcelona to the Hard Rock Stadium on 20 December - a decision which sparked discontent in Spain. The Spanish Footballers' Association (AFE) said in a statement they had co-ordinated with the captains of each La Liga club to "protest symbolically" against the league's "lack of transparency, dialogue and coherence".

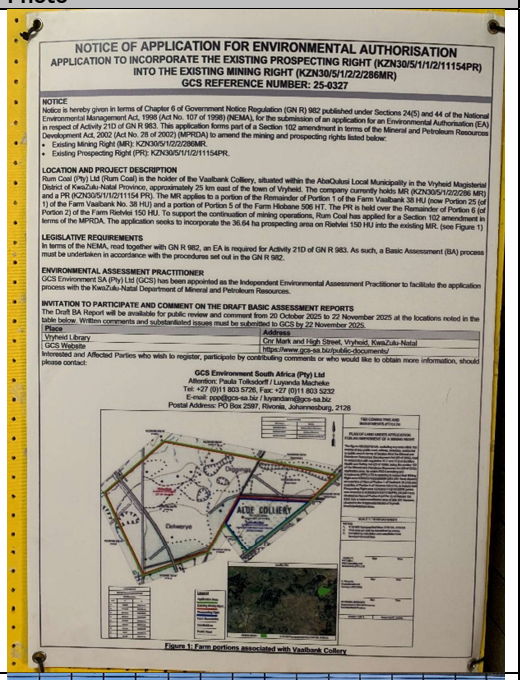
*Incumbent Mohammed Ben Sulayem is poised to stand unopposed in December's election for the presidency of motorsport's governing body, the FIA. Three potential candidates had expressed an interest in standing - American Tim Mayer, Swiss former racing driver Laura Villars, external and Belgian journalist Virginie Philpott, external. But a quirk of the FIA's election rules means that no other candidate is able to challenge Ben Sulayem. Presidential candidates must submit a list of their prospective vice-presidents for sport, which must be selected from each of the FIA's six global regions. But the world council list contains only one candidate from South America, Brazilian Fabiana Ecclestone - wife of former F1 boss Bernie. She is already a member of Ben Sulayem's team. That prevents any other candidate from naming a potential vice-president for sport from South America, which means no-one else can enter the election.

*Sports Minister Gayton McKenzie has requested a detailed report from the South African Football Association (SAFA) regarding the circumstances that led to Bafana Bafana being stripped of their victory over Lesotho in a 2026 FIFA World Cup qualifier in March. It stemmed from fielding an ineligible player, Teboho Mokoena.
He says the incident not only jeopardized the national team's qualification prospects but also raised significant concerns about administrative oversight within SAFA. Bafana beat Rwanda last week to qualify for next year's World Cup, after which SAFA president, Danny Jordaan, said the matter is considered dealt with. But the Sports Minister says transparency and accountability must be prioritised. McKenzie also wrote to FIFA saying it's not his intention to interfere in the administration of football in the country. Methinks some idiot in the SAFA hierarchy must be investigated for such an administrative cock-up. It's a disgrace.

*Cecilia Molokwane was the president of Netball SA as well as Africa Netball and also sat on the board of the international body. Molokwane was suspended in April amid a disciplinary process opened against her by World Netball, following anonymous allegations made to the world governing body. World Netball has issued an invoice demanding Netball South Africa pay for legal fees for the preliminary investigation conducted on suspended President Cecilia Molokwane. Netball SA is up in arms over such invoice as it contends it is unfair for the federation to pay for proceedings that do not reflect an internal mandate, but rather stems from an anonymous whistleblower's report.

(The views in this column do not necessarily represent those of the Northern Natal News or its proprietors)

APPENDIX G: SITE NOTICES

No.	Place	Coordinates	Photo
1	Vryheid Library	27° 46′ 08.58″ S 30° 47′ 38.47″ E	
2	Site	27° 43′ 28.06″ S 31° 01′ 05.45″ E	

NOTICE OF APPLICATION FOR ENVIRONMENTAL AUTHORISATION
APPLICATION TO INCORPORATE THE EXISTING PROSPECTING RIGHT (KZN30/5/1/1/2/11154PR) INTO THE EXISTING MINING RIGHT (KZN30/5/1/2/2/286MR)
GCS REFERENCE NUMBER: 25-0327

NOTICE
Notice is hereby given in terms of Chapter 6 of Government Notice Regulation (GN R) 982 published under Sections 24(5) and 44 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), for the submission of an application for an Environmental Authorisation (EA) in respect of Activity 21D of GN R 983. This application forms part of a Section 102 amendment in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA) to amend the mining and prospecting rights listed below:
- Existing Mining Right (MR): KZN30/5/1/2/2/286MR.
- Existing Prospecting Right (PR): KZN30/5/1/1/2/11154PR.

LOCATION AND PROJECT DESCRIPTION
Rum Coal (Pty) Ltd (Rum Coal) is the holder of the Vaalbank Colliery, situated within the AbaQulusi Local Municipality in the Vryheid Magisterial District of KwaZulu-Natal Province, approximately 25 km east of the town of Vryheid. The company currently holds MR (KZN30/5/1/2/2/286 MR) and a PR (KZN30/5/1/1/2/11154 PR). The MR applies to a portion of the Remainder of Portion 1 of the Farm Vaalbank 38 HU (now Portion 25 (of 1) of the Farm Vaalbank No. 38 HU) and a portion of Portion 5 of the Farm Hlobane 506 HT. The PR is held over the Remainder of Portion 6 (of Portion 2) of the Farm Rietvlei 150 HU. To support the continuation of mining operations, Rum Coal has applied for a Section 102 amendment in terms of the MPRDA. The application seeks to incorporate the 36.64 ha prospecting area on Rietvlei 150 HU into the existing MR. (see Figure 1)

LEGISLATIVE REQUIREMENTS
In terms of the NEMA, read together with GN R 982, an EA is required for Activity 21D of GN R 983. As such, a Basic Assessment (BA) process must be undertaken in accordance with the procedures set out in the GN R 982.

ENVIRONMENTAL ASSESSMENT PRACTITIONER
GCS Environment SA (Pty) Ltd (GCS) has been appointed as the Independent Environmental Assessment Practitioner to facilitate the application process with the KwaZulu-Natal Department of Mineral and Petroleum Resources.

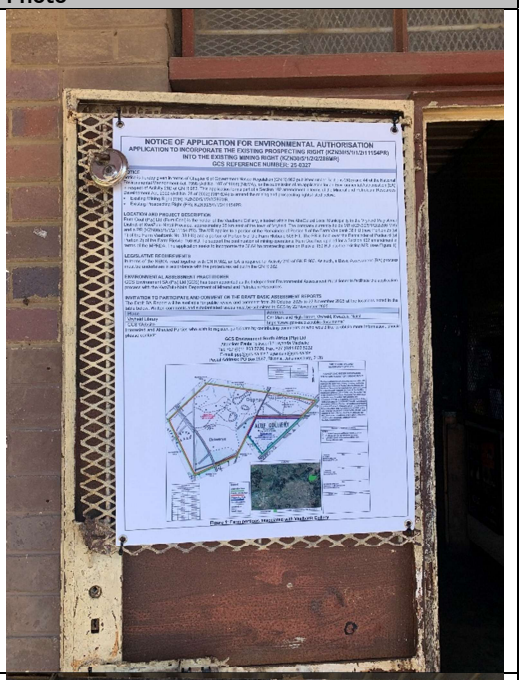
INVITATION TO PARTICIPATE AND COMMENT ON THE DRAFT BASIC ASSESSMENT REPORTS
The Draft BA Report will be available for public review and comment from 20 October 2025 to 22 November 2025 at the locations noted in the table below. Written comments and substantiated issues must be submitted to GCS by 22 November 2025.

Place	Address
Vryheid Library	Cnr Mark and High Street, Vryheid, KwaZulu-Natal
GCS Website	https://www.gcs-sa.biz/public-documents/

Interested and Affected Parties who wish to register, participate by contributing comments or who would like to obtain more information, should please contact:

GCS Environment South Africa (Pty) Ltd
Attention: Paula Tolkodorff / Luyanda Machoke
Tel: +27 (0)11 803 5726, Fax: +27 (0)11 803 5232
E-mail: ppd@gcs-sa.biz / luyandam@gcs-sa.biz
Postal Address: PO Box 2597, Rivonia, Johannesburg, 2126

Figure 1: Farm portions associated with Vaalbank Colliery

No.	Place	Coordinates	Photo
3	Shop 1	27° 44′ 22.92″ S 31° 00′ 22.54″ E	
4	Shop 2	27° 43′ 04.08″ S 31° 00′ 16.85″ E	

APPENDIX H: BACKGROUND INFORMATION DOCUMENT

63 Wessel Road, Rivonia, 2128 PO Box 2597, Rivonia, 2128 South Africa
Tel: +27 (0) 11 803 5726 Fax: +27 (0) 11 803 5745 Web: www.gcs-sa.biz

Section Break (Continuous)

BACKGROUND INFORMATION DOCUMENT

APPLICATION FOR ENVIRONMENTAL AUTHORISATION TO INCORPORATE THE EXISTING PROSPECTING RIGHT (KZN30/5/1/1/2/11154PR) INTO THE EXISTING MINING RIGHT (KZN30/5/1/2/2/286MR)

GCS REFERENCE NUMBER: 25-0327

PURPOSE OF THE DOCUMENT

The purpose of this document is to provide Interested and Affected Parties (I&APs) with information regarding a Section 102 application to incorporate a Prospecting Right into an existing Mining Right.

The aim of this document is to:

- ⇒ Invite your participation and registration as an I&AP.
- ⇒ Provide information about the proposed application.
- ⇒ Indicate how I&APs can become involved in the process, receive information, raise issues, and comment.

PROJECT DESCRIPTION

Rum Coal (Pty) Ltd (Rum Coal) is the owner of the Vaalbank Colliery, situated within the AbaQulusi Local Municipality in the Vryheid Magisterial District of KwaZulu Natal Province, approximately 25 km east of the town of Vryheid. The company currently holds a Mining Right (MR) (KZN30/5/1/2/2/286 MR) and a Prospecting Right (PR) (KZN30/5/1/1/2/11154 PR). The MR applies to a portion of the Remainder of Portion 1 of the Farm Vaalbank 38 HU (now Portion 25 (of 1) of the Farm Vaalbank No. 38 HU) and a portion of Portion 5 of the Farm Hlobane 506 HT. The PR is held over the Remainder of Portion 6 (of Portion 2) of the Farm Rietvlei 150 HU (Figure 2)

To support the continuation of mining operations, Rum Coal has applied for a Section 102 amendment in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA). The application seeks to incorporate the 36.64 hectare (ha) prospecting area on Rietvlei 150 HU into the existing MR.

The proposed amendment will expand the colliery's operational footprint while maintaining the approved production rate. This extension will also increase the mine's operational life from approximately five years to ten years, ensuring the sustained supply of coal to the trading company with whom Rum Coal has an offtake agreement. Coal will continue to be transported either by haul trucks over a distance of approximately 6 kilometres (km) to the Hlobane railway siding or directly via road.

In terms of the Environmental Impact Assessment (EIA) Regulations, 2014, promulgated under the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), the proposed amendment triggers Activity 21(d) of Listing Notice 1 (Government Notice Regulation (GN R) 983), which relates to any activity (including the continued operation thereof) requiring an amendment or variation of a right or permit in terms of Section 102 of the MPRDA. As such, a Basic Assessment (BA) process must be undertaken in accordance with the procedural requirements set out in GN R 982.

GCS Water and Environment (Pty) Ltd (GCS) has been appointed as the independent Environmental Assessment Practitioner (EAP) to manage the BA process.

EXISTING AUTHORISATIONS

Rum Coal holds the following authorisations for its operations in the AbaQulusi Local Municipality:

Mining Right

Rum Coal is the holder of Mining Right KZN30/5/1/2/2/286 MR, which applies to a portion of Subdivision of the Farm Hlobane No. 506 HT and a portion of the Remainder of Portion 1 of the Farm Vaalbank No. 38 HU. The associated Environmental Management Programme (EMPr) was approved in terms of Section 39 of the MPRDA on 6 September 2018.

Prospecting Right

Rum Coal also holds Prospecting Right KZN30/5/1/1/2/11154 PR, granted over the Remainder of Portion 6 (of Portion 2) of the Farm Rietvlei No. 150 HU, in terms of Regulation 52 of the MPRDA approved on 28 May 2013.

REQUIRED AUTHORISATIONS

In terms of the NEMA, read together with the EIA Regulations, 2014, an Environmental Authorisation (EA) is required for the following listed activity:

- GN R 983 (Listing Notice 1), Activity 21D: Any activity including the operation of that activity which requires an amendment or variation to a right or permit in terms of section 102 of the Mineral and Petroleum Resources Development Act, as well as any other applicable activity contained in this Listing Notice or in Listing Notice 3 of 2014, required for such amendment.

As such, a BA process must be undertaken in accordance with the procedures set out in the EIA Regulations, 2014.

DELEGATED COMPETENT AUTHORITY

The delegated competent authority responsible for administering and implementation of the relevant legislation is the KwaZulu Natal Department of Mineral and Petroleum Resources (DMPR).

WHAT IS BASIC ASSESSMENT

A BA is a streamlined environmental assessment process prescribed for activities that are anticipated to have limited or site specific environmental impacts that can be mitigated without the need for a full Environmental Impact Assessment. This process is regulated under Section 24 of the NEMA and applies to activities listed in GN R 983.

Before any listed activity can commence, an EA must be obtained from the relevant competent authority, in this case the Free State DMPR.

THE BASIC ASSESSMENT PROCESS

The BA process comprises several key phases that ensure compliance with legal requirements and facilitate public participation. The process is summarised below and illustrated in Figure 1:

Phase 1: Notification of Authorities

An official application for EA was submitted on 04 September 2025 to the KwaZulu Natal DMPR. This application triggered the formal commencement of the BA process under the NEMA.

Phase 2: Public Participation Process

Public participation is a cornerstone of the BA process and is undertaken in accordance with Chapter 6 of GN R 982. It ensures transparency, inclusivity, and meaningful engagement with I&APs.

Step 1: Notification and Issue Identification

- I&APs will be notified of the proposed Project through direct communication and public notices.
- A Background Information Document will be distributed, providing an overview of the Project, a locality map, and a registration/comments form.
- I&APs will be invited to register their interest in order to receive further information.

Step 2: Review of the Draft Basic Assessment Reports

- A Comment and Response Report (CRR) will be compiled to document all input received from I&APs during Step 1.
- The Draft Basic Assessment Reports (BAR) and the Environmental Management Programmes (EMPr) will be released for a formal 30 day public review period from 20 October 2025 to 22 November 2025.
- The documents will be made available for viewing at designated public locations and on the GCS website. You are hereby invited to review the Draft BAR and submit comments during the public comment period, which will run from 20 October 2025 to 22 November 2025 at the following locations:
  - Vryheid Library, Cor Mark and High Street, Vryheid.
  - GCS Website: https://www.gcs-sa.biz/public-documents/

Written comments and substantiated issues must be submitted to GCS by 22 November 2025.

Step 3: Submission of the Final Basic Assessment Reports

- ⇒ All comments received during the public review period will be considered in the preparation of the Final BAR.
- ⇒ The Final BAR, along with the final EMPr and updated CRR, will then be submitted to the DMPR for consideration and decision-making.
- ⇒ All I&APs on the Project database will be notified of the submission of the Final BAR to the DMPR and again once the DMPR has issued its decision.

Step 4: Notification of Environmental Authorisations and Appeal Period

- ⇒ Once the EAs have been issued by the DMPR, all registered I&APs will be informed of the outcomes.
- ⇒ The notifications will include details on the statutory appeal period and guidance on the procedure to lodge an appeal, in accordance with the relevant provisions of the Regulation.

Phase 1

Submit Application Forms to the DMPR

Authority Acknowledgement

Phase 2: Steps 1 and 2

Commence and Announce BA Process

Comment Period (20 October to 22 November 2025)

Consider comments received and finalise reports

Submit Final BAR to the DMPR (December 2025)

Phase 2: Steps 3 and 4

DMPR Acceptance of submissions of the Final BAR

DMPR Decisions and Notifications

Appeal Phase

Figure 1: Diagrammatic representation of the Basic Assessment Process to be followed

REGISTERING AS AN INTERESTED AND AFFECTED PARTY

By registering as an I&AP, you will be included in the Project stakeholder database and receive further information in future for comment. Your comments will ensure that all relevant issues are incorporated and addressed.

Please complete and submit the enclosed registration / comment sheet or contact GCS if you wish to comment or register on the Project. I&APs who wish to participate by contributing comments, or who would like to obtain more information, should please contact:

GCS Environment South Africa (Pty) Ltd
Attention: Paula Tolksdorff / Luyanda Macheke
Tel: +27 (0)11 803 5726
Fax: +27 (0)11 803 5232
E-mail: ppp@gcs-sa.biz / luyandam@gcs-sa.biz
Postal Address: PO Box 2597, Rivonia, Johannesburg, 2128

Section Break (Continuous)

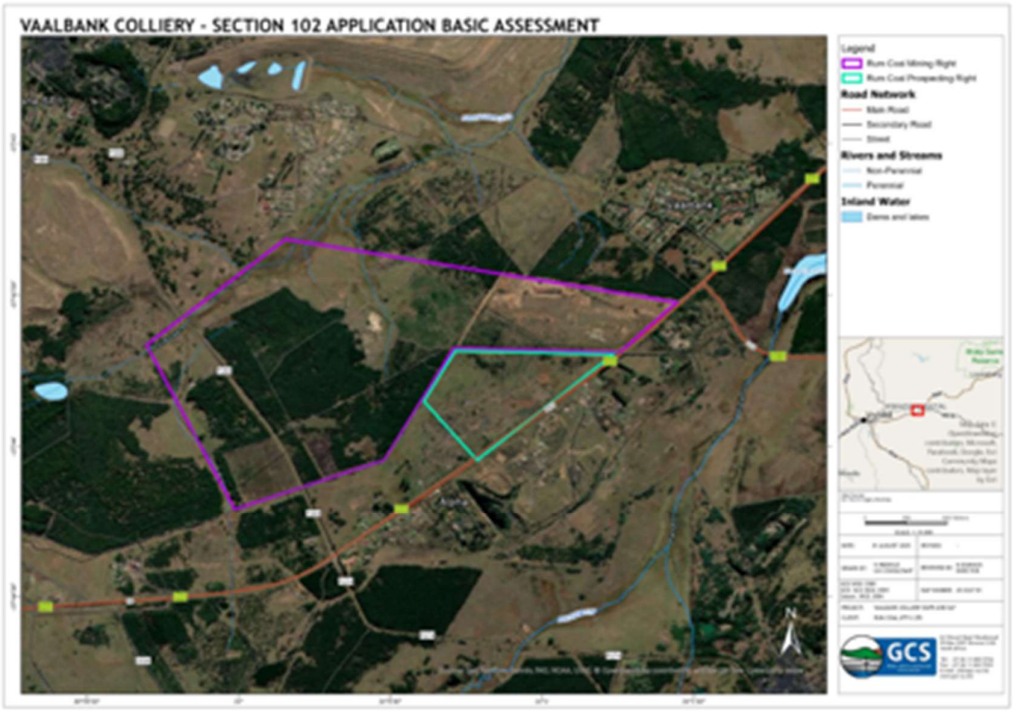


Figure 2: Locality Map noting Vaalbank Collery Mining Right and Prospecting Right

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APPLICATION FOR ENVIRONMENTAL AUTHORISATION
APPLICATION TO INCORPORATE THE EXISTING PROSPECTING RIGHT (KZN30/5/1/1/2/11154PR) INTO THE EXISTING MINING RIGHT (KZN30/5/1/2/2/286MR)
GCS REFERENCE NUMBER: 25-0327

REGISTRATION AND COMMENT FORM

Registered Interested and Affected Party (I&AP) will be informed of ongoing developments via their preferred means of communication (SMS, e-mail). Please register as an I&AP and provide comments by sending this form, or other written correspondence, to the contact details provided below:

GCS Environment South Africa (Pty) Ltd
Attention: Paula Tolksdorff / Luyanda Macheke
Tel: +27 (0)11 803 5726
Fax: +27 (0)11 803 5232
E-mail: ppp@gcs-sa.biz / luyandam@gcs-sa.biz
Postal Address: PO Box 2597, Rivonia, Johannesburg, 2128

Please formally register me as an Interested and Affected Party	Yes	No
I would like to receive my notifications by	E-mail	SMS

Please indicate which sector you represent and also provide a name

Government Department	
Municipality	
Community	
Non-Government Organisation	
Business	

If you are a *landowner* or *land occupier*, please indicate which farm(s) and portion(s) you reside on

Landowner	
Land occupier	

Please fill in your contact details below for the Project database

Title, Full Name					
Designation					
Cell phone		Fax		Tel	
E-mail					

Page Break

Postal Address	

Do you have any specific concerns, issues to raise or general comments that the Applicant or Environmental Assessment Practitioner should consider? Please state below:

In compliance with the Protection of Personal Information Act, 2013 (Act No. 4 of 2013) (POPI Act) you are requested to provide consent to GCS Environment South Africa (Pty) Ltd (GCS) in utilising your personal information throughout the process. GCS is obliged to use this information only for the purpose of this Project.

Kindly complete the following section, as permission to engage you in respect of the Public Participation Process that will be undertaken for the Project. If there are any other stakeholders, we should include onto the stakeholder database for the Project, please provide their contact details.

Title, Full Name	
Organisation	
Cell phone	
E-mail	

Signature *Date*

APPENDIX I: NOTIFICATION EMAILS OF THE DRAFT BASIC ASSESSMENT REPORT

Paula Tolksdorff (ELB)

From: Public Participation Processes
Sent: Monday, 20 October 2025 15:35
Cc: Luyanda Macheke
Subject: 25-0327 - Notice of the environmental application and availability of the Draft Basic Assessment Report for Vaalbank Colliery, Rum Coal (Pty) Ltd

Bcc: [redacted]

Dear Stakeholder

NOTICE OF APPLICATION FOR ENVIRONMENTAL AUTHORISATION TO INCORPORATE THE EXISTING PROSPECTING RIGHT (KZN30/5/1/1/2/11154PR) INTO THE EXISTING MINING RIGHT (KZN30/5/1/2/2/286MR)

Notice is hereby given in terms of Chapter 6 of Government Notice Regulation (GN R) 982 published under Sections 24(5) and 44 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), for the submission of an application for an Environmental Authorisation (EA) in respect of Activity 21D of GN R 983. This application forms part of a Section 102 amendment in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA) to amend the mining and prospecting rights listed below:

- Existing Mining Right (MR): KZN30/5/1/2/2/286MR.
- Existing Prospecting Right (PR): KZN30/5/1/1/2/11154PR.

LOCATION AND PROJECT DESCRIPTION

Rum Coal (Pty) Ltd (Rum Coal) is the holder of the Vaalbank Colliery, situated within the AbaQulusi Local Municipality in the Vryheid Magisterial District of KwaZulu-Natal Province, approximately 25 km east of the town of Vryheid. The company currently holds MR (KZN30/5/1/2/2/286 MR) and a PR (KZN30/5/1/1/2/11154 PR). The MR applies to a portion of the Remainder of Portion 1 of the Farm Vaalbank 38 HU (now Portion 25 (of 1) of the Farm Vaalbank No. 38 HU) and a portion of Portion 5 of the Farm Hlobane 506 HT. The PR is held over the Remainder of Portion 6 (of Portion 2) of the Farm Rietvlei 150 HU. To support the continuation of mining operations, Rum Coal has applied for a Section 102 amendment in terms of the MPRDA. The application seeks to incorporate the 36.84 ha prospecting area on Rietvlei 150 HU into the existing MR.

LEGISLATIVE REQUIREMENTS

In terms of the NEMA, read together with GN R 982, an EA is required for Activity 21D of GN R 983. As such, a Basic Assessment (BA) process must be undertaken in accordance with the procedures set out in the GN R 982.

ENVIRONMENTAL ASSESSMENT PRACTITIONER

OCS Environment SA (Pty) Ltd (OCS) has been appointed as the Independent Environmental Assessment Practitioner to facilitate the application process with the KwaZulu-Natal Department of Mineral and Petroleum Resources.

INVITATION TO PARTICIPATE AND COMMENT ON THE DRAFT BASIC ASSESSMENT REPORTS

The Draft BA Report will be available for public review and comment from 20 October 2025 to 22 November 2025 at the locations noted in the table below. Written comments and substantiated issues must be submitted to OCS by 22 November 2025.

Place	Address
Vryheid Library	Cnr Mark and High Street, Vryheid, KwaZulu-Natal
OCS Website	https://www.ocs-sa.biz/public-documents/

Interested and Affected Parties who wish to register, participate by contributing comments or who would like to obtain more information, should please contact:

OCS Environment South Africa (Pty) Ltd
Attention: Paula Tolksdorff / Luyanda Macheke
Tel: +27 (0)11 803 5726, Fax: +27 (0)11 803 5232
E-mail: ppp@ocs-sa.biz / luyandam@ocs-sa.biz
Postal Address: PO Box 2597, Rivonia, Johannesburg, 2128

Regards, Paula

Luyanda Macheke

From: Public Participation Processes
Sent: Tuesday, 25 November 2025 11:49
To: SAHRA General
Cc: Luyanda Macheke
Subject: 25-0327 - Notice of the environmental application and availability of the Draft Basic Assessment Report for Vaalbank Colliery, Rum Coal (Pty) Ltd

Dear SARHA

The Department of Mineral and Petroleum Resources has requested that we extend this notice to yourselves, please feel free to send us your comments.

NOTICE OF APPLICATION FOR ENVIRONMENTAL AUTHORISATION TO INCORPORATE THE EXISTING PROSPECTING RIGHT (KZN30/5/1/1/2/11154PR) INTO THE EXISTING MINING RIGHT (KZN30/5/1/2/2/286MR)

Notice is hereby given in terms of Chapter 6 of Government Notice Regulation (GN R) 982 published under Sections 24(5) and 44 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), for the submission of an application for an Environmental Authorisation (EA) in respect of Activity 21D of GN R 983. This application forms part of a Section 102 amendment in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA) to amend the mining and prospecting rights listed below:

- Existing Mining Right (MR): KZN30/5/1/2/2/286MR.
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LOCATION AND PROJECT DESCRIPTION

Rum Coal (Pty) Ltd (Rum Coal) is the holder of the Vaalbank Colliery, situated within the AbaQulusi Local Municipality in the Vryheid Magisterial District of KwaZulu-Natal Province, approximately 25 km east of the town of Vryheid. The company currently holds MR (KZN30/5/1/2/2/286 MR) and a PR (KZN30/5/1/1/2/11154 PR). The MR applies to a portion of the Remainder of Portion 1 of the Farm Vaalbank 38 HU (now Portion 25 (of 1) of the Farm Vaalbank No. 38 HU) and a portion of Portion 5 of the Farm Hlobane 506 HT. The PR is held over the Remainder of Portion 6 (of Portion 2) of the Farm Rietvlei 150 HU. To support the continuation of mining operations, Rum Coal has applied for a Section 102 amendment in terms of the MPRDA. The application seeks to incorporate the 36.64 ha prospecting area on Rietvlei 150 HU into the existing MR.

LEGISLATIVE REQUIREMENTS

In terms of the NEMA, read together with GN R 982, an EA is required for Activity 21D of GN R 983. As such, a Basic Assessment (BA) process must be undertaken in accordance with the procedures set out in the GN R 982.

ENVIRONMENTAL ASSESSMENT PRACTITIONER

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INVITATION TO PARTICIPATE AND COMMENT ON THE DRAFT BASIC ASSESSMENT REPORTS

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GCS Website	https://www.gcs-sa.biz/public-documents/

1

Interested and Affected Parties who wish to register, participate by contributing comments or who would like to obtain more information, should please contact:
GCS Environment South Africa (Pty) Ltd
Attention: Paula Tolksdorff / Luyanda Macheke
Tel: +27 (0)11 803 5726, Fax: +27 (0)11 803 5232
E-mail: ppp@gcs-sa.biz / luyandam@gcs-sa.biz
Postal Address: PO Box 2597, Rivonia, Johannesburg, 2128

Regards. Paula

Luyanda Macheke

From: Public Participation Processes
Sent: Tuesday, 25 November 2025 11:56
To: [redacted]
Cc: Luyanda Macheke
Subject: FW: 25-0327 - Notice of the environmental application and availability of the Draft Basic Assessment Report for Vaalbank Colliery, Rum Coal (Pty) Ltd

Dear Ezemvelo KZN Wildlife

The Department of Mineral and Petroleum Resources has requested that we extend this notice to yourselves, please feel free to send us your comments.

NOTICE OF APPLICATION FOR ENVIRONMENTAL AUTHORISATION TO INCORPORATE THE EXISTING PROSPECTING RIGHT (KZN30/5/1/1/2/11154PR) INTO THE EXISTING MINING RIGHT (KZN30/5/1/2/2/286MR)

Notice is hereby given in terms of Chapter 6 of Government Notice Regulation (GN R) 982 published under Sections 24(5) and 44 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), for the submission of an application for an Environmental Authorisation (EA) in respect of Activity 21D of GN R 983. This application forms part of a Section 102 amendment in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA) to amend the mining and prospecting rights listed below:

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LEGISLATIVE REQUIREMENTS

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ENVIRONMENTAL ASSESSMENT PRACTITIONER

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INVITATION TO PARTICIPATE AND COMMENT ON THE DRAFT BASIC ASSESSMENT REPORTS

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Place	Address
Vryheid Library	Cnr Mark and High Street, Vryheid, KwaZulu-Natal
OCS Website	https://www.ocs-sa.biz/public-documents/

1

Interested and Affected Parties who wish to register, participate by contributing comments or who would like to obtain more information, should please contact:
OCS Environment South Africa (Pty) Ltd
Attention: Paula Tolksdorff / Luyanda Macheke
Tel: +27 (0)11 803 5726, Fax: +27 (0)11 803 5232
E-mail: ppp@ocs-sa.biz / luyandam@ocs-sa.biz
Postal Address: PO Box 2597, Rivonia, Johannesburg, 2128

Regards, Paula

Luyanda Macheke

From: Public Participation Processes
Sent: Tuesday, 25 November 2025 11:48
To: [redacted]
Cc: Luyanda Macheke
Subject: 25-0327 - Notice of the environmental application and availability of the Draft Basic Assessment Report for Vaalbank Colliery, Rum Coal (Pty) Ltd

Dear AMAFA KZN

The Department of Mineral and Petroleum Resources has requested that we extend this notice to yourselves, please feel free to send us your comments.

NOTICE OF APPLICATION FOR ENVIRONMENTAL AUTHORISATION TO INCORPORATE THE EXISTING PROSPECTING RIGHT (KZN30/5/1/1/2/11154PR) INTO THE EXISTING MINING RIGHT (KZN30/5/1/2/2/286MR)

Notice is hereby given in terms of Chapter 6 of Government Notice Regulation (GN R) 982 published under Sections 24(5) and 44 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), for the submission of an application for an Environmental Authorisation (EA) in respect of Activity 21D of GN R 983. This application forms part of a Section 102 amendment in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA) to amend the mining and prospecting rights listed below:

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LEGISLATIVE REQUIREMENTS

In terms of the NEMA, read together with GN R 982, an EA is required for Activity 21D of GN R 983. As such, a Basic Assessment (BA) process must be undertaken in accordance with the procedures set out in the GN R 982.

ENVIRONMENTAL ASSESSMENT PRACTITIONER

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INVITATION TO PARTICIPATE AND COMMENT ON THE DRAFT BASIC ASSESSMENT REPORTS

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Place	Address
Vryheid Library	Cnr Mark and High Street, Vryheid, KwaZulu-Natal
GCS Website	https://www.gcs-sa.biz/public-documents/

1

Interested and Affected Parties who wish to register, participate by contributing comments or who would like to obtain more information, should please contact:
GCS Environment South Africa (Pty) Ltd
Attention: Paula Tolksdorff / Luyanda Macheke
Tel: +27 (0)11 803 5726, Fax: +27 (0)11 803 5232
E-mail: ppp@gcs-sa.biz / luyandam@gcs-sa.biz
Postal Address: PO Box 2597, Rivonia, Johannesburg, 2128

Regards, Paula

APPENDIX J: NOTIFICATION SMS OF THE DRAFT BASIC ASSESSMENT REPORT

Luyanda Macheke

From: Vasie Naidoo
Sent: Monday, 20 October 2025 15:48
To: Luyanda Macheke
Subject: FW: Bulk SMS: Dear Stakeholder, Please note the draft BAR in support of the Section 102 Application fo

-----Original Message-----
From: Vasie Naidoo [vasien@gcs-sa.biz]
Sent: Monday, 20 October 2025 3:47 PM
To: Copy of 25-0327_ PPP_Bulk SMS.xlsx
Subject: Bulk SMS: Dear Stakeholder, Please note the draft BAR in support of the Section 102 Application fo

Dear Stakeholder, Please note the draft BAR in support of the Section 102 Application for Vaalbank Colliery is available here: https://www.gcs-sa.biz/public-document from 20 October to 22 November 2025

APPENDIX K: PROOF OF DELIVERY OF THE DRAFT BASIC ASSESSMENT REPORT

DELIVERY NOTICE

Date:	21 October 2025	**Project Number:**	25-0327
To:	Vaalbank Colliery Site Office	**From:**	GCS Water and Environment (Pty) Ltd 63 Wessels Road, Rivonia, 2128
Attention:	Riana Blanche		
RE:	**DRAFT BASIC ASSESSMENT REPORT FOR THE ENVIRONMENTAL AUTHORISATION FOR THE INCLUSION OF AN AREA HELD UNDER PROSPECTING RIGHT KZN30/5/1/1/2/10155PR INTO THE MINING RIGHT KZN30/5/1/2/2/286**		

Quantity	Item	Description
1	Hard Copy	Draft Basic Assessment Report

Please acknowledge receipt of documentation

Riana Blanché
Print name

Blanche
Signature

Liason Manager
Position

2025/10/21
Date

Rum Coal Mine
Vaalbank Colliery

Please advise us if enclosures are not as described.

DELIVERY NOTICE

Date:	21 October 2025	**Project Number:**	25-0327
To:	~~Vaalbank Colliery Site Office~~ Vryheid Library	**From:**	GCS Water and Environment (Pty) Ltd 63 Wessels Road, Rivonia, 2128
Attention:	~~Riaha Blanche~~ Vryheid Library (Cnr Mark and high, Vryheid).		
RE:	**DRAFT BASIC ASSESSMENT REPORT FOR THE ENVIRONMENTAL AUTHORISATION FOR THE INCLUSION OF AN AREA HELD UNDER PROSPECTING RIGHT KZN30/5/1/1/2/10155PR INTO THE MINING RIGHT KZN30/5/1/2/2/286**		

Quantity	Item	Description
1	Hard Copy	Draft Basic Assessment Report

Please acknowledge receipt of documentation

Print name: Vumisile

Signature:

ABAQULUSI LIBRARIES
P.O. BOX 638
VRYHEID 3100

Position: Librarian

Date: 21/10/2025

Please advise us if enclosures are not as described.