



ISIBONELO COLLIERY

Environmental External Audit Report 2022/ 2023

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

**DMRE Reference Numbers:
MP30/5/1/2/3/2/1 (130) EM
17/2/3N-362**

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Related Documents

Document	Date	File name

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ACRONYMS

AIPs	Alien Invasive Plant (s)
AMD	Acid mine drainage
Anglo	Anglo American Thermal Coal
AOPL	Anglo Operations Proprietary Limited
CE	Consulting Engineer
DMR	Department of Mineral Resources and Energy
DWS	Department of Water and Sanitation
EAP	Environmental Assessment Practitioner
EA	Environmental Authorisation
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme
EO	Environmental Officer
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EMC	Environmental Management/Monitoring Committee
HDPE	High Density Polyethylene
IWULA	Integrated Water Use License Application
MDEDET	Mpumalanga Department of Economic Development, Environment and Tourism
ML/day	Megalitre per Day
WUL	Water Use License
NWA	National Water Act
SABS	South African Bureau of Standards

1. Introduction

1.1. Background

Thungela Operations (Pty) Limited (Thungela) predominantly has high quality thermal coal mines in South Africa by calorific value and export mainly to the Indian, Asian, SEA, Middle East and North African markets. The Isibonelo Colliery (**Isibonelo**) is a member of Thungela and is situated approximately 150 km East of Johannesburg, 13 km Northeast of Secunda under the Gert Sibande District and Nkangala District Municipalities withing Mpumalanga province of South Africa (refer to Figure 1).

Isibonelo comprises of opencast and underground reserves of bitumous coal seams that include seam 1,2, 3,4 and 5 seams; however only the economical viable seam 4 is currently mined. Isibonelo was solely established to produce thermal coal for the Sasol Synfuels Operations under the coal supply agreement (CSA) with Sasol Mining Proprietary Limited (Sasol). Additionally, thermal coal from Khwezela South MRD, is blended with the in-pit coal at a ratio of 1:6 as and when required to comply with the CSA. The underground reserves are pending a sale transaction and will not form part of this report. Isibonelo colliery consists of pits (North, Central, South pit, Block Z), main offices and workshops.

The mining method currently in use, following Isibonelo establishment, post construction phase is the strip-mining that involves dragline and truck and shovel machinery to establish box cuts and expose the thermal coal which is crushed and screened prior to shipment to Sasol Synfuels Operations in Secunda via a 22 km long overland conveyor. In terms of the life of mine (LOM) plan, mining operations at Isibonelo are expected to cease by 30 June 2025.

Isibonelo Colliery has an existing mining right valid for 30 years (Reference MP 30/5/1/1/2/130 MR, approved 18 November 2008) issued by DMRE. As part of the environmental legal requirements stated in Section 24N(7)(d) of the National Environmental Management Act, 1998 (Act 107 of 1998) (NEMA) and Regulation 34 under Part 3 of Chapter 5 of the amended Environmental Impact Assessment Regulations, 2014 (Government Notice No. 982) (EIA Regulations, 2014 as amended) the components of Isibonelo are authorized as follows:

- Consolidated EMPR for Isibonelo Colliery, dated March 2020 and granted 19 October 2021 by DMRE (Reference no.: MP 30/5/1/2/3/2/1 (130) EM);
- Final Environmental Impact Assessment Report/Environmental Management Programme for the proposed Block Z Project at Isibonelo Colliery, dated 31 March 2015 and granted 13 September 2018 by DMR (Reference No. MP 30/5/1/2/3/2/1 (130) EM);
- Isibonelo Colliery NEMA Environmental Authorisation, approved 19 October 2021, with reference no.: (MP 30/5/1/2/3/2/1/ (130) EM granted by Mpumalanga Department of Economic Development, Environment and Tourism (MEDET);

- Block Z environmental authorisation approved 8 September 2015, with reference no.: 17/2/3N-362 granted by MEDET.

NTC Group (Pty) Ltd was appointed by Thungela as the independent auditor Environmental Assessment Practitioner (EAP) to undertake the 2023 annual environmental authorisation and environmental management programme Compliance Assessment and this report presents the methodologies and findings thereof. This report fulfils the compliance assessment requirement for May 2022 – May 2023 period.

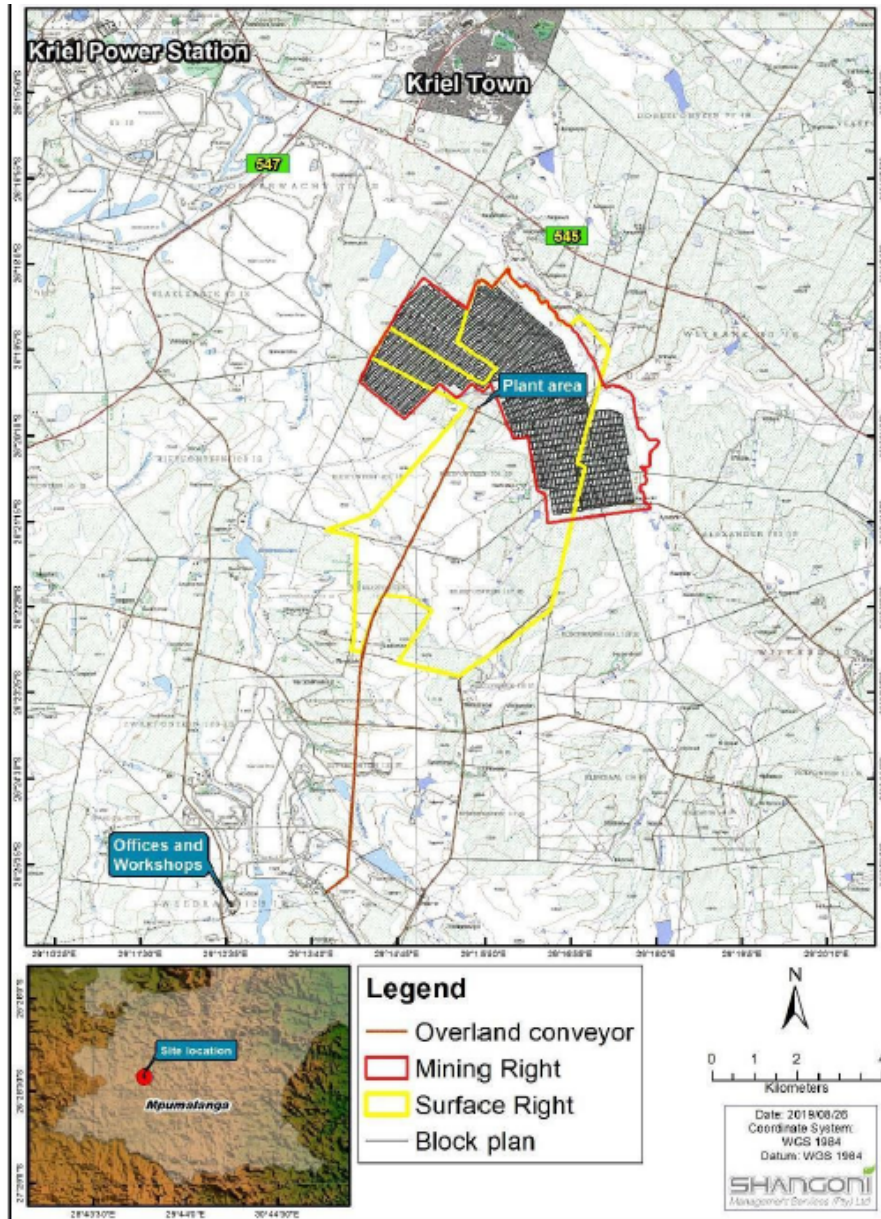


FIGURE 1: ISIBONELO COLLIERY PROJECT LOCATION (EXTRACTED FROM ISIBONELO COLLIERY EIR, EMPR, REFERENCE No. MP30/5/1/2/3/2/1 (130) EM DATED MARCH 2022)

1.1. Terms of Reference

Section 24N(7)(d) of NEMA requires that the holder and any person issued with an environmental authorisation (EA) must monitor and audit compliance with the requirements of the EMPr or environmental management plan. Furthermore, Regulation 34 of the NEMA EIA Government Notice Regulation (GNR) 982 effected 2014 (as amended) states amongst others, that the holder of an EA must, for the period during which the EA, EMPr and the closure plan, in the case of a closure activity remain valid must: a) ensure that the compliance with the conditions of the Environmental Authorisation, the EMPr, and the closure plan is audited; and b) submit the environmental audit report to the relevant Competent Authority. Additionally, the audit findings must be verifiable, in a structured and systematic manner on the level of performance against and compliance of the organisation's EA, it further states that the recommendations to amend the EMPr for rectification of the shortcomings must be subjected to Public Participation for approval by the Competent Authority.

As a result of the above, the Environmental Authorisation and Environmental Management Plan or Programme is required to undergo regular auditing in accordance with NEMA EIA Regulations, 2014 as stated and Appendix 7 as amended in the current EIA Regulations. The frequency is stipulated in the EA, specifically annually. Following from the above, compliance assessments on the approved Environmental Management Programmes for Isibonelo were assessed and include:

- Consolidated EMPR for Isibonelo Colliery, dated March 2020 and granted 19 October 2021 by DMRE (Reference no.: MP 30/5/1/2/3/2/1 (130) EM);
 - Consolidated EMPr for Isibonelo Colliery, dated October 2012 and approved February 2013 (MP 30/5/1/2/3/2/1 (130) EM),
 - EMPr for the proposed bulk fuel storage expansion project, dated April 2013 and approved September 2018 (MP 30/5/1/2/3/2/1 (130) EM),
 - To incorporate additional infrastructure and remove non-appliable activities into current operations *i.e.*, three existing borrow pits, existing spoils material located adjacent to the Steenkoolspruit, existing waste tyre storage facility, management of excess mine water during flood events, groundwater baseline information, bulk Fuel Storage facility and Run of Mine (ROM) and Product Stockpile,
- Final Environmental Impact Assessment Report/Environmental Management Programme for the proposed Block Z Project at Isibonelo Colliery, dated 31 March 2015 and granted 13 September 2018 by DMR (Reference No. MP 30/5/1/2/3/2/1 (130) EM);
- Isibonelo Colliery NEMA Environmental Authorisation, approved 19 October 2021, with reference no.: (MP 30/5/1/2/3/2/1/ (130) EM granted by Mpumalanga Department of Economic Development, Environment and Tourism (MEDET);
- Block Z environmental authorisation approved 8 September 2015, with reference no.: 17/2/3N-362 granted by MEDET.

The compliance assessments on the approved EA and EMPr as stated above for Isibonelo were assessed and findings are detailed in Section 5.

1.2. Assumptions and Limitations

The scope of the compliance assessment was to assess the environmental management practices being implemented during construction and operation of the Isibonelo project, in accordance with the approved EA and other authorisations/license/permits issued.

The objective of the audit included the review of documents, reports etc stated under Section 3 and interview persons, to determine if the operation phase of Isibonelo is compliant with approved EA and other permits.

The following assumptions and/or limitations will be applicable to the audit process and findings:

- This audit is a snap-shot representation of the Isibonelo operation, and the audit period assessed includes March 2022 – March 2023. Anything occurring prior to this period is assumed to have been audited previously and was thus not included herein. Therefore, such items were determined to be “Not Applicable”;
- Due to the nature and extent of the operation, not all areas were visited during the site assessment. Instead, specific areas representative of the operation and assessment period were selected to provide a demonstration of site operations.
- The Isibonelo operation is under construction phase, however activities relating to operation, decommissioning, and/or closure and rehabilitation, that may have occurred on site during the audit period will be deemed applicable.
- Procedures developed by Isibonelo specifically, are deemed to be appropriately implemented by site personnel as part of the Integrated Management System by site personnel.
- Outdated/repealed legislation or referenced guideline documents in the EA and EMPr will be substituted for current/relevant legislation and referenced guideline documents.

2. Auditors

NTC was established in 2005. It is 100% female black owned with a Level 1 Broad Based Black Economic Empowerment (BBBEE) Rating. We undertake our services with professional integrity and have built good reputations with stakeholders in the environmental management field including regulatory authorities and government departments. We undertake all our services within the requirements of applicable South African legislation, as well as acceptable international best practices, norms and standards. The details of the specific environmental consultants who completed and/or assisted with the Compliance Assessment is provided in Table 1 (Curriculum Vitae and Declaration of Independence attached in Appendix B).

TABLE 1: AUDIT TEAM CONTACT DETAILS

Role	Responsible Person	Contact Details
Quality Control	Tebogo Mapinga (Pr. Sci. Nat) is an Environmental Auditor (Peer Reviewer) at NTC Group (Pty) Ltd. She has over 16 years' experience in the Environmental Management field including extensive experience within the mining sector. Tebogo provided quality assurance during the audit preparations and report compilations.	Tel: +27 11 462 2022
		Fax: +27 86 665 1864
		Email: admin@ntcgroup.co.za
Auditor	Ethel Chifunda (MSc) is a Principal Consultant at NTC Group (Pty) Ltd. She has over 5 years' experience in the Environmental Management field including extensive experience within the mining sector. Ethel was the Lead Auditor who undertook the audit preparations, site assessment and audit report compilation.	Tel: +27 11 462 2022
		Fax: +27 86 665 1864
		Email: ethel@ntcgroup.co.za
Auditor	Konanani Nelushi is the Environmental Compliance Manager at NTC Group (Pty) Ltd. He has over 8 years' experience in the Environmental Management field including extensive experience within the mining sector. Authorisations and undertook the audit preparations, site assessment, as well as compilation of the audit report.	Tel: +27 11 462 2022
		Fax: +27 86 665 1864
		Email: rozwi@ntcgroup.co.za

2.1. Declaration of Independence

The Environmental Assessment Practitioner General declaration:

I, Ethel Chifunda, declare that –

- I act as the independent environmental practitioner in this Audit;
- I will perform the work relating to the audit in an objective manner, even if this results in views and findings that are not favourable to the auditee;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting environmental compliance audits, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, Regulations and all other applicable legislation;
- I have not and will not engage in, conflicting interests in the undertaking of the activity;
- I will provide the competent authority with access to all information at my disposal regarding the audit, whether such information is favourable to the auditee or not; will perform all other obligations as expected from an environmental assessment practitioner in terms of the Regulations; and
- I realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F of the Act.

Disclosure of Vested Interest:

I do not have and will not have any vested interest (either business, financial, personal or other) in the activity other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2014.

Signature: 
Company: NTC Group (Pty) Ltd
Date: November 2023

3. Audit Methodology

3.1. Information Collation and Review

NTC reviewed the Final Environmental Impact Assessment & Environmental Management Programme Report, Environmental Authorisation as well as other relevant permits, and compiled a checklist that contained the conditions that required compliance assessment. The audit evidence will be made available to the respective authorities by Thungela. The information verified during the audit includes *inter alia*:

- Permits
 - Consolidated EMPR for Isibonelo Colliery, dated March 2020 and granted 19 October 2021 by DMRE (Reference no.: MP 30/5/1/2/3/2/1 (130) EM),
 - Consolidated EMPr for Isibonelo Colliery, dated October 2012 and approved February 2013 (MP 30/5/1/2/3/2/1 (130) EM),
 - EMPr for the proposed bulk fuel storage expansion project, dated April 2013 and approved September 2018 (MP 30/5/1/2/3/2/1 (130) EM),
 - Approved IWUL, Ref 06/811D/FBCGIJ/9121 dated 29/11/2019;
- Final Environmental Impact Assessment Report/Environmental Management Programme for the proposed Block Z Project at Isibonelo Colliery, dated 31 March 2015 and granted 13 September 2018 by DMR (Reference No. MP 30/5/1/2/3/2/1 (130) EM)
- Audit Reports
 - Integrated Water Use License External Audit Report, September 2022, (Ref 4058/2022)
 - Integrated Water Use License Internal Audit 12 May 2023;
 - WUL Internal Audit, date 10 February 2023,
 - Environmental Audit Report, dated November 2022
 - Environmental Legal Compliance Audit, Ref ANGL13-JC56 prepared by Mervyn Taback Incorporated dated February 2018;
- Isibonelo Colliery Attenuation Water Dam Safety Inspection 2022 Document Number: ITH4369-RPT-02 by Isithelo (dated March 2023).
- Alien invasive study and management plan dated 31 August 2020; Shangoni Management Services (Pty) Ltd
- Operational Condition Checklist Monitoring Report (2023)
- Isibonelo Colliery Monthly Air Quality Monitoring
 - Air Quality Management Plan (Ref: 22-1753-ECOI), By Eco Elementum and Engineering (Pty) Ltd, Updated- 04/08/2022;
 - Gravimetric Dust Fallout Reports from October 2022 to April 2023 (Ref: 22-1734-ECOI), By Eco Elementum and Engineering (Pty) Ltd, Updated- 9/1/2023.
 - Monthly Air Quality Monitoring – Gravimetric Dust Fallout Reports (Ref: 22-1734-ECOI), By Eco Elementum and Engineering (Pty) Ltd, Dated October 2022 to April 2023.

- Environmental Awareness Presentations 2022 to 2023
 - Biodiversity (May 2023);
 - National Arbor (September 2022);
 - No Littering (October 2022);
 - Oil spillage (Jan, undated);
 - National Water Week (March 2023);
 - Earth Day flyer (Undated);
 - Biological Diversity (May 2023); and
 - Environmental Induction 2023;
- Isibonelo Colliery Areas of Responsibility Chart (2023);
- Biomonitoring Reports:
 - Aquatic Bio-Monitoring and Riparian Assessment Wet Season 2023, Ref: 22-1948-EMC, Eco Elementum (Pty) Ltd (Eco E), 2-May-23.
 - Dry Season Aquatic Bio Monitoring, Ref: 22-1948-EMC, dated 25-Oct-22
 - Aquatic and Wetland Monitoring, Low Flow 2021 & High Flow 2022, prepared by The Biodiversity Company, submitted 05/05/2022.
- Upper Olifant Catchment Management Forum Minute Meetings dated February 2022 to May 2023.
- Dam Reports
 - Licence to Construct (Repair) a Dam from Department of Water Affairs, Ref: 12/2/8101/85 dated 21/04/2023,
 - Construction Completion Reports
 - Dirty Water Dam Construction Report. Vaskop Dam, dated, July 2005, Ref JW31/05/9159
 - Attenuation Dam Construction Report, Ref : JW33/05/9037, dated June 2009,
 - Construction Completion Report Diversion Dam, Ref: JW061/13/C838 Rev0, dated April 2013;
 - Dam Operations and Maintenance Manual and Emergency Preparedness Plan
 - Diversion Dam Operations and Maintenance Manual and Emergency Preparedness Plan, Ref JW062/13/C838 – Rev 0; dated April 2013
 - Isibonelo Dirty Water Dam Operations and Maintenance Manual, Ref JW32/05/9159 (Revision 1) dated, October 2006
 - Operations, Maintenance and Emergency Preparedness Plan for Isibonelo Attenuation Dam, Ref JW43/09/9073 – Rev C, April 2009
- Isibonelo Procedures/ Standards:
 - Emergency Response Plan, Ref: ISI-VOH-SD-0001
 - Isibonelo Manage Emergency Procedure, Ref ISI-VOH-PRO-0737, dated 21/10/2022;

- Isibonelo Oil And Silt Trap Operation And Maintenance Procedure, Ref ISI-ENG-PRO-0933, dated 20/04/2022;
- Dust Monitoring and Management Procedure, Ref: ISI-ENV-PRO-0918 Implementation date:18/05/2022
- Environmental Legal Procedure, Ref: ISI-ENV-PRO-0923, dated 18/05/2022;
- Environmental Non-Conformance and Corrective Action Management Procedure, ISI-ENV-PRO-0970, dated 23/01/2023;
- Implement Surface Water Management Plan Procedure, Ref: ISI-OM-PRO-1109, dated 15/06/2022;
- Manage Tunnel Conveyer Spillage Procedure, Ref: ISI-ENG-PRO-0107, dated 20/09/2022;
- Surface Water Management Standard, Ref: ISI-OM-STA-1107, dated 15/06/2022;
- Waste Categories Colour Codes, Ref: SI-ENV-SD-0945;
- Waste Management Procedures; Ref: ISI-ENV-PRO-1462 dated 18/05/2022;
- Waste Management Standard, Ref ISI-ENG-STA-0044, dated 19/04/2023;
- Water Management Infrastructure Monitoring an Inspection Standard, Ref ISI-OM-STA-1108, dated15/06/2022;
- Water Monitoring Procedures; Ref: ISI-ENV-PRO-0949 dated 04/10/2021
- Isibonelo rehabilitation Procedure, Doc no' ISO-OM-PRO-1096, Approved 28 April 2022.
- Annual Update Reports
 - Annual Water and Salt Balance Update, Updated- 8/5/2023;
 - Rehabilitation Strategy and Implementation Plan (RSIP) dated- 12/4/2023.
 - Integrated Water and Waste Management Plan (IWWMP) Update 2023, Ref 21-1620, dated 9-May-23.
 - Annual Noise Monitoring Report December 2022, Ref 21-1604-EMC, dated Updated- 1/3/2023;
- Equipment Maintenance Schedule Week 21, 2023.
- Flowmeter Verification Certificate Transmitter: Ref R9033A20000, dated 07/10/2022; Ref R9033720000, dated 07/10/2022; Ref R9033820000, dated 07/10/2022;
- Rehabilitation
 - Wetlands Rehabilitation Phase 1 Offset sign off, dated 05/11/2014;
 - Construction Supervision Report for Wetland Rehabilitation, dated 10 November 2020;
 - Wetland Rehabilitation GA letter, Ref 27/212/B311/4/3 dated 26/06/2020;
- SANAS Accreditation, Ref T0417, dated 20/10/2015;
 - Schedule of Accreditation, Ref T0417,
 - Schedule of Accreditation, Ref T0842;
- Water Quality/Quantity Reports

- Annual Water Quality Assessment Report 2022, Ref IC/AR1/2022/IF, by Aquatico, dated 16 February 2023 and proof of submission to DWS
- Quarterly Water Quality Assessment Report April 2022 – June 2022, Ref: IC/QR2/2022/IB, dated 18 July 2022; and proof of submission to DWS
- Quarterly Water Quality Assessment Report July 2022 – September 2022, Ref: IC/QR3/2022/IF, dated 25 October 2022; and proof of submission to DWS
- Quarterly Water Quality Assessment Report Quarter 1-2023, Ref: IC/QR1/2023/EG, dated 24 April 2023; and proof of submission to DWS
- Development of a Groundwater (and Pit Lake) Model for the prediction of Mine Water Flows (Post-Closure), Ref Delh.2022.011-16H(v2), dated October 2022.
- Water Management Plan Final August 2021, dated 31/08/2021,
- Sewage Quarterly Reports:
 - Sewage Plant Report: January-March 2023, Ref: 27/2/2/B411/18/2;
 - Sewage Plant Report: April-June 2022, Ref: 27/2/2/B411/18/2;
 - Sewage Plant Report: July-September 2022, Ref: 27/2/2/B411/18/2;
 - Sewage Plant Report: October-December 2022, Ref: 27/2/2/B411/18/2;
- Note for the record – Annual Financial Statements, from DMRE, dated 27 February 2023;
- Report: Review and update of the unplanned closure costs using DMRE Master Rates June 2022, Ref: MP 30/5/1/2/2/130MR, stamped 28/02/2023;
- Monitoring email proof of submission to the DMRE date 03/05/2022;
- Name change email proof of submission, sent 24/03/2022;
- Annual report submission to Gert Sibande Municipality dated 03/05/2022; 06/04/2023;
- Annexure F-Preliminary Rehabilitation and Decommissioning Closure Plan, Ref 1655870-313548-3, March 2018;
- Authorisation PPP email proof, dated 28/10/2021;
- Isibonelo Colliery – Geochemical Assessment of Spoil/Backfill Materials, dated July 2021 by Delta H.
- Thungela seed mixture (undated)
- 2006 Relocation of graves at Anglo Kriel South Progress report, Montedi Developments.
- Waste Manifests from June 2022- May 2023
 - Phambili General and Hazardous waste manifests dated June 2023- May 2023
 - Mokwayi Trading (Use Oil) dated March – May 2023
- Incident and grievance report, updated July 2023 generated from Enablon.
- Rapid land capability Assessment, Ekoinfo, dated July 2021
- Isibonelo soil analysis RFQ, dated 27 February 2023).
- High resolution aerial imagery and videos of Pit Rehabilitation May 2023.

3.2. Site Verification

The site assessment and document review were completed on 23 May 2023 by Ethel Chifunda (NTC), Babalwa Fatyi (NTC), Konanani Nelushi (NTC) Martinus Vanwyk (Thungela); Adam Gunn (Pinsent Masons) and Iman Damons (Pinsent Masons); Nico Joubert (Thungela) and others (refer to Appendix A: Attendance Register for a detailed list). During the site assessment, additional documents were collated, and information was verified, Isibonelo personnel were interviewed and selected areas were visited i.e., verified using photographic evidence presented in Appendix B: Photo Plate.

3.3. Assessment Methodology

NTC assessed each of the EA and EMPr conditions per the criteria provided in Section 4. Only conditions in the non-compliance category were given recommendations for rectification. The audit approach was guided by the requirements of the ISO 19011:2018 Guidelines for Auditing Management Systems. The audit scope was based on Section 34 and Appendix 7 of the EIA Regulations, 2014 as amended, which defines the key objectives of an audit as follows:

- Report on the level of compliance with the conditions of the EAs and the EMPr s and the extent to which the avoidance, management and mitigation measures provided for in the EMPrs.
- To identify and assess any new impacts and risks as a result of undertaking the activity;
- To evaluate the effectiveness of the EMPrs;
- To identify shortcomings in the EMPrs; and
- To identify the need for any changes to the avoidance, management and mitigation measures provided for in the EMPrs.

TABLE 2: ASSESSMENT CRITERIA

Criteria	Acc	Description
Compliant	C	Full Compliance is when the construction or operational activities comply with the EA/EMPr conditions. No mitigation measures are required where operations comply and are adequate.
Non-Compliant	NC	Non-Compliance is when construction or operational activities are in contravention with the EA/EMPR conditions and have the potential to impact on the environment in a detrimental manner. Non-compliance may also be associated with activities breaching legislation. Non-Compliance findings have a high priority and mitigation measures are mandatory.
Not Applicable	N/A	Not Applicable is assigned to EA/EMPr conditions which no longer occur, that do not apply to current activities that may be incorrect and require amendment, fall outside the audit period and/or are duplicates of existing conditions.

4. Audit Findings

This section is aimed at highlighting the identified non-compliances in order that Isibonelo can prioritise implementation of recommendations and rectification actions. The full audit details are included in Table 4, Table 5, Table 6 and Table 7. The overall findings of this audit of the EMPr are indication of Isibonelo to its EA/EMPr authorised conditions and if they comply and are adequate for current activities.

TABLE 3: CONSOLIDATED EMPR FOR ISIBONELO COLLIERY DMR REFERENCE NUMBER: MP 30/5/1/2/3/2/1 (130) EM.

NO'	MANAGEMENT PRINCIPLE	MITIGATION MEASURES_ CONDITIONS OF AUDIT	PHASE	COMPL	AUDIT OBSERVATIONS/FINDINGS
1a	Change in geology; ground water contamination; loss of topsoils; air impact	Excavated materials are selectively stockpiled for surface rehabilitation (topsoil and spoils are separated).	Operational	C	According to the Isibonelo RSIP (2023) by Eco Elementum soil stockpiling is undertaken according to soil layers (inclusive of topsoil and spoils). Concurrent rehabilitation is practiced onsite and method statements for pre-mining requirements for excavation, soil stripping and stockpiling of excavated material are implemented as per the Isibonelo Rehabilitation Procedure (Doc no' ISO-OM-PRO-1096, Approved 28 April 2022).
		Any carbonaceous material is returned to the pit.	Operational	C	All carbonaceous waste material is backfilled at the bottom of the pit in accordance with the approved IWUL (Licence No.: 06/B11D/FBCGIJ/9121). Carbonaceous material was noted to be in the North pit according to the Salt and water balance 2023 report by Eco Elementum.
		Stockpiles are placed on levelled spoil areas.	Operational	C	No non-compliance observed, stockpiling and spoil levelling are implemented as per the Isibonelo Rehabilitation Procedure (Doc no' ISO-OM-PRO-1096, Approved 28 April 2022). Progress of stockpiling placement on levelled spoil areas have been verified in the 2023 Isibonelo Colliery RSIP 2023.
		Vegetation is not removed prior to stripping to provide additional organic nutrients to the soil and help preserve soil structure.	Operational	C	Removal of vegetation and stripping to help preserve organic nutrients and soil structure method statements are adhered to (as verified in the soil stripping and soil amelioration requirements for Isibonelo in the Isibonelo Rehabilitation Procedure (Doc no' ISO-OM-PRO-1096, Approved 28 April 2022).
		Soil replacement depths are determined by pre-mining land capability.	Operational	C	No non-compliance observed. Soil replacement depths have been determined by the pre-mining land capability assessment as noted in the Preliminary Rehabilitation and Decommissioning Closure Plan for Isibonelo Colliery (dated March 2018). Additionally, soil is placed at >1 m depth as per the Isibonelo Rehabilitation Procedure (Doc no' ISO-OM-PRO-1096, Approved 28 April 2022).
		Soils are replaced in compliance with the Chamber of Mines Guidelines for arable and grazing land.	Operational	C	Dated aerial photography (dated May 2023) are in alignment with EMPr commitments that are based guidelines from the Chamber of Mines of South Africa/Coaltech and the Rehabilitation Improvement Group. This was noted in the land capability Assessment by Ekoinfo, dated July 2021 recommendations incorporated in this EMPr.
		Induced compaction is reduced by limiting access of vehicles onto rehabilitated land.	Operational	C	Vehicle movement is limited to access roads only as verified during the site assessment. Vehicles are retrofitted with tracking software that monitors transgressions onto rehabilitated sites. Refer to Appendix B: Photo 22-23.
		Tracked or high flotation vehicles are used in preference to normal wheeled vehicles for levelling operations. Any compaction is alleviated by ripping soils prior to revegetation.	Operational	C	Tacked and floatation vehicles are used at active sites for levelling operations i.e., bulldozer machines and dragline observed onsite. Refer to Appendix B: Photo 18
		Seed bed preparation and fertilization is implemented to facilitate successful revegetation.	Operational	C	Seed bed preparation and fertilization are implemented as per the Isibonelo Rehabilitation Procedure (Doc no' ISO-OM-PRO-1096, Approved 28 April 2022). A standard 3:2:1 (25) ratio N:P:K fertilizer before re-vegetation is used, however an analysis of the soils is periodically undertaken to ensure that ratios are adjusted as per the outcome of the analysis.
		Seed mix of indigenous grass is applied to seed beds.	Operational	C	Revegetation management measures are implemented through the rehabilitation procedure by Isibonelo' land management superintendent who noted the use of commercially available grasses (<i>Chloris gayana</i> ; <i>Digitaria eriantha</i> ; <i>Eragrostis curvula</i> ; <i>Eragrostis teff</i> ; <i>Cenchrus ciliaris</i> ; and <i>Antepora pubescens</i>).
		Minimise drop height during operations. Use of water sprays on active areas to reduce dust.	Operational	C	Drop heights are maintained using high flotation machinery to minimize dust generation. No nuisance dust conditions were observed. Processed water obtained from Vaskop Dam is the main source of dust suppression

NO'	MANAGEMENT PRINCIPLE	MITIGATION MEASURES_ CONDITIONS OF AUDIT	PHASE	COMPL	AUDIT OBSERVATIONS/FINDINGS
					at an estimated 1.0 l.m ² /day by the water bowsers and this water use activity is approved under Section 21 (g) of Integrated WUL Ref No. 06/B11D/FBCGJI/9121, dated 19/11/2019. Additionally, should the volumetric capacity of the Ernies dam reaches ≥ 5% of its capacity, water is transferred to sparer's or atomizers onsite for dust suppression use (verified in the Thungela Isibonelo colliery water and salt balance report update, dated 03/05/2023. No exceedances were noted in the monthly air quality reports except for October 2022.
		On-going monitoring of the rehabilitation process is undertaken.	Operational	C	On-going monitoring through record keeping of rehabilitation progress is undertaken onsite which are incorporated into the annual updates of the RSIP and External audit reports (as verified).
		Active alien vegetation eradication is implemented	Operational	C	An AIPs assessment and management program (Dated 2020 by Shangoni is implemented onsite.
1b	No impact anticipated on the Geology	N/A	N/A	N/A	No mitigation required
1c	No impact anticipated on the Geology	N/A	N/A	N/A	No mitigation required
1d	No impact anticipated on the Geology	N/A	N/A	N/A	No mitigation required
1e	No further coal removal	No mitigation possible	Decommissioning, Closure and Post-Closure	N/A	No mitigation required
2a	Change of topographical profile	Stockpile overburden for backfilling into pit and final void.	Operational	C	Dated aerial photography (dated May 2023) and site observations of backfilling into pits and voids are in alignment with the concurrent rehabilitation practiced onsite. Stockpile overburden waste material (inclusive of carbonaceous material) is backfilled at the bottom of the pit in accordance with the approved IWUL (Licence No.: 06/B11D/FBCGJI/9121).
2b	The sewage treatment plant is part of mine infrastructure and do not add significant change to topography. No additional Impact.	No impact anticipated on the topography	N/A	N/A	No mitigation Required
2c	All buildings are part of mine infrastructure and do not add significant change to topography. No additional impact.	No impact anticipated on the topography	N/A	N/A	No mitigation Required
2d	No impact anticipated on the topography	No impact anticipated on the topography	N/A	N/A	No mitigation Required
2e	Lower surface level expected after rehabilitation	No mitigation possible	Decommissioning, Closure and Post-Closure	N/A	No mitigation Required

NO'	MANAGEMENT PRINCIPLE	MITIGATION MEASURES_ CONDITIONS OF AUDIT	PHASE	COMPL	AUDIT OBSERVATIONS/FINDINGS
3a	Loss of topsoil and subsoil	During steady state mining the usable soil stripped ahead of mining is placed live directly on levelled spoils to avoid stockpiling.	Operational	C	Concurrent rehabilitation implemented by Isibonelo entails live stockpiling on levelled spoils as per the Isibonelo Rehabilitation Procedure (Doc no' ISO-OM-PRO-1096, Approved 28 April 2022).
		Soils are stripped a suitable distance (between 50 and 100m) ahead of mining to avoid loss and contamination with fly rock, coal and/or discard.	Operational	C	No non-compliance observed. All stockpiles are stripped and managed in accordance with the rehabilitation procedure (Doc no' ISO-OM-PRO-1096, Approved 28 April 2022) to prevent contamination by fly rock from blasting and spoils as part of concurrent rehabilitation.
		A running topsoil balance is kept of actual volumes of topsoil stripped, stockpiled and placed versus targeted volumes.	Operational	C	The mine conducts ongoing topsoil stockpile balance and land capability assessment and results are incorporated into the RSIP annual updates (as verified in the 2023 RSIP report).
3b	Replacement of soils upon backfilling	Replacement and amelioration to promote growth of vegetation.	Decommissioning and Closure	C	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning, closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
3d	Soil impact topography impact surface water impact land capability and soils impact	The spoils will be rehabilitated to be free-draining. The final high-wall will be shaped to 1:3 and the final spoils slope into the final void will be graded to 1:3. No spoil slope will exceed 1:5. All contaminated soil will either be removed to the bottom of the final void or will be remediated in situ. In areas of ponding due to subsidence the land will be reshaped and rehabilitated to enable free drainage to occur.	Rehabilitation and Closure	C	Concurrent rehabilitation is implemented by Isibonelo and entails live stockpiling on levelled spoils as per the Isibonelo Rehabilitation Procedure (Doc no' ISO-OM-PRO-1096, Approved 28 April 2022). High walls and spoil slopes are in compliance with slope ratio and areas of ponding are being reshaped and rehabilitated to ensure free drainage (verified onsite). Refer to Appendix B: Photo 21
		During rehabilitation, the areas where grass has not yet established will be monitored to ensure there is not excessive erosion prior to the grass establishing, and where necessary additional erosion protection such as the use of dump rock or repair of gullies will be undertaken until such time that the rehabilitated surfaces can be shown to be self-sustainable.	Rehabilitation and Closure	C	On-going monitoring and mitigation of areas where grass has not yet established, and erosion prone areas are undertaken onsite.
		Annual surface surveys will be undertaken over rehabilitated areas to establish the degree of subsidence and the success of the reestablishment of vegetation on these areas.	Rehabilitation and Closure	C	The Isibonelo Colliery generates a report to quantify rehabilitated areas through DTM's and ensure compliance with the mine rehabilitation plan.
		Contouring of land will be done to prevent standing water. The land will free drain to the Steenkoolspruit.	Rehabilitation and Closure	C	The Isibonelo Colliery generates a report to quantify rehabilitated areas and ensure compliance with the mine rehabilitation procedure (Doc no' ISO-OM-PRO-1096, Approved 28 April 2022). The Land Capability Assessment report (Ekoinfo, dated July 2021) shows high rehabilitation success based on re-vegetation.
		Soils will be replaced to the pre-mining stripping depths over all areas where infrastructure is demolished.	Rehabilitation and Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and no structure demolition has occurred inline with rehabilitation and closure activities. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.

NO'	MANAGEMENT PRINCIPLE	MITIGATION MEASURES_ CONDITIONS OF AUDIT	PHASE	COMPL	AUDIT OBSERVATIONS/FINDINGS
4a	Loss of productive use of land is definitely	Soils are stripped and stockpiled separately to recreate the same proportions of land capability classes as far as possible during rehabilitation.	Operational	C	No non-compliance observed. All usable stockpiles are stripped and managed in accordance with the rehabilitation procedure (doc No ISI-OM-PRO-1096), approved 2/04/2022).
4b	Rehabilitation is aimed at re-establishing grazing land use.	Soils should be ripped and ploughed as required before seeding.	Decommissioning, Closure and Post-Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning, closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		The fertilizer requirements will be reevaluated at the time of rehabilitation. An appropriately qualified person will carry out soil sampling to establish lime and fertilizer requirements prior to the start of the rehabilitation process.	Decommissioning, Closure and Post-Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning, closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		The revegetated areas will be maintained until closure is granted.	Decommissioning, Closure and Post-Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning, closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		The land management plan developed during the operational phase will continue to be implemented until a closure certificate is obtained.	Decommissioning, Closure and Post-Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning, closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Protecting areas by fencing until a good vegetation cover has been established.	Decommissioning, Closure and Post-Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning, closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Staff involved in rehabilitation will be trained appropriately using the environmental awareness programme.	Decommissioning, Closure and Post-Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning, closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Any form of hunting, poaching, snaring or trapping will be prohibited within the mine area.	Decommissioning, Closure and Post-Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning, closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
5a	Loss of productive use of land is definitely	Landowners have been compensated. Soils are stockpiled for rehabilitation to recreate grazing land.	Operational	C	It was verified during site observation that soils are stockpiled for rehabilitation to grazing land parameters and landowners have been compensated (2006 Relocation of graves at Anglo Kriel South Progress report, Montedi Developments).
5b	Rehabilitation is aimed at re-establishing grazing land use	Ensure rehabilitation results in recreation of wetlands, and grazing land.	Decommissioning, Closure and Post-Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning, closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.

NO'	MANAGEMENT PRINCIPLE	MITIGATION MEASURES_ CONDITIONS OF AUDIT	PHASE	COMPL	AUDIT OBSERVATIONS/FINDINGS
6a	During the operational phase some riparian and adjacent bottomland grassland of conservation importance but mostly cultivated fields and planted pastures which have very little conservation value, will be affected.	Vegetation is not cleared from the site prior to stripping to preserve the seed bank, provide additional organic nutrients to the soil and help preserve the soil structure, except for red data plants that are relocated prior to stripping.	Operational	C	Updated land capability plans indicate stripping ahead of active pits and adhering to the Rehabilitation Procedure (Doc no' ISO-OM-PRO-1096, Approved 28 April 2022) that ensures minimal vegetation and topsoil removal.
		Fertilizer is applied as per standard agricultural practice.	Operational	C	Seed bed preparation and fertilization are implemented as per the Isibonelo Rehabilitation Procedure (Doc no' ISO-OM-PRO-1096, Approved 28 April 2022). A standard 3:2:1 (25) ratio N:P:K fertilizer before re-vegetation is used, however an analysis of the soils is periodically undertaken to ensure that ratios are adjusted as per the outcome of the analysis.
		A mixture of seeded varieties of indigenous pasture grasses is used to revegetate the area. This seed mix may be changed on the basis of experience gained during the rehabilitation process.	Operational	C	Revegetation management measures are implemented through the rehabilitation procedure by Isibonelo' land management superintendent who noted the use of commercially available grasses (<i>Chloris gayana</i> ; <i>Digitaria eriantha</i> ; <i>Eragrostis curvula</i> ; <i>Eragrostis teff</i> ; <i>Cenchrus ciliaris</i> ; and <i>Antepora pubescens</i>).
		Once the area has been revegetated, it will be monitored for declared weeds and invasive plants, which will be removed.	Operational	C	An AIPs assessment and management program (dated 2020) by Shangoni is implemented onsite.
		During the initial stages, grazing animals will be kept away from the area. Veld fires will be controlled.	Operational	C	The mining area was fenced off during the initial vegetation stages to deter consumption by grazing animals. Revegetation Monitoring of rehabilitated areas is ongoing. Although animal excretion at one of the established rehabilitated areas was noted, no overgrazing was observed. Fire breaks have been established around the area, and a dedicated firefighting team is trained to manage veld fires (Verified in training video and certifications, dated April 2022).
		Disposal or dumping of spoils, soils or any waste outside demarcated areas are prohibited.	Operational	C	No spoils, soils, were disposed of outside demarcated areas as verified during the site assessment.
		Low lying wetland areas will be top soiled with wetland soils and seeded with Anglo's standard improved pasture mix. The succession of plant species in the rehabilitated "wetland" areas will be monitored for 5 years and then three yearly thereafter. If the rehabilitated areas do not develop hygrophilous grasses and sedges in the wetland areas after 5 years, the mine will attempt to enhance their establishment by mulching with seedbearing plant material from surrounding wetland areas.	Operational	C	The rehabilitation plan (Doc no' ISO-OM-PRO-1096, approved 28 April 2022) notes the using ramps as waterways to slope the area towards streams and layering them with black soils to prevent ingress. A land management and environmental superintendent (Human Jurie and Marthinus Wessel van Wyk respectively) ensure that monitoring the rehabilitated wetland area, and vegetation is ongoing as part of the mine's biodiversity management strategy.
6b	Revegetation of disturbed areas.	Replace soils on levelled spoils and fertilise to promote vegetation growth. Regular alien vegetation eradication on vegetated areas.	Decommissioning, Closure and Post-Closure	N/A	Condition parameters have been assessed under operational and rehabilitation phase. This condition falls outside this audit scope/period. phase as decommissioning, closure activities haven't occurred. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.

NO'	MANAGEMENT PRINCIPLE	MITIGATION MEASURES_ CONDITIONS OF AUDIT	PHASE	COMPL	AUDIT OBSERVATIONS/FINDINGS
7a	During the operational phase mainly highly disturbed habitats such as cultivated land and planted pastures will be affected. These areas support common or hardy fauna. The permanent removal of bottomland riparian and floodplain habitat and its effect on threatened waterfowl will be the main impact. However, the area affected is relatively small in comparison such habitat available in the area.	No mitigation possible	Operational	N/A	No mitigation Required.
7b	Minimise disruption or animal habitat, behaviour, or population	Illegal hunting, poaching, snaring, or trapping is prohibited within and outside the lease area.	Operational	C	The environmental awareness training (dated, 2023) contains Illegal hunting, poaching, snaring, or trapping prohibition content. It was noted that none of these illegal activities have been undertaken within Isibonelo colliery footprint. Cats were noted onsite. A bird was found dead on the fencing near the diversion dam, however this was a natural death and clean-up if necessary is undertaken. Refer to Appendix B: Photo 1, 11, 225
8a	The disturbance of the geological strata during mining leads to a significant increase in porosity, drainable porosity and storability of the rehabilitated rock mass. The increase is attributed to the presence of voids (of variable sizes) between the boulders and gravel replaced during backfilling. The groundwater storability within the rehabilitated spoils will be up to 2 orders of magnitude higher than is currently applicable to the undisturbed Karoo aquifers. The storage potential in the spoils is only up to an elevation of 1545 mamsl, the decant elevation for the strip mine. Although storage potential does exist above this elevation (up to 1590 mamsl) it will remain unsaturated post-closure	Recharge potential through spoils is reduced by ongoing rehabilitation.	Operational	C	The mine is undergoing rehabilitation, including levelling, soiling, and revegetation, to reduce recharge in backfilled areas, with the backfilling of ramps already underway (verified through aerial imagery, dated May 2023).
		It is envisaged that when groundwater levels rebound, up to 70% of the pollution generating spoils will be submerged below the water table. This will minimise oxidation of pyrite and slow the formation of pollutants.	Operational	C	A geochemical assessment of the rehabilitated spoils/backfill area at Isibonelo Colliery (revealed on three samples, including in situ material and spoils/backfill material, as potentially acid generating (Isibonelo Geochemical Assessment, February 2022).

NO'	MANAGEMENT PRINCIPLE	MITIGATION MEASURES_ CONDITIONS OF AUDIT	PHASE	COMPL	AUDIT OBSERVATIONS/FINDINGS
		A monitoring system has been implemented to monitor the yield of boreholes in the surrounding area. If a legitimate ground water user loses the use of a resource as a result of mining, the mine will provide an alternative water source of equal yield and quality as the one impacted.	Operational	C	The geochemical assessment of the rehabilitated spoils/backfill area at Isibonelo Colliery reveals that the samples have potential for acid rock drainage. After a static geochemical and kinetic leach test were undertaken, it was noted that a low sulphur content ratio may have a neutralisation potential that is sufficient to buffer acidity in the long term and unlikely to generate acid in the short term (Isibonelo Geochemical Assessment, February 2022).
		A formalised and documented ground water monitoring system has been commissioned, according to the requirements outlined in the DWAF (now DHWS) publication, and site-specific conditions.	Operational	C	Groundwater monitoring is undertaken according to the Isibonelo Water Monitoring Procedure approved 07 October 2021 as per DWS (previously DWAF) requirements.
		Groundwater monitoring is undertaken to establish the following:	Operational		
		The extent of the development of a cone of depression around the mining area;	Operational	C	No non-conformance observed. Isibonelo undertake Quarterly Water Quality Assessment Report (dated July 2022 to January 2023) and annual Water and Salt Balance Update, updated (8/5/2023); that ensure that groundwater monitoring objectives are met as verified during the audit.
		Influxes of ground water into the mine;	Operational	C	No non-conformance observed. Isibonelo undertake Quarterly Water Quality Assessment Report (dated July 2022 to January 2023) that ensure that groundwater monitoring objectives are met as verified during the audit.
		Possible impact on the yields of external users' boreholes and springs	Operational	C	No non-conformance observed. Isibonelo undertake Quarterly Water Quality Assessment Report (dated July 2022 to January 2023) that ensure that groundwater monitoring objectives are met as verified during the audit.
		Ground water quality deterioration; within the strip mine, in the shallow aquifers in contact with all identified surface located pollution sources and in external users' boreholes and springs.	Operational	C	No non-conformance observed. Isibonelo undertake Quarterly Water Quality Assessment Report (dated July 2022 to January 2023) that ensure that groundwater monitoring objectives are met as verified during the audit.
		Possible pollution of ground water base flow into streams will also be monitored.	Operational	C	No non-conformance observed. Isibonelo undertake Quarterly Water Quality Assessment Report (dated July 2022 to January 2023) that ensure that groundwater monitoring objectives are met as verified during the audit.
8b	Ensure water discharged is within the parameters	Monitoring of discharge quality to ensure it remains within the plant design specifications.	Operational	C	Overall, no exceedance was noted during the audit period and sewerage plant quality parameters remain within design specifications.
8c	No impact anticipated on Groundwater	No mitigation possible	N/A	N/A	No mitigation Required
8d	No impact. All workshops, buildings and offices have impervious surfaces.	No mitigation possible	N/A	N/A	No mitigation Required
8e	Spillages from conveyor belt are minimised. No impact	No mitigation possible	N/A	N/A	No mitigation Required
8f	Impact on water quality due to seepage from the dams	Ground water monitoring takes place around the infrastructure.	Operational	C	No non-conformance observed. Isibonelo undertake Quarterly Water Quality Assessment Report (dated July 2022 to January 2023) that ensure that groundwater monitoring objectives are met as verified during the audit.

NO'	MANAGEMENT PRINCIPLE	MITIGATION MEASURES_ CONDITIONS OF AUDIT	PHASE	COMPL	AUDIT OBSERVATIONS/FINDINGS
		The pollution control dams are claylined to prevent seepage.	Operational	C	All pollution control dams are clay lined as verified during the audit period.
8g	Impact on water quality due to seepage	The pollution control dams are claylined to prevent seepage.	Decommissioning , Closure and Post-Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning and closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
9a	Impact on water quality due to failure	Sewage plants will be operated in accordance with the provisions of the Regulations of the National Water Act (Act No. 36 of 1998).	Operational	C	Isibonelo Colliery operates a Class D Sewage Treatment Plant and appointed Regen Waters and Aquatico for operation and analysis. Quarterly sewerage plant reports (from March 2022 to December 2022) for the audit period were verified.
9b	No impact anticipated	N/A	N/A	N/A	No mitigation Required
9c	Clean water diversion around workshops, offices and buildings. Contaminated discharges are kept within mine water management systems and channelled into Barber Dam. Clean water is diverted. Dirty water is kept within the mine water systems	Clean water diversion berms and trenches around all buildings.	Operational	C	No non-conformances were observed. Clean water diversion berms and trenches around buildings were verified during site assessment. Refer to Appendix B: Photo
		Dirty water areas are diverted to the Pollution Control dams.	Operational	C	No non-conformances were observed. Dirty water is diverted to PCD from dirty areas as per the salt and water balance reticulation diagrams (verified in the salt and water balance 2023 report).
9d	Surface water impacts	The plant, workshops and coal handling facilities are isolated from the catchment, with water management measures designed to divert the 1:100-year flood event from the clean catchment above them. All contaminated water from these areas is directed to the pollution control dams where it is stored for evaporation or reuse.	Operational	C	No non-conformances were observed. All contaminated water is diverted to PCD from dirty areas as per the salt and water balance reticulation diagrams for evaporation or reuse i.e., dust suppression (verified in the salt and water balance 2023 report).
		Conveyor has a belt rotation system that ensures the dirty side faces upwards always. The belt is cleaned at the transfer houses.	Operational	C	Carbonaceous waste from the conveyor belt is cleaned at the transfer house and waste disposed to the opencast pit.
		Haul road gradients are kept as gentle as possible to minimise spillage from vehicles due to change in gradient.	Operational	C	Haul road gradients are kept gentle to minimize vehicle spillage. Refer to Appendix B: Photo 24.
		Service roads are only used by service vehicles. Service road was placed between conveyor and stream to ensure any spills would wash over the road first and can be easily picked up.	Operational	C	Only mine approved vehicles with in-monitoring devices use designated access roads to ensure that the adhere to approved routes that don't transgress sensitive environments. Conveyor belts are capped to prevent spillages.

NO'	MANAGEMENT PRINCIPLE	MITIGATION MEASURES_ CONDITIONS OF AUDIT	PHASE	COMPL	AUDIT OBSERVATIONS/FINDINGS
		Clean water from above the infrastructure area is directed past the contaminated water areas, and back to the clean water catchment.	Operational	C	The clean water catchments drain via the Montedi dam and farm dam, and the river diversion into the Piekesspruit floodplain, as per the Isibonelo Colliery 2019 Wetland Baseline Assessment, ref: 5156-2019 dated 04/09/2019. Refer to Appendix B: Photo 12 and 16.
9e	Spillages are possible from the Pollution Control dams. This may occur during very high rainfall events.	Water levels in the dams are monitored and water is used for dust suppression to maintain the necessary freeboard for storage of excess contaminated storm water.	Operational	C	No non-conformance observed. Dam condition parameters are monitored, and excess water is used for dust suppression.
		The dams are regularly desilted, and the silt is discarded in the opencast pits, to ensure the dams maintain the required capacity.	Operational	C	No desilting has been undertaken during this audit period as the dam are functioning within capacity.
		Long term measures for water management such as water treatment, are being developed.	Operational	C	Isibonelo has noted this condition and will ensure that condition parameters are updated and implemented.
9f	Owing to higher recharge over rehabilitated surfaces, surface water will remain in the spoils and pit	Clean water is diverted around the pit using berms and trenches. These will remain in place after rehabilitation.	Decommissioning and Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning and closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
9g	Over the long term, discharge is expected, and is expected to have high salinity.	The water quality in the dams will be monitored to assess the impact of residual contamination on any direct inflow into the dam. Seepage qualities will be monitored to assess whether there are any impacts associated with seepage through the dam basin or the dam wall.	Decommissioning and Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning and closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Pits will be allowed to flood to produce anaerobic conditions, prevent oxygen ingress and reduce the opportunity for acidification.	Decommissioning and Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning and closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		The pits will be rehabilitated, top soiled and vegetated to reduce moisture and oxygen infiltration into the spoils. This reduces the amount of clean water that could be affected by entering the spoils.	Decommissioning and Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning and closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Wetlands will be re-established in pits and will consist of open water bodies fringed by wetland soils. The wetlands will form part of a closed system which is designed to keep precipitation and evaporation in balance. This balance is designed to prevent any impact by pit water on the quality or quantity of the local rivers. Extraordinary conditions, such as excessive rainfall greater than the 1:100-year event may disturb this balance.	Decommissioning and Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning and closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		It is expected that the water level within the mine workings will recover over a period of time. Eventually, if no	Decommissioning and Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning and closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.

NO'	MANAGEMENT PRINCIPLE	MITIGATION MEASURES_ CONDITIONS OF AUDIT	PHASE	COMPL	AUDIT OBSERVATIONS/FINDINGS
		management measures were implemented, water would decant at a predicted rate of around 8MI/day.			
		Water from the workings will be collected, and pumped to a water treatment facility. A full EIA will be undertaken for the water treatment plant if and when the design parameters have been defined, and this will include the necessary permits and licence applications.	Decommissioning and Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning and closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
9h	Surface water deterioration	The flows in the Steenkoolspruit will not be impeded.	Post Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and post-closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		The mine decant will be contained within the spoils by active dewatering and ongoing water treatment.	Post Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and post-closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		To prevent even the remote possibility of seepage via the adjacent Kriel mine, the elevation of water within the Isibonelo strip mining area will be kept below the Steenkoolspruit invert level downstream of the mining area.	Post Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and post-closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Water treatment and an inter-mine agreement is being investigated to address long term post closure impacts.	Post Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and post-closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
10a	Dust from the dragline and haul roads represents the highest source of dust.	Regular watering of haul roads, and if necessary chemical dust suppressants will be used.	Operational	C	According to the Water and Salt Balance 2023, water from dams is used for dust suppression around active areas including haul roads.
		Water sprays at the crusher in the pits.	Operational	C	No non-conformance observed. Site personnel noted that water sprays are available and in use as and when required.
		Strict speed control.	Operational	C	Isibonelo have an inbuilt monitoring system in the LDV that monitor speed exceedances or restrictions without speed reduction. Speed control forms part of the environmental induction awareness (dated 2023).
		Dust sprayers at tipping points.	Operational	C	No non-conformance observed. Site personnel noted that dust sprayers are available and in use as and when required.
		Re-vegetate stockpiles as soon as possible.	Operational	C	No non-conformance observed. Isibonelo adhere to condition parameters as verified during the audit.
		Vegetation cover is maintained in active areas for as long as is practically possible.	Operational	C	No non-conformance observed. Isibonelo adhere to condition parameters as verified during the audit.

NO'	MANAGEMENT PRINCIPLE	MITIGATION MEASURES_ CONDITIONS OF AUDIT	PHASE	COMPL	AUDIT OBSERVATIONS/FINDINGS
		Ongoing dust fallout monitoring is undertaken using the current network to assess the effectiveness of dust control measures.	Operational	C	Isibonelo undertakes dust fallout monitoring in accordance with its Dust Monitoring and Management Procedure. And according to the Air Quality Monitoring Report dated April 2023 only one exceedance in October 2022 at De Wet Farm occurred. An action plan was put in place to mitigate, and no exceedance occurred henceforth.
		An emission inventory will be developed.	Operational	C	Air emission inventory are part of the 2022- 2023 Air Quality Monitoring Report's verified during the audit period.
		Vehicles are not left idling unnecessarily when not in use.	Operational	C	Isibonelo undertakes induction on vehicle use requirements and controls in place include vehicles are retrofitted with in-vehicle monitoring that keeps track of vehicle run time activity; placement of stop-blocks on stationary vehicles to prevent rolling.
		To prevent spontaneous combustion and emissions of greenhouse gases mined out areas are rehabilitated as soon as possible to prevent old workings being open.	Operational	C	Isibonelo Colliery is rehabilitating opencast pits in line with rehabilitation procedure (Doc no, and no spontaneous combustion was observed during the site assessment.
10c	Dust generated from crushing plant	The crusher is enclosed to reduce dust dispersion.	Operational	C	The crusher is enclosed to reduce dust dispersion.
10d	Odour from the sewage treatment plant	Regular maintenance of plant to ensure good performance, to prevent odour.	Operational	C	No nuisance odours were experienced during the site assessment.
10e	Dust from activities associated with workshops, offices, parking lots, and other buildings. In the context of the mine, these activities contribute very little to the overall dust from the mine and were not identified as a significant source of dust.	Paved or gravelled parking lots to reduce dust	Operational	C	No non-conformance observed. Parking lots are paved and gull eyed.
		Other areas are impervious surfaces.	Operational	C	No non-conformance observed. Other areas are impervious surfaces. Refer to Appendix B: Photo 1, 3, 13
10f	Dust from crushing and conveyor transfer points are managed	The belt is covered to reduce dust contamination of the neighboring environment.	Operational	C	No non-conformance observed. Areas comply with condition parameters.
		The conveyors are regularly maintained.	Operational	C	No non-conformance observed. Areas comply with condition parameters.
		Doghouse sheeting prevents dust.	Operational	C	No non-conformance observed. Areas comply with condition parameters.
		Transfer points are enclosed.	Operational	C	No non-conformance observed. Areas comply with condition parameters.
10g	No impact anticipated on air quality.	N/A	N/A	N/A	No mitigation measures
10h	Dust from haul roads	Water spray unpaved roads.	Decommissioning and Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning and closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.

NO'	MANAGEMENT PRINCIPLE	MITIGATION MEASURES_ CONDITIONS OF AUDIT	PHASE	COMPL	AUDIT OBSERVATIONS/FINDINGS
		Apply chemical binders to unpaved roads as needed.	Decommissioning and Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning and closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Strict speed control on unpaved roads.	Decommissioning and Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning and closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Re-vegetate levelled and top soiled areas as soon as possible.	Decommissioning and Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning and closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
10i	Dust from haul roads	Monitor revegetation and ensure sufficient cover.	Post-Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and post-closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
11a	Noise impacts from drilling and blasting activities	Farm workers on Aangewys have been relocated, and barriers between the mine and surrounding farms are formed using soils and spoil berms.	Operational	C	Relocation of farm workers was undertaken (2006 Relocation of graves at Anglo Kriel South Progress report, Montedi Developments) and are no longer located within active mine areas and spoils are used as barriers for neighbouring farmers.
		All blasting will be in accordance with prevailing legislation. Holes will be set to fire progressively to the south away from sensitive areas to the north. Blasting within 500m of habitation to postponed in cases of unfavourable wind conditions, low cloud cover and falling ground temperatures. All overburden and inter-burden blasting will be initiated using delays between every hole so that there is single hole firing. During operation, two hole firing is used to accommodate the mining method as the distance from the sensitive receptors is increased.	Operational	C	Isibonelo implement a blasting procedure, ensuring all personnel involved in blasting operations are familiar with the Minerals Act and Regulations. One blasting-related complaints was received for the audit period and an incident report with corrective action generated from Enablon was verified (verified in the Incident and grievance report, updated July 2023 generated form Enablon).
		Suitable purchase standards are applied to ensure proper plant enclosures and effective silencing equipment on vehicles and at the crusher.	Operational	C	No non-conformance observed. Isibonelo comply with suitable purchase standard conditions when purchasing plant equipment.
		Blasting is carried out in accordance with relevant regulations.	Operational	C	Isibonelo implement a blasting procedure, ensuring all personnel involved in blasting operations are familiar with the Minerals Act and Regulations.
		Measures are implemented to minimise noise and blast vibrations to the extent practical.	Operational	C	Isibonelo have noise and blasting monitoring points within and outside the mine to ensure that mine activities do not affect surrounding communities, employees and mining infrastructure and minimise noise and blast vibrations to vulnerable receptors.

NO'	MANAGEMENT PRINCIPLE	MITIGATION MEASURES_ CONDITIONS OF AUDIT	PHASE	COMPL	AUDIT OBSERVATIONS/FINDINGS
11b	Noise impacts from crushing operations	Conveyor idlers are machined and regularly maintained to ensure worn parts are replaced. Modifications were already made to reduce noise from the conveyor mechanism.	Operational	C	Isibonelo implement an equipment maintenance procedure and a periodic report is generated for record keeping (verified in the maintenance equipment records, dated April 2023).
		The conveyor has been placed in a tunnel constructed of rounded corrugated iron sheets (dog house sheeting) that can be removed for maintenance purposes. The structure of the tunnel stands free from that of the conveyor system.	Operational	C	No non-conformance observed. Isibonelo personnel confirm that the comply with condition parameters.
		The crushing plant is clad to reduce noise and dust	Operational	C	No non-conformance observed. Isibonelo personnel confirm that the comply with condition parameters.
11c	No impact expected on the noise.	N/A	N/A	N/A	No mitigation measures
11d	Workshop activities take place within buildings. No impact expected on the noise.	N/A	N/A	N/A	No mitigation measures
11e	Noise impacts from coal handling and conveying.	Doghouse sheeting was installed on the conveyor to prevent noise impacts.	Operational	C	No non-conformance observed. Isibonelo comply with condition parameters.
11f	No impact anticipated on air quality.	N/A	N/A	N/A	No mitigation measures
11g	Noise impacts from removal of infrastructure.	Rehabilitation activities to take place during daylight hours.	Decommissioning and Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning and closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
12	Mining will cut off groundwater flows to the footslope seepage wetlands on the Steenkoolspruit. Berm and river diversion construction will remove the habitat of the footslope wetlands and a section of the floodplain wetland.	Relocation of plant material from wetland area.	Operational	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and relocation of plant material from wetland occurred outside of this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Stripping and stockpiling of wetland soils.	Operational	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and stripping from wetland occurred outside of this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		At closure remove spoil from the laydown area.	Operational	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning and closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Relocate the berm to the northern edge of the box cut.	Operational	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning and closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.

NO'	MANAGEMENT PRINCIPLE	MITIGATION MEASURES_ CONDITIONS OF AUDIT	PHASE	COMPL	AUDIT OBSERVATIONS/FINDINGS
		Return wetland soils to spoil laydown area and rehabilitate floodplain.	Operational	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and relocation of plant material from wetland occurred outside of this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Strip wetland soils from the unnamed tributary and replace in the new location of the tributary after mining.	Operational	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning and closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
13a	Visual intrusion related to surface infrastructure. Visual intrusion will reduce as the depth of the pits increase, since the topsoil berms and wall of the pits provide a screening effect.	Re-vegetate opencast areas as soon as possible.	Operational	C	Concurrent rehabilitation is implemented onsite. Revegetation is undertaken as per the rehabilitation procedure (Doc no' ISO-OM-PRO-1096, approved 28 April 2022).
		Stockpiles to be vegetated.	Operational	C	Revegetation management measures are implemented on stockpiles through the rehabilitation procedure by Isibonelo' land management superintendent who noted the use of commercially available grasses (<i>Chloris gayana</i> ; <i>Digitaria eriantha</i> ; <i>Eragrostis curvula</i> ; <i>Eragrostis teff</i> ; <i>Cenchrus ciliaris</i> ; and <i>Antepora pubescens</i>). Refer to Appendix B: Photo 22
13b	Safety and Visual impact.	The crushing plant and mine structures will be dismantled and removed. Any buildings not required for post-mining purposes, will be demolished together with all the foundations and rubble will be buried in an area as approved by the relevant Authorities.	Decommissioning and closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning and closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
14	The impact of ground vibration and air blast due to blasting.	All persons occupying the property of Mr Wessels should be relocated.	Operational	C	Proof of relocation was verified during the audit period (2006 Relocation & graves progress report, Montedi Developments).
		Blasting is carried out in accordance with relevant regulations.	Operational	C	Isibonelo implement a blasting procedure, ensuring all personnel involved in blasting operations are familiar with the Minerals Act and Regulations.
15a	Inappropriate disposal of wastes.	Waste is separated at source in order to allow for reuse and/or disposal in an appropriate manner.	Operational	N/C	Isibonelo have a Waste Management Disposal Procedure that cater for paper and plastic recycling initiatives implemented around the offices. Phambili are the appointed waste collector and safe disposal slips for general and hazardous waste (March – May 2023) were verified. However, poor source separation is occurring onsite at waste management areas for wheelies bins and skips. An action plan was put in place to have additional waste separation programmes implemented at time of the audit. Refer to Appendix B: Photo 13,14, 18

NO'	MANAGEMENT PRINCIPLE	MITIGATION MEASURES_ CONDITIONS OF AUDIT	PHASE	COMPL	AUDIT OBSERVATIONS/FINDINGS
		Where appropriate, an approved contractor is responsible for the removal and disposal of waste to a permitted landfill sites.	Operational	C	Phambili undertakes waste removal to permitted landfill site. Safe disposal slips for general and hazardous waste (March – May 2023) were verified. Additionally, Mokwayi trading collect used oil and paper (verified in the safe disposal slips dated June 2022 to May 2023). Mokwayi personnel were actively collecting used oil during the site assessment. Refer to Appendix B: Photo 2
		All waste removal documents, waste manifests and certificates of safe disposal should be kept for audit purposes for the life of the mine.	Operational	C	Phambili undertakes waste removal to permitted landfill site. Waste removal documents and certificates, waste manifests/ safe disposal slips for general and hazardous waste (March – May 2023) were verified. Additionally, Mokwayi trading collect used oil and paper (verified in the safe disposal slips dated June 2022 to May 2023).
		No littering is allowed.	Operational	N/C	Poor housekeeping was observed onsite with littering and overflow of bins. An action plan was put in place to have additional waste separation programmes implemented at time of the audit. Refer to Appendix B: Photo 13, 18
		Burning of refuse is not allowed.	Operational	C	No evidence of burning of refuse was noted onsite. Isibonelo undertake an environmental awareness yearly and to new contractors and employees to this regard.
		Waste is not allowed to be buried on site.	Operational	C	No evidence of burying of waste was noted onsite. Isibonelo undertake an environmental awareness yearly and to new contractors and employees to this regard.
16a	Input into the economy of the area employment of people.	Where possible, labour and other services are sourced from the surrounding communities.	Operational	C	The 2020 – 2024 Social and Labour Plan Report indicates that employment parameters cater for labour and other services sourcing from the surrounding communities.
16b	Operational impacts on local communities	Implement bio-physical measures.	Operational	C	Isibonelo have been issued with the following EA and EMPr that ensure that overall operation bio-physical impacts are mitigated: - Consolidated EA and EMPR for Isibonelo Colliery, dated March 2020 and granted 19 October 2021 (Reference no.: MP 30/5/1/2/3/2/1 (130) EM) by DMRE. - Final EIR Report/ EMP for the proposed Block Z Project at Isibonelo Colliery, dated 31 March 2015 and granted 13 September 2018 (Reference No. MP 30/5/1/2/3/2/1 (130) EM by DMRE and the EA approved 8 September 2015, with reference no.: 17/2/3N-362 from MEDET. - An Integrated WUL Ref No. 06/B11D/FBCGJI/9121, dated 19/11/2019, as amended in 23/02/2021. - GA for the proposed rehabilitation of wetlands for isibonelo Colliery, Ref No. 27/212/B311/4/3 dated 22/06/2020 with DWS.
		Undertake regular community briefings to ensure community complaints are identified and addressed.		C	Isibonelo attend forums and community meetings (meeting minutes and registers verified for the audit period). An example is the Upper Olifants catchment forum. Community complaints received for the audit period have been actioned and closed i.e. blasting complaint. Refer to condition Table 1, condition 11a.
16c	Loss of Agricultural land	Farmers are compensated for land values, improvements and relocation expenses and not land values only.	Operational	C	Proof of compensation for land values and relocation was verified during the audit period (2006 Relocation & graves progress report, Montedi Developments).

NO'	MANAGEMENT PRINCIPLE	MITIGATION MEASURES_ CONDITIONS OF AUDIT	PHASE	COMPL	AUDIT OBSERVATIONS/FINDINGS
16e	The operational phase will result in an increase in both light and heavy vehicle traffic on the D618. This traffic will travel along the newly constructed D618 alignment, which has been upgraded.	No mitigation possible	N/A	N/A	No mitigation accessed.
16f	The workforce is resident in the district and no influx of	Follow applicable health regulations and guidelines. HIV/Aids awareness in the workplace.	Operational	C	Isibonelo Colliery conducts wellness campaigns ad-hoc. Proof of programs verified for the audit period include HIV campaigns (verified in the wellness campaign presentation dated November 2022). Barrier protection methods are distributed for free in bathrooms and HIV testing is undertaken as part of wellness checks.
16g	Retrenchment.	Employees will be informed of possible retrenchments.	Decommissioning and Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning and closure activities haven't occurred during this audit period. Nonetheless, the 2020-2024 SLP does make note of this parameter. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		The colliery will follow LRA as well as the guidelines provided by the Department of Labour in ensuring fair opportunities to train, re-deploy employees and to establish alternative measures short of retrenchments	Decommissioning and Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning and closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Other affected parties (sending areas, municipalities etc.) will be informed of the possible retrenchments at the operation.	Decommissioning and Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning and closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Assessment and counselling services will be provided for affected employees.	Decommissioning and Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning and closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Comprehensive self-employment training programmes will be provided.	Decommissioning and Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning and closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Comprehensive training (non-mining skills) and re-employment programmes will be provided.	Decommissioning and Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning and closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Regeneration of local economies and creation of jobs for local economies will be carried out.	Decommissioning and Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning and closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		These measures will commence 2 years prior to mine closure as jobshedding may commence at that time.	Decommissioning and Closure	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and decommissioning and closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.

NO'	MANAGEMENT PRINCIPLE	MITIGATION MEASURES_ CONDITIONS OF AUDIT	PHASE	COMPL	AUDIT OBSERVATIONS/FINDINGS
17	Presence of graves	Where possible, fence graves to protect them from damage.	Operational	C	Graves were Identified during specialist assessment and graves not relocated were fenced that did not affect mining activities (2006 Relocation & graves progress report, Montedi Developments).
		Where graves cannot be avoided by mining activities, appoint archaeologist to oversee the exhumation and relocation process.	Operational	C	Graves were Identified during specialist assessment and proof of relocation report was verified during the audit period (2006 Relocation & graves progress report, Montedi Developments).
		Engage in the social consultation process to obtain permission for exhumation and reburial of the graves.	Operational	C	Graves were Identified during specialist assessment and proof of social consultation and permissions was verified during the audit period (2006 Relocation & graves progress report, Montedi Developments).
		Conduct exhumation and reburial in compliance with regulated requirements.	Operational	C	Graves were Identified during specialist assessment were exhumed and relocated/ reburied as per the (as verified in the 2006 Relocation & graves progress report, Montedi Developments).
Table 2	Impacts and risks identified				
1	Loss of soil fertility due to contamination and exposure to erosion. Contamination of soils resulting from incorrect storage/handling and disposal of hazardous waste materials. Potential hydrocarbon spillages from the refuelling of equipment, machinery and vehicles may lead to contamination of the soil in and around the site. Potential hydrocarbon spillages resulting from a leakage caused by a fracture/crack or rupture in the fuel storage tanks may lead to contamination of the soil in and around the site area. Loss of agricultural land use resources due to the construction of the Fuel Storage Tanks	Remove soils that have been contaminated during the operational phase as soon as practical and dispose of in an appropriate manner.	Operational	N/C	Contaminated soils are handled according to the contaminated soil management procedures. However contaminated soils were observed onsite and a clean as you go policy was not employed during the audit. It should be noted that at the time of report finalisation, Isibonelo implemented an action plan to clean up contaminated area. Refer to Appendix B: Photo 3,14
		Should a spillage or leakage of a hydrocarbon, chemical or hazardous substance occur, clean-up the spill / leakage.	Operational	N/C	Contaminated soils are handled according to the contaminated soil management procedures. However contaminated soils were observed onsite and a clean as you go policy was not employed during the audit. It should be noted that at the time of report finalisation, Isibonelo implemented an action plan to clean up contaminated area. Refer to Appendix B: Photo 3, 14

NO'	MANAGEMENT PRINCIPLE	MITIGATION MEASURES_ CONDITIONS OF AUDIT	PHASE	COMPL	AUDIT OBSERVATIONS/FINDINGS
		Adequately manage stockpile areas and include in Isibonelo Colliery's storm water management system so as to prevent soil erosion.	Operational	C	All stockpiles are managed as per the rehabilitation procedure (Doc no' ISO-OM-PRO-1096, Approved 28 April 2022) that provides method statements on maintenance and monitoring to manage erosion. Isibonelo's stormwater management program incorporates clean and dirty water infrastructures around stockpiles. Refer to Appendix B: Photo 20,21
2a	Increased dust generation due to the use of dirt roads.	Implement dust suppression measures such as water spraying, where and / or when necessary.	Operational	C	No nuisance dust conditions were observed. Processed water obtained from Vaskop Dam is the main source of dust suppression at an estimated 1.0 l.m ² /day by the water bowsers and this water use activity is approved under Section 21 (g) of Integrated WUL Ref No. 06/B11D/FBCGJI/9121, dated 19/11/2019. Additionally, should the volumetric capacity of the Ernies dam reaches ≥ 5% of its capacity, water is transferred to sparer's or atomizers onsite for dust suppression use (verified in the Thungela Isibonelo colliery water and salt balance report update, dated 03/05/2023. No PM exceedances were noted in the monthly air quality reports except for October 2022.
		Minimise dust entrainment from vehicular movement by road wetting and by implementing speed limits.	Operational	C	No nuisance dust conditions were observed. Isibonelo have an inbuilt monitoring system in the LDV that monitor speed exceedances or restrictions without speed reduction. Speed control forms part of the environmental induction awareness (dated 2023).
		Ensure that all equipment and vehicles are serviced regularly. Vehicle and machinery exhaust systems should be maintained to ensure integrity and reliability.	Operational	C	Isibonelo implement an equipment maintenance procedure and a periodic report is generated for record keeping (verified in the maintenance equipment records, dated April 2023). A vehicle maintenance procedure is in place and implemented through the LDV and HDV workshops. Refer to Appendix B: Photo
		Prohibit burning of waste (such as plastic bags, cement bags and litter) or vegetation on site.	Operational	C	Burning of waste or vegetation on site is prohibited and forms part of the environmental awareness induction. No evidence of fires was noted onsite.
		Implementation of a complaints register on site according to Isibonelo Colliery's EMS procedure.	Operational	C	The complaints received for Isibonelo through the physical register at the office security post register, community liaison personnel is consolidated onto Enablon as per the EMS procedure as verified for this audit period. Refer to Appendix B: Photo 28
2b	The release of polluted air during each refuelling cycle	All the diesel tank installations are to be fitted with breathers/vents.	Operational	C	Breathers and vents were observed on infrastructure that harbour's diesel tanks. Refer to Appendix B: Photo 4 and 19
		Implementation of a complaints register on site according to Isibonelo Colliery's EMS procedure.	Operational	C	The complaints received for Isibonelo through the physical register at the office security post register, community liaison personnel are consolidated onto Enablon as per the EMS procedure as verified for this audit period. Refer to Appendix B: Photo 28

NO'	MANAGEMENT PRINCIPLE	MITIGATION MEASURES_ CONDITIONS OF AUDIT	PHASE	COMPL	AUDIT OBSERVATIONS/FINDINGS
3a	Potential hydrocarbon spillages from equipment, machinery and vehicle storage may lead to the contamination of surface water and ground water. Potential hydrocarbon spillages resulting from a leakage caused by a fracture/crack or rupture in the fuel storage tanks may lead to contamination of surface and groundwater.	Ensure the existing storm water management measures incorporate the bulk fuel storage and are compliant with the necessary legislation.	Operational	N/C	Existing storm water management measures are present at the bulk fuel storage in compliance with relevant legislation. However, sumps were blocked at the HDV workshops which form part of the dirty water separation that forms part of the stormwater management system. Additionally, Isibonelo have an Oil and Silt Trap Operation And Maintenance Procedure, Ref ISI-ENG-PRO-0933, dated 20/04/2022 that is not fully implemented. At the time of the audit a 2 weekly cleanup work management job card was created. Refer to Appendix B: Photo 17
		Upgrade the existing emergency response plan (if necessary) to include activities associated with the bulk fuel storage.	Operational	C	An emergency response plan (Ref: ISI-VOH-SD-0001) was verified during the audit and includes activities associated with bulk fuel storage i.e., dealing with an emergency of major petrochemical spills. Refer to Appendix B: Photo 19
		Undertake regular observations and maintenance of the Bulk Fuel Storage tanks to prevent leakages and spillages.	Operational	C	The bulk fuel storage area is part of the maintenance and monitoring program to ensure that leaks and spills that arise are addressed immediately and prevent any future leaks. Refer to Appendix B: Photo 19
		Should an oil-water separator (or similar system) be utilised on site, test all water for total petroleum hydrocarbons prior to discharge into the storm water system. Capture and dispose of or recycle contaminated water as appropriate.	Operational	N/C	The water from the containment bund drains through an oil separator, and all oils and hydrocarbons are collected and removed by waste contractor Mokwayi Trading. However, the sumps by the HDV washbay were blocked. The supernatant drains towards Black dam, then pumped to Vaskop Dam for containment and reuse. At the time of the report finalisation an action plan was in place and compliance will be reviewed in the next audit report. Refer to Appendix B: Photo 17, 23
3b	Runoff containing suspended solids, sediments and fuel residue may contaminate surface water resources.	Prohibit discharge of pollutants such as contaminated water, cement, fuels or oils into the surrounding environment and / or a water resource.	Operational	C	The bulk fuel storage area is located within the affected water system, which is collected into the dirty water dam for reuse, which ensures that pollutants such as contaminated water, cement, fuels or oils are not discharged into the surrounding environment and / or a water resource.
		Undertake regular observations and maintenance of the Bulk Fuel Storage tanks to prevent leakages and spillages.	Operational	C	According to the handling, storage and transportation of chemical procedure all bunded areas and sumps will be regularly inspected for contamination and water. Petroleum hydrocarbon tests are conducted at the workshop and Vaskop dam. The bulk fuel storage area is located within the affected water system, collected into the dirty water dam for reuse. Refer to Appendix B Photo 19
			Operational	C	Regular inspections are conducted for contamination and water in all bunded areas and sumps. Isibonelo undertake annual inspections by a Diesel Engineer at the bulk fuel storage tanks and associated bunds.
4	Fauna may come into contact with fuel/residue which may cause illness and/or death.	Prohibit the use of topsoil that is potentially contaminated with seeds of exotic plants for rehabilitation. Treat the topsoil appropriately to remove the threat of subsequent plant infestation.	Operational	N/A	This condition is not applicable for this audit scope/period.

NO'	MANAGEMENT PRINCIPLE	MITIGATION MEASURES_ CONDITIONS OF AUDIT	PHASE	COMPL	AUDIT OBSERVATIONS/FINDINGS
	Soil compaction or contamination may limit vegetation growth or hamper re-establishment following mine closure.	Implement Isibonelo Colliery's Biodiversity Action Plan.	Operational	C	Isibonelo Colliery has a Biodiversity Action Plan compiled in 2004 and a biodiversity peer review report by Fauna and Flora International in 2010. Shangoni Management Services was appointed to compile an Invasive Species Management Plan, based on monitoring, control, and eradication guidelines.
		Implement Isibonelo Colliery's Rehabilitation Plan where practical.	Operational	N/A	This condition is not applicable for this audit scope/period.
		Handle herbicides and pesticides that may be required as per the weed management control plan with care and keep locked away with strict access control measures in place. The volumes and types of these chemicals must be documented and kept updated. Only a person licensed to use such chemicals is permitted to do so on site.	Operational	N/A	This condition is not applicable for this audit scope/period.
		Report any mammals, birds, reptiles or amphibians encountered on site to the environmental offices immediately.	Operational	C	Monitoring and reporting are undertaken as per the EMPr commitments
		If required, implement fauna relocation recommendations stipulated by the department. Retain records of removal and relocation.	Operational	C	Monitoring and reporting are undertaken as per the EMPr commitments
		Prohibit the hunting or killing of any fauna and education thereof should form part of the environmental management training e.g., site induction and the environmental awareness programme.	Operational	C	Monitoring and reporting are undertaken as per the EMPr commitments
5	The bulk fuel storage expansion is undertaken on the mine property that is an already disturbed area, therefore, no new / additional impacts to the visual environment.	The bulk fuel storage expansion is undertaken on the mine property that is an already disturbed area, therefore, no new / additional impacts to the visual environment is expected.	N/A	N/A	N/A
6	The incorrect storage of hazardous waste materials may contaminate the surrounding environment.	Train and inform all on-site personnel regarding waste minimisation, management and disposal.	Operational	C	Induction and awareness programs have been undertaken during this audit period (as verified in the induction and awareness 2022-2023 pack).
		Records of appropriate disposal (e.g., waybills and safety disposal certificates) must be furnished upon receipt.	Operational	C	Proof of records of disposal were verified during the audit period.

NO'	MANAGEMENT PRINCIPLE	MITIGATION MEASURES_ CONDITIONS OF AUDIT	PHASE	COMPL	AUDIT OBSERVATIONS/FINDINGS
		Bins should be clearly marked for the different waste streams, lined for efficient control and safe disposal, as well as covered.	Operational	N/C	Bins were clearly marked for different waste streams, Lids were noted on hazardous skips. However, some wheelie bins were either left open, had no lids and were overflowing during the site assessment. Refer to Appendix B: Photo 5,13,14
		Hazardous waste is not to be mixed or combined with general waste designated for disposal at the municipal landfill site.	Operational	N/C	Mixing of waste streams were noted at waste skip areas. Refer to Appendix B: Photo 13,14
		Materials from the removal of existing structures must be recovered, recycled and re-used where possible.	Operational	N/A	This condition is not applicable for this audit scope/period.
		Should general waste be mixed with hazardous waste, it will be considered hazardous waste and must be disposed as appropriate.	Operational	N/C	Mixing of waste streams were noted at waste skip areas. Refer to Appendix B: Photo 13,14
7	In the case of a diesel explosion/fire, injuries and/or deaths may result.	Appoint a health and safety officer ("HSO") who will continuously monitor safety conditions during construction activities. Implement the Mine Health and Safety Act on site.	Operational	C	Isibonelo Colliery has a Health and Safety Officer responsible for ensuring compliance with the Mine Health and Safety Act. Key personnel have firefighting training to ensure prompt emergency response (Industrial firefighting preliminary level, ETS dated AApril 2022).
		Ensure that all employees are supplied with the correct PPE and it is used (worn) and signs indicating PPE requirements must be placed on site as appropriate.	Operational	C	Employees are provided with proper PPE and trained on their use. Signs indicating PPE requirements and noise protection are placed on site. Refer too Appendix B: Photo 8
		Train all on site personnel handling chemical or hazardous substances in the use of such substances and the environmental, health and safety consequences of incidents.	Operational	C	Induction training includes condition parameters.
		Train employees in health and safety policies, emergency preparedness, and HIV and AIDS.	Operational	C	Induction training includes condition parameters.
		Conduct toolbox talks on a daily basis pertaining to health and safety risks onsite.	Operational	C	Regular toolbox talks undertaken that includes condition parameters.
		Provide in-service training to employees where applicable.	Operational	C	Training undertaken ad-hoc as when required.
		Provide suitable signage in local languages that are clearly visible warning against public access.	Operational	C	Access control boards are placed at strategic areas of high human traffic such as entrances and pedestrian crossings. Refer to Appendix B: Photo 6,8

NO'	MANAGEMENT PRINCIPLE	MITIGATION MEASURES_ CONDITIONS OF AUDIT	PHASE	COMPL	AUDIT OBSERVATIONS/FINDINGS
8	Temporary employment may be created during operational phase of the bulk fuel storage tanks.	Maintain complaints register at the site security office whereby members of the public, the authorities, the construction team etc. are able to comment on issues.	Operational	C	It was noted that a register is kept at the reception area and details are captured onto Enablon. The complaints register was verified. Refer to Appendix B: Photo 28
	Increased economic wellbeing in the region.	N/A	Operational	N/A	No mitigation measure accessed.
9	Removal of infrastructure may cause soil pollution	Remove project associated infrastructure as per Isibonelo Colliery's closure and rehabilitation plans.	Closure and rehabilitation	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and closure and rehabilitation activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Inspect soils underlying the facility for contamination prior to backfilling and shaping. Contaminated soil is to be contained and removed from site in an appropriate manner (remediated).	Closure and rehabilitation	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and closure and rehabilitation activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Ensure the protection and rehabilitation of soil and land use resource within the project area.	Closure and rehabilitation	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and closure and rehabilitation activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Prohibit the use of topsoil that contains the seeds of alien vegetation for rehabilitation, unless a program to germinate indigenous seeds and eradicate alien seedlings is implemented.	Closure and rehabilitation	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and closure and rehabilitation activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Rip all compacted areas to the minimum depths specified in Isibonelo Colliery's rehabilitation plan so as to best facilitate organic contaminant breakdown and vegetation establishment. The soil should undergo analysis and if required, fertilizer is to be placed on the area as per Isibonelo Colliery's EMPr.	Closure and rehabilitation	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and closure and rehabilitation activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Select a grass mix for rehabilitation of disturbed open areas. The selected grass mix should consist of a mix of quick-covering, matt forming pioneer grass species (e.g., Gynodon dactylon, Chloris gayana) and tufted grasses (e.g. Eragrostis curvula) to ensure prompt and adequate coverage of the exposed soil whilst also achieving long-term stability. Alternatively, the current seed mix currently being utilised by Isibonelo Colliery may be used.	Closure and rehabilitation	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and closure and rehabilitation activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.

NO'	MANAGEMENT PRINCIPLE	MITIGATION MEASURES_ CONDITIONS OF AUDIT	PHASE	COMPL	AUDIT OBSERVATIONS/FINDINGS
		Control the presence of alien invasive species in all rehabilitated areas. Isibonelo Colliery may be required to update / amend the existing weed / alien invasive plant management plan.	Closure and rehabilitation	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and closure and rehabilitation activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Level and shape the rehabilitated project area to ensure efficient drainage of the site. Under no circumstances is general or hazardous waste to be disposed of at the site.	Closure and rehabilitation	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and closure and rehabilitation activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Compile a procedure for on-going monitoring to assess the progress of rehabilitation.	Closure and rehabilitation	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and closure and rehabilitation activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
Table 3:					
1a	Marginal loss and disturbance of wetland habitat. Flow storage in the excavation Water quality deterioration.	The borrow pit's location extending into the floodplain is not ideal and it is not aesthetically appealing. However, the excavation appears to have reached equilibrium with the adjacent floodplain and does not appear to be causing significant, ongoing impact. Infilling of the borrow pit is an option that could be considered, but infilling would require materials that would need to be sourced from other areas and further activity surrounding the borrow pit could cause additional disturbance to adjacent wetland habitat. The actual, functional benefit of infilling the excavation therefore needs to be weighed against potential further impact that infilling activities could cause.	Operational and closure	C	Borrow pits are undergoing rehabilitation according to condition parameters.
		If water quality in the excavation is poor or of poorer quality than in the channel upstream, then a stronger argument could be made for disconnecting the borrow pit from the adjacent channel and infilling the excavation. The water quality in the borrow pit compared to the adjacent wetland and river channel would need to be ascertained in order to determine whether infilling of the excavation is a valuable option to consider.	Operational and closure	C	Borrow pits are undergoing rehabilitation according to condition parameters.
1b	Possible marginal loss and disturbance of wetland habitat. mobilisation of sediment Impoundment of catchment flows concentrated flow into wetlands.	The outflow channel on borrow pit 2 should be protected from livestock utilization through fencing to prevent ongoing soil disturbance. Ideally, the outflow channel should be widened at its lower edge to encourage more spread out over spilling to the downslope areas, including the wetland.	Operational and closure	C	Borrow pits are undergoing rehabilitation according to condition parameters.

NO'	MANAGEMENT PRINCIPLE	MITIGATION MEASURES_ CONDITIONS OF AUDIT	PHASE	COMPL	AUDIT OBSERVATIONS/FINDINGS
1c	Possible marginal loss and disturbance of wetland habitat mobilisation of Sediment Impoundment of catchment flows Concentrated flow into wetlands.	Borrow pit 3 is causing a somewhat greater degree of catchment flow impoundment and rehabilitation of the pit should be considered and should include reducing side slopes to a gentler profile, replacement of any stockpiled material into the excavation and revegetation of the pit as far as possible. This would encourage more natural flow patterns from the excavated area of the catchment into the wetland downslope. Care should be taken that rehabilitation does not lead to the concentration of any flows to the wetland.	Operational and closure	C	Borrow pits are undergoing rehabilitation according to condition parameters.
1d	Loss of wetland habitat Exposure of bare soils to increased risk of erosion mobilisation of sediments water quality deterioration (increased sedimentation in receiving wetland) flow impoundment alien and weed vegetation and establishment.	The stockpiles must be profiled to emulate the surrounding landscape as far as possible. This should include spreading out of the stockpiles as far as space allows (though not into the wetlands), creating gentler side slopes to limit the risk of erosion, the incorporation of erosion control measures on the contoured stockpiles, and active revegetation of the stockpiles. This may require the addition of topsoil to aid the establishment of indigenous plant species.	Operational, closure and post-closure	C	No non-conformance observed. Stockpiles are emulating surroundings.
		A stockpile rehabilitation plan should be compiled to guide reshaping, revegetation and management of the stockpiles.	Operational, closure and post-closure	C	Stockpile rehabilitation is implemented onsite. Revegetation is undertaken as per the rehabilitation procedure (Doc no' ISO-OM-PRO-1096, approved 28 April 2022).
		Ongoing alien and weed vegetation management should form part of the management of the stockpile areas during further mining operation, closure and post closure.	Operational, closure and post-closure	C	Alien and weed vegetation management is implemented onsite. Revegetation is undertaken as per the rehabilitation procedure (Doc no' ISO-OM-PRO-1096, approved 28 April 2022).
2a	Odours may arise from the waste tyre storage facility due to the incorrect disposal of waste.	No waste, other than the waste tyres may be stored at the waste tyre facility.	Operational	C	The tyre waste facility was not assessed this audit period.
		Training must be provided continuously to all employees working with the waste tyres and to all contract workers that might be exposed to the waste tyre storage area. A sufficient number of employees must receive training to cover for leave periods, absences due to illness, public holidays or any other reason.	Operational	C	The tyre waste facility was not assessed this audit period.

NO'	MANAGEMENT PRINCIPLE	MITIGATION MEASURES_ CONDITIONS OF AUDIT	PHASE	COMPL	AUDIT OBSERVATIONS/FINDINGS
		Appropriate PPE to be provided to employees working within the waste tyre storage facility.	Operational	C	The tyre waste facility was not assessed this audit period.
		A waste tyre storage area plan must be developed by the waste tyre processor and waste tyre storage site owner.	Operational	C	The tyre waste facility was not assessed this audit period.
2b	Fires may occur due to the incorrect storage of the waste tyres and poor maintenance and management of the waste tyre storage facility.	Ensure the emergency preparedness plan provides for emergencies within the waste tyre storage facility.	Operational	C	The emergency preparedness plan applies to all areas of Isibonelo and provides for emergencies within the waste tyre storage facility.
		A security attendant (mine personnel) trained in fire prevention must be on site at all times.	Operational	C	A fire prevention-trained team inclusive of security personnel are present on site at all times.
		A person designated to manage the site must ensure the site is secured and no unauthorized person can access the site.	Operational	C	No unauthorized personnel can access the site. Stringent security access control points are placed at all points of entry.
		No single pile of waste tyres may exceed a height of 3 metres, a length of 20 metres and a width of 10 metres.	Operational	N/C	The maximum height, length, and width of a single pile of waste tires exceeded the area restrictions. However, at the time of report finalization, an action plan was in place to comply with area limits.
		All interior firebreaks between piles of waste tyres must be at least five metres wide.	Operational	C	The tyre waste facility was not assessed this audit period.
		All firebreaks must be at least 8 metres wide.	Operational	C	The tyre waste facility was not assessed this audit period.
		The edges of the piles must be at least 8 metres from the perimeter fence, and any buildings, and the area between the piles and the fence and buildings must be clear of debris and vegetation.	Operational	C	The tyre waste facility was not assessed this audit period.
		The site must be flat and hard packed.	Operational	C	No non-compliance noted, tyre storage area had a flat gradient.
		Waste tyre piles may not be located within 8 metres of a powerline.	Operational	C	No powerline was located within 8 m of the tyre stockpile as verified during site observations.
		The site manager must be on site at all times when the facility is open.	Operational	C	The site manager is onsite at all times and should the available, a proxy is made available to ensure compliance to this condition.
		Clearly visible signs with operating hours, contact details and site regulations must be posted near the entrance facility	Operational	C	Clearly visible signs with operating hours, contact details were erected near the entrance facility.

NO'	MANAGEMENT PRINCIPLE	MITIGATION MEASURES_ CONDITIONS OF AUDIT	PHASE	COMPL	AUDIT OBSERVATIONS/FINDINGS
3a	Minimise contamination of storm water.	Water from the Pollution Control dams are used for dust suppressions on haul roads and in-pit operations. The use of water for dust suppression should be maximised to provide greater storage capacity in the Pollution Control dams. Ensure that dust suppression activities comply with the water use licence.	Operational	C	No nuisance dust conditions were observed. Processed water obtained from Vaskop Dam is the main source of dust suppression at an estimated 1.0 l.m ² /day by the water boswers and this water use activity is approved under Section 21 (g) of Integrated WUL Ref No. 06/B11D/FBCGJI/9121, dated 19/11/2019. Additionally, should the volumetric capacity of the Ernies dam reaches ≥ 5% of its capacity, water is transferred to sparers or atomisers onsite for dust suppression use (verified in the Thungela Isibonelo colliery water and salt balance report update, dated 03/05/2023
		Should it be indicated in future that dust suppression does not adequately address excess mine water as means of disposal, investigations into treatment and discharge need to be done.	Operational	C	Isibonelo have taken note of the condition and will implement condition parameters ad-hoc.
		Refer to previous mitigation measures as provided in Section 7.5.1 of Part A, with regards to clean/affected water management.	Operational	C	Isibonelo have taken note of the condition and will implement condition parameters as per Section 7.5.1.
4a	Water quality deterioration Increased sediment loads in	The berm running along the northern edge of the river diversion should be maintained in a state of acceptable structural integrity and no breaches in this berm should be permitted. The condition of the berm should be monitored on a regular (preferably daily) basis to watch for any breaches or damage that may occur. If a breach occurs, either due to erosion of the berm sediment or accidental damage, temporary structures, such as hay bales or other sediment barriers should be placed immediately to plug the breach until the berm can be properly repaired. Any obviously carbonaceous material observed in the diversion below breach points should be manually removed and disposed of appropriately.If the material stockpiles to the west of the ROM and product stockpile are removed prior to removal of all carbonaceous material associated with the ROM and product stockpile, a low level, vegetated berm should be placed between the ROM and product stockpile and the clean water wetlands to the west to prevent runoff of contaminated flows into these wetlands.	Operational	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.

NO'	MANAGEMENT PRINCIPLE	MITIGATION MEASURES_ CONDITIONS OF AUDIT	PHASE	COMPL	AUDIT OBSERVATIONS/FINDINGS
		At closure or when the area is no longer used for ROM and product stockpiling, all carbonaceous material should be removed and disposed of at an appropriate disposal facility. This must be done to ensure that no carbonaceous material remains in the soil profile of the final landform for the area, which could be carried by surface or shallow subsurface flow into the wetlands or watercourses downslope.	Operational	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.

TABLE 4: CONSOLIDATED EMPR FOR ISIBONELO COLLIERY BLOCK Z, DMR REFERENCE NUMBER: MP 30/5/1/2/3/2/1 (130) EM.

REF NO'	ENVIRONMENTAL ASPECT	MITIGATION MEASURES _ CONDITIONS OF AUDIT	COMPL	AUDIT FINDING
	CONSTRUCTION_ ISIBONELO COLLIERY BLOCK Z EMPR (MP 30/5/1/2/3/2/1 (130) EM)			
	CLIMATE			
	None of the assessed impacts were rated as significant or high and were therefore not included herein.	No mitigation required.	N/A	No mitigation assessed.
	AIR QUALITY			
	None of the assessed impacts were rated as significant or high and were therefore not included herein.	N/A	N/A	No mitigation assessed.
	GEOLOGY			
	None of the assessed impacts were rated as significant or high and were therefore not included herein.	N/A	N/A	No mitigation assessed.
	TOPOGRAPHY			
	None of the assessed impacts were rated as significant or high and were therefore not included herein.	N/A	N/A	No mitigation assessed.
	SOIL, LAND USE AND LAND CAPABILITY			
	Use of heavy machinery/vehicles during the excavation of topsoil during pit development. Excavation and stockpiling of soils during pit development.	Remove and store all utilizable soil; preferably separately to ensure sequential rehabilitation is facilitated.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Prevent erosion of stockpiles by implementing water spraying, covering with vegetation or similar practices e.g., hessian sheets or porous wall/enclosures.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		Reduce the potential for compaction by restricting vehicle movement to permitted areas and limiting stockpiling by encouraging the practice of live placement.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		Prevent contamination by ensuring vehicles are well maintained, spill management procedures are implemented and, Potential contaminants handling and storage procedures are adequately implemented.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
	Excavation and stockpiling of soils during pit development.	Minimise the footprint areas to reduce the area of impact.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023

REF NO'	ENVIRONMENTAL ASPECT	MITIGATION MEASURES _CONDITIONS OF AUDIT	COMPL	AUDIT FINDING
		Use high floatation tyres on construction vehicles and restrict the movement thereof to minimise compaction.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		Remove and store all utilizable soil; preferably separately to ensure sequential rehabilitation is facilitated. Prevent erosion of stockpiles by implementing water spraying, covering with vegetation or similar practices e.g., hessian sheets or porous wall/enclosures.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		Use of Vetiver grass as erosion prevention ahead of clearing where erosion is a considered risk.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
	Use of heavy machinery/vehicles during the excavation of topsoil during pit development.	Prevent contamination by ensuring vehicles are well maintained, spill management procedures are implemented and potential contaminants handling and storage procedures are adequately implemented.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		Ensure that vehicle/machinery services are completed off site within a contained area, preferably hard standing.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
	Use of heavy machinery/vehicles during the excavation of topsoil during pit development.	Minimise the impact footprint, restrict vehicle movement to minimum area required, remove useable soil to recommended depth ahead of the opencast pit, stockpile and manage useable soils.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		Implement concurrent rehabilitation and the practice of live placement as soon as possible once the coal has been removed from a strip or opencast pit.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
	Excavation and stockpiling of soils during pit development.	Strip soils with vegetative cover in tacked and stockpile utilizable soils separately from subsoils.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		Restrict stockpiles and berms to less than 1.5 m high for utilizable soil and manage ingress of dirty water and erosion of the said stockpiles as per the mitigation measures listed herein.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
	HYDROGEOLOGY			
	No anticipated impacts during the Construction Phase. As such, no mitigation measures are required.	N/A	N/A	No mitigation measures assessed.
	HYDROLOGY			

REF NO'	ENVIRONMENTAL ASPECT	MITIGATION MEASURES _CONDITIONS OF AUDIT	COMPL	AUDIT FINDING
	Excavation of topsoil and levelling during pit establishment.	Apply Surface Water Management Plan with respect to berms around stockpiles and exposed soils to retain eroded soil.	N/A	No mitigation measures assessed.
	BIODIVERSITY_FLORA			
	Site clearing and preparation activities. Topsoil removal, transport and stockpiling and transport.	Avoid encroaching into the Dwars-in-die-Wegspruit River buffer and associated pans.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		Properly manage and monitor any remaining natural habitat to promote ecosystem functioning.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		The sediment attenuation facility, proposed by WSP (2014), should be used to re-create wetland habitat for terrestrial fauna and flora, in addition to promoting the infiltration of water to the underlying soils and, therefore, partially mitigate base flow contribution impacts to the Dwars-in-die-Wegspruit.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		Construction and earthmoving should preferably occur during winter to minimise impacts on the widest range of faunal species	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		Fences should be erected for restricting access to pits; however, none should be erected in the Dwars-in-die-Wegspruit floodplain.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
	Topsoil removal, transport and stockpiling and transport. Utilization of vehicles and equipment on site.	Regularly check vehicles, machinery and equipment operating on site to prevent leakages or spills.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		No untreated water should enter the receiving environment.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		Water released into the receiving environment must comply with the RWQO (DWA, 2010) or if these have not been set then the TWQR (DWAF, 1996).	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		If clean water is pumped into the Dwars-in-die-Wegspruit it should be released slowly.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023

REF NO'	ENVIRONMENTAL ASPECT	MITIGATION MEASURES _CONDITIONS OF AUDIT	COMPL	AUDIT FINDING
		Continue monthly surface water monitoring and bio monitoring as required, as well as include vegetation monitoring along the flood plain within the Leersia pans specifically with regards to sedimentation and vegetation structural changes.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
	Site clearing and preparation activities. Topsoil removal, transport and stockpiling and transport. Utilisation of vehicles and equipment on site.	Thoroughly investigate proposed pit footprint area prior to clearing and excavation activities. Conservation Important plant species (e.g. hypoxis) should be relocated to rehabilitated areas within the mine (preferably the artificial wetland project near the Steenkoolspruit [northern side]) or to "bulb beds" for safe storage and re-use during rehabilitation when and where necessary.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		Faunal species identified during the plant collection/removal should also be moved with the intention to relocate these to a safe, similar habitat in the near vicinity. Ensure animal access to active mining areas is limited e.g., erection of fencing or similar barrier.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		Obtain permits for the destruction/translocation of protected floral and faunal species.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		Promote awareness of the presence of faunal and floral species, especially CI species on site.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
	Site clearing and preparation activities. Topsoil removal, transport and stockpiling and transport.	An Alien and Invasive Management Plan should be developed for the Proposed Project area; alternatively, the existing Management Plan should be updated to include the Proposed Project area and should preferably include assessment of alien flora/fauna species in the area, density or population distribution, prevention and management, as well as removal/destruction thereof	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		Prevent the introduction/ingress of alien invasive flora and/or fauna species into the Proposed Project area, especially the floodplain. This should preferably be undertaken by an appropriately trained member of staff.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		A stand of Poplars exists in the north western corner of the study area. If this is to remain (a permit should be obtained) and provide cover for species such as Duiker, Bush pig and Jackal (detected on motion camera in this area), then the outer areas must be monitored for any spread (seedling growth) and must be manually removed.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023

REF NO'	ENVIRONMENTAL ASPECT	MITIGATION MEASURES _CONDITIONS OF AUDIT	COMPL	AUDIT FINDING
		The intentional introduction of an alien plant species should not be considered for any screening effects or for stabilizing the sedimentation attenuation facilities rehabilitation etc. Indigenous alternatives should be considered suitable for the purposes for which the introduction is required.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
	Utilization of vehicles and equipment/heavy machinery on site. Lighting used during night shift operations.	Minimise noise and external lighting, and where possible minimise night time activities. Long-wavelength light (red and yellow lights) should be used. Additional light should be angled downward and hooded.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		Environmentally friendly dust inhibitors should be used and the frequency and intensity should be varied seasonally.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		Wet and/or cover trucks transporting coal or soil.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		Implement traffic control measures e.g., speed bumps and speed limits.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		Plant indigenous hedging around high impact areas to minimise noise and light impacts on surrounding areas.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
	HERITAGE, CULTURAL AND ARCHAEOLOGICAL			
	Employees, machinery and equipment movement to and from, as well as around, the Proposed Project area during pit establishment.	The grave site should be registered with the SAHRA.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		Fence the graves and erect unauthorised entry signage to protect them from damage.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		Devise a management plan for the sustainable preservation of the graves (or update existing plan).	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		A buffer zone of at least 20 m should maintained around the graves. The buffer zone should be increased to 100m from the nearest grave during pit establishment associated blasting activities.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023

REF NO'	ENVIRONMENTAL ASPECT	MITIGATION MEASURES _CONDITIONS OF AUDIT	COMPL	AUDIT FINDING
		Caution should be taken by mining personnel upon commencement of the site construction activities to ensure that no heritage feature is disturbed or demolished.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		Care should be taken if any midden or grave is discovered during the pit establishment activities. A qualified archaeologist should be appointed to investigate the occurrence.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		Upon discovery of unknown archaeological sites, the HIA is to be updated to include further mitigation measures. Furthermore, the heritage management plan should be updated to include the discovery.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		Where graves cannot be avoided by mining establishment activities, an archaeologist should be appointed to oversee the exhumation and relocation process.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		The correct legal permitting should be obtained prior to relocation activities. Stakeholder engagement may be required.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
	PALAEONTOLOGY			
	None of the assessed impacts were rated as significant or high and were therefore not included herein	N/A	N/A	No mitigation measures assessed.
	BLASTING AND VIBRATION			
	No anticipated impacts during the construction Phase. As such, no mitigation measures are required	N/A	N/A	No mitigation measures assessed.
	NOISE			
	Topsoil is stripped and stored in open stockpiles using heavy machinery and vehicles.	Ensure that all construction vehicles adhere to the Isibonelo Colliery speed limit and are properly maintained to limit excessive noise.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		Construction noise to be kept to a minimum by ensuring proper worker conduct; there is no excessive revving of vehicles; no unnecessary hooting; and proper use of equipment.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		Regular construction equipment maintenance should be carried out and documented.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023

REF NO'	ENVIRONMENTAL ASPECT	MITIGATION MEASURES _CONDITIONS OF AUDIT	COMPL	AUDIT FINDING
		Construction machinery and methods of operation should be selected on the basis of the quietest available within the constraints of reasonable cost.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		Specific operations that result in high levels of noise are to be undertaken during day-time.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		Stockpiling of topsoil or similar barrier development between the Isibonelo Colliery/Proposed Project and sensitive receptors, specifically Mr Greyling and the Informal Settlement, should be implemented to reduce noise transmission.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
		Noise monitoring should be completed on a frequent basis to assess compliance with SANS 10103.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
	VISUAL ASPECTS			
	None of the assessed impacts were rated as significant or high and were therefore not included herein.	N/A	N/A	No mitigation measures accessed.
	SOCIO-ECONOMIC			
	The Proposed Project does not go ahead and the LoM is reduced from 2026 to 2016.	Implement the SLP throughout operation to ensure skill development and mentorship, and re-deployment of existing staff to other collieries where available.	N/A	This condition falls outside this audit scope/period as all construction have been completed by Isibonelo and condition parameters were not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023
	OPERATIONAL			
	CLIMATE			
	Emissions released from vehicles equipment during coal and interburden removal and interburden transportation and handling (truck).	Preference should be given to vehicles/equipment/machinery which are fuel efficient.	C	Isibonelo implement an equipment maintenance procedure and a periodic report is generated for record keeping (verified in the maintenance equipment records, dated April 2023). A vehicle maintenance procedure is in place and implemented through the LDV and HDV workshops. Refer to Appendix B: Photo
		Limit the topsoil removal to the minimum required.	C	According to the Isibonelo RSIP (2023) by Eco Elementum topsoil removal is kept to a minimum height. Concurrent rehabilitation is practiced onsite and method statements for pre-mining requirements for excavation, soil stripping and stockpiling of excavated material are implemented as per the Isibonelo Rehabilitation Procedure (Doc no' ISO-OM-PRO-1096, Approved 28 April 2022).

REF NO'	ENVIRONMENTAL ASPECT	MITIGATION MEASURES _CONDITIONS OF AUDIT	COMPL	AUDIT FINDING
		Transport of materials should use the shortest route to limit use of vehicles.	C	Only mine approved vehicles with in-monitoring devices use designated access roads to ensure that the adhere to approved routes that don't transgress sensitive environments. Conveyor belts are capped to prevent spillages.
		Promote efficient driving and machinery use such as maintaining speed limits, prevent unnecessary revving.	C	All vehicles and plant have been equipped with a driver monitoring system and has proven to be excellent in reducing incidents on the mine. Speed limits are in place for all areas with signage at areas. All vehicles and plant have been equipped with a driver monitoring system Nicholas Auto Enterprise (NAE) and has proven to be excellent in reducing incidents on the mine. A report from the system was provided with the records of driver/operators and speeding data and drivers/operators who disobey these rules face disciplinary measures.
		Ensure vehicles are regular maintained and good working order so as to use fuel efficiently.	C	Isibonelo implement an equipment maintenance procedure and a periodic report is generated for record keeping (verified in the maintenance equipment records, dated April 2023). A vehicle maintenance procedure is in place and implemented through the LDV and HDV workshops.
	Removal of coal (as a natural non-renewable source).	Promote effective removal and handling techniques to limit coal wastage or discard.	C	The pits utilize various equipment, including draglines, hydraulic shovels, haul trucks, dozers, excavators, rotary drills, water bowsers, and cranes. The mine layout is designed to accommodate available equipment. The revised schedule accelerates south pit mining due to lower costs, while north pit reserves are converted to resources outside mine plan due to financial constraints.
	AIR QUALITY			
	Emissions arising from handling and transportation of materials.	Spraying of materials during handling and transportation to reduce emissions.	C	Spraying of materials during handling and transportation to reduce emissions is undertaken ad-hoc i.e., soils or coal.
		Wet suppression should be applied to unpaved roads.	C	No nuisance dust conditions were observed. Processed water obtained from Vaskop Dam is the main source of dust suppression at an estimated 1.0 l.m ² /day by the water bowsers and this water use activity is approved under Section 21 (g) of Integrated WUL Ref No. 06/B11D/FBCGJI/9121, dated 19/11/2019. Additionally, should the volumetric capacity of the Ernies dam reaches ≥ 5% of its capacity, water is transferred to sparer's or atomizers onsite for dust suppression use (verified in the Thungela Isibonelo colliery water and salt balance report update, dated 03/05/2023. No PM exceedances were noted in the monthly air quality reports except for October 2022.
	Dust entrainment due to vehicle use on unpaved roads.	Additional, chemical suppression could be implemented to further reduce entrainment.	C	The air quality management programme proved to be viable, and no dust exceedance have been observed during this audit period therefore, this condition is Not-applicable. In addition to this, coal from underground comes out wet thus eliminating the necessity of spraying materials. It must be noted that normal dust suppression is undertaken at the mine.
	GEOLOGY			
	Mechanical excavation and removal of overburden/interburden and coal.	Only coal contained in the approved EMPR is to be removed from the approved coal seams.	C	The colliery supplies Sasol Synfuels Operations with a 100% saleable raw product resulting in a production ROM of 3.2Mt for 2022 (verified in the 2022 integrated annual report, dated April 2023). No transgression of approved mining right area and area authorized through approved EA and EMPr footprint.
	Blasting and drilling to remove overburden/interburden and coal.	Draw up a detailed blasting design according to best practices and ensure that this is implemented.	C	Isibonelo implement a blasting procedure, ensuring all personnel involved in blasting operations are familiar with the Minerals Act and Regulations.

REF NO'	ENVIRONMENTAL ASPECT	MITIGATION MEASURES _CONDITIONS OF AUDIT	COMPL	AUDIT FINDING
		Ensure the Isibonelo Colliery blasting procedure is adhered to and that the relevant legislation is adhered to.	C	Isibonelo implement a blasting procedure, ensuring all personnel involved in blasting operations are familiar with the Minerals Act and Regulations.
	Sequential backfilling of opencast pits using the overburden/interburden but absent coal.	Excavated rock material is stockpiled separately to spoil and topsoil. These materials should be used for backfilling of the pit sequentially to manage the local geological integrity.	C	Live placement of soils occurs at Block Z and excavated soil over spoil levelling are implemented as per the Isibonelo Rehabilitation Procedure (Doc no' ISO-OM-PRO-1096, Approved 28 April 2022). Progress of live soil placement on levelled spoil areas have been verified in the 2023 Isibonelo Colliery RSIP 2023.
	Sequential backfilling of opencast pits using the overburden/interburden but absent coal with concurrent mining adjacent to these areas.	Only coal contained in the approved EMPR and Mine works programme is to be removed from the approach coal seams.	C	The colliery supplies Sasol Synfuels Operations with a 100% saleable raw product resulting in a production ROM of 3.2Mt for 2022 (verified in the 2022 integrated annual report, dated April 2023). No transgression of approved mining right area and area authorized through approved EA and EMPr footprint.
		All carbonaceous material (excluding coal for SSF) is to be returned to the pit during the rehabilitation activities to prevent oxidation.	C	All carbonaceous waste material is backfilled at the bottom of the pit in accordance with the approved IWUL (Licence No.: 06/B11D/FBCGIJ/9121). Carbonaceous material was noted to be in the North pit according to the Salt and water balance 2023 report by Eco Elementum.
		Subsidence surveys should be completed regularly and identified areas should be rehabilitated and maintained.	C	Rehabilitation is implemented as per the Isibonelo Rehabilitation Procedure (Doc no' ISO-OM-PRO-1096, Approved 28 April 2022). Progress of live soil placement on levelled spoil areas have been verified in the 2023 Isibonelo Colliery RSIP 2023.
		Areas identified as high risk in terms of subsidence should be regularly monitored and mapped as no-go areas.	C	Dated aerial photography (dated May 2023) are in alignment with EMPr commitments that are based guidelines from the Chamber of Mines of South Africa/Coaltech and the Rehabilitation Improvement Group. This was noted in the land capability Assessment by Ekoinfo, dated July 2021 recommendations incorporated in this EMPr. No-Go areas have been demarcated.
	TOPOGRAPHY			
	Establishment of the opencast pit.	The mined out areas should be in filled as soon as practically possible.	C	Rehabilitation is implemented as per the Isibonelo Rehabilitation Procedure (Doc no' ISO-OM-PRO-1096, Approved 28 April 2022).
		The depth of the pit should be restricted to optimize coal removal and not extend beyond such depths	C	The pit's depth is limited to optimize coal removal and not exceed these limits within approved mining right area and area authorized through approved EA and EMPr footprint.
		Stockpile height should be restricted and managed to ensure it is not exceeded. The location of the stockpiled materials should consider the local topography and be placed as such so that the impact is minimized.	C	No stockpile height exceedances were noted and historical stockpiles emulate topography.
		Stockpiled materials should be shaped to match the existing topography of the surrounding area.	C	Historical stockpiles have been shaped to match the existing topography of the surrounding area, however no stockpiles will be reshaped.
		Regular inspection of the stockpiles should be undertaken and height exceedances should be reported and closed-out accordingly.	C	Historical stockpiles have been shaped to match the existing topography of the surrounding area; however no stockpiling is occurring that will result in height exceedances.

REF NO'	ENVIRONMENTAL ASPECT	MITIGATION MEASURES _CONDITIONS OF AUDIT	COMPL	AUDIT FINDING
	Infilling of the opencast pit.	Backfilling and levelling should consider the surrounding topography, the post-mining land-use, existing drainage lines and site activities.	C	Updated land capability plans indicate topography, the post-mining land-use, existing drainage lines and site activities. The Rehabilitation Procedure (Doc no' ISO-OM-PRO-1096, Approved 28 April 2022) ensures backfilling and levelling.
		Areas of potential subsidence should be identified, mapped and regularly surveyed to prevent subsidence occurring.	C	Periodical aerial mapping, regular DTM surveys in potential areas of potential subsidence are undertaken as part of the land capability Assessment by Ekoinfo, dated July 2021. However, no areas of subsidence were noted.
		Subsidence surveys should be completed regularly. Areas of subsidence identified should be managed to prevent recurrence.	C	Periodical aerial mapping, regular DTM surveys in potential areas of potential subsidence are undertaken as part of the land capability Assessment by Ekoinfo, dated July 2021. However, no areas of subsidence were noted.
	SOIL, LAND USE AND LAND CAPABILITY			
	Use of heavy machinery/vehicles during the excavation of topsoil during pit development. Excavation and stockpiling of soils during pit development.	Restrict area of impact to as small an area as practical and manage stockpiles for erosion by wind and water.	C	The land capability Assessment by Ekoinfo, dated July 2021 illustrates that a minimized footprint for Block Z has occurred.
		Minimise the impact footprint, restrict vehicle movement to minimum area required, remove useable soil to recommended depth ahead of the opencast pit, stockpile and manage useable soils to prevent erosion.	C	Vehicle movement is limited to access roads only as verified during the site assessment. Vehicles are retrofitted with tracking software that monitors transgressions onto rehabilitated sites. The mine site plan and aerial survey reports (dated May 2023) indicate that soils are stockpiled removed for levelling and no stockpiles are present.
		Ensure the soils and overburden are stockpiled separately, and sequential placement during backfilling is completed to mimic premining conditions.	C	The mine's Rehabilitation Procedure (Doc no' ISO-OM-PRO-1096, Approved 28 April 2022) requires daily monitoring for stripping compliance with EMPR guidelines, focusing on live soil placement and roll over strategy for backfilling.
		Live placement of soils should be preferred to soil stockpiling. If soil is stockpiled it should be managed to prevent erosions through revegetation or similar cover, protected from dirty water contamination through storm water (dirty water) management.	C	Live soil placement is preferred over permanent stockpiling as part of concurrent rehabilitation. To prevent dirty water contamination, berms are placed around active areas to divert water around the pits.
		Rehabilitated sites should be vegetation and maintained to prevent erosion and prevent nutrient loss through exposure to the elements for extended periods.	C	The Rehabilitation Procedure (Doc no' ISO-OM-PRO-1096, Approved 28 April 2022) ensures erosion prevention measures as and when applicable.
	HYDROGEOLOGY			
	Groundwater quantity.	Continuous rehabilitation of spoils should be undertaken to minimise ingress of increased water make.	C	The Rehabilitation Procedure (Doc no' ISO-OM-PRO-1096, Approved 28 April 2022) ensures continuous rehabilitation of spoils to reduce the ingress of increased water.
		All excess water make should be used as part of the Operation Phase water balance or pumped to the Vaskop PCD.	C	All dirty water is pumped to Vaskop Dam and processed, and this water is used around operational areas around colliery.

REF NO'	ENVIRONMENTAL ASPECT	MITIGATION MEASURES _CONDITIONS OF AUDIT	COMPL	AUDIT FINDING
		The IWWMP (updated by the Isibonelo Colliery in consideration of the water management mitigation measures for the Proposed Project) should be implemented.	C	The water management strategies are implemented Integrated Water and Waste Management Plan (IWWMP) Update 2023, Ref 21-1620, dated 9-May-23.
	Groundwater quantity.	Deterioration of water resources in-pit should be prevented by minimizing water make in-pit during the Operation Phase.	C	Minimal water is kept in pit and all dirty water is pumped to Vaskop Dam and processed, and this water is used around operational areas around colliery.
		All excess water or rainwater should be used as part of the Operation Phase water balance or pumped to the Isibonelo Colliery's PCDs.	C	All dirty water is pumped to Vaskop Dam and processed, and this water is used around operational areas around colliery. Refer to Appendix B: Photo 23
		The long-term water management strategy detailed in the IWWMP should be implemented.	C	The water management strategies are implemented Integrated Water and Waste Management Plan (IWWMP) Update 2023, Ref 21-1620, dated 9-May-23.
	HYDROLOGY			
	Excavation of topsoil, overburden/interburden and coal during pit advancement	Runoff and base flow contribution will be captured by the opencast pit and should be managed as part of the mine dirty water system i.e., captured and pumped to the Vaskop PCD and re-used onsite for dust suppression.	C	All dirty water is pumped to Vaskop Dam and processed, and this water is used around operational areas around colliery i.e., the main source of dust suppression at an estimated 1.0 l.m ² /day by the water bowsers and this water use activity is approved under Section 21 (g) of Integrated WUL Ref No. 06/B11D/FBCGJI/9121, dated 19/11/2019.
		Discrete stripping and stockpiling according to Surface Water Management plan should be undertaken to ensure separation of the different soil layers. These soils should be placed back sequentially to restore base flow contribution during rehabilitation.	C	The water management strategies are implemented Integrated Water and Waste Management Plan (IWWMP) Update 2023, Ref 21-1620, dated 9-May-23 in line with the surface Water Management plan ensure separation of the different soil layers to restore base flow
	Excavation of topsoil, overburden/interburden and coal by machinery and blasting, during pit advancement.	Sediment attenuation facility should be implemented to operate as a sediment trap, thus reducing the impact on water quality in the surrounding water course.	C	The water management strategies are implemented Integrated Water and Waste Management Plan (IWWMP) Update 2023, Ref 21-1620, dated 9-May-23 in line with the the rehabilitation Procedure (Doc no' ISO-OM-PRO-1096, Approved 28 April 2022) ensures sediment attenuation.
	BIODIVERSITY_Flora			
	Topsoil removal, transport and stockpiling and transport. Transport and stockpiling of overburden/interburden	Avoid encroaching into the Dwars-in-die-Wegspruit River buffer and associated pans.	C	Topsoil removal, transport, and stockpiling have not transgressed the Dwars-in-die-Wegspruit River buffer and associated pansa as verified on the mine site plans.
	.	Properly manage and monitor any remaining natural habitat to promote ecosystem functioning.	C	Isibonelo is enhancing ecosystem functioning through E-DNA research and environmental monitoring, revising Block Z section layout plan, and conducting weekly mine planning to minimize disturbance (Verified in the 2022 Integrated annual Isibonelo report, dated April 2023).
		A thorough rehabilitation programme involving post-closure monitoring should be implemented - there is potential to re-create more diverse terrestrial habitat post-closure.	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.

REF NO'	ENVIRONMENTAL ASPECT	MITIGATION MEASURES _CONDITIONS OF AUDIT	COMPL	AUDIT FINDING
		Rehabilitation (including long-term monitoring) should involve extensive landscaping, topsoil re-introduction and seeding with indigenous, locally occurring species (including geophytic species).	C	Concurrent rehabilitation is implemented through the rehabilitation Procedure (Doc no' ISO-OM-PRO-1096, Approved 28 April 2022).
		The sediment attenuation facility, proposed by WSP (2014), should be used to re-create wetland habitat for terrestrial fauna and flora, in addition to promoting the infiltration of water to the underlying soils and, therefore, partially mitigate base flow contribution impacts to the Dwars-in-die-Wegspruit.	C	The installation of storm water diversion facilities to protect the wetland areas has been implemented from the Wars-in-die Weg Spruit stream.
		Due to the removal of mined material, it is expected that a void will remain after rehabilitating the final mine step. It has been assumed that the void will be 67% of last annual mine step. Further investigations should be completed to determine if this void can be designed to create additional shallow wetland habitat.	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and closure activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Construction and earthmoving should preferably occur during winter to minimise impacts on the widest range of faunal species.	C	Isibonelo has noted this condition and will implement as and when required.
	Excavating open cast pits and removal of plinthic soils. Implementation of water containment and diversion facilities. Pumping of ground and/or surface water from the pit to containment facilities.	The proposed paddocks must be designed in such a way that capacity is maintained and sediment can be removed if required, yet a wetland habitat is maintained.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Monitor the flow of the Dwars-in-die-Wegspruit from pre commencement of construction until post-closure.	C	Thungela Isibonelo Colliery undertake flow monitoring (as verified in the November 2022- January 2023 Wet Season Biomonitoring Survey).
		Conduct annual monitoring of the PES and Ecosystem services of the water resources in the Proposed Project area.	C	Annual Monitoring is undertaken as follows: - Aquatic Bio-Monitoring and Riparian Assessment Wet Season 2023, Ref: 22-1948-EMC, Eco Elementum (Pty) Ltd (Eco E), 2-May-23. - Dry Season Aquatic Bio Monitoring, Ref: 22-1948-EMC, dated 25-Oct-22
	Topsoil and overburden/interburden removal, transport and stockpiling and transport.Utilization of vehicles and equipment on site.	Regularly check vehicles, machinery and equipment operating on site to prevent leakages or spills.	C	Isibonelo implement an equipment maintenance procedure and a periodic report is generated for record keeping (verified in the maintenance equipment records, dated April 2023). A vehicle maintenance procedure is in place and implemented through the LDV and HDV workshops.
		No untreated water should enter the receiving environment.	C	No noncompliance observed., All water quality monitoring reports noted no contamination at monitoring points.

REF NO'	ENVIRONMENTAL ASPECT	MITIGATION MEASURES _CONDITIONS OF AUDIT	COMPL	AUDIT FINDING
		Water released into the receiving environment must comply with the RWQO (DWA, 2010) or if these have not been set then the TWQR (DWAF, 1996).	C	No noncompliance observed in the water quality reports. No dirty water is released into the environment.
		If clean water is pumped into the Dwars-in-die-Wegspruit it should be released slowly.	C	No noncompliance observed in the water quality reports. Should water be released, it is done slowly to not disturb the natural flow and velocity of the watercourse.
		Continue monthly surface water monitoring and bio monitoring as required, as well as include vegetation monitoring along the flood plain within the Leersia pans specifically with regards to sedimentation and vegetation structural changes.	C	No noncompliance observed in the water quality reports.
		The sedimentation attenuation facilities should be implemented as these will manage the suspended solids and collect runoff, as well as prevent dirty water runoff from leaving the general mining area.	C	The water management strategies are implemented Integrated Water and Waste Management Plan (IWWMP) Update 2023, Ref 21-1620, dated 9-May-23.
	Site clearing and preparation activities. Topsoil removal, transport and stockpiling and transport. Utilization of vehicles and equipment on site.	Thoroughly investigate proposed pit footprint area prior to clearing and excavation activities. Conservation Important plant species (e.g., hypoxis) should be relocated to rehabilitated areas within the mine (preferably the artificial wetland project near the Steenkoolspruit [northern side]) or to "bulb beds" for safe storage and re-use during rehabilitation when and where necessary.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023..
		Faunal species identified during the plant collection/removal should also be moved with the intention to relocate these to a safe, similar habitat in the near vicinity and; ensure animal access to active mining areas is limited e.g., erection of fencing or similar barrier.	C	A fence is in place around the mining boundary to restrict animal access to active mining areas, no relocation of faunal species was undertaken.
		Obtain permits for the destruction/translocation of protected floral and faunal species.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Promote awareness of the presence of faunal and floral species, especially CI species on site.	C	Isibonelo Colliery has a Biodiversity Action Plan compiled in 2004 and a biodiversity peer review report by Fauna and Flora International in 2010. Shangoni Management Services was appointed to compile an Invasive Species Management Plan, based on monitoring, control, and eradication guidelines.
	Topsoil and overburden/interburden removal, transport and stockpiling. Backfilling, levelling and re-vegetation of previously mined areas. Monitoring and maintenance of topsoiled and revegetated areas. Vehicle movement on and off-site during transportation of coal, overburden/interburden and/or topsoil.	An Alien and Invasive Management Plan should be developed for the Proposed Project area; alternatively, the existing Management Plan should be updated to include the Proposed Project area and should preferably include assessment of alien flora/fauna species in the area, density or population distribution, prevention and management, as well as removal/destruction thereof.	C	Shangoni Management Services (Pty) Ltd updated the Alien and Invasive management plan, identifying alien flora and recommending eradication strategies, with proof of monitoring for 2022-2023.

REF NO'	ENVIRONMENTAL ASPECT	MITIGATION MEASURES _CONDITIONS OF AUDIT	COMPL	AUDIT FINDING
		Prevent the introduction/ingress of alien invasive flora and/or fauna species into the Proposed Project area, especially the floodplain. This should preferably be undertaken by an appropriately trained member of staff.	C	Shangoni Management Services (Pty) Ltd updated the Alien and Invasive management plan, identifying alien flora and recommending eradication strategies, with proof of monitoring for 2022-2023.
		Rehabilitation materials that may arise from origins off-site (e.g., borrow pit, other collieries or provided by contractors) should be sourced from reliable suppliers that can confirm the absence of alien plant specimens in their materials as far as practical.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		A stand of Poplars exists in the north western corner of the study area. If this is to remain (a permit should be obtained) and provide cover for species such as Duiker, Bushpig and Jackal (detected on motion camera in this area), then the outer areas must be monitored for any spread (seedling growth) and must be manually removed.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		The intentional introduction of an alien plant species should not be considered for any screening effects or for stabilizing the sedimentation attenuation facilities rehabilitation etc. Indigenous alternatives should be considered suitable for the purposes for which the introduction is required.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
	Utilization of vehicles and equipment/heavy machinery on site. Lighting used during night shift operations. Blasting practiced during excavation activities.	Minimise noise and external lighting, and where possible minimise night time activities. Long-wavelength light (red and yellow lights) should be used. Additional light should be angled downward and hooded.	C	Condition has been noted and parameters are implemented by Isibonelo.
		Environmentally friendly dust inhibitors should be used and the frequency and intensity should be varied seasonally.	C	Condition has been noted and parameters are implemented by Isibonelo.
		Wet and/or cover trucks transporting coal or soil.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Implement traffic control measures e.g. speed bumps and speed limits.	C	Speed limits are in place for all areas with signage at areas. All vehicles and plant have been equipped with a driver monitoring system Nicholas Auto Enterprise (NAE) and has proven to be excellent in reducing incidents on the mine. A report from the system was provided with the records of driver/operators and speeding data and drivers/operators who disobey these rules face disciplinary measures.

REF NO'	ENVIRONMENTAL ASPECT	MITIGATION MEASURES _CONDITIONS OF AUDIT	COMPL	AUDIT FINDING
		Plant indigenous hedging around high impact areas to minimise noise and light impacts on surrounding areas.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
	Blasting practiced during excavation activities.	Prior to blasting, thoroughly investigate the affected area.	C	Condition has been noted and parameters are implemented by Isibonelo.
		Conservation Important plant species (e.g., hypoxis) should be relocated to rehabilitated areas within the mine (preferably the artificial wetland project near the Steenkoolspruit [northern side]) or to “bulb beds” for safe storage and re-use during rehabilitation when and where necessary.	C	Condition has been noted and parameters are implemented by Isibonelo.
		Faunal should also be moved with the intention to relocate these to a safe, similar habitat in the near vicinity, and ensure animal access to active mining areas is limited e.g., erection of fencing or similar barrier.	C	Condition has been noted and parameters are implemented by Isibonelo.
		Large charges should be subdivided into a series of smaller charges and time delayed to reduce the overall detonation to a series of smaller detonations.	C	Condition has been noted and parameters are implemented by Isibonelo.
		For multiple charges, time-delay should be used to reduce the overall detonation to a series of single explosions separated by a minimum of 25 millisecond delay between charge detonations.	C	Condition has been noted and parameters are implemented by Isibonelo.
		The on-land set-back distance from the blast site to the watercourse is based on the weight of the charge to be detonated at one instant in time and the type of fish and fish habitat in the area of the blast.	C	Condition has been noted and parameters are implemented by Isibonelo.
		Ammonium nitrate-based explosives should not be used near water due to the production of toxic by-products such as ammonia.	N/A	This condition falls outside this audit scope/period. No explosives ae used near wetlands..
	HERITAGE, CULTURAL AND ARCHAEOLOGICAL			
	Mechanical excavation Of overburden/interburden and coal, as well as personnel onsite. Ground vibration and air blast resulting from blasting and drilling.	The grave site should be registered with the SAHRA.	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and closure and rehabilitation activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.

REF NO'	ENVIRONMENTAL ASPECT	MITIGATION MEASURES _CONDITIONS OF AUDIT	COMPL	AUDIT FINDING
		Fence the graves and erect unauthorised entry signage to protect them from damage.	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and closure and rehabilitation activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Devise a management plan for the sustainable preservation of the graves (or update existing plan).	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and closure and rehabilitation activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		A buffer zone of at least 20 m should maintained around the graves. The buffer zone should be increased to 100m from the nearest grave during pit establishment associated blasting activities.	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and closure and rehabilitation activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Caution should be taken by mining personnel upon commencement of the site construction activities to ensure that no heritage feature is disturbed or demolished.	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and closure and rehabilitation activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Upon discovery of unknown archaeological sites, the HIA is to be updated to include further mitigation measures. Furthermore, the heritage management plan should be updated to include the discovery.	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and closure and rehabilitation activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		A qualified archaeologist should be appointed to investigate the occurrence.	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and closure and rehabilitation activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Where graves cannot be avoided by mining establishment activities, an archaeologist should be appointed to oversee the exhumation and relocation process.	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and closure and rehabilitation activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		The correct legal permitting should be obtained prior to relocation activities. Stakeholder engagement may be required.	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and closure and rehabilitation activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		The blasting management measures proposed herein should be adhered to, so as to ensure blasting limitations are within accepted norms/limits.	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and closure and rehabilitation activities haven't occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
	PALAEONTOLOGY			
	Excavation through machinery and blasting and subsequent removal overburden/interburden and coal.	Regular inspection of the pit face should be completed in order to identify potential fossils located therein. Inspections should be completed by either adequately trained line personnel and at less frequent intervals (monthly) by a qualified external specialist. Should fossil materials be identified, these should be	N/C	Isibonelo Colliery has not conducted regular physical inspections by a qualified external specialist due to the Mine Health and Safety Act, which prohibits access to an unsafe area's i.e., pit face. Which makes this condition impractical and unsafe for a specialist or employees to inspect a highwall. A letter requesting exceptions was sent to DMRE (dated May 2022). The mine has a chance-find procedure in place to address potential graves or fossils that during mining activities.

REF NO'	ENVIRONMENTAL ASPECT	MITIGATION MEASURES _CONDITIONS OF AUDIT	COMPL	AUDIT FINDING
		assessed and either removed by a qualified specialist for further study or protected in situ.		
	BLASTING AND VIBRATION			
	Blasting event during overburden, interburden and/or coal removal.	Reduce charge mass per delay, maintain safe distance.	C	Isibonelo have noise and blasting monitoring points within and outside the mine to ensure that mine activities do not affect surrounding communities, employees and mining infrastructure and minimise noise and blast vibrations to vulnerable receptors.
		Preferred stemming controls should be implemented to reduce fly rock to within accepted norms.	C	Before blasting, thorough investigations are conducted, and a drill and blast design must be developed and approved in accordance with the mine's design procedure.
	NOISE			
	Coal is exposed by removing the overburden using draglines and truck and shovel operations.	Regular and effective plant/equipment maintenance should be carried out and documented. All machinery (draglines etc.) should be checked to be in good working order and not generating excess noise/vibration.	C	The company maintains its vehicles, equipment, and machinery with a strict maintenance program, weekly inspections by engineers, and adheres to design specifications for noise levels. The plant manager monitors noise levels, ensuring they do not exceed the limit.
		Plant, equipment and vehicles should not be operated in the event that excessive noise is produced at start up as a result of maintenance being required.	C	The company strictly maintains its vehicles, equipment, and machinery through a rigorous maintenance program, weekly inspections by engineers, and strict noise level monitoring by the plant manager.
		The distance from noise sensitive premises needs to be considered when siting of noisy operations. Noisier operations need to be limited to normal work day hours.	C	The company strictly maintains its vehicles, equipment, and machinery through a rigorous maintenance program, weekly inspections by engineers, and strict noise level monitoring by the plant manager.
		Care should be taken to ensure materials are loaded (both by machinery and by workers) into skips/haulage vehicles in a manner in which that minimizes noise, e.g. avoiding throwing or dropping materials.	C	The company strictly maintains its vehicles, equipment, and machinery through a rigorous maintenance program, weekly inspections by engineers, and strict noise level monitoring by the plant manager.
		Machinery and methods of operation should be selected on the basis of the quietest available within the constraints of reasonable cost. When the noise cannot be adequately controlled at source by the appropriate selection of plant, equipment and work methods, the use of enclosures and barriers should be considered.	C	The company strictly maintains its vehicles, equipment, and machinery through a rigorous maintenance program, weekly inspections by engineers, and strict noise level monitoring by the plant manager.
		Stockpiling of overburden between the Isibonelo Colliery and sensitive receptors, specifically Mr Greyling and the Informal Settlement, can act as an acoustic barrier.	C	The company strictly maintains its vehicles, equipment, and machinery, with weekly inspections by an engineer. Noise levels are monitored by the plant manager, ensuring they don't exceed the limit.
		Purpose built sound barriers around noisy machinery (example draglines and drills) should be investigated and implemented to reduce noise levels.	C	The company strictly maintains its vehicles, equipment, and machinery, with weekly inspections by an engineer. Noise levels are monitored by the plant manager, ensuring they don't exceed the limit.

REF NO'	ENVIRONMENTAL ASPECT	MITIGATION MEASURES _CONDITIONS OF AUDIT	COMPL	AUDIT FINDING
		Noise monitoring should be completed on a frequent basis to assess compliance with SANS 10103	C	A noise management programme was initiated in November 2021, where noise monitoring is conducted in terms of SANS 10103:2008. A report by Eco Elementum detailing the results of the SANS 10103:2008 noise monitoring programme was provided for review.
	Coal is exposed by removing the overburden/interburden using drilling and blasting.	Ensure all blasting is undertaken between sunrise and sunset as per authorisation granted by the DMR.	C	Isibonelo have noise and blasting monitoring points within and outside the mine to ensure that mine activities do not affect surrounding communities, employees and mining infrastructure and minimise noise and blast vibrations to vulnerable receptors.
		Blasting should be undertaken at a fixed time and a blasting schedule should be available to sensitive receptors so as to remove the element of surprise.	C	An example of the blasting schedule was provided, the mine also has blasting schedule boards to notify everyone to avoid surprises.
		Continue monitoring blast and ground vibrations to ensure acceptable levels are being adhered to.	C	Proof of monitoring report was provided.
		Noise monitoring should be completed on a frequent basis to assess compliance with SANS 10103.	C	An annual Noise Monitoring Report December 2022 (Ref 21-1604-EMC, dated Updated- 1/3/2023) was verified to this regard.
	VISUAL ASPECTS			
	None of the assessed impacts were rated as significant or high and were therefore not included herein.	N/A	N/A	No mitigation measures assessed.
	SOCIO-ECONOMIC			
	None of the assessed impacts were rated as significant or high and were therefore not included herein.	N/A	N/A	No mitigation measures assessed.
	DECOMMISSIONING			
	CLIMATE			
	None of the assessed impacts were rated as significant or high and were therefore not included herein.	N/A	N/A	No mitigation measures assessed.
	AIR QUALITY			
	None of the assessed impacts were rated as significant or high and were therefore not included herein.	N/A	N/A	No mitigation measures assessed.
	GEOLOGY			
	None of the assessed impacts were rated as significant or high and were therefore not included herein.	N/A	N/A	No mitigation measures assessed.
	TOPOGRAPHY			

REF NO'	ENVIRONMENTAL ASPECT	MITIGATION MEASURES _CONDITIONS OF AUDIT	COMPL	AUDIT FINDING
	Establishment of the opencast pit.	The mined-out areas should be in filled as soon as practically possible.	C	The Isibonelo Rehabilitation Procedure (Doc no' ISO-OM-PRO-1096, Approved 28 April 2022) indicate methods statements for concurrent rehabilitation.
		The depth of the pit should be restricted to optimize coal removal and not extend beyond such depths	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Stockpile height should be restricted and managed to ensure it is not exceeded. The location of the stockpiled materials should consider the local topography and be placed as such so that the impact is minimized.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Stockpiled materials should be shaped to match the existing topography of the surrounding area.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Regular inspection of the stockpiles should be undertaken and height exceedances should be reported and closed-out accordingly.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
	Infilling of the opencast pit.	Backfilling and levelling should consider the surrounding topography, the post-mining land-use, existing drainage lines and site activities.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Areas of potential subsidence should be identified, mapped and regularly surveyed to prevent subsidence occurring.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Subsidence surveys should be completed regularly. Areas of subsidence identified should be managed to prevent recurrence.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
	Infilling of opencast pit and final void(s).	Backfilling and levelling should consider the surrounding topography, the post-mining land-use, existing drainage lines and site activities.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Subsidence surveys should be conducted during and post-closure.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
	SOIL, LAND USE AND LAND CAPABILITY			
	Management of rehabilitated areas and dismantling and removal of machinery/equipment from the Proposed Project area.	Management of storm water control system during dismantling and removal activities (Hydrology impacts), and monitoring of water quality used for watering/ irrigation of vegetated/rehabilitated areas.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
	HYDROGEOLOGY			

REF NO'	ENVIRONMENTAL ASPECT	MITIGATION MEASURES _CONDITIONS OF AUDIT	COMPL	AUDIT FINDING
	None of the assessed impacts were rated as significant or high and were therefore not included herein.	N/A	N/A	No mitigation measure assessed.
	HYDROLOGY			
	Management and maintenance of rehabilitated areas.	Sediment attenuation should be implemented to slow the velocity of runoff from the site and promote infiltration of water to subsoil. This will promote contributions to base flow beyond the site boundary.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
	Utilization of heavy vehicles and machinery during dismantling and removal which could result in contaminant spillages.	Manage hydrocarbon leaks and spillages according to the Isibonelo Colliery management procedure.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Maintain capacity of the sediment attenuation facility by removing accumulated sediment and vegetation on a regular basis, i.e., to prevent reduced functionality of the facilities purpose.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
	BIODIVERSITY			
	Monitoring and maintenance of topsoiled and revegetated areas. Vehicle movement on and off site during transportation of coal, overburden/interburden and/or topsoil. Removal of equipment from the Proposed Project area.	An Alien and Invasive Management Plan should be developed for the Proposed Project area; alternatively, the existing Management Plan should be updated to include the Proposed Project area and should preferably include assessment of alien flora/fauna species in the area, density or population distribution, prevention and management, as well as removal/destruction thereof.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Prevent the introduction/ingress of alien invasive flora and/or fauna species into the Proposed Project area, especially the floodplain. This should preferably be undertaken by an appropriately trained member of staff.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Rehabilitation materials that may arise from origins off-site (e.g.borrow pit, other collieries or provided by contractors) should be sourced from reliable suppliers that can confirm the absence of alien plant specimens in their materials as far as practical	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		A stand of Poplars exists in the north western corner of the study area. If this is to remain (a permit should be obtained) and provide cover for species such as Duiker, Bushpig and Jackal (detected on motion camera in this area), then the outer areas	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.

REF NO'	ENVIRONMENTAL ASPECT	MITIGATION MEASURES _CONDITIONS OF AUDIT	COMPL	AUDIT FINDING
		must be monitored for any spread (seedling growth) and must be manually removed.		
		The intentional introduction of an alien plant species should not be considered for any screening effects or for stabilizing the sedimentation attenuation facilities rehabilitation etc. Indigenous alternatives should be considered suitable for the purposes for which the introduction is required.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
	HERITAGE			
	None of the assessed impacts were rated as significant or high and were therefore not included herein	N/A	N/A	No mitigation measure accessed.
	PALAEONTOLOGY			
	No anticipated impacts during the decommissioning Phase. As such, no mitigation measures are required.	N/A	N/A	No mitigation measure accessed.
	BLASTING AND VIBRATION			
	No anticipated impacts during the decommissioning Phase. As such, no mitigation measures are required.	N/A	N/A	No mitigation measure accessed.
	NOISE			
	None of the assessed impacts were rated as significant or high and were therefore not included herein.	N/A	N/A	No mitigation measure accessed.
	VISUAL ASPECTS			
	None of the assessed impacts were rated as significant or high and were therefore not included herein.	N/A	N/A	No mitigation measure accessed.
	SOCIO-ECONOMIC			
	None of the assessed impacts were rated as significant or high and were therefore not included herein.	N/A	N/A	No mitigation measure accessed.
	CLOSURE			
	CLIMATE			

REF NO'	ENVIRONMENTAL ASPECT	MITIGATION MEASURES _CONDITIONS OF AUDIT	COMPL	AUDIT FINDING
	None of the assessed impacts were rated as significant or high and were therefore not included herein.	N/A	N/A	No mitigation measure accessed.
	AIR QUALITY			
	None of the assessed impacts were rated as significant or high and were therefore not included herein.	N/A	N/A	No mitigation measure accessed.
	GEOLOGY			
	Final void(s) rehabilitation.	Excavated rock material is stockpiled separately to spoil and topsoil. These materials should be used for backfilling of the pit sequentially to manage the local geological integrity. All carbonaceous material (excluding coal for SSF) is to be returned to the pit during the rehabilitation activities to prevent oxidation.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Excavated rock material is stockpiled separately to spoil and topsoil. These materials should be used for backfilling of the pit sequentially to manage the local geological integrity.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Subsidence surveys should be completed regularly and identified areas should be rehabilitated and maintained.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Closure planning objectives and measures should include a plan for monitoring following mine closure.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
	TOPOGRAPHY			
	Infilling of opencast pit and final void(s).	Backfilling and levelling should consider the surrounding topography, the post-mining land-use, existing drainage lines and site activities.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Subsidence surveys should be conducted during and post-closure.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Subsidence identified should be rehabilitated and managed to prevent reoccurrence or new occurrences in surrounding areas.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
	SOIL, LAND USE AND LAND CAPABILITY			
	None of the assessed impacts were rated as significant or high and were therefore not included herein.	N/A	N/A	No mitigation measure accessed.
	HYDROGEOLOGY			

REF NO'	ENVIRONMENTAL ASPECT	MITIGATION MEASURES _CONDITIONS OF AUDIT	COMPL	AUDIT FINDING
	Groundwater quantity.	The additional groundwater make from the Proposed Project will be accommodated in the mine dirty water management system as detailed in the IWWMP compiled by the Isibonelo Colliery.	C	An updated IWWMP for 2022 was compiled and submitted to the department in May 2022. Dirty water is managed towards the lowest point in the pit from where it is pumped to Vaskop. All clean water is diverted around workings. During the site visit it was noted that minimum water was kept within the pit.
	Groundwater quantity.	Desalination of polluted groundwater will take place at the regional water treatment plant.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Details of such treatment has been provided in the Isibonelo Colliery's IWWMP.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
	HYDROLOGY			
	Management and maintenance of rehabilitated areas.	Sediment attenuation should be implemented to slow the velocity of runoff from the site and promote infiltration of water to subsoil. This will promote contributions to base flow beyond the site boundary.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
	Utilization of heavy vehicles and machinery during dismantling and removal which could result in contaminant spillages. As well as soil conditioning applications to promote rehabilitation.	Sediment attenuation facility continues to operate as a sediment trap	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
	As well as soil conditioning applications to promote rehabilitation.	Maintain capacity of the sediment attenuation facility by removing accumulated sediment and vegetation on a regular basis, i.e., to prevent reduced functionality of the facilities purpose.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
	BIODIVERSITY			
	Topsoil and overburden/interburden removal, transport and stockpiling. Backfilling, levelling and re-vegetation of previously mined areas. Monitoring and maintenance of topsoiled and revegetated areas. Vehicle movement on and off site during transportation of coal, overburden/interburden and/or topsoil.	An Alien and Invasive Management Plan should be developed for the Proposed Project area; alternatively, the existing Management Plan should be updated to include the Proposed Project area and should preferably include assessment of alien flora/fauna species in the area, density or population distribution, prevention and management, as well as removal/destruction thereof.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		Prevent the introduction/ingress of alien invasive flora and/or fauna species into the Proposed Project area, especially the floodplain. This should preferably be undertaken by an appropriately trained member of staff.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.

REF NO'	ENVIRONMENTAL ASPECT	MITIGATION MEASURES _CONDITIONS OF AUDIT	COMPL	AUDIT FINDING
		Rehabilitation materials that may arise from origins off-site (e.g., borrow pit, other collieries or provided by contractors) should be sourced from reliable suppliers that can confirm the absence of alien plant specimens in their materials as far as practical.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		A stand of Poplars exists in the north western corner of the study area. If this is to remain (a permit should be obtained) and provide cover for species such as Duiker, Bushpig and Jackal (detected on motion camera in this area), then the outer areas must be monitored for any spread (seedling growth) and must be manually removed.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
		The intentional introduction of an alien plant species should not be considered for any screening effects or for stabilizing the sedimentation attenuation facilities rehabilitation etc. Indigenous alternatives should be considered suitable for the purposes for which the introduction is required.	N/A	This condition falls outside this audit scope/period. Condition parameters are not applicable in this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
	HERITAGE, CULTURAL AND ARCHAEOLOGICAL			
	None of the assessed impacts were rated as significant or high and were therefore not included herein	No mitigation required.	N/A	No mitigation assessed.
	PALAEONTOLOGY			
	No anticipated impacts during the Closure Phase. As such, no mitigation measures are required.	No mitigation required.	N/A	No mitigation assessed.
	BLASTING AND VIBRATION			
	No anticipated impacts during the Closure Phase. As such, no mitigation measures are required.	No mitigation required.	N/A	No mitigation assessed.
	NOISE			
	None of the assessed impacts were rated as significant or high and were therefore not included herein.	No mitigation required.	N/A	No mitigation assessed.
	VISUAL ASPECTS			
	None of the assessed impacts were rated as significant or high and were therefore not included herein.	No mitigation required.	N/A	No mitigation assessed.
	SOCIO-ECONOMIC			
	None of the assessed impacts were rated as significant or high and were therefore not included herein.	No mitigation required.	N/A	No mitigation assessed.

TABLE 5: ASSESSMENT OF ISIBONELO COLLIERY FOR ENVIRONMENTAL AUTHORISATION MP 30/5/1/2/3/2/1 (130) EM.

REF.NO.	EA CONDITION	COMPL.	AUDIT OBSERVATIONS/ FINDING
8	CONDITIONS OF AUTHORISATION (EA)		
8.1	Standard Conditions		
8.1.1	Authorisation of the activity is subject to the conditions contained in this authorisation, which form part of the environmental authorisation and are binding on the holder of the authorisation.	C	The condition has been noted by the holder of the authorisation (Thungela). The authorisation was issued in accordance with the requirements of NEMA and applicable regulations thereto.
8.1.2	The holder of the authorisation must ensure compliance with these conditions by any person acting on his or her behalf, including but not limited to, an agent, sub-contractor, employee or person rendering a service to the holder of the authorisation.	C	The condition has been noted by the holder of the authorisation (Thungela). The authorisation was issued in accordance with the requirements of NEMA and applicable regulations thereto.
8.1.3	Any changes to, or deviations from, the project description set out in this authorisation must be approved, in writing, by the Department before such changes or deviations may be affected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the authorisation to apply for further authorisation in terms of the regulations above.	C	No non-compliance have been observed. Isibonelo have not undertaken any changes to the authorisations.
8.1.4	Where any of the applicant's contact details change, including the name of the responsible person, the physical or postal address and/or telephonic details, including the transfer of this authorization, the applicant must in writing notify the Regional Manager of this Department, within fourteen (14) days of the above specified change.	C	No non-compliance observed. Thungela (previously known as Anglo has changed their registered name (verified in the company registration document, dated 01 March 2022 submitted to DMRE as part of the name change notification). Name change notification was submitted on the 01 March 2022 to the regional DMRE manager. Even though the submission was outside of the 14-day period, proof of submission was verified by NTC and is compliant for this audit period.
8.1.5	A copy of this authorisation must be kept on site. The Authorisation must be produced to any Government official(s) who may requests to see it for inspection purposes and must be made available to the contractor(s) /subcontractor(s) authorised to undertake to undertake work at the property.	C	No non-compliance observed. A copy of the licence is kept on site as verified during the audit.
8.1.6	This authorisation does not negate the holder of the Authorisation 's responsible to comply with any other statutory requirements that may be applicable to the undertaking of the activity.	C	The condition has been noted by the holder of the authorisation (Thungela) and complies to the necessary approvals/ permits received from other legislation. Thungela has received the below authorisations from the respective authorities to undertake activities of this authorisation herein: - Consolidated EA and EMPR for Isibonelo Colliery, dated March 2020 and granted 19 October 2021 (Reference no.: MP 30/5/1/2/3/2/1 (130) EM) by DMRE. - Additionally, a Final EIR Report/ EMP for the proposed Block Z Project at Isibonelo Colliery, dated 31 March 2015 and granted 13 September 2018 (Reference No. MP 30/5/1/2/3/2/1 (130) EM by DMRE and the EA approved 8 September 2015, with reference no.: 17/2/3N-362 from MEDET. - An Integrated WUL Ref No. 06/B11D/FBCGJI/9121, dated 19/11/2019, as amended in 23/02/2021 and a GA for the proposed rehabilitation of wetlands for isibonelo Colliery, Ref No. 27/212/B311/4/3 dated 22/06/2020 with DWS.

REF.NO.	EA CONDITION	COMPL.	AUDIT OBSERVATIONS/ FINDING
8.1.7	After an appeal period has expired and no good course to extent the appeal period has been submitted in accordance with Chapter 2 of the National Appeal Regulations of 2014, a thirty (30) day-written notice must be given to the Department that the activity will commence. Commencement for purpose of this condition includes site preparation. The notice must include a date on which it is anticipated that the activity will commence.	N/A	This condition falls outside this audit scope/period as all construction activities i.e., commencement of activity notification to authorities was not retained by Isibonelo and was not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
8.2	Specific Conditions		
8.2.1	Commissioning of The Activity		
8.2.1.1	This Authorisation is hereby solely granted to Anglo Operations Proprietary Limited: Isibonelo for the following amendments : The change to include the risk and mitigation requirement associated with the 3 borrow pits into the EMPr amendment, the risk and mitigation requirements associated with the reshaping and rehabilitation of the existing spoils material in-situ were not assessed in the consolidated EMPr, the risk and mitigation measures associated with the waste tyre storage facility, changes to the consolidated EMPR's risk and mitigation measures to store the affected water within the Vaskop Dam instead of releasing the excess water into Steenkoolspruit, updating the groundwater information within the most recent specialist information, inclusion of bulk fuel storage facility and risk and mitigations associated with Run of Mine	C	Isibonelo already commissioned the condition activities after approval of the previously issued EMPr dated April 2013. The inclusion and mitigation requirements associated with the changes addressed in this condition are managed by Isibonelo as per the Consolidated EMPR for Isibonelo Colliery, dated March 2020 and granted 19 October 2021 (Reference no.: MP 30/5/1/2/3/2/1 (130) EM) by DMRE.
8.2.1.2	The activity may not commence without the necessary permits/licenses/approvals and/or service agreements, where it is relevant, from or with the relevant regulatory authorities whether national, provincial or local.	C	Thungela received the below authorisations from the respective authorities for Isibonelo to commence with the activities authorised herein as per the consolidated EA and EMPR for Isibonelo Colliery, dated March 2020 and granted 19 October 2021 (Reference no.: MP 30/5/1/2/3/2/1 (130) EM) by DMRE. An Integrated WUL Ref No. 06/B11D/FBCGJI/9121, dated 19/11/2019, as amended in 23/02/2021.
8.2.1.3	The applicant must apply the principle of best practicable environmental option for all technologies used/implemented during mining.	C	This condition has been noted by Isibonelo, the holder of the authorisation. The best practice environmental solutions are employed were relevant i.e., Dongalocks as part of the GA issued for the proposed rehabilitation of wetlands for Isibonelo Colliery, Ref No. 27/212/B311/4/3 dated 22/06/2020. Additionally, concurrent rehabilitation is undertaken, whereby topsoil stripped is placed on the rehabilitated area behind the advancing strip or stockpiled. Additionally, Isibonelo mine uses e-DNA metabarcoding to detect 108 species in river systems and wetland offset projects, assessing biodiversity return and guiding future wetland interventions and sustainable land use post-closure (2022 Annual Mine Report, dated April 2023) Refer to Appendix B: Photo 9
8.2.1.4	Pre-construction Phase		
a	The applicant must appoint an independent Environmental Control Officer (ECO) who will monitor contractors, compliance with EMP and EA (see 8.2.2. Management of the activity for more details).	N/A	This condition falls outside this audit scope/period as all pre-construction activity commitments have been concluded and no reports/ images from the pre-construction phase were retained by Isibonelo and verified by NTC during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
b	The applicant must provide all contractors and sub-contractors with a copy of Environmental Management Programme and Environmental Authorisation prior to the mining activities.	N/A	This condition falls outside this audit scope/period as all pre-construction activity commitments have been concluded and no reports/ images from the pre-construction phase were retained by Isibonelo and verified by NTC during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.

REF.NO.	EA CONDITION	COMPL.	AUDIT OBSERVATIONS/ FINDING
c	All pre-construction phase mitigation measures as outlined in the Environmental Management Programme attached in Environmental Impact Assessment report must be adhered to at all times.	N/A	This condition falls outside this audit scope/period as all pre-construction activity commitments have been concluded and no reports/ images from the pre-construction phase were retained by Isibonelo and verified by NTC during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
d	In order to ensure safety, all employees must be given the necessary personnel protective equipment (PPE).	N/A	This condition falls outside this audit scope/period as all pre-construction activity commitments have been concluded and no reports/ images from the pre-construction phase were retained by Isibonelo and verified by NTC during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
e	Appropriate notification sign must be erected at the construction site, warning the public (residents, visitors etc.) about the hazard around the construction site and presence of heavy vehicles and machinery.	N/A	This condition falls outside this audit scope/period as all pre-construction activity commitments have been concluded and no reports/ images from the pre-construction phase were retained by Isibonelo and verified by NTC during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
f	Construction must include design measures that allow surface and subsurface movement of water along the drainage lines so as not to impede natural surface and subsurface water flow, and drainage measures must promote the dissipation of storm water runoff.	N/A	This condition falls outside this audit scope/period as all pre-construction activity commitments have been concluded and no reports/ images from the pre-construction phase were retained by Isibonelo and verified by NTC during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
g	Construction areas (e.g. material lay down areas), topsoil and subsoil must be protected from contamination or pollution. Stockpiling must not take place in drainage lines or areas where it will impede surface water runoff.	N/A	This condition falls outside this audit scope/period as all pre-construction activity commitments have been concluded and no reports images from the pre-construction phase were retained by Isibonelo and verified by NTC during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
h	If any soil contamination is noted at any phase of the proposed activity (ies), the contaminated soil must be removed to a licensed waste disposal facility and the site must be rehabilitated to the satisfaction of the Department and Department of Water and Sanitation. The opportunity for the onsite remediation and re-use of contaminated soil must be investigated prior to the disposal and this Department must be informed in this regard.	N/C	Contaminated soils are handled according to the contaminated soil management procedures. However contaminated soils were observed onsite and a clean as you go policy was not employed during the audit. It should be noted that at the time of report finalisation, Isibonelo implemented an action plan to clean up contaminated area. Refer to Appendix B: Photo 3,14
8.2.1.5	Access roads and traffic impact		
a	Necessary signage and traffic measures must be implemented for safe and convenient access to the site from adjacent roads;	C	Notification, warning and traffic signage were observed within the mining area and adjacent roads. No non-compliance was observed. Refer to Appendix B: Photo
b	Access roads must be well maintained throughout the mining operation.	C	No non-compliance was observed. All access roads were well maintained.
8.2.1.6	Air quality management		

REF.NO.	EA CONDITION	COMPL.	AUDIT OBSERVATIONS/ FINDING
a	Proper measures must be put in place to suppress dust in order to minimize nuisance conditions;	C	No nuisance dust conditions were observed. Processed water obtained from Vaskop Dam is the main source of dust suppression at an estimated 1.0 l.m ² /day by the water bowsers and this water use activity is approved under Section 21 (g) of Integrated WUL Ref No. 06/B11D/FBCGJI/9121, dated 19/11/2019. Additionally, should the volumetric capacity of the Ernie's dam reaches ≥ 5% of its capacity, water is transferred to sprayers or atomisers onsite for dust suppression use (verified in the Thungela Isibonelo colliery water and salt balance report update, dated 03/05/2023)
b	Stockpiles must be at an acceptable height at all time;	C	No non-compliance observed. All stockpiles were within an acceptable height according to mine personnel. The mitigation measures of the approved EMP as per condition 8.1.6. do not make reference to height restrictions but ratio parameters of spoils stockpiles (1:3 ≤ 1:5) which stockpiles observed adhere to.
c	A speed restriction of 40km/h must be enforced and monitored on site for all mine vehicles.	N/C	The minimum speed limits of 20 km/hr were noted by the HDV wash bay/ workshop areas. It was noted that 40km/h restriction signage were present at areas not observed during the audit, however the inbuilt monitoring system of the LDV during the audit site assessments would exceed this speed restrictions without speed reduction repercussions. This is a repeat finding and an action plan was put in place to request for DMRE relaxation of the condition, but no feedback has been received to date.
8.2.1.7	Proliferation of alien species		
a	All construction/mining equipment and vehicles must be cleaned before entering and leaving the site to reduce the chances of spreading weeds and invasive species,	N/C	A designated wash bay area for vehicles and or machinery was observed during the audit. An AIP management procedure was verified (Isibonelo Colliery Alien invasive study and management plan report dated 31 August 2020). Additionally, an equipment and vehicles maintenance procedure and register is in place to ensure thoroughly cleaning before entering and leaving the site as when required.
b	Alien species must be managed in terms of National Environmental Management: Biodiversity Act	C	No non-conformance observed. An AIP management procedure was verified (Isibonelo Colliery Alien invasive study and management plan report dated 31 August 2020) and a Monitoring and tracking plan 2022 was verified during the audit period.
8.2.1.8	Noise		
a	Construction/ mining activities must be limited to normal working hours (07h00 - 17h00)	N/C	No construction activities are being undertaken, however mining activities occur 24/7. During the audit session, the Isibonelo team communicated that the mine now operates outside of the authorised working hours of 07h00 to 17h00. This is a repeat finding and an action plan was put in place to request for DMRE relaxation of the condition but no feedback has been received to date.
b	Mine vehicles must serviced as per the manufacture's specifications and be fitted with standard silencers prior to beginning of construction.	C	Isibonelo personnel confirmed that the mine vehicles are serviced as per manufactures specifications. Proof of maintenance was verified during the audit period. Silencers could not be observed on vehicles, however proof of retrofitting on the vehicles was provided to the auditor for verification.
8.2.1.9	Erosion Control Measures		
a	All soil surfaces compacted as a result of mining/construction activities must be ripped, and imported materials must be removed;	C	No non-compliance observed. Rehabilitation of compacted soil surfaces are currently being backfilled and imported materials are being removed, and topography is being restored to original profiles.

REF.NO.	EA CONDITION	COMPL.	AUDIT OBSERVATIONS/ FINDING
b	Any erosion channel developed during mining/construction period or during vegetation establishment must be restored to a proper condition;	C	The auditor did not observe significant erosion on site. Isibonelo and is managed ad hoc on an as/when needed basis. An RSIP (dated 12/04/2023) by Eco Elementum details erosion control measures implemented onsite i.e berms and revegetation.
c	All surfaces must be managed to minimize and or avoid erosion.	C	No official management strategy or mechanisms for erosion management verified during the audit. The auditor observed very minute erosion occurring on site at areas observed during the audit and the Isibonelo team manage ad hoc on an as/when needed basis.
8.2.1.10	Excavation activities		
a	Topsoil must be stripped and stockpiled prior to excavation in a designated area.	C	Concurrent rehabilitation was observed. Isibonelo personal manage stripped and stockpiled topsoil according to the Thungela topsoil handling and management procedure.
b	Under no circumstances should material stockpiles be disposed of outside the boundary of the EA area.	C	No non-compliance observed. All stockpiles were within the EA boundary.
8.2.1.11	Waste management		
a	General waste must be kept in containers which are wind, water and scavenger proof, and disposed of at a permitted landfill site. No temporary dumping and littering of waste is allowed on site.	N/C	During the site visit, colour coded general waste bins and skips were observed. However, some of the skips and bins did not have any lids or nets for wind or scavenger proofing. The Thungela Resource Waste Standard (approved 24/04/2022) does not provide mitigation measures for wind and scavenger proofing on skips. Nonetheless, there was littering observed on site and safe disposal certificates from a landfill were verified during the audit period.
b	No waste must be disposed of through burying and burning.	C	No non-compliance observed. No burning or burying of waste was noted around the site.
c	All hazardous waste must be disposed of at an official registered site or be removed by registered hazardous waste contractors.	C	Red colour codes hazardous waste bins and skips were noted onsite, and safe disposal slips, agreements with hazardous waste removal contractors and landfill sites were verified during the audit period.
d	An emergency preparedness plan to address any pollution incidents (e.i such as oil spillage etc) that may occur on site must be developed	C	No noncompliance noted. Isibonelo has the following reports as part of their emergency preparedness plan (emergency response plan, manage emergency plan and Oil Silt Trap Operation and Maintenance Procedure) as verified during the audit period to address different kinds of pollution that may arise.
8.2.1.12	Surface and groundwater contamination must be prevented and/or mitigated by implementation of the following conditions		
a	Specific area must be demarcated for fueling and workshop services. And such area must be bunded to reduce the possibility of soil and water contamination.	C	No non-compliance observed. Specific areas demarcated for fuelling and workshop services are bunded.

REF.NO.	EA CONDITION	COMPL.	AUDIT OBSERVATIONS/ FINDING
b	Irrespective of the nature of a spillage (whether major or minor), all spillages must be cleaned up as soon as they occur.	N/C	A 'clean-as-you-go' principle is adopted for spillages in the following procedures: Thungela emergency response plan (approved dated 01/11/2022); Waste management procedure (); Isibonelo perform cleaning of conveyor belt spillage procedure (implemented 07/02/2022); Isibonelo manage tunnel conveyor spillage procedure (implemented 20/12/2022) as verified. However, spillages prior to audit site assessment were noted onsite during the audit period and no immediate clean-up occurred. Additionally, an incident register from Enablon was not verified to see the extent of the nonconformances during the audit period inline with the risk matrix for Isibonelo Environmental Non-Conformance and Corrective Action Management Procedure, implemented 22/04/2022). Corrective action plans were already implemented at the time of the audit. Refer to Appendix B: Photo 3, 14
c	Spillage of petrochemical products must be avoided. In the case of accidental spillage, contaminated soil must be removed for bioremediation or disposed of at a facility for the substance concerned. Disturbed land must be rehabilitated and seeded with native vegetation seed naturally occurring on site.	N/C	Petrochemical spillages were observed onsite. An incident register generated from Enablon was verified to ensure environmental incidents occurred are recorded and classified in accordance with the risk matrix noted under Isibonelo Environmental Non-Conformance and Corrective Action Management Procedure (Ref: DOC NO ISI-ENV-PRO- 0970, verified 22/04/2022). Corrective Action plans were already implemented at the time of the audit. Refer to Appendix B: Photo 3,14
8.2.1.13	Fire prevention and management		
a	Maintain fire breaks at all times;	C	No non-compliance noted. Fire breaks maintained onsite.
b	Fire extinguishers that are in good working conditions must be made available at all times for their usage during the occurrence of accidental fires ;	C	Serviced fire extinguishers were placed at OHS strategic points as verified during the audit site assessment.
c	Workers must be adequately trained in the handling of firefighting equipment;	C	Firefighting training course certificates from site were verified from ETS (Industrial firefighting preliminary level, dated April 2022) during the audit.
d	Open fires must strictly be prohibited;	C	No non-compliance was observed. There was no evidence of open fires on site.
e	Smoking must be prohibited in the vicinity of flammable substances;	C	No non-compliance observed. "Smoking" demarcated areas are available onsite and "No Smoking" signage were noted in vicinity of flammable substances.
f	Cooking and heating fires must be permitted only in designated areas with appropriate safety measures.	C	No non-compliance was observed. All cooking is done at designated areas.
8.2.1.14	Storm water management		
a	Storm water management plan must be developed in terms of the applicable regulations, and implemented on site.	C	Stormwater management parameters that correlate to clean and dirty water separation streams i.e., Clean water management (Steenkoolspruit river diversion, Attenuation Dam, DeBeer spruit diversions, Highwall drainage system and Harry trench, flood protection berms, diversion dam). Dirty water management (Vaskop Dam, Barber Dam, Coal Tipping, access roads and stockpiling area) have been incorporated into Isibonelo infrastructure as per the IWWMP 2023 Report. Refer To Appendix B: Photo 10
8.2.1.15	Safety		

REF.NO.	EA CONDITION	COMPL.	AUDIT OBSERVATIONS/ FINDING
a	Potentially hazardous area must be demarcated with danger tape or cones;	C	No non-compliance observed. Hazardous area's i.e., excavation's that required danger tape and cones were observed. All walk areas were clearly marked and guided with hazard coded chains to create aisles that are safe zones for pedestrians. Appropriate signage was placed at strategic areas and Isibonelo ensures that constant monitoring of areas for potential danger is practiced throughout the site.
b	Appropriate signage must be placed to caution employees and contractors not to attempt to enter certain structures without being authorized.	C	No non-compliance observed. Appropriate signage was placed at strategic places onsite.
8.2.1.16	Emergency Response Plan		
a	An Emergency Response Plan should be available for accidental spills and fire fighting during both construction and operation of the project;	C	Isibonelo have an emergency response plan (approved dated 01/11/2022) that is in line with condition parameters.
b	In the event of emergency, the holder must notify the department within 24hrs, and contact relevant emergency services in the area;	C	No non-compliance observed. No emergency events occurred during the audit period.
c	All significant pollution incidents must be reported to this Department within forty eight (48) hours of occurrences.	C	No reportable incidences to the department occurred during the audit period. However, Isibonelo need to provide us with the Enablon incident register and procedures to assign compliance to this condition.
8.2.1.17	Compliance with other legislation		
a	The National Environmental Management Act, 1998 (Act 107 of 1998), with particular reference to the principles in chapter 2 of the said Act.	C	The licence holder is aware of this condition together with its requirements. During the audit it was confirmed that the appropriate necessary measures will be taken to ensure that Elders complies with the requirements stipulated in the legislation listed in condition 8.2.1.17
b	The National Water Act, 1998 (Act 36 of 1998), with particular reference to the sections pertaining to mining in the proximity of dams and their catchments areas, rivers, marshes, streams, pans and other water courses.	C	The licence holder is aware of this condition together with its requirements. During the audit it was confirmed that the appropriate necessary measures will be taken to ensure that Isibonelo complies with the requirements stipulated in the legislation listed. WUL/GA were issued in this regard.
c	The National Environmental Management Air Quality Act (Act 36 of 2004), with particular reference to the sections pertaining to the liberation of dust, and other emissions, created by prospecting activities, into the atmosphere.	C	The licence holder is aware of this condition together with its requirements. During the audit it was confirmed that the appropriate necessary measures will be taken to ensure that Isibonelo complies with the requirements stipulated in the legislation listed. Annual air quality reports submitted to DMRE in this regard.
d	The Conservation of Agriculture Resources Act, 1983 (Act 43 of 1983), with particular references to the sections pertaining to soil conservation.	C	The licence holder is aware of this condition together with its requirements. During the audit it was confirmed that the appropriate necessary measures will be taken to ensure that Isibonelo complies with the requirements stipulated in the legislation listed.
e	The National Heritage Resources Act, 1989 (Act No 25 of 1999), with particular reference to the protection of all historical and pre-historical cultural remains.	C	The licence holder is aware of this condition together with its requirements. During the audit it was confirmed that the appropriate necessary measures will be taken to ensure that Isibonelo complies with the requirements stipulated in the legislation listed.
f	The Mine Health and Safety Act, 1996 (Act 29 of 1996) in conjunction with the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), with particular reference to those sections and regulations pertaining to health and safety at mines; mining within 100 m from structures that must be protected; as well as those sections pertaining to rehabilitation of the surface.	C	The licence holder is aware of this condition together with its requirements. During the audit it was confirmed that the appropriate necessary measures will be taken to ensure that Isibonelo complies with the requirements stipulated in the legislation listed.

REF.NO.	EA CONDITION	COMPL.	AUDIT OBSERVATIONS/ FINDING
g	All provisions of the Occupational Health and Safety Act, 1993 (Act No.85 of 1993) and any other applicable legislation must be adhered to by the holder of this Authorisation.	C	The licence holder is aware of this condition together with its requirements. During the audit it was confirmed that the appropriate necessary measures will be taken to ensure that Isibonelo complies with the requirements stipulated in the legislation listed.
h	The National Environmental Management: Waste Act (Act No. 59 of 2008);	C	The licence holder is aware of this condition together with its requirements. During the audit it was confirmed that the appropriate necessary measures will be taken to ensure that Isibonelo complies with the requirements stipulated in the legislation listed.
i	All other legislation , regulations, guidelines or by-laws applicable .	C	The licence holder is aware of this condition together with its requirements. During the audit it was confirmed that the appropriate necessary measures will be taken to ensure that Isibonelo complies with the requirements stipulated in the legislation listed.
8.2.1.19	Liability of the holder of this Authorisation		
a	The competent authority shall not be held responsible for any damages or losses suffered by the holder or his/her successor in title in any instance where mining/ construction or operation subsequent to construction are to be temporarily or permanently stopped for reasons of non-compliance by the holder with conditions of approval as set out in the document or any other subsequent document emanating from this authorisation. The holder shall be responsible for all the costs necessary to comply with the above condition unless otherwise specified.	C	The licence holder has noted this condition and associated requirements.
b	Any complaint from the public during the life of mine must be attended to by the holder of this authorisation as soon as possible to the satisfaction of parties concerned.	C	This condition and its requirements have been noted by Isibonelo. During the audit session, the auditor was told that there have not been complaints from the public.
c	The contractor must ensure that serviceable ablution facilities are available for employees. It is the responsibility of the holder of the authorisation to see to it that this condition is adhered to.	C	Ablution facilities on site are kept clean and well maintained. Proof or receipts of ablution service history or contract between Isibonelo with the external service provider were however not submitted
8.2.2	MANAGEMENT OF THE ACTIVITY		
a	A copy of an Environmental Authorisation and Environmental Management Programme must always be available on site so as to monitor compliance with conditions outlined in both the documents. Both documents must be used as on-site reference document during the life of mine.	C	A copy of this Environmental Authorisation is available at the environmental officer's file which is kept located on site. The auditor was provided with the file.
b	The approved Environmental Management Programme (attached to the EIA Report) must be adhered to during the life of the mine.	C	Auditor observed the Isibonelo undertake compliance monitoring for their Environmental Management Plan as part of the internal compliance monitoring.
c	All duties and responsibilities as outlined in the Environmental Management Programme attached are binding throughout the life of the mine.	C	Refer to condition 8.2.2.b.
d	Any proposed amendments to the Environmental Management Programme (as a result of this authorisation or otherwise) must be submitted in writing to this Department for approval prior to the	C	This condition has been noted by the licence holder.

REF.NO.	EA CONDITION	COMPL.	AUDIT OBSERVATIONS/ FINDING
	amendment being implemented. On approval of the proposed amendment the EMP must be accordingly amended and adhered to.		
8.2.3	Appointment of Environment Control Officer		
a	An Environmental Control Officer must be appointed, who will monitor and ensure compliance and correct implementation of all mitigation measures and provisions as stipulated in the Environmental Authorisation and Environmental Management Programme, prior to any commencement of mining activities on site.	N/A	Refer to condition 8.2.1.4.
b	The Environment Control Officer appointed must monitor the construction of the infrastructure to ensure that the layout plans are in accordance to the designs and record important findings of the site inspection.	N/A	Refer to condition 8.2.1.4.
c	The Environment Control Officer must also monitor the implementation of specific elements of the Environmental Management Programme by contractors	N/A	Refer to condition 8.2.1.4.
d	All duties and responsibilities as outlined in the Environmental Management Programme attached are binding throughout the life of project/mine.	N/A	Refer to condition 8.2.1.4.
8.2.4	Site Closure and Decommissioning		
a	The commissioning and decommissioning of individual activity within the overall listed mining activity must take place within the phases and timeframes as set out in the EMP.	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and no site closure and decommissioning activities occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
b	The application for closure indicated above must be submitted together with all relevant documents as indicated in Section 43 of Mineral and Petroleum Resources Development Act (Act 28 of 2002), as amended.	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and no site closure and decommissioning activities occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
c	All mitigation measures for the decommissioning phase, as outlined in the EA. The holder of EA must apply for a closure certificate in terms of Section 43 of Mineral and Petroleum Resources Development Act (Act 28 of 2002), as amended within 180 days of occurrence of lapsing, abandonment, cancellation, cessation, relinquishment and completion of the operation.	N/A	This condition falls outside this audit scope/period. The site is currently under operation phase and no site closure and decommissioning activities occurred during this audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
8.3	MONITORING		

REF.NO.	EA CONDITION	COMPL.	AUDIT OBSERVATIONS/ FINDING
a	This Department reserves the right to monitor and audit the activity to ensure compliance with legislation and the conditions stipulated in this authorisation.	C	Marthinus Wessel van Wyk is the appointed Environmental Superintendent responsible for ensuring compliance with environmental legislation and licenses/permits issued to Thungela for Isibonelo. Isibonelo undertake regular monitoring and auditing to ensure compliance to environmental legislation, including: - External audit Report (EMPr_EA_WUL) compiled by Geovicon Environmental (Pty) Ltd dated November 2022. - Internal Audit: Operational Condition Monitoring Database (2023). - Water analysis reports from April 2022 to March 2023 by Aquatico Laboratories - Thungela Isibonelo Colliery: Quarterly Water Quality Assessment Report April 2022 to June 2022 (dated 18 July 2022) - Thungela Isibonelo Colliery: Quarterly Water Quality Assessment Report July 2022 to September 2022 (dated 25 October 2022) - Thungela Isibonelo Colliery: Quarterly Water Quality Assessment Report January 2023 to March 2023 (dated 24 April 2023) - Thungela Isibonelo Colliery: Annual Water Quality Assessment Report 2022 (dated January 2023) - Sewerage Plant Analysis reports from April 2022 to March 2023 by Thungela (Undated) - Thungela Isibonelo Colliery – November 2022- January 2023 Wet Season Biomonitoring Survey. NTC Group (Pty) Ltd was appointed as the independent external auditor for the March 2022 – March 2023 period, to verify compliance against conditions of the license, permits issued for Isibonelo No applicable recommendation.
b	It is the holder of this Authorisation's responsibility to ensure that an ongoing management and monitoring of the impacts of the activity on the environment throughout the life of the mine is put into practice.	C	Baseline studies were conducted as part of the authorisation process and findings were taken into account accordingly in the EMPr that is being implemented on site as per condition 8.3.1 herein.
8.4	RECORDING AND REPORTING TO THE DEPARTMENT		
a	The authorization holder must submit annual an environmental audit report during the operation of the activity, unless otherwise requested by the department. The audit report must convey the following:	C	No non -compliance observed. Proof of submission for the 2022 annual Environmental Audit Report was verified during the audit.
b	The date in which the audit was carried out,	C	No non -compliance observed. Audit report contained date for the 2022 annual Environmental Audit Report dated November 2022 was verified during the audit.
c	The outcome of the audit, in relation to the conditions stipulated in the environmental authorization and the EMPr as well as the actions taken to mitigate environmental impacts on site	C	The previous Isibonelo Final Environmental Audit Report (2022) included conditions for both the EA and EMPr as stated in condition 8.1.6. herein. Actions taken to mitigate environmental impacts of any conditions that were non-compliant were verified (Internal Audit: Operational Condition Monitoring Database (2023)).
d	Records of monitoring and /or auditing must be made available for inspection to this Department and any other relevant authority inspecting the development activities	C	The records for this project are available and will be made available to the inspector. Copies are also kept on site by the Environmental Superintendent.
e	The holder must in the event of non-compliance with any condition of this Authorisation inform the Regional Manager of Mpumalanga region of this Department, in writing, within forty eight (48) hours	C	Isibonelo have noted this condition and will make records for this project available to the department upon a written request. The department has not issued a request for compliance monitoring by the department as per the condition parameters during the audit period.

REF.NO.	EA CONDITION	COMPL.	AUDIT OBSERVATIONS/ FINDING
f	Non-compliance to this authorisation is an offence as provided for in terms of the National Environmental Management Act, 1998, Section 49(a) and Regulation 48. Any conviction of such offence may result in Section 49(a) being enforced.	C	The implementation of the EMP is overseen by the Environmental Superintendent, who has noted this condition.
9	APPEAL OF AUTHORISATION		
	The holder of the authorisation must notify every registered interested and affected party, in writing and within fourteen (14) days of receiving the Department's decision. The notification must -	C	During this reporting period, evidence was provided to the auditor to substantiate that registered interested and affected party were notified of the issuance of the authorisation.
a	Specify the date on which the Authorisation was issued.	C	During this reporting period, evidence was provided to the auditor to substantiate that registered interested and affected party were notified of the issuance of the authorisation.
b	Inform the registered interested and affected parties of the appeal procedure provided for in Chapter 2 of the National Appeal Regulations of 2014.	C	During this reporting period, evidence was provided to the auditor to substantiate that registered interested and affected party were notified of the issuance of the authorisation.
c	Advise the interested and affected parties that a copy of the Authorisation and reasons for the decision will be furnished on request.	C	During this reporting period, evidence was provided to the auditor to substantiate that registered interested and affected party were notified of the issuance of the authorisation.
d	An appeal against the decision must be lodged in terms of Chapter 2 of the National Appeal Regulations of 2014.	C	During this reporting period, no evidence was provided to the auditor to substantiate that registered interested and affected party were notified of the issuance of the authorisation in line with condition parameters.



I&AP Notificati

TABLE 6: BLOCK Z ENVIRONMENTAL AUTHORIZATION (17/2/3N-362)

REF.NO.	EA CONDITION	COMPL.	AUDIT OBSERVATIONS/ FINDING
3	Scope of Authorisation (Block Z: Environmental authorization (17/2/3N-362))		
3.1	Authorisation of the activity is subject to the conditions contained in this authorisation, which form part of the environmental authorisation and are binding on the holder of the authorisation.	C	The condition has been noted by the holder of the authorisation (Thungela). The authorisation was issued in accordance with the requirements of NEMA and applicable regulations thereto.
3.2	The holder of the authorisation must ensure compliance with these conditions by any person acting on his or her behalf, including but not limited to, an agent, sub-contractor, employee or person rendering a service to the holder of the authorisation.	C	Marthinus Wessel van Wyk is the appointed Environmental Superintendent responsible for ensuring compliance with environmental legislation and licenses/permits issued to Thungela for Isibonelo. Isibonelo undertake regular monitoring and auditing to ensure compliance to environmental legislation, including: - External audit Report (EMPr_EA_WUL) compiled by Geovicon Environmental (Pty) Ltd dated November 2022. - Internal Audit: Operational Condition Monitoring Database (2023). - Water analysis reports from April 2022 to March 2023 by Aquatico Laboratories - Thungela Isibonelo Colliery: Quarterly Water Quality Assessment Report April 2022 to June 2022 (dated 18 July 2022) - Thungela Isibonelo Colliery: Quarterly Water Quality Assessment Report July 2022 to September 2022 (dated 25 October 2022) - Thungela Isibonelo Colliery: Quarterly Water Quality Assessment Report January 2023 to March 2023 (dated 24 April 2023) - Thungela Isibonelo Colliery: Annual Water Quality Assessment Report 2022 (dated January 2023) - Sewerage Plant Analysis reports from April 2022 to March 2023 by Thungela (Undated) - Thungela Isibonelo Colliery – November 2022- January 2023 Wet Season Biomonitoring Survey. NTC Group (Pty) Ltd was appointed as the independent external auditor for the March 2022 – March 2023 period, to verify compliance against conditions of the licence, permits issued for Elders. No applicable recommendation.
3.3	The activity which is authorized may only be carried out at the properties indicated above.	C	No non-compliances observed during the audit period. The activity which is authorised is carried out at the property indicated in the authorisation.
3.4	Any changes to, or deviations from, the project description set out in this authorisation must be approved, in writing, by the Department before such changes or deviations may be affected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the authorisation to apply for further authorisation in terms of the regulations.	C	No non-compliance have been observed. Isibonelo have not undertaken any changes to the authorisations.
3.5	In the event that the impacts exceed the significance as predicted in the environmental impact assessment report, the authorisation may be suspended after proper procedures have been followed.	C	No non-compliance have been observed. Isibonelo have not undertaken any changes to the authorisations.
3.6	In the event of any dispute concerning the significance of a particular impact, the opinion of the Department in respect of its significance will prevail.	C	No non-compliance have been observed. Isibonelo have not undertaken any changes to the authorisations.

REF.NO.	EA CONDITION	COMPL.	AUDIT OBSERVATIONS/ FINDING
3.7	The Department may change or amend any of the conditions of this authorisation if, in the opinion of the Department, it is environmentally justified.	N/A	Thungela has taken note of the condition and amendment of the conditions of this authorisation has been undertaken by the department for this reporting period.
3.8	Where any of the applicant's contact details change, including the name of the responsible person, the physical or postal address and/ or telephonic details, the applicant must notify the Department as soon as the new details become known to the applicant.	C	No non-compliance observed. Thungela (previously known as Anglo has changed their registered name (verified in the company registration document, dated 01 March 2022 submitted to DMRE as part of the name change notification). Name change notification was submitted on the 01 March 2022 to the regional DMRE manager. Even though the submission was outside of the 14-day period, proof of submission was verified by NTC and is compliant for this audit period.
3.9	This activity must commence within a period of five (5) years from the date of issue. If commencement of the activity does not occur within that period, the authorisation lapses and a new application for environmental authorisation must be made in order for the activity to be undertaken, unless the holder of this environmental authorisation has lodged a valid application to amend the validity period of this authorisation before this authorisation lapses, in which case, this authorisation will remain valid. However, the activity, including site preparation, may not commence prior to the amendment application being decided.	N/A	This condition falls outside this audit scope/period as all construction activities i.e., commencement of activity notification to authorities was not retained by Isibonelo and was not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
3.10	The holder of this authorization (Anglo Operations Thermal Coal) is responsible for compliance with the provisions for Duty of Care and Remediation of Environmental Damage contained in Section 28 of the National Environmental Management Act, 1998 (Act 107 of 1998).	C	Thungela has taken note of the condition and amendment of the conditions of this authorisation has been undertaken by the department for this reporting period.
3.11	This authorisation does not negate the holder of the authorization, responsibility to comply with any other statutory requirements that may be applicable to the undertaking of the activity, including, inter alia, the National Forests Act, 1998 (Act 84 of 1998), the Mineral and Petroleum Resources Development Act (Act No. 28 of 2002) the National Environmental Management: Waste Act, 2008 and the National Water Act, 1998 (Act No. 36 of 1998).	C	The condition has been noted by the holder of the authorisation (Thungela) and complies to the necessary approvals/ permits received from other legislation. Thungela has received the below authorisations from the respective authorities to undertake activities of this authorisation herein: Additionally, a Final EIR Report/ EMP for the proposed Block Z Project at Isibonelo Colliery, dated 31 March 2015 and granted 13 September 2018 (Reference No. MP 30/5/1/2/3/2/1 (130) EM by DMRE and the EA approved 8 September 2015, with reference no.: 17/2/3N-362 from MEDET. An Integrated WUL Ref No. 06/B11D/FBCGJI/9121, dated 19/11/2019, as amended in 23/02/2021 and a GA for the proposed rehabilitation of wetlands for Isibonelo Colliery, Ref No. 27/212/B311/4/3 dated 22/06/2020 with DWS.
	Appeal of Authorisation		
3.12	The holder of the authorisation must notify every registered interested and affected party, in writing and within twelve (12) days of the date of this decision, of the outcome of the application.	N/A	This condition falls outside this audit scope/period as all construction activities i.e., commencement of activity notification to authorities was not retained by Isibonelo and was not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
3.13	The notification referred to above, must —		
a	Specify the date on which the authorisation was issued;	N/A	Condition 3.12 refers
b	Inform the interested and affected party of the appeal procedure provided for in Chapter 7 of the Regulations;	N/A	Condition 3.12 refers
c	Advise the interested and affected party to the manner in which the decision can be accessed;	N/A	Condition 3.12 refers

REF.NO.	EA CONDITION	COMPL.	AUDIT OBSERVATIONS/ FINDING
d	Be published in the newspaper contemplated in Regulation 54(2) (c) and (d) and which newspaper was used for the placing of advertisements as part of the public participation process.	N/A	Condition 3.12 refers
	Management and monitoring of the activity		
3.14	The Environmental Management Programme (EMPr) dated 14th April 2015 as included in the environmental impact assessment report is hereby approved, and must be implemented and adhered to throughout the lifecycle of the activity.	C	Auditor observed the Isibonelo undertake compliance monitoring for their Environmental Management Plan as part of the internal compliance monitoring.
3.15	Before construction activities may commence, plant species of conservation importance (endemic, protected, Red Data) must be identified and marked, and may not be disturbed, or, where required, the relevant permits for their relocation or removal must be obtained from the relevant authority.	N/A	This condition falls outside this audit scope/period as all pre-construction activities was not retained by Isibonelo and was not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
3.16	Development on, and the removal of indigenous vegetation from, stands zoned as Private Open Space is prohibited unless it is specifically for purposes directly related to the construction of watercourse crossings, attenuation facilities, cut-off canals and road infrastructure specifically approved herein.	N/A	This condition falls outside this audit scope/period as all pre-construction activities was not retained by Isibonelo and was not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
3.17	Before construction activities may commence, the 32m wetland buffer zones must be surveyed on site in consultation with the engineer and the wetland specialist, and must be clearly demarcated on site for the duration of the construction phase.	N/A	This condition falls outside this audit scope/period as all pre-construction activities was not retained by Isibonelo and was not verified during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023.
3.18	The applicant must appoint an independent Environmental Control Officer (ECO) that will have the responsibility of monitoring and reporting on compliance with the conditions of this environmental authorisation as well as monitoring and reporting on the implementation of the approved EMPr:		
3.18.1	The ECO must be appointed before the commencement of construction and the Department must be notified of such an appointment for communication purposes.	N/A	This condition falls outside this audit scope/period as ECO construction activity commitments have been concluded and no ECO reports from the construction phase were retained by Isibonelo and verified by NTC during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
3.18.2	The ECO must oversee the identification, and relocation or removal of plant species of conservation importance.	N/A	This condition falls outside this audit scope/period as ECO construction activity commitments have been concluded and no ECO reports from the construction phase were retained by Isibonelo and verified by NTC during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
3.18.3	The ECO must, prior to any site clearing activities, oversee the identification and marking of trees that may not be removed.	N/A	This condition falls outside this audit scope/period as ECO construction activity commitments have been concluded and no ECO reports from the construction phase were retained by Isibonelo and verified by NTC during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
3.18.4	The ECO must monitor the contractors' entry into sensitive habitat.	N/A	This condition falls outside this audit scope/period as ECO construction activity commitments have been concluded and no ECO reports from the construction phase were retained by Isibonelo and verified by NTC during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.

REF.NO.	EA CONDITION	COMPL.	AUDIT OBSERVATIONS/ FINDING
3.18.5	The ECO must monitor the restriction of construction to designated areas.	N/A	This condition falls outside this audit scope/period as ECO construction activity commitments have been concluded and no ECO reports from the construction phase were retained by Isibonelo and verified by NTC during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
3.18.6	The ECO must oversee the surveying and demarcation of designated wetland buffer zones that are prohibited from being developed.	N/A	This condition falls outside this audit scope/period as ECO construction activity commitments have been concluded and no ECO reports from the construction phase were retained by Isibonelo and verified by NTC during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
3.18.7	The ECO must oversee the implementation of an alien plant control program.	N/A	This condition falls outside this audit scope/period as ECO construction activity commitments have been concluded and no ECO reports from the construction phase were retained by Isibonelo and verified by NTC during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
3.18.8	The ECO must oversee and monitor the success of all rehabilitation activities.	N/A	This condition falls outside this audit scope/period as ECO construction activity commitments have been concluded and no ECO reports from the construction phase were retained by Isibonelo and verified by NTC during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
3.18.9	During the construction phase, the ECO must submit monthly compliance reports to the Department in writing and copy the applicant with such reports. Where applicable, the ECO may negotiate the required frequency for the submission of reports with the Department, which must be agreed to in writing by the Department. The reports must include a description of all activities on site, problems identified, transgressions noted and remedial action implemented. All reports must reflect the Department's reference number of the project on the cover page.	N/A	This condition falls outside this audit scope/period as ECO construction activity commitments have been concluded and no ECO reports from the construction phase were retained by Isibonelo and verified by NTC during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
3.18.10	The ECO must maintain the following on site:		
a	A site diary	N/A	This condition falls outside this audit scope/period as ECO construction activity commitments have been concluded and no ECO reports from the construction phase were retained by Isibonelo and verified by NTC during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
b	Copies of all reports submitted to the Department	N/A	This condition falls outside this audit scope/period as ECO construction activity commitments have been concluded and no ECO reports from the construction phase were retained by Isibonelo and verified by NTC during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
c	A complaints' register of all environmental complaints regarding the proposed project and the remedies applied to such complaints.	N/A	This condition falls outside this audit scope/period as ECO construction activity commitments have been concluded and no ECO reports from the construction phase were retained by Isibonelo and verified by NTC during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
3.18.11	The ECO must remain employed until all rehabilitation measures as well as site clean-up are completed and the site is handed over to the applicant by the contractor for operation.	N/A	This condition falls outside this audit scope/period as ECO construction activity commitments have been concluded and no ECO reports from the construction phase were retained by Isibonelo and verified by NTC during the audit period.

REF.NO.	EA CONDITION	COMPL.	AUDIT OBSERVATIONS/ FINDING
			NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
3.19	The holder of the authorisation must submit an environmental compliance audit report to the Department within 30 days of completion of the construction phase. The environmental audit report must indicate the date of the audit, the name of the auditor and the outcome of the audit in terms of compliance with the conditions of this authorisation as well as the requirements of the EMPr.	N/A	This condition falls outside this audit scope/period as ECO construction activity commitments have been concluded and no ECO reports from the construction phase were retained by Isibonelo and verified by NTC during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
3.20	The Department retains the right to monitor and/ or inspect the proposed project throughout its lifecycle.	C	Isibonelo has noted this condition and will ensure that the Department has access to the site to undertake tasks as per the condition parameters.
	Commissioning and operation of the activity		
3.21	Fourteen (14) days written notice must be given to the Department that the activity will commence. Commencement for the purposes of this condition includes site preparation. The notice must include a date on which it is anticipated that the activity will commence.	N/A	This condition falls outside this audit scope/period as all construction activities have been completed. NTC Group (Pty) Ltd was appointed as the independent external auditor for the March 2022 – March 2023.
3.22	Construction personnel must be made aware of the sensitivity of the area and their movements must be limited to the construction areas only and must be enforced in terms of the contracts of appointment.	N/A	This condition falls outside this audit scope/period as contractor training construction activity commitments have been concluded from the construction phase and proof of induction were not retained by Isibonelo and verified by NTC during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
3.23	The perimeter of the construction site must be defined and demarcation of material lay down areas must precede all activities on site.	N/A	This condition falls outside this audit scope/period as construction activity commitments have been concluded from the construction phase and no records were retained by Isibonelo and verified by NTC during the audit period. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
3.24	Fencing may not cause erosion and may not impede the flow of any watercourse or natural drainage. Fencing must be monitored throughout the construction and operation phase, and any signs of erosion caused by it must be remedied immediately.	C	No official management strategy or mechanisms for erosion management verified during the audit. The auditor did not observe significant erosion along fencing erected around watercourses. Isibonelo manages erosion ad hoc during activity compliance monitoring.
3.25	Construction personnel must be made aware of the sensitivity of the area and their movements must be limited to the construction areas only and must be enforced in terms of the contracts of appointment.	N/A	This condition falls outside this audit scope/period as construction activity commitments have been concluded from the construction phase. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
3.26	The clearing of vegetation must be minimized and phased to reduce the risk of significant runoff of sediments into watercourses. Where large areas of vegetation are cleared, strips of intact vegetation must be left to bind soils and reduce the risk of erosion dongas developing.	C	No non-conformance observed. No erosion dongas were observed onsite during the audit period.
3.27	Topsoil must be stockpiled at a height not exceeding 1.5m at a pre-designated location close to backfill area for use during rehabilitation and landscaping.	N/A	This condition falls outside this audit scope/period as no stockpiling commitments are applicable. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
3.28	An alien plant control program must be implemented at the inception of the construction phase. Alien vegetation must be eradicated from wetland and riparian areas, and indigenous vegetation must be planted in wetland and riparian areas where alien vegetation is removed.	C	No non-conformance observed. An AIP management procedure was verified (Isibonelo Colliery Alien invasive study and management plan report dated 31 August 2020) and a Monitoring and tracking plan 2022 was verified during the audit period.

REF.NO.	EA CONDITION	COMPL.	AUDIT OBSERVATIONS/ FINDING
3.29	The disturbance of breeding habits of birds and wildlife is strictly prohibited.	C	No non-conformance observed. Isibonelo noted that all biodiversity are managed according to specialist recommendation issued with the approved EMP.
3.30	Stringent measures must be applied to suppress dust emanating from the construction site.	N/A	This condition falls outside this audit scope/period as construction activity commitments have been concluded. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
3.31	Dust mitigation must be performed via water spraying at the transfer points which are located within the strip mine area and at the Syferfontein coal handling area as stated in the final impact assessment report.	C	No nuisance dust conditions were observed. Processed water obtained from Vaskop Dam is the main source of dust suppression at an estimated 1.0 l.m ² /day by the water bowsers and this water use activity is approved under Section 21 (g) of Integrated WUL Ref No. 06/B11D/FBCGJI/9121, dated 19/11/2019. Additionally, should the volumetric capacity of the Ernie's dam reaches ≥ 5% of its capacity, water is transferred to sparer's or atomisers onsite for dust suppression use (verified in the Thungela Isibonelo colliery water and salt balance report).
	Storm water management must adhere to the following:		
3.32.1	No surface storm water generated as a result of the development may be channeled directly into any wetland or watercourse, or directly into the riparian zone. All surface runoff generated during both construction and operation phases must be managed prior to entering any natural drainage system, wetland or riparian zone so as not to impact on the natural hydrology and morphology of the watercourse.	C	Isibonelo have a consolidated stormwater management parameter that correlate to clean and dirty water separation streams i.e., Clean water management (Steenkoolspruit river diversion, Attenuation Dam, DeBeer spruit diversions, Highwall drainage system and Harry trench, flood protection berms, diversion dam). Dirty water management (Vaskop Dam, Barber Dam, Coal Tipping, access roads and stockpiling area) have been incorporated into Isibonelo infrastructure as per the IWWMP 2023 Report.
3.32.2	Storm water management must be designed to promote infiltration and slow the release of runoff into wetlands and watercourses.	C	No non-compliance observed. Condition 3.32.1 refers.
3.32.3	Any point of overland discharge must be located at least 30m away from a watercourse, wetland, riparian zone or dam and overland discharge must occur over areas that have a minimum vegetation cover of 80%.	C	No non-compliance observed. Condition 3.32.1 refers.
3.32.4	All mechanisms for dissipating water energy must be implemented at the inception of the construction phase.	N/A	This condition falls outside this audit scope/period as construction activity commitments have been concluded. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
3.32.5	The increase in downstream peak flows must be mitigated by retaining storm water until after peak flows.	C	Isibonelo have a consolidated stormwater management parameter that correlate to clean and dirty water separation streams i.e., Clean water management (Steenkoolspruit river diversion, Attenuation Dam, DeBeer spruit diversions, Highwall drainage system and Harry trench, flood protection berms, diversion dam). Dirty water management (Vaskop Dam, Barber Dam, Coal Tipping, access roads and stockpiling area) have been incorporated into Isibonelo infrastructure as per the IWWMP 2023 Report.
3.32.6	Flows leaving the site must be suitably attenuated, specifically for storm events with a return frequency of up to the 1:5 year return frequency. The instantaneous discharge volume and peaks may not exceed 20% of the pre-development conditions measured at the point where the current flows leave the property.	C	Isibonelo Colliery has a comprehensive water management plan, including surface water flow design for Block Z, which includes an attenuation and retaining dam to prevent flooding.
3.32.7	The rate of storm water runoff must be reduced by using mechanisms such as the construction of earth berms, grassed swales and armourflex lined channels and the construction of energy breakers at storm water outlet structures.	C	Isibonelo Colliery has a comprehensive water management plan, including a surface water flow design for Block Z, which includes berms, an attenuation dam, and energy dissipating structures.

REF.NO.	EA CONDITION	COMPL.	AUDIT OBSERVATIONS/ FINDING
3.32.8	Where erosion at the base of swales or channels and at outlets from piped systems is likely to occur, inverts must be armoured to obviate scour, and where appropriate, swales must be grassed or lined.	N/A	This condition falls outside this audit scope/period as swales or channel commitments are not applicable. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
3.32.9	Sediment trapping facilities must be employed during the construction phase.	N/A	This condition falls outside this audit scope/period as construction activity commitments have been concluded. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
3.32.10	The following measures must be included at the road works and site level:		
3.32.10.1	All parking areas must be porous to allow infiltration of surface water.	N/A	This condition falls outside this audit scope/period as parking commitments are not applicable. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
3.32.10.2	Run-off from roads and parking areas must, where possible, be directed to infiltration trenches to convey storm water.	N/A	This condition falls outside this audit scope/period as parking or road use commitments are not applicable. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
3.33	Increased runoff due to vegetation clearance and/or soil compaction and/or any hardened surfaces must be managed, and steps must be taken to ensure that storm water does not lead to bank instability and excessive levels of silt entering the watercourse or wetland.	C	Isibonelo Colliery's water management plan includes surface water flow design for Block Z, weekly modelling, gap identification, and reduced footprint to minimize watercourse and wetland impact.
3.34	Scouring, erosion or sedimentation of all watercourses and wetlands must be prevented, and the stability of watercourses may not be detrimentally affected.	C	Isibonelo Colliery's water management plan includes surface water flow design for Block Z, weekly modelling, gap identification, and reduced footprint to minimize watercourse and wetland impact.
3.35	Wash down water at the transfer points must be collected and transferred to evaporation and settling dams where the coal is recovered and fed back into the system.	C	As part of the existing operation, wash down water is controlled and transferred to dirty water catchment facilities around the mine.
3.36	The quality of water downstream may not deteriorate as a result of construction activities.	N/A	This condition falls outside this audit scope/period as construction activity commitments have been concluded. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
3.37	Soils that become compacted through the activities of the development must be loosened to an appropriate depth to allow seed germination.	N/A	This condition falls outside this audit scope/period as construction activity commitments have been concluded. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
3.38	Where ablution facilities for construction personnel are required, dry chemical toilet facilities or e-loos must be provided on site at a ratio of 1:10 for construction staff. Ablution facilities may not be located within 50m from any watercourse or wetland or riparian zone, and may not cause pollution.	N/A	This condition falls outside this audit scope/period as construction activity commitments have been concluded. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
3.39	Chemical toilets must be maintained and cleaned regularly and effluent must be disposed of off-site into an approved municipal sewage system.	N/A	This condition falls outside this audit scope/period as construction activity commitments have been concluded. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
3.40	The storage and handling of fuel, lubricants and other chemicals must be in especially demarcated impervious and bunded areas.	N/A	This condition falls outside this audit scope/period as construction activity commitments have been concluded. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.

REF.NO.	EA CONDITION	COMPL.	AUDIT OBSERVATIONS/ FINDING
3.41	The mixing of cement, asphalt, chemicals or other noxious materials must be undertaken in designated areas on an impermeable layer such as a concrete slab or in a container suitable for this.	N/A	This condition falls outside this audit scope/period as construction activity commitments have been concluded. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
3.42	Existing infrastructure, machinery and vehicles must be utilized as far as possible.	C	During the site visit, it was confirmed that existing infrastructures and machinery are utilized, and no new unnecessary infrastructure was built for Block Z.
3.43	Construction vehicles and equipment must be checked and maintained regularly to ensure that there is no environmental contamination as a result of oil, fuel or hydraulic fluid leakages.	N/A	This condition falls outside this audit scope/period as construction activity commitments have been concluded. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
3.44	Pollution due to improper storage of construction materials or any hazardous substances is prohibited.	C	Isibonelo Colliery has implemented a comprehensive plan to manage chemical and hazardous substances to prevent contamination of surface and groundwater.
3.45	It is the responsibility of the holder of the authorisation to rectify any source of pollution from their undertaking and to take appropriate measures to prevent any pollution of surface as well as ground water.	C	Isibonelo Colliery has implemented a comprehensive plan to manage chemical and hazardous substances to prevent contamination of surface and groundwater.
3.46	All disturbed areas must be fully rehabilitated and protected from erosion. Rehabilitation measures must be aimed at the prevention of soil erosion and the re-establishment of indigenous vegetation.	N/A	This condition falls outside this audit scope/period as rehabilitation activity commitments have been concluded. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
3.47	The rehabilitated areas must be contoured to prevent pooling of surface water and ensure that excessive erosion does not occur.	N/A	This condition falls outside this audit scope/period as rehabilitation activity commitments have been concluded. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
3.48	No construction material or any other waste material may be dumped into any watercourse or surrounding area.	C	Block Z at Isibonelo Colliery is managing waste using skips, wheeled bins, and drums, with contractors' collection and proof of waste manifest and safe disposal certificates were verified.
3.49	All general waste generated on the site must be disposed of at a registered landfill site or as directed by any other relevant authority.	C	The waste is managed through skips and wheeled bins, collected by contractors, and no proof of waste manifest and safe disposal certificates was verified.
3.50	All hazardous waste must be disposed of at an official registered site, or be removed by registered hazardous waste contractors.	C	Hazardous materials is managed through skips and wheeled bins, collected by contractors, and no proof of waste manifest and safe disposal certificates was verified.
3.51	All hydrocarbons and hazardous chemicals must be stored in bunded areas as directed in SANS specifications.	C	No non-compliance observed. Chemicals are stored on bunded areas.
3.52	All hydrocarbons and hazardous chemicals must be stored in bunded areas as directed in SANS specifications.	C	In November 2021, a noise management program was launched, implementing SANS 10103:2008 noise monitoring.
3.53	An Air Quality Management system and monitoring programme must be in place during all phases of the development.	C	The air quality monitoring programme was developed and implemented as part of the existing operations.
3.54	Belt turnovers must be utilised to minimise spillage along the trajectory of the conveyors.	C	No non-compliance observed, condition parameters are adhered to by site.
3.55	All hydrocarbons and hazardous chemicals must be transported in accordance with SANS specifications.	C	All oils and hydrocarbons are removed via certified waste contractor who adhere to the relevant SANS specifications.

REF.NO.	EA CONDITION	COMPL.	AUDIT OBSERVATIONS/ FINDING
3.56	Construction personnel must be sensitized to the requirements of the South African Heritage Resources Act. Should any material of cultural or archaeological significance be encountered during construction, all activities must cease immediately, and the South African Heritage Resources Agency (SAHRA) must be informed accordingly.	N/A	This condition falls outside this audit scope/period as rehabilitation activity commitments have been concluded. NTC Group (Pty) Ltd was appointed as the independent external auditor for the May 2022 – May 2023. Therefore, this condition is not applicable.
3.57	complaints received from the public during the construction and operational phases of the activity must be attended to as soon as possible and addressed to the satisfaction of all concerned.	C	The complaints received for Isibonelo through the physical register at the office security post register, community liaison personnel is consolidated onto Enablon as per the EMS procedure as verified for this audit period. Refer to Appendix B: Photo 28
	General		
3.58	The application for closure indicated above must be submitted together with all relevant documents as indicated in Section 43 of Mineral and Petroleum Resources Development Act (Act 28 of 2002), as amended.	C	No non-compliance observed, condition parameters are adhered to by site.
3.59	All mitigation measures for the decommissioning phase, as outlined in the EA. The holder of EA must apply for a closure certificate in terms of Section 43 of Mineral and Petroleum Resources Development Act (Act 28 of 2002), as amended within 180 days of occurrence of lapsing, abandonment, cancellation, cessation, relinquishment and completion of the operation.	C	No non-compliance observed, condition parameters are adhered to by site.
3.60	National government, provincial government, local authorities or committees appointed in terms of the conditions of this authorisation or any other public authority shall not be held responsible for any damages or losses suffered by the applicant or his successor in title in any instance where construction or operation subsequent to construction be temporarily or permanently stopped for reasons of non-compliance by the applicant with the conditions of authorisation as set out in this document or any other subsequent document emanating from these conditions of authorisation.	C	No non-compliance observed, condition parameters are adhered to by site.

5. Deliberations

5.1. Adequacy and compliance of the proposed Isibonelo Environmental Management Programmes

Isibonelo Standard Environmental Management Plans were assessed not only for the Isibonelo compliance towards the commitments of the respective EMPr, but also assessed for the ability of the measures contained in the EMPr to sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the undertaking of the project activities.

5.1.1. Adequacy with the proposed Isibonelo Environmental Management Programme (MP 30/5/1/2/3/2/1 (130 EM)) approved 19 October 2021.

Based on the assessment of the proposed Isibonelo EMPr, we are of the opinion that the EMPr sufficiently provides for the avoidance, management and mitigation of environmental impacts associated with the operation of Isibonelo. All identified areas for improvement noted above, have been provided with recommendations that may facilitate future compliance with EMPR commitments and improve on site environmental management.

5.1.2. Compliance with the proposed Isibonelo Environmental Management Programme approved 19 October 2021.

Non-compliances were identified during the audit for the Isibonelo EMPr Project.

5.1.3. Adequacy with the proposed Isibonelo Environmental Management Programme proposed Z-Block project (MP 30/5//2/3/2/1 (30 EM) approved 13 September 2018.

Based on the assessment of the proposed Isibonelo EMPr, we are of the opinion that the EMPr sufficiently provides for the avoidance, management and mitigation of environmental impacts associated with the operation of Isibonelo. All identified areas for improvement noted above, have been provided with recommendations that may facilitate future compliance with EMPR commitments and improve on site environmental management.

5.1.4. Compliance with the proposed Isibonelo Environmental Management Programme for the proposed Z-Block project (MP 30/5//2/3/2/ (30 EM) approved 13 September 2018.

Non-compliances were identified during the audit for the Isibonelo EMPr Project.

5.2. Adequacy and compliance of the proposed Isibonelo Environmental Authorisation

Based on the assessment of the proposed Isibonelo EA stated herein, we are of the opinion that the EA does fully sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the operation of Isibonelo. All identified areas for improvement noted below, have been provided with recommendations that may facilitate future compliance with the EA commitments and improve on site environmental management.

5.2.1. Compliance with Isibonelo Authorisation (MP 30/5//2/3/2/ (30 EM) approved 19 October 2021.

Non-compliances were identified during the auditing period of the Environmental Authorizations.

5.2.2. Compliance with Isibonelo Authorisation (17/2/3N-362) approved 8 September 2015.

Non-compliances were identified during the auditing period of the Environmental Authorizations.

6. Conclusion

According to Regulation 34 under Part 3 of Chapter 5 of the amended Environmental Impact Assessment Regulations, 2014 (Government Notice No. 982) (EIA Regulations, 2014 as amended) state the following i.e.: *“Where the findings of the environmental audit report contemplated in subregulation 1 indicate- (a) insufficient mitigation of environmental impacts associated with the undertaking of the activity; or (b) insufficient levels of compliance with the environmental authorisation, EMPr or closure plan; the holder must, when submitting the environmental audit report to the competent authority in terms of subregulation (1), submit recommendations to amend the EMPr or closure plan in order to rectify the shortcomings identified in the environmental audit report.*

It is recommended that the non-conformances may trigger an amendment of the EA's and/or EMPs issued. It was determined that selected conditions of the authorisations would require amendment to correlate to site activities and amendment of the mitigation measures in the EMPr. Furthermore, some conditions are not applicable as the site is in operation phase. Additionally, recommendations for identified areas for improvement have been proposed that may facilitate future compliance with EA and/or EMPR commitments and improve on site environmental management.

APPENDIX A: ATTENDANCE REGISTER

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	Date of Meeting:	22 May 2023 (08:00am-17:00pm)
	Venue:	THUNGELA: ISIBONELO COLLIERY

THUNGELA EXTERNAL ENVIRONMENTAL COMPLIANCE AUDITS: ISIBONELO COLLIERY

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APPENDIX B: PHOTOGRAPHIC EVIDENCE



Photo 1: Cats observed at Auxiliary Workshop area.



Photo 2: Good safety procedures on bunded areas during used oil collection.



Photo 3: Section outside workshop area with poor waste management, undesignated parking, tyre storage area



Photo 4: Bunded oil storage area at Auxiliary workshop



Photo 5: Spill kits



Photo 6: Sewer Plant



Photo 7: Sewage Plant Office



Photo 8: Restriction and safety signage Sewer Plant Office



Photo 9: Commendable reinstatement/ rehabilitation of wetlands using dongalocks.



Photo 10: Diversion Water Dam culvert spillway outlet structure, all in good condition, good vegetation growth



Photo 11: Bird Mortality on fencing



Photo 12: Floodplains



Photo 13: Waste Management near offices



Photo 14: Waste Management



Photo 15: Alien Invasive Species near offices, poor drainage by used oil storage area.



Photo 16: Farm Dam



Photo 17: HDV Washday, blockage of sumps



Photo 18: Inappropriate E-Waste disposal at HDV workshops



Photo 19: Hydrocarbon Storage on bunded surfaces



Photo 20: Backfilling by Dragline



Photo 21: Ponding near hard stockpiles



Photo 22: Rehabilitated section on mine



Photo 23: Vaskop Dam Monitoring Sampling Point S5



Photo 24: Haul Truck transporting soil



Photo 25: Environmental awareness eLearning box



Photo 26: Livestreaming of daily mine operations summaries.

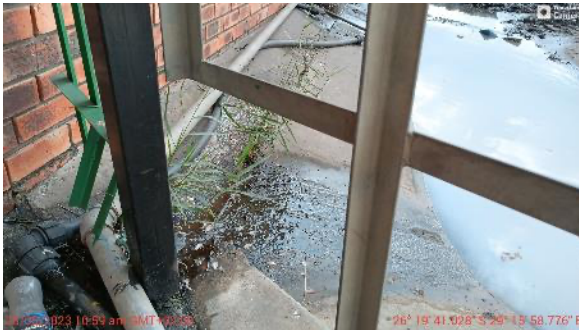


Photo 27: Pipe leakages and blocked sumps



Photo 28: Complaints book kept at the security offices