CSEC\(^1\) was appointed as the independent EAP\(^2\) by Sasol Mining\(^3\) to compile a consolidated EIAR\(^4\) and EMPR\(^5\) for the Impumelelo Mine’s (MP 30/5/1/2/2/1 138 EM) existing approvals in terms of both the NEMA\(^6\) (1998) and the MPRDA\(^7\) (2002). The documents and approvals hereby consolidated into this single working document include the following:

- Application for amendment of Environmental Authorisation in terms of the NEMA (1998), dated September 2011, as well as associated supporting documents compiled in response to authority queries on the submitted documents.
- Incorporation of the areas marked as “Study areas” in the approved EMP (dated 2020) into the mine boundary area (\textbf{NOTE: no mining is currently planned in these areas, but they will be included in the Mining Right as these areas may be mined in future – Sasol Mining (Pty) Ltd has committed to follow the prescribed authorisation process prior to the commencement of any mining or related activities in these previously referred to as study areas.)
- Approval letter issued by the DMR\(^8\) titled “Approval of the Environmental Management Programme Amendment for Sasol Mining (Pty) Ltd in respect of the Farm Boschmansfontein 523 IR and others, situated in the Magisterial district of Secunda: Mpumalanga Region”, dated 06 July 2010.
- Record of Decision issued by the DEDET\(^9\) titled “Application for Environmental Authorisation for the establishment of Sasol Brandspruit Mine Infrastructures (Impumelelo Shaft) and a conveyor belt on various farm properties within the jurisdictions of Govan Mbeki, Dipaliseng and Lekwa Local Municipality Respectively, Mpumalanga Province (17/2/2/1eGS-01)”, dated 15 September 2010.
- Record of Decision issued by the DEDET titled “Amendment of the Environmental Authorisation for the establishment of Sasol Brandspruit Mine Infrastructures (Impumelelo Shaft) and a conveyor belt on various farms within the jurisdictions of Govan Mbeki, Dipaliseng and Lekwa Local Municipality Respectively, Mpumalanga Province (17/2/2/1eGS-01)”, dated 12 December 2011.
- Approval letter issued by the DMR\(^10\) titled “Environmental Authorisation issued in terms of the National Environmental management Act, 1998 (NEMA) as amended, the Environmental Impact Assessment (EIA) Regulations, 2014 for inclusion of additional areas on portions 26 and 27 of the farm Hartbeestfontein 522 IR, Portion 0(RE) of the farm Hartbeeskuil 537 IR, Portions 0(RE), 4, 5 and a portion of portion 6, 7 and 8 of the farm Mahemfontein 587 IR, a portion of Portion 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 and 20 of Paardefontein 584 IR, a portion of portion 6 and 7 Wolvenfontein 534 IR; situated within Gert Sibande District Municipality, Mpumalanga region.”, dated 02 June 2020.

---

\(^1\) CSEC: Clean Stream Environmental Consultants (Pty) Ltd.
\(^2\) EAP: Environmental Assessment Practitioner.
\(^3\) Sasol Mining: Sasol Mining (Pty) Ltd.
\(^4\) EIAR: Environmental Impact Assessment Report
\(^5\) EMPR: Environmental Management Programme Report
\(^7\) MPRDA: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), as amended.
\(^8\) DMR: Department of Mineral Resources (now referred to as the DMRE – Department of Mineral Resources and Energy)
\(^9\) DEDET: Department of Economic Development, Environment and Tourism
\(^10\) DMR: Department of Mineral Resources (now referred to as the DMRE – Department of Mineral Resources and Energy)
It is the purpose of this consolidated EIAR and EMPR document to align with the mine’s current Mining Right (MP 30/5/1/2/2/2/1 138 EM) in accordance with the requirements of the MPRDA (2002) and the MPRDR\(^{11}\) (2004), there under as well as the requirements of the NEMA (1998) and the regulations (2014) there under. **It is thus hereby respectfully requested that the DMRE\(^{12}\) supersede all of the above mentioned approvals with a single approval allowing the mine to operate in a more efficient manner.**

**Details of the EAP:** CSEC was appointed as the EAP, and Natalie Lubbe and Blanché Postma, who are appropriately qualified and registered with professional bodies jointly compiled this final EMP and EMP document and followed the legislatively prescribed process in doing so.

**Description of the property:** The total mining rights area of the Impumelelo Mine covers an extent of approximately 30 000 ha within the Govan Mbeki, Lekwa and Dipaleseng Local municipalities, and the Gert Sibande District Municipality. The mine includes various portions of the farms Boschmansfontein 523 IR, Carmona 536 IR, Grootvley 579 IR, Hartbeesfontein 522 IR, Hartebeestkui 537 IR, Holgatsfontein 535 IR, Kaalspuit 528 IR, Klipdrift 324 IS, Paardekuil 583 IR, Platkop 543 IR, Raskop 538 IR, Raskop 677 IR, Weltevreden 580 IR, Witnek 581 IR, Witpoort 545 IR, Wolvenfontein 534 IR, Mahemsfontein 544 IR, and Paardefontein 584 IR. A locality map is provided in the report.

**Description of the scope of the proposed overall activity (Impumelelo Mine – history of applications):** Sasol Mining is an existing coal mining company situated in close proximity to Secunda in the Mpmumalanga Province and has been mining coal in the Secunda area for approximately 30 years. The main purpose of Sasol Mining’s Secunda operation is to supply coal to Sasol Synfuels, which utilises various processes and beneficiates the coal into a number of products such as petrol, diesel, plastics and various chemicals. In order to continue to satisfy market requirements in 2009, Sasol Mining applied for the conversion of the Mining Rights associated with the Block 2, Block 3 and Block 5 reserves. The Impumelelo Mine, and subsequent EMP (dated 2009) referred specifically to the Block 2 North Block reserves, and was approved by the then SME on the 6th of July 2010 and the DEDET on the 15th of September 2010. In 2017, the Brandspruit Mine operation was reaching the end of its productive life and Sasol Mining needed to supplement their supply of coal with additional mining operations. Sasol Mining appointed CSEC to undertake the necessary Environmental Authorisation processes including the compilation of the new EMP (under the requirements of the MPRDA (2002) and the NEMA (1998)) to extend the underground mining operations outside of the 2009 approved Impumelelo mine boundary area. This project was known as the Sasol Mining Impumelelo Mine Extension Project. No additional infrastructure / surface structures would be constructed as part of the Expansion Project and coal from the Impumelelo Mine would be transported via overland conveyor to Brandspruit coal bunker. The subsequent EMP amendment was compiled, submitted to the DMRE in January 2020, and approved on the 02nd of June 2020.

**Description of the scope of the proposed overall activity (this EMP consolidation):** This EMP consolidation is aimed at consolidating all of the previous documents and approvals and the project does not entail any new infrastructure or mining of any areas not previously approved.

**Listed activities in terms of the NEMA (1998):** The listed activities previously applied for are included in the document. This EMP consolidation does not include any new activities but aims to consolidate all previous documents and approvals and therefore all previously applied for and approved activities remain applicable.

**General description of the mining activities:** The Impumelelo Mine is an underground coal mine targeting the No 2 and no 4 coal seams. No coal is beneficiated at the mine, rather the coal is taken via an existing overland conveyor belt to the existing Brandspruit coal bunker. Sasol Mining uses a combination of bord and pillar as well as stopping mining methods. There is approximately 263 Mt of ROM coal which Sasol Mining intends to extract over the next approximately 36 years from the date of this report.

---


\(^{12}\) DMRE: Department of Mineral Resources and Energy
Infrastructure: This EMPR consolidation project does not include any new / additional infrastructure, however, infrastructure items already existing at the mine include shafts, bunkers, offices, parking, change houses and support infrastructure, storm water management infrastructure, stockpiles, roads, and a conveyor to the Brandspruit coal bunker are included.

Policy and legislative context: The relevance of various policies and legislation are described in the document. Emphasis were placed on the requirements of the NEMA (1998) and the MPRDA (2002), and the regulations there under, but all other relevant environmental legislation such as the NWA (1998), etc and policies, such as the Best Practice Guidelines for water resource protection in the South African mining industry etc. were taken into consideration.

Need and desirability of the proposed activities: The need and desirability have been assessed in detail and motivations have been provided in the report. The most pertinent point therefrom is that the Impumelelo Mine is an existing mine generating revenue towards the GDP as well as providing jobs to members of the surrounding communities.

Motivation for the preferred development footprint (alternatives considered): As the project does not entail any new infrastructure, but rather the consolidation of existing approvals, there were no new alternatives considered, however all the alternatives previously considered for the Impumelelo Mine have been included in the report.

Details of the public participation process followed: Public participation was conducted as part of the original Impumelelo Mine application (2009/2010), and again as part of the amendment application (2017). This EMPR including EIR was also subjected to a public consolation process and the comments and queries received during the public consultation period have been included in the report.

The environmental attributes associated with the development footprint / baseline environment: The baseline environment was described in detail in the document and included descriptions of:

- Geology (Highveld coalfield).
- Climate (typical Highveld climate).
- Topography (predominantly undulating plains).
- Soil (six major soil groups described, and links to land use and land capability noted).
- Vegetation (predominantly Soweto Highveld Grasslands, with seven site specific vegetation communities described, and invader and red data species noted).
- Animal life (typical of the Highveld Grasslands, recorded species as well as potentially occurring and red data species noted).
- Surface water (predominantly C12F, but also C21A and C12D quaternary catchments, receiving water bodies, water quantity and quality noted).
- Groundwater (groundwater levels and groundwater quality noted, also the potential for underground storage of water within the mine considered).
- Air quality (including potential sources of air pollution).
- Noise (including potential noise sources associated with the mine).
- Sensitive landscapes (with a focus on wetland areas – which cover approximately 12 % of the Impumelelo Mine boundary area).
- Visual aspects (with focus on the visual impact created by the already constructed conveyor belt as well as other mine infrastructure such as the shaft and infrastructure area).
- Sites of archaeological and cultural interest (including graveyards and historical structures).
- Regional socio economic aspects (population density, major economic activities and sources of employment, unemployment for the area, housing).
- Current land uses (predominantly agricultural and mining).
- Specific environmental features and infrastructure on the site.
Impacts and risks identified: As the consolidation project does not entail any new activities, no new impacts / risks were identified, rather the impacts and risks previously identified were confirmed to remain applicable and included in the document and described. Impacts were described according to project phase (construction phase, operational phase, decommissioning phase and post-closure phase). Impacts were assessed in terms of the status, magnitude, extent, duration, probability of occurrence, significance ((Magnitude + Duration + Extent) x Probability), reversibility of impact, irreplaceable loss of resources, and potential of impacts to be mitigated. The positive and negative impacts that the proposed activity and alternatives will have on the environment and the community that may be affected were also considered. The proposed mitigation measures to reduce the identified impacts and risks were described in the report. Based on the findings of the impact assessment, and environmental impact statement summarising the key findings of the environmental impact assessment, including a final site map and including a summary of the positive and negative implications and risks of the activities associated with the Impumelelo Mine was compiled and included in the document. The proposed impact management objectives and the impact management outcomes were also described, and the timeframes for the implementation thereof and responsible persons to ensure the implementation thereof have been identified. Closure objectives have been identified and described in the report. A description of cumulative impacts has also been included in the report.

Aspects for inclusion as conditions of authorisation: Based on the information made available to the EAP as part of the project, aspects for inclusion as conditions of the authorisation, should the authorisation be granted, have been proposed.

Description of any assumptions, uncertainties and gaps in knowledge: The knowledge gaps identified in the previous approved EMPs were noted and those that have since been resolved were also noted.

Reasoned option as to whether the proposed activity should or should not be authorised: A motivation towards the authorisation of this EMPR was provided in the report. The most important factor in consideration of approval or not, should be the fact that this project entails no additional or new activities but aims to consolidate all the previous information and approvals into a single working document in order to assist both Sasol Mining and the Competent Authority in the more effective management of the site, with only a single EMPR and single authorisation in place. All the mining and related activities contained in this EMPR have thus previously been authorised by the relevant regulatory authority.

Period for which environmental authorisation is required: It is noted that environmental authorisation is required for a period of 40 years.

Undertaking: the undertaking has been signed by the appropriate representative at Sasol Mining.

Financial provision: A copy and description of the latest available financial provision has been included in the document.

The process for managing any environmental damage: Monitoring programmes have been described in detail and includes monitoring of vegetation, surface water, groundwater, rehabilitation, air quality and surface movement / subsidence. The potential risk of acid mine drainage has been described and the potential for the buffer capacity of surrounding strata has also been considered. The mechanisms for monitoring compliance also includes annual performance assessments which should be undertaken by an independent EAP to ensure that the responsible persons are successfully implementing the management plan.

Environmental awareness plan: Sasol Mining has a detailed environmental awareness plan in place, and this is described in detail in the document.
Manner in which risks will be dealt with in order to avoid pollution or the degradation of the environment:
Sasol mining has an environmental emergency and response plan in place, and this plan is described in the document.

Thus in summary it is concluded that the purpose of this document, which is to consolidate the EIAR and EMPR document to align with the mine's current Mining Right (MP 30/5/1/2/2/2/1 138 EM) in accordance with the requirements of the MPRDA (2002) and the MPRDR (2004), there under as well as the requirements of the NEMA (1998) and the EIA regulations (2014) there under, were met and thus it is hereby respectfully requested that the DMRE supersede all of the previously mentioned separate / individual approvals with a single approval allowing the mine to operate in a more efficient manner.