

BACKGROUND INFORMATION DOCUMENT

ENVIRONMENTAL AUTHORISATION APPLICATION PROCESS FOR THE PROPOSED MOTUOANE PRODUCTION RIGHT 12/4/016 APPLICATION



PURPOSE OF THIS DOCUMENT:

- This Background Information Document (BID) provides you, as an Interested and Affected Party (I&AP), a high-level overview of the proposed project.
- The BID invites you, as an I&AP, to participate in the required Public Participation Process.
- The BID provides you, as an I&AP with an opportunity to contribute and participate in the formulation of the Scoping and Environmental Impact Assessment (EIA) Reports.
- The BID also provides you, as an I&AP an opportunity to provide the project team with

INTRODUCTION:

Motuoane Energy (Pty) Ltd (hereafter referred to as the applicant or Motuoane) has appointed Environmental Impact Management Services (EIMS) as the Environmental Assessment Practitioner (EAP) to assist with undertaking the necessary authorisation processes, including compiling the necessary reports and undertaking the statutory consultation processes, in support of the proposed project as described herein.

It is anticipated that several listed or regulated activities contained in the following legislation will potentially be triggered by the proposed project:

- National Environmental Management Act- NEMA (Act 107 of 1998- as amended);
- National Environmental Management: Air Quality Act- NEM:AQA (Act 39 of 2004);
- National Environmental Management: Waste Act- NEM:WA (Act 59 of 2008); and
- National Water Act – NWA (Act 36 of 1998).

The exact enviro-legal requirements and activities will be confirmed during the Authority pre-application meetings and scoping phase of this project.

The Environmental Impact Assessment (EIA) process will be undertaken in terms of Chapter 6 of the EIA Regulations, 2014 (GNR 982) promulgated under the NEMA (as amended). A Scoping and Environmental Impact Assessment (EIA) process will be followed.

Aim of the Background Information Document (BID):

The aim of the BID is to:

- Provide an overview of the Environmental Authorisation/Licensing Applications as well as the public participation processes which will be undertaken for the proposed project;
- Allow Interested and Affected Parties (I&APs) the opportunity to obtain a broad understanding of the proposed project and to request or share information; and



your comments, concerns and objections to the proposed project.	• Provide details on how I&APs can register their interest with and submit comments on the project. It is important to note that only registered I&APs will receive further communication regarding the project for the duration of the EIA process (i.e. invitation to review and comment on the Scoping and EIA Reports).
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LOCATION, SCALE, AND EXTENT OF THE PROPOSED PROJECT:

LOCATION

The proposed project and activity are proposed to be undertaken at the following location:

- Property Description: The application area covers various farm portions of approximately 14 440 hectares (ha)
- Central Co-ordinates: 28°14'38.37"S and 26°57'54.97"E
- Regional Description:
 - District Municipality: Lejweleputswa
 - Local Municipalities: Masilonyana and Matjhabeng
 - Province: Free State
- Closest town or point of interest: The site boundary is ~15km south east of the town of Virginia, ~28km south east of the town of Welkom, ~13km south west of the town of Ventersburg and ~21km north east of the town of Theunissen.

Please refer to locality map at the end of this BID.

PROJECT DESCRIPTION:

Motuoane is the holder of the Exploration Right (ER315) for hydrocarbons, granted in terms of Section 80 of the Mineral and Petroleum Resources Development Act (Act 28 of 2002 – MPRDA, as amended) on 18 October 2018. The originally approved exploration area is located over an area of approximately 149 377 hectares (ha), covering various farms near the city of Welkom, within the Free State Province, extending north from approximately Theunissen, northeast towards Kroonstad, and east of Virginia and Hennenman. Motuoane were required to relinquish part of their land position when renewing the ER, the revised ER footprint currently covers an area of 95 483ha, over 50 000ha less than the initially approved area.

The applicant wishes to convert a portion of their existing ER315 into a Production Right (PR). Motuoane compiled and applied for a Production Right (PR 12/4/016) in terms of the Mineral and Petroleum Resources Development Act (Act 28 of 2002 – MPRDA, as amended) to the Administrative Authority (AA), the Petroleum Agency South Africa (PASA) in August 2025. The proposed extraction and production will target helium and methane gas, and will consist of up to 43 production wells, gas gathering pipelines, a helium recovery and gas processing plant (CNG or LNG) and associated infrastructure. In addition, ongoing exploration activities will include drilling of exploration wells, seismic and/or audio magnetotelluric surveys.

The proposed development of the Production Right area will involve the following activities:

- Pre-drilling seismic and/or audio magnetotelluric surveys to optimize well locations for maximum deliverability;
- Drilling and completion of wells;
- Maintenance workovers of wells;
- Construction of gas gathering pipeline systems;
- Installation of gas compression and processing facilities;
- Construction of a helium recovery facility (gas or liquid helium) and gas (methane) processing plant (CNG or LNG); and
- Construction of associated infrastructure including roads, borrow pits, communications facilities and temporary accommodation facilities if necessary.

The proposed wells will be located along known fault lines (Virginia and Ventersburg fault lines) and close to either existing blowers or exploration wells previously drilled by Motuoane. All well locations, gas gathering pipelines and processing plant infrastructure will be located in consultation with the landowner and any other stakeholders and be located to minimize damage to existing infrastructure, vegetation and land. Facilities and wells will be located close to existing fence lines and tracks where



practical and not be located within close proximity to housing and major structures. A development spacing of 500 m has been chosen for the wells to be drilled. This spacing has been chosen following a review of geological and reservoir properties including well interference testing. The wells will be drilled to a total depth of approximately 500-600m.

LEGISLATIVE REQUIREMENTS

The proposed project requires certain authorisations, approvals, permits, and/or licences. The following requirements have specifically been identified at this stage, and additional activities will likely be identified following the authority pre-application consultations and scoping phase:

Relevant Legislation	Listed activities or triggers	Authorisation, Approval, Licence, or Permit requirement:
Chapter 5 of the NEMA	GNR 983 (2014, as amended): Activity 21C: Any activity including the operation of that activity associated with an onshore seismic survey which requires an exploration right in terms of section 79 of the Mineral and Petroleum Resources Development Act, as well as any other applicable activity as contained in this Listing Notice or in Listing Notice 3 of 2014, required to exercise the exploration right, excluding (a) any desktop study, (b) any arial survey, and (c) a hydraulic fracturing activity which is included in activity 20A in Listing Notice 2 of 2014, in which case that activity applies. Activity 27: The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for- (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan. GNR 984 (2014, as amended): Activity 20: Any activity including the operation of that activity which requires a production right in terms of section 83 of the Mineral and Petroleum Resources Development Act, as well as any other applicable activity as contained in this Listing Notice, in Listing Notice 1 of 2014 or Listing Notice 3 of 2014, required to exercise the production right. GNR 985 (2014, as amended): Activity 12: The clearance of an area of 300 square meters or more of indigenous	Environmental Authorisation (EA)



	vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan. b. Free State i. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004; ii. Within critical biodiversity areas identified in bioregional plans; iv. Areas within a watercourse or wetland; or within 100 metres from the edge of a watercourse or wetland.	
Section 21 of NWA	Section 21 Water Uses: c & i: impeding or diverting the flow of water in a watercourse and/or altering the bed, banks, course or characteristics of a watercourse.	Water Use Licence (WUL).

As a consequence of triggering the provisions above, there is a requirement to undertake an Environmental Impact Assessment Process (EIA). The EIA is to be undertaken in accordance with the requirements of the NEMA EIA Regulations (GNR982, 2014 as amended).

IMPACT ASSESSMENT PROCESS

An EIA process is a planning and decision-making tool, to describe and assess the physical, biological, social, and economic impacts which a given development or project may have. To be able to inform the decision-making process, it is important for public issues and concerns to be identified timeously, to enable the EIA team to evaluate them.

The EIA process allows for the environmental consequences of a proposed project to be identified up-front, investigated throughout the impact assessment process, and taken into consideration by the decision-making authorities. The EAP and various specialists also identify potential negative and positive impacts that could arise as a result of the proposed project and identify applicable mitigation measures required, to avoid or reduce negative impacts and to enhance positive impacts.

A broad overview of EIA process is provided:



Public Participation

Initial Call to Register:

- Advertisements, site notices, posters, letters to landowners and pre-identified I&APs. The aim of this step is to inform people of the proposed activity and to encourage initial comment and feedback.
- Ongoing Public Participation, incl: dissemination of information by means of public meetings and focus group meetings (where applicable), draft reports (Scoping & EIA), and project updates.

Scoping Phase

Collation of initial comments, concerns, objections and specialist investigations, into a concise report (Scoping Report) which provides feedback on the following:

- Nature of the activity;
- Description of the receiving environment;
- Identification of potential feasible alternatives;
- Identification of potential positive and negative impacts; and
- Identification of knowledge gaps.

Impact Assessment Phase

Aim of this phase is to investigate and comparatively assess the identified alternatives and make a recommendation of the most preferred alternative. In addition the identified impacts are assessed and relevant management and mitigation measures listed for inclusion in an EMPr. The EIA culminates in the compilation of an EIA Report.

Once the relevant processes have been completed and the final documentation submitted to the competent authority, the competent authority reviews the application and makes an informed decision. The I&APs will be informed of the decision and their right to appeal in the event that they disagree with the decision.

PRELIMINARY ENVIRONMENTAL IMPACTS

One of the key drivers to a successful EIA is to ensure that potential impacts (both positive and negative) are identified and investigated. Additional impacts may be identified during the Scoping phase and relevant specialists will be included into the EIA team in order to accurately and objectively assess these potential impacts. A number of potential environmental impacts associated with the proposed project have been identified. Preliminary identified potential impacts to be assessed in this EIA process include amongst others:

- Impacts on interference with existing land uses / activities.
- Impacts on existing services / infrastructure.
- Temporary displacement of landowners and/or livestock.
- Air quality / greenhouse gas emissions and climate change.
- Impacts on surface and groundwater quality.
- Impacts on soils and agricultural activities.
- Soil erosion and sedimentation.
- Impacts on vegetation and habitats.
- Impacts on terrestrial and aquatic species.
- Impacts on microorganisms.
- Impacts on palaeontological and cultural heritage features.
- Impacts on traffic and damage to road infrastructure.
- Impacts on health and safety of the community.



- Socio-economic impacts.
- Visual impacts.

The above-mentioned impacts should not be construed as the only impacts that will be identified during the course of the application process. Based on public consultation, specialist input and further detailed assessments, additional impacts will likely be identified and assessed.

All potential impacts will be identified and assessed following an impact assessment methodology guided by the requirements of the NEMA EIA Regulations. The broad approach to the significance rating methodology is to determine the environmental risk (ER) by considering the consequence (C) of each impact (comprising Nature, Extent, Duration, Magnitude, and Reversibility) and relate this to the probability/likelihood (P) of the impact occurring. This determines the environmental risk. In addition, other factors including cumulative impacts, public concern, and potential for irreplaceable loss of resources, are used to determine a prioritisation factor (PF) which is applied to the ER to determine the overall significance (S).

Furthermore, based on the identified impacts and their ratings, mitigation and management measures are recommended for the applicant and these are included in an Environmental Management Programme (EMPr) towards ensuring that any negative impacts that cannot be avoided are minimised and managed, and positive impacts maximised.

Specialist studies will be utilised to guide and inform the assessment of the potential impacts. The specialist studies identified to be included in this assessment include:

- Agricultural Potential, Soils & Land Capability.
- Air Quality & Climate Change Assessment.
- Aquatics and Wetland Assessment.
- Archaeological and Cultural Heritage Assessment.
- Paleontological Assessment.
- Terrestrial Biodiversity Assessment.
- Closure Plan and Financial Provisions.
- Geohydrological Assessment.
- Hydrological Assessment.
- Social Assessment.
- Noise Assessment.
- Major Hazardous Installation Qualitative Risk Assessment.

The need for further specialist studies may be identified through the scoping process.

HOW TO GET INVOLVED

Should you feel that you may be interested in, or affected by, this project, it is essential that you register as an Interested and Affected Party (I&AP) in which case you will be kept informed regarding the project and afforded an opportunity to participate in the process. Please note that only registered I&APs will be included in future correspondence regarding the project and associated updates. You may register and/or comment as an I&AP in any of the following ways:

- Complete the I&AP registration form and questionnaire and return it to EIMS via email, fax or post;
- Submit written comments, registrations, or requests to EIMS via email, fax or post; and/or
- Via telephone call.



It is important to note that the EIA process is guided by legally stipulated timeframes and as such, in order to ensure your continued and valuable involvement in the project, we request that your registration requests and any preliminary comments are submitted to EIMS (contact details provided below) as soon as possible.

Please note that further to the above, all registered I&APs will also be notified in due course of further participation opportunities, as well as the availability of the Scoping Report and Environmental Impact Report upon which comments will be solicited.

Environmental Impact Management Services (Pty) Ltd (EIMS)

Contact Person: Alex Msipa or Mbali Tshabalala

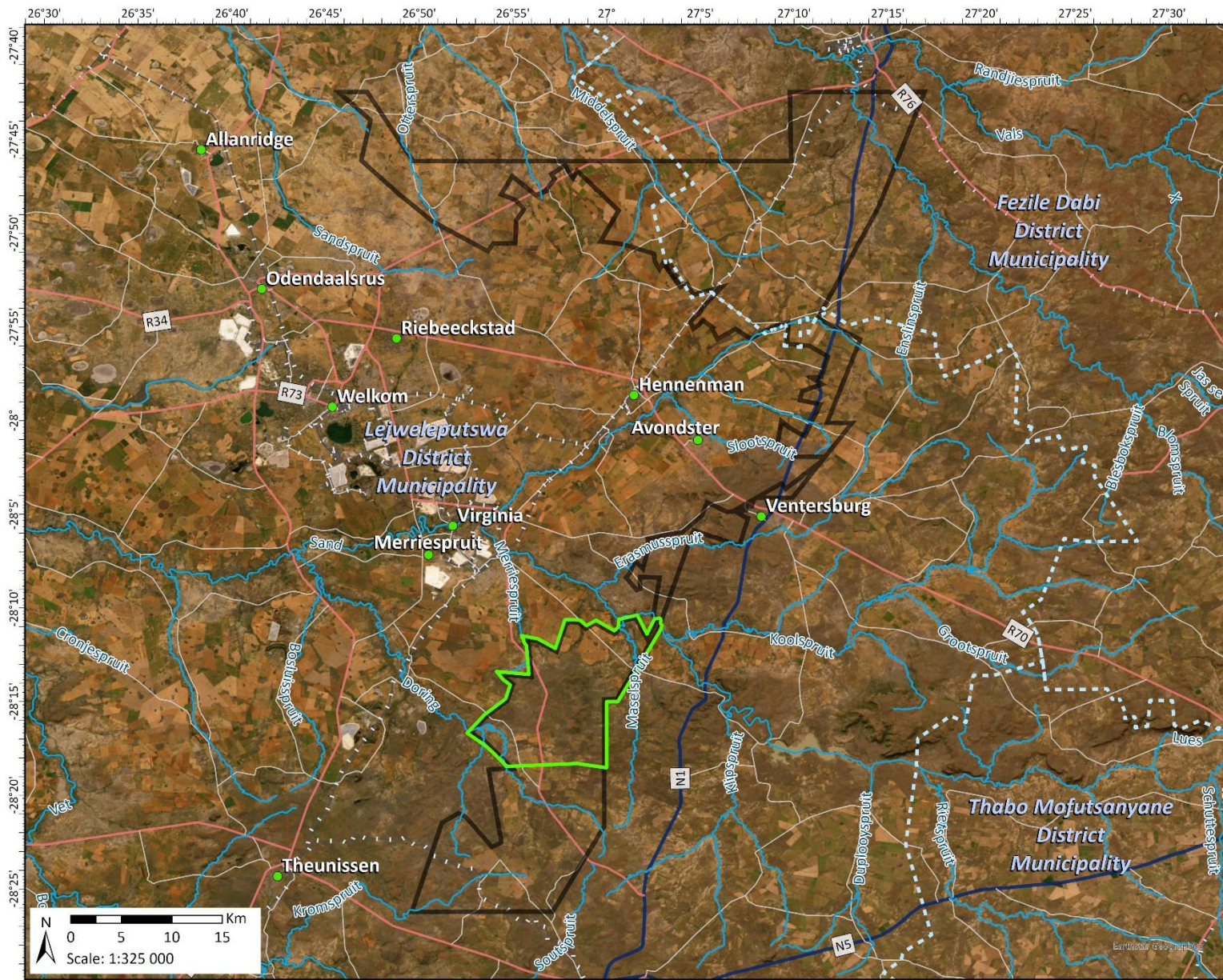
EIMS Reference Number: 1709

Postal Address: Postal Address: P.O. Box 2083; Pinegowrie; 2123

Telephone: Telephone: (011) 789 7170/ Fax: (086) 571 9047

E-mail: motuoanepr@eims.co.za

Further information will be available at www.eims.co.za/public-participation/. Please note that in the event that you are unable to access the website due to data constraints please contact EIMS for alternative arrangements.



Locality Map

Motuoane Production Right EIA

Legend

Production Right Application Area

ER315

Towns

NFEPA Rivers

Railway Line

Roads

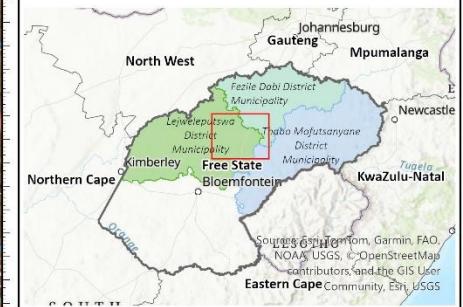
National Road

Arterial Road

Main Road

Secondary Road

District Municipality



Coord System: GCS WGS 1984

Datum: WGS 1984

Units: Degree

Ref: 1709_Locality

Data Sources:

CSG; ESRI; MDB; SANBI; CD:NGI

Date: 2025/10/24

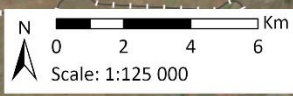
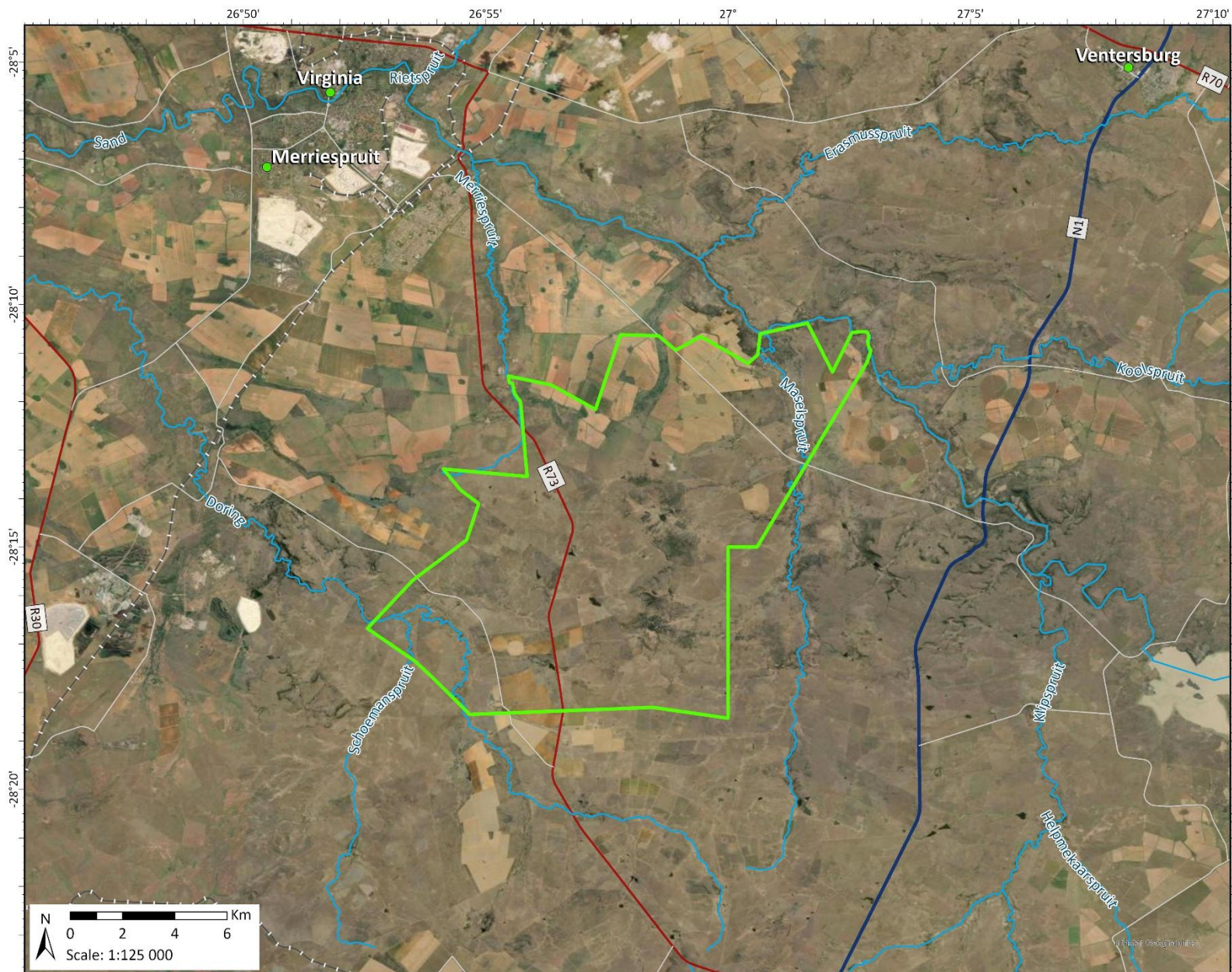
EIMS Ref: 1709

Compiled: JW

Reviewed: SK

Approved: LW





Locality Map

Motuoane Production Right EIA

Legend

- Production Right Application Area
- Towns
- NFEPA Rivers
- Railway Line

Roads

- National Road
- Arterial Road
- Secondary Road

Coord System: GCS WGS 1984
Datum: WGS 1984
Units: Degree
Ref: 1709_Locality
Data Sources:
CSG; ESRI; MDB; SANBI; CD:NGI

Date: 2025/07/24
EIMS Ref: 1709
Compiled: JW
Reviewed: SK
Approved: LW