

APPENDIX 3.1:  
PASA CORRESPONDENCE

# Petroleum Agency SA

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E-mail: plu@petroleumagencyrsa.com



04 February 2022

Ref: 12/3/294/1A

Enquiries: AM Thovhakale +2721 938 3579

Email: tsmithard@rhinoresourcesltd.com

Mr. Travis Smithard  
Rhino Oil and Gas Exploration South Africa (Pty) Ltd  
Suite 307  
Icon Building  
Foreshore  
Cape Town  
8000

Dear Mr. Smithard

**APPLICATION FOR A FIRST RENEWAL OF AN EXPLORATION RIGHT IN TERMS OF SECTION 81 OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (ACT 28 OF 2002): IN RESPECT OF THE MAGISTERIAL DISTRICTS OF VENTERSBURG, LINDLEY, SENEKAL, VREDE, HARRISMITH, HEILBRON, VENTERSBURG, FRANKFORT, KROONSTAD AND REITZ, ONSHORE IN LIMPOPO PROVINCE**

Receipt of the above-mentioned application is hereby acknowledged.

Kindly be advised that your application for a renewal of an Exploration Right in terms of Section 81 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), ("the Act") is receiving attention. Its merits and quality will now be considered in detail for purposes of granting or refusal.

Furthermore, it has been noted that you have relinquished 20% of your Exploration Right area as required in terms of clause 10 of the Exploration Right. We would therefore like to draw your attention to clause 10.7 of the Exploration Right which provides that the Holder shall within 3 (three) months from the date of relinquishment furnish a copy of all the Required Data that has not been previously furnished to the Grantor and all copies of the

**Directors:**

MB Masuku (Chairperson)

PZ Dhlamini DLT Dondur CC Mpelwane MV Ngwenya RH Nkambule Dr T Ramontja

Dr PC Masangane (Executive Director)

Company Secretary: Adv E Hendricks



Existing Data or a certificate to the effect that all such copies have been destroyed.  
Should there still be any Data that has not been provided to the Agency you are required to submit such on or before the 04th of April 2021.

Furthermore, section 43 of the Act requires the Holder of the right to apply for a Closure Certificate upon relinquishment of a portion of the exploration area, you are therefore required to submit such an application within 180 days from the date of relinquishment.

Yours sincerely,



.....  
**S MALIE**  
**MANAGER: LICENSING AND REGULATION**

**Directors:**

MB Masuku (Chairperson)

PZ Dhlamini DLT Dondur CC Mpelwane MV Ngwenya RH Nkambule Dr T Ramontja

Dr PC Masangane (Executive Director)

Company Secretary: Adv E Hendricks

**RHINO OIL AND GAS EXPLORATION SOUTH AFRICA (PTY) LTD**  
**ENVIRONMENTAL IMPACT ASSESSMENTS FOR WELL-DRILLING EXPLORATION**  
**ACTIVITIES IN 294 ER AND 318 ER, FREE STATE PROVINCE**  
**PASA PRE-APPLICATION MEETING**

DATE	19 May 2022	
VENUE:	Petroleum Agency SA Offices, Tygerpoort Building, 7 Mispel Street, Bellville	
PROJECT:	Environmental Impact Assessments for Well-Drilling Exploration Activities In 294 ER And 318 ER, Free State Province	
SLR PROJECT NUMBER:	720.18034.00018 and 720.18034.00020	
PURPOSE OF MEETING:	<ul style="list-style-type: none"> <li>To provide an introduction to the proposed project;</li> <li>To engage with the Agency on SLR's understanding of the legislative framework and associated authorisation requirements; and</li> <li>To discuss the planned approach to the environmental Impact Assessment (EIA) processes and associated public participation.</li> </ul>	
ATTENDANCE:	Name:	Organisation:
	Phumla Ngesi (PN)	Petroleum Agency SA (PASA)
	Sharon Adams (SA)	
	Natasha Thomas (NT)	
	Matthew Hemming (MH)	SLR Consulting (South Africa) (Pty) Ltd (SLR)
	Theo Wicks (TW)	
Nicholas Arnott (NA)		
APOLOGIES:	Travis Smithard	Rhino Oil and Gas Exploration South Africa (Pty) Ltd
DISTRIBUTION:	All	

NO.	NOTES
1	WELCOME AND INTRODUCTIONS
1.1	Matthew Hemming (MH) of SLR Consulting (South Africa) (Pty) Ltd (SLR) welcomed all to the pre-application meeting for the proposal by Rhino Oil and Gas Exploration South Africa (Pty) Ltd (Rhino Oil and Gas) to undertake well-drilling exploration activities in 294 ER and 318 ER, after which individual introductions were provided. A full list of Attendees is provided in Appendix A. Travis Smithard, of Rhino Oil and Gas, had provided apologies as he is currently out of the country.
2	PRESENTATION (see Attachment B)
2.1	MH commenced with the presentation and set out the objectives for the meeting and then provided information regarding the proposed projects and associated exploration activities, an overview of SLR's understanding of the legislative framework, as well as the proposed approach to the EIA processes and associated public participation. The relevant detail presented is included in the presentation attached in Appendix B. During the presentation, various points were discussed. The key points set out below (grouped by topic and not set out in chronological order).
3	DISCUSSION
3.1	<u>Project Description</u> <ul style="list-style-type: none"> <li>MH indicated that Travis Smithard had contacted him prior to the meeting to note that Rhino Oil and Gas are considering increasing the total number of wells to be drilled to 20 rather than 15 as indicated on the presentation slides. MH confirmed that the total number of wells to be drilled will be confirmed in the EIA process.</li> </ul>

NO.	NOTES
	<p>PN noted that the works programme submitted as part of the Exploration Right Renewal application must be updated accordingly to reflect the planned number of wells.</p>
3.2	<p><u>Areas of Interest and Specialist Studies</u></p> <ul style="list-style-type: none"> <li>MH set out the approach followed for desktop sensitivity screening of the defined Areas of Interest (AOI) within each Exploration Right area prior to Rhino Oil and Gas identifying potential locations for well-drilling. The screening aimed to assist the applicant to avoid selecting sites of high environmental sensitivity.</li> <li>As AOI #3 falls within both 294 ER and 318 ER, MH asked whether the entire AOI should be addressed in one of the EIAs or whether the AOI should be split so that each portion of the AOI is dealt with separately in the respective EIA application. PN recommended that each portion of the AOI be dealt with separately in the respective EIA.</li> <li>MH noted that as part of the sensitivity screening exercise, a 200 m no-go buffer around all identified watercourses was implemented. PN queried why a distance of 200 m was used. MH responded to note that while it is a conservative buffer, it had been previously adopted for other onshore exploration applications for which SLR had undertaken the EIA process. Thus, it had been adopted for internal consistency. Natasha Adams pointed out that care should be taken in this regard to avoid setting a precedent. MH acknowledged this and indicated that it is unlikely Rhino Oil and Gas would need to position a well any closer to a watercourse for the current applications.</li> </ul>
3.3	<p><u>Landowner Consent</u></p> <ul style="list-style-type: none"> <li>MH confirmed that SLR had advised Rhino Oil and Gas that the Application for EA would not be submitted to PASA until such time that an in-principle agreement had been reached with landowners on whose property the proposed wells would be located. MH pointed out that the requirement to obtain land-owner consent for the EA application process had recently been repealed for activities directly related to prospecting or exploration of a mineral and petroleum resources. PN requested that a copy of this amendment be sent to her for information.</li> </ul>
3.4	<p><u>Environmental Legislative Framework</u></p> <ul style="list-style-type: none"> <li>MH queried whether a separate Section 102 application would need to be submitted for the projects. PN noted that as Rhino Oil and Gas have submitted Renewal Applications, Section 102 applications would not be required. She confirmed that a Section 102 application would have been necessary in the case where no Renewal Application was submitted.</li> <li>MH asked whether there is any indication as to when the replacement Petroleum Regulations would be promulgated? PN responded that she could not give an indication of this at this stage. PN further noted that the Department of Water and Sanitation published Draft Regulations relating to water use licences for onshore oil and gas exploration. MH confirmed that he has seen the regulations but they were not likely to be applicable as the proposed well-drilling exploration does not pertain to unconventional oil and gas.</li> </ul>
3.5	<p><u>Public Participation Process:</u></p> <ul style="list-style-type: none"> <li>MH described the proposed approach that will be followed for the public participation process. On the issue of whether all landowners in the Exploration Right areas should be informed of the EIA processes, PN stated that these landowners should be notified of the EIA processes. MH confirmed that a broad notification approach would be adopted for the entire ER area for each application. With more direct/focussed notification and consultation being undertaken for the AOIs and individual well sites.</li> <li>PN emphasised that in light of the recent legal cases for offshore oil and gas exploration activities, SLR should consider appropriate measures to facilitate the participation and engagement of any illiterate stakeholders and the languages used for communicating with stakeholders within the area (i.e. Sotho and Afrikaans in addition to English). She noted that the use of radio advertisements during the public participation process is supported.</li> </ul>

NO.	NOTES
	<p>With respect to site notices, it was recommended that these should be placed at all the proposed well-drilling sites and at public locations in nearby towns to the well drilling locations. PN further noted that in addition to the planned in-person information-sharing meetings, facilitating an online virtual meeting should also be considered.</p> <ul style="list-style-type: none"> <li>MH noted that recent media announcements indicated that PASA is in the process of developing guidelines for public participation and he queried whether this would be published in the near future. PN indicated that the guidelines are still being developed and would not likely be available in the near-future.</li> </ul>
3.6	<p><u>EIA Process</u></p> <ul style="list-style-type: none"> <li>PN pointed out that it would be ideal if the EA can be issued before the recommendation on the Renewal Application is finalised. MH pointed out that while the aim was to complete the EIA processes timeously, SLR would not proceed with the lodging of the Application for EA until such time that the in-principle landowner agreements had been obtained by Rhino Oil and Gas.</li> </ul>
4	Meeting Closure
4.1	MH thanked all attendees for their time and the meeting was closed at 10:30.

Notes produced by Nicholas Arnott.

## APPENDIX A: LIST OF ATTENDEES

NAME	ORGANISATION	EMAIL
Phumla Ngesi	Petroleum Agency SA (PASA)	<a href="mailto:NgesiP@petroleumagencysa.com">NgesiP@petroleumagencysa.com</a>
Natasha Thomas	PASA	<a href="mailto:Thomasn@petroleumagencysa.com">Thomasn@petroleumagencysa.com</a>
Sharon Adams	PASA	<a href="mailto:sharona@petroleumagencysa.com">sharona@petroleumagencysa.com</a>
Matthew Hemming	SLR Consulting (South Africa) (SLR)	<a href="mailto:mhemming@slrconsulting.com">mhemming@slrconsulting.com</a>
Theo Wicks	SLR	<a href="mailto:twhicks@slrconsulting.com">twhicks@slrconsulting.com</a>
Nicholas Arnott	SLR	<a href="mailto:narnott@slrconsulting.com">narnott@slrconsulting.com</a>

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## APPENDIX B: COPY OF SLR PRESENTATION



**EIA for Well-Drilling Exploration Activities in 294 ER and 318 ER**

Rhino Oil and Gas Exploration South Africa (Pty) Ltd

Pre-Application Meeting with the Petroleum Agency of South Africa (PASA)

May 2022

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**AGENDA**

- Welcome & Introductions
- Objectives of the meeting
- Project description presentation
  - Applicant
  - Location
  - Drilling Activities Overview
- EIA Process
  - Legislation Overview
  - Specialist Studies Identified
- Discussion and Way Forward
- Closure

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**INTRODUCTIONS**

- EIA Applicant – Rhino Oil and Gas Exploration South Africa (Pty) Ltd (Rhino Oil and Gas):
  - Travis Smithard
- Environment Assessment Practitioner (EAP) - SLR Consulting (Pty) Ltd:
  - Matthew Hemming (Project Director)
  - Theo Wicks (Project Manager – 294 ER)
  - Nicholas Arnott (Project Manager – 318 ER)
- Authority – Petroleum Agency of South Africa (PASA):
  - Phumla Ngesi and team

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**OBJECTIVES**

- ➔ Overall objective of the pre-application meeting is to:
  - Introduce the proposed projects to the PASA.
  - Engage with PASA on:
    - the environmental legislative framework;
    - likely project triggers; and
    - Proposed approach for the EIA processes.
  - Discuss public participation requirements.

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**PROJECT DESCRIPTION (1)**

- ➔ Applicant
  - Rhino Oil and Gas Exploration South Africa (Pty) Ltd (Rhino Oil and Gas) is the Exploration Right (ER) holder for ER 294 and ER 318, located in the Free State Province.
    - ER 294 is 656 114 hectares (ha) in extent and includes various properties in the Reitz, Warden, Heilbron, Frankfort, Steynsrus, Edenville and Vrede magisterial districts.
    - ER 318 is 753 797 hectares (ha) in extent and includes various properties in the Bultfontein, Wesselsbron, Welkom, Odendaalsrus, Wolmaransstad, Bothaville, Viljoenskroon, Kroonstad, Koppies and Heilbron magisterial districts.
  - To date Rhino has conducted early phase exploration activities (passive airborne geophysical surveys) over both ER areas.
  - Based on the results of this work, Rhino Oil and Gas is proposing to undertake additional exploration activities within each ER area.
  - Renewal applications are currently in progress.

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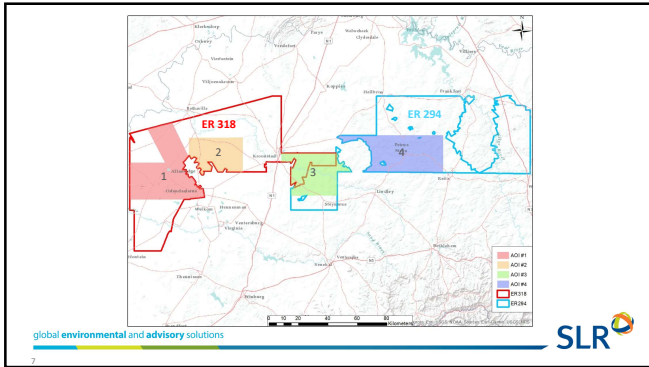
**PROJECT DESCRIPTION (2)**

- ➔ Overview of proposed exploration activities
  - Rhino Oil and Gas proposes to drill between ten (10) and fifteen (15) exploration wells within four (4) Areas Of Interest (AOI) identified in the ER areas:
    - One (1) AOI within ER 294, two (2) AOIs located within ER318, and a one (1) AOI which overlaps both ER 294 and ER 318.
  - The target resources for exploration are biogenic gas, helium and/or geological hydrogen.
  - The specific location of each exploration well will be defined through the EIAs. The initial selection of drilling locations will be based on the results from:
    - Analysis of geological data from initial exploration;
    - Results of the desktop environmental sensitivity investigations; and
    - Engagement with identified landowners.

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### PROJECT DESCRIPTION (3)

➔ Overview of proposed exploration activities

- Drilling of a combined total of 10 - 15 exploration wells (at least 2 wells per each AOI).
- Exploration wells will be drilled to a total depth of approximately 800 m to 1200 m using a truck mounted rig with air and mud drilling capabilities.
- All exploration wells would be cased to an agreed standard and depth.
- Wells would be wireline logged.
- Once drilling is complete, equipment is removed.
- Flow testing (minimum of 24-72 hours) for each well would be conducted to test gas composition, sustained flow rate, initial pressure, flowing pressure, final pressure and water composition.
- At completion, the surface around each well would be fully rehabilitated.



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### PROJECT DESCRIPTION (4)

- A local logistics base will be established on an existing brownfield site (e.g. land used by farming communities for equipment storage). The logistics base will include:
  - An open storage area partially equipped with pipe racks for drilling tubular material storage;
  - A covered warehouse for drilling material and other minor equipment;
  - Temporary offices for logistic base personnel; and
  - Area for temporary storage of general waste and hazardous waste.
- Wastes will be transported to a licensed waste disposal facility by an appropriately permitted waste management contractor and will not be stored within the base any longer than the time strictly necessary for unloading from the drill site and loading on the trucks for transport to the disposal site.
- Approximately 5 to 10 personnel would be involved in the on-site drilling activities.

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### EIA PROCESS (1)

➔ Legislation Overview

- Minerals and Petroleum Resources Development Act, 2002 (MPRDA).
  - Amendment to the ER and Environmental Management Programme (EMPR) in terms of Section 102 of the Minerals and Petroleum Resources Development Act, 2002.
- Activities listed under the National Environmental Management Act, 108 of 1998(NEMA).
  - NEMA provides for the control of certain listed activities, which are prohibited until Environmental Authorisation is obtained.
  - Listing Notice 2 - Activity 18 (as amended in 2021) is triggered + Environmental Authorisation
- As a Listing Notice 2 activity is triggered, the application for Environmental Authorisation by Rhino Oil and Gas requires a Scoping and EIA process to be undertaken in accordance with the requirements of the EIA Regulations 2014 (as amended).
- In the case of petroleum exploration, the competent authority under NEMA would be the Department of Mineral Resources and Energy (DMRE) via the Petroleum Agency of South Africa (PASA).

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### EIA PROCESS (2)

➔ Specialist Investigations (1)

- Specialist Desktop Screening has been undertaken to identify regional sensitivities within each AOI.
- Based on the desktop sensitivity mapping, Rhino Oil and Gas have identified potential areas deemed suitable for drilling and will engage with these landowners to obtain the necessary consent/agreements.
- Once proposed drilling areas are confirmed, specialist team will undertake field investigations of proposed well-drilling locations to confirm any on-site sensitivities and provide specialist impact assessment reports.
- Desktop information will be used to inform Scoping Reports and on-site investigations will inform the Environmental Impact Assessment Reports.

NO.	Study	Organisation
1	Heritage	PGS
2	Palaeontology	Marion Bamford (Wits)
3	Aquatic Biodiversity	Eco-Pulse
4	Terrestrial Biodiversity	Eco-Pulse
5	Phase 1 Hydrogeological Study	JG Afrika

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### EIA PROCESS (2)

➔ Specialist Investigations (2)

- Hydrogeological Study to include:
  - Hydrocensus around each well drilling site.
  - Preliminary conceptual groundwater model:
    - Confirmation of pre-drilling conditions;
    - Identification of potential receptors; and
    - Prediction of groundwater flow and mass transport.

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### EIA PROCESS (3)

➔ Proposed Approach

- Pre-Application Phase:
  - Undertake specialist desktop screening investigations.
  - Applicant to obtain consent from landowners of well-drilling sites.
  - Identification of and notice to owners and occupiers of properties identified for drilling activities.
  - Initiate PP process.
  - Compile EA Application Forms and Draft Scoping Reports.

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### EIA

➔

**Question:**

How shall the overlapping AOI #3 be dealt with in the EIA Process?

- Include entire AOI in one of the EIAs? OR
- Split AOI #3 along the boundary of each ER and only deal with portion of AOI falling within that specific EIR.

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### EIA PROCESS (5)

➔ Public Participation

- Standard public participation activities will include:
  - Compilation of the preliminary I&AP database (per EIA regs and landowners in the ERs);
  - Notice to I&APs;
  - Placement of site notices;
  - Placement of local newspaper advertisement (one regional and two local);
  - Pre-application distribution of Background Information Document; and
  - Distribution of draft reports (Scoping & EIR) for 30-day comment period after application submission:
    - Hard copies of reports to be made available (subject to any COVID-19 related restrictions in place at the time).
    - Electronic versions will be made available on SLR website and corresponding zero-rated website which is accessible without using mobile data.
  - Direct consultation with landowners of well-drilling sites;
  - Public information-sharing meetings within proximity to AOIs.

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### DISCUSSION

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### THANK YOU !

**Nicholas Arnott**  
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**Theo Wicks**  
Project Manager  
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**Matthew Hemming**  
Project Director  
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Email: mhemming@slrconsulting.com

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APPENDIX 3.3:  
WRITTEN NOTICE

**22 August 2022****Attention: Interested & Affected Party**

Dear Sir/Madam,

**NOTICE OF APPLICATION FOR ENVIRONMENTAL AUTHORISATION FOR THE PROPOSED EXPLORATION WELL DRILLING WITHIN TWO TARGET AREAS IN ER 294, FREE STATE PROVINCE (12/3/294)**

In 2019, the (now) Department of Mineral Resources and Energy (DMRE), through the Petroleum Agency of South African (PASA), granted Rhino Oil and Gas Exploration South Africa (ROGESA) an Exploration Right (ER) to explore for petroleum resources in an area in the Free State Province of South Africa (reference 12/3/294 (ER 294)). The ER, which was informed by an Environmental Authorisation (EA), permitted ROGESA to undertake an exploration work programme involving desktop studies and an aerial gradiometry gravity survey.

Following the successful completion of the desktop studies and aerial gradiometry gravity survey, ROGESA is proposing to advance their exploration by drilling up to 40 exploration wells within two Target Areas located in the ER. The first Target Area is located south of Petrus Steyn and the second Target Area lies south of the R34 between Kroonstad and Edenville. The specific well locations proposed by ROGESA, will be confirmed based on landowner engagement and environmental investigations (during this application process).

No hydraulic fracturing or fracking is proposed.

Prior to the commencement of the exploration drilling, ROGESA is required to obtain an amendment to ER 294 and approved Environmental Management Programme (EMPr) from the DMRE in terms of Section 102 of the Minerals and Petroleum Resources Development Act, 2002 (MPRDA).

Furthermore, an Environmental Authorisation (EA) from the DMRE in terms of the National Environmental Management Act (No. 107 of 1998) (NEMA), for activities in Listing Notice 1 (GNR 983 of 2014, as amended) and Listing Notice 2 (GNR 985 of 2014, as amended) is also required. The Environmental Impact Assessment (EIA) Regulations (GNR 982 of 2014, as amended) require that a Scoping and EIA process be undertaken to inform an EA decision from the DMRE.

SLR Consulting (South Africa) (Pty) Ltd are appointed as independent environmental consultants responsible for the public participation and environmental assessment processes required to inform a decision on the EA. As part of public participation process, SLR is circulating this written notice along with a background information document, erecting site notices at various public locations and publishing an advertisement in various newspapers.



SLR Consulting (South Africa) Proprietary Limited

Registered Address: Suite 1 - Building D, Monte Circle,  
178 Montecasino Boulevard, Fourways, Johannesburg, Gauteng, 2191  
Postal Address: PO Box 1596, Cramerview, 2060, South Africa

Reg. No: 2007/005517/07

Vat No: 4630242198

Johannesburg Office: Physical Address: Suite 1 - Building D, Monte Circle,  
178 Montecasino Boulevard, Fourways, Johannesburg, Gauteng, 2191  
Postal Address: PO Box 1596, Cramerview, 2060 Tel: +27 11 467 0945

Cape Town Office: Physical Address: 5th Floor, Letterstedt House, Newlands on Main,  
Cnr Main and Campground Roads, Newlands, Cape Town, Western Cape, 7700  
Tel: +27 21 461 1118

Durban Office: Physical Address: Unit 14, Braehead Office Park  
1 Old Main Road, Kloof, Durban, KwaZulu-Natal, 3640  
Tel: +27 11 467 0945



SLR will also be hosting information meetings, which stakeholders are invited to attend, in order that information about the project can be shared and so that SLR can receive any initial comment. Details of the information meetings are provided below:

MEETING DETAILS	
<b>WESSELSBRON</b> <b>Date:</b> Wednesday, 7 September 2022 <b>Venue:</b> Steynsrus Boerevereniging Hall <b>Time:</b> 15h00	<b>ODENDAALSRUS</b> <b>Date:</b> Thursday, 8 September 2022 <b>Venue:</b> Edenville Boerevereniging Hall <b>Time:</b> 09h00

As part of the public participation process, you are invited to register as an Interested and Affected Party (I&AP) and to make input into the Scoping and EIA process. Further details regarding the project and the Scoping and EIA process are provided in the project background information document and on the SLR website at: <https://www.slrconsulting.com/en/public-documents/Rhino-well-ER294> and on a zero-data rated website at <https://www.slrpublicdocs.datafree.co/en/public-documents/Rhino-well-ER294>. The background information document is also available from SLR in Afrikaans or seSotho.

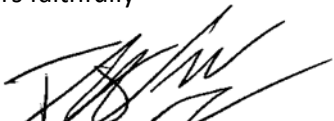
To register as an I&AP, please forward your name and contact details along with any comments to SLR at:

<b>SLR contact:</b> Theo Wicks / Gugu Dhlamini <b>Email:</b> RhinoER294@slrconsulting.com <b>Tel:</b> 011 467 0945, <b>Fax:</b> 011 467 0975 and/ or <b>Post:</b> PO Box 1596, Cramerview, 2060 <b>WhatsApp:</b> 066 313 7574
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Please also pass this document on to any other persons whom you believe may have in interest in the proposed exploration or the Scoping and EIA process right application area. We welcome any comment or questions.

Thank you in advance for your involvement.

Yours faithfully

  
\_\_\_\_\_  
**Theo Wicks**

APPENDIX 3.4:  
NOTICE IN PROVINCIAL GAZETTE

**Provincial  
Gazette**  
**Free State Province**



**Provinsiale  
Koerant**  
**Provinsie Vrystaat**

Published by Authority

Uitgegee op Gesag

NO. ....	FRIDAY, 23 SEPTEMBER 2022	NR. ...	VRYDAG, 23 SEPTEMBER 2022
<b>GENERAL NOTICES</b>		<b>PROVINSIALE KENNISGEWINGS</b>	
...	Notice of Application for Environmental Authorisation Proposed Exploration Well Drilling within two target areas in E294 Free State Province.....	2	
...	Kennisgewing van aansoek om Omgewingsmagtiging Beoogde Boorwerk vir ek splorasieboorgate in twee Teikengebiede.....		
...	Tsebiso Mabapi Le Kopo Bakeng Sa Tumello E Amanang Tikoloho Phuputso E Sisintsweng Ya Ho Bora Sediba Dibakeng Tse Bobedi Tseo Ho Tsepamisitweng Ho Tsona Ho Ya Ka Er 294, Provinsing Ya Freistata.....		



## [PROVINCIAL NOTICE NR. ... OF 2022]

**NOTICE OF APPLICATION FOR ENVIRONMENTAL AUTHORISATION  
PROPOSED EXPLORATION WELL DRILLING WITHIN TWO TARGET AREAS IN E294, FREE STATE PROVINCE**

Notice is hereby given of Rhino Oil and Gas Exploration South Africa's (ROGESA) intention to make an application for:

- An amendment to the existing Exploration Right (ER) and Environmental Management Programme (EMPr) in terms of Section 102 of the Minerals and Petroleum Resources Development Act, 2002 (No 28 of 2002) (MPRDA);
- An Environmental Authorisation (EA) in terms of Chapter 5 of the National Environmental Management Act, 1998 (No.107 of 1998) (NEMA).

ROGESA hold an ER and EA to explore for petroleum resources in the Free State Province of South Africa (reference 12/3/294 (ER 294)). The granted EA and ER permitted ROGESA to undertake an exploration work programme involving desktop studies and an aerial gradiometry gravity survey.

ROGESA undertook the studies and survey, and now proposes to advance exploration by drilling up to 40 exploration wells in two Target Areas within the ER. The first Target Area is located south of Petrus Steyn and the second Target Area lies south of the R34 between Kroonstad and Edenville. The specific well locations within the Target Areas are still to be confirmed based on landowner engagement and environmental investigations (to be completed during this application process). No hydraulic fracturing or fracking is proposed.

Notice is hereby given of the following application:

Legislation	Authorisation required and process to be followed	Competent Authority
National Environmental Management Act (No. 107 of 1998).	<b>Environmental Authorisation</b> for Activity 21D in Environmental Impact Assessment (EIA) Regulation Listing Notice 1 of 2014 (GNR 983) and Activity 18 in EIA Regulation Listing Notice 2 of 2014 (GNR 984).	Department of Mineral Resources and Energy (DMRE), through the Petroleum Agency of South African (PASA)

**SLR Consulting (South Africa) (Pty) Ltd** has been appointed as the independent environmental assessment practitioner responsible for undertaking the required environmental assessment and conducting the public participation process. The application will be subject to a Scoping and EIA process as stipulated in the EIA Regulations (GNR 982). Further project details can be found on the SLR Website and will be provided in the Scoping and EIA reports.

All stakeholders are invited to register as Interested & Affected Parties (I&AP). You must register as an I&AP if you would like more information or wish to participate in the environmental assessment process for the project. A draft Scoping Report will be made available to registered I&APs for review. To do so, or to raise any issues or concerns regarding the project, please contact:

**Theo Wicks (Project Manager) and/or Gugu Dlamini (Public Participation) by**

Email: [RhinoER294@slrconsulting.com](mailto:RhinoER294@slrconsulting.com)

Tel: 011 467 0945, Fax: 011 467 0975, WhatsApp: 066 171 3677 and/ or Post: PO Box 1596, Cramerview, 2060

SLR Website: <https://www.slrconsulting.com/en/public-documents/Rhino-well-ER294>

Data Free Website: <https://slrpublicdocs.datafree.co/en/public-documents/Rhino-well-ER294>

By providing your personal information to be registered as an I&AP for this Project you consent to SLR managing your information in accordance with the Protection of Personal Information Act, 2013 (No. 4 of 2013). SLR will not process your Personal Information, other than as permitted or required by EIA processes, or as required by law or public policy. For further details, contact SLR as detailed above.

[PROVISIALE KENNISGEWING NR...VAN 2022]

**KENNISGEWING VAN AANSOEK OM OMGEWINGSMAGTIGING  
BEOOGDE BOORWERK VIR EKSPLORASIEBOORGATE IN TWEE TEIKENGEBIEDE  
IN ER 294, VRYSTAATPROVINSIE**

Kennisgewing geskied hiermee van Rhino Oil and Gas Exploration South Africa (ROGESA) se voorneme om aansoek te doen om:

- 'n wysiging van die bestande Eksplorasiereg (ER) en Omgewingsbestuursprogram (OBPr) ingevolge Artikel 102 van die Wet op die Ontwikkeling van Minerale en Petroleum Hulpbronne (Wet 28 van 2002) (MPRDA); en
- 'n Omgewingsmagtiging (OM) ingevolge Hoofstuk 5 van die Nasionale Wet op Omgewingsbestuur (Wet 107 van 1998) (NEMA).

ROGESA beskik oor 'n ER en OM om eksplorasië vir petroleumhulpbronne in die Vrystaatprovinsie van Suid-Afrika te doen (verwysing 12/3/294 (ER 294)). Die OM en ER wat toegestaan is, het ROGESA toestemming gegee om 'n eksplorasiewerkprogram te onderneem wat kantoorgebonde studies en 'n gradiometrie-swaartekragopname vanuit die lug behels.

ROGESA het die studies en opname onderneem, en beoog nou om hoogstens 40 eksplorasieboorgate in twee teikengebiede in die ER te boor. Die eerste teikengebied is suid van Petrus Steyn en die tweede teikengebied is suid van die R34 tussen Kroonstad en Edenville geleë. ROGESA het die spesifieke liggings vir die boorgate in die teikengebiede voorgestel en moet nog op grond van skakeling met grondeienaars en omgewingsondersoeke (wat tydens hierdie aansoekproses afgehandel moet word) bevestig word. Geen hidrouliese breking, oftewel hidrobreking, word beoog nie.

Kennis geskied hiermee van die volgende aansoek:

Wetgewing	Vereiste magtiging en proses wat gevolg moet word	Bevoegde owerheid
Nasionale Wet op Omgewingsbestuur (Wet 107 van 1998)	<b>Omgewingsmagtiging</b> vir Aktiwiteit 21(D) in die Regulasies op Omgewingsimpakevaluering (OIE) Lyskennisgewing 1 van 2014 (Staatskennisgewing R983) en Aktiwiteit 18(I) in OIE-regulasie Lyskennisgewing 2 van 2014 (Staatskennisgewing R984)	Departement van Minerale Hulpbronne en Energie (DMHE), deur die Petroleumagentskap van Suid-Afrika (PASA)

**SLR Consulting (South Africa) (Edms.) Bpk.** is aangestel as die onafhanklike omgewingsevalueringpraktisyn wat verantwoordelik is om die vereiste omgewingsevaluering en die openbare deelnameproses te onderneem. Die aansoek sal onderhewig wees aan 'n Bestekopname- en OIE-proses soos uiteengesit in die OIE-regulasies (Staatskennisgewing R982). Meer projekbesonderhede, wat op SLR se webwerf gevind kan word, sal in die Bestekopname- en OIE-verslag voorsien word.

Alle belanghebbende word genooi om as Belangstellende & Geaffekteerde Partye (B&GP's) te registreer. U moet as 'n B&GP registreer as u meer inligting wil hê of as u aan die projek se omgewingsevalueringproses wil deelneem. 'n Konsep Bestekopnameverslag sal aan geregistreerde B&GP's beskikbaar gemaak word vir insae. Om dit te doen, of om enige omgewingskwessies of knelpunte met betrekking tot die projek te opper, moet u asseblief in verbinding tree met:

**Theo Wicks (Projekbestuurder) en/of Gugu Dlamini (Openbare Deelname) by**

E-pos: RhinoER294@slrconsulting.com

Tel: 011 467 0945, Faks: 011 467 0975, WhatsApp: 066 171 3677 en/of Pos: Posbus 1596 1596, Cramerview, 2060

SLR se webwerf: <https://www.slrconsulting.com/en/public-documents/Rhino-well-ER294>

Datavry-webwerf: <https://slrpublicdocs.datafree.co/en/public-documents/Rhino-well-ER294>

Deur u persoonlike inligting te voorsien om as 'n B&GP vir hierdie projek geregistreer te word, stem u in daartoe dat SLR u inligting ingevolge die Wet op die Beskerming van Persoonlike Inligting (Wet 4 van 2013) beheer. SLR sal nie u persoonlike inligting verwerk nie, behalwe soos toegelaat of vereis word deur OIE-prosesse, of soos vereis word deur wet of openbare beleid. Kontak SLR soos hierbo aangedui is vir meer besonderhede.

[PROVINCIAL NOTICE NO. ... OF 2022]

**TSEBISO MABAPI LE KOPO BAKENG SA TUMELLO E AMANANG TIKOLOHO  
PHUPUTSO E SISINTSWENG YA HO BORA SEDIBA DIBAKENG TSE BOBEDI TSEO HO TSEPAMISITSWENG HO TSONA HO YA KA ER  
294, PROVINSING YA FREISTATA**

Mona ho etswa maikemisetso ya kopo ya Rhino Oil and Gas Exploration South Africa's (ROGESA) bakeng sa:

- Phetoho ho Exploration Right (ER) and Environmental Management Programme (EMPr) e ntseng e le teng ho ya ka Karolo ya 102 ya Minerals and Petroleum Resources Development Act, 2002 (Nom ya 28 ya 2002) (MPRDA);
- Environmental Authorisation (EA) ho ya ka Kgaolo ya Chapter 5 ya National Environmental Management Act, 1998 (Nom. ya 107 wa 1998) (NEMA).

ROGESA e tshwere ER le EA bakeng sa ho fuputsa mehlodi ya petroleamo Provinsing ya Freistata Afrika Borwa (referense ke 12/3/294 (ER 294)). EA le ER tsa tumello bakeng sa ROGESA ho qala lenaneo la phuputso le kenyeletsang diphuputso tsa desktop le phuputso ya aerial gradiometry gravity.

ROGESA e ile ya qadisa diphuputso tse, mme hona jwale e sisintse ho bora didiba tse sa feteng tse 40 Dibakeng tse bobedi tseo ho Tsepamisitsweng ho tsona hara dipehelo tsa ER. Sebaka sa pele seo ho Tsepamisitsweng ho sona se ka borwa ba Petrus Steyn mme Sebaka sa bobedi seo ho Tsepamisitsweng ho sona se borwa ba R34 pakeng tsa Kroonstad le Edenville. Dibakeng tseo ka ho qollehileng sediba se tla ba ho tsona Dibakeng tseo ho Tsepamisitsweng ho tsona tse sisintsweng ke ROGESA mme di tla netefatswa ho ya ka ho seabo sa mong a mobu le diphuputso tsa tikoloho (nakong ya kopo ya tshebetso ena). Ho hang ha ho a sisinngwa ho bora ka metjhini ya haedroliki kapa ho pompela mekedikedi ho ntsha oli kapa kgase.

Mona ho fanwa ka tsebiso bakeng sa kopo e latelang:

Melao	Tumello e hlokalang le tshebetso e lokelang ho latelwa	Ba Boholong ba Tshwaneleheng
National Environmental Management Act (Nom. ya 107 wa 1998).	<b>Environmental Authorisation (Tumello ya Tikoloho)</b> bakeng sa Mosebetsi wa 21D ho ya ka Environmental Impact Assessment (EIA) Regulation Listing Notice 1 ya 2014 (GNR 983) le Mosebetsi wa 18 I EIA Regulation Listing Notice 2 ya 2014 (GNR 984).	Department of Mineral Resources and Energy (DMRE), ka ho sebedisa Petroleum Agency of South African (PASA)

**SLR Consulting (South Africa) (Pty) Ltd** e thontse jwalo ka setsebi se ikemetseng phuputsong ya tikoloho mme e ikarabella bakeng sa ho qala phuputso e hlokalang ya tikoloho le ho tsamaisa tshebetso ya ho nka karolo ha setjhaba. Kopo e tla ba latela dipehelo tsa tshebetso ya phuputso le EIA jwalo ka ha ho bontshitswe Melaong ya EIA (GNR 982). Dintlha tse eketsehileng le tse batsi mabapi le projeke di ka fumana ho Websaete ya SLR le ho fanwa ditlalehong tsa Scoping le EIA.

Batho bohle ba nang le seabo ba mengwa hore ba ngodise jwalo ka Batho ba Nang le Thahasello le ba Angwang ke Sena (I&AP). O tlameha ho ngodisa jwalo ka I&AP haeba o lakatsa ho fumana tlhahisoleseding e eketsehileng kapa haeba o lakatsa ho nka karolo projekeng ya tekolo ya tikoloho. Moralo wa Tlaleho ya Scoping o tla fumaneha bakeng sa Batho ba Nang le Thahasello le ba Angwang ke Sena (I&AP).bakeng sa ho o hlahloba. Bakeng sa ho etsa sena, kapa ho botsa dipotso dife kapa dife kapa dingongoreho mabapi le projeke, ka kopo ikopanye le:

**Theo Wicks (Motsamaisi wa Projeke) le/kapa Gugu Dhlamini (Ho Nka Karolo ha Setjhaba) ka ho romela**

Imeile ho: [RhinoER294@slrconsulting.com](mailto:RhinoER294@slrconsulting.com)

Mohala: 011 467 0945, Fekse: 011 467 0975 le/kapa romela ka Poso ho: PO Box 1596, Cramerview, 2060

SLR Website: <https://www.slrconsulting.com/en/public-documents/Rhino-well-ER294>

Websaete ya Datha ya Mahala: <https://slrpublicdocs.datafree.co/en/public-documents/Rhino-well-ER294>

Ka ho fana ka tlhahisoleseding ya hao ya botho hore o ngodise jwalo ka motho ya nang le thahasello le ya angwang ke projeke (I&AP) bakeng sa Projeke ena o dumela hore SLR e sebedise tlhahisoleseding ya hao hoy a ka Molao wa Tshireletso ya Tlhahisoleseding ya Botho (Protection of Personal Information Act) wa 2013 (Non.ya 4 wa 2013). SLR e ke ke ya sebedisa Tlhahisoleseding ya hao ya Botho, ntle le kamoo ho dumeletsweng kateng kapa jwalo ka ha ho hlokwa ke ditshebetso tsa EIA, kapa jwalo ka ha ho hlokwa ke molao kapa pholisi ya setjhaba. Bakeng sa dintlha tse eketsehileng, ikopanye le SLR jwalo ka ha ho bontshitswe mona ka hodimo.

<b>FREE STATE PROVINCIAL GAZETTE</b> <i>(Published every Friday)</i>	<b>VRYSTAAT PROVINSIALE KOERANT</b> <i>(Verskyn elke Vrydag)</i>																								
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<p><b>Printed and published by the Free State Provincial Government</b></p>	<p><b>Gedruk en uitgegee deur die Vrystaatse Provinsiale Regering</b></p>																								

APPENDIX 3.5:  
BACKGROUND INFORMATION DOCUMENT



# RHINO OIL AND GAS EXPLORATION SOUTH AFRICA (PTY) LTD BACKGROUND INFORMATION DOCUMENT

## PROPOSED EXPLORATION WELL DRILLING WITHIN TWO TARGET AREAS WITHIN ER 294, FREE STATE PROVINCE

AUGUST 2022

### 1. INTRODUCTION AND BACKGROUND

In 2019, the (now) Department of Mineral Resources and Energy (DMRE), through the Petroleum Agency of South African (PASA), granted Rhino Oil and Gas Exploration South Africa (ROGESA) an Exploration Right (ER) to explore for petroleum resources in an area in the Free State Province of South Africa (reference 12/3/294 (ER 294)). The ER, which was informed by an Environmental Authorisation (EA), permitted ROGESA to undertake an exploration work programme involving desktop studies and an aerial gradiometry gravity survey.

ROGESA undertook the studies and survey and is now proposing to drill exploration wells within two Target Areas located in the ER. Target Area 1 is located south of Petrus Steyn and Target Area 2 lies south of the R34 between Kroonstad and Edenville (refer to Figure 1). The specific well locations have been proposed by ROGESA based analysis of geological data and will confirmed based on landowner engagement and environmental investigations (the latter will form part of this EIA).

### 2. ENVIRONMENTAL AUTHORISATION PROCESS

Prior to the commencement of the exploration drilling, ROGESA is required to obtain an amendment to ER 294 and approved Environmental Management Programme (EMPr) from the DMRE in terms of Section 102 of the Minerals and Petroleum Resources Development Act, 2002 (MPRDA).

Furthermore, an EA from the DMRE in terms of the National Environmental Management Act (No. 107 of 1998) (NEMA), for activities in Listing Notice 1 (GNR 983 of 2014, as amended) and Listing Notice 2 (GNR 985 of 2014, as amended) is also required. The Environmental Impact Assessment (EIA) Regulations (GNR 982 of 2014, as amended) require that a scoping and EIA process be undertaken to inform an EA decision from the DMRE. Public participation is a key component of the environmental assessment process.

#### PURPOSE OF THIS DOCUMENT

This document has been prepared to inform you about:

- The proposed well drilling project;
- The project alternatives considered;
- The biophysical, cultural, and socio-economic baseline environment of the proposed project area;
- The environmental assessment processes being followed;
- Possible biophysical, cultural, and socio-economic impacts and related specialist input; and
- How you can have input into the environmental assessment process.

#### WHO ARE THE CONSULTANTS?

SLR Consulting South Africa (Pty) Ltd (SLR), an independent firm of environmental consultants, has been appointed by ROGESA to manage the environmental authorisation application process.

#### YOUR ROLE

You have been identified as an interested and affected party (I&AP) who may want to be informed about the proposed project and have input into the environmental authorisation process.

You have an opportunity to review this document and to provide your initial comments to SLR for incorporation in the environmental assessment process. You will also be given the opportunity to review and comment on the Scoping Report and EIA Report and EMPr.

All comments will be recorded and included in the reports submitted for decision-making.

#### MEETING DETAILS

##### STEYNSRUS

Date: Wednesday, 7 September 2022  
Venue: Steynsrus Boerevereniging Hall,  
Van Riebeeck Street, Steynsrus  
Time: 15h00

##### EDENVILLE

Date: Thursday, 8 September 2022  
Venue: Edenville Boerevereniging Hall,  
Mark Street, Edenville  
Time: 09h00

#### HOW TO RESPOND

Responses to this document can be submitted by means of the attached comments sheet and/or through communication with the persons listed below.

#### WHO TO CONTACT?

SLR contact: Theo Wicks/ Gugu Dhlamini  
Tel: 011 467 0945  
WhatsApp: 066 313 7574  
Email: [RhinoER294@slrconsulting.com](mailto:RhinoER294@slrconsulting.com)

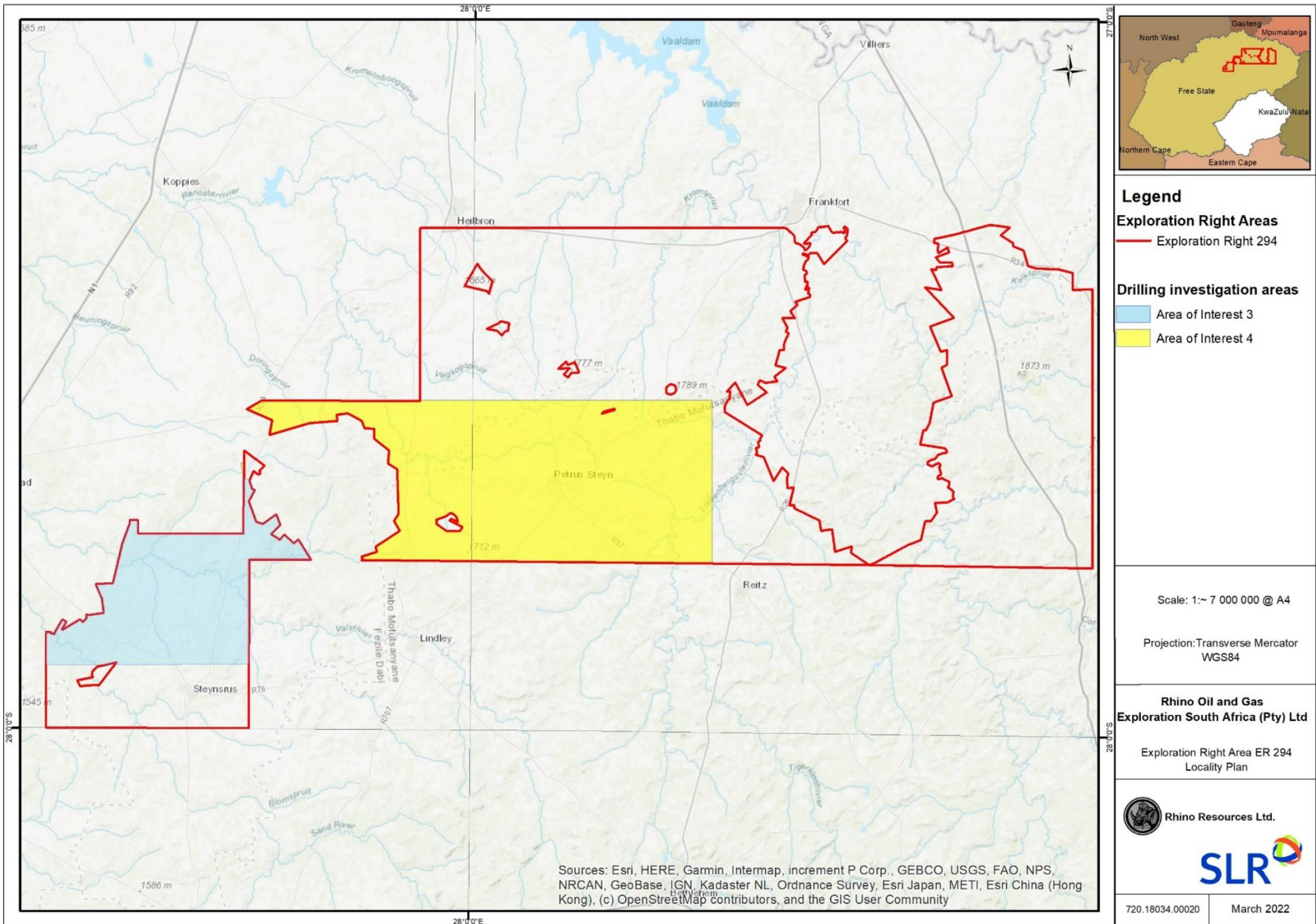


Figure 1: Locality Map (Showing ER boundary and Target Areas)

### 3. OVERVIEW OF THE PROPOSED PROJECT

#### 3.1 APPLICATION

An application for EA will be submitted via PASA in September 2022. Acceptance of the application by PASA will only permit the applicant to continue with the required Scoping and EIA process and does not constitute authorisation. The Scoping and EIA process is subject to the timeframes prescribed in the EIA Regulations 2014 (as amended).

#### 3.2 PROJECT AND PROCESS OVERVIEW

ROGESA is proposing to drill a maximum of 40 exploration wells within the project area. The proposed works programme would consist of the following phases (summarised below):

- Well identification and permitting;
- Mobilisation Phase;
- Drilling Phase;
- Well Execution Phase;
- Test Phase;
- Well abandonment Phase; and
- Demobilisation Phase.

##### Well identification and permitting

The identification and sighting of target well sites will be undertaken based on a combination of:

- Prospective petroleum bearing geologies as determined by analysis of data;
- Areas remaining following an environmental and social screening where sensitive environments (wetlands, watercourses, critical biodiversity areas, culturally significant areas) will be screened out;
- Site assessment by ecology, heritage and geohydrological specialists; and
- Confirmation of an access agreement with landowners.

##### Mobilisation Phase

The drill rig, along with associated mechanical infrastructure (compressors, generator, blow-out protector, water pump and cart, drilling sump, drill rods, waste skips) will be located within a secured drill site camp. Staff will be accommodated offsite (i.e. not at the drill site camp).

##### Drilling Phase

During the drilling phase, different bit sizes are used to drill a series of telescoping holes, from the surface to the total depth of the planned well. The first hole, the outer, is the biggest and called the tophole, while the subsequent inner holes become progressively smaller and smaller as the well depth increases. This continues until the final hole, which is the smallest, reaches the target depth. During the drilling process, drilling fluids such as compressed air or muds are pumped down the inside of the drill pipe and exit at the drill bit to optimise drilling operations.

Once each hole section has been drilled, casing (steel tubulars) is run into the well and cemented in place to

secure/seal the section that has just been drilled and to allow for the drilling of the next (smaller) hole section. The cement operation consists of pumping cement down the drill string to the bottom. The cement then flows, out the bottom of the casing shoe and back up into the space between the cased hole and open hole.

The installed casing and cement is a tested barrier that facilitates the drilling of the next section, allowing to reach the target final depth in the safest way.



Figure 2: Typical core drilling rig

##### Well Execution Phase

Well execution entails:

- Well logging - Each of the wells will be logged to record the lithology and to confirm the quality of the cement casing of the well; and
- Well completion - the wellbore is displaced with an industrial water, necessary to balance the downhole pressure and, at the same time, to complete the removal of mud/solids from the well.

In the case of unsuccessful wells, once a full log of the reservoir section has been undertaken, the well will be plugged and abandoned (see section overleaf).

##### Test Phase

The well test objectives are to:

1. Determine key technical factors of the reservoir (e.g. size, permeability and fluid characteristics) and values for use in future drilling; and
2. Obtain representative data including reservoir pressure, production rates and sample(s).

While testing, recovered hydrocarbons are sent to a flare boom with a burner to ensure as complete combustion of fluids/gases (including hydrocarbons) as possible. To ensure that burning can be done safely from the drill site, a flare pit can be installed in order to prevent the spread of fire.

The flow periods and rates will be limited to the minimum necessary to obtain the required reservoir information during the well test. It is anticipated that a maximum well test time for this project will be approximately 30-days.

##### Well Abandonment Phase



The scope of well abandonment is to protect the environment by effectively sealing off all distinct permeable zones (i.e., the zones of potential hydrocarbons or water inflow penetrated by the well), to ensure that formation fluids are isolated, both within the wellbore and in annular spaces, and that their migration among different formations and/or up to the surface is prevented. For unsuccessful wells, a cement plug setting job will be performed.

At the end of the plug and abandonment operations, the well schematic and wellhead location (including casings dimension, length, cement plug dimension and composition, pressure and inflow test results, etc.) will be included in a final report submitted to PASA.

#### Demobilisation Phase

On completion of drilling, the drill rig, support vehicles and machinery will be removed from the wellsite location and the site will be rehabilitated to a condition acceptable to the landowner.

## 4. PROJECT ALTERNATIVES

**Location:** The Target Areas were identified as the most prospective for the presence of petroleum resource, based on having suitable geological stratum. Areas of higher ecological and social sensitivity will be screened out from consideration. The final sites will be selected based on field work by an ecologist, heritage and geohydrological specialist, as well as agreement with the landowner.

**Technology/Drill rig:** Based on a current understanding of the ground conditions, ROGESA has opted for a truck mounted drilling rig with air and mud drilling capabilities.

## 5. NEED AND DESIRABILITY

Petroleum products remain a vital source of energy. Natural gas comprises mostly methane and can be a relatively clean form of energy. It can be used to generate electricity or provide heat for domestic and industrial purposes. Petroleum is also a key input into many manufacturing processes. Once extracted gas can be easily contained, transported and safely used in many applications. The type of downstream use would entirely dependent on the commercial scale of the resource.

The purpose of the proposed exploration well drilling is to facilitate the determination of whether geological structures ("prospects") contain oil or gas in potentially commercial extractable amounts.

## 6. TIMING

The well drilling and testing programme is planned over a several months. The programme is divided into the well drilling and well testing phases with successful completion of one phase informing the next. Drilling at each site can take 1 to 3 months to complete. Short-duration well tests are planned (approximately 30-days).

## 7. LAND ACCESS

The proposed drilling sites are to be situated on private property and will be accessed, established, managed and rehabilitated with prior consent of the landowner (in terms of a written agreement).

## 8. ENVIRONMENTAL MANAGEMENT

The process of managing the impacts associated with the drilling activities and rehabilitating the disturbed areas will be conducted in terms of the EMPr developed for the project subject to approval by the DMRE.

## 9. FUTURE EXPLORATION OR PRODUCTION

The current application is only to authorise the proposed well drilling work as described above (which will be detailed in the Scoping and EIA Reports). Any further exploration activities or future production would require further approval from the DMRE. Such approvals will be subject to the relevant legal requirements which include further public consultation and environmental assessments.



Figure 3: Example of well drilling operations

## 10. OVERVIEW OF BASELINE ENVIRONMENT

### 10.1 BIOPHYSICAL ENVIRONMENT

Geology: Falls within the Karoo Basin.

Climate: Characterised by summer rainfall, warm to hot summers and cool to cold winters.

Soils and land capability: The project area is largely characterised by structureless and textural contrast soils and soils with undifferentiated clays. Predominately low arable potential with high erosion hazard.

Land cover: The project area comprises grasslands, and a considerable area is characterised by cultivated fields.

Hydrology: Numerous wetlands, small dams and farm dams, which are used for livestock and domestic purposes, are located within the project area. The Vaal Dam traverses Target Area 1 of the project area.

Groundwater: Groundwater use and extraction in the area ranges from extraction of seasonal groundwater from shallow wells to drilling of boreholes for domestic/municipal use and agricultural purposes.

Flora: The project area is located within the Grassland Biome, predominately in the Central Free State, Eastern Free State Clay and Frankfort Highveld Grassland bioregions.

Fauna: Numerous faunal species are associated with the various natural vegetation units located in the project area. Potential species of concern include the *Amblysomus septentrionalis*, *Spizocorys fringillaris* and the *Homoroselaps dorsalis*, amongst others.

Air Quality: The project area's ambient air quality is generally good, with some regions having been influenced by industrial emissions from power stations, chemical and manufacturing industries, mining activities, agricultural activities, road use, biomass burning, domestic fuel burning, and motor vehicle emissions.

### 10.2 CULTURAL ENVIRONMENT

Heritage/Cultural resources: It is expected that the project area's landscape will be scattered with Iron Age stone walling, farmsteads and associated burials, unmarked burials and to a lesser extent with a few Stone Age artefact scatters or open sites.

Palaeontological resources: The project area is predominantly underlain by the Normandien formations of very high fossil sensitivity belonging to the Beaufort Group, Karoo super group. This formation is heavily intruded by igneous dolerite in this area. Fossils common in this formation are fish, amphibians, reptiles, therapsids and vertebrate burrows, Glassopteris tree fossils and insect wings.

### 10.3 SOCIO-ECONOMIC ENVIRONMENT

Socio-economic: In general, the municipal areas extending across the project area are characterised by high levels of illiteracy and unemployment. A large majority of the population live in formal houses/buildings with access to waterborne sanitation and electricity. Access to piped water inside the dwellings however remains a problem.

Land use: The area is predominantly used for commercial agriculture. The agricultural activities include a combination of crop production, animal production, horticulture, dairy farming, game farming, aquaculture, fruit production and agro-processing.

## 11. SPECIALIST STUDIES TO INFORM THE ENVIRONMENTAL AUTHORISATION PROCESS

The following specialist assessments will be undertaken as part of the EIA process:

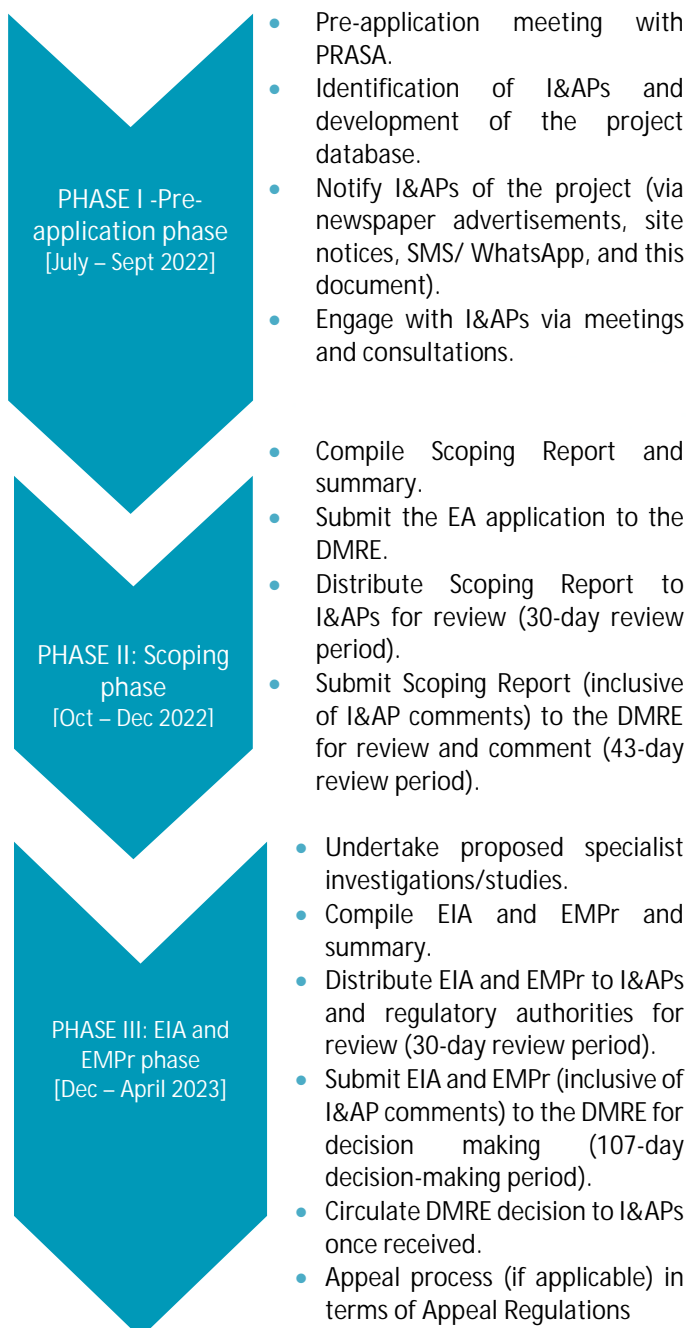
- Aquatic and Terrestrial Biodiversity assessments;
- Heritage assessment
- Palaeontology assessment; and
- Hydrogeology assessment.

## 12. ENVIRONMENTAL AUTHORISATION AND PUBLIC PARTICIPATION PROCESS

### 12.1 ENVIRONMENTAL AUTHORISATION PROCESS

The EIA process provides information on the project, pertaining to procedural components and the environment in which the project is proposed. It identifies and assesses, in consultation with I&APs, the potential negative and positive biophysical, cultural, and socio-economic impacts.

The environmental assessment process also reports on management measures required to mitigate impacts to an acceptable level and incorporates requirements for monitoring programmes (where required). The process steps and estimated timeframes are provided below.



### 12.2 PUBLIC PARTICIPATION PROCESS

The purpose of the public participation process is to notify I&APs of the proposed project and to provide them with the relevant information and give opportunity to raise issues or concerns regarding the proposed project. The public participation process will be undertaken in accordance with the requirements of Chapter 6 of the EIA Regulations 2014, as amended. I&APs involved in the EIA process are listed below:

#### I&APs INVOLVED IN THE ENVIRONMENTAL AUTHORISATION PROCESS

##### LANDOWNERS, LAND USERS AND OTHER I&APs

- Surrounding landowners, land users and communities.
- Non-government organisations and associations.
- Surrounding mines and industries.
- Parastatals.

##### COMPETENT AUTHORITY

- Department of Mineral Resources and Energy (DMRE)
- Petroleum Agency South Africa (PASA)

##### COMMENTING AUTHORITIES

- Free State Department of Water and Sanitation
- Free State Department of Economic Development, Tourism and Environmental Affairs
- Free State Department of Agriculture and Rural Development
- Provincial South Africa Heritage Resource Agency (SAHRA)

##### LOCAL AUTHORITIES

- Moqhaka Local Municipality
- Nketoana Local Municipality
- Fezile Dabi District Municipality
- Thabo Mofutsanyane District Municipality

Please let us know if there are any additional parties that should be involved.

## 13. ENVIRONMENTAL LEGAL FRAMEWORK AND ENVIRONMENTAL PROCESS REQUIREMENTS

The figure overleaf provides an overview of the Scoping and EIA Process.

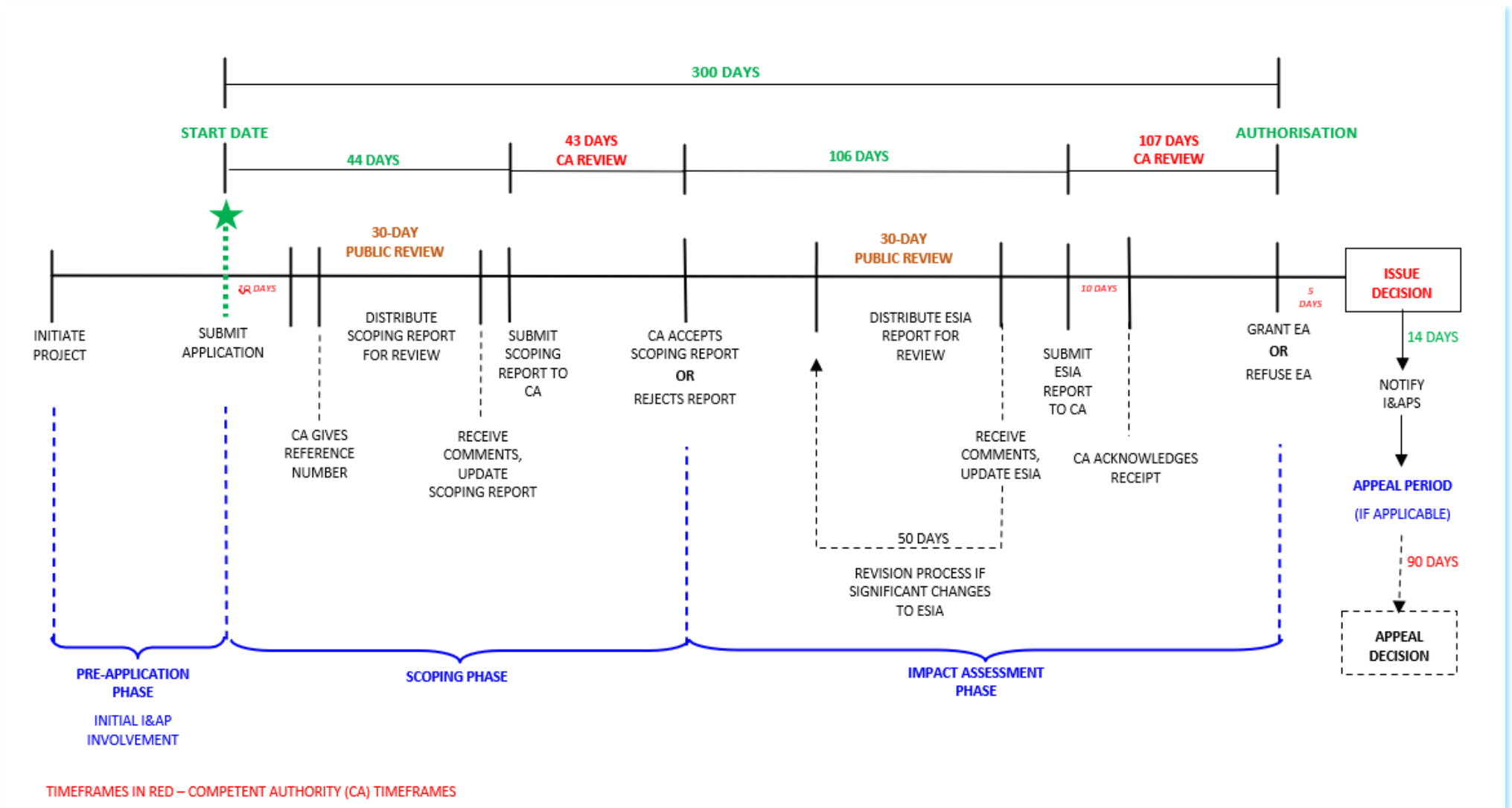


Figure 4: Scoping and EIA Process

RHINO OIL AND GAS EXPLORATION SOUTH AFRICA (PTY) LTD  
BACKGROUND INFORMATION DOCUMENT

PROPOSED PETROLEUM EXPLORATION DRILLING WITHIN TWO TARGET AREAS IN ER 294, FREE STATE  
PROVINCE

AUGUST 2022

PARTICULARS OF THE INTERESTED AND AFFECTED PARTY	DATE	
NAME		
ORGANISATION/COMPANY		
POSTAL ADDRESS		
	POSTAL CODE	
TELEPHONE NUMBER		
E-MAIL ADDRESS		
PLEASE REGISTER ME AS AN INTERESTED & AFFECTED PARTY (I&AP) SO THAT I MAY RECEIVE FURTHER INFORMATION AND NOTIFICATIONS DURING THE ENVIRONMENTAL AUTHORISATION PROCESS	YES	NO
HOW WOULD YOU LIKE TO RECEIVE YOUR NOTIFICATIONS?	E-MAIL	
	POST	
	SMS	

PLEASE WRITE YOUR COMMENTS AND QUESTIONS HERE (please use separate sheets if you wish)

--

PLEASE INCLUDE THE FOLLOWING OF MY COLLEAGUES/FRIENDS/NEIGHBOURS AS I&APS FOR THIS PROJECT:

--

Please return completed forms to:

SLR contact: Theo Wicks/ Gugu Dhlamini

Email: [RhinoER294@slrconsulting.com](mailto:RhinoER294@slrconsulting.com)

Tel: 011 467 0945, Fax: 011 467 0975 and/ or Post: PO Box 1596, Cramerview, 2060

WhatsApp: 066 313 7574

By providing your personal information to be registered as an I&AP for this project you consent to SLR managing your information in accordance with the Protection of Personal Information Act 4 of 2013. This includes; retaining and using your Personal Information as part of a contact database for this and/or other ESIA's, contacting you regarding this and/or other ESIA processes, disclosing the database to other authorised parties including the applicant for lawful purposes, and including any correspondence in the ESIA Reports. You may request for your Personal Information to be deleted from the Project database or comments to be excluded from ESIA Reports at any time by contacting SLR.

THANK YOU FOR YOUR CONTRIBUTION!!!



# RHINO OIL AND GAS EXPLORATION SOUTH AFRICA (EDMS.) BPK. AGTERGRONDINLIGTINGSDOKUMENT

## BEOOGDE EKSPLORASIEBOORWERK IN TWEE TEIKENGEBIEDE IN ER 294, VRYSTAATPROVINSIE

AUGUSTUS 2022

### 1. INLEIDING EN AGTERGROND

In 2019 het die (huidige) Departement van Minerale Hulpbronne en Energie (DMHE), deur die Petroleumagentskap van Suid-Afrika (Pasa), 'n Eksplorasiereg (ER) aan Rhino Oil and Gas Exploration South Africa (ROGESA) toegestaan om in 'n gebied in Suid-Afrika se Vrystaatprovinsie vir petroleumhulpbronne te soek (verwysing 12/3/294 (ER 294)). Die ER, wat toegelig is deur 'n Omgewingsmagtiging (OM), het ROGESA toestemming gee om 'n eksplorasiewerkprogram te onderneem wat kantoorgebonde studies en 'n gradiometrie-swaartekragopname vanuit die lug behels.

ROGESA het die studies en opname onderneem, en beoog nou om eksplorasieboorgate in twee teikengebiede wat in die ER geleë is, te boor. Teikengebied 1 is suid van Petrus Steyn geleë en Teikengebied 2 lê suid van die R34 tussen Kroonstad en Edenville (sien Figuur 1). ROGESA het die spesifieke liggings op grond van die ontleding van geologiese data voorgestel en sal dit op grond van skakeling met grondeienaars en omgewingsondersoeke (laasgenoemde sal deel van hierdie OIE vorm) bevestig.

### 2. OMGEWINGSMAGTIGINGSPROSES

Voor die aanvang van die eksplorasieboorwerk, moet ROGESA 'n wysiging aan ER294 en die goedgekeurde Omgewingsbestuursprogram (OBPr) by die DMHE ingevolge Artikel 102 van die Wet op die Ontwikkeling van Minerale en Petroleum Hulpbronne, 2002 (MPRDA) bekom.

Voorts word 'n OM van die DMHE af ook ingevolge die Nasionale Wet op Omgewingsbestuur (Wet 107 van 1998) (NEMA) benodig vir bedrywighede in Lyskennisgewing 1 (Staatskennisgewing R983 van 2014, soos gewysig) en Lyskennisgewing 2 (Staatskennisgewing R985 van 2014, soos gewysig). Die Regulasies op Omgewingsimpak-evaluerings (OIE-regulasies) (Staatskennisgewing R982 van 2014, soos gewysig) vereis dat 'n Bestekopname- en OIE-proses onderneem word om 'n OM-besluit van die DMHE toe te lig. Openbare deelname is 'n belangrike komponent van die omgewingsevalueringsproses.

#### DOEL VAN HIERDIE DOKUMENT

Hierdie dokument is opgestel om u toe te lig oor:

- die beoogde boorwerkprojek;
- die projekalternatiewe wat oorweging geniet;
- die biofisiese, kulturele en sosio-ekonomiese grondlynomgewing van die beoogde projekgebied;
- die omgewingsevalueringsprosesse wat gevolg word;

- moontlike biofisiese, kulturele en sosio-ekonomiese impakte en verwante spesialisinsette; en
- hoe u insette in die omgewingsevaluerings-proses kan lewer.

#### WIE IS DIE KONSULTANTE?

ROGESA het SLR Consulting South Africa (Edms.) Bpk. (SLR), 'n onafhanklike firma van omgewingskonsultante, aangestel om die omgewingsmagtigingsaansoekproses te bestuur.

#### U ROL

U is as 'n belangstellende en geaffekteerde party (B&GP) geïdentifiseer wat moontlik ingelig wil word oor die beoogde projek en insae in die omgewingsmagtigingsproses wil hê.

U het 'n geleentheid om hierdie dokument na te gaan en om u aanvanklike kommentaar aan SLR te stuur vir insluiting in die omgewingsevalueringsproses. U sal ook die geleentheid kry om die Bestekopnameverslag en OIE en OBPr na te gaan en om kommentaar daarop te lewer.

Alle kommentaar sal aangeteken en ingesluit word in die verslae wat ingedien gaan word vir besluitneming.

#### BESONDERHEDE VAN VERGADERING

##### STEYNSRUS

Datum: Woensdag, 7 September 2022  
Plek: Steynsrus Boerevereniging Saal,  
Van Riebeeck Straat, Steynsrus  
Tyd: 15h00

##### EDENVILLE

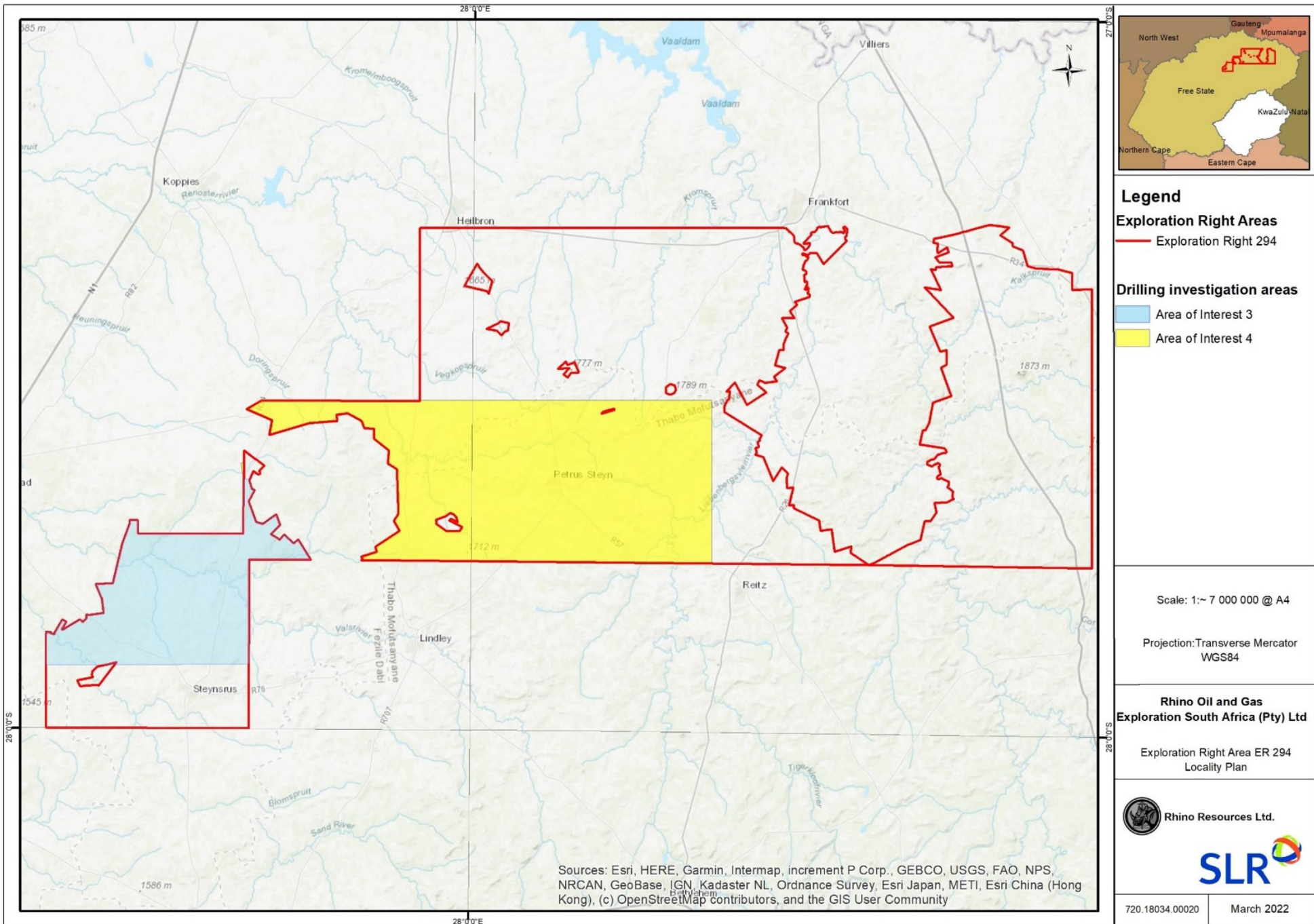
Datum: Donderdag, 8 September 2022  
Plek: Edenville Boerevereniging Saal,  
Mark Straat, Edenville  
Tyd: 09h00

#### HOE OM TE REAGEER

Reaksie op hierdie dokument kan by wyse van die aangehegte kommentaarvorm en/of deur kommunikasie met die onderstaande persone ingedien word.

#### WIE OM TE KONTAK

SLR-kontak: Theo Wicks/Gugu Dhlamini  
Tel: 011 467 0945  
WhatsApp: 066 313 7574  
E-pos: [RhinoER294@slrconsulting.com](mailto:RhinoER294@slrconsulting.com)



Figuur 1: Liggingskaart (wys ER-grens en teikengebiede)

### 3. OORSIG VAN DIE BEOOGDE PROJEEK

#### 3.1 AANSOEK

'n Aansoek om 'n OM sal in September 2022 via Pasa ingedien word. Aanvaarding van die aansoek deur Pasa sal die applikant slegs toelaat om die vereiste Bestekopname- en OIE-proses voort te sit en kom nie neer op magtiging nie. Die Bestekopname- en OIE-proses is onderhewig aan die tydsraamwerke wat in die OIE-regulasies van 2014 (soos gewysig) voorgeskryf word.

#### 3.2 OORSIG VAN PROJEEK EN PROSES

ROGESA beoog om hoogstens 40 eksplorasiemoorgate in die projekgebied te boor. Die beoogde werkprogram sal uit die volgende fases bestaan (hieronder opgesom):

- Identifisering van en permitte vir boorgate;
- mobiliseringsfase;
- boorfase;
- boorgat-uitvoeringsfase;
- toetsfase;
- boorgatverlatingsfase; en
- demobiliseringsfase.

##### Identifisering van en permitte vir boorgate

Die identifisering en ligging van teikenboorgatterreine sal onderneem word op grond van 'n kombinasie van:

- moontlike petroleumdraende geologieë soos bepaal deur die ontleding van data;
- gebiede wat ná 'n omgewings- en maatskaplike sifting oorbly waar sensitiewe omgewings (soos vleilande, waterlope, kritieke biodiversiteits-gebiede en gebiede van kulturele belang) vermy word;
- terreinevaluering deur ekologie-, erfenis- en geohidrologiespesialiste; en
- bevestiging van 'n toegangsooreenkoms met grondeienaars.

##### Mobiliseringsfase

Die boorinstallasie, saam met verwante meganiese infrastruktuur (kompessors, kragopwekker, gasveiligheidsklep, waterpomp en -kar, booropvangput, boorstange, afvalhouers) sal binne-in 'n beveiligde boorterreinkamp wees. Personeel sal weg van die terrein af gehuisves word (d.i. nie by die boorterreinkamp nie).

##### Boorfase

Gedurende die boorfase word verskillende groottes boorpunte gebruik om 'n reeks teleskopiese gate te boor, van die oppervlak af tot by die totale diepte van die beplande boorgat. Die eerste, buitenste gat is die grootste en word die boonste gat genoem, terwyl die daaropvolgende binneste gate geleidelik kleiner en kleiner word namate die boorgat dieper word. Dit word volgehou totdat die laaste gat, wat die kleinste is, die teikendiepte bereik. Tydens die boorproses word boorvloeistowwe soos druklug of modder teen die binnekant van die boorpyp af gepomp en kom by die boorpunt uit om boorbedrywighede te optimaliseer.

Sodra elke gatgedeelte geboor is, word omhulsels (staalbuis) in die gat ingevoer en in plek vasgesement om die seksie wat pas geboor is te beveilig/seël en om voorsiening te maak vir die boor van die volgende (kleiner) gatgedeelte. Die sementwerk behels dat sement in die boorstring af tot onder gepomp word. Die sement vloei dan by die onderkant van die voeringindryfskoen uit en terug op in die ruimte tussen die gevoerde gat en die oop gat.

Die geïnstalleerde voering en sement is 'n beproefde versperring wat die boor van die volgende gedeelte vergemaklik, wat dit moontlik maak om die uiteindelijke teikendiepte op die veiligste manier te bereik.



Figuur 2: Tipiese kernboorinstallasie

##### Boorgat-uitvoeringsfase

Die uitvoering van die boorgat behels:

- boorgatbeskrywing – al die boorgate sal beskryf word om die litologie aan te teken en om die gehalte van die sementvoering van die boorgat te bevestig; en
- boorgatvoltooiing – die bek van die boorgat word met nywerheidswater verplaas wat nodig is om die afwaartse druk in die gat te balanseer en, terselfdertyd, die verwydering van modder/vaste stowwe uit die gat te voltooi.

In die geval van onsuksesvolle boorgate, sodra 'n volledige beskrywing van die reservoirgedeelte onderneem is, sal die gat toegestop en verlaat word (sien gedeelte op keersy).

##### Toetsfase

Die doelwitte met die toets van boorgate is om:

1. belangrike tegniese faktore van die reservoir (bv. grootte, deurlaatbaarheid en vloeistofkenmerke) en waardes vir gebruik in toekomstige boorwerk te bepaal; en
2. verteenwoordigende data, met insluiting van reservoirdruk, produksietempo's en monster(s) te bekom.

Tydens toetsing word herwonne koolwaterstowwe na 'n vlamsuil met 'n brander toe gestuur om die volledigste moontlike ontbranding van vloeistowwe/gasse



(koolwaterstowwe inkluis) te verseker. Om te verseker dat verbranding veilig weg die boorterrein af gedoen kan word, kan 'n vlamput geïnstalleer word om brandverspreiding te voorkom.

Die vloeytydperke en -tempo's sal beperk word tot die minimum wat nodig is om die vereiste reservoir-inligting tydens die boorgattoets te bekom. Na verwagting sal die tyd om 'n boorgat vir hierdie projek te toets, hoogstens sowat 30 dae wees.

#### Boorgatverlatingsfase

Die bestek van boorgatverlating is om die omgewing te beskerm deur alle duidelik-deurlaatbare sones (d.i. die sones van potensiële koolwaterstowwe of waterinvloei wat deur die boorgat binnegedring sal word) doeltreffend af te dig om te verseker dat formasievloeistowwe geïsoleer word, beide binne-in die boorgat en in ringvormige ruimtes, en dat hul migrasie tussen verskillende formasies en/of tot op die oppervlak voorkom word. Vir onsuksesvolle boorgate sal 'n sementprop-setwerk gedoen word.

Aan die einde van die prop- en verlatingbedrywighede, sal die boorgatskematika en boorkopligging (insluitende omhulselafmeting, lengte, sementpropafmeting en -samestelling, druk- en invloei-toetsuitslae, ens.) ingesluit word in 'n finale verslag wat by Pasa ingedien word.

#### Demobiliseringsfase

Met voltooiing van die boorwerk, sal die boorinstallasie, steunvoertuie en -masjinerie van die boorgatterrein af verwyder word en die terrein sal gerehabiliteer word tot 'n toestand wat aanvaarbaar is vir die grondeienaar.

## 4. PROJEKALTERNATIEWE

Ligging: Die teikengebiede is as die waarskynlikste liggings vir die teenwoordigheid van die petroleumhulpbron geïdentifiseer, op grond van die feit dat hulle 'n geskikte geologiese stratum het. Gebiede met hoër ekologiese en maatskaplike sensitiwiteit sal uitgesif word om nie oorweeg te word nie. Die finale terreine sal op grond van veldwerk deur 'n ekoloog, erfenis- en geohidrologiespesialis, sowel as in ooreenkoms met die grondeienaar, gekies word.

Tegnologie/Boorinstallasie: Op grond van 'n huidige begrip van die grondtoestande, het ROGESA besluit op 'n vragmotor-gemonteerde boorinstallasie met lug- en modderboorvermoë.

## 5. NODIGHEID EN WENSLIKHEID

Petroleumprodukte bly 'n noodsaaklike bron van energie. Aardgas bestaan hoofsaaklik uit metaan en kan 'n betreklik skoon vorm van energie wees. Dit kan gebruik word om elektrisiteit op te wek of om warmte vir huishoudelike en nywerheidsdoeleindes te voorsien. Petroleum is ook 'n belangrike inset in baie vervaardigingsprosesse. Wanneer die gas eers onttrek is, kan dit maklik verpak, vervoer en veilig in vele toepassings gebruik word. Die soort gebruik met die ketting langs, sal heeltemal afhang van die kommersiële skaal van die hulpbron.

Die doel van die beoogde eksplorasiëboorwerk is om dit moontlik te maak om vas te stel of geologiese strukture ("prospekteergebiede") olie of gas in potensieel kommersiële ontginbare hoeveelhede bevat.

## 6. TYDSBEREKENING

Die boor- en toetsprogram word oor etlike maande beplan. Die program word in die boor- en toetsfases verdeel, met die suksesvolle voltooiing van een fase wat die volgende fase toelig. Boorwerk by elke terrein kan een tot drie maande neem om af te handel. Kortstondige boorgattoetse (sowat 30 dae) word beplan.

## 7. GRONDTOEGANG

Die beoogde boorpersele sal op privaat eiendom geleë wees en toegang, vestiging, bestuur en rehabilitasie sal met die grondeienaar se vooraf-toestemming (ingevolge 'n geskrewe ooreenkoms) geskied.

## 8. OMGEWINGSBESTUUR

Die proses om die impakte wat verband hou met die boorbedrywighede te bestuur en om versteurde gebiede te rehabiliteer, sal ingevolge die OBPr, wat vir die projek ontwikkel en onderhewig is aan goedkeuring deur die DMHE, geskied.

## 9. TOEKOMSTIGE EKSPLORASIE OF PRODUKSIE

Die huidige aansoek is slegs om die beoogde boorgatboorwerk te magtig soos dit hierbo beskryf is (wat in besonderhede in die Bestekopname- en OIE-verslag bespreek sal word). Enige verdere eksplorasiëbedrywighede of toekomstige produksie sal verdere goedkeuring deur die DMHE vereis. Sodanige goedkeurings sal onderhewig wees aan die tersaaklike wetlike vereistes, wat verdere openbare oorlegpleging en omgewingsevaluering insluit.



Figuur 3: Voorbeeld van boorbedrywighede

## 10. OORSIG VAN GRONDLYNOMGEWING

### 10.1 BIOFISIETSE OMGEWING

Geologie: Is in die Karoo-kom geleë.

Klimaat: Gekenmerk deur somerreënval, warm tot baie warm somers en koel tot koue winters.

Grondsoorte en grondvermoë: Die projekgebied word grootliks gekenmerk deur struktuurlose en tekstuurkontras-grondsoorte en grondsoorte met ongedifferensieerde klei. Grotendeels lae bewerkbare potensiaal met hoë erosiegevaar.

Grondbedekking: Die projekgebied bestaan uit grasvelde en 'n aansienlike gebied word deur bewerkte landerye gekenmerk.

Hidrologie: Talle vleilande, dammetjies en plaasdamme wat vir veesuiping en huishoudelike doeleindes gebruik word, is in die projekgebied geleë. Die Vaaldam loop deur Teikengebied 1 van die projekgebied.

Grondwater: Grondwatergebruik en -onttrekking in die gebied wissel tussen onttrekking van seisoenale grondwater uit vlak putte tot die boor van boorgate vir huishoudelike/munisipale gebruik en landboudoeleindes.

Flora: Die projekgebied is in die Grasveldbloom geleë, grotendeels in die Sentraal-Vrystaat, Oos-Vrystaatse Klei- en Frankfort Hoëveld Grasveldbiostreke.

Fauna: Talle faunaspesies hou verband met die verskillende natuurlike plantegroei-eenhede in die projekgebied. Potensiële spesies van kommer sluit onder andere die *Amblysomus septentrionalis*, *Spizocorys fringillaris* en die *Homoroselaps dorsalis* in.

Luggehalte: Die projekgebied se omringende luggehalte is oor die algemeen goed, met party streke wat deur industriële emissies van kragstasies, chemiese en vervaardigingsnywerhede, mynboubedrywighede, landboubedrywighede, padgebruik, biomassaverbranding, huishoudelike brandstofverbranding en motorvoertuigemissies beïnvloed word.

### 10.2 KULTUUROMGEWING

Erfenis-/Kultuurhulpbronne: Na verwagting sal die projekgebied se landskap oor verspreide Ystertydperk klipmure, plaasopstalle en gepaardgaande begraafplase, ongemerkte grafte en tot 'n mindere mate 'n paar Steentydperk artefakte verspreidings of oop terreine beskik.

Paleontologiese hulpbronne: Die projekgebied is grotendeels onderlê deur die Normandien-formasies van baie hoë fossielsensitiwiteit wat tot die Beaufortgroep en Karoo Supergroep behoort. In hierdie gebied is hierdie formasie erg deur stollingsdoleriet ingedring. Fossiele wat algemeen in hierdie formasie aangetref word, is vis, amfibieë, reptiele, terapsiede en gewerweldes se gate, Glassopteris-boomfossiele en insekvlere.

### 10.3 SOSIO-EKONOMIESE OMGEWING

Sosio-ekonomies: Oor die algemeen word die munisipale gebiede wat oor die projekgebied strek, gekenmerk deur hoë vlakke van ongeletterdheid en werkloosheid. 'n Groot meerderheid van die bevolking woon in formele huise/geboue met toegang tot spoeltoilette en elektrisiteit. Toegang tot pypwater in die wonings bly egter 'n probleem.

Grondgebruik: Die gebied word hoofsaaklik vir kommersiële landbou gebruik. Die landboubedrywighede sluit 'n kombinasie van gewasverbouing, diereproduksie, tuinbou, melkboerdery, wildsboerdery, akwakultuur, vrugteverbouing en agro-verwerking in.

## 11. SPESIALISSTUDIES OM DIE OMGEWINGSMAGTIGINGSPROSES TOE TE LIG

Die volgende spesialisevaluering sal as deel van die OIE-proses onderneem word:

- Akwatiese en Terrestriële Biodiversiteitsevaluering;
- Erfenisevaluering;
- Paleontologie-evaluering; en
- Hidrogeologie-evaluering.

## 12. OMGEWINGSMAGTIGING EN OPENBARE DEELNAMEPROSES

### 12.1 OMGEWINGSMAGTIGINGSPROSES

Die OIE-proses bied inligting oor die projek, met betrekking tot prosedurele komponente en die omgewing waarin die projek beoog word. In oorleg met B&GP's, identifiseer en evalueer dit die potensiele negatiewe en positiewe biofisiese, kultuur- en sosio-ekonomiese impakte.

Die omgewingsevalueringsproses doen ook verslag oor bestuursmaatreëls wat benodig word om impakte tot op 'n aanvaarbare vlak te versag en inkorporeer vereistes vir moniteringsprogramme (waar dit vereis word). Die proses se stappe en beraamde tydsraamwerke word hieronder voorsien.



### 12.2 OPENBARE DEELNAMEPROSES

Die doel van die openbare deelnameproses is om B&GP's in kennis te stel van die beoogde projek en om hulle van die tersaaklike inligting te voorsien en om hulle die geleentheid te bied om kwessies of knelpunte met betrekking tot die beoogde projek te opper. Die openbare deelnameproses sal ingevolge die vereistes van Hoofstuk 6 van die OIE-regulasies, 2014, soos gewysig, onderneem word. B&GP's wat by die OIE-proses betrokke is, word hieronder gelys:

#### B&GP's BETROKKE BY DIE OMGEWINGSMAGTIGINGSPROSES

- GRONDEIENAARS, GRONDGEBRUIKERS EN ANDER B&GP's**
- Omliggende grondeienaars, grondgebruikers en gemeenskappe
  - Nie-regeringsorganisasies en verenigings
  - Omliggende myne en nywerhede
  - Semi-staatsinstellings.

#### BEVOEGDE OWERHEID

- Departement van Minerale Hulpbronne en Energie (DMHE)
- Petroleumagentskap van Suid-Afrika (Pasa).

#### OWERHEDE WAT KOMMENTAAR LEWER

- Vrystaatse Departement van Water en Sanitasie
- Vrystaatse Departement van Ekonomiese Ontwikkeling, Toerisme en Omgewingsake
- Vrystaatse Departement van Landbou en Landelike Ontwikkeling
- Suid-Afrikaanse Provinsiale Erfenishulpbrongagentskap (SAHRA).

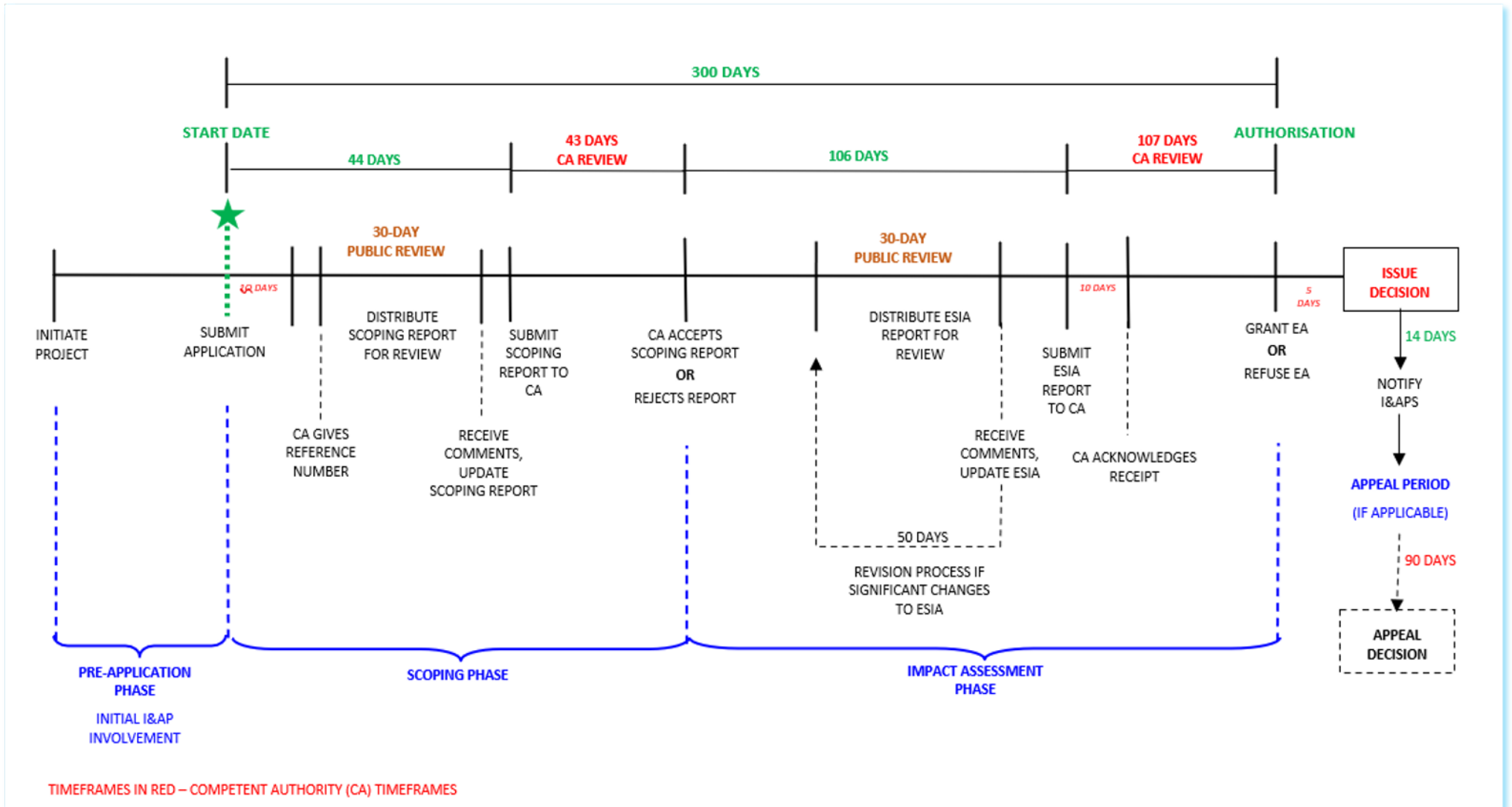
#### PLAASLIKE OWERHEDE

- Moqhaka Plaaslike Munisipaliteit
- Nketoana Plaaslike Munisipaliteit
- Fezile Dabi Distriksmunisipaliteit
- Thabo Mofutsanyane Distriksmunisipaliteit.

Laat ons asseblief weet as daar nog partye is wat betrokke moet wees.

## 13. VEREISTES MET BETREKKING TOT WETLIKE OMGEWINGSRAAMWERK EN -PROSES

Die figuur op die keersy bied 'n oorsig van die Bestekopname- en OIE-proses.



Figuur 4: Bestekopname- en OIE-proses

RHINO OIL AND GAS EXPLORATION SOUTH AFRICA (EDMS.) BPK.  
AGTERGRONDINLIGTINGSDOKUMENT

BEOOGDE BOORWERK VIR PETROLEUMEKSPLORASIE IN TWEE TEIKENGBIEDE IN ER 294, VRYSTAATPROVINSIE  
AUGUSTUS 2022

BESONDERHEDE VAN BELANGSTELLEDE EN GEAFFEKTEERDE PARTY	DATUM	
NAAM		
ORGANISASIE/MAATSKAPPY		
POSADRES		
	POSKODE	
TELEFOONNOMMER		
E-POSADRES		
REGISTREER MY ASSEBLIEF AS 'N BELANGSTELLEDE EN GEAFFEKTEERDE PARTY (B&GP) SODAT EK VERDERE INLIGTING EN KENNISGEWINGS TYDENS DIE OMGEWINGS- MAGTIGINGSPROSES KAN ONTVANG	JA	NEE
HOE WIL U U KENNISGEWINGS ONTVANG?	E-POS	
	POS	
	SMS	

SKRYF U KOMMENTAAR EN VRAE ASSEBLIEF HIER NEER (gebruik gerus aparte bladsye as u wil)

--

SLUIT ASSEBLIEF DIE VOLGENDE VAN MY KOLLEGAS/BURE IN AS B&GP'S VIR HIERDIE PROJEC:

--

Stuur ingevulde vorms asseblief terug aan:  
SLR-kontak: Theo Wicks/Gugu Dhlamini  
E-pos: [RhinoER294@slrconsulting.com](mailto:RhinoER294@slrconsulting.com)  
Tel: 011 467 0945, Faks: 011 467 0975 en/of Pos: Posbus 1596, Cramerview, 2060  
WhatsApp: 066 313 7574

Deur u persoonlike inligting te voorsien om as 'n B&GP vir hierdie projek geregistreer te word, stem u in daartoe dat SLR u inligting ingevolge die Wet op die Beskerming van Persoonlike Inligting, Wet 4 van 2013, beheer. Dit sluit in: om u Persoonlike Inligting as deel van 'n kontakdatabasis vir hierdie en/of ander Ekonomiese en Maatskaplike Impakevalueringe (EMIE's) te behou en te gebruik, u in verband hiermee en/of EMIE-prosesse te kontak, die databasis vir wetlike doeleindes aan ander gemagtigde partye, insluitende die applikant, bekend te maak, dit vir wetlike doeleindes te verwerk, en enige korrespondensie in EMIE-verslae in te sluit. U kan te enige tyd versoek dat u Persoonlike Inligting uit die projek se databasis geskrap word of kommentaar by EMIE-verslae uitgesluit word, deur SLR te kontak.

DANKIE VIR U BYDRAE!!!



# RHINO OIL AND GAS EXPLORATION SOUTH AFRICA (PTY) LTD TOKOMANE E FANANG KA TLHAHISOLESSEDING YA SETSHEHETSO

## PHUPUTSO E SISINTSWENG YA BORA SEDIBA DIBAKENG TSE PEDI TSEO HO TSEPAMISITSWENG HO TSONA HO YA KA ER 294, PROVINSING YA FREISTATA

PHATO 2022

### 1. SELEKELA LE TLHAHISOLESSEDING YA SETSHEHETSO

Ka 2019, Department of Mineral Resources and Energy (DMRE) (la hajwale), ka ho sebedisa Petroleum Agency of South African (PASA), e ile ya neha Rhino Oil and Gas Exploration South Africa (ROGESA) tumello ya Exploration Right (ER) bakeng sa ho fuputsa mehloodi ya petroleamo sebakeng sa Provinse ya Freistata Afrika Borwa (referense ke 12/3/294 (ER 294)). EA e ileng ya tsebiswa ke Environmental Authorisation (EA), e ile ya dumella ROGESA ho qala lenaneo la phuputso le kenyeletsang diphuputso tsa desktop le tsa phuputso ya aerial gradiometry gravity.

ROGESA e ile ya qadisa diphuputso le dipatlisiso mme hajwale e sisinya ho etsa phuputso ya ho bora didiba Dibakeng tse pedi tseo ho Tsepamisitsweng ho tsona tse kentsweng ho ER. Sebaka sa 1 seo ho Tsepamisitsweng hosona se ka borwa ba Petrus Steyn mme Sebaka sa 2 seo ho Tsepamisitsweng ho sona se R34 pakeng tsa Kroonstad le Edenville (sheba Setshwantsho sa 1). Dibaka tseo ka ho qollehileng di sisintsweng bakeng sa sediba ke ROGESA ke ho ya ka tlhophollo ya datha ya sebaka mme sena se tla netefatswa ho ya ka seabo sa mong a mobu le diphuputso tsa tikoloho (se boletsweng polelwaneng ya bobedi e tla ba karolo ya EIA ena).

### 2. TSHEBETSO YA TUMELLO YA TIKOLOHO (ENVIRONMENTAL AUTHORISATION)

Pele ROGESA e ka qala ka phuputso ya ho bora, ho hloka hore e fumane tlhahisoleseding e ntjhafaditsweng ya ER 294 le e tjhaetsweng monwana bakeng Environmental Management Programme (EMPr) ho tswa ho lefapha la DMRE ho ya ka Karolo ya 102 ya Minerals and Petroleum Resources Development Act, 2002 (MPRDA).

Ho phaella mona, EA e tswang lefapheng la DMRE ho ya ka National Environmental Management Act (Nom. ya 107 wa 1998) (NEMA), bakeng sa mesebetsi e ho Listing Notice 1 (GNR 983 ya 2014, jwalo ka ha e ntjhafaditswe) le Listing Notice 2 (GNR 985 of 2014, jwalo ka ha e ntjhafaditswe) le tsona di a hloka hore. Environmental Impact Assessment (EIA) Regulations (GNR 982 tsa 2014, jwalo ka ha di ntjhafaditswe) di hloka hore tshebetso ya phuputso le ya EIA di etswe ho theha karolo ya qeto ya EA ho lefapheng la DMRE. Ho nka karolo ha setjhaba ke karolo ya bohlokwa ya tshebetso ya tekolo ya tikoloho.

#### SEPHEO SA TOKOMANE ENA

Tokomane ena e hlophisitswe ka sepheo sa ho tsebisa mabapi le:

- Projeke e sisintsweng ya ho bora sediba;
- Mekgwa e meng e fapaneng ya projeke e nahanetsweng;
- Motheo wa tikoloho mabapi le bophelo le sebaka, setso, setjhaba le moruo mabapi le projeke e sisintsweng sebakeng sena;
- Ho latela ditshebetso tsa tekolo ya tikoloho;
- Dikgahlamelo tse ka bang teng bophelong le sebakeng, setsong, le setjhabeng le moruong le ho utlwa maikutlo a kgethehileng a amehang; le
- Kamoo ho ka sebediswang tshebetso ya tekolo yta tikoloho.

#### BAELETSI KE BOMANG?

SLR Consulting South Africa (Pty) Ltd (SLR), baeletsi ba ikemetseng ditabeng tsa tikoloho, ba thontswa ke ROGESA bakeng sa ho tsamaisa tshebetso ya kopo ya tumello ya tokelo ya tikoloho.

#### SEABO SA HAO

O hlwauwe jwalo ka motho ya nang le thahasello le sehlopha se angwang ke projeke ena (I&AP) ya ka lakatsang ho tsebiswa mabapi le projeke e sisintsweng le ho fana ka maikutlo a hao mabapi le tshebetso ya tumello ya tikoloho.

O na le monyetla wa ho hlahloba tokomane ena le ho hlahisa maikutlo a hao a pele ho SLR e le hore a ka kenyeletswa tshebetso ya tekolo ya tikoloho. O tla boela o fuwe monyetla wa ho hlahloba le ho fana ka maikutlo a hao ho Scoping Report le EIA le EMPr.

Maikutlo kaofela a tla ngolwa fatshe le ho kenyeletswa ditlalehong tse romelwang bakeng sa ho etsa qeto.

#### DINTLHA TSA KOPANO

##### STEYNSRUS

Letsatsi: Laboraro, la 7 Lwetse 2022  
Sebaka: Steynsrus Boerevereniging Hall,  
Van Riebeeck Street, Steynsrus  
Nako: 15h00

##### EDENVILLE

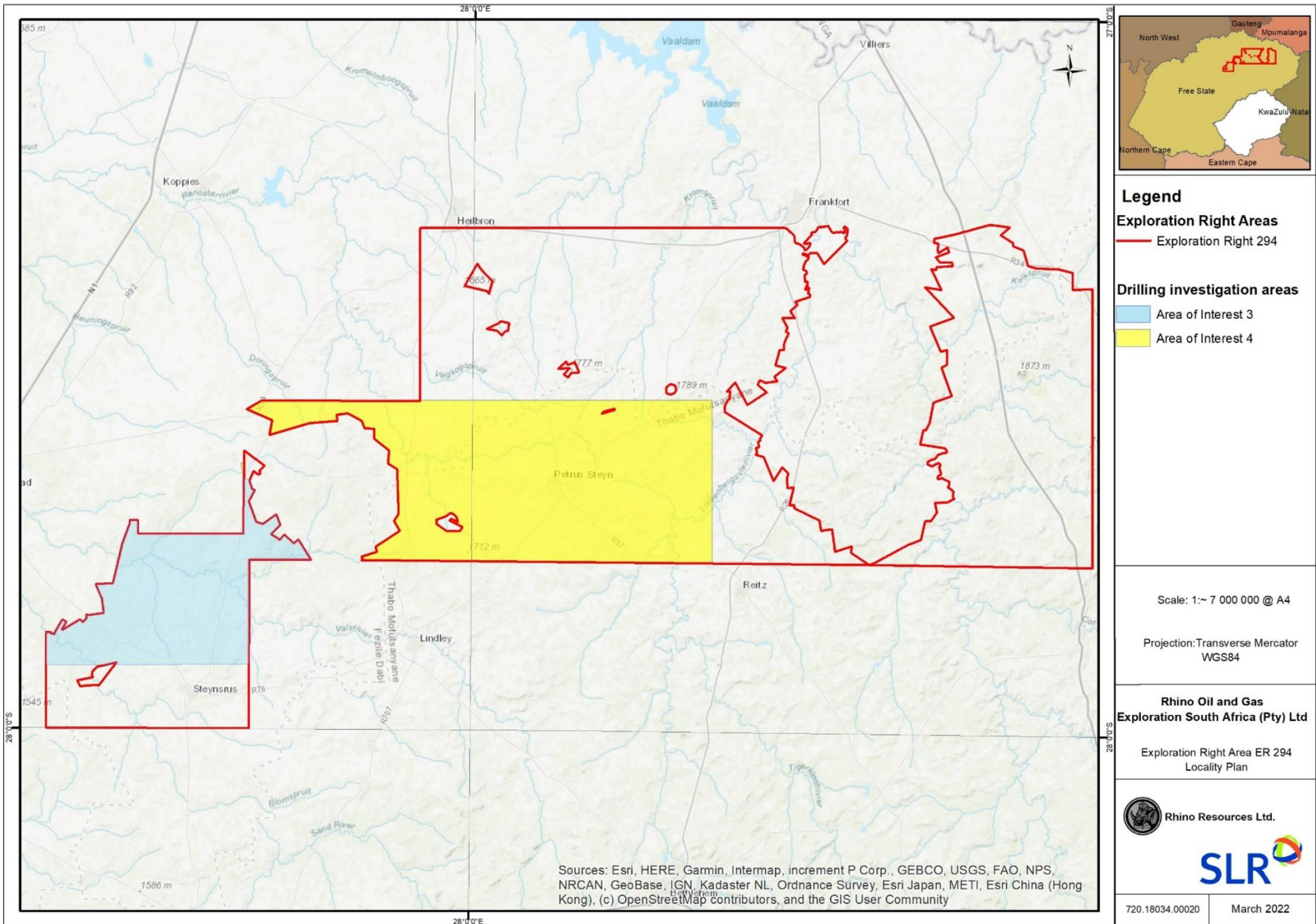
Letsatsi: Labone, la 8 Lwetse 2022  
Sebaka: Edenville Boerevereniging Hall,  
Mark Street, Edenville  
Nako: 09h00

#### KAMOO O KA ARABELANG KATENG

Dikarabelo tokomaneng ena di ka romelwa ka leqephe la ho fana ka maikutlo le/kapa ka ho buisana le batho ya thathamisitsweng mona ka tlase.

#### KE BOMANG BAO O KA IKOPANYANG LE BONA

SLR contact: Theo Wicks/ Gugu Dhlamini  
Mohala: 011 467 0945  
Whatsapp: 066 313 7574  
Imeile: [RhinoER294@slrconsulting.com](mailto:RhinoER294@slrconsulting.com)



Setshwantsho sa 1: Mmapa wa Sebaka ( Bontsha moedi wa ER le Dibaka tseo ho Tsepamisitsweng ho Tsona)

### 3. KAKARETSO YA PROJEKE E SISINTSWENG

#### 3.1 KOPO

Kopo bakeng sa EA e tla romelwa ka ho sebedisa PASA ka Lwetse 2022. Ho amohelwa ha kopo ke PASA ke feela bakeng sa hore mokopi wa tumello a tswela pele ka kopo ya tshebetso ya diphuputso le EIA mme ha se tumello. Tshebetso ya diphuputso le EIA e laolwa ke nako jwalo ka ha ho hlalositse ho 2014 EIA Regulations (jwalo ka ha di ntjhafaditswe).

#### 3.2 KAKARETSO YA PROJEKE LE TSHEBETSO

ROGESA e sisinya ho bora didiba tse sa feteng tse 40 tsa diphuputso sebakeng sa projeke. Lenaneo la mesebetsi le kenyeletsa mekgahlelo e latelang (e akareditswe mona ka tlase):

- Ho hlwaya sediba le tumello
- Mokgahlelo wa Tshebetso;
- Mokgahlelo wa ho Bora;
- Mokgahlelo wa Tshebediso ya Sediba;
- Mokgahlelo wa Teko;
- Mokgahlelo wa ho tlohela sebedisa; le
- Mokgahlelo wa ho Kgaotsa Tshebetso.

##### Ho hlwaya sediba le tumello

Ho hlwaya le ho bona dibaka tseo ho tsepamisitsweng ho tsona bakeng sa sediba ho tla etswa ka motswako ona:

- Dibaka tseo ho lebeletsweng ho fumana petroleamo ho tsona ho ipapisitswe le tlhophollo ya datha;
- Dibaka tse salang kamora tlhahlobelo ya tikoloho le setjhaba. Ditikoloho tseo ho tshwenyehilweng haholo ka tsona hore di ka senyeha (dibaka tse nang le mohlaka le tse mongobo, dibaka tse nang le metsi, dibaka tse nang le bophelo bo fapaneng, dibaka tsa setso haholo) di hla hlahlobelwa;
- Tekolo ya sebaka e etswang ke ditsebi tse hlwahlwa tsa ekholoji le lefa la naha; le
- Netefatso ya tumello ya phihlelo ke beng ba mobu.

##### Mokgahlelo wa Tshebetso

Motjhini o borang, le thepa e nngwe ya motjhini (dikompresara, jenereitha, blow-out protector, pompo ya metsi le cart, sump ya ho bora, dithutswana tsa ho bora, di-waste skip) di tla ba sebakeng se sireletsehileng sa kampo ya setsha. Moifo o tla amohelwa sebakeng se ka thoko ho projeke (ke hore, sebakeng seo e seng kampo ya sebaka seo ho borwang ho sona).

##### Mokgahlelo wa ho Bora

Nakong ya mokgahlelo wa ho bora, ho sebedisa di-bit tsa boholo bo fapaneng ho bora mekoti ya telescope, ho tswa kahodimo ho mobu ho tjheka tlase boteng ba sediba se rerilweng. Mekoti wa pele, o ka ntle, o moholo haholo mme o bitswa tophole, mme mekoti e latelang e kahare e ba menyenyane haholo ha mekoti e ntse e borwa ho teba. Sena se tswela pele ho fihlela mokoting wa ho qetela, o monyenyanane ka holo, ho fihlela ho mohato o tlase wa sediba. Nakong ya tshebetso ya ho bora, mekedikedi ya ho bora e kang ho pompela ka khompresara ya moya kapa ho

bora seretseng kahare ho peipi ya ho bora le ho tswa ka biti ho eketsa haholo ditshebetso tsa ho bora.

Hang ha sebaka ka seng sa mokoti se borilwe, (di-steel tubular) ho fihla sedibeng mme se tla kwahelwa ka samente ho se sireletsa/ho kwala bokahare ba mokoti se sa tswa borwa le ho dumella hore ho borwe sebaka sa mokoti o latelang (se senyenyanane). Tshebetso ya ho kenya samente e kenyeletsa ho pompela samente ho fihla tlase mokoting o borilweng. Samente se phallela tlase, kgohlopong e borilweng le ho tshetsa sebaka se sedikadikwe se borilweng le mokoti o bulehileng.

Ho bora mokoti le ho kenya samente ke mokwallo o lekilweng o thusang hore ho borwe karolo e latelang, ho dumella ho fihlela botebo boo ho tsepamisitsweng ho bona ka mokgwa o bolokehileng.



Setshwantsho sa 2: Sebaka se tlwaelehileng sa mokoti o borilweng

##### Mokgahlelo wa Tshebediso ya Sediba

Tshebediso ya sediba e kenyeletsa:

- Ho bora bakeng sa sediba - Ka seng sa didiba tse borwang se tla ngolwa fatshe ditlalehong tsa litholoji le ho netefatsa boleng ba samente e tshetsang sebaka se borilweng sa sediba; mme
- Ho phetha sediba - mokoti o borilweng o tla kengwa metsi a indasteri, a hlokaahlang bakeng sa ho boloka tekatekano ya kगतello le, ka nako e tshwanang, ho qetella ho tloswa ha seretse/dintho tse thata sedibeng.

Ha e le mabapi le didiba tseo ho sa kang ha fumanwa katleho ho tsona, hang ha sebaka sa sediba se borilwe ka ho feletseng se tla kwahelwa le ho tlohelwa.

##### Mokgahlelo wa Teko

Dipheo tsa ho etsa diteko sedibeng ke bakeng sa:

1. Ho fuputsa mabaka a setekniki a sediba (ka mohlala, boholo ba sona, bokgoni ba ho bora le dibopeho tsa mokedikedi) le boleng ba tshebediso ya nako e tlang bakeng sa ho bora; le
2. Ho fumana datha e emelang e kenyeletsang kगतello ya sediba, sekgahla sa tlhahiso le (di)sampole.



Nakong ya ho etsa diteko, dihaedrokhobone tse fumanwang di tjheswa leifo ho etsa bonnete ba hore mekedikedi/dikgase di tjheswa ka ho feletseng (ho kenyeletswa le dihaedrokhobone) kamoo ho kgonahalang. Ho etsa bonnete ba hore ho tjhesa ho etswa ka mokgwa o bolokehileng setsheng sa ho bora, ho tla etswa sebopi ho thibela mollo ho ya hole.

Dinako tsa phallo le sekgahla di tla lekanyetswa ho ba nyenyane kamoo ho hlokaahalang ho fumana tlhahisoleseding e hlokaahalang ya sediba nakong ya diteko tsa sediba. Ho lebeletswa hore boholo ba nako ya teko ya sediba bakeng sa projeke ena e tla ba hoo e ka bang matsatsi a 30.

#### Mokgahlelo wa ho Tlohela Sediba

Phuputso ya ho tlohela sediba ke bakeng sa ho sireletsa tikoloho ka ho kwala dibaka tsena ka mokgwa o sebetsang (ke hore, ho kenella ha dihaedrokhobone kapa metsi ho ka etsahalang Sedibeng), ho etsa bonnete ba hore ho bopeha ha mekedikedi ho a arolwa, bobedi kahare ho sediba se borilweng le dibakeng se sedikadikwe, le ho tloha ha tsona dibopehong tse fapaneng le/kapa ho fihla bokahodimong ba mobu ho a thibelwa. Bakeng sa didiba tse sa atlehang, ho tla etswa mosebetsi wa ho etsa sekawahelo sa samente.

Oetellong ya tshebetso ya ho kwala le ho tlohela sediba, sebaka sa schematic le sa hlooho ya sediba (ho kenyeletsa boholo ba sebaka se borilweng, ditekanyo tsa sekawahelo sa samente le moetso, kgateello le dipetho tsa phallo, j.l.) di tla kenyeletswa tlalehong ya ho qetela e romelwang ho PASA.

#### Mokgahlelo wa ho Kqaotsa

Oetellong ya ho tshebetso ya ho bora, dikoloi tsa tshehetso le metjhini e tla tloswa sebakeng sa sediba mme setsha se tla hlabollwa hore se be boemong bo amohehelang ho mong mobu.

#### 4. MEKGWA E MENG HO FAPANA LE PROJEKE

Sebaka: Dibaka tseo ho Tsepamisitsweng ho tsona di ile tsa hlwauwa jwalo ka tse nang le monyetla o moholo haholo wa mohlodi wa petroleamo, hoy a ka stratum sa sebaka se loketseng. Dibaka tse nang le ekholoji le batho ha di a kenyeletswa morerong o na. Ditsha tsa ho qetela di tla kgethwa hoy a ka mosebetsi wa ditsebi tsa ekholoji le tsa dibaka tseo e leng lefa la setjhaba, hammoho le tumellano le mong a mobu.

Teknoloji/tshebetso ya ho bora: Ho ipapisitswe le kutlwisiso ya hajwale ya boemo ba mobu, ROGESA e kgethile ho sebedisa boro e laetsweng terakeng le bokgoni ba ho bora ka moya le ho bora seretseng.

#### 5. TLHOKO LE HO LAKATSEHA

Dihlahiswa tsa petroleamo di dula e le mohlodi wa bohlokwa wa enoji. Kgase ya tlhaho eo boholo ba yona e leng methane le mofuta o hlwekileng wa enoji. E ka sebediswa ho fehla motlakase kapa ho fana ka motjhoso bakeng sa merero ya lehae le ya indasteri. Petroleamo e boitse ke sehlahiswa sa bohlokwa ditshebetsong tse ngata tsa tlhahiso ya thepa. Hang ha kgase e hutswe ka mokgwa o bonolo e ka bolokwa, ya tsamaiswa le ho sebedisa ka ditsela tse ngata. Mofuta o sebediswang wa kgase e hulwang o tla itshetleha ka ho feletseng ka tekanyo ya kgwebo ya mohlodi ona.

Sepheo sa phuputso e sisintsweng ya ho bora sediba ke ho fumana haeba dibopeho tsa sebaka le mobu ("prospects") di na le oli kapa kgase e ka hulwang ka ditekanyo tse ka sebediswang kgwebong.

#### 6. NAKO

Ho bora sediba le lenaneo la ho etsa diteko le reretswe le ho hlophiswa ho tswela pele ka dikgwedi tse ngatanyana. Lenaneo la arotswe ka mekgahlelo ya ho bora sediba le ho etsa diteko tsa sediba mme haeba mokgahlelo o mong o etswa ka katleho sena se tla theha mokgwa wa ho fetela mokgahlelong o latelang. Ho bora setsheng ka seng ho tla nka kgwedi e le 1 ho isa dikgweding tse 3 ho phetha mosebetsi. Nako e kgutshwanyane e hlophiseditse ho etsa diteko tsa sediba (matsatsi a ka bang 30).

#### 7. HO Fihlella Mobu

Ditsha tseo ho sisintsweng ho bora ho tsona di sebakeng sa praevete mme di tla fihlellwa, ho thehwa, le ho tsamaiswa le ho hlabollwa ho latelang tumello e fumanwang pele ya mong wa mobu le ho ya ka tumellano e ngotsweng fatshe.

#### 8. TSAMAISO YA TIKOLOHO

Tshebetso ya ho tsamaisa dikgahlamelo le tlhabollo ya ditsha tseo ho borwang ho tsona e tla etswa ho ya ka EMPr e etsweng bakeng sa projeke le ho fuwa tumello ke DMRE.

#### 9. PHUPUTSO YA NAKO E TLANG KAPA TLHAHISO

wa ho bora sediba jwalo ka ha ho hlalositswe mona ka hodimo (mme o tla hlalosa ka ho batsi ho Scoping le EIA Report). Phuputso efe kapa efe e eketsehileng kapa tlhahiso ya nako e tlang e tla hloka tumello e tswang lefapheng la DMRE. Ditumello tse jwalo di tla itshetleha ka ditlhokahalo tse tshwanelehang tsa molao tse kenyeletsang dipuisano tse eketsehileng le setjhaba le ditokolo tsa tikoloho.



Setshwantsho sa 2: Mohlala wa ditshebetso tsa ho bora

## 10. KAKARETSO YA TIKOLOHO YA MOTHEO

### 10.1 TIKOLOHO YA BOPHELO LE YA SEBAKA

Sebaka: Se wela sebakeng sa Karoo Basin.

Tlaemete: Sebaka sena se na le dipula tsa lehlabula, se futhumetse dinakong tsa lehlabula mme se a bata dinakong tsa mariha.

Mefuta ya mobu le bokgoni ba yona: Boholo ba sebaka sa projeke ke se se nang mehaho mme se na le mefuta e fapaneng ya mobu e nang le mealo e tshwanang ya mobu wa letsopa. Boholo ba sebaka sena ke nahathote mme ho na le monyetla o moholo wa kgoholeho ya mobu.

Sekwahelo sa mobu: Sebaka sa projeke se na le jwang, mme sebaka se seholo se na le masimo a lenngweng.

Haedroloji: Dibaka tse ngata tse nang mohlaka le tse mongobo, matamo le matangwana a mapolasi, a sebediswang bakeng sa diphoofolo tsa mapolasing le bakeng sa merero ya lehae, tsena di fumanwa sebakeng sa projeke. Letamo la Lekwa le feta Sebakeng sa 1 seo ho Tsepamisitsweng ho sona sa sebaka sa projeke.

Metsi a ka tlase ho mobu: Tshebediso le ho hulwa ha metsi a ka tlase ho mobu sebakeng sena a fapana ho tloha ho hulweng ha metsi a ka tlase ho mobu ka dinako tsa selemo ho tswa didibeng tse sa tebang ho isa mekoting e borilweng bakeng sa tshebediso ya lehae/ya masepala le ya temo.

Dimela: Sebaka sa projeke se sebakeng sa Grassland Biome, boholo ba sebaka sena bio Bohareng ba Freistata, Botjhabela ba Free State Clay le Frankfort Highveld Grassland bioregione.

Diphoofolo le mefuta ya dintho tse phelang: Diphoofolo tsa mefuta e mengata le dintho tse phelang di amahangwa le dibaka tse fapaneng tsa dimela tsa tlhaho tse fumanwang sebakeng sa projeke. Mefuta e meng eo ho tshwenyehilweng ka yona e kenyetsa *Amblysomus septentrionalis*, *Spizocorys fringillaris* and the *Homoroselaps dorsalis*, hara e meng.

Boleng ba Moya: Boleng ba moya sebakeng sa projeke ka kakaretso bo botle, mme ho na le dibaka tse ding tse nang le kgahlamelo ya mosi o tswang di-indastering tsa diteishene tse fehang matla a motlakase, di-indasteri tsa dikhemikhale le tsa tlhahiso ya thepa, mesebetsi ya merafo, mesebetsi ya temo, tshebediso ya mebila, ho tjheswa ha hlaha, tshebediso ya mafura, ho mosi wa dikoloi.

### 10.2 TIKOLOHO YA SETSO

Mehlo di ya Botjhaba/Setso: Ho lebeleletse hore sebaka sa projeke se tla ba le thepa ya dinako tse bitswang tsa Iron Age, mehaho ya mapolasing hammoho le mabitla, mabitso a sa tshwauwang mme ka tekanyo e nyenyane dintho tsa botjhaba tse entsweng ke batho dinakong tse bitswang Stone Age di tla fumanwa hohle sebakeng sena kapa ditsheng tse bulehileng.

Mehlo di ya palaeontoloji: Sebaka sa projeke haholoholo se na le mealo ka tlase ho mobu ya dibopeho tsa Normandien tse phahamisa maikutlo haholo tsa di-fossil tsa Beaufort Group, Karoo super group. Dibopeho tsena di kwahetswe haholo ke igneous dolerite sebakeng sena. Di-fossil tse tlwaelehleng haholo dibopehong tsena ke tsa ditlhapi, di-amphibian, dihahabi, di-therapsids le di-vertebrate burrow, di-fossil tsa sefate sa Glassopteris le tsa dikokwana tse nang le mapheo.

### 10.3 TIKOLOHO YA SETJHABA LE YA MORUO

Ya setjhaba le moruo: Ka kakaretso, dibaka tsa masepala ho haola le sebaka sa projeke di na le batho ba bangata ba sa kgoneng ho bala le ho ngola le ba sa sebetseng. Boholo ba batho ba dula matlong a tlwaelehleng/mehahong e nang le metsi a hlwekileng le motlakase. Phihlelo ya metsi a pompo kahare ho meharo e sa le bothata.

Tshebediso ya mobu: Boholo ba sebaka sena bo sebediswa bakeng sa kgwebo ya temo. Mesebetsi ya temo e kenyetsa tlhahiso ya dijo, tlhahiso ya diphoofolo, tlhokomelo ya ditshingwana, mapolasi a lebese, tlhahiso ya nama ya diphoofolo tse hlaha, tlhahiso ya diphoofolo tse phelang metsing, tlhahiso ya ditholwana le ho eketsa boleng ba dintho tse hlahiswang temong.

## 11. DIPHUPUTSO TSE KGETHEHILENG TSE FANANG KA TLHAHISOLESEDING MABAPI LE TSHEBETSO YA TUMELLO YA TIKOLOHO

Ditekolo tse latelang tse kgethehileng di tla etswa jwalo ka karolo ya tshebetso ya EIA:

- Ditekolo tsa Mefuta e Fapaneng ya Dintho tse Phelang Metsing le Mobung;
- Tekolo ya thepa eo e leng lefa la setjhaba;
- Tekolo ya palaeontoloji; le
- Tekolo ya haedrojeoloji.

## 12. TSHEBETSO YA TUMELLO YA TIKOLOHO LE HO NKA KAROLO HA SETJHABA

### 12.1 TSHEBETSO YA TUMELLO YA TIKOLOHO (ENVIRONMENTAL AUTHORISATION)

Tshebetso ya EIA e fana ka tlhahisoleseding mabapi le projeke, mabapi le dikarolo tsa yona tsa tshebetso le tikoloho ya projeke e sisintsweng. E hlwaya le ho lekola, ka dipuisano le batho ba nang le thahasello le ba anngwang ke projeke (I&APs), mabapi le dikgahlamelo tse mpe le tse ntle tsa bophelo le sebaka, setso kapa setjhaba le moruos.

Tshebetso ya tekolo ya tikoloho e boela e fana ka tlaleho mabapi le mehato ya botsamaisi e hlokaalang ho sebetsana le dikgahlamelo e le hore be be boemong bo amohelang le ho kenyeletsa ditlhokahalo bakeng sa mananeo a behang leihlo (moo ho hlokaalang). Mehato ya tshebetso le lenaneo la nako le lebeletsweng di fanwe mona ka tlase.

#### MOKGAHLELO WA I -Mokgahlelo wa pele ho kopo [Phupu – Lwete 2022]

- Kopano pele ho kopo e tla etswa le ba boholong ba tshwaneleheng (DMRE/PRASA).
- Ho hlwaya batho ba nang le thahasello le ba anngwang ke projeke (I&APs) le ntshetsopele ya dathabeisi ya projeke.
- Ho tsebisa batho ba nang le thahasello le ba anngwang ke projeke (I&APs) mabapi le projeke (ka dipapatso tsa dikoranta, ditsebiso setsheng, SMS/WhatsApp, le ka tokomane ena).
- Ho kenyeletsa batho ba nang le thahasello le ba anngwang ke projeke ka dikopano le dipuisano.

#### MOKGAHLELO WA II: Mokgahlelo wa phuputso (scoping) [Mphalane – Tshitwe 2022]

- Ho hlophisa Scoping Report le kakaretso.
- Ho romela kopo ya EA ho DMRE.
- Ho abela batho ba nang le thahasello le ba anngwang ke projeke (I&APs) Scoping Report bakeng sa ho e hlahloba (nako ya tlhahlobo ya matsatsi a 30).
- Ho romela Scoping Report (ho kenyeletswa le maikutlo a I&AP) ho DMRE bakeng sa tlhahlobo le ho fana ka maikutlo (nako ya tlhahlobo ya matsatsi a 43).

#### MOKGAHLELO WA III: Mokgahlelo wa EIA le EMPr [Tshitwe – Mmesa 2023]

- Ho etsa diphuputso tse kgethehileng.
- Ho hlophisa EIA le EMPr le kakaretso.
- Ho abela batho ba nang le thahasello le ba anngwang ke projeke (I&AP) le ba boholo ba laolang EIA le EMPr bakeng sa ho di hlahloba (nako ya tlhahlobo ya matsatsi a 30).
- Ho romela EIA le EMPr (ho kenyeletswa le maikutlo a batho ba nang le thahasello le ba anngwang ke projeke (I&AP) ho DMRE bakeng sa ho etsa qeto (nako ya ho etsa qeto ya matsatsi a 107).
- Ho isa qeto ya DMRE ho batho ba nang le thahasello le ba anngwang ke projeke (I&AP) hang ha e fumanwa.
- Tshebetso ya boipiletso (haeba e hlokaala) ho ya ka Melao ya Boipiletso

### 12.2 TSHEBETSO YA HO NKA KAROLO HA SETJHABA

Sepheo sa tshebetso ya ho nka karolo ha setjha ke ho tsebisa batho ba nang le thahasello le ba anngwang ke projeke (I&AP) ka projeke e sisintsweng le ho fa neha tlhahisoleseding e tshwanetseng le ho ba neha monyetla wa ho botsa dipotso mabapi le mathata kapa dingongoreho mabapi le projeke e sisintsweng. Tshebetso ya ho nka karolo ha setjhaba e tla etswa ho ipapisitswe le ditlhokahalo tsa Kgaolo ya 6 ya EIA Regulations 2014, jwalo ka ha e ntjhafaditswe. Batho ba nang le thahasello le ba anngwang ke projeke (I&AP) ba amehang tshebetso ya EIA ba thathamisitswe mona ka tlase:

#### I BATHO BA NANG LE THAHASELLO LE BA ANGWANG KE PROJEKE (I&APs) BA AMEHANG TSHEBETSONG YA TUMELLO YA TIKOLOHO

##### BENG BA MOBU, BASEBEDISI BA MOBU LE BATHO BA BANG BA NANG LE THAHASELLO LE BA ANGWANG KE PROJEKE (I&APs)

- Beng ba mobu ba leng dibakeng tse potolohileng, basebedisi ba mobu le baahi ba metse.
- Mekgatlo eo e seng ya mmuso le makgotla.
- Merafo e potolohileng dibakeng tsena le di-indasteri.
- Di-parastatale.

##### BA BOHOLONG BA TSHWANELEHANG

- Department of Mineral Resources and Energy (DMRE)
- Petroleum Agency South Africa (PASA)

##### BA BOHOLONG BA FANANG KA MAIKUTLO

- Free State Department of Water and Sanitation
- Free State Department of Economic Development, Tourism and Environmental Affairs
- Free State Department of Agriculture and Rural Development
- Provincial South Africa Heritage Resource Agency (SAHRA)

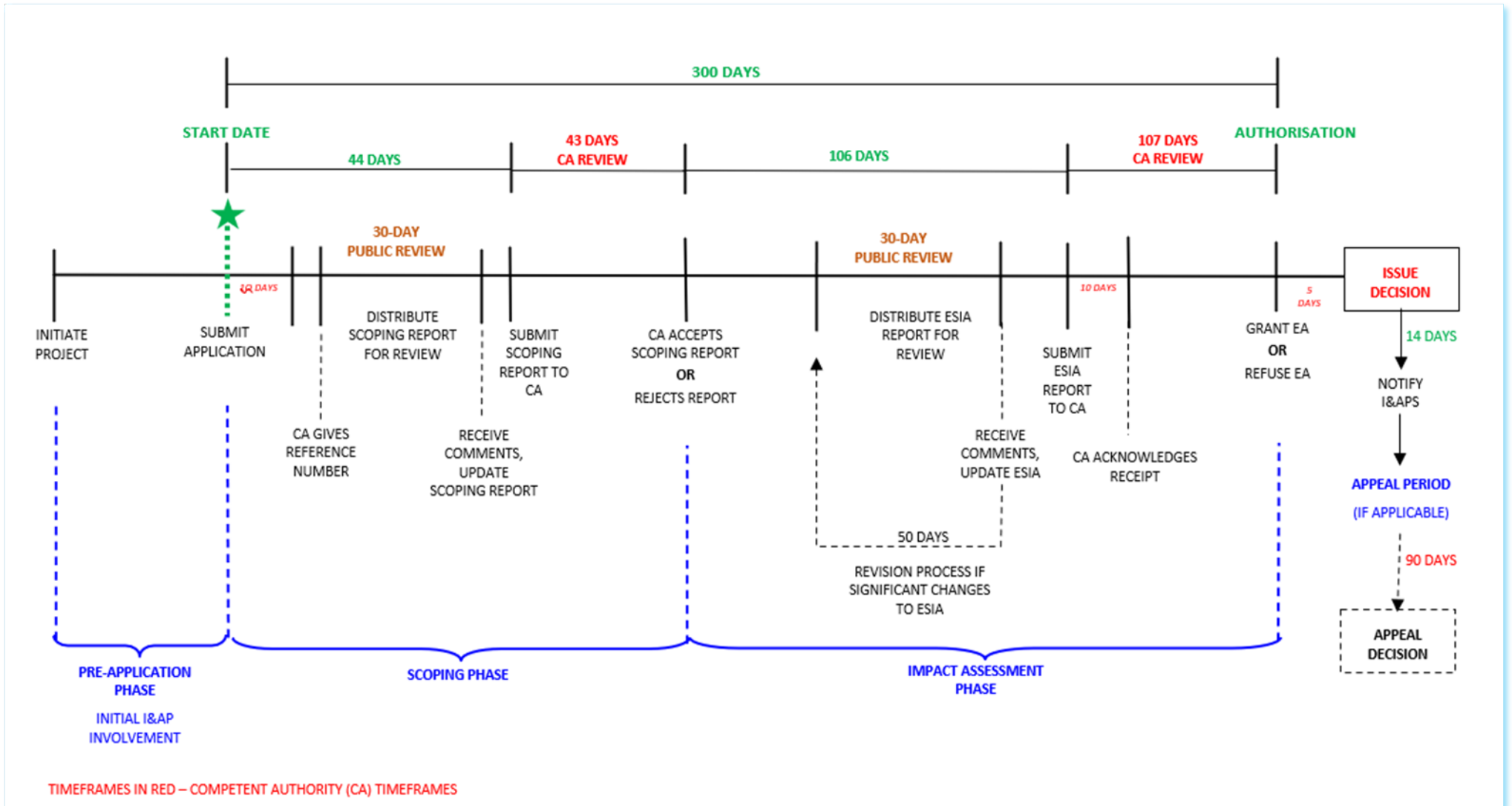
##### BA BOHOLONG BA LEHAE

- Moqhaka Local Municipality
- Nketoana Local Municipality
- Fezile Dabi District Municipality
- Thabo Mofutsanyane District Municipality

Ka kopo re tsebise haeba ho na le batho bafe kapa bafe ba eketsehileng ba tlamehang ho kenyeletswa.

## 13. MORALO WA MOLAO WA TIKOLO LE DITLHOKAHALO TSA TSHEBETSO YA TIKOLOHO

Setshwantsho se ka tlase mona se fana ka kakaretso ya Tshebetso ya Scoping le EIA



Setshwantsho sa 3: Tshebetso ya Scoping le EIA

RHINO OIL AND GAS EXPLORATION SOUTH AFRICA (PTY) LTD  
TOKOMANE YA TLHAHISOLESERING YA SETSHEHETSO

PHUPUTSO E SISINTSWENG YA HO BORA BAKENG SA PETROLEAMO DIBAKENG TSE PEDI TSEO HO  
TSEPAMISITSWENG HO TSONA HO YA KA ER 294, PROVINSING YA FREISTATA

PHATO 2022

DINTLHA TSA BATHO BA NANG LE THAHASELLO BA ANGWANG KE SENJA	LETSATSI	
LEBITSO		
MOKGATLO/KHAMPHANI		
ATERESE YA POSO		
	KHOUTU YA POSO	
NOMORO YA MOHALA		
ATERESE YA IMEILE		
KE KOPA HORE LE NNGODISE JWALO KA MOTHO YA NANG LE THAHASELLO LE MOTHO YA ANGWANG KE PROJEKE ENA (I&AP) E LE HORE NKA FUMANA TLHAHISOLESERING E EKETSEHILENG LE DITSEBISO NAKONG YA TSHEBETSO YA TUMELLO YA TIKOLOHO	E	TJHE
O KA LAKATSA HO FUMANA DITSEBISO TSA HAO JWANG?	IMEILE	
	POSO	
	SMS	

KA KOPO NGOLA MAIKUTLO A HAO LE DIPOTSO MONA (ka kopo sebedisa mapephe a ka thoko haeba o lakatsa ho etsa  
jwalo)

KA KOPO KENYELETSA BASEBETSI-MMOHO BA LATELANG/METSWALLE/BAAHISANI JWALO KA BATHO BA NANG LE  
THAHASELLO LE BA ANGWANG KE PROJEKE ENA:

Ka kopo kgutlisetsa diforomo tsena ho:

Motho w boikopanyo wa SLR: Theo Wicks/ Gugu Dhlamini

Imeile: [RhinoER294@slrconsulting.com](mailto:RhinoER294@slrconsulting.com)

Mohala: 011 467 0945, Fekse: 011 467 0975 le/kapa Poso: PO Box 1596, Cramerview, 2060

WhatsApp: 066 313 7574

Ka ho fana ka tlhahisolesering ya hao ya botho hore o ngodiswe jwalo ka motho ya nang le thahasello le ya angwang (I&AP) ke projeke ena o dumela hore  
SLR e sebetse ka tlhahisolesering ya hao ho ya ka Molao wa Tshireletso ya Tlhahisolesering ya Botho (Protection of Personal Information) Molao wa 4 wa  
2013. Sena se kenyeletsa; ho boloka le ho sebedisa Tlhahisolesering ya hao ya Botho jwalo ka karolo ya dintlha tsa boikopanyo ho dathabeisi bakeng sa sena  
le/kapa ditshebetso tse ding tsa ESIA, ho senolela ba bang ba baholo ba dumeletsweng dathabeisi ho kenyeletswa le mokopi bakeng sa merero ya molao, le  
ho kenyeletsa mangolo afe kapa afe Ditlalehong tsa ESIA. O ka kopa hore Tlhahisolesering ya hao ya Botho e hlakolwe ho dathabeisi ya Projeke kapa hore  
maikutlo ao o a hlahisitsweng a se kenyeletswa Ditlalehong tsa ESIA Reports ka nako efe kapa efe ka hore o ikopanye le SLR.

RE LEOHA SEABO SA HAO!!!

APPENDIX 3.6:  
ADVERTISEMENTS







## NOTICE OF APPLICATION FOR ENVIRONMENTAL AUTHORISATION

### PROPOSED EXPLORATION WELL DRILLING WITHIN TWO TARGET AREAS IN ER 294, FREE STATE PROVINCE

Notice is hereby given of Rhino Oil and Gas Exploration South Africa's (ROGESA) intention to make an application for:

- An amendment to the existing Exploration Right (ER) and Environmental Management Programme (EMPr) in terms of Section 102 of the Minerals and Petroleum Resources Development Act, (No 28 of 2002) (MPRDA);
- An Environmental Authorisation (EA) in terms of Chapter 5 of the National Environmental Management Act, 1998 (No. 107 of 1998) (NEMA).

ROGESA hold an ER and EA to explore for petroleum resources in the Free State Province of South Africa (reference 12/3/294 (ER 294)). The granted EA and ER permitted ROGESA to undertake an exploration work programme involving desktop studies and an aerial gradiometry gravity survey.

ROGESA undertook the studies and survey, and now proposes to advance exploration by drilling up to 40 exploration wells in two Target Areas within the ER. The first Target Area is located south of Petrus Steyn and the second Target Area lies south of the R34 between Kroonstad and Edenville. The specific well locations within the Target Areas are still to be confirmed based on landowner engagement and environmental investigations (to be completed during this application process). No hydraulic fracturing or fracking is proposed.

Notice is hereby given of the following application:

Legislation	Authorisation required and process to be followed	Competent Authority
National Environmental Management Act (No. 107 of 1998).	Environmental Authorisation for Activity 21D in Environmental Impact Assessment (EIA) Regulation Listing Notice 1 of 2014 (GNR 983) and Activity 18 in EIA Regulation Listing Notice 2 of 2014 (GNR 984).	Department of Mineral Resources and Energy (DMRE), through the Petroleum Agency of South African (PASA)

SLR Consulting (South Africa) (Pty) Ltd has been appointed as the independent environmental assessment practitioner responsible for undertaking the required environmental assessment and conducting the public participation process. The application will be subject to a Scoping and EIA process as stipulated in the EIA Regulations (GNR 982). Further project details can be found on the SLR Website and will be provided in the Scoping and EIA reports.

The following public information meetings have been arranged where information on the proposed project will be presented for discussion and raising of any initial issues and concerns. All stakeholders are invited to attend any of the following meetings as may be convenient. Please RSVP to SLR using the details included below.:

Date	Venue	Time
Wednesday 7 September 2022	Steynsrus Boerevereniging Hall Van Riebeeck Street, Steynsrus	15h00
Thursday 8 September 2022	Edenville Boerevereniging Hall Mark Street, Edenville	09h00

All stakeholders are invited to register as Interested & Affected Parties (I&AP). You must register as an I&AP if you would like more information or wish to participate in the environmental assessment process for the project. A draft Scoping Report will be made available to registered I&APs for review. To do so, or to raise any issues or concerns regarding the project, please contact:

Theo Wicks (Project Manager) and/or Gugu Dlamini (Public Participation) by

Email: RhinoER294@slrconsulting.com

Tel: 011 467 0945, Fax: 011 467 0975 and/ or Post: PO Box 1596, Cramerview, 2060

SLR Website: <https://www.slrconsulting.com/en/public-documents/Rhino-well-ER294>

Data Free Website: <https://slrpublicdocs.datafree.co/en/public-documents/Rhino-well-ER294>



By providing your personal information to be registered as an I&AP for this Project you consent to SLR managing your information in accordance with the Protection of Personal Information Act, 2013 (No. 4 of 2013). SLR will not process your Personal Information, other than as permitted or required by EIA processes, or as required by law or public policy. For further details, contact SLR as detailed above.

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**APPENDIX 3.7:**

**SITE NOTICES**



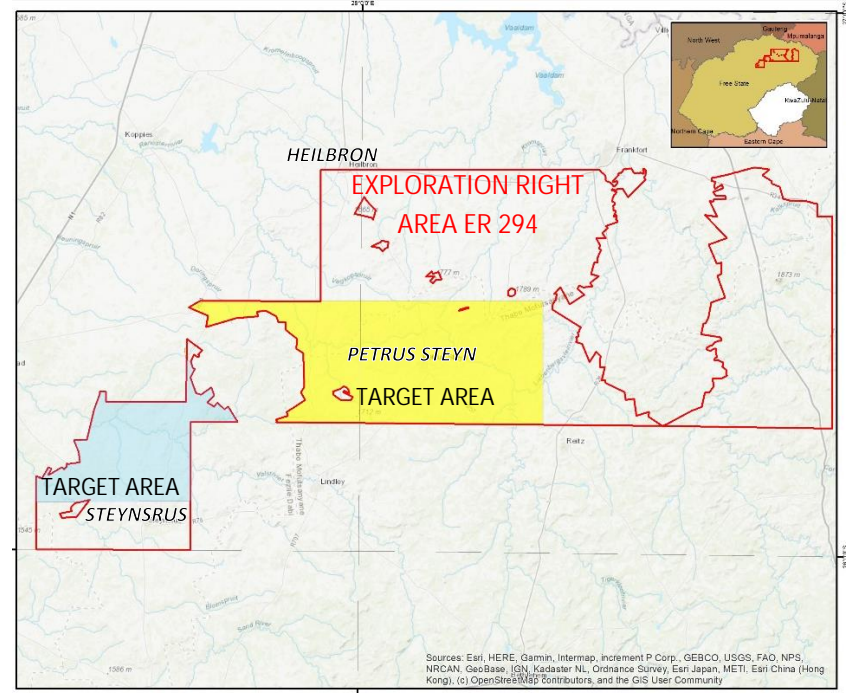
**NOTICE OF APPLICATION FOR ENVIRONMENTAL AUTHORISATION**  
**PROPOSED EXPLORATION WELL DRILLING WITHIN TWO TARGET AREAS IN ER 294,**  
**FREE STATE PROVINCE**  
**PASA REFERENCE NO.: 12/3/294 (ER 294)**

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Thursday, 8 September 2022	Edenville Boerevereniging Hall (Insert address)	09h00

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Theo Wicks (Project Manager) and/or Gugu Dlamini (Public Participation) by

Email: [RhinoER294@slrconsulting.com](mailto:RhinoER294@slrconsulting.com)

Tel: 011 467 0945, Fax: 011 467 0975, WhatsApp: 066 171 3677 and/ or Post: PO Box 1596, Cramerview, 2060

SLR Website: <https://www.slrconsulting.com/en/public-documents/Rhino-well-ER294>

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By providing your personal information to be registered as an I&AP for this Project you consent to SLR managing your information in accordance with the Protection of Personal Information Act, 2013 (No. 4 of 2013). SLR will not process your Personal Information, other than as permitted or required by EIA processes, or as required by law or public policy. For further details, contact SLR as detailed above.

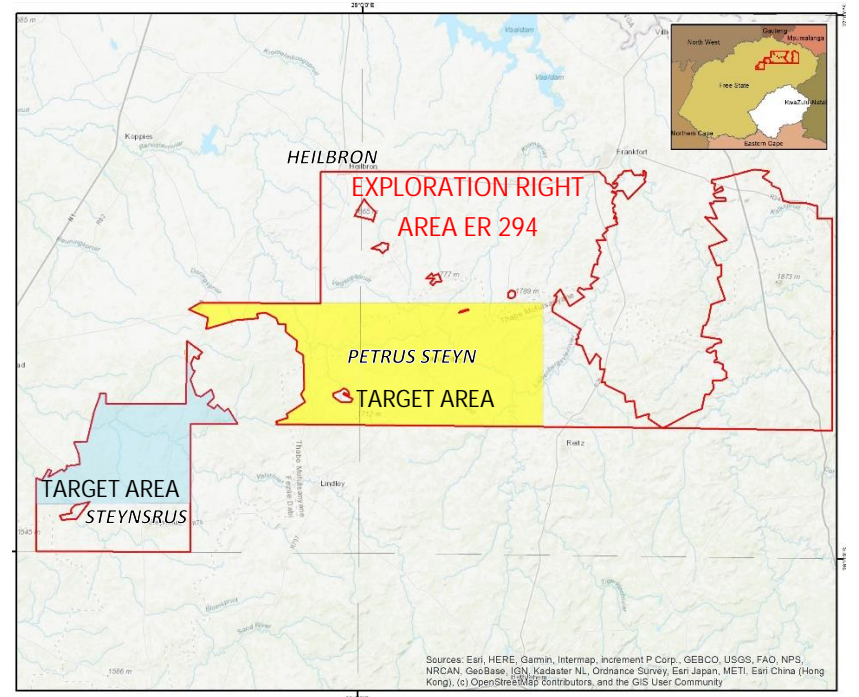


**KENNISGEWING VAN AANSOEK OM OMGEWINGSMAGTIGING**  
**BEOOGDE BOORWERK VIR EKSPLORASIEBOORGATE IN DRIE TEIKENGEBIEDE**  
**IN ER 294, VRYSTAATPROVINSIE**  
**PASA VERWYSING NO.: 12/3/294 (ER 294)**

Kennisgewing geskied hiermee van Rhino Oil and Gas Exploration South Africa (ROGESA) se voorneme om aansoek te doen om:

- 'n wysiging van die bestaande Eksplorasiereg (ER) en Omgewingsbestuursprogram (OBPr) ingevolge Artikel 102 van die Wet op die Ontwikkeling van Minerale en Petroleum Hulpbronne (Wet 28 van 2002) (MPRDA); en
- 'n Omgewingsmagtiging (OM) ingevolge Hoofstuk 5 van die Nasionale Wet op Omgewingsbestuur (Wet 107 van 1998) (NEMA).

ROGESA beskik oor 'n ER en OM om eksplorاسie vir petroleumhulpbronne in die Vrystaatprovinsie van Suid-Afrika te doen (verwysing 12/3/294 (ER 294)). Die OM en ER wat toegestaan is, het ROGESA toestemming gegee om 'n eksplorasiewerkprogram te onderneem wat kantoorgebonde studies en 'n gradiometrie-swaartekragopname vanuit die lug behels.



ROGESA het die studies en opname onderneem, en beoog nou om hoogstens 40 eksplorasieboorgate in drie teikengebiede in die ER te boor. Die eerste teikengebied is suid van Petrus Steyn en die tweede teikengebied is suid van die R34 tussen Kroonstad en Edenville geleë. ROGESA het die spesifieke liggings vir die boorgate in die teikengebiede voorgestel en moet nog op grond van skakeling met grondeienaars en omgewingsondersoeke (wat tydens hierdie aansoekproses afgehandel moet word) bevestig word. Geen hidrouliese breking, oftewel hidrobreking, word beoog nie.

Kennis geskied hiermee van die volgende aansoek:

Wetgewing	Vereiste magtiging en proses wat gevolg moet word	Bevoegde owerheid
Nasionale Wet op Omgewingsbestuur (Wet 107 van 1998)	Omgewingsmagtiging vir Aktiwiteit 21(D) in die Regulasies op Omgewingsimpakevaluering (OIE) Lyskennisgewing 1 van 2014 (Staatskennisgewing R983) en Aktiwiteit 18(I) in OIE-regulasie Lyskennisgewing 2 van 2014 (Staatskennisgewing R984)	Departement van Minerale Hulpbronne en Energie (DMHE), deur die Petroleumagentskap van Suid-Afrika (PASA)

SLR Consulting (South Africa) (Edms.) Bpk. is aangestel as die onafhanklike omgewingsevalueringpraktisyn wat verantwoordelik is om die vereiste omgewingsevaluering en die openbare deelnameproses te onderneem. Die aansoek sal onderhewig wees aan 'n Bestekopname- en OIE-proses soos uiteengesit in die OIE-regulasies (Staatskennisgewing R982). Meer projekbesonderhede, wat op SLR se webwerf gevind kan word, sal in die Bestekopname- en OIE-verslag voorsien word.



Die volgende openbare inligtingsvergaderings is gereël waar inligting oor die beoogde projek voorgehou sal word vir bespreking en om enige aanvanklike kwessies en knelpunte te opper. Alle belanghebbers word genooi om enige van die volgende vergaderings by te woon waar dit gerieflik is. RSVP asseblief vir SLR by die besonderhede wat hieronder ingesluit is.

Date	Venue	Time
Woensdag, 7 September 2022	Steynsrus Boerevereniging Hall Van Riebeeck Straat, Steynsrus	15h00
Donderdag, 8 September 2022	Edenville Boerevereniging Hall Mark Straat, Edenville	09h00

Alle belanghebbers word genooi om as Belangstellende & Geaffekteerde Partye (B&GP's) te registreer. U moet as 'n B&GP registreer as u meer inligting wil hê of as u aan die projek se omgewingsevalueringproses wil deelneem. 'n Konsep Bestekopnameverslag sal aan geregistreerde B&GP's beskikbaar gemaak word vir insae. Om dit te doen, of om enige omgewingskwessies of knelpunte met betrekking tot die projek te opper, moet u asseblief in verbinding tree met:

Theo Wicks (Projekbestuurder) en/of Gugu Dlamini (Openbare Deelname) by  
 E-pos: RhinoER294@slrconsulting.com

Tel: 011 467 0945, Faks: 011 467 0975, WhatsApp: 066 171 3677 en/of Pos: Posbus 1596 1596, Cramerview, 2060

SLR se webwerf: <https://www.slrconsulting.com/en/public-documents/Rhino-well-ER294>

Datavry-webwerf: <https://slrpublicdocs.datafree.co/en/public-documents/Rhino-well-ER294>

Deur u persoonlike inligting te voorsien om as 'n B&GP vir hierdie projek geregistreer te word, stem u in daartoe dat SLR u inligting ingevolge die Wet op die Beskerming van Persoonlike Inligting (Wet 4 van 2013) beheer. SLR sal nie u persoonlike inligting verwerk nie, behalwe soos toegelaat of vereis word deur OIE-prosesse, of soos vereis word deur wet of openbare beleid. Kontak SLR soos hierbo aangedui is vir meer besonderhede.



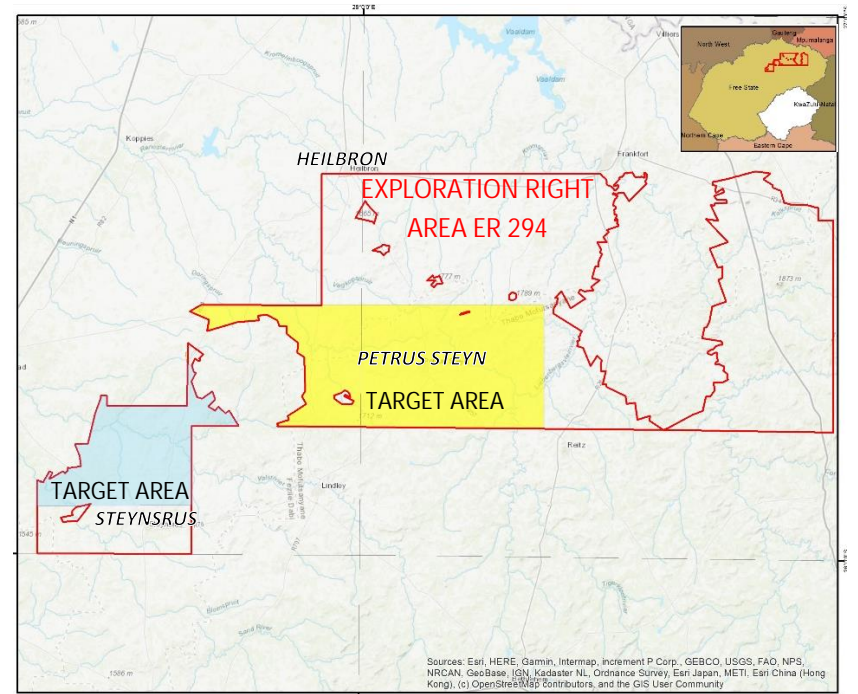
**TSEBISO MABAPI LE KOPO BAKENG SA TUMELLO E AMANANG TIKOLOHO  
PHUPUTSO E SISINTSWENG YA HO BORA SEDIBA DIBAKENG TSE THARO TSEO HO  
TSEPAMISITSWENG HO TSONA HO YA KA ER 318, PROVINSING YA FREITATA  
PASA REFERENSE KE: 12/3/294 (ER 294)**

Mona ho etswa maikemisetso ya kopo ya Rhino Oil and Gas Exploration South Africa's (ROGESA) bakeng sa:

- Phetoho ho Exploration Right (ER) and Environmental Management Programme (EMPr) e ntseng e le teng ho ya ka Karolo ya 102 ya Minerals and Petroleum Resources Development Act, 2002 (Nom ya 28 ya 2002) (MPRDA);
- Environmental Authorisation (EA) ho ya ka Kgaolo ya Chapter 5 ya National Environmental Management Act, 1998 (Nom. ya 107 wa 1998) (NEMA).

ROGESA e tshwere ER le EA bakeng sa ho fuputsa mehlodi ya petroleamo Provinsing ya Freistata Afrika Borwa (referense ke 12/3/318 (ER 318)). EA le ER tsa tumello bakeng sa ROGESA ho qala lenaneo la phuputso le kenyeletsang diphuputso tsa desktop le phuputso ya aerial gradiometry gravity.

ROGESA e ile ya qadisa diphuputso tsena, mme hona jwale e sisintse ho bora didiba tse sa feteng tse 40 Dibakeng tse bobedi tseo ho Tsepamisitsweng ho tsona hara dipehelo tsa ER. Sebaka sa pele seo ho Tsepamisitsweng ho sona se ditsing tse potolohileng toropo ya Wesselsbron, Sebaka sa bobedi seo ho Tsepamisitsweng ho sona se ka botjhabela ba Allanridge mme Sebaka sa boraro seo ho Tsepamisitsweng ho sona se ka borwa bo ka botjhabela ba Kroonstad. Dibakeng tseo ka ho qollehileng sediba se tla ba ho tsona Dibakeng tseo ho Tsepamisitsweng ho tsona tse sisintsweng ke ROGESA mme di tla netefatswa ho ya ka ho seabo sa mong a mobu le diphuputso tsa tikoloho (nakong ya kopo ya tshebetso ena). Ho hang ha ho a sisinngwa ho bora ka metjhini ya haedroliki kapa ho pompela mekedikedi ho ntsha oli kapa kgase.



Mona ho fanwa ka tsebiso bakeng sa kopo e latelang:

Melao	Tumello e hlokalang le tshebetso e lokelang ho latelwa	Ba Boholong ba Tshwanelehang
National Environmental Management Act (Nom. ya 107 wa 1998).	Environmental Authorisation (Tumello ya Tikoloho) bakeng sa Mosebetsi wa 21D ho ya ka Environmental Impact Assessment (EIA) Regulation Listing Notice 1 ya 2014 (GNR 983) le Mosebetsi wa 18 I EIA Regulation Listing Notice 2 ya 2014 (GNR 984).	Department of Mineral Resources and Energy (DMRE), ka ho sebedisa Petroleum Agency of South African (PASA)

SLR Consulting (South Africa) (Pty) Ltd e thontswe jwalo ka setsebi se ikemetseng phuputsong ya tikoloho mme e ikarabella bakeng sa ho qala phuputso e hlokalang ya tikoloho le ho tsamaisa tshebetso ya ho nka karolo ha setjhaba. Kopo e tla ba latela dipehelo tsa tshebetso ya phuputso le EIA jwalo ka ha ho bontshitswe Melaong ya EIA (GNR 982). Dintlha tse eketsehileng le tse batsi mabapi le projeke di ka fumana ho Websaete ya SLR le ho fanwa ditlalehong tsa Scoping le EIA.



Tlhahisoleseding e latelang ya dikopano le setjhaba e hlophisitswe moo tlhahisoleseding mabapi le projeke e sisintsweng e tla fanwa bakeng sa dipuisano le ho hlahisa dipotso mabapi le mathata le dingongoreho. Batho bohle ba nang le seabo ba mengwa hore ba be teng. Ka kopo RSVP ho SLR.

Letsatsi	Sebaka	Nako
Labobedi la la 6 Lwetse	Wesselsbron Golf Club (Strateng sa Willemse, Wesselsbron)	15h00
Laboraro la la 7 Lwetse	Odendaalsrus Town Hall (Toropong) (Strateng sa Church, Odendaalsrus)	09h00

Batho bohle ba nang le seabo ba mengwa hore ba ngodise jwalo ka Batho ba Nang le Thahasello le ba Angwang ke Sena (I&AP). O tlameha ho ngodisa jwalo ka I&AP haeba o lakatsa ho fumana tlhahisoleseding e eketsehileng kapa haeba o lakatsa ho nka karolo projekeng ya tekolo ya tikoloho. Moralo wa Tlaleho ya Scoping o tla fumanaha bakeng sa Batho ba Nang le Thahasello le ba Angwang ke Sena (I&AP) bakeng sa ho o hlahloba. Bakeng sa ho etsa sena, kapa ho botsa dipotso dife kapa dife kapa dingongoreho mabapi le projeke, ka kopo ikopanye le:

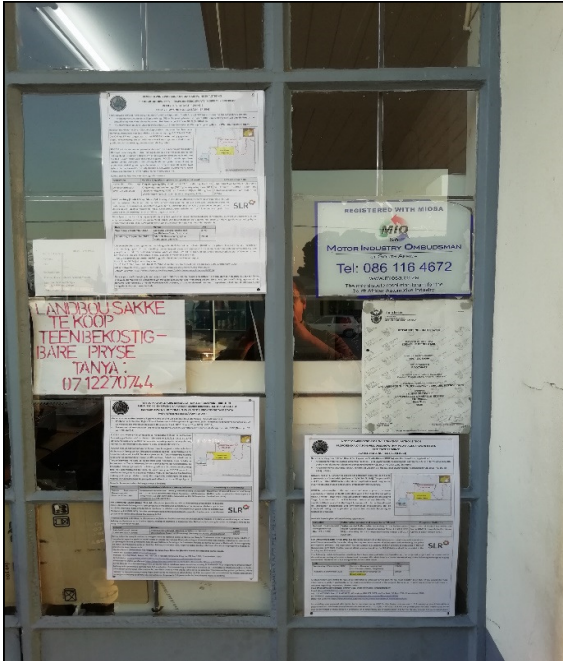
Nicolas Arnott (Motsamaisi wa Projeke) le/kapa Gugu Dhlamini (Ho Nka Karolo ha Setjhaba) ka ho romela Imeile ho: [RhinoER318@slrconsulting.com](mailto:RhinoER318@slrconsulting.com)

Mohala: 011 467 0945, Fekse: 011 467 0975 le/kapa romela ka Poso ho: PO Box 1596, Cramerview, 2060

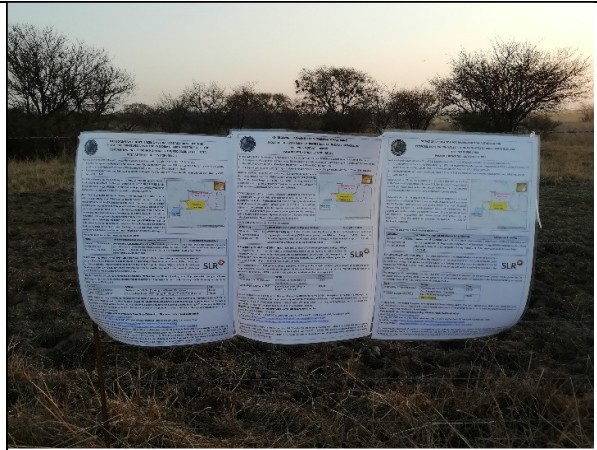
SLR Website: <https://www.slrconsulting.com/en/public-documents/Rhino-well-ER318>

Websaete ya Datha ya Mahala: <https://slrpublicdocs.datafree.co/en/public-documents/Rhino-well-ER294>

Ka ho fana ka tlhahisoleseding ya hao ya botho hore o ngodise jwalo ka motho ya nang le thahasello le ya angwang ke projeke (I&AP) bakeng sa Projeke ena o dumela hore SLR e sebedise tlhahisoleseding ya hao hoy a ka Molao wa Tshireletso ya Tlhahisoleseding ya Botho (Protection of Personal Information Act) wa 2013 (Non.ya 4 wa 2013). SLR e ke ke ya sebedisa Tlhahisoleseding ya hao ya Botho, ntle le kamoo ho dumeletsweng kateng kapa jwalo ka ha ho hlokwa ke ditshebetso tsa EIA, kapa jwalo ka ha ho hlokwa ke molao kapa pholisi ya setjhaba. Bakeng sa dintlha tse eketsehileng, ikopanye le SLR jwalo ka ha ho bontshitswe mona ka hodimo.



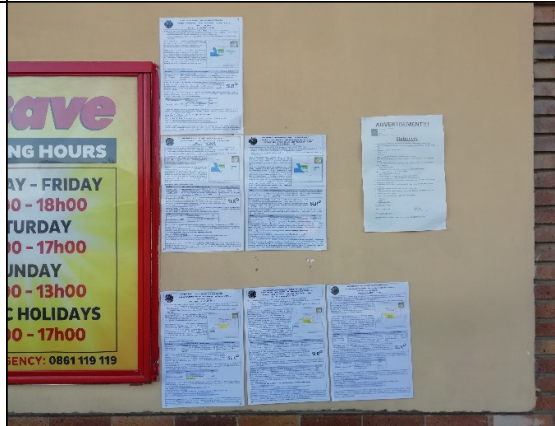
Quest Edenville



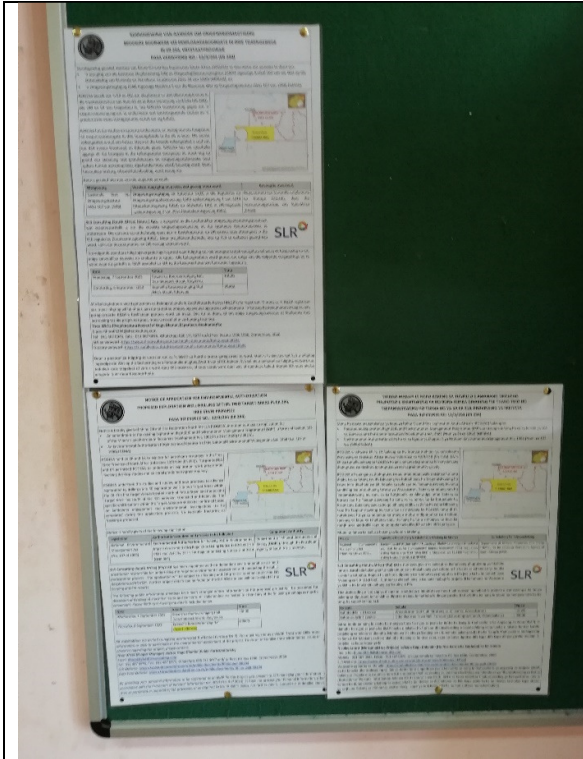
Road passing through Farm Cyfergat No. 211



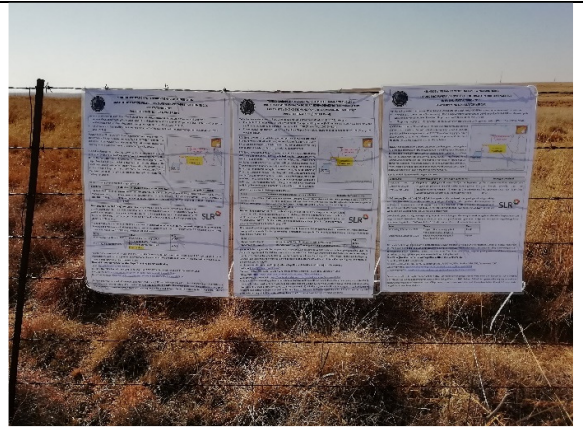
Road entrance to Farm Honinglaagte No. 2118



Usave Steynsrus



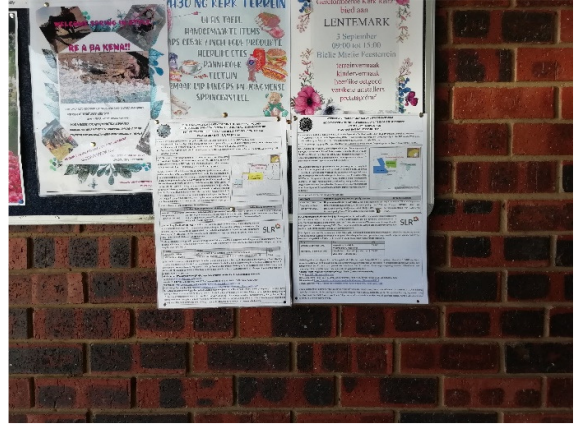
Public library, Matlwangtlwang, Steynsrus



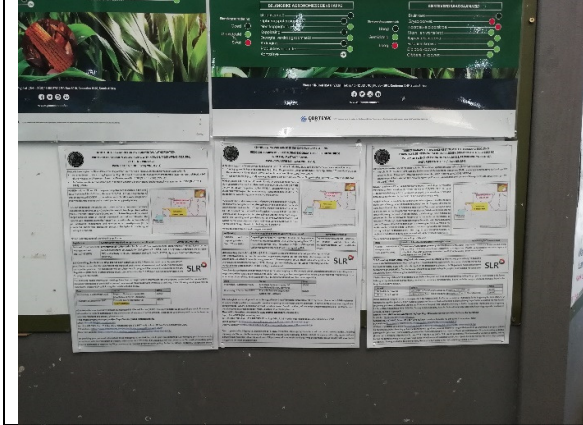
R720 and Farm Road access to Benoni No. 662



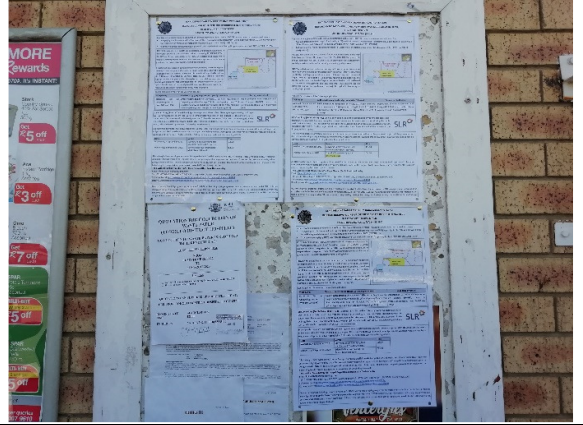
R720 and Farm Road access to Benoni No. 662



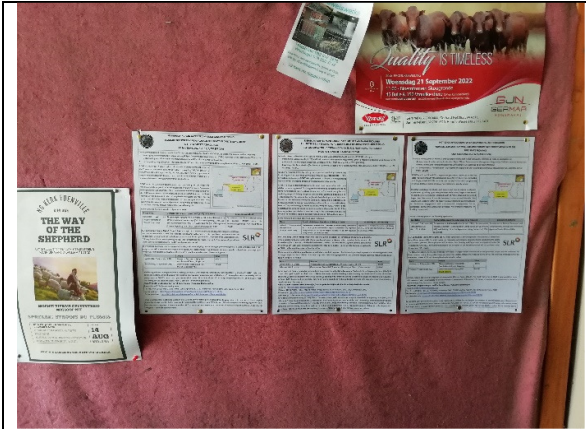
OK Mini Mark Petrus Steyn



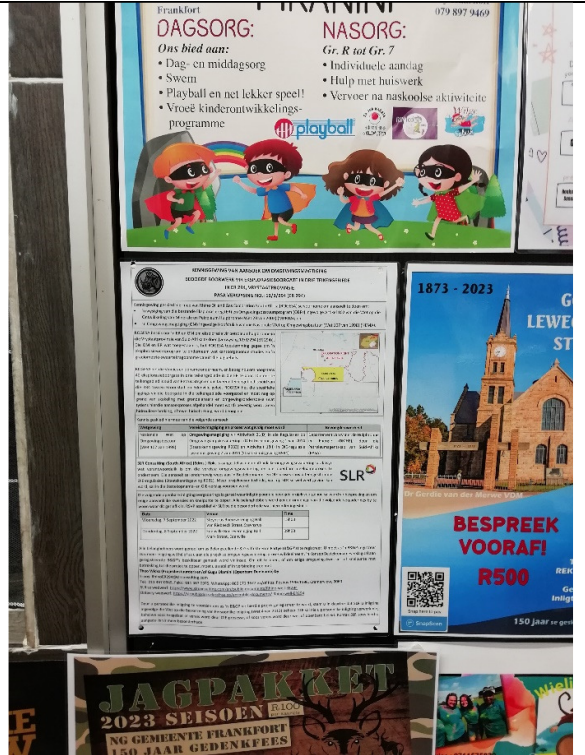
VKB Petrus Steyn



Spar Heilbron



VKB Retail Frankfort



OK Foods Frankfort



Frankfort Library



VKB Frankfort



APPENDIX 3.8:  
MINUTES OF PUBLIC INFORMATION MEETINGS

## RHINO OIL AND GAS EXPLORATION SOUTH AFRICA (PTY) LTD

### NOTES OF PRE-APPLICATION PUBLIC MEETING

<b>DATE</b>	08 September 2022, 15h00
<b>VENUE:</b>	Edenville Boerevereniging Hall
<b>PROJECT:</b>	Environmental Impact Assessment (EIA) for well drilling in 294 Exploration Right (ER) 294
<b>SLR COMPANY:</b>	SLR Consulting (South Africa) (Pty) Ltd
<b>PROJECT NUMBER:</b>	720.18034.00020
<b>PURPOSE:</b>	<p>The purpose of the meeting was to provide:</p> <ul style="list-style-type: none"> <li>• An introduction and overview of the proposed project;</li> <li>• An overview of the required Scoping &amp; Environmental Impact Assessment (S&amp;EIA) process;</li> <li>• An overview of the specialist input into the S&amp;EIA;</li> <li>• An overview of the public participation process; and</li> <li>• An opportunity for Interested and Affected Parties (I&amp;APs) to ask questions and raise any issues and concerns.</li> </ul>
<b>ATTENDANCE:</b>	An attendance register is presented in Appendix 1.

## 1. OPEN AND INTRODUCTION

Ms Antoinette Pietersen (AP) opened the meeting and welcomed everyone present and introduced herself as the independent facilitator of the meeting. AP then opened the floor for the project team to introduce themselves. Mr Travis Smithard (TS) introduced himself and Mr Gilles Pantanance (GP) representing Rhino Oil and Gas Exploration South Africa (Pty) Ltd (ROGESA) (the applicant). Mr Theo Wicks (TW), introduced himself, Mr Nicholas Arnott (NA) and Ms Gugu Dhlamini (GD) as the independent Environmental Consultants from SLR Consulting (South Africa) (Pty) Ltd (SLR) who are appointed by ROGESA to undertake the Scoping and Environmental Impact Assessment (S&EIA) process for the proposed exploration well drilling project. A list of attendees is provided in Appendix 2.

AP outlined the meeting's agenda, health and safety points and the proposed protocol and indicated that the presentation would be presented by the project team in Afrikaans and in English. It was suggested that questions be asked at the end of each presentation (i.e., Rhino and SLR's presentations). AP stated that she would record issues raised onto the flipchart and will make them available for photography at the end of the meeting. I&APs consented to recording the meeting.

AP explained that the meeting/consultation is not a voting or consensus-driven process, rather a process of collecting input for the purpose of enabling the decision-maker to consider key issues and impacts of concern raised by Interested and/or Affected Parties (I&APs). AP then provided a brief overview of the ESIA process and noted that SLR is in the pre-application phase of the process and the S&EIA phases have not formally begun.

## 2. PRESENTATION

TS presented an overview of the exploration undertaken by ROGESA to date under their existing Exploration Right (ER). He provided detail on the current application for ER renewal, an overview of the proposed project and its need and desirability. In this regard, the project objectives, regulatory compliance requirements for Environmental Authorisation (EA) and the technical exploration background and progression to date were highlighted. TS gave a high-level description of how the proposed well drilling would be undertaken by the drilling contractor. Additional detail on the gas testing phase was also provided. Lastly, a possible production phase scenario was outlined by TS, should the site prove to be highly prospective and the necessary approvals for a Production Right be obtained.

TW then presented an overview of the S&EIA process which set out the regulatory framework and legal requirements for the proposed project and S&EIA process. He provided an overview of the drill site selection process (including site screening), the proposed specialist studies to be undertaken in the EIA phase, as well as the public participation process to be followed and the associated opportunities for I&APs to comment and participate in the S&EIA process.

A copy of the presentation is included in Appendix 3.

## 3. DISCUSSION

A number of issues were raised during the meeting. These have been recorded in Table 1 below. Where a response was provided the response has been included in the table.

**Table 1: Record of Issues Raised and Responses Given**

Issue Raised	By Whom	Response (given by ROGESA or SLR)
What happened to Matthew Hemming?	Thomas	Matthew is part of SLR.
Who is in control of White River Exploration? Who or what are they?	Anonymous	Honestly, ROGESA thought they are out of the area. We have their blocks now as of July.
Who is financing Rhino?	Thomas	ROGESA has 8 UK investors in an investor SPV. They invest in projects all over the place. They are known in the ESG world.
Why is Rhino using SLR for this project? Is there a reason?		The reason ROGESA uses SLR is because SLR understands the process well and has a big database of people and we can effectively reach out to potential I&APs
Is Rhino BBBEE registered?	Anonymous	No, ROGESA is still busy with its due diligence. It is a legislative requirement that we get a BBBEE partner. We need to make sure we work with the correct company.
If you aren't BBBEE registered, what gives Rhino the right of exploration?	Anonymous	When you get issued an exploration right, you have that right. The law says you usually have 2 - 3 years to find a BBBEE partner for that right. ROGESA is busy with this process.
If you find a sustainable source of gas, where will the gas be stored? Where will the pipeline be placed?	Johan Slabbert	At the moment you all know Renegen. They stated abstracting gas and also get helium. They are the first company in South Africa to obtain a production right to abstract gas.

Issue Raised	By Whom	Response (given by ROGESA or SLR)
		Their plant is now online. ROGESA uses another method to abstract gas. My colleague will later in the presentation show you how our process works.
At what stage of the process must Rhino obtain a BBBEE partner?		At the moment the law says that ROGESA must get a BBBEE partner round about here. We are aware the law is changing so we are not sure. Our lawyers are to confirm if we must do it at production or still during exploration.
From which country will the BBBEE partner come from?		As ROGESA understands, it must be a South African company. As soon as we know, we will place the information in the public domain.
What if one of the target boreholes are in the middle of my wildlife camp with endangered species? What happens then?	Johan Brumeris	Then ROGES will not drill on your farm – it is as easy as that. We need permission from you as the farm owner to drill on your farm. There is a lot of land here we can access.
Is Rhino Oil and Gas an International Company?	Anonymous	Rhino head office sits in Luxembourg. The subsidiary company is a South African company.
How deep is the gas, or how deep will Rhino drill?	Anonymous	Up to 800m.
What is the width of the pipe and the thickness of the cement casing? The ground moves, so what impact will it have on the cement casing? Will it crack and leak gas into the groundwater?	Anonymous	The biggest is 12.5 inches in diameter. Then you completely close it with cement. You then drill through the cement. Then you repeat at 10 inches, 7,5 inches and end at 4 inches. That is up to 3.5 inches of cement between steel. Should something crack, ROGESA will immediately notice it. We will then close the borehole, killing the hole rather than continuing.
I am concerned about groundwater pollution due to gases and poisons. What guarantee do we have that pollution will not take place, especially years after the borehole has been closed? Who will pay for the clean-up of the pollution?	Anonymous	ROGESA uses steel, which is scarce in South Africa, with cement which is not like your typical cement. The steel has tensile strength, so won't crack easily.
Is fracking involved?	Anonymous	Not at all. It is like drilling a borehole, but ROGESA woll go deeper and use better technology.
How many boreholes has Torque Africa drilled?	Anonymous	Torque Africa has drilled ~1000 boreholes. They have 20 borehole machines and have drilled 200 holes for Renergen recently to a far better standard than some 40 boreholes previously drilled for Renergen by another

Issue Raised	By Whom	Response (given by ROGESA or SLR)
		company. ROGESA really did its research to use the correct company.
If you find gas, will the borehole structure remain in place for production, or will new boreholes be drilled for production?	Alwyn Laas	The reason so much steel and cement will be used is that, should ROGESA find gas, we can then use that hole for production. We start with a big budget, so we do not need to drill again later.
How many boreholes will be drilled should a sustainable source of gas be found for production?		It depends. If ROGESA finds gas within sandstone, in the industry we call it a conventional reservoir. That whole 3 -4 km <sup>2</sup> can be accessed with one borehole. If it is a crack like Renegen, they drill a borehole every 0.5 – 1.5 km. The one farm Smaldeel Anglo drilled a borehole every 400m. ROGESA obviously hopes to drill in Sandstone.
Does the gas compressor require electricity?	M. Visser	It generates its own electricity using the gas that is present.
Should production commence, how many litres of gas per borehole will be produced?	Anonymous	It depends. Renegen has drilled holes producing 200 litre per day, as well as some that produce 5000 litre per day.
How deep does your drill go?	Anonymous	Up to 800m.
Won't you drill with mud? Can you guarantee you won't drill with mud?	Anonymous	ROGESA prefers to drill with air pressure. If we have to use mud, we close the cracks with mud then gas will not enter the borehole. It will not be useable. The only reason we would use mud is to make the borehole safe, for example if the end of the borehole breaks apart, we pump in cement which seals the hole. The mud stabilises that part of the borehole. Usually, it is exceptionally rare for water to be found at 700m. The pressure at 700m on the hole is far higher than at for example 400m.
Should you use mud, what will you do with it when it comes out the hole?	Anonymous	It will be taken away to a toxic waste site.  When using mud there are three main additives. Two are classified as non-hazardous and the other is classified as moderate hazard. This will be detailed in the EIA.
If you abstract gas in large volumes, won't it create / cause empty caverns underground?	Alwyn Laas	That is the thing with gas, you can compress it a lot. It is not like air. If you pull out air the crack will close. With gas it is at such pressure, those cracks are already almost closed, but the gas comes out due to the pressure.

Issue Raised	By Whom	Response (given by ROGESA or SLR)
The biggest risk is the sustainability of groundwater.	Anonymous	That is why ROGESA is proposing to develop these expensive boreholes rather than for example open boreholes. It protects the groundwater from gas and the borehole from the water. To be honest, if gas is in the water, once you pump it out, the gas immediately starts to come out of the water. That is how gas works.
What types of gasses are found in the area?	Anonymous	ROGESA has data from Allanridge near Kroonstad. Up to 95% of it is methane gas, argon of 1-2 % and helium of 2 – 10 % and nitrogen. It is very clean gas.
Are any of the natural gasses adverse to the area / groundwater?	Anonymous	Helium and argon are inert gases. Nitrogen is in the atmosphere. Methane we just explained.
Should you have a production facility, will people stay there? How many will stay there?	Kassie	The station will likely be remote. There will be 2-3 persons who will work on the station. Construction requires about 50 persons. Maybe 3 -5 persons for special maintenance
Should there be production, who will build and maintain the roads for the gas trucks?	Anonymous	ROGESA will make sure that the truck has a good quality access route. As farmers we understand your concern regarding dirt roads.
How will security be managed at such a gas production site? I am concerned of the impact on security of landowners and that such a project will bring unwanted elements to the farms.	Anonymous	ROGESA has been thinking about that. We are looking at drones with a control room. We will have a set of drones which will go on-site which will have a loudspeaker to chase away persons. Drones these days have a 20 – 30-minute flying time. These days drones can automatically track someone. There is no need for someone to control the drone. The drone will follow someone, tell them they are intruding and then if battery runs empty, it will be replaced by another drone, so you have a rolling train of drones following the person to where he lives, then a security team can go to his house. This will probably happen one time until the community becomes aware this is how the system works. The drones can also patrol then come back to site. This can be set to random times, so will not be able to time when drones come.
When you are working on farms, it is important to follow farm protocol.	Anonymous	Absolutely.
Does Rhino have insurance for fires?	Anonymous	Yes, ROGESA does have insurance in place before any drilling work is undertaken.

Issue Raised	By Whom	Response (given by ROGESA or SLR)
How long before exploration will specialists come to do their studies?	Anonymous	Likely this year with drilling only taking place later next year. This will form part of my EIA process.
How will we know who the specialists are and that they are who they say they are?	Anonymous	The best way forward is if SLR introduces them to myself (Travis Smithard), then I take my own bakkie and introduce them to you.
Give the farmers advance notice before specialists come.	Anonymous	ROGESA will do so. A weeks' notice is doable.
Can the micro-sites details be shared with us? The lack of information regarding the microsites causes insecurity with farmers.	Anonymous	ROGESA would rather not do that for two reasons. Firstly, ROGESA needs to get the consent from the farmers it has already spoken to, to see that they are happy it is known. Secondly, as a company that is our proprietary information. We have spent millions to gather information to tell us where we think is good value for gas. We don't want to share that with the general public if that makes sense.
Can Rhino sell their company and rights to another company?	Krause	ROGESA is a company, so honestly if a big company like Sasol wants to buy us, there is always the possibility. Personally (Travis Smithard), I would like to stay on this project through its entirety. What I can say is that our investors do need the money. We aren't like the fly by night companies to hope to sell to bigger companies.
Can we trust Rhino? Is it not a fly by night smoke screen?		No, ROGESA's new investors do not believe there is oil. We are looking for gas.
Does the EIA consider the microenvironment? This is a conservation area for Sungazer Lizards.	Ben	Very much so. That is why we have the project team here with reptile specialists which will come in. For example, Sungazer Lizards areas are well understood as to where they could be. A team will go look and confirm if they are there and whether the area is right for them. It is a huge area, so we are very risk averse and will exclude sensitive areas.
If Rhino is sold or goes bankrupt, how will it affect the farmers which have an agreement in place with Rhino?	Anonymous	Firstly, if there is a contract and the company gets bought out, those contracts are still applicable or must be renegotiated with the landowner.
Will the contracts with farmers be changed should Rhino be bought by another company? Will the contracts be changed?	Anonymous	If the new company comes, ROGESA can place in the contract that they can only change the contract to be the same or better.
The maps are not clear. Please send detailed maps.	Anonymous	Absolutely.

Issue Raised	By Whom	Response (given by ROGESA or SLR)
What is the likelihood that sustainable gas reserves will be discovered?	Anonymous	That is the reason why ROGESA is here, to drill the holes and find out. The reality is we can drill fifteen boreholes and find no gas.
Where did the plane fly when it did the electromagnetic and gravimetric flyover for Rhino?	Anonymous	So, ROGESA did the regional flyover. ROGESA also did a high-density survey. The original was 200m, but the high density is 50m width for these four areas. ROGESA is not allowed to fly outside our exploration footprint.
Is the aerial survey better technology than the ground seismic studies done with trucks?	Anonymous	The reason why ROGESA does not do seismic surveys is that there is enough information we can purchase for cheaper than redoing it. We only flew with the plane. Should we need to do seismic surveys, that would be another EIA process.
What benefits are there for landowners due to the project?	Anonymous	Everything is on the table. It would be a business contract between ROGESA and the landowners. It is your farm, your land.
You will only drill? No underground dynamite explosions or hydro-fracking will occur?	Anonymous	Yes, drilling only. ROGESA will never use fracking within South Africa. We even wrote a letter to FS Agriculture on this.
Can I refuse that you drill on my farm?	Anonymous	Of course.

#### 4. THE WAY FORWARD

TW outlined the way forward as follows:

- Compilation and distribution of meeting notes/minutes.
- I&APs are to:
  - contact SLR for information and / or documents.
  - submit comments / questions / issues to SLR.
- Notification of all registered I&APs (who have completed the meeting attendance register) of the next round of public participation – e.g., availability of Draft Scoping Report for review and comment.
- Documents will be made available in hard copy and posted to SLR’s website and data free website, when available.

#### 5. CLOSE

AP thanked attendees for their input and for making the time to attend the meeting. The meeting was closed by AP.




APPENDIX 1: ATTENDANCE REGISTER

Name	Surname	Interest project	Postal address	Contact number	Email address
Nicholas	Arnott	SLR Consulting	Main Rd, Newlands, 7700	+27723764809	<a href="mailto:narnott@slrconsulting.com">narnott@slrconsulting.com</a>
Alwyn	Laas	Sernick (Pty) Ltd	PO Box 130 Edenville 9535	+27606046718	<a href="mailto:alwyn@sernick.co.za">alwyn@sernick.co.za</a>
Hano	Blomenis	Tovi Boerdery	Posbus 2481 Fleetwood krd	+27723568481	<a href="mailto:hano@tovic.co.za">hano@tovic.co.za</a>
Ken	Lehimkuhl	Lehimkuhlerus	Bus 497 Krd 9500	+27828220558	<a href="mailto:kenlehmkuhl11@gmail.com">kenlehmkuhl11@gmail.com</a>
Johan	Blomenis	Tovi Boerdery	Bus 175 Krd 9500	+27825507622	<a href="mailto:johan@tovic.co.za">johan@tovic.co.za</a>
David	Crouse	De Villershof	Bus 6059 Kroonheuwel 9501	+27723784049	<a href="mailto:davidcrouse@gmail.com">davidcrouse@gmail.com</a>
Hilary	Hill	VKB Group	PO Box 100 Reitz 9810	+27827774818	<a href="mailto:hilaryh@vbk.co.za">hilaryh@vbk.co.za</a>
Antoinette	Pieteron	Fasiliteerdel	Bus 7158 Centurion	+27832805024	<a href="mailto:tanipieterson@gmail.com">tanipieterson@gmail.com</a>
Tammie	Esterhuysen	FSA	Bus 636 Heilbron	+27827820668	<a href="mailto:enkelbosch@gmail.com">enkelbosch@gmail.com</a>
Gugu	Dhlamini	SLR Consulting	PO Box 1596 Cramerview 2060	+27114670945	<a href="mailto:gdhlamini@slrconsulting.com">gdhlamini@slrconsulting.com</a>
Andre	Bodenstein	Transnet	PO Box 1389 Bfn	+27835530714	<a href="mailto:andre.bodenstein@transnet.net">andre.bodenstein@transnet.net</a>
Ben	Eeden	Forever	Bus 49 Edenville	+27732203824	<a href="mailto:benvaeeden95@gmail.com">benvaeeden95@gmail.com</a>
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Johan	Slabbert	Boer	Posbus 296 Kroonstad	+27827766266	<a href="mailto:jslabbert@carfone.net">jslabbert@carfone.net</a>
Alex	Blade	Boer	Bus 765 Kroonstad	+27828075990	<a href="mailto:alex@carfone.net">alex@carfone.net</a>
Gilles	P	Rhino	France	+33675770547	<a href="mailto:gp@ashis.energy">gp@ashis.energy</a>
Neville	Hobbs	Private	-	+278330881129	<a href="mailto:hobbs@shisas.com">hobbs@shisas.com</a>
Dubaas	Meiring	Private	-	+27827719922	<a href="mailto:hitzakker@gmail.com">hitzakker@gmail.com</a>


Name	Surname	Interest project	Postal address	Contact number	Email address
Ben	Keeve	Private	-	+27824483381	<a href="mailto:benkeeve@vodamil.co.za">benkeeve@vodamil.co.za</a>
Frans	Keeve	Private	-	+27827702834	<a href="mailto:franskeeve@gmail.com">franskeeve@gmail.com</a>
Cassie	Muller	Private	-	+27827874522	<a href="mailto:cassiemuller56@outlook.com">cassiemuller56@outlook.com</a>
JJ	van Modert	Private	-	+27827814744	<a href="mailto:comien@lantic.net">comien@lantic.net</a>
J	Naude	Private	-	+27828409379	<a href="mailto:naudejohan92@gmail.com">naudejohan92@gmail.com</a>
WM	Sharp	Private	-	+27832863012	<a href="mailto:sharp.jessie@gmail.com">sharp.jessie@gmail.com</a>
Frans	Muller	Private	-	+27834551260	<a href="mailto:fmuller@worldonline.co.za">fmuller@worldonline.co.za</a>

## APPENDIX 2: MEETING PRESENTATION



**EIAS FOR PROPOSED EXPLORATION  
WELL DRILLING IN ER 294 AND ER 318,  
FREE STATE PROVINCE**

Rhino Oil and Gas Exploration South Africa (Pty) Ltd



Public Information Meeting  
September 2022

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### 1. Introductions

- Independent Facilitator:
  - Antoinette Pietersen
- Applicant – Rhino Oil and Gas Exploration South Africa (Pty) Ltd (ROGESA):
  - Travis Smithard (Director)
  - Gilles Pantanacce (Engineering Manager)
- Environment Assessment Practitioner (EAP) - SLR Consulting (Pty) Ltd:
  - Theo Wicks (Project Manager – ER 294)
  - Nicholas Arnott (Project Manager – ER 318)
  - Gugu Dhlamini (Project Assistant)

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### 2. Health and Safety

- Emergency procedure: Building Safety Instructions
- Ablutions (Mens and Ladies Toilets)




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### 3. Meeting Objectives

- For Applicant and EAP to provide an introduction to:
  - the proposed project
  - the EIA and public participation process to be undertaken during the application for Environmental Authorisation.
- For Interested and/or Affected Parties (I&APs) to:
  - Engage and ask questions, raise issues of concern, or contribute comments about the proposed project, potential environmental or social risks and the EIA process.

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#### 4. Draft Agenda

1. Welcome and Introductions
2. Project Overview – ROGESA
  - 2.1 Questions for clarification
3. EIA Overview – SLR
  - 3.1 Questions for clarification
4. Next Steps
5. Open Session: Questions & Discussion



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#### 5. Meeting Protocols (1)

- Attendance register and POPI Act
- Meeting is being recorded

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#### 5. Meeting Protocols (2)

- Flow of meeting:
  - Presentations: approximately 20 - 25 minutes each
  - Questions and discussion session after all presentations
  - Meeting duration: approximately 2 hours
- Proceedings of the meeting will be included in Draft Scoping Report (to be posted to SLR's website and data free website, when available).

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#### 6. Constructive Discussion Guidelines

Public consultation is **NOT** a voting or consensus-driven process, rather a process of collecting input for purpose of enabling decision-maker to consider issues and impacts.

1. Raise your hand to comment or ask a question and work through the facilitator.
2. Identify yourself (name, surname and organization).
3. Respect one another.
4. Focus on the issue, not the person. Agree to disagree.
5. One question at a time. Ask questions concisely.
6. Please turn your cell phones on silent.

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**Rhino Oil and Gas Exploration South Africa (Pty) Ltd.**

Public Participation Meetings:  
ER318

6<sup>th</sup> September 2022

Rhino Oil and Gas Exploration South Africa (Pty) Ltd.  
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### 1. Project Objectives

Needs and Desirability for Helium and Natural Gas

**Today: South Africa's dirty power mix**

- Renewables <10% of power generation
- >77% low-efficiency coal with high sulfur content
- Old unreliable plants: 2/3rds reach end of life by 2030

**The end of load shedding**

- Reliable Bio-Gas fired power plants (>25% SA coal fleet)
- Excellent at peaking, fast load balancing, grid stabilization
- Enables resurgence in dormant industrial complex (mines, smelters, etc.)

**Reducing CO<sub>2</sub> & natural methane emissions**

- Methane captured vs natural seepage (UN: "urgent need")
- >96% GHG emissions reduction (CO<sub>2</sub>, methane) per GW of fuel switch
- Gas replaces coal in other sectors (CTL to GTL at Sasol Secunda Plant)

**Tomorrow: reliable, clean, affordable power (UN SDG 7.1 - 7.3, 12.2)**

- Secure, long term dispatchable/back-up power capacity
- Renewables made economically and technically viable
- Multiplier: economic activity and GDP growth unlocked

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### 1. Project Objectives

Renewal Application (MPRDA – Section 81)

81. (1) Any holder of an exploration right who wishes to apply to the Minister for the renewal of an exploration right must lodge the application—

(a) at the office of the designated agency;

(b) in the prescribed manner; and

(c) together with the prescribed non-refundable application fee.

(2) An application for renewal of an exploration right must—

(a) state the reasons and period for which the renewal is required;

(b) be accompanied by a detailed report reflecting the exploration results, the interpretation thereof and the exploration expenditure incurred;

(c) be accompanied by a **report reflecting the extent of compliance with the requirements of the approved environmental management programme, the rehabilitation to be completed and the estimated cost thereof**; and

(d) include a detailed exploration work programme for the renewal period.

(3) The Minister must grant the renewal of an exploration right if the application complies with subsections (1) and (2) and the holder of the exploration right has complied with the—

(a) terms and conditions of the exploration right is not in contravention of any relevant provision of this Act or any other law;

(b) exploration work programme; and

(c) **requirements of the approved environmental management programme.**

(4) An exploration right may be renewed for a maximum of three periods not exceeding two years each.

(5) An exploration in respect of which an application for renewal has been lodged shall, notwithstanding its expiry date, remain in force until such time as such application has been granted or refused.

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### 2. License Update – Last Period

Environmental Matters – EMPR

Objective	Management Actions	Responsibility	Implementation and Frequency	Compliance Check
Ultimate responsibility for the implementation of and compliance with the EMPR during exploration remains with the Contractor.	Rhino Oil and Gas to ensure that the Exploration Manager is responsible for ensuring compliance with the EMPR. The Exploration Manager is responsible for implementation, monitoring and reporting compliance with the EMPR.	Rhino Oil and Gas	On approval of EMPR, continuous	Compliance
	The Exploration Manager may engage specialist consultants (including the EMPR) to offer advice and support in relation to the EMPR. The Exploration Manager is responsible for ensuring compliance with the EMPR.	Exploration Manager	Weekly	Compliance
	Rhino Oil and Gas to ensure that all contractors and sub-contractors are aware of and comply with the EMPR. The Exploration Manager is responsible for ensuring compliance with the EMPR.	Exploration Manager	Throughout the duration of a contract	Compliance
	Adherence to the conditions of the right and the EMPR must be included as a contractual requirement.	SAEC Manager	Throughout the duration of a contract	Compliance
All contractors must be provided with a copy of the EMPR and related plans and procedures. Back-up copies to be provided to the Exploration Manager and the Exploration Manager to ensure compliance with the EMPR. Contractors are responsible for compliance with the EMPR for all aspects of their work package.	Any incident or non-compliance is to be immediately reported to Rhino Oil and Gas.	Contractor	Report annually	Compliance
	The Exploration Manager must ensure that the SAEC Manager is involved in the management of compliance.	Contractor	Report annually	Compliance
	The SAEC Manager to ensure regular compliance checks during all exploration work periods. Report to the SAEC Manager.	SAEC Manager	Report annually	Compliance
	Compliance with specific reporting requirements must be included in the exploration programme/contract. All SAEC Manager to ensure compliance with the EMPR for all aspects of their work package.	SAEC Manager	Report annually	Compliance
All planned survey rights shall comply with local and national rules. Right parties must be prepared to meet all obligations. When necessary, the SAEC Manager must ensure that the SAEC Manager is involved in the management of compliance. All plans must be included in the EMPR and related plans and procedures. In planning all plans, the SAEC Manager must ensure that the SAEC Manager is involved in the management of compliance. When necessary, the SAEC Manager must ensure that the SAEC Manager is involved in the management of compliance.	All planned survey rights shall comply with local and national rules. Right parties must be prepared to meet all obligations. When necessary, the SAEC Manager must ensure that the SAEC Manager is involved in the management of compliance.	SAEC Manager	Prior to and during surveys	Compliance
	All plans must be included in the EMPR and related plans and procedures. In planning all plans, the SAEC Manager must ensure that the SAEC Manager is involved in the management of compliance. When necessary, the SAEC Manager must ensure that the SAEC Manager is involved in the management of compliance.	SAEC Manager and independent environmental scientist	Prior to and during surveys	Compliance

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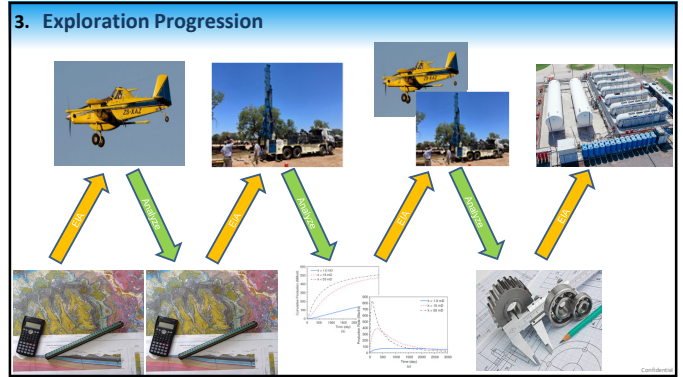
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### 2. License Update – Last Period

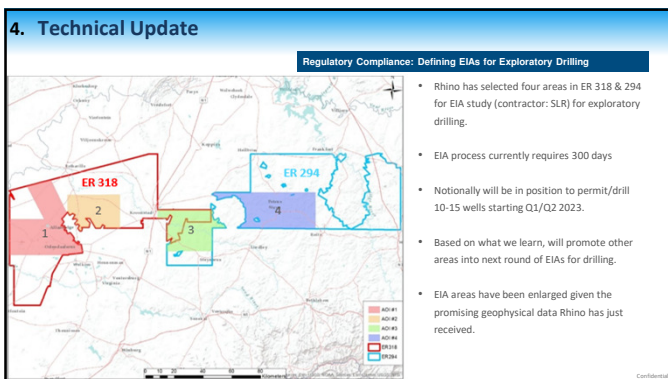
Environmental Matters – EMPR

Objectives	Management Actions	Responsibility	Implementation and Frequency	Completion Check
To keep all relevant parties informed of developments	The owners and/or a competent third party which exploration is licensed must be notified of progress and developments.	Exploration geologist	Annually or at a new development	Complete
To ensure that public complaints are responded and addressed	Rhino Oil and Gas must maintain a complaints register for the exploration. The complaints register must record the date, time, location, complainant's name and details, the nature of the complaint and the response given. The register must be available for inspection at all times. Any complaints regarding the exploration must be brought to the attention of the Exploration Manager who will take the necessary steps to investigate and address the complaint as required.	EMPR Manager	During Exploration	Complete
Maintain the site for environmental emergency response and ensure that appropriate response plans are in place	Rhino Oil and Gas must maintain a comprehensive Emergency Response Plan for the exploration. The plan must include details of the Emergency Response Team and the roles and responsibilities of each team member. The plan must also include details of the Emergency Response Team's contact information and the location of the Emergency Response Team's equipment.	Exploration Manager and Regional EMGR Manager	Prior to Exploration	Complete
Ensure appropriate responses to an emergency and prevent the escalation of an emergency	The EMGR Manager is to provide a comprehensive checklist during exploration work periods. The checklist must include details of the Emergency Response Team's contact information and the location of the Emergency Response Team's equipment.	EMGR Manager	Weekly during exploration	Complete
Representation of the required management actions and compliance with the EMPR	A copy of the EMPR must be kept at the operations or site office. Each contractor must keep a copy of the EMPR at their site/office and the copy must be available to the staff.	Exploration Manager	During exploration	Complete
	Contractors must implement any prohibitions and other instructions in force of the EMPR issued to them by Rhino Oil and Gas. Contractors must not discharge any waste or other substances without approval from Rhino Oil and Gas. The EMGR Manager must monitor and audit the exploration activities to ensure compliance with the EMPR and EMGR.	Contractor	Throughout the duration of the contract	Complete

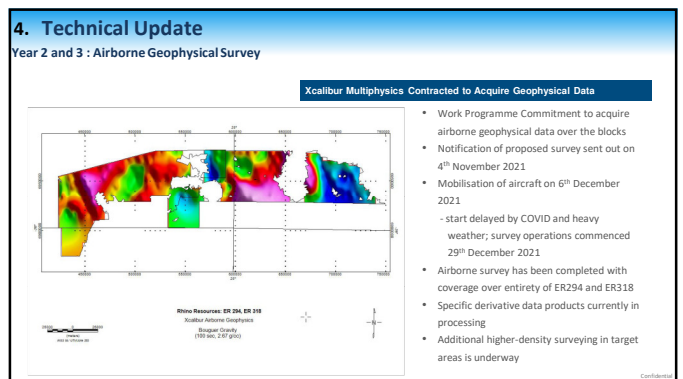
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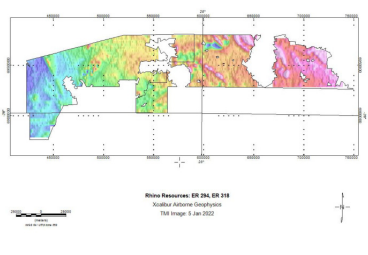


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### 4. Technical Update

Year 2 and 3 : Airborne Geophysical Survey

**Xcalibur Multiphysics Contracted to Acquire Geophysical Data**



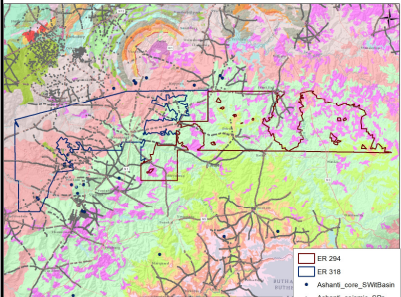
- Work Programme Commitment to acquire airborne geophysical data over the blocks
- Notification of proposed survey sent out on 4<sup>th</sup> November 2021
- Mobilisation of aircraft on 6<sup>th</sup> December 2021
  - start delayed by COVID and heavy weather; survey operations commenced 29<sup>th</sup> December 2021
- Airborne survey has been completed with coverage over entirety of ER294 and ER318
- Specific derivative data products currently in processing
- Additional higher-density surveying in target areas is underway

Rhino Resources, ER 294, ER 318  
 Xcalibur Airborne Geophysics  
 TSM Image: 5 Jan 2022

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### 4. Technical Update

**Data Acquisition/Integration: Leveraging Insight from Mining**



- Anglo Gold/Ashanti has recently released a portal with a guide to their legacy gold mining datasets.
- Reflection seismic, borehole, and company reports are potentially available.
- Rhino is meeting with Anglo Gold/Ashanti to review datasets and terms (24 January 2022).
- If terms are agreeable, these datasets will be integration products that will improve our chance of success.

ER 294  
 ER 318  
 Ashanti\_conc\_SWBbasin  
 Ashanti\_seismic\_BPs

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### 5. Drilling Contractor – Torque Africa



Conductor pipe

Drill rig from Torque Africa

B18 THOR 5000 TRUCK MOUNTED RC/ PERCUSSION DRILL RIG POWERSTEER 3200 KI

Large diameter drill bit


Drill rig verification before being deployed

Lighter duty drill rig

Last final casing if need to telescope down one more step in strata section

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### 6. Drilling Schematics - Well sketch 0/4



Drill rig - 90 to 45°

**Operations Description**

- Drilling EIA completed
- Drilling permit received
- Access agreed with landowners
- Drill site preparation ~ 40 x 40 m
- Drill rig Start Picking Up Dirt (SPUD)

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### 6. Drilling Schematics - Well sketch 1/4

Drill rig - 90 to 45°

Conductor Pipe ground water isolation  
- 40 - 60 m

Ø 12.5" / 324mm

Topsoil

Substrata

**Operations Description**

- Large diameter conductor pipe installation
- Augered/Hammered down
- Ground water usually found at ~ 20-30 m
- Casing shoe down to ~ 50m

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### 6. Drilling Schematics - Well sketch 2a/4

Drill rig - 90 to 45°

Conductor Pipe  
- 40 - 60 m

Ø 12.5" / 324mm

Slim Pilot Hole Drilled  
- 400 - 800 m

Ø 5.78" / 149 mm

possible wireline logging

Topsoil

Substrata

**Operations Description**

- Slim pilot hole drilled through rotating control head to maintain physical barrier with any potential hydrocarbons
- Potential intersection of aquifers/gas bearing sands
- Possible wireline logging tools deployed to gather static reservoir data and fluids sampling (if any)
- If gas flow, then sampling and diversion to flare

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### 6. Drilling Schematics - Well sketch 2b/4

Drill rig - 90 to 45°

Conductor Pipe  
- 40 - 60 m

Ø 12.5" / 324mm

Preventive cement job to isolate from potential aquifers and sands  
- 400 - 800 m

Ø 5.78" / 149 mm

Topsoil

Substrata

**Operations Description**

- Preventive cement injection down hole
- Isolation of any near wellbore permeable layers
- Water aquifer protection

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### 6. Drilling Schematics - Well sketch 2c/4

Drill rig - 90 to 45°

Conductor Pipe  
- 40 - 60 m

Ø 12.5" / 324mm

Bigger diameter re-drilling job in stabilized rock formation to set cemented Casing  
- 400 - 800 m

Ø 9" / 168 mm

Topsoil

Substrata

**Operations Description**

- Bigger drill bit used to enlarge initial pilot hole
- Redrilling the cement plug down to the bottom of section ~ 600m
- Installation of cemented casing
- Verification of cement job efficiency via Cement Bond Log (CBL)
- Subsurface fully isolated behind pipe and cement

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### 6. Drilling Schematics - Well sketch 3/4

Drill rig - 90 to 45°

Conductor Pipe  
- 40 - 60 m  
Ø 12 1/2" / 324mm

Isolated section behind cemented casing  
- 400 - 800 m  
Ø 9" / 168 mm

Open Hole Section in naturally fractured rocks possible wireline logging  
- 600 - 1200 m  
Ø 5" 7/8" / 149 mm

**Operations Description**

- Smaller diameter bit used in last section through rotating control head to maintain physical barrier with any potential hydrocarbons
- Naturally occurring fractures expected in Basement rock
- Basement made of competent (solid) rock
- Last section to be left Open Hole
- Possible wireline logging tools deployed to gather static reservoir data and fluids sampling (if any)
- If gas flow, then sampling and diversion to flare
- Usually down to ~ 1000m

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### 6. Drilling Schematics - Well sketch 4/4

Well capping and testing

Conductor Pipe  
- 40 - 60 m  
Ø 12 1/2" / 324mm

Isolated section behind cemented casing  
- 400 - 800 m  
Ø 9" / 168 mm

Open Hole Section  
- 600 - 1200 m  
Ø 5" 7/8" / 149 mm

**Operations Description**

- Well to be capped off with valve/pressure meter
- Well test assembly to be installed with gas metering equipment and flare stack
- Drilling equipment/waste removed from well site
- Well to be tested for certain period ~ 2 to 4 weeks in order to gather dynamic reservoir data (porosity, permeability, gas composition, pressure depletion Vs time...)
- Well secured until next operations
- End of activities

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### 6. Drill Pad and CBL Images

Production wellsite at Renegan

Gas Flaring at Renegan

**Rotating Control Device**

- The RICD allows the well to be closed in, while providing rotational capabilities, allowing drilling with pressure in the annulus.

Source: Slideshare.net/SPE

Cement Bond Logging Tool

CCL Assy

Transmitter

S-receiver

S-receiver

Casing fluid  
Casing  
Casing cement  
Transition

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### 7. Production Contractor – Galileo

Compressed Natural Gas device can be situated at the wellsite, making the complete footprint from production and extraction of gas resource around 20m<sup>2</sup> (10m<sup>2</sup> for the wellpad and 10m<sup>2</sup> for the compression box)

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**7. Production Contractor – Galileo**



If the site proves to be highly prospective, the largest scale that Rhino envisages is a footprint of approximately 0.25 Ha. This would include the largest scale compression boxes (gigabox, seen in the picture to the left).

This facility can produce liquefied natural gas that could be used as fuel for trucks/large scale machinery.

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**7. Production Contractor – Galileo**




**Galileo Patagonia Smart Station**  
For refueling LNG and LCNG

Image above shows an example of an LNG refueling station supplied by the Gigabox installers seen in the backgrnd

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Thank you!



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**Overview of EIA Process**



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### Legal Requirements

- Minerals and Petroleum Resources Development Act (No. 28 of 2002) (MPRDA):
  - Department of Mineral Resources and Energy (DMRE) is the Competent Authority (CA):
    - Responsible for the granting or refusing of an Environmental Authorisation.
    - In terms of Section 70 of the MPRDA, various duties pertaining to petroleum exploration and production have been delegated to the Petroleum Agency of South Africa (PASA) → PASA will review the EIA documents and make recommendations to DMRE to inform decision-making.
- National Environmental Management Act, 1998 (No. 107 of 1998) (NEMA):
  - Department of Forestry, Fisheries and Environment (DFFE) is the appeal authority for Environmental Authorisation decisions.

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### Scoping and EIA

- Each ER requires a distinct Scoping and EIA process
- The EIA process is undertaken to gather information to inform an authority decision on the Environmental Authorisation by:
  - identifying potential risks and benefits on the environment,
    - through consultation with landowners and stakeholders
  - assessing the significance of potential impacts (++ and --),
    - with inputs from specialist studies
  - identifying measures to prevent or mitigate impacts, should the project be approved.
- The EIA Report includes an **Environmental Management programme (EMPr)**
- The EIA process and timeframes are defined in the **EIA Regulations 2014** (as amended)

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### Scoping and EIA Process

<ul style="list-style-type: none"> <li>Initial notification</li> <li>Stakeholder registration</li> <li>Database development</li> <li>Public meetings</li> </ul>	<ul style="list-style-type: none"> <li>Submit EA application</li> <li>Prepare Draft Scoping Report</li> <li><b>30-day comment period</b></li> <li>Update and submit revised Scoping Report for acceptance</li> </ul>	<ul style="list-style-type: none"> <li>Undertake Technical / Specialist Studies</li> <li>Prepare draft EIA Report</li> <li><b>30-day comment period</b></li> <li>Update and submit Final EIA Report for decision making</li> </ul>	<ul style="list-style-type: none"> <li>EA decision</li> <li>Stakeholder notification</li> <li>Appeal process</li> </ul>
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Pre-application → Scoping Phase → Impact Assessment Phase → Appeals Phase

1. Identification of stakeholders and updating of the project I&AP database.
2. Engage with I&APs via notifications and meetings.

NB: If there are any other people who need to be informed of the project, please let the project team know.

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### Drill Site Selection Process

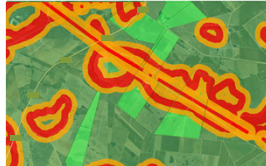
Exploration Right	Lawful entitlement (MPRDA)
ID target areas	Gas supporting geology
Desktop enviro sensitivity	Elimination of land with sensitive aspects
Land owner discussions	Rental agreement
Drill site optimization	Micro siting

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### Receiving Environment – Site Screening (1)

- Following identification of target areas within the ER, a desktop screening process was undertaken to identify potentially sensitive aspects.
- Parameters considered included:
  - Ecology
  - Freshwater
  - Heritage
  - Geohydrology
- Medium and high sensitive areas were excluded for consideration for placement of wells.



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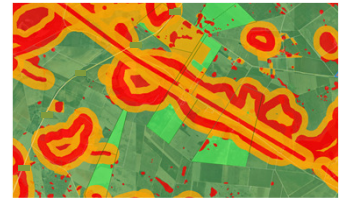


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### Receiving Environment – Site Screening (2)

- Identified properties within target areas preferred for well drilling.
- ROGESA is approaching landowners for consent to access.
- Available target sites will be investigated on foot by specialists to determine whether any sensitivities are present.
- Locations of sites suitable for well drilling will be specified.
- Specialist studies and impact assessment will be documented in the EIA phase.



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### Proposed Specialist Studies



Aquatic Biodiversity assessment  
Terrestrial Biodiversity assessment



Heritage assessment  
Palaeontology assessment



Hydrogeology assessment

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### Next Steps

- Minutes of meetings to be compiled.
- I&APs to:
  - contact SLR for information and / or documents.
  - submit comments / questions / issues to SLR.
- All registered I&APs (by completing meeting attendance register) will be notified of the next round of public participation – e.g. availability of Draft Scoping Report for review and comment.
- Documents will be made available in hard copy and posted to SLR's website and data free website, when available.

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### Opportunities to Comment / Participate

**EIA Process**

Pre-Application Phase (2022):	Scoping Phase (2022):	Impact Assessment Phase (2023):	Decision / Appeal (2023):
<ul style="list-style-type: none"> <li>I&amp;AP notification and registration</li> <li>Update of project I&amp;AP database.</li> <li>Public Information meetings.</li> <li>Preliminary specialist screening of identified target farms.</li> </ul>	<ul style="list-style-type: none"> <li>Submission of EA application.</li> <li>Distribute Draft Scoping Report for public review and comment (30-days).</li> <li>Update Scoping Report with comments received.</li> <li>Submission of Scoping Report to the CA.</li> <li>CA accepts or reject the Scoping Report.</li> </ul>	<ul style="list-style-type: none"> <li>Distribute Draft EIA Report for public review and comment (30-days).</li> <li>Public meetings.</li> <li>Update EIA Report with comments received.</li> <li>Submission of EIA Report to the CA.</li> <li>PASA and DMRE review the EIA Report</li> </ul>	<ul style="list-style-type: none"> <li>CA grants EA or rejects the application.</li> <li>Registered I&amp;APs notified of EA decision and appeals process.</li> <li>20 days to submit an appeal from date of notification.</li> </ul>

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### Reminder: Constructive discussion guidelines

Public consultation is **NOT** a voting or consensus-driven process, rather a process of collecting input for purpose of enabling decision-maker to consider issues and impacts.

1. Raise your hand to comment or ask a question and work through the facilitator(s).
2. Identify yourself, name and surname and organisation.
3. Respect one another.
4. Focus on the issue, not the person. Agree to disagree.
5. One question at a time. Ask questions concisely.
6. Please turn your cell phones on silent.

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## Open Session: Questions & Discussion

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### SLR Contact Details


Method	Contact Details
Post:	PO Box 1596, Cramerville, 2060
Tel:	011 467 0945
WhatsApp / SMS:	<ul style="list-style-type: none"> <li>ER 294 - 066 313 7574</li> <li>ER 318 - 066 171 3677</li> </ul>
E-mail:	<ul style="list-style-type: none"> <li>ER 294 - <a href="mailto:RhinoER294@slrconsulting.com">RhinoER294@slrconsulting.com</a></li> <li>ER 318 - <a href="mailto:RhinoER318@slrconsulting.com">RhinoER318@slrconsulting.com</a></li> </ul>
Web:	<ul style="list-style-type: none"> <li><a href="https://www.slrconsulting.com/en/public-documents/Rhino-well-ER294">https://www.slrconsulting.com/en/public-documents/Rhino-well-ER294</a></li> <li><a href="https://www.slrconsulting.com/en/public-documents/Rhino-well-ER318">https://www.slrconsulting.com/en/public-documents/Rhino-well-ER318</a></li> </ul>
Data Free Web:	<ul style="list-style-type: none"> <li><a href="https://slrpublicdocs.datafree.co/en/public-documents/Rhino-well-ER294">https://slrpublicdocs.datafree.co/en/public-documents/Rhino-well-ER294</a></li> <li><a href="https://slrpublicdocs.datafree.co/en/public-documents/Rhino-well-ER318">https://slrpublicdocs.datafree.co/en/public-documents/Rhino-well-ER318</a></li> </ul>

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HOLDING SLIDES

No stimulation during well testing





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### Key Issues – Need & Desirability

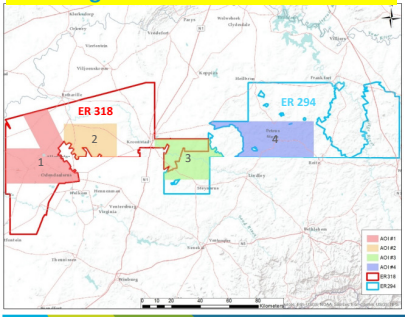
1. Global concern of the need to reduce carbon emissions
2. Rapid transition to net zero presents a potential risk to economic growth
3. Current policies acknowledge that natural gas is required in the JUST TRANSITION to net carbon zero by 2050
4. It is SA government policy to use gas in the energy mix in the transition and to explore and develop indigenous gas resources
5. These national strategic policy issues relating to energy and climate change and how South Africa uses fossil fuels fall beyond the scope of the EIA
6. In making a decision, DMRE will need to weigh up:
  - Current national strategic policies and the transition to net carbon zero
  - Need for a stable electricity supply and economic growth
  - Current reliance of liquid fuel imports versus the use of a local resource
  - Potential impacts and risks associated with the proposed project


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### Receiving Environment HOLDING SLIDE



- NEED TO SEE WHAT RHINO IS PRESENTING TO SEE IF ANY SLIDES ARE REQUIRED REGARDING PROJECT LOCATION AND TARGET FARMS



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APPENDIX 3: PHOTOS OF PUBLIC MEETING







## RHINO OIL AND GAS EXPLORATION SOUTH AFRICA (PTY) LTD

### NOTES OF PRE-APPLICATION PUBLIC MEETING

<b>DATE</b>	07 September 2022, 15h00
<b>VENUE:</b>	Steynsrus Boerevereniging Hall
<b>PROJECT:</b>	EIA for well drilling in 294 Exploration Right
<b>SLR COMPANY:</b>	South Africa
<b>PROJECT NUMBER:</b>	720.18034.00020
<b>PURPOSE:</b>	<p>The purpose of the meeting was to provide:</p> <ul style="list-style-type: none"> <li>• An introduction and overview of the proposed project;</li> <li>• An overview of the required Scoping &amp; Environmental Impact Assessment (S&amp;EIA) process;</li> <li>• An overview of the specialist input;</li> <li>• An overview of the public participation process; and</li> <li>• An opportunity to ask questions and raise any issues and concerns.</li> </ul>
<b>ATTENDANCE:</b>	An attendance register is presented in Appendix 2.

## 1. OPEN AND INTRODUCTION

Ms Antoinette Pietersen (AP) opened the meeting and welcomed everyone present and introduced herself as the independent facilitator of the meeting. AP then opened the floor for the project team to introduce themselves. Mr Travis Smithard (TS) introduced himself and Mr Gilles Pantanance (GP) as the Rhino Oil and Gas Exploration South Africa (Pty) Ltd (ROGESA) team (the applicant) and Mr Theo Wicks (TW) introduced himself, Mr Nicholas Arnott (NA) and Ms Gugu Dhlamini (GD) as the independent Environmental Consultants from SLR who are appointed by ROGESA to undertake the Scoping and Environmental Impact Assessment (S&EIA) process for the proposed exploration well drilling project. A list of attendees is provided in Appendix 2.

AP explained that the meeting/consultation is not a voting or consensus-driven process, rather a process of collecting input for the purpose of enabling the decision-maker to consider key issues and impacts of concern raised by Interested and/or Affected Parties (I&APs). AP then provided a brief overview of the ESIA process and noted that SLR is in the pre-application phase of the process and the S&EIA phases have not formally begun.

AP outlined the meeting's agenda, health and safety points and the proposed protocol and indicated that the presentation would be presented by the project team in English. It was suggested that questions be asked at the end of each presentation (i.e., Rhino and SLR's presentations). AP stated that she would record issues raised onto the flipchart and will make them available for photography at the end of the meeting. I&APs requested for the meeting not to be recorded.

## 2. PRESENTATION

TS gave a presentation providing an overview of the proposed project and its need and desirability. In this regard, the project objectives, regulatory compliance requirements (for Environmental Authorisation (EA) renewal) and the technical exploration background and progression to date were highlighted. GP gave a high-level description of how the proposed well drilling will be undertaken by the drilling contractor and how the wells will be cemented and isolated to prevent any seepage to subsurface. Additional detail on the gas testing phase was also provided. Lastly, a possible production phase scenario was outlined, by the ROGESA team, should the site prove to be highly prospective.

In the second segment of the presentation, TW provided an overview of the S&EIA process. This fundamentally outlined the proposed project's regulatory framework and legal requirements, the S&EIA process, the drill site selection process (including site screening), the proposed specialist studies to be undertaken as well as the public participation process/opportunities for I&APs to comment and participate.

A copy of the presentation is included in Appendix 3.

## 3. DISCUSSION

A few issues were raised during the meeting. These have been recorded in the table attached as Appendix 1. Where a response was provided the response has been included in the table.

## 4. THE WAY FORWARD

TW outlined the way forward as follows:

- Compilation and distribution of meeting notes/minutes.
- I&APs are to:
  - contact SLR for information and / or documents.
  - submit comments / questions / issues to SLR.
- Notification of all registered I&APs (who have completed the meeting attendance register) of the next round of public participation – e.g., availability of Draft Scoping Report for review and comment.
- Documents will be made available in hard copy and posted to SLR's website and data free website, when available.

## 5. CLOSE

AP and TS thanked attendees for their input and for making the time to attend the meeting. The meeting was closed by AP.

APPENDIX 1: RECORD OF ISSUES RAISED AND RESPONSES GIVEN

Issue Raised	By Whom	Response (given by ROGESA or SLR unless stated otherwise)
Do you use mud during the drilling process?	Ben	Air drilling is the primary method of drilling that will be used, however should the drillers experience difficulties with the geology at deeper depths then there is a possibility of using mud drilling, however this is unlikely and is only considered a secondary/alternative approach.
How will the well be kept from not caving in?		Firstly, good rock structure would ensure that the well does not cave in. Secondly, air drilling also ensures that the well does not cave in.
How deep will you be drilling?		This will be dependent on where exactly drilling will happen, typically the depth is between 400m -800m. A further 200m – 300m can be drilled. So, a maximum depth of approximately 1200 m may be drilled.
Should mud drilling be used, will the mud not come into contact with the groundwater resulting in contamination?		ROGESA understands the hydraulic sensitivity of the zone and that water is a key issue and are therefore cognisant of this. The additives used by Torque Africa for the Renegeren drilling included fully biodegradable foam. In the event that mud drilling is undertaken, the Material Safety Data Sheet (MSDS) will be made available.
I assume there will be no financial gain for gas extraction for the farmers. Will the government receive all financial gain?	Boy Simon	No. ROGESA will enter into a contract with the land owners to agree on the land rental amount.
If ROGESA starts drilling and cementing and later decides to leave the area, who will then be responsible for pollution prevention once you've left?	JSL Nagel	Once the well is closed, it is sealed completely with cement. If the cement cracks, all the rocks will also crack and gas leak.
What will happen if as a landowner I don't give consent for drilling on my farm?		Then ROGESA will not drill on your farm and go somewhere else.
Would ROGESA be able to get gas off my property even if they drill on my neighbour's farm?		Technically this is unlikely due to the depth of the resource. It would unlikely be possible to reach the gas via a neighbourly property.
How would groundwater be rehabilitated in case of contamination?	Ben	ROGESA does not currently have the technical response to the question. The geohydrologist team would be able to answer at a later stage.

Issue Raised	By Whom	Response (given by ROGESA or SLR unless stated otherwise)
<p>What gases will ROGESA be looking for during drilling?</p>		<p>Natural gas has been documented in Edenville, Bothaville and Petrus Steyn. ROGESA is expecting to find 91-97% of methane, with the remaining 3% being Argon, Helium and Nitrogen. The natural gas is very clean but comes from biogenic sources.</p>
<p>In the event of a major accident resulting in methane being released into the groundwater and thus making the groundwater acidic, how will ROGESA rehabilitate the water?</p>		<p>Your assumption is that the gas will enter the water table, however this is untrue as natural gas will go to the surface, this is pure Physics – natural gas always goes to the lowest pressure point, which will be the surface.</p> <p>Should this unlikely scenario however occur, the technical solution would be to cement the entire well to patch the fractures. If this option does not work, then ROGESA will redrill parallel to the damaged well at a bigger diameter and remedy it by milling the well and cementing it to close it.</p> <p>A more technical solution to this would be to drill a water producer well that is purposely designed to pump the water from the gas filled aquifer. You can do this very quickly and early, because drilling that well would take less than a week. You then pump the water that has the gas to the surface, and remove the gas, thereafter you drill another well which would redirect the clean water back to the ground.</p>
<p>I understand that, however that will take 4-6 weeks. Lots of damage/contamination would be taking place during then. How will the groundwater be rehabilitated?</p>		<p>There are over 30 000 boreholes that have been drilled in the Free State, by farmers and mines. If it was as bad as you're saying, then the entire Free State would have a big issue.</p>
<p>Who is the owner and director of ROGESA?</p>		<p>Gerald Hendriks</p>
<p>I am also worried about the drilling activities' impacts on my farm, even if you drill on my neighbour's farm.</p>		<p>The Environmental Impact Assessment will consider the highly sensitive/high-risk areas and Rhino may decide not to drill in these areas. Risk mitigation measures will also be considered for these areas.</p>

Issue Raised	By Whom	Response (given by ROGESA or SLR unless stated otherwise)
What would there be in terms of benefits for the community if the exploration really finds a resource? If only one well is possible, what percentage (of profits) could be given to Steynsrus?	JSL Nagel	The answer to that centres around the real size of resources.
What percentage can be given to uplift the community of Steynsrus, for a hospital or mall?	Annikie	ROGESA is unable to answer this question at this stage of the process.
How many people will be employed from inception of the plant to extraction?	JSL Nagel	If 20-40 wells are needed to operate then 2-3 people are needed to verify that the wells are working in order. About 5-10 people for operating and maintaining everything else. Therefore 10-20 people in total. The main employment will be indirect employment opportunities.
I would like to commend ROGESA for saying that they will go elsewhere should the landowners not give consent to drill on their farms.	Johan Botha	Noted.
Is it possible to exclude the title deeds from the PASA application for the farmers that are not interested/give consent to the proposed project?		ROGESA will have to check with PASA, but from our understanding we cannot relinquish individual farms in the Exploration Right Areas, the farms would have to be contiguous.
Will ROGESA sign an agreement with the farmers that no fracking will be taking place?		ROGESA has already sent out a letter of commitment to the farmers with Travis Smithard's (South African director) and the head director's signatures stating that no hydraulic fracking will be undertaken.
Does SLR know the risks involved that will be set out in the S&EIA?		Yes, the scope of assessment for the current exploration programme will be included in the Scoping Report.
Will there be compensation if there's pollution to the water resources?		There will be a financial liability assurance guarantee, which is available in different ways. This can be deposited into a trust account that is held by PASA or ROGESA can set up their own trust fund and set the money aside in that trust for rehabilitation. That total amount is worked out on a particular calculation.
When the project is decommissioned, what will the monitoring process and requirements be and for how long? Thereafter, what will happen if something goes wrong after decommissioning?		The fund is there for ROGESA to draw from until rehabilitation is completed and has been signed off. The drilled well will be plugged completely with cement and thereafter the geohydrologists, as part of the impact assessment, will identify where ROGESA will have to drill monitoring wells and will then set up a monitoring programme

Issue Raised	By Whom	Response (given by ROGESA or SLR unless stated otherwise)
		<p>which will stipulate recommendations on the frequency and duration the monitoring should take place. This could be anything between 2-5 years after decommissioning.</p>
<p>Does the landowner have any say about the monitoring requirements following decommissioning?</p>		<p>Absolutely. That would go into the EMPr and if the landowner feels that the stipulated requirements are inadequate then it can be amended. Secondly, it becomes a relationship factor between ROGESA and landowners, more than it is a legal requirement factor.</p>
<p>Where will the landowner claim if ROGESA is nowhere to be found following the decommissioning?</p>		<p>The law makes provision to say that despite ROGESA walking away after closure, if they have caused any harm, they are obliged to fix it. This would fall under the Duty of Care provisions.</p> <p>In terms of money, an Escrow account which needs 2 signatories to ensure that the funds are used appropriately will be set up. The second signatory would likely be a Community Liaison Officer on behalf of the farmers. Furthermore, an auditor will likely also be appointed to audit the site post decommissioning and if there are still any problems even post decommissioning then money can be taken from the escrow account to remedy that. The EMPr will determine how long the funds exist post decommissioning. Furthermore, a formal closure process will be followed by the Department of Mineral Resources and Energy (DMRE) after the decommissioning phase.</p>
<p>If there are some farmers that would like to continue with the process, then the farmers would like to see an external Environmental Control Officer from within every farmers' union region. Is that a requirement that will come with the EA or can it be included as part of the Environmental Management Programme?</p>		<p>It is possible to add some recommendations, but SLR cannot necessarily commit to that as a person with such expertise may not be available in that region.</p>
<p>How often is the water around the wells normally tested and what is the radius?</p>		<p>From some of our auditing and sampling &amp; monitoring experience this is usually undertaken monthly. The radius comes down to the recommendations by the geohydrologists.</p>
<p>Is it possible to see the Geohydrological report before the scoping report is submitted to the authorities?</p>		<p>Yes, however it depends on when the geohydrological report will become available. The environmental scoping report will likely include a geohydrological baseline by the geohydrologist, which will</p>




Issue Raised	By Whom	Response (given by ROGESA or SLR unless stated otherwise)
		be sourced by undertaking a hydro census on site which details the water quality and quantity etc.
Will the geohydrological report have sufficient risk and impacts set out?		As part of the Environmental Impact Assessment phase reports, not the scoping, yes.
Security is a measure issue. The farmers experience stock theft in the area and people who work on projects like these usually inform criminals to come and steal. So what security measures will be put in place?		ROGESA would work with the community to ensure the security in the area is maintained.
Is it possible to issue a police security clearance for all the employees?		Yes, ROGESA can speak to Torque Africa about this.
What will prevent the water table from draining into the ground next to the casing?		The cement used for the wells is different from normal cement, the cement is very liquid and is able to go into the pores of the well. The more it progresses into the pores, the more it sets. The geology also prevents the water from draining downwards and physics says that the pressure would force the water upwards.
How much gas will be left in the reservoir after the project is completed and will this gas not move upwards and cause a risk of water and soil contamination?		Gas has pressure, so when you extract gas you decrease the pressure at the bottom of the well and thus at the top of the well too. This results in the well reaching equilibrium and thus the stop of the flow of gas.
Will some of the biological processes not continue to give gas?		ROGESA is hoping that is the case because if there's a continuous production of gas hopefully it will keep a relative pressure and this will produce for 150 years.
The drilling of 15 holes was mentioned now, but I previously read 40. Please clarify.	Ben	The EA we've asked for is for 40 wells, however ROGESA will initially drill 15 wells and dependent on the outcome of those wells, more wells will be drilled.
How long will the exploration process take after you have been granted the EA? A 2-year period was mentioned.		The government gives you 2 years to accomplish your exploration work. If you get to the end of the 2 years and still need more time to explore, then you need to provide a motivation as to why and request another 2 years. In the South African legislation, you get an initial 3-year period and 3 2-year renewal periods to explore. ROGESA has gone through their first 3-year period and is now

Issue Raised	By Whom	Response (given by ROGESA or SLR unless stated otherwise)
		<p>applying for their first 2-year renewal period, and we will have the option of 2 more thereafter, provided we receive the EAs to do so.</p> <p>Hypothetically, ROGESA could drill 15 wells in 3 months, analyse the results in 2 months and if the results are favourable more wells would be drilled over a year and eventually we would apply for a production right. A 300-days EIA would then need to be undertaken to convert from an Exploration Right to a Production Right. So we are looking at 3-4 years at best.</p>
<p>What happened in Kwa-Zulu Natal Harrismith/Ladysmith, why did you stop exploring there?</p>		<p>There were two changes in the company, firstly the company got new investors and the whole team got replaced. I (Travis Smithard) was a Geophysicist and then became director and I did not believe in the technical merit of that exploration, hence why we stopped in Kwa-Zulu Natal.</p>
<p>My biggest concern is water contamination, I've seen this happen in the DRC. Companies like ROGESA make empty promises to people telling them they will retire rich and then 5 years down the line the water is acidic and no one can use it, and the company has disappeared.</p>		<p>ROGESA understands your concern and we understand that for most people farming is not just commercial, but it's a heritage that is why we are doing our research to ensure that the well drilling is done according to the best international standards.</p>
<p>If the pressure is equalised down the well and you plug the well, what are the chances then of the gas leaching into the ground?</p>	<p>Johan Botha</p>	<p>The chances are very small. There are several ways to safely abandon the well. One being putting cement in the well which will infiltrate the cracks and because there is no pressure in the well against the cement, the cement will isolate everything. The other option is to do a chemical peel, which is basically using a jelly-like substance to plug the permeable pores/pathways which the gas would escape, this would block the porosity and permeability.</p>
<p>If the pressure is equalised, will the gas not rise post closure as well?</p>		<p>No, because the pressure is in equilibrium.</p>
<p>Can the presentation be shared with us?</p>	<p>Benita Norman</p>	<p>Yes, the presentation will be put up onto the SLR website.</p>
<p>Who owns Rhino?</p>	<p>Kristie Prinsloo</p>	<p>It is a total of 8 people from the USA, UK and South Africa. Unfortunately, not more information about the investors can be disclosed at this point.</p>

Issue Raised	By Whom	Response (given by ROGESA or SLR unless stated otherwise)
Will Geotechnical studies be undertaken?	Benita Norman	ROGESA is looking at a 3-month programme for the exploration, if there's a geotechnical risk we identify or that you're particularly concerned with let us know and ROGESA and SLR will look into it.




## APPENDIX 3: MEETING PRESENTATION



**EIAS FOR PROPOSED EXPLORATION  
WELL DRILLING IN ER 294 AND ER 318,  
FREE STATE PROVINCE**

Rhino Oil and Gas Exploration South Africa (Pty) Ltd



Public Information Meeting  
September 2022

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### 1. Introductions

- Independent Facilitator:
  - Antoinette Pietersen
- Applicant – Rhino Oil and Gas Exploration South Africa (Pty) Ltd (ROGESA):
  - Travis Smithard (Director)
  - Gilles Pantanacce (Engineering Manager)
- Environment Assessment Practitioner (EAP) - SLR Consulting (Pty) Ltd:
  - Theo Wicks (Project Manager – ER 294)
  - Nicholas Arnott (Project Manager – ER 318)
  - Gugu Dhlamini (Project Assistant)

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### 2. Health and Safety

- Emergency procedure: Building Safety Instructions
- Ablutions (Mens and Ladies Toilets)




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### 3. Meeting Objectives

- For Applicant and EAP to provide an introduction to:
  - the proposed project
  - the EIA and public participation process to be undertaken during the application for Environmental Authorisation.
- For Interested and/or Affected Parties (I&APs) to:
  - Engage and ask questions, raise issues of concern, or contribute comments about the proposed project, potential environmental or social risks and the EIA process.

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#### 4. Draft Agenda

1. Welcome and Introductions
2. Project Overview – ROGESA
  - 2.1 Questions for clarification
3. EIA Overview – SLR
  - 3.1 Questions for clarification
4. Next Steps
5. Open Session: Questions & Discussion



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#### 5. Meeting Protocols (1)

- Attendance register and POPI Act
- Meeting is being recorded

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#### 5. Meeting Protocols (2)

- Flow of meeting:
  - Presentations: approximately 20 - 25 minutes each
  - Questions and discussion session after all presentations
  - Meeting duration: approximately 2 hours
- Proceedings of the meeting will be included in Draft Scoping Report (to be posted to SLR's website and data free website, when available).

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#### 6. Constructive Discussion Guidelines

Public consultation is **NOT** a voting or consensus-driven process, rather a process of collecting input for purpose of enabling decision-maker to consider issues and impacts.

1. Raise your hand to comment or ask a question and work through the facilitator.
2. Identify yourself (name, surname and organization).
3. Respect one another.
4. Focus on the issue, not the person. Agree to disagree.
5. One question at a time. Ask questions concisely.
6. Please turn your cell phones on silent.

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### 1. Project Objectives

Needs and Desirability for Helium and Natural Gas

**Today: South Africa's dirty power mix**

- Renewables <10% of power generation
- >77% low-efficiency coal with high sulfur content
- Old unreliable plants: 2/3rds reach end of life by 2030

**The end of load shedding**

- Reliable Bio-Gas fired power plants (>25% SA coal fleet)
- Excellent at peaking, fast load balancing, grid stabilization
- Enables resurgence in dormant industrial complex (mines, smelters, etc.)

**Reducing CO<sub>2</sub> & natural methane emissions**

- Methane captured vs natural seepage (UN: "urgent need")
- >96% GHG emissions reduction (CO<sub>2</sub>, methane) per GW of fuel switch
- Gas replaces coal in other sectors (CTL to GTL at Sasol Secunda Plant)

**Tomorrow: reliable, clean, affordable power (UN SDG 7.1 - 7.3, 12.2)**

- Secure, long term dispatchable/back-up power capacity
- Renewables made economically and technically viable
- Multiplier: economic activity and GDP growth unlocked

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### 1. Project Objectives

Renewal Application (MPRDA – Section 81)

81. (1) Any holder of an exploration right who wishes to apply to the Minister for the renewal of an exploration right must lodge the application—

- at the office of the designated agency;
- in the prescribed manner; and
- together with the prescribed non-refundable application fee.

(2) An application for renewal of an exploration right must—

- state the reasons and period for which the renewal is required;
- be accompanied by a detailed report reflecting the exploration results, the interpretation thereof and the exploration expenditure incurred;
- be accompanied by a **report reflecting the extent of compliance with the requirements of the approved environmental management programme, the rehabilitation to be completed and the estimated cost thereof;** and
- include a detailed exploration work programme for the renewal period.

(3) The Minister must grant the renewal of an exploration right if the application complies with subsections (1) and (2) and the holder of the exploration right has complied with the—

- terms and conditions of the exploration right is not in contravention of any relevant provision of this Act or any other law;
- exploration work programme; and
- requirements of the approved environmental management programme.

(4) An exploration right may be renewed for a maximum of three periods not exceeding two years each.

(5) An exploration in respect of which an application for renewal has been lodged shall, notwithstanding its expiry date, remain in force until such time as such application has been granted or refused.

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### 2. License Update – Last Period

Environmental Matters – EMPR

Objective	Management Actions	Responsibility	Implementation and Frequency	Compliance Check
Ultimate responsibility for the implementation of and compliance with the EMPR during exploration remains with the Contractor.	Rhino Oil and Gas to ensure that the Exploration Manager is responsible for ensuring compliance with the EMPR. The Exploration Manager is responsible for implementation, monitoring and reporting compliance with the EMPR.	Rhino Oil and Gas	On approval of EMPR, continuous	Compliance
	The Exploration Manager may engage specialist consultants (regarding the EMPR) to offer advice and support in the management of the EMPR.	Exploration Manager	Weekly	Compliance
	Rhino Oil and Gas to ensure that all contractors and sub-contractors are aware of and comply with the EMPR. The Exploration Manager is responsible for ensuring compliance with the EMPR.	Exploration Manager	Throughout the duration of a contract.	Compliance
	Adherence to the conditions of the right and the EMPR must be included as a contractual requirement.	S&C Manager	Throughout the duration of a contract.	Compliance
All contractors must be provided with a copy of the EMPR and related plans and procedures. Back-up copies to be provided to the Exploration Manager and the Exploration Manager to ensure compliance with the EMPR. Contractors are responsible for compliance with the EMPR for all aspects of their work package.	Any incident or non-compliance is to be immediately reported to Rhino Oil and Gas.	Contractor	Throughout the duration of the contract.	Compliance
	The Exploration Manager must ensure that S&C Manager is involved in the management of compliance.	Contractor	Weekly during exploration.	Compliance
	The S&C Manager to ensure regular compliance checks during all exploration work periods. Report to be submitted to the Exploration Manager.	S&C Manager	Report annually.	Compliance
	Compliance with specific reporting requirements to be included in the exploration work package. All contractors to be provided with a copy of the EMPR and related plans and procedures.	Contractor	Report annually.	Compliance
All planned survey rights shall comply with local and national rules. Right parties must be provided to meet all obligations. When necessary, a permit must be obtained. When necessary, a permit must be obtained. When necessary, a permit must be obtained. When necessary, a permit must be obtained.	All plans, maps, technical or geological data received will be kept on a secure and accessible system. In providing the plans, maps, technical or geological data, the Exploration Manager shall ensure that the information is accurate, complete and up-to-date. When practical, right parties should ensure that their data is kept secure.	S&C Manager and independent environmental scientist	Prior to and during surveys.	Compliance
	When rights are planned to occur over game farms or other potentially sensitive areas, measures should be implemented to ensure game and other sensitive areas are protected.	S&C Manager and independent environmental scientist	Prior to and during surveys.	Compliance

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### 2. License Update – Last Period

Environmental Matters – EMPR

Objectives	Management Actions	Responsibility	Implementation and Frequency	Completion Check
To keep all relevant parties informed of developments	The owners and/or a competent third party which exploration is licensed must be notified of progress and developments.	Exploration geologist	Annually or at a new development	Complete
To ensure that public concerns are responded to	Rhino Oil and Gas must maintain a complaints register for the exploration. The complaints register must record the date, time, location, contact details and the nature of the complaint. The register must be available for public inspection at all times. Any complaints regarding the exploration must be brought to the attention of the Exploration Manager who will take the necessary steps to investigate and advise an investigation when required.	EMPR Manager	During Exploration	Complete
Maintain the site for environmental emergencies	Risk assessments to be undertaken for all exploration activities. Environmental Emergency Response Plans are to be developed for potential high risks. Rhino Oil and Gas is to provide consultation with support of the Emergency Response Plan to the relevant authorities to ensure that the Emergency Response Plans are fit for purpose.	Regional EMR Manager	Prior to Exploration Far away sea activity	Complete N/A
Ensure appropriate responses to an emergency and prevent the escalation of an incident	The EMR Manager is to ensure regular completion checks during all exploration work periods. Results are to be high. Contractor site specific requirements are to be provided to the contractor or person involved in. Report annually activities which risk assessment has identified as being high risk.	Exploration Manager and Regional EMR Manager EMPR Manager	During Exploration, at an incident Weekly during exploration	Complete N/A
Representation of the required management resources and compliance with the EMPR	A copy of the EMPR must be kept at the operations or site office. Each contractor must keep a copy of the EMPR at their site/office and the copy must be available to the staff.	Exploration Manager	During exploration	Complete
	Contractors must implement any prohibitions and other instructions in force of the EMPR issued to them by Rhino Oil and Gas. Contractors must not discharge into the EMR or other water bodies without approval from Rhino Oil and Gas. The EMR Manager must monitor and audit the exploration activities to ensure compliance with the EMPR and EMR.	Contractor	Throughout the duration of the contract	Complete

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### 3. Exploration Progress

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### 4. Technical Update

Regulatory Compliance: Defining EIAs for Exploratory Drilling

- Rhino has selected four areas in ER 318 & 294 for EIA study (contractor: SLR) for exploratory drilling.
- EIA process currently requires 300 days
- Notionally will be in position to permit/drill 10-15 wells starting Q3/Q2 2023.
- Based on what we learn, will promote other areas into next round of EIAs for drilling.
- EIA areas have been enlarged given the promising geophysical data Rhino has just received.

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### 4. Technical Update

Year 2 and 3 : Airborne Geophysical Survey

Xcalibur Multiphysics Contracted to Acquire Geophysical Data

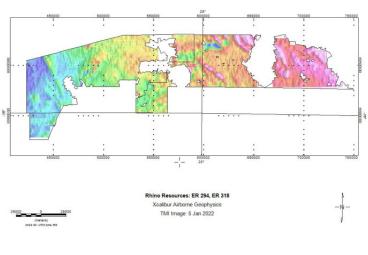
- Work Programme Commitment to acquire airborne geophysical data over the blocks
- Notification of proposed survey sent out on 4<sup>th</sup> November 2021
- Mobilisation of aircraft on 6<sup>th</sup> December 2021
  - start delayed by COVID and heavy weather; survey operations commenced 29<sup>th</sup> December 2021
- Airborne survey has been completed with coverage over entirety of ER294 and ER318
- Specific derivative data products currently in processing
- Additional higher-density surveying in target areas is underway

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### 4. Technical Update

Year 2 and 3 : Airborne Geophysical Survey

**Xcalibur Multiphysics Contracted to Acquire Geophysical Data**



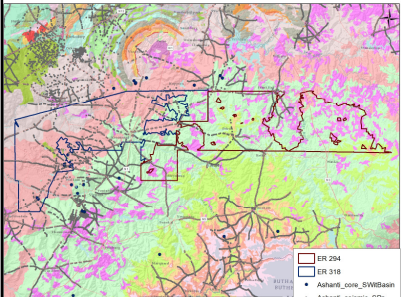
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- Specific derivative data products currently in processing
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Rhino Resources, ER 294, ER 318  
 Xcalibur Airborne Geophysics  
 TSM Image: 5 Jan 2022

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### 4. Technical Update

**Data Acquisition/Integration: Leveraging Insight from Mining**



- Anglo Gold/Ashanti has recently released a portal with a guide to their legacy gold mining datasets.
- Reflection seismic, borehole, and company reports are potentially available.
- Rhino is meeting with Anglo Gold/Ashanti to review datasets and terms (24 January 2022).
- If terms are agreeable, these datasets will be integration products that will improve our chance of success.

ER 294  
 ER 318  
 Ashanti\_conc\_SWBbasin  
 Ashanti\_seismic\_BPs

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### 5. Drilling Contractor – Torque Africa



Conductor pipe

Drill rig from Torque Africa

B18 THOR 5000 TRUCK MOUNTED RC/ PERCUSSION DRILL RIG POWERSTEER 3200 KI

Large diameter drill bit


Drill rig verification before being deployed

Lighter duty drill rig

Last final casing if need to telescope down one more step in 8' segments section

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### 6. Drilling Schematics - Well sketch 0/4



Drill rig - 90 to 45°

**Operations Description**

- Drilling EIA completed
- Drilling permit received
- Access agreed with landowners
- Drill site preparation ~ 40 x 40 m
- Drill rig Start Picking Up Dirt (SPUD)

20

### 6. Drilling Schematics - Well sketch 1/4

Drill rig - 90 to 45°

Conductor Pipe ground water isolation  
- 40 - 60 m

Ø 12.5" / 324mm

Topsoil

Substrata

**Operations Description**

- Large diameter conductor pipe installation
- Augered/Hammered down
- Ground water usually found at ~ 20-30 m
- Casing shoe down to ~ 50m

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### 6. Drilling Schematics - Well sketch 2a/4

Drill rig - 90 to 45°

Conductor Pipe  
- 40 - 60 m

Ø 12.5" / 324mm

Slim Pilot Hole Drilled  
- 400 - 800 m

Ø 5" 7/8" / 149mm

possible wireline logging

Topsoil

Substrata

**Operations Description**

- Slim pilot hole drilled through rotating control head to maintain physical barrier with any potential hydrocarbons
- Potential intersection of aquifers/gas bearing sands
- Possible wireline logging tools deployed to gather static reservoir data and fluids sampling (if any)
- If gas flow, then sampling and diversion to flare

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### 6. Drilling Schematics - Well sketch 2b/4

Drill rig - 90 to 45°

Conductor Pipe  
- 40 - 60 m

Ø 12.5" / 324mm

Preventive cement job to isolate from potential aquifers and sands  
- 400 - 800 m

Ø 5" 7/8" / 149 mm

Topsoil

Substrata

**Operations Description**

- Preventive cement injection down hole
- Isolation of any near wellbore permeable layers
- Water aquifer protection

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### 6. Drilling Schematics - Well sketch 2c/4

Drill rig - 90 to 45°

Conductor Pipe  
- 40 - 60 m

Ø 12.5" / 324mm

Bigger diameter re-drilling job in stabilized rock formation to set cemented Casing  
- 400 - 800 m

Ø 9" / 168 mm

Topsoil

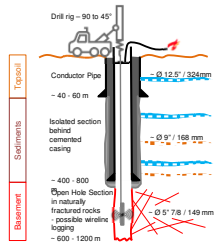
Substrata

**Operations Description**

- Bigger drill bit used to enlarge initial pilot hole
- Redrilling the cement plug down to the bottom of section ~ 600m
- Installation of cemented casing
- Verification of cement job efficiency via Cement Bond Log (CBL)
- Subsurface fully isolated behind pipe and cement

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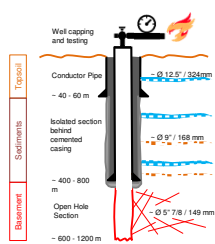
### 6. Drilling Schematics - Well sketch 3/4



- Operations Description**
- Smaller diameter bit used in last section through rotating control head to maintain physical barrier with any potential hydrocarbons
  - Naturally occurring fractures expected in Basement rock
  - Basement made of competent (solid) rock
  - Last section to be left Open Hole
  - Possible wireline logging tools deployed to gather static reservoir data and fluids sampling (if any)
  - If gas flow, then sampling and diversion to flare
  - Usually down to ~ 1000m

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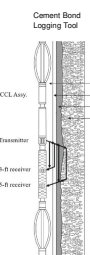
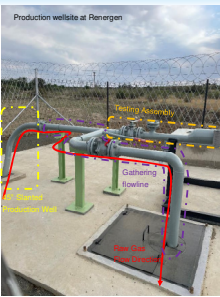
### 6. Drilling Schematics - Well sketch 4/4



- Operations Description**
- Well to be capped off with valve/pressure meter
  - Well test assembly to be installed with gas metering equipment and flare stack
  - Drilling equipment/waste removed from well site
  - Well to be tested for certain period ~ 2 to 4 weeks in order to gather dynamic reservoir data (porosity, permeability, gas composition, pressure depletion Vs time...)
  - Well secured until next operations
  - End of activities

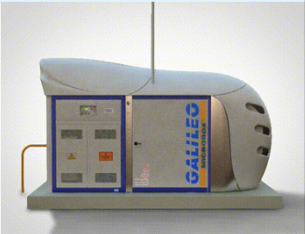
26

### 6. Drill Pad and CBL Images



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### 7. Production Contractor – Galileo



Compressed Natural Gas device can be situated at the wellsite, making the complete footprint from production and extraction of gas resource around 20m<sup>2</sup> (10m<sup>2</sup> for the wellpad and 10m<sup>2</sup> for the compression box)

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**7. Production Contractor – Galileo**



If the site proves to be highly prospective, the largest scale that Rhino envisages is a footprint of approximately 0.25 Ha. This would include the largest scale compression boxes (gigabox, seen in the picture to the left).

This facility can produce liquefied natural gas that could be used as fuel for trucks/large scale machinery.

Confidential

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**7. Production Contractor – Galileo**




**Galileo Patagonia Smart Station**  
For refueling LNG and LCNG

Image above shows an example of an LNG refueling station supplied by the Gigabox installers seen in the backgrnd

Confidential

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Thank you!



Rhinoceros Oil and Gas Exploration South Africa (Pty) Ltd.  
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**Overview of EIA Process**



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### Legal Requirements

- Minerals and Petroleum Resources Development Act (No. 28 of 2002) (MPRDA):
  - Department of Mineral Resources and Energy (DMRE) is the Competent Authority (CA):
    - Responsible for the granting or refusing of an Environmental Authorisation.
    - In terms of Section 70 of the MPRDA, various duties pertaining to petroleum exploration and production have been delegated to the Petroleum Agency of South Africa (PASA) → PASA will review the EIA documents and make recommendations to DMRE to inform decision-making.
- National Environmental Management Act, 1998 (No. 107 of 1998) (NEMA):
  - Department of Forestry, Fisheries and Environment (DFFE) is the appeal authority for Environmental Authorisation decisions.

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### Scoping and EIA

- Each ER requires a distinct Scoping and EIA process
- The EIA process is undertaken to gather information to inform an authority decision on the Environmental Authorisation by:
  - identifying potential risks and benefits on the environment,
    - through consultation with landowners and stakeholders
  - assessing the significance of potential impacts (++ and --),
    - with inputs from specialist studies
  - identifying measures to prevent or mitigate impacts, should the project be approved.
- The EIA Report includes an **Environmental Management programme (EMPr)**
- The EIA process and timeframes are defined in the **EIA Regulations 2014** (as amended)

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### Scoping and EIA Process

<ul style="list-style-type: none"> <li>Initial notification</li> <li>Stakeholder registration</li> <li>Database development</li> <li>Public meetings</li> </ul>	<ul style="list-style-type: none"> <li>Submit EA application</li> <li>Prepare Draft Scoping Report</li> <li><b>30-day comment period</b></li> <li>Update and submit revised Scoping Report for acceptance</li> </ul>	<ul style="list-style-type: none"> <li>Undertake Technical / Specialist Studies</li> <li>Prepare draft EIA Report</li> <li><b>30-day comment period</b></li> <li>Update and submit Final EIA Report for decision making</li> </ul>	<ul style="list-style-type: none"> <li>EA decision</li> <li>Stakeholder notification</li> <li>Appeal process</li> </ul>
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Pre-application → Scoping Phase → Impact Assessment Phase → Appeals Phase

- Identification of stakeholders and updating of the project I&AP database.
- Engage with I&APs via notifications and meetings.

NB: If there are any other people who need to be informed of the project, please let the project team know.

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### Drill Site Selection Process

Exploration Right	Lawful entitlement (MPRDA)
ID target areas	Gas supporting geology
Desktop enviro sensitivity	Elimination of land with sensitive aspects
Land owner discussions	Rental agreement
Drill site optimization	Micro siting

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### Receiving Environment – Site Screening (1)

- Following identification of target areas within the ER, a desktop screening process was undertaken to identify potentially sensitive aspects.
- Parameters considered included:
  - Ecology
  - Freshwater
  - Heritage
  - Geohydrology
- Medium and high sensitive areas were excluded for consideration for placement of wells.



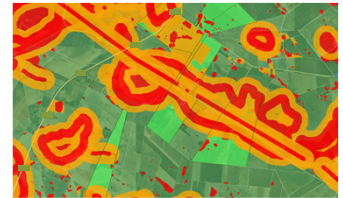
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### Receiving Environment – Site Screening (2)

- Identified properties within target areas preferred for well drilling.
- ROGESA is approaching landowners for consent to access.
- Available target sites will be investigated on foot by specialists to determine whether any sensitivities are present.
- Locations of sites suitable for well drilling will be specified.
- Specialist studies and impact assessment will be documented in the EIA phase.



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### Proposed Specialist Studies



Aquatic Biodiversity assessment  
Terrestrial Biodiversity assessment



Heritage assessment  
Palaeontology assessment



Hydrogeology assessment

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### Next Steps

- Minutes of meetings to be compiled.
- I&APs to:
  - contact SLR for information and / or documents.
  - submit comments / questions / issues to SLR.
- All registered I&APs (by completing meeting attendance register) will be notified of the next round of public participation – e.g. availability of Draft Scoping Report for review and comment.
- Documents will be made available in hard copy and posted to SLR’s website and data free website, when available.

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### Opportunities to Comment / Participate

**EIA Process**

Pre-Application Phase (2022):	Scoping Phase (2022):	Impact Assessment Phase (2023):	Decision / Appeal (2023):
<ul style="list-style-type: none"> <li>I&amp;AP notification and registration</li> <li>Update of project I&amp;AP database.</li> <li>Public Information meetings.</li> <li>Preliminary specialist screening of identified target farms.</li> </ul>	<ul style="list-style-type: none"> <li>Submission of EA application.</li> <li>Distribute Draft Scoping Report for public review and comment (30-days).</li> <li>Update Scoping Report with comments received.</li> <li>Submission of Scoping Report to the CA.</li> <li>CA accepts or reject the Scoping Report.</li> </ul>	<ul style="list-style-type: none"> <li>Distribute Draft EIA Report for public review and comment (30-days).</li> <li>Public meetings.</li> <li>Update EIA Report with comments received.</li> <li>Submission of EIA Report to the CA.</li> <li>PASA and DMRE review the EIA Report</li> </ul>	<ul style="list-style-type: none"> <li>CA grants EA or rejects the application.</li> <li>Registered I&amp;APs notified of EA decision and appeals process.</li> <li>20 days to submit an appeal from date of notification.</li> </ul>

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### Reminder: Constructive discussion guidelines

Public consultation is **NOT** a voting or consensus-driven process, rather a process of collecting input for purpose of enabling decision-maker to consider issues and impacts.

1. Raise your hand to comment or ask a question and work through the facilitator(s).
2. Identify yourself, name and surname and organisation.
3. Respect one another.
4. Focus on the issue, not the person. Agree to disagree.
5. One question at a time. Ask questions concisely.
6. Please turn your cell phones on silent.

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## Open Session: Questions & Discussion

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### SLR Contact Details

Method	Contact Details
Post:	PO Box 1596, Cramerville, 2060
Tel:	011 467 0945
WhatsApp / SMS:	<ul style="list-style-type: none"> <li>ER 294 - 066 313 7574</li> <li>ER 318 - 066 171 3677</li> </ul>
E-mail:	<ul style="list-style-type: none"> <li>ER 294 - <a href="mailto:RhinoER294@slrconsulting.com">RhinoER294@slrconsulting.com</a></li> <li>ER 318 - <a href="mailto:RhinoER318@slrconsulting.com">RhinoER318@slrconsulting.com</a></li> </ul>
Web:	<ul style="list-style-type: none"> <li><a href="https://www.slrconsulting.com/en/public-documents/Rhino-well-ER294">https://www.slrconsulting.com/en/public-documents/Rhino-well-ER294</a></li> <li><a href="https://www.slrconsulting.com/en/public-documents/Rhino-well-ER318">https://www.slrconsulting.com/en/public-documents/Rhino-well-ER318</a></li> </ul>
Data Free Web:	<ul style="list-style-type: none"> <li><a href="https://slrpublicdocs.datafree.co/en/public-documents/Rhino-well-ER294">https://slrpublicdocs.datafree.co/en/public-documents/Rhino-well-ER294</a></li> <li><a href="https://slrpublicdocs.datafree.co/en/public-documents/Rhino-well-ER318">https://slrpublicdocs.datafree.co/en/public-documents/Rhino-well-ER318</a></li> </ul>

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**HOLDING SLIDES**

**No stimulation during well testing**

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**Key Issues – Need & Desirability**

1. Global concern of the need to reduce carbon emissions
2. Rapid transition to net zero presents a potential risk to economic growth
3. Current policies acknowledge that natural gas is required in the JUST TRANSITION to net carbon zero by 2050
4. It is SA government policy to use gas in the energy mix in the transition and to explore and develop indigenous gas resources
5. These national strategic policy issues relating to energy and climate change and how South Africa uses fossil fuels fall beyond the scope of the EIA
6. In making a decision, DMRE will need to weigh up:
  - Current national strategic policies and the transition to net carbon zero
  - Need for a stable electricity supply and economic growth
  - Current reliance of liquid fuel imports versus the use of a local resource
  - Potential impacts and risks associated with the proposed project

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**Receiving Environment HOLDING SLIDE**

• **NEED TO SEE WHAT RHINO IS PRESENTING TO SEE IF ANY SLIDES ARE REQUIRED REGARDING PROJECT LOCATION AND TARGET FARMS**

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APPENDIX 3.7:  
CORRESPONDENCE RECEIVED DURING THE PRE-APPLICATION PUBLIC  
PARTICIPATION PROCESS

## 1. PRE-APPLICATION PHASE COMMENT PERIOD

### 1.1 Pre-Application Comments and Responses Report

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
1.	John Adamson	Email 22 August 2022	I am out of the office. Please forward your email to Tyron.Good@Citibearings.co.za.	Email was forwarded to the given email address.
2.	Nicolien Kok	Email 22 August 2022	<p>Ek is vanaf 1 Februarie 2022 nie meer by BVSA nie</p> <p>Stuur asseblief jou navraag aan die volgende persone:</p> <p>Bloemfontein / Kathu / Kuruman / Upington ("Sentraal") area</p> <p>Jou kontak persoon is Christina De Jager by christinad@bvsa.ltd / 051 430 5299, of maak kontak met jou takbestuurder</p> <p>Gauteng area</p> <p>Jou kontak persoon is Amelia Retief by ameliar@bvsa.ltd / 012 348 2150, of maak kontak met jou takbestuurder</p> <p>BVSA takke</p> <p>Jou kontak persoon is Rene Wuis by renew@bvsa.ltd / 083 280 0868, of maak kontak met jou takbestuurder.</p>	Email was forwarded to the given email address.
3.	Willem Naude	Email 22 August 2022	I am no longer with the company please contact:	Email was forwarded to the given email address.

			<p>Danie Nel danien@interwaste.co.za</p> <p>Michael McAllister michaelm@interwaste.co.za</p>	
4.	Louw & Mia Deale	<p>Email</p> <p>22 August 2022</p>	<p>Please note that we have changed our e-mail address, our new e-mail address is Louw@dealeboerdery.com</p> <p>Any new e-mails should be sent to the new e-mail address and not the old e-mail address.</p>	<p>Email was forwarded to the given email address.</p>
5.	<p>Landowner</p> <p>Johan Botha</p>	<p>Phone call</p> <p>23 August 2022</p>	<p>I have received an SMS notification about Rhino Oil and Gas commencing with an application for the Environmental Authorisation for the well drilling in the Exploration Right area. I am one of the landowners and wanted to find out if other landowners and surrounding/adjacent landowners have been notified of the project and the planned public meetings?</p> <p>May I forward the received SMS to our Farmers WhatsApp group to raise awareness of the planned public meeting?</p> <p>When will specialists be headed to site to undertake their various investigations? Please kindly advise all landowners so access can be granted/</p> <p>Is there a generic EMP for drilling projects such as this proposed Rhino project?</p>	<p>All landowners and adjacent/surrounding landowners whose contact details Rhino Oil &amp; Gas Exploration South Africa (ROGESA) and SLR were able to source have been notified about the proposed project and planned public meetings. On-going efforts are being made to source more contact information and notify more landowners and adjacent landowners.</p> <p>Yes, you may.</p> <p>We are currently in the pre-application phase. Specialists will go to site during the Scoping phase. All relevant landowners will be notified and contacted when specialists go to site.</p> <p>As part of the Environmental Impact Assessment process, SLR will develop a project and site-specific Environmental Management programme.</p>
6.	<p>Transnet</p> <p>Andre Bodenstein</p>	<p>Email</p> <p>23 August 2022</p>	<p>Trust you are well.</p> <p>To enable this office to conduct accurate investigation and to provide detailed comments it will assist us greatly if you could provide me with a dwg/ dxf/ shp file of the two areas of interest (area 3 &amp; area 4).</p>	<p>Thank you for your correspondence.</p> <p>For reference, I have attached the requested areas of interest/target areas here.</p> <p>Please note that these are being circulated for Transnet's information purposes only.</p> <p>With the identification of drilling sites being subject to a sensitivity analysis, we would like to include any Transnet infrastructure (along with an recommended buffer) into this analysis. If this information</p>

				<p>could be shared in a spatial format (.shp or .kml) with us, along with your recommended buffer it would greatly appreciated.</p> <p>Please do not hesitate to contact us should you require any further information.</p>
7.	<p>SAHRA</p> <p>Sityhilelo Ngcatsha</p>	<p>Email</p> <p>23 August 2022</p>	<p>Please note that all development applications are processed via our online portal, the South African Heritage Resources Information System (SAHRIS) found at the following link: <a href="http://sahra.org.za/sahris/">http://sahra.org.za/sahris/</a>. We do not accept emailed, posted, hardcopy, faxed, website links or DropBox links as official submissions.</p> <p>Please create an application on SAHRIS and upload all documents pertaining to the Environmental Authorisation Application Process. As per section 24(4)b(iii) of NEMA and section 38(8) of the National Heritage Resources Act, Act 25 of 1999 (NHRA), an assessment of heritage resources must form part of the process and the assessment must comply with section 38(3) of the NHRA.</p> <p>Once all documents including all appendices are uploaded to the case application, please ensure that the status of the case is changed from DRAFT to SUBMITTED. Please ensure that all documents produced as part of the EA process are submitted as part of the application.</p> <p>Please contact Sityhilelo Ngcatsha for any queries</p>	<p>Thank you for your email.</p> <p>This email serves to notify you that an application on SAHRIS has been created for the project and the initial document pertaining to the Environmental Authorisation Process (i.e. the Background Information Document) has been uploaded onto SAHRIS.</p> <p>All documents produced as part of the EA process will be continuously submitted onto SAHRIS.</p> <p>The case ID for the project is 19394.</p>
8.	<p>MENAR</p> <p>Sarah Wanless</p>	<p>Email</p> <p>25 August 2022</p>	<p>I hope you are keeping well.</p> <p>Please can you provide me with all information available for the aforementioned project.</p>	<p>A project Background Information Document was sent.</p>

9.	Transnet Andre Bodenstein	Email 29 August 2022	I enquired with my head office, and I am instructed to request a formal letter of request from your organisation signed by the head of department, where the information is requested.	As per request, please find attached Request Letter for data and Background Information Documents (ER294 and ER318) for reference.
10.	Landowner Johan Botha	Email 29 August 2022	<p>We spoke on the phone last week about the Rhino Oil and Gas 12/3/294 exploration project near Steynsrus. I am however one of the landowners but I want to make sure I am on your I&amp;AP list. If you can please add my wife, Marelie Botha, to the list I would appreciate it. Her contact details are:</p> <p>Marelle Botha                  marelle@donaway.co.za                  Cell: 082 493 5166</p> <p>Can I please ask you to send me the old reports of the project? You can share a Dropbox folder with me as well, it might be easier as to try and email larger files.</p>	<p>Your email is acknowledged. You and your wife will be registered on the project's stakeholder database and, as such, will be notified and kept informed of future stakeholder engagements for this project.</p> <p>Please find attached previous EIA report for Rhino ER 294.</p>
11.	Rhino Heritage Park Twin Mosia	Letter via email 30 August 2022	<p>I am a cultural, heritage and environmental activist from Mamafubedu, Petrus Steyn, I am also a curator at Elandskop Museum.</p> <p>Please register our organisation as an interested &amp; affected party (I&amp;AP) so that we may get information and notifications via email. We would also like to be involved in all your Aquatic &amp; Terrestrial Biodiversity and Heritage assessments in Petrus Steyn/ Mamafubedu. You must be aware that Petrus Steyn/Mamafubedu celebrates 110 Years in October, one of the curatorial research subject was who were the first inhabitants of Mamafubedu before Petrus Steyn whom the town is named after, arrived in the 1850's around the Basotho Wars. Centuries before this, Mamafubedu as it was called by Dihoja and Basotho, was an important cultural hub! The assessments and finding</p>	<p>Your email below is acknowledged. You will be registered on the project's stakeholder database and, as such, you will be notified and kept informed of future stakeholder engagements for this project.</p> <p>As a registered I&amp;AP you will be afforded the opportunity to review the reports including the Aquatic &amp; Terrestrial Biodiversity Assessment Report and the Heritage Assessment Report during the Scoping phase.</p> <p>While your request to meet in Petrus Steyn is noted, Rhino Oil and Gas South Africa is currently focusing their exploration areas closer to Steynsrus and Edenville, hence hosting our planned meeting closer to these areas.</p>

			<p>thus will be very important and form part of our museum/library archives.</p> <p>We also believe one of the meeting could have taken place in Petrus Steyn since it covers most of the land to be explored. Nonetheless, we are looking forward to working with you.</p>	
12.	NRA Ria Barkhuizen	Email 31 August 2022	Please forward your application to SANRAL Eastern Region <a href="mailto:erstatutory@nra.co.za">erstatutory@nra.co.za</a> , as this falls under their jurisdiction.	Email was forwarded to the given email address.
13.	Mangaung Municipality Boniswa Taju	Email 05 September 2022	Kindly send these communiques to our Environmental Management GM @Lebogang Lekhu or manager @Mpolokeng M.H. Ramongalo for assistance.	Email was forwarded to the given email addresses.
14.	(Department of Environmental Affairs on behalf of the Thabo Mofutsanyane District Municipality) Lifu Mofokeng	Phone call 06 September 2022	<p>I received an email yesterday informing me that there will be public meetings held for the Rhino project, I unfortunately will not be able to attend either, but may I still partake in the public participation process?</p> <p>Does the project area fall under the Thabo Mofutsanyane District Municipality?</p>	<p>Yes, you may. The public meetings serve as pre-application consultation, however interested and/or affected parties will be afforded the opportunity to raise comments, issues or concerns regarding the proposed project throughout the Scoping and Environmental Impact Assessment phase.</p> <p>Yes, some of the 294 Exploration Right Area falls under the Thabo Mofutsanyane District Municipality.</p>
15.	Jasper Cornelis Van der Bilj	SMS 06 September 2022	URL does not want to open	Thank you for your reply. Please can you send your email to <a href="mailto:RhinoER294@slrconsulting.com">RhinoER294@slrconsulting.com</a> . We will send you further information via email.
16.	Sawukazi	WhatsApp 06 September 2022	I wanted to attend your briefing session today but couldn't make it. So, I was wondering if I can be briefed via email.	<p>Thank you for making contact. Please find attached a Background Information Document with information about the project.</p> <p>A copy of the presentation has been made available on the website (<a href="http://www.slrconsulting.com/en/public-documents/Rhino-well-ER294">www.slrconsulting.com/en/public-documents/Rhino-well-ER294</a>).</p> <p>Minutes of the meeting will also be made available in due course.</p>

17.	Nairobi Trust Johan Taljaard	Email 07 September 2022	<p>Kindly provide us with a more detailed map for the area surrounding Reitz as we are unsure from the locality map provide (Figure 1: ER294) whether the farms owned by the Nairobi Trust fall within the ER boundary and target area.</p> <p>Kindly acknowledge receipt of this submission and kindly confirm that the Nairobi Trust has been registered as an I&amp;AP.</p> <p>We look forward to receiving your response.</p>	<p>To confirm, you've been included in our I&amp;AP database and will be notified and kept informed of future stakeholder engagements for this project.</p> <p>For your reference we've included the attached map. Please let us know if you need any more information.</p>
18.	Eliz Bester	Email 09 September 2022	I wish to become an interested and affected party.	Your email is acknowledged. You will be registered on the project's stakeholder database and, as such, you will be notified and kept informed of future stakeholder engagements for this project.
19..	Eliz Bester	Email 12 September 2022	<p>Thank you for your response.</p> <p>If I have any issues regarding future developments, how can I address them?</p>	Any issues, comments or concerns you may have with the proposed project can be shared with SLR via email. These will then be incorporated into a Comments and Response Report (CRR) and be responded to either by SLR, Rhino Oil and Gas or an applicable project specialist. The CRR will form part of the Scoping Report and will be made available for review and/or comment in the Scoping phase.
20.	Transnet Andre Bodenstein	Email 14 September 2022	Your written request to receive Transnet Cadastral information is acknowledged. Herewith attached is a Conditions of Use letter which requires your acknowledgement and after competition and receipt back from you I will forward the requested data as well as the appropriate buffer distance that should be applied next to all Transnet land and infrastructure.	Signed conditions of use letter was sent.
21.	Transnet Andre Bodenstein	Email 16 September 2022	<p>Hi Ian, Thanks for the mail below.</p> <p>Theo, please see questions below from Transnet Rail network. Will you please respond to Ian Lombard regarding these. This will determine the buffer that should be applied alongside all Transnet properties and activities.</p>	<p>Thank for the Transnet cadastral data.</p> <p>Currently Rhino Oil and Gas is to avoid drilling alongside any infrastructure. Initiatively, a buffer of 100 m is to be applied to all infrastructure.</p> <p>For further details please refer to the project description in Chapter 5 of the Scoping Report.</p>



			<p>In the meantime, herewith also please receive the Transnet cadastral data that you requested.</p> <p>Regards</p>	
22.	<p>Transnet                  Mohamed Jogiat</p>	<p>Email                  16 September 2022</p>	<p>Just a few questions:-</p> <p>Diameter of the hole they intend drilling</p> <p>Will the hole be filled with bentonite or slurry to ensure that there is no hole collapse or water filling</p> <p>How long will the drilling take place? Is it a continuous drill or will they be doing it in stages?</p> <p>How many holes do they intend digging underneath the railway line?</p> <p>Kind Regards</p>	<p>Thank for the Transnet cadastral data.</p> <p>Currently Rhino Oil and Gas is to avoid drilling alongside any infrastructure. Initiatively, a buffer of 100 m is to be applied to all infrastructure.</p> <p>For further details please refer to the project description in Chapter 5 of the Scoping Report.</p>
23.	<p>Landowner                  Benita Norman</p>	<p>Email                  16 September 2022</p>	<p>Following the public participation meeting held last week Wednesday, 07 September, at Steynsrus, I would like to request the documentation, as requested on the day:</p> <ul style="list-style-type: none"> <li>- Meeting minutes</li> <li>- Rhino Presentation</li> <li>- SLR Presentation</li> </ul> <p>Thank you in advance.</p> <p>Kind regards,                  Benita</p>	<p>Thanks for your feedback,</p> <p>The minutes from the meeting are currently being compiled. Apologies for the delay as we are busy compiling these for x4 meetings.</p> <p>The Rhino and SLR presentations are available for download from the SLR page at:</p> <p>ROGESA - Proposed Exploration Well Drilling in Targeted Areas of Interest in the Free State Province (294 ER) (slrconsulting.com)</p>
24.	<p>Benita Norman</p>	<p>Email                  16 September 2022</p>	<p>Please advise the date till when we have to make commitments and add questions following the meeting?</p>	<p>Any issues, comments or concerns you may have with the proposed project can be shared with SLR throughout the Scoping &amp; Environmental Phases of the project. These will be incorporated into a Comments and Response Report (CRR) which will form part of the Scoping report and Environmental Impact Assessment report. Each of</p>

			<p>Also, please may I request to be added to the mailing list for all future communication. In addition, please could you add my parents to the list as well, their email address is: xtralinkptyltd@gmail.com</p>	<p>these reports will then, during their respective phases, be made available for a 30-day public review and comment period. All Interested and/or Affected Parties registered on the project database will be notified when the reports are available for review and comment and when the review and comment periods end for each phase (i.e. the Scoping phase and the EIA phase).</p> <p>You and your parents have been added to the project database and, as such, you will be notified and kept informed of future stakeholder engagements for this project.</p>
25.	<p>Federation for a sustainable environment                  Mariette Lieferink</p>	<p>Letter via email                  19 September 2022</p>	<p>PRELIMINARY COMMENTS ON RHINO OIL AND GAS EXPLORATION SOUTH AFRICA (PTY) LTD BACKGORUND INFORMATION DOCUMENT                  PROPOSED EXPLORATION WELL DRILLING WITHIN TWO TARGET AREAS WITHIN ER 294, FREE STATE PROVINCE</p> <p>1. INTRODUCTION</p> <p>The following preliminary comments are submitted on behalf of the Federation for a Sustainable Environment.</p> <p>The FSE's main objective is the realisation of Section 24 of the Constitution of the Republic of South Africa. The FSE is a member of a number of governmental and academic task teams, steering and advisory committees and forums.</p> <p>2. DESCRIPTION OF THE ACTIVITY IN TERMS OF THE BID</p> <p>We infer from the Background Information Document (BID) that the Application will involve inter alia:</p> <ul style="list-style-type: none"> <li>• The establishment of a drill site camp</li> <li>• 40 exploration wells</li> <li>• The pumping of cement down the drill string to the bottom</li> </ul>	<p>Thank you for your email and comments with regards to the proposed project. These comments will be included in the draft Scoping Report, which will be released for review and comment later this year.</p>

		<ul style="list-style-type: none"> <li>• A wellbore which will be displaced with “an industrial water” and which will be encased by cement</li> <li>• The pumping of drilling fluids down the inside of the drill pipe</li> <li>• Please advise whether the drilling fluid which will be used will be bentonite mud.</li> <li>• Potential hydrocarbons or water inflow as a result of the penetration by the well</li> <li>• The testing of recovered hydrocarbons by sending it to a flare boom with burner</li> </ul> <p>The impact of gas flaring is of local and international concern. The efficiency of flares can be dependent on several factors like composition of the flare stream, flow rate of flare gases, wind velocity, ambient turbulence, presence of hydrocarbon droplets in the flare stream and presence of water droplets in the flare stream. Please advise which mitigation measures will be implemented to ensure the that the flare is not defective in order to prevent the flare from spewing hydrocarbons into the atmosphere.</p> <p>The risks of hydrocarbons are well documented.</p> <ul style="list-style-type: none"> <li>• The installation of a flare pit</li> <li>• The risks of the flare pit to the environment ought to be assessed.</li> <li>• We furthermore infer from the BID that:</li> <li>• The exploration falls within the Karoo Basin</li> <li>• The exploration area has a high erosion hazard</li> <li>• There are numerous wetlands</li> <li>• The Vaal Dam traverses Target Area 7 of the project area</li> </ul>	
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		<p>roads, pipelines, infrastructure, etc. which will have a significant impact on the Karoo Basin.</p> <p>The impacts of the exploration activities as the precursor to the exploration, namely shale extraction and production, on the archaeological and paleontological remnants ought to be assessed during the EIA phase to determine whether the exploration/shale extraction and production is the Best Environmental Option for the area and the optimal land use for the area.</p> <p>5. POTENTIAL IMPACT ON GROUNDWATER (WATER AVAILABILITY AND QUALITY)</p> <p>The Karoo Basin is geologically different from equivalent shale formations elsewhere in the world in that it contains extensive dolerite intrusions and is thus unique. We consider it relevant to here refer to the academic treatise of G van Tonder, titled “Potential impacts of fracking on groundwater in the Karoo basin of South Africa” (Institute for Groundwater Studies, University of the Free State, Bloemfontein, South Africa):</p> <p>“A wild card that only exists in the karoo basin of South Africa is the numerous dolerite intrusions. [This is] associated with relative high yielding boreholes because of the fractured contact aureole that exist between solid dolerite and the adjacent Karoo sediments [This implies] that any pollutant will always try to migrate upwards in the Karoo...[T]his research clearly shows[s] that fracking in South Africa cannot be done in the same way that it is currently done worldwide.”</p> <p>The availability of surface water within the Karoo Basin is limited with the majority of rivers being ephemeral. This makes groundwater the</p>	
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		<p>most important source of water used within the project area, not only for agricultural use but also for domestic and municipal use.</p> <p>The potential impact of the project on the “water resource” of affected landowners and lawful occupiers of the land, and not on merely on the ‘water” ought to be assessed. It should be noted that the National Water Act 36 of 1998 does not define “water” but rather the much broader term, “water resources” as the Act takes account of the full hydrological cycle in its integrated approach to water management. The phrase “water resource” is accordingly defined as a “water course, surface, water, estuary or aquifer or any other underground collection of water”.</p> <p>The introduction of the additional stress in the aquifer within the project area could damage the aquifer and boreholes permanently if not managed properly. It is necessary for the EAP to identify the aquifers within the project area and the risks to the aquifers as a result of the exploration activities.</p> <p>It is furthermore necessary for the EAP to demonstrate how the waste will be managed during the exploration activities, namely the (a) drilling mud, (b) the “industrial water”, (c) the drilling fluids.</p> <p>We furthermore call upon the EAP to demonstrate the wells’ integrity and that there will be no aquifer contamination by the wells penetrating the aquifer or by the migration of fluids into the well and/or aquifers.</p> <p>There are currently uncertainties regarding oil and gas extraction activities (from exploration to vertical resources delineation wells to appraisal wells) and knowledge gaps specific to groundwater systems and the interaction between surface and groundwater. In the light thereof, a risk averse and cautious approach must be applied in the application under consideration. The principles of environmental management set out in section 2(4) of the National Environmental Management Act, 107 of 1998 (NEMA) indicate, inter alia, that</p>	
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		<p>sustainable development requires a risk averse and cautious approach, which takes into account the limits of current knowledge about the consequences of decisions and actions.</p> <p>6. CONCLUSION</p> <p>We reserve the right to augment our preliminary comments. Kindly confirm receipt of this document.</p> <p>SUBMITTED BY:                  Mariette Liefferink.                  CEO: FEDERATION FOR A SUSTAINABLE ENVIRONMENT.                  19 September 2022.</p>	
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## 1.2 Record of Edenville Issues Raised and Responses Given

Issue Raised	By Whom	Response (given by ROGESA or SLR)
What happened to Matthew Hemming?	Thomas	Matthew is part of SLR.
Who is in control of White River Exploration? Who or what are they?	Anonymous	Honestly, ROGESA thought they are out of the area. We have their blocks now as of July.
Who is financing Rhino?	Thomas	ROGESA has 8 UK investors in an investor SPV. They invest in projects all over the place. They are known in the ESG world.
Why is Rhino using SLR for this project? Is there a reason?		The reason ROGESA uses SLR is because SLR understands the process well and has a big database of people and we can effectively reach out to potential I&APs

Issue Raised	By Whom	Response (given by ROGESA or SLR)
Is Rhino BBBEE registered?	Anonymous	No, ROGESA is still busy with its due diligence. It is a legislative requirement that we get a BBBEE partner. We need to make sure we work with the correct company.
If you aren't BBBEE registered, what gives Rhino the right of exploration?	Anonymous	When you get issued an exploration right, you have that right. The law says you usually have 2 - 3 years to find a BBBEE partner for that right. ROGESA is busy with this process.
If you find a sustainable source of gas, where will the gas be stored? Where will the pipeline be placed?	Johan Slabbert	At the moment you all know Renegeren. They stated abstracting gas and also get helium. They are the first company in South Africa to obtain a production right to abstract gas. Their plant is now online. ROGESA uses another method to abstract gas. My colleague will later in the presentation show you how our process works.
At what stage of the process must Rhino obtain a BBBEE partner?		At the moment the law says that ROGESA must get a BBBEE partner round about here. We are aware the law is changing so we are not sure. Our lawyers are to confirm if we must do it at production or still during exploration.
From which country will the BBBEE partner come from?		As ROGESA understands, it must be a South African company. As soon as we know, we will place the information in the public domain.
What if one of the target boreholes are in the middle of my wildlife camp with endangered species? What happens then?	Johan Brumeris	Then ROGESA will not drill on your farm – it is as easy as that. We need permission from you as the farm owner to drill on your farm. There is a lot of land here we can access.
Is Rhino Oil and Gas an International Company?	Anonymous	Rhino head office sits in Luxembourg. The subsidiary company is a South African company.
How deep is the gas, or how deep will Rhino drill?	Anonymous	Up to 800m.
What is the width of the pipe and the thickness of the cement casing? The ground moves, so what impact will it have on the cement casing? Will it crack and leak gas into the groundwater?	Anonymous	The biggest is 12.5 inches in diameter. Then you completely close it with cement. You then drill through the cement. Then you repeat at 10 inches, 7,5 inches and end at 4 inches. That is up to 3.5 inches of cement between steel. Should something crack, ROGESA will



Issue Raised	By Whom	Response (given by ROGESA or SLR)
		immediately notice it. We will then close the borehole, killing the hole rather than continuing.
I am concerned about groundwater pollution due to gases and poisons. What guarantee do we have that pollution will not take place, especially years after the borehole has been closed? Who will pay for the clean-up of the pollution?	Anonymous	ROGESA uses steel, which is scarce in South Africa, with cement which is not like your typical cement. The steel has tensile strength, so won't crack easily.
Is fracking involved?	Anonymous	Not at all. It is like drilling a borehole, but ROGESA will go deeper and use better technology.
How many boreholes has Torque Africa drilled?	Anonymous	Torque Africa has drilled ~1000 boreholes. They have 20 borehole machines and have drilled 200 holes for Renegen recently to a far better standard than some 40 boreholes previously drilled for Renegen by another company. ROGESA really did its research to use the correct company.
If you find gas, will the borehole structure remain in place for production, or will new boreholes be drilled for production?	Alwyn Laas	The reason so much steel and cement will be used is that, should ROGESA find gas, we can then use that hole for production. We start with a big budget, so we do not need to drill again later.
How many boreholes will be drilled should a sustainable source of gas be found for production?		It depends. If ROGESA finds gas within sandstone, in the industry we call it a conventional reservoir. That whole 3 -4 km <sup>2</sup> can be accessed with one borehole. If it is a crack like Renegen, they drill a borehole every 0.5 – 1.5 km. The one farm Smaldeel Anglo drilled a borehole every 400m. ROGESA obviously hopes to drill in Sandstone.
Does the gas compressor require electricity?	M. Visser	It generates its own electricity using the gas that is present.
Should production commence, how many litres of gas per borehole will be produced?	Anonymous	It depends. Renegen has drilled holes producing 200 litre per day, as well as some that produce 5000 litre per day.
How deep does your drill go?	Anonymous	Up to 800m.
Won't you drill with mud? Can you guarantee you won't drill with mud?	Anonymous	ROGESA prefers to drill with air pressure. If we have to use mud, we close the cracks with mud then gas will not enter the borehole.

Issue Raised	By Whom	Response (given by ROGESA or SLR)
		It will not be useable. The only reason we would use mud is to make the borehole safe, for example if the end of the borehole breaks apart, we pump in cement which seals the hole. The mud stabilises that part of the borehole. Usually, it is exceptionally rare for water to be found at 700m. The pressure at 700m on the hole is far higher than at for example 400m.
Should you use mud, what will you do with it when it comes out the hole?	Anonymous	It will be taken away to a toxic waste site.  When using mud there are three main additives. Two are classified as non-hazardous and the other is classified as moderate hazard. This will be detailed in the EIA.
If you abstract gas in large volumes, won't it create / cause empty caverns underground?	Alwyn Laas	That is the thing with gas, you can compress it a lot. It is not like air. If you pull out air the crack will close. With gas it is at such pressure, those cracks are already almost closed, but the gas comes out due to the pressure.
The biggest risk is the sustainability of groundwater.	Anonymous	That is why ROGESA is proposing to develop these expensive boreholes rather than for example open boreholes. It protects the groundwater from gas and the borehole from the water. To be honest, if gas is in the water, once you pump it out, the gas immediately starts to come out of the water. That is how gas works.
What types of gasses are found in the area?	Anonymous	ROGESA has data from Allanridge near Kroonstad. Up to 95% of it is methane gas, argon of 1-2 % and helium of 2 – 10 % and nitrogen. It is very clean gas.
Are any of the natural gasses adverse to the area / groundwater?	Anonymous	Helium and argon are inert gases. Nitrogen is in the atmosphere. Methane we just explained.
Should you have a production facility, will people stay there? How many will stay there?	Kassie	The station will likely be remote. There will be 2-3 persons who will work on the station.

Issue Raised	By Whom	Response (given by ROGESA or SLR)
		Construction requires about 50 persons. Maybe 3 -5 persons for special maintenance
Should there be production, who will build and maintain the roads for the gas trucks?	Anonymous	ROGESA will make sure that the truck has a good quality access route. As farmers we understand your concern regarding dirt roads.
How will security be managed at such a gas production site? I am concerned of the impact on security of landowners and that such a project will bring unwanted elements to the farms.	Anonymous	ROGESA has been thinking about that. We are looking at drones with a control room. We will have a set of drones which will go on-site which will have a loudspeaker to chase away persons. Drones these days have a 20 – 30-minute flying time. These days drones can automatically track someone. There is no need for someone to control the drone. The drone will follow someone, tell them they are intruding and then if battery runs empty, it will be replaced by another drone, so you have a rolling train of drones following the person to where he lives, then a security team can go to his house. This will probably happen one time until the community becomes aware this is how the system works. The drones can also patrol then come back to site. This can be set to random times, so will not be able to time when drones come.
When you are working on farms, it is important to follow farm protocol.	Anonymous	Absolutely.
Does Rhino have insurance for fires?	Anonymous	Yes, ROGESA does have insurance in place before any drilling work is undertaken.
How long before exploration will specialists come to do their studies?	Anonymous	Likely this year with drilling only taking place later next year. This will form part of my EIA process.
How will we know who the specialists are and that they are who they say they are?	Anonymous	The best way forward is if SLR introduces them to myself (Travis Smithard), then I take my own bakkie and introduce them to you.
Give the farmers advance notice before specialists come.	Anonymous	ROGESA will do so. A weeks' notice is doable.

Issue Raised	By Whom	Response (given by ROGESA or SLR)
Can the micro-sites details be shared with us? The lack of information regarding the microsities causes insecurity with farmers.	Anonymous	ROGESA would rather not do that for two reasons. Firstly, ROGESA needs to get the consent from the farmers it has already spoken to, to see that they are happy it is known. Secondly, as a company that is our proprietary information. We have spent millions to gather information to tell us where we think is good value for gas. We don't want to share that with the general public if that makes sense.
Can Rhino sell their company and rights to another company?	Krause	ROGESA is a company, so honestly if a big company like Sasol wants to buy us, there is always the possibility. Personally (Travis Smithard), I would like to stay on this project through its entirety. What I can say is that our investors do need the money. We aren't like the fly by night companies to hope to sell to bigger companies.
Can we trust Rhino? Is it not a fly by night smoke screen?		No, ROGESA's new investors do not believe there is oil. We are looking for gas.
Does the EIA consider the microenvironment? This is a conservation area for Sungazer Lizards.	Ben	Very much so. That is why we have the project team here with reptile specialists which will come in. For example, Sungazer Lizards areas are well understood as to where they could be. A team will go look and confirm if they are there and whether the area is right for them. It is a huge area, so we are very risk averse and will exclude sensitive areas.
If Rhino is sold or goes bankrupt, how will it affect the farmers which have an agreement in place with Rhino?	Anonymous	Firstly, if there is a contract and the company gets bought out, those contracts are still applicable or must be renegotiated with the landowner.
Will the contracts with farmers be changed should Rhino be bought by another company? Will the contracts be changed?	Anonymous	If the new company comes, ROGESA can place in the contract that they can only change the contract to be the same or better.
The maps are not clear. Please send detailed maps.	Anonymous	Absolutely.
What is the likelihood that sustainable gas reserves will be discovered?	Anonymous	That is the reason why ROGESA is here, to drill the holes and find out. The reality is we can drill fifteen boreholes and find no gas.

Issue Raised	By Whom	Response (given by ROGESA or SLR)
Where did the plane fly when it did the electromagnetic and gravimetric flyover for Rhino?	Anonymous	So, ROGESA did the regional flyover. ROGESA also did a high-density survey. The original was 200m, but the high density is 50m width for these four areas. ROGESA is not allowed to fly outside our exploration footprint.
Is the aerial survey better technology than the ground seismic studies done with trucks?	Anonymous	The reason why ROGESA does not do seismic surveys is that there is enough information we can purchase for cheaper than redoing it. We only flew with the plane. Should we need to do seismic surveys, that would be another EIA process.
What benefits are there for landowners due to the project?	Anonymous	Everything is on the table. It would be a business contract between ROGESA and the landowners. It is your farm, your land.
You will only drill? No underground dynamite explosions or hydro-fracking will occur?	Anonymous	Yes, drilling only. ROGESA will never use fracking within South Africa. We even wrote a letter to FS Agriculture on this.
Can I refuse that you drill on my farm?	Anonymous	Of course.

### 1.3 Record of Steynsrus Issues Raised and Responses Given

Issue Raised	By Whom	Response (given by ROGESA or SLR unless stated otherwise)
Do you use mud during the drilling process?	Ben	Air drilling is the primary method of drilling that will be used, however should the drillers experience difficulties with the geology at deeper depths then there is a possibility of using mud drilling, however this is unlikely and is only considered a secondary/alternative approach.
How will the well be kept from not caving in?		Firstly, good rock structure would ensure that the well does not cave in. Secondly, air drilling also ensures that the well does not cave in.
How deep will you be drilling?		This will be dependent on where exactly drilling will happen, typically the depth is between 400m -800m. A further 200m – 300m

Issue Raised	By Whom	Response (given by ROGESA or SLR unless stated otherwise)
		can be drilled. So, a maximum depth of approximately 1200 m may be drilled.
Should mud drilling be used, will the mud not come into contact with the groundwater resulting in contamination?		ROGESA understands the hydraulic sensitivity of the zone and that water is a key issue and are therefore cognisant of this. The additives used by Torque Africa for the Renegeren drilling included fully biodegradable foam. In the event that mud drilling is undertaken, the Material Safety Data Sheet (MSDS) will be made available.
I assume there will be no financial gain for gas extraction for the farmers. Will the government receive all financial gain?	Boy Simon	No. ROGESA will enter into a contract with the land owners to agree on the land rental amount.
If ROGESA starts drilling and cementing and later decides to leave the area, who will then be responsible for pollution prevention once you've left?	JSL Nagel	Once the well is closed, it is sealed completely with cement. If the cement cracks, all the rocks will also crack and gas leak.
What will happen if as a landowner I don't give consent for drilling on my farm?		Then ROGESA will not drill on your farm and go somewhere else.
Would ROGESA be able to get gas off my property even if they drill on my neighbour's farm?		Technically this is unlikely due to the depth of the resource. It would unlikely be possible to reach the gas via a neighbourly property.
How would groundwater be rehabilitated in case of contamination?	Ben	ROGESA does not currently have the technical response to the question. The geohydrologist team would be able to answer at a later stage.
What gases will ROGESA be looking for during drilling?		Natural gas has been documented in Edenville, Bothaville and Petrus Steyn. ROGESA is expecting to find 91-97% of methane, with the remaining 3% being Argon, Helium and Nitrogen. The natural gas is very clean but comes from biogenic sources.
In the event of a major accident resulting in methane being released into the groundwater and thus making the groundwater acidic, how will ROGESA rehabilitate the water?		Your assumption is that the gas will enter the water table, however this is untrue as natural gas will go to the surface, this is pure

Issue Raised	By Whom	Response (given by ROGESA or SLR unless stated otherwise)
		<p>Physics – natural gas always goes to the lowest pressure point, which will be the surface.</p> <p>Should this unlikely scenario however occur, the technical solution would be to cement the entire well to patch the fractures. If this option does not work, then ROGESA will redrill parallel to the damaged well at a bigger diameter and remedy it by milling the well and cementing it to close it.</p> <p>A more technical solution to this would be to drill a water producer well that is purposely designed to pump the water from the gas filled aquifer. You can do this very quickly and early, because drilling that well would take less than a week. You then pump the water that has the gas to the surface, and remove the gas, thereafter you drill another well which would redirect the clean water back to the ground.</p>
<p>I understand that, however that will take 4-6 weeks. Lots of damage/contamination would be taking place during then. How will the groundwater be rehabilitated?</p>		<p>There are over 30 000 boreholes that have been drilled in the Free State, by farmers and mines. If it was as bad as you're saying, then the entire Free State would have a big issue.</p>
<p>Who is the owner and director of ROGESA?</p>	<p>Gerald Hendriks</p>	<p>Travis Smithard is the director of ROGESA in South Africa. There are various shareholders from America and the UK.</p>
<p>I am also worried about the drilling activities' impacts on my farm, even if you drill on my neighbour's farm.</p>		<p>The Environmental Impact Assessment will consider the highly sensitive/high-risk areas and Rhino may decide not to drill in these areas. Risk mitigation measures will also be considered for these areas.</p>
<p>What would there be in terms of benefits for the community if the exploration really finds a resource? If only one well is possible, what percentage (of profits) could be given to Steynsrus?</p>	<p>JSL Nagel</p>	<p>The answer to that centres around the real size of resources.</p>

Issue Raised	By Whom	Response (given by ROGESA or SLR unless stated otherwise)
What percentage can be given to uplift the community of Steynsrus, for a hospital or mall?	Annikie	ROGESA is unable to answer this question at this stage of the process.
How many people will be employed from inception of the plant to extraction?	JSL Nagel	If 20-40 wells are needed to operate then 2-3 people are needed to verify that the wells are working in order. About 5-10 people for operating and maintaining everything else. Therefore 10-20 people in total. The main employment will be indirect employment opportunities.
I would like to commend ROGESA for saying that they will go elsewhere should the landowners not give consent to drill on their farms.	Johan Botha	Noted.
Is it possible to exclude the title deeds from the PASA application for the farmers that are not interested/give consent to the proposed project?		ROGESA will have to check with PASA, but from our understanding we cannot relinquish individual farms in the Exploration Right Areas, the farms would have to be contiguous.
Will ROGESA sign an agreement with the farmers that no fracking will be taking place?		ROGESA has already sent out a letter of commitment to the farmers with Travis Smithard's (South African director) and the head director's signatures stating that no hydraulic fracking will be undertaken.
Does SLR know the risks involved that will be set out in the S&EIA?		Yes, the scope of assessment for the current exploration programme will be included in the Scoping Report.
Will there be compensation if there's pollution to the water resources?		There will be a financial liability assurance guarantee, which is available in different ways. This can be deposited into a trust account that is held by PASA or ROGESA can set up their own trust fund and set the money aside in that trust for rehabilitation. That total amount is worked out on a particular calculation.
When the project is decommissioned, what will the monitoring process and requirements be and for how long? Thereafter, what will happen if something goes wrong after decommissioning?	The fund is there for ROGESA to draw from until rehabilitation is completed and has been signed off. The drilled well will be plugged completely with cement and thereafter the geohydrologists, as part of the impact assessment, will identify where ROGESA will	



Issue Raised	By Whom	Response (given by ROGESA or SLR unless stated otherwise)
		<p>have to drill monitoring wells and will then set up a monitoring programme which will stipulate recommendations on the frequency and duration the monitoring should take place. This could be anything between 2-5 years after decommissioning.</p>
<p>Does the landowner have any say about the monitoring requirements following decommissioning?</p>		<p>Absolutely. That would go into the EMP and if the landowner feels that the stipulated requirements are inadequate then it can be amended. Secondly, it becomes a relationship factor between ROGESA and landowners, more than it is a legal requirement factor.</p>
<p>Where will the landowner claim if ROGESA is nowhere to be found following the decommissioning?</p>		<p>The law makes provision to say that despite ROGESA walking away after closure, if they have caused any harm, they are obliged to fix it. This would fall under the Duty of Care provisions.</p> <p>In terms of money, an Escrow account which needs 2 signatories to ensure that the funds are used appropriately will be set up. The second signatory would likely be a Community Liaison Officer on behalf of the farmers. Furthermore, an auditor will likely also be appointed to audit the site post decommissioning and if there are still any problems even post decommissioning then money can be taken from the escrow account to remedy that. The EMP will determine how long the funds exist post decommissioning. Furthermore, a formal closure process will be followed by the Department of Mineral Resources and Energy (DMRE) after the decommissioning phase.</p>
<p>If there are some farmers that would like to continue with the process, then the farmers would like to see an external Environmental Control Officer from within every farmers' union region. Is that a requirement that will come with the EA or can it be included as part of the Environmental Management Programme?</p>		<p>It is possible to add some recommendations, but SLR cannot necessarily commit to that as a person with such expertise may not be available in that region.</p>

Issue Raised	By Whom	Response (given by ROGESA or SLR unless stated otherwise)
How often is the water around the wells normally tested and what is the radius?		From some of our auditing and sampling & monitoring experience this is usually undertaken monthly. The radius comes down to the recommendations by the geohydrologists.
Is it possible to see the Geohydrological report before the scoping report is submitted to the authorities?		Yes, however it depends on when the geohydrological report will become available. The environmental scoping report will likely include a geohydrological baseline by the geohydrologist, which will be sourced by undertaking a hydro census on site which details the water quality and quantity etc.
Will the geohydrological report have sufficient risk and impacts set out?		As part of the Environmental Impact Assessment phase reports, not the scoping, yes.
Security is a measure issue. The farmers experience stock theft in the area and people who work on projects like these usually inform criminals to come and steal. So what security measures will be put in place?		ROGESA would work with the community to ensure the security in the area is maintained.
Is it possible to issue a police security clearance for all the employees?		Yes, ROGESA can speak to Torque Africa about this.
What will prevent the water table from draining into the ground next to the casing?		The cement used for the wells is different from normal cement, the cement is very liquid and is able to go into the pores of the well. The more it progresses into the pores, the more it sets. The geology also prevents the water from draining downwards and physics says that the pressure would force the water upwards.
How much gas will be left in the reservoir after the project is completed and will this gas not move upwards and cause a risk of water and soil contamination?		Gas has pressure, so when you extract gas you decrease the pressure at the bottom of the well and thus at the top of the well too. This results in the well reaching equilibrium and thus the stop of the flow of gas.
Will some of the biological processes not continue to give gas?		ROGESA is hoping that is the case because if there's a continuous production of gas hopefully it will keep a relative pressure and this will produce for 150 years.

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The drilling of 15 holes was mentioned now, but I previously read 40. Please clarify.	Ben	The EA we've asked for is for 40 wells, however ROGESA will initially drill 15 wells and dependent on the outcome of those wells, more wells will be drilled.
How long will the exploration process take after you have been granted the EA? A 2-year period was mentioned.		<p>The government gives you 2 years to accomplish your exploration work. If you get to the end of the 2 years and still need more time to explore, then you need to provide a motivation as to why and request another 2 years. In the South African legislation, you get an initial 3-year period and 3 2-year renewal periods to explore. ROGESA has gone through their first 3-year period and is now applying for their first 2-year renewal period, and we will have the option of 2 more thereafter, provided we receive the EAs to do so.</p> <p>Hypothetically, ROGESA could drill 15 wells in 3 months, analyse the results in 2 months and if the results are favourable more wells would be drilled over a year and eventually we would apply for a production right. A 300-days EIA would then need to be undertaken to convert from an Exploration Right to a Production Right. So we are looking at 3-4 years at best.</p>
What happened in Kwa-Zulu Natal Harrismith/Ladysmith, why did you stop exploring there?		There were two changes in the company, firstly the company got new investors and the whole team got replaced. I (Travis Smithard) was a Geophysicist and then became director and I did not believe in the technical merit of that exploration, hence why we stopped in Kwa-Zulu Natal.
My biggest concern is water contamination, I've seen this happen in the DRC. Companies like ROGESA make empty promises to people telling them they will retire rich and then 5 years down the line the water is acidic and no one can use it, and the company has disappeared.		ROGESA understands your concern and we understand that for most people farming is not just commercial, but it's a heritage that is why we are doing our research to ensure that the well drilling is done according to the best international standards.

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If the pressure is equalised down the well and you plug the well, what are the chances then of the gas leaching into the ground?	Johan Botha	The chances are very small. There are several ways to safely abandon the well. One being putting cement in the well which will infiltrate the cracks and because there is no pressure in the well against the cement, the cement will isolate everything. The other option is to do a chemical peel, which is basically using a jelly-like substance to plug the permeable pores/pathways which the gas would escape, this would block the porosity and permeability.
If the pressure is equalised, will the gas not rise post closure as well?		No, because the pressure is in equilibrium.
Can the presentation be shared with us?	Benita Norman	Yes, the presentation will be put up onto the SLR website.
Who owns Rhino?	Kristie Prinsloo	It is a total of 8 people from the USA, UK and South Africa. Unfortunately, not more information about the investors can be disclosed at this point.
Will Geotechnical studies be undertaken?	Benita Norman	ROGESA is looking at a 3-month programme for the exploration, if there's a geotechnical risk we identify or that you're particularly concerned with let us know and ROGESA and SLR will look into it.