

APPENDIX C: PUBLIC PARTICIPATION PROCESS DOCUMENTATION

Comments and Responses Report

1. PRE-APPLICATION PHASE COMMENT PERIOD

1.1 Interested and/or Affected Party (I&AP) Emails

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
1.	WH van Zyl Groep Thabo van Zyl	Email 22 August 2022	<p><u>Email:</u> Hereby my letter to inform you that I am a person/group of interest. I see that we already had correspondence as far back as 2016. I also attach my letters to Rhino from the previous time. I would like to attend this meeting at Wesselsbron on the 6th of September 2022.08.22 Please sent me proof that you have received my letters and please give confirmation that our of concern documents will be attached to any environmental Impact study that is done.</p> <p><u>Comment Form Attachment:</u> <i>Our group of farms might be situated in this Wesselsbron area. It is not certain because the area map is not very specific. I would also they to register as affected party. Your document is not very precise on how intrusive your drilling will be? How deep, what will be brought to the surface. Will it be toxic to the soil? What will the effect be on our drinking water source? Will it have an effect on our crops, because we plant from corner to corner. Where will the operators stay? What will their social impact be on the local community? Will there be any jobs for the local inhabitants of the area or will there only be foreign employment. What will the environmental impact be of the site occupants. What guarantees to we have that they won't hunt the local wildlife.</i></p>	<p>Details of the properties included in the proposed Target Areas are included in Appendix 4.</p> <p>A detailed description of the proposed project is included in Section 5 of the Scoping Report. The proposed wells would be drilled to a depth of approximately 1 000 m. During the drilling stage, drilling fluids and dust/cuttings are discharged <u>into sumps (a detailed explanation is given in appendix x) that are monitored</u> on the surface. Any other rock material in any form is stored in separate bins for disposal in an approved and regulated landfill site. Well testing may be conducted on successful wells which entails sending <u>gas</u> from the well to a flare boom with a burner located on the surface. The time to complete one well is approximately 3 to 4 weeks. A local logistics base will be in close vicinity of Target Areas.</p> <p>A detailed assessment of potential environmental and social impacts are to form part of the subsequent EIA Phase. Section 7 of the Scoping Report sets out the potential project issues and impacts that have been identified in the Scoping phase. The proposed scope of works of the EIA Phase, including identified specialist studies and terms of reference to assess the identified impacts, is provided in Section 9 of the Scoping Report.</p>

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2.	Sityhilelo Ngcatsha	Email 23 August 2022	<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: http://sahra.org.za/sahris/. 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>	A copy of the Draft Scoping Report was uploaded to SAHRIS on 10 October 2022.
3.	Mphahlela Selby Lengoabala	Email 25 August 2022	Mr. Mofokeng can you please assist accordingly since Kabelo is still incapacitated. (Hospitalized)	The I&AP was registered on the project database and notified of the availability of the Draft Scoping Report for review and comment.
4.	Peet Haefele	SLR website 25 August 2022	Please provide documents regarding "Exploration Right 318 (Ref. 12/3/318)", Free State.	The Background Information Document was sent to the I&AP.
5.	Thabo Monapati	Email 25 August 2022	I would like to register my interest with the aforementioned project.	These I&APs have been registered on the project database.
6.	<ul style="list-style-type: none"> • Thabo van Zyl • Katleho Lesenyeho 	Emails 28 August 2022	<i>These stakeholders responded to confirm their attendance of the planned public meetings.</i>	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
	<ul style="list-style-type: none"> • Molelekoa Galebe and Thabo Mahloko • Jacob Raliile 			
7.	AJ Serfontein	Email 06 September 2022	My husband JH Serfontein who is currently unwell, received a text message identifying him as an Interested and Affected Party in the matter of proposed well drilling in the Free State. On his behalf I contacted the supplied address www.slrc.consulting.com , but the page would not open. I notified the sender by text and was told to send an email to your address to obtain more information. Could said information now please be provided ASAP?	The I&AP was registered on the project database and notified of the availability of the Draft Scoping Report for review and comment.
8.	Dr Meisie Nthoesane	Email 06 September 2022	Hi, it was nice to be at the meeting yesterday I learnt a lot. There are 4 plots there at Rooiwal (Koppies) which I think you can explore for Gas, i.e Farm Kruki, Geduld, Meliodora and Juliana, they are all mine. Hoping to hear from you again.	<p>Any exploration activities must be confined to properties located within the extent of the approved Exploration Right. No exploration would be permitted on these properties if they are located outside of the approved Exploration Right area.</p> <p>The final location of the proposed well sites will only be finalised once an agreement with the relevant land owner is in place. Rhino would not access any property without engaging with the land owner to agree terms and providing adequate notice of any activity. A written Access Agreement, defining all relevant conditions, would be concluded, giving the landowner opportunity to influence the location and terms of use. Thus each landowner will have direct input in whether and where exploration activity would take place on their land.</p> <p>Additional detail regarding the potential location of well sites will be provided in the Environmental Impact Assessment Report.</p>

1.2 I&AP SMS and WhatsApp Messages

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
1.	Fanyane Shabalala	WhatsApp 02 September 2022	I am from Steynsrus, I would like to get more information regarding this (project) and possibly register as an interested party	The Background Information Document was sent to the I&AP.
2.	Sandra Johanna Helm	SMS 02 September 2022	Where are they going to drill?	The final location of the proposed well sites will only be finalised once an agreement with the relevant land owner is in place. Rhino would not access any property without engaging with the land owner to agree terms and providing adequate notice of any activity. A written Access Agreement, defining all relevant conditions, would be concluded, giving the landowner opportunity to influence the location and terms of use. Thus each landowner will have direct input in whether and where exploration activity would take place on their land. Additional detail regarding the potential location of well sites will be provided in the Environmental Impact Assessment Report.
		SMS 06 September 2022	Where is this meeting?	The I&AP was requested to provide their email address so that details of the public meetings could be provided.
3.	Dr Meisie Nthoesane	Telephone call 05 September 2022	I would like to RSVP to attend the Odendaalsrus meeting that will be taking place on the 7th of September 2022.	The I&AP was registered on the project database.
4.	Albertus Johannes Erasmus	SMS 06 September 2022	The time and venues of these meetings.	The I&AP was requested to provide their email address so that details of the public meetings could be provided.
5.	Jurie Hendrik Serfontein	SMS 06 September 2022	Link says 'Page not available'. Where can I get info?	The I&AP was requested to provide their email address so that details of the public meetings could be provided.
6.	Johnny Franke	SMS 06 September 2022	Will attend	The I&AP was registered on the project database.
7.	Pieter Cornelius Malan	SMS 07 September 2022	Where in Free State is target area? Interested.	The I&AP was requested to provide their email address so that additional project information could be provided.

1.3 Comments made during Public Meetings

No.	Organisation and Contact Person	Comment / Issues raised	Response
Wesselbron Golf Club 06 September 2022, 15h00			
1.	Danie Minaar	I want to understand, is this for fracking? For the initial application it was mentioned that this project is fracking. The end goal was fracking. That is what the exploration was for.	Rhino has publicly confirmed that exploration for shale oil or gas is not part of their corporate strategy and therefore will not use hydraulic fracturing (i.e. fracking) as part of their planned exploration or potential future production (see Section 2.5 of the Scoping Report). The current Environmental Impact Assessment (EIA) process is aligned to the exploration well drilling as described in Sections 5.3 and 5.4 of the Scoping Report.
		The presentation must be readable. None of us can read what is written there.	A copy of the presentation is included in Appendix 3.8 of the Draft Scoping Report.
2.	Anonymous	Based on the technical slide, can you explain what the geological reason is for the exploration right application on the eastern block?	Based on the data collected by the recent activities undertaken by Rhino in terms of their approved Exploration Work Programme anomalies were identified which would imply that there is a large basin which may be a potential source for hydrocarbons. The proposed well drilling activities aim to test for the presence, quantity and quality of gas within the identified Target Areas located in the overall Exploration Right area.
3.	Darel van Zyl	Does the casing go right to the bottom of the borehole?	Refer to Section 5.5.2 of the Scoping Report which details how wells will be cased and grouted to prevent the ingress of water into the well.
4.	John Sefojane (Department of Agriculture)	How will ROGESA manage the borehole drilling if it comes into contact with groundwater?	Refer to Section 5.5.2 of the Scoping Report which details how wells will be cased and grouted to prevent the ingress of water into the well.
5.	Anonymous	The surrounding mines have already caused significant damage to groundwater due to their activities. The groundwater is already polluted. What will the	The potential impact on groundwater resources has been identified as a key issue that requires further investigation. Refer

No.	Organisation and Contact Person	Comment / Issues raised	Response
		cumulative impact be if this project goes ahead? Farmers have for years already had problems with water. What impact will the project have on water for the next generation?	to Section 7.1.3 in the Scoping Report for a description of identifies issues and responses thereto. The terms of reference to assess these groundwater related issues are set out in Section 9.3.5 of the Scoping Report.
6.	Anonymous	I am concerned about spontaneous combustion which has already been taking place underground for many years.	It is not anticipated that the proposed exploration activities would result in spontaneous underground combustion. Issues relating to fires at surface (Section 7.3.5) have been identified for further investigation in the Scoping Report. Impacts to the various environmental aspects will be assessed in the EIA (see Section 9).
7.	Hannes Van Zyl	What is the effect on groundwater when sealing the water vein with casing? Won't the cement affect the water vein?	See response provided in Point 4 above.
8.	Anonymous	Will you take water samples on irrigation farms before or after casing / drilling? Will the information be made available to farmers?	The terms of reference for the geohydrological study is included in Section 9.3.5 of the Scoping Report. Water quality in water resources near to drill sites will be sampled before and after drilling. The detailed assessment of the potential impacts and the identification of mitigation measures will take place during the Environment Impact Assessment phase of the project.
9.	Anonymous	What gases is ROGESA interested in?	The proposed project aims to determine whether there are any commercially viable reserves of biogenic gas, helium, or hydrogen located within the Exploration Right area.
10.	Johnny Steimer	Considering the equipment that will be used, where will the workers reside and what security would be in place?	Rhino's drilling contractor plans to use existing infrastructure within the Free State to provide the transport, storage and bunkering facilities for the project. The logistics base will be located within around 120 km reach and all personnel will reside locally. Refer to Section 5 of the Scoping Report for a detailed description of the proposed project.
		I am concerned about safety. Wesselbron does not have police. Theft and murder are already of great concern.	Issues relating to safety and security (Section 7.3.4) have been identified for further investigation in the Scoping Report. Impacts

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			to the various environmental aspects will be assessed in the EIA (see Section 9).
11.	Mr Le Roux	How large is the area which will be affected by the equipment?	A typical drill rig and equipment requires an operating area of approximately 2 500 m ² , with approximately 100 m ² forming the central working platform and the balance used for equipment storage, staging and parking (see Section 5.5.1).
12.	Anonymous	How many job opportunities will there be? I am concerned about the influx of social issues such as crime, xenophobia. Development brings people. How will the social impacts be managed? Not just on your farms, but all our farms.	Exploration work is reliant upon designated skilled contractors and, as a result, employment opportunities outside of these are limited. The potential socio-economic issues identified for further investigation in the Scoping Report are discussed in Section 7.3 of the Scoping Report. These impacts will be assessed in the EIA in accordance with the Plan of Study for EIA set out in Section 9 (should the Scoping Report be accepted by the DMRE).
13.	Andries	What impact will the project have on hunting farms and hunters? Will the hunters movements be restricted?	Well sites will only be placed at locations agreed with each land owner. Additionally, wells sites will generally not be placed at sites with sensitive biodiversity. The potential land use issues identified for further investigation in the Scoping Report are discussed in Section 7.3.3 of the Scoping Report. These impacts will be assessed in the EIA in accordance with the Plan of Study for EIA set out in Section 9 (should the Scoping Report be accepted by the DMRE).
		I have wildlife all over my farm. Where must the wildlife go during exploration?	Issues relating to biodiversity (Section 7.2) have been identified for further investigation. Impacts to the various environmental aspects will be assessed in the EIA (see Section 9). The terms of reference to assess these terrestrial biodiversity issues are set out in Section 9.3.2 of the Scoping Report.
		How many trucks will be on the road to load when production is in full swing? I am concerned about the maintenance of the roads. The farmers maintain the dirt roads. Government maintains the tar roads.	Should production be established (subject to receipt of the requisite approvals) it is estimated that there could be approximately two trucks every 3 – 5 days or a single truck every

No.	Organisation and Contact Person	Comment / Issues raised	Response
			<p>one and a half days. However, the current EIA is focussed only on exploration which excludes any form of production. Should the applicant wish to pursue production activities in future, a further application for Environmental Authorisation (EA) must be undertaken and an EA obtained for such activities. That process will afford I&APs the opportunity to participate and allows for detailed assessment of impacts associated with production activities.</p>
14.	Anonymous	<p>What about the stranded assets? What will happen when ROGESA is done with the drilling works? Look at the impacts after borehole work is complete, for example theft of equipment and zama-zamas, or the potential opportunities created for crime such as the theft of coal. How will crime be mitigated?</p>	<p>Once drilling is completed, an unsuccessful well will be plugged and abandoned to ensure the integrity of the sealed well so that no future intervention and monitoring is required. The final program for well plugging and abandonment will be finalised after the end of drilling phase and log evaluation, in order to maximize the number and composition of plugs sealing in the single or multiple permeable zones discovered.</p> <p>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.</p> <p>On completion of drilling, the drill rig and support trucks will leave the wellsite location. A final well site verification survey will be performed to check the condition of the wellsite.</p>
15.	Anonymous	<p>Did Rhino Oil pay bribe money for the first application? And now? Who are the shareholders?</p>	<p>No bribery took place in the awarding of the Exploration Right. There are very serious repercussions for Rhino if any trace of corruption and bribery takes place. Rhino was recapitalised with European and American investment in late 2021.</p>
16.	Anonymous	<p>The maps are not clear and the affected list of farms is also not provided.</p>	<p>Details of the properties included in the proposed Target Areas are included in Appendix 4 of the Scoping Report.</p>

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17.	John Sefojane (Department of Agriculture)	The Department of Agriculture is the custodian of Agricultural Land. They must be included in the application as a commenting authority. Change of land use requires rezoning. Arable land is a no-go zone, so the Department must see the affected farms. I am responsible for accepting the properties and putting your comments to the applicant. We would also be interested in the various properties when ROGESA gets to the production phase.	The I&AP was registered on the project database. The Draft Environmental Impact Assessment Report (inclusive of the management programme) will be made available to the Department of Agriculture for review and comment at the relevant stages of the process.
18.	Johan van der Walt	What are the real world negative impacts for similar projects?	A detailed assessment of potential environmental and social impacts of exploration are to form part of the subsequent EIA Phase. Section 7 of the Scoping Report sets out the potential project issues and impacts that have been identified in the Scoping phase. The proposed scope of works of the EIA Phase, including identified specialist studies and terms of reference to assess the identified impacts, is provided in Section 9 of the Scoping Report.
		If the farmers' groundwater is polluted, the farmers will have to close their businesses as the impact is irreversible.	See response provided in Point 4 above.
19.	Anonymous	Does Rhino have a Broad-Based Black Economic Empowerment (BBBEE) company involved with them?	Rhino is currently in the process of undertaking the requisite due diligence to find a suitable BBBEE partner.
20.	Anonymous	Who pays the specialists bills? If we want to challenge your specialist proposals, we must pay out our own pocket to get people with knowledge. It is expensive.	All of the specialists appointed to provide inputs to the Scoping and EIA process are independent of Rhino (the applicant) as required in terms of the EIA Regulations 2014 (as amended). Each of their reports will include a signed declaration of independence as required in Appendix 6 to the EIA Regulations 2014.
		Even so, sabotage is a possibility and a big concern for us. How many studies have been fiddled with?	I&APs are entitled to appoint their own specialists to undertake 3 rd party review of the specialist studies if they wish.
21.	Anonymous	I am concerned that this process is a tick box exercise. Will our comments really be considered?	All comments received during the Scoping and EIA process will be recorded and responded to in a Comments and Responses Report. This is submitted to the authorities. PASA and DMRE will take into consideration all comments documented in the

No.	Organisation and Contact Person	Comment / Issues raised	Response
			Comments and Responses Report when making a decision as to whether grant or refuse Environmental Authorisation.
22.	Anonymous	Development companies' drones get shot down. How will cooperation take place?	The use of drones for security was mentioned in a discussion regarding the possible nature of a production phase. It is not envisaged that the proposed exploration activities would make use of drones. Well sites will only be placed at locations agreed with each land owner.
23.	Anonymous	Has consideration been given as to how we as I&APs will handle conflict of interest between applicants and consultants?	In terms of the EIA Regulations 2014 (as amended), the Environmental Assessment Practitioner (EAP) and all appointed specialists must be independent of Rhino (the applicant). The undertaking of the EAP is included in Appendix 1 of the Scoping Report. Each of the specialist reports will include a signed declaration of independence as required in Appendix 6 to the EIA Regulations 2014. I&APs are entitled to contact PASA or DMRE if they are concerned about a conflict of interest between the applicant and appointed EAP and specialists.
24.	Anonymous	Workers usually come in from Gauteng. Will local workers be used?	The identified contractors are experienced in drilling exploration and water monitoring wells within the Free State Region. Rhino encourages the use of local staff as far as possible, however, it is anticipated that some external advisors might be sourced from further afield if required by the project.
25.	Anonymous	ROGESA's transparency will be crucial throughout the whole process.	Comment noted. The Scoping and EIA process will adhere to all the required legislative requirements. Rhino will engage with landowners and well sites will only be placed at locations agreed with each land owner.
26.	Anonymous	Will a meeting be held in Kroonstad?	The farms located within the proposed Target Areas are mostly located near to the towns of Wesselsbron and Bothaville, thus the public meetings were focussed to these locations. Should there be

No.	Organisation and Contact Person	Comment / Issues raised	Response
			a need to arrange a meeting in Kroonstad, this will be considered in the EIA Phase.
Odendaalsrus Town Hall 07 September 2022, 09h00			
1.	Mr Israel	Is the surveying aircraft used able to detect minerals and oil and gas?	Aerial electromagnetic surveys are often used for diamond, gold and sometimes platinum metal exploration. However, the survey data doesn't not provide an exact location of where oil or gas is located but rather provides data which one can infer that there may be a possible resource in that area. It is up to the exploration company to analyse and interpret the data to determine whether there is a likelihood that potential resources are located in the area.
		Can ROGESA please speed up this process so that jobs can be created, and South Africa does not end up like Zimbabwe.	A description of tasks that will be undertaken in the EIA Phase and the indicative timing is provided in Section 9.7 of the Scoping Report. Rhino may not undertake the proposed exploration activities until they have received all the requisite approvals and permits for the proposed activities. The proposed exploration is unlikely to result in significant job opportunities.
		If there is a sustainable amount of gas found, will it be exported to Europe?	Should production be established (subject to receipt of the requisite approvals) it is envisaged that extracted gas would be sold locally for use as a transition fuel for electricity generation as South Africa moves away from the use of coal-fired power plants to renewable energy. Furthermore, gas has a number of other uses locally.
2.	Jack Ramohomo	South Africa is a country with a constitution and no one is above the law. Therefore all of us must comply with the law. ROGESA needs to ensure full compliance with the MPRDA.	Comment noted. The Scoping and EIA process will adhere to all the required legislative requirements. Rhino will only undertake activities as permitted by the ER which they hold over this area.

No.	Organisation and Contact Person	Comment / Issues raised	Response
3.	Thabang Mafatle	If this application is a renewal (of the EA) application, when did the existing EA then happen and when did the Public Participation Process (PPP) happen? One of the big reasons for the Shell's High Court ruling is because the public was not adequately consulted. We are not declining the proposed project, however, we want to ensure that the law is complied with.	The Environmental Authorisation and Exploration Right were issued in 2019. As part of the original Scoping and EIA process, site notices and newspaper advertisements were placed in various locations and publications in February 2016. Ten public meetings were held in various towns within the Exploration Right area. All registered I&APs on the original project database were also notified of the EA decision.
4.	Molelekoa Galeboe	How will the community benefit from the project? Will there be a Social and Labour Plan (SLP) in place?	In terms of the Mineral and Petroleum Resources Development Act, No. 28 of 2002 (MPRDA) (as amended), a SLP is only required should a Production Right be awarded. The short-term nature of exploration work is such that there are a limited number of job opportunities created. However, Rhino will make use of local goods and service providers as far as possible. The potential socio-economic issues/benefits identified for further investigation in the Scoping Report are discussed in Section 7.3 of the Scoping Report. These impacts will be assessed in the EIA in accordance with the Plan of Study for EIA set out in Section 9 (should the Scoping Report be accepted by the DMRE).
5.	Jacob Raliile	We plead with ROGESA to follow proper due diligence in terms of engaging with the communities and compliance with the law. The community is aware that the Department of Mineral Resources and Energy (DMRE) is getting bribes from companies for EAs without the companies adequately consulting the communities.	Comment noted. The Scoping and EIA process will adhere to all the required legislative requirements. Rhino will only undertake activities as permitted by the ER which they hold over this area.
6.	Molelekoa Galeboe	Even when ROGESA gets to the procurement stage, the process followed should be transparent and comply with the law. ROGESA should not just be trusting of what the government officials say.	Comment noted.
7.	Jacob Raliile	ROGESA must comply with their Environmental Management Programme (EMPr) and ensure that rehabilitation is undertaken.	Rhino will only undertake activities as permitted by the ER which they hold over this area. All work will be conducted in accordance with the EMPr to ensure that potential environmental impacts are managed appropriately. The compliance of the activities in terms

No.	Organisation and Contact Person	Comment / Issues raised	Response
			of the EMPr and conditions of the environmental authorisation will be audited and the audit findings will be made available to the relevant authorities. Full details of this will be provided in the EIA Assessment Report and EMPr.
8.	Dr Meisie Nthoesane	Should ROGESA find gas on my farm as a landowner, would you only be looking to rent my farm or is there an opportunity for me to be a shareholder?	At this stage the final location of the proposed well sites has not been determined and would be finalised once the relevant land owner agreements are in place. Rhino would not access any property without engaging with the land owner to agree terms and provide adequate notice of any activity. A written Access Agreement, defining all relevant conditions, would be concluded, giving the landowner opportunity to influence the location and terms of use. Compensation would be paid for access to and use of the land for each well site.

2. SCOPING PHASE COMMENT PERIOD

2.1 Authority Correspondence

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
1.	South African Heritage Resources Agency (SAHRA) Sityhilelo Ngcatsha	Letter 19 October 2022	Thank you for notifying the SAHRA on the proposed drilling of exploration wells in Wesselsbron, Allanridge and Kroonstad, within ER 318 Free State Province. It is noted that Rhino Oil and Gas Exploration South Africa (ROGESA) was granted an Exploration Right (ER) to explore for petroleum resources in the areas and desktop studies along with an aerial gradiometry gravity survey was completed. 40 exploration wells will be drilled within three Target Areas.	Refer to Section 8 of the Scoping for the key issues that have been identified for assessment in the EIA Phase. The Plan of Study for Impact assessment sets out the nature and extent of the investigations to be conducted and sets out the proposed approach to the EIA phase. The specific terms of reference for the heritage impact assessment (including palaeontology) is set out in Section 9.3.4. The Draft Environmental Impact Assessment Report (including associated specialist impact assessments) will be uploaded to the

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			<p>As the proposed development is undergoing an EA Application process in terms of the National Environmental Management Act, 107 of 1998 (NEMA), NEMA Environmental Impact Assessment (EIA) Regulations for activities that trigger the Mineral and Petroleum Resources Development Act, No 28 of 2002 (MPRDA)(As amended), it is incumbent on the developer to ensure that a Heritage Impact Assessment (HIA) is done as per section 38(3) and 38(8) of the National Heritage Resources Act, Act 25 of 1999 (NHRA). This must include an archaeological component, palaeontological component and any other applicable heritage components. The HIA must be conducted as part of the EA Application in terms of NEMA and the NEMA EIA Regulations.</p> <p>The archaeological component of the HIA should follow the SAHRA 2007 Minimum Standards: Archaeological Component of Impact Assessment Report. The quickest process to follow for the archaeological component would be to contract a qualified archaeologist (see www.asapa.co.za or www.aphp.org.za).</p> <p>The proposed development area is located mostly within areas of moderate sensitivity and target three is located in an area of very high sensitivity in terms of palaeontological resources as per the SAHRIS PalaeoSensitivity map. As such, a Palaeontological Impact Assessment (PIA) must be undertaken by a qualified palaeontologist (See https://www.palaeosa.org/heritage-</p>	<p>SAHRIS website once it is made available for review and comment.</p>

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			<p>practitioners.html for a list of qualified palaeontologists) which includes a field survey for target three and a desktop assessment for target one and two. The report must comply with the 2012 Minimum Standards: Palaeontological Components of Heritage Impact Assessments.</p> <p>Any other heritage resources as defined in section 3 of the NHRA that may be impacted, such as built structures over 60 years old, sites of cultural significance associated with oral histories, burial grounds and graves, graves of victims of conflict, and cultural landscapes or viewsapes must also be assessed.</p> <p>The NEMA EIA documents and appendices must be submitted at the start of the public review periods in order for an informed comment to be issued that can be incorporated into the final reports for submission to the competent authority.</p>	

2.2 I&AP Emails

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
1.	Dr Meisie Nthoesane	Email 15 September 2022	<p>Hi, I got your message last week regarding the meeting and drilling in the Free State. My plot which needs to be explored falls under Koppies (Rooiwal), can I attend the public meeting in Odendaal even if it doesn't fall there? Thank you.</p>	See response provided in Point 8. of Section 1.1 of this Comments and Responses Report.

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
2.	Pieter Cornelis Malan	Email 23 September 2022	I would like to register as an Interested and Affected Party (I&AP).	The I&AP was already registered on the project database.
3.	Elma Stephan	Email 09 October 2022	I strongly oppose the exploration of Rhino Oil and Gas Exploration. It is my opinion that this process will only be detrimental to our water resources, due to the release of chemical gasses through the exploration process. In light of similar processes already documented elsewhere, the result was extremely harmful for the environment. <i>Original Message:</i> <i>Ek staan die eksplorاسie van Rhino oil + gas exploration ten sterkte teer. Dit is my opine dat hierdie proses slegs nadelig vir ons waterbronne sal wees, agv die vrystelling van 16hemise gasse tyolens die eksplorاسie proses. In aie lig van sort geylyke prosesse elders reeds geelspirimenteer was die uitslag telkemale hadelig vir die omgewing.</i>	The opposition to the proposed project is noted and recorded here for consideration by the Competent Authority. The Scoping Report sets out a Plan of Study for EIA which addresses the assessment of potential impacts from exploration activities. This will include consideration of risks to groundwater.
4.	Dr Surina Esterhuysen	Email 21 October 2022	Can you please send me the scoping reports for the formal application to extend existing oil and gas exploration rights for another two years for the two Free State exploration areas: ER 294 and ER 318. Please also let me know to whom I can send my comments.	Links to the Draft Scoping Reports were sent to the I&AP on 21 October 2022.
5.	TJ Macholo	Email 21 October 2022	I'm Thapelo Macholo resident and community leader of the Matjhabeng Municipality including the following towns; Welkom, Odendaalsrus, Allanridge and Ventersburg and Hennenman. The community has learned about your company interest of prospect in one or two of the town belonging to the above Municipality. We there would like to have a meeting with you as soon as possible. Kindly confirm receipt of this email and the date suitable for you to meet with us.	SLR contacted Mr Macholo telephonically on 8 November 2022, it was explained that the specific location for the proposed well sites is not yet known and that additional detail regarding the potential location of well sites will be provided in the Environmental Impact Assessment Report. The I&AP has been registered onto the project database and will be notified when the Draft Environmental Impact Assessment report is available for review and comment.

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				See response provided in Point 8. of Section 1.1 of this Comments and Responses Report for additional details on the well site selection.
6.	Anonymous Envir Onmental	Emails 23 October 2022	No means no. Learn it underground.	The opposition to the proposed project is noted and recorded here for consideration by the Competent Authority. A detailed assessment of potential environmental and social impacts are to form part of the subsequent EIA Phase. The proposed scope of works of the EIA Phase is provided in Section 9 of the Scoping Report. It is noted that SLR had replied to the I&AP requesting that they provide their full name, organisation and stating their interest in the application, however, no response to this request has been provided to date. The Scoping Report sets out a Plan of Study for EIA which addresses the assessment of potential impacts from exploration activities. This will include consideration of risks to groundwater and air quality. Your objection is recorded. The Scoping Report sets out a Plan of Study for EIA which addresses the assessment of potential impacts from exploration
			No meaning no. It will pollute our groundwater in the area. Exploration will impact on environment and groundwater.	
			Withdraw your application. Choose a clean environment, not a dirty environment.	
	Anonymous Envir Onmental		It will pollute our drinking water and pollute the area. The exploration will impact crops if it happens. Do you have a heart or only a cold heart?	
			It will pollute our drinking water. Choose a clean environment, withdraw your application. Farmers have rights too and said NO. Just stop it.	
			Withdraw your application. It will pollute our drinking water and air. Just leave it alone.	
	Emails 24 October 2022		Withdraw your application. It will pollute our drink water and air quality in the area. No means no. It will pollute our drinking water and air quality in the area. NO means NO.	
			It will pollute our drinking water and air quality in the area. NO meaning no.	
	Emails 25 October 2022		It will pollute our drinking water and air quality. The community has the right to say NO to the exploration. No means NO. I choose a clean environment, not a dirty environment.	
			The environment has rights too. It will pollute our drinking water and air quality. Just leave it underground. No to drilling. Drilling will pollute.	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
		Emails 26 October 2022	It will pollute our groundwater and negatively affect our air quality. No means no.	activities. This will include consideration of risks to groundwater and air quality. Your objection is recorded.
			It will pollute our groundwater and can negatively affect air quality. It too impacts on human health. The environment has too rights too. The community has the right to say NO.	The Scoping Report sets out a Plan of Study for EIA which addresses the assessment of potential impacts from exploration activities. This will include consideration of risks to groundwater and air quality.
		Emails 27 October 2022	It will pollute our groundwater and effect negative air quality in the area.	Exploration would only be undertaken on property where agreement was reached with the landowner. Your objection is recorded.
		Emails 28 October 2022	It will pollute our groundwater and impact our air quality in the area. Gas is worse for the environment. Section 24 - everybody has the right on clean environment.	The Scoping Report sets out a Plan of Study for EIA which addresses the assessment of potential impacts from exploration activities. This will include consideration of risks to groundwater and air quality.
		Emails 28 October 2022	It can pollute our groundwater in the area.	
		Email 29 October 2022	It will pollute our air quality in the area. NO to gas https://www.bbc.com/news/science-environment-63284896	The opposition to the proposed project is noted and recorded here for consideration by the Competent Authority.
		Email 1 November 2022	Withdraw your application. The conventional drilling will pollute our drinking water. Do you know water is more important than gas? I choose water over gas. The farmers have rights to say NO. No to Gas. No means no. Gas is the worst fuel in the world.	A detailed assessment of potential environmental and social impacts are to form part of the subsequent EIA Phase. The proposed scope of works of the EIA Phase is provided in Section 9 of the Scoping Report. It is noted that SLR had replied to the I&AP requesting that they provide their full name, organisation and stating their interest in the application, however, no response to this request has been provided to date.
		Emails 6 November 2022	No means No. Just leave the beautiful Free State alone. It will pollute our drinking water and impact air quality in the area.	
			Withdraw your application in ER 294 and ER 318. Groundwater pollution in the area and pollution. Gas	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			flaring causes cancer for the community. Communities have rights and said NO to exploration in their area. No gas in the Free State. 100 times NO. https://guardian.ng/property/gas-flares-oil-spills-worsen-climate-change-in-niger-delta-communities/	
		Emails 8 November 2022	No means no. It will pollute our groundwater and air quality in the area. It will pollute our groundwater and air quality. This impacts human health in the area. The community has the right to say NO. Farmers have right to say no.	
7.	groundWork Avena Jacklin Vaal Environmental Justice Alliance Samson Makoena Natural Justice Allan Basajjasubi	Email 9 November 2022	INTRODUCTION 1. groundwork is an environmental justice and non-profit organization that works with South and Southern African communities on environmental justice and human rights issues focusing on coal, climate and energy justice, waste and environmental health. groundwork works with a number of community groups throughout South Africa including: the Vaal Environmental Justice Alliance; South Durban Community Environmental Alliance; Mfuleni Community Environmental Justice Organisation; South African Waste Pickers' Association; and Highveld Environmental Justice Network; Support Centre for Land Change; Environmental and Rural Solutions and the South African Water Caucus.	Noted
			2. The Vaal Environmental Justice Alliance (VEJA) is an environmental justice and non-profit organisation based in Vanderbijl Park, working on environmental justice and human rights issues, focusing on fossil fuels, waste and climate and energy justice. VEJA supports	Noted

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			<p>and collaborates with several organizations, including the National Water Caucus, Sasolburg Air Quality Monitoring Committee (SAQMC), Justice and Peace, and the Samancor Chemical Workers Committee, and also engages with local and provincial government and industries in the area, to promote a healthy, safe and sustainable environment. VEJA are the co-secretariat of the National Water Caucus.</p>	
			<p>3. Natural Justice: Lawyers for Communities and the Environment is a non-profit organisation specialising in environmental and human rights law in Africa – with a focus on the pursuit of social and environmental justice for local and indigenous communities. Natural Justice offers direct support to local and indigenous communities impacted by the ever-increasing demand for land and natural resources. Natural Justice also conducts comprehensive research on environmental and human rights laws, as well as engaging in key national and international processes with, for and alongside indigenous peoples and local communities.</p>	<p>Noted</p>
			<p>4. We set out below our comments on the Rhino Oil and Gas Updated Exploration Work Programme / Scoping Reports (“the Scoping Reports”) for both ER 294 and ER 318.</p>	<p>Thank you for the comments.</p>
			<p>COMMENTS</p> <p>Proposed development area of ER 294</p> <p>5. The ER 294 Scoping Report indicates that the extent of ER 294 includes ~ 3 000 properties over an area of ~ 6 600 ha. However, the public participation</p>	<p>The typo in the Scoping Report for ER294 text has been corrected.</p> <p>It has no bearing on the representation of the potential impacts.</p>

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>presentation indicates that “ER 294 is 656 114 hectares (ha) in extent”. There is clearly an error, likely in the Scoping Report, which misrepresents the extent of the right, and consequently its impacts.</p>	
			<p>Alternatives</p> <p>6. The Scoping Reports fail to identify and assess activity and technology alternatives. Contrary to the requirements of the National Environmental Management Act (“NEMA”) and the EIA Regulations, the Scoping Reports state that “[o]nly the preferred alternative and the no-go alternative will be considered during the EIA”. This is justified on that basis that “no alternatives exist to definitively establish the presence of hydrocarbon reserves”. However, this fails to appreciate or explore alternatives to meeting the overall objectives of the project, through for example, renewable energy technologies.</p>	<p>Rhino’s objective, in terms of the Exploration Right that were previously granted under the MPRDA, is to identify the presence of hydrocarbon resources. The consideration of renewable energy technologies is not reasonable alternative to their objective.</p>
			<p>7. In respect of technology alternatives, the Scoping Reports state that “Rhino Oil and Gas’s preference is to use the hybrid air/mud drilling rig provided by the local South Africa experienced drilling contractor”. They proffer no other justification for failing to consider technology alternatives.</p>	<p>There are only two drilling techniques available in the world for the drilling program to be executed: either air drilling or mud drilling. Using rigs that have both capabilities takes all available technologies therefore no alternatives are to be considered. The drilling programme is fit for purpose and executable from drilling contractors with broad experience in South Africa and long track record experience in the Free State region.</p>
			<p>8. The Scoping Reports further indicate that Rhino Oil and Gas will not be using hydraulic fracturing technology. However, they do not detail how the proposed technology differs from fracking in</p>	<p>Rhino have stated that they will not use hydraulic fracturing for planned exploration or potential future production. They have also detailed the technology that is proposed for the exploration drilling. As indicated in Section 2.5 of the Scoping Report,</p>

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			methodology and impacts (despite a request to do so by an I&AP). They also do not provide any assurance that the company will not later on utilise hydraulic fracturing methodologies, given its acknowledgement in the reports that there are extensive shale gas and oil and coalbed methane reserves in the area.	hydraulic fracturing is a technique of completion for production wells involving the fracturing of formations by introduction of a pressurized liquid. The proposed exploration drilling would use standard borehole drilling rigs (as used for water boreholes) that do not involve hydraulic fracturing.
			9. The Scoping Reports fails to identify positive impacts associated with the No-Go Alternative, and consequently fail to provide a full and proper assessment of this alternative.	Not undertaking the proposed activity would not directly result in positive impacts. It would however prevent the occurrence of negative and positive impacts potentially resulting from the undertaking of the proposed activity. This is detailed in Section 8 of the Scoping Report.
			10. The consideration of alternatives is vastly deficient and fails to meet the requirements of NEMA and the EIA Regulations.	SLR refutes this statement. The legal requirement is to consider alternatives which offer different means of meeting the general purpose and requirements of the proposed activity, in a manner that is both reasonable and feasible. The Scoping Report provides appropriate considerations, which will be addressed in more detail in the EIA Report.
			<p>Splitting of applications</p> <p>11. Regulation 11(3) of the EIA Regulations requires that a single application be submitted where more than one activity is part of the same development within the area of jurisdiction of the competent authority.</p>	Each of the ERs held by Rhino are distinct and separate and are not considered a single development. While it may arise that certain activities are undertaken across the ER, this does not mean that all activities and developments would be. Thus the ERs, activities in them, and required permits are considered separately.
			12. ER 294 and ER 318 areas, including their Target Areas, share a border between Target Area 3 (ER 318) and Target Area 4 (ER 294). The four target areas between the two exploration right areas are even numbered sequentially.	See above response

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			<p>13. Clearly, these are two applications which form part of the same development by Rhino Oil and Gas, have been unlawfully split, in contravention of the EIA Regulations.</p>	<p>See above response</p>
			<p>Need and Desirability Assessment</p> <p>14. According to the EIA Regulations, one of the main objectives of the scoping process is to “motivate the need and desirability of the proposed activity”.¹ Therefore, a Scoping Report must contain adequate information on the positive and negative impacts and policy context to motivate the need and desirability of the proposed project:</p> <p><i>“A Scoping Report must contain the information that is necessary for a proper understanding of the process, informing all preferred alternatives, including location alternatives, the scope of the assessment, and the consultation process to be undertaken through the environmental impact assessment process, and must include—</i></p> <p><i>(f) a motivation for the need and desirability for the proposed development including the need and desirability of the activity in the context of the preferred location.”</i></p>	<p>As quoted, the objective of the Need and Desirability section is to motivate (our highlight) the proposed activity.</p>
			<p>15. The need and desirability analysis presented in the Scoping Reports fail to recognise the inextricable links between exploration and production—that this project’s outcome would be the production of oil and gas. Therefore, beginning in the scoping phase, the</p>	<p>Exploration and Production, while sequential in nature, are defined as distinct activities in the MPRDA. The MPRDA and NEMA both recognise the distinction and provide for a separation of application, assessment and authorisation processes which applicants must follow when seeking permission to undertake either Exploration or Production activities. The</p>

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			EAP must assess the cumulative impacts of exploration and foreseeable production.	Scoping Report is consistent with the approach defined in the regulatory framework.
			16. Furthermore, the need and desirability assessments fail to consider all relevant factors, including those contemplated by NEMA and in the Guideline. These factors include considerations of intra- and inter-generational equity in the context of sustainability, cumulative impacts that account for intended future phases of this project, and site-specific need and desirability.	<p>Refer to the response above in respect of the consideration of impacts related to future production activities.</p> <p>Per the EIA Regulations, Scoping is the first in a two-part process during which relevant information is gathered, considered and presented. The Need and Desirability section in the Scoping Report is first iteration and will be updated with relevant considerations in the EIA Report.</p>
			17. The EIA Regulations require that the need and desirability assessment be site specific, that it should be considered “in the context of the development footprint on the approved site”. ⁴ This requirement has not been met.	<p>The correct quote from Appendix 3 to the EIA Regulation on the content of a Scoping Report reads “<i>a motivation for the need and desirability for the proposed development including the need and desirability of the activity in the context of the preferred location;</i>”.</p> <p>The purpose of the EIA process is to gather information in order to determine the ‘preferred’ alternatives for the proposed activity. At the Scoping stage the relevant information is not yet available to confirm all of the preferred components. As indicated in the Plan of Study further work is still to be undertaken to arrive at a preferred alternative.</p> <p>The Need and Desirability section in the Scoping Report is first iteration and will be updated with relevant considerations in the EIA Report.</p>
			18. These drilling proposals, which facilitate a dependence on oil and gas exploration for production, is incompatible with South Africa’s national climate change policies and South Africa’s international climate change commitments. South Africa has	The proposed drilling would enable an improved understanding of the gas resource in the ER.

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			<p>committed itself to combat climate change under international law, with South Africa’s 2021 Nationally Determined Contribution under the Paris Agreement representing an ambitious goal which will necessitate adjustments to national policies in order to achieve this. However, the stated need for and desirability of the proposed exploratory right to inform further exploration and production strategies is incompatible even with these less ambitious national policies.</p>	<p>The Need and Desirability section in the Scoping Report includes details on the legislation and policy on South Africa’s climate change commitments.</p>
			<p>19. Key contributors to this transition will include a commitment to undertake mitigation actions and policy instruments that support mitigation and an expanded renewable energy programme. By 2030, a substantial proportion of the low-carbon infrastructure should be in place or at an advanced stage of planning, particularly in the energy and transport sectors.</p>	<p>Noted.</p>
			<p>20. The need and desirability chapter highlights the supposed alignment of gas extraction with the National Development Plan and the 2019 IRP, but South Africa’s carbon space has significantly narrowed since the NDP was drafted. South Africa’s current NDC commitments and net zero aspirations have led to a finite carbon space—the upper bound of which is now 50% lower than the upper bound of the range envisaged as acceptable at the time of the NDP’s drafting. Ignoring the reality of this limited carbon space will lead to stranded assets and could “result in the economic stranding of entire sectors of the economy.</p>	<p>The references to the IRP are correct.</p>

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			<p>21. Although the Scoping Reports refers to national policies which seemingly affirm the need to acquire and develop infrastructure necessary for development, particularly in the energy sector, it fails to account for national policy documents which commit South Africa to cutting greenhouse gas emissions, with a majority of those cuts occurring within the energy sector. These include:</p> <p>21.1. The National Climate Change Response White Paper (2011) sets out its National Climate Change Response Objective, which includes making “a fair contribution to the global effort to stabilise [greenhouse gas] concentrations in the atmosphere at a level that avoids dangerous anthropogenic interference with the climate system”. This White Paper also identifies the energy sector as the main contributor to South Africa’s greenhouse gas emissions and considers “the most promising mitigation options” to be energy efficiency, demand side management and investment in renewable energy.</p> <p>21.2 The Climate Change Bill (B9-2022) also states the objective to “make a fair contribution to the global effort to stabilise greenhouse gas concentrations in the atmosphere at a level that avoids dangerous anthropogenic interference with the climate system...”</p>	<p>This is not correct. The Need and Desirability section in the Scoping Report includes details on the legislation and policy on South Africa’s climate change commitments.</p>
			<p>22. All the benefits Rhino Oil and Gas claim, stem from the production of the oil and gas that they hope to find in this block. If positive effects of production are taken into account during the need and desirability</p>	<p>The Need and Desirability section in the Scoping Report presents a context. The Scoping Report is explicit that the assessment of potential impacts (both positive and negative) will be limited to those from exploration. No consideration is, or will be, given to</p>

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>analysis of the exploration stage, then the negative impacts of production must be assessed as well.</p>	<p>production related activities as these would form part of a subsequent application, assessment and authorisation process. This is consistent with the approach defined in the regulatory framework.</p>
			<p>23. The need and desirability analyses repeatedly reference the benefits South Africa’s economy would reap from production of indigenous oil and gas:</p> <p><i>“The global gas supply/demand balance has changed significantly since the date of the publication of the Gas Master Plan as a result of the Russia/Ukraine conflict, with several implications on the global gas market. Such volatility in gas market dynamics highlights the importance of diversified supply options, whether from a large-scale offshore gas development, importation via pipeline, LNG regasification or onshore domestic gas production close to a major demand centre”</i></p>	<p>The Need and Desirability section in the Scoping Report presents a context, and includes consideration of the legislation and policy on South Africa’s climate change commitments.</p>
			<p>24. Furthermore, the Scoping Reports notes that:</p> <p><i>“Identification and use of domestic natural gas reserves could enable South Africa to take steps to secure the country’s energy supply (through diversification), assist in reducing the emissions of greenhouse gases (by reducing the country’s reliance on coal for electricity generation) and reduce the need for the importation of gas. As such, exploration for additional domestic hydrocarbon reserves is consistent with the Integrated Resource Plan (IRP) (2019)”</i></p>	<p>The references to the IRP are correct.</p>

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>25. The Scoping Reports also discuss the call for natural gas in South Africa’s Gas Master Plan, and National Development Plan. Page 33 states that <i>“This project seeks to explore for gas in regional proximity to the demand, specifically in the Free State. Any discoveries would not only supply this critical latent demand but would be well placed to further supply other strategically important plants”</i> as well as that <i>“there would be significant advantages for South Africa if such gas can be found and produced domestically rather than imported via pipelines or as LNG”</i>. Not only do these statements demonstrate that Rhino Oil and Gas Exploration (Pty) Ltd and SLR are focusing on the need and desirability of eventual production rather than exploration, but they also show explicit acknowledgements of the intrinsic link between the exploration and production phases of the proposed project.</p>	<p>The references to the Gas Master Plan are correct.</p> <p>The Need and Desirability section in the Scoping Report presents a context, and includes consideration of the legislation and policy on South Africa’s climate change commitments.</p> <p>The Scoping Report is explicit that the assessment of potential impacts (both positive and negative) will be limited to those from exploration. No consideration is, or will be, given to production related activities as these would form part of a subsequent application, assessment and authorisation process. This is consistent with the approach defined in the regulatory framework.</p>
			<p>26. There is no mention in the Scoping Reports of the impact that oil and gas production would have on the terrestrial environment and its biodiversity, climate change impacts to water sources such as wetland and related water infrastructure, food security or sustainability of natural resources linked to the agricultural sector.</p>	<p>The Scoping Report is explicit that the assessment of potential impacts (both positive and negative) will be limited to those from exploration. No consideration is, or will be, given to production related activities as these would form part of a subsequent application and assessment process. This is consistent with the approach defined in the regulatory framework.</p>
			<p>27. If the oil and gas reserves are ultimately exploited and used for energy needs in South Africa, this will prevent South Africa from fulfilling its international climate obligations, including its 2021 Nationally Determined Contribution (NDC) under the Paris</p>	<p>The current assessment process has not set out to assess potential impacts of possible, future production activities as these would form part of a subsequent application, assessment and authorisation process. This is consistent with the approach defined in the regulatory framework.</p>

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>Agreement, and thus eliminating the desirability of the proposed project. South Africa has committed to stay on a pathway to keep global average temperature increases below 1.5 degrees Celsius, which global experts agree can only be achieved if no new oil and gas reserves are exploited.</p>	
			<p>28. The current draft of the Scoping Reports overstate the need to rely on oil and gas exploration and production, as necessary remedies for South Africa’s energy insecurity issues. At pages 32-35, the EAP refers to the 2019 IRP as supporting the need to develop gas for diversifying South Africa’s energy mix, as well as being considered a “transition fuel”. Need and desirability analysis should not rely on the incorrect presumption that South Africa will require significant amounts of gas as part of its energy mix as soon as 2030. Reliance on this presumption is flawed in three key respects:</p> <p>28.1. First, reliance on the 2019 Integrated Resource Plan (IRP) does not excuse the EAP from undertaking a need and desirability analysis, including consideration of climate change, in terms of NEMA requirements.</p> <p>28.2. Second, the IRP does not indicate a need for significant amounts of gas by 2030.</p> <p>28.3. Third, recent reports have suggested that even the 2019 IRP’s small allocation of gas within the energy mix is more than will ever be required. The Vital Ambition Report by Meridian Economics in collaboration with the Council for Scientific and Industrial Research (“CSIR”) Energy</p>	<p>To SLR’s knowledge the 2019 IRP remains a valid document and is one of the guides for government decision-making in respect of energy resources.</p> <p>The scope of the proposed exploration project is to identify the presence of gas resources. The volume of gas that may be discovered is unknown. In any event the proposed exploration would not directly result in the utilisation of any gas, as this requires a production which would form part of a subsequent application, assessment and authorisation process.</p> <p>SLR will review the “Vital Ambition Report” during the EIA phase and incorporate relevant considerations in the EIA report.</p>

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			<p>Centre (“Vital Ambition Report”) states that gas to power is only justified in the South African energy mix in so far as it is required for low-utilisation flexible capacity (peaker plants) for balancing the system during peak power demand. The report confirms that no investments in gas infrastructure for energy production and generation is needed now or in the near future.</p> <p>28.4. Furthermore, the 2019 IRP will likely need updating in the foreseeable future to align with South Africa’s 2021 Nationally Determined Contribution under the Paris Agreement and to keep pace with quickly evolving science and significant reductions in price for solar and wind energy. However, even the 2019 IRP, which is rooted in an outdated and scientifically and economically unsound understanding of the necessity for any gas in the energy mix, only projects the collective contribution of gas and diesel to the 2030 energy mix to be 1.3% combined.</p>	
			<p>29. It is therefore clear that the promise of improved energy security underpins the need and desirability analyses in the Scoping Reports. This is used to promote the reliance on significant amounts of gas as a “transition fuel”. However, this particular project will not in any way remedy nor provide for a short-term solution to South Africa’s current energy insecurity. The exploration drilling will not take place until late 2023 or early 2024 with extraction and</p>	<p>The Need and Desirability section in the Scoping Report presents a context.</p> <p>The Scoping Report is explicit that the assessment of potential impacts (both positive and negative) will be limited to those from exploration. No consideration is, or will be, given to production related activities as these would form part of a subsequent application, assessment and authorisation process. This is</p>

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>production occurring only years later. Therefore, the proposed exploration in no way provides a remedy for current energy insecurity in South Africa.</p>	<p>consistent with the approach defined in the regulatory framework.</p>
			<p>30. The proposed project which envisions utilising exploratory well drilling to explore for oil and gas, would not necessarily improve South Africa’s energy security. This is because any extracted oil and gas would belong to the for-profit companies undertaking the project, not South Africa. Energy companies compete for access to mineral rights granted by governments by either entering a concession agreement, meaning any discovered oil and gas are the property of the producers, or a production-sharing agreement.</p>	<p>No consideration is, or will be, given to production related activities during the current application as these would form part of a subsequent application, assessment and authorisation process. This is consistent with the approach defined in the regulatory framework.</p>
			<p>31. If we consider the ownership of any extracted oil and gas, we can see that these resources will ultimately be exploited for profit, based on the best interests of the company. The project does not guarantee improvement of energy security for South Africa and its citizens. If, following a successful exploration phase, the company elects to exploit these extracted resources in a manner that does not directly improve South Africa’s energy security, this invariably undermines the foundational reasoning that underpins the need and desirability of this proposed reconnaissance project—it’s supposed contribution to energy security for South Africa—and provides no tangible benefit for South Africans.</p>	<p>No consideration is, or will be, given to production related activities during the current application as these would form part of a subsequent application, assessment and authorisation process. This is consistent with the approach defined in the regulatory framework.</p>
			<p>32. It is common practice that proposed exploration activities such as exploratory well drilling, only</p>	<p>No consideration is, or will be, given to production related activities during the current application as these would form part</p>

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>commence months and sometimes years after the need and desirability assessment is undertaken, with appraisal and production only commencing years later. According to one study, the world's largest oil and gas fields took an average of 5.5 years from discovery to first production and 17 years to reach peak output. Chevron Corporation's (CVX) Gorgon natural gas development project off the coast of Australia took 30 years to complete, and another six years to begin producing liquefied natural gas. Given the examples provided above which are of common practice, the proposed exploration programme project in no way provides a remedy nor will address in the immediate future South Africa's current energy insecurity issues.</p>	<p>of a subsequent application, assessment and authorisation process. This is consistent with the approach defined in the regulatory framework.</p>
			<p>33. Further, by the time any resources discovered in the subject exploration block are ready for production, South Africa will already be at a different stage in its international climate commitments. If the country intends to adhere to these commitments, it will have to transition to renewable energy sources, meaning that oil and gas will not be as beneficial to South Africa's economy as claimed in the need and desirability assessment.</p>	<p>This may be the case and is a risk which the ER holder will need to consider in their decision making.</p> <p>No consideration is, or will be, given to production related activities during the current application as these would form part of a subsequent application, assessment and authorisation process. This is consistent with the approach defined in the regulatory framework.</p>
			<p>Climate change commitments</p> <p>34. If the oil and gas reserves that are ultimately exploited are used for energy needs in South Africa, this will prevent South Africa from fulfilling its international climate obligations, including its 2021 Nationally Determined Contribution (NDC) under the</p>	<p>No consideration is, or will be, given to production related activities during the current application as these would form part of a subsequent application, assessment and authorisation process. This is consistent with the approach defined in the regulatory framework.</p>

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			Paris Agreement, and thus eliminating the desirability of the proposed project.	
			35. South Africa has committed to stay on a pathway to keep global average temperature increases below 1.5 degrees Celsius, which global experts agree can only be achieved if no new oil and gas reserves are exploited.	The commitment is recorded in the Need and Desirability section in the Scoping Report. No consideration is, or will be, given to production related activities during the current application as these would form part of a subsequent application, assessment and authorisation process. This is consistent with the approach defined in the regulatory framework.
			36. The need and desirability analysis relies heavily on a presumption that South Africa will require significant amounts of gas as part of its energy mix as soon as 2030. Reliance on this presumption is flawed in three key respects. 36.1. First, reliance on the 2019 Integrated Resource Plan (IRP) does not excuse the EAP from undertaking a need and desirability analysis, including consideration of climate change. 36.2. Second, the IRP does not indicate a need for significant amounts of gas by 2030. 36.3. Finally, recent reports have suggested that even the 2019 IRP's small allocation of gas within the energy mix is more than will actually ever be required.	To SLR's knowledge the 2019 IRP remains a valid document and is one of the guides for government decision-making in respect of energy resources.
			37. The call for gas as a minor part of the energy mix in the 2019 IRP does not excuse the decision-maker from taking climate change impacts into account, including as part of the need and desirability assessment. As one of the primary objectives of the scoping report is to make a case for the need and	The Need and Desirability section in the Scoping Report presents a context, and includes consideration of the legislation and policy on South Africa's climate change commitments. It is the view of the EAP that the undertaking of the proposed exploration activities would pose limited risks to climate change.

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			<p>desirability of the proposed project, the scoping report’s case for need and desirability must directly address climate impacts and cannot simply rest on the 2019 IRP as evidence of need or desirability.</p>	<p>As indicated in section 7.1.6 further consideration will be given to air quality issues in the EIA.</p>
			<p>38. The High Court in Earthlife Johannesburg v Minister of Environment and Others stated the following with respect to a decision-maker’s reliance on the IRP in rendering a decision on an application for environmental authorisation:</p> <p><i>“Policy instruments developed by the Department of Energy cannot alter the requirements of environmental legislation for relevant climate change factors to be considered.”</i></p>	<p>Noted</p>
			<p>39. The Scoping Reports rely on the 2019 IRP and other policy documents to suggest that gas is a necessary and desirable component of the energy mix, and that the proposed exploration activities are therefore also necessary and desirable. As noted in Earthlife Johannesburg v Minister of Environment and Others, the case for need and desirability of oil and gas exploration must be established and assessed independent of the 2019 IRP. Pointing to the existence of a national policies without an assessment of the specific project activities in their specific context does not meet these requirements. The Scoping Reports must establish and evidence the case for the project’s need and desirability without reliance on the 2019 IRP.</p>	<p>The IRP is one of many documents quoted in the Need and Desirability section in the Scoping Report. There are many other policies, laws and regulations which promote the understanding of South Africa’s mineral resources, as the proposed exploration aims to do.</p>

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			<p>40. The 2019 IRP will likely need readjusting in the coming years to align with South Africa’s 2021 Nationally Determined Contribution under the Paris Agreement. According to a recent report by Meridian Economics, the only economically rational role for gas in power generation is in very low volumes as a fuel for peaking plants, though diesel can fill this role with a similar carbon footprint, and that gas may never be a necessary or economical component of South Africa’s energy mix.</p>	<p>To SLR’s knowledge the 2019 IRP remains a valid document and is one of the guides for government decision-making in respect of energy resources.</p>
			<p>41. The Meridian report found that forcing high-use gas-to-power generation into the energy mix would entail a cost 40% higher than the alternative combination of peaking plant and renewables, with seven-fold higher carbon emissions for the power generation.</p>	<p>No consideration is, or will be, given to production related activities during the current application as these would form part of a subsequent application, assessment and authorisation process. This is consistent with the approach defined in the regulatory framework.</p>
			<p>42. Further, with no economic rationale for large-scale gas use in power, following such a strategy would deliver assets that are stranded before their first kWh of power is generated. Even a recent report from the National Business Initiative—of which most multinational oil and gas companies are members of—heavily emphasised the risk of stranded assets that would necessarily accompany any investment in gas-to-power infrastructure.</p>	<p>No consideration is, or will be, given to production related activities during the current application as these would form part of a subsequent application, assessment and authorisation process. This is consistent with the approach defined in the regulatory framework.</p> <p>This may be the case and is a risk which the ER holder will need to consider in their decision making.</p>
			<p>43. It is worth noting that impending Global North carbon border adjustment mechanisms will impose restrictions on the export of products with a high carbon footprint, putting South Africa's economy at greater risk of developing gas-to-power energy</p>	<p>This may be the case and is a risk which the ER holder will need to consider in their decision making.</p>

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			<p>systems, rather than clean renewable alternatives. As the impending risks of investing in fossil fuels increase, oil and gas projects will no longer represent a viable solution to South Africa’s ambitions to balance the goals of economic development with respect for universal and regional climate change obligations.</p>	
			<p>44. We submit that exploration for new gas reserves by way of exploratory well drilling is neither needed nor is it desirable. These activities fail to align with the public interest, the Constitution, and other applicable laws. This is due to the unacceptable and likely risks of harm arising from these activities. Exploration for new gas reserves and subsequent production of oil and gas products contribute towards further climate disaster and significantly reduce South Africa’s resilience against impacts to human health and the environment more broadly. These activities also increase South Africa’s reliance on the inordinately high costs involved in gas power generation for energy.</p>	<p>As indicated in the Scoping Report “<i>The promotion of the oil and gas sector could also be considered in contradiction with some of the other plans and policies, which identify the need to reduce the reliance on fossil fuels in order for South Africa to reduce GHG emissions and meet commitments in this regard. Nevertheless, the current limitations of renewable energy technologies are such, that there is still a need to include fossil fuels (notably natural gas) within the energy mix of the country.</i>”</p> <p>The Scoping Report sets out a Plan of Study for EIA which addresses the assessment of potential impacts from exploration activities.</p>
			<p>Regional and municipal policies relevant to need and desirability assessment</p> <p>45. The need for and the desirability of a proposed development forms a key component of any EIA application. The consideration of the various spatial planning tools and policies applicable to the study area form an integral part of the present environmental assessment and authorisation processes. The “need and desirability” will be</p>	<p>Noted</p>

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			<p>determined by considering the broader community's needs and interests as reflected in a credible IDP, SDF and EMF for the area, and as determined by the EIA. It is important that policies take cognisance of strategic concerns such as climate change and food security, as well as the sustainability in supply of natural resources and the status of our ecosystem services.</p>	
			<p>Free State Green Economy Strategy</p> <p>46. According to the Free State Green Economy Strategy, one of its stated goals is to provide for the facilitation of increased investments in renewable energy. The Free State Green Economy Strategy focuses on reducing health and environmental impacts from energy production and use, while ensuring the basis for long-term economic growth. Such an integrated strategy can increase provincial and national energy security and reduce carbon emissions while providing new employment opportunities that may more than compensate for jobs that disappear due to the reduced use of other sources of energy (e.g. fossil fuels).</p>	<p>Exploration for gas and other investment decisions, inter alia for renewable energy, are not mutually exclusive.</p>
			<p>47. The Free State Green Economy Strategy recognizes that renewable off-grid and mini-grid options tend to be more cost effective than expanding existing electricity grids in remote locations. The strategy also recognizes that the Free State province is rich in these renewable energy sources, such as small hydro, mini-wind, bio-energy, and the increasingly popular solar household systems (SHSs). Furthermore, the strategy acknowledges that the Free State Province has a huge</p>	<p>Noted.</p>

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			<p>potential to alleviate rural energy poverty and to displace costly diesel-based power generation through the development of renewable energy infrastructure.</p>	
			<p>48. The strategy also prioritises the support of its agriculture, tourism, and built infrastructure sectors, as well as the growth of the renewable energy sector, all to the benefit of the local communities and the economy. This all hinges on a climate resilient Free State province, which will be threatened by climate change impacts and biodiversity impacts brought on by this potential development. These impacts could destabilise environmental and socio-economic sustainability as established by the latest IPCC reports.</p>	<p>The undertaking of exploration activities as proposed is unlikely to have impacts on climate resilience or biodiversity. The Scoping Report sets out a Plan of Study for EIA which addresses the assessment of potential impacts from exploration activities.</p>
			<p>49. Given the above, it is improbable that the proposed gas exploration, and possible production which will lead to upstream gas infrastructure, is indeed needed and desirable. The potential threats a catastrophic gas leak, water and soil contamination, or decreased climate resilience poses to the Municipality's desired net zero carbon economy outweigh the potential benefits of this activity.</p>	<p>The Scoping Report sets out a Plan of Study for EIA which addresses the assessment of potential impacts from exploration activities.</p> <p>No consideration is, or will be, given to production related activities during the current application as these would form part of a subsequent application, assessment and authorisation process. This is consistent with the approach defined in the regulatory framework.</p>
			<p>50. What is needed and desired for a specific area is best determined strategically and democratically.</p> <p>The strategic context informing the elements of need and desirability should first be addressed and determined during the formulation of the sustainable development vision, goals and objectives of the various provincial and municipal plans and policies.</p>	<p>Noted.</p>

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			<p>These greater considerations should be determined beyond the spatial extent of a specific and individual EIA process, and then considered in the context of an individual EIA.</p>	
			<p>51. Therefore, the substance of related plans, frameworks, policies and strategies must be considered when examining the merits of each application when "need and desirability" must be examined as part of an EIA process.</p>	<p>Noted. Not forgetting the context of nationally determined policies and legislation.</p>
			<p>52. It is in this context that it is submitted that the EAP ought to have considered the Free State Green Economy Strategy, Free State 2030 Vision, in order to give effect to the underlying principles which are the consideration of the strategic context of the development proposal along with the broader societal needs and the public interest.</p>	<p>SLR will review the "Free State Green Economy Strategy and, Free State 2030 Vision" during the EIA phase and incorporate relevant considerations in the EIA report.</p>
			<p>53. Furthermore, the Free State provincial authorities, through their district and municipal spatial development frameworks and Green Economy strategies, indicate their commitment to ensuring that there is a consideration and identification of climate change related impacts on the water-food-energy nexus.</p>	<p>Noted.</p>
			<p>54. The current Scoping Reports have not identified nor addressed the types of impacts that would befall local communities in all aspects of the water-energy-food nexus system as it relates to food production, processing, availability, distribution, accessibility, utilization and consumption and stability through</p>	<p>The undertaking of exploration activities as proposed is unlikely to have impacts on the water-energy-food nexus.</p> <p>The Scoping Report sets out a Plan of Study for EIA which addresses the assessment of potential impacts from exploration activities.</p>

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			agriculture, water resource preservation and energy generation.	
			55. In order to determine whether the development will result in the securement of ecological sustainable development and the promotion of justifiable social and economic development, the specific needs of the broader community should be considered alongside the opportunity costs and distributional consequences.	Noted.
			56. Natural Justice submits that it is imperative that the Scoping Reports consider to the above long-term goal of the Free State Green Economy Strategy and the Free State 2030 Vision, as it is relevant to the current context and is necessary to factor into the need and desirability assessment.	SLR will review the “Free State Green Economy Strategy and, Free State 2030 Vision” during the EIA phase and incorporate relevant considerations in the EIA report.
			<p>Climate change and the right to sustainable development</p> <p>57. The proposed application, through its greenhouse gas emissions and contributions to global climate change, undermines the constitutionally protected rights of present and future generations to environmental protection and ecologically sustainable development.</p>	It is the view of the EAP that the undertaking of the proposed exploration activities would pose limited risks to climate change. As indicated in section 7.1.6 further consideration will be given to air quality issues in the EIA.
			<p>58. Section 24 of the Constitution states:</p> <p><i>“Everyone has the right— to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that –</i></p>	Noted

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			<p><i>iii. secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development” (emphasis added).</i></p>	
			<p>59. The principles and provisions of NEMA provide legislative implementation for these rights to environmental protection and sustainable development.</p> <p>59.1. NEMA states that “the environment is held in the public trust for the people and the beneficial use of the environmental resources must serve the public interest and the environment must be protected as the people’s common heritage”.</p> <p>59.2. Further, one of NEMA’s core principles is that “the exploitation of non-renewable resources must be responsible, equitable and take into account the depletion of that resource.”</p>	Noted
			<p>60. The preamble of the Mineral and Petroleum Resources Development Act (“MPRDA”) similarly affirms these principles.</p>	Noted
			<p>61. Therefore, not only does an applicant for environmental authorisation need to provide an assessment of the project’s localised impact on the environment and communities, including cumulative impacts, but the project’s proponents must also satisfy the decision maker that onshore oil and gas exploration and production are a responsible and equitable use of South Africa’s resources and that they serve the interest of the wider South African public.</p>	<p>The Scoping Report sets out a Plan of Study for EIA which addresses the assessment of potential impacts from exploration activities.</p> <p>As indicated in the Scoping Report “<i>The promotion of the oil and gas sector could also be considered in contradiction with some of the other plans and policies, which identify the need to reduce the reliance on fossil fuels in order for South Africa to reduce GHG emissions and meet commitments in this regard. Nevertheless, the current limitations of renewable energy technologies are</i></p>

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				<i>such, that there is still a need to include fossil fuels (notably natural gas) within the energy mix of the country.”</i>
			62. In Earthlife Africa Johannesburg v. Minister of Environmental Affairs and Others, the High Court held that “climate change poses substantial risk to sustainable development in South Africa, which is enshrined in the constitutional environmental right.	Noted
			63. The High Court elaborated on the connection between consideration of climate change and intergenerational justice: <i>“The effects of climate change, in the form of rising temperatures, greater water scarcity, and the increasing frequency of natural disasters pose substantial risks. Sustainable development is at the same time integrally linked with the principle of intergenerational justice requiring the state to take reasonable measures protect the environment ‘for the benefit of present and future generations’ and hence adequate consideration of climate change. Short-term needs must be evaluated and weighed against long-term consequences.”</i>	Noted
			64. Exacerbating climate change through the exploitation of new fossil fuel reserves undermines the constitutional right to sustainable development and does not serve the public interest.	The current application is limited to Exploration activities for the gathering of information on the resource. No exploitation is contemplated. It is the view of the EAP that the undertaking of the proposed exploration activities would pose limited risks to climate change. As indicated in section 7.1.6 further consideration will be given to air quality issues in the EIA.

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			<p>65. A risk-averse approach to decision-making should lead to the denial of environmental authorisations for new oil and gas exploration projects, including the proposed project. NEMA requires “that a risk-averse and cautious approach should be applied which takes into account the limits of current knowledge about the consequences of decisions and actions.” Existing evidence indicates that oil and gas exploration and production is not a responsible or equitable use of South Africa’s natural resources. South Africa has committed to stay on a pathway to keep global average temperature increases below 1.5 degrees Celsius, which global experts agree can only be achieved if no new oil and gas reserves are exploited.</p>	<p>The DMRE, as the competent authority, will need to make their decision light of the relevant principles, policies, legislation and information.</p>
			<p>66. Therefore, the proposed exploration is contrary to scientific consensus and a risk-averse approach would dictate from the outset that this project should not move forward.</p>	<p>The scope of the proposed exploration project is to identify the presence of gas resources.</p>
			<p>67. Exacerbating the climate crisis by exploiting new oil and gas reserves is against the public interest of South Africa, which is particularly vulnerable to the impacts of climate change and violates the constitutional environmental rights of present and future generations.</p> <p>67.1. Climate change poses a significant threat to other rights enshrined in South Africa’s Constitution as well, including the rights to life, housing, water and food.</p> <p>67.2. South Africa’s vulnerabilities include impacts on the agricultural sector from changes in</p>	<p>The scope of the proposed exploration project is to identify the presence of gas resources. The proposed exploration would not directly result in the utilisation of any gas, as this requires a production which would form part of a subsequent application, assessment and authorisation process.</p> <p>The Scoping Report sets out a Plan of Study for EIA which addresses the assessment of potential impacts from exploration activities.</p>

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			<p>precipitation, temperature and evaporation; impacts on health through an increased burden of disease; and threats to territorial ecosystems including rising average temperatures, more temperature extremes, shifting rainfall season, and a higher chance of extreme weather events.</p> <p>67.3 Issues of particular concern include the effect of changing rainfall patterns on water resources, crop production and livestock; possible increases in insect-borne diseases such as malaria; and reduced forestry plantations. Rising sea-levels could also pose a threat to coasts, and changes in oceanic conditions may have significant implications for fisher resources as well as for biodiversity.</p> <p>67.4 Water crises in the Eastern and Western Capes and deadly floods in KwaZulu-Natal are just a few examples of the extreme weather events in South Africa that are made more likely, frequent and severe due to climate change.</p>	
			<p>68. Climate change must be considered in the Scoping Reports, even if a climate change specialist report will ultimately be produced at a later stage. However, the Scoping Reports failed to provide sufficient consideration and analysis of climate change in at least six key respects:</p> <p>68.1 the assessments of need and desirability does not provide adequate consideration to the climate impacts of interlinked exploration and production activities;</p>	<p>It is the view of the EAP that the undertaking of the proposed exploration activities would pose limited risks to climate change. However, as indicated in section 7.1.6 further consideration will be given to air quality issues in the EIA.</p> <p>No consideration is, or will be, given to production related activities during the current application as these would form part of a subsequent application, assessment and authorisation process. This is consistent with the approach defined in the regulatory framework.</p>

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			<p>68.2 the need and desirability analyses is incompatible with South Africa’s international climate commitments and national climate policy context;</p> <p>68.3 the Scoping Reports fail to consider relevant national, provincial, and municipal policies, including climate change policies, in assessing need and desirability;</p> <p>68.4 the Scoping Reports do not sufficiently discuss climate change in its analysis of alternative activities and alternative locations;</p> <p>68.5 the assessments of environmental impacts does not properly identify and assess the cumulative impacts of the project in conjunction with current and anticipated climate change impacts; and</p> <p>68.6 the Scoping Reports do not address, or indicate that further studies will address the impacts of climate change on the proposed project itself.</p>	<p>The Need and Desirability section in the Scoping Report presents a context, and includes consideration of the legislation and policy on South Africa’s climate change commitments.</p> <p>The Scoping Report sets out a Plan of Study for EIA which addresses the assessment of potential impacts from exploration activities. This includes the consideration of cumulative impacts, which does not extend to potential impacts of possible activities of future production activities. These would form part of a subsequent application, assessment and authorisation process. This approach is consistent with the approach defined in the regulatory framework.</p>
			<p>Socio-economic assessment</p> <p>69. The claims for gas exploration and production's contribution economic growth are general and unsubstantiated. These claims should be backed by evidence and compared to alternative projects, such as renewable energy projects.</p>	<p>The Scoping Report provides initial consideration of potential socio-economic impacts from exploration. Refer to Section 7.3.6. There are no claims of any significant economic growth from exploration activities.</p>
			<p>70. Given the likely concerns around cost and benefits relating to project feasibility in light of the threat of climate change as well as potential impacts to the viability of commercial agriculture within the area and</p>	<p>The claims of threats to climate change and the viability of commercial agriculture are out of context (presumably in relation to future production) and are considered by the unlikely by the EAP.</p>

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			<p>region, it is imperative that a specialist socio-economic study be conducted.</p>	<p>It is the EAP's opinion that no information relevant to decision-making for the current application for an EA of exploration well drilling would result from a socio-economic study. Thus, there is no recommendation for a socio-economic study in the Plan of Study for EIA.</p>
			<p>71. The scope of the socio-economic impact assessment study should include an assessment on the efficiency, equity and sustainability of the project, with an economic specialist conducting the above assessment. Additionally, the economic specialist must assess what the opportunity costs or net benefit of the next best alternative will be. Issues that need to be addressed by the specialist include:</p> <p>71.1. assessment of the financial viability or justification for the project (including risks to the long-term success of the project, such as becoming stranded assets);</p> <p>71.2. discussion of distortions in the assessment financial viability, such as where the financial viability of a project does not provide meaningful benefit to the wider society;</p> <p>71.3. identification of environmental externalities that are not accounted for in costs and benefits;</p> <p>71.4. valuation of the project's degree of fit with economic development planning in the area;</p> <p>71.5. consideration of alternative forms of the project (including the no-go alternative) and whether these would be more economically efficient; and</p> <p>71.6. evaluation of macro-economic risks of the project.</p>	<p>Refer to the above response.</p>

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			<p>72. The socio-economic specialist study should evaluate impacts both with and without mitigation measures. It is necessary to understand the full cost and effectiveness of the mitigation measures for the entire lifecycle of the project. This allows for an accurate assessment of the project’s viability and desirability prior to significant financial investment from project proponents.</p>	<p>Refer to the above response.</p>
			<p>An Agricultural Agro-Ecosystem Specialist Assessment study</p> <p>73. The Free State agricultural sector is the economic backbone of the province. Similar to the national agricultural sector, it is made up of crop and animal production, horticulture, dairy farming, game farming, aquaculture, fruit production and agro-processing. It is estimated that at least 14.5% of South Africa's commercial farming is conducted in the Free State, which is approximately 90% of the economy of the province.</p>	<p>Noted</p>
			<p>74. According to a speech by the honourable MEC Thembeni Nxangisa of the Free State Agriculture and Rural Development, the value that agriculture plays as a driver of local economic development of the Free State is significant:</p> <p><i>“Agriculture provides 10.5% of the formal jobs in the province, which is the third most after Services and Trade. In the past quarter, Stats-SA indicated that agriculture and mining in the Free State lost the most jobs of all the provinces. Climate changes such as</i></p>	<p>Noted</p>

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			<i>unpredictable torrential rain has further led to loss of livestock, field crops and other valuable farming assets”.</i>	
			75. At this time, the horticulture and agricultural sector faces significant challenges due to over exploitation of groundwater resources by mining and other energy projects. As such, it is important to ensure that the agricultural sector is protected from further harm.	Noted
			76. An Agricultural Agro-Ecosystem Specialist Assessment study should be included.	<p>There is currently no indication that the undertaking of the proposed exploration well drilling would result in any significant risks to the horticultural and agricultural sector.</p> <p>The Scoping Report sets out a Plan of Study for EIA which addresses the assessment of potential impacts from exploration activities. Potential risks to land use (section 7.3.3) are identified and will be assessed in the EIA Report. The primary measure to avoid risks to other land use (including horticulture and agriculture) will be negotiated access with the landowner. Where economic loss was relevant, compensation would be agreed with landowners.</p> <p>It is the EAP’s opinion that no information relevant to decision-making for the current application for an EA of exploration well drilling would result from an Agricultural Agro-Ecosystem Specialist Assessment. Thus, there is no recommendation for an Agricultural Agro-Ecosystem Specialist Assessment in the Plan of Study for EIA.</p>
			Assessment of cumulative impacts 77. The Scoping Reports and subsequent environmental impact assessment (EIA) processes cannot make an	Exploration and Production, while sequential in nature, are defined as distinct activities in the MPRDA and are covered under separate rights. The MPRDA and NEMA both recognise the distinction and provide for a separation of application,

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			<p>arbitrary, artificial distinction between the impacts of oil and gas exploration and production.</p> <p>77.1. Rhino Oil and Gas Exploration (Pty) Ltd, wish to explore for oil and/or gas for the sole purpose of discovering deposits that they can then exploit.</p> <p>77.2. The legislative framework itself indicates that a production right flows directly from an exploration right, meaning that the two processes are inextricably linked. The MPRDA closely connects the rights of exploration with production by granting a holder of an exploration right the exclusive right to apply for, and be granted, the renewal of the exploration right or a production right, subject to few conditions. It also gives the Minister the right to grant both exploration and production rights.</p> <p>77.3. Further, impacts related to production activities are reasonably foreseeable impacts eventuating from exploration. If the impacts and risks associated with production are unacceptable, then any and all risks and impacts associated with exploration activities are unnecessary, undesirable, and completely avoidable.</p> <p>77.4. Despite the fact that exploration and production activities are listed separately for the purposes of the EIA Regulations, in reality they are steps in a single process. It is artificial to exclude consideration of the impacts of the production process, or of the need for, and</p>	<p>assessment and authorisation processes which applicants must follow when seeking permission to undertake either Exploration or Production activities. The Scoping Report is consistent with the approach defined in the regulatory framework.</p> <p>The EIA Regulations 2014 require the consideration of the ‘cumulative impact’, which includes the “reasonably foreseeable future impact of an activity”. While it is foreseeable that further exploration and future production activities could arise from the Exploration Right (if granted and successful), there is not currently sufficient information to make reasonable assertions as to nature of any future activities. This is due to the current lack of relevant geological information, which the proposed exploration process aims to address. The possible range of the future exploration or production activities that may or may not arise vary hugely in scope, location, extent, and duration depending on whether a hydrocarbon resource(s) is discovered, its size, properties and location, etc. These cannot be reasonably defined until this study has been completed and further exploration undertaken. It would not be reasonable to undertake an assessment of the environmental impacts of an undefined project. Potential impacts could not be reliably assessed, and the range of outcomes is so vast that the findings would be speculative at best and of no value in ascertaining the potential impacts. It is also possible that the proposed, or future, exploration determines that an economic hydrocarbon resource does not exist, in which case there would be no production or potential impacts.</p> <p>The provisions of NEMA and the EIA Regulations 2014 neither provide for, nor contemplate, that potential impacts and risks of production activities must be considered and assessed at the</p>

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			<p>desirability of, producing oil and gas, when deciding whether or not to authorise exploration activities. The Scoping Reports misinterpret cumulative impacts of exploration by failing to consider the impacts of production as well. The detrimental environmental impacts of the project, as part of an entire petroleum beneficiation process involving both exploration and production activities, may be substantial and therefore an assessment of the cumulative impacts of both exploration and production activities is required.</p>	<p>exploration stage. Any potential further or future activities would need to be subject to the requisite environmental assessment and authorisation process under the NEMA, during which, the impacts related to these activities would need to be assessed as part of this separate EIA process. This is typical of the lifecycle of a development project.</p>
			<p>78. Therefore, the scoping process for the proposed project must recognise the inextricability of exploration from production and the scope of the EIA, climate change impact assessment, and all other expert reports, must assess the cumulative impacts of oil and gas exploration and production.</p>	<p>This claim is incorrect and inconsistent with the regulatory framework applicable to impact assessment of proposed exploration activities.</p>
			<p>CONCLUSION 79. The Scoping Reports and plans of work for the EIA are deficient in many respects, including those set out above. In its current form, we submit that it should not be accepted.</p>	<p>This claim is refuted, as evidenced in the preceding responses.</p>
			<p>80. We request that our comments are taken into account by the Environmental Assessment Practitioner and that further, rigorous assessment of the full scope of impacts be undertaken.</p>	<p>The comments have been received, responded to and both included in the Scoping Report. The EIA will give consideration to the comments, where relevant and applicable to the context of the proposed exploration activities.</p>