



Maloti Drakensberg Transfrontier Programme

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Comments to the Rhino Oil and Gas Exploration South Africa (Pty) Ltd Scoping Report regarding the intended gas exploration titled:

'Scoping report for the proposed Exploration Right for Petroleum on various farms in the magisterial districts of Matatiele and Mt Fletcher, Eastern Cape'

FOR SUBMISSION TO SLR CONSULTING (SOUTH AFRICA) (PTY) LTD

1. Title

POSITION ADVOCATED: I would like to object on this application and request that a moratorium is granted for all such gas exploration processes until a Strategic Environmental Assessment (SEA) is put in place.

2. Background

The Maloti Drakensberg Transfrontier Conservation and Development Programme (MDTP) is a collaborative initiative between South Africa and the Kingdom of Lesotho which was established in 2001 through signing of a Memorandum of Understanding (MoU) between the two countries to protect the exceptional biodiversity of the Drakensberg and Maloti mountains through conservation, sustainable resource use, and land-use and development planning. This area encompasses distinct landscape and biological diversity. It is rich in species and high in endemism. The project takes a regional and ecosystem approach to conservation and development, and serves to promote biodiversity conservation through linkages with community development based on realization of the region's high potential for nature based tourism. The area transcends three provinces in South Africa namely – Free State, KwaZulu Natal and the Eastern Cape.

MDTP hereby wishes to submit its comments in response to the above-mentioned application for exploration scoping report. We wish to do this proactively to possible future development, bearing in mind that the exploration phase, is a phase preceding possible fracking, I would like to draw your attention to a number of concerns regarding the application. Your Scoping report clearly depicts the implications of the exploration process, however does not provide a guarantee on future effects of the application. In my view, this is expected given the absence of proper strategic and environmental studies especially the **Strategic Environmental Assessment (SEA)**. I would therefore like to raise these issues and also recommend that a SEA is conducted to clearly address concerns. In the interest of our mandate which includes managing ecosystems and their services and promoting eco-cultural tourism in this area, we are more than happy to provide the applicants with information required for strategic planning processes.

3. Comments

According to your map of targeted areas, the areas affected **include the Maloti Drakensberg Transfrontier Conservation and Development Area (MDTFCA), the buffer of the Ongeluksnek Nature Reserve (ONR) up to the Lesotho boundary to the west, from near Qachas Nek to approximately 20 km north of Mt. Fletcher in the south.**

Statements extracted from 'scoping

CONCERNS RAISED

<p><i>report for the proposed exploration right for petroleum on various farms in the magisterial districts of Matatiele and Mt fletcher, eastern cape'</i></p>	
<p>'Appropriate buffers should be determined around the protected areas and other areas'</p>	<p>This is my main concern. The area along the Ongeluksnek Nature Reserve (ONR) border for which the ER has been granted is the buffer area of the ONR which is a protected environment. The significance of the reserve is:</p> <ul style="list-style-type: none"> ➤ Natural and historical heritage values. These are of regional and national significance, and incorporate the following: <ul style="list-style-type: none"> • The outstanding natural beauty and aesthetic value of the area; • The biological diversity of species and habitats associated with the vegetation types representing the southern Drakensberg which are not formally protected elsewhere; • The Nature Reserve provides protection to a wetland complex which is one of only a few areas in the entire MDTP bioregion where extensive wetlands occur at altitudes greater than 2 400 m; and • The historical significance of the role of Ongeluksnek Pass in Southern African history. ➤ Water Production. The correct management of the Nature Reserve as a protected area will ensure the conservation of a portion of the Mzimvubu River catchment in order to ensure the sustained production of high quality water. It is the only formally protected part of the Drakensberg catchment in the Eastern Cape Province. ➤ Eco-cultural Tourism. The natural beauty of the landscape and its historical significance together with other cultural heritage assets in the local area provides the Nature Reserve with a significant potential from an eco-cultural tourism perspective. With the added potential for a Transfrontier conservation area and tourism route linkage to Lesotho, it has the potential to become an important destination for both domestic and international visitors. <p>I want to emphasise on the importance of the buffer area in securing the core area of the reserve, and would require clarity on how the buffer will be protected from the expected operations. Moreover, if you happen to discover the potential for fracking in the areas outside the buffer, what are the chances of not wanting to explore opportunities in the buffer?</p>
<p>'Total water consumption for drilling a hole is estimated to be less than 100 000l. This water will be sourced locally if possible and by agreement with the land owner. Contamination of ground water .This assessment concludes that drilling fluids pose a very low risk as they are largely not hazardous and/or are biodegradable, they are used relatively diluted in the drilling water (<3%) and are used in tiny volumes in comparison with any aquifer volume'</p>	<p>Many publications have made us aware of the implications of subsequent fracking (we need to keep this in mind because exploration may lead to subsequent fracking once you discover the potential to mine gas). These are:</p> <ul style="list-style-type: none"> • The processes of fracturing mixes water, sand, and chemical compounds of which some are toxic and carcinogenic including benzene, toluene, ethylene benzene, xylene, ethylene glycol, diesel fuel, naphthaline compounds, boric acid, arsenic, formaldehyde, various acids and pesticides, are injected into the borehole to facilitate the fracking process. • Each gas well may is fracked several times to maintain the flow of gas and each gas field may contain hundreds or thousands of such wells. • We have also been made aware that the abovementioned chemicals are detrimental to human health. For example benzene used in the mixture of fracturing chemicals is linked to leukemia, other cancers, reproductive and developmental disorder, toluene long-term exposure is associated with birth

	<p>defects and may affect the nervous system.</p> <ul style="list-style-type: none"> Water contamination and use: The area earmarked is a water strategic area for the Umzimvubu Catchment where The Umzimvubu River System has been prioritized nationally as being one of the few remaining “near-natural rivers” but is classified as vulnerable as a result of rapid rates of degradation in the watershed. The Matatiele area is characterised by some of the priority wetlands that contribute enormously to water security in the area. Water resources in the Matatiele area yield an estimated value of 27 million per year from the Upper Catchment. The risk of water contamination is inevitable. Groundwater wells can be contaminated with natural gas, radioactive and various carcinogenic hydrocarbon compounds, associated with natural gas as well as chemicals contained in the fracking solution (Earthlife Africa Cape Town). The hydraulic fracturing process uses extremely large amounts of water (100 000 l is a lot for an area with local people that still rely on sips for drinking and washing water). This threatens water resources in the midst of drought which is becoming evident nationally. Where is Rhino going to get this water? Moreover, local rural communities still drink from sips, what happens when they get contaminated? We have seen mining applications, taking away sources of livelihoods, living people sick and poor, and as far as I’m concerned there is no amount of money that will ever compensate for an individual’s life. We cannot allow this to happen.
<p><i>‘Small scale and isolated spillages of hydrocarbons or chemicals may occur but can generally be prevented or treated in-situ with a suitable remediation product’</i></p>	<p><i>‘The use of explosives and Vibroseis trucks to generate vibrations could damage structures. Localised compaction and soil erosion could happen on the access routes and at drill sites’</i></p> <ul style="list-style-type: none"> The Matatiele area is one of the areas that generate revenue from tourism, thereby contributing to the country’s tourism economy. The unique tourism experience is accounted to its landscape character - the meandering grasslands, its superlative nature – scenic beauty, solitude, habitats for fauna species such as the critically endangered Bearded Vulture which is restricted to the Maloti Drakensberg Bioregion, wetland habitats for beautiful cranes species providing a tourism experience to bird lovers, flora species, cultural heritage. These are very sensitive habitats, even the slightest increase in the number of trucks will have an impact in terms of increased noise, air pollution, increased erosion. The increased disturbance due to the presence of trucks is highly expected to have detrimental effects to the tourism experience of the area. They will negatively affect solitude, increase erosion in an area with roads that are already facing tremendous erosion pressure and impeding accessibility for tourism purposes. Some of the species mentioned above specifically the Bearded Vulture are nearly extinct, any disturbance (destruction of their habitat, noise etc) may result in them abandoning their distribution range. Therefore we cannot take the risk of increasing the number of vehicle access to these areas. Even the slightest vibration from the trucks will destroy the solitude which is one of the wilderness aspects attracting tourists to this area.
<p><i>‘Disturbance to vegetation cover and soil structure will be limited to very small sites which will be rehabilitated.’</i></p>	<p>I would like to bring to your attention the below. The area of ER concern is not only a key freshwater system area. In addition to that, the adjacent matrix of grassland, forest, thicket, and dune vegetation are some of the most bio-diverse in the world, with four distinct Key Biodiversity Areas (KBAs) falling within the watershed corridor.</p> <ul style="list-style-type: none"> These habitats support numerous species of plants and animals and provide a range of ecosystem services that support poverty

	<p>alleviation in the largely rural and peri-urban settlements with water provision, erosion control, infrastructure protection, fodder for livestock and food security, and materials for household and community use.</p> <ul style="list-style-type: none"> • When intact, they also provide an important carbon sequestration function. <p>Whilst areas may be rehabilitated, we may not recover associated fauna species relying on those habitats as they are sensitive to disturbance. The disturbance will impact negatively on the climate change adaptation abilities of the ecosystems found here.</p>
<p><i>'Access will LARGELY be through existing gates and new routes or gates only be created in agreement with the land owner'.</i></p>	<p>Given the language used in the above statement from your scoping report, there is no guarantee that there will be no new routes; this is one of the land management activities we avoid in such sensitive landscapes.</p>
<p><i>'Where the exploration activities prevent productive agriculture or land use from taking place, the owner must be compensated appropriately'</i></p>	<p>Colorado is currently sitting at only about 84% of agricultural production due to fracking. Your above statement is a grave concern given the reliance of local communities on agricultural production. The Matatiele area is largely rural with local communities relying on agriculture to sustain livelihoods, and the truth is that agriculture contributes more jobs than public transport, building retrofills, biomass, solar, wind, smart grid, coal and natural gas. No amount of compensation for land will match the value of job creation for the disenfranchised people of Matatiele. How many sustainable jobs for, specifically local communities will be derived from these applications?</p>
<p><i>Drilling requires the use of a truck or trailer mounted, mobile drilling rig at target sites. Drill sites will be accessed using existing roads and farm tracks. The drill rig will be accompanied by supporting equipment such as a water bowser, compressor and vehicles. The drill rig is manned by a staff of approximately five (5) persons. A typical diamond core drill rig and equipment requires an operating area of approximately 2000 m2 (ie. 40 m by 50 m). There may be an on-site caravan for the logging of core data.</i></p>	<p>How many of these jobs are for local communities? How many jobs will you create for specifically local communities whose land will be impacted? I am raising this because there seems to be There seems to be misconceptions with regards to the potential for job creation from this initiative. It is therefore critical to address that at length and provide clarity so that local communities are well informed prior to them making decisions</p>

4. Recommendation

It is therefore recommended that:

- A moratorium is instituted on this application until a Strategic Environmental Assessment is conducted and we have better clarity on its implications on our already stressed environmental resources.
- MDTP will gladly avail any data and technical support it has regarding the SEA process.

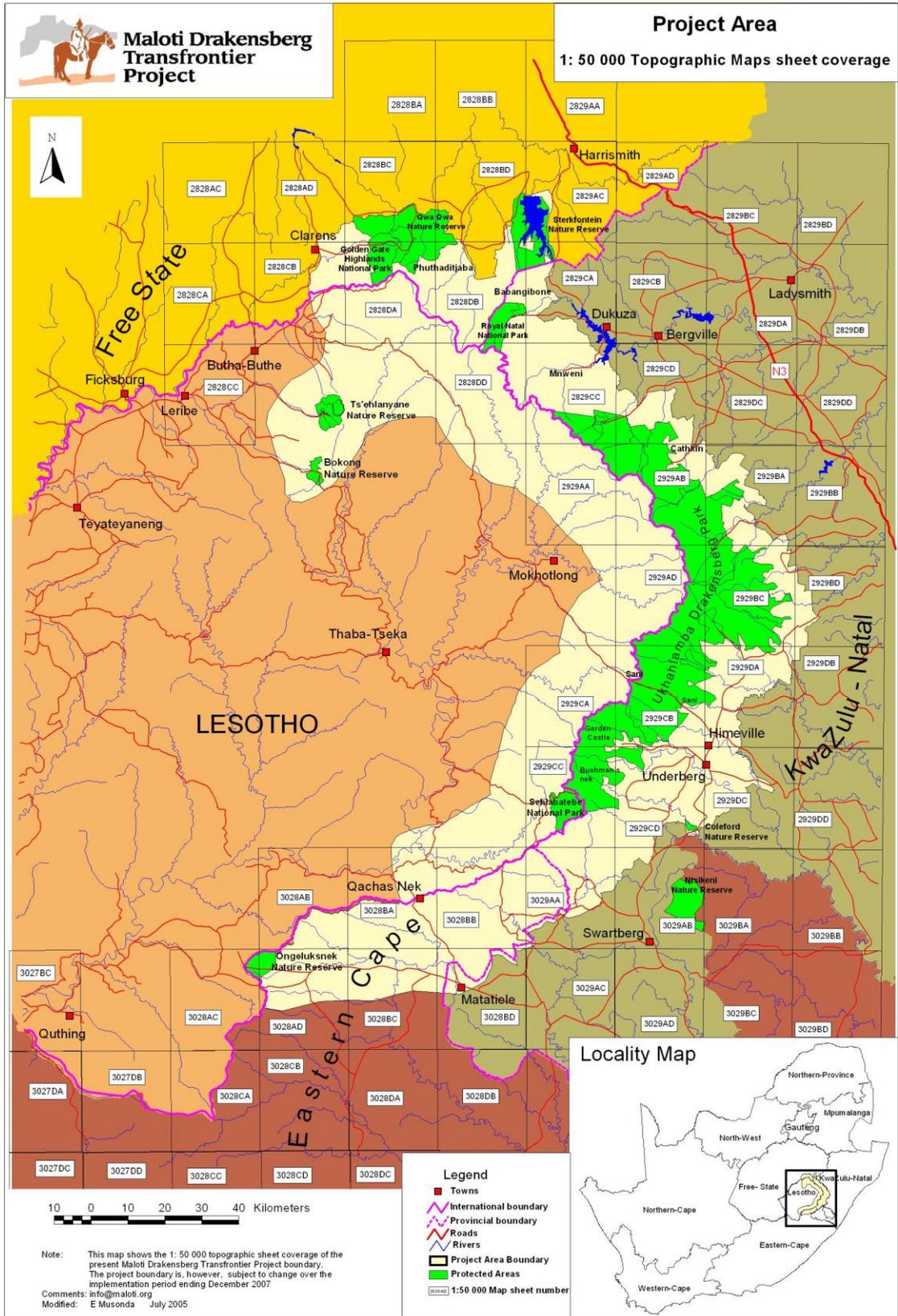


Figure 1: Maloti Drakensberg Transfrontier Focus Area (MDTFCA)