


PUBLIC NOTICE FOR APPLICATION FOR ENVIRONMENTAL CLEARANCE CERTIFICATE (ECC)

Electromagnetic Geoservices ASA (EMGS), (the Proponent) - Application for Environmental Clearance Certificate (ECC) for the Proposed Multiclient 2D and 3D Controlled Source Electromagnetic (CSEM) Survey, Walvis Basin, Offshore Namibia

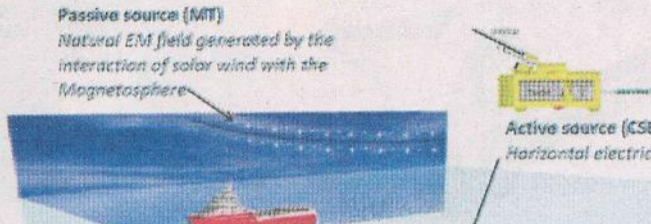


Map Source: www.namcof.com.na

Electromagnetic Geoservices ASA ("EMGS") (the "Proponent") is proposing to conduct a multiclient 2D and 3D marine Controlled Source Electromagnetic (CSEM) survey operations covering the Walvis Basin, offshore central Namibia. EMGS is a global company founded in 2002 with its headquarters in Trondheim, Norway and representative offices for Europe, Africa and Middle East (www.emgs.com). The company is listed on the Oslo stock exchange and is a pioneer on the application of Electromagnetic (EM) for offshore hydrocarbon exploration. The water depth of the proposed survey area ranges from ca-200 to -3000m with the bulk of the survey area falling within the deeper waters. The proposed survey is scheduled to start in May 2020 and last for 70 days. The survey will be undertaken using the vessel M/V Atlantic Guardian.

EMGS has performed more than 950 surveys in frontier (exploration high risk areas such as Namibia) and mature basins across the world, from the Arctic, Canada, Brazil, Norway, USA to Australia and Angola, in water depths ranging from around 30 to 3600 m. Using CSEM, hydrocarbon-bearing formations can be distinguished from the surrounding formation because they are highly resistive (poor conductors of electric current). Note that CSEM Survey is NOT the same as seismic survey. The basic principle of the proposed CSEM survey method is the application of electric and magnetic (electromagnetic) fields in the mapping or imaging of electric resistivity distribution of the subsurface in the marine environment for the petroleum exploration. During the CSEM survey operations, EM field receivers are deployed on the seafloor spaced between 1 - 2 km apart over an Area of Interest (AOI) and weighed down by environmentally benign anchors made from standard or degradable concrete / compacted sand that easily breaks down naturally. The CSEM survey uses a 50 to 300 m long horizontal dipole (single pole) source that is towed 20-30m above the seabed recorders and transmit a time-varying electromagnetic field into the earth. The field being emitted by the source is modified by the presence of subsurface resistive layers and these changes are detected and logged by an array of receivers placed on the seabed. The transmission currents are typically binary waveforms with 0.1- to 0.25-Hz (very low frequency and large wavelength). The processed data can determine the resistivity of the underlying rock. Hydrocarbon-bearing rock shows greater resistivity relative to water-bearing rock and thus areas that appear highly resistive may indicate the presence of hydrocarbons. The duration of the proposed CSEM Survey operations will be around seventy (70) days and will involve ten (10) days for deployment of receivers, forty (40) days for transmission (source towing) and twenty (20) days for recovering the receivers from the seabed.

Passive source (MT)
Natural EM field generated by the interaction of solar wind with the Magnetosphere

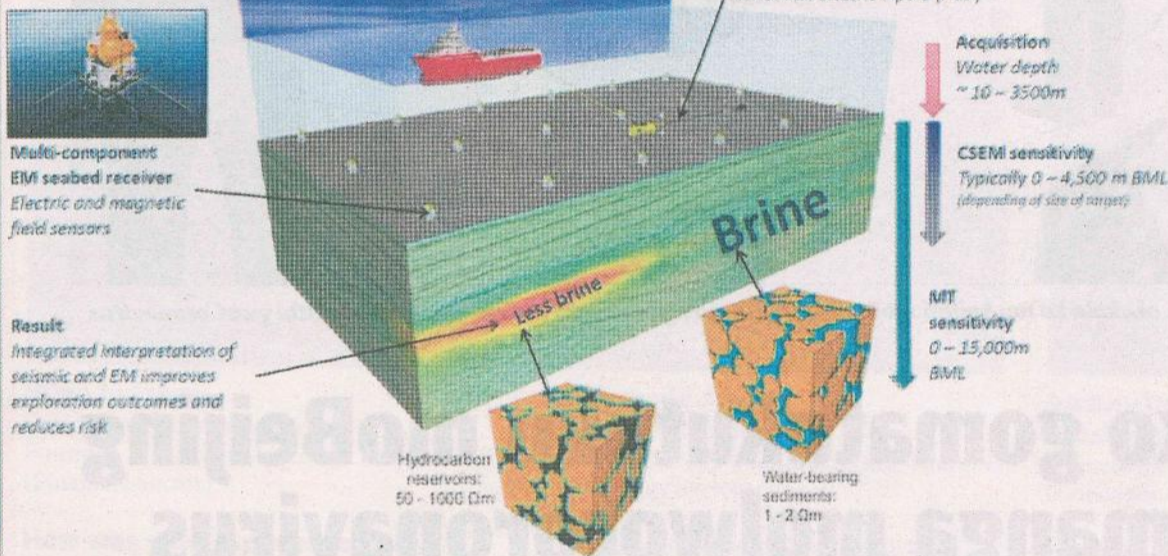


Active source (CSEM)
Horizontal electric dipole (HED)

Acquisition
Water depth
~ 10 - 3500m

CSEM sensitivity
Typically 0 - 4,500 m BML
(depending on size of survey)


MT sensitivity
0 - 15,000m BML



The proposed multiclient 2D and 3D CSEM survey activities cannot be undertaken without an Environmental Clearance Certificate (ECC) as required by the Environmental Management Act, 2007, (Act No. 7 of 2007) and the Environmental Impact Assessment (EIA) Regulations 30 of 2012. In fulfilment of the environmental requirements, EMGS has appointed Risk-Based Solutions (RBS) CC as the Environmental Consultant, led by Dr Sindila Mwiya as the Environmental Assessment Practitioner (EAP) to prepare EIA and EMP Reports in order to support the application for ECC. All Interested and Affected Parties (I&APs) are hereby invited to register and submit written comments / objections / inputs with respect to the proposed CSEM survey operations covering the Walvis Basin, offshore Namibia.

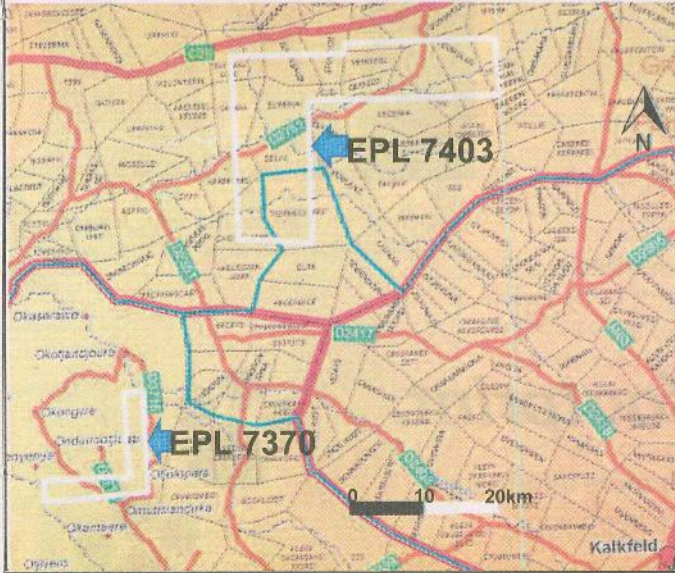

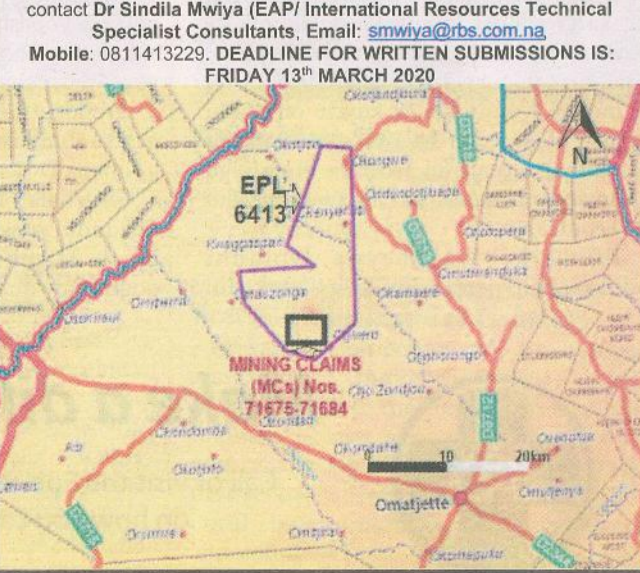
REGISTER BY EMAIL: frontdesk@rbs.com.na - DEADLINE FOR SUBMITTING WRITTEN SUBMISSIONS IS: FRIDAY 13th MARCH 2020

For more information Contact Dr Sindila Mwiya (PhD, PG Cert, MPhil, BEng (Hons), Pr Eng)- EAP / International Resources Technical Specialist Consultant (IRTSC), Email: smwiya@rbs.com.na or Mobile: +264-811413229




Risk-Based Solutions (RBS) CC (URL: www.rbs.com.na)

Your Resources (Oil, Gas, Minerals & Energy Exploration, Production & Mining) and Environmental Assessments (SEA, EIA, EMP, EMS) International Specialist Consultants

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| <p>PUBLIC NOTICE BY OSINO NAMIBIA MINERALS EXPLORATION (Pty) Ltd EXCLUSIVE PROSPECTING LICENSE (EPL) No. 7370, OMARURU DISTRICT, ERONGO REGION AND OSINO PROSPECT HOLDINGS (Pty) Ltd, EPL No. 7403 OUTJO/OTJIWARONGO DISTRICTS, KUNENE/ OTJOZONDJUPA REGIONS: APPLICATION FOR ENVIRONMENTAL CLEARANCE CERTIFICATES (ECCs)</p> <p>1. EPL No. 7370, Omaruru District, Erongo Region, Proponent: OSINO NAMIBIA MINERALS EXPLORATION (Pty) Ltd; Granted 13/08/2019 and will expire 12/08/2022. Commodities: Base, rare and precious metals; Size: 5998.4045Ha over the following communal farmlands: Okemyanya, Ondundoljuupa, Otjotopera, Omutiwanduka and Okamaera areas;</p> <p>2. EPL No. 7403, Outjo/Otjiwarongo Districts, Kunene/ Otjozondjupa Regions, Proponent: OSINO PROSPECT HOLDINGS (Pty) Ltd; Granted 28/10/2019 and will expire 27/10/2022. Commodities: Base, rare and precious metals; Size: 45375.5446 Ha over the following private farmland: Fegenbaumwasser, Deurslag, Rasputin, Oszema, Geduld, Verdeel, Knappaar, Steineck, Zuwitsaub, Suemary, Eureka, Tsuandes, Okaua, Harmonie, Delhi, Okonguari and Tiermelkorf.</p> <p>The Proponents intend to conduct exploration activities starting with desktop studies and aerial surveys, followed by regional field-based reconnaissance work and if the results are positive, implement detailed site-specific field-based activities using techniques such as geological mapping, geophysical surveys, trenching, drilling and sampling for laboratory tests. The proposed prospecting activities are listed in the Environmental Management Act, 2007, (Act No. 7 of 2007) and the EIA Regulations 30 of 2012 and cannot be undertaken without an Environmental Clearance Certificate (ECC). In fulfilment of these environmental requirements, the Proponents have appointed Risk-Based Solutions (RBS) CC as the Environmental Consultant, led by Dr Sindila Mwiya as the Environmental Assessment Practitioner (EAP) to prepare the Scoping and Environmental Management Plan (EMP) Report in order to support the application for ECC. All Interested and Affected Parties (I&AP) are hereby invited to register and submit written comments / objections / inputs with respect to the proposed prospecting activities. A Background Information Document (BID) is available upon registration.</p> <p>REGISTER BY EMAIL: frontdesk@rbs.com.na or for more Information contact Dr Sindila Mwiya (EAP/ International Resources Technical Specialist Consultants, Email: smwiya@rbs.com.na Mobile: 0811413229 DEADLINE FOR WRITTEN SUBMISSIONS IS: FRIDAY 13th MARCH 2020</p>  | <p>PUBLIC NOTICE BY OSINO NAMIBIA MINERALS EXPLORATION (Pty) Ltd EXCLUSIVE PROSPECTING LICENSE (EPL) No. 7344, KARIBIB DISTRICT, ERONGO REGION: APPLICATION FOR ENVIRONMENTAL CLEARANCE CERTIFICATE (ECC)</p> <p>OSINO NAMIBIA MINERALS EXPLORATION (Pty) Ltd (the Proponent) holds mineral rights under the Exclusive Prospecting License (EPL) No. 7344 for base, rare and precious metals. The EPL 7344 was granted on the 13/08/2019 and will expire on the 12/08/2022. The EPL 7344 area totalling 29957.9629Ha cover parts of the following private farmlands: Klein Aukas, Gross Aukas, Naob, Stinkbank, Safer, Namibfontein, Sukkes, Vergenoeg, Valencia, Namibplaas, Wolfkoppe, Bergrus and Tsawisis. The Proponent intends to conduct exploration / prospecting activities starting with desktop studies and aerial surveys, followed by regional field-based reconnaissance work and if the results are positive, implement detailed site-specific field-based activities using techniques such as geological mapping, geophysical surveys, trenching, drilling and sampling for laboratory tests. The proposed prospecting activities are listed in the Environmental Management Act, 2007, (Act No. 7 of 2007) and the EIA Regulations 30 of 2012 and cannot be undertaken without an Environmental Clearance Certificate (ECC). 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Commodities: Base, rare and precious metals, dimension stones and industrial minerals; Size: 21745.3761Ha over the following communal farmlands: Otjivero, Omauzonga, Kwaggaspan, Okenyanya and Okongwe areas.</p> <p>The Proponents intend to conduct exploration / prospecting activities in the EPL area and possible mining activities in the MCs starting with desktop studies and aerial surveys, followed by regional field-based reconnaissance work. If the exploration results are positive, implement detailed site-specific field-based activities using techniques such as geological mapping, geophysical surveys, trenching, drilling and sampling for laboratory tests leading to possible mining operations in the MCs and application for Mining License (ML) in the EPL area. 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Risk-Based Solutions (RBS) CC URL / Global Office: www.rbs.com.na, 41 Feld Street Ausspanplatz, Cnr of Lazarett and Feld Street, WINDHOEK, NAMIBIA

Your International Resources Technical Specialist Consultants (Oil, Gas, Minerals & Energy Exploration, Production & Mining) and Environmental Assessments (SEA, EIA, EMP, EMS)



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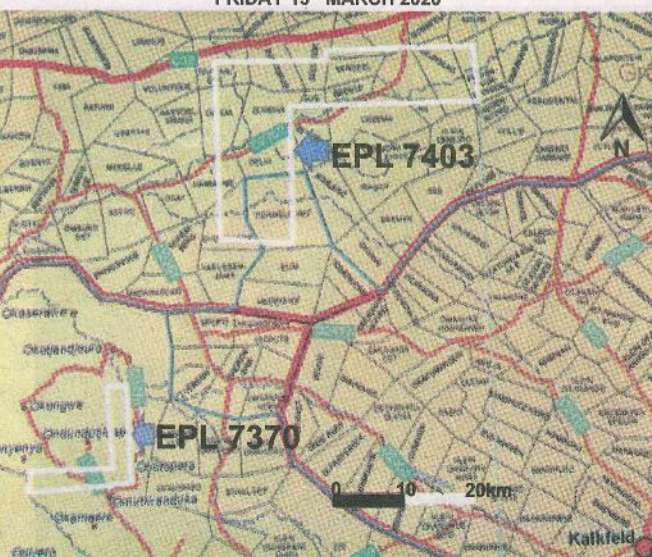
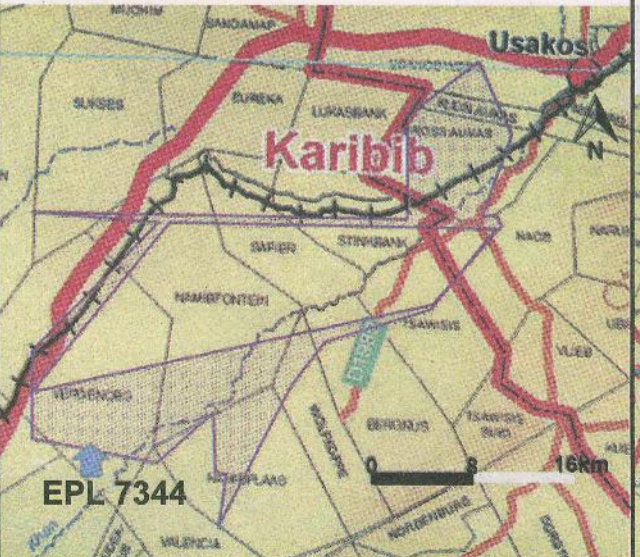
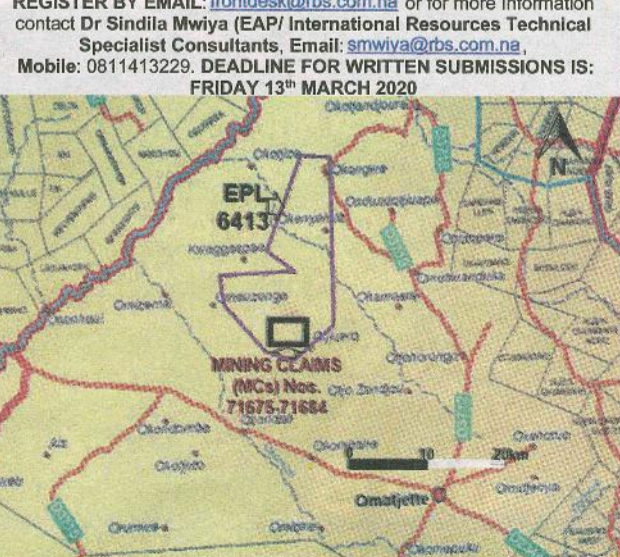
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Hallo Sindila

Berewith the owners' details:

Riaan Maritz: 0811275120
Nico Maritz: +264 811288266

Regards
Johan

On Tue, 3 Dec 2019 at 5:51 AM, Dr Sindila MWIYA <frontdesk@rbs.com.na> wrote:

Dear Johan,

May you please assist me with the contact details of the owner of the **Farm Tsawisis**. Some time next year we might need to collect few pieces of rocks only along the main road just to check the quality of what might be in this farm. So far there is nothing of really interest.

Many thanks,
Sindila.

Dr. Sindila Mwiya

PhD, PG Cert, MPhil, BEng (Hons), Pr Eng

International Resources Consultant /Founder RBS CC & FGN (Pty) Ltd

Risk-Based Solutions (RBS) CC, Consulting Arm of **Foresight Group Namibia (FGN) (Pty) Ltd**

Investments and International Resources Technical Consultants in Petroleum/Mining/Energy/ Environmental Assessment /Property Development/ Programmes and Projects Management/ Training/ Research

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Tel: +264 - 61- 306058; FaxMail: +264-886561821

Mobile: +264-811413229 /812772546; Email:smwiya@rbs.com.na

Global Office / URL : www.rbs.com.na

Foresight Group Namibia (FGN) (Pty) Ltd – *Perfecting the Future*
Risk-Based Solutions (RBS) CC – *Delivering the Solutions*

From: Johan Venter <goergap123@gmail.com>

Sent: Tuesday, 29 October 2019 8:52 AM

To: Dr. Sindila Mwiya (Risk-Based Solutions) <frontdesk@rbs.com.na>

Subject: Re: BID for EPL 7269

Dear Sindila

Thank you so much for the email received from you yesterday.

I cannot tell you enough how much I appreciate the contents of your letter, but even more, the attitude it was written with. This speaks volumes of you, to your credit.

Once again thank you for your trouble, and the time you took to communicate with me.

I am certain we will speak again.

Regards
Johan

On Mon, Oct 28, 2019 at 6:37 AM <frontdesk@rbs.com.na> wrote:

Dear Dr Venter,

Thank you very much for your detailed email below and I hereby acknowledge receipt of your objections. I fully understand your legitimate concerns and certainly I could also feel the same if I was to put myself in your position. I fully respect private property and there is no way that anyone will enter your farm without your permission. Often it's difficult to know the land owners and the only way to initiate consultation usually is first through a public notice in the local newspaper as required by the

EIA Regulations, 2012 and once we establish who the affected land owners / communities are and if there is indeed interest in the specific farm/s a meeting will then be arranged for more direct consultation and information exchanged.

The EPL 7269 was only granted recently and currently all what we are doing at the moment is only focused on desktop studies with no need for any field activities. Yes, the BID I send to you last week provides a complete pathway to a quarry development if potential resources are discovered. But 1st the resources still need to be found, evaluated and if proves viable then yes, the step of developing a quarry will then be started and all that will be done with the knowledge / permission of the land owner. If the need for a field visit over your farm arises during the current desktop study phase, then we will contact you 1st for a meeting even before such a field visit is undertaken / planned. The EPL 7269 is not the only EPL covering this area and there are several other licenses and for your information please log on to <https://maps.landfolio.com/Namibia/> to see all the license that are active in Namibia.

The probability of any EPL to advance to a mining project is 0.001 or equal to zero and that means most EPLs just expires and it is only the Government that makes their money inform of subsurface minerals rights rentals. Although I very much share your investment and environmental concerns, there is no guarantee that each and every EPL that overlaps your land (see attached or the link I provided) will become a mining project and that your land will now be exposed to criminal elements because of increased human activities. In aiding prospectors the Ministry of Environment and Tourism and the Ministry of Mines and Energy both have come up with no go zones (withdrawn areas) from minerals prospecting and mining (see the link).

Furthermore, requirements for Environmental Clearance Certificates (ECCs) have also been put in place in order to further make sure that other key sensitive areas such as your investments and environmental conservation efforts are also not affected by minerals prospecting and mining related activities. Therefore, the process of placing the advert in the local newspapers was all of good intentions and not meant to cause any form of panic or threat to your investments or surface land rights. Once these key sensitive areas are delineated relative to any potential resources that may be discovered, if any, together with you the land owner, an assessment for coexistence will be undertaken. If there is no opportunity for coexistence, then yes, the proposed new activities if it's a new mine will not go ahead and project will not be viable (negative feasibility) with high environmental liabilities from an environmental point of view.

Lastly, may I please ask for a favour if your could provide me with the names and contacts of the owners of the following farms (excluding yours that I already have):

Gross-aukas,
Naob,
Tsawisis,
Bergrus,
Safier,
Namibfontein
Wolfkoppe

Please feel free to request for any clarifications you may need/ require, even if it's not related to the EPL 7269. Despite my international operations I am sometimes in Windhoek and open to meet for a coffee so that I provide you my personal assurance in person if required. I would like to assure that that nothing will take place in your farm without your consent as the surface rights holder.

Many thanks,

Dr. Sindila Mwiya

PhD, PG Cert, MPhil, BEng (Hons), Pr Eng

International Resources Consultant /Founder RBS CC & FGN (Pty) Ltd

Risk-Based Solutions (RBS) CC, Consulting Arm of **Foresight Group Namibia (FGN) (Pty) Ltd**
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Global Office / URL : www.rbs.com.na

Foresight Group Namibia (FGN) (Pty) Ltd – *Perfecting the Future*
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From: Johan Venter <goergap123@gmail.com>
Sent: Friday, 25 October 2019 8:19 AM
To: Dr. Sindila Mwiya (Risk-Based Solutions) <frontdesk@rbs.com.na>
Subject: Re: BID for EPL 7269

Dear Doctor Mwiya

Herewith my formal comments on the Application for the ECC for Exploration and Mining in the Exclusive Prospecting Licence No 7269.

It is with great distress that I write this letter, as I only learned of this application by accident. It is regrettable that when six farms are involved, RBS has not directly consulted with the farm owners at all. I thus only have today to prepare this letter, which is not sufficient.

I write this letter on behalf of the remainder of the owners of the farms involved, and myself.

Firstly, the area intended for exploration is in a semi-desert environment. Rainfall is extremely low, for the past two years less than 25 mm pa. The region has had a drought for seven years, with effectively no vegetation left, and the land relying on the seed bank, which has to be preserved at all cost. Growth of vegetation is extremely slow, and the soil does not react well to any form of mechanical transgression. Single vehicle tracks remain visible for 10 - 20 years after in some cases only driven over once. This is a great cause for concern, as all the relevant farm owners endeavor to keep the impact on the veld as low as possible. Traffic is limited as far as possible, in general to only one vehicle per farm, and even existing tracks to be used as seldom as possible.

Secondly, the farms to be affected cannot be used for commercial farming, as rainfall is simply too low, and the recovery rate of the plants and veld cannot sustain such activity. Due to this, the owners of the farms in this area focus on preservation of nature, as this is the only possible way to act environmentally and economically responsible, whilst attempting to also protect the investment made in the land.

Farm Bergrus and Wolfkoppe are intended as eco-tourism destinations. As such the aim is to impact as little as humanly possible on the environment, thus the land, fauna and flora. The aim is to preserve the natural environment, as in the eco tourism business any activity which may damage the soil, fauna and flora temporarily or permanently, will effectively destroy any attempt to achieve this goal. Exploration and mining of the land will without doubt severely impact the value of our land, and lead to substantial depreciation of our farms.

Water is a scarce commodity, another reason why human intervention in the area is limited as far as possible. Any increase in vehicle numbers and human involvement is seen as severely detrimental to the natural environment.

Even with the aim of eco tourism, the nature of the region is such that the number of visitors and vehicles will always have to be limited to the minimum.

Your proposed activities appears completely opposed to all of the above.

You intend to bring in people and vehicles, you intend to drill and trench, which will be detrimental to nature and wildlife. This will unfortunately have to be opposed.

If you rely on the veld, animal and plant life as the core value of your farm, this cannot be threatened in any way, which unfortunately will be the case, both with exploration and mining activities.

On Bergrus for example, vehicles are not allowed to leave established tracks at all, under no circumstances: Not to stop, not to turn around, for no reason whatsoever. Human spoor is discouraged. No signs of human activity or presence is ever allowed, in any way. Animals and plant life are respected to the utmost. These are never to be disturbed in any way. Clearly what is intended by RBS contradicts these principles, and these cannot be respected in any way by the activities intended.

Lastly, the owners of the farms involved remain concerned about factors such as crime and human trespassing. These farms are almost an hour's drive away from Usakos, and have none or poor cell phone reception. As such the people living on these farms are reliant on privacy, with limited security provision. For this reason entrance of anyone who may in any way threaten safety and security is limited. Any outside party may disrupt the balance which exists at present, which is to be avoided.

Further information is to be provided at your request, also after further consultation of the land owners involved.

My plea is a plea on behalf of our country, its peoples, and of nature. The area you wish to explore is a sensitive area, not able to defend itself against human activities and intervention. Mining in this area will damage and destroy the land, will damage and destroy wildlife and nature, and the land will never be able to recover from such activities. Land owners in this area made size-able investments, which are now threatened by your intended activities. As such, we have to defend ourselves, our investments, our future, our land, nature, and oppose any form of mining activity.

Additionally I would like to request a copy of the official environmental impact study as well as the environmental management plan, that would normally have to be presented together with the application for the license.

I also need to please be personally informed about any meetings or public meetings to be held regarding the licence application or any other related matter. I need to register myself and the other farm owners as interested parties and land owners, in order to further participate in this process.

We as owners of the land in question would like to confirm that the right procedure has been followed and the environmental impact is the greatest concern.

Lastly, the relevant farm owners confirm that nobody will be allowed on our farms without the necessary arrangements in place, and permission granted by the farm owners.

I trust you will read this letter with a sympathetic attitude.

Sincerely

Dr Johan Venter
Bergrus 94

On Thu, Oct 24, 2019 at 10:22 AM Johan Venter <goergap123@gmail.com> wrote:
Dear Sindila

Well received, thank you very much.

Regards, Johan

On Thu, 24 Oct 2019 at 10:20 AM, Dr. Sindila Mwiya (Risk-Based Solutions) <frontdesk@rbs.com.na> wrote:

Good morning Mr. Johan,

Please find attached to this message the BID and Farm Map with EPL outline as requested and I as promised during the brief call discussions with respect to the EPL 7269 proposed exploration and possible marble quarrying in the event that the exploration process proves positive.

Many thanks,

Dr. Sindila Mwiya

PhD, PG Cert, MPhil, BEng (Hons), Pr Eng

International Resources Consultant /Founder RBS CC & FGN (Pty) Ltd

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Global Office / URL : www.rbs.com.na

Foresight Group Namibia (FGN) (Pty) Ltd – *Perfecting the Future*
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From: Dr. Sindila Mwiya (Risk-Based Solutions) [mailto:frontdesk@rbs.com.na]

Sent: 23 October 2019 10:45

To: 'goergap123@gmail.com' <goergap123@gmail.com>

Subject: BID for EPL 7269

Importance: High

Good morning Mr. Johan,

Please find attached to this message the BID and Farm Map with EPL outline as promised during brief call discussions with respect to the EPL 7269 proposed exploration and possible marble quarrying in the event that the exploration process proves positive.

Many thanks,

Dr. Sindila Mwiya

PhD, PG Cert, MPhil, BEng (Hons), CEng, FGS, Pr Eng

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From: frontdesk@rbs.com.na <frontdesk@rbs.com.na>
Sent: Monday, 28 October 2019 6:24 AM
To: 'info@hans-kriess.com' <info@hans-kriess.com>
Subject: RE: Objection to exploration - EPL 7269

Dear Hans Kriess,

Thank you very much for your email below and I hereby acknowledge receipt of your objections. I fully understand your legitimate concerns and certainly I could also feel the same if I was to put myself in your position. I fully respect private property and there is no way that anyone will enter your farm without your permission. Often it is difficult to know the land owners and the only way to initiate consultation usually is first through a public notice in the local newspaper as required by the EIA Regulations, 2012 and once we establish who the affected land owners are and if there is indeed interest in the specific farm/s a meeting will then be arranged for more direct consultation and information exchanged.

The EPL 7269 was only granted recently and currently all what we are doing at the moment is only focused on desk top studies with no need for any field activities. If the need for a field visit over your farm arises, then we will contact you 1st for meeting even before such field visit is undertaken. The EPL 7269 is not the only EPL covering this area and there are several other licenses and for your information please log on to <https://maps.landfolio.com/Namibia/> to see all the licenses that are active in Namibia.

The probability of any EPL to advance to a mining project is 0.001 or equal to zero and that means most EPLs just expire and it is only the Government that makes their money from subsurface minerals rights rentals. Although I very much share your investment and environmental concerns, there is no guarantee that each and every EPL that overlaps your land (see attached or the link I provided) will become a mining project and that your land will now be exposed to criminal elements because of increased human activities. In aiding prospectors the Ministry of Environment and Tourism and the Ministry of Mines and Energy both have come up with no go zones (withdrawn areas) from minerals prospecting and mining (see the link). Furthermore, requirements for Environmental Clearance Certificates (ECCs) have also been put in place in order to further make sure that other key sensitive areas such as your investments and environmental conservation efforts are also not affected by minerals prospecting and mining related activities. Therefore, the process of placing the advert in the local newspapers was all of good intentions and not meant to cause any form of panic or threat to your investments or surface land rights. Once these key sensitive areas are delineated relative to any potential resources that may be discovered, if any, together with you the land owner, an assessment for coexistence will be undertaken. If there is no opportunity for coexistence, then yes, the proposed new activities if it's a new mine will not go ahead and the project will not be viable (negative feasibility) with high environmental liabilities from an environmental point of view.

Lastly, may I please ask for a favour if you could provide me with the names and contacts of the owners of the following farms (excluding yours that I already have):

Gross-aukas,
Naob,
Tsawisis,
Bergrus,
Safier,
Namibfontein
Wolfkoppe

Please feel free to request for any clarifications you may need/ require, even if it's not related to the EPL 7269. I would like to assure that nothing will take place in your farm without your consent as the surface rights holder.

Many thanks,

Dr. Sindila Mwiya

PhD, PG Cert, MPhil, BEng (Hons), Pr Eng

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Global Office / URL : www.rbs.com.na

Foresight Group Namibia (FGN) (Pty) Ltd – *Perfecting the Future*
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From: info@hans-kriess.com <info@hans-kriess.com>

Sent: Friday, 25 October 2019 10:51 AM

To: frontdesk@rbs.com.na

Cc: smwiya@rbs.com.na

Subject: Fwd: Objection to exploration - EPL 7269

Anfang der weitergeleiteten Nachricht:

Von: "info@hans-kriess.com" <info@hans-kriess.com>

Betreff: Objection to exploration - EPL 7269

Datum: 25. Oktober 2019 um 10:47:07 AM GMT+2

An: smwiya@rbs.com

Kopie: "Hans Kriess Properties (PTY) Ltd." <info@hans-kriess.com>, Hans Jochen Kriess <jochen34@me.com>, Marieta Engelbrecht <mme@iway.na>, Conlynx <conlynx@gmail.com>

Dear Mr. Mwiya

we, as owners of farm Wolfkoppe, would herewith like to voice our objection to the proposed prospecting and exploration on the EPL 7269.

Substantial amounts of money have been invested by ourselves in game, water wells, pumps, fencing and feeding wildlife during the past ten years. The proposed exploration would render the conservation efforts of the land owners during the past decades null and void, and would open up the area to crime and serious destruction of the environment. All this will be irreversible.

We have only been made aware of the public notice today and therefore humbly apologise for only writing to you at this late stage.

Yours faithfully
Hans Kriess

HANS KRIESS PROPERTIES

Tel. 064-402011 | P.O. Box 155 Swakopmund | Namibia (PTY) Ltd



Nelson Tulonga Sheya (the Proponent)

**MET ECC Application No.
APP-001149**

Background Information Document (BID) for
Public Consultation for the Proposed Exploration
/ Prospecting Activities in the Exclusive
Prospecting License (EPL) No. 6413
**OMARURU DISTRICT, ERONGO REGION,
NORTH CENTRAL NAMIBIA**

February 2020

P. O Box 26826
6 Amasoniet Street
WINDHOEK, NAMIBIA

PROPONENT, LISTED ACTIVITIES AND RELATED INFORMATION SUMMARY

TYPE OF AUTHORISATIONS REQUIRING ECC

Exclusive Prospecting License (EPL) No. 6413
for ECC for Exploration

NAME OF THE PROPONENT

Nelson Tulonga Sheya

COMPETENT AUTHORITY

Ministry of Mines and Energy (MME)

ADDRESS OF THE PROPONENT AND CONTACT PERSON

P. O Box 26826
6 Amasoniet Street
WINDHOEK, NAMIBIA

CONTACT PERSON: Ms Ming Shi- General Manager

Tel: +264 -61-402036

Mobile: +264811433788

Email: maggieming2012@hotmail.com

PROPOSED PROJECT

Proposed Minerals Exploration / Prospecting activities in the Exclusive
Prospecting License (EPL) No. 6413, Omaruru District,
Erongo Region, North-Central Namibia

PROJECT LOCATION

Omaruru District, Erongo Region, North-Central Namibia
(Latitude: -20.865526, Longitude: 15.321160)

ENVIRONMENTAL CONSULTANTS



Risk-Based Solutions (RBS) CC

(Consulting Arm of Foresight Group Namibia (FGN) (Pty) Ltd)

41 Feld Street Ausspannplatz

Cnr of Lazarett and Feld Street

P. O. Box 1839, **WINDHOEK, NAMIBIA**

Tel: +264 - 61- 306058; Fax: +264 - 61- 306059

Mobile: + 264-811413229; Email: smwiya@rbs.com.na

Global Office / URL: www.rbs.com.na

ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP)

Dr. Sindila Mwiya

PhD, PG Cert, MPhil, BEng (Hons), Pr Eng

Summary Profile and Qualification of the Environmental Assessment Practitioner (EAP) / International Consultant Projects Director – Dr Sindila Mwiya

Dr Sindila Mwiya has more than eighteen (18) years of practical field-based technical industry experience in Environmental Assessment (SEA, EIA, EMP, EMS), Energy (Renewable and Non-renewable energy sources), onshore and offshore resources (minerals, oil, gas and water) exploration / prospecting, operation and utilisation, covering general and specialist technical exploration and recovery support, Health, Safety and Environment (HSE) permitting for Geophysical Surveys such as 2D, 3D and 4D Seismic, Gravity and Electromagnetic Surveys for mining and petroleum (oil and gas) operations support, through to engineering planning, layout, designing, logistical support, recovery, production / operations, compliance monitoring, rehabilitation, closure and aftercare projects lifecycles. The great array of highly technical specialist knowledge and field-based practical experiences of Dr Sindila Mwiya has now been extended to supporting the development of Environmentally Sustainable, automated / smart and Climate Change resilient homes, towns and cities.

Through his companies, Risk-Based Solutions (RBS) CC and Foresight Group Namibia (FGN) (Pty) Ltd which he founded, he has undertaken more than 200 projects for Local (Namibian), Continental (Africa) and International (Global) based clients. He has worked and continue to work for Global, Continental and Namibian based reputable resources (petroleum and mining / minerals) and energy companies such as EMGS (UK/ Norway), CGG (UK/ France/Namibia), BW Offshore (Norway/Singapore /Namibia), Shell Namibia B. V. Limited (Namibia/ the Netherlands), Tullow Oil (UK/Namibia), Debmarine (DBMN) (Namibia), Reconnaissance Energy Africa Ltd (ReconAfrica) (UK/Canada/Namibia), Osino Resource Corporation (Canada/Germany/Namibia), Desert Lion Energy Corporation (Canada/ Australia/ Namibia), Petrobras Oil and Gas (Brazil) / BP (UK)/ Namibia, REPSOL (Spain/ Namibia), ACREP (Namibia/Angola), Preview Energy Resources (UK), HRT Africa (Brazil / USA/ Namibia), Chariot Oil and Gas Exploration (UK/ Namibia), NABIRM (USA/ Namibia), Serica Energy (UK/ Namibia), Eco (Atlantic) Oil and Gas (Canada / USA/ Namibia), ION GeoVentures (USA), PGS UK Exploration (UK), TGS-Nopec (UK), Maurel & Prom (France/ Namibia), GeoPartners (UK), PetroSA Equatorial Guinea (South Africa / Equatorial Guinea/ Namibia), Preview Energy Resources (Namibia / UK), Sintezneftgaz Namibia Ltd (Russia/ Namibia), INA Namibia (INA INDUSTRIJA NAFTE d.d) (Croatia/ Namibia), Namibia Underwater Technologies (NUTAM) (South Africa/Namibia), InnoSun Holdings (Pty) Ltd and all its subsidiary renewable energy companies and projects in Namibia (Namibia / France), HopSol (Namibia/Switzerland), Momentous Solar One (Pty) Ltd (Namibia / Canada), OLC Northern Sun Energy (Pty) Ltd (Namibia) and more than 100 local companies. Dr Sindila Mwiya is highly qualified with extensive practical field-based experience in petroleum, mining, renewable energy (Solar, Wind, Biomass, Geothermal and Hydropower), Non Renewable energy (Coal, Petroleum, and Natural Gas), applied environmental assessment, management and monitoring (Scoping, EIA, EMP, EMP, EMS) and overall industry specific HSE, cleaner production programmes, Geoenvironmental, geological and geotechnical engineering specialist fields.

Dr Sindila Mwiya has undertaken and continue to undertake and manage high value projects on behalf of global and local resources and energy companies. Currently, (2020-2023) Dr Sindila Mwiya is responsible for permitting planning through to operational and completion compliance monitoring, HSE and engineering technical support for multiple major upstream onshore and offshore petroleum, minerals and mining projects, Solar and Wind Energy Projects, manufacturing and environmentally sustainable, automated / smart and Climate Change resilient homes developments in different parts of the World including Namibia. Currently, Dr Sindila Mwiya is developing a 16 Ha commercial and residential Mwale Mwiya Park in the Town of Katima Mulilo, Zambezi Region, Namibia as one of first advanced Environmentally Sustainable, automated / smart and Climate Change resilient development in Namibia. He continue to worked as an International Resources Consultant, national Environmental Assessment Practitioner (EAP) / Environmentally Sustainable, automated / smart and Climate Change resilient homes developer, Engineering / Technical Consultant (RBS / FGN), Project Manager, Programme Advisor for the Department of Natural and Applied Sciences, Namibia University of Science and Technology (NUST) and has worked as a Lecturer, University of Namibia (UNAM), External Examiner/ Moderator, NUST, National (Namibia) Technical Advisor (Directorate of Environmental Affairs, Ministry of Environment and Tourism / DANIDA – Cleaner Production Component) and Chief Geologist for Engineering and Environment Division, Geological Survey of Namibia, Ministry of Mines and Energy and a Field-Based Geotechnician (Specialised in Magnetism, Seismic, Gravity and Electromagnetics Exploration and Survey Methods) under the Federal Institute for Geoscience and Natural Resources (BGR) German Mineral Exploration Promotion Project to Namibia, Geophysics Division, Geological Survey of Namibia, Ministry of Mines and Energy.

He has supervised and continue to support a number of MScs and PhDs research programmes and has been a reviewer on international, national and regional researches, plans, programmes and projects with the objective to ensure substantial local skills development, pivotal to the national socioeconomic development through the promotion of sustainable natural resources coexistence, management, development, recovery, utilisation and for development policies, plans, programmes and projects financed by governments, private investors and donor organisations. Since 2006 until 2017, he has provided extensive technical support to the Department of Environmental Affairs (DEA), Ministry of Environment and Tourism (MET) through GIZ in the preparation and amendments of the Namibian Environmental Management Act, 2007, (Act No. 7 of 2007), new Strategic Environmental Assessment (SEA) Regulations, preparation of the updated Environmental Impact Assessment (EIA) Regulations as well as the preparation of the new SEA and EIA Guidelines and Procedures all aimed at promoting effective environmental assessment and management practices in Namibia.

Among his academic achievements, Dr Sindila Mwiya is a holder of a PhD (Engineering Geology/Geotechnical / Geoenvironmental / Environmental Engineering and Artificial Intelligence) – Research Thesis: Development of a Knowledge-Based System Methodology (KBSM) for the Design of Solid Waste Disposal Sites in Arid and Semiarid Environments, MPhil/PG Cert and BEng (Hons) (Engineering Geology and Geotechnics) qualifications from the University of Portsmouth, School of Earth and Environmental Sciences, United Kingdom. During the 2004 Namibia National Science Awards, organised by the Namibian Ministry of Education, and held in Windhoek, Dr Sindila Mwiya was awarded the Geologist of the Year for 2004, in the professional category. Furthermore, as part of his professional career recognition, Dr Sindila Mwiya is a life member of the Geological Society of Namibia, Consulting member of the Hydrogeological Society of Namibia and a Professional Engineer registered with the Engineering Council of Namibia.

Windhoek, Namibia February 2020

CONTENT LIST

| | |
|----------------------------------------------------------------------|--------------|
| 1. BACKGROUND | - 1 - |
| 1.1 INTRODUCTION | - 1 - |
| 1.2 PROPOSED EXPLORATION ACTIVITIES..... | - 1 - |
| 1.3 PROJECT MOTIVATION AND CHALLENGES | - 1 - |
| 1.4 LOCATION, LAND USE, INFRASTRUCTURE AND SERVICES..... | - 2 - |
| 1.4.1 <i>Location and Land Use</i> | - 2 - |
| 1.4.2 <i>Supporting Infrastructure and Services</i> | - 2 - |
| 1.5 REGULATORY REQUIREMENTS | - 2 - |
| 2. EIA AND EMP RECOMMENDATIONS AND SUMMARY TOR | - 7 - |
| 2.1 AIMS AND OBJECTIVES OF THE ENVIRONMENTAL ASSESSMENT | - 7 - |
| 2.2 PUBLIC CONSULTATIONS..... | - 7 - |
| 3. TERMS OF REFERENCE FOR THE EIA AND EMP PROCESS | - 9 - |
| 3.1 ENVIRONMENTAL ASSESSMENT APPROACH | - 9 - |
| 3.2 EIA AND EMP PROCESS AND STEPS | - 10 - |
| 3.3 IMPACTS ASSESSMENT PROCESS | - 11 - |
| 3.3.1 <i>Evaluation of Impacts</i> | - 11 - |
| 3.3.2 <i>Likelihood (Probability) of Occurrence</i> | - 12 - |
| 3.3.3 <i>Proposed Project Activities as Sources of Impacts</i> | - 12 - |
| 3.3.4 <i>Assessment of the Overall Significant Impacts</i> | - 21 - |
| 3.4 SPECIFIC MITIGATION MEASURES..... | - 24 - |
| 3.5 STRUCTURE OF THE EIA AND EMP REPORTS | - 24 - |

List Figures

| | | |
|-------------|------------------------------------------------------------------------------------------------------------|--------|
| Figure 1.1: | Regional location of the EPL No 6413 Area. | - 3 - |
| Figure 1.2: | Detailed regional location of the EPL 6413 Area | - 4 - |
| Figure 1.3: | Communal land and part of the Ohungu Conservancy covered by the EPL 6413 Area. | - 5 - |
| Figure 2.1: | Copy of the Public Notice to be published in three (3) newspaper over a period of three (3) weeks. | - 8 - |
| Figure 3.1: | Schematic presentation of Namibia’s Environmental Assessment Procedure. | - 10 - |

List Tables

| | | |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Table 3.1: | Summary of the proposed activities, alternatives and key issues to be considered during the Environmental Assessment (EA) process covering EIA and EMP phases and in addition to the further inputs that may be provided by the registered stakeholders during the public consultation process. | - 9 - |
| Table 3.2: | Scored on a scale from 0 to 5 for impact magnitude. | - 11 - |
| Table 3.3: | Scored time period over which the impact is expected to last. | - 11 - |
| Table 3.4: | Scored geographical extent of the induced change. | - 11 - |
| Table 3.5: | Summary of the qualitative scale of probability categories (in increasing order of likelihood)..... | - 12 - |
| Table 3.6: | Example results presentation framework of the sensitivity assessment of the receptors (Physical, Socioeconomic and Biological environments) with respect to the proposed exploration / prospecting activities. | - 13 - |
| Table 3.7: | Example results presentation framework of the scored time period (duration) over which the impact is expected to last. | - 15 - |
| Table 3.8: | Example results presentation framework of the scored geographical extent of the induced change..... | - 17 - |
| Table 3.9: | Example results presentation framework of the qualitative scale of probability occurrence. | - 19 - |
| Table 3.10: | Example results presentation framework of significant matrix impact assessment for the proposed exploration activities. | - 22 - |

1. BACKGROUND

1.1 Introduction

Nelson Tulonga Sheya (the **Proponent**) holds mineral rights under the Exclusive Prospecting License (EPL) No. 6413 for base, rare and precious metals, dimension stones and industrial minerals groups. The EPL 6413 was granted 20/06/2017 and will expire on the 19/06/2020. Nelson Tulonga Sheya is an individual with interest in minerals exploration and mining industry in Namibia.

1.2 Proposed Exploration Activities

The following is the detailed overview of the proposed activities:

- (i) Initial desktop exploration activities (review of existing information and all previous activities in order identify any potential target/s in the EPL Area);
- (ii) Regional reconnaissance field-based activities such as regional mapping, aerial survey and existing data analysis and sampling to identify and verify potential targeted areas based on the recommendations of the desktop work undertaken under (i) above;
- (iii) Initial local field-based activities such as widely spaced geological mapping, sampling, surveying and possible trenching and drilling in order to determine the viability of any delineated local target, and;
- (iv) Detailed local field-based activities such very detailed geological mapping, trenching, bulk sampling, surveying and detailed drilling in order to determine the feasibility of any delineated local target.

If the above exploration activities lead to positive results, the exploration data collected will then be put together into a prefeasibility report and if the prefeasibility result proves positive then a detailed feasibility study supported by detailed site-specific drilling, bulk sampling and laboratory tests will be undertaken on the discovered mineralised locality. A positive feasibility study will be required in order to support the application for a Mining License (ML) together with a new site-specific Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) with specialist studies such as flora, fauna, socioeconomic, water, traffic, dust and noise modelling and archeology being undertaken in order to support the application for the new ECC for mining and minerals process.

1.3 Project Motivation and Challenges

A number of minerals occurrences are known to exist in the general area linked to the regional geology of the EPL area. The proponent intends to explore / prospect for all licensed minerals groups with special focus on gold likely to be associated with the regional, local geology and geological structures. If economic minerals resources are discovered and can led to the development of mine, this will be of great benefits to the sustainability of the mining industry and growth of the economic landscape of Namibia. Minerals exploration is a key driver of the mining industry and without the discovery of new resources and research, the mining industry will eventually cease to exist in Namibia and by so doing will go with a big slice of the national economy and leave a major gap in State financing, export goods, forex earnings, employment and overall contribution to the Gross Domestic Products (GDP). It is highly important to support each and every exploration effort.

Minerals exploration is a long-term and high-risk process and to advance a mineral exploration project from exploration to the application of a ML can take up to ten (10) years or more and costing millions of dollars of high-risk capital with zero guarantee for recovering the cost of exploration or discovering a mineable and profitable minerals deposit. The chance or probability for discovering economic minerals that can become a mine in any EPL is as low as 0.001% while the cost of undertaking exploration can run into millions of Namibia Dollars. The high-risk capital nature of exploration with zero guarantee for recovering the cost of exploration makes it a no-go zone for Governments globally. It is for this reason that minerals exploration is mainly driven by few investors such as wealthy individuals with interest in

resources and high appetite for risk financing as well as international corporations and public listed companies.

1.4 Location, Land Use, Infrastructure and Services

1.4.1 Location and Land Use

The EPL No. 6413 is located in the Omaruru District of the Erongo Region, in the north-central Namibia (Figs 1.1 -1.3). The EPL 6413 area totalling 21745.3761Ha over the following communal farmlands: Okemyenya, Ondundotjiuapa, Otjotopera, Omutiwanduka and Okamaera areas (Fig. 1.3). The southern portion of the EPL Area falls within the Ohungu Conservancy (Fig. 1.3).

The general topography is very rugged and comprises topographic high areas characterised by dendritic ephemeral rivers network linked to the tributaries of the Ugab Ephemeral River especially the Okamaize and Okasako Ephemeral Rivers (Fig. 1.4). The general land use of the area is mainly dominated by subsistence agriculture (cattle and small stock), community tourism, hospitality and conservation initiatives by local communities involved in the Ohungu Conservancy, minerals prospecting and mining operations especially dimension stone (granite quarrying) and small-scale mining of gemstones.

1.4.2 Supporting Infrastructure and Services

The north-eastern portion of the EPL is accessible through the D3713 gravel road that comes off the D3712 from Omajete (Fig. 1.3). The southern and central portions are accessible through some minor local tracks that come off the D2344 gravel roads from Omajete (Fig.1.3). The D2344 gravel road connects the project area to the national road network near Omaruru. The project area is located approximately 315 km from Windhoek, with the deep-water port of Walvis Bay located approximately 320 km to the south west of the EPL 6413 (Figs. 1.1-1.3).

A number of minor local community tracks cut across the EPL Area and with permissions from the local community may be used to access exploration area/s of interest that may be delineated within the areas of interest within the EPL area (Fig. 1.3). The construction of any new access if really required shall only be done with strict permission from the local community and shall be undertaken in accordance with the provisions of the EMP in terms of environmental protection.

The EPL Area has no mobile services, national or local water and electricity infrastructure networks. However, the proposed minerals exploration activities will not require major water and energy supplies. Sources of water supply for exploration especially drilling will be obtained from local boreholes if available or supplied by a water tanker truck collecting water from nearby reliable supply. The local area has very low and limited groundwater resources due to the presence of non-porous granitic terrains (Fig. 1.4). Electricity supply will be provided by diesel generators and solar as may be required.

1.5 Regulatory Requirements

The proposed prospecting activities are listed in the Environmental Management Act, 2007, (Act No. 7 of 2007) and the EIA Regulations, 2012 and cannot be undertaken without an Environmental Clearance Certificate (ECC). The Proponent is required to have undertaken Environmental Assessment comprising Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) reports for the proposed minerals prospecting activities in order to support the application for an ECC.

All interested and affected parties are hereby invited to register and submit written comments / objections / inputs with respect to the proposed minerals prospecting activities in the EPL No. 6413 area.

Detailed of such written comments / objections / inputs will be included the final EIA report that shall be submitted to the Environmental Commissioner for review and issue of the Records of Decisions (RDs).



Figure 1.1: Regional location of the EPL No 6413 Area.

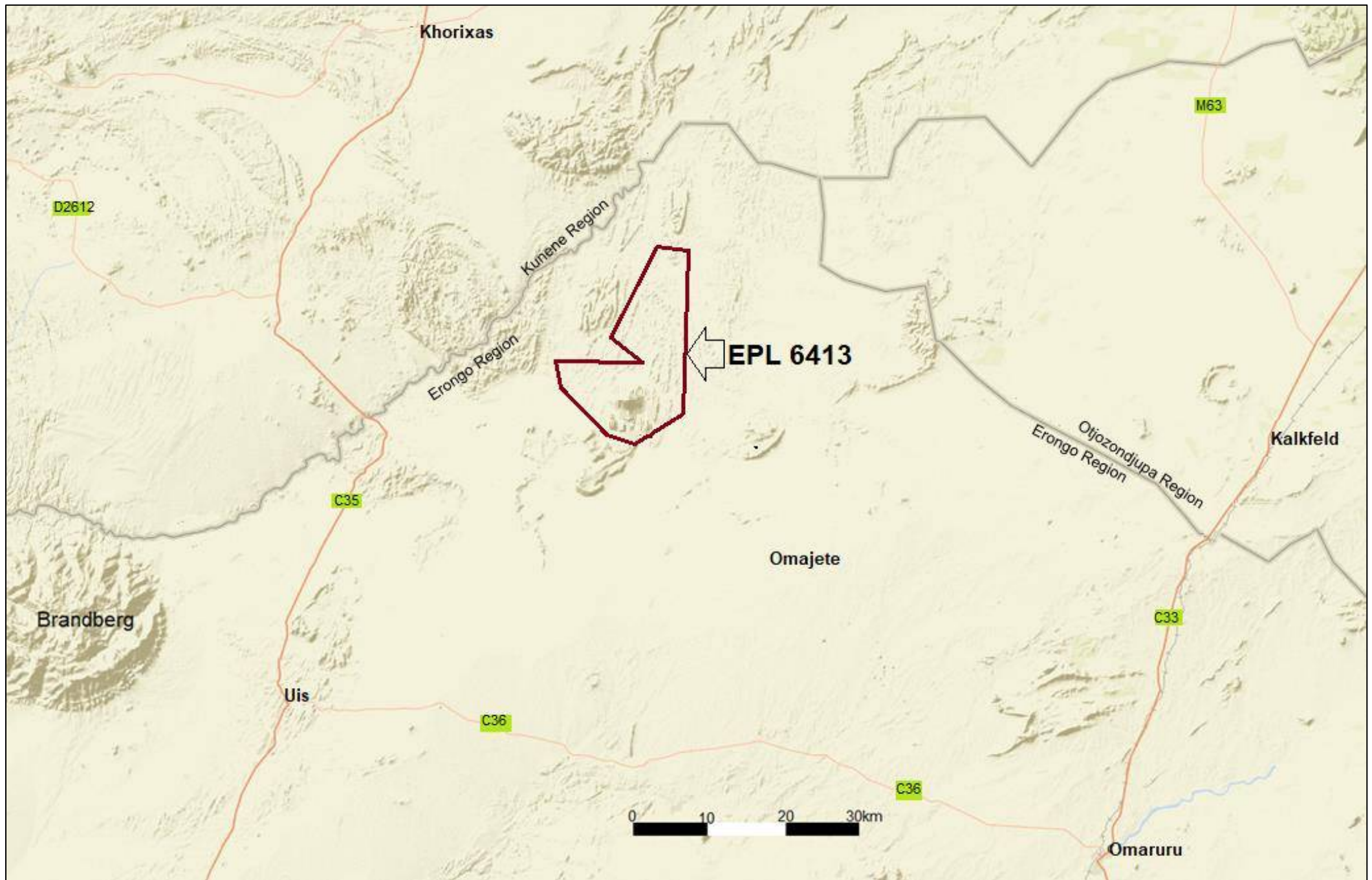


Figure 1.2: Detailed regional location of the EPL 6413 Area (Source: <http://portals.flexicadastre.com/Namibia>).

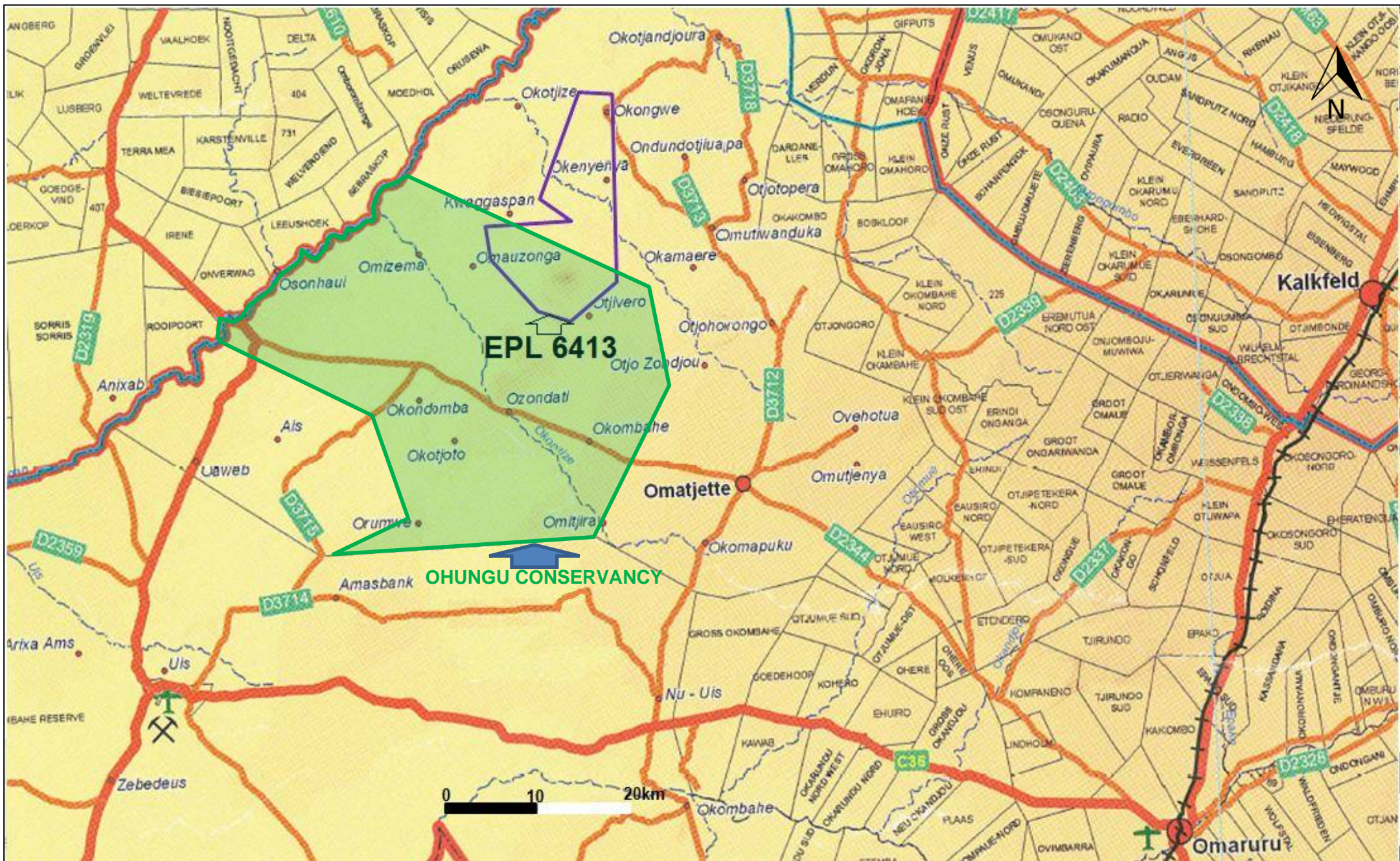


Figure 1.3: Communal land and part of the Ohungu Conservancy covered by the EPL 6413 Area (Source: Namibia 1:1000000 Registration Divisions Extract).

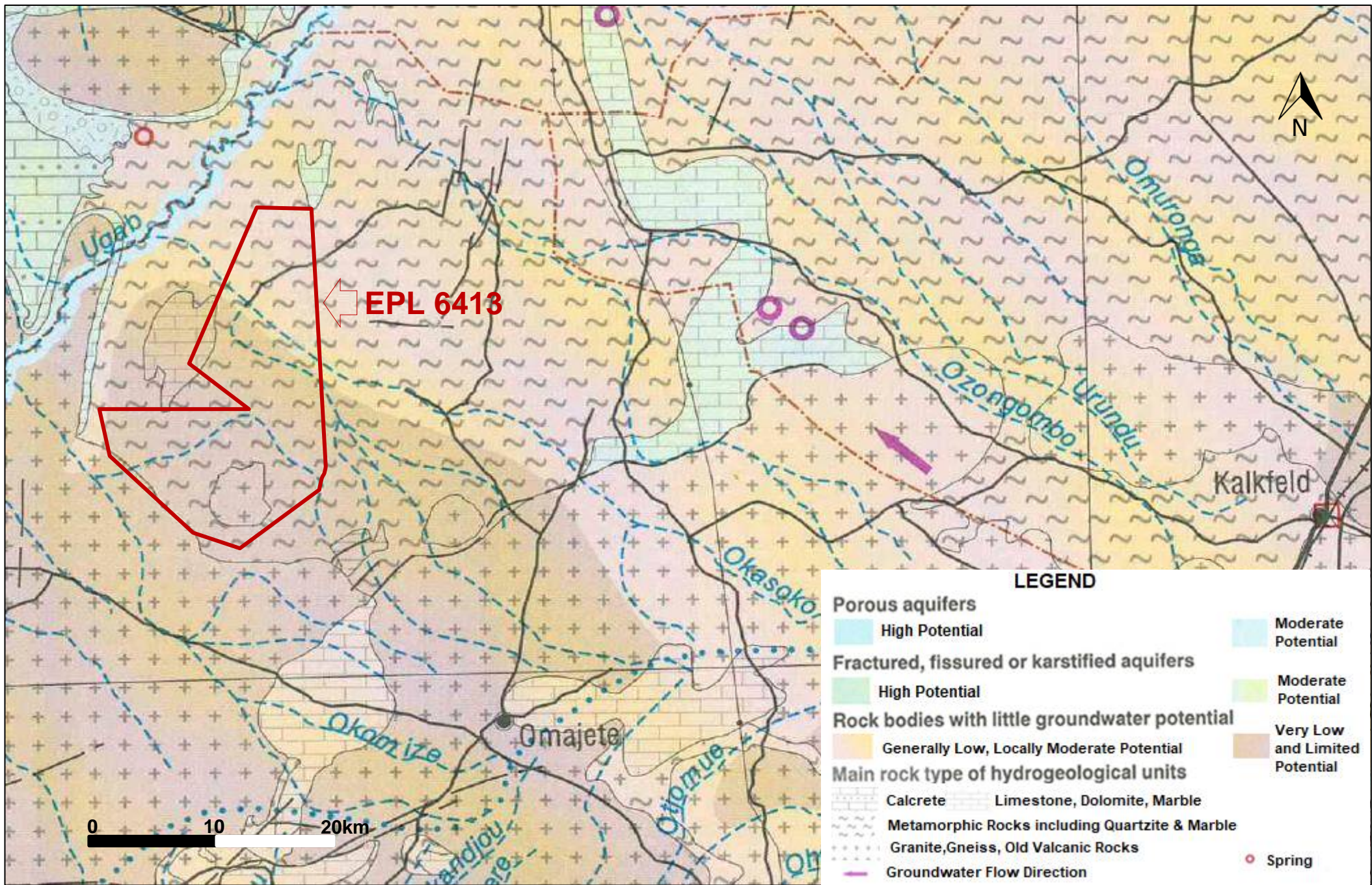


Figure 1.4: Regional hydrogeology and groundwater potential around the EPL 6413 Area (Source: Department of Water Affairs and Forestry, 2001).

2. EIA AND EMP RECOMMENDATIONS AND SUMMARY TOR

2.1 Aims and Objectives of the Environmental Assessment

The aims and objectives of the Environmental Assessment (EA) covering this BID and the EIA and EMP Reports to be prepared for the proposed minerals exploration activities in the EPL 6413 area are:

- ❖ To assess the likely positive and negative short and long-term impacts on the receiving environment (physical, biological and socioeconomic environments) at local area (EPL area), regional (Erongo Region), national (Namibia) and Global levels using appropriate assessment guidelines, methods and techniques covering the complete project lifecycle. The assessment to be undertaken shall be performed with reasonable skill, care and diligence in accordance with professional standards and practices existing at the date of performance of the assessment and that the guidelines, methods and techniques shall conform to the national regulatory requirements, process and specifications in Namibia and in particular as required by the Ministry of Environment and Tourism (MET), the Ministry of Mines and Energy (MME), Ministry of Agriculture, Water Affairs and Forestry (MAWF) and other Competent Authorities;
- ❖ The development of appropriate mitigation measures that will enhance the positive impacts and reduce the likely negative impacts to be identified or anticipated. Such mitigation measures shall be contained in the EMP Report covering the entire project lifecycle, and;
- ❖ To support the application for Environmental Clearance Certificate (ECC) for the proposed minerals exploration activities.

2.2 Public Consultations

Public consultation and engagement process are part of the environmental assessment process for this project. According to the Environmental Impact Assessment (EIA) Regulations No. 30 of 2012 and the Environmental Management Act, (EMA), 2007, (Act No. 7 of 2007), a person conducting a public consultation process must give notice to all Interested and Affected Parties (I&AP) of the application which is subjected to public consultation.

The EIA Regulations clearly state that potential interested, and affected parties must be provided with a reasonable opportunity (21 days) to comment on the application under Section 21(6) of the EIA Regulations.

In line with the provisions of the regulations, the public notices as shown in Fig 2.1 will be published in the local newspapers during the months of **February and March 2020**. Public Notice will be published in three (3) newspaper over a period of three (3) weeks and the 1st advert is scheduled to appear in the New Era Daily Newspaper dated **18th February 2020**.

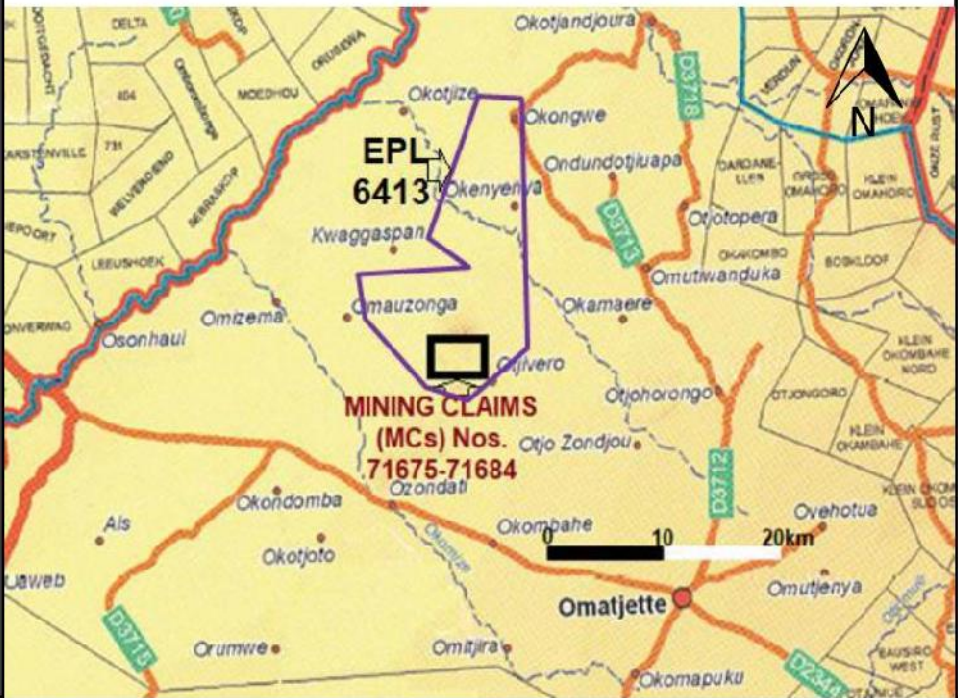
The closing date for registration and submission of written objections, comments, inputs to the environmental assessment process was **Friday, 13th March 2020**. The application for ECC supported by the Final EIA and EMP Reports is expected to be submitted to the Environmental Commissioner in the Ministry of Environment and Tourism through the Competent Authority, the Mining Commissioner in the Ministry of Mines and Energy during the week starting **23rd March 2020**.

**PUBLIC NOTICE BY MOONLAND INVESTMENTS CC MINING CLAIMS (MCs) Nos. 71675-71684 AND NELSON TULONGA SHEYA EPL No. 6413
OMARURU DISTRICT, ERONGO REGION
APPLICATION FOR ENVIRONMENTAL CLEARANCE CERTIFICATES (ECCs)**

1. **MOONLAND INVESTMENTS CC** (the Proponent) has applied for mineral rights under the Mining Claims (MCs) Nos. 71675, 71676, 71677, 71678, 71679, 71680, 71681, 71682, 71683, 71684 for dimension stone. The ten (10) MCs areas falls within the boundary of the EPL 6413 held by Nelson Tulonga Sheya and covers the western parts and mountainous areas of the Otjivero Communal farmland.
2. **NELSON TULONGA SHEYA (Proponent)**; EPL No. 6413, Granted 2006/2017 and will expire 19/06/2020, Commodities: Base, rare and precious metals, dimension stones and industrial minerals; Size: 21745.3761Ha over the following communal farmlands: Okemyenya, Ondundotjuapa, Otjotopera, Omutiwanduka and Okamaera areas.

The Proponents intends to conduct exploration / prospecting activities in the EPL area and possible mining activities in the MCs starting with desktop studies and aerial surveys, followed by regional field-based reconnaissance work. If the exploration results are positive, implement detailed site-specific field-based activities using techniques such as geological mapping, geophysical surveys, trenching, drilling and sampling for laboratory tests leading to possible mining operations in the MCs and application for Mining License (ML) in the EPL area. The proposed prospecting activities and possible mining activities are listed in the Environmental Management Act, 2007, (Act No. 7 of 2007) and the EIA Regulations 30 of 2012 and cannot be undertaken without Environmental Clearance Certificates (ECCs). In fulfilment of these environmental requirements, the Proponents have appointed Risk-Based Solutions (RBS) CC as the Environmental Consultant, led by Dr Sindila Mwiya as the Environmental Assessment Practitioner (EAP) to prepare the Scoping and Environmental Management Plan (EMP) Reports in order to support the applications for ECCs. All interested and Affected Parties (I&AP) are hereby invited to register and submit written comments / objections / inputs with respect to the proposed prospecting activities and possible mining activities. A Background Information Document (BID) is available upon registration.

REGISTER BY EMAIL: frontdesk@rbs.com.na or for more Information contact **Dr Sindila Mwiya (EAP/ International Resources Technical Specialist Consultants, Email:** smwiya@rbs.com.na, **Mobile:** 0811413229
DEADLINE FOR WRITTEN SUBMISSIONS IS:
FRIDAY 13th MARCH 2020




Risk-Based Solutions (RBS) CC (URL: www.rbs.com.na)
 International Resources Technical Specialist Consultants (Oil, Gas, Minerals & Energy Exploration, Production & Mining) and Environmental Assessments (SEA, EIA, EMP, EMS)

Figure 2.1: Copy of the Public Notice to be published in three (3) newspaper over a period of three (3) weeks.

3. TERMS OF REFERENCE FOR THE EIA AND EMP PROCESS

3.1 Environmental Assessment Approach

As part of ongoing exploration programme and in line with the requirements for the Environmental Impact Assessment (EIA) Regulations No. 30 of 2012 gazetted under the Environmental Management Act, (EMA), 2007, (Act No. 7 of 2007), EIA and EMP reports shall be prepared by a Proponent and approved by the Environmental Commissioner before an Environmental Clearance Certificate (ECC) can be issued for the proposed exploration programme. As part of the environmental assessment, public consultation shall be undertaken. Public meeting will only be organised depending on the number of people who will register and if their concerns cannot be handle through telephone calls and written communications to the EAP as contributions/ comments/ inputs / objections to environmental assessment process.

The overall impact assessment approach has adopted the Leopold matrix framework which is one of the internationally best-known matrix assessment methodologies available for predicting the impact of a project on the receiving environment. The assessment process will take into considerations the proposed activities, alternatives and issues to be considered as outlined in Table 3.1 and in addition further inputs that may be provided by the registered stakeholders during the public consultation process.

Table 3.1: Summary of the proposed activities, alternatives and key issues to be considered during the Environmental Assessment (EA) process covering EIA and EMP phases and in addition to the further inputs that may be provided by the registered stakeholders during the public consultation process.

| PROPOSED PROJECT ACTIVITIES | ALTERNATIVES TO BE CONSIDERED | KEY ISSUES TO BE EVALUATED AND ASSESSED WITH ENVIRONMENTAL MANAGEMENT PLAN (EMP) / MITIGATION MEASURES DEVELOPED | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| (i) Initial desktop exploration activities (review of existing information and all previous activities in order identify any potential target/s in each EPL); (ii) Regional reconnaissance field-based activities such as regional mapping and sampling to identify and verify potential targeted areas based on the recommendations of the desktop work undertaken under (i) above; (iii) Initial local field-based activities such as widely spaced mapping, sampling, surveying and possible trenching and drilling in order to determine the viability of any delineated local target, and; (iv) Detailed local field-based activities such very detailed mapping, trenching, bulk sampling, surveying and detailed drilling in order to determine the feasibility of any delineated local target. | (i) Location for Minerals Occurrence: A number of economic deposits are known to exist in different parts of Namibia and some have been explored by different companies over the years. The proponent intends to explore / prospect for possible economic minerals occurrence in the EPL area as licensed; (ii) Other Alternative Land Uses: Game farming, tourism and agriculture (iii) Ecosystem Function (What the Ecosystem Does); (iv) Ecosystem Services; (v) Use Values; (vi) Non-Use, or Passive Use; (vii) The No-Action Alternative (viii) Others to be identified during the public consultation process and preparation of the EIA and EMP Reports | Potential land use conflicts / opportunities for coexistence between proposed exploration and other existing land uses such as conservation, tourism and agriculture Impacts on the Physical Environment | Natural Environment such as air, noise, water, dust etc. |
| | | | Built Environment such as existing houses, roads, transport systems, Buildings, energy and water and other supporting infrastructure |
| | | | Socioeconomic, Archaeological and Cultural impacts on the local societies and communities |
| | | | Flora Fauna Habitat Ecosystem functions, services, use values and non-Use or passive use |
| | | Others to be identified during the public consultation process and preparation of the EIA and EMP Reports | |

3.2 EIA and EMP Process and Steps

The EIA and EMP process used for this project took into considerations the provisions of the Environmental Impact Assessment (EIA) Regulations, 2012 and the Environmental Management Act (EMA), 2007, (Act No. 7 of 2007) as outlined in Fig. 3.1. The environmental assessment steps undertaken or still to be taken are summarised as follows:

- (i) Project screening process was undertaken in January 2020;
- (ii) A Draft BID / Scoping Report prepared in February 2020;
- (iii) Public / stakeholders notices published in the local newspapers as well as via direct emails communications to key stakeholders undertake and to be undertaken between 18th February and 13th March 2020;
- (iv) Final BID / Scoping Report prepared in March 2020;
- (v) Prepared the Draft EIA and EMP Reports in February – March 2020;
- (vi) Comments and inputs from the public and stakeholder consultations used to finalise the EIA and EMP Reports in March 2020, and;
- (vii) The Final EIA and EMP reports used to support the application for Environmental Clearance Certificate (ECC) for the proposed minerals exploration activities in the EPL 6413 area. The formal application for ECC is planned to be submitted to the Environmental Commissioner through the Ministry of Mines and Energy (Competent Authority) during the week starting **23rd March 2020**.

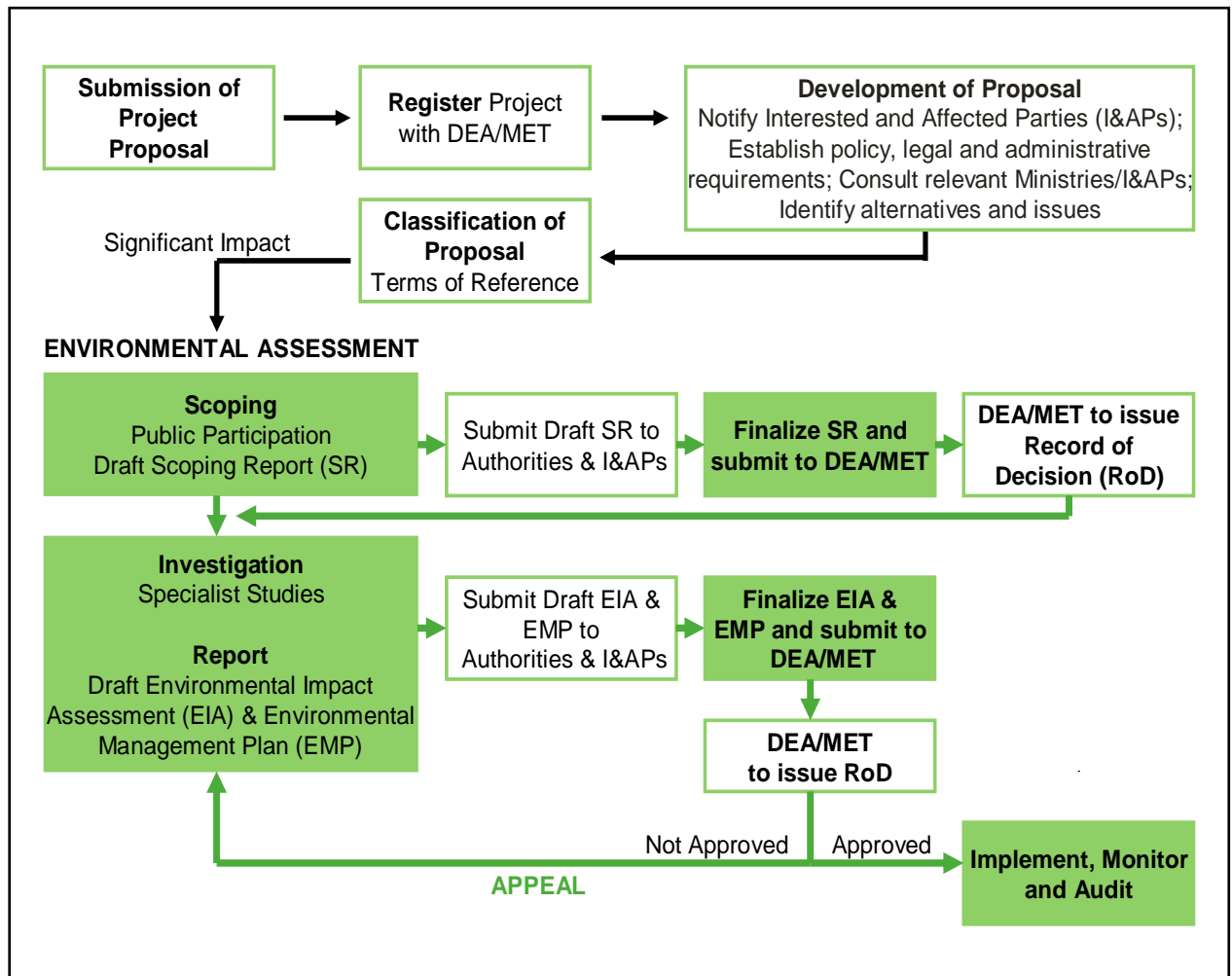


Figure 3.1: Schematic presentation of Namibia's Environmental Assessment Procedure.

3.3 Impacts Assessment Process

3.3.1 Evaluation of Impacts

In assessing the likely impacts that the proposed project activities (exploration) will have on the physical, biological, socioeconomic, cultural / archaeological environments and ecosystem functions, services, use values and non-use or passive use, the proposed exploration activities have been considered as the key sources of both negative and positive impacts. In evaluating the degree of potential impacts, the following factors will be taken into consideration:

- (i) Impact Severity: The severity of an impact is a function of a range of considerations;
- (ii) Likelihood of Occurrence (Probability): How likely is the impact to occur?

In evaluating the severity of potential environmental impacts, the following factors must be taken into consideration:

- ❖ Receptor/ Resource Characteristics: The nature, importance and sensitivity to change of the receptors / target or resources that could be affected;
- ❖ Impact Magnitude: The magnitude of the change that is induced;
- ❖ Impact Duration: The time period over which the impact is expected to last;
- ❖ Impact Extent: The geographical extent of the induced change, and;
- ❖ Regulations, Standards and Guidelines: The status of the impact in relation to regulations (e.g. discharge limits), standards (e.g. environmental quality criteria) and guidelines.

The overall impact severity has been categorised using a subjective scale as shown in Table 3.2 for magnitude, Table 3.3 for duration and Table 3.4 for extent.

Table 3.2: Scored on a scale from 0 to 5 for impact magnitude.

| SCALE (-) or (+) | DESCRIPTION |
|------------------|--------------------------------|
| 0 | No observable effect |
| 1 | Low effect |
| 2 | Tolerable effect |
| 3 | Medium high effect |
| 4 | High effect |
| 5 | Very high effect (devastation) |

Table 3.3: Scored time period over which the impact is expected to last.

| SCALE (-) or (+) | DESCRIPTION |
|------------------|-------------|
| T | Temporary |
| P | Permanent |

Table 3.4: Scored geographical extent of the induced change.

| SCALE (-) or (+) | DESCRIPTION |
|------------------|----------------------------------------|
| L | Limited impact on location |
| O | Impact of importance for municipality; |
| R | Impact of regional character |
| N | Impact of national character |
| M | Impact of cross-border character |

3.3.2 Likelihood (Probability) of Occurrence

The likelihood (probability) of the pre-identified events occurring has been ascribed using a qualitative scale of probability categories (in increasing order of likelihood) as shown in Table 3.5. Likelihood is estimated on the basis of experience and/ or evidence that such an outcome has previously occurred. Impacts resulting from routine/planned events (i.e., normal operations) are classified under category (E).

Table 3.5: Summary of the qualitative scale of probability categories (in increasing order of likelihood).

| SCALE (-) or (+) | DESCRIPTION |
|------------------|------------------------------------------------------------------------------------------------------------------------------|
| A | Extremely unlikely (e.g. never heard of in the industry) |
| B | Unlikely (e.g. heard of in the industry but considered unlikely) |
| C | Low likelihood (egg such incidents/impacts have occurred but are uncommon) |
| D | Medium likelihood (e.g. such incidents/impacts occur several times per year within the industry) |
| E | High likelihood (e.g. such incidents/impacts occurs several times per year at each location where such works are undertaken) |

3.3.3 Proposed Project Activities as Sources of Impacts

The results of the impacts assessment and evaluation will adopt a matrix framework similar to the Leopold matrix. Assessment results of the magnitude, duration, extent and probability of the potential impacts due to the proposed / ongoing project activities interacting with the receiving environment will be presented in form of a matrix table as shown in Tables 3.6 – 3.9.

The overall severity of potential environmental impacts of the proposed / ongoing project activities on the receiving environment will be of low magnitude (Table 3.6), temporally duration (Table 3.7), localised extent (Table 3.8) and low probability of occurrence (Table 3.9) due to the limited scope of the proposed activities and the use of step progression approach in advancing exploration.

The step progressional approach will allow the Proponent to the results of exploration success and the implementation of the next stage of exploration will be subject to the positive outcomes of previous activities as graded (Tables 3.6 – 3.9).

It is important to note that the assessment of the likely impacts to be assessed as shown in Tables 3.5 – 3.8, will be considered without the implementation of mitigation measures.

The need for implementation of the appropriate mitigation measures as presented in EMP report will be determined on the results of the impact assessment (Tables 3.6 – 3.9) and the significant impacts as detailed in Table 3.10.

Table 3.6: Example results presentation framework of the sensitivity assessment of the receptors (Physical, Socioeconomic and Biological environments) with respect to the proposed exploration / prospecting activities.

| RECEPTOR SENSITIVITY | | | PHYSICAL ENVIRONMENT | | | | | BIOLOGICAL ENVIRONMENT | | | | SOCIOECONOMIC, CULTURAL AND ARCHAEOLOGICAL ENVIRONMENT | | | | | | |
|---------------------------------------------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------------------------|-----------------------------|----------------------|--------------|---------------------------|---------|-----------------|-------|--------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------|------------------------|---------------------------|------------------------|---------------------------------------------------|
| SENSITIVITY RATING | | CRITERIA | Water Quality | Physical infrastructure and Resources | Air Quality, Noise and Dust | Landscape Topography | Soil Quality | Climate Change Influences | Habitat | Protected Areas | Flora | Fauna | Ecosystem functions, services, use values and non-Use or passive use | Local, regional and national socioeconomic settings | Commercial Agriculture | Community Protected Areas | Tourism and Recreation | Cultural, Biological and Archaeological Resources |
| 1 | Negligible | The receptor or resource is resistant to change or is of little environmental value. | | | | | | | | | | | | | | | | |
| 2 | Low | The receptor or resource is tolerant of change without detriment to its character, is of low environmental or social value, or is of local importance. | | | | | | | | | | | | | | | | |
| 3 | Medium | The receptor or resource has low capacity to absorb change without fundamentally altering its present character, is of high environmental or social value, or is of national importance | | | | | | | | | | | | | | | | |
| 4 | High | The receptor or resource has moderate capacity to absorb change without significantly altering its present character, has some environmental or social value, or is of district/regional importance. | | | | | | | | | | | | | | | | |
| 5 | Very High | The receptor or resource has little or no capacity to absorb change without fundamentally altering its present character, is of very high environmental or social value, or is of international importance. | | | | | | | | | | | | | | | | |
| 1. Initial Desktop Exploration Activities | (i) | General evaluation of satellite, topographic, land tenure, accessibility, supporting infrastructures and socioeconomic environment data | | | | | | | | | | | | | | | | |
| | (ii) | Purchase and analysis of existing Government high resolution magnetics and radiometric geophysical data | | | | | | | | | | | | | | | | |
| | (iii) | Purchase and analysis of existing Government aerial hyperspectral | | | | | | | | | | | | | | | | |
| | (iv) | Data interpretation and delineating of potential targets for future reconnaissance regional field-based activities for delineated targets | | | | | | | | | | | | | | | | |
| 2. Regional Reconnaissance Field-Based Activities | (i) | Regional geological, geochemical, topographical and remote sensing mapping and data analysis | | | | | | | | | | | | | | | | |
| | (ii) | Regional geochemical sampling aimed at identifying possible targeted based on the results of the initial exploration and regional geological, topographical and remote sensing mapping and analysis undertaken | | | | | | | | | | | | | | | | |
| | (iii) | Regional geological mapping aimed at identifying possible targeted based on the results of the initial exploration and regional geological, topographical and remote sensing mapping and analysis undertaken | | | | | | | | | | | | | | | | |
| | (iv) | Limited field-based support and logistical activities including exploration camp site lasting between one (1) to two (2) days | | | | | | | | | | | | | | | | |
| | (v) | Laboratory analysis of the samples collected and interpretation of the results and delineating of potential targets for future detailed site-specific exploration if the results are positive and supports further exploration of the delineated targets | | | | | | | | | | | | | | | | |

Table 3.6 Cont.

| RECEPTOR SENSITIVITY | | | PHYSICAL ENVIRONMENT | | | | | BIOLOGICAL ENVIRONMENT | | | | SOCIOECONOMIC, CULTURAL AND ARCHAEOLOGICAL ENVIRONMENT | | | | | | |
|-------------------------------------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------------------------|-----------------------------|----------------------|--------------|---------------------------|---------|-----------------|-------|--------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------|------------------------|---------------------------|------------------------|---------------------------------------------------|
| SENSITIVITY RATING | | CRITERIA | Water Quality | Physical infrastructure and Resources | Air Quality, Noise and Dust | Landscape Topography | Soil Quality | Climate Change Influences | Habitat | Protected Areas | Flora | Fauna | Ecosystem functions, services, use values and non-Use or passive use | Local, regional and national socioeconomic settings | Commercial Agriculture | Community Protected Areas | Tourism and Recreation | Cultural, Biological and Archaeological Resources |
| 1 | Negligible | The receptor or resource is resistant to change or is of little environmental value. | | | | | | | | | | | | | | | | |
| 2 | Low | The receptor or resource is tolerant of change without detriment to its character, is of low environmental or social value, or is of local importance. | | | | | | | | | | | | | | | | |
| 3 | Medium | The receptor or resource has low capacity to absorb change without fundamentally altering its present character, is of high environmental or social value, or is of national importance | | | | | | | | | | | | | | | | |
| 4 | High | The receptor or resource has moderate capacity to absorb change without significantly altering its present character, has some environmental or social value, or is of district/regional importance. | | | | | | | | | | | | | | | | |
| 5 | Very High | The receptor or resource has little or no capacity to absorb change without fundamentally altering its present character, is of very high environmental or social value, or is of international importance. | | | | | | | | | | | | | | | | |
| 3. Initial Local Field-Based Activities | (i) | Local geochemical sampling aimed at verifying the prospectivity of the target/s delineated during regional reconnaissance field activities | | | | | | | | | | | | | | | | |
| | (ii) | Local geological mapping aimed at identifying possible targeted based on the results of the regional geological and analysis undertaken | | | | | | | | | | | | | | | | |
| | (iii) | Ground geophysical survey (Subject to the positive outcomes of i and ii above) | | | | | | | | | | | | | | | | |
| | (iv) | Possible Trenching (Subject to the outcomes of i - iii above) | | | | | | | | | | | | | | | | |
| | (v) | Field-based support and logistical activities will be very limited focus on a site-specific area for a very short time (maximum five (5) days) | | | | | | | | | | | | | | | | |
| | (vi) | Laboratory analysis of the samples collected and interpretation of the results and delineating of potential targets | | | | | | | | | | | | | | | | |
| 4. Detailed Local Field-Based Activities | (i) | Access preparation and related logistics to support activities | | | | | | | | | | | | | | | | |
| | (ii) | Local geochemical sampling aimed at verifying the prospectivity of the target/s delineated during the initial field-based activities | | | | | | | | | | | | | | | | |
| | (iii) | Local geological mapping aimed at identifying possible targeted based on the results of the regional geological and analysis undertaken | | | | | | | | | | | | | | | | |
| | (iv) | Ground geophysical survey, trenching, drilling and sampling (Subject to the positive outcomes of i and ii above); | | | | | | | | | | | | | | | | |
| 5. Prefeasibility and Feasibility Studies | (i) | Detailed site-specific field-based support and logistical activities, surveys, detailed geological mapping | | | | | | | | | | | | | | | | |
| | (ii) | Detailed drilling and bulk sampling and testing for ore reserve calculations | | | | | | | | | | | | | | | | |
| | (iii) | Geotechnical studies for mine design | | | | | | | | | | | | | | | | |
| | (iv) | Mine planning and designs including all supporting infrastructures (water, energy and access) and test mining activities | | | | | | | | | | | | | | | | |
| | (v) | EIA and EMP to support the ECC for mining operations | | | | | | | | | | | | | | | | |
| | (vi) | Preparation of feasibility report and application for Mining License | | | | | | | | | | | | | | | | |

Table 3.7: Example results presentation framework of the scored time period (duration) over which the impact is expected to last.

| RECEPTOR SENSITIVITY | | PHYSICAL ENVIRONMENT | | | | | BIOLOGICAL ENVIRONMENT | | | | SOCIOECONOMIC, CULTURAL AND ARCHAEOLOGICAL ENVIRONMENT | | | | | | | | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------------------------|-----------------------------|----------------------|--------------|---------------------------|---------|-----------------|-------|--------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------|------------------------|---------------------------|------------------------|---------------------------------------------------|--|--|--|--|--|--|
| | | Water Quality | Physical infrastructure and Resources | Air Quality, Noise and Dust | Landscape Topography | Soil Quality | Climate Change Influences | Habitat | Protected Areas | Flora | Fauna | Ecosystem functions, services, use values and non-Use or passive use | Local, regional and national socioeconomic settings | Commercial Agriculture | Community Protected Areas | Tourism and Recreation | Cultural, Biological and Archaeological Resources | | | | | | |
| <table border="1"> <thead> <tr> <th>SCALE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>T</td> <td>Temporary</td> </tr> <tr> <td>P</td> <td>Permanent</td> </tr> </tbody> </table> | | SCALE | DESCRIPTION | T | Temporary | P | Permanent | | | | | | | | | | | | | | | | |
| SCALE | DESCRIPTION | | | | | | | | | | | | | | | | | | | | | | |
| T | Temporary | | | | | | | | | | | | | | | | | | | | | | |
| P | Permanent | | | | | | | | | | | | | | | | | | | | | | |
| 1. Initial Desktop Exploration Activities | (i) General evaluation of satellite, topographic, land tenure, accessibility, supporting infrastructures and socioeconomic environment data | | | | | | | | | | | | | | | | | | | | | | |
| | (ii) Purchase and analysis of existing Government high resolution magnetics and radiometric geophysical data | | | | | | | | | | | | | | | | | | | | | | |
| | (iii) Purchase and analysis of existing Government aerial hyperspectral | | | | | | | | | | | | | | | | | | | | | | |
| | (iv) Data interpretation and delineating of potential targets for future reconnaissance regional field-based activities for delineated targets | | | | | | | | | | | | | | | | | | | | | | |
| 2. Regional Reconnaissance Field-Based Activities | (i) Regional geological, geochemical, topographical and remote sensing mapping and data analysis | | | | | | | | | | | | | | | | | | | | | | |
| | (ii) Regional geochemical sampling aimed at identifying possible targeted based on the results of the initial exploration and regional geological, topographical and remote sensing mapping and analysis undertaken | | | | | | | | | | | | | | | | | | | | | | |
| | (iii) Regional geological mapping aimed at identifying possible targeted based on the results of the initial exploration and regional geological, topographical and remote sensing mapping and analysis undertaken | | | | | | | | | | | | | | | | | | | | | | |
| | (iv) Limited field-based support and logistical activities including exploration camp site lasting between one (1) to two (2) days | | | | | | | | | | | | | | | | | | | | | | |
| | (v) Laboratory analysis of the samples collected and interpretation of the results and delineating of potential targets for future detailed site-specific exploration if the results are positive and supports further exploration of the delineated targets | | | | | | | | | | | | | | | | | | | | | | |

Table 3.7: Cont.

| DURATION OF IMPACT | | PHYSICAL ENVIRONMENT | | | | | BIOLOGICAL ENVIRONMENT | | | | SOCIOECONOMIC, CULTURAL AND ARCHAEOLOGICAL ENVIRONMENT | | | | | | | | | |
|--------------------------------------------------|-------|------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------|----------------------|--------------|---------------------------|---------|-----------------|-------|--------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------|------------------------|---------------------------|------------------------|---------------------------------------------------|--|--|--|
| | | Water Quality | Physical infrastructure and Resources | Air Quality, Noise and Dust | Landscape Topography | Soil Quality | Climate Change Influences | Habitat | Protected Areas | Flora | Fauna | Ecosystem functions, services, use values and non-Use or passive use | Local, regional and national socioeconomic settings | Commercial Agriculture | Community Protected Areas | Tourism and Recreation | Cultural, Biological and Archaeological Resources | | | |
| SCALE | | DESCRIPTION | | | | | | | | | | | | | | | | | | |
| T | | Temporary | | | | | | | | | | | | | | | | | | |
| P | | Permanent | | | | | | | | | | | | | | | | | | |
| 3. Initial Local Field-Based Activities | (i) | Local geochemical sampling aimed at verifying the prospectivity of the target/s delineated during regional reconnaissance field activities | | | | | | | | | | | | | | | | | | |
| | (ii) | Local geological mapping aimed at identifying possible targeted based on the results of the regional geological and analysis undertaken | | | | | | | | | | | | | | | | | | |
| | (iii) | Ground geophysical survey (Subject to the positive outcomes of i and ii above) | | | | | | | | | | | | | | | | | | |
| | (iv) | Possible Trenching (Subject to the outcomes of i - iii above) | | | | | | | | | | | | | | | | | | |
| | (v) | Field-based support and logistical activities will be very limited focus on a site-specific area for a very short time (maximum five (5) days) | | | | | | | | | | | | | | | | | | |
| | (vi) | Laboratory analysis of the samples collected and interpretation of the results and delineating of potential targets | | | | | | | | | | | | | | | | | | |
| 4. Detailed Local Field-Based Activities | (i) | Access preparation and related logistics to support activities | | | | | | | | | | | | | | | | | | |
| | (ii) | Local geochemical sampling aimed at verifying the prospectivity of the target/s delineated during the initial field-based activities | | | | | | | | | | | | | | | | | | |
| | (iii) | Local geological mapping aimed at identifying possible targeted based on the results of the regional geological and analysis undertaken | | | | | | | | | | | | | | | | | | |
| | (iv) | Ground geophysical survey, trenching, drilling and sampling (Subject to the positive outcomes of i and ii above); | | | | | | | | | | | | | | | | | | |
| 5. Prefeasibility and Feasibility Studies | (i) | Detailed site-specific field-based support and logistical activities, surveys, detailed geological mapping | | | | | | | | | | | | | | | | | | |
| | (ii) | Detailed drilling and bulk sampling and testing for ore reserve calculations | | | | | | | | | | | | | | | | | | |
| | (iii) | Geotechnical studies for mine design | | | | | | | | | | | | | | | | | | |
| | (iv) | Mine planning and designs including all supporting infrastructures (water, energy and access) and test mining activities | | | | | | | | | | | | | | | | | | |
| | (v) | EIA and EMP to support the ECC for mining operations | | | | | | | | | | | | | | | | | | |
| | (vi) | Preparation of feasibility report and application for Mining License | | | | | | | | | | | | | | | | | | |

Table 3.8: Example results presentation framework of the scored geographical extent of the induced change.

| GEOGRAPHICAL EXTENT OF IMPACT | | PHYSICAL ENVIRONMENT | | | | | BIOLOGICAL ENVIRONMENT | | | | SOCIOECONOMIC, CULTURAL AND ARCHAEOLOGICAL ENVIRONMENT | | | | | | | | | | | | | | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------------------------|-----------------------------|----------------------------|--------------|---------------------------------------|---------|------------------------------|-------|--------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------|------------------------|---------------------------|------------------------|---------------------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|
| | | Water Quality | Physical infrastructure and Resources | Air Quality, Noise and Dust | Landscape Topography | Soil Quality | Climate Change Influences | Habitat | Protected Areas | Flora | Fauna | Ecosystem functions, services, use values and non-Use or passive use | Local, regional and national socioeconomic settings | Commercial Agriculture | Community Protected Areas | Tourism and Recreation | Cultural, Biological and Archaeological Resources | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>SCALE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>L</td> <td>limited impact on location</td> </tr> <tr> <td>O</td> <td>impact of importance for municipality</td> </tr> <tr> <td>R</td> <td>impact of regional character</td> </tr> <tr> <td>N</td> <td>impact of national character</td> </tr> <tr> <td>M</td> <td>impact of cross-border character</td> </tr> </tbody> </table> | | SCALE | DESCRIPTION | L | limited impact on location | O | impact of importance for municipality | R | impact of regional character | N | impact of national character | M | impact of cross-border character | | | | | | | | | | | | | | | | |
| SCALE | DESCRIPTION | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L | limited impact on location | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | impact of importance for municipality | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R | impact of regional character | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N | impact of national character | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M | impact of cross-border character | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. Initial Desktop Exploration Activities | (i) General evaluation of satellite, topographic, land tenure, accessibility, supporting infrastructures and socioeconomic environment data | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (ii) Purchase and analysis of existing Government high resolution magnetic and radiometric geophysical data | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (iii) Purchase and analysis of existing Government aerial hyperspectral | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (iv) Data interpretation and delineating of potential targets for future reconnaissance regional field-based activities for delineated targets | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. Regional Reconnaissance Field-Based Activities | (i) Regional geological, geochemical, topographical and remote sensing mapping and data analysis | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (ii) Regional geochemical sampling aimed at identifying possible targeted based on the results of the initial exploration and regional geological, topographical and remote sensing mapping and analysis undertaken | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (iii) Regional geological mapping aimed at identifying possible targeted based on the results of the initial exploration and regional geological, topographical and remote sensing mapping and analysis undertaken | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (iv) Limited field-based support and logistical activities including exploration camp site lasting between one (1) to two (2) days | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (v) Laboratory analysis of the samples collected and interpretation of the results and delineating of potential targets for future detailed site-specific exploration if the results are positive and supports further exploration of the delineated targets | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Table 3.8: Cont.

| GEOGRAPHICAL EXTENT OF IMPACT | | PHYSICAL ENVIRONMENT | | | | | BIOLOGICAL ENVIRONMENT | | | | SOCIOECONOMIC, CULTURAL AND ARCHAEOLOGICAL ENVIRONMENT | | | | | | | | | | | | | | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------------------------|-----------------------------|----------------------------|--------------|---------------------------------------|---------|------------------------------|-------|--------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------|------------------------|---------------------------|------------------------|---------------------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|
| | | Water Quality | Physical infrastructure and Resources | Air Quality, Noise and Dust | Landscape Topography | Soil Quality | Climate Change Influences | Habitat | Protected Areas | Flora | Fauna | Ecosystem functions, services, use values and non-Use or passive use | Local, regional and national socioeconomic settings | Commercial Agriculture | Community Protected Areas | Tourism and Recreation | Cultural, Biological and Archaeological Resources | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>SCALE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>L</td> <td>limited impact on location</td> </tr> <tr> <td>O</td> <td>impact of importance for municipality</td> </tr> <tr> <td>R</td> <td>impact of regional character</td> </tr> <tr> <td>N</td> <td>impact of national character</td> </tr> <tr> <td>M</td> <td>impact of cross-border character</td> </tr> </tbody> </table> | | SCALE | DESCRIPTION | L | limited impact on location | O | impact of importance for municipality | R | impact of regional character | N | impact of national character | M | impact of cross-border character | | | | | | | | | | | | | | | | |
| SCALE | DESCRIPTION | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L | limited impact on location | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | impact of importance for municipality | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R | impact of regional character | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N | impact of national character | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M | impact of cross-border character | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. Initial Local Field-Based Activities | (i) Local geochemical sampling aimed at verifying the prospectivity of the target/s delineated during regional reconnaissance field activities | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (ii) Local geological mapping aimed at identifying possible targeted based on the results of the regional geological and analysis undertaken | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (iii) Ground geophysical survey (Subject to the positive outcomes of i and ii above) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (iv) Possible Trenching (Subject to the outcomes of i - iii above) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (v) Field-based support and logistical activities will be very limited focus on a site-specific area for a very short time (maximum five (5) days) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (vi) Laboratory analysis of the samples collected and interpretation of the results and delineating of potential targets | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. Detailed Local Field-Based Activities | (i) Access preparation and related logistics to support activities | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (ii) Local geochemical sampling aimed at verifying the prospectivity of the target/s delineated during the initial field-based activities | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (iii) Local geological mapping aimed at identifying possible targeted based on the results of the regional geological and analysis undertaken | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (iv) Ground geophysical survey, trenching, drilling and sampling (Subject to the positive outcomes of i and ii above); | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5. Prefeasibility and Feasibility Studies | (i) Detailed site-specific field-based support and logistical activities, surveys, detailed geological mapping | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (ii) Detailed drilling and bulk sampling and testing for ore reserve calculations | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (iii) Geotechnical studies for mine design | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (iv) Mine planning and designs including all supporting infrastructures (water, energy and access) and test mining activities | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (v) EIA and EMP to support the ECC for mining operations | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (vi) Preparation of feasibility report and application for Mining License | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Table 3.9: Example results presentation framework of the qualitative scale of probability occurrence.

| IMPACT PROBABILITY OCCURRENCE | | PHYSICAL ENVIRONMENT | | | | | BIOLOGICAL ENVIRONMENT | | | | SOCIOECONOMIC, CULTURAL AND ARCHAEOLOGICAL ENVIRONMENT | | | | | | |
|---------------------------------------------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------|----------------------|--------------|---------------------------|---------|-----------------|-------|--------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------|------------------------|---------------------------|------------------------|---------------------------------------------------|
| | | Water Quality | Physical infrastructure and Resources | Air Quality, Noise and Dust | Landscape Topography | Soil Quality | Climate Change Influences | Habitat | Protected Areas | Flora | Fauna | Ecosystem functions, services, use values and non-Use or passive use | Local, regional and national socioeconomic settings | Commercial Agriculture | Community Protected Areas | Tourism and Recreation | Cultural, Biological and Archaeological Resources |
| SCALE | | DESCRIPTION | | | | | | | | | | | | | | | |
| A | | Extremely unlikely (e.g. never heard of in the industry) | | | | | | | | | | | | | | | |
| B | | Unlikely (e.g. heard of in the industry but considered unlikely) | | | | | | | | | | | | | | | |
| C | | Low likelihood (egg such incidents/impacts have occurred but are uncommon) | | | | | | | | | | | | | | | |
| D | | Medium likelihood (e.g. such incidents/impacts occur several times per year within the industry) | | | | | | | | | | | | | | | |
| E | | High likelihood (e.g. such incidents/impacts occurs several times per year at each location where such works are undertaken) | | | | | | | | | | | | | | | |
| 1. Initial Desktop Exploration Activities | (i) | General evaluation of satellite, topographic, land tenure, accessibility, supporting infrastructures and socioeconomic environment data | | | | | | | | | | | | | | | |
| | (ii) | Purchase and analysis of existing Government high resolution magnetic and radiometric geophysical data | | | | | | | | | | | | | | | |
| | (iii) | Purchase and analysis of existing Government aerial hyperspectral | | | | | | | | | | | | | | | |
| | (iv) | Data interpretation and delineating of potential targets for future reconnaissance regional field-based activities for delineated targets | | | | | | | | | | | | | | | |
| 2. Regional Reconnaissance Field-Based Activities | (i) | Regional geological, geochemical, topographical and remote sensing mapping and data analysis | | | | | | | | | | | | | | | |
| | (ii) | Regional geochemical sampling aimed at identifying possible targeted based on the results of the initial exploration and regional geological, topographical and remote sensing mapping and analysis undertaken | | | | | | | | | | | | | | | |
| | (iii) | Regional geological mapping aimed at identifying possible targeted based on the results of the initial exploration and regional geological, topographical and remote sensing mapping and analysis undertaken | | | | | | | | | | | | | | | |
| | (iv) | Limited field-based support and logistical activities including exploration camp site lasting between one (1) to two (2) days | | | | | | | | | | | | | | | |
| | (v) | Laboratory analysis of the samples collected and interpretation of the results and delineating of potential targets for future detailed site-specific exploration if the results are positive and supports further exploration of the delineated targets | | | | | | | | | | | | | | | |

Table 3.9: Cont.

| IMPACT PROBABILITY OCCURRENCE | | PHYSICAL ENVIRONMENT | | | | | | BIOLOGICAL ENVIRONMENT | | | | SOCIOECONOMIC, CULTURAL AND ARCHAEOLOGICAL ENVIRONMENT | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------------------------|-----------------------------|----------------------|--------------|---------------------------|------------------------|-----------------|-------|-------|----------------------------------------------------------------------|-----------------------------------------------------|------------------------|---------------------------|------------------------|---------------------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | Water Quality | Physical infrastructure and Resources | Air Quality, Noise and Dust | Landscape Topography | Soil Quality | Climate Change Influences | Habitat | Protected Areas | Flora | Fauna | Ecosystem functions, services, use values and non-Use or passive use | Local, regional and national socioeconomic settings | Commercial Agriculture | Community Protected Areas | Tourism and Recreation | Cultural, Biological and Archaeological Resources | | | | | | | | | | | | | | | |
| SCALE | DESCRIPTION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A | Extremely unlikely (e.g. never heard of in the industry) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B | Unlikely (e.g. heard of in the industry but considered unlikely) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C | Low likelihood (egg such incidents/impacts have occurred but are uncommon) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D | Medium likelihood (e.g. such incidents/impacts occur several times per year within the industry) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| E | High likelihood (e.g. such incidents/impacts occurs several times per year at each location where such works are undertaken) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. Initial Local Field-Based Activities | (i) Local geochemical sampling aimed at verifying the prospectivity of the target/s delineated during regional reconnaissance field activities | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (ii) Local geological mapping aimed at identifying possible targeted based on the results of the regional geological and analysis undertaken | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (iii) Ground geophysical survey (Subject to the positive outcomes of i and ii above) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (iv) Possible Trenching (Subject to the outcomes of i - iii above) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (v) Field-based support and logistical activities will be very limited focus on a site-specific area for a very short time (maximum five (5) days) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (vi) Laboratory analysis of the samples collected and interpretation of the results and delineating of potential targets | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. Detailed Local Field-Based Activities | (i) Access preparation and related logistics to support activities | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (ii) Local geochemical sampling aimed at verifying the prospectivity of the target/s delineated during the initial field-based activities | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (iii) Local geological mapping aimed at identifying possible targeted based on the results of the regional geological and analysis undertaken | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (iv) Ground geophysical survey, trenching, drilling and sampling (Subject to the positive outcomes of i and ii above); | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5. Prefeasibility and Feasibility Studies | (i) Detailed site-specific field-based support and logistical activities, surveys, detailed geological mapping | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (ii) Detailed drilling and bulk sampling and testing for ore reserve calculations | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (iii) Geotechnical studies for mine design | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (iv) Mine planning and designs including all supporting infrastructures (water, energy and access) and test mining activities | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (v) EIA and EMP to support the ECC for mining operations | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (vi) Preparation of feasibility report and application for Mining License | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

3.3.4 Assessment of the Overall Significant Impacts

3.2.4.1 Overview

The determination of the significance of the negative impacts of the sources shall be undertaken based on the environmental baseline results and the intensity of the likely negative impact. The assessment will be depending upon the degree to which the proposed development activities are likely to results in unwanted consequences on the receptor covering the natural environment such as the physical and biological environments. Overall, the assessment of significant impacts will focus on the ecosystem-based approach that considers potential impacts to the ecosystem as part of the receiving environment.

3.3.4.2 Summary of the Sources of Impacts

The main key sources of impacts that have will be used to determine significant impact posed by the proposed exploration activities comprised all the activities associated with filed-based activities such as trenching and drilling as well as the supporting campsite in the absence of any suitable accommodation or existing camping facility nearby. Each of the main sources of impacts will be evaluated against the receiving environment (receptor / pathways) (Table 3.10).

3.3.4.3 Determination of the Overall Likely Significant Impacts

In order to determine the overall significant impact of individual sources associated with the proposed exploration activities, an impact identification and assessment process will be undertaken as part of the EIA Process. The results of the overall likely significant impacts and key issues associated with the proposed activities / sources, exploration and supporting activities will be presented in form of matrix table as shown in Table 3.10.

The EIA impact identification and assessment processes will focus on the receiving environment (Physical, Biological and Socioeconomic) interaction approach with respect to the proposed project activities (exploration activities), the pathways and the likely targets or receptor that may be negatively impacted. In this process, components of the project activities that are likely to impact the receiving environment will be broken down into individual exploration activities (Table 3.10).

Table 3.10: Example results presentation framework of significant matrix impact assessment for the proposed exploration activities.

| SIGNIFICANT IMPACT | | | | | | PHYSICAL ENVIRONMENT | | | | | BIOLOGICAL ENVIRONMENT | | | | SOCIOECONOMIC, CULTURAL AND ARCHAEOLOGICAL ENVIRONMENT | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------|-----------------|----------------|----------------------|---------------------------------------|-----------------------------|----------------------|--------------|---------------------------|---------|-----------------|-------|--------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------|------------------------|---------------------------|------------------------|---------------------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| IMPACT SEVERITY [Magnitude, Duration, Extent, Probability] | RECEPTOR CHARACTERISTICS (SENSITIVITY) | | | | | Water Quality | Physical infrastructure and Resources | Air Quality, Noise and Dust | Landscape Topography | Soil Quality | Climate Change Influences | Habitat | Protected Areas | Flora | Fauna | Ecosystem functions, services, use values and non-Use or passive use | Local, regional and national socioeconomic settings | Commercial Agriculture | Community Protected Areas | Tourism and Recreation | Cultural, Biological and Archaeological Resources | | | | | | | | | | | | | | | |
| | Very High (5) | High(4) | Medium (3) | Low (2) | Negligible (1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Very High (5) | Major [5/5] | Major [4/5] | Moderate [3/5] | Moderate [2 /5] | Minor 1/5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High (4) | Major [5/4] | Major [4/4] | Moderate [3/4] | Moderate [2/4] | Minor[1/4] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Medium (3) | Major [5/3] | Moderate[4/3] | Moderate[3/3] | Minor[2/3] | None[1/3] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low (2) | Moderate [5/2] | Moderate[4/2] | Minor[3/2] | None[2/2] | None[1/2] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Negligible (1) | Minor [5/1] | Minor [4/1] | None [3/1] | None [2/1] | None [1/1] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. Initial Desktop Exploration Activities | (i) General evaluation of satellite, topographic, land tenure, accessibility, supporting infrastructures and socioeconomic environment data | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (ii) Purchase and analysis of existing Government high resolution magnetics and radiometric geophysical data | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (iii) Purchase and analysis of existing Government aerial hyperspectral | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (iv) Data interpretation and delineating of potential targets for future reconnaissance regional field-based activities for delineated targets | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. Regional Reconnaissance Field-Based Activities | (i) Regional geological, geochemical, topographical and remote sensing mapping and data analysis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (ii) Regional geochemical sampling aimed at identifying possible targeted based on the results of the initial exploration and regional geological, topographical and remote sensing mapping and analysis undertaken | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (iii) Regional geological mapping aimed at identifying possible targeted based on the results of the initial exploration and regional geological, topographical and remote sensing mapping and analysis undertaken | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (iv) Limited field-based support and logistical activities including exploration camp site lasting between one (1) to two (2) days | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (v) Laboratory analysis of the samples collected and interpretation of the results and delineating of potential targets for future detailed site-specific exploration if the results are positive and supports further exploration of the delineated targets | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Table 3.10: Cont.

| SENSITIVITY | | | | | | PHYSICAL ENVIRONMENT | | | | | BIOLOGICAL ENVIRONMENT | | | | SOCIOECONOMIC, CULTURAL AND ARCHAEOLOGICAL ENVIRONMENT | | | | | | | |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------|-----------------|----------------|----------------------|---------------------------------------|-----------------------------|----------------------|--------------|---------------------------|---------|-----------------|-------|--------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------|------------------------|---------------------------|------------------------|---------------------------------------------------|--|
| IMPACT SEVERITY [Magnitude, Duration, Extent, Probability] | RECEPTOR CHARACTERISTICS (SENSITIVITY) | | | | | Water Quality | Physical infrastructure and Resources | Air Quality, Noise and Dust | Landscape Topography | Soil Quality | Climate Change Influences | Habitat | Protected Areas | Flora | Fauna | Ecosystem functions, services, use values and non-Use or passive use | Local, regional and national socioeconomic settings | Commercial Agriculture | Community Protected Areas | Tourism and Recreation | Cultural, Biological and Archaeological Resources | |
| | Very High (5) | High(4) | Medium (3) | Low (2) | Negligible (1) | | | | | | | | | | | | | | | | | |
| Very High (5) | Major [5/5] | Major [4/5] | Moderate [3/5] | Moderate [2 /5] | Minor 1/5 | | | | | | | | | | | | | | | | | |
| High (4) | Major [5/4] | Major [4/4] | Moderate [3/4] | Moderate [2/4] | Minor[1/4] | | | | | | | | | | | | | | | | | |
| Medium (3) | Major [5/3] | Moderate[4/3] | Moderate[3/3] | Minor[2/3] | None[1/3] | | | | | | | | | | | | | | | | | |
| Low (2) | Moderate [5/2] | Moderate[4/2] | Minor[3/2] | None[2/2] | None[1/2] | | | | | | | | | | | | | | | | | |
| Negligible (1) | Minor [5/1] | Minor [4/1] | None [3/1] | None [2/1] | None [1/1] | | | | | | | | | | | | | | | | | |
| 3. Initial Local Field-Based Activities | (i) Local geochemical sampling aimed at verifying the prospectivity of the target/s delineated during regional reconnaissance field activities | | | | | | | | | | | | | | | | | | | | | |
| | (ii) Local geological mapping aimed at identifying possible targeted based on the results of the regional geological and analysis undertaken | | | | | | | | | | | | | | | | | | | | | |
| | (iii) Ground geophysical survey (Subject to the positive outcomes of i and ii above) | | | | | | | | | | | | | | | | | | | | | |
| | (iv) Possible Trenching (Subject to the outcomes of i - iii above) | | | | | | | | | | | | | | | | | | | | | |
| | (v) Field-based support and logistical activities will be very limited focus on a site-specific area for a very short time (maximum five (5) days) | | | | | | | | | | | | | | | | | | | | | |
| | (vi) Laboratory analysis of the samples collected and interpretation of the results and delineating of potential targets | | | | | | | | | | | | | | | | | | | | | |
| 4. Detailed Local Field-Based Activities | (i) Access preparation and related logistics to support activities | | | | | | | | | | | | | | | | | | | | | |
| | (ii) Local geochemical sampling aimed at verifying the prospectivity of the target/s delineated during the initial field-based activities | | | | | | | | | | | | | | | | | | | | | |
| | (iii) Local geological mapping aimed at identifying possible targeted based on the results of the regional geological and analysis undertaken | | | | | | | | | | | | | | | | | | | | | |
| | (iv) Ground geophysical survey, trenching, drilling and sampling (Subject to the positive outcomes of i and ii above); | | | | | | | | | | | | | | | | | | | | | |
| 5. Prefeasibility and Feasibility Studies | (i) Detailed site-specific field-based support and logistical activities, surveys, detailed geological mapping | | | | | | | | | | | | | | | | | | | | | |
| | (ii) Detailed drilling and bulk sampling and testing for ore reserve calculations | | | | | | | | | | | | | | | | | | | | | |
| | (iii) Geotechnical studies for mine design | | | | | | | | | | | | | | | | | | | | | |
| | (iv) Mine planning and designs including all supporting infrastructures (water, energy and access) and test mining activities | | | | | | | | | | | | | | | | | | | | | |
| | (v) EIA and EMP to support the ECC for mining operations | | | | | | | | | | | | | | | | | | | | | |
| | (vi) Preparation of feasibility report and application for Mining License | | | | | | | | | | | | | | | | | | | | | |

3.4 Specific Mitigation Measures

Based on the key issues identified in Table 3.1, the following is the outlined of the indicative specific mitigations that must be prepared for the proposed exploration programme activities and in particular for the **field-based exploration activities**:

- (i) Mitigation measures for preventing flora destruction;
- (ii) Mitigation measures for preventing faunal destruction;
- (iii) Mitigation measures to be implemented with respect to the exploration camps and exploration sites;
- (iv) Mitigation measures for vehicles movements and access tracks management;
- (v) Mitigation measures for ground surface and groundwater protection as well as general water usage;
- (vi) Mitigation measures to enhance positive socioeconomic impacts;
- (vii) Mitigation measures to minimise negative socioeconomic impacts;
- (viii) Mitigation measures to minimise health and safety impacts;
- (ix) Mitigation measures to minimise visual impacts;
- (x) Mitigation measures to minimise noise impacts;
- (xi) Mitigation measures for waste (solid and liquid) management;
- (xii) Identification and assignment of key roles and responsibilities for implementing the EMP.
- (xiii) Others to be identified during the public consultation process and preparation of the EIA and EMP Report.

3.5 Structure of the EIA and EMP Reports

The following is the indicative summary structure outlines of the EIA and EMP reports to be prepared by the EAP in support of the application for ECC with respect to the proposed exploration activities in the EPL 6413:

- (i) **ENVIRONMENTAL ASSESSMENT REPORT:**
 - ❖ **Section 1: Background** covering the proposed project location with available infrastructure and services;
 - ❖ **Section 2: Project Description** covering the summary of the proposed project exploration activities;
 - ❖ **Section 3: Regulatory Framework** covering the proposed exploration with respect to relevant legislation, regulations and permitting requirements;
 - ❖ **Section 4: Receiving Environment** covering physical, biological and socioeconomic environments of the proposed project area;
 - ❖ **Section 5: Impact Assessment** covering the likely positive and negative impacts the proposed project activities are likely to have on the receiving environment;

- ❖ **Section 6: Conclusions and Recommendations-** Summary of the findings and way forward.

(ii) **ENVIRONMENTAL MANAGEMENT PLAN (EMP) REPORT:**

- ❖ **Section 1: Background** covering the proposed project location with available infrastructure, regulations, project motivation, summary of the environmental assessment and assessment assumptions and limitations;
- ❖ **Section 2: Implementation of the EMP** covering roles and responsibilities of the proponent, HSE team and Contractors;
- ❖ **Section 3: Specific Mitigation Measures** describing the detailed mitigation measures with respect to the identified likely impacts, and;
- ❖ **Section 4: Rehabilitation and Monitoring** covering rehabilitation options and performance monitoring and reporting.

**REGISTER AND SUBMIT WRITTEN OBJECTIONS /
COMMENTS / INPUTS BY EMAIL OR FAX TO:**

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**1. Deadline for Submission of Written Comments /
Objections/ Inputs: **FRIDAY, 13th MARCH 2019****

**2. Submission of the Application for Environmental
Clearance Certificate (ECC) and the Final
Assessment and EMP Reports:**

WEEK STARTING 23rd MARCH 2020

For more Information Please Contact

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BID END