# **BACKGROUND INFORMATION DOCUMENT**

XHARIEP PLANT AND MINING (PTY) LTD



Prospecting Right application over:

Farm Stofbakkies Public Outspan 30, Prieska District, Northern Cape Province



# **BACKGROUND**

M and S Consulting (Pty) Ltd ("M&S") as an independent company of consultants has been appointed by Xhariep Plant and Mining (Pty) Ltd ("Xhariep") to conduct the Prospecting Right application process in terms of the Mineral and Petroleum Resources Development Act, 2002 (No. 28 of 2002) as amended ("MPDRA") and in terms of the National Environmental Management Act, 1998 (No. 107 of 1998) as amended ("NEMA") on Xhariep's behalf.

Xhariep intends to prospect for Diamonds (Alluvial, General and Kimberlite) over the Farm Stofbakkies Public Outspan 30, situated in the Prieska District, Northern Cape Province ("PR Area").

The application for the Prospecting Right has been accepted by the Department of Mineral Resources and Energy ("DMRE") on the  $10^{th}$  of May 2023 under application reference number (NC) 30/5/1/1/2/13476 PR.

# **LOCALITY**

The PR Area is situated immediately north of the town of Prieska, opposite the Orange River.

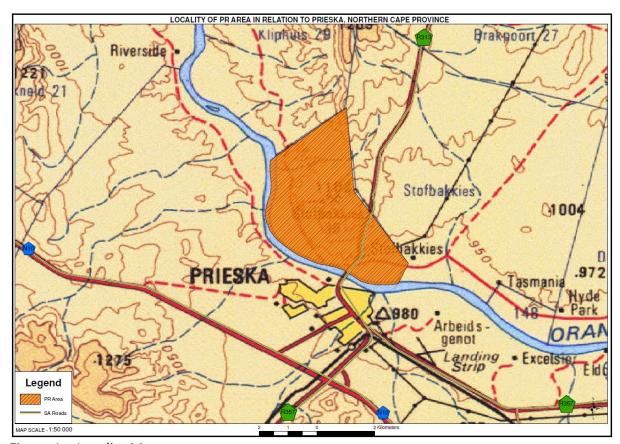


Figure 1 – Locality Map

# PROPOSED ACTIVITY

Xhariep's prospecting activities are planned to be conducted in phases over a period of five years.

Phase	Activity	Skill(s) required	Timeframe	Outcome	Timeframe for outcome	What technical expert will sign off on the outcome?
	(what are the activities that are planned to achieve optimal prospecting)	(refers to the competent personnel that will be employed to achieve the required results)	(in months) for the activity)	(What is the expected deliverable, e.g. Geological report, analytical results, feasibility study, etc.)	(deadline for the expected outcome to be delivered)	(e.g. geologist, mining engineer, surveyor, economist, etc)
1	Non-invasive Prospecting Reconnaissance visit	Geologist	Month 1	Memorandum to address any problems	Month 2	Geologist
2	Non-invasive Prospecting Review of historical activities; Desktop study; and Geological Mapping	Geologist	Month 2 - 12	Map & Report	Month 13	Geologist
3	Invasive Prospecting Phase 1 Percussion drilling	Geologist & Drilling contractor	Month 13 - 24	Drill logs	Month 24	Geologist
4	Non-invasive Prospecting Analysis of drill samples	Laboratory	Month 13 – 24 (Concurrent with drilling)	Analyses sheets     Laboratory report     Map     Report	Month 24	Laboratory & Geologist
5	Invasive Prospecting Phase 2 RC drilling	Geologist & Drilling contractor	Month 25 – 36	Drill logs	Month 36	Geologist
6	Non-invasive Prospecting Analysis of drill samples	Laboratory	Month 25 – 36 (Concurrent with drilling)	Analyses sheets     Laboratory report     Map     Report	Month 36	Laboratory & Geologist
7	Invasive Prospecting Phase 3 RC drilling	Geologist & Drilling contractor	Month 37 - 48	Drill logs	Month 48	Geologist
8	Non-invasive Prospecting Analysis of drill samples	Laboratory	Month 37 - 48 (Concurrent with drilling)	Analyses sheets     Laboratory report     Map     Report	Month 48	Laboratory & Geologist
9	Non-Invasive Prospecting Consolidation and interpretation of results / data	Geologist	Month 49 - 60	Feasibility Report	Month 60	Geologist & CEO

# (i) DESCRIPTION OF PLANNED NON-INVASIVE ACTIVITIES:

(These activities do not disturb the land where prospecting will take place.)

#### Phase 1:

A site investigation (reconnaissance visit) of the PR Area will be undertaken to identify infrastructure and determine any potential problems that may need to be addressed.

# Phase 2:

In order to direct the exploration programme in an efficient manner, the following shall be done:

- Desktop study A comprehensive study will be done researching all available information. A desktop study will be undertaken of the diamond potential of the area.
- Geological mapping The geology of the PR Area will be interpreted by using aerial photographs and satellite images to ascertain target areas for possible gravel deposits and kimberlites. The area will then be mapped in detail by a qualified and registered geologist, which map shall include the various rock types and their contacts.

 Report – A report, making recommendations regarding further investigations of the mineralized areas will be compiled.

#### Phases 4, 6 and 8:

Samples will be obtained at 1m intervals from all of the boreholes and will be analyzed for a number of elements. In addition samples might also be used for the following:

- Petrographic Examination. Small samples (<5kg) collected from outcrops or boreholes may be submitted for petrographic examination.
- Small amounts of material (<10kg) from outcrops and drilling will be used to carry out physical property tests such as density.
- Geotechnical tests. Geotechnical investigations such as rock quality designation (RQD) and rock strength will be conducted on some of the drill material.

# (ii) DESCRIPTION OF PLANNED INVASIVE ACTIVITIES:

(These activities result in land disturbances.)

#### Phase 3: Percussion drilling

Percussion drilling will be used to identify the position of a suspected gravel deposit. The position of the boreholes is dependent on the results of the review of historical activities, geological mapping, desktop study and reconnaissance visit.

Twenty boreholes, approximately 50m deep each (can be more or less depending on results), are planned. The collar position of all boreholes will be surveyed. All drilling will be short term and undertaken by a contractor using truck-mounted equipment.

Angled percussion holes are planned to locate and intersect the mineralization. A traverse line or grid drilling is used to identify and define the extent of any mineralization. The sizes of the boreholes drilled will be determined by such factors as cost, proposed sampling, availability of drilling machines and the volume of sample required, among others.

Each drill site will be rehabilitated. The boreholes will be filled with drill chips and covered with topsoil.

#### Phases 5 and 7: Reverse Circulation drilling

Diamond and/or Reverse Circulation will be drilled to delineate the potential economic zones of the gravel deposit. The position of the in-fill boreholes is dependent on the results of the percussion drilling phase.

Twenty boreholes, approximately 50m deep each (can be more or less depending on results), are planned (ten boreholes during phase 5 and ten boreholes during phase 7). The eventual extent of the gravel deposit, if one exists, will determine the number of boreholes to be drilled. The collar position of all boreholes will be surveyed. All drilling will be short term and undertaken by a contractor using truckmounted equipment.

Angled RC holes are planned to locate and intersect the mineralization. A traverse line or grid drilling is used to identify and define the extent of any mineralization. The sizes of the boreholes drilled will be determined by such factors as cost, proposed sampling, availability of drilling machines and the volume of sample required, among others.

Each drill site will be rehabilitated. All shallow boreholes (i.e. <10m) will be backfilled and levelled. All boreholes deeper than 10m will be covered with a metal plate and 1000mm of previously stored topsoil.

# (iii) DESCRIPTION OF PRE-/FEASIBILITY STUDIES

#### Phase 9:

All the drill sampling data will then be modeled to obtain a final interpretation of the potential of the deposit. A detailed feasibility report will be compiled after drilling operations have been completed to evaluate the economic viability of the project.

#### SITE DESCRIPTION

A temporary site shall be established at each drilling site consisting of the following:

- Drill rig.
- Water tank for domestic use.
- Chemical toilets.

Each drilling site shall be rehabilitated before a new drilling site is established.

Xhariep shall make use of offices in the city of Kimberley for its administrative needs and contractors shall reside off-site in a nearby town (i.e. Prieska) during the invasive prospecting phases.

# PUBLIC PARTICIPATION PROCESS

The purpose of this document is to inform the surface owners, surrounding surface owners and other interested and/or affected parties of the proposed prospecting activities planned to be undertaken by Xhariep and to ensure that the rights and needs of all parties are taken into account.

Registering as an Interested and/or Affected Party ("IAP") will ensure that you are placed on a database of persons to be informed of any progress regarding the proposed activity. Copies of all relevant documentation will be made available to registered IAPs.

Attached to the Notification Letter find a Response Form for completion and comment by IAPs. Please complete this form and direct any comments, concerns or queries to:

M and S Consulting (Pty) Ltd Ms. T. Jooste P.O. Box 2473 Kimberley 8300

Tel: 053 861 1765 Fax: 086 636 0731

E-Mail: ms.consulting@vodamail.co.za

# BASIC ASSESSMENT REPORT AND ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

The purpose of the Basic Assessment Report and Environmental Management Programme Report ("BAR/EMPr") is to detail findings from a desktop analysis of the receiving environment that may be affected by the proposed prospecting activities.

The report gives an overview of the anticipated impacts expected from the prospecting operations and whether feasible alternatives and/or mitigations could be implemented to minimize such impacts to acceptable standards.

The analysis of the receiving environment before any invasive prospecting activities takes place shall provide a baseline against which impacts will be measured. The receiving environment shall be determined as follows:

- Desktop analysis.
- Information obtained through the public participation process.
- Site visit to the property.

The BAR/EMPr is available to all registered IAPs, upon written request thereof, for perusal and comment before submission thereof to the DMRE.

# PROJECT TEAM

Applicant:

Xhariep Plant and Mining (Pty) Ltd Mr. T. Ruiters P.O. Box 1776 Kimberley 8300

Cell: 083 516 1231

E-Mail: tyron.ruiters@gmail.com

#### Xhariep Plant and Mining (Pty) Ltd

Environmental Assessment Practitioner: M and S Consulting (Pty) Ltd Ms. T. Jooste P.O. Box 2473 Kimberley 8300

Tel: 053 861 1765

E-Mail: ms.consulting@vodamail.co.za

# WAY FORWARD

A Meeting will be scheduled with the surface owner to discuss the proposed prospecting activities and potential impact on the property. Other Interested and Affected Parties wishing to comment on the proposed activity or requesting a one-on-one meeting are requested to register as an IAP and to forward their written comments (with reasons) to M and S Consulting (Pty) Ltd.

A copy of the BAR/EMPr is available to all registered interested and/or affected parties, upon written request thereof, for perusal and comment before submission thereof to the DMRE.

All comments received will be incorporated into the BAR/EMPr. The BAR/EMPr will then be submitted to the DMRE for their review and comments. The public participation process will continue throughout the application process.