



**ARCHEAN** RESOURCES (PTY) LTD

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**14 September 2021**

**BACKGROUND INFORMATION DOCUMENT IN TERMS OF SECTION 102 OF THE MPRDA, 28 OF 2002, AMENDMENT OF THE ASSOCIATED ENVIRONMENTAL AUTHORISATIONS TO UPDATE THE ENVIRONMENTAL MANAGEMENT PROGRAMME AND INCLUDE A LISTED ACTIVITY IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (NEMA) (ACT NO 107 OF 1998): IN LINE WITH THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS 2017 (AS AMENDED), NATIONAL ENVIRONMENTAL MANAGEMENT WASTE ACT, 2008 AND NATIONAL ENVIRONMENTAL MANAGEMENT: INTEGRATED COASTAL MANAGEMENT ACT 24 OF 2008.**

**Applicant:** Moonstone Diamonds Marketing (Pty) Ltd formerly known as Trans Hex Operations (Pty) Ltd

SUBMITTED FOR ENVIRONMENTAL AUTHORIZATIONS IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (as amended in 2021), NATIONAL ENVIRONMENTAL MANAGEMENT: INTEGRATED COASTAL MANAGEMENT ACT 24 OF 2008 AND THE NATIONAL ENVIRONMENTAL MANAGEMENT WASTE ACT, 2008 IN RESPECT OF LISTED ACTIVITIES THAT HAVE BEEN TRIGGERED BY APPLICATIONS IN TERMS OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (MPRDA) (as amended).

**DMR Reference: NC-00211-MR/S102 (existing right reference NC 088 – MR)**

## **1 INTRODUCTION**

This notice to all interested and affected parties is published in terms of the Mineral and Petroleum Resources Development Act (Act 28 of 2002), National Environmental Management Act (Act No 107 of 1998) as amended, National Environmental Management Waste Act, 2008 and National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008), that an integrated Scoping & Environmental Impact Assessment (S&EIR) process will be conducted for the upgrade of the approved Environmental Management Programme for Moonstone Diamond Marketing (Pty) Ltd existing Diamond, Diamond (General), Diamond (Alluvial), Diamond (In Kimberlite) and inclusion of Pebble Stones mining activities for the mining right on the Remainder of Hondeklipbaai and Seaward to 31.4 Km below Low Water Mark in the administrative District of Namaqualand, Northern Cape Province of South Africa.

You have been identified as an interested and affected party (I&AP) in the project and the purpose of this letter is therefore to:

- Inform you of the development.
- Give you an opportunity to raise any concern you might have in respect of the mining activities.
- Incorporate your concerns in the impact assessment study, which is being done as part of the Environmental Impact Assessment (EIA). The S&EIR is a legal requirement for all Mining activities and has to be approved by the Department of Mineral Resources (DMRE).

## **2 PROJECT LOCATION**

The areas covered by the mining rights are situated on the West Coast of South Africa within the Kamiesberg Magisterial District. The Mining Area comprises the following: Certain Remainder of Hondeklip and Seaward to 31.4m below low water mark Situated: in Magisterial/Administrative District of Namaqualand Measuring: 2232 hectares in extent. Mining has been undertaken on these areas since the middle 1900s and extraction of diamonds is done by way of alluvial diggings.



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Figure 1: Locality Plan of the Hondeklipbaai mining rights



**2.1 PROJECT BACKGROUND**

The area is centrally located on the Namaqualand coastal plain of Southwestern Africa, that stretch of coast between the Olifants River in the south and the Orange River in the north. It is near the village of Hondeklip Bay and the deposits examined are situated on the farms Hondeklip and Avontuur- A. The coastal plain is mantled by Quaternary aeolian sands and exposures of the underlying deposits are only available in the "windows" provided by open- cast trenches and pits made in the process of mining marine basal gravels for their diamond content. The exposures are situated at distances of 1.5 km to -5 km from the present-day shoreline. The elevations of the Precambrian gneiss bedrock uncovered in these exposures extend from -10 m asl. (Metres above sea-level, up to -50 m asl. The alluvial gravels are situated at various depths ranging from surface deposits to depth of 30m below the surface.

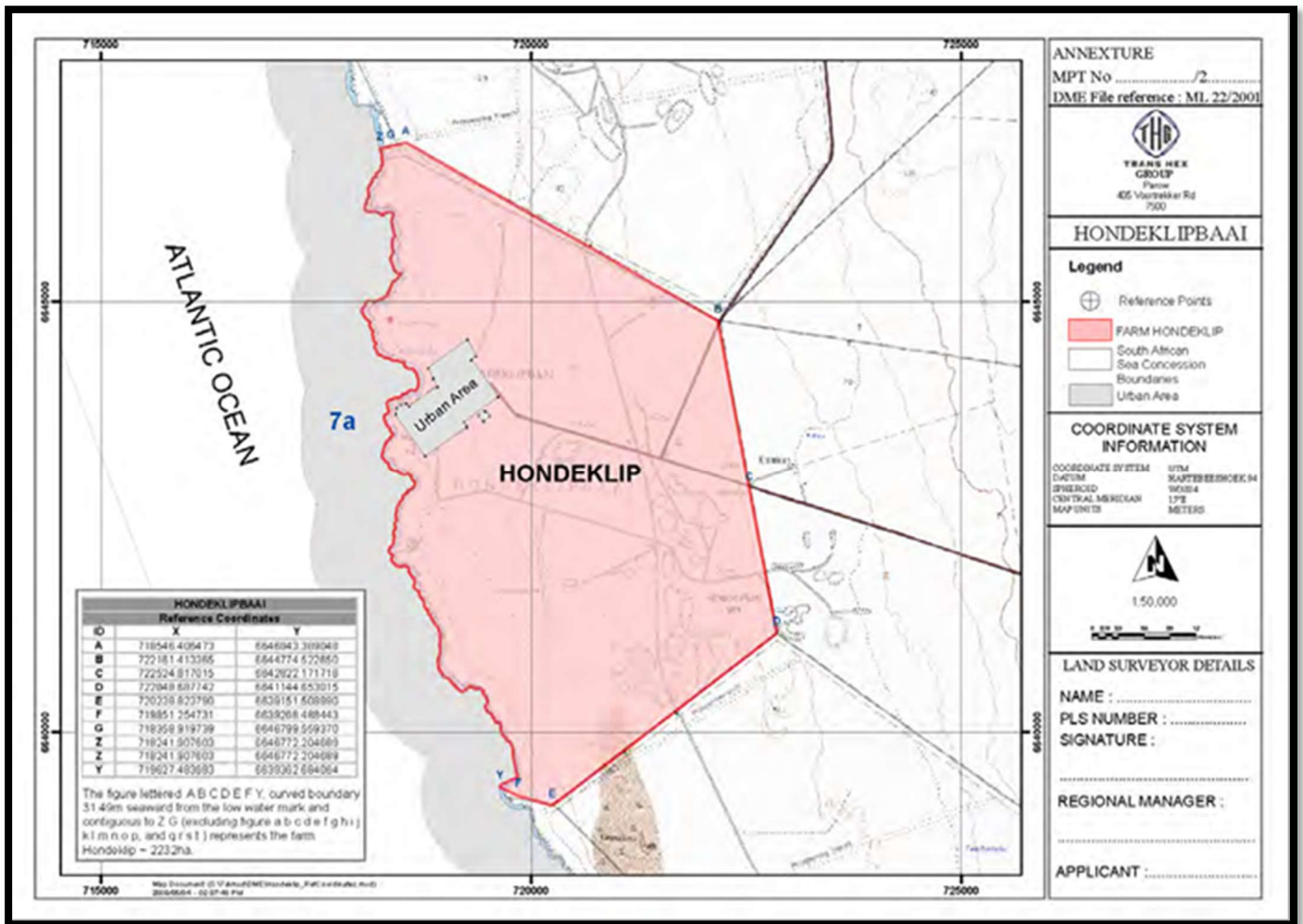


Figure 2. Locality Plan of the Hondeklip area depicting the land to which the application relates



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### **3 BASIC OVERVIEW OF THE MINING METHOD**

#### **3.1 Methodology for Diamond mining**

The in-situ gravel orebody, although discontinuous, is near surface and relatively flat lying with a large horizontal extent, making it amenable to strip mining. Strip mining defines the mineable area as a series of parallel strips and the mining sequence is as follows:

- overburden stripping
- Mechanical extraction of ore
- Bedrock cleaning.

Initially, before any mining takes place in a strip, the topsoil or other growth medium will be salvaged (stripped) and either stockpiled or placed directly in another part of the mine undergoing reclamation. The first strip is referred to as the “box cut” as the overburden is placed on surface on the opposite side of overall mining advancement, creating a four-sided trench (box). Mining of overburden will start at the end of the first strip and progress along the strip exposing the ore for eventual mining. Waste overburden from subsequent strips will be placed in adjacent mined out strips.

Stripping will be carried out in advance of ore excavation with the objective of creating a six-month reserve of pre-stripped area. This will allow blending of ore to match plant and production requirements. Overburden excavation is more difficult when calcretised, compacted and cemented layers are encountered and, at times, this will require drilling and blasting. In certain areas, large cobbles and boulders may also hinder stripping efforts.

Exposed ore, which in general is a metre or more thick, will be extracted using track dozers and mechanical excavators. This diamond-bearing gravel will be piled into windrows ahead of loading into ADT's for transport to a nearby mobile screening plant. The screened ore product will then be transported to the designated treatment plant.

The final mining stage is sweeping of the exposed bedrock surface to remove all ore that may contain diamonds. The richest concentrations of gems are often found in potholes and gullies and bedrock cleaning teams will use both mechanical and manual methods to clean the bedrock. Equipment used will include pneumatic drills, compressed air blowpipes, picks, shovels, and large vacuum cleaners.

#### **Processing of tailings to extract Pebbles**

An appointed local contractor will rework the tailings to extract different sizes of pebble stones.

#### **Method of operation:**

In order to screen out the material, two-barrel classifiers will be used with the primary classifier screen being -1mm and +1mm -5mm. The secondary classifier fractions are -8mm +5mm; -12mm +8mm; -20mm +12mm; -50mm +20mm. The screened material will be discharged onto conveyors and stockpiled in various size fractions. This material is then packed in 20kg plastic bags in the different size fractions and stored in the stores building until shipment.

The size fractions are -5mm +1mm; -8mm +5mm; -12mm +8mm; -20mm +12mm; -50mm +20mm. Some material will be shipped in bulk 1 tonne bags. This would also be in the same size fractions as indicated. Stones of +50mm will be hand sorted and packed.

Quantities: The estimated volume for sale is 80 tonnes per month.



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#### **4 LEGAL REQUIREMENTS**

- Constitution of the Republic of South Africa, 1996 (Chapter 30)
- National Environmental Management Act 107 of 1998, as Amended
- Mineral and Petroleum Resources Development Act No 28 of 2002
- National Water Act 36 of 1998
- Mine Health and Safety Act, 1996 (Act No. 29 of 1996);
- Environment Conservation Act, 1989 (Act No. 73 of 1989);
- Conservation of Agricultural Resources Act 43 of 1993
- Environment Conservation Act 73 of 1989;
- National Environmental Management: Protected Areas Act 57 of 2003;
- National Environmental Management: Biodiversity Act 10 of 2004;
- National Environmental Management: Air Quality Act, 2004 (Act no.39 of 2004);
- National Environmental Management: Integrated Coastal Management Act, 2008 (Act no. 24 OF 2008).
- World Heritage Convention Act 49 of 1999;
- National Heritage Resources Act 25 of 1999;
- Mountain Catchment Areas Act 63 of 1970, and
- National Forest Act 84 of 1998 and National Veld and Forest Fire Act 101 of 1998 (administered by the Department of Agriculture, Forestry and Fisheries).
- other Provincial ordinances and municipal by laws

#### **5 BASELINE INFORMATION**

Archean Resources (Pty) Ltd will identify possible impacts of the proposed project on the receiving environment. Impacts that might arise due to the proposed project can be either negative or positive. Negative impacts are impacts that can degrade or damage the environment while positive impacts are impacts that enhance the environment or contribute to the livelihood of the surrounding community. Mitigation measures will be identified in the Scoping report & EIR taking into account concerns raised during the public participation.

##### **5.1 Your involvement**

The Scoping Report will be available for review for at least 30 days. Reports will be emailed to registered interested and affected parties and upon request. You are requested to submit your concerns (if any) and register as an I&AP in this project by way of the accompanying comments form. This consultation process is important as it raises your awareness about the nature of the operation and allows you to raise any positive and/or negative concerns you might have regarding the proposed project. Your concerns will then be investigated further as part of the environmental impact study to determine their impacts; management measures will then be developed to address these impacts.

##### **5.2 Way Forward**

The results of this consultation process will be included in the Scoping & Environmental Impact Assessment (S&EIR, which will be submitted to DMR as part of the application process.

#### **6 SCOPING REPORT**

Scoping Report will be available for review for at least 30 days from the 17th of September to the 18th of October 2021. Reports will be emailed to registered interested and affected parties and upon request, hard copies will be available at:

- Kleinsee Tourism Centre



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- Komagagas Office of the Nama Khoi Municipality
- Hondeklipbaai Community Hall
- West Coast Resources Koingnaas Offices

In order to participate in the process and/or provide comments and or to register as an Interested and Affected Party (I & AP) pertaining to the above-proposed activity, you are invited to contact us quoting the reference number within 30 days of this notice ending on the 18<sup>th</sup> of October 2021 via the following methods:

**[moses@archeanresources.com](mailto:moses@archeanresources.com)/roman@archeanresources.com**

**cc [archeanresources@outlook.com](mailto:archeanresources@outlook.com) or alternatively On Tel: (+27) 67 103 2562 (+27) 82 9701513 and Fax: (+27) 86 695 5990**



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**COMMENT FORM:**

**Applicant: Moonstone Diamonds Marketing (Pty) Ltd**

**DMR Reference: NC-00211-MR/S102 (existing right reference NC 088 – MR)**

Title:		Surname:	
Name:		Organisation:	
Farm:		Portion:	
Tel:	Fax:	Email:	

**Hondeklipbaai Bay EMP Update**