



an agency of the
Department of Arts and Culture

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CaseID: 12161

Date: Friday July 06, 2018
Page No: 1

Final Comment

In terms of Section 38(4), 38(8) of the National Heritage Resources Act (Act 25 of 1999)

Attention: Sishen Iron Ore Company (Pty) Ltd - Sishen Mine

Sishen Mine, part of the Sishen Iron Ore Mining Company (Pty) Ltd, located near Kathu, has been in operation since the 1950's and operates under an existing mining right (DMR Ref: NC 259 MR) and an approved EMPr (2002, as amended). The Department of Water and Sanitation (DWS) require mining operations to separate clean and dirty stormwater under Regulation GNR. 704, 1999 (Regulations on use of water for Mining and Related Activities aimed at the Protection of Water Resources) in terms of the National Water Act, 1998 (NWA). To ensure compliance with this requirement, Sishen Mine is currently in the process of improving the management of the dirty and clean water systems to ensure alignment with the provisions GNR. 704. The proposed project includes: • A Pollution Control Dam (PCD) located near the existing Aldag Filling Station within the mine (Overflow PCD at Aldag); and • A PCD at the existing Lylyveld South Mining Areas (Lylyveld South PCD).

EXM Advisory Services (Pty) Ltd was appointed to conduct an Environmental Authorisation Application for the proposed development of a new Pollution Control Dam (PCD) on the farm Sishen 543 and the expansion of a currently planned PCD on the remainder of the farm Lylyveld 545, Northern Cape Province.

A draft Basic Assessment process has been followed as per the National Environmental Management Act, 1998 (NEMA) and the NEMA EIA Regulations.

PGS Heritage was appointed to provide specialist heritage input as part of the Basic Assessment Report.

Birkholtz, P et al. 2017. Proposed Development of a new Pollution Control Dam at Aldag, on the Remainder of the Farm Sishen 543, and the expansion of a currently planned Pollution Control Dam on the remainder of the farm Lylyveld 545, Northern Cape.

The development footprint is underlain by sediments of the Early Precambrian, Transvaal Supergroup, Ghaap Group and Campbell Rand Subgroup. These rocks have been overlain by recent Kalahari sediments. It is unlikely that the proposed development will impact on fossil heritage.

No significant heritage resources were identified within the proposed development footprint. One low density surface scatter of Stone Age lithics was noted in the development footprint but were rated as sites of low



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significance.

Recommendations provided in the report include the following:

- If a deposit is identified, a controlled sampling of the material found should be done;
- This work must be done in such a way as to augment the current research questions and field work such as the excavations at the Kathu Townlands Site and Kathu Pan;
- These test excavations and sampling must be done after a permit has been granted under Section 35 of the NHRA (Act 25 of 1999) to a qualified and experienced Stone Age archaeologist;
- In the event that substantive material is uncovered, it is recommended that a display is considered in a convenient location;
- An archaeologist suitably qualified in Stone Age fieldwork and research must be appointed to undertake an Archaeological Watching Brief during the Construction Phase of the project;
- During the monitoring undertaken everyday on-site by the ECO and once every two weeks by the appointed archaeologist, all construction work must be closely monitored. Should any Stone Age material or any archaeological material be identified, all construction work in that area must immediately stop and the ECO or archaeologist (if already present on site) must demarcate a construction free area around the discovery. If the ECO made the discovery, the archaeologist must be contacted immediately to visit the construction site to assess the exposed material. After assessing the exposed material, the archaeologist would provide recommendations for the exposed material, which may range from destruction without mitigation (if the exposed material is found to be of little significance) to archaeological mitigation (if the exposed material is found to be significant);
- Should fossil remains be discovered during any phase of construction, either on the surface or exposed by fresh excavations, the ECO responsible for these developments should be alerted immediately. Such discoveries ought to be protected (preferably in situ) and the ECO should alert SAHRA so that appropriate mitigation (e.g. recording, sampling or collection) can be taken by a professional paleontologist;
- The specialist involved would require a collection permit from SAHRA. Fossil material must be curated in an approved collection (e.g. museum or university collection) and all fieldwork and reports should meet the minimum standards for palaeontological impact studies developed by SAHRA.

In an Interim Comment issued on 27/03/2018, SAHRA requested that the Basic Assessment Report and all appendices be submitted to SAHRA and the Palaeontological Desktop Assessment must be amended to comply with the SAHRA 2012 Minimum Standards: Palaeontological Component of Heritage Impact Assessments.



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Page No: 3

Caruana, M. V. 2017. A Palaeontological Desktop Study for the development of a new pollution control dam on Farm Aldag and the expansion of a currently planned pollution control dam on Farm Lilyveld, Northern Cape.

The development footprint is underlain by sediments of the Early Precambrian Ghaap Group (Transvaal Supergroup), in particular the Vryburg Formation, that are overlain by recent Kalahari sediments. These formations have not yielded significant palaeontological finds. It is unlikely that the proposed development will impact on fossil heritage.

Recommendations provided in the report include the following:

- Should fossil remains be discovered during any phase of construction, either on the surface or exposed by fresh excavations, the ECO responsible for these developments should be alerted immediately. Such discoveries ought to be protected (preferably in situ) and the ECO should alert SAHRA so that appropriate mitigation (e.g. recording, sampling or collection) can be taken by a professional paleontologist;
- The specialist involved would require a collection permit from SAHRA. Fossil material must be curated in an approved collection (e.g. museum or university collection) and all fieldwork and reports should meet the minimum standards for palaeontological impact studies developed by SAHRA.

Final Comment

The SAHRA Archaeology, Palaeontology and Meteorites (APM) Unit has no objection to the development and supports the recommendations of the specialists and the recommendations in the final BAR. The recommendations of the specialists and the following conditions apply to the development and must be included in the Environmental Management Programme:

- As the Final BAR has been finalised without comments from SAHRA, this comment must be forwarded directly to the competent authority for their consideration as per section 38(8) of the National Heritage Resources Act, Act 25 of 1999 (NHRA). Proof of this delivery and receipt thereof must be provided to SAHRA;
- If any evidence of archaeological sites or remains (e.g. remnants of stone-made structures, indigenous ceramics, bones, stone artefacts, ostrich eggshell fragments, charcoal and ash concentrations), fossils or other categories of heritage resources are found during the proposed development, SAHRA APM Unit (Natasha Higgitt/Phillip Hine 021 462 5402) must be alerted. If unmarked human burials are uncovered, the SAHRA Burial Grounds and Graves (BGG) Unit (Thingahangwi Tshivhase/Mimi Seetelo 012 320 8490), must be alerted immediately. A professional archaeologist or palaeontologist,

Sishen Mine - Development of an Overflow Dam at the Aldag PCD and the Lylyveld South PCD

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Page No: 4

CaseID: 12161

depending on the nature of the finds, must be contracted as soon as possible to inspect the findings. If the newly discovered heritage resources prove to be of archaeological or palaeontological significance, a Phase 2 rescue operation may be required subject to permits issued by SAHRA;

- Should the project be granted Environmental Authorisation, SAHRA must be notified and all relevant documents submitted to the case file.

Should you have any further queries, please contact the designated official using the case number quoted above in the case header.

Yours faithfully

Natasha Higgitt
Heritage Officer
South African Heritage Resources Agency

Phillip Hine
Acting Manager: Archaeology, Palaeontology and Meteorites Unit
South African Heritage Resources Agency

ADMIN:

Direct URL to case: <http://www.sahra.org.za/node/488125>
(DMR - NC, Ref: NC 30/5/1/2/3/2/1/(259) MR)

Terms & Conditions:

1. This approval does not exonerate the applicant from obtaining local authority approval or any other necessary approval for proposed work.

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Page No: 5

2. If any heritage resources, including graves or human remains, are encountered they must be reported to SAHRA immediately.
3. SAHRA reserves the right to request additional information as required.