9/2/07/0001

# HERITAGE EIA OF TWO AREAS AT SISHEN IRON ORE MINE

As requested by SEF, two areas were examined on 11 May 2004, namely:

## 1. Vicinity of proposed SEP plant

This extensive area was find to be entirely covered by structures, roads and water-filled drainage patches. No clear trace of the original ground surface could be detected and no artefacts of SAHRA relevance were consequently found there.

## 2. Vicinity of current slimes dams

The cluster of four slimes dams, each one $km^2$ in extent, are surrounded by security fencing at about 30m from their walls. Access roads cover some of the intervening vacant ground, but the rest is largely undisturbed, and some hours were spent examining a 6km-long stretch. The superficial geology there was a thin and patchy covering of Hutton Sands overlying massive calcrete. A very low-density scatter of stone artefacts was found lying on the calcrete surface. These were entirely based on banded ironstone, a rock-type that does not occur in the immediate area. No distinctive tool-types were found, but, on typological grounds, these artefacts are tentatively attributed to the Acheulean, at about 600 000 years ago. The recovered sample clearly reflects an off-site scatter, that may relate, in part, to a known factory and workshop site of that age at the eastern entrance of Kathu (Beaumont & Morris, 1990).

## Conclusions

An examination was undertaken of two mine areas that would - or may be impacted by the SEP. No historical or archaeological sites were noted, or are likely to occur, in the vicinity of the proposed beneficiation plant. A foot survey of the slimes dams surrounds revealed a sparse surface scatter of lithics probably belonging to the Acheulean Industrial Complex. However, surface sites with no stratification are ubiquitous and of no heritage significance. There are therefore no objection on this score to the proposed SEP.

## Acknowledgements

I wish to thank Kentridge Makhanya of the Sishen Mine's Environmental Section for taking me to the two areas.

## References

Beaumont, P & Morris, D. 1990. Guide to archaeological sites in the Northern Cape. McGregor Museum, Kimberley

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"Slight" dustfall is barely visible to the naked eye. "Heavy" dustfall indicates a fine layer of dust on a surface, with "very heavy" dustfall being easily visible should a surface not be cleaned for a few days. Dustfall levels of > 2000 mg/m$^2$/day constitute a layer of dust thick enough to allow a person to "write" words in the dust with their fingers.



# 4 BASELINE CHARACTERISATION

## 4.1 Site Description

Sishen Iron Ore mine is located in the Northern Cape, between Kuruman and Postmasburg. Besides Sishen Iron Ore Mine, other activities in the region include mainly farming, and small residential communities and business trade. The towns in the region include Kuruman,(~50 km) to the northeast, Olifantshoek (28 km) to the southwest and Dibeng (~15 km) to the northwest. Within close proximity to the mine there are the twons of Kathy, Sishen and Dingleton. Figure 4-1 shows the location of the mine and surrounding towns.

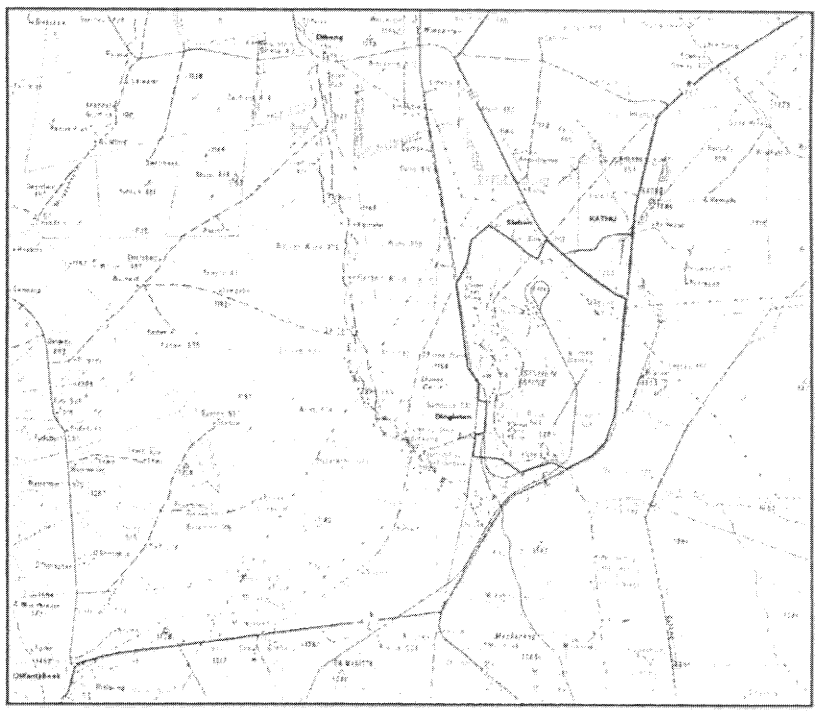


**Figure 4-1: Sishen Iron Ore Mine**

The general topography is characterised by fairly flat terrain with no steep inclines except for the two mountain ranges to the west and a smaller range to the east. The Koranaberg mountain range is approximately 40 km northwest of the mining area, and the Langberg