

**PHASE 1 HERITAGE IMPACT ASSESSMENT REPORT ON A 110 HA
AREA ON PORTION 1 AND THE REMAINDER OF THE FARM UNA
1431, PORTION 1 AND THE REMAINDER OF THE FARM KLEIN
LEEUWKUIL 1193 AND PORTION 1 (SPIOENKOP) OF THE FARM
GANNALAAGTE 469, IN THE BOSHOF DISTRICT OF THE FREE
STATE PROVINCE.**

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EXECUTIVE SUMMARY

The purpose of this study was to establish if any heritage sites were present on a 110 ha area covering portions of the farms Una 1431, Klein Leeuwkull 1193 and Gannalaagte 469 in the Boshoff District of the Free State Province. A morning and early afternoon foot search over this ground revealed a sparse scatter of Fauresmith - aged stone artefacts, but no archaeological sites, palaeontological bones or graves of any age were seen. It is consequently considered that these farm portions have no heritage significance and that the further mining of kimberlite fissures there will have no impact on the archaeological resources of the Free State Province.

BACKGROUND INFORMATION

The Investigated area covers the estimated extent of a kimberlite fissure that was worked by the Una Mine from the 1960's until about 1980, when flooding caused its closure.

This heritage Impact Assessment is part of a Mining Rights application that is being compiled by Geo-Rock International on behalf of New Park Properties (Pty.) Ltd.

LOCAL ARCHAEOLOGY

About 16 km to the west is the Samaria Road Quarry site on the farm Roseberryplain, where lithics belonging to a middle phase of the Fauresmith (Beaumont & Vogel 2006) are largely confined to the basal levels of a 4 m subhorizontal accumulation of red aeolian Hutton Sands lying directly on bedrock (Mason 1988). And still further away, to the south -- west, in and around Kimberley, the lower levels of the same red sands, which are markedly thinner there (less than 1.0 m), have yielded a number of small casually -- recovered similar Fauresmith samples that are housed at the McGregor Museum.

PROPERTY DESCRIPTION

The inspected 110 ha area, on Portion 1 and the Remainder of the farm Una 1431, Portion 1 and the Remainder of the farm Klein Leeuwkull 1193, and Portion 1 of the farm Gannalaagte 469, lies some 30 km ENE of Kimberley in the Boshof District of the Free State (Figs. 1 -- 4). This ground is fairly flat, with an elevation of 1244 m. In the old mine vicinity, the eastern and western edge co-ordinates are $28^{\circ} 35' 17.6''$ S, $24^{\circ} 59' 59.8''$ E and $28^{\circ} 36' 16.7''$ S, $24^{\circ} 58' 57.9''$ E respectively, and is, where undisturbed, well -- covered by vegetation (Figs. 5 & 6). I walked over the entire terrain, which falls within the Chambe Game Lodge, with a wide variety of animal species, including zebra, kudu and eland, on the morning and early afternoon of Thursday 14 February 2008, in the company of Hennie Erasmus and Corné Anderson.

SUPERFICIAL GEOLOGY

The entire area is covered by red Hutton Sands, that mining and warthog burrow sections show to vary from 0 – 2 m and more in depth, with shallow occurrences being largely confined to areas just west of the old mine (Fig. 4). In that vicinity those sands are underlain by a calcrete zone that is up to 2 m deep, but this stratum seems to be absent over much of Una, and either thin or absent below the old ploughed fields on Gannalaagte. Mining area exposures show that the calcrete is, in turn, underlain by weathered kimberlite, whereas bedrock over other portions of the examined area are brown – grey Ecca Series shales of the Karoo Sequence (Fig. 7). Hornfels (indurated shale) clasts, generally of fist size or smaller, occur below the red sands, on the calcrete surface, and appear to be very largely confined, spatially, to areas in the broad vicinity of the old kimberlite workings. It could be that this rock – type was formed by the heating of surrounding shales during the emplacement of the kimberlite, and originally outcropped locally, prior to weathering into the present pieces, but no evidence bearing on this possibility was seen.

HERITAGE FINDINGS

My protracted search over the entire 110 ha property produced close on two dozen stone artefacts that came mainly from the mining terrain on Klein-Leeuwkuil, with a few from immediately adjacent areas on Una and Gannalaagte (Figs. 8 – 12). All, bar one, were based on hornfels, surfaces varied from fresh to lightly weathered, and the stratigraphic provenience of all *in situ* specimens was the calcrete surface, subsequently covered by aeolian Hutton Sands (Fig. 8). Finds of note comprise a smallish Levallois point from 28° 35' 46.2" S, 24° 59' 28.7" E, and an oval biface of andesite that came from the surface of an infilled prospecting trench at 28° 36' 02.1" S, 24° 59' 15.7" E (Figs. 10 & 12). Most of the specimens in the small sample recovered are typologically undiagnostic, but the two above – cited items, and a prepared core with a blade – shaped removal, suggest that it is best referred to the Fauresmith, which ended ~260 kyr ago (Beaumont & Vogel 2006). Nowhere there did I see any actual sites, fossil bones, or graves of any age.

CONCLUSIONS

A foot -- survey of a 110 ha property east of Kimberley produced only a sparse scatter of lithics that are most probably attributable to the Fauresmith. My conclusion is therefore that the further mining of a kimberlite fissure there by a BEE company will have no impact on the heritage resources of the Free State.

REFERENCES

Beaumont, P.B. & Vogel, J.G. 2006. On a timescale for the past million years of human history in central South Africa. *S. Afr. J. Sci.* 102, 217 – 228.

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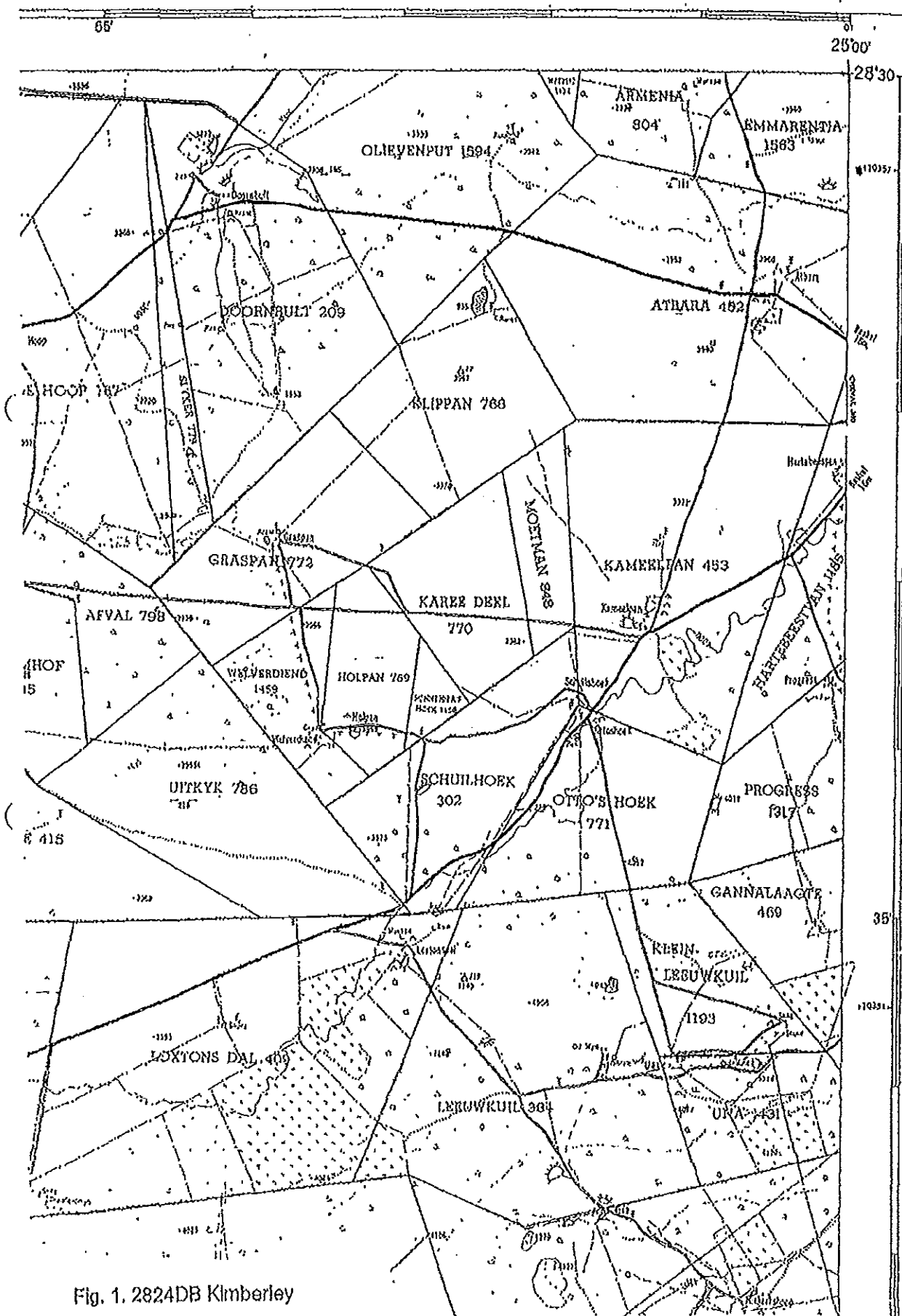


Fig. 1. 2824DB Kimberley

