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ULTIMATRIX

CK 97/46119/23
SARS 9184/041/64/9
VAT 4290220955
PO Box 12013 Queenswood 0121 Pretoria South Africa
Fax +27 (0)866) 127383 Mobile +27 (0) 82 577-4741 E-Mail ultimat@afrika.com

**ARCHAEOLOGICAL AND HERITAGE
ASSESSMENT REPORT VERSION 3:OPTIMUM
MINE EMP AMENDMENT, NORTH OF
HENDRINA, MPUMALANGA**

**ANNEXURE 1: ASSESSMENT OF ROUTES OF
PROPOSED PIPELINE, CONVEYOR AND
ASSOCIATED INFRASTRUCTURE**



SUBMITTED TO:

Beth Candy
Jones & Wagener
PO Box 1434
RIVONIA 2128

DATE OF SUBMISSION:
6 October 2006

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VERSION 3 :OPTIMUM MINE EMP AMENDMENT, NORTH OF
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**ANNEXURE 1: ROUTES OF CONVEYOR BELTS, PIPELINES AND
ASSOCIATED INFRASTRUCTURE**

SUBMITTED TO: Beth Candy, Jones & Wagener

DATE OF SUBMISSION: 6 October 2006

EXECUTIVE SUMMARY

This report contains the findings and recommendations in connection with an archaeological and heritage assessment of proposed routes for the construction and operation of conveyor belts, pipelines, service roads and other associated infrastructure.

This report is an Annexure to the main report that deals chiefly with the Boschmanspoort and Schoonoord mining areas of the Optimum Mine. These areas are and will be connected with each other and with the existing Optimum Colliery Opencast Mine and the Pullens Hope Pan by means of a system of conveyor belts and/or pipelines.

Based on an assumed route corridor width of 100 m that allows for both direct and indirect (cumulative) impacts, five clusters of heritage sites have been identified and assessed that could be impacted negatively. No other visible heritage sites were identified.

Based on the findings in this report, the authorising of the construction of the proposed pipelines, conveyor belts, service roads etc. is recommended with the following conditions attached to an ROD by SAHRA:

1. That any mitigation and management measures for each site as set out in this report are applied prior to development taking place;
2. If any other archaeological and historical sites and objects (foundations, graves, old waste disposal sites etc) are exposed during construction work, it should immediately be reported to Cultmatrix cc so that an investigation and evaluation of the finds can be made;
3. Monitoring compliance with the EMP through the Environmental Control Officer.



R C DE JONG

Principal Member: Cultmatrix cc

1. DESCRIPTION OF THE ROUTES

- The pipeline route from Boschmanspoort (running north) will be accompanied by a conveyor, power lines and an access/maintenance road;
- The pipeline from Schoonoord will only be a pipeline without any other infrastructure;
- From the crossing with the N 11 by the conveyor and the pipeline, the conveyor continues running in a westerly direction to the plant;
- Only the pipeline runs south to the Pullens Hope Pan;
- There is an existing conveyor route with power lines between Optimum Colliery Opencast Mine and Scharrighuisen Opencast Mine.

2. ADDITIONAL INFORMATION

Additional information regarding the history of the area, heritage sites in the Boschmanspoort and Schoonoord mining areas, etc. is contained in the main report.

3. APPROACH

The approach to identifying and assessing heritage sites in the conveyor/pipeline routes with their power lines and other infrastructure was to divide the routes into separate sections that were surveyed on foot and by vehicle. This report deals with each section.

This report includes a few numbered heritage sites that are also dealt with in the main report (total number of sites assessed in the main report is 56) and, in addition, other heritage sites that have been numbered continuously (starting with 57) in order to provide synergy with the main report.

4. LIMITING AND RESTRICTING FACTORS

The investigation has been influenced by the following factors:

- Availability and reliability of baseline information about the affected area (e.g. some 1:50 000 maps still indicate farmsteads and access roads, which have disappeared);
- Complexity in terms of the range of heritage issues that need to be addressed and the range of disciplines involved and the need to co-ordinate and collate different inputs;
- Unpredictability of buried archaeological/palaeontological remains (absence of evidence does not mean evidence of absence);
- Difficulty in establishing nature and degree of significance of any intangible heritage values.

5. IDENTIFICATION AND ASSESSMENT OF INDIVIDUAL HERITAGE SITES

Refer to Figure 1 for location map and survey sections.

5.1 Section 1: *Schoonoord pipeline*

One three sites that could be impacted upon were identified.

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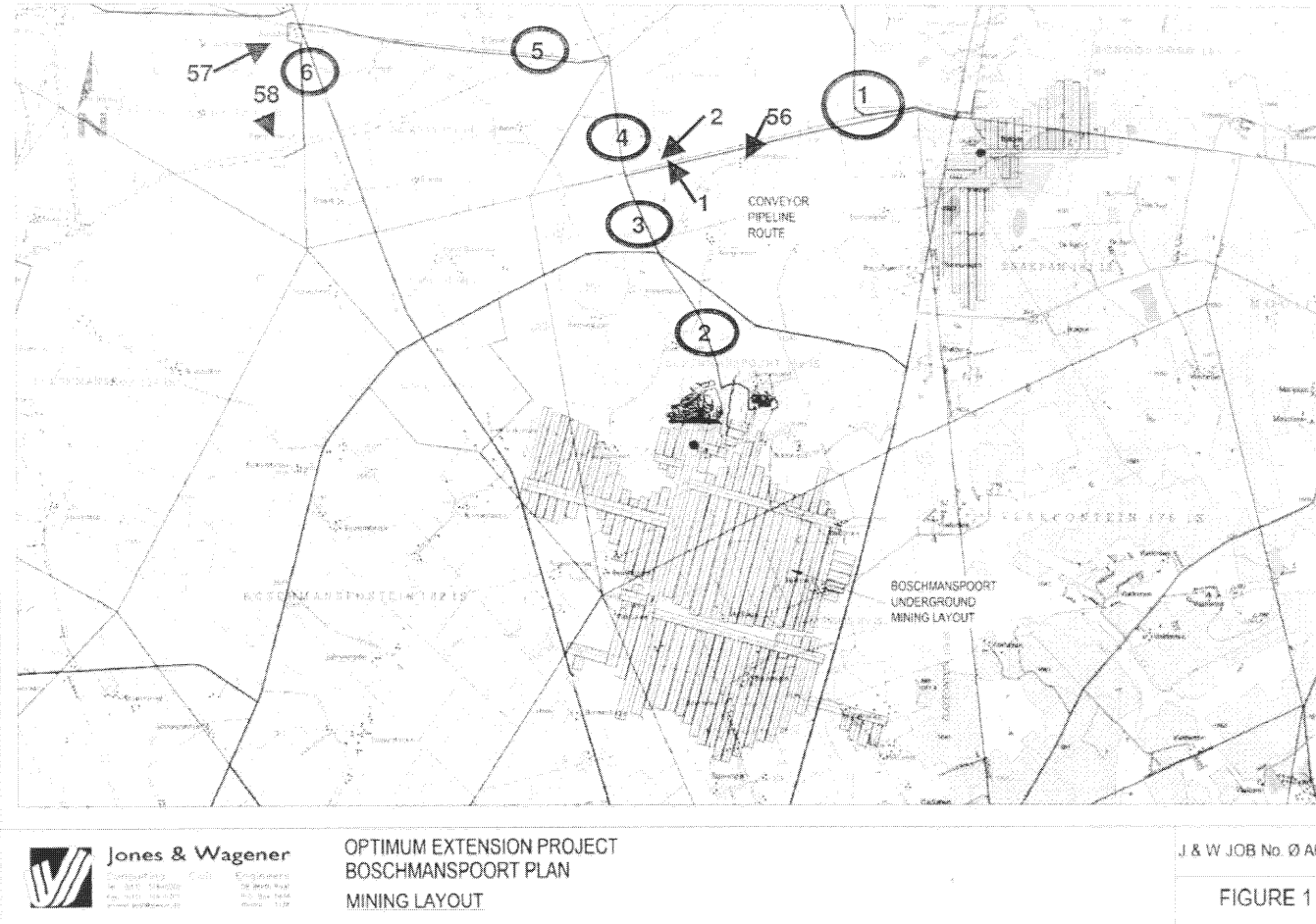


FIGURE 1: Location of conveyor, pipeline and infrastructure sections and individual heritage sites. Sites 1-56 are also assessed in the main report. The sections that are discussed are marked with circled numbers.

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Site 56: Ruins of farmstead

Location: Boschmanspoort 159 IS, -26.02852 S, 29.72181 E

This site is located about 100 m south of the fence. It is understood that the pipeline will run along the southern side of the fence. It is unlikely that the pipeline will have a direct impact.

Description: Ruins of farmstead, including main house, barns, kraals, outbuildings etc

Significance: Low local

Management: Document buildings older than 60 years if affected, otherwise avoid site. Protect during construction with barrier tape and monitor situation.



Photo: RC de Jong

Site 1: Grave

Location: Bankvalel 190 IS or Boschmanspoort 159 IS, -26.02905 S 29.70858 E

The grave is located about 3 m north of the fence. It is understood that the pipeline will run south of the fence. It is therefore unlikely that the pipeline will have a direct impact.

Description: The site is represented by a single grave located directly north of an existing farm fence. The grave dressing is oval shaped and consists of flat stones. An unmarked rectangular stone represents the headstone, which is located on the grave's western side. The grave is aligned along the East-West axis.

Site 1 is located close to the stone-built structures from **Site 2**, and it appears highly likely that these two sites are associated.

Significance: High local

Management: Avoid or alternatively relocate grave. Protect during construction work with barrier tape and monitor situation.

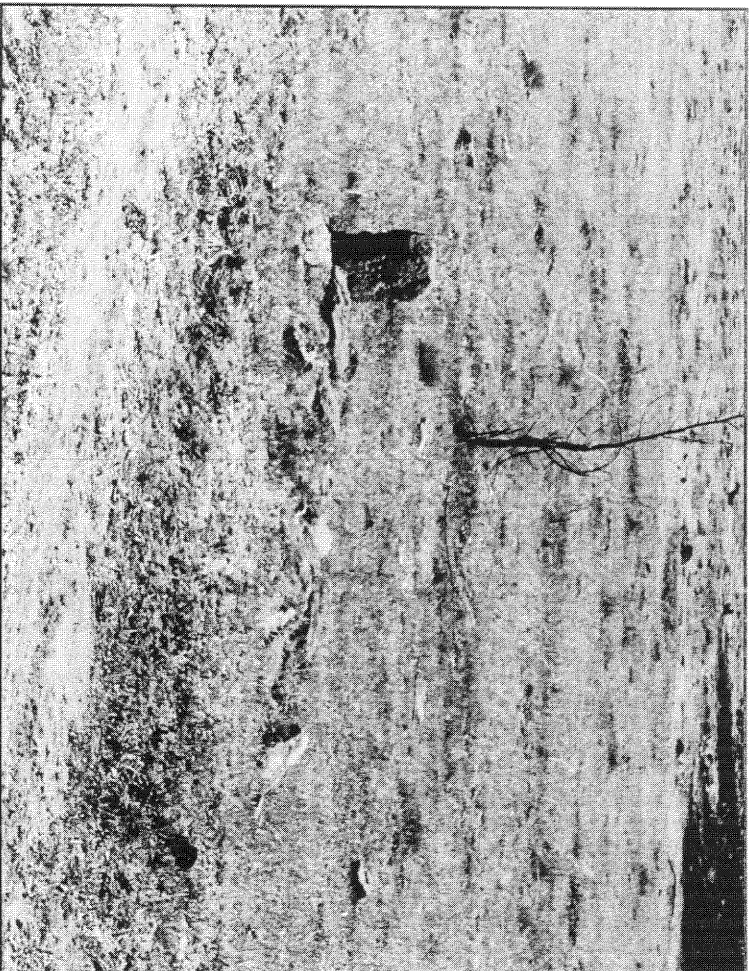


Photo: RC de Jong

Site 2: Ruins of homestead and kraals

Location: Boschmanspoort 159 IS, -26.02833 S 29.70855 E

The site is located about 50 m north of the fence. It is understood that the pipeline will run south of the fence. It is unlikely that there will be a direct impact.

Description: **Site 2** is represented by a number of rectangular stone structures. The building technique used in the construction of these structures is dry stonewalling.

Although the age of the structures is unknown, their rectangular shape suggests a historic or recent association. Cultural material in the form of old glass fragments was observed here as well.

Site 2 is situated north of the grave at **Site 1**, and it appears to be highly likely that these two sites are associated.

Significance: Low local

Management: Document/map if affected. Protect during construction with barrier tape and monitor situation.



Photo: RC de Jong

5.2 Section 2: Old Boschmanspoort Colliery to gravel road

This section runs through old planted fields and patches of grassland. No heritage sites were identified in a corridor of 100m, marked by a series of painted markers that have already been erected.

5.3 Section 3: Gravel road to connection with Schoonoord pipeline

This section runs through a combination of grass veld, former pastures and former planted fields. No heritage sites were identified in a corridor of 100m, marked by a series of painted markers that have already been erected.

5.4 Section 4: Connection with Schoonoord pipeline to extension of existing conveyor belt

This section runs through patches of natural grassland that have been degraded by the remains of old prospecting and excavating activities. These pits have low local significance and there are no compelling reasons to avoid them.

5.5 Section 5: Extension of existing conveyor belt to current terminus of belt at Scharrighuisen Opencast Mine

This section runs through a combination of grass veld, former pastures and former planted fields. No heritage sites were identified in a corridor of 100m.

5.6 Section 6: N 11 to Pullen's Hope Pan

There are two significant heritage sites in the corridor of 100m.

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Site 57: Former Woestalleen Prison

Location: Pullen's Hope 155 IS, -26.01110 S 29.65219 E

From the location map it appears as if construction work will bypass this site to the north and west.

Description: The site consists of the buildings of the former *Woestalleen Geyangeris Buitepos* (ca 1930s) with a cluster of shacks, prefabricated buildings and houses of prison wardens. The site is currently inhabited.

Significance: High local. The history of the former prison facility still must be researched but the site has been assessed as one of high local (political) significance during the 2003-2004 survey of heritage sites in the Nkangala District Municipality.

Management: Avoid the site at all costs (no-go area).

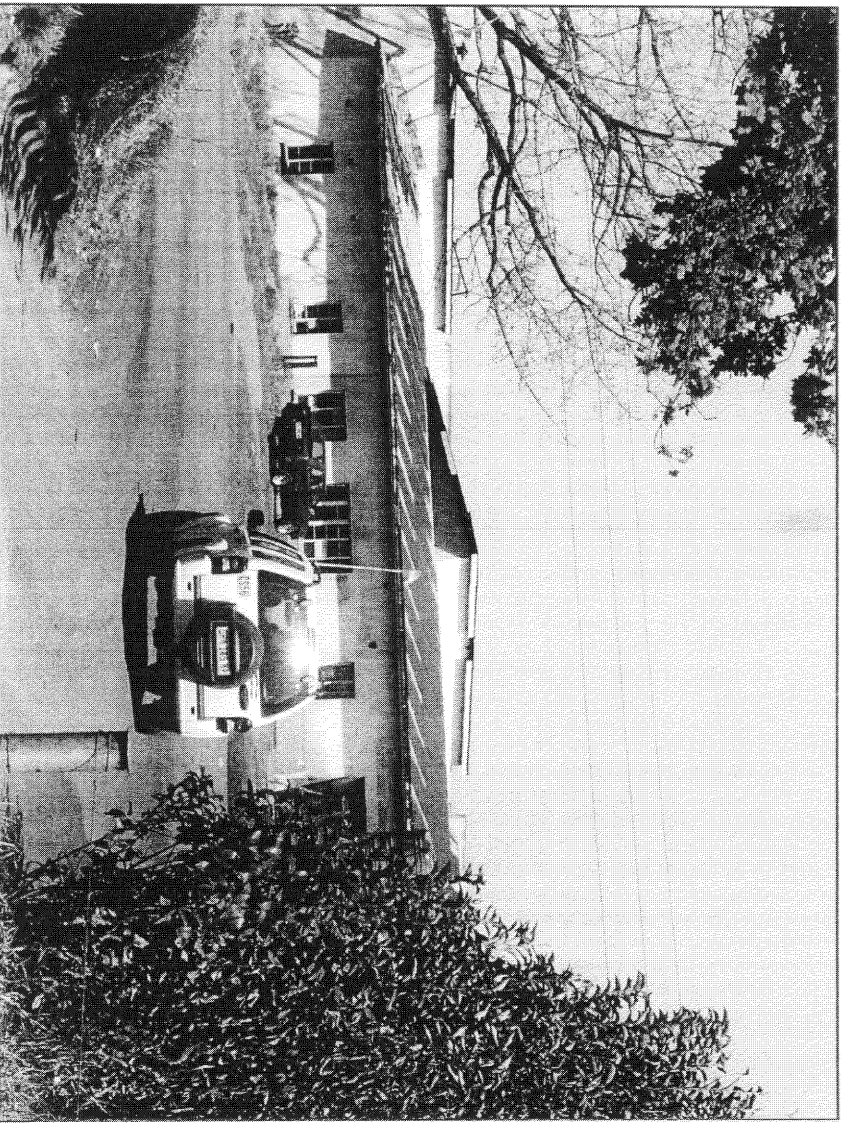


Photo: RC de Jong

Site 58: Pullen's Hope farmstead

Location: Pullen's Hope 155 IS, -26.02452 S 29.65334 E

From the location map it appears as if construction work will bypass this site to the east.

Description: The site consists of the buildings of the historic Pullen's Hope farmstead, including an old sandstone dwelling, stone kraals, stone barns, enclosures and various modern buildings.

Significance: Low local.

Management: Avoid the site. If this is not possible all buildings older than 60 years must be documented before any demolition.

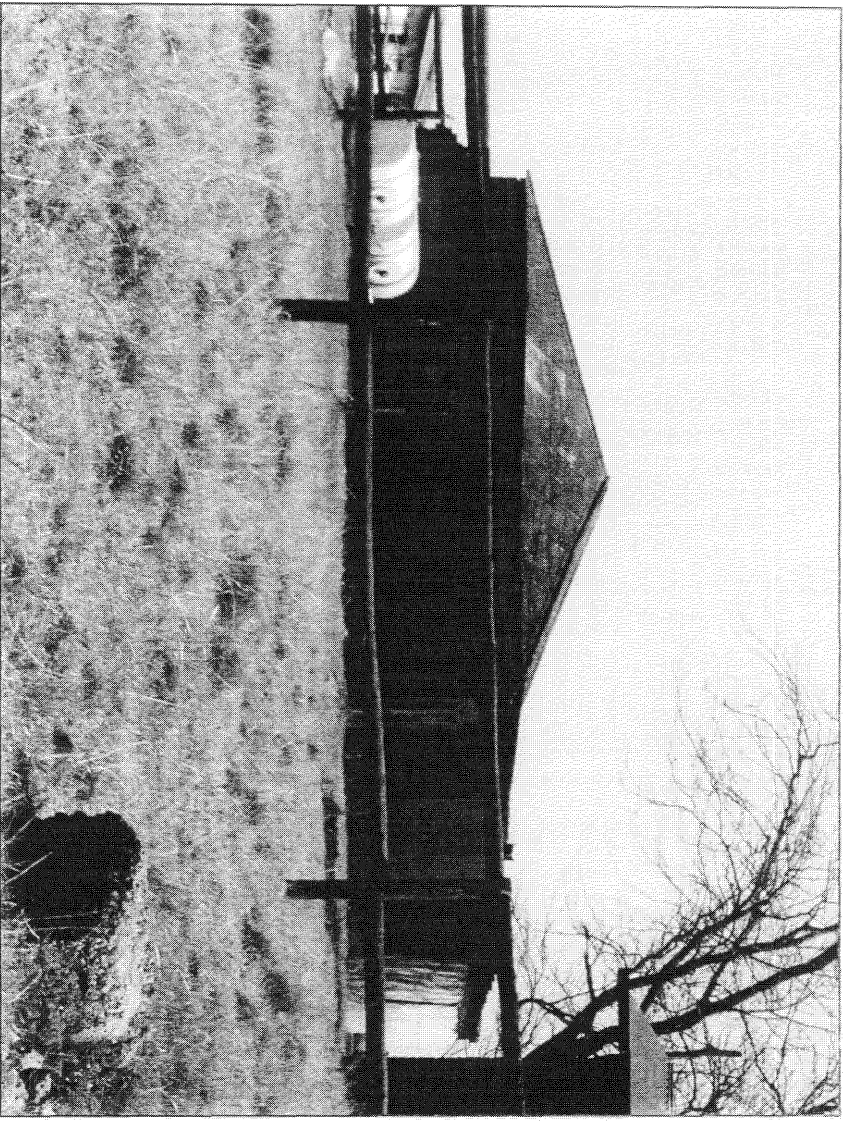


Photo: RC de Jong