

**SURVEY OF WATTLE WOODLOTS AT THE INGULA
PUMPED STORAGE SCHEME,**

FOR ESKOM HOLDINGS (PTY) LTD

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INTRODUCTION

Umlando cc was contracted by Eskom Holdings (Pty) Ltd to be the Project Archaeologist for the Ingula Pumped Storage Scheme, Free State and KwaZulu-Natal. One of the terms of reference for the project is to be available for “emergency work” when required.

Umlando received a phone call and then an email regarding the damage to a historical dry stone walled kraal at the site. Eskom reporting the damage undertook the original paperwork and a site visit was scheduled for the 23 April 2009. The result was that the damage was minimal and a proactive management plan was set up for future wattle clearance.

Umlando also recorded a few more heritage sites, of which two have been damaged since 2004.

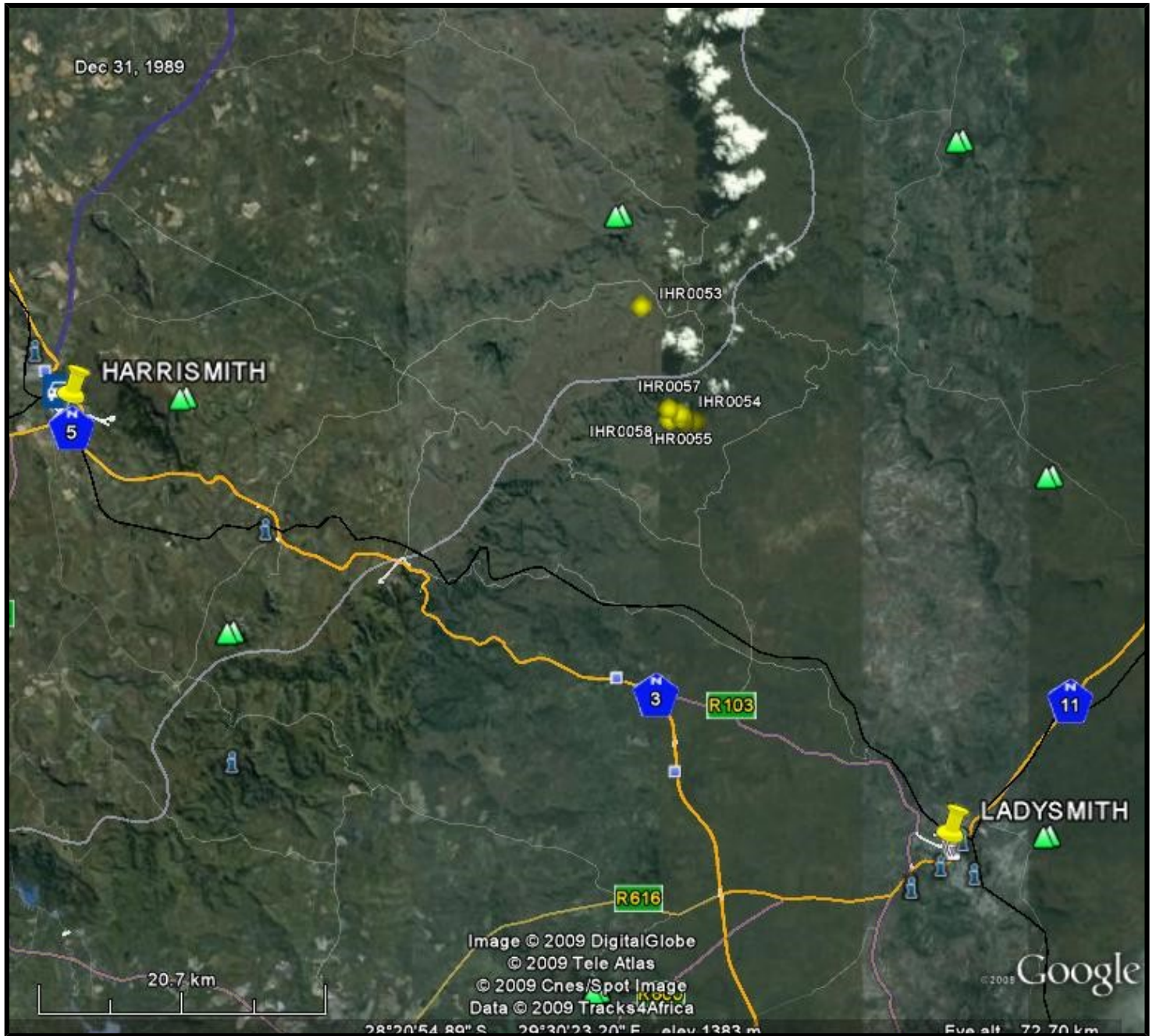
Figure 1 illustrates the general location of the IPSS while figure 2 illustrates the locations of the sites mentioned in the text. The IPSS Heritage audit report has the details of the sites mentioned in this document.

THE SITES

IHR0013

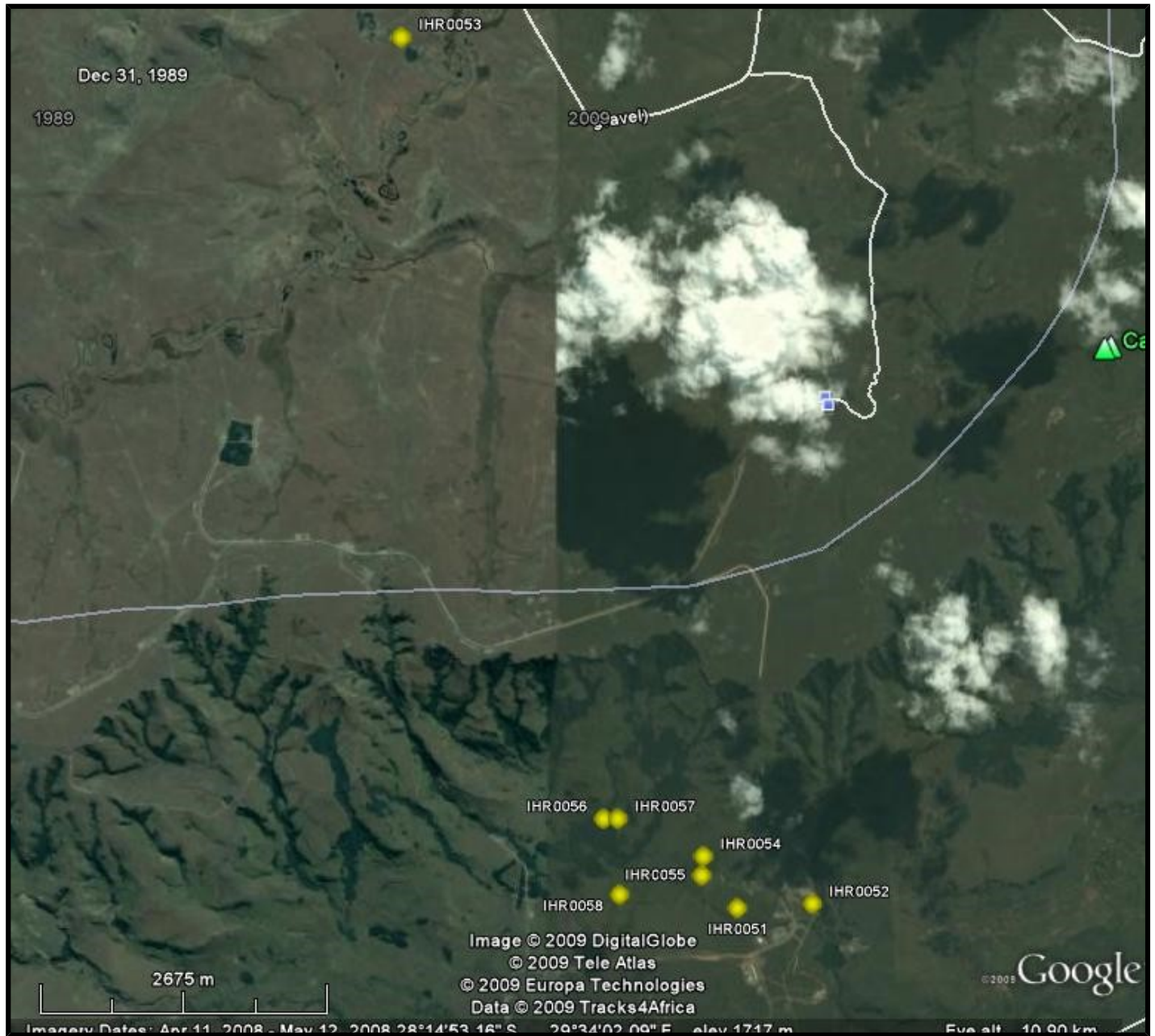
IHR0013 consists of a historical white farmer’s settlement. There is a house made from local sandstone and a large dry stone walled kraal. The main cattle byre consists of a platform of large stones ~1m high with a double row of large stones above it. There is an infill of smaller stones between the upper rows of stones. All of this is dry stone walling. The site was re-recorded during the heritage audit and was still in a similar condition in Dec. 2008. The status of the site was as follows (Umlando 2009:29):

FIG. 1: GENERAL LOCATION OF THE STUDY AREA¹



¹ Yellow circles indicates approx. location

FIG. 2: LOCATION OF SELECETED SITES THE STUDY AREA



“Significance: Low, but the site should be assessed by an architect Historian.

Status: The site is currently undisturbed by Eskom. Eskom has an agreement with a local farmer to remove the buildings blocks for a new building elsewhere.

Mitigation: Pending the decision of an architect historian. Minimal mitigation should be a photographic and mapping record of the building.

Permit status: No permit has been granted. The farmer, or Eskom, would need to apply for a permit to remove the building blocks.”

Approximately 2m of stone walling was damaged when a contractor, clearing the wattle area, drove into and knocked over part of the main cattle byre wall. The full report of the damage and ‘wrong doings’ by the contractor are given in Appendix A. The contractor had been given a site instruction to fence of the walling, but had not, and there was no supervision by the contractor in the area when there was heavy machinery. Eskom has fined the contractor who was clearly responsible for the damage. SAHRA will need to make a statement regarding the damage and place it through their system.

Mitigation: Eskom does have a SAHRA permit to damage sites in the Free State, however, this may only occur with approval of the Project Archaeologist, and this was not given. The site is of low significance; however, there was no need to destroy the site. I suggest that the damaged part of the site is rebuilt to resemble the original version as close as possible. The length of the walling can be deduced from high-resolution aerial photography, while the construction technique can be deduced from the rest of the wall. This should be undertaken with the Project Archaeologist on site. Costs (in time and labour) should be charged to the contractor if possible.

Recommendations: Umlando had a discussion with Eskom after this incident occurred. Umlando suggested that all of the wattle wood marked for rehabilitation should be surveyed for potential sites ahead of any clearance. Many of these woodlots are associated with recent settlements (or vice versa) and some have human graves, e.g. at IHR0043. In this way, potential sites can be noted and demarcated. Sites could also be fenced off prior to any wattle clearance. These woodlots would be prioritised in terms of the timing of clearance and the heritage surveys would be undertaken accordingly.

Because of the damage to IHR0013 Umlando undertook their first 'wattle woodlot survey' on 23 April 2009. Five new sites were recorded either at the woodlots or on the way to the woodlots. These sites all occur in KwaZulu-Natal. Two sites have been damaged between 2004 and 2009.

IHR00 54

The site is located in KwaZulu-Natal halfway up the escarpment. The site consists of ~five graves and low stone walling. I analysed the 2004 aerial photographs, i.e. prior to the transmission line being erected, and there was no impact in this area. Currently, an obvious vehicle track goes over, and beside, the graves. The vehicles that constructed the transmission line, although this would be hard to prove, probably made these.

Significance: The site is of high significance

Status: The site is damaged: The graves have been repeatedly driven over by vehicles whilst it was an access road. There is no way of assessing the damage since it was not previously recorded. The pre- and post-2004 photographs can illustrate the access paths.

Mitigation: The area needs to be assessed once grass has been burnt and then compare with high-resolution photographs predating 2004. The area should be fenced off and the access track should be closed.

Permit status: No permit has been granted and a permit would have been required. It is unlikely that a permit would have been given to damage the graves.

Recommendations: This matter has been noted as an “Event” with Eskom Holdings and is currently under internal investigation². Amafa KZN will need to be informed as no permits were issued for site destruction/damage. There is thus a legal implication, although it will be very difficult to prove who is at fault, as these sites were not previously recorded. It may be worthwhile obtaining a copy of the access roads used for the construction of the transmission line. A copy of the EIA for this section should be obtained with reference to the archaeological sites. In this way, one may be able to obtain a better date for the damage to the site.

IHR0055

IHR0055 is situated ~190m south of IHR0054. The site consists of a main kraal with secondary walling. The vegetation was very dense during the site visit and will require a revisit after the area has been burnt. The 2004 aerial photographs show an intact kraal with additional walling.

Other stone walled settlements in the area have similar patterns (see IHR0058 for a possible contemporary example):

- Main kraal with secondary walling
- graves in front of the kraal
- house foundations nearby

I thus assume that graves may have occurred in the area. Currently much of the stone walling from the main kraal is missing, and the area in front of the kraal has been cleared. This clearing happened after 2004.

As with IHR0054, there is no definite proof of who damaged the site. One can only note that the construction of the transmission line occurs near the site and

² Eskom needs to provide proof that this “event” is reported

this MAY be responsible. That human graves probably existed in the area is a strong possibility, and this potential damage should be noted with Eskom.

Significance: The site is of low-medium significance; however, the possibility of graves makes it of high significance.

Status: Impacted and ~50% damaged by power line activity.

Mitigation: Need to assess once grass has been burnt and then compare with high resolution photographs predating 2004.

Permit status: No permit has been granted and a permit would have been required.

Recommendations: This matter has been noted as an “Event” with Eskom Holdings and is currently under investigation. Amafa KZN will need to be informed as no permits were issued for site destruction/damage. There is thus a legal implication, although it will be very difficult to prove who is at fault, as these sites were not previously recorded. It may be worthwhile obtaining the maps indicating the access roads used for the construction of the transmission line. A copy of the EIA for this section should be obtained with reference to the archaeological sites.

IHR0056

The site is located in the middle of a large secondary wattle woodlot. The area of the site is slightly cleared with a distinct impression of human activity. However, there is very little to indicate human presence, except for a small mound, or cairn, of stones, and possible terracing. The cairn is a possible human grave.

Mitigation: the area of the possible grave must be fenced off.

Significance: The site is of high significance until otherwise proven

Status: Undamaged

Mitigation: Cairn must be fenced off before wattle clearance

Permit status: No permit has been granted and is currently not required.

IHR0057

IHR0057 is located ~130m east, or uphill, of IHR0056. The site consists of a rectangular kraal (or cattle byre) that has several fruit trees (presumably apple) growing beside it. The trees form a buffer against the wind. The deposit in the kraals is fairly thick suggesting that it has not been in use for some time. The eastern part of the kraal abuts an outcrop forming a natural back wall. There are possible circular walls in front of the kraal. The site probably dates to the late 19th or early 20th century.

Significance: The site is of low significance

Status: Undamaged

Mitigation: The site should not be affected by wattle clearance and should be fenced off.

Permit status: No permit has been granted and is currently not required.

IHR0058

IHR0058 is located approximately 800m west-southwest of IHR0054. It is thus approximately halfway up the escarpment. There is a modern settlement some 200m east-northeast of the site. The site consists of a main cattle byre with secondary walling, possible housing and nine graves. Three graves are for juveniles. The graves have some form of headstones, but there is no lettering. The graves are in a southeast-northwest orientation with the headstones placed at the northwest side. The settlement exists in the 1950s aerial photograph where it appears to be inhabited.

Significance: High

Status: Undamaged and well preserved.

Mitigation: No mitigation required as no development is planned.

Permit status: No permit has been granted and is currently not required.

CONCLUSION

A heritage survey of several wattle woodlots was undertaken in the IPSS, KwaZulu-Natal and Free State. The survey was initiated as a contractor had damaged, and partially destroyed some walling from an historical settlement, without permission or a permit. The area was supposed to be demarcated but had not been demarcated by the contractor. The pro-active option was that all wattle woodlots would be (re-)surveyed for heritage sites. Eskom, and the PA would demarcate any potential heritage sites. Following this, we began a survey and recorded several new sites. Unfortunately, we recorded two sites that had been damaged since 2004. It is highly unlikely that one can prove who damaged the sites, however, I suggest that the EIA for that specific transmission line, and that the access roads used by the construction of the transmission line, is analysed for the assessment of the heritage sites. The damage to the sites needs to be reported to KZN Heritage and SAHRA, and they need to comment on their way forward regarding these activities.

While the significance of the damage to the sites varies from low to potentially very high, it highlights the high sensitivity of the area, and the need for accurate recordings of the heritage sites. The IPSS should also adopt a policy of no construction activity in the area is allowed, regardless of its size, without some form of heritage assessment.

APPENDIX A

IPSSS report on the damage to IHR0053

**Ingula Project : Damage to Heritage
Structure (12 March 2009)**

Damaged portion
of stone wall





Earth platform & cleared wattle

**ESKPVABX: ELC REPORTING PROCEDURE
ELC INITIAL NOTIFICATION OF OCCURRENCE (INO)
REPORTING TEMPLATE**

<i>Event Number</i>	ELC No: ED No:08- INO No: 08-024
<i>Reference legislation</i>	EMP (Sect 165), National Heritage Resources Act, 25 of 1999 (Sect 35 (4) (a).
<i>Nature of Event</i>	Ingula Project – Main Underground Civil Works The Main Underground Civil Works contractor was clearing wattle in the designated area on the upper site for establishment of labour accommodation. The area had been pre-determined for labour accommodation due to prior disturbance and wattle infestation. However, the camp area is abutting a stone cattle byre, which had been identified as a heritage structure of low significance during the Heritage Specialist study conducted in 2006, due to its partial demise. A letter requesting the fencing of the stone byre was issued to the Contractor prior to work commencing in this area. During a routine inspection by the ECO of the earthworks for the construction of the upper labour camp, it was identified that the cattle byre (stone walled kraal) had been damaged during the earthworks operation. During a follow-up investigation by the EM and EO on Friday, 14 March 2009, it was established that approximately 2m of the stone wall structure was damaged by plant during the clearing of the wattle stand. The structure had been demarcated with danger tape as a precursor for formal fencing of the structure.
<i>Date of Event</i>	12 March 2009
<i>Date of reporting to Divisional office</i>	16 March 2009
<i>Details of Communication with regulatory authority</i>	A letter had been submitted to DEAT via GEM. A report will be submitted by the Project Archaeologist to SAHRA following an assessment.
<i>Follow-up action</i>	<ul style="list-style-type: none"> ✓ The contractor was instructed to remove the wattle from vicinity of the byre manually and to fence off the cattle byre immediately. ✓ The fencing of the area surrounding the stone wall commenced on Friday, 14 March 2009. ✓ Improved supervision and communication within the Contractor's team is also required since prior notification had been issued by Eskom. ✓ An NCR with penalty provided in the CEMP was issued to the Contractor.
<i>Root Cause of Event</i>	<ul style="list-style-type: none"> ✓ Lack of communication and supervision on the contractor's part as the technical supervisors were aware of the cattle byre before wattle removal began. ✓ The cattle byre was not completely fenced off prior to clearing in the area.
<i>Actions to prevent occurrence</i>	<ul style="list-style-type: none"> ✓ The cattle byre is to be fenced off immediately once the wattle from the area has been removed manually. ✓ The Contractor supervisor was made aware of the importance of the structure and was asked to keep all machinery away from the byre until it is fenced off.
<i>Current Status</i>	✓ The Project Archaeologist will complete an assessment of the damage and report to SAHRA.
<i>Date of Resolution / Expected date of resolution</i>	21 April 2009, after archaeologist report.
<i>Responsible Manager and Contact Details</i>	Mr James Richards (Project Manager: MUCW) Cell: 083 472 8037
<i>Previous Events</i>	No similar previous events occurred.
<i>Proposed SI Status</i>	Legal Contravention

Annex F
(concluded)

Rev 5

ELC criteria for classification of legal and SI contravention's			
Element	N/a	Yes	No
1. Did the incident result in either: sterilising the soil, or, destroying rare, endangered or protected fauna or flora?			X
2. Did the incident result in making any water resource unfit for its original purpose such as: domestic, agricultural, industrial use or reduce the water quality to such a state that human intervention is required to restore it to its original quality?			X
3. Were reasonable measures taken to prevent pollution or degradation from occurring?	X		
4. Were measures taken to prevent pollution or degradation from continuing?	X		
5. Were measures taken to prevent pollution or degradation from recurring?		X	
6. Was the incident reported to the authorities?		X	
7. Were measures taken to contain and minimise the effects of the incident on the environment and to the health, safety and property of persons?		X	
8. Was an incident report submitted within 14 days to the authorities providing the information required i.e. section 30(5)(a-e)?		X	
9. Contravention of any other environmental legislation? (List if applicable)		X	
Applicable Legislation	National Heritage Resources Act,1999 (Sect 35)		
CLASSIFIED AS LEGAL CONTRAVENTION (if "Yes" for 1, 2 or 9 or "No" for any from 3-8) (Any Shaded Area Marked)	X		

If classified as a Legal Contravention, check against following criteria.

CRITERIA :	Yes	No
1. Contravention resulted in formal censure from Government		X
2. Contravention reported within the Division.	X	
3. Contravention reported to appropriate Government department	X	
4. Registered on SI by ELC member in consultation with MD		X
5. Contravention was addressed timeously	X	
6. Repeat legal contravention		X
SI INCIDENT (Any shaded area marked)		X

ANNEX G

(informative)

Tracking Certificate

(Electronic version of form available from ELC Secretariat or off Corporate Sustainability Web (ELC Page). All information must be completed and forwarded to the ELC Secretariat to allow the Event to be closed on the Event Register)

Incident Number	ELC No: ED No:08- INO No: 08-024
Nature of Event	Damage to recognised heritage structure, in contravention with legal requirements.
Location	CED / Ingula Project
Month Reported to Divisional Office	March 2009
ELC Classification	Legal Contravention
Details of further Communication with Regulatory Authority.	A letter advising of the incident and mitigation measures implemented was submitted to DEAT & signed by the Gx Environmental Manager. A report of the damage will be submitted to SAHRA by the Project Archaeologist.
Community Interaction related to event	N/A
Follow-up action/s	<ul style="list-style-type: none"> ✓ All heritage structures will be fenced prior to any work conducted. ✓ All heritage structures on the project footprint are audited by the Project Archaeologist on a quarterly basis to provide assurance to Eskom and SAHRA.
Cost of remediation	No remediation anticipated, unless requested by SAHRA.
Date of Closure / Resolution	21 April 2009
Investigation in terms of EPC 32-95 (if applicable)	Not Applicable
Responsible Manager and Contact Details	Mr James Richards (Project Manager: Main Underground Civil Works) Cell: 083 472 8037
Closure by CTAD in case of SI incident	Not Applicable

Please attach any relevant documentation.

A copy of the full incident investigation is held by the Divisional ELC Representative. Signed

BU Manager

Date

Accepted as correct

Project Manager Date