



**KINROSS EXT 30 RESIDENTIAL DEVELOPMENT, GOVAN MBEKI LOCAL  
MUNICIPALITY, MPUMALANGA PROVINCE**

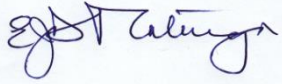
**PHASE II HERITAGE IMPACT ASSESSMENT  
&  
INVESTIGATION ACCIDENTALLY EXPOSED BONES**

**CLOSEOUT REPORT**

**August 2018**

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## DOCUMENT CONTROL

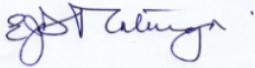
	NAME	SIGNATURE	DATE
FIELD WORK AND REPORT:	Dr E. Matenga (PhD)		12/08/2018

### DECLARATION OF INDEPENDENCE

AHSA is an independent consultancy: I hereby declare that I have no interest, be it business, financial, personal or other vested interest in the undertaking of the proposed activity, other than fair remuneration for work performed, in terms the National Heritage Resources Act (No 25 of 1999).

### DISCLAIMER

All possible care was taken to identify and document heritage resources during the survey in accordance with best practices in archaeology and heritage management. However it is always possible that some hidden or subterranean sites are overlooked during a survey. AHSA will not be held liable for such oversights and additional costs thereof.



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## **1. INTRODUCTION**

Archaeological and Heritage Services Africa (AHSA) Pty Ltd was appointed by Abaziyo Consulting Engineers to carry out a Phase II Heritage Impact Assessment following the exposure of bones in three locations during trenching for the installation of water and sewer reticulation for the Kinross Ext 30 housing development project. A level II Heritage Impact Assessment (HIA) is mitigation procedure to protect heritage resources, and to make sure that if the project has to continue, it does not cause damage to heritage resources.

There were several streams of work which may be summarised as follows:

- (i) Conducting a level II Heritage Impact assessment including a desk screening process for fossils.
- (ii) Identification of bones which had been found at three sites within the development area.
- (iii) Conducting archaeological test excavations as a screening process for three more suspected to be burials. This brought the total to six sites intensively investigated.

## **2. THE HERITAGE IMPACT ASSESSMENT**

Intensive foot surveys were conducted by an archaeologist and field assistant in July 2018. Twenty (24) positions were targeted including the six (6) sites where bones had been found or were suspected to be burials, and eighteen (18) points chosen randomly across the field as focal points for visual inspection to a radius of 50m. This intensity of scanning was intended to clear public suspicions that there might be other places likely to be burials that had been overlooked.



Figure 1: Ground survey at Kinross Ext 30 as part of level 2 screening of the development are for the presence of heritage resources.

## 2.1. Results of the heritage survey

Nine (9) sites were identified as of significance in terms of the ongoing investigations:

- Three (3) sites where bones had been unearthed (Figure 2);
- Three (3) sites with stone settings which suspected to be cairn burials (Figure 3);
- One (1) site: a setting of stones which may be the foundation remains of a house or other structure (Figure 4);
- One (1) Foundation remains of a shop complex; and
- Burial Ground (1) located outside the development area.



Figure 2: Accidental exposures of bones at Site 2.



Figure 3: Two parallel oval mounds (Site 5 & 6) which were test-excavated.



Figure 4: Roughly circular setting of stone, possibly the foundation of a house.

## 2.2. Mitigation for sites where bones were found

Bones had been unearthed in three locations. These sites were recorded and the exposed bones were collected and test excavations conducted as mitigation following the ground survey.

## 2.3. Mitigation for suspected cairn burials

Three sites suspected to be cairn burials had been marked by reflective red/white tape pending test excavations planned as mitigation following the ground survey.

## 2.4. Old Embhalenhle burial ground

The old Embhalenhle burial ground is located c. 100m east of the development area. A brief study was conducted; the youngest graves date to the late 1950s and early 1960s, roughly indicating the time of the forced removals. The burial ground will not be affected by the development (Figure 5).



Figure 5: Old Embhalenhle burial ground will not be affected by the Kinross Ext 30 residential development.

## 2.5. Significance ranking of findings

The significance ranking (with a colour scheme) refers to perceived impacts and risks of the proposed development.

	<b>RANKING</b>	<b>SIGNIFICANCE</b>	<b>No of sites</b>
1	High	Clearly defined cemetery	1 cemetery located outside the development area
2	Medium B	Sites with bones which will be investigated	6
3	Low	Heritage sites which have been recorded, but considered of minor importance relative to the proposed development.	2
4	-	Areas surveyed, no heritage resources	16
		TOTAL NUMBER OF POINTS SURVEYED	<b>24</b>

## 3. RECOMMENDATIONS IN THE HERITAGE IMPACT ASSESSMENT REPORT

Sites where bones had been found were to be further investigated and archaeological test excavations undertaken. The ground survey provided a green light for the development to continue subject to isolation of the six areas which were to be further investigated (see the following Section: 4).



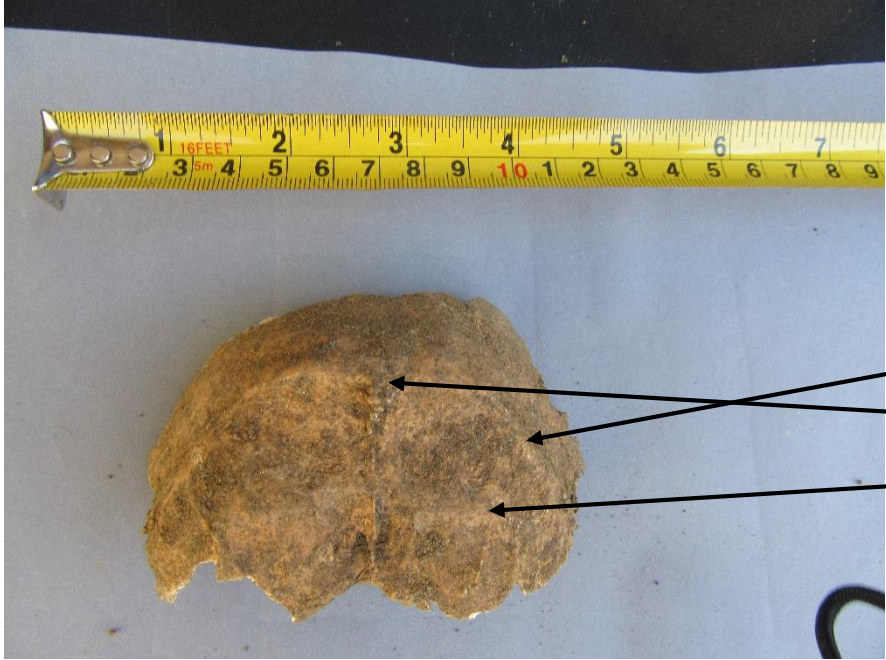
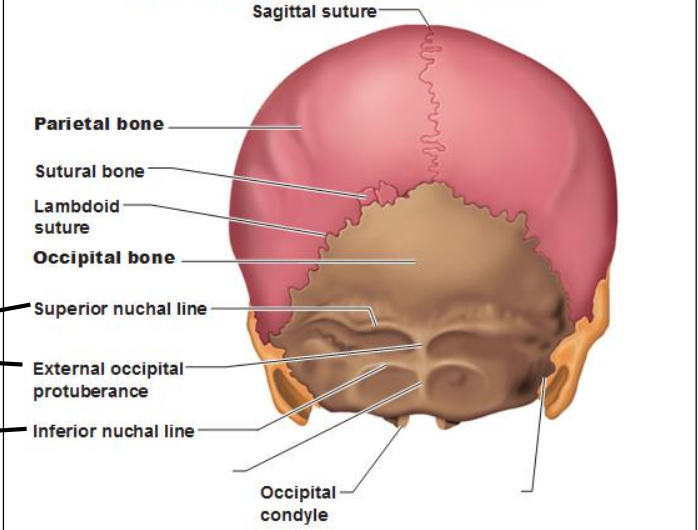
#### **4. TEST EXCAVATIONS AND IDENTIFICATION OF BONES**

It has been concluded beyond reasonable doubt that all the bones numbering >30 from Site 2 possibly come from a single human skeleton which has been positively identified from four diagnostic bones namely:

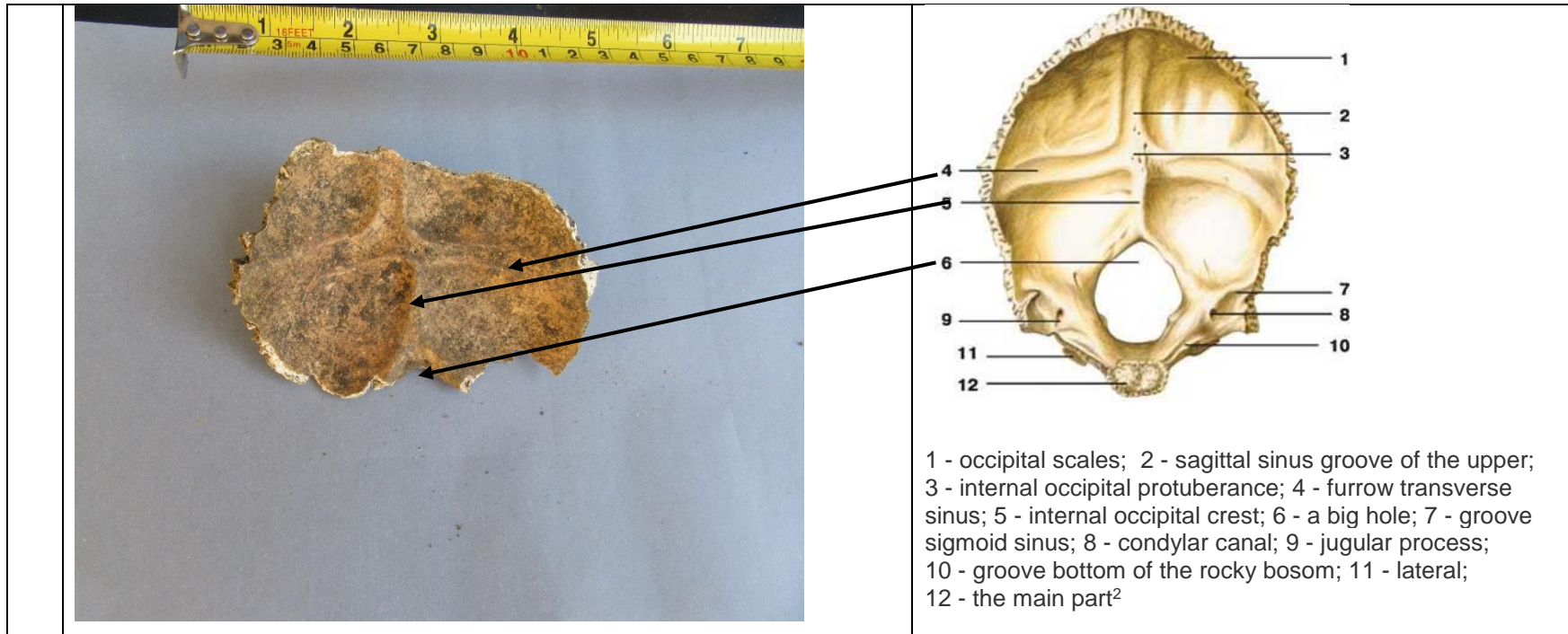
- An occipital bone
- Upper end of a femur bone
- Lower end of a femur bone; and
- Lower end of a tibia bone

The confidence rating of these findings are 99.999%, which in clinical terms means 100% certainty (Table 1).

Table 1: Human bones.

	PHOTO DOCUMENTATION	COMPARATIVE MATERIAL
1		<p data-bbox="1330 309 1756 341" style="text-align: center;"><b>The Skull— Posterior View</b></p>  <p data-bbox="1211 900 1223 916">1</p>

<sup>1</sup> Found at: <https://antranik.org/geography-of-the-skull/>





<sup>2</sup> Bone of the cranial. Found at: <http://anthropotomy.com/skeleton-and-bones-connection/the-bones-of-the-cranial>

The high breakage ratio in the bone assemblage is due to the fact that they had been turned up by an excavator. This being chance finds, there are many parts of the skeleton which cannot be accounted for. It can be reasonably concluded that the skeleton lay below the surface (and is therefore a burial in the common sense of the word). However its exact location and provenance was lost and could not be reconstructed. The possible location, it can be generally inferred, could be anywhere along the two closest reticulation trenches that had been opened. The trenches were thoroughly examined for the possible presence of residual bone material on the walls without a positive result. It needs to be underlined, however, that once a provenance has been disturbed, reconstruction of the original scenario is very difficult, and any theory is naturally limited; there is a myriad of possible scenarios.

The bone fragments from Site 1 are undiagnostic except for a complete tooth identified to the premolar of a cow (Table 2).

Table 2: premolar of cow found at Site KIN001.

PHOTO DOCUMENTATION	COMPARATIVE MATERIAL
	

The bone fragments from Site 3 are ribs, but identification to the species represented was difficult.

Pottery fragments also found at Site 3 are testimony of a precolonial Later Iron Age horizon (Figure 7). It is tempting to speculate that the burial 120m to the south could date to the same time period before the establishment of the town.



Figure 7. Potsherds found may date to the Later Iron Age

## 5. CONCLUSION AND RECOMMENDATIONS

- (i) As the finds from Site 2 have turned out to be human skeletal material, relocation to a formal cemetery is necessary.
- (ii) This matter required to be carefully managed in particular the stakeholder engagement process
- (iii) The need to have a stakeholder strategy is underlined. Furthermore given the many demands which local residents have been making, we are operating in a high risk socio-economic environment which entails that the stakeholder strategy be supported by a risk management strategy.

**END OF REPORT**