



## 2. Site and Project Description

The site of the Babelegi steel recycling facility is situated in an industrial zone next to the R101 road in Ramotse. The study area, transected from north to south by a tar road, measures approximately 9ha and the steel recycling facility at the site will constitute the following infrastructure:

- Weigh Bridge
- Processed Scrap Stock Yard.
- Scrap Charging Bin
- Induction Melting Furnace
- Slag and Wastage Bin.
- Casting Ladle, a steel shell vessel lined with refractory bricks.
- Billet Caster. The molten steel is poured
- The water passes through a closed loop circuit and is continuously re-used. The only water loss is through evaporation.
- The cut billets are stacked on cooling beds by means of a running conveyor roller table and hydraulic pusher arrangement.
- Billet Stockyard.

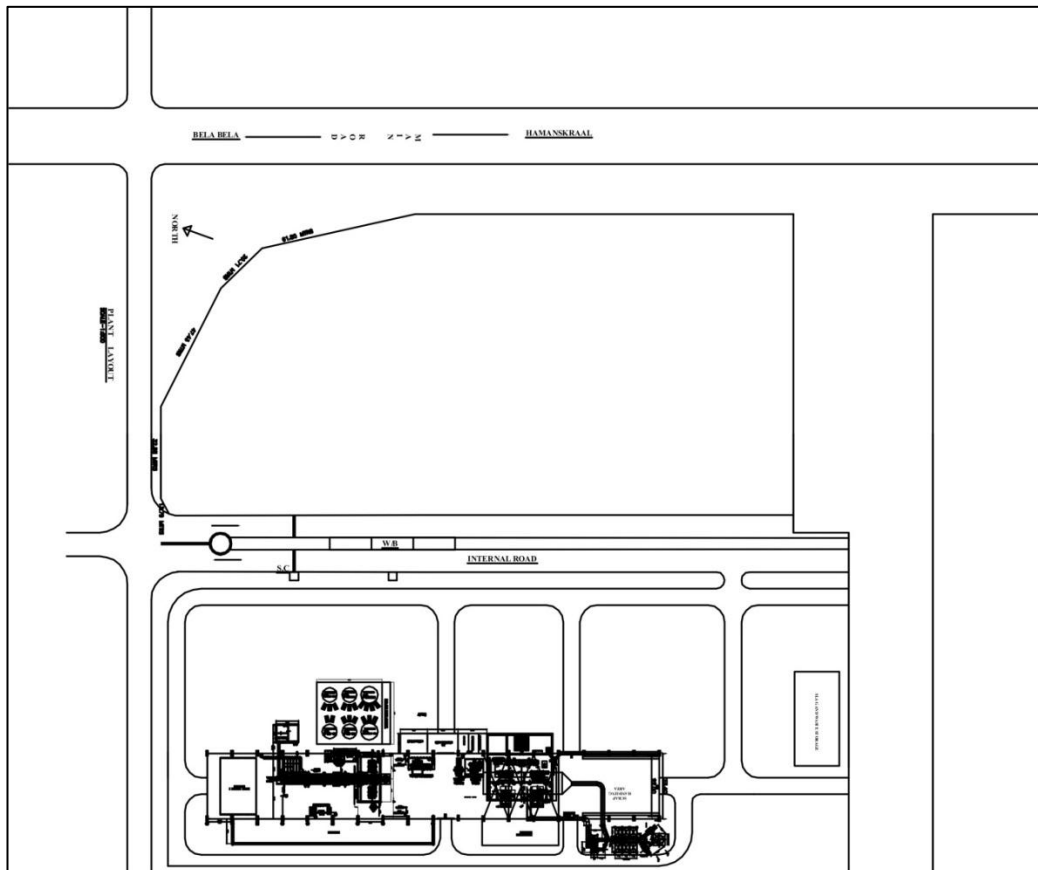


Figure 2: Plan of infrastructure planned for the Babelegi steel recycling facility.



The site has been severely impacted on by past and present development and natural agents. The area can roughly be classified into three zones, based on the extent to which surfaces have been altered (See Figures 3 & 4):

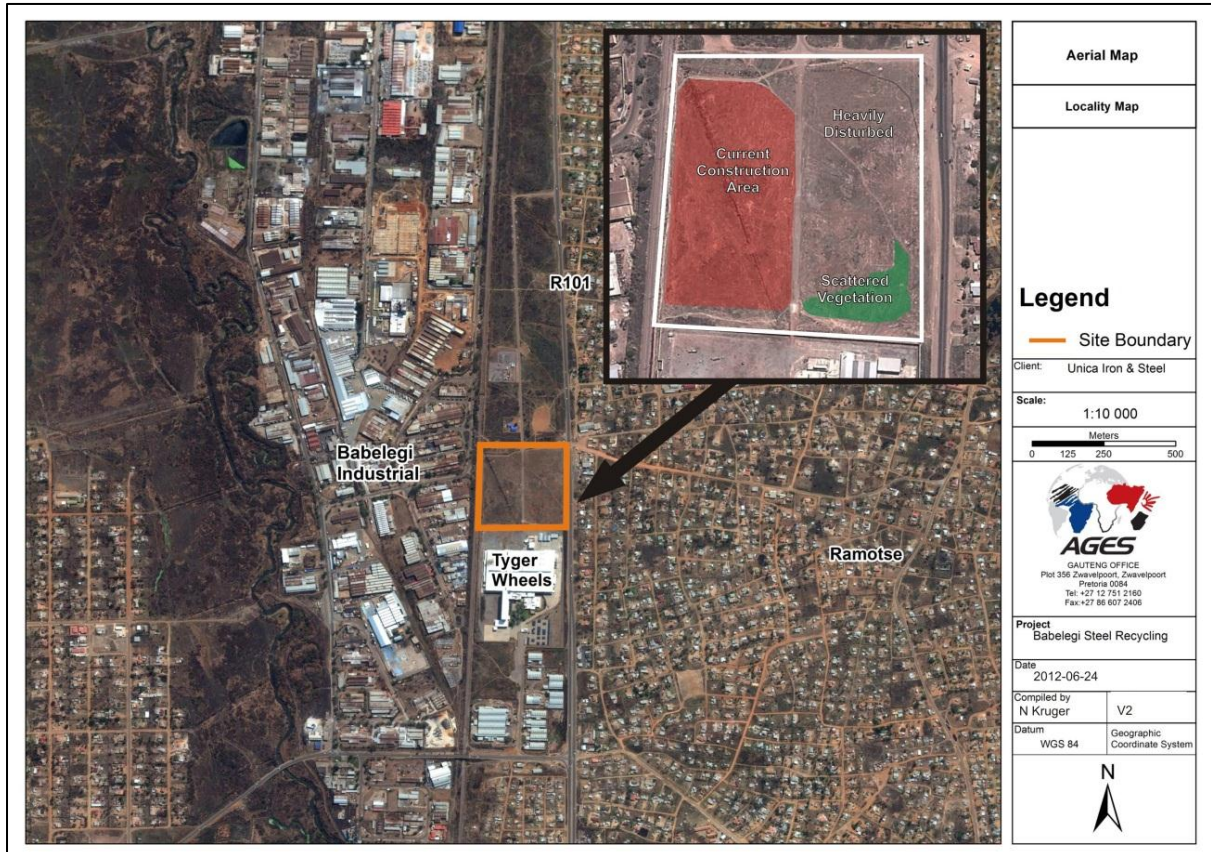


Figure 3: Aerial photo detailing Babelegi steel recycling facility project area.



Figure 4: The Babelegi steel recycling facility project area indicating heavily disturbed (red arrows) and less disturbed (green arrow) areas.

- **Current construction site**

Construction on the Babelegi steel recycling facility is already underway, which in turn activated a Section 24G process application. The construction site covers the western half of the project area.



Figure 5: Infrastructure construction of the Babelegi steel recycling facility along the western sector of the property.



Figure 6: Infrastructure construction and material at the Babelegi steel recycling facility.



- ***Previously disturbed***

A large portion of the project area towards the north-east has been disturbed previously where refuse and building material have been dumped. In addition, excavation of topsoil and trenches is evident in places and other infrastructure such as a small building and power lines have been constructed here.



**Figure 7: Recently constructed building in the disturbed eastern area.**



**Figure 8: Disturbed surface cover and vegetation in the north-western portion of the property.**

### - **Scattered vegetation**

Surface cover and vegetation seem more intact in a small portion of the property towards the south-east. However, a number of pioneer plant species were observed here and it is apparent that surfaces in this area remain only partially intact.



Figure 9: Denser and more intact vegetation cover in the south-eastern corner of the property.

### 3. Heritage survey and scoping

An archaeological scoping survey at Babelegi was done by means of a systematic pedestrian survey in accordance with standard archaeological practise by which heritage resources are observed and documented. The visibility at the time of the survey was moderate to high as a result of vast surface disturbances across the majority of the property. By means of field walking with a Garmin E-trex Legend GPS, the landscape and the site impacted on were recorded and photographed with a Canon Digital camera. Real time aerial orientation, by means of a mobile Google Earth application was also employed to investigate possible disturbed areas during the survey. As most archaeological material occur in single or multiple stratified layers beneath the soil surface, special attention was given to disturbances, both man-made such as roads and clearings, as well as those made by natural agents such as burrowing animals and erosion.

**During the survey, no sites of archaeological and historical value were documented at the site of the steel recycling facility construction, or elsewhere on the property. It is also evident that no heritage resources were impacted upon during initial construction phases of the facility.**

### 4. Brief archaeo-historical context

The cultural landscape of the northern and eastern sections of present-day Gauteng area encompasses a period

of time that spans millions of years, covering human cultural development from the Stone Ages up to recent times. It depicts the interaction between the first humans and their adaptation and utilization to the environment, the migration of people, technological advances, warfare and contact and conflict. Contained in its archaeology are traces of conquests by Bantu-speakers, Europeans and British imperialism encompassing the struggle for land, resources and political power.

### **Early History: Stone Age**

The Highveld areas of Gauteng were inhabited by humans since the Earlier Stone Age (ESA) times and stone tools dating to this period, typically found in the vicinity of watercourses, are abundantly scattered in the landscape. A significant ESA site has been documented on the farm Kaalfontein (366JR) where an Earlier Stone Age habitation site occurs about 1m sub-surface. The site yielded some of the oldest and largest Stone Age implements found in South Africa. The Middle Stone Age (MSA) marked the occupation of formerly unoccupied areas on the Highveld near water sources and tools belonging to this period mostly occur in the open or in erosion dongas. Later Stone Age (LSA) people displayed advanced technologies and therefore occupied larger and more diverse environments. Most LSA sites are found in association with rock shelters and caves with material found across the Magaliesberg, to the north and east of Mamelodi and scattered throughout Pretoria's surroundings. A few stone tools, mostly dating to the Middle Stone Age, are known to have been found in the area close to the banks of the Pienaars River.

### **Early History: Iron Age**

Because of their specific technology and economy, Iron Age people preferred to settle on the alluvial soils near rivers for agricultural purposes and other resources. Remains of Early Iron Age occupation on the Highveld is scarce, with isolated sites occurring in the Magaliesberg, e.g. at Broederstroom. Large scale occupation of the larger Gauteng area by Bantu speaking farming communities occurred only in the second millennium AD. The 16<sup>th</sup> century was marked by a warmer and wetter climate, providing conditions favourable for Later Iron Age (LIA) farmer occupation in areas in the Witwatersrand, the Free State and the Mpumalanga escarpment. This, in turn resulted in increased food production with expanding populations on the central Highveld by the 19<sup>th</sup> century. Due to ever expanding territories and resulting conflict situations these Later Iron Age farmers preferred protective mountain slopes close to areas fit for cattle grazing. A number of Later Iron Age stone-walled archaeological sites, conventionally associated with Tswana and Ndebele speakers occur, in amongst other areas, across the Pienaars River around Wallmannsthal, Roodeplaat dam and southwards across the N4 Highway. Large concentration of Later Iron Age sites in the larger landscape have been documented on the farms Downbern 494JR, Elandshoek 337JR, Leeuwkloof 258 JR, the Windybrow Game Farm and Buffelskloof 281JR. During the early 1990s a Late Iron Age site was excavated by Wits University on the banks of the Pienaars Rivier between the R101 and the N1, south of the Babelegi Property.

### **Early History & Ethno-history**

It should be noted that terms such as "Nguni", "Sotho", "Venda" and others refer to broad and comprehensive language groups that demonstrated similarities in their origins and language. It does not imply that these Nguni / Sotho groups were homogeneous and static; they rather moved through the landscape and influenced each other in continuous processes marked by cultural fluidity.

Whereas it is impossible to attribute any living group of people to Early Iron Age communities, ethnographic evidence enables us to identify some of the groups of people that entered the region in Pre-colonial times and



are currently settled in the larger region. Ethnographers generally divide major Bantu-speaking groups of southern Africa into two broad linguistic groups, the Nguni and the Sotho with smaller subdivisions under these two main groups. Nguni groups were found in the eastern parts of the interior of South Africa and can be divided into the northern Nguni and the southern Nguni. The various Zulu and Swazi groups were generally associated with the northern Nguni whereas the southern Nguni comprised the Xhosa, Mpondo, Thembu and Mpondomise groups. The same geographically based divisions exist among Sotho groups where, under the western Sotho (or Tswana), groups such as the Rolong, Hurutshe, Kwena, Fokeng and Kgatla are found. The northern Sotho included the Pedi and amalgamation of smaller groups united to become the southern Sotho group or the Basutho. Other smaller language groups such as the Venda, Lemba and Tshonga Shangana transpired outside these major entities but as time progressed they were, however to lesser or greater extent influenced and absorbed by neighbouring groups. The Highveld areas of Gauteng and Mpumalanga were occupied during the last 500 years mainly by Ndebele and Pedi (Kgatla) groups. These Ndebele groups originated from the Hlubi, a small split group that moved to the north-eastern parts of the Transvaal where they became known as the Transvaal Ndebele (not to be confused with the Ndebele of Mzilikazi). Ndebele groups settled in areas surrounding present-day Pretoria, at Kwa Maza near present-day Stoffberg, at Polokwane and Modimole and across large parts of Mpumalanga. The Kgatla, a Pedi group was established at the end of the 15<sup>th</sup> century by chief Mokgatla, who broke away from the Hurutshe group to settle in the Witwatersrand area. The Kgatla resided in an expansive area that included present-day Pretoria, the surroundings of the Magaliesberg and areas around present-day Brits, Rustenburg, Modimolle and Warmbaths as well as the Pilansberg area. Isolated Kgatla communities also settled in the surroundings of Lydenburg, Middelburg, Bronkhorstspuit and the Soutpansberg.

#### **Later History: The Colonial Period**

For centuries the areas surrounding present-day Pretoria proved to be ideal farmland because of its water richness and the first white settlers trekked into this area during the early part of the 19th century. Specifically Lucas Bronkhorst and the Erasmus brothers occupied stretches of land surrounding the area that was later to become Pretoria. The first farms in the areas were registered at around 1850 and from the onset farmers practiced mixed farming. Most farmers in the region had at least two farms: a Highveld (summer) and a Bushveld (winter) farm. The farmers would move their cattle and other animals between winter and summer grazing; a practise that later manifested in place names in the area such as Rust de Winter and Winterfelt. The Berlin Mission Society established a mission station at Wallmannsthal in 1869 and the first missionary to server in this area was Mr Grünberger. The mission station became an important meeting place for displaced Tswana and Ndebele groups. The hamlet of Pienaars Rivier was formally established in 1908, although is served as a “outspan” for many years before that. A shop and hotel was set up for people stopping over at the river on their way north, developed.

#### **5. Recommendations**

As no heritage resources were noted in the area demarcated for the Babelegi steel recycling facility, and as the site has been adversely affected by previous and current construction activities, the author of this document recommends that the developer be exempted from further Phases of heritage and / or archaeological impact assessments, subject to Minimum Standards: Archaeological and Palaeontological Components of Impact Assessment as set out by the South African Heritage Resources Agency (SAHRA) which states that:



When a property is either very disturbed (e.g. has been quarried or mined) or is very small and the archaeologist can see that it is highly unlikely that any archaeological remains will be found, a '**Letter of Recommendation for Exemption**' from a full Phase 1 report may be supplied.

This recommendation is made subject to the following conditions:

- As the Highveld areas north of Pretoria are rich in heritage resources, a watching brief monitoring process is proposed for further construction activities at the site. Should any subsurface paleontological / archaeological material be exposed during construction activities, all activities should be suspended and the archaeological specialist should be notified immediately.
- Due cognisance should be taken of the larger archaeological landscape of the area in order to avoid the destruction of previously undetected heritage sites in the area.
- Cognisance should be taken of the National Heritage Resources Act (Act No. 25 of 1999, section 38) and detailed guidelines pertaining to Cultural Resources Management and prospective developments (see attached summary).



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## GENERAL LEGISLATIVE FRAMEWORK

The National Heritage Resources Act (Act No. 25 of 1999, section 38) provides guidelines for Cultural Resources Management and prospective developments:

“38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as:

(a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;

(b) the construction of a bridge or similar structure exceeding 50 m in length;

(c) any development or other activity which will change the character of a site:

(i) exceeding 5 000 m<sup>2</sup> in extent; or

(ii) involving three or more existing erven or subdivisions thereof; or

(iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or

(iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;

(d) the re-zoning of a site exceeding 10 000 m<sup>2</sup> in extent; or

(e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority,

must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.”

Consequently, section 35 of the Act requires Heritage Impact Assessments (HIA's) or scoping to be done for such developments in order for all heritage resources, that is, all places or objects of aesthetics, architectural, historic, scientific, social, spiritual linguistic or technological value or significance to be protected. Thus any assessment should make provision for the protection of all these heritage components, including archaeology, shipwrecks, battlefields, graves, and structures older than 60 years, living heritage, historical settlements, landscapes, geological sites, palaeontological sites and objects.

- It must also be clear that Archaeological Specialist Reports (AIA's), Heritage Impact Assessment Reports (HIA's) and included motivations and recommendations will be assessed by the relevant heritage resources authority (SAHRA). The final decision as to heritage resources conservation, mitigation and destruction rests with the heritage resources authority. The close vicinity of the existing Fort Jackson cemetery should be regarded and impact on existing graves / burial places should be avoided at all times.

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