

**McGregor Museum
Department of Archaeology**



Phase 2 Archaeological Investigation of the so-called 'Kemo Dump' (National Site Number 2824DB039) on Remainder of Erf 5024, Erf 6376 and Erf 5058, Vooruitzigt-81, Kimberley Northern Cape.

Abenicia Henderson
March 2023

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Author of this Report

The author and supervisor (now retired) are independent of the organization commissioning this specialist input and provide this heritage assessment (archaeology and colonial history but not palaeontology) within the framework of the National Heritage Resources Act (No 25 of 1999).

The author is a professional archaeologist (master's candidate) and CRM practitioner. As well as a member of the APHP (Association of Professional Heritage Practitioners) and SAfA (Society for Africanist Archaeologists). She has worked as a museum archaeologist and has carried out specialist research and surveys in the Northern and Eastern Cape since 2013.

Prof. Morris as supervisor is a professional archaeologist (PhD) accredited as a Principal Investigator by the Association of Southern African Professional Archaeologists. He has worked as a museum archaeologist and has carried out specialist research and surveys in the Northern Cape since 1985.

The National Heritage Resources Act no. 25 of 1999 (NHRA) protects heritage resources which include archaeological and palaeontological objects/sites older than 100 years, graves older than 60 years, structures older than 60 years, as well as intangible values attached to places. The Act requires that anyone intending to disturb, destroy or damage such sites/places, objects, and/or structures may not do so without a permit from the relevant heritage resources authority.

This means that a Heritage Impact Assessment should be performed, resulting in a specialist report as required by the relevant heritage resources authority/ies to assess whether authorisation may be granted for the disturbance or alteration, or destruction of heritage resources.

Where archaeological sites and palaeontological remains are concerned, the South African Heritage Resources Agency (SAHRA) at the national level acts on an agency basis for the Provincial Heritage Resources Agency (PHRA) in the Northern Cape. The Northern Cape Heritage Resources Authority (formerly called Ngwao Bošwa ya Kapa Bokone) is responsible for the built environment and other colonial era heritage and contemporary cultural values.

EXECUTIVE SUMMARY

This document represents the Phase 2 Archaeological Investigation conducted on the ash heap/refuse midden known as the 'Kemo Dump' located on the remainder of Erf 5024, Erf 6376, and Erf 5058, Vooruitzicht-81, Kimberley, Northern Cape as allowed by **Permit:** No.80/06/09/004/51. The feature will be impacted by the proposed mining debris clearance as indicated on the Phase 1 Impact Assessment Report (See Morris –October 2005). It was recommended that mitigation measures be implemented before the removal of the mining debris. These recommendations were supported by SAHRA in their review comments of the said report. The author's supervisor was appointed in 2006 to carry out the required mitigation work and assess the state of archaeological heritage identified after completion of the first study, for which a permit was applied for, and issued by SAHRA. Fieldwork commenced on the 2nd of October 2006 and the limited Phase 2 excavation took approximately 14 days to complete.

INTRODUCTION

This report describes the Phase 2 data recovery undertaken at the 'Kemo-Dump' (National Site Number (2824DB039) on the remainders of Erf 5024, Erf 6376, and Erf 5058. This site lies within an open piece of municipal land adjacent to Floors Township, behind the Kemo Motel and alongside Madeliefie Street. The phase 1 Archaeological Impact Assessment of the ash heap was carried out in 2005, with limited Phase 2 follow-up evaluation commencing the following year at the request of Mr. M.J. Raath as per a directive from SAHRA.

Mitigation was only carried out on selected sections of the midden. The primary aim of this action was to recover a complete documented sample of the archaeological material that is illustrative of the affected area. This sample will serve to lessen the adverse effects caused by the destruction and enable the preservation of the valuable information contained within the resources.

The report describes this undertaking and will discuss in detail the work conducted during the fieldwork in fulfillment of the SAHRA Permit requirements.

It is believed that the mitigation conducted and described in this report was done successfully, as it produced a dataset that is now housed at the McGregor Museum, Kimberley. The proposed debris clearance should thus be allowed to continue taking into consideration the recommendations put forward at the end of this report.

TERMS OF REFERENCE

1. Comply with all the requirements made in the letter of appointment and in accordance with the South African Heritage Act.
2. The excavation of sections from the refuse midden to recover as much cultural material from it to determine its depth, time-frame, and social status. The excavated sample will serve to lessen the adverse effects caused by the destruction of the remaining threatened archaeological material, and enable the preservation of the valuable information contained within resources to survive the destruction that will be caused by the mining activity.
3. Sectional drawing of the affected area
4. Completions of Phase 2 Report in fulfillment with the SAHRA excavation permit requirements.
5. Propose further mitigation measures

BRIEF LEGISLATIVE REQUIREMENTS

Components that regard the conservation of cultural resources are dealt with in two acts. These are the National Heritage Resource Act (No 25 of 1999), and the National Environmental Management Act (No 107 of 1998).

1. The National Heritage Resources Act (No 25 of 1999) (NHRA) provides protection for archaeological resources. Part of sections 34(1), 35(4), 36(3) and 38(1) (8) of the National Heritage Resources Act 25 of 1999 apply:

Structures

- 34 (1) No person may alter or demolish any structure or part of a structure which is Older than 60 years without a permit issued by the relevant provincial heritage resources authority
SAHRA at national level acts on an agency basis for the Provincial Heritage Resources Agency (PHRA) in the Northern Cape, where archaeological sites are concerned. Permit applications should be made to SAHRA office in Cape Town.

Archaeology, palaeontology and meteorites

- 35 (4) No person may, without a permit issued by the responsible heritage resources authority—
- (a) destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;
 - (b) destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;
 - (d) bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment which assist in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.

Burial grounds and graves

36. (3) (a) No person may, without a permit issued by SAHRA or a provincial heritage resources authority—
- (a) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;
 - (b) destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or
 - (c) bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation equipment, or any equipment which assists in the detection or recovery of metals.

Heritage resources management

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

- (a) the construction of a road, wall, power line, 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 50m in length;
- (c) any development or other activity which will change the character of the site –
 - (i) exceeding 5000m² in extent, or
 - (ii) involving three or more 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 resources authority;
- (d) the re-zoning of a site exceeding 10 000m² in extent; or
- (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must as 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.

2. The National Environmental Management Act:

The act states that for any project, which ultimately alters the face of the environment, a cultural resource survey or evaluation must be done. The impact of the development on these resources should be determined and proposals for the mitigation thereof made.

In this case the rescue excavation of the find by way of mitigation was to obtain a scientifically significant sample in order for the destruction to proceed.

METHODOLOGY

The primary goal for the Phase 2 Archaeological Investigation was to develop a comprehensive understanding of the contents found at the refuse midden.

The Methodology used was designed to:

- Delineate and document all above ground features and structure location as they exist today
- Identify subsurface features using geospatial survey and hand excavation
- Delineate and sample artefact concentration using test pits (trenches)
- Excavate and document selected subsurface features
- Analyze the resulting artefact assemblage

The methodology used comprises the following:

Desktop study

This included background research on the history/archaeology of the geographical area within which the site falls.

Photographic

Photographs of the site and excavations were taken as well as individual cultural material for recording purposes and analysis.

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De Beers Consolidated Mines Limited
Kimberley Mines
Ash and Shale Dump
Colville Corridor
Scale 1: 5 000



The figure shaded grey represents a Dump containing Ash and Shale and situated on the following erven: Remainder Portion of Erf 5024 owned by De Beers, Erf 6376 owned by the Municipality and Erf 5058 owned by Diamond Park Country Club and situated on the farm Vooruitzicht 81 in the Administrative District Of Kimberley, Northern Cape Province.

Surveyor *[Signature]*.....

Chief Surveyor *[Signature]*.....

Date :... 10/08/2004.....

Figure 2: 1: 5000 Map from 2004 showing locality of Erfs for assessment (Mr. Raath)

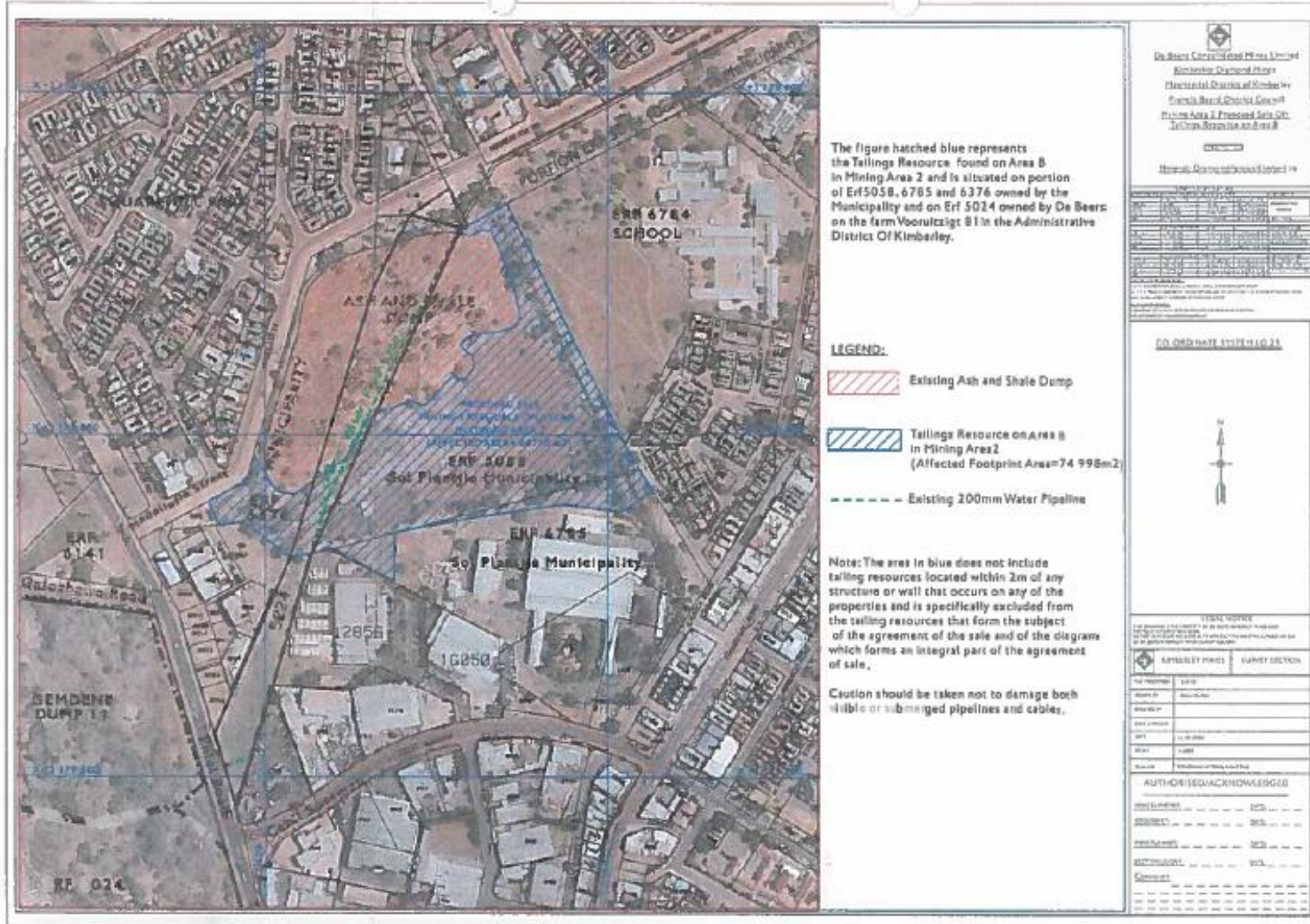


Figure 3: Topographic map showing ash and shale dump locality (Mr. Raath)

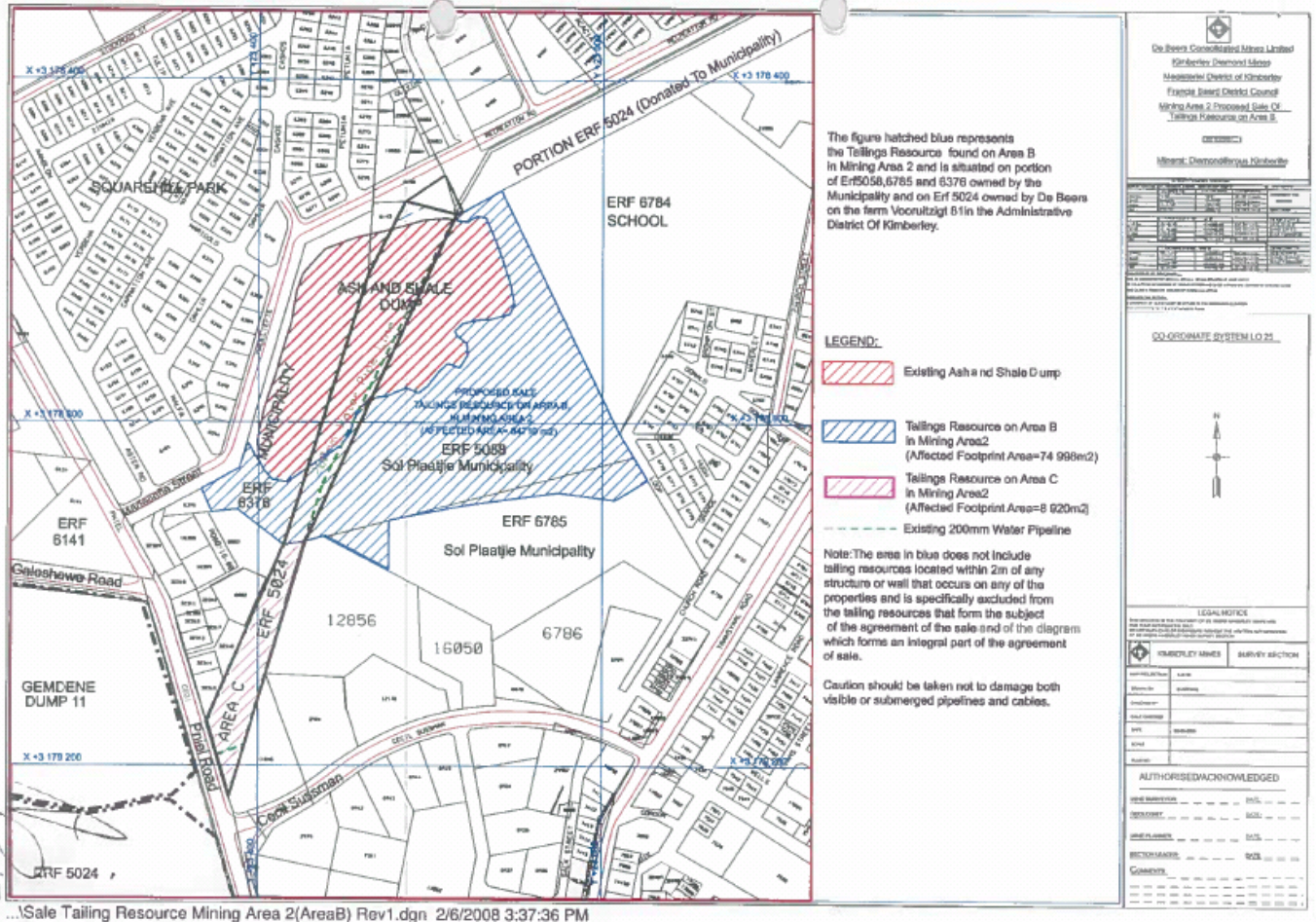


Figure 4: Topographic map from 2006 showing Tailing Resource Mining Plan (Mr. Raath)

SITE DESCRIPTION

On the 3rd of October 2005 the author's supervisor was contracted by Messrs I.A Peyper and R. Raath (P.O. Box 3190, Kimberley 8300) to conduct a Phase 1 Archaeological Impact Assessment Report for the proposed 'Kemo Dump' (National Site Number 2824DB039) on Remainder of Erf 5024, Erf 6376 and Erf 5058, Vooruitzigt-81, Kimberley, Northern Cape.

The general area has been widely disturbed in the past through the development of residential areas such as houses, roads, sports fields, and others. The immediate area today however is threatened by informal settlements in the surrounding area. Planned residential development, illegal mining activities and it has become a habitat for criminal activities.

The topography of the area comprises flat plains with dotted hills of mainly andesite to the North and North West, or Karoo age dolerite to the South and East. The terrain is veneered with Hutton sands over a shale/dolerite substrate and supports the Kimberley thornveld vegetation.

Besides the historical refuse midden identified, a few other features of possible heritage significance were identified during the initial assessment. These however will not be affected during removal so no further mitigation is required.



Figure 6: Geographical location of development (Google Earth-AfriGIS 2017)



Figure 7: Geographical location showing area to be removed (Google Earth-AfriGIS 2017)

BACKGROUND INFORMATION

The dump lying to the south and west of the line A-A (from about $28^{\circ}43.636'S$ $24^{\circ}45.644'E$ to $28^{\circ}43.567'S$ $24^{\circ}45.696'E$) consists of a historic midden containing ash and a wealth of cultural material which is in large measure stratified. The site was first investigated in a limited way in the early 1990s and registered at the McGregor Museum Archaeological Data Recording Centre. National Site Number 2824DB039 had been assigned to it. The upper part of this circa 4-6m high midden has been dug into sporadically by bottle diggers, but almost all sections have been cut into it recently at its southern and western margins reveal stratified in situ deposit. What was not clear was whether this was a primary, or secondary dumping site: it seemed possible that it was a secondary dumping area for ash middens cleared from elsewhere in the city in the first half of the twentieth century.

The striking stratigraphy gives the site some integrity which would allow unraveling of deposition processes.

According to oral testimony, this was debris from a mining compound which seemed contradicted by the finding of plate fragments from the upper market Hotel Belgrave (1902-1933). It is not impossible, that some strata within the midden may indeed represent discard from mining compound/s. the presence of compound debris could greatly enhance the value of the site since none of the previously sampled middens in the Kimberley area could be linked with the significant Kimberley's social history. There is good bone preservation and a wide range of cultural survives. A paper tram ticket (Kimberley trams ceased to run in 1939) was found in this dump in the 1990s.

Much of the space south of the historic midden (i.e. the dump south and west of line A-A) has been cleared and flattened. The south end of the ash midden has been partly damaged by this clearance and the upper two-thirds of the midden were cut back by several metres. Vertical (stratified) sections at that point (28°43.620'S 24°45.650'E) were unstable and could easily collapse.

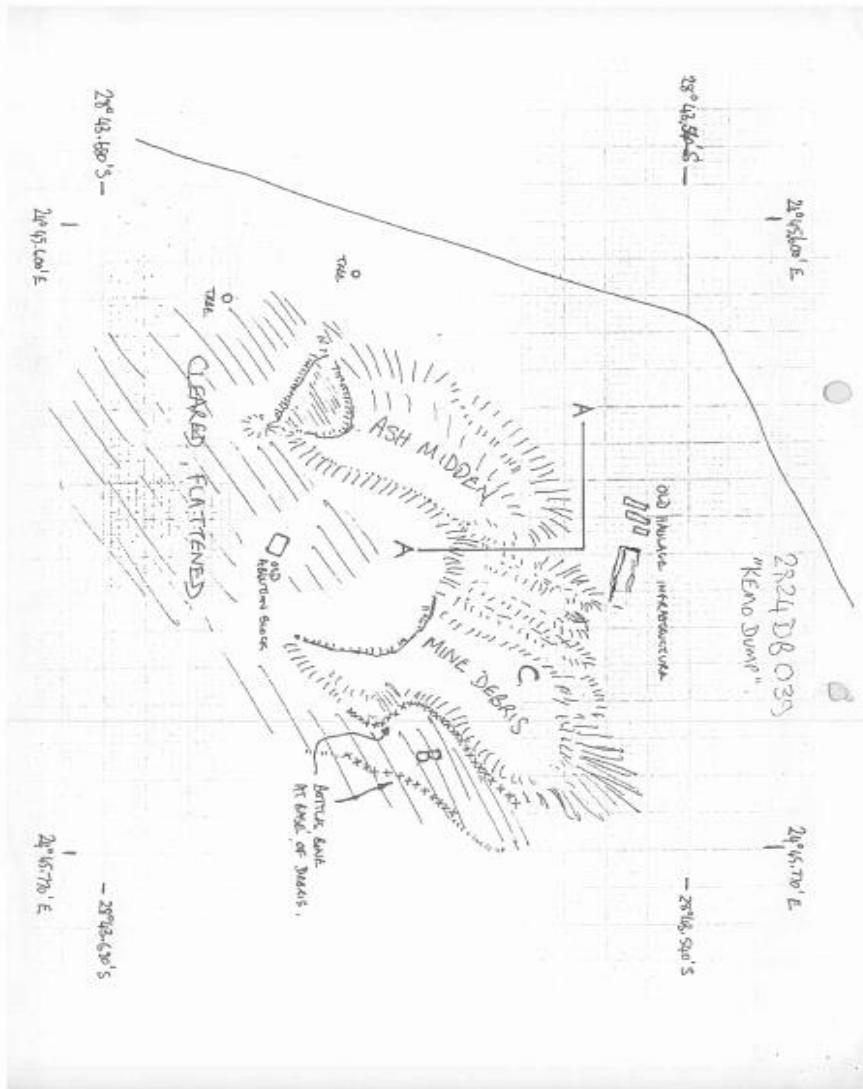


Figure 8: Sectional drawing of the excavated areas (David Morris)

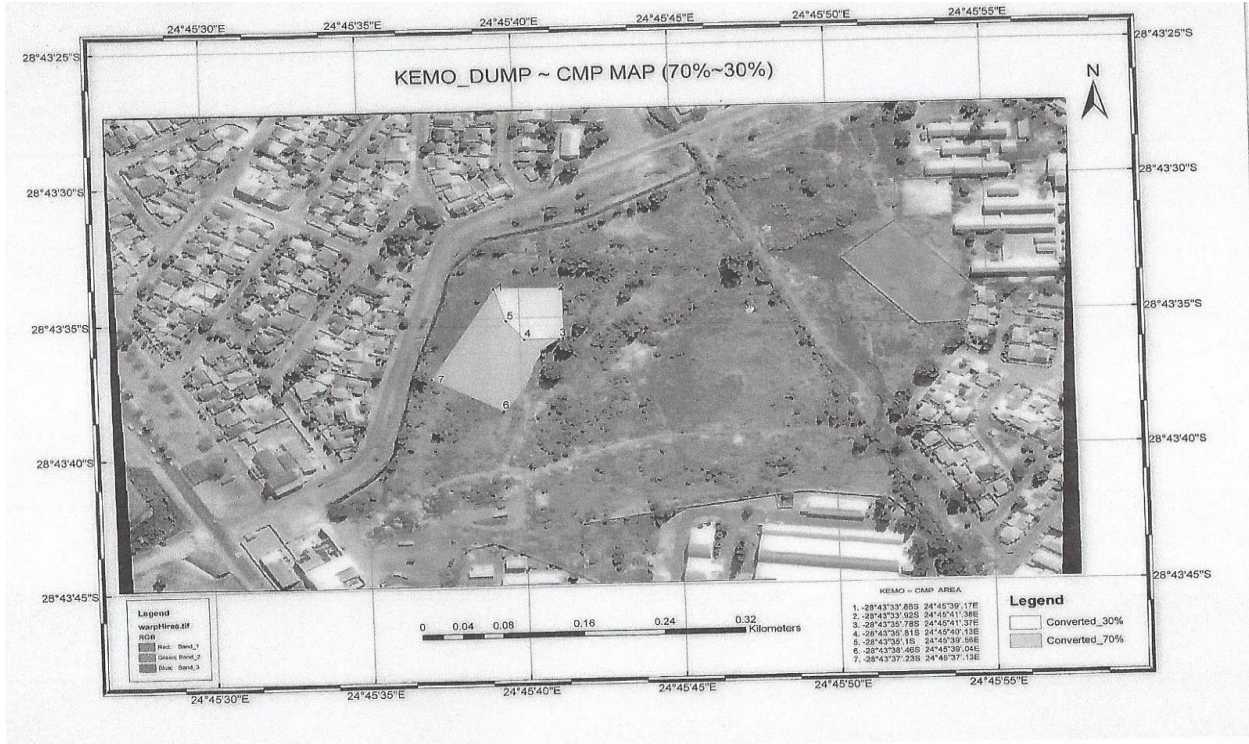


Figure 9: Satellite Map indicating the proposed mining and preservation areas

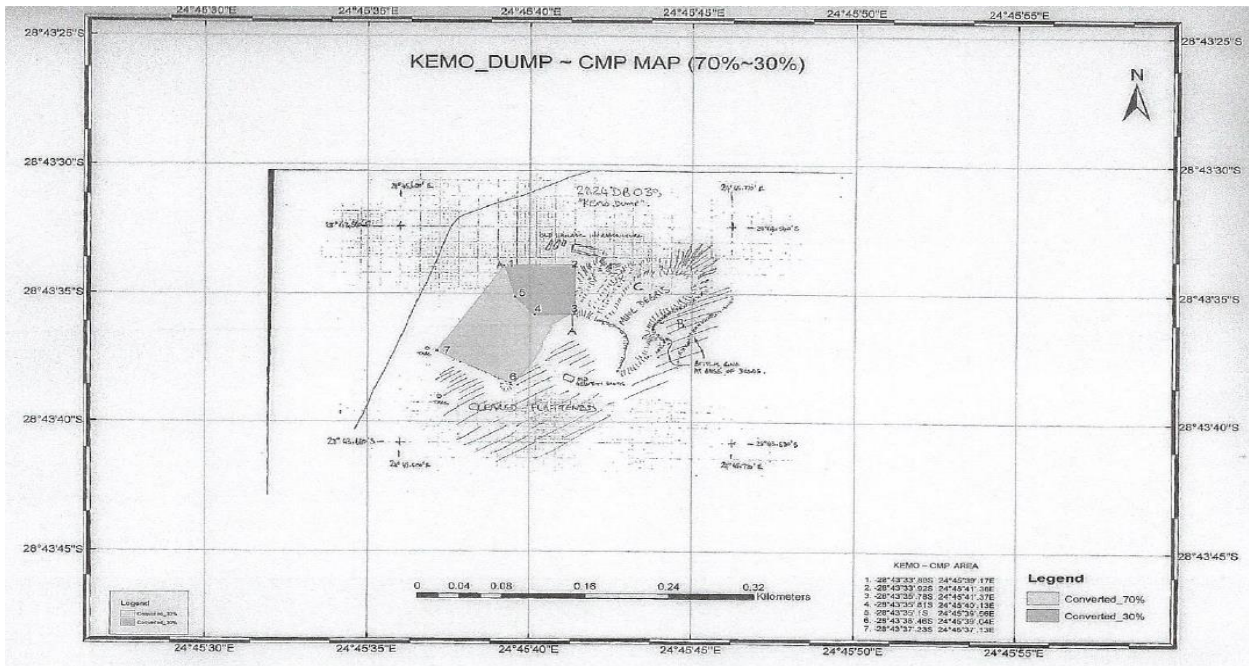


Figure 10: Sectional drawing Map illustrating the proposed mining and preservation area.

HISTORICAL BACKGROUND

Kimberley is the oldest and largest city in the Northern Cape. The Kimberley Mine, originally known as the New Rush or Colesberg Kopje, was discovered on 16 July 1871 on the farm of Johannes Nicholas De Beer. This discovery gradually led to a rapid influx of diamond diggings to the dry diggings at New Rush, Dutoitspan, Bultfontein, and Old De Beers, and the establishment of the five major mines (Kimberley, De Beers, Dutoitspan, Bultfontein, and Wesselton) as well as smaller short-lived mines such as the Belgravia and Otto's Kopje Mines. Political stakes were heightened by competing claims of the governments of the time over the diamond fields: the Cape Colony, the Transvaal, Orange Free State Republics, and Griqualand under Nikolaas Waterboer. The Free State Boers wanted the area as it lay inside the natural borders created by the Orange and Vaal Rivers. The British Governor of Natal Lord Keate mediated and awarded the territory to Waterboer.

Individual claim holders in the mines joined to form ever-larger companies until ultimately, at Kimberley Mine, the companies of Rhodes and Barnato amalgamated in March 1888 and gave birth to the De Beers Consolidated Mines Ltd. This move was orchestrated by Cecil John Rhodes, Alfred Beit, Barney Barnato, and Charles Rudd. These men were quite controversial businessmen who ultimately controlled the diamond industry and used it as political leverage. Rhodes became Prime Minister of the Cape Colony and used his newfound political influence to advance the British imperial project which culminated in the colonisation of Bechuanaland (now Botswana), Northern and Southern Rhodesia (Zambia and Zimbabwe respectively), and Nyasaland (Malawi). De Beers has survived to this day as the largest diamond company in the world (although it has sold its Kimberley assets) and its maxim: a diamond is forever! inspires the ever-lucrative international diamond market. The Big Hole located in the centre of the city is a footprint of one of the five kimberlite pipes mined from the late 19th century. It has been preserved as a tourist attraction that epitomises the "rush" and the lasting impact of minerals in the history of South Africa and the Southern African region. Several battles took place in the vicinity of Kimberley, the Boers having laid siege to Kimberley, 1899-1900, during the Anglo-Boer War, trapping more than 50 000 inhabitants. The Battle of Magersfontein, 25km southwest of the town was fought on 11 December 1899. The Boers won that round in what became known as Britain's 'Black Week' during which Scotland's Highland Brigade suffered the worst casualties. A battlefield museum (satellite of the McGregor Museum) opened there in 1971.

Diamond diggings have thus been established as the main bookmark in Kimberley and has been fundamental in shaping the course of the region's history. The diggings began in 1871 and ended by 1914.

During late 1800 tailing resources were dumped on the area by De Beers Mining Company Ltd. Records indicate that during the 1890's the deeds were registered in De Beers Company name, declaring these tailings dumps as movable assets. During the 19th-20th century the area on which the tailing lie was used as a refuse dumping site and declared as such during 1957 when it was registered as a Municipal refuse dump.

In August 2004 the remains of the De Beer's tailings were bought by Mr. Raath. Title deeds of the erven including the Kemo Dump, were then transferred onto his name.

The historic dumps in the Kimberley area are heritage features, with a small suite of them in the vicinity of the Big Hole having been singled out for preservation as part of the historic industrial/mining landscape of the early Kimberley. The Kemo Dump is one such relic, and consists of a historic midden containing ash and a wealth of cultural material, which is in large measure stratified.

ARTEFACT ASSEMBLAGE

The Excavation

During the investigation, a grid was laid out across the top of the midden at its southern end and four test trenches dug to assess the nature of the cultural stratigraphy at the top of the midden and at various heights within strata revealed by clearance work described in the background.

Two test trenches at the top of the sequence revealed the presence of a mix of rubble (with some building material) and mostly culturally sterile ground which overlay a hardish sterile calcrete layer. Beneath this, a first ashy layer with cultural material was encountered at a depth of up to 40cm. The material in this top-most layer could be about the mid-twentieth century in age but has yet to be assessed.

A third trench was selected to sample a zone beneath this top-most cultural layer and a stratum of immense richness that was exposed in the mining section at the south end dump; as well as to investigate the richer layer mentioned. These layers were separated by a mostly sterile yellowish sandy deposit which may have been scraped up nearby floors, possibly to reduce dust levels of the ash-heap. The lower cultural unit is a distinctive layer with high densities of broken crockery, glass, and other cultural material in a reddish matrix. This material appears to be older than the layers above, suggesting that the upper part of the dump has some chronostratigraphic integrity from the older to the younger.

The cultural material recovered included bottles, glass pieces, faunal remains (animal bones as seen in Figure 35), metal, ceramics, and various fragments of other objects. The results gathered from the analysis of the cultural material are discussed in the next section.



Figure 9: View of a section of the excavation area (D Morris)



Figure 10a:



Figure 10b:



Figure 10c: Figure 10 a-c different sections of spits (D Morris 2006)



Figure 11a:



Figure 11b:



Figure 11c: Photographs indicating the different stratigraphic layers (D Morris)

Table 1: Indicates the different excavation stratum levels, material culture found on each level as well as the soil variation.

Porcelain (P)	Glass (G)	Metal (M)	Brick (B)	Ash (A)	Lithic (L)	Bone (B ₂)	Botanical (B ₃)	Charcoal (C)	Shell (S)
Wood (W)									

	TT4	TT4B	134 AB	AA 116	AB 116	AC 116	100 Z	100 ZAA	99 AA/AB	100 AB
0-10	<p>Sandy dry soil with patches of black.</p> <p>Level content: G, M, A, B₂, S, Ringlet and Buttons</p>	<p>Sandy dry soil.</p> <p>Level content: P, G, M, B₂, S and Bead</p>	<p>Brown and sandy soil with builder rubble.</p> <p>Level content: G, B, L, Sewerage pipe fragments (ceramic), C and Metal</p>	<p>Soil texture changes from 0-10cm.</p> <p>Level content: G, M, B and C</p>	<p>No change in soil texture.</p> <p>Level content: P, G, M, B, B₂, C and Rubber</p>	<p>No variation in soil texture.</p> <p>Level content: G, M, B₂, B₃ and C</p>	<p>Sandy dry soil.</p> <p>Level content: P, G, M, B, B₂, S, Asbestos, Button and a Rubber sole</p>	<p>Sandy dry soil.</p> <p>Level content: P, G, M, B, L, B₂, C, S and Bead</p>	<p>Red, Brown and Yellow with metal and Ashy with a lot of coal. The level yielded a lot of coal, brick and stone. See diagram 0-10.</p> <p>Level content: P, G, M, B₂, B₃, C, Linolium, S(egg) and Rubber</p>	<p>Gritty soil, some coal /charcoal nodules. Bone, glass etc. is intrusive from the edge of the feature. Removal of disturbance square being excavated, to clear away rounded edge, and for excavating strata. See Diagram for 0-20.</p>

<p>Soil is blacker with sparse reddish.</p> <p><u>Level content:</u> P, G, M, A, B₂, Eggshell and Coal</p>	<p>On one side its sandy dry soil. On the other side the soil is wet, and mixed with coal.</p> <p><u>Level content:</u> P, G, M, B₂, and S</p>	<p>Brown soil with grey soil near the squares edges. A large number of bricks and stones were found in level.</p> <p><u>Level content:</u> P, G, M, B, B₂, C and W</p>	<p>Two entries (1)-soil changes to reddish. P, G, M, B₂, C, Stones and a Rusted piece of corrugated iron. (2)-soil changes to a darkish grey colour.</p> <p><u>Level content:</u> P, G, M, B, B₂ and C</p>	<p>Soil texture turns lighter with a small concentration of calcrete.</p> <p><u>Level content:</u> G, M, B (large number), L, B₂ and C</p>	<p>Soil texture turns dark greyish.</p> <p><u>Level content:</u> G, M, B, B₂ and C.</p>	<p>Brownish with sparse reddish and a little ashy, yielding bricks. On the south side of the square 100Z there's a lot of ash coming out, and on the eastern side emerges glass bottle and metal with a change in stratigraphy</p>	<p>Sandy, brownish</p> <p><u>Level content:</u> P, G, M, B₂, C, S (egg) and Doll</p>	<p>Red, Yellow discolored due to metal contains lots of coal, metal, rubber and glass. This unit yielded a mixture of Ashy, Red and Yellowish soil. See diagram 10-20.</p> <p><u>Level content:</u> P, G, M, B, L, B₂, B₃, W and Bead</p>	<p>Same as above sand infill 0-10 + 10-20. See diagram</p>
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Coal with soil (black and brown). <u>Level content:</u> P, G, M, B ₂ , B ₃ , C, Peach see, Button, Bead and Slate pen	Sandy dry soil mixed with coal <u>Level content:</u> P, G, M, B, B ₂ , C and S	Same as above. The level was excavated from 10-30.	No change is soil texture. Large metal pieces are being found on this level. <u>Level content:</u> P, G, M, B, L, B ₂ and C	Soil becomes whitish and the level seems to have a large concentration of rocks. <u>Level content:</u> G, M, B, and C	Soil becomes whitish and the level seems to have a large concentration of rocks.	Brownish, Red with ashy patches. <u>Level content:</u> P, G (lots of glass fragments), M, B, B ₂ , Pipe piece and Rubber	Sandy, brown soil. Cultural material getting lesser. <u>Level content:</u> G, M, B ₂ , S (egg) and Button	Reddish (reddish black) with Yellowish stains. See diagram 20-30 <u>Level content:</u> P, G, M, B, L, B ₂ , B ₃ , C, W, S (egg), Pen and Button	Same as above gritty mostly but not entirely sterile, small charcoal nodules. Slight clayey laminations. Isolated piece a bone and porcelain (bagged separately) in unit. Other materials most likely from adjoining unit (ashy). See diagram
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30-40	Soil (black and loomy). Level content: P, G, M, B ₂ , A, Bottle, Pottery pot, Pipe and Eggshell	Sandy dry soil mixed with coal. Level content: P, G, M, B, A, B ₂ , C, S and Button	Ashy soil with a large number of glass and metal. Level content: P, G, M, B, A, B ₂ , C and W	Soil turns lighter as small amounts of calcrete are being found in level. Larger rocks start to appear from 30-40cm.	Soil is lighter with calcrete present in the soil. The level contains large pieces of brick.	Soil is white and a large amount of calcrete is present in level. Large rocks are also being found in level.	Sandy brownish with a little reddish colour with slight ashy. Level content: Fragments of B ₂ , G, P, S and M	Sandy brown soil Level content: P, G, M, B ₂ , S (egg), Button and Slate pen		The removal of 30-40 feature (gritty, sand and clay)+ 30 -40 in situ (ashy- "unit" glass, bone, tooth. See diagram
40-50	Soil is blacker (mixture of ash and coal). Level content: P, G, M-level contains more metal, B ₂ and Clay pot.	Sandy dry soil mixed with coal. Level content: P, G, M, B, B ₂ , C, S and Button	Ashy soil with a number of complete bottles. Level content: P, G, M, B, A, B ₂ , C and W	Sandy dry soil with lots of stones on the surface. Level content: G, M, B, L, B ₂ , C and Slate	Sandy dry soil that turns lighter. Large pieces of brick were found. Level content: G, M, B, B ₂ , C and Slate	Sandy dry soil. Level content: P, G, M, B, B ₂ , C, W and rubber.	Brown, Sandy and Ashy soil. Contains lots of coal and eggshell. Level content: P, G, M, B, A, B ₂ and Bead	Dry, Sandy, Ashy soil Level content: P, G, M, B, B ₂ , B ₃ , C, W, Button and Pumpkin pit	See diagram 40-50	40-50 feature and 40-50 in situ.

50-60	Soil is blacker (coal and ash). Level content: P, G, M, B, B ₂ , S and Ceramic	Sandy dry soil mixed with coal. Level content: P, G, M, B, A, B ₂ , B ₃ , C and Cloth	Ash containing a lot of material and brown soil at the base of the unit. Level content: P, G, M, B, A, B ₂ , C, S and W	Sandy dry soil with stones on the surface. Level content: G, M, B, B ₂ and C	Sandy dry soil, large pieces of brick were found. Level content: P, G, M, B, B ₂ , C and W	Sandy dry soil. Level content: G, M, B, B ₂ , W and "Paips"	Brownish, Sandy, Ashy and Reddish soil. The unit is rich with coal and eggshell. Level content: P, G, M, L, B ₂ , B ₃ and Tyre	Brownish, Ashy Level content: P, G, M, B ₂ , S (egg) and Buttons		Yellowish sand and orange-contains metal plus some glass. See diagrams
60-70	Sandy dry soil mixed with coal. Level content: P, G, M, B ₂ , C, S, Button and Slate	Sandy dry soil mixed with coal. Level content: P, G, M, B ₂ , C, S, Button and Slate	Some ash at the top layer of the spit, with brown soil containing large stones. Level content: P, G, M, A, B ₂ , B ₃ , C, S and W	Sandy dry soil. Level content: G, M, B, B ₂ and C	Sandy dry soil with small pieces of bricks. Level content: P, G, M, B, B ₂ and C	Sandy dry soil. Level content: G, M, C and Leather	Sandy dry soil. Level content: G, M and B ₂	Sandy dry soil. Level content: G, M, B, B ₂ and Button		Remains of ash. See diagram

70-80	Sandy dry soil with coal. Level content: P, G, M, B, B ₂ , C, S and Button	Brown soil the level contains a lot of stones. Level content: G, M, B, B ₂ , C and W	Soil turned red. Level content: G, M, B and B ₂	Sandy dry soil. Level content: G, M, B, B ₂ and C	Soil turns red. Level content: G, M, B, B ₂ and C				
	80-90	Soil mixed with coal. Level content: G, M, B, B ₂ , C, S and Slate		Soil turns grey. Level content: G, M, B ₂ and C	Sandy dry soil (soil is lighter), with small pieces of bricks. Level content: G, M, B, B ₂ and C	Sandy dry soil. Level content: G, M, B, B ₂ and C			

<p>Sandy dry soil mixed with ash.</p> <p><u>Level content:</u> P, G, M, B, A, B₂, B₃, S and Button</p>	<p>Ash with red soil at the base of the spit. The ash contains a large number of bricks as well as one tooth found (could be human/animal).</p> <p><u>Level content:</u> P, G, M, B, A, B₂, B₃, C, S, W and fish scales</p>	<p>Sandy dry soil with small pieces of calcrete in the soil.</p> <p><u>Level content:</u> G, M, B, B₂ and C</p>	<p>Sandy dry soil (soil turns lighter), with small pieces of brick and calcrete.</p> <p><u>Level content:</u> G, M, B, B₂ and C</p>	<p>The soil turns lighter and there is a vast change in the soil texture of the level, as a large concentration of calcrete (wall [layer]) appears. There are sectional disturbances in stratum as a large amount of bricks are protruding/ appearing in the walls.</p> <p><u>Level content:</u> P, G, M, B, B₂ and C</p>				
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100-110		<p>Sandy dry soil.</p> <p>Level content: P, G, M, B₂, B₃, S and Button.</p>	<p>A mixture of ash and red soil containing a lot of bricks.</p> <p>Level content: P, G, M, B, A, L, B₂, B₃, C, S, W and Leather.</p>	<p>Soil texture changes to clay. Artefacts are getting less.</p> <p>Level content: G, M, B and C.</p>	<p>Soil texture changes to clay and the artefacts are getting less. Large pieces of calcrete found.</p> <p>Level content: G, M, B, B₂ and C.</p>	<p>Soil colour is a blend of green/ Greyish and it is clayish. The layers in level also vary.</p> <p>Level content: G, M, C and W</p>				
110-120		<p>Sandy dry soil.</p> <p>Level content: P, G, M, B, B₂ and S.</p>	<p>Brown soil-very stony.</p> <p>Level content: P, G, M, B, A, B₂, C, S, W and Fish scales.</p>	<p>Sandy dry soil.</p> <p>Level content: G, M, B₂, C and Pipe.</p>	<p>Sandy red soil and calcrete. As the soil changes the artefact are more prominent.</p> <p>Level content: G, M, B, B₂ and C.</p>	<p>Soil is ashy with red soil in some parts (ash midden)</p> <p>Level content: G, M, A, B₂ and C</p>				

120-130		<p>Soil changed to brown color mixed with ash.</p> <p>Level content: P, G, M, B, B₂, B₃, C, S and W</p>	<p>Brown stony soil with ash at the base of the pit.</p> <p>Level content: P, G, M, B, B₂, C and Fish scales</p>	<p>Top of the spit was brown, soil changes to red. With a clear ash midden at the base of the spit.</p> <p>Level content: G, M, A, B₂, C and Leather</p>	<p>Red soil, at the top of the spit was brown sand containing some bottles. Hit ash midden with lots of glass, metal, etc. at about 130cm. Very clear ash at the base of the spit.</p> <p>Level content: P, G, M, B, A, B₂ and C</p>	<p>Red soil and ash. At the top of the spit was brown sand with some glass pieces, and underneath it was a thin layer of an ash midden.</p> <p>Level content: P, G, M, A, B₂, C and W</p>				
130-140		<p>Soil changed to brown with ash.</p> <p>Level content: P, G, M, B₂, B₃, C, S and Button</p>	<p>A mixture of red soil and ash.</p> <p>Level content: P, G, M, A, B₂, C, S, W, Glass marble, Fish scales and Bead</p>	<p>Ash midden</p> <p>Level content; P, G, M, B, A, B₂, B₃, C, S and W</p>						

140-150		<p>Brown soil mixed with a lot of ash.</p> <p>Level content: P, G, M, B, A, B₂, B₃, C, S, W, Button and Shoe sole</p>		<p>Brownish soil at the base of the ash (reached the base of the ash midden which was a bit thicker).</p> <p>Level content: P, G, M, B, A, B₂, B₃, C, S and W</p>						
150-160		<p>Brown soil mixed with ash.</p> <p>Level content: P, G, M, B₂, B₃, C, W and Button</p>								

160-170		Brown soil mixed with ash. Level content: P, G, M, B ₂ , C, S, W and Button								
170-180		Lots of metal found in soil. Level content: P, G (less), M, B, B ₂ , B ₃ and W								
180-190		Soil mixed with a lot of ash. Level content: P, G, M, B ₂ and C								

Cultural Material

Supplementary to the excavated material, a surface collection was also sampled and it included but was not limited to the following:

- Hotel Belgrave plate fragment (1902-1933)
- Kimberley Hospital plate fragment (1892)
- Horseshoe
- Pencil
- Shell
- Clay pipe (early –mid 1800s)
- Metal nails
- Metal lid
- Bone
- Crayons
- Flake
- Rubber Ball

The abovementioned served as a superficial sample for analysis that was illustrative of the age of the site. The plate fragments that were found date from the late 1800s to the 1900s. The first clay pipes were developed in Britain during the 16th century-the first British settlers arrived in the Cape Colony in 1806 and spread to the rest of the country gradually, occupying Kimberley by the mid to late 1800s (Cecil John Rhodes-1870). Dating the site based on surface observation from 19th-20th century.



Figure 12: Kimberley Hospital and Hotel Belgrave plate fragments



Figure 13: Surface collection of nails, shell, clay pipe, an horseshoe



Figure 14: Surface collection of metal lid, bone, crayon, worked stone and ball

The rest of the surface material collected focused on items with distinguishing marks where exact dates for objects could be established. These objects were grouped into Porcelain with decoration marks and Glass with makers marks.

The glass included 11 pieces that were made up of the following:

- X1 Milton bottle
- X2 ink bottles
- X2 bottle stoppers
- X2 Codd bottles
- X1 Heynes Mathew LTD
- X1 Perfume bottle
- X2 Medicine bottles



Figure 15: Holbrook & Co. bottle top



Figure 16: Heynes Mathew LTD



Figure 17: Surface collection glass bottle pieces

The porcelain included 18 diagnostic pieces made up of the following:

-X3 The Shilling Factory: Stockdale St. Kimberley, Ginger Beer bottles (type 1 and 2 –see table 2).

-X1 Yuan Dynasty Plate fragment

-8 plate and crockery fragments

-X1 Walkers Kilmarnock Whisky ashtray

-X1 Johnson Bros England fragment

-X1 Bulwell Nottingham Pottery

-X2 Union K fragments

-X1 P.A.L.T Czeco-Slovakia fragment



Figure 18: Nottingham Pottery



Figure 19: Yuan Dynasty plate



Figure 20: Some of the surface collection porcelain pieces



Figure 21: Some of the surface collection porcelain pieces

Excavation Cultural material

From the excavation- 10 different stratum levels: with soil variation are identified. The layers- were dug in 10cm spits seen in Table 1. In Morris's initial assessment report, he mentions that the bottom layers were younger than the top layers. This chronology mentioned is supported by the excavation sample where material collected from the lower levels date to the 1800s as opposed to the upper layers that date to later periods. Although, there are occurrences of mixed cultural material. For the most part, it follows some chronology.

The majority of the dateable artifacts represent periods from the late 1800s through to the early 20th century: which hints that the area might have been used as either a primary or secondary ash heap for the surrounding living areas.

Metal

The metal from the excavation formed a significant part of the recovered material assemblage analyzed and included an unknown amount of metal fragments from nails and screws, pot lids, wires, sieves, buttons, and other objects. The metal types consist of iron, lead, aluminum, and copper.



Figure 22: Various metal objects from the excavation



Figure 23: Different metal fragments



Figure 24: Wire, piece of sieve and other fragments and objects

Metal objects preserve poorly, so it's difficult to determine the exact date of the items.

Glass

The glass sample from the excavation was reasonably large and included identifiable and non-identifiable fragments from various bottle containers: seen in the representative sample taken from Table 2.

They represent and range from medicinal to poison containers, alcoholic to no alcoholic beverages, and foodstuffs i.e. Peck's container.

Glass objects was not limited to but included the following:

- Newton steamworks codd bottle flat and round bottom (1902-1910)
- Sullivan and son flat shaped bottom (1900s to 1905)

- Lenon bottle (from 1890)
- Liquid Veneer (1920)
- Pecks fish jars (early to mid 20th century)
- Table spoons bottle (1890)
- Milk glass ponds jarn (1950s)
- Cheseborough jar (1910)

The CHESEBROUGH MANFG.CO.CD New York Embossed Vaseline/Petroleum Jar marking was one of the ealier embossing variations for the Vaseline petroleum jars made of glass. and this sample dates to 1910 before 1940.

- Bovril jar (1930s)
- Eno bottle fragment (1890s)
- The shilling aerated water factory Kimberley codd bottle Piece (19 to early 20th century)
- Holbrook & co (1800- early 1900s)
- Chamberlains medicine bottle fragment (1930)
- Herblax Wellington & Company Inc. Norwood, mass medicine bottle fragment.

From the abovementioned sample taken, it is safe to say that the marked glass objects date from the 1800s to the 20th century. Confirming the proposed dates for the site, it also indicative of the chronology for the site.



Figure 25: Liquid Veneer Bottle, 2 Oz poison bottle fragment

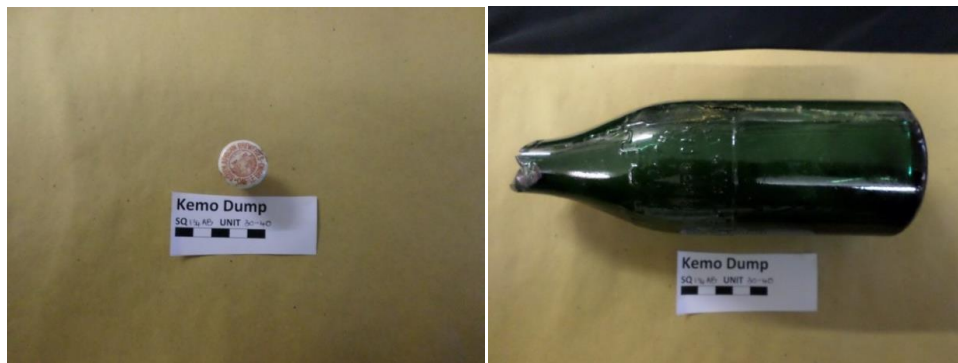


Figure 26: South Africa Breweries Bottle topper and bottle



Figure 27: Cheeseborough and Doctor Kiesows Essence of Life bottle



Figure 28: Codd bottle fragments from excavation



Figure 29: Lennon's bottle, Roger & Gallet Paris Perfume bottle, Milton bottle



Figure 30: Maclaren's Imperial Cheese EMB Milk Jar , Yardley cream jar, Ponds cold cream jar

Ceramics

A fair amount of ceramics varying from porcelain, stoneware, and ironstone forms part of the excavated assemblage. It included both decorated and undecorated pieces seen in Table 2. The objects represent but are not limited to cups, saucers, plates, ginger beer bottles, and pipes.

- Hutchenreuter Honenburg Bavaria ware (1914-1934)
- TK Czechoslovakia (1918-1945)
- John Maddock & Sons LTD: Burslem England (1896)
- Burleigh ware: B&L. LTD. England (pre-1940)
- The Shilling Factory, Stockdale St., Kimberley ginger beer bottle (late 19th -early 20th century)
- Royal Staffordshire Pottery: Wilkinson LTD England dinnerware (1910 replaced 1930)
- Sullivan' brewed ginger beer bottle (the 1900s)
- W.H. Grindley & Co: England (1914-1925)
- MZ Altrohlau CMR: Made in Czechoslovakia Type 1 (1800s-1900s); Type 2 : (1918-1939)

The makers' marks: from identified fragments, date from 1800 to the early 20th century-

When dealing with ceramics, however, it should be noted. That porcelain lasts a very long time often passed down from one generation to the next. It therefore, lasts a very long time and may only be discarded years after.



Figure 31: Ceramic pipe fragments



Figure 32: Various ceramic fragments from excavations



Figure 33: Ceramic fragments with makers marks



Figure 34: Ceramic fragments without makers marks

Faunal Remains

The preservation of cultural material and bone was very good at the excavated site. The sample was not analyzed in detail, but it indicates the presence of domesticated and non-domesticated animals.



Figure 35: Bone sample from excavated area

Miscellaneous

This included the following:

- beads -plastic, wood, and porcelin
- buttons-cotton,
- leather
- shells
- cloth-string
- pencils
- roll on ball
- ochre
- cork
- rubber
- lead

Most of these objects are modern and could date to the 20th century.



Figure 36: Shells, wine corks, and apricot seed



Figure 36: Various miscellaneous objects



Figure 37: Various beads and ochre




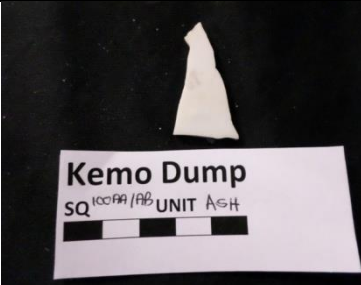




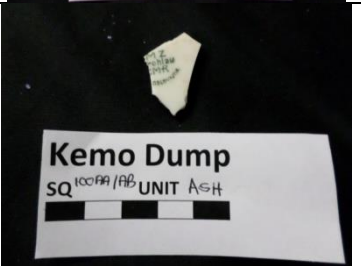

Figure 38: Buttons











Figure 39: Miscellaneous objects





TABLE 2: Illustrative small sample of recurring items that indicates the unit and square



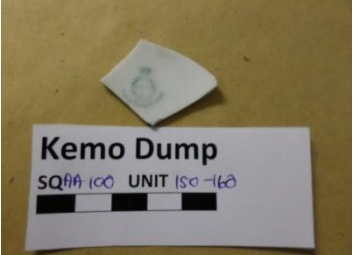

<u>Recurring Item</u>	<u>Unit</u>	<u>Square</u>	<u>Photo</u>
Green beer bottle type 1 (I)	AB 134	30-50	
MZ Altrohlau CMR Czechoslovakia type 2 (II)	AA 99	120/130	
TK Thuny Czechoslovakia (III)	AA 99/AB	50-60	
Numbered porcelain fragment (IV)	100 AA/AB	Ash midden	





Made in Germany dinnerware fragment (V)	100 AA/AB	Ash midden	
IV	100 AA/AB	Ash midden	
II	100 AA/AB	Ash midden	
Brown - South African Breweries LTD beer bottle base fragment (VI)	134 AB	30-50	





VI	AB 116	120-130	
VI	AB 134	30-50	
IV	100 ZAA	50-60	
The Shilling Factory Kimberley bottle fragment (VII)	TT4B	40-50	

Sullivan's Kimberley bottle fragment (VIII)	TT4B	40-50	
VI	AB 134	30-50	
I	AB 134	80-90	
MZ Altrohlau CMR Czechoslovakia type 1 (IX)	AA 100	140-150	





II	AB 100	110-120	
Hutschenreuther Hohenberg Bavaria (X) MZ Altrohlau CMR Czechoslovakia type 2 (II)	AA 100	40-50	
VI I	AA 116	130-140	
VI I	AB 134	70-80	

<p>II IX V</p>	<p>AA 99</p>	<p>130-140</p>	
<p>This bottle is not for resale fragment (XI)</p>	<p>TT4B</p>	<p>80-90</p>	
<p>Union K: Made in Czecho-Slovakia (XII)</p>	<p>AA 100</p>	<p>150-160</p>	
<p>Hutchenreuther Honenberg Bavaria ware (XIII) II</p>	<p>AA 100</p>	<p>150-160</p>	

<p>XII II IX</p>	<p>100 AA</p>	<p>60-70</p>	
<p>II V IX</p>	<p>100 AA</p>	<p>60-70</p>	
<p>IV IX</p>	<p>AA 99</p>	<p>130-140</p>	
<p>Chesebrough Jar (XIV) Lennon (XV)</p>	<p>TT4B</p>	<p>180-190</p>	

I	AB 116	130	
Green Beer Bottle-type 2 (XVI) Yardley of London Jar (XVII) I	AB 116	130	
LIQUID VENEER BOTTLE (XVIII)	TT4B	180-190	
	AB 116	110-120	

<p>THE SHILLING FACTORY: STOCKDALE ST. KIMBERLEY (XIX)</p>	<p>8060</p>	<p>SURFACE COLLECTION</p>	
<p>FOREIGN MARKED WARE (XX)</p>	<p>8060</p>	<p>SURFACE COLLECTION</p>	
<p>II IV (ONE ENGRAVED)</p>	<p>8060</p>	<p>SURFACE COLLECTION</p>	
<p>UNMARKED BOTTLE STOPPER (XXI)</p>	<p>8060</p>	<p>SURFACE COLLECTION</p>	

HOLBROOK & CO. BOTTLE STOPPER (XXII)	8060	SURFACE COLLECTION	
XXII	8060	SURFACE COLLECTION	
ROYAL STAFFORDSHIRE POTTERY : WILKINSON LTD ENGLAND DINNERWARE (XXIII)	8060	SURFACE COLLECTION	
XII	8060	SURFACE COLLECTION	

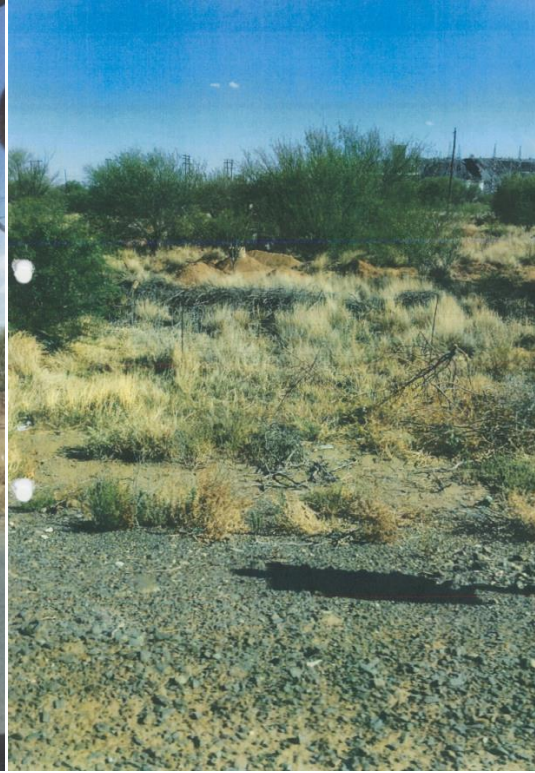
Conclusion and Recommendation

In conclusion, it can be said that the partial sampling conducted on the ash heap/refuse midden known as the 'Kemo Dump' located on the remainder of Erf 5024, Erf 6376, and Erf 5058, Vooruitzicht-81, Kimberley, Northern Cape as allowed by **Permit:** No.80/06/09/004/51 was done successfully. The feature will be impacted by the proposed mining debris clearance as indicated on the Phase 1 Impact Assessment Report (See Morris –October 2005). It was recommended that mitigation measures be implemented before the removal of the mining debris. These recommendations were supported by SAHRA in their review comments of the said report. The author's supervisor was appointed in 2006 to carry out the required mitigation work and assess the state of archaeological heritage identified after completion of the first study, for which a permit was applied for, and issued by SAHRA. Fieldwork commenced on the 2nd of October 2006 and the limited Phase 2 excavation took approximately 14 days to complete.

It is believed, that the archaeological mitigation work, was done successfully, and the proposed development should be allowed to continue. The material recovered included large amounts of metal, glass, ceramics, faunal remains, and other miscellaneous objects. The material analyzed is a good representative sample for the midden and provides a glimpse into the history of the town and area.

The following is recommended:

- In Morris's 2005 Report one of his recommendations was that clearance should not be extended deeper than the top layer of Dump 'C' (Figure 8) and that limited salvaging should be done on Area B and Dump 'C'.
- The dump west and south line A-A is known as the Kemo midden and classified as highly significant. It was benchmarked as an educational tool during discussions with the landowner, miner and local PHRA.
- Clearance with systematic sampling should occur, so an Archaeologist would need to be present at all times during removal.
- A Conservation Management Plan for the remaining 30%-pending SAHRA comment.



Opportunistic mining around kimberley 2019

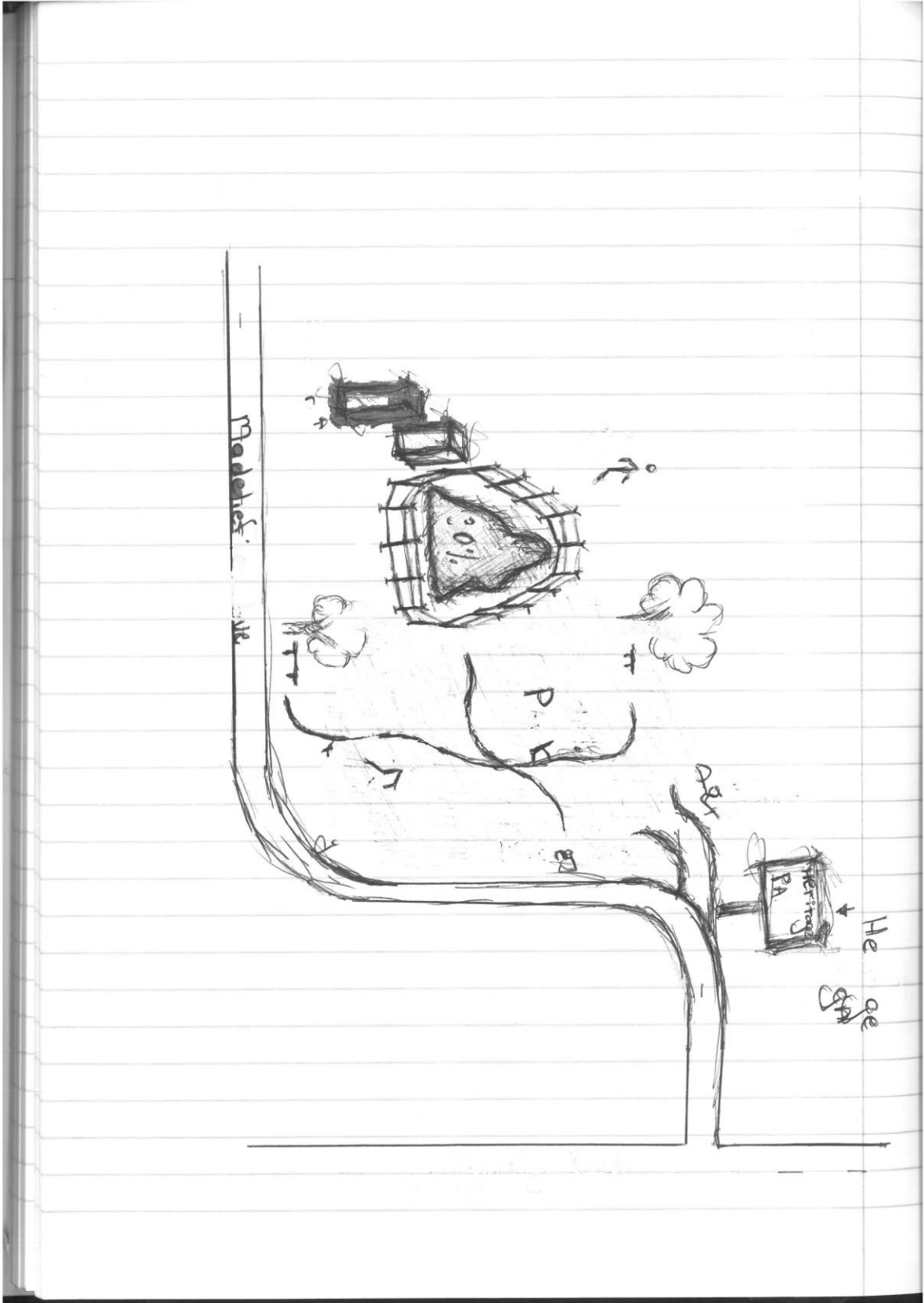


Kemo Dump pictures taken on 11/06/21



Kemo Dump pictures taken in April 2021

Proposed plan for the remaining 30%



Municipality letter

SOL PLAATJE MUNICIPALITY



DIR: INFRASTRUCTURE AND SERVICES

DIR: INFRASTRUKTURE EN DIENSTE

MOKAEDI WA: MAFARATLHATLHA LE DITIRELO

Privaatsak/Private Bag X5030
Kimberley 8300
Tel: (053) 8306 401
Fax: (053) 832 5367
Web Address:
www.solplaatje.org.za

REF No:

NAVRAR/ENQUIRIES : T. MATOLO/LM 053-8306300

23 February 2023

Attention Mrs H. Raath
2 Hugo Street
Monument Heights
KIMBERLEY
8301

Madam,


KEMO DUMP – REMOVAL THEREOF

We acknowledge receipt of your request as per your email dated 21 November 2022, regarding the above mentioned subject. In terms of the deed of sale between De Beers Consolidated Mines Limited and Mr M.J Raath/ Mrs H.M Raath, dated 10th March 2006, noting the sale of the movable asset (mining debris) located on erven 6376, 5024, 5058 and 6785.

Permission is hereby granted to remove mine debris deposited on municipal property, namely erven 6376, 5058 and 6785.

Yours faithfully


T. MATOLO
DEPUTY DIRECTOR
ROADS & STORMWATER

 24 Feb 2023
P. SITHOLE
ACTING EXECUTIVE DIRECTOR
INFRASTRUCTURE & SERVICES

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