

**ARCHAEOLOGICAL IMPACT ASSESSMENT  
PROPOSED MINING OF MINERAL SANDS AT TYOLOMNQA  
(KEISKAMMA) FARM 1163, NEAR EAST LONDON  
EASTERN CAPE**

Prepared for:

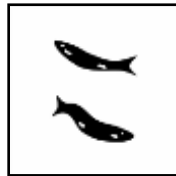
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By



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**JULY  
2019**

## **Executive summary**

### *1. Introduction*

ACRM was instructed by Assured Turnkey Solutions (ATS), on behalf of Vendicom (Pty) Ltd, to conduct an Archaeological Impact Assessment (AIA) in support of Environmental Authorisation and a Mining Permit Application, for proposed mining of mineral sands at Tyolomnqa (Keiskamma) Farm 1163, located about 40kms south of East London, near the mouth of the Chalumna River, in the Eastern Cape.

ATS is the appointed independent Environmental Assessment Practitioner (EAP) responsible for facilitating the Basic Assessment process for Environmental Authorization.

### *2. The development proposal*

The project entails bulk sampling/mining of heavy mineral sand deposits. Mining will be done using front-end loaders. The plant is designed and configured for classification, concentration, separation and recovery of metals and minerals. Heavy Mineral Concentrate product of approximately 700t per month will be generated, and will comprise of heavy minerals including Zircon, Ilmenite and Rutile in a concentrate mix. The mining footprint area is about 5ha in extent. On completing of the estimated 36 month mining period, the mine site will be rehabilitated and revert back to grassland/grazing.

Infrastructure associated with the project includes mobile administrative offices, ablution facilities, product storage containers, spares storage facility, security, and access roads to the mine site from the Provincial Road R72.

### *3. Aim*

The overall purpose of the study is to assess the sensitivity of archaeological resources in the proposed mining permit application area, to determine the potential impacts on such resources, and to avoid and/or minimise such impacts by means of management and/or mitigation measures.

A Heritage Screener (Appendix A) produced by CTS Heritage indicated the potential archaeological sensitivity of the proposed mining area.

According to the SAHRIS palaeo-sensitivity map, proposed mining may intersect potentially significant fossil deposits. A Chance Fossil Find Procedure is presented in Appendix B.

### *4. Findings*

A field assessment was undertaken on 19<sup>th</sup> July 2019, in which the following findings were made.

➤ No archaeological resources were recorded in the footprint area of the proposed mining area.

- No archaeological resources were recorded in the footprint area of the proposed infrastructure camp.
- No graves or typical grave features were encountered in the footprint area of the proposed mining area, and the proposed infrastructure camp.
- A graveyard was noted at the entrance to the proposed access road at the village of Dyam-Dyam.

#### *5. Public participation*

No heritage issues were raised at a public meeting held on 12<sup>th</sup> July in the Dyam-Dyam Community Hall (Appendix C). The attendants were members of the Phози, Dyam-Dyam and Ngqinisa Village, Community Steering Committee.

#### *6. Anticipated impacts*

##### *6.1 Archaeology*

No impact on archaeological resources is anticipated.

##### *6.2 Palaeontology*

The Chance Fossil Find Procedure (Appendix B) must be included in the Environmental Management Plan (EMP) for proposed mining, in case any fossil remains are intercepted during mining operations.

#### *7. Conclusion*

The results of the study indicate that proposed mining of mineral sands at Tyolomnqa (Keiskamma) Farm 1163 near East London will not impact on archaeological heritage.

Indications are that the proposed mining area has low archaeological sensitivity.

The impact significance of proposed mining on archaeological heritage is assessed as LOW, and therefore there are no objections to the project proceeding.

#### *8. Recommendations:*

1. No archaeological mitigation is required prior to, proposed mining activities commencing.
2. No archaeological monitoring is required during mining operations.
3. Upgrading of the access road at Dyam-Dyam village to the mine area, must avoid the graveyard at the entrance to the road.
4. The Environmental Control Officer (ECO) must be briefed by the archaeologist prior, to mining operations commencing.

5. If any unmarked human remains are uncovered or exposed during mining operations, these must immediately be reported to the contracted archaeologist (Mr Jonathan Kaplan 082 321 0172), and the Eastern Cape Provincial Heritage Resources Authority (Att: Mr Sello Mokhanya 043 745 0888).

6. A copy of this report must be submitted to the Phози, Dyam-Dyam and Ngqinisa Village Community Steering Committee members, for comment.

7. The above recommendations must be included in the Environmental Management Plan (EMP) for the proposed project.

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## 1. INTRODUCTION

ACRM was instructed by Assured Turnkey Solutions (ATS), on behalf of Vendicom (Pty) Ltd, to conduct an Archaeological Impact Assessment (AIA) in support of Environmental Authorisation and a Mining Permit Application, for proposed mining of mineral sands at Tyolomnqa (Keiskamma) Farm 1163, Amatole District Municipality, located about 40kms south of East London, near the mouth of the Chalumna River, in the Eastern Cape Province (Figures 1-3).

ATS is the appointed independent Environmental Assessment Practitioner (EAP) responsible for facilitating the Basic Assessment process for Environmental Authorization.

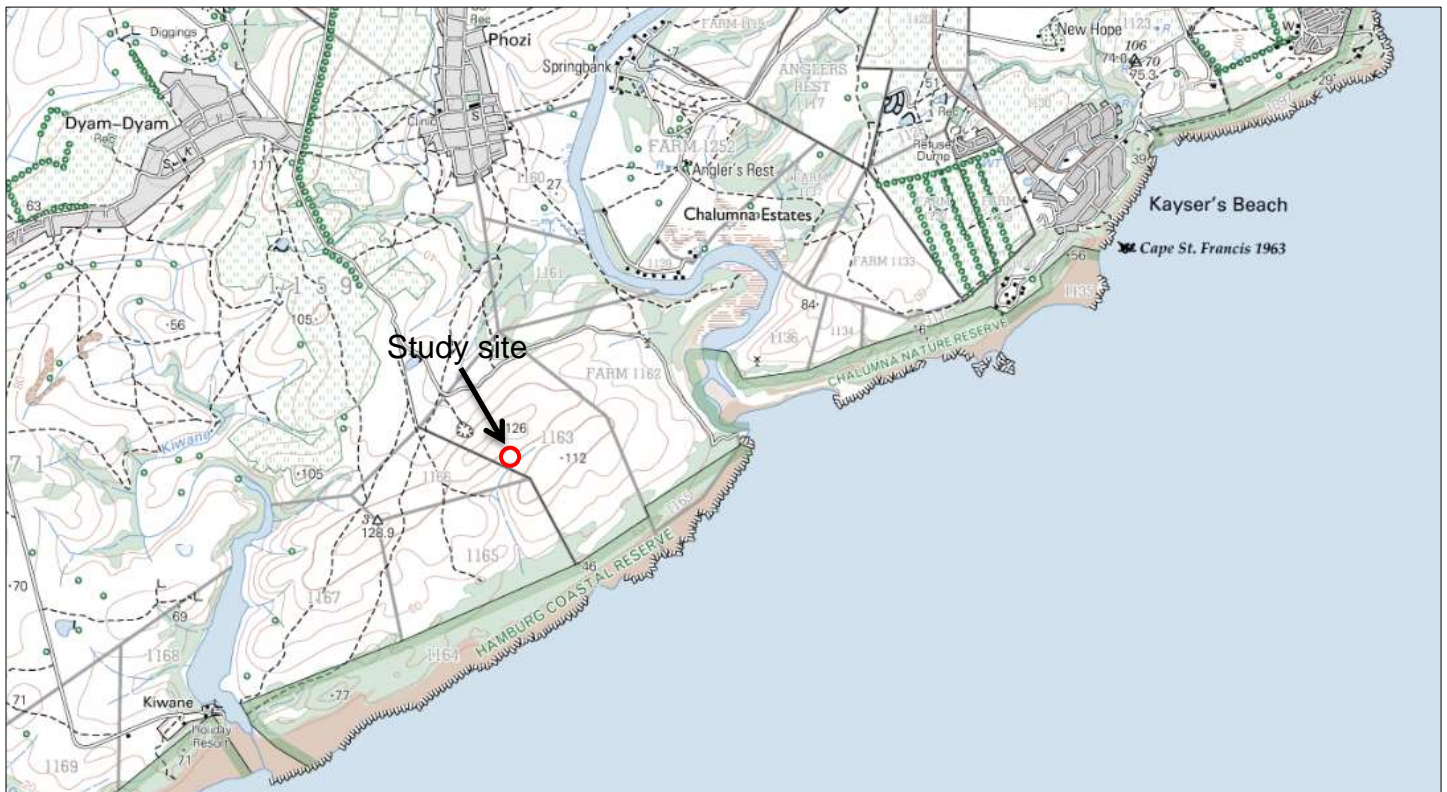


Figure 1. 1:50 000 Locality Map (3327 BA & BC Kidd's Beach) indicating the proposed study site (red polygon)



Archaeological Impact Assessment, Mining Permit Application for Tyolomnqa Farm 1163, near East London

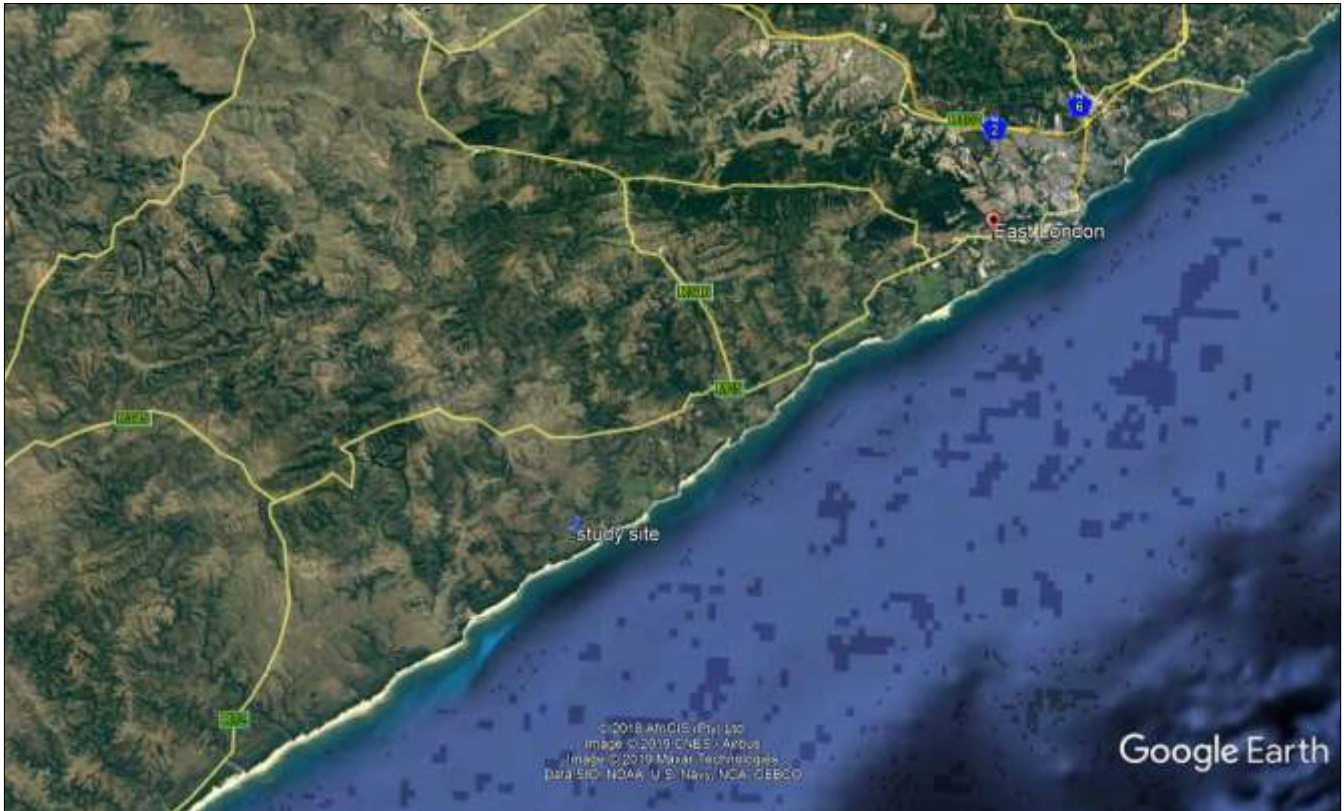


Figure 2. Aerial photograph indicating the location of the study site (blue pin) in relation to East London



Figure 3. Close up aerial photograph of the proposed mine footprint area (red polygon).

## **2. THE DEVELOPMENT PROPOSAL**

The project entails bulk sampling/mining of mineral sand deposits. Mining will be done using front-end loaders. The excavated sand will be transferred to a hopper and conveyed into a 100tph head feed modular plant to produce Heavy Mineral Concentrate. The dry mining modular plant will include trash screen, gravity spirals with ancillary conveyor belts, pumps, sumps and solids/liquid separation units. The plant is designed and configured for classification, concentration, separation and recovery of metals and minerals concentrate in dry mode and without the use of water. The Heavy Mineral Concentrate product of approximately 700t per month will be generated and will comprise of heavy minerals including Zircon, Ilmenite and Rutile in a concentrate mix. Water will be abstracted from the Chalumna River or from boreholes, for dust suppression. The bulk sampling footprint area is about 5ha in extent. On completing of the estimated 36 month mining period, the mine site will be rehabilitated and revert back to grassland/grazing.

Infrastructure associated with the project includes mobile administrative offices, ablution facilities, product storage containers, spares storage facility, security access offices, and access roads from the Provincial Road (R72), to the plant site. An existing access road from the village of Dyam-Dyam, to the proposed mine area will also need be upgraded, to allow for the transport of mineral sands, to a proposed stockpile facility in the East London Industrial Development Zone, in East London, before shipment overseas.

## **3. HERITAGE LEGISLATION**

The National Heritage Resources Act (Act No. 25 of 1999) makes provision for a compulsory Heritage Impact Assessment (HIA) when an area exceeding 5000m<sup>2</sup> is being developed. This is to determine if the area contains heritage sites and to take the necessary steps to ensure that they are not damaged or destroyed during development.

Section 38 (1) (a) of the Act also indicates that any person constructing a powerline, pipeline or road, or similar linear development or barrier exceeding 300m in length is required to notify the responsible heritage resources authority, who will in turn advise whether an impact assessment report is needed before development can take place.

The NHRA provides protection for the following categories of heritage resources:

- Landscapes, cultural or natural (Section 3 (3))
- Buildings or structures older than 60 years (Section 34);
- Archaeological sites, palaeontological material and meteorites (Section 35);
- Burial grounds and graves (Section 36);
- Public monuments and memorials (Section 37);
- Living heritage (defined in the Act as including cultural tradition, oral history, performance, ritual, popular memory, skills and techniques, indigenous knowledge



systems and the holistic approach to nature, society and social relationships) (Section 2 (d) (xxi)).

#### **4. TERMS OF REFERENCE**

The terms of reference for the study were:

- To identify archaeological resources that might be impacted by proposed mining activities;
- To assess the sensitivity of archaeological resources on the proposed site;
- To assess the significance of any impacts resulting from the proposed development,
- To identify measures to protect any valuable archaeological sites that may exist within the proposed mining permit application area.

#### **5. DESCRIPTION OF THE RECEIVING ENVIRONMENT**

The area proposed for mining is located about 40kms southwest of East London. Access to the mining area is off the Provincial Road R72, via the village of Dyam-Dyam. The proposed mine area comprises a gently sloping, undulating landscape approximately 1.2kms from the coastline and 1.6kms from the Chalumna or Tyolomnqa River. The proposed mine area covers an area of large palaeo sand dunes inland from the present day coastal dunes of the Hamburg Nature Reserve. The area is characterised by open grassland used as grazing for cattle (Figures 4-8). A few sporadic bushes occur in places, while some thicket vegetation is present on the steep south facing slopes of the dissected hills. There is barely any surface stone covering the mine application area. Some burrowing is present, while large ant hills dominate the north facing slopes. There are no significant landscape features within the proposed mining footprint area. Surrounding land use is grazing and Wilderness (Hamburg Nature Reserve).

The area identified for the proposed infrastructure camp is a fairly level, slightly sloping piece of land, located alongside the proposed access road to the mining area (Figure 9). The proposed site is characterised by thick open grassland used as grazing for cattle. Sporadic bushes and some Acacia trees occur in places. Several small earth dams are located nearby. There are no significant landscape features within the proposed infrastructure camp. Surrounding land use is grazing.

The proposed access road, from the village of Dyam-Dyam, to the proposed mine area is illustrated in Figures 10-19. Substantial upgrading of the road will be required to allow for the safe transport of the mineral sands to the R72



Figure 4. View of the proposed mining area in the background. View facing south



Figure 5. The proposed mining area (north facing slopes). View facing south west



Figure 6. Panoramic view of the proposed mine area. View facing south east



Figure 7. Panoramic view of the proposed mine area. View facing south east



Figure 8. Panoramic view of the proposed mine area. View facing south west





Figure 9. Proposed infrastructure camp. View facing south



Figure 10. Proposed haul from Dyam-Dyam Village to the mine area.



Figure 11. Proposed haul from Dyam-Dyam Village to the mine area



Figure 12. Proposed haul road from Dyam-Dyam village



Figure 13. Proposed haul road from Dyam-Dyam village



Figure 14. Proposed haul road from Dyam-Dyam village



Figure 15. Proposed haul road from Dyam-Dyam village



Figure 16. Proposed haul road from Dyam-Dyam village



Figure 17. Proposed haul road from Dyam-Dyam village





Figure 18. Proposed haul road from Dyam-Dyam village



Figure 19. Proposed haul road from Dyam-Dyam village

## **6. STUDY APPROACH**

### **6.1 Method**

The overall purpose of the study is to assess the sensitivity of archaeological resources in the proposed mining permit application area, to determine the potential impacts on such resources, and to avoid and/or minimise such impacts by means of management and/or mitigation measures. A field assessment was undertaken on 19<sup>th</sup> July 2019. A track path of the survey was also captured.

A literature survey was carried out to assess the heritage context surrounding the proposed development site.

### **6.2 Constraints and limitations**

There were no constraints or limitations associated with the study. Access to the site was easy, and archaeological visibility was very good.

### **6.3 Identification of potential risks**

Indications are that there are no archaeological risks associated with proposed mining operations.

The graveyard near the village of Dyam-Dyam may be impacted by proposed upgrading of the access road, to the proposed mine area.

### **6.4 Archaeological context**

No previous archaeological work has been done in the area surrounding the proposed mining area (CTS Heritage 2019). According to Kaplan (1993), the area is located within the coastal archaeological sensitivity zone, which is within 3km of the coast. Dispersed scatters of Middle Stone Age artefacts as well as fragmented scatters of marine shellfish were recorded during an Archaeological Impact Assessment for the proposed Riverbank



Wind Energy Facility situated approximately 15kms south west of the proposed mine area. Also noted were possible unmarked burials and the remains of a possible historical/Late Iron Age settlement (Binneman *et al* 2010). Later Stone Age and Iron Age shell middens, including dispersed scatters of tools were also recorded inland of the coastal dunes/dune forest near Kidds Beach, about 10kms north of the mouth of the Chalumna River, during a survey for the proposed Peregrine Golf Estate (Anderson 2009). These would be the kinds of heritage resources that would most likely be impacted by the proposed Tyolomnqa Heavy Mineral mine.

## **6.5 Palaeontological context**

According to the SAHRIS Palaeo-Sensitivity Map, the proposed mine is located in an area of very high palaeontological sensitivity (CTS Heritage 2019). The geology underlying the proposed mine is part of the Nanaga Formation of the Algoa Group. The palaeontological significance associated with this formation have been described by De Klerk (2011), who notes that “the younger Neogene Algoa Group sediments are represented by a veneer of marine and marine related (aeolian) formations... Rare fossils that are encountered in the Nanaga Formation include pollens, terrestrial and freshwater invertebrates, mammal bones and teeth.” The recommendations from De Klerk (2011) for the Nanaga Formation are considered appropriate for the proposed mineral sand mine (CTS Heritage 2019). In view of the nature of the field geology for the Nanaga Formation, the likelihood of well-preserved fossils being found within the proposed mine footprint is extremely slim. There is, however, a remote chance that some fossil forms like trace or invertebrate body fossil and possibly bone may be found during mining activities. It is therefore recommended a Chance Fossil Finds Procedure be implemented throughout the life of the proposed mine (Appendix A)

## **7. RESULTS OF THE FIELD STUDY**

### **8.1 Archaeology**

No archaeological remains were recorded in the proposed mining footprint area (Figure 20).

No archaeological remains were recorded in the proposed footprint area for the infrastructure camp.

### **8.2 Graves**

A graveyard was recorded under the shade of large Pine trees at the entrance to the proposed access road in the village of Dyam-Dyam, on the right hand side of the road (Figure 21). It is estimated that there are more than 50 graves present in the graveyard, some of which are older than 60 years (Figures 22-25). Many of the graves have large inscribed, headstones, while some have simple wooden crosses. A number of unmarked grave mounds were also noted, closer to the edge of the cemetery, which are clearly older than the marked graves. The cemetery is unfenced, but a fence has been constructed about 5m from the `road reserve`.

Grave sites older than 60 years are formally protected under Section 36 of the National Heritage Resources Act (Act No. 25 of 1999).

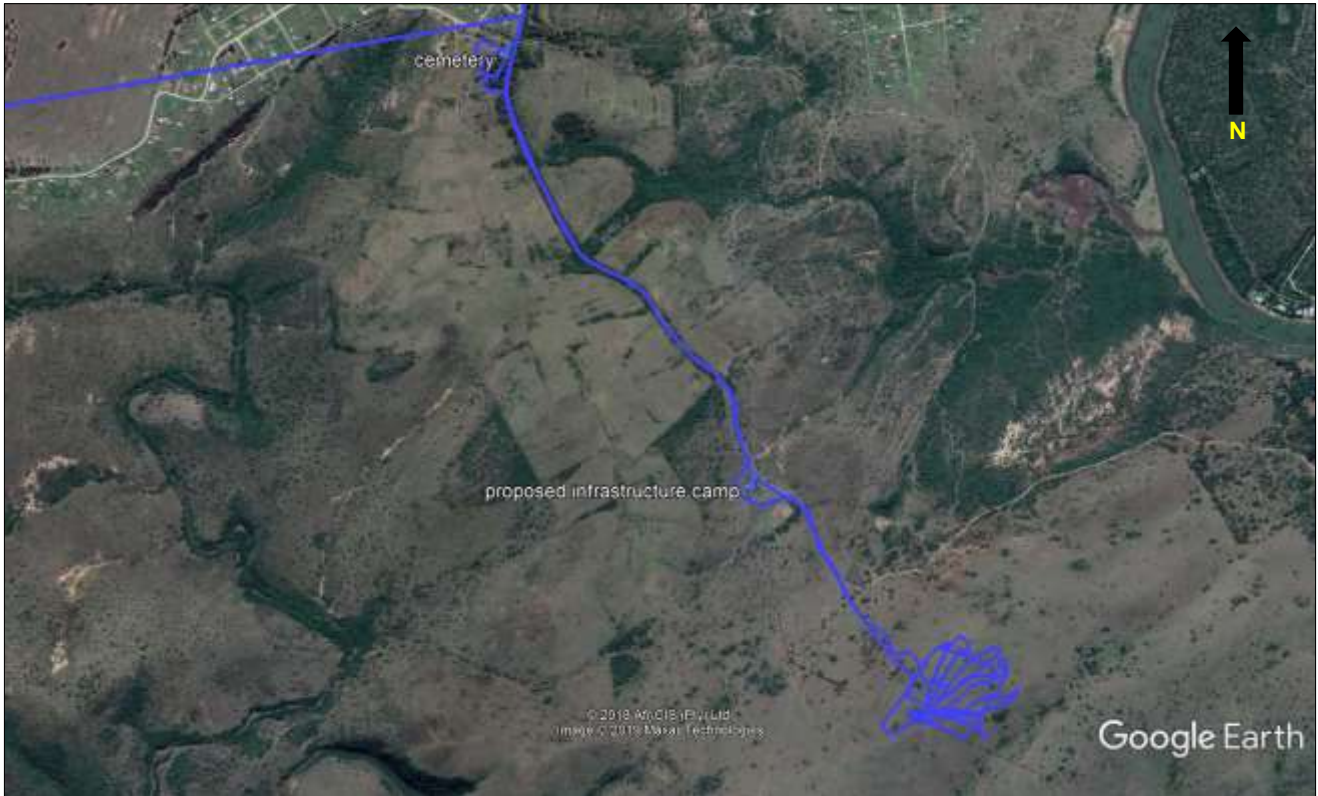


Figure 20. Trackpaths in blue

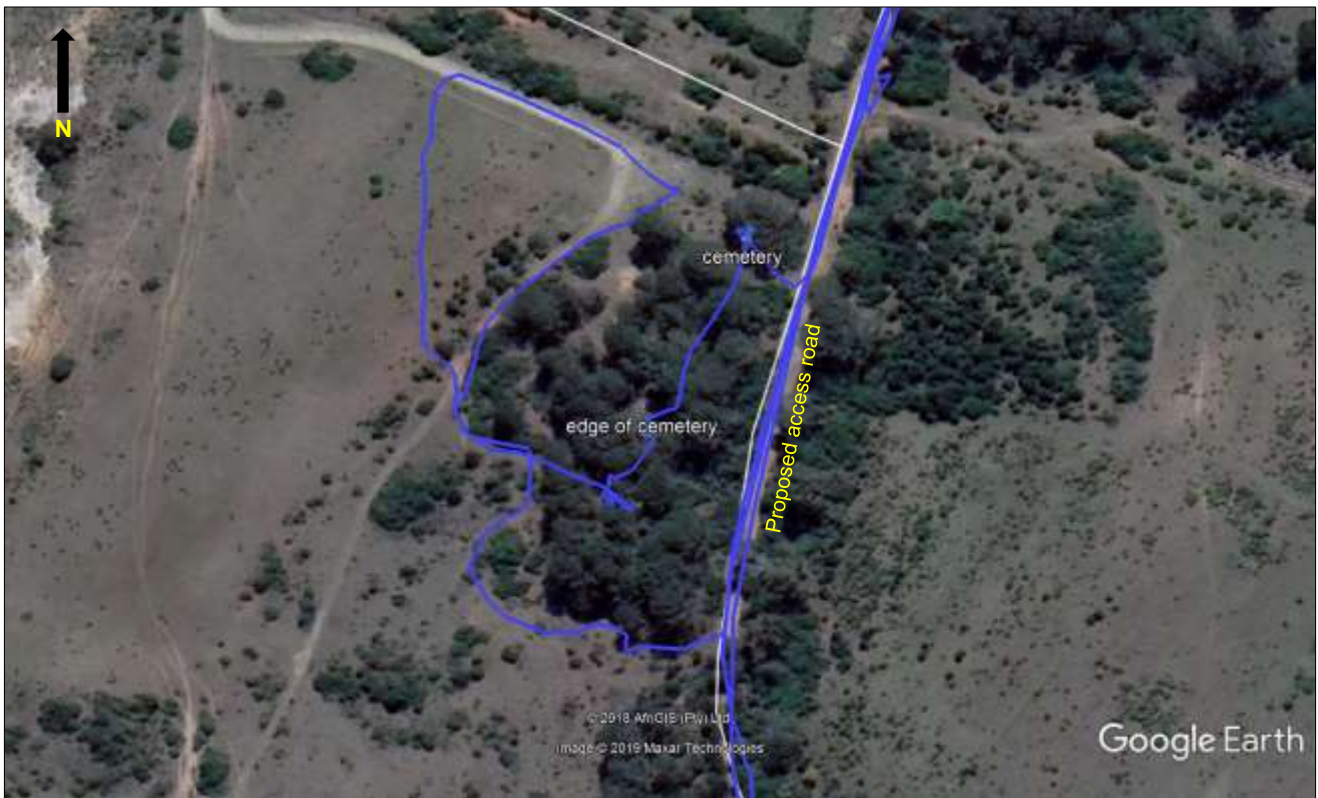


Figure 21. Aerial photograph indication the location of the Dyam-Dyam cemetery alongside the proposed access road to the mine area. Track paths in blue





Figure 22. View of the cemetery facing south west



Figure 23. View of the cemetery facing south



Figure 24. View of the cemetery facing south west



Figure 25. Edge of the cemetery facing north

## 8. PUBLIC PARTICIPATION

No heritage issues were raised at a public meeting held on 12<sup>th</sup> July in the Dyam-Dyam Community Hall (Appendix C). The attendants were members of the Phози, Dyam-Dyam and Ngqinisa Village Community Steering Committee.

## 9. SITE SENSITIVITY

The study has shown that the proposed mining permit application area has low archaeological sensitivity.

## **10. IMPACT STATEMENT**

The results of the study indicate that a Mining Permit Application for mining of mineral sands on Tyolomnqa (Keiskamma) Farm 1163 near East London will not have an impact of great significance on archaeological heritage.

## **11. CONCLUSION**

The study has identified no significant impacts to archaeological resources that will need to be mitigated prior to, proposed mining activities commencing.

The impact significance of the proposed Vendicom Heavy Minerals mine on important archaeological heritage is assessed as LOW and therefore there are no objections to the proposed project proceeding.

## **12. RECOMMENDATIONS**

With regard to the proposed Mining Permit Application at Tyolomnqa (Keiskamma) Farm 1163 in the Eastern Cape, the following recommendations are made:

1. No archaeological mitigation is required prior to, proposed mining activities commencing.
2. No archaeological monitoring is required during mining operations.
3. Upgrading of the access road at Dyam-Dyam village to the mine area, must avoid the graveyard at the entrance to the road.
4. The Environmental Control Officer (ECO) must be briefed by the archaeologist prior, to mining operations commencing.
5. If any unmarked human remains are uncovered or exposed during mining operations, these must immediately be reported to the contracted archaeologist (Mr Jonathan Kaplan 082 321 0172), and the Eastern Cape Provincial Heritage Resources Authority (Att: Mr Sello Mokhanya 043 745 0888).
6. A copy of this report must be submitted to the Phози, Dyam-Dyam and Ngqinisa Village Community Steering Committee members, for comment.
7. The above recommendations must be included in the Environmental Management Plan (EMP) for the proposed project.

## **13. ACKNOWLEDGEMENTS**

The heritage practitioner would like to acknowledge the invaluable assistance of Mr Lungisa Kaluti.

#### **14. REFERENCES**

CTS Heritage, 2019. Heritage Screener, Mining Permit Application for Tyolomnqa (Keiskamma), Farm 1163, Eastern Cape. Prepared for Assured Turnkey Solutions. CTS Heritage, Cape Town

Anderson, G. 2009b. Heritage Survey for the Peregrine Dunes Golf Estate, East London, Eastern Cape. Report prepared for Coastal & Environmental Services. Umlando, Archaeological Tourism and Resource Management, Meerensee, KZN.

Binneman, J. Booth, C. & Higgit, C. 2010. A Phase 1 Archaeological Impact Assessment (AIA) for the proposed Riverbank Wind Energy Facility between Hamburg and Wesley, Amathole District Municipality, Eastern Cape Province. Report prepared for Savannah Environmental. Albany Museum, Grahamstown.

De Klerk, B. 2011. Palaeontological heritage impact assessment of the proposed Riverbank Wind Energy Facility near Wesley, Eastern Cape. Report prepared for Savannah Environmental.


Kaplan, J. 1993. The State of Archaeological Information in the coastal zone from the Orange River to Ponta do Ouro. Report prepared for the Department of Environmental Affairs and Tourism. ACRM, Riebeek West.

Van Ryneveld, K. 2008. Phase 1 Archaeological Impact Assessment, Kidd's Beach Golfing Estate, Portions of Farm 1075, 1076, 1077, 1078, 1079 & 1086, Kidd's Beach, East London, Eastern Cape, South Africa. Report prepared for Biotechnology and Environmental Specialist Consultancy. Archaeo-maps, East London.


Appendix A

Heritage Screener





**HERITAGE SCREENER**

CTS Reference Number:	CTS19_039	
Client:	ACRM	
Date:	May 2019	
Title:	Mining permit application for Tyolomnqa (Keiskamma), Farm 1163, Eastern Cape.	
<p><b>RECOMMENDATION:</b>  <span style="color: orange;">Further heritage assessment work is required</span></p> <p>Due to the location and nature of the proposed development, it is likely that significant archaeological resources will be impacted by the proposed mine and as such, it is recommended that an archaeological field assessment is conducted. In addition, it is likely that significant palaeontological resources may be impacted during mining activities and as such, it is recommended that the attached Chance Fossil Finds Procedure be implemented throughout the life of the mine. This requirement must form part of the EMP for the project.</p>		<p>Figure 1a. Satellite map indicating the location of the proposed development in the Eastern Cape Province</p>
<p>CTS Heritage                  10 Eshbon Way, Century City, 7441                  Tel: +27 (0)21 023 5759 Email: info@ctsheritage.com Web: www.ctsheritage.com</p>		



**1. Proposed Development Summary**

The required Mining Permit application is in terms of the National Environmental Management Act (NEMA) of 107 (1998) and the Mineral and Petroleum Resources Development Act (MPRDA) No. 28 of 20042 (MPRDA, amended in 2013) for the Environmental Authorisation and Mining Permit for the intended mining activity on Tyolomnqa (Keiskamma) farm 1163, situated in the Magisterial district of East London in the Eastern Cape province.

The sand minerals will be mined using front-end loaders to excavate the sands. The excavated sand will be transferred to a hopper and conveyed into a 100tph head feed modular plant (Primary Concentrator Plant - PCP) to produce Heavy Mineral Concentrate (HMC). The dry mining modular plant (PCP) will include trash screen, gravity spirals with ancillary conveyor belts, pumps, sumps and solids/liquid separation units. The plant is designed and configured for classification, concentration, separation and recovery of metals and minerals concentrate in dry mode and without the use of water. The HMC product of approximately 700tph will be generated and will comprise of heavy minerals including Zircon, Ilmenite and Rutile in a concentrate mix.

**2. Application References**

Name of relevant heritage authority(s)	ECPHRA
Name of decision making authority(s)	Department of Economic Development, Environmental Affairs and Tourism

**3. Property Information**

Latitude / Longitude	33°13'36.03"S 27°33'40.44"E
Erf number / Farm number	Farm 1163
Local Municipality	Buffalo City
District Municipality	Amatole
Previous Magisterial District	Mdantsane
Province	Eastern cape
Current Use	Animal grazing
Current Zoning	Agriculture
Total Extent	133,72ha

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**4. Nature of the Proposed Development**

Total Surface Area	<5ha
Depth of excavation (m)	20m
Height of development (m)	NA
Expected years of operation before decommission	24 months

**5. Category of Development**

<input checked="" type="checkbox"/>	Triggers: Section 38(8) of the National Heritage Resources Act
<input type="checkbox"/>	Triggers: Section 38(1) of the National Heritage Resources Act
<input type="checkbox"/>	1. Construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier over 300m in length.
<input type="checkbox"/>	2. Construction of a bridge or similar structure exceeding 50m in length.
<input type="checkbox"/>	3. Any development or activity that will change the character of a site-
<input checked="" type="checkbox"/>	a) exceeding 5 000m <sup>2</sup> in extent
<input type="checkbox"/>	b) involving three or more existing erven or subdivisions thereof
<input type="checkbox"/>	c) involving three or more erven or divisions thereof which have been consolidated within the past five years
<input type="checkbox"/>	4. Rezoning of a site exceeding 10 000m <sup>2</sup>
<input type="checkbox"/>	5. Other (state):

**6. Additional Infrastructure Required for this Development**

Site infrastructure includes the Drilling site, Dry mining site, Mobile administrative offices, Mobile ablution facilities, 6m or 12m Product storage containers, Security Access Offices, Access roads between drilling, mining, plant, offices and provincial roads and a spares storage facility (6m/12m contained).

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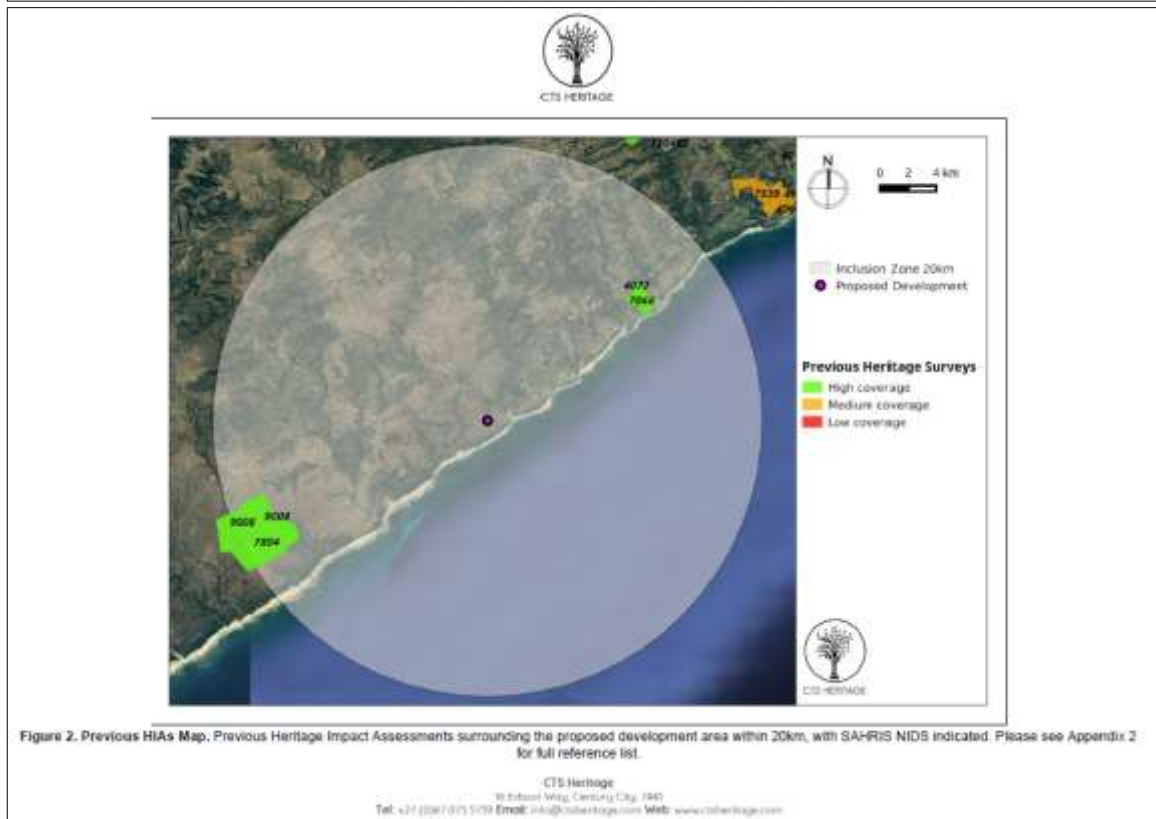
**7. Mapping** (please see Appendix 3 and 4 for a full description of our methodology and map legends)



Figure 1b Overview Map: Satellite image (2017) indicating the proposed development area at closer range.

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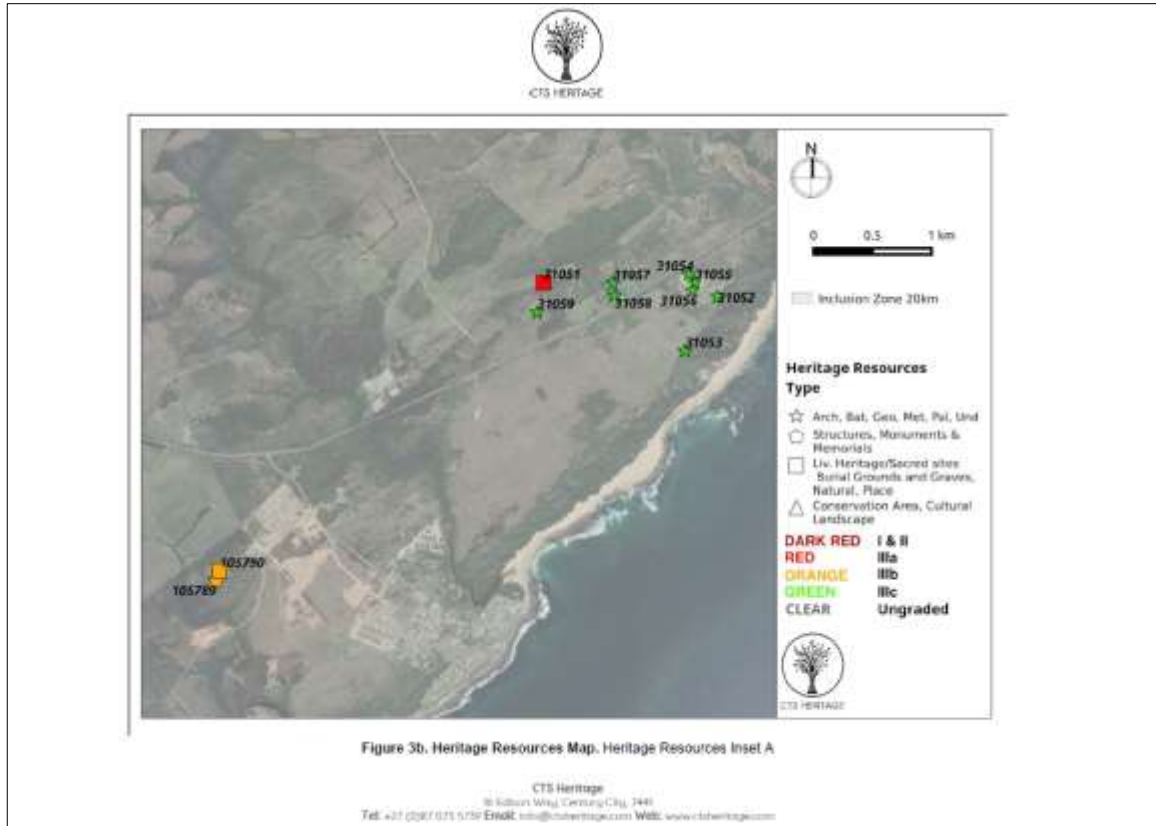






Figure 5.1, 5.2 and 5.3. Burial Ground. Images of burial ground identified approximately 2.5km from proposed mine (Grave Site in Figure 3)

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Figure 6.1, 6.2 and 6.3. Context images of the proposed mine area



Figure 6.4, 6.5 and 6.6. Context images of the proposed mine area

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### 8. Heritage statement and character of the area

This application is for the intended mining of sand on Tyolomnqa (Keiskamma) farm 1163, situated in the Magisterial district of East London in the Eastern Cape province. The area proposed for mining is located approximately 40km southwest of East London, along the south coast, with the proposed mining area located approximately 1.2km from the coastline and 1.6km from the Chalumna or Tyolomnqa River. It was near the mouth of this river in 1938 that Captain Hendrik Gosen caught a fish that was later identified as a coelacanth, a species which was previously thought to be long extinct and was at that point in time only known from the fossil record. Historically the Chalumna River formed the northern border of the former Ciskei shoreline until 27 April 1994 when all the Apartheid era political regions were reincorporated into South Africa. The area proposed for development appears to be covered in grass, and has been previously disturbed through agricultural activities such as cattle grazing.

The nearby Kayser's Beach town, located approximately 5km to the north east, is dated to the mid to late 19th century, with at least one significant site associated with the development of this town - the Ncera Methodist Church Provincial Heritage Site (SAHRIS SID 28871) indicated in figure 3. A number of other Provincial Heritage Sites are noted within the 20km inclusion zone, however all of these are located approximately 20km from the proposed mine area (Table 1). A burial ground has been identified located approximately 2.5km from the proposed mine area (Figure 3a). No known burials will be impacted by the proposed mine. No known heritage resources, structures or archaeological sites, will be impacted by the proposed mine.

Very few Heritage Impact Assessments (HIAs) have been conducted within the 20km inclusion zone according to SAHRIS (the South African Heritage Resources Information System) (Figure 2). A number of heritage reports were completed for the proposed Riverbank Wind Energy Facility situated approximately 20km south west of the proposed mine area. According to Booth (2010) in Binneman (2010 - SAHRIS NID 7804), the area proposed for the mine is located within the coastal archaeological sensitivity area which is within 5km of the coast. The archaeological assessment for the proposed Riverbank WEF identified random scatters of Middle Stone Age artefacts as well as fragmented scatters of marine shell within the WEF development area. Also noted were possible unmarked burials and the remains of a possible historical/Late Iron Age settlement. These would be the kinds of heritage resources that would be impacted by the proposed sand mine. It is therefore recommended that an archaeological field assessment be conducted to ensure that significant archaeological resources are not impacted by the proposed mining activity.

According to the SAHRIS Palaeosensitivity Map, the proposed mine is located in an area of very high palaeontological sensitivity (Figure 4). The geology underlying the proposed mine is part of the Nanaga Formation of the Algoa Group. The palaeontological significance and sensitivities associated with this formation have been described in De Klerk (2011 - SAHRIS NID 9006). De Klerk (2011) notes that "the younger Neogene Algoa Group sediments are represented by a veneer of marine and marine related (aeolian) formations. Rare fossils that are encountered in the Nanaga Formation include pollens, terrestrial and freshwater invertebrates, mammal bones and teeth". The recommendations from De Klerk (2011) for the Nanaga Formation are considered appropriate for this proposed sand mine, and are adapted as follows: In view of the nature of the field geology for the Nanaga Formation, the likelihood of well-preserved fossils being found within the proposed mine footprint is extremely slim. There is, however, a remote chance that some fossil forms like trace or invertebrate body fossil and possibly bone may be found during mining activities. It is therefore recommended that the attached Chance Fossil Finds Procedure be implemented throughout the life of the proposed mine.

#### RECOMMENDATION:

*Further heritage assessment work is required*

Due to the location and nature of the proposed development, it is likely that significant archaeological resources will be impacted by the proposed mine and as such, it is recommended that an archaeological field assessment is conducted. In addition, it is likely that significant palaeontological resources may be impacted during mining activities and as such, it is recommended that the attached Chance Fossil Finds Procedure be implemented throughout the life of the mine. This requirement must form part of the EMP for the project.

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### APPENDIX 1

#### List of heritage resources within the 20km Inclusion Zone

Site ID	Site no	Full Site Name	Site Type	Grading
28871	9/2/026/0006	Old Methodist Church, Ncera, East London District	Building	Grade II
28250	9/2/050/0012	Magistrate's Court, Alexandra Road, King William's Town	Building	Grade II
26251	9/2/050/0013	Deeds Office, Alexandra Road, King William's Town	Building	Grade II
26247	9/2/050/0019	Sutton House, Queens Road, King William's Town	Building	Grade II
85078	WESPED001	Wesley-Peddie 001	Artefacts	Grade IIIc
85080	WESPED003	Wesley-Peddie 003	Structures	Grade IIIb
45839	RIVER 01	Riverbank 01	Artefacts	Grade IIIc
31051	UMLAND0-CEM3	UMLAND0-CEM3	Burial Grounds & Graves	Grade IIIa
45841	RIVER 02	Riverbank 02	Burial Grounds & Graves	Grade IIIa
45843	RIVER 03	Riverbank 03	Settlement	Grade IIIb
31052	UMLAND0-PGE01	UMLAND0-PGE01	Archaeological	Grade IIIc
31053	UMLAND0-PGE02	UMLAND0-PGE02	Archaeological	Grade IIIc
31054	UMLAND0-PGE03A	UMLAND0-PGE03A	Archaeological	Grade IIIc
31055	UMLAND0-PGE03B	UMLAND0-PGE03B	Archaeological	Grade IIIc
31056	UMLAND0-PGE03C	UMLAND0-PGE03C	Archaeological	Grade IIIc
31057	UMLAND0-PGE04	UMLAND0-PGE04	Archaeological	Grade IIIc
31058	UMLAND0-PGE05	UMLAND0-PGE05	Archaeological	Grade IIIc
31059	UMLAND0-PGE06	UMLAND0-PGE06	Archaeological	Grade IIIc
105788	KIDD01	Kidds Beach 01	Building	
105789	KIDD01	Kidds Beach 01	Building	Grade IIIb
105790	KIDD02	Kidds Beach 02	Building, Burial Grounds & Graves	Grade IIIb

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**APPENDIX 2  
Reference List**

Heritage Impact Assessments				
Nid	Report Type	Author/s	Date	Title
4072	AIA Phase 1	Karen Van Ryneveld	11/10/2008	Rezoning & Mixed Use Development, Portion 4 of Farm 1050, Kidd's Beach, East London, Eastern Cape, South Africa
7804	AIA Phase 1	Johan Binneman, Celeste Booth, Natasha Higgitt	16/10/2010	A Phase 1 Archaeological Impact Assessment (AIA) for the proposed Riverbank Wind Energy Facility between Hamburg and Wesley, Amathole District Municipality, Eastern Cape Province
360662	AIA Phase 1B	Karen Van Ryneveld	21/03/2016	Phase 1b Archaeological Ground Truthing - Phase 1: Riverbank Wind Energy Facility (WEF), Riverbank 147 and Sandflat 149, near Wesley, Amathole District Municipality, Eastern Cape
9008	PIA Phase 1	Billy De Klerk	16/01/2011	Palaeontological heritage impact assessment of the proposed Riverbank Wind Energy Facility near Wesley, Eastern Cape
7066	AIA Phase 1	Karen Van Ryneveld	03/12/2008	Phase 1 Archaeological Impact Assessment, Kidd's Beach Golfing Estate, Portions of Farms 1075, 1076, 1077, 1078, 1079 & 1086, Kidd's Beach, East London, Eastern Cape, South Africa
7804	AIA Phase 1	Johan Binneman, Celeste Booth, Natasha Higgitt	16/10/2010	A Phase 1 Archaeological Impact Assessment (AIA) for the proposed Riverbank Wind Energy Facility between Hamburg and Wesley, Amathole District Municipality, Eastern Cape Province
162775	AIA	Johan Binneman	21/04/2014	A Phase 1 Archaeological Impact Assessments of the Proposed Wesley-Peddie 132 KV Power Line for the Authorised Uncedo Lwethu Wind Energy Facility, Ngqushwa Local Municipality, Amathole District, Eastern Cape Province

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**APPENDIX 3 - Keys/Guides  
Key/Guide to Acronyms**

AIA	Archaeological Impact Assessment
DARD	Department of Agriculture and Rural Development (KwaZulu-Natal)
DEA	Department of Environmental Affairs (National)
DEADP	Department of Environmental Affairs and Development Planning (Western Cape)
DEDEAT	Department of Economic Development, Environmental Affairs and Tourism (Eastern Cape)
DEDECT	Department of Economic Development, Environment, Conservation and Tourism (North West)
DEDT	Department of Economic Development and Tourism (Mpumalanga)
DEDETEA	Department of economic Development, Tourism and Environmental Affairs (Free State)
DENC	Department of Environment and Nature Conservation (Northern Cape)
DMR	Department of Mineral Resources (National)
GDARD	Gauteng Department of Agriculture and Rural Development (Gauteng)
HIA	Heritage Impact Assessment
LEDET	Department of Economic Development, Environment and Tourism (Limpopo)
MPRDA	Mineral and Petroleum Resources Development Act, no 28 of 2002
NEMA	National Environmental Management Act, no 107 of 1998
NHRA	National Heritage Resources Act, no 25 of 1999
PIA	Palaeontological Impact Assessment
SAHRA	South African Heritage Resources Agency
SAHRIS	South African Heritage Resources Information System
VIA	Visual Impact Assessment

**Full guide to Palaeosensitivity Map legend**

	RED:	VERY HIGH - field assessment and protocol for finds is required
	ORANGE/YELLOW:	HIGH - desktop study is required and based on the outcome of the desktop study, a field assessment is likely
	GREEN:	MODERATE - desktop study is required
	BLUE/PURPLE:	LOW - no palaeontological studies are required however a protocol for chance finds is required
	GREY:	INSIGNIFICANT/ZERO - no palaeontological studies are required
	WHITE/CLEAR:	UNKNOWN - these areas will require a minimum of a desktop study

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#### APPENDIX 4 - Methodology

The Heritage Screener summarises the heritage impact assessments and studies previously undertaken within the area of the proposed development and its surroundings. Heritage resources identified in these reports are assessed by our team during the screening process.

The heritage resources will be described both in terms of type:

- Group 1: Archaeological, Underwater, Palaeontological and Geological sites, Meteorites, and Battlefields
- Group 2: Structures, Monuments and Memorials
- Group 3: Burial Grounds and Graves, Living Heritage, Sacred and Natural sites
- Group 4: Cultural Landscapes, Conservation Areas and Scenic routes

and significance (Grade I, II, IIIa, b or c, ungraded), as determined by the author of the original heritage impact assessment report or by formal grading and/or protection by the heritage authorities.

Sites identified and mapped during research projects will also be considered.

#### DETERMINATION OF THE EXTENT OF THE INCLUSION ZONE TO BE TAKEN INTO CONSIDERATION

The extent of the inclusion zone to be considered for the Heritage Screener will be determined by CTS based on:

- the size of the development,
- the number and outcome of previous surveys existing in the area
- the potential cumulative impact of the application.

The inclusion zone will be considered as the region within a maximum distance of 50 km from the boundary of the proposed development.

#### DETERMINATION OF THE PALAEOLOGICAL SENSITIVITY

The possible impact of the proposed development on palaeontological resources is gauged by:

- reviewing the fossil sensitivity maps available on the South African Heritage Resources Information System (SAHRIS)
- considering the nature of the proposed development
- when available, taking information provided by the applicant related to the geological background of the area into account

#### DETERMINATION OF THE COVERAGE RATING ASCRIBED TO A REPORT POLYGON

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Each report assessed for the compilation of the Heritage Screener is colour-coded according to the level of coverage accomplished. The extent of the surveyed coverage is labeled in three categories, namely low, medium and high. In most instances the extent of the map corresponds to the extent of the development for which the specific report was undertaken.

Low coverage will be used for:

- desktop studies where no field assessment of the area was undertaken,
- reports where the sites are listed and described but no GPS coordinates were provided,
- older reports with GPS coordinates with low accuracy ratings,
- reports where the entire property was mapped, but only a small/limited area was surveyed,
- uploads on the National Inventory which are not properly mapped.

Medium coverage will be used for:

- reports for which a field survey was undertaken but the area was not extensively covered. This may apply to instances where some impediments did not allow for full coverage such as thick vegetation, etc.
- reports for which the entire property was mapped, but only a specific area was surveyed thoroughly. This is differentiated from low ratings listed above when these surveys cover up to around 50% of the property.

High coverage will be used for:

- reports where the area highlighted in the map was extensively surveyed as shown by the GPS track coordinates. This category will also apply to permit reports.

#### RECOMMENDATION GUIDE

The Heritage Screener includes a set of recommendations to the applicant based on whether an impact on heritage resources is anticipated. One of three possible recommendations is formulated:

**(1) The heritage resources in the area proposed for development are sufficiently recorded - The surveys undertaken in the area adequately captured the heritage resources. There are no known sites which require mitigation or management plans. No further heritage work is recommended for the proposed development.**

This recommendation is made when:

- enough work has been undertaken in the area
- it is the professional opinion of CTS that the area has already been assessed adequately from a heritage perspective for the type of development proposed

**(2) The heritage resources and the area proposed for development are only partially recorded - The surveys undertaken in the area have not adequately captured the heritage resources and/or there are sites which require mitigation or management plans. Further specific heritage work is recommended for the proposed development.**

This recommendation is made in instances in which there are already some studies undertaken in the area and/or in the adjacent area for the proposed development. Further studies in a limited HIA may include:

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- improvement on some components of the heritage assessments already undertaken, for instance with a renewed field survey and/or with a specific specialist for the type of heritage resources expected in the area
- completion of a report for a component of a heritage impact assessment not already undertaken in the area
- undertaking mitigation measures requested in previous assessments/records of decision.

**(3) The heritage resources within the area proposed for the development have not been adequately surveyed yet - Few or no surveys have been undertaken in the area proposed for development. A full Heritage Impact Assessment with a detailed field component is recommended for the proposed development.**

**Note:**

The responsibility for generating a response detailing the requirements for the development lies with the heritage authority. However, since the methodology utilised for the compilation of the Heritage Screeners is thorough and consistent, contradictory outcomes to the recommendations made by CTS should rarely occur. Should a discrepancy arise, CTS will immediately take up the matter with the heritage authority to clarify the dispute.

The compilation of the Heritage Screener will not include any field assessment. The Heritage Screener will be submitted to the applicant within 24 hours from receipt of full payment. If the 24-hour deadline is not met by CTS, the applicant will be refunded in full.

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Appendix B

Chance Find Fossil Procedure



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## CHANCE FINDS OF PALAEOLOGICAL MATERIAL

*(Adapted from the HWC Chance Fossils Finds Procedure: June 2016)*

### Introduction

This document is aimed to inform workmen and foremen working on a construction and/or mining site. It describes the procedure to follow in instances of accidental discovery of palaeontological material (please see attached poster with descriptions of palaeontological material) during construction/mining activities. This protocol does not apply to resources already identified under an assessment undertaken under s. 38 of the National Heritage Resources Act (no 25 of 1999).

Fossils are rare and irreplaceable. Fossils tell us about the environmental conditions that existed in a specific geographical area millions of years ago. As heritage resources that inform us of the history of a place, fossils are public property that the State is required to manage and conserve on behalf of all the citizens of South Africa. Fossils are therefore protected by the National Heritage Resources Act and are the property of the State. Ideally, a qualified person should be responsible for the recovery of fossils noticed during construction/mining to ensure that all relevant contextual information is recorded.

Heritage Authorities often rely on workmen and foremen to report finds, and thereby contribute to our knowledge of South Africa's past and contribute to its conservation for future generations.

### Training

Workmen and foremen need to be trained in the procedure to follow in instances of accidental discovery of fossil material, in a similar way to the Health and Safety protocol. A brief introduction to the process to follow in the event of possible accidental discovery of fossils should be conducted by the designated Environmental Control Officer (ECO) for the project, or the foreman or site agent in the absence of the ECO.

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#### **Actions to be taken**

One person in the staff must be identified and appointed as responsible for the implementation of the attached protocol in instances of accidental fossil discovery and must report to the ECO or site agent. If the ECO or site agent is not present on site, then the responsible person on site should follow the protocol correctly in order to not jeopardize the conservation and well-being of the fossil material.

Once a workman notices possible fossil material, he/she should report this to the ECO or site agent. Procedure to follow if it is likely that the material identified is a fossil:

- The ECO or site agent must ensure that all work ceases immediately in the vicinity of the area where the fossil or fossils have been found;
- The ECO or site agent must inform SAHRA of the find immediately. This information must include photographs of the findings and GPS co-ordinates;
- The ECO or site agent must compile a Preliminary Report and fill in the attached Fossil Discoveries: Preliminary Record Form within 24 hours without removing the fossil from its original position. The Preliminary Report records basic information about the find including:
  - The date
  - A description of the discovery
  - A description of the fossil and its context (e.g. position and depth of find)
  - Where and how the find has been stored
  - Photographs to accompany the preliminary report (the more the better):
    - A scale must be used
    - Photos of location from several angles
    - Photos of vertical section should be provided
    - Digital images of hole showing vertical section (side);
    - Digital images of fossil or fossils.

Upon receipt of this Preliminary Report, SAHRA will inform the ECO or site agent whether or not a rescue excavation or rescue collection by a palaeontologist is necessary.

- Exposed finds must be stabilised where they are unstable and the site capped, e.g. with a plastic sheet or sand bags. This protection should allow for the later





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#### **Actions to be taken**

One person in the staff must be identified and appointed as responsible for the implementation of the attached protocol in instances of accidental fossil discovery and must report to the ECO or site agent. If the ECO or site agent is not present on site, then the responsible person on site should follow the protocol correctly in order to not jeopardize the conservation and well-being of the fossil material.

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- The ECO or site agent must compile a Preliminary Report and fill in the attached Fossil Discoveries: Preliminary Record Form within 24 hours without removing the fossil from its original position. The Preliminary Report records basic information about the find including:
  - The date
  - A description of the discovery
  - A description of the fossil and its context (e.g. position and depth of find)
  - Where and how the find has been stored
  - Photographs to accompany the preliminary report (the more the better):
    - A scale must be used
    - Photos of location from several angles
    - Photos of vertical section should be provided
    - Digital images of hole showing vertical section (side);
    - Digital images of fossil or fossils.

Upon receipt of this Preliminary Report, SAHRA will inform the ECO or site agent whether or not a rescue excavation or rescue collection by a palaeontologist is necessary.

- Exposed finds must be stabilised where they are unstable and the site capped, e.g. with a plastic sheet or sand bags. This protection should allow for the later

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excavation of the finds with due scientific care and diligence. SAHRA can advise on the most appropriate method for stabilisation.

- If the find cannot be stabilised, the fossil may be collect with extreme care by the ECO or the site agent and put aside and protected until SAHRA advises on further action. Finds collected in this way must be safely and securely stored in tissue paper and an appropriate box. Care must be taken to remove the all fossil material and any breakage of fossil material must be avoided at all costs.

No work may continue in the vicinity of the find until SAHRA has indicated, in writing, that it is appropriate to proceed.

Jonathan Kaplan (archaeologist):

[acrm@waccess.co.za](mailto:acrm@waccess.co.za)

082 321 0172

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FOSSIL DISCOVERIES: PRELIMINARY RECORDING FORM		
Name of project:		
Name of fossil location:		
Date of discovery:		
Description of situation in which the fossil was found:		
Description of context in which the fossil was found:		
Description and condition of fossil identified:		
GPS coordinates:	<i>Lat:</i>	<i>Long:</i>
If no co-ordinates available then please describe the location:		
Time of discovery:		
Depth of find in hole		
Photographs (tick as appropriate and indicate number of the photograph)	<i>Digital image of vertical section (side)</i>	
	<i>Fossil from different angles</i>	
	<i>Wider context of the find</i>	
Temporary storage (where it is located and how it is conserved)		
Person identifying the fossil Name:		
Contact:		
Recorder Name:		
Contact:		
Photographer Name:		
Contact:		

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Appendix C

Comments: Public Participation Report





Prepared for: Assured Turnkey Solutions (Pty) Ltd



Prepared By:



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### REPORT DISTRIBUTION LIST

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Community Members	Dyam-Dyam, Nqinisa and Phози Village



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## DOCUMENT HISTORY

Report Description			
Public Participation Meeting Summary			
Report no	Issue Date	Version	Status
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	Name	Status	Date
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Reviewed by	Ms Jilimane	Draft 2	July 2019
Approved by	Dr B Zuma	Final	July 2019



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## Background

Assured Turnkey Solutions (Pty) Ltd (ATS) has been appointed as an Environmental Authorisation Practitioner (EAP) by Vendicom (Pty) Ltd, as duly authorised by the law, to conduct Basic Environmental Assessment for the Tyolomnqa Mining project. In turn ATS appointed Lugaju Innovations as the Public Participation Specialist for the project. During a basic assessment process a meeting called a Public Participation (PP) is held to notify the community and all the interested and affected parties about the project, and are given a chance to comment about the project or raise their concerns.

## Public Participation Process

During the public participation process five steps need to be followed which are REACH, ENGAGE, CAPTURE, REPORT and COMPLY

### Reach

On the 2<sup>nd</sup> of July 2019 Lugaju Innovations plugged posters around Dyam-Dyam, Nqinisa and Phози Village notifying the public about the public participation meeting that was going to be held on the 12 July 2019 at Dyam-Dyam Community Hall. The posters were written in both English and isiXhosa. They contained information about the project, venue, time and date that the meeting is going to be held, and contact details of Lugaju Innovations and ATS representatives.

### Engage

On the 12<sup>th</sup> July 2019 Lugaju innovations and ATS held the meeting at Dyam-Dyam community hall. The attendees were community members from Dyam-Dyam , Nqinisa and Phози Village, Vendicome representatives and all the interested and affected parties such as people who own businesses nearby the villages. All the information regarding to the project was summarised and presented to the audience using a power point presentation presented by Dr Igbinigie, full reports pertaining to the project are available on the Lugaju Innovation website and at the East London Library.

Dr Igbinigie stated that this project is managed by Vendicom (Pty) Ltd which is a company located in Johannesburg, but the director of the company is originally from Tyolomnqa. Vendicom then appointed Assured Turnkey Solutions (ATS) (Pty) Ltd as an EAP which is also a company from Johannesburg. In turn Assured Turnkey Solution appointed Lugaju Innovations (Pty) Ltd located in East London as Public



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Participation Specialist for this project. In all, this project is conducted by three companies which are Vendicom the project manager, ATS the independent EAP and Lugaju Innovations the Public Participation Specialist. He then explained that it is required by the law that an independent EAP is appointed for this kind of project to make sure that the environment and the people are protected. This means ATS and Lugaju Innovations comments and reports regarding this project are not influenced by Vendicom in any way.

Dr Igbinigie explained that Vendicom (Pty) Ltd has proposed the mining of sand minerals including Zircon, Ilmenite and Rutile of heavy mineral concentrates. The dry sand mining process for the sand minerals will include the use of front-end loaders of 100tph head feed modular plant (Primary Concentrator Plant - PCP) to produce Heavy Mineral Concentrate (HMC) that will include approximately 700tph of Zircon, Ilmenite and Rutile in a concentrate mix. Water will be abstracted from river (Tyolomnqa River) or from borehole for dust suppression and other domestic use. Which means no chemical will be introduced, at the end there will be only three products which are sand, water and the minerals. The water will then be recycled, the sand will be returned to the ground and the minerals will be stockpiled and left to dry and then sent to IDZ in East London for further separation then shipped overseas.

He then further explained that this project will create job opportunities, 20 jobs will be created during the construction phase and 22 job will be created during the operation phase. He then stated that downstream job opportunities can be created through rendering services such as security, accommodation, etc. by the community he also added that in cases where the community cannot render some services required during operation phase, the community will be asked to outsource someone who can render the services required. He also stated that there will be a 12 hour shift of plant operation.

With the use of projected presentation slides Dr Igbinigie explained the process ATS is still undertaking for this project. Dr Igbinigie explained that the site will be rehabilitated at completion phase of the project, the grass will be replanted and all the land will be left in a state in which it was found. He then showed the community where the site is located and showed the distance between the site and the beach and also the distance between the site and the nearest village. He then explained that in order for this project to get approved, a number of licenses and permits are needed which are environmental authorization that goes with water license and heritage resource permits which takes 5 years to expire, and also mining permit that expires after 2 years.



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He explained that in order for these permits and licenses to be granted a basic assessment process has to be conducted which includes public participation meeting, specialist studies and consultation with competent authorities. The meeting we are conducting right now is part of the public participation process, also the plugging of posters, registration of the interested and affected parties and the commenting about the project also fall under the process. He emphasized that it is very important that everyone sign the circulating register so that they can be notified of any information that rises regarding the project. In the consultation process Department of Economic Development, Environment and Tourism, Department of Water and Sanitation and Department of Mineral Resources have already been consulted, and they requested 6 specialist studies to be conducted which includes biodiversity assessment, archeological and heritage assessment, geohydrological study, geotechnical study, soil and rehabilitation assessment and also a baseline socio-economic assessment.

**Biodiversity Assessment-** This report focuses on the natural state of the proposed mining site (Deeply eroded grass land). Invasive species were found and this means that the site will be easily rehabilitated. Biodiversity rescue plan was also advised, this means specialist will go on site and identify all important plants and save them so that they can be replanted after the project.

**Geohydrological Study –** The intent is to take groundwater through a borehole. This study is to determine whether there is groundwater present to be used. It was advised that if groundwater is used, the water must be replenished so that it doesn't harm the nature reserve by the sea and also monitoring boreholes will be constructed.

**Archaeological and Heritage Study-** This study entails two methods which are desktop study and site assessment. In desktop assessment, the specialist makes use of readily available project. It was discovered that there could be a possibility that old bones and historical artifact could be found at this site. If during operation of the proposed project historical artifacts are found activities will have to be halted. Next week specialist will come to site and do site assessment.

**Geotechnical Assessment-** Study to determine whether the land is suitable for mining, no landslide might arise. It was advised that dewatering of land should be practiced to avoid water collection or ponding which may cause the soil to soften and result in landslides or collapsing of the land.

**Baseline Socio Economic Assessment –** Provides proof of employment and also look at the socio-demographic and -economic profile of the population with specific reference to the mining industry in the



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East London (Tyolomnqa) area. It is reported 20 jobs during construction phase will be created and 22 job during the operation phase. The project will run for 2 years, and if production is viable then the project will be extended for another year until it reaches 5 years. Even though only 42 jobs will be created in total, the community can propose other services to render to Vendicom. During the meeting, the audience were given a chance to raise their comments and ask question. All the questions were attended to by Dr Zuma and Dr Igbinigie, and are as follows.

•Q1- Mr Sothondoshe from Dyam-Dyam asked whether the project is being approved by the Department of Environmental Affairs.

•A1- Dr Igbinigie answered yes, the project is being approved by the Department of Environmental Affairs. All the information is available online and the link will be shared with everyone.

•Q2- Mr Sothondoshe asked how far the site is from the beach and from the nearest community.

•A2- Dr Zuma stated that the site is 1.3 km away from the beach and 1.8km away from the nearest village

•Q3- Mr Lumkile asked whether there's a person to help us identify whether this project will be beneficial for the community, and in terms of percentage how much each community will benefit.

•A3- Dr Igbinigie stated that there's a baseline socio-economic assessment that will look into those things, and make sure the community benefits from this project. Dr Zuma stated that as Dr Igbinigie said before, ATS and Lugaju Innovations are independent companies to help the community and the environment. Their comments and views about the project are not influenced by anyone, so they will make sure everyone is protected and the environment.



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•Q4- Mr Mndlenkosi asked if Dr Igbinigie can explain what he mean when he said only Interested and Affected Parties (I&AP's) will get notify if new information arises.

•A4- Dr Igbinigie stated since there won't be any plugging of notices, only people who signed the register and filled in their contact details and people who registered as I&APs' will get notification regarding the project.

•Q5- Mr Mndlenkosi asked how are the stated job opportunities going to be divided amongst the three communities

•A5- Mr Kulati stated that they will find a way to make sure that the job opportunities will be divided fairly amongst the three communities. He also emphasized that people should propose to render services to create jobs for themselves

•Q6- Mr Sothondoshe asked what measures did Vendicom put in place to make sure the will be rehabilitated

•A6- Dr Igbinigie stated that a rehabilitation plan and also other measures have been advised to the client such as recycling the water used, Plan Rescue Plans, etc. All information is available online and at the East London Library.

•Q7- Mr Olivieri asked what measures Vendicome put in place to prevent dust pollution.

•A7- Dr Igbinigie stated that dust pollution issues have been captured on the geotechnical report. Dust compressors will be used to combat dust pollution. Asphalt will be mixed with water and sprayed on the



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roads and onsite to minimize dust pollution. Dust bags will be placed onsite and on the roads to monitor dust.

•Q8- Mr Lumkile asked whether Vendicom will do a medical check on everyone once the project is done to see if there's any health negative effect on the community due to the project.

•Q8- Dr Zuma stated that competent authorities will monitor all the risks that may occur and will have people who will come on site and assess it. Monitoring measures will be putted in place and the department will not approve anything that may put people's lives at risk.

•Q9- Mr Sothondoshe asked when is ATS and Lugaju Innovations going to advertise the project on the newspaper

•A9- Dr Zuma stated that the project has already been advertised on the Go express newspaper, all the information and articles about the project are available online.

•Q10- Mr Lumkile asked when is the community going to be taken to site.

•A10- Dr Zuma stated that Vendicom will deal with that issue

Mr Kulati stated that the community site visit is still under negotiations

#### **Capture**

Meeting minutes were recorded during the meeting, and will be formatted into a report which will be later submitted to the competent authority as part of a final Basic Assessment Report.



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### **Report**

A final Basic Assessment report will be compiled which will include all the information pertaining to the project and will be submitted to a competent authority who is going to decide whether this project will be granted an environmental authorisation

### **Appendices**

Appendix 1: Basic Assessment Report Draft

Appendix 2: Background Information Document

Appendix 3: Public Participation Meeting Minutes

Appendix 4: Public Participation Power point Presentation



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