



## **Environmental Audits**

**FOR**

**A ROAD CONSTRUCTION STONES QUARRY AND PROCESSING FACILITY  
LOCATED NEAR OKAHANDJA TOWN IN THE OTJOZONDJUPA REGION,  
NAMIBIA**

**ECC Number: 001142**

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## 1 INTRODUCTION

### 1.1 Project Background

This environmental audit report is prepared on behalf of Lewcor Group (The Proponent) for the quarrying activities on farm Waldau. Lewcor Group was issued an Environmental Clearance Certificate (ECC) (ECC-001142) valid between 15 December 2020 and 15 December 2023. The quarry and its associated facility cover an area of 24 hectares (excluding the access road to the B1) of which the pit will cover an area of approximately 2.25 hectare, located about 21 km from okahandja as shown in **Figure 1**. The Proponent intends to continue with the operation of extracting diorite rocks from an existing quarry and processing the rock by milling it into various sizes as per customers specification to be used for road construction and rehabilitation.

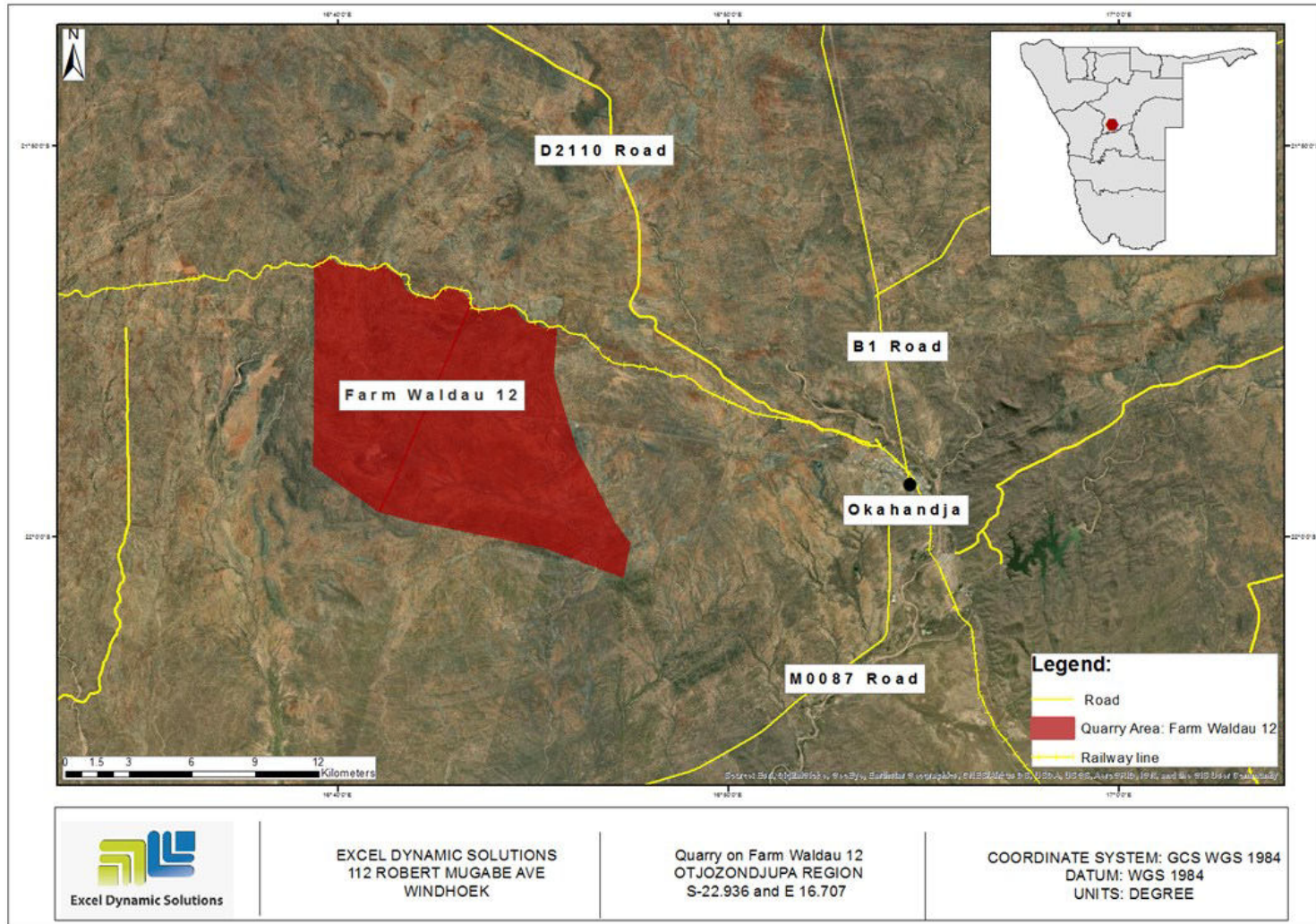


Figure 1 :Land use map – quarrying activities on farm Waldau

This environmental audit report provides a summary of the environmental performance of the Proponent, for the quarrying activities on farm Waldau from 15 December 2020 until 15 December 2023. The quarry have been operating since the ECC-00114 was issued till to date .The environmental audit report is prepared as per the requirements of the Environmental Impact Assessment (EIA) Regulations No. 30 of 2012, gazetted under the Environmental Management Act (EMA), No. 7 of 2007, and a condition of the ECC issued.

## 1.2 Purpose of the Environmental Compliance (Audit) Report

An Environmental Audit Report provides the link between the impacts identified in the EIA Process and the required environmental management on the ground during project implementation and operation, as assessed during compliance monitoring.

An onsite compliance audit and compilation of an Environmental Audit Report is one of the requirements (scope of work) presented to Excel Dynamic Solution Pty Ltd (EDS) by the Proponent to ensure environmental compliance with reference to the Environmental Management Plan (EMP), which has been prepared as a legal requirement by Section 8 of the EMA and its 2012 Environmental Impact Assessment (EIA) Regulations.

This Environmental Audit Report documents the progress made on the quarry activities on Farm Waldau. The operational (Planning, Quarry, Milling and Dressing and Transportation) activities are summarized below:

- **The Planning and Quarrying activities:** – This involves the proponent dealing with the necessary legislative and administrative arrangement, appoints and commencements of a contactor with blasting and extraction of stone and aggregates.
- **Transportation activities:** This involves the proponent hauling the massive rock for milling.
- **Milling and dressing activities:** The proponent processes the excavated stones by milling them into the required size as specified by the customer so they can be used for building and aggregate materials.

It is expected from the Proponent and their employees and/or contractors, in guiding them during the proposed quarrying works, to ensure that impacts on the environment are avoided, or limited if they cannot be avoided completely.

### **1.3 Appointed Environmental Assessment Practitioner**

The Proponent appointed Excel Dynamic Solutions (Pty) Ltd (EDS) as the external Environmental Auditor to ensure EMP compliance, with the conditions of authorization, in performing environmental monitoring and auditing to produce the environmental compliance report. This document was compiled by Ms. Aili lipinge and reviewed by Mr. Silas David.

## 2 EMP ROLES AND RESPONSIBILITIES

As the quarry holder, the Proponent is ultimately responsible for the implementation of the EMP.

### 2.1 Environmental Management Action Plan and Audit

The objective of the EMP's management actions is to prevent possible negative effects whenever feasible. If impacts cannot be avoided, steps are put in place to minimize their severity. Therefore, it is crucial for the Proponent or Environmental Manager to strictly follow the management actions.

Management actions recommended for the potential impacts rated in the EIA carried out for the mining activities on the quarry were based on the two project phases listed below:

- Phase 1: Operation (Quarry, Milling and Dressing and Transportation) - **Table 1**.
- Phase 2: Monitoring (**Table 2**)

The management of the company Lewcor Group assess these commitments in detail and should acknowledge their commitment to the specific management actions detailed in the EMP. The compliance, thereof, is measured in **Tables 2** and **3**.



### 3. ENVIRONMENTAL AUDIT

This environment audit report provides the summary of activities occurred at the quarry as from 15 December 2020 – 15 December 2023 based on the observation and intervirew conducted by the Environmental Assesment Practitioner (EAP) at EDS and the site manager at Lewcor Group on the 15 April 2024.

#### 3.1 Phase 1: Operation Phase Management Action Plan

The management action plan recommended for this phase are presented in **Table 1** below.

**Table 1 Management Action Plan for the Operation Phase and EMP Audit**

Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
EMP training	<ul style="list-style-type: none"> <li>Employees appointed for operation and maintenance on respective site must ensure that all personnel / workers are aware of necessary health, safety and environmental considerations applicable to their respective works.</li> </ul>	Contractors working on the project have been informed of all the OHS&E issues	<b>COMPLIANT</b>	N/A

Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
Monitoring	<ul style="list-style-type: none"> <li>The ECO or the Proponent should monitor the implementation of this EMP.</li> </ul>	Undertaken on a weekly basis	<b>COMPLIANT</b>	N/A
	<ul style="list-style-type: none"> <li>An EMP non-compliance penalty system should be implemented on site</li> </ul>	No general non-compliance penalty system in place for the quarry project.	<b>PARTIALLY COMPLIANT</b>	Implement a non-compliance penalty system based on the environmental features identified in the project's EMP, in order to ensure effectiveness of EMP mitigation measures for quarry works.
Biodiversity	<ul style="list-style-type: none"> <li>Shrubs or trees especially protected tree species found along and around quarry sites, should not be unnecessarily removed.</li> </ul>	All staff are made aware.	<b>COMPLIANT</b>	N/A
	<ul style="list-style-type: none"> <li>Workers should refrain from killing or snaring animals found on the site.</li> </ul>	All staff are made aware.	<b>COMPLIANT</b>	N/A

Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
	<ul style="list-style-type: none"> <li>Environmental awareness on the importance of biodiversity preservation should be provided to the workers</li> </ul>	<p>This measure is not separately implemented, but addressed through the two measures above, on protection of animals and vegetation.</p>	<p><b>COMPLIANT</b></p>	<p>N/A</p>
	<ul style="list-style-type: none"> <li>Any identified alien invasive species may immediately be eradicated</li> </ul>	<p>Workers will be made aware of the existence of alien invasive species and trained to identify and eradicate them.</p>	<p><b>COMPLIANT</b></p>	<p>N/A</p>
<p>Employment</p>	<ul style="list-style-type: none"> <li>Preference for casual and general labour during the operational phase should be given to the residents near the quarry.</li> </ul>	<p>Local employment for general labour purposes were prioritised</p>	<p><b>COMPLIANT</b></p>	<p>N/A</p>
	<ul style="list-style-type: none"> <li>Clearly explaining of the Term and condition of employment contracts to all employees.</li> </ul>	<p>The conditions and terms were clearly explained</p>	<p><b>COMPLIANT</b></p>	<p>N/A</p>
	<ul style="list-style-type: none"> <li>Adhering to the Labour Act No.11 of 2007 for the recruitment of labour</li> </ul>	<p>The labour Act was adhered to</p>	<p><b>COMPLIANT</b></p>	<p>N/A</p>

Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
	<ul style="list-style-type: none"> <li>No recruitment should / to be done on site.</li> </ul>	No recruitment is done on site	<b>COMPLIANT</b>	N/A
Air Quality	<ul style="list-style-type: none"> <li>Water truck should be used on the gravel to road for dust suppression</li> </ul>	The dust has been suppressed during the operation	<b>COMPLIANT</b>	N/A
	<ul style="list-style-type: none"> <li>During high wind condition, the contractor must cease the work until the windblown have calmed down</li> </ul>	No work has been carried out when there is a strong wind	<b>COMPLIANT</b>	N/A
	<ul style="list-style-type: none"> <li>Covering any stockpiles with plastic to minimise windblown dust</li> </ul>	The stockpiles have been covered up	<b>COMPLIANT</b>	N/A
	<ul style="list-style-type: none"> <li>Vehicles and machinery on site must be serviced regularly to prevent emission of harmful gases.</li> </ul>	Vehicles are regularly serviced	<b>COMPLIANT</b>	N/A
Waste Generation	<ul style="list-style-type: none"> <li>Workers must be sensitised to responsible waste disposal methods.</li> </ul>	Waste is collected and removed from the site regularly.	<b>COMPLIANT</b>	N/A
	<ul style="list-style-type: none"> <li>The quarry site shall be kept clean and litter free and ensure that there is no waste left at the site of works.</li> </ul>	There are no litter on the site	<b>COMPLIANT</b>	N/A

Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
	<ul style="list-style-type: none"> <li>No waste may be buried or burned on site or anywhere else.</li> </ul>	No waste burned on-site.	<b>COMPLIANT</b>	N/A
	<ul style="list-style-type: none"> <li>The quarry site should be equipped with separate waste bins, clearly marked for hazardous, general/domestic and/or recyclable waste.</li> </ul>	There is are separate waste bin on site but not clearly marked	<b>PARTIALLY COMPLIANT –</b>	-The waste bins for different waste type should be appropriately and clearly marked to not mix different waste produced onsite. For e.g., food waste should be stored in one bag or container and plastic and papers in one bin/bag or container
	<ul style="list-style-type: none"> <li>All hazardous substance such as old fuel (used fuel) must be stored in a specific location</li> </ul>	There is a specific storage site for old fuel	<b>COMPLIANT</b>	N/A.
	<ul style="list-style-type: none"> <li>Maintenance and washing of vehicle must only take place at a designated area / workshop</li> </ul>	There is a workshop where all the maintenance activities occur.	<b>COMPLIANT</b>	N/A

Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
	<ul style="list-style-type: none"> <li>All heavy-duty vehicle and equipment on site should be provided with a drip tray.</li> </ul>	Random oil spill spots were spotted onsite near the workshop	<b>COMPLIANT</b>	
Health and Safety	<ul style="list-style-type: none"> <li>As part of their induction, the workers should be provided with an awareness training of the risks of mishandling equipment and materials on site.</li> </ul>	Implemented. Induction / Training is provided for all new recruits.	<b>COMPLIANT</b>	N/A
	<ul style="list-style-type: none"> <li>During operations on site, employees should be properly equipped with personal protective equipment (PPE) such as coveralls, gloves, safety boots, earplugs, safety glasses, hard hat etc.</li> </ul>	The required PPE is provided to workers.	<b>COMPLIANT</b>	N/A
	<ul style="list-style-type: none"> <li>Workers should not be allowed to consume any intoxicants prior to and during working hours as this may lead to mishandling of equipment which results into injuries and other health and safety risks.</li> </ul>	Consumption of alcohol / intoxicants is prohibited on sites during working hours.	<b>COMPLIANT</b>	N/A

Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
	<ul style="list-style-type: none"> <li>Employees should not be allowed on site if under the influence of any intoxicants.</li> </ul>	Consumption of alcohol / intoxicants is prohibited on sites during working hours.	<b>COMPLIANT</b>	N/A
Noise	<ul style="list-style-type: none"> <li>Blasting, milling, the operational times must be set such that, no activity is carried out during the night or too early in the mornings.</li> </ul>	No activities are carried out during the early and late hours on the sites.	<b>COMPLIANT</b>	N/A
	<ul style="list-style-type: none"> <li>Drilling and blasting to be carried out in a small scale to develop cracks on the parent rocks mass and to strictly to a target rock.</li> </ul>	No blasting occurred outside the target rock or beyond	<b>COMPLIANT</b>	N/A
	<ul style="list-style-type: none"> <li>Quarrying hours should be restricted to between 06h00 and 24h00 whereby there are shift (06h00 – 15h00 and 15h00 -24h00), as this are the hours that were agreed upon by the Proponent and farmer owner.</li> </ul>	No activities are carried out during the early and late hours on the sites.	<b>COMPLIANT</b>	N/A

Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
	<ul style="list-style-type: none"> <li>When operating the drilling machinery onsite, workers should be equipped with personal protective equipment (PPE) such as earplugs to reduce noise exposure.</li> </ul>	Workers are provided with the correct PPE required.	<b>COMPLIANT</b>	N/A
Soils	<ul style="list-style-type: none"> <li>Spill control preventative measures should be put in place to manage soil contamination, no matter how small the amount (size) of pollution (spill).</li> </ul>	There are no hazardous waste used on this site.	<b>COMPLIANT</b>	N/A
	<ul style="list-style-type: none"> <li>Appropriate erosion control measures must be put in place where soil may be prone to erosion.</li> </ul>	There no evidence of soil erosion around /near the quarry.	<b>COMPLIANT</b>	N/A
Archaeology and cultural heritage	<ul style="list-style-type: none"> <li>Caution should be exercised when carrying out excavations associated with quarry activities in the event that archaeological/heritage remains are discovered.</li> </ul>	No sites of heritage / archaeological significance discovered on sites at this stage.	<b>COMPLIANT</b>	N/A



Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
	<ul style="list-style-type: none"> <li>The worksite/quarry manager should familiarize themselves with the National Heritage Council's regulations</li> </ul>	The Environmental Consultant will provide updates and information to the Project through EMP updates.	<b>COMPLIANT</b>	N/A
General communication	<ul style="list-style-type: none"> <li>The Proponent should appoint a Public Relation Officer (PRO) to liaise with the landowners, and all the stakeholders</li> </ul>	Relationships with landowners and all the stakeholders are established.	<b>COMPLIANT</b>	N/A
	<ul style="list-style-type: none"> <li>The PRO should be introduced to the farm owners and his or her contact details provided to them prior to undertaking activities for easy communication during the quarry activities.</li> </ul>	Relationships with farmers / landowners established.	<b>COMPLIANT</b>	N/A
	<ul style="list-style-type: none"> <li>The Proponent should compile a clear communication procedure/plan which should include a grievance mechanism</li> </ul>	Relationships with farmers / landowners established.	<b>COMPLIANT</b>	N/A

Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
	<ul style="list-style-type: none"> <li>The Proponent should enter into a written agreement with landowners before carrying out quarry on their land.</li> </ul>	Relationships with farmers / landowners established,	<b>COMPLIANT</b>	N/A

**3.2 Phase 2: Monitoring Phase Action Plan**

To support and ensure that the proposed mitigation measures are achieving the desired results, a monitoring plan must be implemented. The management action plans recommended for quarry work are presented in **Table 2** below.

**Table 2 Monitoring Plan and EMP Audit**

Environmental Feature	Management Actions/Monitoring Objectives	Frequency (Effective upon commencement of operations)	Observation	Compliance	Recommended Action
Soils	All measures should be considered to prevent the loss of topsoil.	Weekly	-Areas that are not within the target site remain undisturbed.	<b>COMPLIANT</b>	N/A
Monitoring	The ECO or the Proponent/Contractor should monitor the implementation of the EMP, in order to ensure compliance.	Daily	Regularly monitored.  Site audited by an Environmental Consultant.	<b>COMPLIANT</b>	N/A
	The ECO(s) should inspect the site throughout the quarrying period and after completion.	Daily	Environmental audits occur and will continue until rehabilitation and closure phase of the mining activities.	<b>COMPLIANT</b>	N/A

Environmental Feature	Management Actions/Monitoring Objectives	Frequency (Effective upon commencement of operations)	Observation	Compliance	Recommended Action
Biodiversity	Clear only minimal access tracks, when necessary, to maintain as much of the remaining natural vegetation on site and to prevent habitat loss outside areas of interest for quarry activities.	Weekly	Minimal new tracks were created on sites, to access quarry.	<b>COMPLIANT</b>	N/A
Health and Safety	Quarry workers should be trained on how to properly handle materials and equipment on site (if they do not have the skills) in order to avoid injuries.	Daily/Weekly	Material and equipment handling safety is included in induction.	<b>COMPLIANT</b>	N/A

Environmental Feature	Management Actions/Monitoring Objectives	Frequency (Effective upon commencement of operations)	Observation	Compliance	Recommended Action
	Quarry equipment and material transported to site should be securely fastened to the vehicles, to ensure that the material and equipment do not collapse and cause injury during transportation.	Daily/Weekly	Regularly monitored.  Adhered to.  Equipment is transported safely to and from the sites.	<b>COMPLIANT</b>	N/A

Environmental Feature	Management Actions/Monitoring Objectives	Frequency (Effective upon commencement of operations)	Observation	Compliance	Recommended Action
	<p>The proponent and ECO/SHE Officer should ensure that all personnel are provided with appropriate personal protective equipment (PPE), such as gloves, safety boots, safety glasses and hard hats at all times during quarry(operation) hours on site to prevent injuries and/or loss of life.</p>	<p>Daily/Weekly</p>	<p>Appropriate PPE is provided to all workers.</p>	<p><b>COMPLIANT</b></p>	<p>N/A</p>

Environmental Feature	Management Actions/Monitoring Objectives	Frequency (Effective upon commencement of operations)	Observation	Compliance	Recommended Action
Noise	Quarry works schedule should be limited to normal working hours, between 08h00 and 17h00, or to the hours agreed upon between Proponent and landowners/residents. This is to ensure that noise generated during operation does not disturb residents.	Weekly	No operations occurring on site.	<b>COMPLIANT</b>	N/A
Waste	The quarry site must be kept tidy at all times.	Daily	Regularly monitored and management procedures adhered to.	<b>COMPLIANT</b>	N/A

Environmental Feature	Management Actions/Monitoring Objectives	Frequency (Effective upon commencement of operations)	Observation	Compliance	Recommended Action
	All domestic and general construction waste produced on a daily basis must be collected and contained daily to prevent environmental pollution.	Daily	Regularly monitored and management procedures adhered to	<b>COMPLIANT</b>	N/A
	Avoid combining of hazardous and non-hazardous waste by providing separate waste containers (bins) for hazardous and domestic / general waste	Daily	No operations on site. Although there remains a lack of waste containers on site.	<b>COMPLIANT</b>	N/A



## SUMMARY OF COMPLIANCE

This environmental audit has identified 39 management actions and 11 monitoring actions. After on-site observation, two (2) out of the 39 management actions have been identified as ***Partially Compliant*** and 37 of the management actions were observed as ***Compliant***. All 11 monitoring actions were identified as ***Compliant***.

The large proportion of compliant action recorded for the environmental audit, therefore, renders the general state of the continuing with the Operations and Maintenance phase of the project ***Compliant***.

The Proponent, thus far, paid attention to the environmental aspects and compliance of this project though there are two (2) issues of Non-Compliance identified during this Environmental Audit. The identified issue has, thus far, had significant negative effects to the quarry operations, the employees and the environment; and is, therefore, regarded as minor. The issue of Partial Compliance identified is:

1. ***There is no general non-compliance penalty system in place for the quarry project***
2. ***The waste bin are not clearly marked.***

## 4. CONCLUSION AND RECOMMENDATIONS

The non/partial compliances identified in this environmental audit report need corrective action in order for the operations of the Proponent to reach a 100% Compliance rate. Recommendations for corrective action are as follows:

- Implement a penalty system for EMP Compliance to enforce accountability towards environmental management within quarry operations.
- The quarry site should be equipped with separate waste bins, clearly marked for hazardous, general/domestic and/or recyclable waste..

The potential positive and negative impacts of the quarry activities were identified, assessed and mitigation measures made thereof. Mitigation measures need to be adhered to at all times. Most importantly, monitoring of the environmental components described in the Environmental Management Plan must be conducted by the Proponent and an appointed Environmental Officer or any applicable Competent Authority.

The next site inspection will be undertaken depending on the date stated on the new ECC as the Proponent is applying for the ECC renewals.

**Appendix A: Copy of the Environmental Clearance certificate**

Appendix B (Site picture)



Waste bin on site



Borehole that supply water for drinking onsite



