

SHWE TAUNG MINING COMPANY LIMITED

Red Clay Quarry

Biannual Environmental Monitoring Report

(September 2022 to February 2023)

This page is a record of all revisions of this document. All previous issues are hereby superseded and are to be destroyed.



						
	February 2024	Bi-annual reporting to ECD		Thiri Tin Htut Environmental Manager	Aung Khaing Nyi Head of HSE	Kyaw Naing Soe Deputy MD of STM
Rev	Date	Description	Code / Ref.	Prepared by	Checked by	Approved by

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၁ စီမံကိန်း မိတ်ဆက်

၁.၁ အကျဉ်းချုပ်အစီရင်ခံစာ

မြေနီ (စက်မှုတွင်းထွက် ကုန်ကြမ်း) အလတ်စား လုပ်ကွက်သည် မန္တလေးတိုင်းဒေသကြီး၊ သာစည်မြို့နယ်၊ ယင်းမာပင် ကျေးရွာအုပ်စု၊ မဒါန်းဒေသတွင် တည်ရှိပါသည် (ပုံ - ၁.၁)။ ရွှေတောင်သတ္တုတူးဖော်ရေးကုမ္ပဏီလီမိတက်မှ ဆောင်ရွက်သည့် မြေနီလုပ်ကွက်မှ ထွက်ရှိလာသော ကုန်ကြမ်းများအား ရွှေတောင်ဘိလပ်မြေစက်ရုံသို့ ထောက်ပံ့ပေးပါသည်။ ထို့ကြောင့် မြေနီလုပ်ကွက်သည် ရွှေတောင်ဘိလပ်မြေစက်ရုံနှင့် ဆက်စပ်နေသည့် လုပ်ငန်းတစ်ခုဖြစ်ပါသည်။

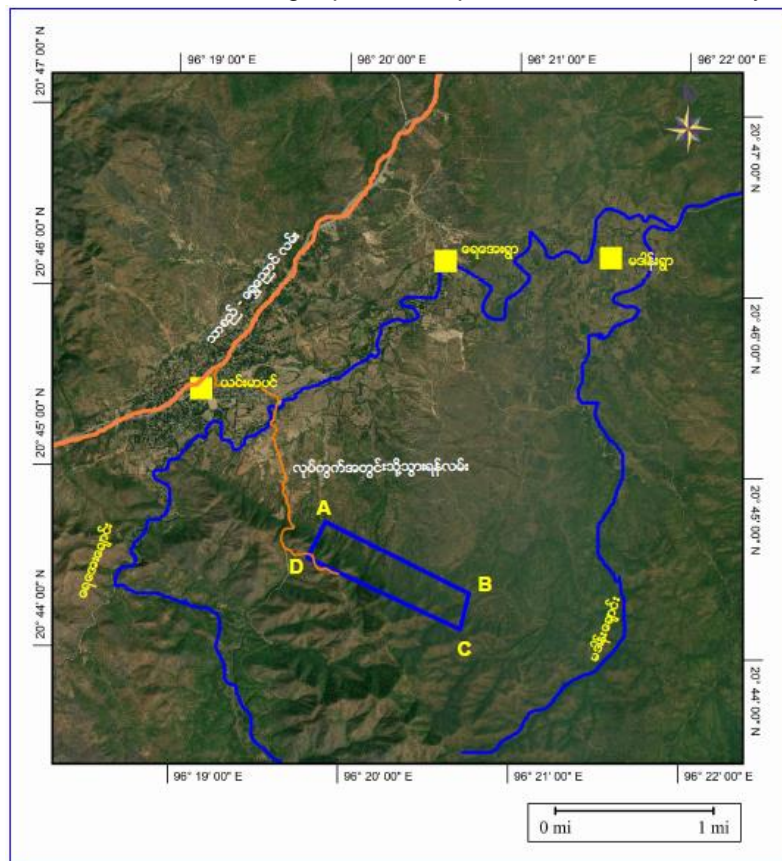
၂၀၂၂ ခုနှစ်၊ ဩဂုတ်လ (၃၀)ရက်နေ့တွင် ရွှေတောင်သတ္တုတူးဖော်ရေး ကုမ္ပဏီလီမိတက်သည် သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင် ထိန်းသိမ်းရေးဝန်ကြီးဌာန၊ ပတ်ဝန်းကျင် ထိန်းသိမ်းရေးဦးစီးဌာနမှ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် အတည်ပြုချက် ရရှိခဲ့ပါသည်။ မြေနီ (စက်မှုတွင်းထွက်ကုန်ကြမ်း) အသေးစားလုပ်ကွက်သည် ၂၀၁၉ ခုနှစ်၊ မေလ (၃၁) ရက်နေ့တွင် ခွင့်ပြုမိန့် သက်တမ်းကုန်ဆုံးသွားသည့်အတွက် ၂၀၂၂ ခုနှစ်၊ အောက်တိုဘာလ (၆) ရက်နေ့တွင် သယံဇာတနှင့် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဝန်ကြီးဌာနမှ မြေနီ (စက်မှုတွင်းထွက် ကုန်ကြမ်း) အလတ်စား ထုတ်လုပ်မှုလုပ်ငန်းအတွက် ခွင့်ပြုမိန့်ရရှိခဲ့ပါသည်။ မြေနီ (စက်မှုတွင်းထွက်ကုန်ကြမ်း)အလတ်စားလုပ်ကွက်အား ၂၀၂၃ ခုနှစ်၊ ဧပြီလတွင် စတင်ဆောင်ရွက်ခဲ့ပါသည်။ ထို့ကြောင့် ရွှေတောင်သတ္တုတူးဖော်ရေးကုမ္ပဏီလီမိတက်သည် ပတ်ဝန်းကျင်ထိန်းသိမ်း ရေးဦးစီးဌာန၏ လုပ်ငန်းစဉ်များ၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဥပဒေနှင့် နည်းဥပဒေများ၊ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်များကို လိုက်နာဆောင်ရွက်လျက်ရှိပြီး ၂၀၂၂ ခုနှစ်၊ စက်တင်ဘာလမှ ၂၀၂၃ ခုနှစ်၊ ဖေဖော်ဝါရီလအတွက် ပတ်ဝန်းကျင်ဆိုင်ရာ စောင့်ကြပ်ကြည့်ရှုစစ်ဆေးခြင်း အစီရင်ခံစာတင်ပြခြင်း ဖြစ်ပါသည်။

1. Introduction

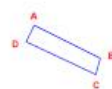
1.1 Executive Summary

The Red Clay quarry is located at Madan area, Yin Mar Pin Tract, Thazi Township, Mandalay Region as shown in (Figure 1.1). The Red Clay quarry is operated by Shwe Taung Mining (STM), subsidiary of Shwe Taung Cement (STC) which supply raw materials exclusively to the STC cement plant. The Red Clay quarry of STM are thus considered as associated facilities of the STC cement plant.

Shwe Taung Mining (STM) Co., Ltd. received the approval letter of Environmental Management Plan (EMP) from Environmental Conservation Department (ECD), Ministry of Natural Resources and Environmental Conservation (MONREC) for the project of the Red clay Quarry EMP report on 30th August 2022. However, the Red Clay Extraction (Small Scale) License was expired on 31st May 2019 and received the license renewal with Medium Scale Extraction from MONREC on 6th October 2022. The extraction of red clay started in April 2023. STM conducted environmental monitoring program in line with Environmental Management Plan and comply Environmental Conservation Law and Rules, the Procedure of ECD and submit this biannual environmental monitoring report for September 2022 to February 2023.



အညွှန်း



- A - Lat/Lon: 20° 44' 42.9394" N, 96° 19' 54.1426" E
- B - Lat/Lon: 20° 44' 20.1287" N, 96° 20' 45.2749" E
- C - Lat/Lon: 20° 44' 08.1662" N, 96° 20' 42.3749" E
- D - Lat/Lon: 20° 44' 30.9147" N, 96° 19' 48.0806" E

မြေစဉ်း (၁၄၀) ဧက (၀.၅၆၆၅၇ စတုရန်းကီလိုမီတာ)

Figure 1.1 Location of the Red Clay Quarry (Village Level)

	<p align="center">SHWE TAUNG MINING COMPANY LIMITED</p>	
	<p align="center">Bi-Annual Environmental Monitoring Report</p>	

1.2 Purpose of Environmental Monitoring

Monitoring is a means of verifying the effectiveness of the management and mitigation measures contained within the management plans listed in STM Red Clay EMP report.

- 1) The Environmental /Executives from HSE department of STM shall do the following:
 - Monitor and implement this ESMP at site;
 - Conduct Environmental monthly inspection checklist audit;
 - Monitor laboratory personnel while conducting their water sampling and testing method;
 - Assist and monitor the implementation of Waste Management; and
 - Monitor and review the air emission test result for compliance recommendation.
- 2) All inspection checklist audit finding that needs rectification shall be recorded in Environmental and Social tracker and will be assigned by Environmental Manager to concerned department head for rectification.
- 3) All water, effluent and air emission test results will be compiled for review and analyses by the Environmental Manager and approved by Head of HSE Department.
- 4) All generated waste according to their classification and final disposal will be entered to waste management matrix for monthly report.
- 5) The Environmental Executive will be implementing and monitoring within the project area, new infestation and according to BAP.

1.3 Health, Social and Environment (HSE) Department

Shwe Taung Cement Co., Ltd. established HSE Department and responsibility of HSE Department are as follows.

- 1) Implementation of Environmental Management Plans of approved EIA report of STM Red Clay Quarry, Comply Rules and Regulations of Environmental Conservation, report Environmental Monitoring
- 2) Supervise third party stakeholders, contractors and other organizations for environmental monitoring program
- 3) Monitoring environmental impact and report the relevant documents
- 4) Promote the ability of employees by conducting knowledge sharing training and awareness on environmental conservation.

2. Environmental Performance Indicators and Monitoring Schedule

Physical, biological and social environmental management components of particular significance have been identified as performance indicators. A comprehensive monitoring plan for each performance indicator has been prepared for all phases of the Project, presented in Table 1.0.

This includes the parameters to be measured, methods to be utilized, sampling locations, frequency of measurements, detection limits and responsibilities for implementation and supervision.

Impact monitoring will be undertaken during the life of the Project to verify the predicted levels of residual impacts from the Project and the effectiveness of the various management plans and mitigation measures.

Shwe Taung Mining Co., Ltd. will prepare an environmental monitoring report and submit it to the Ministry of Natural Resources and Environmental Conservation, MONREC every six months as per the EIA Procedure requirements.

Table 1 - Environmental Monitoring Program

Project Stage/ Component	Potential Impact	Parameters to be Monitored	Location	Measurements	Frequency	Responsibility
Operation / Red Clay Quarry	Inspection of mitigation compliance	General compliance with mitigation measures presented in the ESMP.	Project activity areas	Visual inspection of all active work areas and inspection of records	Monthly	STC HSE Department
Operation / Red Clay Quarry	Dust Impacts	Dust deposition	Yin Mar Pin, Madan and Yay Aye Villages (Error! Reference source not found.)	Dust deposition gauge	Twice per year	STC HSE Department Head and Environmental Manager
Operation / Red Clay Quarry	Air Impacts	Carbon Monoxide, Nitrogen Dioxide, Hydrogen Sulphide(H ₂ S), PM10, PM2.5, Sulfur dioxide (SO ₂), Oxygen (O ₂),	ρ) 20° 44' 35.6887"N, 96°19'56.8370"E (ϒ) 20° 44' 27.4380"N, 96°20'18.8550"E (Ϙ) 20° 44' 18.1941"N, 96°20'39.8603"E	Standard analytical methods	Twice per year	
Operation / Red Clay Quarry	Stream Water	pH, Total Dissolved Solids (TDS), Suspended Solids, Total Hardness, Total Alkalinity, Dissolved Solid, Chloride (as CL), Sulphate(SO ₄), Iron (Fe), Cyanide (CN),Arsenic	Sampling at: 1. Madan Stream, 2. Yay Aye Stream	Standard analytical methods	Twice per year	STC HSE Department Head and Environmental Manager

Project Stage/ Component	Potential Impact	Parameters to be Monitored	Location	Measurements	Frequency	Responsibility
		(As), Ni, Cr, Cu, Pb, Zn				
Operation / Red Clay Quarry	Effluent Water	pH, Total Dissolved Solids (TDS), Suspended Solids, Total Hardness, Total Alkalinity, Dissolved Solid, Chloride (as CL), Sulphate (SO ₄),Iron (Fe), Cyanide (CN),Arsenic (As), Ni, Cr, Cu, Pb, Zn	(20° 44' 31.4286"N, 96° 20' 18.3688"E) Sedimentation Pond	Standard analytical methods	Twice per year	STC HSE Department Head and Environmental Manager
Operation / Red Clay Quarry	Noise and Vibration	Check compliance with noise levels specified in Myanmar National Environmental Quality (Emission) Guidelines (2015) for noise.	Worker Accommodation, Yin Mar Pin village, Madan Village and Yay Aye Village	Standard analytical methods	Twice per year	STC HSE Department Head and Environmental Manager
Operation / Red Clay Quarry	Soil and sediment	SiO ₂ , Fe ₂ O ₃ , Al ₂ O ₃ , Cu, Pb ,Zn (mg/kg)	(1) 20° 44' 36.2254"N, 96°20'00.8698"E (2) 20° 44' 29.5960"N, 96°20'17.3019"E	Standard analytical methods	Twice per year	STC HSE Department Head and Environmental Manager

Project Stage/ Component	Potential Impact	Parameters to be Monitored	Location	Measurements	Frequency	Responsibility
			(3) 20° 44' 20.2155"N, 96°20'37.8998"E			
Operation / Red Clay Quarry	Waste Management	Fuel Storage, Waste Bins, Any Spill, Fire Prevention	Diesel Storage area and waste bins	Visual inspection of all active work areas and inspection of records	Weekly	STM Environmental Executive
Operation / Red Clay Quarry	Biodiversity	Floral Survey, Invasive Species Survey	Within Quarry area	Visual inspection of all active work areas and inspection of records	Twice per year	STM Environmental Executive

3. Project Information

3.1 Project Location

The 140 acres red clay quarry is located south east of the Yin Mar Pin village (Figure 3.1). An operating agreement for small-scale production of mineral was signed on 19th February 2019 with No. (1) Mining Enterprise of the Ministry of Natural Resources and Environmental Conservation (MONREC) and ended on 31st may 2019. New medium-scale production of mineral was signed on 6th October 2022 with No. (1) Mining Enterprise of the Ministry of Natural Resources and Environmental Conservation (MONREC) with 10years extraction period.

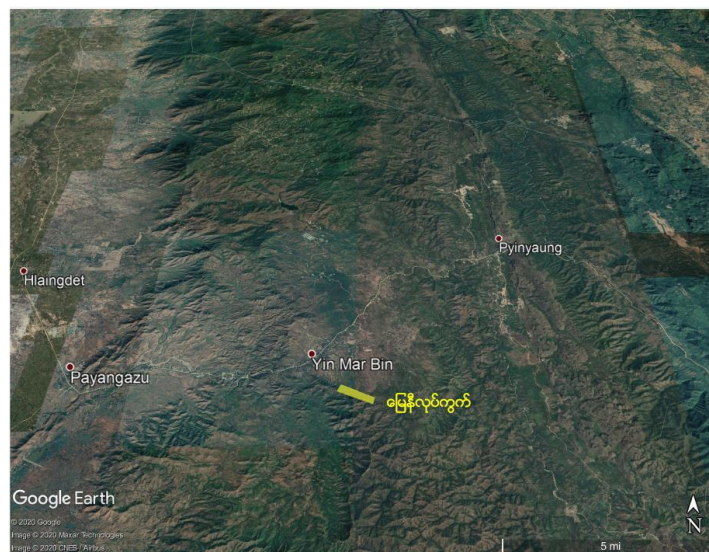


Figure 3.1 Location of the Mudstone Quarry (Associated Facilities)

	SHWE TAUNG MINING COMPANY LIMITED	
	Bi-Annual Environmental Monitoring Report	

3.2 Project Description

Red Clay extraction is currently undertaken by open excavation approximately 700 m above sea level to provide raw material for the existing STC cement plant. The extracted red clay is transported by truck to the cement plant, which requires 25,000 tons of red clay per annum to meet the current production capacity.

During the reporting period of **September 2022 to February 2023**, there was no operation of red clay quarry.

4. Environmental Monitoring Program

4.1 Dust Monitoring

Dust deposition gauges have been installed in Yay Aye and Madan villages and STM monitored dust deposition with 2 points at both villages.

4.1.1 Monitoring Location

4.1.1.1 Dust Deposition

STM monitored dust deposition with 2 points at Yay Aye and Madan village to mitigate dust emission on surrounding area, quarries and access road. Please refer the table 2 for dust deposition monitoring results from September 2022 to February 2023.

No	Monitoring Location	Latitude	Longitude
1	Madan Village (U Nyein's Home)	20°46'21.02"N	96°20'39.51"E
2	Yay Aye Village (U Soe Tint's Home)	20°45'56.50"N	96°20'26.86"E

Figure 4.1 show the location of Dust Monitoring monthly by Australia & New Zealand Guideline for monthly Dust Deposition are the parameters measured.

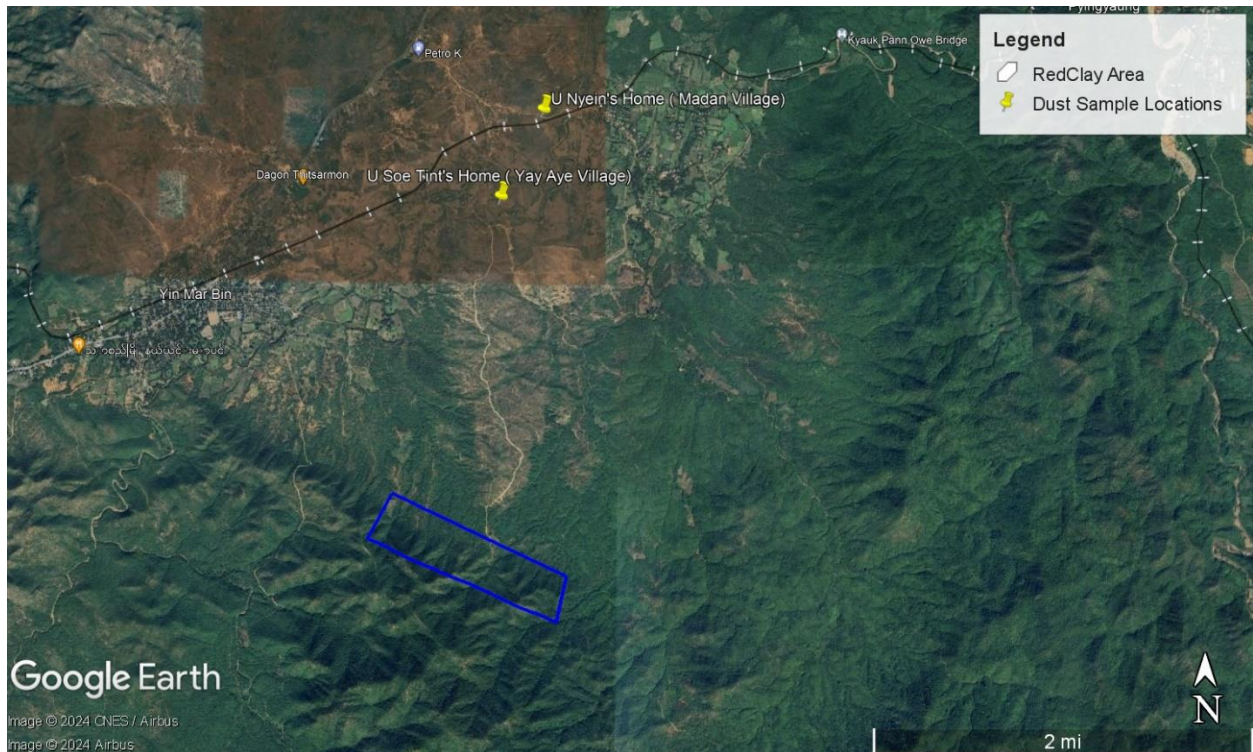


Figure 4.1 Location of Dust Deposition Monitoring

4.1.1.2 Location Map for Ambient Air Monitoring

Ambient air quality monitoring location had been selected by identifying potentially affected with consideration given to the prevailing wind conditions through Operation and Construction activities.

No	Monitoring Location	Latitude	Longitude
1	Yay Aye Village	20°45'56.50"N	96°20'26.86"E

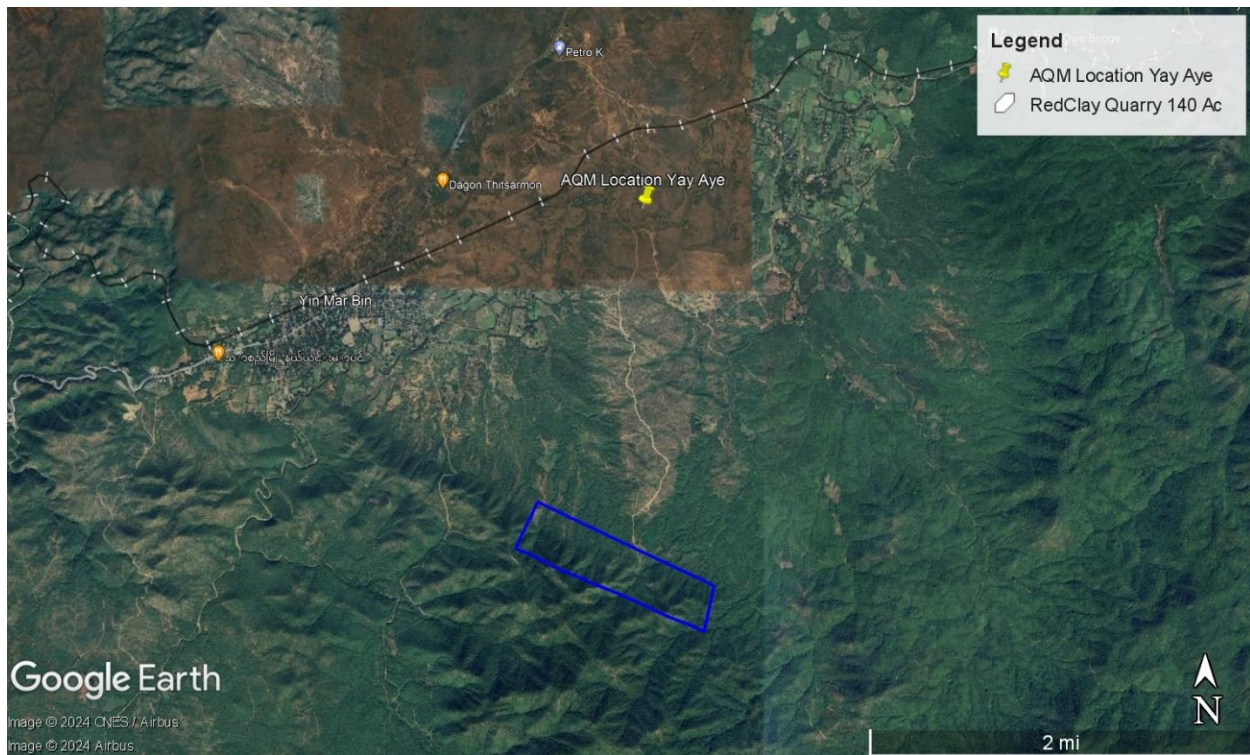


Fig 4.2 - Location Map of Ambient Air Monitoring around Red Clay Quarry

4.1.2 Monitoring Method

The portable HAZ-SCANNER™ EPAS wireless environmental perimeter air station is easily deployed as an ambient air quality monitor to measure and document critical U.S. EPA criteria pollutants including nitrogen dioxide, sulfur dioxide, ozone, carbon dioxide, particulates, VOCs, and more. The EPAS provides direct readings in real time with data logging capabilities.

Web link: <https://www.skinc.com/catalog/pdf/instructions/EPAS%20manual%20v.3.1.pdf>

4.1.3 Monitoring Result for Dust Deposition

Table 2 - Summary of Dust Deposition for Red Clay Quarry

Date: Sept 2022 to Feb 2023	Samplers: Nay Hlaing Oo						
	Test Result						
Parameter	Australia & New Zealand Guideline (g/m ² /Day)	Sep 2022	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023
Madan Village (U Nyein' Home)	1.191	STM started dust sample collection from Feb 2023.					0.31
Yay Aye Village (U Soe Tint's Home)		STM started dust sample collection from Feb 2023.					0.24

4.1.4 Monitoring Result for Ambient Air Quality Monitoring

Table 3 - Summary of Ambient Air Quality Monitoring at Yay Aye village from September 2022 to February 2023.

Ambient Air Monitoring by Haz-scanner								
Date: Sept 2022 to Feb 2023	Machine Name: Haz-scanner (EPAS)	Operator: Nay Hlaing Oo						
		Location: Madan Village (U Nyein's Home)						
	ECD/ WHO / IFC Guideline	Test Result						
Parameter	Averaging Period	Guideline Value in µg/m ³	Sept 2022	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023
Nitrogen dioxide	24 hours	200	Sent Air Quality Monitoring device to US for manufacturer's calibration					
Ozone		100						
PM10		50						
PM2.5		25						
Sulphur dioxide		20						
Carbon dioxide		ppm						
Carbon monoxide		10 ppm						

4.2 Water Quality Monitoring

Monitoring of water quality regularly is quite necessary for the assessment of water quality for beneficial purposes. Operation is dry process and does not generate wastewater. Sanitary wastewater from office and household are discharged to bio tank and treated wastewater are monitored in compliance with the NEQEG on BOD, COD, pH, SS, oil & grease, TN & TP and as per WHO Drinking water guidelines.

4.2.1 Monitoring Location

Figure 6, 7 and 8 shows the location of Water Quality sampling point monthly on WHO Drinking Water Guidelines and IFC Effluent Water Guidelines for Water Quality Monitoring (e.g. pH, Color, Turbidity, Iron, BOD, COD etc.) are the parameters for measurement.

No	Sampling Location	Latitude	Longitude
1	Yay Aye Village (Tagondaing Stream)	20°46'9.44"N	96°20'23.10"E
2	Madan Village (Tagondaing Stream)	20°46'11.85"N	96°21'7.63"E

4.2.1.1 Location Map of Water Quality Sampling Points

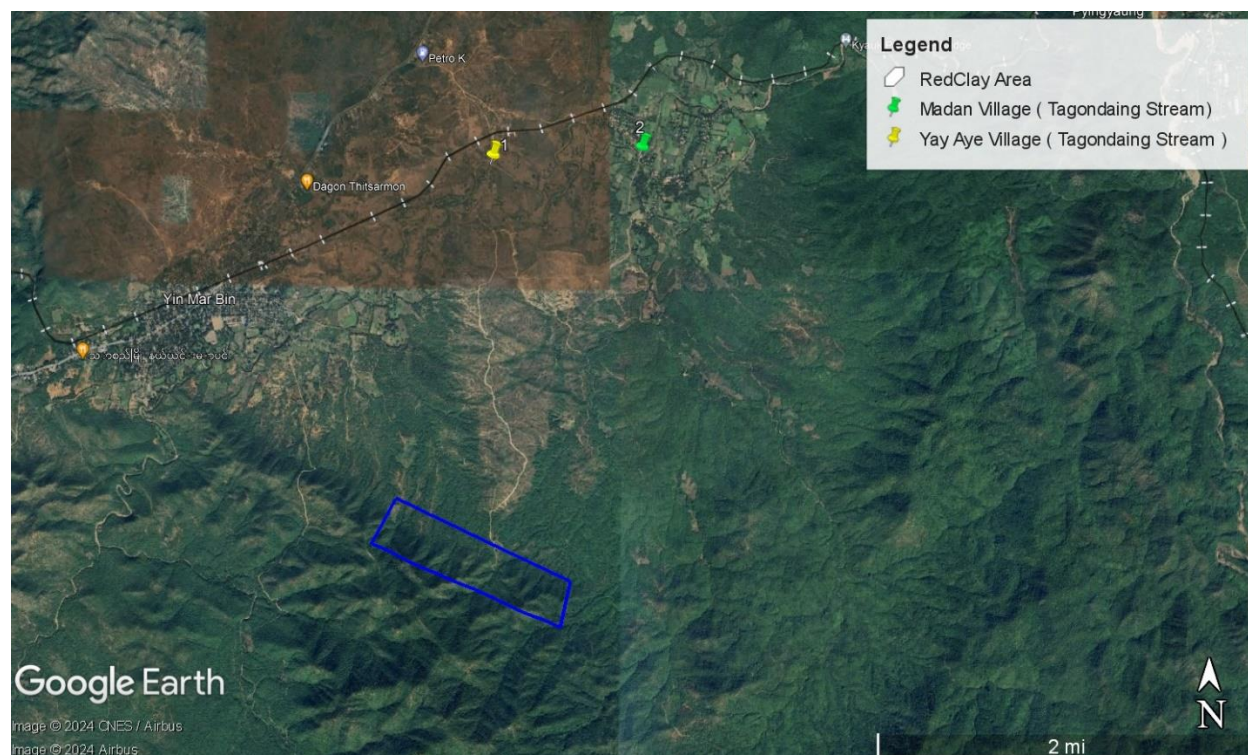


Fig 4.3 - Location Map of Water Quality Monitoring around Red Clay Quarry

4.2.1 Monitoring Result for Water Quality

Table 4 – Monitoring Result of Stream Water Quality at Yay Aye village

Stream Water Analysis							
Yay Aye Village (Tagondaing Stream)							
ITEM	WHO Drinking Water Guideline	Sept 2022	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023
pH	6.5 – 8.5	No water in streams. STM started water sample collection from June, 2023.					
Color	15 PCU						
Turbidity	5 NTU						
Calcium hardness (CaCO ₃)	500 mg/l						
Chloride (Cl)	250 mg/l						
Sulphate (SO ₄)	200 mg/l						
TSS	50 mg/l						
Nitrate	50 mg/l						

Table 5 – Monitoring Result of Stream Water Quality at Madan village

Stream Water Analysis							
Madan Village (Tagondaing Stream)							
ITEM	WHO Drinking Water Guideline	Sept 2022	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023
pH	6.5 – 8.5	No water in streams. STM started water sample collection from June, 2023.					
Color	15 PCU						
Turbidity	5 NTU						
Calcium hardness (CaCO ₃)	500 mg/l						
Chloride (Cl)	250 mg/l						
Sulphate (SO ₄)	200 mg/l						
TSS	50 mg/l						
Nitrate	50 mg/l						

4.3 Waste Management Monitoring

4.3.1 Generation of Non- Hazardous Waste

In Shwe Taung Mining, they collect non-hazardous waste generated from quarry site and cement plant accommodation area every day and dispose it to Temporary Non-hazardous Storage Area. For kitchen waste, compost or use as animal feed in nearby villages. On the other hand, dispose laboratory and clinical wastes to Meikhtila Incinerator, Meikhtila District, Mandalay Region, approved by Meikhtila City Development Committee and have plan to dispose hazardous wastes to Golden Dowa Eco-system Myanmar Co., Ltd., Accredited Waste Management Company. Fig 4.4 and 4.5 show location maps of waste disposal area and waste collection points.

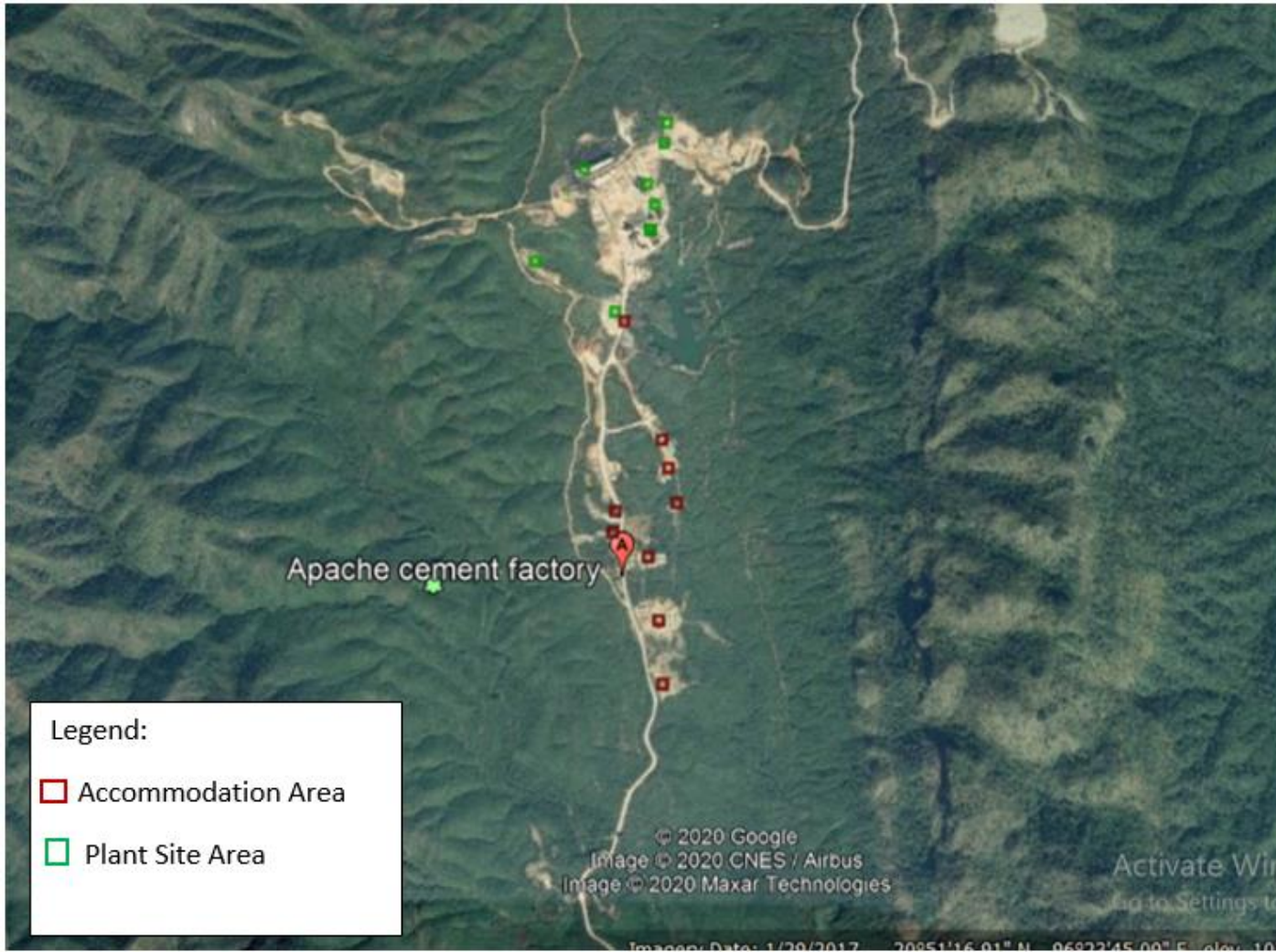


Fig 4.4 - Location Map of Collection Points of All Generated Wastes from Plant Site and Accommodation Area

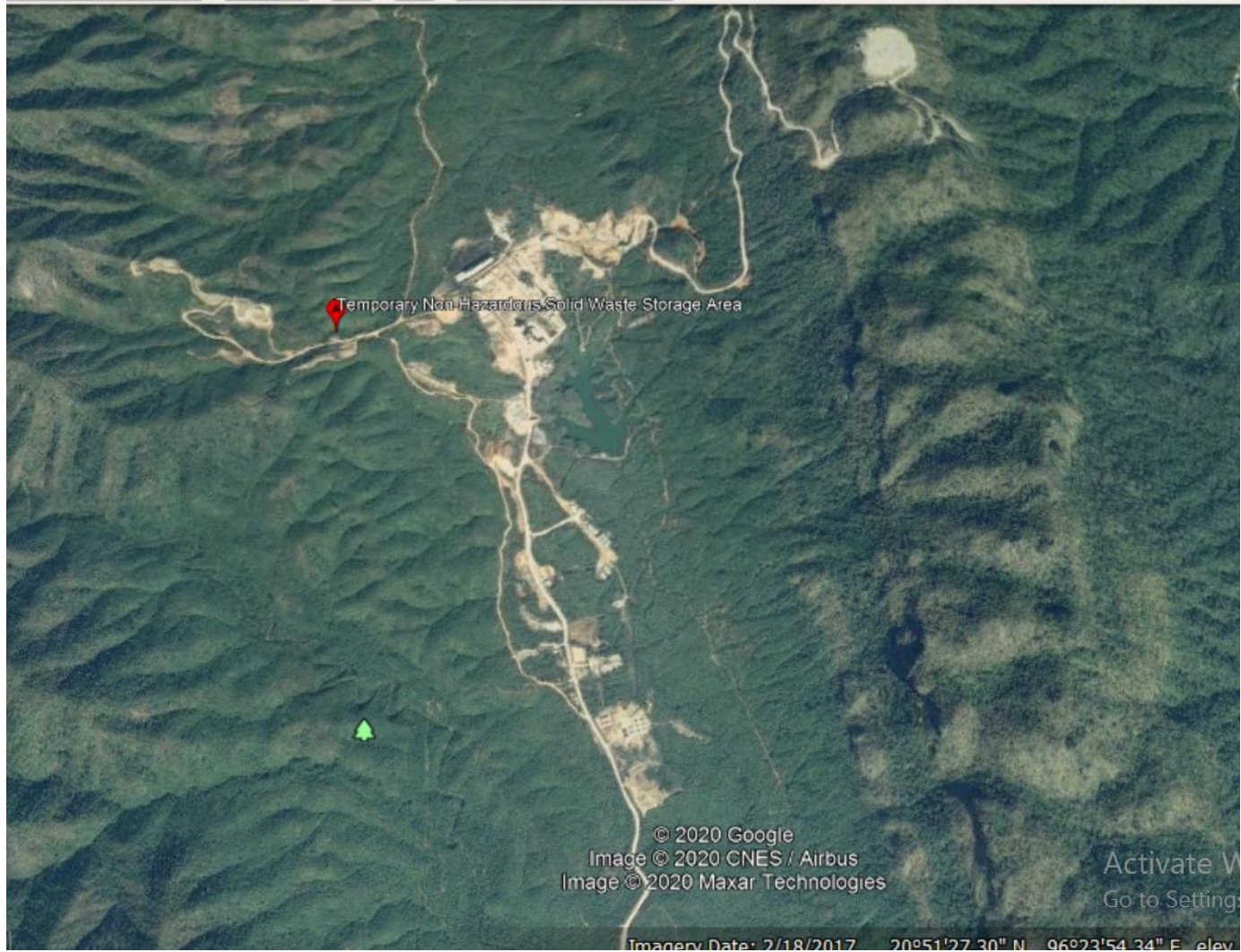


Fig. 4.5 - Location Map of Disposal Sites from All Generated Wastes from Plant Site and Accommodation Area



Fig. 4.6 - Location Map of Scrap Yard Area

Table 6 – Generated Non-Hazardous Waste

STC Non-hazardous Waste Generated in Sep 2022 – Feb 2023		
Month	Weight (kg)	Remark
September 2022	20,440	Temporary Non-hazardous Solid Waste Storage Area
October 2022	20,120	
November 2022	16,840	
December 2022	17,000	
January 2023	15,520	
February 2023	18,640	

4.3.2 Generation of Hazardous Waste

Table 7 – Generated Hazardous Waste

STC Generated Hazardous Waste						
Sr.	Date	Type of Waste	Quantity	Amount (kg)	Treatment Facility	Remarks
1	19 December 2022	Clinical, Laboratory and Contaminated Oil rags	15 Drums	320 kg	Meikhtila Municipal Incinerator	Disposal

4.3.3 Assessment

Implementing principles of the waste hierarchy in the most responsible manner (reduce, reuse, recycle, reclaim, dispose) in the plant site by conducting tool box talk, delivering pamphlet, offering waste bin in each plant site department and accommodation area, undertaking simultaneous mass housekeeping 9 campaigns occasionally, using waste manifest form, daily conducting housekeeping in the site and surrounding area to get awareness on waste reduction, segregation, collection and disposal practices that avoid impacts on the physical, biophysical and social environments.

5.0 Biodiversity Action Plan Implementation

Table 8 - Biodiversity Action Plan Implementation for 2022

Biodiversity Action Plan Implementation

No.	Type of Survey	Implementation Month	Frequency	Process	Remark
1	Transect Survey	Jan	Quarterly	Done	
		September			
2	Invasive Species Survey	Feb	Quarterly	Done	
		December		Done	
3	Wildlife Market Survey	October	Quarterly	Done	
		November		Done	

Table 9 - Wildlife Market Survey

Date	Village	Village Tract	Township	Region	No. of HH Conducted Survey
17 October 2022	Pyi Nyaung	Pyi Nyaung	Thazi	Mandalay	20
18 October 2022	Pyi Nyaung	Pyi Nyaung	Thazi	Mandalay	20
19 October 2022	Pyi Nyaung	Pyi Nyaung	Thazi	Mandalay	10
20 October 2022	Pyi Nyaung	Pyi Nyaung	Thazi	Mandalay	10
21 October 2022	Pyi Nyaung	Pyi Nyaung	Thazi	Mandalay	10

Note: 30 % of total HH was conducted for Wildlife Market Survey (Interview Survey).

Market Survey on Wildlife Trade (September 2022)



Figure 5.1 – Market Survey on Wildlife

Table 10 Land clearance record at Red Clay Quarry

Name of Species			Location	Date	Time	Name of Target Species	Record (Information of Species)			Remark
Local Name	English Name	Scientific Name					Abundance	Dead/ Alive	Weather Condition	
တောဝက်	Eurasian Wild Pig	<i>Sus scrofa</i>	20°44'21.10"N 96°20'27.30"E	25-01-2023	10:38	-	1		Sunny	Feces
တောကြောင်	Leopard cat	<i>Prionailurus bengalensis</i>	20°44'20.48"N 96°20'24.58"E	25-01-2023	13:44	-	1		Sunny	Footprint & Feces
ရှင်	Phayre's Squarriel	<i>Callosciurus erythraeus</i>	20°44'21.37"N 96°20'25.93"E	25-01-2023	15:12	-	2	Alive	Sunny	Sighting
ငုံ	Barred Buttonquail	<i>Turnix suscitator</i>	20°44'21.95"N 96°20'22.24"E	25-01-2023	9:37	-	4	Alive	Sunny	Sighting
တောကြက်	Red Junglefowl	<i>Gallus gallus</i>	20°44'22.05"N 96°20'26.34"E	25-01-2023	10:02	-	1		Sunny	Feather
ယုန်	Siamese Hare	<i>Lepus peguensis</i>	20°44'23.98"N 96°20'21.05"E	25-01-2023	9:34		1		Sunny	Feces
ပွေး	Eastern Mole	<i>Scalopus aquaticus</i>	20°44'22.96"N 96°20'22.66"E	25-01-2023	9:25		1		Sunny	Nest



Figure 5.2 – Map of Land Clearance at Red Clay Quarry



Figure 5.3 – Record of Land Clearance at Red Quarry

Table 11 – Ecosystem Restoration Plantation List of previous years

Plantation List									
No	Name of Production	Acre	20% of Replacement	No. of Plants	Progress in 2016	Progress in 2017	Progress in 2018	Progress in 2019	Remark
1	Cement Plant	400	-	-	11,000	6,500	225	1,980	Acacia, Sein Talone, Tamalan, Khayae, Kankaw, Sein Pan, Tamar, Kokko, Teak, Padauk, Bamboo, Pyinkado
2	Staff housing and Parking lot	55	-	-	1,200	550	35	2,150	Sein Pan, Kokko, Banda, Si Thapay
3	Limestone	600	120	89,550	-	5,950	60,500	23,100	Acacia, Bamboo, Mangium, Yinmar, Mazali, Seinpan, Kokko, Teak, Pinlaekabue
4	Mudstone	165	33	17,820	-	12,000	5,820	540	Teak
5	Red Clay	140	28	8,400	-	-	-	8,400	Acacia, Bamboo, Mangium, Yinmar, Mazali, Seinpan, Kokko, Teak, Pinlaekabue
6	Cable for Electricity	2.668	2.668	1,120	-	-	-	1,120	
7	Streaming	1.04496	1.04496	420	-	-	-	420	
<p>STBM has successfully implemented an ecosystem restoration initiative by establishing plantations for land leased agreement with the government since 2019. The maintenance of these plantations is diligently carried out through routine operations, including weeding, patching, and fire protection across all areas. In September 2022, STBM undertook the patching of 500 plants within the plantation, followed by thorough weeding activities in December of the same year.</p>									



Plantation (28) Acre



Plantation (28) Acre



Weeding



Fire Protection Road

Figure 5.4 – Record of Plantation established by STM and inspections from Environmental Executive

6.0 Corporate Social Responsibility

STC cement plant implements Corporate Social Responsibility (CSR) to communities and release newsletter quarterly, see in Appendix.

7.0 Conclusion and Recommendation

STC cement plant demonstrates the implementation of the Environment Monitoring Plan in which they are operating and has properly assessed the key potential environmental and social impacts associated with the cement plant operation. It is ensuring that the Myanmar environmental legislative compliance and IFC standards of good practice during the cement plant expansion project and operations in Thazi Township, Mandalay Region.

Mitigation measures are properly implemented as per stated in EMP, it is expected that the environmental and social impacts are managed by STC with robust environmental management system that is implemented by a well-resourced, integrated and competent HSE staffs as per compliance of STC Cement Plant EIA report.

The Environment Management Plan concludes that no major direct impacts are anticipated from this Project and all environmental impacts have been properly and progressively mitigated. These monitoring results will be properly communicated to stakeholders, especially the local community, as per the Stakeholders Engagement Plan when the travel restriction is allowed due to COVID19 situation.

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7.0 Appendix



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Appendix-A

Photo Record of Installation of Dust Sample Collection Point



Photo of Land clearance at Red clay Quarry

