



SIX MONTHLY COMPLIANCE REPORT ON

“SOLID WASTE MANAGEMENT CENTRE AT TUIRIAL, AIZAWL, MIZORAM”

For the Period of October 2025 - March 2026

Prepared By ECOMS

&

AIZAWL MUNICIPAL CORPORATION

2026

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Chapter 1.

Introduction and Project Description

Introduction

This project has been granted environmental clearance letter no. MoEF Letter No.: F. No. 10-73/2010-IA. III. dated the 9/01/13. by the Ministry of Environment and Forest.

Project Description

Salient Features:

The project pertains to the Municipal Solid Waste Management Facility at Tuirial, situated approximately 20 km from Aizawl. The facility is designed to manage and process the entire volume of municipal solid waste generated within the city. Its operations encompass waste collection, segregation, composting, and final disposal. The facility comprises a Mechanical Compost Plant with a processing capacity of 50 tonnes per day (TPD). It also includes a Waste Resource Center for the processing of dry waste, equipped with baling machines and supported by a storage shed for waste materials. Additionally, the facility incorporates a sanitary landfill.

Waste Water and Rainwater:

The leachate collection layer is provided within the granular soil drainage layer, forming an integral component of the bottom liner system. It comprises a network of perforated lateral pipes installed at a slope of 2% and spaced at 20 m center-to-center (c/c).

These lateral pipes collect the generated leachate and convey it to a high-density polyethylene (HDPE) header pipe, which is laid at a slope of 1%. The header pipe subsequently transports the leachate to the leachate collection sump for further handling. The general arrangement and alignment of the lateral and header pipes are illustrated in the layout plan of the Municipal Solid Waste (MSW) landfill.

The landfill is designed to receive only inert materials derived from municipal solid waste. All operational practices are planned to minimize the generation of liquid waste, ensuring that any leachate produced is efficiently directed to the leachate collection sump for treatment.

Leachate generation primarily occurs due to the infiltration of rainwater into the landfill. Additional sources include seepage from the inherent moisture content of the solid waste and the moisture present in the daily soil cover. An evaporation loss of approximately 10% has been assumed in the overall leachate generation assessment.

Parking:

The site has adequate parking facilities.

Project Status

Project site is in post-constructional/ operational phase.

Purpose of the Report

This six-monthly report is being submitted as per the condition stipulated in the Environmental Clearance letter. Further, the study will envisage the environmental impacts that have generated in the local environment due to the project.

The environmental assessment is being carried out to verify: -

- That the project does not have any adverse environmental impacts in the project area and its surrounding.

- Compliance with the conditions stipulated in the Environmental Clearance Letter.

- That the Project Management is implementing the environmental mitigation measures as suggested in the approved Form-1, Form-1 A, Environmental Management Plan (EMP) and building plans.

- The project proponent is implementing the environmental safeguards in true spirit.

- Any non-conformity in the project with respect to the environmental implication of the project.

Chapter 2.

Part- A General Conditions:

Sl. No	General Conditions	Compliance
1	Full support shall be extended to the officers of this ministry/Regional Office at Shillong by the project proponent during inspection of the project for monitoring purposes by furnishing full details and action plan including action taken reports in respect of mitigation measures and other environmental protection activities.	Complied
2	A six Monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry at Shillong regarding the implementation of the stipulated conditions.	It has been submitted regularly.
3	Ministry of Environment & Forests or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary, in the interest of environment and the same shall be complied with.	No modifications were made.
4	The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with the satisfaction of the Ministry.	Noted
5	In the event of a change in project profile or change in the implementation agency, a fresh reference shall be made to the Ministry of Environment and Forests.	Noted
6	The project proponents shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of land development work.	Complied
7	A copy of the clearance letter shall be marked to concern Panchayat/local NGO,if any, from whom any suggestion/ representation has been made received while processing the proposal.	It can be issued as per requirements.

8	State Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industries Centre and Collector's Office/ Tehsildar's office for 30 days.	The Mizoram PCB complied by requesting DC, Aizawl and DIO, Aizawl vide letter dated 7 th February, 2013 to display copy of the Environmental Clearance in their Office Notice Board for a period of 30 days. Therefore, the Compliance status is reported as 'Complied'. Compliance status report to this effect has also been sent to the Commissioner, AMC in 2023.
9	These stipulations would be forced among others under the provisions of Water (Prevention and Control of Pollution) Act1974.	Noted

PART-B Specific Conditions:

Sl. no	SPECIFIC CONDITIONS	ACTION TAKEN	REMARKS
1	The "Consent to Establish" shall be obtained from the Board under Air and Water Act a copy shall be submitted to the Ministry before start of any construction work at the site.	"Consent to Establish" was granted by Mizoram Pollution Control Board, Aizawl, Mizoram vide letter No: H 88088/Poltn/9 (154) 2015-MPCB/151 dated 7thSept. 2018.	Document is attached. Annexure (Page No. 36)
2	Existing landfill site shall be closed scientifically.	Landfill improvement work is in progress.	The existing landfill will be closed scientifically as per the Environmental Clearance condition when it is not in operation after the project.
3	The proponent shall ensure	1. Waste collection is being	

	<p>that the project fulfills all the provisions of Solid Wastes (Management and Handling) Rules, 2000 including collection and transportation design, etc.</p>	<p>done by PPP mode at point to point conducted by each local council in every locality.</p> <p>2. Segregation is being done on the basis of wet and dry. Non segregated wastes are rejected and returned to the owners by the collectors.</p> <p>3. A total of 207 nos of vehicles ply around different 85 localities every day except on Sunday. The vehicles are being properly covered and some vehicles are specially designed for garbage truck.</p> <p>4. Composting of wet waste are done at the Composting centre.</p> <p>5. Recyclable waste are segregated and bailed with a Bailing machine (capacity small, medium and large).</p>	
4	<p>The gas generated from Landfill facility shall be collected and disposed/utilized per rules.</p>	<p>Gas collection plan was already made and implemented.</p>	<p>Landfill Gas collection system has been installed in the Landfill.</p>
5	<p>The Leachates from the facility shall be collected and treated to meet the prescribed standards before disposal.</p>	<p>Maintenance and monitoring of leachate treatment tank were done in which the treatment facility and filter media were re installed. Also, new leachate collection and treatment system for leachate from pre-storage area will be collected and treated.</p>	<p>Testing results of leachates is attached as "Effluent water testing results".</p> <p>The leachate quality were under the prescribe limit.</p> <p>(ANNEXURE Page No.</p>

			17 and page 26).
6	The depth of the Landfill site shall be decided based on the ground water table at the site.	The depth of ground water is around 20 m from the ground.	Map indicating Ground Water Potential is attached at Fig 1, Page No. 14.
7	An on-site Emergency Management shall be prepared and implemented.	On-site Emergency Management Plan was prepared and implemented effectively.	On-site Emergency Management Plan Document was prepared and implemented already effectively submitted to SEIAA Mizoram and Regional Office, Shillong along with the compliance report on December 2022.
8	Periodic ground water/soil monitoring to check the contamination in and around the site shall be carried out.	Ground water/Soil monitoring has been done in and around the site.	Report attached for Water, Air, Noise and Soil monitoring in Annexure. Groundwater sample from bore well has been taken and analysed. (ANNEXURE Page No. 22 & Page No. 31)
9	Odour control measures shall be carried out.	Covering the landfill weekly with soil to reduce odour from newly deposited wastes has been carried out.	Covering the landfill with soil has been carried out to control odour.
10	Green Belt of at least 20% of total area shall be provide all around the unit.	Green Belt is maintained surrounding the SWMC, which covers around 40% approx. of the total area.	List of trees inside green belt and map showing green belt area is attached. (ANNEXURE page 37).
11	The Project proponent will set up separate environmental management cell for effective	Separate environmental cell is constituted.	List of members is attached in this report.

	implementation of the stipulated environmental safeguards under the supervision of a Senior Executive.		(ANNEXURE Environmental Cell: page 35).
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Chapter 3

Details of Environmental Monitoring

AMBIENT AIR QUALITY MONITORING

Ambient Air Quality Monitoring Stations

Ambient air quality monitoring has been carried out at Five locations in the month of October 2025 to March 2026. This will enable to have an analytical understanding about air quality and the changes in the air environment in the study area with respect to the condition prevailing. The location of the ambient air quality monitoring station is given in Table.

Details of Ambient Air Quality Monitoring Stations

S. No	Location Code	Location Name/Description	Environmental Setting
1.	Air SWMCA 1	SWMC Tuirial project site	Landfill site
2	Air SWMCA 2	SWMC Tuirial 2 km north from project site	Residential
3	Air SWMCA 3	SWMC Tuirial 2 km South from project site	Residential
4	Air SWMCA 4	SWMC Tuirial 2 km Northeast from project site	Residential
5	Air SWMCA 5	SWMC Tuirial2 km Southeast from project site	Residential
6	Air SWMCA 6	SWMC Tuirial2 km West from project site	Residential

Ambient Air Quality Monitoring Methodology

Monitoring was conducted in respect of the following parameters:

- Particulate Matter 2.5 (PM 2.5)
- Particulate Matter 10 (PM 10)
- Sulphur Dioxide (SO₂)
- Oxides of Nitrogen (NO₂)

- Carbon Monoxide (CO)

The duration of sampling of PM 2.5, PM 10, SO₂ and NO_x was 8 hourly continuous sampling per day and CO was sampled for 1 hours continuous, thrice in 24 hour duration monitoring. The monitoring was conducted for one day at the location. This is to allow a comparison with the National Ambient Air Quality Standards.

The air samples were analyzed as per standard methods specified by Central Pollution Control Board (CPCB) and IS: 5182. The techniques used for ambient air quality monitoring and minimum detectable levels are given in the Table.

Fine Particulate Sampler (Greentech High Volume Air Sampler) instruments have been used for monitoring Particulate Matter 2.5 (PM 2.5 i. e. <2.5 microns), and Respirable Dust Sample was used for sampling Respirable fraction (<10 microns), gaseous pollutants like SO₂, and NO_x. Bladder and Aspirator bags were used for collection Carbon monoxide samples. Gas Chromatography techniques have been used for the estimation of CO.

Table: Techniques used for Ambient Air Quality Monitoring

S. No.	Parameter	Technique	Technical Protocol
1	Particulate Matter 2.5	Fine Particulate Sampler (Greentech High Volume Air Sampler), Gravimetric Method	IS-5182 (Part-IV)
2	Particulate Matter 10	Respirable Dust Sampler (Greentech High Volume Air Sampler), with cyclone separator, Gravimetric Method	IS-5182 (Part-23)
3	Sulphurdioxide	Modified Westand Gaeke	IS-5182 (Part-II)
4	Nitrogendioxide	Jacob & Hochheiser	IS-5182 (Part-VI)
5	Carbon Monoxide	Gas Chromatography	IS-5182 (Part-X)

AMBIENT NOISE MONITORING

Ambient Noise Monitoring Locations

The main objective of noise monitoring in the study area is to assess the present ambient noise levels in project site due to various construction allied activities and increased vehicular movement. A preliminary reconnaissance survey has been undertaken to identify the major noise generating sources in the area. Ambient noise monitoring was conducted in the month of October 2025 to March 2026, as given in below.

Details of Ambient Noise Monitoring Stations

S. No.	Location Code	Location Name/Description	Present Landuse
1.	Noise SWMCN 1	SWMC Tuirial project site	Landfill Site
2	Noise SWMCN 2	SWMC Tuirial 1 km South from project site	Residential
3	Noise SWMCN 3	SWMC Tuirial 1 km North from project site	Residential
4	Noise SWMCN 4	SWMC Tuirial 1km Northeast from project site	Residential
5	Noise SWMCN 5	SWMC Tuirial 1km East from project site	Residential
6	Noise SWMCN 6	SWMC Tuirial 1km West from project site	Residential

Methodology of Noise Monitoring

Noise levels were measured using integrated sound level meter Noise meter HP-822 A. The integrating sound level meter is an integrating/ logging type with Octave filter attachment with frequency range of 31.5 to 16000 Hz. This instrument is capable of measuring the Sound Pressure Level (SPL), Leq and octave band frequency analysis.

Noise level monitoring was carried out continuously for 2 hours. The noise levels were monitored on working days only. During each hour Leq were directly computed by the instrument based on the sound pressure levels.

GROUNDWATER AND SURFACE WATER QUALITY MONITORING

Groundwater Quality Monitoring Locations

Groundwater table were below 2 meters depth. Groundwater was taken from two site

1. Tuirial
2. Borewell adjacent to landfill site

Surface Water and Waste Water:

Surface Water samples were collected from five location and waste water from two Location sites. Sample collection and analysis were done with the standard given by IS 3025-3 (1987): Methods of Sampling and Test (Physical and Chemical) for Water and Wastewater. The sample were analyzed for various parameters to compare with the standards for drinking water as per IS: 10500 for Surface water sources. The details of water sampling locations are given in Table.

Details of Water Quality Monitoring Station

S. No.	Location Code	Location Name/Description
1.	Water SWMCW1	onsite Tuirial SWMC Leachate
2.	Water SWMCW 2	onsite Tuirial SWMC Leachate
3	Water SWMCW 3	Tuirial River
4	Water SWMCW 4	Luite, perennial stream
5	Water SWMCW 5	Tuikhur at Tuirial village
6	Water SWMCW 6	Muthi River
7	Water SWMCW 7	Borewell on site Tuirial SWMC

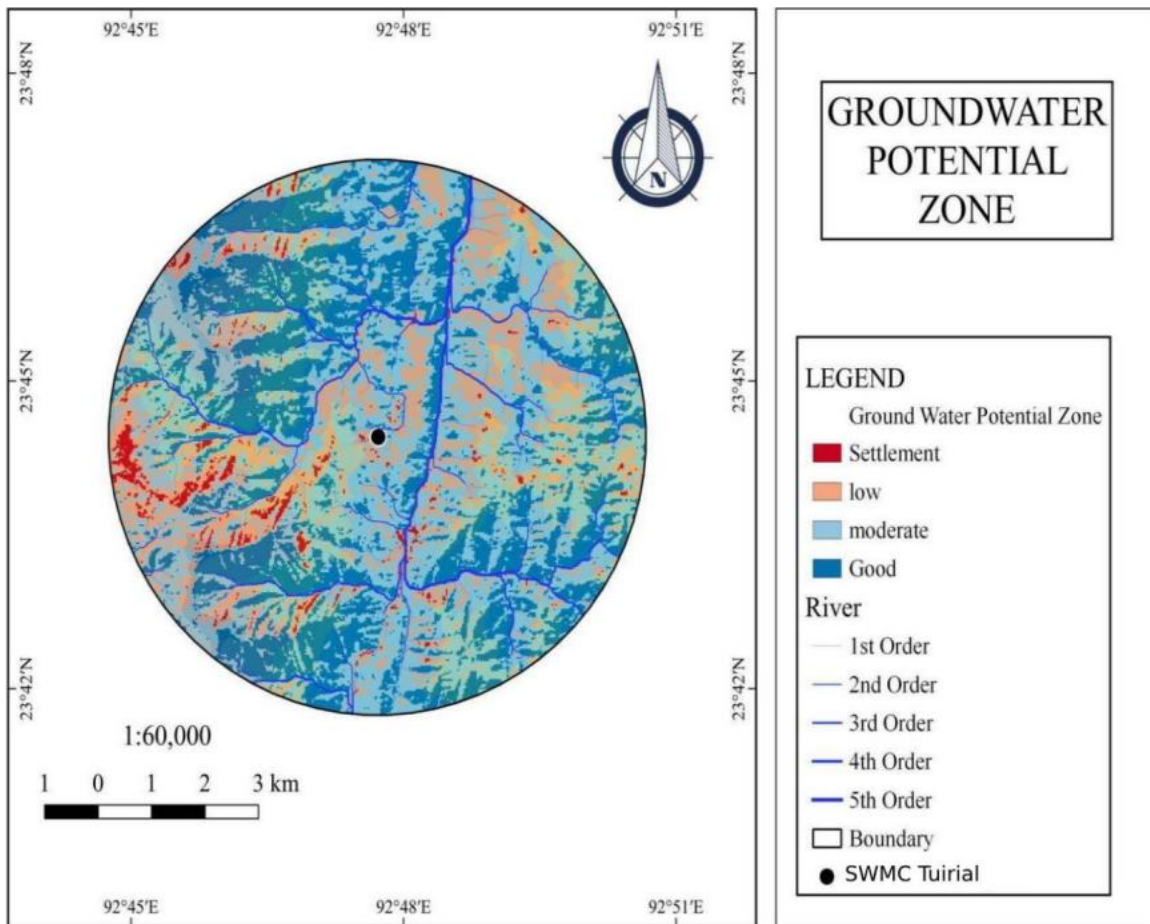


Fig 1: Ground Water Potential Zone.

SOIL MONITORING

Soil Monitoring Locations

The objective of the soil monitoring is to identify the impacts of ongoing project activities on soil quality and also predict impacts, which have arisen due to execution of various constructions allied activities. Accordingly, a study of assessment of the soil quality has been carried out.

To assess impacts of ongoing project activities on the soil in the area, the physico-chemical characteristics of soils were examined by obtaining soil samples from selected points and analysis of the same. One sample of soil was collected from the project site for studying soil characteristics, the location of which is listed in Table.

Details of Soil Quality Monitoring Location

S. No.	Location Code	Location Name/Description
1.	Soil SWMCS 1	SWMC Tuirial L1 (Top Left)
2.	Soil SWMCS 2	SWMC Tuirial L 2 (Center)
3.	Soil SWMCS 3	SWMC Tuirial L 3 (Top Right)
4.	Soil SWMCS 4	SWMC Tuirial L 4 (Bottom right)
5.	Soil SWMCS 5	SWMC Tuirial L 5 (Bottom left)

Methodology of Soil Monitoring

The sampling has been done in line with IS: 2720 & Methods of Soil Analysis, Part-1, 2nd edition, 1986 of American Society for Agronomy and Soil Science Society of America. The homogenized samples were analyzed for physical and chemical characteristics (physical, chemical and heavy-metal concentrations). The soil samples were collected in the month of October 2025 to March 2026.

The samples have been analyzed as per the established scientific methods for physico-chemical parameters. The heavy metals have been analyzed by using Atomic Absorption Spectro-photometer and Inductive Coupled Plasma Analyzer.

ANNEXURE

Sampling Location: Location 1(Tuirial SWM)
Sample Description: Leachate
Type of Sampling: Once
Nature of Sample: Waste water

Location code: SWMCW1 and SWMCW2
Quantity of sample: 2 Litres
Date of sampling: 11th November 2025

TEST REPORT

S. No.	Parameter	SWM Rules 2020 Standard (Land Disposal)	SWMCW1 From L.Tank	SWMCW2 100m From L. Tank	Remarks
1	Suspended Solids (mg/L)	200	152	116	Within limit
2	Dissolved Solids (Inorganic) (mg/L)	2100	1100	790	Within limit
3	pH	5.5–9.0	7.7	7.3	Within limit
4	Ammonical Nitrogen (as N) (mg/L)	-	78	51	Moderate
5	Total Kjeldahl Nitrogen (mg/L)	-	100.4	90.2	Moderate
6	Biochemical Oxygen Demand (mg/L)	100	67	51	Within limit
7	Chemical Oxygen Demand (mg/L)	-	200	140	Moderate
8	Arsenic (as As) (mg/L)	0.2	0.1	BDL	Within limit
9	Mercury (as Hg) (mg/L)	-	BDL	BDL	Safe
10	Lead (as Pb) (mg/L)	-	0.5	BDL	Elevated at WW1
11	Cadmium (as Cd) (mg/L)	-	BDL	BDL	Safe
12	Total Chromium (mg/L)	-	0.11	BDL	Within limit
13	Copper (mg/L)	-	>1	BDL	Slightly high at WW1
14	Zinc (mg/L)	-	0.33	BDL	Within limit
15	Nickel (mg/L)	-	BDL	BDL	Safe
16	Cyanide (mg/L)	0.2	BDL	BDL	Safe
17	Chloride (mg/L)	600	440	320	Within limit
18	Fluoride (mg/L)	-	0.42	BDL	Within limit
19	Phenolic Compounds (mg/L)	-	0.81	BDL	Present at WW1



Laboratory Technician

WATER:

Sampling Location: Tuirial River

Location Code: SWMCW 3

Sample Description: Surface water Quality

Quantity of sample: 2 Litres

Type of Sampling: Once

Date of sampling: 12th November 2025

Nature of Sample: Water Quality

TEST REPORT

Parameters	Methodology	Minimum Detection Limit	Units	Standard	Results
Colour	-	-	Hazen	5–15	7
Odour	-	-	-	Agreeable	Agreeable
Temperature	APHA: 2550 B (23rd Ed.)	0.5 °C	°C	<40	20
pH	APHA: 4500-H+ B	1	-	6.5–8.5	6.9
Turbidity	APHA 2130 B	0.1 NTU	NTU	10	3.8
Electrical Conductivity	APHA: 2510 B	1 µmho/cm	µS/cm	300	150
Total Dissolved Solids	APHA: 2540 C	3 mg/L	mg/L	100	65
Total Suspended Solids	APHA: 2540 C	3 mg/L	mg/L	75	25
Alkalinity	APHA: 2320	5 mg/L	mg/L	600	105
Hardness	APHA: 2340-C	2 mg/L	mg/L	300	120
Calcium	APHA: 3500-Ca-B	2 mg/L	mg/L	75	36
Magnesium	APHA: 3500-Mg-B	2 mg/L	mg/L	30	15
Free Carbon Dioxide	APHA: 2320	2 mg/L	mg/L	-	11
Sulphate	APHA: 4500-E	1 mg/L	ppm	200	28
Phosphate	APHA: 4500 P-C	1 mg/L	ppm	5	1.3
Nitrate-N	IS:3025 (Part 34)	0.2 mg/L	ppm	150	9
Ammonia-N	IS:3025 (Part 34)	0.1 mg/L	ppm	50	2.2
Chloride	APHA: 4500 Cl- B	1 mg/L	mg/L	45	20
Dissolved Oxygen	APHA: 4500 O-C	0.2 mg/L	mg/L	4.0–6.0	6.4
Biological Oxygen Demand	IS:3025 (Part 44)	4 mg/L	mg/L	<2	1.3
Chemical Oxygen Demand	APHA: 5220 B	2 mg/L	mg/L	10	6



Laboratory Technician

Sampling Location: Location 4 (Luite near landfill site) Location code: SWMCW 4
Sample Description: Surface water Quality Quantity of sample: 2 Litres
Type of Sampling: Once Date of sampling: 11th November 2025
Nature of Sample: Water Quality

TEST REPORT

Parameters	Methodology	Minimum Detection Limit	Units	Standard	Results
Colour	-	-	Hazen	5–15	7
Odour	-	-	-	Agreeable	Agreeable
Temperature	APHA: 2550 B (23rd Ed.)	0.5 °C	°C	<40	19
pH	APHA: 4500-H+ B	1	-	6.5–8.5	6.5
Turbidity	APHA 2130 B	0.1 NTU	NTU	10	6.5
Electrical Conductivity	APHA: 2510 B	1 µmho/cm	µS/cm	300	170
Total Dissolved Solids	APHA: 2540 C	3 mg/L	mg/L	100	80
Total Suspended Solids	APHA: 2540 C	3 mg/L	mg/L	75	35
Alkalinity	APHA: 2320	5 mg/L	mg/L	600	130
Hardness	APHA: 2340-C	2 mg/L	mg/L	300	150
Calcium	APHA: 3500-Ca-B	2 mg/L	mg/L	75	42
Magnesium	APHA: 3500-Mg-B	2 mg/L	mg/L	30	18
Free Carbon Dioxide	APHA: 2320	2 mg/L	mg/L	-	14
Sulphate	APHA: 4500-E	1 mg/L	ppm	200	38
Phosphate	APHA: 4500 P-C	1 mg/L	ppm	5	1.8
Nitrate-N	IS:3025 (Part 34)	0.2 mg/L	ppm	150	14
Ammonia-N	IS:3025 (Part 34)	0.1 mg/L	ppm	50	3.5
Chloride	APHA: 4500 Cl- B	1 mg/L	mg/L	45	28
Dissolved Oxygen	APHA: 4500 O-C	0.2 mg/L	mg/L	4.0–6.0	6.0
Biological Oxygen Demand	IS:3025 (Part 44)	4 mg/L	mg/L	<2	1.8
Chemical Oxygen Demand	APHA: 5220 B	2 mg/L	mg/L	10	8

Laboratory Technician

ECOMS



Sampling Location: Location 5(Tuikhur at Tuirial village) Location code: SWMCW 5

Sample Description: Groundwater Quality

Quantity of sample: 2 Litres

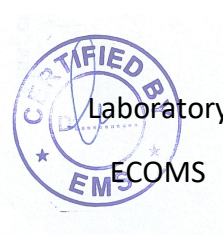
Type of Sampling: Once

Date of sampling: 12th November 2025

Nature of Sample: Water Quality

TEST REPORT

Parameters	Methodology	Minimum Detection Limit	Units	Standard	Results
Colour	-	-	Hazen	5–15	4
Odour	-	-	-	Agreeable	Agreeable
Temperature	APHA: 2550 B (23rd Ed.)	0.5 °C	°C	<40	18
pH	APHA: 4500-H+ B	1	-	6.5–8.5	6.6
Turbidity	APHA 2130 B	0.1 NTU	NTU	10	1.2
Electrical Conductivity	APHA: 2510 B	1 µmho/cm	µS/cm	300	120
Total Dissolved Solids	APHA: 2540 C	3 mg/L	mg/L	100	60
Total Suspended Solids	APHA: 2540 C	3 mg/L	mg/L	75	10
Alkalinity	APHA: 2320	5 mg/L	mg/L	600	90
Hardness	APHA: 2340-C	2 mg/L	mg/L	300	110
Calcium	APHA: 3500-Ca-B	2 mg/L	mg/L	75	35
Magnesium	APHA: 3500-Mg-B	2 mg/L	mg/L	30	14
Free Carbon Dioxide	APHA: 2320	2 mg/L	mg/L	-	8
Sulphate	APHA: 4500-E	1 mg/L	ppm	200	20
Phosphate	APHA: 4500 P-C	1 mg/L	ppm	5	0.8
Nitrate-N	IS:3025 (Part 34)	0.2 mg/L	ppm	150	6
Ammonia-N	IS:3025 (Part 34)	0.1 mg/L	ppm	50	1.2
Chloride	APHA: 4500 Cl- B	1 mg/L	mg/L	45	18
Dissolved Oxygen	APHA: 4500 O-C	0.2 mg/L	mg/L	4.0–6.0	6.8
Biological Oxygen Demand	IS:3025 (Part 44)	4 mg/L	mg/L	<2	0.8
Chemical Oxygen Demand	APHA: 5220 B	2 mg/L	mg/L	10	4



Laboratory Technician

ECOMS

Sampling Location: Location 6(Muthi River)

Location code: SWMCW 6

Sample Description: Surface water Quality

Quantity of sample: 2 Litres

Type of Sampling: Once

Date of sampling: 12th November 2025

Nature of Sample: Water Quality

TEST REPORT

Parameters	Methodology	Minimum Detection Limit	Units	Standard	Results
Colour	-	-	Hazen	5–15	8
Odour	-	-	-	Agreeable	Agreeable
Temperature	APHA: 2550 B (23rd Ed.)	0.5 °C	°C	<40	20
pH	APHA: 4500-H+ B	1	-	6.5–8.5	6.7
Turbidity	APHA 2130 B	0.1 NTU	NTU	10	4.5
Electrical Conductivity	APHA: 2510 B	1 µmho/cm	µS/cm	300	160
Total Dissolved Solids	APHA: 2540 C	3 mg/L	mg/L	100	70
Total Suspended Solids	APHA: 2540 C	3 mg/L	mg/L	75	28
Alkalinity	APHA: 2320	5 mg/L	mg/L	600	110
Hardness	APHA: 2340-C	2 mg/L	mg/L	300	130
Calcium	APHA: 3500-Ca-B	2 mg/L	mg/L	75	38
Magnesium	APHA: 3500-Mg-B	2 mg/L	mg/L	30	16
Free Carbon Dioxide	APHA: 2320	2 mg/L	mg/L	-	12
Sulphate	APHA: 4500-E	1 mg/L	ppm	200	30
Phosphate	APHA: 4500 P-C	1 mg/L	ppm	5	1.5
Nitrate-N	IS:3025 (Part 34)	0.2 mg/L	ppm	150	10
Ammonia-N	IS:3025 (Part 34)	0.1 mg/L	ppm	50	3.0
Chloride	APHA: 4500 Cl- B	1 mg/L	mg/L	45	22
Dissolved Oxygen	APHA: 4500 O-C	0.2 mg/L	mg/L	4.0–6.0	6.5
Biological Oxygen Demand	IS:3025 (Part 44)	4 mg/L	mg/L	<2	1.5
Chemical Oxygen Demand	APHA: 5220 B	2 mg/L	mg/L	10	7



Laboratory Technician

ECOMS

Zemabawk North
Aizawl-796017

Reg No: RF-MZ 451 of 2020-2021



ECO-MANAGEMENT SERVICES(ECOMS
MIZORAM)

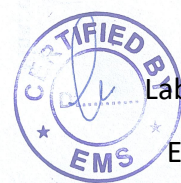
Pan:AAIFE6941L

Sampling Location: Location 7(Borewell)
Sample Description: Groundwater Quality
Type of Sampling: Once
Nature of Sample: Water Quality

Location code: SWMCW 7
Quantity of sample: 2 Litres
Date of sampling: 13th November 2025

TEST REPORT

Parameters	Methodology	Minimum Detection Limit	Units	Standard	Results
Colour	-	-	Hazen	5–15	6
Odour	-	-	-	Agreeable	Agreeable
Temperature	APHA: 2550 B (23rd Ed.)	0.5 °C	°C	<40	22
pH	APHA: 4500-H+ B	1	-	6.5–8.5	6.8
Turbidity	APHA 2130 B	0.1 NTU	NTU	10	2.5
Electrical Conductivity	APHA: 2510 B	1 µmho/cm	µS/cm	300	180
TDS	APHA: 2540 C	3 mg/L	mg/L	100	85
TSS	APHA: 2540 C	3 mg/L	mg/L	75	20
Alkalinity	APHA: 2320	5 mg/L	mg/L	600	120
Hardness	APHA: 2340-C	2 mg/L	mg/L	300	140
Calcium	APHA: 3500-Ca-B	2 mg/L	mg/L	75	40
Magnesium	APHA: 3500-Mg-B	2 mg/L	mg/L	30	18
Free Carbon Dioxide	APHA: 2320	2 mg/L	mg/L	-	10
Sulphate	APHA: 4500-E	1 mg/L	ppm	200	35
Phosphate	APHA: 4500 P-C	1 mg/L	ppm	5	1.2
Nitrate-N	IS:3025 (Part 34)	0.2 mg/L	ppm	150	12
Ammonia-N	IS:3025 (Part 34)	0.1 mg/L	ppm	50	2.5
Chloride	APHA: 4500 Cl- B	1 mg/L	mg/L	45	25
D.O	APHA: 4500 O-C	0.2 mg/L	mg/L	4.0–6.0	5.2
B.O.D	IS:3025 (Part 44)	4 mg/L	mg/L	<2	1.2
C.O.D	APHA: 5220 B	2 mg/L	mg/L	10	6



Laboratory Technician
ECOMS

SOIL QUALITY:

Sampling Location: Tuirial SWM

Sample Description: Soil Quality

Type of Sampling: Once

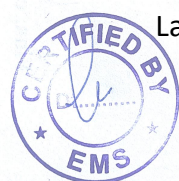
Nature of Sample: Soil Quality

Quantity of sample: 300g

Date of sampling: 13th November 2025

TEST REPORT

Sl. No	Parameters	Unit	Location 1 (Top Left)	Location 2 (Center)	Location 3 (Top Right)	Location 4 (Bottom right)	Location 5 (Bottom left)
1	Colour		Dark Brown	Brown	Brown	Brown	Light Brown
2	pH		5.5	4.8	5.2	5	4.9
3	Bulk Density (g/cm ³)	g/cm ³	1.1	1.3	1.2	1.25	1.35
4	Moisture Content (%)	%	25	20	22	23	19
5	Water Holding Capacity (%)		45	35	40	42	33
6	Sand (%)	%	60	65	62	63	66
7	Silt (%)	%	20	15	18	17	14
8	Clay (%)	%	20	20	20	20	20
9	Texture	Class	Loam	Sandy Loam	Loam	Loam	Sandy Loam
10	Respiration (mg CO ₂ /m ² /h)	mg CO ₂ m ⁻² h ⁻¹	150	120	130	140	110
11	Soil Organic Carbon (%)	%	2.5	1.8	2	2.2	1.5
12	Total Nitrogen (mg/kg)	mg/kg	0.25	0.18	0.2	0.22	0.15
13	Available Phosphorus (mg/kg)	mg/kg	15	10	12	13	9
14	Exchangeable Potassium (mg/kg)	mg/kg	200	150	180	190	140
15	Exchangeable Sodium (mg/kg)	mg/kg	30	25	28	29	24
16	Exchangeable Calcium (mg/kg)	mg/kg	300	250	280	290	240
17	Exchangeable Magnesium (mg/kg)	mg/kg	100	80	90	95	75
18	Exchangeable Manganese (mg/kg)	mg/kg	50	40	45	48	38
19	Ammonium (mg/g)	mg/g	5	3.5	4	4.5	3



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NOISE QUALITY

Sampling Location: Tuirial SWM 10 km radius

Sample Description: Noise quality

Duration of sampling: 2 hours

Type of Sampling: Continuous

Date of sampling: 13th November 2025

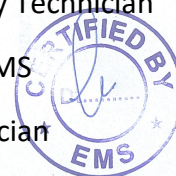
Numbers of parameters: 1

Sl. No.	Location	Equipment	Method	Leq (dB(A))	Lmin (dB(A))	Lmax (dB(A))	Comments
1	Project Site SWMCN 1	Noise Meter (HP-822A)	IS: 10988– 1984	48	40	55	Within prescribed limit
2	SWMCN 2 (2 km, S direction)	-	-	46	38	52	Within prescribed limit
3	SWMCN 3 (2 km, N direction)	-	-	42	35	50	Within prescribed limit
4	SWMCN 4 (2 km, NE direction)	-	-	44	37	53	Within prescribed limit
5	SWMCN 5 (2 km, E direction)	-	-	47	39	56	Within prescribed limit
6	SWMCN 6 (2 km, W direction)	-	-	45	36	54	Within prescribed limit

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AIR QUALITY

Sampling Location: Tuirial SWM 10 km radius

Sample Description: Air quality

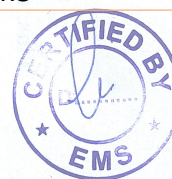
Duration of sampling: 8 hours

Type of Sampling: Continuous

Date of sampling: 13th November 2025

Numbers of parameters: 4

Sr. No.	AAQM Location (Distance/Direction from Site)	Pollutant	CPCB Limit ($\mu\text{g}/\text{m}^3$)	Observed Value ($\mu\text{g}/\text{m}^3$)	Remarks
1	Project Site (0.0 km / Base) SWMCA 1	PM ₁₀	100	41	Within Limit
		PM _{2.5}	60	11	Within Limit
		SO ₂	80	2	Within Limit
		NO _x	80	4.5	Within Limit
2	Site 2 (2 km, S direction) SWMCA 2	PM ₁₀	100	33	Within Limit
		PM _{2.5}	60	13	Within Limit
		SO ₂	80	2	Within Limit
		NO _x	80	4.5	Within Limit
3	Site 3 (2 km, N direction) SWMCA 3	PM ₁₀	100	55	Within Limit
		PM _{2.5}	60	7	Within Limit
		SO ₂	80	2	Within Limit
		NO _x	80	16.9	Within Limit
4	Site 4 (2 km, NE direction) SWMCA 4	PM ₁₀	100	24	Within Limit
		PM _{2.5}	60	14	Within Limit
		SO ₂	80	2	Within Limit
		NO _x	80	4.5	Within Limit
5	Site 5 (2 km, E direction) SWMCA 5	PM ₁₀	100	41	Within Limit
		PM _{2.5}	60	10	Within Limit
		SO ₂	80	6	Within Limit
		NO _x	80	8	Within Limit
6	Site 6 (2 km, W direction) SWMCA 6	PM ₁₀	100	33	Within Limit
		PM _{2.5}	60	13	Within Limit
		SO ₂	80	2	Within Limit
		NO _x	80	4.5	Within Limit



Sampling Location: Location 1&2(Tuirial SWMC) Location code: SWMCW1 and SWMCW2
 Sample Description: Leachate Quantity of sample: 2 Litres
 Type of Sampling: Once Date of sampling: 14th March 2026
 Nature of Sample: Waste water

TEST REPORT

S.No	Parameter	Standard (SWM 2020)	SWMCW1 From L.Tank	SWMCW2 100m From L. Tank	Remarks
1	Suspended Solids	200	165	125	Within limit
2	Dissolved Solids	2100	1180	820	Within limit
3	pH	5.5–9.0	7.6	7.2	Within limit
4	Ammonical Nitrogen	-	82	55	Moderate
5	TKN	-	105	92	Moderate
6	BOD	100	70	54	Within limit
7	COD	-	210	150	Moderate
8	Arsenic	0.2	0.1	BDL	Within limit
9	Mercury	-	BDL	BDL	Safe
10	Lead	-	0.45	BDL	Elevated at WW1
11	Cadmium	-	BDL	BDL	Safe
12	Chromium	-	0.12	BDL	Within limit
13	Copper	-	>1	BDL	Slightly high
14	Zinc	-	0.36	BDL	Within limit
15	Nickel	-	BDL	BDL	Safe
16	Cyanide	0.2	BDL	BDL	Safe
17	Chloride	600	460	340	Within limit
18	Fluoride	-	0.45	BDL	Within limit
19	Phenolic Compounds	-	0.90	BDL	Present at WW1



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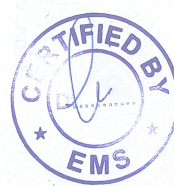
WATER:

Sampling Location: Tuirial River
Sample Description: Surface water Quality
Type of Sampling: Once
Nature of Sample: Water Quality

Location Code: SWMCW3
Quantity of sample: 2 Litres
Date of sampling: 17th March 2026

TEST REPORT

Parameters	Methodology	Minimum Detection Limit	Units	Standard	Result
Colour	-	-	Hazen	5–15	8
Odour	-	-	-	Agreeable	Agreeable
Temperature	APHA: 2550 B (23rd Ed.)	0.5 °C	°C	<40	21
pH	APHA: 4500-H+ B	1	-	6.5–8.5	7.0
Turbidity	APHA 2130 B	0.1 NTU	NTU	10	4.2
Electrical Conductivity	APHA: 2510 B	1 µmho/cm	µS/cm	300	160
Total Dissolved Solids	APHA: 2540 C	3 mg/L	mg/L	100	70
Total Suspended Solids	APHA: 2540 C	3 mg/L	mg/L	75	28
Alkalinity	APHA: 2320	5 mg/L	mg/L	600	110
Hardness	APHA: 2340-C	2 mg/L	mg/L	300	130
Calcium	APHA: 3500-Ca-B	2 mg/L	mg/L	75	38
Magnesium	APHA: 3500-Mg-B	2 mg/L	mg/L	30	16
Free Carbon Dioxide	APHA: 2320	2 mg/L	mg/L	-	12
Sulphate	APHA: 4500-E	1 mg/L	ppm	200	32
Phosphate	APHA: 4500 P-C	1 mg/L	ppm	5	1.5
Nitrate-N	IS:3025 (Part 34)	0.2 mg/L	ppm	150	11
Ammonia-N	IS:3025 (Part 34)	0.1 mg/L	ppm	50	2.5
Chloride	APHA: 4500 Cl- B	1 mg/L	mg/L	45	22
Dissolved Oxygen	APHA: 4500 O-C	0.2 mg/L	mg/L	4.0–6.0	6.2
Biological Oxygen Demand	IS:3025 (Part 44)	4 mg/L	mg/L	<2	1.5
Chemical Oxygen Demand	APHA: 5220 B	2 mg/L	mg/L	10	7

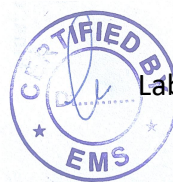


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Sampling Location: Location 4 (Luite near landfill site) **Location code:**SWMCW4
Sample Description: Surface water Quality **Quantity of sample:** 2 Litres
Type of Sampling: Once **Date of sampling:** 17th March 2026
Nature of Sample: Water Quality

TEST REPORT

Parameters	Methodology	Minimum Detection Limit	Units	Standard	Results
Colour	-	-	Hazen	5–15	8
Odour	-	-	-	Agreeable	Agreeable
Temperature	APHA 2550 B	0.5°C	°C	<40	21
pH	APHA 4500-H+ B	1	-	6.5–8.5	6.6
Turbidity	APHA 2130 B	0.1 NTU	NTU	10	7.0
Electrical Conductivity	APHA 2510 B	1 µmho/cm	µS/cm	300	175
Total Dissolved Solids	APHA 2540 C	3 mg/L	mg/L	100	85
Total Suspended Solids	APHA 2540 C	3 mg/L	mg/L	75	38
Alkalinity	APHA 2320	5 mg/L	mg/L	600	135
Hardness	APHA 2340-C	2 mg/L	mg/L	300	155
Calcium	APHA 3500-Ca-B	2 mg/L	mg/L	75	44
Magnesium	APHA 3500-Mg-B	2 mg/L	mg/L	30	19
Free CO ₂	APHA 2320	2 mg/L	mg/L	-	15
Sulphate	APHA 4500-E	1 mg/L	ppm	200	40
Phosphate	APHA 4500 P-C	1 mg/L	ppm	5	2.0
Nitrate-N	IS 3025 (Part 34)	0.2 mg/L	ppm	150	15
Ammonia-N	IS 3025 (Part 34)	0.1 mg/L	ppm	50	3.8
Chloride	APHA 4500 Cl- B	1 mg/L	mg/L	45	30
Dissolved Oxygen	APHA 4500 O-C	0.2 mg/L	mg/L	4.0–6.0	5.9
Biological Oxygen Demand	IS 3025 (Part 44)	4 mg/L	mg/L	<2	1.9
Chemical Oxygen Demand	APHA 5220 B	2 mg/L	mg/L	10	9



Laboratory Technician

ECOMS

Sampling Location: Location 5(Tuikhur at Tuirial village) Location code:SWMCW 5

Sample Description: Groundwater Quality

Quantity of sample: 2 Litres

Type of Sampling: Once

Date of sampling: 17th March 2026

Nature of Sample: Water Quality

TEST REPORT

Parameters	Methodology	Minimum Detection Limit	Units	Standard	Results
Colour	-	-	Hazen	5–15	4
Odour	-	-	-	Agreeable	Agreeable
Temperature	APHA: 2550 B (23rd Ed.)	0.5 °C	°C	<40	18
pH	APHA: 4500-H+ B	1	-	6.5–8.5	6.6
Turbidity	APHA 2130 B	0.1 NTU	NTU	10	1.2
Electrical Conductivity	APHA: 2510 B	1 µmho/cm	µS/cm	300	120
Total Dissolved Solids	APHA: 2540 C	3 mg/L	mg/L	100	60
Total Suspended Solids	APHA: 2540 C	3 mg/L	mg/L	75	10
Alkalinity	APHA: 2320	5 mg/L	mg/L	600	90
Hardness	APHA: 2340-C	2 mg/L	mg/L	300	110
Calcium	APHA: 3500-Ca-B	2 mg/L	mg/L	75	35
Magnesium	APHA: 3500-Mg-B	2 mg/L	mg/L	30	14
Free Carbon Dioxide	APHA: 2320	2 mg/L	mg/L	-	8
Sulphate	APHA: 4500-E	1 mg/L	ppm	200	20
Phosphate	APHA: 4500 P-C	1 mg/L	ppm	5	0.8
Nitrate-N	IS:3025 (Part 34)	0.2 mg/L	ppm	150	6
Ammonia-N	IS:3025 (Part 34)	0.1 mg/L	ppm	50	1.2
Chloride	APHA: 4500 Cl- B	1 mg/L	mg/L	45	18
Dissolved Oxygen	APHA: 4500 O-C	0.2 mg/L	mg/L	4.0–6.0	6.8
Biological Oxygen Demand	IS:3025 (Part 44)	4 mg/L	mg/L	<2	0.8
Chemical Oxygen Demand	APHA: 5220 B	2 mg/L	mg/L	10	4



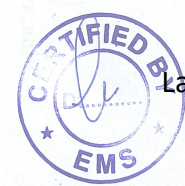
Laboratory Technician
ECOMS

Sampling Location: Location 6(Muthi River)
Sample Description: Surface water Quality
Type of Sampling: Once
Nature of Sample: Water Quality

Location code: SWMCW 6
Quantity of sample: 2 Litres
Date of sampling: 17th March 2026

TEST REPORT

Parameters	Methodology	Minimum Detection Limit	Units	Standard	Results
Colour	-	-	Hazen	5–15	8
Odour	-	-	-	Agreeable	Agreeable
Temperature	APHA: 2550 B (23rd Ed.)	0.5 °C	°C	<40	23
pH	APHA: 4500-H+ B	1	-	6.5–8.5	6.7
Turbidity	APHA 2130 B	0.1 NTU	NTU	10	4.5
Electrical Conductivity	APHA: 2510 B	1 µmho/cm	µS/cm	300	160
Total Dissolved Solids	APHA: 2540 C	3 mg/L	mg/L	100	70
Total Suspended Solids	APHA: 2540 C	3 mg/L	mg/L	75	28
Alkalinity	APHA: 2320	5 mg/L	mg/L	600	110
Hardness	APHA: 2340-C	2 mg/L	mg/L	300	130
Calcium	APHA: 3500-Ca-B	2 mg/L	mg/L	75	38
Magnesium	APHA: 3500-Mg-B	2 mg/L	mg/L	30	16
Free Carbon Dioxide	APHA: 2320	2 mg/L	mg/L	-	12
Sulphate	APHA: 4500-E	1 mg/L	ppm	200	30
Phosphate	APHA: 4500 P-C	1 mg/L	ppm	5	1.5
Nitrate-N	IS:3025 (Part 34)	0.2 mg/L	ppm	150	10
Ammonia-N	IS:3025 (Part 34)	0.1 mg/L	ppm	50	3.0
Chloride	APHA: 4500 Cl- B	1 mg/L	mg/L	45	22
Dissolved Oxygen	APHA: 4500 O-C	0.2 mg/L	mg/L	4.0–6.0	7
Biological Oxygen Demand	IS:3025 (Part 44)	4 mg/L	mg/L	<2	1
Chemical Oxygen Demand	APHA: 5220 B	2 mg/L	mg/L	10	4



Laboratory Technician

ECOMS

Sampling Location: Location 7(Borewell)
Sample Description: Groundwater Quality
Type of Sampling: Once
Nature of Sample: Water Quality

Location code: SWMCW 7
Quantity of sample: 2 Litres
Date of sampling: 13th March 2026

TEST REPORT

Parameters	Methodology	Minimum Detection Limit	Units	Standard	Results
Colour	-	-	Hazen	5–15	5
Odour	-	-	-	Agreeable	Agreeable
Temperature	APHA: 2550 B (23rd Ed.)	0.5 °C	°C	<40	19
pH	APHA: 4500-H+ B	1	-	6.5–8.5	6.7
Turbidity	APHA 2130 B	0.1 NTU	NTU	10	1.5
Electrical Conductivity	APHA: 2510 B	1 µmho/cm	µS/cm	300	130
TDS	APHA: 2540 C	3 mg/L	mg/L	100	65
TSS	APHA: 2540 C	3 mg/L	mg/L	75	12
Alkalinity	APHA: 2320	5 mg/L	mg/L	600	95
Hardness	APHA: 2340-C	2 mg/L	mg/L	300	115
Calcium	APHA: 3500-Ca-B	2 mg/L	mg/L	75	36
Magnesium	APHA: 3500-Mg-B	2 mg/L	mg/L	30	15
Free Carbon Dioxide	APHA: 2320	2 mg/L	mg/L	-	9
Sulphate	APHA: 4500-E	1 mg/L	ppm	200	22
Phosphate	APHA: 4500 P-C	1 mg/L	ppm	5	0.9
Nitrate-N	IS:3025 (Part 34)	0.2 mg/L	ppm	150	7
Ammonia-N	IS:3025 (Part 34)	0.1 mg/L	ppm	50	1.4
Chloride	APHA: 4500 Cl- B	1 mg/L	mg/L	45	20
D.O	APHA: 4500 O-C	0.2 mg/L	mg/L	4.0–6.0	6.6
B.O.D	IS:3025 (Part 44)	4 mg/L	mg/L	<2	1.0
C.O.D	APHA: 5220 B	2 mg/L	mg/L	10	5



Laboratory Technician
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SOIL QUALITY:

Sample Description: Soil Quality

Quantity of sample: 300g

Type of Sampling: Once

Date of sampling: 14th March 2026

Nature of Sample: Soil Quality

TEST REPORT

Sl. No.	Parameters	Unit	SWMCS 1 (Top Left)	SWMCS 2 (Center)	SWMCS 3 (Top Right)	SWMCS 4 (Bottom Right)	SWMCS 5 (Bottom Left)
1	Colour	-	Dark Brown	Brown	Brown	Dark Brown	Light Brown
2	pH	-	5.8	5.2	5.6	5.7	5.3
3	Bulk Density	g/cm ³	1.15	1.28	1.20	1.22	1.30
4	Moisture Content	%	28	24	26	27	23
5	Water Holding Capacity	%	48	38	44	46	36
6	Sand	%	58	63	60	59	65
7	Silt	%	22	17	20	21	15
8	Clay	%	20	20	20	20	20
9	Texture	Class	Loam	Sandy Loam	Loam	Loam	Sandy Loam
10	Respiration	mg CO ₂ /m ² /h	165	135	145	155	125
11	Soil Organic Carbon	%	2.8	2.0	2.3	2.5	1.9
12	Total Nitrogen	mg/kg	0.30	0.22	0.26	0.28	0.20
13	Available Phosphorus	mg/kg	18	12	15	16	11
14	Exchangeable Potassium	mg/kg	220	170	200	210	160
15	Exchangeable Sodium	mg/kg	28	22	25	26	20
16	Exchangeable Calcium	mg/kg	320	270	300	310	260
17	Exchangeable Magnesium	mg/kg	110	90	100	105	85
18	Exchangeable Manganese	mg/kg	55	45	50	52	42
19	Ammonium	mg/g	5.5	4.0	4.5	5.0	3.8



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NOISE QUALITY

Sampling Location: Tuirial SWM 10 km radius

Sample Description: Noise quality

Duration of sampling: 2 hours

Type of Sampling: Continuous

Date of sampling: 16th March 2026

Numbers of parameters: 1

Sl. No.	Location	Equipment	Method	Leq (dB(A))	Lmin (dB(A))	Lmax (dB(A))	Comments
1	Project Site SWMCN 1	Noise Meter (HP-822A)	IS: 10988– 1984	50	42	58	Within prescribed limit
2	SWMCN 2 (2 km, S direction)	-	-	47	39	54	Within prescribed limit
3	SWMCN 3 (2 km, N direction)	-	-	44	36	52	Within prescribed limit
4	SWMCN 4 (2 km, NE direction)	-	-	46	38	55	Within prescribed limit
5	SWMCN 5 (2 km, E direction)	-	-	48	40	57	Within prescribed limit
6	SWMCN 6 (2 km, W direction)	-	-	45	37	53	Within prescribed limit



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AIR QUALITY

Sampling Location: Tuirial SWM 10 km radius

Sample Description: Noise quality

Duration of sampling: 8 hours

Type of Sampling: Continuous

Date of sampling: 16th March 2026

Numbers of parameters: 4

Sl. No.	Location	Pollutant	CPCB Limit ($\mu\text{g}/\text{m}^3$)	Observed Value ($\mu\text{g}/\text{m}^3$)	Remarks
1	Project Site	PM ₁₀	100	45	Within limit
	SWMCA 1	PM _{2.5}	60	14	Within limit
		SO ₂	80	3	Within limit
		NO _x	80	6	Within limit
2	N Direction	PM ₁₀	100	36	Within limit
	SWMCA 2	PM _{2.5}	60	15	Within limit
		SO ₂	80	3	Within limit
		NO _x	80	5	Within limit
3	S Direction	PM ₁₀	100	58	Within limit
	SWMCA 3	PM _{2.5}	60	9	Within limit
		SO ₂	80	3	Within limit
		NO _x	80	18	Within limit
4	NE Direction	PM ₁₀	100	28	Within limit
	SWMCA 4	PM _{2.5}	60	16	Within limit
		SO ₂	80	3	Within limit
		NO _x	80	6	Within limit
5	SE Direction	PM ₁₀	100	44	Within limit
	SWMCA 5	PM _{2.5}	60	12	Within limit
		SO ₂	80	7	Within limit
		NO _x	80	9	Within limit
6	W Direction	PM ₁₀	100	35	Within limit
	SWMCA 6	PM _{2.5}	60	14	Within limit
		SO ₂	80	3	Within limit
		NO _x	80	6	Within limit



Laboratory Technician

ECOMS



AIZAWL MUNICIPAL CORPORATION
Thuampul, Aizawl - 796017 : Mizoram

Ph: 0389-2352090 Email: umcmizoram@gmail.com Website: www.umcmizoram.com



Dated Aizawl, the 13th June, 2023


NOTIFICATION

Pursuant to operationalization of Solid Waste Management Centre (SWMC) at Tuirial and as per Ministry of Environment, Forest and Climate Change with regard to Environmental Clearance for the development of landfill site of SWMC at Tuirial Vide No. RONE/E/IA/INF/27/2005-07, dated 14th October, 2022, **Environmental Cell** is hereby constituted with the following composition with immediate effect and until further order.

- | | |
|---|-------------|
| 1. Pu Lalremruata Kullai, Joint Municipal Commissioner, AMC | - Chairman |
| 2. Pu R Lalmuanpuia, Executive Engineer, AMC | - Secretary |
| 3. Prof. Lalnuntluanga, Deptt of Environmental Science, MZU | - Member |
| 4. Pu C.Lalmuanawma, Town Planner, AMC | - Member |
| 5. Pi Helen Rodingliani, Executive Engineer, PHE | - Member |
| 6. Pi Vanlalnunpuii Hmar, Divisional Forest Officer, EF & CC Deptt. | - Member |
| 7. Pi PC Lalmuanpuii, Environmental Engineer, MPCB | - Member |
| 8. Pi Veronica Vanlalhriatpuii Colney, Assistant Architect, AMC | - Member |

Terms & Conditions:

1. The Environmental Cell shall prepare effective and efficient proposals relating/pertaining to the maintenance and operation of SWMC at Tuirial.
2. The Environmental Cell shall study and prepare report in all matters relating to the status of SWMC Reports, etc i.e. Six Monthly Report to be submitted to Integrated Regional Office (IRO) at Shillong.
3. The tenure of Environmental Cell will be valid during utilization of SWMC at Tuirial.
4. The meeting of the Cell will be convened at least once a month or as may be required and decided by AMC.
5. Representatives of Departments, other than representatives of AMC, shall be given Rs. 1500/- per head as meeting allowance per meeting.


(Er. LALHRIATPUIA)
Municipal Commissioner
Aizawl Municipal Corporation
Dated Aizawl the 13th June, 2023

Memo No. D.24015/314/2021-AMC

Copy to:

1. PA to Mayor, AMC, for information.
2. PA to Executive Councillors i/c SWMC, AMC, for information.
3. The Principal Secretary, EF & CC Deptt., for information.
4. The Engineer-in-Chief, PHED, for information.
5. The Registrar, MZU, for information.
6. The Member Secretary, MPCB, for information.
7. All Members concerned, for information.
8. All Officers under AMC, for information.
9. Guard file.


Municipal Commissioner
Aizawl Municipal Corporation

TO AVOID COVID-19 INFECTION WEAR MASK, OBSERVE PHYSICAL DISTANCING OF 6 FEET, MAINTAIN HAND HYGIENE.

Consent to Establish:

**OFFICE OF THE MIZORAM STATE POLLUTION CONTROL BOARD
AIZAWL : MIZORAM**

**NO OBJECTION CERTIFICATE (CONSENT TO ESTABLISH)
(RENEWED)**

No. H.88088/Poltn/9(154)/2015-MPCB/151

Dated Aizawl, the 7th September, 2018
Validity: 10.8.2018 - 9.8.2019

NO OBJECTION CERTIFICATE (CONSENT TO ESTABLISH) granted to the **Project Director, State Investment Program Management & Implementation Unit (SIPMIU), Government of Mizoram** for setting up of **COMPOST PLANT WITH ENGINEERED LANDFILL**, having a capacity of 150 tons/day for Solid Wastes Management of Aizawl City at **Tuirial, Mizoram** under Section 21 of Air (Prevention & Control of Pollution) Act, 1981 and Section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 is hereby *renewed for another one (1) year with effect from 10th August, 2018* with reference to the application No. W-11020/7/2017-PD/SIPMIU (NERCCDIP)/56 Dt. 17.08.2018.

All the conditions stipulated in the original certificate shall remain same and shall be strictly complied with.

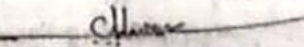
**GREEN
CATEGORY**

Sd/-C.LALDUHAWMA
Member Secretary

Mizoram Pollution Control Board
Dated Aizawl, the 7th September, 2018

Memo No. H.88088/Poltn/9(154)/2015-MPCB/151

Copy to: **Project Director, State Investment Program Management & Implementation Unit (SIPMIU), Government of Mizoram** with reference to the application No. W-11020/7/2017-PD/SIPMIU (NERCCDIP)/56 Dt. 17.08.2018


(C.LALDUHAWMA)
Member Secretary
Mizoram Pollution Control Board

Mizoram State Pollution Control Board, New Secretariat Complex, Thilvansai Puzh, Khatla, Aizawl, Mizoram-796001
Ph.No.2336173/2336598 Fax:2336591 Email:mspcb@mizoram.gov.in Website: http://www.mspcb.miz.or

Office of the Program Director
SIPMIU (NERCCDIP)
Aizawl : Mizoram

Receipt No. 198
Date 20/11/18
Section _____

Green Belt:

Green belt reserved is well maintain to reduce the adverse effect of the SWM on the environment. Quadrats Random sampling methods was employed to evaluate the diversity of different tree species in the green belt area. 39 tree species were record, most of the trees grows naturally in the area while few are planted.

Tree Species and Diversity

Sl.No	Local Name	Scientific Name	Number of Individual (Q)	Number of Quadrats (Y)	Occurrence (X)	Relative Dominance	Relative Frequency	IVI	Rank
1	April	<i>Erythrina caffra</i>	3	10	3	2.12	4.29	7.25	12
2	Ar-dah	<i>Archidendron bigeminum</i>	5	10	4	1.18	5.71	8.31	9
3	Ar-ngeng	<i>Maesa indica</i>	1	10	1	0.38	1.43	2.09	32
4	Chhawn-tual	<i>Aporosa octandra</i>	4	10	1	1.53	1.43	4.09	25
5	Herh-se	<i>Messua ferrea</i>	6	10	2	0.12	2.86	4.67	23
6	Hmawng	<i>Ficus maclellandii</i>	1	10	1	0.11	1.43	1.82	35
7	Hnah-khar	<i>Macaranga indica</i>	7	10	1	0.21	1.43	3.62	28
8	Hnahkhar-pa	<i>Macaranga denticulata</i>	8	10	6	0.21	8.57	11.05	3
9	Hnah-kiah	<i>Callicarp arborea Roxb.</i>	6	10	2	0.22	2.86	4.78	20
10	Kang-tek	<i>Albizia procera</i>	7	10	3	0.51	4.29	6.78	16
11	Khar-duap	<i>Macaranga peltata</i>	8	10	6	0.26	8.57	11.10	2
12	Khar pa	<i>Mallotus macrostachyus</i>	1	10	1	0.03	1.43	1.74	37
13	Khiang	<i>Schima wallichii</i>	8	10	4	0.37	5.71	8.35	8
14	Khuang-thli	<i>Bischofia javanica</i>	1	10	1	0.03	1.43	1.74	36
15	Lam-khuang	<i>Artocarpus heterophyllus</i>	5	10	6	0.15	8.57	10.14	6
16	Len-hmui	<i>Syzygium cumini</i>	6	10	2	0.21	2.86	4.76	21
17	Nau-thak	<i>Litsea manopetala</i>	5	10	4	0.22	5.71	7.35	10
18	Neempata	<i>Azadirachta indica</i>	5	10	4	0.12	5.71	7.25	13
19	Ngiau	<i>Michelia champaca</i>	7	10	6	0.37	8.57	10.92	4
20	Pathlawi-rim-nam	N/A	6	10	2	0.16	2.86	4.72	22
21	Sazu-thei-pui	<i>Ficus hirta</i>	2	10	2	0.03	2.86	3.45	31
22	Se-hawr	<i>Castanopsis indica</i>	7	10	6	0.20	8.57	10.75	5
23	Si-hneh	<i>Eurya cerasifolia</i>	7	10	7	0.10	10.00	12.08	1
24	Sun-hlu	<i>Phyllanthus emblica</i>	3	10	2	0.08	2.86	3.79	27
25	Teak	<i>Tectona grandis</i>	6	10	3	0.22	4.29	6.20	17
26	Thei-hai	<i>Mangifera indica</i>	6	10	2	0.23	2.86	4.79	19
27	Thei-pui	<i>Ficus semicordata</i>	2	10	2	0.10	2.86	3.52	29
28	Thei-tat	<i>Artocarpus lakoocha</i>	1	10	1	0.11	1.43	1.82	34
29	Thel-ret	<i>Ficus elastica</i>	1	10	1	0.03	1.43	1.74	38
30	Thing-dawl	<i>Tetrameiss nudiflora</i>	4	10	2	0.41	2.86	4.40	24
31	Thing-khawi-lu	<i>Vitex peduncularis</i>	2	10	6	0.09	8.57	9.23	7
32	Thing-pawn-chhia	<i>Glochidion heyneanum</i>	2	10	1	0.05	1.43	2.04	33
33	Thing-sia	<i>Castanopsis tribuloides</i>	8	10	3	0.31	4.29	6.86	15
34	Thlan-vawng	<i>Gmelina arborea</i>	3	10	2	0.13	2.86	3.84	26
35	Thuam-riat	<i>Astonia scholaris</i>	2	10	2	0.07	2.86	3.49	30
36	Vang	<i>Albizia chinensis</i>	5	10	3	0.32	4.29	6.02	18
37	Vawm-bal	<i>Drimycarpus racemosus</i>	1	10	1	0.02	1.43	1.73	39
38	Zai-rum	<i>Anogeissus acuminata</i>	4	10	4	0.22	5.71	7.07	14
39	Zawng-tah	<i>Parkia timoriana</i>	5	10	4	0.16	5.71	7.28	11

Photo Plates:





