

MINERALS & MINERALS LIMITED

Regd. Office- Court Road, P.O. & Distt.-Lohardaga, Jharkhand-835302

Tel.-06526-223163

CIN NO. U26990JH1970PLC000875

Ref. :

Date

M&M/LHD/ENV/MoEF&CC/412

Date: 24th November 2025

To,

The Dy. Director General of Forest (C)
Ministry of Environment, Forests and Climate Changes
2nd Floor, Headquarter-Jharkhand State Housing Board
Harmu Chowk, Ranchi, Jharkhand-834002

Sub: Six Monthly EC Compliance Report for Bimarla (134.526 Ha) Bauxite Mining project of M/s Minerals & Minerals Limited, Gumla Jharkhand for the period from April 2025 to September 2025.

Ref: Environmental Clearance Letter No. J-11015/87/2009-IA II (M) dated 24th September 2013.

Dear Sir,

With reference to the above, we are submitting herewith the Compliance status report of EC conditions for **Bimarla (134.526 Ha)** Bauxite Mining project of **M/s Minerals & Minerals Limited**, Gumla Jharkhand for the period from **April 2025 to September 2025** for your kind perusal please.

The lease details are below:

Lease area (ha)	Production Capacity (MT)	Lease Period
134.526	300000	18.07.2009 to 17.07.2059

Hope you will find the same in order.

Thanking You

Yours faithfully,
For Minerals & Minerals Limited



Basudev Gangopadhyay
AVP (Planning, Environment & Compliance)

Enclosure: - As Above

CC: ro.ranchi-mef@gov.in, mef@ori.nic.in, mef@nic.in, mef.or@nic.in, mscb.cpcb@nic.in, zokolkatta.cpcb@nic.in, ranchijspcb@gmail.com, roranchi47@gmail.com

Name of the Project	: Bimarla Bauxite Mine (134.526 ha) M/s Minerals & Minerals Ltd
Environment Clearance No & date	: J-11015/87/2009-IA. II (M) dated 24.09.2013.
Period of compliance Report	: From 1st April 2025 to 30th September 2025

Specific Condition: -

Condition i: - The project proponent shall obtain Consent to Establish and Consent to Operate from the Jharkhand State Pollution Control Board and effectively implement all the conditions stipulated therein.

Reply: - Consent to Establish (CTE) and Consent to Operate (CTO) have been obtained. The Stipulated conditions of CTE/CTO are being Implemented and complied with. The existing Consent to Operate (CTO) is valid till 30.09.2026.

Condition ii: - Implementations of conditions laid down in the letter of the State Department of Forests vide dated 11.05.2012 with regard to permission for transportation of ore through the forest land.

Reply: - The conditions laid down in the said letter are being implemented and complied with.

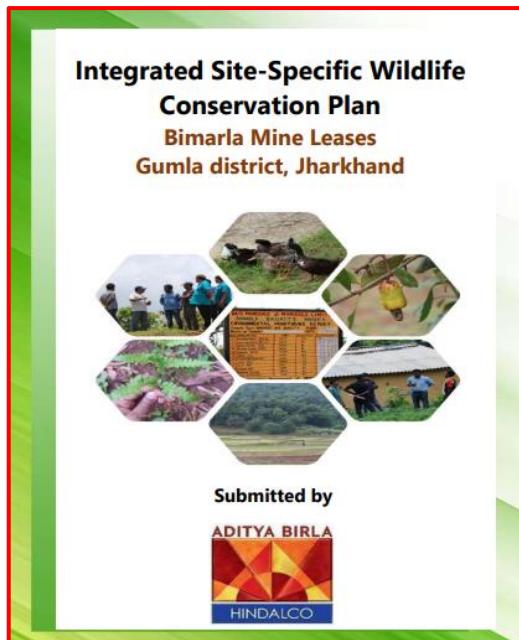
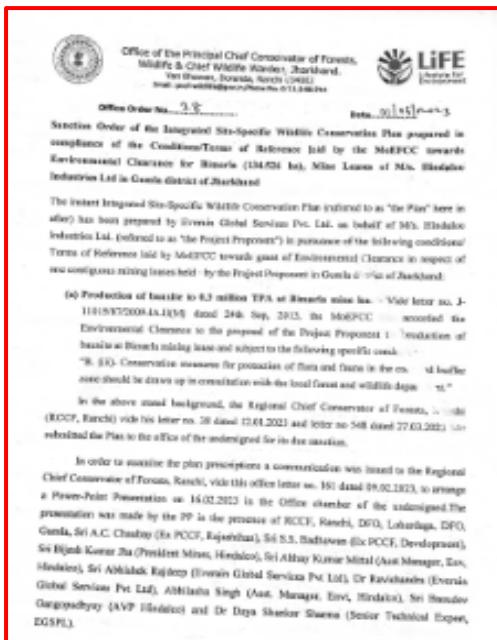
Condition iii: - Necessary wildlife clearance as may be applicable to this project should be obtained. Measures for conservation of flora and fauna observed in the study area shall be undertaken. The Wildlife Conservation Plan shall be implemented in consultation with the State Forests and Wildlife Department.

Reply: - We understand that Wildlife Clearance is not applicable to this project as the mine is located beyond the eco-sensitive zone.

Safeguard Measures already implemented and being implemented as suggested by forest department are as follows: -

1. Minimum level of Noise during Mining.
2. Permanent pillars are established within in the mine lease area at 7.5m from the forest boundary.
3. Daily water sprinkling on haul road.
4. Transportation is carried out during daytime only.
5. Maintenance of mineral transportation road is being done regularly.
6. Social activities are being undertaken in nearby areas etc.

Also, we have been granted letter of approval for the Integrated Site-specific Wildlife Conservation Plan via Office Order No.28 dated 01.06.2023 by PCCF, Wildlife, Ranchi.



Condition iv - Adequate measures for control of air pollution in the area shall be taken and it shall be ensured that the pollution levels do not exceed the prescribed limits.

Reply: - Adequate Measures for control of air pollution in the area are being taken. Important measures are as follows.

1. Water sprinkling on haul roads and at places of source of pollution.
2. Control blasting practice.
3. Wet drilling is in practice.

Monitoring report of Ambient Air Quality is attached herewith as **Annexure - 2.**

Condition v - No working shall be undertaken in the forest area for which forestry clearance has not been obtained.

Reply: - Noted. However, there is no forest land within the lease hold area. Therefore, there is no need for forest clearance.

Condition vi: - Necessary prior clearance, as applicable shall be obtained from CGWA for working below groundwater table.

Reply: - Since shallow depth mining is being carried out, hence there is no intersection with the groundwater table. In the future also, the working zone will be restricted to above the groundwater table. We assure that no mining is/was carried out below the groundwater table, and the same status will be maintained in the future also. Moreover, we are regularly monitoring the groundwater table through the installation of a piezometer. A copy of the water level report is attached herewith as **Annexure-1.**

However, we have already obtained an NOC for the extraction of groundwater from CGWA/CGWB for drinking purposes only. A copy of the same NOC is attached below.

NO OBJECTION CERTIFICATE (NOC) FOR GROUND WATER ABSTRACTION												
Project Name:		Bimrau Bimrau Mining Project (134.37 Ha)										
Project Address:		Bimrau Bimrau Mining Project, Vill-Jarang, Ghagra, Kote and Bimrau, Dist-gumia										
Village:	Bimrau		Block:		Ghaghra		State:		Jharkhand			
District:	Gumia											
Pin Code:	813502											
Communication Address:	Minerals Minerals Ltd, Court Road, Lohardaga, Lohardaga, Lohardaga, Jharkhand - 813502											
Address of CGWB Regional Office:		Central Ground Water Board Mid Eastern Region, 6th Floor, Sampark, 7th Floor, Lakshmi Nivas, Prakash Bhawan, Frazer Road Dak Bungalow, Petra, Bihar - 800011										
1. NOC No.:	CGWA/NOC/ANR/RE/2023/0451											
2. Date of Issue:	26/01/2023											
3. Application No.:	21-4/BS/30/MIN/2019											
4. Category:	Sale											
5. Project Status:	Existing Ground Water											
6. Valid from:	16/01/2024											
7. Valid up to:	15/01/2026											
8. Ground Water Abstraction Permitted:												
9. Fresh Water:	Saline Water:		Desalination:						Total			
m/day	m/day		m/day		m/day		m/day		m/day			
10. Details of ground water abstraction/Desalination structures:												
Total Existing No.:				Total Proposed No.:								
Abstraction Structure:	DW	DCB	BW	TW	MP	MPU	DW	DCB	BW	TW	MP	MPU
DW	0	0	0	0	0	0	0	0	0	0	0	0
*DW with DCB-Drop down wells, BW-Tube well, TW-Tube well, MP-Main Pump/MPU-Main Pump												
11. Ground Water Abstraction/Restoration charges paid (Rs.):												0.00
12. Environment Compensation (if applicable) paid (Rs.):												0.00
(Compliance Conditions given overleaf)												

NOC for Groundwater

Condition vii : - The Company shall submit within 3 months their policy towards Corporate Environment Responsibility which should inter-alia provide for (i) Standard operating process / process to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions, (ii) Hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions and (iii) System of reporting of non-compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders.

Reply: - Policy towards Corporate Environment Responsibility is in place. A copy of our Environmental Policy has already been submitted to the relevant statutory authorities. Company has implemented a system in line with the above policies which addresses following points. (i) Standard operating process / process to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions, (ii) Hierarchical system or administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions and (iii) System of reporting of non-compliances / violations of environmental norms to the Board of Directors of the company.

Condition viii : - The mining operations shall be restricted to above the groundwater table and it should not intersect the groundwater table, In case of working below the groundwater table, prior approval of the Ministry of Environment and Forests and the Central Ground Water Authority shall be obtained, for which a detailed hydrogeological study shall be carried out.

Reply: - Noted. Since shallow depth mining is being carried out in Bimarla Bauxite Mine. Therefore, Mining operation does not involve intersection of ground water table. However, we are regularly monitoring the ground water table through installation of piezometer.

As the water table is not intersecting during mining operation, the detailed hydro-geological study is not applicable for this mine.

Condition ix: - The project proponent shall ensure that no natural watercourse and/or water resources shall be obstructed due to any mining operations. The first order streams and the seasonal nallahs originating from the mining lease area shall be protected.

Reply: - No natural watercourse and/or water resource is being and will be obstructed due to any mining operations.

Condition x: - The topsoil, if any shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation.

Reply: - Topsoil is being stacked temporally properly with proper slope as and when required. Concurrent backfilling and reclamation of mined out area are being exercised for which topsoil is being spread on backfilled area for reclamation. No OB dump is present in mines. The mining is being carried out as per the approved mining plan. Monitoring and management of rehabilitated areas is being done through effective supervision.

Condition xi: - Monitoring and management of rehabilitated areas should continue until vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forests and its Regional Office, Bhubaneswar on six monthly basis.

Reply: - Monitoring and management of rehabilitated areas are being done through effective supervision. Concurrent Backfilling has already been started as per approved mining plan in scientific manner. The Data pertaining to status of backfilling is attached as **Annexure – 4**. Photographs of Reclaimed area are attached below.



Reclaimed Area

Condition xii: - Catch drains and siltation ponds of appropriate size shall be constructed around the working pit, sub-grade dump, soil and mineral dumps to arrest flow of silt and sediment directly into the agricultural fields and the water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly de silted particularly after monsoon, and maintained properly, Garland drains settling tanks and check dams of appropriate size, gradient and length shall be constructed for both around the mine pit and sub-grade dump to prevent run off of water and flow sediments directly into the agricultural fields and the water bodies and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits should be constructed at the corners of the garland drains and de silted at regular intervals.

Reply: - To collect & manage rainwater during monsoon, part of mined out area is used as settling tank for the runoff. Rainwater stored is being used for watering the mine area, roads, green belt development and sprinkling as necessary. Catch drains, Garland drains of appropriate size are being constructed and maintained in both around the mine pit to prevent runoff of water and flow of sediments directly into the agricultural field and water bodies, if applicable. Sump of adequate capacity is being provided and maintained as required. Photographs of the same is attached below.



Rainwater Harvesting Pond



Catchment Drain



Garland Drain

Condition xiii: - Dimension of the retaining wall at the toe of sub-grade dump and OB benches within the mine to check run-off and siltation should be based on the rain fall data.

Reply: - There are no temporary dumps within the mining lease area. However, dimensions of the retaining wall of temporary OB dumps will be maintained based on average rain fall, if required.

Condition xiv: - The plantation is proposed over an area of 24 ha with 2500 samplings per ha.

Reply: - During FY 2025-26 till September, a total of 5530 nos. saplings have been planted in mining lease. Cumulative 12.31 ha areas have been planted till date. In addition to this agricultural activity is going on in reclaimed land as per the consent from landowners.

Green belt development programme is in progress with progress of mining activities



Plantation at Mines



Agricultural activity

Condition xv: Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as around loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.

Reply: - Effective safeguard measures, such as regular water sprinkling is being carried out on haul road and in critical areas prone to air pollution. Regular Ambient Air Quality (AAQ) monitoring is being carried out by NABL accredited Laboratory and all parameters are found within the prescribed limit. Monitoring report of AAQ is attached herewith as **Annexure-2**. Photographs of Water Tanker is attached herewith below.



Sprinkling of water on roads

Condition xvi: The project authority should implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.

Reply: - Effective measures have already been implemented. A detailed rainwater harvesting plan to augment ground water has been prepared and suitable measures like water harvesting pond etc. are created for augmentation of ground water in the area in consultation with Central Ground Water Board. Photograph of Rainwater Harvesting Pond is already attached in **Condition xii**.

Condition xvii: -Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and installing new piezometers during the mining operation. The periodic monitoring [(at least four times in a year- pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January); once in each season)] shall be carried out in consultation with the State Ground Water Board/Central Ground Water Authority and the data thus collected may be sent regularly to the Ministry of Environment and Forests and its Regional Office Bhubaneswar, the Central Ground Water Authority and the Regional Director, Central Ground Water Board. If at any stage, it is observed that the groundwater table is getting depleted due to the mining activity, necessary corrective measures shall be carried out.

Reply: - We are not using ground water for any mining purpose. Since, Shallow depth mining is being carried out, hence there is no intersection of ground water table during the mining operation at present and in future also. A Piezometer has been installed for monitoring of ground water level. Water level and water quality reports are being sent regular to regional office of Ministry, CGWA/CGWB and JSPCB. The same is attached herewith as **Annexure 1 & 2**. Now, Regional office of MoEF&CC is in Ranchi.



Piezometer

Condition xviii: -Monitoring of the springs shall be carried out for the quality and quantity of water regularly so as to ensure that there is no adverse impact- on the same due to the project. Records in this regard shall be maintained.

Reply: - Spring water is being monitored regularly, and Analysis report is attached as **Annexure 2.**

Condition xix: -It shall be ensured that there is no change in the hydrology of the area due to the project.

Reply: -Noted. We regularly monitor the ground water level and no adverse changes is observed.

Condition xx: -Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with the Regional Director, Central Ground Water Board.

Reply: - Suitable rainwater harvesting measures like harvesting pond have been constructed on long term basis for augmentation of ground water in the area, in consultation with Central Ground Water Board. Photograph of Rainwater Harvesting Pond is already attached in reply to above condition xvi.

Condition xxi: - Appropriate mitigative measures shall be taken to prevent pollution of the all the water bodies, in consultation with the State Pollution Control Board.

Reply: -We are not discharging any water outside mine lease area. Appropriate mitigative measures have been taken to prevent pollution of nearby water bodies. The drainage system in the mining lease area is designed to collect all rainwater within the lease into the pit/ rainwater harvesting pond only and ensuring that water does not flow outside the boundaries of the mine lease under any circumstances.

Condition xxii: - Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral from mine face to the beneficiation plant. The vehicles shall be covered with a tarpaulin and shall not be overloaded.

Reply: - Regular maintenance of vehicles is being undertaken to minimize vehicular emission. Measures are being taken to control emission. The vehicles are being covered with tarpaulin while transportation of mineral. Photograph of Tarpaulin Covered Vehicle and PUC Certificate are attached below.



Tarpaulin Covered Vehicle

Form 59																																				
[See rules 115 (2)]																																				
Pollution Under Control Certificate																																				
Date : 19/08/2025	Time : 09:49:52 AM																																			
Validity upto : 18/02/2026																																				
Certificate SL. No. : 07400140072377 Registration No. : JH11D7709 Month of Registration : 19/Feb/2008 Month & Year of Manufacturing : 2008/2008 Valid Mobile Number : *****887 Pollution Norms : EMISSION STAGE II Fuel : DIESEL PUC Code : JH0010014 PUC Date : 18/02/2026 Fees : Rs.300.00 MII observation : No																																				
Vehicle Photo with Registration plate 60 mm x 30 mm 																																				
<table border="1"> <thead> <tr> <th>Sr. No.</th> <th>Pollutant (as applicable)</th> <th>Units (as applicable)</th> <th>Emission limits</th> <th>Measured Value (upto 2 decimal places)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Carbon Monoxide (CO)</td> <td>percentage (%)</td> <td>4</td> <td>3</td> </tr> <tr> <td></td> <td>Hydrocarbon (THC/HC)</td> <td>ppm</td> <td></td> <td></td> </tr> <tr> <td>Idling Emissions</td> <td>CO</td> <td>percentage (%)</td> <td></td> <td></td> </tr> <tr> <td>High idling emissions</td> <td>RPM</td> <td>RPM</td> <td>2500 ± 200</td> <td></td> </tr> <tr> <td></td> <td>Lambda</td> <td>-</td> <td>1 ± 0.03</td> <td></td> </tr> <tr> <td>Smoke Density</td> <td>Light absorption coefficient</td> <td>1/metre</td> <td>2.45</td> <td>2.34</td> </tr> </tbody> </table> This PUC certificate is system generated through the national register of motor vehicles and does not require any signature.		Sr. No.	Pollutant (as applicable)	Units (as applicable)	Emission limits	Measured Value (upto 2 decimal places)	1	Carbon Monoxide (CO)	percentage (%)	4	3		Hydrocarbon (THC/HC)	ppm			Idling Emissions	CO	percentage (%)			High idling emissions	RPM	RPM	2500 ± 200			Lambda	-	1 ± 0.03		Smoke Density	Light absorption coefficient	1/metre	2.45	2.34
Sr. No.	Pollutant (as applicable)	Units (as applicable)	Emission limits	Measured Value (upto 2 decimal places)																																
1	Carbon Monoxide (CO)	percentage (%)	4	3																																
	Hydrocarbon (THC/HC)	ppm																																		
Idling Emissions	CO	percentage (%)																																		
High idling emissions	RPM	RPM	2500 ± 200																																	
	Lambda	-	1 ± 0.03																																	
Smoke Density	Light absorption coefficient	1/metre	2.45	2.34																																
Note : 1. Vehicle owners to link their mobile numbers to registered vehicle by logging to https://puc.parivahan.gov.in Authorised Signature with stamp of PUC Operator 60mm x 20 mm																																				

PUC Certificate

Condition xxiii: Blasting operation shall be carried out only during the daytime. Controlled blasting shall be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.

Reply: - Blasting time is fixed during 1.00 PM -2.00 PM. Controlled blasting method is in practice. Ground vibration study has been conducted periodically. All efforts are being taken to mitigate impact of blasting.

Condition xxiv: - Drills shall either be operated with dust extractors or equipped with water injection system.

Reply: - Wet drilling is in practice.



Wet Drilling

Condition xxv: - Mineral handling area shall be provided with adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.

Reply: - Water sprinkling is being carried out regularly at mineral handling area, loading and unloading areas to control the dust. Additionally, Fixed type water sprinkler has been installed near the weigh bridge to control dust emission.



Fixed Type Water Sprinkler

Condition xxvi: - Sewage treatment plant shall be installed for the colony. ETP shall also be provided for the workshop and wastewater generated during the mining operation.

Reply: - As of now there is no colony within the lease hold. However, Domestic Wastewater generated from mine office area is being collected through individual Septic Tank and followed by Soak Pit.

No wastewater is generated from our mining operation. However, only negligible amount of effluent is being generated from workshop and Oil & grease trap system is already installed for treatment of this effluent. The treated water is in close circuit and being reused for washing of vehicle in the workshop. We are not discharging any wastewater outside the mine lease area.

Furthermore, the quality of this treated water is being monitored regularly, and the monitoring report is attached herewith as **Annexure – 2**.



Washing Ramp with Oil and Grease Trap System

Condition xxvii: - The project authorities should undertake sample survey to generate data on pre project community health status within a radius of 1 km from proposed mine.

Reply: - As a part of Community Health status check we regularly conduct medical camp in nearby areas.

Condition xxviii: Pre-placement medical examination and periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.

Reply: - As a company, we are truly concerned about the health and safety of our on-site workers and in consideration to that, the health examination camps are being setup/scheduled on regularly basis.

Condition xxix: - Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

Reply: - We believe that the wellbeing of all the labours working within the site should be taken care of on a priority basis, so that they can work in a stress-free environment. Therefore, all the necessary infrastructure and basic facilities are being taken care of. Safe drinking water and medical facilities already provided.

Condition xxx: - The critical parameters such as RSPM (Particulate matter with size less than 10pm i.e. PM10) and NOx in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further, quality of discharged water shall also be monitored [(TDS, DO, PH and Total Suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the Company in public domain. The Circular No. 3-20012/1/2006- IA.11 (M) dated 27.05.2009 issued by Ministry of Environment and Forests, which is available on the website of the Ministry www.envfor.nic and shall also be referred in this regard for its compliance.

Reply: Noted and being adhered. We have established four ambient air quality monitoring stations in the core zone as well as buffer zone. Monitoring of Ambient Air Quality and Treated Water is being carried out by NABL accredited Laboratory and reported to the concerned authorities. Monitoring Report is attached herewith as **Annexure 2**. Half-yearly EC compliance along with Environmental monitoring reports is being uploaded on company website regularly. A Display board is already installed near the mine gate office. We have also installed an online PM10 Analyzer at mine site.



PM10 Analyzer

Condition xxxi: - A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.

Reply: - Noted and will be complied in due time. Progressive mine closure plan approved along Scheme of Mining. FMCP for total lease area will be prepared and submitted in due time as per applicable guideline and timelines mentioned in MCDR/IBM guideline who are competent authority to approve the same. Based on the present resource estimate, and peak rated production capacity mentioned in EC, Mining operation is being carried out.

General Conditions: -

Condition i: - No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & Forests.

Reply: - Noted.

Condition ii: - No change in the calendar plan including excavation, quantum of mineral bauxite and waste should be made.

Reply: - Calendar plan including excavation, quantum of mineral bauxite and waste is being done as per IBM approved mining scheme. Report is attached herewith as **Annexure 4.**

Condition iii: - Conservation measures for protection of flora and fauna in the core and buffer zone should be drawn up in consultation with the local forest and wildlife department.

Reply: - Conservation measures for protection of flora and fauna in core & buffer zone has been drawn up in consultation with local forest and wildlife department. Also, we prepared Integrated Site-specific Wildlife Conservation Plan (WLCP) and obtained approval from by PCCF, Wildlife, Ranchi vide Office Order No.28 dated 01.06.2023 Safeguard Measures already implemented and being implemented as suggested by forest department are as follows:

1. Minimum level of Noise during Mining.
2. Permanent pillars are established within in the mine lease area at 7.5m from the forest boundary.
3. Daily water sprinkling on haul road.
4. Transportation is carried out during daytime only.
5. Maintenance of mineral transportation road is being done regularly.
6. Social activities are being undertaken in nearby areas etc.

Condition iv: - At least four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for RSPM (Particulate

matter with size less than 10 micron i.e., PM10) and NOx monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.

Reply: - We have already established four ambient air quality monitoring stations in the core zone as well as buffer zone. Monitoring of Ambient Air Quality is being carried out by NABL accredited Laboratory and reported to the concerned authorities. Monitoring Report is attached herewith as **Annexure - 2**.

Condition v: - Data on ambient air quality [RSPM (Particulate matter with size less than 10micron i.e., PM10) and NOx] should be regularly submitted to the Ministry including its regional office located at: Bhubaneswar and the State Pollution Control Board / Central Pollution Control Board once in six months.

Reply: - The monitoring of ambient air quality is being conducted by an NABL-accredited laboratory, and reports are regularly submitted to the MoEF&CC and JSPCB, Ranchi. The monitoring report is attached herewith as **Annexure - 2**. Now, Regional office of MoEF&CC is in Ranchi.

Condition vi: - Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.

Reply: - Suitable water spraying arrangements are being made to control fugitive dust emissions from loading, unloading and transfer points as applicable. The photograph of the same is already attached in reply to specific condition no. xv.

Condition vii: - Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs / muffs.

Reply: - Measures are being taken for control of noise levels below 85 dB (A) in the work environment. Workers engaged in operation of HEMM, etc. has been provided with ear plug / muffs. The noise level monitoring is being conducted at a regular interval. The noise level is within the prescribed norms. Report has been attached as **Annexure - 2**.

Condition viii: - Industrial wastewater (workshop and waste water from the Mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May 1993 and 31' December, 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.

Reply: - No wastewater is generated from our mining operation. However, only negligible amount of effluent is being generated from workshop and Oil & grease trap system is already installed for treatment of this effluent. The treated water is in close

circuit and being reused for washing of vehicle in the workshop. We are not discharging any wastewater outside the mine lease area.

Furthermore, the quality of this treated water is being monitored regularly and the monitoring report is attached herewith as **Annexure 2**.



Washing Ramp with Oil and Grease Trap System

Condition ix: - Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.

Reply: - All the workers have been provided with PPEs including dust mask and dust respirators. Apart from PPEs distribution to all workers, we are also providing adequate safety training and conducting awareness session on Safety and health aspects on regular basis. Periodical Occupational health surveillance program of the workers is being carried out and records maintained as per statute.

Condition x: - A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.

Reply: - A separate environmental management cell with suitable qualified personnel has been set up under the control of a Senior Executive, who is reporting directly to the Head of the Organization. The same is being attached herewith as **Annexure - 3**.

Condition xi: - The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry and its Regional Office located at Bhubaneswar.

Reply: - Every year, the funds earmarked for environmental protection measures is being budgeted separately and its expenditure is being reported to the Ministry. The copy of

the same is attached as **Annexure - 5**. Now, the Regional Office of MoEF&CC is in Ranchi.

Condition xii: - The project authorities should inform to the Regional Office located at Bhubaneswar regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.

Reply: - It is an operational mine. Hence provisions related to financial closure is not applicable. Now, the Regional Office of MoEF&CC is in Ranchi.

Condition xiii: - The Regional Office of this Ministry located at Bhubaneswar shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.

Reply: - Agreed. Now, the Regional Office of MoEF&CC is in Ranchi.

Condition xiv: - The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the Ministry of Environment and Forests, its Regional Office Bhubaneswar, the respective Zonal Office of Central Pollution Control Board and the State Pollution Control Board. The proponent shall upload the status of compliance of the environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the Ministry of Environment and Forests, Bhubaneswar, the respective Zonal Officer of Central Pollution Control Board and the State Pollution Control Board.

Reply: - Six monthly reports on status of compliance of the stipulated environmental clearance conditions including monitoring report are being submitted to the MoEF&CC, Zonal office of CPCB & JSPCB, Ranchi and also uploaded on the website of the Hindalco's website. Now, the Regional Office of MoEF&CC is in Ranchi.

Condition xv: - The State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and the Collector's office/ Tehsildar's Office for 30 days.

Reply: - Noted. The EC Letter has been submitted to JSPCB for display of same at its Regional office and other government offices.

Condition xvi: - The environmental statement for each financial year ending 31 March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance

conditions and shall also be sent to the respective Regional Office of the Ministry of Environment and Forests, Bhubaneswar by e-mail.

Reply: - Environment statement is being submitted regularly to Member Secretary, JSPCB. Also, the status of compliance of environmental clearance conditions is being sent to MoEF&CC and JSPCB, Ranchi on regular basis. Now, the Regional Office of MoEF&CC is in Ranchi.

Condition xvii: - The project authorities should advertise at least in two local newspapers of the which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of Environment and Forests at <http://envfor.nic.in> and a copy of the same should be forwarded to the Regional Office of this Ministry located at Bhubaneswar.

Reply: - Noted and complied. The information on grant of the EC has been published in two local newspapers. The copy of the advertisement has already been submitted to the Regional Office of the MoEF&CC. Now, the Regional office of MoEF&CC is in Ranchi.

Piezometer Monitoring Report

Mine: Bimarla Bauxite Mine (134.526 Ha)

S No	Month	Ground Water Level (BGL) in meter
1	Apr-25	37.73
2	May-25	37.95
3	Jun-25	37.81
4	Jul-25	37.49
5	Aug-25	36.95
6	Sep-25	36.83



EPIC LabTech Private Limited

Address:
C/o - R.K. Tripathi, Indrapuri,
Road No. - 3, Ranchi,
Jharkhand - 834005, India.

T: 6651 4066332
M: 98357 86677
E: 93849 73994
Email: lab@epiclabtech@gmail.com

CIN: U74999IN2022PTC119885
PAN: AAHCES301YM
GST: 25AAHCES301YM12X

Accredited by:
NABL with certificate number IC-1300
Bharat Lab Accreditation Council (BLAC)
Certified by:
ISO 9001:2015 and ISO 14001:2015



TC-12887

Analytical Test Certificate

Annexure - 2

Unique Lab Report No.	TC1288725000000447	Discipline	Chemical
Report Unique ID	RL0150251806	Group	Atmospheric Pollution
Issue date/time	02.05.2025/11:54	Sub Group	Ambient Air Quality

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD,
POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA,
STATE-JHARKHAND, INDIA 835302
MONITORING SITE :BIMARLA BAUXITE MINE

Contact Person: Mr. Ankit Das
Contact Number: +91 9871034775
Email Id: ankit.das@adityabirla.com
Order Date: 05.04.2025/ 10:10
Order Number: RP/MJB/MM/25/0114/00

References of Quality Management System (Steps of Traceability Chart)

Customer Registration No.	EPIC/OTH/0150	Sample Booking Number	EPIC-251806
Sample(s) Code	251806 (A) (B) (C) (D)	Sample Receipt (D/T)	28.04.2025/10:32

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Sampling Start (D/T)	25.04.2025/ 10:26	Sampling End (D/T)	26.04.2025/ 07:34
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team

Description/condition of sample: Receipt sample(s) were fit for analysis.

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	28	Humidity %	61	Wind direction	270°-90°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Weigh Bridge	GPS coordinate	23° 17' 05.82"/84° 25' 19.25"
S. Location B	Near Quarry No 1B	GPS coordinate	23° 17' 45.37"/84° 25' 30.07"
S. Location C	Nav Prathmik Vidayataya Barang Path	GPS coordinate	23° 17' 20.07"/84° 25' 30.41"
S. Location D	Near Mine Entry Gate	GPS coordinate	23° 16' 49.80"/84° 25' 33.67"

Date(s) of performance of the laboratory activities

Test start date	28.04.2025/ 11:10	Test completion date	02.05.2025/ 10:00
-----------------	-------------------	----------------------	-------------------

-Test Result --

Sl	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Particulate Matter (PM ₁₀)	IS:5182 (P-23) 2022	µg/m ³	77.98	82.52	71.97	74.00	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	37.00	38.00	34.05	32.23	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2023	µg/m ³	68.91	68.92	68.02	68.05	60(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	23.54	23.56	22.40	23.62	60(24 hr)
5.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m ³	33.98	34.04	34.68	33.82	180(1 hr)
6.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	44.46	43.60	40.76	42.04	400(24 hr)
7.	Lead (Pb)	IS:5182 (P-22) 2019	µg/m ³	BDL	BDL	BDL	BDL	1.0(24 hr)
8.	Nickel (Ni)	IS:5182 (P-26) 2020	ng/m ³	(MDL-0.1)	(MDL-0.1)	(MDL-0.1)	(MDL-0.1)	-
9.	Arsenic (As)	USEPA ID 3.2:1999	ng/m ³	BDL	BDL	BDL	BDL	-

--Test Result End --

Prescribed Limit: Environmental (Protection) Rules-1986, Schedule VII.
Operational Status: Unit was Operational During sampling.

Checked by
(R.N. Kumar)
Technical Head

Verified Issue by
(Brijesh Das)
Laboratory Head



EPIC LabTech Private Limited

Address:
C/o - R.K. Tripathi, Indrapuram
Road No - S. Ranchi,
Jharkhand - 834005, India

Tel: 0651 4446292
98351 88477
93049 23894
epiclabtech@gmail.com

CIN - U74999IN2022PTC018683
PAN - AAHCE2611M
GST - 25AAHCE2611M123

Accredited by -
Jharkhand State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 17025:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0150251806	Group	Atmospheric Pollution
Issue date/time	02.05.2025/11:54	Sub Group	Ambient Air Quality

Report Issue to M/s - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE: BIMARLA BAUXITE MINES	Contact Person Mr. Ankit Das
	Contact Number +91 9971034775
	Email Id ankit.das@adityabirla.com
	Order Date 05.04.2025/ 10:10
	Order Number RP/MJB/MM/25/0114/00

References of Quality Management System	Step of Traceability Detail
---	-----------------------------

Customer Registration No.	EPIC/OTH/0150	Sample Booking Number	EPIC-251806
Sample(s) Code	251806 (A) (B) (C) (D)	Sample Receipt (D/T)	26.04.2025/10:32

Sampling References			
----------------------------	--	--	--

Type of industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Sampling Start (D/T)	25.04.2025/ 10:26	Sampling End (D/T)	26.04.2025/ 07:34
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling							
Weather condition	Clear	Temperature (°C)	29	Humidity %	61	Wind direction	270°-90°

Sampling Location(s) with GPS coordinate(s)						
S. Location A	Near Weigh Bridge	GPS coordinate	23° 17' 05.82" / 84° 25' 19.26"			
S. Location B	Near Quarry No 1B	GPS coordinate	23° 17' 45.37" / 84° 25' 30.07"			
S. Location C	Nav Prathmik Vidyalayya Barang Path	GPS coordinate	23° 17' 20.07" / 84° 25' 30.41"			
S. Location D	Near Mine Entry Gate	GPS coordinate	23° 18' 49.80" / 84° 25' 33.67"			

Date(s) of performance of the laboratory activities						
Test start date	26.04.2025/ 11:10	Test completion date	02.05.2025/ 10:00			

-Test Result -

Sl.	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Benzene (C ₆ H ₆)	IS:5182(P-11) 2006	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
2.	Benzo (a) Pyrene (Bap)- Particulate phase only	IS:5182(P-12) 2004	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
3.	Carbon Monoxide (CO)	EPIC/LAB/SDP/API/01/00	mg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-

-Test Result End -

Prescribed Limit	Environmental (Protection) Rules-1986, Schedule VI.
Operational Status	Unit was Operational During sampling.



Checked by
(R.K. Kumar)
Technical Head

Verified By
(Ankit Das)
Laboratory Head



Page 1 of 1

Contractual Notes : 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's permanent facility, at specific environmental condition as method required and results relate only to the sample tested in prescribed Date & time. 3. The test report shall not be reproduced full or in part & can't be used as proof in the court of law. 4. Any complaint about this report should be communicated in writing within 30 days of its issue. 5. Test facility of EPIC LabTech Pvt. Ltd. will be opened to inspection at any time. 6. All disputes are subjected to Ranchi Jurisdiction and maximum liability of the laboratory does not exceed the testing and sampling charges. 7. Operator does not imply endorsement of the tested product by laboratory. Under no circumstances, laboratory accepts any claim by use or misuse of this report. 8. When the results are from external provider are marked as * mark.
Definitions: - BDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LoQ (Limit of Quantitation).



Analytical Test Certificate

Unique Lab Report No.	TC1288725000000448	Discipline	Chemical					
Report Unique ID	RL0150251807	Group	Atmospheric Pollution					
Issue date/time	02.05.2025/11:56	Sub Group	Ambient Air Quality					
Report Issue to								
M/s - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE: BIMARLA BAUXITE MINE	Contact Person Mr. Ankit Das	Contact Number +91 9971034775	Email Id ankit.das@adityabirla.com					
	Order Date 05.04.2025/ 10:10	Order Number RP/MJB/MM/25/0114/00						
References of Quality Management System (Steps of Traceability Data)								
Customer Registration No.	EPIC/OTH/0150	Sample Booking Number	EPIC-251807					
Sample(s) Code	251807 (A) (B) (C) (D)	Sample Receipt (D/T)	28.04.2025/10:38					
Sampling References								
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036					
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)							
Sampling Start (D/T)	26.04.2025/ 11:15	Sampling End (D/T)	27.04.2025/ 08:00					
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team					
Description/condition of sample	Receipt sample(s) were fit for analysis.							
Environmental Condition during sampling								
Weather condition	Clear	Temperature (°C)	28					
		Humidity %	62					
		Wind direction	270° 90°					
Sampling Location(s) with GPS coordinate(s)								
S. Location A	Near Korle Village	GPS coordinate	23° 17' 26.81" / 84° 25' 55.18"					
S. Location B	Near Barang Village	GPS coordinate	23° 16' 32.45" / 84° 25' 12.72"					
S. Location C	Near Ghaghra Village	GPS coordinate	23° 16' 55.88" / 84° 23' 36.22"					
S. Location D	Near Bimaria Village	GPS coordinate	23° 17' 05.62" / 84° 23' 25.75"					
Date(s) of performance of the laboratory activities								
Test start date	28.04.2025/ 11:00	Test completion date	02.05.2025/ 10:00					
--Test Result--								
Sl.	Test Parameters	Method used	Unit	A	B	C	D	Limits
1.	Particulate Matter (PM ₁₀)	IS:5182 (P-23) 2022	µg/m ³	67.01	67.91	68.99	67.97	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	30.02	29.17	29.77	29.92	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2023	µg/m ³	07.02	07.06	07.08	07.12	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	21.89	20.84	20.91	19.85	80(24 hr)
5.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m ³	31.82	30.56	30.52	29.66	180(1 hr)
6.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	41.29	39.91	39.86	39.28	400(24 hr)
7.	Lead (Pb)	IS:5182 (P-22) 2019	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	1.0(24 hr)
8.	Nickel (Ni)	IS:5182 (P-26) 2020	ng/m ³	BDL (MDL-0.3)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	
9.	Arsenic (As)	USEPA 10.3.2:1999	ng/m ³	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	
--Test Result End--								

Prescribed Limit
Operational Status
Analysed by - LC/OMAEnvironmental (Protection) Rules-1986, Schedule VII.
Unit was Operational During sampling.Checked by
(E.K. Kumar)
Technical Head
Verified & Signed by
(Ankit Das)
Laboratory Head

EPIC LabTech Private Limited



Address:
C/o - R.K. Tripathi, Indrapuri
Road No. - S. Ranchi,
Jharkhand - 834005, India

T. 0651 4666392
38357 88677
93849 71594
epiclabtech@gmail.com

CIN - U74899JH2022PTC019623 | Accredited by -
PAN - AAHCE2811M
GST - 28RAHCE3817M123

Bank of India, Polaban Currec, Jharkhand
Certified by -
ISO 9001:2015 and ISO 17025:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0150251807	Group	Atmospheric Pollution
Issue date/time	02.05.2025/11:56	Sub Group	Ambient Air Quality

Report Issue to M/s - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA-835302 MONITORING SITE: BIMARLA BAUXITE MINE	Contact Person Mr. Ankit Das
	Contact Number +91 9971034775
	Email Id ankit.das@adityabirla.com
	Order Date 05.04.2025/ 10:10
	Order Number RP/MJB/MM/25/0114/00

References of Quality Management System (Steps of Traceability Detail)

Customer Registration No.	EPIC/OTH/0150	Sample Booking Number	EPIC-251807
Sample(s) Code	251807 (A) (B) (C) (D)	Sample Receipt (D/T)	28.04.2025/10:38

Sampling References			
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Sampling Start (D/T)	28.04.2025/ 11:15	Sampling End (D/T)	27.04.2025/ 08:00
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling	Clear	Temperature (°C)	28	Humidity %	62	Wind direction	270°-90°
Weather condition	Clear	Temperature (°C)	28	Humidity %	62	Wind direction	270°-90°

Sampling Location(s) with GPS coordinate(s)			
5. Location A	Near Korie Village	GPS coordinate	23° 17' 26.81" / 84° 25' 55.18"
5. Location B	Near Barang Village	GPS coordinate	23° 16' 32.45" / 84° 25' 12.72"
5. Location C	Near Ghaghra Village	GPS coordinate	23° 16' 55.88" / 84° 23' 36.22"
5. Location D	Near Bimaria Village	GPS coordinate	23° 17' 05.62" / 84° 23' 25.75"

Date(s) of performance of the laboratory activities			
Test start date	28.04.2025/ 11:00	Test completion date	02.05.2025/ 10:00

--Test Result--

Sl	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Benzene (C ₆ H ₆)	IS:5182(P-13) 2006	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
2.	Benzo (a) Pyrene (Bap)- Particulate phase only	IS:5182(P-12) 2004	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
3.	Carbon Monoxide (CO)	EPIC/LAB/SOP/AP/01/00	mg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-

--Test Result End--

Prescribed Limit	Environmental (Protection) Rules-1986, Schedule VII.
Operational Status	Unit was Operational During sampling.

Analyzed by - A. S. Das

Checked by
(A. S. Das)
Technical Head

Test Result Review by
(A. S. Das)
Laboratory Head



Address:
C/o - R.K. Tripathi, Indrapuri,
Road No - S. Ranchi,
Jharkhand - 834005, India

Tel: 0681 4046282
98357 80677
93049 73994
epiclabtech@gmail.com

CIN: U74999JH2022PTC010681
RAJU-RAHCE3811M12X
GST: 25AAHCE3811M12X

Associated by:
Raju-Aditya Biria Institute, TC-12887
Panjab State Pollution Control Board
Certified by:
ISO 9001:2015 and ISO 45001:2018

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000449	Discipline	Chemical
Report Unique ID	RL0150251808	Group	Water
Issue date/time	02.05.2025/11:58	Sub Group	Drinking Water

Report Issue to:

M/s - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE: BIMARLA BAUXITE MINE	Contact Person	Mr. Ankit Das
	Contact Number	+91 9971034775
	Email Id	ankit.das@adityabiria.com
	Order Date	05.04.2025/ 10:10
	Order Number	RP/MJB/MM/25/0114/00

References of Quality Management System Chapt of Traceability Chart

Customer Registration No.	EPIC/OTH/0150	Sample Booking Number	EPIC-251808
Sample(s) Code	251808	Sample Receipt (D/T)	28.04.2025/ 10:41

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Sampling Start (D/T)	26.04.2025/ 14:15	Sampling End (D/T)	26.04.2025/ 14:30
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	29	Humidity %	61	Wind direction	270°/90°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)	GPS coordinate
S. Location A Near Mines Office	23° 17' 03.63" / 84° 25' 19.17"

Date(s) of performance of the laboratory activities

Test start date	26.04.2025/ 10:55	Test completion date	02.05.2025/ 10:30
-----------------	-------------------	----------------------	-------------------

--Test Result --

Sl.	Test Parameters	Method used	Unit	Results	Limits	
					Acceptable Limit	Permissible limit
1.	pH value at 25°C	IS 3025 (P-11) 2022	-	6.95	6.5-8.5	No relaxation
2.	Turbidity	IS 3025 (P-10) 1984	NTU	0.52	1	5
3.	Colour	IS 3025 (P-04) 2021	Hazen	<5	5	15
4.	Odour	IS 3025 (P-05) 2018	-	Agreeable	Agreeable	Agreeable
5.	Taste	IS 3025 (P-07) 2017	-	Agreeable	Agreeable	Agreeable
6.	Total Dissolved Solids (TDS)	IS 3025 (P-16) 2023	mg/l	197.00	500	2000
7.	Chloride (as Cl)	IS 3025 (P-32) 2019	mg/l	20.69	250	1000
8.	Total Alkalinity(as CaCO ₃)	IS 3025 (P-23) 2019	mg/l	150.00	200	800
9.	Total Hardness (as CaCO ₃)	IS 3025 (P-21) 2009	mg/l	176.0	200	800
10.	Calcium (as Ca)	IS 3025 (P-40) 1991	mg/l	51.30	75	200
11.	Free Residual Chlorine	IS 3025 (P-26) 1986	mg/l	BDL(MDL-0.4)	0.2	1
12.	Sulphate (as SO ₄)	IS 3025 (P-24/Sec-1) 2022	mg/l	03.80	200	400
13.	Nitrate (as NO ₃)	APHA 4500 B 2023	mg/l	01.98	40	No relaxation
14.	Phenolic Compound	IS 3025 (P-43/Sec-1) 2022	mg/l	BDL(MDL-0.001)	0.001	0.002
15.	Magnesium (as Mg)	APHA 3500 Mg E 2023	mg/l	11.55	30	100



EPIC LabTech Private Limited

Address:
C/o - R.K. Tripathi, Indrapuri,
Road No. - 3, Ranchi,
Jharkhand - 834003, India

Tel: 0651 4066252
98357 80677
93849 21594
epiclabtech@gmail.com

CIN: U74990JH2022PTC015683 Accredited by -
NABL, ISO certificate Number IC-12887
National Accreditation Board for
Laboratory and Quality Control Board
Certified by -
ISO 9001:2015 and ISO 17025:2018



TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC128872500000449	Discipline	Chemical		
Report Unique ID	RL0150251808	Group	Water		
Issue date/time	02.05.2025/11:58	Sub Group	Drinking Water		
Report Issue to					
M/s - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302		Contact Person	Mr. Ankit Das		
		Contact Number	+91 9971034775		
		Email Id	ankit.das@adityabirla.com		
		Order Date	05.04.2025/ 10:10		
		Order Number	RP/MJB/MM/25/0114/00		
Group - Residues and Contaminants in Water			Sub Group- Trace Metals Elements		
16. Copper(as Cu)	APHA 3111 B 2023	mg/l	BDL(MDL-0.2)	0.05	1.5
17. Iron (as Fe)	APHA 3111 B 2023	mg/l	BDL(MDL-0.1)	1.0	No relaxation
18. Lead (as Pb)	APHA 3111 B 2023	mg/l	BDL(MDL-0.01)	0.01	No relaxation
19. Cadmium (as Cd)	APHA 3111 B 2023	mg/l	BDL(MDL-0.003)	0.003	No relaxation
20. Total Chromium (as Cr)	APHA 3111 B 2023	mg/l	BDL(MDL-0.05)	0.05	No relaxation
21. Nickel (as Ni)	APHA 3111 B 2023	mg/l	BDL(MDL-0.02)	0.02	No relaxation
22. Total Arsenic (as As)	APHA 3114 B 2023	mg/l	BDL(MDL-0.005)	0.01	0.05
23. Selenium (as Se)	APHA 3114 B 2023	mg/l	BDL(MDL-0.005)	0.01	No relaxation
24. Manganese (as Mn)	APHA 3111 B 2023	mg/l	BDL(MDL-0.00)	0.1	0.3
25. Zinc(as Zn)	APHA 3111 B 2023	mg/l	BDL(MDL-0.04)	5	15

-Test Result End -

Prescribed Limit

IS 10500:2021

Operational Status

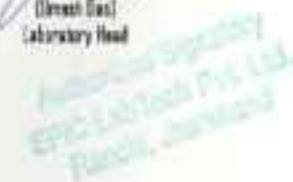
Unit was Operational During sampling.

Analyzed by - Pratik Kumar/ Ankit Das



Chaired by
(P.K. Kumar)
Technical Head

Verified & Issued by
(Ankit Das)
Laboratory Head



Page 2 of 2

Contracted Note: 1. The laboratory accepts responsibility for content of this report | 2. Test performed at laboratory's permanent facility at specific environmental condition as method required and results relate only to the sample tested in prescribed date & time | 3. The Test report shall not be reproduced full or in part & can't be used as proof in the court of law | 4. Any complaint about this report should be communicated in writing within 10 days of its issue | 5. Test facility of EPIC LabTech Pvt. Ltd. will be denied to inspect and assess only | 6. All disputes are subjected to Ranchi jurisdiction and maximum liability of the laboratory does not exceed the testing and sampling charges | 7. Owner does not supply end-use/ end-user of the tested product by laboratory. Under no circumstances, laboratory accepts any cause by use or misuse of this report | 8. When the results are from external provider are marked as "mark".

Abbreviations: BDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LoQ (Limit of Quantification)



EPIC LabTech Private Limited

Address:
C/o - R.R. Tripathi, Indusquare,
Road No. - S. Bunder,
Jharkhand - 835005, India

Tel: 06531 4666332
98357 86477
93949 73594
epiclabtech@gmail.com

CIN: U74999JH2022PTC019623
PAN: AAHCE3411M
GST: 28RAHCE361YM23

Accredited by
National Lab Accreditation Board
Certified by -
ISO 9001:2015 and ISO 17025:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0150251806	Group	Water
Issue date/time	02.05.2025/11:58	Sub Group	Drinking Water

Report Issue to

M/s - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE : BIMARLA BAUXITE MINE	Contact Person	Mr. Ankit Das
	Contact Number	+91 9971034775
	Email Id	ankit.das@adityabirla.com
	Order Date	05.04.2025/ 10:10
	Order Number	RP/MJB/MM/25/0114/00

References of Quality Management System (Steps of Traceability Detail)

Customer Registration No.	EPIC/OTH/0150	Sample Booking Number	EPIC-251806
Sample(s) Code	251806	Sample Receipt (D/T)	28.04.2025/10:41

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Sampling Start (D/T)	26.04.2025/ 14:15	Sampling End (D/T)	26.04.2025/ 14:30
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	29	Humidity %	61	Wind direction	270°-90°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Mines Office	GPS coordinate	23° 17' 03.83" / 84° 25' 19.17"
---------------	-------------------	----------------	---------------------------------

Data(s) of performance of the laboratory activities

Test start date	28.04.2025/ 10:55	Test completion date	02.05.2025/ 10:30
-----------------	-------------------	----------------------	-------------------

-Test Result -

Sl.	Test Parameters	Method used	Unit	Results	Limits	
					Acceptable Limit	Permissible limit
1.	Fluoride (as F)	APHA 4500 F-C 2023	mg/l	BDL(MDL-0.1)	1.0	1.5
Group-Residues and Contaminants in Water						
2.	Aluminum	IS 3025 (P-55):2019	mg/l	BDL(MDL-0.1)	0.03	0.2
3.	Boron	IS 3025 (P-57):2021	mg/l	BDL(MDL-0.1)	0.5	1.0
4.	Polychlorinated biphenyls	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.2)	0.5	No relaxation
5.	Polynuclear Aromatic Hydrocarbons (PAH)	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.05)	0.1	No relaxation
Group-Residues and Contaminants in Water						
6.	Alachlor	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	20	No relaxation
7.	Atrazine	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	2.0	No relaxation
8.	Dieldrin	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.02)	0.03	No relaxation
9.	Alpha HCH	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.005)	0.01	No relaxation
10.	Beta HCH	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.02)	0.04	No relaxation
11.	Butachlor	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	125.0	No relaxation
12.	Chloryrifos	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	30.0	No relaxation
13.	Delta HCH	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.02)	0.04	No relaxation
14.	Ethion	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	3.0	No relaxation

Page 1 of 2

Important Notes : 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's premises facility, at specific environmental condition as method required and results relate only to the sample tested as prescribed date & time. 3. The Test report shall not be reproduced full or in part & can't be used as proof in the court of law. 4. Any complaint about this report should be communicated in writing within 10 days of its issue. 5. Total liability of EPIC LabTech Pvt. Ltd. will be limited to incurred amount only. 6. All diagrams are subject to Indian Jurisdiction and maximum liability of the laboratory does not exceed the testing and sampling charges. 7. Client does not imply endorsement of the tested product by laboratory. Under no circumstances, laboratory accepts any legal responsibility or action of this report. 8. When the results are from external provider see mark or * mark. 9. Abbreviations - BDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LoQ (Limit of Quantification).



EPIC LabTech Private Limited

Address:
C/o - R.R. Tripathi, Indrapuri,
Road No. - 5, Ranchi,
Jharkhand - 834005, India

T: 0631-4656282

38337 88677

93049 73994

epiclabtech@gmail.com

CIN - U74999JH2022PTC016981

PAN - AAHC3811M

GST - 25AAHC3811M125

Accredited by -

Jharkhand State Pollution Control Board

Certified by -

ISO 9001:2015 and ISO 17025:2017

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0150251808	Group	Water
Issue date/time	02.05.2025/11:56	Sub Group	Drinking Water

Report Issue to

M/s - MINERALS & MINERALS LIMITED

VILLAGE-COURT ROAD,
POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA,
STATE-JHARKHAND, INDIA 835302

MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person

Mr. Ankit Das

Contact Number

+91 9971034775

Email Id

ankit.das@adityabiria.com

Order Date

05.04.2025/ 10:10

Order Number

RP/MJB/MM/25/0114/00

15. Gamma-HCH(Lindane)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	2.0	No relaxation
16. Malathion	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	190.0	No relaxation
17. Methyl parathion	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.2)	0.3	No relaxation
18. Monocrotophos	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	1.0	No relaxation
19. Phorate	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	2.0	No relaxation
20. DDT (o, p and p, p-isomer of DDT, DDE and DDD)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	1.0	No relaxation
21. Endosulfan (alpha, beta, and sulphate)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.05)	0.4	No relaxation

--Test Result End--

Prescribed Limit

IS 10600:2021

Operational Status

Unit was Operational During sampling.

Analyzed by - Prerna Kumar/ Ankit Das

Checked by
(E.N. Kumar)
Technical Head
Verified & issued by
(Ankit Das)
Laboratory Head



Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Biological
Report Unique ID	RL0150251809	Group	Water
Issue date/time	02.05.2025/12:02	Sub Group	Drinking Water

Report Issue to

M/S - MINERALS & MINERALS LIMITED
 VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
 DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: BIMARLA BAUXITE MINE

Contact Person
 Mr. Ankit Das
 Contact Number
 +91 9971034775
 Email Id
 ankit.das@adityabiria.com
 Order Date
 05.04.2025/ 10:10
 Order Number
 RP/MJB/MM/25/0114/00

References of Quality Management System (3 step of Traceability Data)

Customer Registration No.	EPIC/OTH/0150	Sample Booking Number	EPIC-251809
Sample(s) Code	251809	Sample Receipt (D/T)	28.04.2025/ 10:45

Sampling References

Type of industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling method used	IS : 3025 (Part-1) 1987, R-2003& IS 1622 1981		
Sampling Start (D/T)	28.04.2025/ 14:15	Sampling End (D/T)	28.04.2025/ 14:30
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	29	Humidity %	61	Wind direction	270°-90°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Mines Office	GPS coordinate	23° 17' 03.83" / 84° 25' 19.17"
---------------	-------------------	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	28.04.2025/ 10:55	Test completion date	02.05.2025/ 10:30
-----------------	-------------------	----------------------	-------------------

-Test Result -

Sl.	Test Parameters	Method used	Unit	Results	Limits
1.	Total Coliform	IS 15185 2002	Per 100 ml	Not Detected	Shall not be detectable in any 100 ml sample
2.	E.Coli	IS 15185 2002	Per 100 ml	Not Detected	

-Test Result End -

Prescribed Limit: IS 10500-2021

Operational Status: Unit was Operational During sampling.

Analyzed by - *Rakesh Kumar/Asst. Head*

 Checked by
 (R.K. Kumar)
 Technical Head


 Verified & Issued by
 (Ankit Das)
 Laboratory Head




Address:
C/o - R.K. Tripathi, Indrapuri,
Road No. - 5, Ranchi,
Jharkhand - 834003, India

Tel: 0651 4669382
98357 86077
93049 73994
epiclabtech@gmail.com

CIN: U74390JH2022PTC019685 Accredited by:
ISO 9001:2015 Registration Number: IC-13007
Issued from Aditya Biria, Gurukul Kangri, Varanasi
Certified by:
ISO 9001:2015 and ISO 45001:2018

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000450	Discipline	Chemical
Report Unique ID	RL0150251810	Group	Water
Issue date/time	02.05.2025/12:04	Sub Group	Ground Water

Report Issue to M/s - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE: BIMARLA BAUXITE MINE	Contact Person Mr. Ankit Das
	Contact Number +91 9971034775
	Email Id ankit.das@adityabiria.com
	Order Date 05.04.2025/ 10:10
	Order Number RP/MUB/MM/25/0114/00

References of Quality Management System (Steps of Traceability Data)

Customer Registration No.	EPIC/OTH/0150	Sample Booking Number	EPIC-251810
Sample(s) Code	251810	Sample Receipt (D/T)	28.04.2025/10:45

Sampling References			
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling method used	IS: 3025 (Part-1) 1987, R-2003		
Sampling Start (D/T)	26.04.2025 /16:00	Sampling End (D/T)	26.04.2025 / 16:15
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling							
Weather condition	Clear	Temperature (°C)	29	Humidity %	61	Wind direction	270°-90°

Sampling Location(s) with GPS coordinate(s)			
S. Location A	Nav Prathmik Vidyalaya Barong Path	GPS coordinate	23° 17' 22.57" / 84° 25' 28.81"

Date(s) of performance of the laboratory activities			
Test start date	26.04.2025/ 10:55	Test completion date	02.05.2025/ 10:30

-Test Result -

Sl.	Test Parameters	Method used	Unit	Results	Limits	
					Acceptable Limit	Permissible limit
1.	pH value at 25°C	IS 3025 (P-11) 2022	-	6.69	6.5-8.5	No relaxation
2.	Turbidity	IS 3025 (P-10) 1984	NTU	0.80	1	5
3.	Colour	IS 3025 (P-04) 2021	Hazen	<5	5	15
4.	Odour	IS 3025 (P-05) 2018	-	Agreeable	Agreeable	Agreeable
5.	Taste	IS 3025 (P-07) 2017	-	Agreeable	Agreeable	Agreeable
6.	Total Dissolved Solids (TDS)	IS 3025 (P-16) 2023	mg/l	258.00	500	2000
7.	Chloride (as Cl)	IS 3025 (P-32) 2019	mg/l	23.65	250	1000
8.	Total Alkalinity(as CaCO ₃)	IS 3025 (P-23) 2019	mg/l	192.00	200	600
9.	Total Hardness (as CaCO ₃)	IS 3025 (P-21) 2009	mg/l	202.00	200	600
10.	Calcium (as Ca)	IS 3025 (P-40) 1991	mg/l	55.31	75	200
11.	Free Residual Chlorine	IS 3025 (P-26) 1986	mg/l	BDL(MDL-0.4)	0.2	1
12.	Sulphate (as SO ₄)	IS 3025 (P-24/Sec-1)2022	mg/l	5.00	200	400
13.	Nitrate (as NO ₃)	APHA 4500 N 2023	mg/l	2.16	45	No relaxation
14.	Phenolic Compound	IS 3025 (P-43/Sec-1) 2022	mg/l	BDL(MDL-0.001)	0.001	0.002
15.	Magnesium (as Mg)	APHA 3500 Mg E 2023	mg/l	15.55	30	100



EPIC LabTech Private Limited



Address:
C/o - S.K. Tilgachhi, Indrapuri
Road No. - S. Ranchi,
Jharkhand - 834005, India

T. 0651 4666292
98337 80677
93849 71994
epiclabtech@gmail.com

CIN - U14999JH2022PTC019683
PAN - AAHCE3811M
GST - 25AAHCE3811M12X

Assured by :
1448, 10th Floor, Sector 10, Gurgaon
Haryana, India - 122001
Certified by :
ISO 9001:2015 and ISO 45001:2018

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000450	Discipline	Chemical
Report Unique ID	RL0150251810	Group	Water
Issue date/time	02.05.2025/12:04	Sub Group	Ground Water

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD,
POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA,
STATE-JHARKHAND, INDIA 835302
MONITORING SITE: BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
05.04.2025/ 10:10
Order Number
RP/MJB/MM/25/0114/00

Group - Residues and Contaminants in Water

Sub Group- Trace Metals Elements

16. Copper(as Cu)	APHA 3111 B 2023	mg/l	BDL(MDL-0.2)	0.05	15
17. Iron (as Fe)	APHA 3111 B 2023	mg/l	BDL(MDL-0.1)	1.0	No relaxation
18. Lead (as Pb)	APHA 3111 B 2023	mg/l	BDL(MDL-0.01)	0.01	No relaxation
19. Cadmium (as Cd)	APHA 3111 B 2023	mg/l	BDL(MDL-0.003)	0.003	No relaxation
20. Total Chromium (as Cr)	APHA 3111 B 2023	mg/l	BDL(MDL-0.05)	0.05	No relaxation
21. Nickel (as Ni)	APHA 3111 B 2023	mg/l	BDL(MDL-0.02)	0.02	No relaxation
22. Total Arsenic (as As)	APHA 3114 B 2023	mg/l	BDL(MDL-0.005)	0.01	0.05
23. Selenium (as Se)	APHA 3114 B 2023	mg/l	BDL(MDL-0.005)	0.01	No relaxation
24. Manganese (as Mn)	APHA 3111 B 2023	mg/l	BDL(MDL-0.08)	0.1	0.3
25. Zinc(as Zn)	APHA 3111 B 2023	mg/l	BDL(MDL-0.04)	5	15

-Test Result End -

Prescribed Limit: IS 10500:2021

Operational Status: Unit was Operational During sampling.

Analyzed by - Pratik Kumar / Ankit Kumar



Checked by
(Pratik Kumar)
Technical Head

Further Checked by
(Ankit Kumar)
Laboratory Head

Authorised Signature
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0150251810	Group	Water
Issue date/time	02.05.2025/12:04	Sub Group	Ground Water

Report Issue to:

MM/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD,
POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA,
STATE-JHARKHAND, INDIA 835302
MONITORING SITE: BIMARLA BAUXITE MINE

Contact Person: Mr. Ankit Das
 Contact Number: +91 9971034775
 Email Id: ankit.das@adityabirla.com
 Order Date: 05.04.2025/ 10:10
 Order Number: RP/MJB/MM/25/0114/00

References of Quality Management System (Copy of Traceability Data)

Customer Registration No.	EPIC/OTH/0150	Sample Booking Number	EPIC/251810
Sample(s) Code	251810	Sample Receipt (D/T)	26.04.2025/10:45

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Sampling Start (D/T)	26.04.2025/16:00	Sampling End (D/T)	26.04.2025/ 16:15
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	29	Humidity %	61	Wind direction	270°-90°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Nav Prathmik Vidyalaya Barsing Path	GPS coordinate	23° 17' 22.57" N 84° 25' 28.81" E
---------------	-------------------------------------	----------------	-----------------------------------

Date(s) of performance of the laboratory activities

Test start date	26.04.2025/ 10:56	Test completion date	02.05.2025/ 10:30
-----------------	-------------------	----------------------	-------------------

--Test Result--

SL	Test Parameters	Method used	Unit	Results	Limits	
					Acceptable Limit	Permissible limit
1.	Fluoride (as F)	APHA 4500 F-C 2023	mg/l	BDL(MDL-0.1)	1.0	1.5
Group-Residues and Contaminants in Water						
2.	Aluminum	IS 3025 (P-55):2019	mg/l	BDL(MDL-0.1)	0.03	0.2
3.	Boron	IS 3025 (P-57):2021	mg/l	BDL(MDL-0.1)	0.5	1.0
4.	Polychlorinated biphenyls	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.2)	0.5	No relaxation
5.	Polynuclear Aromatic Hydrocarbons (PAH)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.05)	0.1	No relaxation
Group-Residues and Contaminants in Water						
6.	Aalachlor	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	20	No relaxation
7.	Atrazine	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	2.0	No relaxation
8.	Dieldrin	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.02)	0.03	No relaxation
9.	Alpha HCH	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.005)	0.01	No relaxation
10.	Beta HCH	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.02)	0.04	No relaxation
11.	Butachlor	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	125.0	No relaxation
12.	Chloryrifos	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	30.0	No relaxation
13.	Delta HCH	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.02)	0.04	No relaxation
14.	Ethion	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	3.0	No relaxation

Page 1 of 2

Contractual Notes : 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's permanent facility, at specific environmental conditions as method required and results made only to the sample tested in prescribed date & time. 3. The Test report shall not be reproduced, full or in part & except licensed as per the terms of law. 4. Total liability of EPIC LabTech Pvt. Ltd. will be limited to licensed amount only. 5. All samples are subjected to basic justification and maximum liability of the laboratory does not exceed the testing and sampling charges. 6. Ocular does not imply enhancement of the tested product by laboratory. Under no circumstances, laboratory accepts any caused by use or misuse of this report. 7. When the results are from external provider are marked as * mark. 8. BDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LoQ (Limit of Quantitation). 9. All the results are expressed in mg/l.



Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0150251810	Group	Water
Issue date/time	02.05.2025/12:04	Sub Group	Ground Water

Report Issue to

MM/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD,
POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA,
STATE-JHARKHAND, INDIA 835302
MONITORING SITE: BIMARLA BAUXITE MINE

Contact Person: Mr. Ankit Das
Contact Number: +91 9971034775
Email Id: ankit.das@adityabirla.com
Order Date: 05.04.2025/ 10:10
Order Number: RP/MJB/MM/25/0114/00

15. Gamma- HCH(Lindane)	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(HDL-0.5)	2.0	No relaxation
16. Malathion	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(HDL-0.5)	190.0	No relaxation
17. Methyl parathion	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(HDL-0.2)	0.3	No relaxation
18. Monocrotophos	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(HDL-0.5)	1.0	No relaxation
19. Phorate	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(HDL-0.5)	2.0	No relaxation
20. DDT (o, p and p, p-isomer of DDT, DDE and DDD)	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(HDL-0.5)	1.0	No relaxation
21. Endosulfan (alpha, beta, and sulphate)	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(HDL-0.05)	0.4	No relaxation

--Test Result End--

Prescribed Limit: IS 10500:2021

Operational Status: Unit was Operational During sampling.

Analyzed by -Prerna Kumar/ Ankur Kumar


 Checked by
(E.N. Kumar)
Technical Head


 Verified issued by
(Ankit Das)
Laboratory Head

 EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand




Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Biological		
Report Unique ID	RL0150251811	Group	Water		
Issue date/time	02.05.2025/12:06	Sub Group	Ground Water		
Report Issue to		Contact Person	Mr. Ankit Das		
M/S - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE: BIMARLA BAUXITE MINE		Contact Number	+91 9971034775		
		Email Id	ankit.das@adityabiria.com		
		Order Date	05.04.2025/ 10:10		
		Order Number	RP/MJB/MM/25/0114/00		
References of Quality Management System (Copy of Inceasity Document)					
Customer Registration No.	EPIC/OTH/0150	Sample Booking Number	EPIC-251811		
Sample(s) Code	251811	Sample Receipt (D/T)	28/04/2025/10:46		
Sampling References					
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036		
Sampling method used	IS : 3025 (Part-1) 1987, R-2003& IS 1622 1981				
Sampling Start (D/T)	26.04.2025 /16:00	Sampling End (D/T)	26.04.2025 / 16:15		
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team		
Description/condition of sample	Receipt sample(s) were fit for analysis.				
Environmental Condition during sampling					
Weather condition	Clear	Temperature (°C)	29		
		Humidity %	61		
		Wind direction	270°-90°		
Sampling Location(s) with GPS coordinate(s)					
S. Location A	Nav Prathmik Vidyalaya Barang Path				
	GPS coordinate				
Details of performance of the laboratory activities					
Test start date	28.04.2025/ 10:56	Test completion date	02.05.2025/ 10:30		
--Test Result--					
Sl.	Test Parameters	Method used	Unit	Results	Limits
1.	Total Coliform	IS 15185 2002	Per 100 ml	Not Detected	Should not be detectable in any 100 ml sample
2.	E.Coli	IS 15185 2002	Per 100 ml	Not Detected	
--Test Result End--					

Prescribed Limit IS 10500/2021

Operational Status Unit was Operational During sampling.

Analysed by -Prakash Kumar/ Akash Kumar


 Checked by
(P. Kumar)
Technical Head


 Verified & Issue by
(Ankit Das)
Laboratory Head
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand




EPIC LabTech Private Limited



Address:
C/o - R.K. Trigemini, Indira Nagar,
Road No. - 5, Ranchi,
Jharkhand - 834005, India

T. 0651 406297
M. 98357 66677
E. 93869 73994
G. epiclabtech@gmail.com

CIN - U74999IN2020PTC088885
Regd. - AAHC361TM
GST - 23AAHC361TM123

Assessed by -
NABL, Lab certificate number IC-12887
Particulars: ISO/IEC 17025:2017
Certified by -
ISO 9001:2015 and ISO 17025:2018

TC-12887

Analyst/Test Certificate

Unique Lab Report No.	TC1288725000000628	Discipline	Chemical
Report Unique ID	RLD1832621118	Group	Atmospheric Pollution
Issue date/time	27.05.2025/ 10:42	Sub Group	Ambient Air Quality

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST - LOHARDAGA, STATE - JHARKHAND, INDIA 835302
MONITORING SITE: BIMARLA BAUXITE MINE

Contact Person
Contact Number
Email Id
Order Date
Order Number

Mr. Ankit Das
+91 9971034775
ankit.das@badityabiria.com
06.04.2025/ 10:10
RP/M/8/MM/25/0114/00

References of Quality Management System (Scope of Traceability Chart)

Customer Registration No.	EPIC/OTH/0183	Sample Booking Number	EPIC-2521118
Sample(s) Code	2521118 (A) (B) (C) (D)	Sample Receipt (D/T)	23.05.2025/ 11:48

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	20.05.2025/ 11:30	Sampling End (D/T)	21.05.2025/ 08:00
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Description/condition of sample		Receipt sample(s) were fit for analysis.	

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	31	Humidity %	48	Wind direction	20°-200°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Weigh Bridge	GPS coordinate	23° 17' 05.82" / 84° 25' 19.25"
S. Location B	Near Quarry No 18	GPS coordinate	23° 17' 45.37" / 84° 25' 30.07"
S. Location C	Near Prathmik Vidyalaya Barang Path	GPS coordinate	23° 17' 20.07" / 84° 25' 30.41"
S. Location D	Near Mine Entry Gate	GPS coordinate	23° 18' 49.80" / 84° 25' 33.67"

Date(s) of performance of the laboratory activities

Test start date	23.05.2025/ 11:55	Test completion date	26.05.2025/ 17:20
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl.	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Particulate Matter (PM ₁₀)	IS:5182 (P-23) 2022	µg/m ³	90.26	88.82	71.67	79.00	300 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	48.63	43.56	37.13	40.91	60 (24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2023	µg/m ³	12.44	09.95	08.66	10.16	80 (24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	24.64	17.59	18.15	20.36	80 (24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	51.30	48.05	44.80	38.31	400 (24 hr)
6.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m ³	39.34	35.77	32.19	28.61	180 (1 hr)
7.	Lead (Pb)	IS:5182 (P-22) 2019	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	1.0 (24 hr)
8.	Nickel (Ni)	IS:5182P-26/2020	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
9.	Arsenic (As)	USEPA ID 3.2:1999	ng/m ³	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	-

-Test Results End-

Prescribed Limit Environmental (Protection) Rules-1996, Schedule VI.
Operational Status Unit was Operational During sampling.

Analyzed by - AK Singh

Reviewed by
D.K. Kumar
Technical Head

Issue by
Girish Das
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.

Disclaimer Note : 1. The laboratory accepts responsibility for content of this report. 2. The personnel at laboratory's permanent facility, or www.epiclabtech.com as method required and results relate only to the sample tested as prescribed Date & time. 3. The Test report shall not be reproduced full or in part, or used as a part in the cause of law. 4. Any complaint about this report should be communicated in writing within 10 days of its issue. 5. Total liability of EPIC LabTech Pvt. Ltd. will be limited to amount quoted only. All disputes are subject to Jharkhand jurisdiction and exclusive liability of the laboratory does not exceed the testing and sampling charges. 6. Opinion does not imply endorsement of the test product in laboratory. Under no circumstances, laboratory accepts any cause by use or misuse of this report. 7. When the results are from external provider are marked as "mark". 8. Abbreviations : BDL (below Detectable Limit), MDL (Minimum Detectable Limit), LQ (Limit of Quantitation).



EPIC LabTech Private Limited

Address:
C/o - R.R. Tripathi, Indrapuri,
Road No. - 3, Ranchi,
Jharkhand - 834005, India

T. 0651 496291
E. 98351 94477
M. 930 69 73934
O. 9835146552@gmail.com

CIN - U74999IN2007PLC09845
PAN - AAHCET871TM
GST - 25AAHCET71TM228

Accredited by -
Jharkhand State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 17025

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical					
Report Unique ID	RLD1832521118	Group	Atmospheric Pollution					
Issue date/time	27.05.2025/ 10:42	Sub Group	Ambient Air Quality					
Report Issue to								
M/s - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE: BIMARLA BAUXITE MINE	Contact Person Mr. Ankit Das	Contact Number +91 9871034775	Email Id ankit.das@adityabirla.com					
	Order Date 05.04.2025/ 10:10	Order Number RP/MIB/MM/25/0114/00						
References of Quality Management System (Copy of Incentivity Doc)								
Customer Registration No.	EPIC/OTH/0183	Sample Booking Number	EPIC-2521118					
Sample(s) Code	2521118 (A) (B) (C) (D)	Sample Receipt (D/T)	23.05.2025/ 11:48					
Sampling References								
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036					
Sampling Start (D/T)	20.05.2025/ 11:30	Sampling End (D/T)	21.05.2025/ 08:00					
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team					
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/06/2012-13)							
Description/condition of sample	Receipt sample(s) were fit for analysis.							
Environmental Condition during sampling								
Weather condition	Clear	Temperature (°C)	31					
		Humidity %	45					
		Wind direction	20°-300°					
Sampling Location(s) with GPS coordinate(s)								
S. Location A	Near Weigh Bridge	GPS coordinate	23° 17' 05.82" / 84° 25' 19.25"					
S. Location B	Near Quarry No 1B	GPS coordinate	23° 17' 45.37" / 84° 25' 30.07"					
S. Location C	Near Prathmik Vidyalaya Barang Path	GPS coordinate	23° 17' 20.07" / 84° 25' 30.41"					
S. Location D	Near Mine Entry Gate	GPS coordinate	23° 16' 49.80" / 84° 25' 33.67"					
Date(s) of performance of the laboratory activities								
Test start date	23.05.2025/ 11:55	Test completion date	26.05.2025/ 17:20					
-Test Results-								
Sl.	Test Parameters	Method used	Unit	A	B	C	D	Limits
1.	Benzene (C ₆ H ₆)	IS:5182(P-11)2006	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
2.	Benzo (a) Pyrene (Bap)- Particulate phase only	IS:5182(P-12)2004	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
3.	Carbon Monoxide (CO)	EPIC/LAB/SOP/AP/01/00	mg/m ³	BDL (MDL-1.0)	BDL (MDL-1.0)	BDL (MDL-1.0)	BDL (MDL-1.0)	-
-Test Results End -								

Prescribed Limit Environmental (Protection) Rules-1986, Schedule VI.

Operational Status Unit was Operational During sampling.

Analyzed by - AK Sinha


Reviewed by
(AK Sinha)
Technical Head




Issued by
Ankit Das
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited



Address:
C/o - R.R. Tropicom, Indraprastha,
Road No. - 3, Ranchi,
Jharkhand - 834005, India

Phone: 0651 4556297
98351 86577
85249 73594
epiclabtech@gmail.com

CIN - U74999JH2012PTC019641
PAN - AAHC23E11M
GST - 25AAHC23E11M23

Accredited by -
NABL, ISO certificate Number TC-1207
Jharkhand State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 45001:2018

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000629	Discipline	Chemical
Report Unique ID	RL01832521119	Group	Atmospheric Pollution
Issue date/time	27.05.2025/ 10:44	Sub Group	Ambient Noise

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
05.04.2025/ 10:10
Order Number
RP/MIS/MM/25/0114/00

References of Quality Management System (Traceability Data)

Customer Registration No.	EPIC/OTH/0183	Sample Booking Number	EPIC-2521119
Sample(s) Code	2521119 (A) (B) (C) (D)	Sample Receipt (D/T)	23.05.2025/ 11:54

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	20.05.2025/ 11:30	Sampling End (D/T)	21.05.2025/ 08:30
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS 9989:1981 (RA 2020) & CPCB Method S.O.50 (E) dated 11/01/2010		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	31	Humidity %	48	Wind direction	20°-200°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Weigh Bridge	GPS coordinate	23° 17' 05.82" / 84° 25' 19.25"
S. Location B	Near Quarry No 1B	GPS coordinate	23° 17' 45.37" / 84° 25' 30.07"
S. Location C	Near Prathmik Vidyalaya Barang Path	GPS coordinate	23° 17' 20.07" / 84° 25' 30.41"
S. Location D	Near Mine Entry Gate	GPS coordinate	23° 16' 49.80" / 84° 25' 33.87"

Date(s) of performance of the laboratory activities

Test start date	23.05.2025/ 12:05	Test completion date	26.05.2025/ 17:30
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl.	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	L _{eq} (Day time)	IS: 9989-1981	dB (A)	58.3	48.4	43.7	45.7	75
2.	L _{eq} (Night time)	IS: 9989-1981	dB (A)	43.4	41.4	36.9	37.1	70

-Test Results End -

Prescribed Limit
Operational Status
Analyzed by - AK Saha



Reviewed by
(A.K. Saha)
Technical Head

Date: 27/05/2025
Reviewed by
(Umesh Das)
Laboratory Head
Authorized Signatory

EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited



Address:
C/o - R.K. Tripathi, Indrapuri,
Road No. - S. Ranchi,
Jharkhand - 834005, India

Tel: 0651 4666232
Email: 85557 85677
93045 73084
epiclabtech@gmail.com

CIN: U74999IN2002PLC008858
PAN: AAHCES611M
GST: 25AAHCES611M23

Accredited by -
NABL, Lab certificate Number ID: 13947
Bharat Lab Proficiency Control Board
Certified by -
ISO 9001:2015 and ISO 17025

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000630	Discipline	Chemical
Report Unique ID	RL01832521120	Group	Pollution & Environment
Issue date/time	27.05.2025/ 10:46	Sub Group	Waste Water (Sewage)

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9671034775
Email Id
ankit.das@adityabirla.com
Order Date
05.04.2025/ 10:10
Order Number
RPM/B/MM/25/0114/00

References of Quality Management System (List of Traceability Data)

Customer Registration No.	EPIC/OTH/0183	Sample Booking Number	EPIC-2521120
Sample(s) Code	2521120	Sample Receipt (D/T)	23.05.2025/ 11:58

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	21.05.2025/ 15:25	Sampling End (D/T)	21.05.2025/ 15:40
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS : 3025 (Part-1) 1987, B-2003		
Description/condition of sample	Received sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	31	Humidity %	49	Wind direction	20°-200°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	STP Outlet	GPS coordinate	23° 16' 59.06" / 84° 25' 18.09"
---------------	------------	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	23.05.2025/ 12:10	Test completion date	26.05.2025/ 10:50
-----------------	-------------------	----------------------	-------------------

-Test Result-

Sl	Test Parameters	Method used	Unit	Results	Limits
1.	pH value at 25°C	IS 3025 (P-13) 2022	-	6.88	6.5-9.0
2.	BOD (3 days at 27°C)	IS 3025 (P-44) 2006	mg/l	8.00	30
3.	COD	IS 3025 (P-58) 2006	mg/l	40.00	-
4.	Oil & Grease	IS 3025 (P-39) 2021	mg/l	BDL(MDL-04)	-
5.	Total Suspended Solid	IS 3025 (P-17) 2022	mg/l	13.00	100
6.	Iron (as Fe)	APHA 3111B 2023	mg/l	BDL(MDL-0.1)	-

-Test result End-

Prescribed Limit
Operational Status
Analysed by - Ankit Kumar

Environmental (Protection) Rules-1986, Schedule I, Serial No. 105.
Unit was Operational During sampling.


Reviewed by
(Ankit Kumar)
Technical Head


Issued by
(Ankit Das)
Laboratory Head
Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited

Address:
C/o - R.R. Tripathi, Ranchi,
Road No. - 5, Ranchi,
Jharkhand - 834005, India

GSTIN: 26AAHCK333TPZ
98357 88677
93048 72884
epiclabtech@gmail.com

CIN: U74999JH2022PTC076985
PAN: HAAHCK333TPZ
GST: 26AAHCK333TPZ

Accredited by:
Jharkhand State Pollution Control Board
Certified by:
ISO 9001:2015 and ISO 17025:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL01832521120	Group	Pollution & Environment
Issue date/time	27.05.2025/ 10:48	Sub Group	Waste Water (Sewage)

Report Issue to:

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA.835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
05.04.2025/ 10:10
Order Number
RJ/MJB/MM/25/0114/00

References of Quality Management System (Steps of Traceability Data)

Customer Registration No.	EPIC/OTH/0183	Sample Booking Number	EPIC-2521120
Sample(s) Code	2521120	Sample Receipt (D/T)	23.05.2025/ 11:56

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	21.05.2025/ 15:25	Sampling End (D/T)	21.05.2025/ 15:40
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample		Receipt sample(s) were fit for analysis.	

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	31	Humidity %	48	Wind direction	20°-200°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	STP Outlet	GPS coordinate	23° 16' 59.06" / 84° 25' 18.09"
---------------	------------	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	23.05.2025/ 12:10	Test completion date	26.05.2025/ 10:50
-----------------	-------------------	----------------------	-------------------

--Test Result--

Sl.	Test Parameters	Method used	Unit	Results	Limits
1.	Calcium	IS 3025 (P-40) 2022	mg/l	74.00	-
2.	Aluminum	IS 3025 (P-55) 2003	mg/l	BDL(MDL-0.1)	-

--Test result End --

Prescribed Limit
Operational Status
Analyzed by -Anup Kumar




Reviewed by
(A.K. Kumar)
Technical Head


Issued by
(Anup Kumar)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Analytical Test Certificate

Unique Lab Report No.	TC1288725000000632	Discipline	Chemical
Report Unique ID	RL0183251122	Group	Atmospheric Pollution
Issue date/time	27.05.2025/ 10:50	Sub Group	Ambient Air Quality

Report Issue to:

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST - LOHARDAGA, STATE - JHARKHAND, INDIA 835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
05.04.2025/ 10:10
Order Number
RP/HUB/MM/25/0114/00

References of Quality Management System (Date of Traceability Date)

Customer Registration No.	EPIC/OTH/0183	Sample Booking Number	EPIC- 2521122
Sample(s) Code	2521122 (A) (B) (C) (D)	Sample Receipt (D/T)	23.05.2025/ 12:00

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	21.05.2025/ 11:50	Sampling End (D/T)	22.05.2025/ 08:56
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	32	Humidity %	46	Wind direction	220°-40°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Korie Village	GPS coordinate	23° 17' 26.81" E 84° 25' 55.18" N
S. Location B	Near Barang Village	GPS coordinate	23° 16' 32.45" E 84° 25' 12.72" N
S. Location C	Near Ghaghra Village	GPS coordinate	23° 16' 55.88" E 84° 23' 38.22" N
S. Location D	Near Bimarla Village	GPS coordinate	23° 17' 05.62" E 84° 23' 25.75" N

Data(s) of performance of the laboratory activities

Test start date	23.05.2025/ 12:10	Test completion date	26.05.2025/ 17:25
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl.	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Particulate Matter (PM ₁₀)	IS:5182 (P-23) 2019	µg/m ³	64.99	61.49	68.68	74.94	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-34) 2019	µg/m ³	28.22	26.41	30.06	32.02	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2023	µg/m ³	07.99	08.28	09.23	10.63	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	22.60	22.12	21.93	18.23	60(24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	48.03	45.76	42.53	39.29	400(24 hr)
6.	Ozone (O ₃)	IS:5182 (P-06) 2019	µg/m ³	30.04	35.07	36.48	40.78	180(1 hr)
7.	Lead (Pb)	IS:5182 (P-22) 2019	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	1.0(24 hr)
8.	Nickel (Ni)	IS:5182 (P-26) 2020	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
9.	Arsenic (As)	USEPA/IO 3.2:1999	ng/m ³	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	-

-Test Results End--

Prescribed Limit Environmental (Protection) Rules- 2000, Schedule VII

Operational Status Unit was Operational During sampling.

Analyzed by - AK Seta


Reviewed by
AK Seta
Technical Head


Issued by
Akash Kumar
Technical Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand

Page 1 of 3

Contractor Note : 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's permanent location. All specific environmental conditions as method required and results relate only to the sample tested in prescribed Date & time. 3. The Test report shall not be reproduced full or in part & cannot be used as proof in the court of law. 4. Any complaint about this report should be communicated in writing within 10 days of its issue. 5. Total liability of EPIC LabTech Pvt. Ltd. will be limited to incurred amount only. 6. All disputes are subject to Ranchi jurisdiction and maximum liability of the laboratory does not exceed the testing and sampling charges. 7. Operator does not imply endorsement of the tested product by laboratory. Under no circumstances, laboratory accepts any claim by user or receiver of this report. 8. Where the results are from external providers are marked as * mark.

Disclaimer - BDL (Below Detection Limit), MDL (Minimum Detectable Limit), LoQ (Limit of Quantification).



EPIC LabTech Private Limited

Address:
C/o - R.R. Tugadia, Ranchi,
Avee No. - S. Ranchi,
Jharkhand - 834005, India

T. 0921 4886297
98357 89677
93649 75594
epiclabtech@gmail.com

CIN-U74999JH2022PTC119681
PAN-AAHCE2E1M
GST-25AAHCE311WZC

Accredited by -
National Accreditation Board for
Laboratory (NABL) and ISO 17025
Certified by -
ISO 9001:2015 and ISO 14001:2015

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical					
Report Unique ID	RL0182521122	Group	Atmospheric Pollution					
Issue date/time	27.05.2025/ 10:50	Sub Group	Ambient Air Quality					
Report Issue to								
M/s - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST. - LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE: SIMARLA BAUXITE MINE	Contact Person	Mr. Ankit Das						
	Contact Number	+91 9871034775						
	Email Id	ankit.das@adityabirla.com						
	Order Date	05.04.2025/ 10:10						
	Order Number	RP/MJ/MM/25/0114/00						
References of Quality Management System (Steps of Traceability Data)								
Customer Registration No.	EPIC/OTH/0183	Sample Booking Number	EPIC- 2521122					
Sample(s) Code	2521122 (A) (B) (C) (D)	Sample Receipt (D/T)	23.05.2025/ 12:00					
Sampling References								
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036					
Sampling Start (D/T)	21.05.2025/ 11:50	Sampling End (D/T)	22.05.2025/ 08:56					
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team					
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)							
Description/condition of sample	Receipt sample(s) were fit for analysis.							
Environmental Condition during sampling								
Weather condition	Clear	Temperature (°C)	32					
		Humidity %	46					
		Wind direction	220°-40°					
Sampling Location(s) with GPS coordinate(s)								
S. Location A	Near Korte Village	GPS coordinate	23° 17' 26.81" / 84° 25' 55.18"					
S. Location B	Near Baranji Village	GPS coordinate	23° 16' 32.45" / 84° 25' 12.72"					
S. Location C	Near Ghaghra Village	GPS coordinate	23° 16' 55.88" / 84° 23' 36.22"					
S. Location D	Near Simarla Village	GPS coordinate	23° 17' 05.62" / 84° 23' 25.75"					
Date(s) of performance of the laboratory activities								
Test start date	23.05.2025/ 12:10	Test completion date	26.05.2025/ 17:25					
-Test Results-								
Sl.	Test Parameters	Method used	Unit	A	B	C	D	Limits
1.	Benzene (C ₆ H ₆)	IS:182(P-11) 2006	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
2.	Benzo (a) Pyrene (Bap)- Particulate phase only	IS:182(P-12) 2004	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
3.	Carbon Monoxide (CO)	EPIC/LAB/SORIAP/03/00	mg/m ³	BDL (MDL-1.0)	BDL (MDL-1.0)	BDL (MDL-1.0)	BDL (MDL-1.0)	-
-Test Results End -								

Prescribed Limit Environmental (Protection) Rules-1986, Schedule VII
Operational Status Unit was Operational During sampling

Analyzed by - AK Srivastava



Reviewed by
(A.K. Srivastava)
Technical Head

Issue by
(Ankit Das)
Laboratory Head
Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Address:
C/o - R.R. Tripathi, Indrapuri
Road No. - 5, Ranchi,
Jharkhand - 834005, India

T. 0651-9456292
94357 84677
93045 73934
epiclabtech@gmail.com

CIN - U74901JH2022PTC079685
Regd. - AAMCE381TM
GST - 20AAHC33ETN0123

Assessed by -
NABL Registration Number IC - 0247
Shankar Sons Research Council Board
Certified by -
ISO 9001:2015 and ISO 45001:2018

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000728	Discipline	Chemical
Report Unique ID	RL02162525031	Group	Atmospheric Pollution
Issue date/time	25.06.2025/ 10:30	Sub Group	Ambient Air Quality

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST. - LOHARDAGA, STATE - JHARKHAND, INDIA 835302
MONITORING SITE: BIMARLA BAUXITE MINE

Contact Person
Contact Number
Email Id
Order Date
Order Number

Mr. Ankit Das
+91 9971034775
ankit.das@badhyabirta.com
05.04.2025/ 10:10
RP/MJB/MM/25/0114/00

References of Quality Management System (Days of Traceability Date)

Customer Registration No.	EPIC/OTH/0216	Sample Booking Number	EPIC-2525031
Sample(s) Code	2525031 (A) (B) (C) (D)	Sample Receipt (D/T)	20.06.2025/ 11:31

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	17.06.2025/ 11:40	Sampling End (D/T)	18.06.2025/ 08:17
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Description/condition of sample		Receipt sample(s) were fit for analysis.	

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	26	Humidity %	78	Wind direction	270°-90°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Weigh Bridge	GPS coordinate	23° 17' 05.82" / 84° 25' 19.25"
S. Location B	Near Quarry No 1B	GPS coordinate	23° 17' 45.37" / 84° 25' 30.07"
S. Location C	Near Prathmik Vidyalaya Barong Path	GPS coordinate	23° 17' 20.07" / 84° 25' 30.41"
S. Location D	Near Mine Entry Gate	GPS coordinate	23° 16' 49.80" / 84° 25' 33.67"

Data(s) of performance of the laboratory activities

Test start date	20.06.2025/ 12:15	Test completion date	24.06.2025/ 12:00
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl.	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Particulate Matter (PM ₁₀)	IS:5182 (P-23) 2022	µg/m ³	88.29	86.83	69.80	77.66	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	44.34	41.57	34.36	38.80	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2023	µg/m ³	10.96	07.44	07.05	08.22	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	22.20	14.80	15.86	17.97	80(24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	49.38	46.67	42.67	36.16	400(24 hr)
6.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m ³	37.23	33.14	30.35	26.48	180(1 hr)
7.	Lead (Pb)	IS:5182 (P-22) 2019	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	1.0(24 hr)
8.	Nickel (Ni)	IS:5182 (P-26) 2020	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
9.	Arsenic (As)	USEPA ID 3.2:1999	ng/m ³	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	-

-Test Results End -

Prescribed Limit Environmental (Protection) Rules-1986, Schedule VII.
Operational Status Unit was Operational During sampling.

Analysed by - Vishal Mangrul

Reviewed by
(A.K. Kumar)
Technical Head

Asses by
(Gopal Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.

SARANG JAI KHAND

Page 1 of 1

Contractual Note : 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's premises facility. 3. All results are expressed in metric units as marked. 4. The test report shall not be reproduced full or in part or even a part of it, as proof in the court of law. 5. Any complaint about this report should be communicated in writing within 10 days of its issue. 6. Total liability of EPIC LabTech Pvt. Ltd. will be limited to incurred amount only. 7. All disputes are subject to Ranchi jurisdiction and maximum liability of the laboratory does not exceed the testing and sampling charges. 8. Operator does not apply watermarking of the tested product by laboratory. Under no circumstances, laboratory accepts any claim by user or user of this report. 9. When the results are from external provider are marked as "mark". 10. Abbreviations - BDL (Below Detectable Limit), MDL (Maximum Detectable Limit), LOD (Limit of Quantitation).



EPIC LabTech Private Limited

Address:
C/o - K.K. Tripathi, Indrapuram
Road No. - 5, Ranchi
Jharkhand - 834005, India

T. 0651 4666292
M. 98357 84477
E. 93049 73994
E-mail: epiclabtech@gmail.com

CIN - U74999JH2022PTC06685
PAN - AAHCE2613M
GST - 20AAHCE3711M2X

Authorized by -
Environmental Audit Release Control Board
Certified by -
ISO 9001:2015 and ISO 17025:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02362525031	Group	Atmospheric Pollution
Issue date/time	25.06.2025/ 10:30	Sub Group	Ambient Air Quality

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE - COURT ROAD, POST OFFICE - LOHARDAGA,
DIST - LOHARDAGA, STATE - JHARKHAND, INDIA 835302
MONITORING SITE: BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
05.04.2025/ 10:10
Order Number
RP/MJB/MM/25/0114/00

References of Quality Management System (Date of Issuability Date)

Customer Registration No.	EPIC/OTH/0216	Sample Booking Number	EPIC/2525031
Sample(s) Code	2525031 (A) (B) (C) (D)	Sample Receipt (D/T)	25.06.2025/ 11:31

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	17.06.2025/ 11:40	Sampling End (D/T)	18.06.2025/ 08:17
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	26	Humidity %	78	Wind direction	270°-90°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Weigh Bridge	GPS coordinate	23° 17' 05.82" / 84° 25' 19.25"
S. Location B	Near Quarry No 1B	GPS coordinate	23° 17' 45.37" / 84° 25' 30.07"
S. Location C	Near Prathmik Vidyalaya Barang Path	GPS coordinate	23° 17' 20.07" / 84° 25' 30.41"
S. Location D	Near Mine Entry Gate	GPS coordinate	23° 15' 49.80" / 84° 25' 33.67"

Date(s) of performance of the laboratory activities

Test start date	20.06.2025/ 12:15	Test completion date	24.06.2025/ 12:00
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Benzene (C ₆ H ₆)	IS 5182(P-11) 2006	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
2.	Benzo (a) Pyrene (Bap)- Particulate phase only	IS 5182(P-12) 2004	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
3.	Carbon Monoxide (CO)	EPIC/LAB/SOP/AP/01/00	mg/m ³	BDL (MDL-1.8)	BDL (MDL-1.8)	BDL (MDL-1.8)	BDL (MDL-1.8)	-

-Test Results End -

Prescribed Limit Environmental (Protection) Rules-1986, Schedule VI.

Operational Status Unit was Operational During sampling.

Analyzed by - Vishal Mangaraj


Reviewed by
(A.K. Kumar)
Technical Head


Reviewed by
A.K. Kumar
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited

Address:
C/o - R.K. Tripathi, Mohanpur,
Ranchi - S. Ranchi,
Jharkhand - 834005, India

Tel: 0651-4066291
98357 80577
93049 73994
epiclabtech@gmail.com

CIN-U74999JH2012PTC079683
FAX: 0651-2461114
GST: 2TAARCE3EM123

Associated by:
ISO 9001:2015 Certificate Number IC-12047
Jharkhand State Pollution Control Board
Certified by:
ISO 9001:2015 and ISO 45001:2018



TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000729	Discipline	Chemical					
Report Unique ID	RLO2162525032	Group	Atmospheric Pollution					
Issue date/time	25.06.2025/ 10:32	Sub Group	Ambient Air Quality					
Report Issue to		Contact Person	Mr. Ankit Das					
M/s - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE: BIMARIA BAUXITE MINE		Contact Number	+91 9871034775					
		Email Id	ankit.das@adityabirla.com					
		Order Date	05.04.2025/ 10:10					
		Order Number	RP/MJR/MM/25/0114/00					
References of Quality Management System (Date of Issuability Date)								
Customer Registration No.	EPIC/OTH/0216	Sample Booking Number	EPIC- 2525032					
Sample(s) Code	2525032 (A) (B) (C) (D)	Sample Receipt (D/T)	20.06.2025/ 11:33					
Sampling References								
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036					
Sampling Start (D/T)	18.06.2025/ 12:08	Sampling End (D/T)	19.06.2025/ 09:06					
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team					
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)							
Description/condition of sample	Receipt sample(s) were fit for analysis.							
Environmental Condition during sampling								
Weather condition	Clear	Temperature (°C)	26					
		Humidity %	78					
		Wind direction	270°-90°					
Sampling Location(s) with GPS coordinate(s)								
S. Location A	Near Korie Village	GPS coordinate	23° 17' 26.81" / 84° 25' 55.18"					
S. Location B	Near Berang Village	GPS coordinate	23° 16' 32.45" / 84° 25' 12.72"					
S. Location C	Near Ghaghra Village	GPS coordinate	23° 16' 55.88" / 84° 23' 36.22"					
S. Location D	Near Bimaria Village	GPS coordinate	23° 17' 05.82" / 84° 23' 25.75"					
Date(s) of performance of the laboratory activities								
Test start date	20.06.2025/ 12:33	Test completion date	24.06.2025/ 12:03					
-Test Results-								
Sl	Test Parameters	Method used	Unit	A	B	C	D	Limits
1.	Particulate Matter (PM ₁₀)	IS:5182 (P-23) 2022	µg/m ³	62.20	59.76	66.52	72.47	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2018	µg/m ³	27.05	24.94	28.66	30.25	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2023	µg/m ³	06.26	06.66	07.44	09.01	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	20.08	19.03	17.97	15.86	80(24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	47.40	43.83	40.58	37.34	400(24 hr)
6.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m ³	28.61	33.26	34.69	33.00	180(1 hr)
7.	Lead (Pb)	IS:5182 (P-22) 2018	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL23.96 (MDL-0.1)	BDL (MDL-0.1)	1.0(24 hr)
8.	Nickel (Ni)	IS:5182 (P-26) 2020	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
9.	Arsenic (As)	USEPA 10.3.2:1999	ng/m ³	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	-
-Test Results End -								

Prescribed Limit Environmental (Protection) Rules-1986, Schedule VI.

Operational Status Unit was Operational During sampling.

Analyzed by - Yashwant Kansari


Reviewed by
(S.K. Kansari)
Technical Head




Ankit Das
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand

Page 1 of 1

Disclaimer Note : 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's permission facility. 3. Laboratory does not accept responsibility for results obtained by method required and results relate only to the sample tested in prescribed Date & time. 4. The Test report shall not be reproduced full or in part & can't be used as proof in the court of law. 5. Any complaint about this report should be communicated in writing within 10 days of its issue. 6. Total liability of EPIC LabTech Pvt. Ltd. will be limited to recovered amount only. 7. All disputes are subjected to Ranchi jurisdiction and material liability of the laboratory does not exceed the testing and sampling charges. 8. Opinion does not imply endorsement of the tested product by laboratory. Under no circumstances, laboratory accepts any claim by use or misuse of this report. 9. When the results are from external provider are marked as "mark". 10. Abbreviation - BDL (Below Detection Limit), MDL (Minimum Detectable Limit), LQ (Limit of Quantification).



EPIC LabTech Private Limited

Address:
C/o - R.K. Tripathi, Indrapuri,
Road No. - S. Ranchi,
Jharkhand - 834005, India

Tel: 0651 606292
98357 89677
930-69 73994
epiclabtech@gmail.com

CIN: U74999IN2022PTC078883 PAN: AAHC2361TM
GST: 25AARCE371M123

Accredited by -
Bharatbharat State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02162525032	Group	Atmospheric Pollution
Issue date/time	25.06.2025/ 10:32	Sub Group	Ambient Air Quality

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
05.04.2025/ 10:10
Order Number
RP/MUB/MM/25/0114/00

References of Quality Management System (Copy of Traceability Data)

Customer Registration No.	EPIC/OTH/0216	Sample Booking Number	EPIC- 2525032
Sample(s) Code	2525032 (A) (B) (C) (D)	Sample Receipt (D/T)	20.06.2025/ 11:33

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	18.06.2025/ 12:08	Sampling End (D/T)	19.06.2025/ 09:06
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	32	Humidity %	46	Wind direction	220°-40°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

5. Location A	Near Korle Village	GPS coordinate	23° 17' 26.81" / 84° 25' 55.18"
5. Location B	Near Barang Village	GPS coordinate	23° 16' 32.45" / 84° 25' 12.72"
5. Location C	Near Ghaghra Village	GPS coordinate	23° 16' 55.88" / 84° 23' 36.22"
5. Location D	Near Bimaria Village	GPS coordinate	23° 17' 05.62" / 84° 23' 25.75"

Date(s) of performance of the laboratory activities

Test start date	20.06.2025/ 12:23	Test completion date	24.06.2025/ 12:03
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl.	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Benzene (C ₆ H ₆)	IS:5182(P-11) 2006	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
2.	Benzo (a) Pyrene (Bap)- Particulate phase only	IS:5182(P-12) 2004	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
3.	Carbon Monoxide (CO)	EPIC/LAB/SOP/AP/01/00	mg/m ³	BDL (MDL-1.0)	BDL (MDL-1.0)	BDL (MDL-1.0)	BDL (MDL-1.0)	-

-Test Results End -

Prescribed Limit: Environmental (Protection) Rules-1986, Schedule VI.

Operational Status: Unit was Operational During sampling.

Analysed by - Vishal Mangaraj


Reviewed by
(S.K. Kumar)
Technical Head


Issued by
(Ankit Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand





EPIC LabTech Private Limited

Address:
C/o - R.K. Tripathi, Indrapuri,
Road No. - 5, Ranchi,
Jharkhand - 834005, India

GSTIN - 984562392
98357 64677
93048 73994
epiclabtech@gmail.com

CIN - U74999IN2022PTC079835
PAN - AAHC3361M
GST - 25AAHC3361M0278

Accredited by -
National Testing Laboratory Council Board
Certified by -
ISO 17025:2017 and ISO 9001:2015

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02162525033	Group	Atmospheric Pollution
Issue date/time	25.06.2025/ 10:34	Sub Group	Work Zone Noise

Report issued to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
05.04.2025/ 10:10
Order Number
RP/MUB/MM/25/0134/00

References of Quality Management System (Steps of Traceability Data)

Customer Registration No.	EPIC/OTH/0216	Sample Booking Number	EPIC-2525033
Sample(s) Code	2525033 (A) (B)	Sample Receipt (D/T)	20.06.2025/ 11:38

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D)	17.06.2025	Sampling End (D)	17.06.2025
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS 9989:1981 (RA 2020) & CPCB Method S.O.50 (E) dated 11/01/2010		
Description/condition of sample		Receipt sample(s) were fit for analysis.	

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	26	Humidity %	78	Wind direction	270°-90°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Quarry No 1 B	GPS coordinate	23° 17' 46.30" / 84° 25' 30.16"
S. Location B	Bauxite Mine (134.526Ha)	GPS coordinate	23° 17' 48.97" / 84° 25' 30.15"

Data(s) of performance of the laboratory activities

Test start date	20.06.2025/ 12:40	Test completion date	24.06.2025/ 12:15
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl	Test Parameters	Method used	Unit	Results		Limits
				A	B	
1.	L_{eq}	IS: 9989:1981	dB (A)	71.3	63.9	85

-Test Results End -

Prescribed Limit
Operational Status
Analyzed by - Vishal Mangersi

NIOSH - Publication No. 98-125 in 1972, Table 1-1

Unit was Operational During sampling.

Reviewed by
(Mr. Kumar)
Technical Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand





Report and Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02432529064	Group	Atmospheric Pollution
Issue date/time	23.07.2025/ 17:30	Sub Group	Ambient Air Quality

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
05.04.2025/ 10:10
Order Number
BP/M/B/MM/25/0134/00

References of Quality Management System (Copy of Traceability Sheet)

Customer Registration No.	EPIC/OTH/0243	Sample Booking Number	EPIC-2529064
Sample(s) Code	2529064 (A) (B) (C) (D)	Sample Receipt (D/T)	19.07.2025/ 10:40

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	16.07.2025/ 12:00	Sampling End (D/T)	17.07.2025/ 10:00
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Vishal Kumar & Team
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	26	Humidity %	66	Wind direction	0°-180°
-------------------	--------	------------------	----	------------	----	----------------	---------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Weigh Bridge	GPS coordinate	23° 17' 06.82" / 84° 25' 19.25"
S. Location B	Near Quarry No 1B	GPS coordinate	23° 17' 45.37" / 84° 25' 30.07"
S. Location C	Near Prathmik Vidyalaya Barang Path	GPS coordinate	23° 17' 20.07" / 84° 25' 30.41"
S. Location D	Near Mine Entry Gate	GPS coordinate	23° 16' 49.80" / 84° 25' 33.67"

Data(s) of performance of the laboratory activities

Test start date	19.07.2025/ 11:00	Test completion date	23.07.2025/ 16:00
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl.	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Benzene (C ₆ H ₆)	IS:5182(P-11) 2006	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
2.	Benzo (a) Pyrene (Bap)- Particulate phase only	IS:5182(P-12) 2004	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
3.	Carbon Monoxide (CO)	EPIC/LAB/SOP/01/05	mg/m ³	BDL (MDL-1.0)	BDL (MDL-1.0)	BDL (MDL-1.0)	BDL (MDL-1.0)	-

-Test Results End -

Prescribed Limit Environmental (Protection) Rules-1986, Schedule VII.

Operational Status Unit was Operational During sampling.

Analysed by - Vishal Kumar

Reviewed by
(RAKESH)
Technical Head
10/07/2025
Reviewed by
Ankit Das
Laboratory HeadAuthorized Signature
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Address -
C/o - R.K. Tapashni, Indrapuri,
Road No. - S. Tapashni,
Jharkhand - 834005, India

Tel: 0657-4966282
98357 89677
93369 73994
40314tech@gmail.com

CIN - U74999JH2002PTC0988
Regd. - AAHCES611YM
GST - 2TAHCE611YM123

Accredited by -
NABL, Lab. certificate number IC-12847
Marketsafe Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 17025:2017

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1268725000000920	Discipline	Chemical
Report Unique ID	RL02432529065	Group	Atmospheric Pollution
Issue date/time	23.07.2025/ 17:33	Sub Group	Ambient Air Quality

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: BIMARLA BAUXITE MINE

Contact Person: Mr. Ankit Das
Contact Number: +91 98971034775
Email Id: ankit.das@adiyabirla.com
Order Date: 05.04.2025/ 10:10
Order Number: RR/MIB/MM/25/0114/00

References of Quality Management System (Copy of Traceability Document)

Customer Registration No.	EPIC/OTH/0243	Sample Booking Number	EPIC-2529065
Sample(s) Code	2529065 (A) (B) (C) (D)	Sample Receipt (D/T)	19.07.2025/ 10:41

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	17.07.2025/ 11:50	Sampling End (D/T)	18.07.2025/ 06: 55
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Vishal Kumar & Team
Sampling method used	IS:5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	26	Humidity %	66	Wind direction	0°-180°
-------------------	--------	------------------	----	------------	----	----------------	---------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Korie Village	GPS coordinate	23° 17' 26.81" / 84° 25' 55.18"
S. Location B	Near Sarang Village	GPS coordinate	23° 16' 32.45" / 84° 25' 12.72"
S. Location C	Near Ghaghra Village	GPS coordinate	23° 18' 55.88" / 84° 23' 36.22"
S. Location D	Near Bimarta Village	GPS coordinate	23° 17' 05.62" / 84° 23' 25.75"

Date(s) of performance of the laboratory activities

Test start date	19.07.2025/ 11:01	Test completion date	23.07.2025/ 16:01
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl.	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Particulate Matter (PM ₁₀)	IS:5182 (P-23) 2022	µg/m ³	58.25	55.96	62.15	68.62	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2018	µg/m ³	23.31	20.53	24.32	26.66	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2023	µg/m ³	06.48	06.85	06.23	06.43	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	18.27	16.25	14.25	12.22	80(24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	43.35	38.88	36.65	35.06	400(24 hr)
6.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m ³	23.88	29.31	30.40	33.65	180(1 hr)
7.	Lead (Pb)	IS:5182 (P-22) 2019	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	1.0(24 hr)
8.	Nickel (Ni)	IS:5182 (P-26) 2020	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
9.	Arsenic (As)	USEPA 10.3.2.1998	ng/m ³	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	-

-Test Results End -

Prescribed Limit Environmental (Protection) Rules-1986, Schedule VII.
Operational Status Unit was Operational During sampling.

Analyzed by - Vishal Mangat



Reviewed by
(V. Mangat)
Technical Head



Issued by
Ankit Das
Laboratory Head

Authorized Signatory

EPIC LabTech

Page 1 of 1

Contractual Note : 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's permission number is 40317-4966282. 3. Laboratory is not responsible and liable only to the sample tested in prescribed Date & time. 4. The Test report shall not be reproduced full or in part. 5. Reference to any legal or court of law. 6. Any complaint about this report should be communicated in writing within 10 days of its issue. 7. Total liability of EPIC LabTech Pvt. Ltd. will be limited to recovered amount only. 8. All disputes are subject to Jharkhand jurisdiction and maximum liability of the laboratory does not exceed the testing and sampling charges. 9. Company does not imply endorsement of the tested product by laboratory. Under no circumstances, laboratory accepts any liability for use or misuse of this report. 10. When the results are from external provider are marked as "stack". 11. Abbreviation - BDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LQ (Limit of Quantitation).



Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical					
Report Unique ID	RL02432529065	Group	Atmospheric Pollution					
Issue date/time	23.07.2025/ 17:33	Sub Group	Ambient Air Quality					
Report Issue to								
M/s - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE : SIMARLA BAUXITE MINE	Contact Person Mr. Ankit Das	Contact Number +91 9971034775	Email Id ankit.das@adityabirla.com					
	Order Date 05.04.2025/ 10:10	Order Number RPM/B/MM/25/0114/00						
References of Quality Management System (Date of Traceability Data)								
Customer Registration No.	EPIC/OTH/0243	Sample Booking Number	EPIC-25299065					
Sample(s) Code	2529065 (A) (B) (C) (D)	Sample Receipt (D/T)	19.07.2025/ 10:41					
Sampling References								
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036					
Sampling Start (D/T)	17.07.2025/ 11:50	Sampling End (D/T)	18.07.2025/ 08:55					
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Vishal Kumar & Team					
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)							
Description/condition of sample	Receipt sample(s) were fit for analysis.							
Environmental Condition during sampling								
Weather condition	Cloudy	Temperature (°C)	26					
		Humidity %	66					
		Wind direction	0°-180°					
Sampling Location(s) with GPS coordinate(s)								
S. Location A	Near Korle Village	GPS coordinate	23° 17' 26.81" / 84° 25' 55.18"					
S. Location B	Near Barang Village	GPS coordinate	23° 16' 32.45" / 84° 25' 12.72"					
S. Location C	Near Ghaghra Village	GPS coordinate	23° 16' 59.88" / 84° 23' 36.22"					
S. Location D	Near Bimaria Village	GPS coordinate	23° 17' 05.62" / 84° 23' 25.75"					
Date(s) of performance of the laboratory activities								
Test start date	19.07.2025/ 11:01	Test completion date	23.07.2025/ 16:01					
-Test Results-								
Sl.	Test Parameters	Method used	Unit	A	B	C	D	Limits
1.	Benzene (C ₆ H ₆)	IS 5182(P-11) 2006	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
2.	Benzo (a) Pyrene (Bap)- Particulate phase only	IS 5182(P-12) 2004	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
3.	Carbon Monoxide (CO)	EPIC/LAB/SOP/API01/00	mg/m ³	BDL (MDL-1.0)	BDL (MDL-1.0)	BDL (MDL-1.0)	BDL (MDL-1.0)	-

-Test Results End -

Prescribed Limit: Environmental (Protection) Rules-1986, Schedule VII.
Operational Status: Unit was Operational During sampling.

Analysed by - Vishal Mangro



Reviewed by
(Ex-User)
Technical Head

Issue by
(Owner/Ex-User)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Analytical Test Certificate

Unique Lab Report No.	TC123456725000000921	Discipline	Chemical			
Report Unique ID	RL02432529066	Group	Water			
Issue date/time	23.07.2025/ 17:36	Sub Group	Drinking Water			
Report Issue to						
M/s - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE : BIMARLA BAUXITE MINE		Contact Person	Mr. Ankit Das			
		Contact Number	+91 9871034775			
		Email Id	ankit.das@adityabirla.com			
		Order Date	05.04.2025/ 10:10			
		Order Number	BP/MJH/MM/25/0114/00			
References of Quality Management System (Steps of Traceability Detail)						
Customer Registration No.	EPIC/OTH/0243	Sample Booking Number	EPIC-2529066			
Sample(s) Code	2529066	Sample Receipt (D/T)	19.07.2025/ 10:43			
Sampling References						
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036			
Sampling Start (D/T)	17.07.2025/ 13:30	Sampling End (D/T)	17.07.2025/ 13:45			
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Vishal Kumar & Team			
Sampling method used	IS : 3025 (Part-1) 1987, R-2003					
Description/condition of sample	Receipt sample(s) were fit for analysis.					
Environmental Condition during sampling						
Weather condition	Cloudy	Temperature (°C)	26			
		Humidity %	66			
		Wind direction	0°-180°			
Sampling Location(s) with GPS coordinate(s)						
S. Location A	Near Mines Office	GPS coordinate	23° 17' 03.83" / 84° 25' 19.17"			
Date(s) of performance of the laboratory activities						
Test start date	19.07.2025/ 11:03	Test completion date	23.07.2025/ 16:00			
-Test Result-						
Sl.	Test Parameters	Method used	Unit	Results	Limits	
					Acceptable Limit	Permissible limit
1.	pH value at 25°C	IS 3025 (P-11) 2022	-	6.99	6.5-8.5	No relaxation
2.	Turbidity	IS 3025 (P-10) 1984	NTU	0.66	1	5
3.	Colour	IS 3025 (P-04) 2021	Hazen	<5	5	15
4.	Odour	IS 3025 (P-05) 2026	-	Agreeable	Agreeable	Agreeable
5.	Taste	IS 3025 (P-07) 2017	-	Agreeable	Agreeable	Agreeable
6.	Total Dissolved Solids (TDS)	IS 3025 (P-18) 2023	mg/l	181.00	500	2000
7.	Chloride (as Cl)	IS 3025 (P-32) 2019	mg/l	19.19	250	1000
8.	Total Alkalinity (as CaCO ₃)	IS 3025 (P-23) 2019	mg/l	145.00	200	600
9.	Total Hardness (as CaCO ₃)	IS 3025 (P-21) 2006	mg/l	174.00	200	600
10.	Calcium (as Ca)	IS 3025 (P-40) 1991	mg/l	49.8	75	200
11.	Free Residual Chlorine	IS 3025 (P-26) 1986	mg/l	BDL (MDL-0.4)	0.2	1
12.	Sulphate (as SO ₄)	IS 3025 (P-34/Sec-1) 2022	mg/l	3.88	200	400
13.	Nitrate (as NO ₃)	APHA 4500-N 2023	mg/l	1.79	45	No relaxation
14.	Phenolic Compound	IS 3025 (P-43/Sec-1) 2022	mg/l	BDL (MDL-0.001)	0.001	0.002
15.	Magnesium (as Mg)	APHA 3000-Mg E 2023	mg/l	10.55	30	100



Address -
C/o - R.K. Tripathi, Mithapur,
Road No. - S. Ranchi,
Jharkhand - 834005, India

Tel: 0651 4686292
98357 66777
93049 73994
epictech@gmail.com

CIN - U74999JH2002PTC079885
Regd - AAHCE3611M
GST - 20AANCE3611M23

Accredited by -
NABL with certificate number IC_13047
Jharkhand State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 17025:2018

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000921	Discipline	Chemical
Report Unique ID	RL02432529066	Group	Water
Issue date/time	23.07.2025/ 17:36	Sub Group	Drinking Water

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE - COURT ROAD, POST OFFICE - LOHARDAGA,
DIST - LOHARDAGA, STATE - JHARKHAND, INDIA 835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9871034775
Email Id
ankit.das@adityabirla.com
Order Date
05.04.2025/ 10:10
Order Number
RP/MIB/MM/25/0114/00

Group - Residues and Contaminants in Water				Sub Group - Trace Metals Elements		
16. Copper(as Cu)	APHA 3111B 2023	mg/l	BDL(MDL-0.2)	0.05	1.5	
17. Iron (as Fe)	APHA 3111B 2023	mg/l	BDL(MDL-0.1)	1.0	No relaxation	
18. Lead (as Pb)	APHA 3111B 2023	mg/l	BDL(MDL-0.01)	0.01	No relaxation	
19. Cadmium (as Cd)	APHA 3111B 2023	mg/l	BDL(MDL-0.003)	0.003	No relaxation	
20. Total Chromium (as Cr)	APHA 3111B 2023	mg/l	BDL(MDL-0.05)	0.05	No relaxation	
21. Nickel (as Ni)	APHA 3111B 2023	mg/l	BDL(MDL-0.02)	0.02	No relaxation	
22. Total Arsenic (as As)	APHA 3114B 2023	mg/l	BDL(MDL-0.005)	0.01	0.05	
23. Selenium (as Se)	APHA 3114B 2023	mg/l	BDL(MDL-0.005)	0.01	No relaxation	
24. Manganese (as Mn)	APHA 3111B 2023	mg/l	BDL(MDL-0.05)	0.1	0.3	
25. Zinc(as Zn)	APHA 3111B 2023	mg/l	BDL(MDL-0.04)	5	15	

-Test result End -

Prescribed Limit

IS 10500:2021

Operational Status

Unit was Operational During sampling.

Analysed by - Vashu Mangaraj



Reviewed by
(R.K. Kumar)
Technical Head

Issued by
(Gopal Das)
Laboratory Head

Authorised Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Page 2 of 2



Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical			
Report Unique ID	RLD2432529066	Group	Water			
Issue date/time	23.07.2025/ 17:36	Sub Group	Drinking Water			
Report Issue to						
M/s - MINERALS & MINERALS LIMITED VILLAGE COURT ROAD, POST OFFICE-LOHARDAGA, DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE : BIMARIA BAUXITE MINE		Contact Person	Mr. Ankit Das			
		Contact Number	+91 9971034775			
		Email Id	ankit.das@adityabirla.com			
		Order Date	05.04.2025/ 10:10			
		Order Number	BP/MIB/MM/25/0114/00			
References of Quality Management System (Steps of Traceability Data)						
Customer Registration No.	EPIC/OTH/0243	Sample Booking Number	EPIC-2529066			
Sample(s) Code	2529066	Sample Receipt (D/T)	19.07.2025/ 10:43			
Sampling References						
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036			
Sampling Start (D/T)	17.07.2025/ 13:30	Sampling End (D/T)	17.07.2025/ 13:45			
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Vishal Kumar & Team			
Sampling method used	IS : 3025 (Part-1) 1987, R-2003					
Description/condition of sample	Receipt sample(s) were fit for analysis.					
Environmental Condition during sampling						
Weather condition	Cloudy	Temperature (°C)	26			
		Humidity %	66			
		Wind direction	0°-180°			
Sampling Location(s) with GPS coordinate(s)						
S. Location A	Near Mines Office	GPS coordinate	23° 17' 03.83" N 84° 25' 19.17" E			
Date(s) of performance of the laboratory activities						
Test start date	19.07.2025/ 11:03	Test completion date	23.07.2025/ 16:00			
--Test Result--						
Sl.	Test Parameters	Method used	Unit	Results	Limits	
					Acceptable Limit	Permissible Limit
1.	Fluoride (as F)	APHA-4500 F-C 2023	mg/l	BDL(MDL-0.1)	1.0	1.5
Group- Residues and Contaminants in Water				Sub Group- Trace Metals Elements		
2.	Aluminum	IS 3025 (P-55):2019	mg/l	BDL(MDL-0.1)	0.03	0.2
3.	Boron	IS 3025 (P-57):2021	mg/l	BDL(MDL-0.1)	0.5	1.0
4.	Polychlorinated biphenyls	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.2)	0.5	No relaxation
5.	Polynuclear Aromatic Hydrocarbons (PAH)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.05)	0.1	No relaxation
Group- Residues and Contaminants in Water				Sub Group- Pesticides		
6.	Aalachlor	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	20	No relaxation
7.	Atrazine	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	2.0	No relaxation
8.	Dieldrin	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.02)	0.03	No relaxation
9.	Alpha HCH	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.005)	0.01	No relaxation
10.	Beta HCH	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.02)	0.04	No relaxation
11.	Butachlor	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	120.0	No relaxation
12.	Chloryriphos	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	30.0	No relaxation
13.	Delta HCH	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.02)	0.04	No relaxation
14.	Ethion	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	3.0	No relaxation



Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical		
Report Unique ID	RL02432529066	Group	Water		
Issue date/time	23.07.2025/ 17:36	Sub Group	Drinking Water		
Report Issue to:					
M/s - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE : BIMARIA BAUXITE MINE	Contact Person Mr. Ankit Das	Contact Number +91 9871034775	Email Id ankit.das@adhyabiria.com		
	Order Date 05.04.2025/ 10:10	Order Number RP/MJ/B/MM/25/0114/00			
15. Gamma-HCH(Lindane)	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	2.0	No relaxation
16. Malathion	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	190.0	No relaxation
17. Methyl parathion	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.2)	0.3	No relaxation
18. Monocrotophos	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	1.0	No relaxation
19. Phorate	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	2.0	No relaxation
20. DDT (o, p and p, p-isomer of DDT, DDE and DDD)	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	1.0	No relaxation
21. Endosulfan (alpha, beta, and sulphate)	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.05)	0.4	No relaxation

-Test result End--

Prescribed Limit IS 10500:2021
Operational Status Unit was Operational During sampling.

Analyzed by - Vishal Mangaraj

Reviewed by
(E.S. Kumar)
Technical Head12
18/07/2025
Issued by
(Girish Das)
Laboratory HeadAuthorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited

Address:
City - R.R. Tripathi, Indrapuri,
Road No. - S. Raychhi,
Jharkhand - 834005, India

T. 98951 666292
98357 86677
93249 73591
epiclabtech@gmail.com

CIN - U74999IN2022PTC31985
PAN - AAHCE28ETM
GST - 25AAWCE3101M12X

Accredited by -
Jharkhand State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 45001:2018

Analysed Test Certificate

Unique Lab Report No.	N/A	Discipline	Biological
Report Unique ID	RL02432529067	Group	Water
Issue date/time	23.07.2025/ 17:39	Sub Group	Drinking Water

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE - COURT ROAD, POST OFFICE - LOHARDAGA,
DIST - LOHARDAGA, STATE - JHARKHAND, INDIA 835302
MONITORING SITE : BIMARIA BAUXITE MINE

Contact Person: Mr. Ankit Das
Contact Number: +91 9971034775
Email Id: ankit.das@adityabirla.com
Order Date: 05.04.2025/ 10:10
Order Number: RP/MIB/MM/25/0114/00

References of Quality Management System (Steps of Traceability Chart)

Customer Registration No.	EPIC/OTH/0243	Sample Booking Number	EPIC-2520067
Sample(s) Code	2529067	Sample Receipt (D/T)	19.07.2025/ 10:43

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	17.07.2025/ 13:30	Sampling End (D/T)	17.07.2025/ 13:45
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Vishal Kumar & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample		Receipt sample(s) were fit for analysis.	

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	26	Humidity %	66	Wind direction	0°-180°
-------------------	--------	------------------	----	------------	----	----------------	---------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Mines Office	GPS coordinate	23° 17' 03.83" / 84° 25' 19.17"
---------------	-------------------	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	19.07.2025/ 11:03	Test completion date	23.07.2025/ 16:00
-----------------	-------------------	----------------------	-------------------

-Test Result-

Sl	Test Parameters	Method used	Unit	Results	Limits
1.	Total Coliform	IS 15185:2002	Per 100 ml	Not Detected	Shall not be detectable in any 100 ml sample
2.	E.Coli	IS 15185:2002	Per 100 ml	Not Detected	

-Test result End -

Prescribed Limit: IS 10500:2021

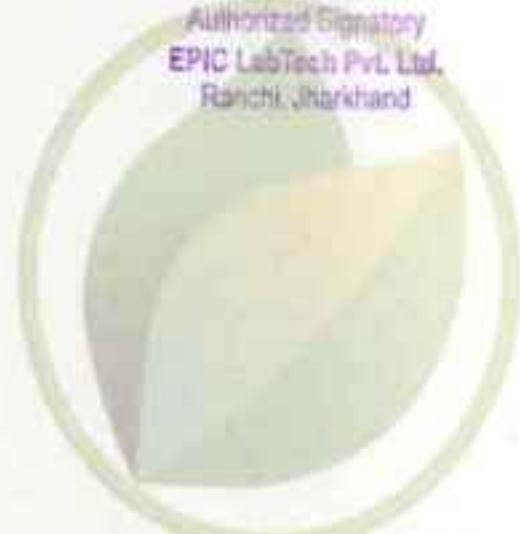
Operational Status: Unit was Operational During sampling.

Analyzed by - Sujata Kumar


Reviewed by
(S. Kumar)
Technical Head


Issued by
(Ankit Das)
Laboratory Head

Authorized Signature
EPIC LabTech Pvt. Ltd.,
Ranchi, Jharkhand





Analytical Test Certificate

Unique Lab Report No.	TC1288725000001099	Discipline	Chemical
Report Unique ID	RLD2752535067	Group	Atmospheric Pollution
Issue date/time	01.09.2025/ 17:00	Sub Group	Ambient Air Quality

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : BIMARIA BAUXITE MINE

Contact Person
Contact Number
Email Id
Order Date
Order Number

Mr. Ankit Das
+91 9971034775
ankit.das@bathyabeta.com
09.04.2025/ 10:10
BP/NUB/MM/25/0114/00

References of Quality Management System (Steps of Traceability Data)

Customer Registration No.	EPIC/OTH/0275	Sample Booking Number	EPIC-2535067
Sample(s) Code	2535067 (A) (B) (C) (D)	Sample Receipt (D/T)	28.08.2025/ 10:15

Sampling References

Type of Industry Bauxite Mines
Sampling Start (D/T) 25.08.2025/ 12:06
Mode of Sampling Conducted by Laboratory
Sampling method used IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)
Description/condition of sample Receipt sample(s) were fit for analysis.

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (PC)	27	Humidity %	70	Wind direction	45°-225°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Weigh Bridge	GPS coordinate	23° 17' 05.02" / 84° 25' 19.25"
S. Location B	Near Quarry No 1B	GPS coordinate	23° 17' 45.37" / 84° 25' 30.07"
S. Location C	Near Prathmik Vidyalaya Barong Path	GPS coordinate	23° 17' 20.07" / 84° 25' 30.41"
S. Location D	Near Mine Entry Gate	GPS coordinate	23° 18' 49.80" / 84° 25' 33.67"

Date(s) of performance of the laboratory activities

Test start date	28.08.2025/ 10:38	Test completion date	01.09.2025/ 16:00
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl.	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Particulate Matter (PM ₁₀)	IS:5182 (P-23) 2022	µg/m ³	84.02	81.98	64.29	73.02	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	40.06	37.27	29.89	33.97	60 (24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2023	µg/m ³	09.02	06.13	06.31	07.56	80 (24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	19.05	10.52	12.01	14.99	60 (24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	44.62	42.07	38.57	31.87	400 (24 hr)
6.	Ozone (O ₃)	IS:5182 (P-08) 2019	µg/m ³	34.38	29.67	26.42	22.07	180 (1 hr)
7.	Lead (Pb)	IS:5182 (P-22) 2019	µg/m ³	BDL	BDL	BDL	BDL	1.004 (1 hr)
8.	Nickel (Ni)	IS:5182 (P-26) 2020	ng/m ³	BDL	BDL	BDL	BDL	100 (1 hr)
9.	Arsenic (As)	USEPA 10.3.2:1999	ng/m ³	BDL	BDL	BDL	BDL	100 (1 hr)

-Test Results End -

Prescribed Limit Environmental (Protection) Rules-2006, Schedule VII.
Operational Status Unit was Operational During sampling.

Analysed by - Vishal Margari

Reviewed by
(B.K. Kumar)
Technical HeadIssued by
(Girish Das)
Laboratory HeadAuthorized Signatory
EPIC LabTech Pvt. Ltd.

Panchara, Ranchi, Jharkhand Page 1 of 1





Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0275253067	Group	Atmospheric Pollution
Issue date/time	01.09.2025/ 17:00	Sub Group	Ambient Air Quality

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST - LOHARDAGA, STATE - JHARKHAND, INDIA 835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person : Mr. Ankit Das
Contact Number : +91 9971034775
Email Id : ankit.das@rdityabirla.com
Order Date : 05.04.2025/ 10:10
Order Number : RP/MIB/MM/25/0114/00

References of Quality Management System (List of Traceability Chart)

Customer Registration No.	EPIC/OTH/0275	Sample Booking Number	EPIC-2535067
Sample(s) Code	2535067 (A) (B) (C) (D)	Sample Receipt (D/T)	26.08.2025/ 10:18

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	26.08.2025/ 12:00	Sampling End (D/T)	26.08.2025/ 10:20
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/06/2012-13)		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	70	Wind direction	45°-225°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Weigh Bridge	GPS coordinate	23° 17' 05.82" / 84° 25' 19.25"
S. Location B	Near Quarry No 1B	GPS coordinate	23° 17' 45.37" / 84° 25' 30.07"
S. Location C	Near Prithvi Vidyalaya Barang Path	GPS coordinate	23° 17' 20.07" / 84° 25' 30.41"
S. Location D	Near Mine Entry Gate	GPS coordinate	23° 18' 49.30" / 84° 25' 33.67"

Data(s) of performance of the laboratory activities

Test start date	26.08.2025/ 10:36	Test completion date	01.09.2025/ 16:00
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Benzene (C ₆ H ₆)	IS:5182(P-11) 2006	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
2.	Benzo (a) Pyrene (Bap)- Particulate phase only	IS:5182(P-12) 2004	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
3.	Carbon Monoxide (CO)	EPIC/LAB/SOP/AP/01/00	mg/m ³	BDL (MDL-1.0)	BDL (MDL-1.0)	BDL (MDL-1.0)	BDL (MDL-1.0)	-

-Test Results End-

Prescribed Limit : Environmental (Protection) Rules-1986, Schedule VI,
Operational Status : Unit was Operational During sampling.

Analysed by - Vishal Mangal

Reviewed by
(E.A. Level)
Technical HeadAuthorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Authorised Test Certificate

Unique Lab Report No.	TC1288725000001100	Discipline	Chemical					
Report Unique ID	RL02792535068	Group	Atmospheric Pollution					
Issue date/time	01.09.2025/ 17:03	Sub Group	Ambient Air Quality					
Report Issue to								
M/s - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE : BIMARLA BAUXITE MINE	Contact Person	Mr. Ankit Das						
		Contact Number	+91 9671034775					
		Email Id	ankit.das@adhyabirba.com					
		Order Date	05.04.2025/ 10:10					
		Order Number	RF/MIB/MM/25/0114/00					
References of Quality Management System (Days of Inactivity Chart)								
Customer Registration No.	EPIC/OTH/0276	Sample Booking Number	EPIC-2535068					
Sample(s) Code	2535068 (A) (B) (C) (D)	Sample Receipt (D/T)	28.08.2025/ 10:20					
Sampling References								
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036					
Sampling Start (D/T)	26.08.2025/ 11:51	Sampling End (D/T)	27.08.2025/ 09:15					
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team					
Sampling method used	IS:5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)							
Description/condition of sample	Receipt sample(s) were fit for analysis.							
Environmental Condition during sampling								
Weather condition	Cloudy	Temperature (PC)	27					
		Humidity %	70					
		Wind direction	45°-225°					
Sampling Location(s) with GPS coordinate(s)								
S. Location A	Near Korie Village	GPS coordinate	23° 17' 26.81" / 84° 25' 55.18"					
S. Location B	Near Barang Village	GPS coordinate	23° 16' 32.45" / 84° 25' 12.72"					
S. Location C	Near Ghaghra Village	GPS coordinate	23° 16' 55.88" / 84° 23' 36.22"					
S. Location D	Near Bimarla Village	GPS coordinate	23° 17' 05.62" / 84° 23' 25.75"					
Date(s) of performance of the laboratory activities								
Test start date	28.08.2025/ 10:40	Test completion date	01.09.2025/ 16:00					
-Test Results-								
Sl.	Test Parameters	Method used	Unit	A	B	C	D	Limits
1.	Particulate Matter (PM ₁₀)	IS:5182 (P-23) 2022	µg/m ³	57.82	55.01	61.20	57.81	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	22.98	20.07	23.82	26.18	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-62) 2023	µg/m ³	06.00	06.37	06.35	07.83	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-09) 2023	µg/m ³	18.03	15.92	14.00	11.92	80(24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-23) 2018	µg/m ³	43.03	36.57	36.33	34.74	400(24 hr)
6.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m ³	23.52	28.95	30.04	33.29	180(1 hr)
7.	Lead (Pb)	IS:5182(P-22) 2019	µg/m ³	BDL	BDL	BDL	BDL	1.0(24 hr)
8.	Nickel (Ni)	IS:5182(P-26) 2020	µg/m ³	(MDL-0.1)	(MDL-0.1)	(MDL-0.1)	(MDL-0.1)	(MDL-0.1)
9.	Arsenic (As)	USEPA/03.2-1999	µg/m ³	BDL	BDL	BDL	BDL	(MDL-0.001)

-Test Results End -

Prescribed Limit Environmental (Protection) Rules-1986, Schedule VII.
Operational Status Unit was Operational During sampling.

Analysed by - Tushar Mangat

Reviewed by
(EX-Kumar)
Technical HeadIssue by
(Shashi Dev)
Laboratory Head

Authorised Signatory

EPIC LabTech Pvt. Ltd.

Dated: 01.09.2025 Page 1 of 1

Contractual Notes : 1. The laboratory accepts responsibility for the content of this report. 2. Test performed at laboratory's permanent facility of specific environmental conditions at method required and results relate only to the sample tested in prescribed Date & time. 3. The Test report shall not be reproduced full or in part & can't be used as proof in the court of law. 4. Any complaint about this report should be communicated in writing within 10 days of its issue. 5. The laboratory of EPIC LabTech Pvt. Ltd. will be liable to maximum amount only. 6. All disputes are subject to Jharkhand jurisdiction and maximum liability of the laboratory does not exceed the testing and sampling charges. 7. Operator does not imply endorsement of the tested product by laboratory. Under no circumstances, laboratory accepts any claim by user or user of this report. 8. When the results are from external provider are marked as "not". 9. Abbreviations - BDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LOD (Limit of Quantitation).



Authorized Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02752535068	Group	Aerosol/Atmospheric Pollution
Issue date/time	01.09.2025/ 17:03	Sub Group	Ambient Air Quality

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : SIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@advyabirta.com
Order Date
05.04.2025/ 10:10
Order Number
RPM/B/MM/25/0114/00

References of Quality Management System (Date of Issuance Date)

Customer Registration No.	EPIC/OTH/0275	Sample Booking Number	EPIC-2535068
Sample(s) Code	2535068 (A) (B) (C) (D)	Sample Receipt (D/T)	28.08.2025/ 10:20

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	26.08.2025/ 11:51	Sampling End (D/T)	27.08.2025/ 09:15
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Description/condition of sample		Receipt sample(s) were fit for analyses.	

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	70	Wind direction	45°-225°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Korie Village	GPS coordinate	23° 17' 26.81" / 84° 25' 55.18"
S. Location B	Near Batang Village	GPS coordinate	23° 16' 32.45" / 84° 25' 12.72"
S. Location C	Near Ghaghra Village	GPS coordinate	23° 16' 56.88" / 84° 23' 36.22"
S. Location D	Near Dimaria Village	GPS coordinate	23° 17' 05.62" / 84° 23' 25.75"

Date(s) of performance of the laboratory activities

Test start date	28.08.2025/ 10:40	Test completion date	01.09.2025/ 16:00
-----------------	-------------------	----------------------	-------------------

- Test Results -

Sl.	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Benzene (C ₆ H ₆)	IS:5182(P-11) 2006	ug/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
2.	Benzo (a) Pyrene (Bap)- Particulate phase only	IS:5182(P-12) 2004	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
3.	Carbon Monoxide (CO)	EPIC/LAB/SOP/AP/01/00	mg/m ³	BDL (MDL-1.0)	BDL (MDL-1.0)	BDL (MDL-1.0)	BDL (MDL-1.0)	-

- Test Results End -

Prescribed Limit Environmental (Protection) Rules-1986, Schedule VII.
Operational Status Unit was Operational During sampling.

Analysed by - Vashu Mehta


Reviewed by
(E.K. Kumar)
Technical Head


Page 1 of 1

Disclaimer Note 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's premises/ facility, at specific environmental conditions as mentioned in report and results relate only to the sample tested in prescribed Date & time. 3. The Test report shall not be reproduced full or in part & can't be used as proof in the court of law. 4. Any complaint about this report should be communicated in writing within 10 days of the issue. 5. Total liability of EPIC LabTech Pvt. Ltd. will be limited to recovered account only. 6. All disputes are subject to Ranchi Jurisdiction and maximum liability of the laboratory does not exceed the testing and sampling charges. 7. Opinion does not imply endorsement of the tested product by laboratory. Unless no concentration, laboratory accepts any value by any or means of this report. 8. When the results are from external provider are marked as "not". Abbreviations - BDL (Below Detection Limit), MDL (Minimum Detectable Limit), LoQ (Limit of Quantification).



Address:
C/o - R.K. Tripathi, Umrapur,
Road No. - 5, Ranchi,
Jharkhand - 834005, India

GSTIN - 9486292
98357 86477
93049 72994
epiclabtech@gmail.com

CIN - U74999JH2012PTC299883
Page - AAHC23611M
GST - 2TAAR1CE51H128

Accredited by -
NABL, with certificate number TC-12887
Institute Code: NABL-Certified
Certified by -
NABL 2001-2015 and ISO 9001-2015

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000001101	Discipline	Chemical
Report Unique ID	RL02752535069	Group	Water
Issue date/time	01.09.2025/ 17:06	Sub Group	Ground Water

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
05.04.2025/ 10:10
Order Number
BP/MIB/MM/25/0114/00

References of Quality Management System (Steps of Traceability Chart)

Customer Registration No.	EPIC/OTH/0075	Sample Booking Number	EPIC-2536069
Sample(s) Code	2536069	Sample Receipt (D/T)	28.08.2025/ 10:21

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	25.08.2025/ 12:10	Sampling End (D/T)	25.08.2025/ 12:20
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample		Receipt sample(s) were fit for analysis.	

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	70	Wind direction	45°-225°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

5. Location A	Near Prathmik Vidayalaya Barang Path	GPS coordinate	23° 17' 22.57" / 84° 25' 28.81"
---------------	--------------------------------------	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	28.08.2025/ 11:15	Test completion date	01.09.2025/ 16:00
-----------------	-------------------	----------------------	-------------------

--Test Result--

Sl.	Test Parameters	Method used	Unit	Results	Limits	
					Acceptable limit	Permissible limit
1.	pH value at 25.70C	IS 3025 (P-11) 2022	-	6.88	6.5-8.5	No relaxation
2.	Turbidity	IS 3025 (P-10) 1984	NTU	0.82	1	5
3.	Colour	IS 3025 (P-04) 2021	Hazen	<5	5	15
4.	Odour	IS 3025 (P-05) 2018	-	Agreeable	Agreeable	Agreeable
5.	Taste	IS 3025 (P-07) 2017	-	Agreeable	Agreeable	Agreeable
6.	Total Dissolved Solids (TDS)	IS 3025 (P-16) 2023	mg/l	244.00	500	2000
7.	Chloride (as Cl)	IS 3025 (P-32) 2019	mg/l	22.22	250	1000
8.	Total Alkalinity (as CaCO3)	IS 3025 (P-23) 2019	mg/l	187.00	200	600
9.	Total Hardness (as CaCO3)	IS 3025 (P-21) 2009	mg/l	199.00	200	600
10.	Calcium (as Ca)	IS 3025 (P-40) 1991	mg/l	53.84	75	200
11.	Free Residual Chlorine	IS 3025 (P-26) 1984	mg/l	BDL (MDL-0.4)	0.2	1
12.	Sulphate (as SO4)	IS 3025 (P-24/Sec-1) 2022	mg/l	4.85	200	400
13.	Nitrate (as NO3)	APHA-4500-N 2023	mg/l	2.00	45	No relaxation
14.	Phenolic Compound	IS 3025 (P-43/Sec-1) 2022	mg/l	BDL (MDL-0.001)	0.001	0.002
15.	Magnesium (as Mg)	APHA-3500-Mg E 2023	mg/l	14.85	30	100

Page 1 of 9

Contractual Note : 1. The laboratory accepts responsibility for content of this report ; 2. The personnel at laboratory's permanent facility, at specific environmental condition as method required and results relate only to the sample tested as prescribed time & time ; 3. The Test report shall not be reproduced full or in part & can't be used as proof in the court of law ; 4. Any complaint about this report should be communicated in writing within 10 days of its issue ; 5. Total liability of EPIC LabTech Pvt. Ltd. will be limited to incurred amount only ; 6. All disputes are subject to Ranchi jurisdiction and laboratory's liability of the laboratory does not exceed the testing and sampling charges ; 7. Option does not imply endorsement of the test result by laboratory. Under no circumstances, laboratory accepts any legal or moral of this report ; 8. When the results are from external provider are marked as "mark" ; 9. Annotations : BDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LOD (Limit of Quantification) ;



Analytical Test Certificate

Unique Lab Report No.	TC1288725000001101	Discipline	Chemical
Report Unique ID	RL02752535069	Group	Water
Issue date/time	01.09.2025/ 17:06	Sub Group	Ground Water

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : SIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9871034775
Email Id
ankit.das@adityabirla.com
Order Date
05.04.2025/ 10:10
Order Number
RP/MJB/MM/25/0114/00

Group - Residues and Contaminants in Water,			Sub Group - Trace Metals Elements			
16. Copper (as Cu)	APHA 31118 2023	mg/l	BDL(MDL-0.2)	0.05	1.5	
17. Iron (as Fe)	APHA 31118 2023	mg/l	BDL(MDL-0.1)	1.0	No relaxation	
18. Lead (as Pb)	APHA 31118 2023	mg/l	BDL(MDL-0.01)	0.01	No relaxation	
19. Cadmium (as Cd)	APHA 31118 2023	mg/l	BDL(MDL-0.0001)	0.003	No relaxation	
20. Total Chromium (as Cr)	APHA 31118 2023	mg/l	BDL(MDL-0.05)	0.05	No relaxation	
21. Nickel (as Ni)	APHA 31118 2023	mg/l	BDL(MDL-0.02)	0.02	No relaxation	
22. Total Arsenic (as As)	APHA 31148 2023	mg/l	BDL(MDL-0.005)	0.01	0.05	
23. Selenium (as Se)	APHA 31148 2023	mg/l	BDL(MDL-0.005)	0.01	No relaxation	
24. Manganese (as Mn)	APHA 31118 2023	mg/l	BDL(MDL-0.08)	0.1	0.3	
25. Zinc (as Zn)	APHA 31118 2023	mg/l	BDL(MDL-0.04)	5	15	

-Test result End -

Prescribed Limit

IS 10500:2021

Operational Status

Unit was Operational During sampling.

Analysed by - Peppu Kumar

Reviewed by
(P.K. Kumar)
Technical HeadIssued by
(Ankit Das)
Laboratory HeadAuthorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand

Page 3 of 3



EPIC
Environmental Footprint

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02752535099	Group	Water
Issue date/time	01.09.2025/ 17:06	Sub Group	Ground Water

Report issued to

**M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST - LOHARDAGA, STATE - JHARKHAND, INDIA-835302
MONITORING SITE : BIMARLA BAUXITE MINE**

Contact Person Mr. Ankit Das
Contact Number +91 9971034775
Email Id ankit.das@edityaberia.com
Order Date 05-04-2025/ 10:10
Order Number EP/MIB/MM/25/9114/00

References of Quality Management System Effect of Traceability Document

Customer Registration No.	EPIC/OTH/0275	Sample Booking Number	EPIC-2535099
Sample(s) Code	2535099	Sample Receipt (D/T)	28.08.2025/ 10:21

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	25.08.2025 / 12:10	Sampling End (D/T)	25.08.2025 / 12:20
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS - 3025 (Part-1) 1987, R-2003		

Description/condition of sample Receipt sample(s) were fit for analysis.

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	22	Humidity (%)	70	Wind direction	NE	Wind speed (m/s)	4.5
-------------------	--------	------------------	----	--------------	----	----------------	----	------------------	-----

Section 1 question (a) with ERS constraints

Sampling location(s) with GPS coordinates(s): **GPS coordinates: 40.622222, -70.016667**

Role(s) of endogenous vs. exogenous factors in the initiation, activation, and maintenance of the disease process

Test start date: 28.08.2025/ 11:15 Test completion date: 01.09.2025/ 16:00

-Test Report-

Sl.	Test Parameters	Method used	Unit	Results	Limits	
					Acceptable Limit	Permissible limit
1.	Fluoride (as F)	APHA 4550 F-C 2023	mg/l	BDL(MDL-0.1)	1.0	1.5
Group-Residues and Contaminants in Water				Sub Group-Trace Metals Elements		
2.	Aluminum	IS 3025 (P-55) 2019	mg/l	BDL(MDL-0.1)	0.03	0.2
3.	Boron	IS 3025 (P-57) 2021	mg/l	BDL(MDL-0.1)	0.5	1.0
4.	Polychlorinated biphenyls	EPIC/LAB/SOP/WA/03/06	µg/l	BDL(MDL-0.2)	0.5	No relaxation
5.	Polynuclear Aromatic Hydrocarbons (PAHs)	EPIC/LAB/SOP/WA/03/06	µg/l	BDL(MDL-0.05)	0.1	No relaxation

Hydrocarbons (PAHs)

Group	Substances and Concentrations in Water	Sub Group	Restrictions		
6.	Aiachlor	EPIC/LAB/SOP/WA/01/06	μg/l BDL(MDL-0.5)	20	No relaxation
7.	Atrazine	EPIC/LAB/SOP/WA/01/06	μg/l BDL(MDL-0.5)	2.0	No relaxation
8.	Dieldrin	EPIC/LAB/SOP/WA/03/09	μg/l BDL(MDL-0.02)	0.03	No relaxation
9.	Alpha HCH	EPIC/LAB/SOP/WA/01/06	μg/l BDL(MDL-0.005)	0.01	No relaxation
10.	Beta HCH	EPIC/LAB/SOP/WA/01/06	μg/l BDL(MDL-0.02)	0.04	No relaxation
11.	Butachlor	EPIC/LAB/SOP/WA/03/09	μg/l BDL(MDL-0.3)	125.0	No relaxation
12.	Chlopyrifos	EPIC/LAB/SOP/WA/03/09	μg/l BDL(MDL-0.5)	30.0	No relaxation
13.	Delta HCH	EPIC/LAB/SOP/WA/01/06	μg/l BDL(MDL-0.02)	0.04	No relaxation
14.	Ethion	EPIC/LAB/SOP/WA/01/06	μg/l BDL(MDL-0.5)	3.0	No relaxation



EPIC LabTech Private Limited

Address:
C/o - R.K. Trigarthi, Cuttackupi
Road No. - 2, Ranchi,
Jharkhand - 834005, India

Tel: 98351 966392
98351 96677
93549 77934
Email: epictech@gmail.com

CIN - U74999JH2022PTC079685, Accredited by -
PAN: AAHCES01M
GST - 25AAHCES01M123

Accredited by -
Certified by -
ISO 9001:2015 and ISO 17025:2018

Analytical Test Report

Unique Lab Report No.	N/A	Discipline	Chemical		
Report Unique ID	RL02752535089	Group	Water		
Issue date/time	01.09.2025/ 17:06	Sub Group	Ground Water		
Report Issue to					
M/s - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST - LOHARDAGA, STATE - JHARKHAND, INDIA 835302 MONITORING SITE : BIMARLA BAUXITE MINE		Contact Person	Mr. Ankit Das		
		Contact Number	+91 9971034775		
		Email Id	ankit.das@adityabirla.com		
		Order Date	05.04.2025/ 10:10		
		Order Number	RP/MIB/MM/25/0114/00		
15. Gamma-HCH(Lindane)	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	2.0	No relaxation
16. Malathion	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	500.0	No relaxation
17. Methyl parathion	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.2)	0.3	No relaxation
18. Monocrotophos	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	1.0	No relaxation
19. Phorate	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	2.0	No relaxation
20. DDT (o, p and p, p-isomer of DDT, DDE and DDD)	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	1.0	No relaxation
21. Endosulfan (alpha, beta, and sulphate)	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.05)	0.4	No relaxation

--Test result End--

Prescribed Limit

IS 19500:2021

Operational Status

Unit was Operational During sampling



Reviewed by
(R.K. Kumar)
Technical Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Page 2 of 2

Contractual Note: 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's permanent facility at specific environmental condition as mention in report and results relate only to the sample tested in prescribed Date & time. 3. The Test report shall not be reproduced full or in part & can't be used as proof in the court of law. 4. Any complaint about this report should be communicated in writing within 10 days of its issue. 5. Total validity of EPIC LabTech Pvt. Ltd. will be limited to received amount only. 6. All disputes are subject to Ranchi Jharkhand and maximum liability of the laboratory does not exceed the testing and sampling charges. 7. Customer does not enjoy endorsement of the tested product by laboratory. Under no circumstances, laboratory accepts any claim by use or misuse of this report. 8. When the results are from external provider are marked as * mark.

Abbreviations: BDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LoQ (Limit of Quantitation)



Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Biological
Report Unique ID	RL02752535070	Group	Water
Issue date/time	01.09.2025/ 17:09	Sub Group	Ground Water

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST - LOHARDAGA, STATE - JHARKHAND, INDIA 835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adiyabirla.com
Order Date
06.04.2025/ 10:10
Order Number
BP/MIN/MM/25/0114/00

References of Quality Management System (Steps of Traceability Data)

Customer Registration No.	EPIC/OTH/0275	Sample Booking Number	EPIC-2535070
Sample(s) Code	2535070	Sample Receipt (D/T)	28.08.2025/ 10:21

Sampling References

Type of industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	25.08.2025/ 12:10	Sampling End (D/T)	25.08.2025/ 12:20
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample		Receipt sample(s) were fit for analysis.	

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	70	Wind direction	45°-225°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)	GPS coordinate
S. Location A Near Prathmik Vidayataya Barang Path	23° 17' 22.67" / 84° 25' 28.81"

Date(s) of performance of the laboratory activities

Test start date	28.08.2025/ 11:10	Test completion date	01.09.2025/ 1:35
-----------------	-------------------	----------------------	------------------

--Test Result--

Sl.	Test Parameters	Method used	Unit	Results	Limits
1.	Total Coliform	IS 15185:2002	Per 100 ml	Not Detected	Shall not be detectable in any 100 ml sample
2.	E.Coli	IS 15185:2002	Per 100 ml	Not Detected	

--Test result End--

Prescribed Limit	IS 10000:2021
Operational Status	Unit was Operational During sampling.



IS 10000:2021
Unit was Operational During sampling.


Reviewed by
Sujata Kumar
Technical Head


Issued by
Ankit Das
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Address:
C/o - R.K. Tripathi, Indrapuri,
Road No. - 3, Ranchi,
Jharkhand - 834003, India

T. 06531 4986257
M. 98357 99477
E. 133498 73994
G. EPICLabTech@gmail.com

CIN - U74999JH2022PTC199685
Fax: 06531 4986154
GST - 25AARHC587M2Z8

Accredited by -
SIRI - ISO 9001:2015 Number 10 / 13001
Kharagpur Jharkhand Control Board
Certified by -
ISO 9001:2015 and ISO 45001:2018

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1268725000001102	Discipline	Chemical
Report Unique ID	RL02752535071	Group	Water
Issue date/time	01.09.2025/ 17:12	Sub Group	Surface Water

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE- COURT ROAD, POST OFFICE- LOHARDAGA,
DIST- LOHARDAGA, STATE- JHARKHAND, INDIA 835302
MONITORING SITE: SIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
05.04.2025/ 10:10
Order Number
RP/MIB/MM/25/0114/00

References of Quality Management System (Date of Issuability Date)

Customer Registration No.	EPIC/OTH/0275	Sample Booking Number	EPIC-2535071
Sample(s) Code	2535071	Sample Receipt (D/T)	28.08.2025/ 10:22

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	25.08.2025/ 12:30	Sampling End (D/T)	25.08.2025/ 12:40
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS : 3025 (Part-1) 1967, R-2003		
Description/condition of sample		Receipt sample(s) were fit for analysis.	

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	70	Wind direction	45°-225°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Korie (Spring Water)	GPS coordinate	23° 17' 10.06" / 84° 26' 51.94"
---------------	----------------------	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	28.08.2025/ 11:30	Test completion date	01.09.2025/ 15:30
-----------------	-------------------	----------------------	-------------------

-Test Result-

Sl.	Test Parameters	Method used	Unit	Results	Limits
1.	pH value at 25°C	IS 3025 (P-11) 2022	-	6.73	-
2.	Turbidity	IS 3025 (P-10) 1984	NTU	0.09	-
3.	Colour	IS 3025 (P-04) 2023	Haen	5	-
4.	Odour	IS 3025 (P-05) 2018	-	Agreeable	-
5.	Taste	IS 3025 (P-07) 2017	-	Agreeable	-
6.	Total Dissolved Solids (TDS)	IS 3025 (P-16) 2023	mg/l	193.0	-
7.	Chloride (as Cl)	IS 3025 (P-32) 2019	mg/l	13.3	-
8.	Total Alkalinity (as CaCO ₃)	IS 3025 (P-23) 2018	mg/l	30.0	-
9.	Total Hardness (as CaCO ₃)	IS 3025 (P-21) 2009	mg/l	24.16	-
10.	Calcium (as Ca)	IS 3025 (P-40) 1991	mg/l	12.83	-
11.	Free Residual Chlorine	IS 3025 (P-26) 1986	mg/l	BDL(MDL-0.4)	-
12.	Sulphate (as SO ₄)	IS 3025 (P-24/Sec-1) 2022	mg/l	1.90	-
13.	Nitrate (as NO ₃)	APHA-2500 B 2023	mg/l	2.09	-
14.	Phenolic Compound	IS 3025 (P-43/Sec-1) 2022	mg/l	BDL(MDL-0.001)	-
15.	Magnesium (as Mg)	APHA 2500 Mg E 2023	mg/l	1.98	-

Disclaimer Notes : 1. This laboratory accepts responsibility for content of this report | 2. Test performed at laboratory's premises facility, at specific environmental condition as method required and results relate only to the sample tested in prescribed Date & Time | 3. The Test report shall not be reproduced full or in part & can't be used as proof in the court of law | 4. Any complaint about this report should be communicated in writing within 10 days of its issue | 5. Total Validity of EPIC LabTech Pvt. Ltd. will be limited to increased warrant only | 6. All figures are subject to Burette Calibration and retestability liability of the laboratory does not exceed the testing and sampling charges | 7. Options does not apply endorsement of the tested product by laboratory. Under no circumstances, laboratory accepts any caused by use or misuse of this report | 8. When the results are from external provider are marked as * mark | 9. Page 1 of 9

Abbreviations - BDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LotQ (Limit of Quantitation)



Address:
C/o - R.K. Tengath, Intrapuri
Road No. - 2, Ranchi,
Jharkhand - 834003, India

Tel: 98351 984352
98351 96477
93049 73934
epiclabtech@gmail.com

CIN - U74999JH2022PTC079885
PAN: AAHCC3381M
GST - 204AHCEH77AYC8

Accredited by:
NABL, Registration Number 30, 12017
Jharkhand State Pollution Control Board
Certified by:
ISO 9001:2015 and ISO 14001:2015

Analytical Test Certificate

Unique Lab Report No.	TC1288725000001102	Discipline	Chemical
Report Unique ID	RL02752635071	Group	Water
Issue date/time	01.09.2025/ 17:12	Sub Group	Surface Water

Report Issue to:

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST - LOHARDAGA, STATE - JHARKHAND, INDIA - 835302
MONITORING SITE : SIMARLA BAUXITE MINE

Contact Person
Contact Number
Email Id
Order Date
Order Number

Mr. Ankit Das
+91 9871034775
ankit.das@advityabirla.com
05.04.2025/ 10:10
RP/MJS/MM/25/0114/00

Group - Residues and Contaminants in Water		Sub Group - Trace Metals Elements	
16.	Copper (as Cu)	APHA 3111 B 2023	mg/l
17.	Iron (as Fe)	APHA 3111 B 2023	mg/l
18.	Lead (as Pb)	APHA 3111 B 2023	mg/l
19.	Cadmium (as Cd)	APHA 3111 B 2023	mg/l
20.	Total Chromium (as Cr)	APHA 3111 B 2023	mg/l
21.	Nickel (as Ni)	APHA 3111 B 2023	mg/l
22.	Total Arsenic (as As)	APHA 3114 B 2023	mg/l
23.	Selenium (as Se)	APHA 3114 B 2023	mg/l
24.	Manganese (as Mn)	APHA 3111 B 2023	mg/l
25.	Zinc (as Zn)	APHA 3111 B 2023	mg/l

-Test result End -

Prescribed Limit

Operational Status

Analyzed by - Pappu Kumar

Unit was Operational During sampling.


 Reviewed by
(Pappu Kumar)
Technical Head


 Issued by
(Ankit Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand





Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02782535071	Group	Water
Issue date/time	01.09.2025/ 17:12	Sub Group	Surface Water

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST- LOHARDAGA, STATE- JHARKHAND, INDIA 835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9871034775
Email Id
ankit.das@editabirla.com
Order Date
05.04.2025/ 10:10
Order Number
RP/MUB/MM/25/0114/00

References of Quality Management System (Steps of Traceability Data)

Customer Registration No.	EPIC/OTH/0275	Sample Booking Number	EPIC-2535071
Sample(s) Code	2535071	Sample Receipt (D/T)	28.08.2025/ 10:22

Sampling References

Type of industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/038
Sampling Start (D/T)	25.08.2025/ 12:30	Sampling End (D/T)	25.08.2025/ 12:40
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample		Receipt sample(s) were fit for analysis.	

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	70	Wind direction	45°-225°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Korla (Spring Water)	GPS coordinate	23° 17' 10.06" / 84° 25' 51.84"
---------------	----------------------	----------------	---------------------------------

Data(s) of performance of the laboratory activities

Test start date	28.08.2025/ 11:30	Test completion date	01.09.2025/ 15:30
-----------------	-------------------	----------------------	-------------------

-Test Result-

Sl.	Test Parameters	Method used	Unit	Results	Limits
-----	-----------------	-------------	------	---------	--------

1. Fluoride (as F)	APHA 4500 F-C 2020	mg/l	BDL(MOL-0.1)	-
--------------------	--------------------	------	--------------	---

Group- Residues and Contaminants in Water				Sub Group- Trace Metals Elements
---	--	--	--	----------------------------------

2. Aluminum	IS 2025 (P-56) 2019	mg/l	BDL(MOL-0.1)	-
-------------	---------------------	------	--------------	---

3. Boron	IS 2025 (P-67) 2021	mg/l	BDL(MOL-0.1)	-
----------	---------------------	------	--------------	---

4. Polychlorinated biphenyls	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(HDL-0.2)	-
------------------------------	-----------------------	------	--------------	---

5. Polynuclear Aromatic Hydrocarbons (PAH)	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(HDL-0.05)	-
--	-----------------------	------	---------------	---

Group- Residues and Contaminants in Water				Sub Group- Pesticides
---	--	--	--	-----------------------

6. Alachlor	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MOL-0.5)	-
-------------	-----------------------	------	--------------	---

7. Atrazine	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MOL-0.5)	-
-------------	-----------------------	------	--------------	---

8. Dieldrin	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MOL-0.02)	-
-------------	-----------------------	------	---------------	---

9. Alpha HCH	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MOL-0.005)	-
--------------	-----------------------	------	----------------	---

10. Beta HCH	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MOL-0.02)	-
--------------	-----------------------	------	---------------	---

11. Butachlor	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MOL-0.5)	-
---------------	-----------------------	------	--------------	---

12. Chlorynphos	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MOL-0.5)	-
-----------------	-----------------------	------	--------------	---

13. Delta HCH	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MOL-0.02)	-
---------------	-----------------------	------	---------------	---

14. Ethion	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MOL-0.5)	-
------------	-----------------------	------	--------------	---



Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02752530071	Group	Water
Issue date/time	01.05.2025/ 17:12	Sub Group	Surface Water

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST - LOHARDAGA, STATE - JHARKHAND, INDIA 835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person
Contact Number
Email Id
Order Date
Order Number

Mr. Ankit Das
+91 9871034775
ankit.das@adityabirla.com
05.04.2025/ 10:10
RP/PUB/MM/25/0114/00

15. Gamma-HCH(Lindane)	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	-
16. Malathion	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	-
17. Methyl parathion	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.2)	-
18. Monocrotophos	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	-
19. Phorate	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	-
20. DDT (o, p and p, p-isomer of DDT, DDE and DDD)	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	-
21. Endosulfan (alpha, beta, and sulphate)	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.05)	-

-Test result End -

Prescribed Limit

Operational Status

Unit was Operational During sampling.

Analyzed by - Pappu Kumar

Reviewed by
(E.K. Kumar)
Technical Head
Ankit Das
17/05/2025
Issued by
Ankit Das
Laboratory HeadAuthorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Biological Test Certificate

Unique Lab Report No.	N/A	Discipline	Biological				
Report Unique ID	RLO2752536072	Group	Water				
Issue date/time	01.09.2025/ 17:15	Sub Group	Surface Water				
Report Issue to							
M/s - MINERALS & MINERALS LIMITED VILLAGE - COURT ROAD, POST OFFICE - LOHARDAGA, DIST - LOHARDAGA, STATE - JHARKHAND, INDIA 835302		Contact Person	Mr. Ankit Das				
MONITORING SITE : BIMARLA BAUXITE MINE		Contact Number	+91 9971034775				
		Email Id	ankit.das@adityabirla.com				
		Order Date	06.04.2025/ 10:10				
		Order Number	RP/MIB/MM/25/0114/08				
References of Quality Management System (Steps of Traceability Chart)							
Customer Registration No.	EPIC-OTH/0275	Sample Booking Number	EPIC-2536072				
Sample(s) Code	2536072	Sample Receipt (D/T)	28.08.2025/ 10:22				
Sampling References							
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036				
Sampling Start (D/T)	25.08.2025/ 12:30	Sampling End (D/T)	26.08.2025/ 12:40				
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team				
Sampling method used	IS : 3025 (Part-1) 1987, R-2003						
Description/condition of sample	Receipt sample(s) were fit for analysis.						
Environmental Condition during sampling							
Weather condition	Cloudy	Temperature (°C)	27	Humidity %	70	Wind direction	45°-225°
Sampling Location(s) with GPS coordinate(s)							
S. Location A	Korte (Spring Water)	GPS coordinate	23° 17' 10.06" / 84° 26' 51.94"				
Details of performance of the laboratory activities							
Test start date	28.08.2025/ 11:30	Test completion date	01.09.2025/ 15:30				
-Test Result-							
Sl	Test Parameters	Method used	Unit	Results		Limits	
1.	Total Coliform	IS 15186:2002	Per 100 ml	380		—	
2.	E.Coli	IS 15185:2002	Per 100 ml	260		—	
-Test result End --							

Prescribed Limit

Operational Status

Analyzed by - Sojata Kumar

Unit was Operational During sampling.


 Sojata Kumar
 Technical Head


 Deepak Singh
 Laboratory Head

 Authorized Signatory
 EPIC LabTech Pvt. Ltd.,
 Ranchi, Jharkhand



Address:
C/o - R.K. Tugardi, Jharkhand.
Road No. - 3, Ranchi,
Jharkhand - 834001, India

T. 091 988287
98357 88677
93049 12964
epiclabtech@gmail.com

CIN - U74999IN2022PTC018855
Accredited by
NABL, Accredited Number 10, T2001
Harman State Calibration Control Board
Certified by:-
ISO 9001:2015 and ISO 14001:2015

TC-12887

Authorised Test Certificate

Unique Lab Report No.	TC128872500001103	Discipline	Chemical
Report Unique ID	RL02752535073	Group	Pollution & Environment
Issue date/time	01.09.2025/ 17:18	Sub Group	Waste Water (Effluent)

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9871034775
Email Id
ankit.das@adityabirla.com
Order Date
05.04.2025/ 10:10
Order Number
RP/MIB/MM/25/0114/00

References of Quality Management System (Steps of Traceability Chart)

Customer Registration No.	EPIC/OTH/0275	Sample Booking Number	EPIC-2535073
Sample(s) Code	2535073	Sample Receipt (D/T)	28.08.2025/ 10:23

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	25.08.2025/ 12:30	Sampling End (D/T)	25.08.2025/ 12:40
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample		Receipt sample(s) were fit for analysis.	

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	70	Wind direction	45°-225°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Work Shop (Outlet)	GPS coordinate	23° 18' 59" / 84° 25' 18.09"
---------------	--------------------	----------------	------------------------------

Data(s) of performance of the laboratory activities

Test start date	28.08.2025/ 10:43	Test completion date	01.09.2025/ 15:15
-----------------	-------------------	----------------------	-------------------

-Test Result-

Sl.	Test Parameters	Method used	Unit	Results	Limits
1.	pH value at 25°C	IS 3025 (P-11) 2022	-	6.73	6.5-8.5
2.	BOD (3 days at 27°C)	IS 3025 (P-44) 2009	mg/l	13.5	-
3.	CO ₂	IS 3025 (P-58) 2006	mg/l	64.0	150
4.	Oil & Grease	IS 3025 (P-39) 2021	mg/l	BDL(MDL-04)	10.0
5.	Total Suspended Solid	IS 3025 (P-17) 2022	mg/l	48.0	50
6.	Phosphate	IS 3025 (P-31/Sec-1) 2022	mg/l	0.56	-
7.	Zinc	APHA 3111 B 2025	mg/l	BDL(MDL-0.04)	-

-Test result End -

Prescribed Limit
Operational Status
Analyzed by - Pappu Kumar

Environmental (Protection) Rules-2016, Schedule 1, Serial No. 114
Unit was Operational During sampling.


Reviewed by
(P.K. Kumar)
Technical Head


Issued by
(Deepak)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand





Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	PLD2752535073	Group	Pollution & Environment
Issue date/time	01.09.2025/ 17:18	Sub Group	Waste Water (Effluent)

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA-835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person: Mr. Ankit Das
Contact Number: +91 9971034775
Email Id: ankit.das@adityabirla.com
Order Date: 05.04.2025/ 10:10
Order Number: BP/MB/MM/25/0114/00

References of Quality Management System (Copy of Traceability Data)

Customer Registration No.	EPIC/OTH/0275	Sample Booking Number	EPIC/2535073
Sample(s) Code	2535073	Sample Receipt (D/T)	28.08.2025/ 10:23

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	25.08.2025/ 12:30	Sampling End (D/T)	25.08.2025/ 12:40
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample		Receipt sample(s) were fit for analysis.	

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	70	Wind direction	45°-225°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Work Shop (Outlet)	GPS coordinate	23° 16' 58" E 84° 25' 18.09" N
---------------	--------------------	----------------	--------------------------------

Date(s) of performance of the laboratory activities

Test start date	28.08.2025/ 10:43	Test completion date	01.09.2025/ 15:15
-----------------	-------------------	----------------------	-------------------

-Test Result-

Sl.	Test Parameters	Method used	Unit	Results	Limits
1.	Total Dissolve Solids (TDS)	IS 3025 (P-16) 2023	mg/l	168.00	-

-Test result End --

Prescribed Limit: Environmental (Protection) Rules, 1986, Schedule I, Serial No. 114
Operational Status: Unit was Operational During sampling.

Analyzed by - Pappu Kumar


 Reviewed by
(P.K. Kumar)
Technical Head


 Issued by
(Ankit Das)
Laboratory Head

 Authorized Signatory
EPIC LabTech Pvt. Ltd.,
Ranchi, Jharkhand



Environmental Test Certificate

Unique Lab Report No.	TC1288725000001259	Discipline	Chemical
Report Unique ID	RL03032530001	Group	Atmospheric Pollution
Issue date/time	25.09.2025/ 17:30	Sub Group	Ambient Air Quality

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST. LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
05.04.2025/ 10:10
Order Number
RP/MJ/B/MM/25/0114/00

References of Quality Management System (Days of Traceability Data)

Customer Registration No.	EPIC/OTH/0303	Sample Booking Number	EPIC-2539001
Sample(s) Code	2539001 (A) (B) (C) (D)	Sample Receipt (D/T)	22.09.2025/ 10:29

Sampling References

Type of Industry Bauxite Mines
Sampling Start (D/T) 18.09.2025/ 12:15
Mode of Sampling Conducted by Laboratory
Sampling method used IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)
Description/condition of sample: Receipt sample(s) were fit for analysis.

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (PC)	27	Humidity %	66	Wind direction	200°-20°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Weigh Bridge	GPS coordinate	23° 17' 05.82" / 84° 25' 19.25"
S. Location B	Near Quarry No. 18	GPS coordinate	23° 17' 45.37" / 84° 25' 30.07"
S. Location C	Near Prathmik Vidayataya Barong Path	GPS coordinate	23° 17' 20.07" / 84° 25' 30.41"
S. Location D	Near Mine Entry Gate	GPS coordinate	23° 16' 49.80" / 84° 25' 33.67"

Data(s) of performance of the laboratory activities

Test start date	22.09.2025/ 10:49	Test completion date	25.09.2025/ 17:00
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Particulate Matter (PM ₁₀)	IS:5182 (P-23) 2022	µg/m ³	54.92	53.89	55.92	58.96	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	28.58	25.33	23.47	24.84	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-01) 2023	µg/m ³	09.71	07.18	07.54	09.33	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	20.97	12.97	13.96	16.94	80(24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	27.09	27.41	26.45	27.09	400(24 hr)
6.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m ³	19.54	20.27	20.63	20.99	180(1 hr)
7.	Lead (Pb)	IS:5182 (P-22) 2019	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	1.0(24 hr)
8.	Nickel (Ni)	IS:5182 (P-26) 2020	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	10(24 hr)
9.	Arsenic (As)	USEPA 10.2.2:1990	µg/m ³	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	10(24 hr)

-Test Results End -

Prescribed Limit Environmental (Protection) Rules-1986, Schedule VII.
Operational Status Unit was Operational During sampling.

Analysed by - Vishal Mangaraj



Received by
(ER Kumar)
Technical Head



Received by
(Dinesh Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.

Page 1 of 1

Contractual Note : 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's permanent facility at specific environmental condition as method required and results relate only to the sample tested in prescribed date & time. 3. The Test report shall not be reproduced full or in part & can't be used, as proof in the court of law. 4. Any complaint about this report should be communicated in writing within 10 days of its issue. 5. Total liability of EPIC LabTech Pvt. Ltd. will be limited to unearned amount only. 6. All disputes are subject to Ranchi jurisdiction and maximum liability of the laboratory does not exceed the testing and sampling charges. 7. Operator does not imply ownership of the tested product by laboratory. Under no circumstances, laboratory accepts any claim by user or receiver of this report. 8. When the results are from external provider are marked as "mark". 9. Information - BDL (Below Detection Limit), MDL (Minimum Detectable Limit), LQ (Limit of Quantitation).



Environmental Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL03032539001	Group	Atmospheric Pollution
Issue date/time	25.09.2025/ 17:30	Sub Group	Ambient Air Quality

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : SIMARIA BAUXITE MINE

Contact Person: Mr. Ankit Das
Contact Number: +91 9971004775
Email Id: ankit.das@adityabirla.com
Order Date: 06.04.2025/ 10:10
Order Number: RP/MIB/MM/25/0114/00

References of Quality Management System (Steps of Traceability Data)

Customer Registration No.	EPIC/OTH/0303	Sample Booking Number	EPIC-2539001
Sample(s) Code	2539001 (A) (B) (C) (D)	Sample Receipt (D/T)	22.09.2025/ 10:29

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	18.09.2025/ 12:15	Sampling End (D/T)	19.09.2025/ 10:58
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	66	Wind direction	200°-20°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Weigh Bridge	GPS coordinate	23° 17' 05.82" / 84° 25' 19.25"
S. Location B	Near Quarry No 1B	GPS coordinate	23° 17' 45.37" / 84° 25' 30.07"
S. Location C	Near Prathmik Vidayalaya Barang Path	GPS coordinate	23° 17' 20.07" / 84° 25' 30.41"
S. Location D	Near Mine Entry Gate	GPS coordinate	23° 17' 49.80" / 84° 25' 33.67"

Date(s) of performance of the laboratory activities

Test start date	22.09.2025/ 10:49	Test completion date	25.09.2025/ 17:00
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl.	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Benzene (C ₆ H ₆)	IS:5182(P-11) 2006	µg/m ³	BDL	BDL	BDL	BDL	-
2.	Benzo (a) Pyrene (Bap)- Particulate phase only	IS:5182(P-12) 2004	ng/m ³	BDL	BDL	BDL	BDL	-
3.	Carbon Monoxide (CO)	EPIC/LAB/SOP/14/P/01/00	mg/m ³	BDL	BDL	BDL	BDL	-

-Test Results End -

Prescribed Limit: Environmental (Protection) Rules-1986, Schedule VI.
Operational Status: Unit was Operational During sampling.

Analyzed by - Vimal Mengraj


Reviewed by
(B.K. Kumar)
Technical Head




Address:
C/o - R.K. Belpahar, Indrapuri,
Road No. - 3, Ranchi,
Jharkhand - 834005, India

T. 0651 4966392
M. 98357 88677
E. 93043 73944
E-mail: epiclabtech@gmail.com

CIN - U74999JH2022PTC00855
PAN - AAHCESEITM
GST - 25AAHCESEITM23

Accredited by -
NABL, with certificate Number 10/1360
Independent Board of Accreditation - Council Board
Certified by -
ISO 9001:2015 and ISO 14001:2015

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000001260	Discipline	Chemical
Report Unique ID	RL03032539002	Group	Aerospheric Pollution
Issue date/time	25.09.2025/ 17:33	Sub Group	Ambient Air Quality

Report Issue to

M/S - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9871034775
Email Id
ankit.das@adityabirla.com
Order Date
05.04.2025/ 10:10
Order Number
RF/MIB/MM/25/0114/00

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0303	Sample Booking Number	EPIC-2539002
Sample(s) Code	2539002 (A) (B) (C) (D)	Sample Receipt (D/T)	22.09.2025/ 10:30

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	19.09.2025/ 12:00	Sampling End (D/T)	20.09.2025/ 09:56
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS 5182 and CPCB Air Manual Volume- 1 (NAAQM/36/2012-13)		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	66	Wind direction	340°-360°
-------------------	--------	------------------	----	------------	----	----------------	-----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Korie Village	GPS coordinate	23° 17' 26.81" / 84° 25' 55.18"
S. Location B	Near Barang Village	GPS coordinate	23° 16' 32.45" / 84° 25' 12.72"
S. Location C	Near Ghaghra Village	GPS coordinate	23° 16' 55.80" / 84° 23' 36.22"
S. Location D	Near Bimara Village	GPS coordinate	23° 17' 05.82" / 84° 23' 25.75"

Date(s) of performance of the laboratory activities

Test start date	22.09.2025/ 10:50	Test completion date	25.09.2025/ 17:00
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl.	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Particulate Matter (PM ₁₀)	IS:5182 (P-23) 2022	µg/m ³	59.06	56.61	63.34	58.86	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	24.91	21.95	25.27	27.16	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2020	µg/m ³	06.35	07.07	07.44	08.55	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	19.72	17.56	15.50	13.42	80(24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	28.05	27.09	26.77	27.41	400(24 hr)
6.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m ³	24.25	22.80	22.07	21.71	100(1 hr)
7.	Lead (Pb)	IS:5182 (P-22) 2019	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	1.0(24 hr)
8.	Nickel (Ni)	IS:5182 (P-26) 2020	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	7
9.	Arsenic (As)	USEPA ID 3.2-1999	ng/m ³	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	-

-Test Results End -

Prescribed Limit: Environmental (Protection) Rules-1986, Schedule VI.

Operational Status: Unit was Operational During sampling.

Analyzed by - Vishal Mengraj

Reviewed by
(S. Kumar),
Technical Head

Reviewed by
S. Kumar
Laboratory Head
Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical					
Report Unique ID	RL03032539002	Group	Atmospheric Pollution					
Issue date/time	25.09.2025/ 17:30	Sub Group	Ambient Air Quality					
Report Issue to								
M/s - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE: BIMARLA BAUXITE MINE	Contact Person Mr. Ankit Das	Contact Number +91 9971034775	Email Id ankit.das@adityabirla.com					
Order Date 05.04.2025/ 10:10	Order Number RP/MIB/MM/25/0114/00							
References of Quality Management System (Days of Traceability Data)								
Customer Registration No.	EPIC/OTH/0303	Sample Booking Number	EPIC-2539002					
Sample(s) Code	2539002 (A) (B) (C) (D)	Sample Receipt (D/T)	22.09.2025/ 10:30					
Sampling References								
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036					
Sampling Start (D/T)	19.09.2025/ 12:00	Sampling End (D/T)	20.09.2025/ 09:55					
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team					
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)							
Description/condition of sample	Receipt sample(s) were fit for analysis.							
Environmental Condition during sampling								
Weather condition	Cloudy	Temperature (°C)	27					
		Humidity %	66					
		Wind direction	340°-160°					
Sampling Location(s) with GPS coordinate(s)								
S. Location A	Near Korin Village	GPS coordinate	23° 17' 26.81" / 84° 25' 55.18"					
S. Location B	Near Barang Village	GPS coordinate	23° 16' 32.45" / 84° 25' 12.72"					
S. Location C	Near Ghaghra Village	GPS coordinate	23° 16' 55.88" / 84° 23' 36.22"					
S. Location D	Near Bimarla Village	GPS coordinate	23° 17' 05.62" / 84° 23' 25.75"					
Date(s) of performance of the laboratory activities								
Test start date	22.09.2025/ 10:50	Test completion date	25.09.2025/ 17:00					
- Test Results -								
Sl.	Test Parameters	Method used	Unit	Results	Limits			
1.	Benzene (C ₆ H ₆)	IS:5182(P-11) 2006	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
2.	Benzo (a) Pyrene (Bap)- Particulate phase only	IS:5182(P-12) 2004	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
3.	Carbon Monoxide (CO)	EPIC/LAB/ISOP/AT/01/00	mg/m ³	BDL (MDL-1.0)	BDL (MDL-1.0)	BDL (MDL-1.0)	BDL (MDL-1.0)	-
- Test Results End -								

Prescribed Limit Environmental (Protection) Rules-1996, Schedule VI.
Operational Status Unit was Operational During sampling.

Analysed by - Vishal Mangeri

Reviewed by
(A.K. Kumar)
Technical HeadIssued by
(Ankit Das)
Laboratory HeadAuthorized Signatory
EPIC LabTech Pvt. Ltd.
Panch, Jharkhand



Analytical Test Certificate

Unique Lab Report No.	TC1288725000001261	Discipline	Chemical
Report Unique ID	RL03032539003	Group	Pollution & Environment
Issue date/time	25.09.2025/ 17:36	Sub Group	Soil/Sediment

Report Issue to

M/S - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : SIMARLA BAUXITE MINE

Contact Person: Mr. Ankit Das
Contact Number: +91 9971034775
Email Id: ankit.das@adityabirla.com
Order Date: 05.04.2025/ 10:10
Order Number: RP/MIB/MM/25/0114/00

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0303	Sample Booking Number	EPIC-2539003
Sample(s) Code	2539003	Sample Receipt (D/T)	22.09.2025/ 10:31

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/006
Sampling Start (D/T)	18.09.2025/ 15:10	Sampling End (D/T)	18.09.2025/ 15:20
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	EPIC/LAB/SOP/PE/01/00		
Description/condition of sample		Receipt sample(s) were fit for analysis.	

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	66	Wind direction	200°-20°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Quarry N.D. 18	GPS coordinate	23° 17' 46.17" / 84° 25' 31.27"
---------------	---------------------	----------------	---------------------------------

Data(x) of performance of the laboratory activities

Test start date	22.09.2025/10:40	Test completion date	25.09.2025/16:30
-----------------	------------------	----------------------	------------------

-Test Result-

Sl	Test Parameters	Method used	Unit	Results	Limits
1.	pH value at 25.7°C	MAGI 2013	-	6.82	-
2.	Available Phosphorus	MAGI 2013	Kg/ha	2.7	-
3.	Available Potassium	MAGI 2013	Kg/ha	92.50	-
4.	Organic Carbon	MAGI 2013	%	1.50	-
5.	Electrical Conductivity	MAGI 2013	µs/cm	140.9	-
6.	Magnesium	MAGI 2013	mg/kg	37.83	-
7.	Nitrogen	MAGI 2013	%	0.02	-
8.	Arsenic (as As)	USEPA 3050 B 1996	mg/kg	BDL/MDL-0.005	-
9.	Cadmium (as Cd)	USEPA 3050 B 1996	mg/kg	0.55	-
10.	Selenium (as Se)	USEPA 3050 B 1996	mg/kg	BDL/MDL-0.006	-

-Test result End -

Operational Status: Unit was Operational During sampling.

Analyzed by - Ishika Singh


Reviewed by
(E.K. Kumar)
Technical Head





EPIC LabTech Private Limited

Address:
C/o - R.K. Nigam, Ranchi,
Road No. - 3, Ranchi,
Jharkhand - 834001, India

T. 0651 4000292
M. 98352 88677
E. 93049 73964
G. ankitdas19@gmail.com

CIN - U74999JH2022PTC019685
PAN - AAHCE311M
GST - 25AAHCE311M1Z8

Accredited by -
Institute for NABL Accredited Laboratory
Certified by -
ISO 17025:2017 and ISO 9001:2015

Environmental Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL03032539003	Group	Pollution & Environment
Issue date/time	25.09.2025/ 17:36	Sub Group	Soil/Sediments

Report Issue to:

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LORIADAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : SIMARLA BAUXITE MINE

Contact Person: Mr. Ankit Das
Contact Number: +91 9871034775
Email Id: ankit.das@adityabirla.com
Order Date: 05.04.2025/ 10:10
Order Number: RPI/MIB/MM/25/0114/00

References of Quality Management System (Copy of Traceability Data)

Customer Registration No.	EPIC/OTH/0303	Sample Booking Number	EPIC-2539003
Sample(s) Code	2539003	Sample Receipt (D/T)	22.09.2025/ 10:31

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	18.09.2025/ 15:10	Sampling End (D/T)	18.09.2025/ 15:20
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	EPIC/LAB/SOP/PE/01/00		
Description/condition of sample		Receipt sample(s) were fit for analysis.	

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	60	Wind direction	200°/20°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Quarry NO.1B	GPS coordinate	23° 17' 46.17" / 84° 25' 31.27"
---------------	-------------------	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	22.09.2025/ 10:40	Test completion date	25.09.2025/ 16:30
-----------------	-------------------	----------------------	-------------------

—Test Result—

Sl.	Test Parameters	Method used	Unit	Results	Limits
1.	Chloride (as Cl)	EPIC/LAB/SOP/PE/01/00	%	0.035	-
2.	Mercury (as Hg)	USEPA 3050 B 1996	mg/kg	BDL (MDL-0.005)	-

—Test result End —

Operational Status: Unit was Operational During sampling.

Analyzed by - Ishika Singh.


Reviewed by
(A.K. Kumar)
Technical Head


Issued by
(A.K. Kumar)
Laboratory Head

Environmental Laboratory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Address:
C/o - R.K. Trigarthi, Indraprastha,
Road No. - 3, Ranchi,
Jharkhand - 834005, India

T. 0651 4000297
M. 98357 88677
E. 93049 10884
Gmail: epiclabtech@gmail.com

CIN - U74999IN2022PTC011685 Accredited by -
NABL (National Accreditation Board of India), Sector 10, Tughlaqabad, New Delhi, India
Certified by -
NABL 30012019 and NABL 40001:2018

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC12887/25000001282	Discipline	Chemical
Report Unique ID	RLD3032539004	Group	Water
Issue date/time	25.09.2025/ 17:39	Sub Group	Surface Water

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: BIMARLA BAUXITE MINE

Contact Person: Mr. Ankit Das
Contact Number: +91 9971034775
Email Id: ankit.das@adityabirla.com
Order Date: 05.04.2025/ 10:10
Order Number: RP/MIB/MM/25/0114/00

References of Quality Management System (Copy of Traceability Data)

Customer Registration No.	EPIC/OTH/0303	Sample Booking Number	EPIC-2539004
Sample(s) Code	2539004	Sample Receipt (D/T)	22.09.2025/ 10:32

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	18.09.2025/ 16:10	Sampling End (D/T)	18.09.2025/ 16:20
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample		Receipt sample(s) were fit for analysis.	

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	66	Wind direction	200°-20°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Quarry No. 1B	GPS coordinate	23° 17' 46.80" / 84° 26' 29.17"
---------------	--------------------	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	22.09.2025/ 10:52	Test completion date	25.09.2025/ 16:10
-----------------	-------------------	----------------------	-------------------

--Test Result--

SL	Test Parameters	Method used	Unit	Results	Limits
1.	pH value at 25°C	IS 3025 (P-11) 2022	-	6.71	-
2.	Total Dissolved Solids (TDS)	IS 3025 (P-16) 2023	mg/l	15.0	-
3.	Calcium (as Ca)	IS 3025 (P-40) 1991	mg/l	7.40	-

Group - Residues and Contaminants in Water,

Sub Group - Trace Metals Elements

4.	Iron (as Fe)	APHA 23111-B 2023	-	BOL (MDL 0.1)	-
----	--------------	-------------------	---	---------------	---

--Test result End--

Operational Status	Unit was Operational During Sampling.
--------------------	---------------------------------------

Analysed by - Pappa Kumar



Reviewed by
(B.K. Kumar)
Technical Head

Issued by
(Bappa Kumar)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.,
Ranchi, Jharkhand



EPIC LabTech Private Limited

Address:
C/o - R.R. Nagarkot, Indrapuram
Road No. - S. Ranchi
Jharkhand - 834005, India

T: 0631 9888292
M: 98357 88677
E: 93040 12988
G: info@epiclabtech@gmail.com

CIN: U74999JH2022PTC019685. Accredited by:
National Testing Laboratory Council (NTLC)
Certified by:
ISO 9001:2015 and ISO 17025:2017

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL03032539004	Group	Water
Issue date/time	25.09.2025/ 17:39	Sub Group	Surface Water

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person: Mr. Ankit Das
Contact Number: +91 9871034775
Email Id: ankit.das@adityabirla.com
Order Date: 05.04.2025/ 10:10
Order Number: RPL/MIB/MM/25/0114/00

References of Quality Management System (Steps of Traceability Chart)

Customer Registration No.	EPIC/OTH/0303	Sample Booking Number	EPIC-2539004
Sample(s) Code	2539004	Sample Receipt (D/T)	22.09.2025/ 10:32

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	18.09.2025/ 16:10	Sampling End (D/T)	18.09.2025/ 16:20
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample		Receipt sample(s) were fit for analysis.	

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	65	Wind direction	200°-20°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Quarry No.1B	GPS coordinate	23° 17' 46.60" / 84° 25' 29.17"
---------------	-------------------	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	22.09.2025/ 10:52	Test completion date	25.09.2025/ 16:10
-----------------	-------------------	----------------------	-------------------

Test Result

Sl.	Test Parameters	Method used	Unit	Results	Limits
1.	Dissolve Oxygen (DO)	IS 3025 (P-38) 1989	mg/l	4.2	-
2.	Temperature	IS 3025 (P-09) 1986	°C	24.2	-
3.	BOD (3days at 27°C)	IS 3025 (P-44) 2000	mg/l	2.0	-
4.	COD	IS 3025 (P-58) 2006	mg/l	32.0	-
5.	Total Suspended Solids (TSS)	IS 3025 (P-17) 2022	mg/l	12.00	-
6.	Oil & Grease	IS 3025 (P-39) 2021	mg/l	BOD(MDL-64)	-

Group - Residues and Contaminants in Water.

7.	Aluminum (as Al)	IS 3025 (P-55) 2003	Sub Group - Trace Metals Elements
----	------------------	---------------------	-----------------------------------

Test result End

Operational Status: Unit was Operational During sampling

Analyzed by - Pappu Kumar


Reviewed by
(Pappu Kumar)
Technical Head



Comments Notes: 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's permanent facility, at specific environmental condition of method required and results refers only to the sample tested in prescribed date & time. 3. The Test report shall not be reproduced full or in part & can't be used as proof in the court of law. 4. Any complaint about this report should be communicated in writing within 10 days of its issue. 5. Total liability of EPIC LabTech Pvt. Ltd. will be limited to recovered amount only. 6. All disputes are subject to Ranchi jurisdiction and exclusive liability of the laboratory does not exceed the testing and sampling charges. 7. Citation does not imply endorsement of the tested product by laboratory. 8. Due to circumstances, laboratory accepts any claim by use or misuse of this report. 9. When the results are from external provider are marked as * mark.



EPIC LabTech Private Limited

Address:
C/o - R.K. Tripathi, Indrapuri,
Road No. - 3, Ranchi,
Jharkhand - 834005, India.

T: 6651 4066332
M: 98357 86077
E: 93849 73994
O: epiclabtech@gmail.com

CIN: U74999IN2022PTC119885
PAN: AAHCES301YM
GST: 25AAHCES301YM12X

Accredited by:
NABL with certificate number IC-1300
Bharat Lab Accreditation Council (BLAC)
Certified by:
ISO 9001:2015 and ISO 14001:2015



TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000447	Discipline	Chemical
Report Unique ID	RL0150251806	Group	Atmospheric Pollution
Issue date/time	02.05.2025/11:54	Sub Group	Ambient Air Quality

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD,
POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA,
STATE-JHARKHAND, INDIA 835302
MONITORING SITE :BIMARLA BAUXITE MINE

Contact Person: Mr. Ankit Das
Contact Number: +91 9871034775
Email Id: ankit.das@adityabirla.com
Order Date: 05.04.2025/ 10:10
Order Number: RP/MJB/MM/25/0114/00

References of Quality Management System (Steps of Traceability Chart)

Customer Registration No.	EPIC/OTH/0150	Sample Booking Number	EPIC-251806
Sample(s) Code	251806 (A) (B) (C) (D)	Sample Receipt (D/T)	28.04.2025/10:32

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Sampling Start (D/T)	25.04.2025/ 10:26	Sampling End (D/T)	26.04.2025/ 07:34
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team

Description/condition of sample: Receipt sample(s) were fit for analysis.

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	28	Humidity %	61	Wind direction	270°-90°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Weigh Bridge	GPS coordinate	23° 17' 05.82"/84° 25' 19.25"
S. Location B	Near Quarry No 1B	GPS coordinate	23° 17' 45.37"/84° 25' 30.07"
S. Location C	Nav Prathmik Vidayataya Barang Path	GPS coordinate	23° 17' 20.07"/84° 25' 30.41"
S. Location D	Near Mine Entry Gate	GPS coordinate	23° 16' 49.80"/84° 25' 33.67"

Date(s) of performance of the laboratory activities

Test start date	28.04.2025/ 11:10	Test completion date	02.05.2025/ 10:00
-----------------	-------------------	----------------------	-------------------

-Test Result --

Sl	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Particulate Matter (PM ₁₀)	IS:5182 (P-23) 2022	µg/m ³	77.98	82.52	71.97	74.00	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	37.00	38.00	34.05	32.23	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2023	µg/m ³	68.91	68.92	68.02	68.05	60(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	23.54	23.56	22.40	23.62	60(24 hr)
5.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m ³	33.98	34.04	34.68	33.82	180(1 hr)
6.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	44.46	43.60	40.76	42.04	400(24 hr)
7.	Lead (Pb)	IS:5182 (P-22) 2019	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	1.0(24 hr)
8.	Nickel (Ni)	IS:5182 (P-26) 2020	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
9.	Arsenic (As)	USEPA ID 3.2:1999	ng/m ³	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	-

--Test Result End --

Prescribed Limit: Environmental (Protection) Rules-1986, Schedule VII.
Operational Status: Unit was Operational During sampling.

Checked by
(R.K. Kumar)
Technical Head

Verified Issue by
(Brijesh)
Laboratory Head



EPIC LabTech Private Limited

Address:
C/o - R.K. Tripathi, Indrapuram
Taluk No - S. Ranchi,
Jharkhand - 834005, India

Tel: 0651 4446292
98351 88477
93049 23894
epiclabtech@gmail.com

CIN - U74999IN2022PTC018683
PAN - AAHCE2611M
GST - 25AAHCE2611M123

Accredited by -
Jharkhand State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 17025:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0150251806	Group	Atmospheric Pollution
Issue date/time	02.05.2025/11:54	Sub Group	Ambient Air Quality

Report Issue to M/s - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE: BIMARLA BAUXITE MINES	Contact Person Mr. Ankit Das
	Contact Number +91 9971034775
	Email Id ankit.das@adityabirla.com
	Order Date 05.04.2025/ 10:10
	Order Number RP/MJB/MM/25/0114/00

References of Quality Management System	Step of Traceability Detail
Customer Registration No.	EPIC/OTH/0150
Sample(s) Code	251806 (A) (B) (C) (D)

Sampling References			
Type of industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Sampling Start (D/T)	25.04.2025/ 10:26	Sampling End (D/T)	26.04.2025/ 07:34
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling	Weather condition	Clear	Temperature (°C)	29	Humidity %	61	Wind direction	270°-90°
---	-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)			
S. Location A	Near Weigh Bridge	GPS coordinate	23° 17' 05.82" / 84° 25' 19.26"
S. Location B	Near Quarry No 1B	GPS coordinate	23° 17' 45.37" / 84° 25' 30.07"
S. Location C	Nav Prathmik Vidyalayya Barang Path	GPS coordinate	23° 17' 20.07" / 84° 25' 30.41"
S. Location D	Near Mine Entry Gate	GPS coordinate	23° 18' 49.80" / 84° 25' 33.67"

Date(s) of performance of the laboratory activities			
Test start date	26.04.2025/ 11:10	Test completion date	02.05.2025/ 10:00

-Test Result -

Sl.	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Benzene (C ₆ H ₆)	IS:5182(P-11) 2006	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
2.	Benzo (a) Pyrene (Bap)- Particulate phase only	IS:5182(P-12) 2004	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
3.	Carbon Monoxide (CO)	EPIC/LAB/SDP/API/01/00	mg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-

-Test Result End -

Prescribed Limit	Environmental (Protection) Rules-1986, Schedule VI.
Operational Status	Unit was Operational During sampling.



Checked by
(R.K. Kumar)
Technical Head

Verified By
(Ankit Das)
Laboratory Head



Page 1 of 1

Contractual Notes : 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's permanent facility, at specific environmental condition as method required and results relate only to the sample tested in prescribed Date & time. 3. The test report shall not be reproduced full or in part & can't be used as proof in the court of law. 4. Any complaint about this report should be communicated in writing within 30 days of its issue. 5. Test facility of EPIC LabTech Pvt. Ltd. will be liable to limited amount only. 6. All disputes are subjected to Ranchi Jurisdiction and maximum liability of the laboratory does not exceed the testing and sampling charges. 7. Operator does not imply endorsement of the tested product by laboratory. Under no circumstances, laboratory accepts any claim by use or misuse of this report. 8. When the results are from external provider are marked as * mark.
Definitions: - BDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LoQ (Limit of Quantitation).



Analytical Test Certificate

Unique Lab Report No.	TC1288725000000448	Discipline	Chemical					
Report Unique ID	RL0150251807	Group	Atmospheric Pollution					
Issue date/time	02.05.2025/11:56	Sub Group	Ambient Air Quality					
Report Issue to								
M/s - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE: BIMARLA BAUXITE MINE		Contact Person	Mr. Ankit Das					
		Contact Number	+91 9971034775					
		Email Id	ankit.das@adityabirla.com					
		Order Date	05.04.2025/ 10:10					
		Order Number	RP/MJB/MM/25/0114/00					
References of Quality Management System (Steps of Traceability Data)								
Customer Registration No.	EPIC/OTH/0150	Sample Booking Number	EPIC-251807					
Sample(s) Code	251807 (A) (B) (C) (D)	Sample Receipt (D/T)	28.04.2025/10:38					
Sampling References								
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036					
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)							
Sampling Start (D/T)	26.04.2025/ 11:15	Sampling End (D/T)	27.04.2025/ 08:00					
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team					
Description/condition of sample	Receipt sample(s) were fit for analysis.							
Environmental Condition during sampling								
Weather condition	Clear	Temperature (°C)	28					
		Humidity %	62					
		Wind direction	270° 90°					
Sampling Location(s) with GPS coordinate(s)								
S. Location A	Near Korle Village	GPS coordinate	23° 17' 26.81" / 84° 25' 55.18"					
S. Location B	Near Barang Village	GPS coordinate	23° 16' 32.45" / 84° 25' 12.72"					
S. Location C	Near Ghaghra Village	GPS coordinate	23° 16' 55.88" / 84° 23' 36.22"					
S. Location D	Near Bimaria Village	GPS coordinate	23° 17' 05.62" / 84° 23' 25.75"					
Date(s) of performance of the laboratory activities								
Test start date	28.04.2025/ 11:00	Test completion date	02.05.2025/ 10:00					
--Test Result--								
Sl.	Test Parameters	Method used	Unit	A	B	C	D	Limits
1.	Particulate Matter (PM ₁₀)	IS:5182 (P-23) 2022	µg/m ³	67.01	67.91	68.99	67.97	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	30.02	29.17	29.77	29.92	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2023	µg/m ³	07.02	07.06	07.08	07.12	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	21.89	20.84	20.91	19.85	80(24 hr)
5.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m ³	31.82	30.56	30.52	29.66	180(1 hr)
6.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	41.29	39.91	39.86	39.28	400(24 hr)
7.	Lead (Pb)	IS:5182 (P-22) 2019	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	1.0(24 hr)
8.	Nickel (Ni)	IS:5182 (P-26) 2020	ng/m ³	BDL (MDL-0.3)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	
9.	Arsenic (As)	USEPA 10.3.2:1999	ng/m ³	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	
--Test Result End--								

Prescribed Limit
Operational StatusEnvironmental (Protection) Rules-1986, Schedule VII.
Unit was Operational During sampling.

Analyzed by - LC 0004

Checked by
(E.K. Kumar)
Technical Head
Verified & Signed by
(Ankit Das)
Laboratory Head

Laboratory Seal

EPIC LabTech Private Limited



Address:
C/o - R.K. Tripathi, Indrapuri
Road No. - S. Ranchi,
Jharkhand - 834005, India

T. 0651 4666392
38357 88677
93849 71594
epiclabtech@gmail.com

CIN - U74899JH2022PTC019683 | Accredited by -
PAN - AAHCE2811M
GST - 28RAHCE3817M123

Bank of India, Polaban Currec, Jharkhand
Certified by -
ISO 9001:2015 and ISO 17025:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0150251807	Group	Atmospheric Pollution
Issue date/time	02.05.2025/11:56	Sub Group	Ambient Air Quality

Report Issue to

M/s - MINERALS & MINERALS LIMITED

VILLAGE-COURT ROAD,
POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA,
STATE-JHARKHAND, INDIA-835302

MONITORING SITE: BIMARLA BAUXITE MINE

Contact Person

Mr. Ankit Das

Contact Number

+91 9971034775

Email Id

ankit.das@adityabirla.com

Order Date

05.04.2025/ 10:10

Order Number

RP/MJB/MM/25/0114/00

References of Quality Management System (Steps of Traceability Detail)

Customer Registration No.	EPIC/OTH/0150	Sample Booking Number	EPIC-251807
Sample(s) Code	251807 (A) (B) (C) (D)	Sample Receipt (D/T)	28.04.2025/10:38

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Sampling Start (D/T)	28.04.2025/ 11:15	Sampling End (D/T)	27.04.2025/ 08:00
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team

Description/condition of sample: Receipt sample(s) were fit for analysis.

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	28	Humidity %	62	Wind direction	270°-90°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

5. Location A	Near Korie Village	GPS coordinate	23° 17' 26.81" / 84° 25' 55.18"
5. Location B	Near Barang Village	GPS coordinate	23° 16' 32.45" / 84° 25' 12.72"
5. Location C	Near Ghaghra Village	GPS coordinate	23° 16' 55.88" / 84° 23' 36.22"
5. Location D	Near Bimaria Village	GPS coordinate	23° 17' 05.62" / 84° 23' 25.75"

Date(s) of performance of the laboratory activities

Test start date	28.04.2025/ 11:00	Test completion date	02.05.2025/ 10:00
-----------------	-------------------	----------------------	-------------------

-Test Result -

Sl	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Benzene (C ₆ H ₆)	IS:5182(P-13) 2006	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
2.	Benzo (a) Pyrene (Bap)- Particulate phase only	IS:5182(P-12) 2004	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
3.	Carbon Monoxide (CO)	EPIC/LAB/SOP/AP/01/00	mg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-

-Test Result End -

Prescribed Limit:

Environmental (Protection) Rules-1986, Schedule VII.

Operational Status:

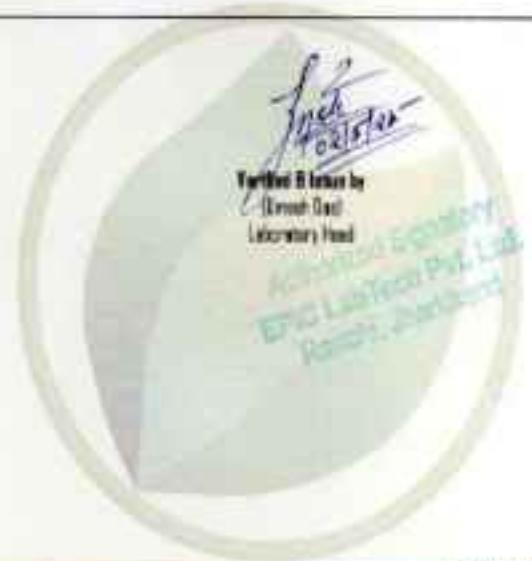
Unit was Operational During sampling.



Checked by
(B.K. Gaur)

Technical Head

Tested & Issued by
(Ankit Das)
Laboratory Head



Page 1 of 1

Contractual Note: 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's premises/ facility at specific environmental condition as notified/received and results relate only to the sample tested in prescribed date & time. 3. The test report shall not be reproduced full or in part & can't be used, as proof in the court of law. 4. Any complaint about this report should be communicated in writing within 10 days of its issue. 5. Total liability of EPIC LabTech Pvt. Ltd. will be limited to remedial amount only. 6. All disputes are subject to Jharkhand jurisdiction and maximum liability of the laboratory does not exceed the testing and sampling charges. 7. Opinion does not imply endorsement of the tested product by laboratory. Under no circumstances, laboratory accepts any legal or financial liability of this report. 8. When the results are from external provider are marked as * mark. 9. Acronyms: - BDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LoQ (Limit of Quantitation).



Address:
C/o - R.K. Tripathi, Indrapuri,
Road No - S. Ranchi,
Jharkhand - 834005, India

Tel: 0681 4046282
98357 80677
93049 73994
epiclabtech@gmail.com

CIN: U74999JH2022PTC010681
RAJU-RAHCE3811M12X
GST: 25AAHCE3811M12X

Associated by:
Raju-Aditya Biria Institute, TC-12887
Panjab State Pollution Control Board
Certified by:
ISO 9001:2015 and ISO 45001:2018

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000449	Discipline	Chemical
Report Unique ID	RL0150251808	Group	Water
Issue date/time	02.05.2025/11:58	Sub Group	Drinking Water

Report Issue to:

M/s - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE: BIMARLA BAUXITE MINE	Contact Person	Mr. Ankit Das
	Contact Number	+91 9971034775
	Email Id	ankit.das@adityabiria.com
	Order Date	05.04.2025/ 10:10
	Order Number	RP/MJB/MM/25/0114/00

References of Quality Management System Chapt of Traceability Chart

Customer Registration No.	EPIC/OTH/0150	Sample Booking Number	EPIC-251808
Sample(s) Code	251808	Sample Receipt (D/T)	28.04.2025/ 10:41

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Sampling Start (D/T)	26.04.2025/ 14:15	Sampling End (D/T)	26.04.2025/ 14:30
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	29	Humidity %	61	Wind direction	270°/90°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)	GPS coordinate
S. Location A Near Mines Office	23° 17' 03.63" / 84° 25' 19.17"

Date(s) of performance of the laboratory activities

Test start date	26.04.2025/ 10:55	Test completion date	02.05.2025/ 10:30
-----------------	-------------------	----------------------	-------------------

--Test Result --

Sl.	Test Parameters	Method used	Unit	Results	Limits	
					Acceptable Limit	Permissible limit
1.	pH value at 25°C	IS 3025 (P-11) 2022	-	6.95	6.5-8.5	No relaxation
2.	Turbidity	IS 3025 (P-10) 1984	NTU	0.52	1	5
3.	Colour	IS 3025 (P-04) 2021	Hazen	<5	5	15
4.	Odour	IS 3025 (P-05) 2018	-	Agreeable	Agreeable	Agreeable
5.	Taste	IS 3025 (P-07) 2017	-	Agreeable	Agreeable	Agreeable
6.	Total Dissolved Solids (TDS)	IS 3025 (P-16) 2023	mg/l	197.00	500	2000
7.	Chloride (as Cl)	IS 3025 (P-32) 2019	mg/l	20.69	250	1000
8.	Total Alkalinity (as CaCO ₃)	IS 3025 (P-23) 2019	mg/l	150.00	200	800
9.	Total Hardness (as CaCO ₃)	IS 3025 (P-21) 2009	mg/l	176.0	200	800
10.	Calcium (as Ca)	IS 3025 (P-40) 1991	mg/l	51.30	75	200
11.	Free Residual Chlorine	IS 3025 (P-26) 1986	mg/l	BDL(MDL-0.4)	0.2	1
12.	Sulphate (as SO ₄)	IS 3025 (P-24/Sec-1) 2022	mg/l	03.80	200	400
13.	Nitrate (as NO ₃)	APHA 4500 B 2023	mg/l	01.98	40	No relaxation
14.	Phenolic Compound	IS 3025 (P-43/Sec-1) 2022	mg/l	BDL(MDL-0.001)	0.001	0.002
15.	Magnesium (as Mg)	APHA 3500 Mg E 2023	mg/l	11.55	30	100



EPIC LabTech Private Limited

Address:
C/o - R.K. Tripathi, Indrapuri,
Road No. - 3, Ranchi,
Jharkhand - 834003, India

Tel: 0651 4066252
98357 80677
93849 21594
epiclabtech@gmail.com

CIN: U74990JH2022PTC015683 Accredited by -
NABL, ISO certificate Number IC-12887
National Accreditation Board for
Laboratory and Quality Control Board
Certified by -
ISO 9001:2015 and ISO 17025:2018



TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC128872500000449	Discipline	Chemical
Report Unique ID	RL0150251808	Group	Water
Issue date/time	02.05.2025/11:58	Sub Group	Drinking Water

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD,
POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA,
STATE-JHARKHAND, INDIA 835302
MONITORING SITE: BIMARLA BAUXITE MINE

Contact Person
Contact Number
Email Id
Order Date
Order Number

Mr. Ankit Das
+91 9971034775
ankit.das@adityabirla.com
05.04.2025/ 10:10
RP/MJB/MM/25/0114/00

Group - Residues and Contaminants in Water			Sub Group- Trace Metals Elements			
16. Copper(as Cu)	APHA 3111 B 2023	mg/l	BDL(MDL-0.2)	0.05	1.5	
17. Iron (as Fe)	APHA 3111 B 2023	mg/l	BDL(MDL-0.1)	1.0	No relaxation	
18. Lead (as Pb)	APHA 3111 B 2023	mg/l	BDL(MDL-0.01)	0.01	No relaxation	
19. Cadmium (as Cd)	APHA 3111 B 2023	mg/l	BDL(MDL-0.003)	0.003	No relaxation	
20. Total Chromium (as Cr)	APHA 3111 B 2023	mg/l	BDL(MDL-0.05)	0.05	No relaxation	
21. Nickel (as Ni)	APHA 3111 B 2023	mg/l	BDL(MDL-0.02)	0.02	No relaxation	
22. Total Arsenic (as As)	APHA 3114 B 2023	mg/l	BDL(MDL-0.005)	0.01	0.05	
23. Selenium (as Se)	APHA 3114 B 2023	mg/l	BDL(MDL-0.005)	0.01	No relaxation	
24. Manganese (as Mn)	APHA 3111 B 2023	mg/l	BDL(MDL-0.00)	0.1	0.3	
25. Zinc(as Zn)	APHA 3111 B 2023	mg/l	BDL(MDL-0.04)	5	15	

-Test Result End -**Prescribed Limit**

IS 10500:2021

Unit was Operational During sampling.

Analyzed by - Pratik Kumar/ Ankit Das


 Chaired by
(P.K. Kumar)
Technical Head


 Verified & Issued by
(Ankit Das)
Laboratory Head




EPIC LabTech Private Limited

Address:
C/o - R.R. Tripathi, Indusquare,
Road No. - S. Bunder,
Jharkhand - 835005, India

Tel: 06531 4666332
98357 86477
93949 73594
epiclabtech@gmail.com

CIN: U74999JH2022PTC019623
PAN: AAHCE3411M
GST: 28RAHCE361YM23

Accredited by
National Lab Accreditation Board
Certified by -
ISO 9001:2015 and ISO 17025:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0150251806	Group	Water
Issue date/time	02.05.2025/11:58	Sub Group	Drinking Water

Report Issue to:

M/s - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE : BIMARLA BAUXITE MINE	Contact Person	Mr. Ankit Das
	Contact Number	+91 9971034775
	Email Id	ankit.das@adityabirla.com
	Order Date	05.04.2025/ 10:10
	Order Number	RP/MJB/MM/25/0114/00

References of Quality Management System (Steps of Traceability Detail)

Customer Registration No.	EPIC/OTH/0150	Sample Booking Number	EPIC-251806
Sample(s) Code	251806	Sample Receipt (D/T)	28.04.2025/10:41

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Sampling Start (D/T)	26.04.2025/ 14:15	Sampling End (D/T)	26.04.2025/ 14:30
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	29	Humidity %	61	Wind direction	270°-90°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Mines Office	GPS coordinate	23° 17' 03.83" / 84° 25' 19.17"
---------------	-------------------	----------------	---------------------------------

Data(s) of performance of the laboratory activities

Test start date	28.04.2025/ 10:55	Test completion date	02.05.2025/ 10:30
-----------------	-------------------	----------------------	-------------------

-Test Result -

Sl.	Test Parameters	Method used	Unit	Results	Limits	
					Acceptable Limit	Permissible limit
1.	Fluoride (as F)	APHA 4500 F-C 2023	mg/l	BDL(MDL-0.1)	1.0	1.5
Group-Residues and Contaminants in Water						
2.	Aluminum	IS 3025 (P-55):2019	mg/l	BDL(MDL-0.1)	0.03	0.2
3.	Boron	IS 3025 (P-57):2021	mg/l	BDL(MDL-0.1)	0.5	1.0
4.	Polychlorinated biphenyls	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.2)	0.5	No relaxation
5.	Polynuclear Aromatic Hydrocarbons (PAH)	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.05)	0.1	No relaxation
Group-Residues and Contaminants in Water						
6.	Alachlor	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	20	No relaxation
7.	Atrazine	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	2.0	No relaxation
8.	Dieldrin	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.02)	0.03	No relaxation
9.	Alpha HCH	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.005)	0.01	No relaxation
10.	Beta HCH	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.02)	0.04	No relaxation
11.	Butachlor	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	125.0	No relaxation
12.	Chloryrifos	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	30.0	No relaxation
13.	Delta HCH	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.02)	0.04	No relaxation
14.	Ethion	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	3.0	No relaxation

Page 1 of 2

Important Notes : 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's premises facility, at specific environmental condition as method required and results relate only to the sample tested as prescribed date & time. 3. The Test report shall not be reproduced full or in part & can't be used as proof in the court of law. 4. Any complaint about this report should be communicated in writing within 10 days of its issue. 5. Total liability of EPIC LabTech Pvt. Ltd. will be limited to incurred amount only. 6. All diagrams are subject to Indian Jurisdiction and maximum liability of the laboratory does not exceed the testing and sampling charges. 7. Client does not imply endorsement of the tested product by laboratory. Under no circumstances, laboratory accepts any legal responsibility or action of this report. 8. When the results are from external provider see mark or * mark. 9. Abbreviations - BDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LoQ (Limit of Quantification).



EPIC LabTech Private Limited

Address:
C/o - R.R. Tripathi, Indrapuri,
Road No. - 5, Ranchi,
Jharkhand - 834005, India

Tel: 0631-4656282
98337 66677
93049 73994
epiclabtech@gmail.com

CIN - U74999JH2022PTC016981
PAN - AAHC3811M
GST - 25AAHC3811M125

Accredited by -
Jharkhand State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0150251808	Group	Water
Issue date/time	02.05.2025/11:56	Sub Group	Drinking Water

Report Issue to:**M/s - MINERALS & MINERALS LIMITED**

VILLAGE-COURT ROAD,
POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA,
STATE-JHARKHAND, INDIA 835302

MONITORING SITE : BIMARLA BAUXITE MINE**Contact Person****Mr. Ankit Das****Contact Number****+91 9971034775****Email Id****ankit.das@adityabiria.com****Order Date****05.04.2025/ 10:10****Order Number****RP/MJB/MM/25/0114/00**

15. Gamma-HCH(Lindane)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	2.0	No relaxation
16. Malathion	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	190.0	No relaxation
17. Methyl parathion	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.2)	0.3	No relaxation
18. Monocrotophos	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	1.0	No relaxation
19. Phorate	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	2.0	No relaxation
20. DDT (o, p and p, p-isomer of DDT, DDE and DDD)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	1.0	No relaxation
21. Endosulfan (alpha, beta, and sulphate)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.05)	0.4	No relaxation

--Test Result End--**Prescribed Limit****IS 10600:2021****Operational Status****Unit was Operational During sampling.****Analyzed by - Prerna Kumar/ Ankit Das**

Checked by
(E.N. Kumar)
Technical Head

Verified & Issue by
(Ankit Das)
Laboratory Head





EPIC LabTech Private Limited

Address:
C/o - R.K. Tripathi, Indrapuri,
Raod No - 1, Ranchi,
Jharkhand - 834005, India

Tel: 0653 4066262
98357 88677
93049 73994
epiclabtech@gmail.com

CIN - U74999JH2022PTC018681
ITIN - AAHCE381TM
GST - 25AAHCE381TM12X

Accredited by -
Jharkhand State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 17025:2017

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Biological
Report Unique ID	RL0150251809	Group	Water
Issue date/time	02.05.2025/12:02	Sub Group	Drinking Water

Report Issue to

M/S - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST - LOHARDAGA, STATE - JHARKHAND, INDIA 835302
MONITORING SITE: BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabiria.com
Order Date
05.04.2025/ 10:10
Order Number
RP/MJB/MM/25/0114/00

References of Quality Management System (3 step of Traceability Data)

Customer Registration No.	EPIC/OTH/0150	Sample Booking Number	EPIC-251809
Sample(s) Code	251809	Sample Receipt (D/T)	28.04.2025/ 10:45

Sampling References

Type of industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling method used	IS : 3025 (Part-1) 1987, R-2003& IS 1622 1981		
Sampling Start (D/T)	28.04.2025/ 14:15	Sampling End (D/T)	28.04.2025/ 14:30
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	29	Humidity %	61	Wind direction	270°-90°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Mines Office	GPS coordinate	23° 17' 03.83" / 84° 25' 19.17"
---------------	-------------------	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	28.04.2025/ 10:55	Test completion date	02.05.2025/ 10:30
-----------------	-------------------	----------------------	-------------------

-Test Result -

Sl.	Test Parameters	Method used	Unit	Results	Limits
1.	Total Coliform	IS 15185 2002	Per 100 ml	Not Detected	Shall not be detectable in any 100 ml sample
2.	E.Coli	IS 15185 2002	Per 100 ml	Not Detected	

-Test Result End -

Prescribed Limit: IS 10500-2021

Operational Status: Unit was Operational During sampling.

Analyzed by - *Rakesh Kumar/ Ajeet Kumar*


Checked by
(R.K. Kumar)
Technical Head


Verified & Issued by
(Ajeet Kumar)
Laboratory Head



Page 1 of 1

Contractual Note: 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's permanent facility at specific environmental condition as method required and results relate only to the sample tested in prescribed Date & time. 3. The Test report shall not be reproduced full or in part & can't be used as proof in the court of law. 4. Any complaint about this report should be communicated in writing within 10 days of its issue. 5. Total liability of EPIC LabTech Pvt. Ltd. will be limited to incurred amount only. 6. All disputes are subject to Ranchi Jurisdiction and maximum liability of the laboratory does not exceed the testing and sampling charges. 7. Company does not imply endorsement of the tested product by laboratory. Under no circumstances, laboratory accept any cause by use or misuse of this report. 8. When the results are from external provider are marked as * mark. **Abbreviations:** LDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LoQ (Limit of Quantitation).



Address:
C/o - R.K. Tripathi, Indrapuri,
Road No. - 5, Ranchi,
Jharkhand - 834003, India

Tel: 0651 4669382
98357 86077
93049 73994
epiclabtech@gmail.com

CIN: U74390JH2022PTC019685 Accredited by:
ISO 9001:2015 Registration Number: IC-13007
Issued from Aditya Biria, Gurukul Kangri, Varanasi
Certified by:
ISO 9001:2015 and ISO 45001:2018

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000450	Discipline	Chemical
Report Unique ID	RL0150251810	Group	Water
Issue date/time	02.05.2025/12:04	Sub Group	Ground Water

Report Issue to M/s - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE: BIMARLA BAUXITE MINE	Contact Person Mr. Ankit Das
	Contact Number +91 9971034775
	Email Id ankit.das@adityabiria.com
	Order Date 05.04.2025/ 10:10
	Order Number RP/MUB/MM/25/0114/00

References of Quality Management System (Steps of Traceability Data)

Customer Registration No.	EPIC/OTH/0150	Sample Booking Number	EPIC-251810
Sample(s) Code	251810	Sample Receipt (D/T)	28.04.2025/10:45

Sampling References			
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling method used	IS: 3025 (Part-1) 1987, R-2003		
Sampling Start (D/T)	26.04.2025 /16:00	Sampling End (D/T)	26.04.2025 / 16:15
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling							
Weather condition	Clear	Temperature (°C)	29	Humidity %	61	Wind direction	270°-90°

Sampling Location(s) with GPS coordinate(s)			
S. Location A	Nav Prathmik Vidyalaya Barong Path	GPS coordinate	23° 17' 22.57" / 84° 25' 28.81"

Date(s) of performance of the laboratory activities			
Test start date	26.04.2025/ 10:55	Test completion date	02.05.2025/ 10:30

-Test Result -

Sl.	Test Parameters	Method used	Unit	Results	Limits	
					Acceptable Limit	Permissible limit
1.	pH value at 25°C	IS 3025 (P-11) 2022	-	6.69	6.5-8.5	No relaxation
2.	Turbidity	IS 3025 (P-10) 1984	NTU	0.80	1	5
3.	Colour	IS 3025 (P-04) 2021	Hazen	<5	5	15
4.	Odour	IS 3025 (P-05) 2018	-	Agreeable	Agreeable	Agreeable
5.	Taste	IS 3025 (P-07) 2017	-	Agreeable	Agreeable	Agreeable
6.	Total Dissolved Solids (TDS)	IS 3025 (P-16) 2023	mg/l	258.00	500	2000
7.	Chloride (as Cl)	IS 3025 (P-32) 2019	mg/l	23.65	250	1000
8.	Total Alkalinity(as CaCO ₃)	IS 3025 (P-23) 2019	mg/l	192.00	200	600
9.	Total Hardness (as CaCO ₃)	IS 3025 (P-21) 2009	mg/l	202.00	200	600
10.	Calcium (as Ca)	IS 3025 (P-40) 1991	mg/l	55.31	75	200
11.	Free Residual Chlorine	IS 3025 (P-26) 1986	mg/l	BDL(MDL-0.4)	0.2	1
12.	Sulphate (as SO ₄)	IS 3025 (P-24/Sec-1)2022	mg/l	5.00	200	400
13.	Nitrate (as NO ₃)	APHA 4500 N 2023	mg/l	2.16	45	No relaxation
14.	Phenolic Compound	IS 3025 (P-43/Sec-1) 2022	mg/l	BDL(MDL-0.001)	0.001	0.002
15.	Magnesium (as Mg)	APHA 3500 Mg E 2023	mg/l	15.55	30	100



EPIC LabTech Private Limited



Address:
C/o - S.K. Tilgachhi, Indrapuri
Road No. - S. Ranchi,
Jharkhand - 834005, India

Tel: 0651 4666292
98337 80677
93849 71994
epiclabtech@gmail.com

CIN: U14899JH2022PTC019683
PAN: AAHCE3811M
GST: 25AAHCE3811M12X

Assured by :
1448, 10th Floor, Sector 10, Gurgaon
Haryana, India - 122001
Certified by :
ISO 9001:2015 and ISO 45001:2018

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000450	Discipline	Chemical
Report Unique ID	RL0150251810	Group	Water
Issue date/time	02.05.2025/12:04	Sub Group	Ground Water

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD,
POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA,
STATE-JHARKHAND, INDIA 835302
MONITORING SITE: BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
05.04.2025/ 10:10
Order Number
RP/MJB/MM/25/0114/00

Group - Residues and Contaminants in Water

Sub Group- Trace Metals Elements

16. Copper(as Cu)	APHA 3111 B 2023	mg/l	BDL(MDL-0.2)	0.05	15
17. Iron (as Fe)	APHA 3111 B 2023	mg/l	BDL(MDL-0.1)	1.0	No relaxation
18. Lead (as Pb)	APHA 3111 B 2023	mg/l	BDL(MDL-0.01)	0.01	No relaxation
19. Cadmium (as Cd)	APHA 3111 B 2023	mg/l	BDL(MDL-0.003)	0.003	No relaxation
20. Total Chromium (as Cr)	APHA 3111 B 2023	mg/l	BDL(MDL-0.05)	0.05	No relaxation
21. Nickel (as Ni)	APHA 3111 B 2023	mg/l	BDL(MDL-0.02)	0.02	No relaxation
22. Total Arsenic (as As)	APHA 3114 B 2023	mg/l	BDL(MDL-0.005)	0.01	0.05
23. Selenium (as Se)	APHA 3114 B 2023	mg/l	BDL(MDL-0.005)	0.01	No relaxation
24. Manganese (as Mn)	APHA 3111 B 2023	mg/l	BDL(MDL-0.08)	0.1	0.3
25. Zinc(as Zn)	APHA 3111 B 2023	mg/l	BDL(MDL-0.04)	5	15

-Test Result End -

Prescribed Limit: IS 10500:2021

Operational Status: Unit was Operational During sampling.

Analyzed by: Pritam Kumar / Ankit Kumar




Checked by
(Pritam Kumar)
Technical Head


Further Checked by
(Ankit Kumar)
Laboratory Head

Authorised Signature
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0150251810	Group	Water
Issue date/time	02.05.2025/12:04	Sub Group	Ground Water

Report Issue to:

MM/s - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE: BIMARLA BAUXITE MINE	Contact Person	Mr. Ankit Das
	Contact Number	+91 9971034775
	Email Id	ankit.das@adityabirla.com
	Order Date	05.04.2025/ 10:10
	Order Number	RP/MJB/MM/25/0114/00

References of Quality Management System (Copy of Traceability Data)

Customer Registration No.	EPIC/OTH/0150	Sample Booking Number	EPIC/251810
Sample(s) Code	251810	Sample Receipt (D/T)	26.04.2025/10:45

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Sampling Start (D/T)	26.04.2025/16:00	Sampling End (D/T)	26.04.2025/ 16:15
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	29	Humidity %	61	Wind direction	270°-90°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Nav Prathmik Vidyalaya Barsing Path	GPS coordinate	23° 17' 22.57" N 84° 25' 28.81" E
---------------	-------------------------------------	----------------	-----------------------------------

Date(s) of performance of the laboratory activities

Test start date	26.04.2025/ 10:56	Test completion date	02.05.2025/ 10:30
-----------------	-------------------	----------------------	-------------------

--Test Result--

SL	Test Parameters	Method used	Unit	Results	Limits	
					Acceptable Limit	Permissible limit

1. Fluoride (as F)	APHA 4500 F-C 2023	mg/l	BDL(MDL-0.1)	1.0	1.5	Sub Group-Trace Metals Elements
--------------------	--------------------	------	--------------	-----	-----	---------------------------------

2. Aluminum	IS 3025 (P-55):2019	mg/l	BDL(MDL-0.1)	0.63	0.2	Sub Group-Trace Metals Elements
-------------	---------------------	------	--------------	------	-----	---------------------------------

3. Boron	IS 3025 (P-57):2021	mg/l	BDL(MDL-0.1)	0.5	1.0	Sub Group-Trace Metals Elements
----------	---------------------	------	--------------	-----	-----	---------------------------------

4. Polychlorinated biphenyls	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.2)	0.5	No relaxation	Sub Group-Trace Metals Elements
------------------------------	-----------------------	------	--------------	-----	---------------	---------------------------------

5. Polynuclear Aromatic Hydrocarbons (PAH)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.05)	0.1	No relaxation	Sub Group-Trace Metals Elements
--	-----------------------	------	---------------	-----	---------------	---------------------------------

6. Alachlor	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	20	No relaxation	Sub Group-Pesticides
-------------	-----------------------	------	--------------	----	---------------	----------------------

7. Atrazine	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	2.0	No relaxation	Sub Group-Pesticides
-------------	-----------------------	------	--------------	-----	---------------	----------------------

8. Dieldrin	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.02)	0.03	No relaxation	Sub Group-Pesticides
-------------	-----------------------	------	---------------	------	---------------	----------------------

9. Alpha HCH	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.005)	0.01	No relaxation	Sub Group-Pesticides
--------------	-----------------------	------	----------------	------	---------------	----------------------

10. Beta HCH	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.02)	0.04	No relaxation	Sub Group-Pesticides
--------------	-----------------------	------	---------------	------	---------------	----------------------

11. Butachlor	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	125.0	No relaxation	Sub Group-Pesticides
---------------	-----------------------	------	--------------	-------	---------------	----------------------

12. Chloryphos	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	30.0	No relaxation	Sub Group-Pesticides
----------------	-----------------------	------	--------------	------	---------------	----------------------

13. Delta HCH	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.02)	0.04	No relaxation	Sub Group-Pesticides
---------------	-----------------------	------	---------------	------	---------------	----------------------

14. Ethion	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	3.0	No relaxation	Sub Group-Pesticides
------------	-----------------------	------	--------------	-----	---------------	----------------------



Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0150251810	Group	Water
Issue date/time	02.05.2025/12:04	Sub Group	Ground Water

Report Issue to

MM/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD,
POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA,
STATE-JHARKHAND, INDIA 835302
MONITORING SITE: BIMARLA BAUXITE MINE

Contact Person: Mr. Ankit Das
Contact Number: +91 9971034775
Email Id: ankit.das@adityabirla.com
Order Date: 05.04.2025/ 10:10
Order Number: RP/MJB/MM/25/0114/00

15. Gamma- HCH(Lindane)	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(HDL-0.5)	2.0	No relaxation
16. Malathion	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(HDL-0.5)	190.0	No relaxation
17. Methyl parathion	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(HDL-0.2)	0.3	No relaxation
18. Monocrotophos	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(HDL-0.5)	1.0	No relaxation
19. Phorate	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(HDL-0.5)	2.0	No relaxation
20. DDT (o, p and p, p-isomer of DDT, DDE and DDD)	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(HDL-0.5)	1.0	No relaxation
21. Endosulfan (alpha, beta, and sulphate)	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(HDL-0.05)	0.4	No relaxation

--Test Result End--

Prescribed Limit: IS 10500:2021

Operational Status: Unit was Operational During sampling.

Analyzed by -Prerna Kumar/ Ankur Kumar


 Checked by
(E.N. Kumar)
Technical Head


 Verified issued by
(Ankur Das)
Laboratory Head

 EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand




Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Biological		
Report Unique ID	RL0150251811	Group	Water		
Issue date/time	02.05.2025/12:06	Sub Group	Ground Water		
Report Issue to					
M/S - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE: BIMARLA BAUXITE MINE	Contact Person	Mr. Ankit Das			
	Contact Number	+91 9971034775			
	Email Id	ankit.das@adityabiria.com			
	Order Date	05.04.2025/ 10:10			
	Order Number	RP/MJB/MM/25/0114/00			
References of Quality Management System (Copy of Incentivity Card)					
Customer Registration No.	EPIC/OTH/0150	Sample Booking Number	EPIC-251811		
Sample(s) Code	251811	Sample Receipt (D/T)	28/04/2025/10:46		
Sampling References					
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036		
Sampling method used	IS : 3025 (Part-1) 1987, R-2003& IS 1622 1981				
Sampling Start (D/T)	26.04.2025 /16:00	Sampling End (D/T)	26.04.2025 / 16:15		
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team		
Description/condition of sample	Receipt sample(s) were fit for analysis.				
Environmental Condition during sampling					
Weather condition	Clear	Temperature (°C)	29		
		Humidity %	61		
		Wind direction	270°-90°		
Sampling Location(s) with GPS coordinate(s)					
S. Location A	Nav Prathmik Vidyalaya Barang Path				
	GPS coordinate				
	23° 17' 22.57" / 84° 25' 28.51"				
Details of performance of the laboratory activities					
Test start date	28.04.2025/ 10:56	Test completion date	02.05.2025/ 10:30		
--Test Result--					
Sl.	Test Parameters	Method used	Unit	Results	Limits
1.	Total Coliform	IS 15185 2002	Per 100 ml	Not Detected	Should not be detectable in any 100 ml sample
2.	E.Coli	IS 15185 2002	Per 100 ml	Not Detected	
--Test Result End--					

Prescribed Limit IS 10500/2021

Operational Status Unit was Operational During sampling.

Analysed by -Prakash Kumar/ Akash Kumar




Checked by
(A. Kumar)
Technical Head


Verified & Issue by
(Ankit Das)
Laboratory Head

EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited



Address:
C/o - R.K. Trigemini, Indira Nagar,
Road No. - S. Ranchi,
Jharkhand - 834005, India

T. 0651 406297
M. 98351 66677
E. 93869 73994
G. epiclabtech@gmail.com

CIN - U74999IN2020PTC09885
Regd. - AAHC2361TM
GST - 23AAHC2361TM123

Assessed by -
NABL, NABL certificate number IC-12647
Particulars: True Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 45001:2018

TC-12887

Analyst/Test Certificate

Unique Lab Report No.	TC1288725000000628	Discipline	Chemical					
Report Unique ID	RLD1832621118	Group	Atmospheric Pollution					
Issue date/time	27.05.2025/ 10:42	Sub Group	Ambient Air Quality					
Report Issue to								
M/s - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST - LOHARDAGA, STATE - JHARKHAND, INDIA 835302 MONITORING SITE: BIMARLA BAUXITE MINE	Contact Person Mr. Ankit Das Contact Number +91 9971034775 Email Id ankit.das@badityabiria.com Order Date 05.04.2025/ 10:10 Order Number RP/MR/MM/25/0114/00							
References of Quality Management System (Step of Traceability Chart)								
Customer Registration No.	EPIC/OTH/0183	Sample Booking Number	EPIC-2521118					
Sample(s) Code	2521118 (A) (B) (C) (D)	Sample Receipt (D/T)	23.05.2025/ 11:48					
Sampling References								
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036					
Sampling Start (D/T)	20.05.2025/ 11:30	Sampling End (D/T)	21.05.2025/ 08:00					
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team					
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)							
Description/condition of sample	Receipt sample(s) were fit for analysis.							
Environmental Condition during sampling								
Weather condition	Clear	Temperature (°C)	31					
		Humidity %	48					
		Wind direction	20°-200°					
Sampling Location(s) with GPS coordinate(s)								
S. Location A	Near Weigh Bridge	GPS coordinate	23° 17' 05.82" / 84° 25' 19.25"					
S. Location B	Near Quarry No 18	GPS coordinate	23° 17' 45.37" / 84° 25' 30.07"					
S. Location C	Near Prathmik Vidyalaya Barang Path	GPS coordinate	23° 17' 20.07" / 84° 25' 30.41"					
S. Location D	Near Mine Entry Gate	GPS coordinate	23° 18' 49.80" / 84° 25' 33.67"					
Date(s) of performance of the laboratory activities								
Test start date	23.05.2025/ 11:55	Test completion date	26.05.2025/ 17:20					
-Test Results-								
Sl.	Test Parameters	Method used	Unit	A	B	C	D	Limits
1.	Particulate Matter (PM ₁₀)	IS:5182 (P-23) 2022	µg/m ³	90.26	88.82	71.67	79.00	300 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	48.63	43.56	37.13	40.91	60 (24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2023	µg/m ³	12.44	09.95	08.66	10.16	80 (24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	24.64	17.59	18.15	20.36	80 (24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	51.30	48.05	44.80	38.31	400 (24 hr)
6.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m ³	39.34	35.77	32.19	28.61	180 (1 hr)
7.	Lead (Pb)	IS:5182 (P-22) 2019	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	1.0 (24 hr)
8.	Nickel (Ni)	IS:5182P-26/2020	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
9.	Arsenic (As)	USEPA ID 3.2:1999	ng/m ³	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	-
-Test Results End-								

Prescribed Limit Environmental (Protection) Rules-1996, Schedule VI.
Operational Status Unit was Operational During sampling.

Analyzed by - AK Singh


Reviewed by
D.K. Kumar
Technical Head


Issue by
Akash Das
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.

Disclaimer Note : 1. The laboratory accepts responsibility for content of this report. 2. The personnel at laboratory's permanent facility, or www.epiclabtech.com as method required and results relate only to the sample tested as prescribed Date & time. 3. The Test report shall not be reproduced full or in part, or used as a part in the cause of law. 4. Any complaint about this report should be communicated in writing within 10 days of its issue. 5. Total liability of EPIC LabTech Pvt. Ltd. will be limited to amount quoted. 6. All disputes are subject to Jharkhand jurisdiction and exclusive liability of the laboratory does not exceed the testing and sampling charges. 7. Options does not imply endorsement of the test product in laboratory. Under no circumstances, laboratory accepts any cause by use or misuse of this report. 8. When the results are from external provider are marked as "mark". 9. Abbreviations : BDL (below Detectable Limit), MDL (Minimum Detectable Limit), LQ (Limit of Quantitation).



EPIC LabTech Private Limited

Address:
C/o - R.R. Tripathi, Indrapuri,
Road No. - 3, Ranchi,
Jharkhand - 834005, India

T. 0651 496291
E. 98351 94477
M. 930 69 73994
O. 9835146552@gmail.com

CIN - U74999IN2002PLC009825
PAN - AAHCET8171M
GST - 25AAHCET8171M2Y

Accredited by -
Jharkhand State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 17025

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical					
Report Unique ID	RLD1832521118	Group	Atmospheric Pollution					
Issue date/time	27.05.2025/ 10:42	Sub Group	Ambient Air Quality					
Report Issue to								
M/s - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE: BIMARLA BAUXITE MINE	Contact Person Mr. Ankit Das	Contact Number +91 9871034775	Email Id ankit.das@adityabirla.com					
Order Date 05.04.2025/ 10:10	Order Number RP/MIB/MM/25/0114/00							
References of Quality Management System (Copy of Incentivity Doc)								
Customer Registration No.	EPIC/OTH/0183	Sample Booking Number	EPIC-2521118					
Sample(s) Code	2521118 (A) (B) (C) (D)	Sample Receipt (D/T)	23.05.2025/ 11:48					
Sampling References								
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036					
Sampling Start (D/T)	20.05.2025/ 11:30	Sampling End (D/T)	21.05.2025/ 08:00					
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team					
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/06/2012-13)							
Description/condition of sample	Receipt sample(s) were fit for analysis.							
Environmental Condition during sampling								
Weather condition	Clear	Temperature (°C)	31					
		Humidity %	45					
		Wind direction	20°-30°					
Sampling Location(s) with GPS coordinate(s)								
S. Location A	Near Weigh Bridge	GPS coordinate	23° 17' 05.82" / 84° 25' 19.25"					
S. Location B	Near Quarry No 1B	GPS coordinate	23° 17' 45.37" / 84° 25' 30.07"					
S. Location C	Near Prathmik Vidyalaya Barang Path	GPS coordinate	23° 17' 20.07" / 84° 25' 30.41"					
S. Location D	Near Mine Entry Gate	GPS coordinate	23° 16' 49.80" / 84° 25' 33.67"					
Date(s) of performance of the laboratory activities								
Test start date	23.05.2025/ 11:55	Test completion date	26.05.2025/ 17:20					
-Test Results-								
Sl.	Test Parameters	Method used	Unit	A	B	C	D	Limits
1.	Benzene (C ₆ H ₆)	IS:5182(P-11)2006	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
2.	Benzo (a) Pyrene (Bap)- Particulate phase only	IS:5182(P-12)2004	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
3.	Carbon Monoxide (CO)	EPIC/LAB/SOP/AP/01/00	mg/m ³	BDL (MDL-1.0)	BDL (MDL-1.0)	BDL (MDL-1.0)	BDL (MDL-1.0)	-
-Test Results End -								

Prescribed Limit Environmental (Protection) Rules-1986, Schedule VI.

Operational Status Unit was Operational During sampling.

Analyzed by - AK Sinha


Reviewed by
(AK Sinha)
Technical Head


Issued by
Ankit Das
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited



Address:
C/o - R.R. Tropicom, Indraprastha,
Road No. - 3, Ranchi,
Jharkhand - 834005, India

Phone: 0651 4556297
98351 86577
85249 73594
epiclabtech@gmail.com

CIN - U74999JH2012PTC019641
PAN - AAHC23E11M
GST - 25AAHC23E11M23

Accredited by -
NABL, ISO certificate Number TC-1207
Jharkhand State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 45001:2018

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000629	Discipline	Chemical
Report Unique ID	RL01832521119	Group	Atmospheric Pollution
Issue date/time	27.05.2025/ 10:44	Sub Group	Ambient Noise

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
05.04.2025/ 10:10
Order Number
RP/MIS/MM/25/0114/00

References of Quality Management System (Traceability Data)

Customer Registration No.	EPIC/OTH/0183	Sample Booking Number	EPIC-2521119
Sample(s) Code	2521119 (A) (B) (C) (D)	Sample Receipt (D/T)	23.05.2025/ 11:54

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	20.05.2025/ 11:30	Sampling End (D/T)	21.05.2025/ 08:30
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS 9989:1981 (RA 2020) & CPCB Method S.O.50 (E) dated 11/01/2010		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	31	Humidity %	48	Wind direction	20°-200°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Weigh Bridge	GPS coordinate	23° 17' 05.82" / 84° 25' 19.25"
S. Location B	Near Quarry No 1B	GPS coordinate	23° 17' 45.37" / 84° 25' 30.07"
S. Location C	Near Prathmik Vidyalaya Barang Path	GPS coordinate	23° 17' 20.07" / 84° 25' 30.41"
S. Location D	Near Mine Entry Gate	GPS coordinate	23° 16' 49.80" / 84° 25' 33.87"

Date(s) of performance of the laboratory activities

Test start date	23.05.2025/ 12:05	Test completion date	26.05.2025/ 17:30
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl.	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	L _{eq} (Day time)	IS: 9989-1981	dB (A)	58.3	48.4	43.7	45.7	75
2.	L _{eq} (Night time)	IS: 9989-1981	dB (A)	43.4	41.4	36.9	37.1	70

-Test Results End -

Prescribed Limit
Operational Status
Analyzed by - AK Saha



Reviewed by
(A.K. Saha)
Technical Head

Date: 27/05/2025
Dinesh Das
Laboratory Head
Authorized Signatory

EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited



Address:
C/o - R.K. Tripathi, Indrapuri,
Road No. - S. Ranchi,
Jharkhand - 834005, India

Tel: 0651 4666232
Email: 85557 85677
93045 73084
epiclabtech@gmail.com

CIN: U74999IN2002PLC000005
PAN: AAHCES611M
GST: 25AAHCES611M23

Accredited by -
NABL, Lab certificate Number ID: 13947
Bharat Lab Proficiency Control Board
Certified by -
ISO 9001:2015 and ISO 17025

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000630	Discipline	Chemical
Report Unique ID	RL01832521120	Group	Pollution & Environment
Issue date/time	27.05.2025/ 10:46	Sub Group	Waste Water (Sewage)

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9671034775
Email Id
ankit.das@adityabirla.com
Order Date
05.04.2025/ 10:10
Order Number
RPM/B/MM/25/0114/00

References of Quality Management System (List of Traceability Data)

Customer Registration No.	EPIC/OTH/0183	Sample Booking Number	EPIC-2521120
Sample(s) Code	2521120	Sample Receipt (D/T)	23.05.2025/ 11:58

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	21.05.2025/ 15:25	Sampling End (D/T)	21.05.2025/ 15:40
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS : 3025 (Part-1) 1987, B-2003		
Description/condition of sample	Received sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	31	Humidity %	49	Wind direction	20°-200°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	STP Outlet	GPS coordinate	23° 16' 59.06" / 84° 25' 18.09"
---------------	------------	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	23.05.2025/ 12:10	Test completion date	26.05.2025/ 10:50
-----------------	-------------------	----------------------	-------------------

-Test Result-

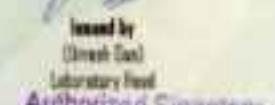
Sl	Test Parameters	Method used	Unit	Results	Limits
1.	pH value at 25°C	IS 3025 (P-13) 2022	-	6.88	6.5-9.0
2.	BOD (3 days at 27°C)	IS 3025 (P-44) 2006	mg/l	8.00	30
3.	COD	IS 3025 (P-58) 2006	mg/l	40.00	-
4.	Oil & Grease	IS 3025 (P-39) 2021	mg/l	BDL(MDL-04)	-
5.	Total Suspended Solid	IS 3025 (P-17) 2022	mg/l	13.00	100
6.	Iron (as Fe)	APHA 3111B 2023	mg/l	BDL(MDL-0.1)	-

-Test result End-

Prescribed Limit
Operational Status
Analysed by - Ankit Kumar

Environmental (Protection) Rules-1986, Schedule I, Serial No. 105.
Unit was Operational During sampling.


Reviewed by
(Ankit Kumar)
Technical Head


Issued by
(Ankit Das)
Laboratory Head
Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited

Address:
C/o - R.R. Tripathi, Ranchi,
Road No. - 5, Ranchi,
Jharkhand - 834005, India

GSTIN: 26AAHCK333TPZ
98357 88677
93048 72884
epiclabtech@gmail.com

CIN: U74999JH2022PTC076965
PAN: HAAHCK333TPZ
GST: 26AAHCK333TPZ

Accredited by:
Jharkhand State Pollution Control Board
Certified by:
ISO 9001:2015 and ISO 14001:2015

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL01832521120	Group	Pollution & Environment
Issue date/time	27.05.2025/ 10:48	Sub Group	Waste Water (Sewage)

Report Issue to:

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA.835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
05.04.2025/ 10:10
Order Number
RJ/MJB/MM/25/0114/00

References of Quality Management System (Steps of Traceability Data)

Customer Registration No.	EPIC/OTH/0183	Sample Booking Number	EPIC-2521120
Sample(s) Code	2521120	Sample Receipt (D/T)	23.05.2025/ 11:56

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	21.05.2025/ 15:25	Sampling End (D/T)	21.05.2025/ 15:40
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample		Receipt sample(s) were fit for analysis.	

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	31	Humidity %	48	Wind direction	20°-200°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	STP Outlet	GPS coordinate	23° 16' 59.06" / 84° 25' 18.09"
---------------	------------	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	23.05.2025/ 12:10	Test completion date	26.05.2025/ 10:50
-----------------	-------------------	----------------------	-------------------

Test Result

Sl.	Test Parameters	Method used	Unit	Results	Limits
1.	Calcium	IS 3025 (P-40) 2022	mg/l	74.00	-
2.	Aluminum	IS 3025 (P-55) 2003	mg/l	BDL(MDL-0.1)	-

Test result End

Prescribed Limit
Operational Status
Analyzed by -Anup Kumar




Reviewed by
(A.K. Kumar)
Technical Head


Issued by
(Anup Kumar)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand

**Analytical Test Certificate**

Unique Lab Report No.	TC1288725000000632	Discipline	Chemical
Report Unique ID	RL0183251122	Group	Atmospheric Pollution
Issue date/time	27.05.2025/ 10:50	Sub Group	Ambient Air Quality

Report Issue to:

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST - LOHARDAGA, STATE - JHARKHAND, INDIA 835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
05.04.2025/ 10:10
Order Number
RP/HUB/MM/25/0114/00

References of Quality Management System (Date of Traceability Date)

Customer Registration No.	EPIC/OTH/0183	Sample Booking Number	EPIC- 2521122
Sample(s) Code	2521122 (A) (B) (C) (D)	Sample Receipt (D/T)	23.05.2025/ 12:00

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	21.05.2025/ 11:50	Sampling End (D/T)	22.05.2025/ 08:56
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	32	Humidity %	46	Wind direction	220°-40°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Korie Village	GPS coordinate	23° 17' 26.81" E 84° 25' 55.18" N
S. Location B	Near Barang Village	GPS coordinate	23° 16' 32.45" E 84° 25' 12.72" N
S. Location C	Near Ghaghra Village	GPS coordinate	23° 16' 55.88" E 84° 23' 38.22" N
S. Location D	Near Bimarla Village	GPS coordinate	23° 17' 05.62" E 84° 23' 25.75" N

Data(s) of performance of the laboratory activities

Test start date	23.05.2025/ 12:10	Test completion date	26.05.2025/ 17:25
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl.	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Particulate Matter (PM ₁₀)	IS:5182 (P-23) 2019	µg/m ³	64.99	61.49	68.68	74.94	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-34) 2019	µg/m ³	28.22	26.41	30.06	32.02	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2023	µg/m ³	07.99	08.28	09.23	10.63	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	22.60	22.12	21.93	18.23	60(24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	48.03	45.76	42.53	39.29	400(24 hr)
6.	Ozone (O ₃)	IS:5182 (P-06) 2019	µg/m ³	30.04	35.07	36.48	40.78	180(1 hr)
7.	Lead (Pb)	IS:5182 (P-22) 2019	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	1.0(24 hr)
8.	Nickel (Ni)	IS:5182 (P-26) 2020	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
9.	Arsenic (As)	USEPA/IO 3.2:1999	ng/m ³	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	-

-Test Results End --

Prescribed Limit Environmental (Protection) Rules- 2000, Schedule VII

Operational Status Unit was Operational During sampling.

Analyzed by - AK Seta


 Reviewed by
AK Seta
Technical Head


 Issued by
Akash Seta
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand

Page 1 of 3

Contractor Note: 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's permanent location. All specific environmental conditions as method required and results relate only to the sample tested in prescribed Date & time. 3. The Test report shall not be reproduced full or in part & cannot be used as proof in the court of law. 4. Any complaint about this report should be communicated in writing within 10 days of its issue. 5. Total liability of EPIC LabTech Pvt. Ltd. will be limited to incurred amount only. 6. All disputes are subject to Ranchi jurisdiction and maximum liability of the laboratory does not exceed the testing and sampling charges. 7. Operator does not imply endorsement of the tested product by laboratory. Under no circumstances, laboratory accepts any claim by user or receiver of this report. 8. Where the results are from external providers are marked as * mark.

Disclaimer - BDL (Below Detection Limit), MDL (Minimum Detectable Limit), LoQ (Limit of Quantification).



EPIC LabTech Private Limited

Address:
C/o - R.R. Tugadia, Ranchi,
Avee No. - S. Ranchi,
Jharkhand - 834005, India

T. 0921 4886297
98357 89677
93649 75594
epiclabtech@gmail.com

CIN-U74999JH2022PTC119681
PAN-AAHCE2E1M
GST-25AAHCE311WZC

Accredited by -
National Accreditation Board for
Laboratory (NABL) and ISO 17025
Certified by -
ISO 9001:2015 and ISO 14001:2015

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical					
Report Unique ID	RL0182521122	Group	Atmospheric Pollution					
Issue date/time	27.05.2025/ 10:50	Sub Group	Ambient Air Quality					
Report Issue to								
M/s - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST. - LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE: SIMARLA BAUXITE MINE	Contact Person	Mr. Ankit Das						
	Contact Number	+91 9871034775						
	Email Id	ankit.das@adityabirla.com						
	Order Date	05.04.2025/ 10:10						
	Order Number	RP/MJ/MM/25/0114/00						
References of Quality Management System (Steps of Traceability Data)								
Customer Registration No.	EPIC/OTH/0183	Sample Booking Number	EPIC- 2521122					
Sample(s) Code	2521122 (A) (B) (C) (D)	Sample Receipt (D/T)	23.05.2025/ 12:00					
Sampling References								
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036					
Sampling Start (D/T)	21.05.2025/ 11:50	Sampling End (D/T)	22.05.2025/ 08:56					
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team					
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)							
Description/condition of sample	Receipt sample(s) were fit for analysis.							
Environmental Condition during sampling								
Weather condition	Clear	Temperature (°C)	32					
		Humidity %	46					
		Wind direction	220°-40°					
Sampling Location(s) with GPS coordinate(s)								
S. Location A	Near Korte Village	GPS coordinate	23° 17' 26.81" / 84° 25' 55.18"					
S. Location B	Near Baranji Village	GPS coordinate	23° 16' 32.45" / 84° 25' 12.72"					
S. Location C	Near Ghaghra Village	GPS coordinate	23° 16' 55.88" / 84° 23' 36.22"					
S. Location D	Near Simarla Village	GPS coordinate	23° 17' 05.62" / 84° 23' 25.75"					
Date(s) of performance of the laboratory activities								
Test start date	23.05.2025/ 12:10	Test completion date	26.05.2025/ 17:25					
-Test Results-								
Sl.	Test Parameters	Method used	Unit	A	B	C	D	Limits
1.	Benzene (C ₆ H ₆)	IS:182(P-11) 2006	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
2.	Benzo (a) Pyrene (Bap)- Particulate phase only	IS:182(P-12) 2004	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
3.	Carbon Monoxide (CO)	EPIC/LAB/SORIAP/03/100	mg/m ³	BDL (MDL-1.0)	BDL (MDL-1.0)	BDL (MDL-1.0)	BDL (MDL-1.0)	-
-Test Results End -								

Prescribed Limit Environmental (Protection) Rules-1986, Schedule VII
Operational Status Unit was Operational During sampling

Analyzed by - AK Sinha



Reviewed by
(AK Sinha)
Technical Head

Issue by
(Ankit Das)
Laboratory Head
Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Address:
C/o - R.R. Tripathi, Indrapuri
Road No. - 5, Ranchi,
Jharkhand - 834005, India

T. 0651-9456292
94357 84677
93045 73934
epiclabtech@gmail.com

CIN - U74909JH2022PTC079685
Regd. - AAMCE381TM
GST - 20AAHC33ETN0123

Assessed by -
NABL Registration Number IC - 0247
Shankar Sons Research Council Board
Certified by -
ISO 9001:2015 and ISO 45001:2018

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000728	Discipline	Chemical
Report Unique ID	RL02162525031	Group	Atmospheric Pollution
Issue date/time	25.06.2025/ 10:30	Sub Group	Ambient Air Quality

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST. - LOHARDAGA, STATE - JHARKHAND, INDIA 835302
MONITORING SITE: BIMARLA BAUXITE MINE

Contact Person
Contact Number
Email Id
Order Date
Order Number

Mr. Ankit Das
+91 9971034775
ankit.das@badhyabirta.com
05.04.2025/ 10:10
RP/MJB/MM/25/0114/00

References of Quality Management System (Days of Traceability Date)

Customer Registration No.	EPIC/OTH/0216	Sample Booking Number	EPIC-2525031
Sample(s) Code	2525031 (A) (B) (C) (D)	Sample Receipt (D/T)	20.06.2025/ 11:31

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	17.06.2025/ 11:40	Sampling End (D/T)	18.06.2025/ 08:17
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Description/condition of sample		Receipt sample(s) were fit for analysis.	

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	26	Humidity %	78	Wind direction	270°-90°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Weigh Bridge	GPS coordinate	23° 17' 05.82" / 84° 25' 19.25"
S. Location B	Near Quarry No 1B	GPS coordinate	23° 17' 45.37" / 84° 25' 30.07"
S. Location C	Near Prathmik Vidyalaya Barong Path	GPS coordinate	23° 17' 20.07" / 84° 25' 30.41"
S. Location D	Near Mine Entry Gate	GPS coordinate	23° 16' 49.80" / 84° 25' 33.67"

Data(s) of performance of the laboratory activities

Test start date	20.06.2025/ 12:15	Test completion date	24.06.2025/ 12:00
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl.	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Particulate Matter (PM ₁₀)	IS:5182 (P-23) 2022	µg/m ³	88.29	86.83	69.80	77.66	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	44.34	41.57	34.36	38.80	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2023	µg/m ³	10.96	07.44	07.05	08.22	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	22.20	14.80	15.86	17.97	80(24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	49.38	46.67	42.67	36.16	400(24 hr)
6.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m ³	37.23	33.14	30.35	26.48	180(1 hr)
7.	Lead (Pb)	IS:5182 (P-22) 2019	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	1.0(24 hr)
8.	Nickel (Ni)	IS:5182 (P-26) 2020	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
9.	Arsenic (As)	USEPA ID 3.2:1999	ng/m ³	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	-

-Test Results End -

Prescribed Limit Environmental (Protection) Rules-1986, Schedule VII.
Operational Status Unit was Operational During sampling.

Analysed by - Vishal Mangrul

Reviewed by
(A.K. Kumar)
Technical Head

Asses by
(Gopal Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.

SARANG JAI KHAND

Page 1 of 1

Contractual Note : 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's premises facility. 3. All results are expressed in metric units as marked. 4. The test report shall not be reproduced full or in part or even a part of it, as proof in the court of law. 5. Any complaint about this report should be communicated in writing within 10 days of its issue. 6. Total liability of EPIC LabTech Pvt. Ltd. will be limited to incurred amount only. 7. All disputes are subject to Ranchi jurisdiction and maximum liability of the laboratory does not exceed the testing and sampling charges. 8. Operator does not apply amendment of the tested product by laboratory. Under no circumstances, laboratory accepts any claim by user or user of this report. 9. When the results are from external provider are marked as * mark. 10. Abbreviations - BDL (Below Detectable Limit), MDL (Maximum Detectable Limit), LOD (Limit of Quantitation).



EPIC LabTech Private Limited

Address:
C/o - K.K. Tripathi, Indrapuram
Road No. - 5, Ranchi
Jharkhand - 834005, India

T. 0651 4666292
M. 98357 84477
E. 93049 73994
E-mail: epiclabtech@gmail.com

CIN - U74999JH2022PTC06685
PAN - AAHCE2613M
GST - 20AAHCE3711M2X

Authorized by -
Environmental Audit Release Control Board
Certified by -
ISO 9001:2015 and ISO 17025:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02362525031	Group	Atmospheric Pollution
Issue date/time	25.06.2025/ 10:30	Sub Group	Ambient Air Quality

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE - COURT ROAD, POST OFFICE - LOHARDAGA,
DIST - LOHARDAGA, STATE - JHARKHAND, INDIA 835302
MONITORING SITE: BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
05.04.2025/ 10:10
Order Number
RP/MJB/MM/25/0114/00

References of Quality Management System (Date of Issuability Date)

Customer Registration No.	EPIC/OTH/0216	Sample Booking Number	EPIC/2525031
Sample(s) Code	2525031 (A) (B) (C) (D)	Sample Receipt (D/T)	25.06.2025/ 11:31

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	17.06.2025/ 11:40	Sampling End (D/T)	18.06.2025/ 08:17
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	26	Humidity %	78	Wind direction	270°-90°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Weigh Bridge	GPS coordinate	23° 17' 05.82" / 84° 25' 19.25"
S. Location B	Near Quarry No 1B	GPS coordinate	23° 17' 45.37" / 84° 25' 30.07"
S. Location C	Near Prathmik Vidyalaya Barang Path	GPS coordinate	23° 17' 20.07" / 84° 25' 30.41"
S. Location D	Near Mine Entry Gate	GPS coordinate	23° 15' 49.80" / 84° 25' 33.67"

Date(s) of performance of the laboratory activities

Test start date	20.06.2025/ 12:15	Test completion date	24.06.2025/ 12:00
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Benzene (C ₆ H ₆)	IS 5182(P-11) 2006	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
2.	Benzo (a) Pyrene (Bap)- Particulate phase only	IS 5182(P-12) 2004	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
3.	Carbon Monoxide (CO)	EPIC/LAB/SOP/AP/01/00	mg/m ³	BDL (MDL-1.8)	BDL (MDL-1.8)	BDL (MDL-1.8)	BDL (MDL-1.8)	-

-Test Results End -

Prescribed Limit Environmental (Protection) Rules-1986, Schedule VI.

Operational Status Unit was Operational During sampling.

Analyzed by - Vishal Mangaraj


Reviewed by
(A.K. Kumar)
Technical Head


Reviewed by
A.K. Kumar
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited

Address:
C/o - R.K. Tripathi, Mohanpur,
Ranchi - S. Ranchi,
Jharkhand - 834005, India

Tel: 0651-4066291
98357 80577
93049 73994
epiclabtech@gmail.com

CIN-U74999IN2022PTC079683
FAX: 0651-2461114
GST: 2TAARCE3EM123

Associated by:
ISO 9001:2015 Certificate Number IC-12847
Jharkhand State Pollution Control Board
Certified by:
ISO 9001:2015 and ISO 45001:2018



TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000729	Discipline	Chemical
Report Unique ID	RLO2162525032	Group	Atmospheric Pollution
Issue date/time	25.06.2025/ 10:32	Sub Group	Ambient Air Quality

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: BIMARIA BAUXITE MINE

Contact Person: Mr. Ankit Das
Contact Number: +91 9871034775
Email Id: ankit.das@adityabirla.com
Order Date: 05.04.2025/ 10:10
Order Number: RP/MJR/MM/25/0114/00

References of Quality Management System (Date of Issuability Date)

Customer Registration No.	EPIC/OTH/0216	Sample Booking Number	EPIC- 2525032
Sample(s) Code	2525032 (A) (B) (C) (D)	Sample Receipt (D/T)	20.06.2025/ 11:33

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	18.06.2025/ 12:08	Sampling End (D/T)	19.06.2025/ 09:06
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	26	Humidity %	78	Wind direction	270°-90°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Korie Village	GPS coordinate	23° 17' 26.81" / 84° 25' 55.18"
S. Location B	Near Berang Village	GPS coordinate	23° 16' 32.45" / 84° 25' 12.72"
S. Location C	Near Ghaghra Village	GPS coordinate	23° 16' 55.88" / 84° 23' 36.22"
S. Location D	Near Bimaria Village	GPS coordinate	23° 17' 05.82" / 84° 23' 25.75"

Date(s) of performance of the laboratory activities

Test start date	20.06.2025/ 12:33	Test completion date	24.06.2025/ 12:03
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl.	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Particulate Matter (PM ₁₀)	IS:5182 (P-23) 2022	µg/m ³	62.20	59.76	66.52	72.47	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2018	µg/m ³	27.05	24.94	28.66	30.25	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2023	µg/m ³	06.26	06.66	07.44	09.01	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	20.08	19.03	17.97	15.86	80(24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	47.40	43.83	40.58	37.34	400(24 hr)
6.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m ³	28.61	33.26	34.69	33.00	180(1 hr)
7.	Lead (Pb)	IS:5182 (P-22) 2018	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL23.96 (MDL-0.1)	BDL	1.0(24 hr)
8.	Nickel (Ni)	IS:5182 (P-26) 2020	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
9.	Arsenic (As)	USEPA 10.3.2:1999	ng/m ³	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	-

-Test Results End -

Prescribed Limit: Environmental (Protection) Rules-1986, Schedule VI.

Operational Status: Unit was Operational During sampling.

Analyzed by - Yashwant Kanger


Reviewed by
S.K. Kumar
Technical Head


Ankit Das
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.

Ranchi, Jharkhand Page 1 of 1

Disclaimer Note: 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's permission facility. 3. Laboratory does not accept responsibility for results obtained by method required and results relate only to the sample tested in prescribed Date & time. 4. The Test report shall not be reproduced full or in part or used as proof in the court of law. 5. Any complaint about this report should be communicated in writing within 10 days of its issue. 6. Total liability of EPIC LabTech Pvt. Ltd. will be limited to recovered amount only. 7. All disputes are subject to Ranchi jurisdiction and materiality of the laboratory does not exceed the testing and sampling charges. 8. Owner does not imply endorsement of the tested product by laboratory. Under no circumstances, laboratory accepts any claim by use or misuse of this report. 9. When the results are from external provider are marked as "mark". 10. Abbreviation: - BDL (Below Detection Limit), MDL (Minimum Detectable Limit), LQ (Limit of Quantification).



EPIC LabTech Private Limited

Address:
C/o - R.K. Tripathi, Indrapuri,
Road No. - S. Ranchi,
Jharkhand - 834005, India

Tel: 0651 606292
98357 89677
930-69 73994
epiclabtech@gmail.com

CIN: U74999IN2022PTC078883 PAN: AAHC2361TM
GST: 25AARCE371M123

Accredited by -
Bharatbharat State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02162525032	Group	Atmospheric Pollution
Issue date/time	25.06.2025/ 10:32	Sub Group	Ambient Air Quality

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
05.04.2025/ 10:10
Order Number
RP/MUB/MM/25/0114/00

References of Quality Management System (Copy of Traceability Data)

Customer Registration No.	EPIC/OTH/0216	Sample Booking Number	EPIC- 2525032
Sample(s) Code	2525032 (A) (B) (C) (D)	Sample Receipt (D/T)	20.06.2025/ 11:33

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	18.06.2025/ 12:08	Sampling End (D/T)	19.06.2025/ 09:06
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		

Description/condition of sample Receipt sample(s) were fit for analysis.

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	32	Humidity %	46	Wind direction	220°-40°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

5. Location A	Near Korie Village	GPS coordinate	23° 17' 26.81" / 84° 25' 55.18"
5. Location B	Near Barang Village	GPS coordinate	23° 16' 32.45" / 84° 25' 12.72"
5. Location C	Near Ghaghra Village	GPS coordinate	23° 16' 55.88" / 84° 23' 36.22"
5. Location D	Near Bimaria Village	GPS coordinate	23° 17' 05.62" / 84° 23' 25.75"

Date(s) of performance of the laboratory activities

Test start date	20.06.2025/ 12:23	Test completion date	24.06.2025/ 12:03
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl.	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Benzene (C ₆ H ₆)	IS:5182(P-11) 2006	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
2.	Benzo (a) Pyrene (Bap)- Particulate phase only	IS:5182(P-12) 2004	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
3.	Carbon Monoxide (CO)	EPIC/LAB/SOP/AP/01/00	mg/m ³	BDL (MDL-1.8)	BDL (MDL-1.8)	BDL (MDL-1.8)	BDL (MDL-1.8)	-

-Test Results End -

Prescribed Limit: Environmental (Protection) Rules-1986, Schedule VI.

Operational Status: Unit was Operational During sampling.

Analysed by - Vishal Mangaraj


Reviewed by
(S.K. Kumar)
Technical Head


Issued by
(Ankit Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand





EPIC LabTech Private Limited

Address:
C/o - R.K. Tripathi, Indrapuri,
Road No. - 5, Ranchi,
Jharkhand - 834005, India

GSTIN - 984562392
98357 64677
93045 73994
epiclabtech@gmail.com

CIN - U74999IN2022PTC079835
PAN - AAHC3361M
GST - 25AAHC3361M0278

Accredited by -
National Testing Laboratory Council Board
Certified by -
ISO 17025:2017 and ISO 9001:2015

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02162525033	Group	Atmospheric Pollution
Issue date/time	25.06.2025/ 10:34	Sub Group	Work Zone Noise

Report issued to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
05.04.2025/ 10:10
Order Number
RP/MUB/MM/25/0134/00

References of Quality Management System (Steps of Traceability Data)

Customer Registration No.	EPIC/OTH/0216	Sample Booking Number	EPIC-2525033
Sample(s) Code	2525033 (A) (B)	Sample Receipt (D/T)	20.06.2025/ 11:38

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D)	17.06.2025	Sampling End (D)	17.06.2025
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS 9989:1981 (RA 2020) & CPCB Method S.O.50 (E) dated 11/01/2010		
Description/condition of sample		Receipt sample(s) were fit for analysis.	

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	26	Humidity %	78	Wind direction	270°-90°
-------------------	-------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Quarry No 1 B	GPS coordinate	23° 17' 46.30" / 84° 25' 30.16"
S. Location B	Bauxite Mine (134.526Ha)	GPS coordinate	23° 17' 48.97" / 84° 25' 30.15"

Data(s) of performance of the laboratory activities

Test start date	20.06.2025/ 12:40	Test completion date	24.06.2025/ 12:15
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl	Test Parameters	Method used	Unit	Results		Limits
				A	B	
1.	L_{eq}	IS: 9989:1981	dB (A)	71.3	63.9	85

-Test Results End -

Prescribed Limit
Operational Status
Analyzed by - Vishal Mangersi

NIOSH - Publication No. 98-125 in 1972, Table 1-1

Unit was Operational During sampling.

Reviewed by
(Mr. Kumar)
Technical Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand





Report of Test Certificate

Unique Lab Report No.	TC1288725000000919	Discipline	Chemical
Report Unique ID	RL02432529064	Group	Atmospheric Pollution
Issue date/time	23.07.2025/ 17:30	Sub Group	Ambient Air Quality

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: BIMARLA BAUXITE MINE

Contact Person
Contact Number
Email Id
Order Date
Order Number

Mr. Ankit Das
+91 9971034775
ankit.das@admynabiria.com
05.04.2025/ 10:10
RP/MJBM/25/0114/00

References of Quality Management System (Copy of Incentivity Doc)

Customer Registration No.	EPIC/OTH/0243	Sample Booking Number	EPIC-2529064
Sample(s) Code	2529064 (A) (B) (C) (D)	Sample Receipt (D/T)	19.07.2025/ 10:40

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	16.07.2025/ 12:05	Sampling End (D/T)	17.07.2025/ 10:09
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Vishal Kumar & Team
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	26	Humidity %	66	Wind direction	0°-180°
-------------------	--------	------------------	----	------------	----	----------------	---------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Weigh Bridge	GPS coordinate	23° 17' 00.82" / 84° 25' 19.25"
S. Location B	Near Quarry No 18	GPS coordinate	23° 17' 45.37" / 84° 25' 30.07"
S. Location C	Near Prathmik Vidyalaya Barang Path	GPS coordinate	23° 17' 20.07" / 84° 25' 30.41"
S. Location D	Near Mine Entry Gate	GPS coordinate	23° 17' 49.80" / 84° 25' 33.87"

Date(s) of performance of the laboratory activities

Test start date	19.07.2025/ 11:00	Test completion date	23.07.2025/ 16:00
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl.	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Particulate Matter (PM ₁₀)	IS:5182 (P-23) 2022	µg/m ³	84.63	82.84	65.03	73.50	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-34) 2019	µg/m ³	40.53	37.91	30.19	34.01	60 (24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2023	µg/m ³	09.38	06.52	06.55	08.03	80 (24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	20.05	11.07	12.13	15.21	80 (24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-25) 2019	µg/m ³	44.94	42.39	38.88	32.19	400 (24 hr)
6.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m ³	34.74	30.04	26.78	22.44	180 (1 hr)
7.	Lead (Pb)	IS:5182 (P-22) 2019	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	1.0 (24 hr)
8.	Nickel (Ni)	IS:5182 (P-26) 2020	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
9.	Arsenic (As)	USEPA ID 3.2:1990	ng/m ³	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	-

-Test Results End -

Prescribed Limit
Operational Status

Environmental (Protection) Rules-1986, Schedule VI.

Unit was Operational During sampling.

Analyzed by - Vishal Mengare


Reviewed by
(S.N. Kumar)
Technical Head


Issued by
(S.N. Kumar)
Laboratory Head

Authorized Signatory

EPIC LabTech Pvt. Ltd.

Page 1 of 1

Contractual Note : 1. Laboratory accepts responsibility for content of this report | 2. Test performed at laboratory's premises facility **EPIC LabTech Pvt. Ltd.** Jharkhand | 3. Laboratory is not responsible for any damage or loss to sample(s) sent to laboratory for testing | 4. Any complaint about this report should be communicated in writing within 10 days of issuance | 5. Total liability of EPIC LabTech Pvt. Ltd. will be limited to recovered amount only | 6. All disputes are subject to Jharkhand jurisdiction and exclusive liability of the laboratory does not exceed the testing and sampling charges | 7. Customer does not apply endorsement of the tested product by laboratory. Under no circumstances, laboratory accepts any claim by user in respect of this report | 8. When the results are from external provider are marked as * mark | 9. Abbreviation : BDL (Below Detection Limit), MDL (Minimum Detectable Limit), LOD (Limit of Detection).



Report and Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02432529064	Group	Atmospheric Pollution
Issue date/time	23.07.2025/ 17:30	Sub Group	Ambient Air Quality

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
05.04.2025/ 10:10
Order Number
BP/M/B/MM/25/0134/00

References of Quality Management System (Copy of Traceability Sheet)

Customer Registration No.	EPIC/OTH/0243	Sample Booking Number	EPIC-2529064
Sample(s) Code	2529064 (A) (B) (C) (D)	Sample Receipt (D/T)	19.07.2025/ 10:40

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	16.07.2025/ 12:00	Sampling End (D/T)	17.07.2025/ 10:00
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Vishal Kumar & Team
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	26	Humidity %	66	Wind direction	0°-180°
-------------------	--------	------------------	----	------------	----	----------------	---------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Weigh Bridge	GPS coordinate	23° 17' 06.82" / 84° 25' 19.25"
S. Location B	Near Quarry No 1B	GPS coordinate	23° 17' 45.37" / 84° 25' 30.07"
S. Location C	Near Prathmik Vidyalaya Barang Path	GPS coordinate	23° 17' 20.07" / 84° 25' 30.41"
S. Location D	Near Mine Entry Gate	GPS coordinate	23° 16' 49.80" / 84° 25' 33.67"

Data(s) of performance of the laboratory activities

Test start date	19.07.2025/ 11:00	Test completion date	23.07.2025/ 16:00
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl.	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Benzene (C ₆ H ₆)	IS:5182(P-11) 2006	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
2.	Benzo (a) Pyrene (Bap)- Particulate phase only	IS:5182(P-12) 2004	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
3.	Carbon Monoxide (CO)	EPIC/LAB/SOP/01/05	mg/m ³	BDL (MDL-1.0)	BDL (MDL-1.0)	BDL (MDL-1.0)	BDL (MDL-1.0)	-

-Test Results End -

Prescribed Limit Environmental (Protection) Rules-1986, Schedule VII.

Operational Status Unit was Operational During sampling.

Analysed by - Vishal Kumar

Reviewed by
(RAKESH)
Technical Head
10/07/2025
Reviewed by
Ankit Das
Laboratory HeadAuthorized Signature
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Address -
C/o - R.K. Tapashni, Indrapuri,
Road No. - S. Tapashni,
Jharkhand - 834005, India

Tel: 0657-4966282
98357 89677
93369 73994
40314tech@gmail.com

CIN - U74999JH2002PTC0988
Regd. - AAHCES611YM
GST - 2TAHCE611YM123

Accredited by -
NABL, Lab. certificate number IC-12847
Markets India Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 17025:2017

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1268725000000920	Discipline	Chemical
Report Unique ID	RL02432529065	Group	Atmospheric Pollution
Issue date/time	23.07.2025/ 17:33	Sub Group	Ambient Air Quality

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: BIMARLA BAUXITE MINE

Contact Person: Mr. Ankit Das
Contact Number: +91 98971034775
Email Id: ankit.das@adiyabirla.com
Order Date: 05.04.2025/ 10:10
Order Number: RR/MIB/MM/25/0114/00

References of Quality Management System (Copy of Traceability Document)

Customer Registration No.	EPIC/OTH/0243	Sample Booking Number	EPIC-2529065
Sample(s) Code	2529065 (A) (B) (C) (D)	Sample Receipt (D/T)	19.07.2025/ 10:41

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	17.07.2025/ 11:50	Sampling End (D/T)	18.07.2025/ 06: 55
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Vishal Kumar & Team
Sampling method used	IS:5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	26	Humidity %	66	Wind direction	0°-180°
-------------------	--------	------------------	----	------------	----	----------------	---------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Korie Village	GPS coordinate	23° 17' 26.81" / 84° 25' 55.18"
S. Location B	Near Sarang Village	GPS coordinate	23° 16' 32.45" / 84° 25' 12.72"
S. Location C	Near Ghaghra Village	GPS coordinate	23° 18' 55.88" / 84° 23' 36.22"
S. Location D	Near Bimarta Village	GPS coordinate	23° 17' 05.62" / 84° 23' 25.75"

Date(s) of performance of the laboratory activities

Test start date	19.07.2025/ 11:01	Test completion date	23.07.2025/ 16:01
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl.	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Particulate Matter (PM ₁₀)	IS:5182 (P-23) 2022	µg/m ³	58.25	55.96	62.15	68.62	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2018	µg/m ³	23.31	20.53	24.32	26.66	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2023	µg/m ³	06.48	06.85	06.23	06.43	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	18.27	16.25	14.25	12.22	80(24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	43.35	38.88	36.65	35.06	400(24 hr)
6.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m ³	23.88	29.31	30.40	33.65	180(1 hr)
7.	Lead (Pb)	IS:5182 (P-22) 2019	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	1.0(24 hr)
8.	Nickel (Ni)	IS:5182 (P-26) 2020	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
9.	Arsenic (As)	USEPA 10.3.2.1998	ng/m ³	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	-

-Test Results End -

Prescribed Limit: Environmental (Protection) Rules-1986, Schedule VII.
Operational Status: Unit was Operational During sampling.

Analyzed by - Vishal Kumar


Reviewed by
(Vishal Kumar)
Technical Head


Issued by
(Ankit Das)
Laboratory Head

Authorized Signatory

EPIC LabTech

Page 1 of 1

Disclaimer Note: 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's permission number is 40314tech. 3. All information is correct as per the sample tested. 4. The Test report shall not be reproduced full or in part. 5. No responsibility is taken for any misuse of law. 6. Any complaint about this report should be communicated in writing within 10 days of its issue. 7. Total liability of EPIC LabTech Pvt. Ltd. will be limited to recovered amount only. 8. All diagrams are subject to change. 9. Calibration and maximum liability of the laboratory does not exceed the testing and sampling charges. 10. Company does not imply endorsement of the tested product by laboratory. Under no circumstances, laboratory accepts any liability for use or misuse of this report. 11. When the results are from external provider are marked as "stack". 12. Abbreviations: - BDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LQ (Limit of Quantitation).



Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical					
Report Unique ID	RL02432529065	Group	Atmospheric Pollution					
Issue date/time	23.07.2025/ 17:33	Sub Group	Ambient Air Quality					
Report Issue to								
M/s - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE : SIMARLA BAUXITE MINE	Contact Person Mr. Ankit Das Contact Number +91 9971034775 Email Id ankit.das@adityabirla.com Order Date 05.04.2025/ 10:10 Order Number RPM/B/MM/25/0114/00							
References of Quality Management System (Date of Traceability Data)								
Customer Registration No.	EPIC/OTH/0243	Sample Booking Number	EPIC-25299065					
Sample(s) Code	2529065 (A) (B) (C) (D)	Sample Receipt (D/T)	19.07.2025/ 10:41					
Sampling References								
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036					
Sampling Start (D/T)	17.07.2025/ 11:50	Sampling End (D/T)	18.07.2025/ 08:55					
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Vishal Kumar & Team					
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)							
Description/condition of sample	Receipt sample(s) were fit for analysis.							
Environmental Condition during sampling								
Weather condition	Cloudy	Temperature (°C)	26					
		Humidity %	66					
		Wind direction	0°-180°					
Sampling Location(s) with GPS coordinate(s)								
S. Location A	Near Korle Village	GPS coordinate	23° 17' 26.81" / 84° 25' 55.18"					
S. Location B	Near Barang Village	GPS coordinate	23° 16' 32.45" / 84° 25' 12.72"					
S. Location C	Near Ghaghra Village	GPS coordinate	23° 16' 59.88" / 84° 23' 36.22"					
S. Location D	Near Bimaria Village	GPS coordinate	23° 17' 05.62" / 84° 23' 25.75"					
Date(s) of performance of the laboratory activities								
Test start date	19.07.2025/ 11:01	Test completion date	23.07.2025/ 16:01					
-Test Results-								
Sl.	Test Parameters	Method used	Unit	A	B	C	D	Limits
1.	Benzene (C ₆ H ₆)	IS 5182(P-11) 2006	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
2.	Benzo (a) Pyrene (Bap)- Particulate phase only	IS 5182(P-12) 2004	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
3.	Carbon Monoxide (CO)	EPIC/LAB/SOP/API01/00	mg/m ³	BDL (MDL-1.0)	BDL (MDL-1.0)	BDL (MDL-1.0)	BDL (MDL-1.0)	-

-Test Results End -

Prescribed Limit: Environmental (Protection) Rules-1986, Schedule VII.
Operational Status: Unit was Operational During sampling.

Analysed by - Vishal Mangro




Reviewed by
(Ex-User)
Technical Head


Issued by
(Ex-User)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Analytical Test Certificate

Unique Lab Report No.	TC12345678900000921	Discipline	Chemical
Report Unique ID	RL02432529066	Group	Water
Issue date/time	23.07.2025/ 17:36	Sub Group	Drinking Water

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9871034775
Email Id
ankit.das@adityabirla.com
Order Date
05.04.2025/ 10:10
Order Number
BP/MJBB/MM/25/0114/00

References of Quality Management System (Steps of Traceability Detail)

Customer Registration No.	EPIC/OTH/0243	Sample Booking Number	EPIC-2529066
Sample(s) Code	2529066	Sample Receipt (D/T)	19.07.2025/ 10:43

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	17.07.2025/ 13:30	Sampling End (D/T)	17.07.2025/ 13:45
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Vishal Kumar & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample		Receipt sample(s) were fit for analysis.	

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	26	Humidity %	66	Wind direction	0°-180°
-------------------	--------	------------------	----	------------	----	----------------	---------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Mines Office	GPS coordinate	23° 17' 03.83" / 84° 25' 19.17"
---------------	-------------------	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	19.07.2025/ 11:03	Test completion date	23.07.2025/ 16:00
-----------------	-------------------	----------------------	-------------------

-Test Result-

Sl.	Test Parameters	Method used	Unit	Results	Limits	
					Acceptable Limit	Permissible Limit
1.	pH value at 25°C	IS 3025 (P-11) 2022	-	6.99	6.5-8.5	No relaxation
2.	Turbidity	IS 3025 (P-10) 1984	NTU	0.66	1	5
3.	Colour	IS 3025 (P-04) 2021	Hazen	<5	5	15
4.	Odour	IS 3025 (P-05) 2020	-	Agreeable	Agreeable	Agreeable
5.	Taste	IS 3025 (P-07) 2017	-	Agreeable	Agreeable	Agreeable
6.	Total Dissolved Solids (TDS)	IS 3025 (P-18) 2023	mg/l	181.00	500	2000
7.	Chloride (as Cl)	IS 3025 (P-32) 2019	mg/l	19.19	250	1000
8.	Total Alkalinity (as CaCO ₃)	IS 3025 (P-23) 2019	mg/l	145.00	200	600
9.	Total Hardness (as CaCO ₃)	IS 3025 (P-21) 2006	mg/l	174.00	200	600
10.	Calcium (as Ca)	IS 3025 (P-40) 1991	mg/l	49.8	75	200
11.	Free Residual Chlorine	IS 3025 (P-26) 1986	mg/l	BDL (MDL-0.4)	0.2	1
12.	Sulphate (as SO ₄)	IS 3025 (P-34/Sec-1) 2022	mg/l	3.88	200	400
13.	Nitrate (as NO ₃)	APHA 4500-N 2023	mg/l	1.79	45	No relaxation
14.	Phenolic Compound	IS 3025 (P-43/Sec-1) 2022	mg/l	BDL (MDL-0.001)	0.001	0.002
15.	Magnesium (as Mg)	APHA 3000-Mg E 2023	mg/l	10.55	30	100



Address:
C/o - R.K. Tripathi, Mithapur,
Road No. - S. Ranchi,
Jharkhand - 834005, India

Tel: 0651 4686292
98357 66777
93049 73994
epictech@gmail.com

CIN-U74999JH2020PTC079885
Regd - AAHCE3611M
GST - 20AANCE3611M23

Accredited by -
NABL with certificate number IC_13047
Jharkhand State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 17025:2018

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000921	Discipline	Chemical
Report Unique ID	RL02432529066	Group	Water
Issue date/time	23.07.2025/ 17:36	Sub Group	Drinking Water

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE - COURT ROAD, POST OFFICE - LOHARDAGA,
DIST - LOHARDAGA, STATE - JHARKHAND, INDIA 835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person: Mr. Ankit Das
Contact Number: +91 9871034775
Email Id: ankit.das@adityabirla.com
Order Date: 05.04.2025/ 10:10
Order Number: RP/MIB/MM/25/0114/00

Group - Residues and Contaminants in Water				Sub Group - Trace Metals Elements		
16. Copper(as Cu)	APHA 3111B 2023	mg/l	BDL(MDL-0.2)	0.05	1.5	
17. Iron (as Fe)	APHA 3111B 2023	mg/l	BDL(MDL-0.1)	1.0	No relaxation	
18. Lead (as Pb)	APHA 3111B 2023	mg/l	BDL(MDL-0.01)	0.01	No relaxation	
19. Cadmium (as Cd)	APHA 3111B 2023	mg/l	BDL(MDL-0.003)	0.003	No relaxation	
20. Total Chromium (as Cr)	APHA 3111B 2023	mg/l	BDL(MDL-0.05)	0.05	No relaxation	
21. Nickel (as Ni)	APHA 3111B 2023	mg/l	BDL(MDL-0.02)	0.02	No relaxation	
22. Total Arsenic (as As)	APHA 3114B 2023	mg/l	BDL(MDL-0.005)	0.01	0.05	
23. Selenium (as Se)	APHA 3114B 2023	mg/l	BDL(MDL-0.005)	0.01	No relaxation	
24. Manganese (as Mn)	APHA 3111B 2023	mg/l	BDL(MDL-0.05)	0.1	0.3	
25. Zinc(as Zn)	APHA 3111B 2023	mg/l	BDL(MDL-0.04)	5	15	

-Test result End -

Prescribed Limit

IS 10500:2021

Operational Status

Unit was Operational During sampling.

Analysed by - Vashu Mangaraj



Reviewed by
(R.K. Kumar)
Technical Head

Issued by
(Gopal Das)
Laboratory Head

Authorised Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Page 2 of 2



Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical			
Report Unique ID	RLD2432529066	Group	Water			
Issue date/time	23.07.2025/ 17:36	Sub Group	Drinking Water			
Report Issue to						
M/s - MINERALS & MINERALS LIMITED VILLAGE COURT ROAD, POST OFFICE-LOHARDAGA, DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE : BIMARIA BAUXITE MINE		Contact Person	Mr. Ankit Das			
		Contact Number	+91 9971034775			
		Email Id	ankit.das@adityabirla.com			
		Order Date	05.04.2025/ 10:10			
		Order Number	BP/MIB/MM/25/0114/00			
References of Quality Management System (Steps of Traceability Data)						
Customer Registration No.	EPIC/OTH/0243	Sample Booking Number	EPIC-2529066			
Sample(s) Code	2529066	Sample Receipt (D/T)	19.07.2025/ 10:43			
Sampling References						
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036			
Sampling Start (D/T)	17.07.2025/ 13:30	Sampling End (D/T)	17.07.2025/ 13:45			
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Vishal Kumar & Team			
Sampling method used	IS : 3025 (Part-1) 1987, R-2003					
Description/condition of sample	Receipt sample(s) were fit for analysis.					
Environmental Condition during sampling						
Weather condition	Cloudy	Temperature (°C)	26			
		Humidity %	66			
		Wind direction	0°-180°			
Sampling Location(s) with GPS coordinate(s)						
S. Location A	Near Mines Office	GPS coordinate	23° 17' 03.83" N 84° 25' 19.17" E			
Date(s) of performance of the laboratory activities						
Test start date	19.07.2025/ 11:03	Test completion date	23.07.2025/ 16:00			
--Test Result--						
Sl.	Test Parameters	Method used	Unit	Results	Limits	
					Acceptable Limit	Permissible Limit
1.	Fluoride (as F)	APHA-4500 F-C 2023	mg/l	BDL(MDL-0.1)	1.0	1.5
Group- Residues and Contaminants in Water				Sub Group- Trace Metals Elements		
2.	Aluminum	IS 3025 (P-55):2019	mg/l	BDL(MDL-0.1)	0.03	0.2
3.	Boron	IS 3025 (P-57):2021	mg/l	BDL(MDL-0.1)	0.5	1.0
4.	Polychlorinated biphenyls	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.2)	0.5	No relaxation
5.	Polynuclear Aromatic Hydrocarbons (PAH)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.05)	0.1	No relaxation
Group- Residues and Contaminants in Water				Sub Group- Pesticides		
6.	Aalachlor	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	20	No relaxation
7.	Atrazine	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	2.0	No relaxation
8.	Dieldrin	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.02)	0.03	No relaxation
9.	Alpha HCH	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.005)	0.01	No relaxation
10.	Beta HCH	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.02)	0.04	No relaxation
11.	Butachlor	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	120.0	No relaxation
12.	Chloryriphos	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	30.0	No relaxation
13.	Delta HCH	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.02)	0.04	No relaxation
14.	Ethion	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	3.0	No relaxation



Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical		
Report Unique ID	RL02432529066	Group	Water		
Issue date/time	23.07.2025/ 17:36	Sub Group	Drinking Water		
Report Issue to:					
M/s - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE : BIMARIA BAUXITE MINE	Contact Person Mr. Ankit Das	Contact Number +91 9871034775	Email Id ankit.das@adhyabiria.com		
	Order Date 05.04.2025/ 10:10	Order Number RP/MJ/B/MM/25/0114/00			
15. Gamma-HCH(Lindane)	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	2.0	No relaxation
16. Malathion	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	190.0	No relaxation
17. Methyl parathion	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.2)	0.3	No relaxation
18. Monocrotophos	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	1.0	No relaxation
19. Phorate	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	2.0	No relaxation
20. DDT (o, p and p, p-isomer of DDT, DDE and DDD)	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	1.0	No relaxation
21. Endosulfan (alpha, beta, and sulphate)	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.05)	0.4	No relaxation

-Test result End -

Prescribed Limit IS 10500:2021
Operational Status Unit was Operational During sampling.

Analyzed by - Vishal Mangaraj

Reviewed by
(E.S. Kumar)
Technical Head12
18/07/2025
Issued by
(Girish Das)
Laboratory HeadAuthorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited

Address:
City - R.R. Tripathi, Indrapuri,
Road No. - S. Raychhi,
Jharkhand - 834005, India

T. 98951 666292
98357 86677
93249 73591
epiclabtech@gmail.com

CIN - U74999IN2022PTC31985
PAN - AAHCE28ETM
GST - 25AAWCE3101M12X

Accredited by -
Jharkhand State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 45001:2018

Analysed Test Certificate

Unique Lab Report No.	N/A	Discipline	Biological
Report Unique ID	RL02432529067	Group	Water
Issue date/time	23.07.2025/ 17:39	Sub Group	Drinking Water

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE - COURT ROAD, POST OFFICE - LOHARDAGA,
DIST - LOHARDAGA, STATE - JHARKHAND, INDIA 835302
MONITORING SITE : BIMARIA BAUXITE MINE

Contact Person: Mr. Ankit Das
Contact Number: +91 9971034775
Email Id: ankit.das@adityabirla.com
Order Date: 05.04.2025/ 10:10
Order Number: RP/MIB/MM/25/0114/00

References of Quality Management System (Steps of Traceability Chart)

Customer Registration No.	EPIC/OTH/0243	Sample Booking Number	EPIC-2520067
Sample(s) Code	2529067	Sample Receipt (D/T)	19.07.2025/ 10:43

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	17.07.2025/ 13:30	Sampling End (D/T)	17.07.2025/ 13:45
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Vishal Kumar & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample		Receipt sample(s) were fit for analysis.	

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	26	Humidity %	66	Wind direction	0°-180°
-------------------	--------	------------------	----	------------	----	----------------	---------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Mines Office	GPS coordinate	23° 17' 03.83" / 84° 25' 19.17"
---------------	-------------------	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	19.07.2025/ 11:03	Test completion date	23.07.2025/ 16:00
-----------------	-------------------	----------------------	-------------------

-Test Result-

Sl	Test Parameters	Method used	Unit	Results	Limits
1.	Total Coliform	IS 15185:2002	Per 100 ml	Not Detected	Shall not be detectable in any 100 ml sample
2.	E.Coli	IS 15185:2002	Per 100 ml	Not Detected	

-Test result End -

Prescribed Limit: IS 10500:2021

Operational Status: Unit was Operational During sampling.

Analyzed by - Sujata Kumar


Reviewed by
(S. Kumar)
Technical Head


Issued by
(Ankit Das)
Laboratory Head

Authorized Signature
EPIC LabTech Pvt. Ltd.,
Ranchi, Jharkhand





Analytical Test Certificate

Unique Lab Report No.	TC1288725000001099	Discipline	Chemical
Report Unique ID	RLD2752535067	Group	Atmospheric Pollution
Issue date/time	01.09.2025/ 17:00	Sub Group	Ambient Air Quality

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : BIMARIA BAUXITE MINE

Contact Person
Contact Number
Email Id
Order Date
Order Number

Mr. Ankit Das
+91 9971034775
ankit.das@achyabeta.com
09.04.2025/ 10:10
BP/NUB/MM/25/0114/00

References of Quality Management System (Steps of Traceability Data)

Customer Registration No.	EPIC/OTH/0275	Sample Booking Number	EPIC-2535067
Sample(s) Code	2535067 (A) (B) (C) (D)	Sample Receipt (D/T)	28.08.2025/ 10:15

Sampling References

Type of Industry Bauxite Mines
Sampling Start (D/T) 25.08.2025/ 12:06
Mode of Sampling Conducted by Laboratory
Sampling method used IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)
Description/condition of sample Receipt sample(s) were fit for analysis.

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (PC)	27	Humidity %	70	Wind direction	45°-225°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Weigh Bridge	GPS coordinate	23° 17' 05.02" / 84° 25' 19.25"
S. Location B	Near Quarry No 1B	GPS coordinate	23° 17' 45.37" / 84° 25' 30.07"
S. Location C	Near Prathmik Vidyalaya Barong Path	GPS coordinate	23° 17' 20.07" / 84° 25' 30.41"
S. Location D	Near Mine Entry Gate	GPS coordinate	23° 18' 49.80" / 84° 25' 33.67"

Date(s) of performance of the laboratory activities

Test start date	28.08.2025/ 10:38	Test completion date	01.09.2025/ 16:00
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl.	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Particulate Matter (PM ₁₀)	IS:5182 (P-23) 2022	µg/m ³	84.02	81.98	64.29	73.02	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	40.06	37.27	29.89	33.97	60 (24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2023	µg/m ³	09.02	06.13	06.31	07.56	80 (24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	19.05	10.52	12.01	14.99	60 (24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	44.62	42.07	38.57	31.87	400 (24 hr)
6.	Ozone (O ₃)	IS:5182 (P-08) 2019	µg/m ³	34.38	29.67	26.42	22.07	180 (1 hr)
7.	Lead (Pb)	IS:5182 (P-22) 2019	µg/m ³	BDL	BDL	BDL	BDL	1.004 (1 hr)
8.	Nickel (Ni)	IS:5182 (P-26) 2020	ng/m ³	BDL	BDL	BDL	BDL	100 (1 hr)
9.	Arsenic (As)	USEPA 10.3.2:1999	ng/m ³	BDL	BDL	BDL	BDL	100 (1 hr)

-Test Results End -

Prescribed Limit Environmental (Protection) Rules-2006, Schedule VII.
Operational Status Unit was Operational During sampling.

Analysed by - Vishal Margari

Reviewed by
(B.K. Kumar)
Technical HeadIssued by
(Girish Das)
Laboratory HeadAuthorized Signatory
EPIC LabTech Pvt. Ltd.

Panchara, Ranchi, Jharkhand Page 1 of 1





Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0275253067	Group	Atmospheric Pollution
Issue date/time	01.09.2025/ 17:00	Sub Group	Ambient Air Quality

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST - LOHARDAGA, STATE - JHARKHAND, INDIA 835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person : Mr. Ankit Das
Contact Number : +91 9971034775
Email Id : ankit.das@rediffmail.com
Order Date : 05.04.2025/ 10:10
Order Number : RP/MIB/MM/25/0114/00

References of Quality Management System (List of Traceability Chart)

Customer Registration No.	EPIC/OTH/0275	Sample Booking Number	EPIC-2535067
Sample(s) Code	2535067 (A) (B) (C) (D)	Sample Receipt (D/T)	26.08.2025/ 10:18

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	26.08.2025/ 12:00	Sampling End (D/T)	26.08.2025/ 10:20
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/06/2012-13)		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	70	Wind direction	45°-225°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Weigh Bridge	GPS coordinate	23° 17' 05.82" / 84° 25' 19.25"
S. Location B	Near Quarry No 1B	GPS coordinate	23° 17' 45.37" / 84° 25' 30.07"
S. Location C	Near Prithvi Vidyalaya Barang Path	GPS coordinate	23° 17' 20.07" / 84° 25' 30.41"
S. Location D	Near Mine Entry Gate	GPS coordinate	23° 18' 49.30" / 84° 25' 33.67"

Data(s) of performance of the laboratory activities

Test start date	26.08.2025/ 10:36	Test completion date	01.09.2025/ 16:00
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Benzene (C ₆ H ₆)	IS:5182(P-11) 2006	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
2.	Benzo (a) Pyrene (Bap)- Particulate phase only	IS:5182(P-12) 2004	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
3.	Carbon Monoxide (CO)	EPIC/LAB/SOP/AP/01/00	mg/m ³	BDL (MDL-1.0)	BDL (MDL-1.0)	BDL (MDL-1.0)	BDL (MDL-1.0)	-

-Test Results End-

Prescribed Limit : Environmental (Protection) Rules-1986, Schedule VI.
Operational Status : Unit was Operational During sampling.

Analysed by - Vishal Mangal

Reviewed by
(E.A. Level)
Technical Head

 Issue to :
 Authorised Signatory
 EPIC LabTech Pvt. Ltd.
 Ranchi, Jharkhand



Authorised Test Certificate

Unique Lab Report No.	TC1288725000001100	Discipline	Chemical					
Report Unique ID	RL02792535068	Group	Atmospheric Pollution					
Issue date/time	01.09.2025/ 17:03	Sub Group	Ambient Air Quality					
Report Issue to								
M/s - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE : BIMARLA BAUXITE MINE		Contact Person	Mr. Ankit Das					
		Contact Number	+91 9671034775					
		Email Id	ankit.das@adhyabirba.com					
		Order Date	05.04.2025/ 10:10					
		Order Number	RF/MIB/MM/25/0114/00					
References of Quality Management System (Days of Inactivity Chart)								
Customer Registration No.	EPIC/OTH/0276	Sample Booking Number	EPIC-2535068					
Sample(s) Code	2535068 (A) (B) (C) (D)	Sample Receipt (D/T)	28.08.2025/ 10:20					
Sampling References								
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036					
Sampling Start (D/T)	26.08.2025/ 11:51	Sampling End (D/T)	27.08.2025/ 09:15					
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team					
Sampling method used	IS:5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)							
Description/condition of sample	Receipt sample(s) were fit for analysis.							
Environmental Condition during sampling								
Weather condition	Cloudy	Temperature (PC)	27					
		Humidity %	70					
		Wind direction	45°-225°					
Sampling Location(s) with GPS coordinate(s)								
S. Location A	Near Korie Village	GPS coordinate	23° 17' 26.81" / 84° 25' 55.18"					
S. Location B	Near Barang Village	GPS coordinate	23° 16' 32.45" / 84° 25' 12.72"					
S. Location C	Near Ghaghra Village	GPS coordinate	23° 16' 55.88" / 84° 23' 36.22"					
S. Location D	Near Bimarla Village	GPS coordinate	23° 17' 05.62" / 84° 23' 25.75"					
Date(s) of performance of the laboratory activities								
Test start date	28.08.2025/ 10:40	Test completion date	01.09.2025/ 16:00					
-Test Results-								
Sl.	Test Parameters	Method used	Unit	A	B	C	D	Limits
1.	Particulate Matter (PM ₁₀)	IS:5182 (P-23) 2022	µg/m ³	57.82	55.01	61.20	57.81	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	22.98	20.07	23.82	26.18	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-62) 2023	µg/m ³	06.00	06.37	06.35	07.83	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-09) 2023	µg/m ³	18.03	15.92	14.00	11.92	80(24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-23) 2018	µg/m ³	43.03	36.57	36.33	34.74	400(24 hr)
6.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m ³	23.52	28.95	30.04	33.29	180(1 hr)
7.	Lead (Pb)	IS:5182(P-22) 2019	µg/m ³	BDL	BDL	BDL	BDL	1.0(24 hr)
8.	Nickel (Ni)	IS:5182(P-26) 2020	µg/m ³	(MDL-0.1)	(MDL-0.1)	(MDL-0.1)	(MDL-0.1)	(MDL-0.1)
9.	Arsenic (As)	USEPA ID 3.2-1999	µg/m ³	BDL	BDL	BDL	BDL	(MDL-0.001)

-Test Results End -

Prescribed Limit Environmental (Protection) Rules-1986, Schedule VII.
Operational Status Unit was Operational During sampling.

Analysed by - Tuhai Mangraj

Reviewed by
(EX-Kumar)
Technical HeadReviewed by
(EX-Kumar)
Laboratory Head

Authorised Signatory

EPIC LabTech Pvt. Ltd.

Dated: 01.09.2025 Page 1 of 1

Contractual Notes : 1. The laboratory accepts responsibility for the content of this report. 2. Test performed at laboratory's permanent facility, of specific environmental conditions at method required and results relate only to the sample tested in prescribed Date & time. 3. The Test report shall not be reproduced full or in part & can't be used, as proof in the court of law. 4. Any complaint about this report should be communicated in writing within 10 days of its issue. 5. Test laboratory of EPIC LabTech Pvt. Ltd. will be liable to maximum amount only. 6. All disputes are subject to Jharkhand jurisdiction and maximum liability of the laboratory does not exceed the testing and sampling charges. 7. Operator does not imply endorsement of the tested product by laboratory. Under no circumstances, laboratory accepts any claim by user or user of this report. 8. When the results are from external provider are marked as "not". 9. Abbreviations - BDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LOQ (Limit of Quantitation).



Authorized Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02752535068	Group	Aerosol/Atmospheric Pollution
Issue date/time	01.09.2025/ 17:03	Sub Group	Ambient Air Quality

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : SIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@advyabirta.com
Order Date
05.04.2025/ 10:10
Order Number
RPM/B/MM/25/0114/00

References of Quality Management System (Date of Issuance Date)

Customer Registration No.	EPIC/OTH/0275	Sample Booking Number	EPIC-2535068
Sample(s) Code	2535068 (A) (B) (C) (D)	Sample Receipt (D/T)	28.08.2025/ 10:20

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	26.08.2025/ 11:51	Sampling End (D/T)	27.08.2025/ 09:15
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Description/condition of sample		Receipt sample(s) were fit for analyses.	

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	70	Wind direction	45°-225°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Korie Village	GPS coordinate	23° 17' 26.81" / 84° 25' 55.18"
S. Location B	Near Batang Village	GPS coordinate	23° 16' 32.45" / 84° 25' 12.72"
S. Location C	Near Ghaghra Village	GPS coordinate	23° 16' 56.88" / 84° 23' 36.22"
S. Location D	Near Dimaria Village	GPS coordinate	23° 17' 05.62" / 84° 23' 25.75"

Date(s) of performance of the laboratory activities

Test start date	28.08.2025/ 10:40	Test completion date	01.09.2025/ 16:00
-----------------	-------------------	----------------------	-------------------

- Test Results -

Sl.	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Benzene (C ₆ H ₆)	IS:5182(P-11) 2006	ug/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
2.	Benzo (a) Pyrene (Bap)- Particulate phase only	IS:5182(P-12) 2004	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
3.	Carbon Monoxide (CO)	EPIC/LAB/SOP/AP/01/00	mg/m ³	BDL (MDL-1.0)	BDL (MDL-1.0)	BDL (MDL-1.0)	BDL (MDL-1.0)	-

- Test Results End -

Prescribed Limit Environmental (Protection) Rules-1986, Schedule VII.
Operational Status Unit was Operational During sampling.

Analysed by - Vashu Mehta


 Reviewed by
(Vashu Mehta)
Technical Head




Address:
C/o - R.K. Tripathi, Umrapur,
Road No. - 5, Ranchi,
Jharkhand - 834005, India

GSTIN - 9486292
98357 86477
93049 72994
epiclabtech@gmail.com

CIN - U74999JH2012PTC299883
Page - AAHC3611M
GST - 2TAAR1CE311123

Accredited by -
NABL, with certificate number TC-12887
Institute Code: NABL-Certified
Certified by -
NABL 2001-2015 and ISO 9001-2015

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000001101	Discipline	Chemical
Report Unique ID	RL02752535069	Group	Water
Issue date/time	01.09.2025/ 17:06	Sub Group	Ground Water

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
05.04.2025/ 10:10
Order Number
BP/MIB/MM/25/0114/00

References of Quality Management System (Steps of Traceability Chart)

Customer Registration No.	EPIC/OTH/0075	Sample Booking Number	EPIC-2536069
Sample(s) Code	2536069	Sample Receipt (D/T)	28.08.2025/ 10:21

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	25.08.2025/ 12:10	Sampling End (D/T)	25.08.2025/ 12:20
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample		Receipt sample(s) were fit for analysis.	

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	70	Wind direction	45°-225°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

5. Location A	Near Prathmik Vidayalaya Barang Path	GPS coordinate	23° 17' 22.57" / 84° 25' 28.81"
---------------	--------------------------------------	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	28.08.2025/ 11:15	Test completion date	01.09.2025/ 16:00
-----------------	-------------------	----------------------	-------------------

--Test Result--

Sl.	Test Parameters	Method used	Unit	Results	Limits	
					Acceptable limit	Permissible limit
1.	pH value at 25.70C	IS 3025 (P-11) 2022	-	6.88	6.5-8.5	No relaxation
2.	Turbidity	IS 3025 (P-10) 1984	NTU	0.82	1	5
3.	Colour	IS 3025 (P-04) 2021	Hazen	<5	5	15
4.	Odour	IS 3025 (P-05) 2018	-	Agreeable	Agreeable	Agreeable
5.	Taste	IS 3025 (P-07) 2017	-	Agreeable	Agreeable	Agreeable
6.	Total Dissolved Solids (TDS)	IS 3025 (P-16) 2023	mg/l	244.00	500	2000
7.	Chloride (as Cl)	IS 3025 (P-32) 2019	mg/l	22.22	250	1000
8.	Total Alkalinity (as CaCO ₃)	IS 3025 (P-23) 2019	mg/l	187.00	200	600
9.	Total Hardness (as CaCO ₃)	IS 3025 (P-21) 2009	mg/l	199.00	200	600
10.	Calcium (as Ca)	IS 3025 (P-40) 1991	mg/l	53.84	75	200
11.	Free Residual Chlorine	IS 3025 (P-26) 1984	mg/l	BDL (MDL-0.4)	0.2	1
12.	Sulphate (as SO ₄)	IS 3025 (P-24/Sec-1) 2022	mg/l	4.85	200	400
13.	Nitrate (as NO ₃)	APHA 4500-N 2023	mg/l	2.00	45	No relaxation
14.	Phenolic Compound	IS 3025 (P-43/Sec-1) 2022	mg/l	BDL (MDL-0.001)	0.001	0.002
15.	Magnesium (as Mg)	APHA 3500-Mg E 2023	mg/l	14.85	30	100

Page 1 of 1

Contractual Note : 1. The laboratory accepts responsibility for content of this report ; 2. The personnel at laboratory's permanent facility, at specific environmental condition as method required and results relate only to the sample tested as prescribed time & time ; 3. The Test report shall not be reproduced full or in part & can't be used as proof in the court of law ; 4. Any complaint about this report should be communicated in writing within 10 days of its issue ; 5. Total liability of EPIC LabTech Pvt. Ltd. will be limited to incurred amount only ; 6. All disputes are subject to Ranchi jurisdiction and laboratory's liability of the laboratory does not exceed the testing and sampling charges ; 7. Opinion does not imply endorsement of the test result by laboratory. Under no circumstances, laboratory accepts any legal or moral of this report ; 8. When the results are from external provider are marked as "mark" ; 9. Annotations : BDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LOD (Limit of Quantification) ;



Analytical Test Certificate

Unique Lab Report No.	TC1288725000001101	Discipline	Chemical
Report Unique ID	RL02752535069	Group	Water
Issue date/time	01.09.2025/ 17:06	Sub Group	Ground Water

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : SIMARLA BAUXITE MINE

Contact Person: Mr. Ankit Das
Contact Number: +91 9871034775
Email Id: ankit.das@adityabirla.com
Order Date: 05.04.2025/ 10:10
Order Number: RP/MJB/MM/25/0114/00

Group - Residues and Contaminants in Water,			Sub Group - Trace Metals Elements			
16. Copper (as Cu)	APHA 31118 2023	mg/l	BDL(MDL-0.2)	0.05	1.5	
17. Iron (as Fe)	APHA 31118 2023	mg/l	BDL(MDL-0.1)	1.0	No relaxation	
18. Lead (as Pb)	APHA 31118 2023	mg/l	BDL(MDL-0.01)	0.01	No relaxation	
19. Cadmium (as Cd)	APHA 31118 2023	mg/l	BDL(MDL-0.0001)	0.003	No relaxation	
20. Total Chromium (as Cr)	APHA 31118 2023	mg/l	BDL(MDL-0.05)	0.05	No relaxation	
21. Nickel (as Ni)	APHA 31118 2023	mg/l	BDL(MDL-0.02)	0.02	No relaxation	
22. Total Arsenic (as As)	APHA 31148 2023	mg/l	BDL(MDL-0.005)	0.01	0.05	
23. Selenium (as Se)	APHA 31148 2023	mg/l	BDL(MDL-0.005)	0.01	No relaxation	
24. Manganese (as Mn)	APHA 31118 2023	mg/l	BDL(MDL-0.05)	0.1	0.3	
25. Zinc (as Zn)	APHA 31118 2023	mg/l	BDL(MDL-0.04)	5	15	

-Test result End -

Prescribed Limit

IS 10500:2021

Operational Status

Unit was Operational During sampling.

Analysed by - Peppu Kumar

Reviewed by
(P.K. Kumar)
Technical Head
Ankit Das
Laboratory HeadAuthorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand

Page 3 of 3



Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	PL02752535089	Group	Water
Issue date/time	01.09.2025/ 17:06	Sub Group	Ground Water

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST - LOHARDAGA, STATE - JHARKHAND, INDIA - 835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person: Mr. Ankit Das
Contact Number: +91 9971034775
Email Id: ankit.das@edityabirla.com
Order Date: 05.04.2025/ 10:10
Order Number: RP/MIB/MM/25/0114/00

References of Quality Management System (Code of Traceability Data)

Customer Registration No.	EPIC/OTH/0275	Sample Booking Number	EPIC-2535089
Sample(s) Code	2535089	Sample Receipt (D/T)	28.08.2025/ 10:21

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	25.08.2025/ 12:10	Sampling End (D/T)	25.08.2025/ 12:20
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		

Description/condition of sample: Receipt sample(s) were fit for analysis.

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	70	Wind direction	45°-225°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Prathmik Vidyalaya Baran Path	GPS coordinate	23° 17' 22.57" E 84° 25' 28.81"
---------------	------------------------------------	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	28.08.2025/ 11:15	Test completion date	01.09.2025/ 16:00
-----------------	-------------------	----------------------	-------------------

-Test Result-

Sl.	Test Parameters	Method used	Unit	Results	Limits	
					Acceptable Limit	Permissible limit
1.	Fluoride (as F)	APHA-4500 F-C 2023	mg/l	BDL(MDL-0.1)	1.0	1.5
Group- Residues and Contaminants in Water						
2.	Aluminum	IS 3025 (P-55) 2019	mg/l	BDL(MDL-0.1)	0.03	0.2
3.	Boron	IS 3025 (P-57) 2021	mg/l	BDL(MDL-0.1)	0.5	1.0
4.	Polychlorinated biphenyls	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.2)	0.5	No relaxation
5.	Polynuclear Aromatic Hydrocarbons (PAH)	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.05)	0.1	No relaxation
Group- Residues and Contaminants in Water						
6.	Aalachlor	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	20	No relaxation
7.	Atrazine	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	2.0	No relaxation
8.	Dieldrin	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.02)	0.03	No relaxation
9.	Alpha HCH	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.005)	0.01	No relaxation
10.	Beta HCH	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.02)	0.04	No relaxation
11.	Butachlor	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	125.0	No relaxation
12.	Chloryrifos	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	30.0	No relaxation
13.	Delta HCH	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.02)	0.04	No relaxation
14.	Ethion	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	3.0	No relaxation



Analytical Test Report

Unique Lab Report No.	N/A	Discipline	Chemical		
Report Unique ID	RL02752535089	Group	Water		
Issue date/time	01.09.2025/ 17:06	Sub Group	Ground Water		
Report Issue to					
M/s - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST - LOHARDAGA, STATE - JHARKHAND, INDIA 835302 MONITORING SITE : BIMARLA BAUXITE MINE	Contact Person Mr. Ankit Das	Contact Number +91 9971034775	Email id ankit.das@adityabirla.com		
	Order Date 05.04.2025/ 10:10	Order Number RP/MIB/MM/25/0114/00			
15. Gamma-HCH(Lindane)	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	2.0	No relaxation
16. Malathion	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	500.0	No relaxation
17. Methyl parathion	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.2)	0.3	No relaxation
18. Monocrotophos	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	1.0	No relaxation
19. Phorate	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	2.0	No relaxation
20. DDT (o, p and p, p-isomer of DDT, DDE and DDD)	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	1.0	No relaxation
21. Endosulfan (alpha, beta, and sulphate)	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.05)	0.4	No relaxation

--Test result End--

Prescribed Limit

IS 19500:2021

Operational Status

Unit was Operational During sampling

Reviewed by
(R.K. Kumar)
Technical Head
Issued by
(Shreyas Talukdar)
Laboratory HeadAuthorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand

Page 2 of 2

Contracted Note 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's permanent facility at specific environmental condition as mention in report and results relate only to the sample tested in prescribed Date & time. 3. The Test report shall not be reproduced full or in part & can't be used as proof in the court of law. 4. Any complaint about this report should be communicated in writing within 10 days of its issue. 5. Total validity of EPIC LabTech Pvt. Ltd. will be limited to received amount only. 6. All disputes are subject to Ranchi Jharkhand and maximum liability of the laboratory does not exceed the testing and sampling charges. 7. Customer does not enjoy endorsement of the tested product by laboratory. Under no circumstances, laboratory accepts any cause by use or misuse of this report. 8. When the results are from external provider are marked as * mark.

Abbreviations - BDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LoQ (Limit of Quantitation)



Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Biological
Report Unique ID	RL02752535070	Group	Water
Issue date/time	01.09.2025/ 17:09	Sub Group	Ground Water

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST - LOHARDAGA, STATE - JHARKHAND, INDIA 835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adiyabirla.com
Order Date
06.04.2025/ 10:10
Order Number
BP/MIN/MM/25/0114/00

References of Quality Management System (Steps of Traceability Data)

Customer Registration No.	EPIC/OTH/0275	Sample Booking Number	EPIC-2535070
Sample(s) Code	2535070	Sample Receipt (D/T)	28.08.2025/ 10:21

Sampling References

Type of industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	25.08.2025/ 12:10	Sampling End (D/T)	25.08.2025/ 12:20
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample			Receipt sample(s) were fit for analysis.

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	70	Wind direction	45°-225°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)	GPS coordinate
S. Location A Near Prathmik Vidayataya Barang Path	23° 17' 22.67" / 84° 25' 28.81"

Date(s) of performance of the laboratory activities

Test start date	28.08.2025/ 11:10	Test completion date	01.09.2025/ 1:35
-----------------	-------------------	----------------------	------------------

--Test Result--

Sl.	Test Parameters	Method used	Unit	Results	Limits
1.	Total Coliform	IS 15185:2002	Per 100 ml	Not Detected	Shall not be detectable in any 100 ml sample
2.	E.Coli	IS 15185:2002	Per 100 ml	Not Detected	

--Test result End--

Prescribed Limit	IS 10000:2021
Operational Status	Unit was Operational During sampling.



IS 10000:2021
Unit was Operational During sampling.


Reviewed by
Sujata Kumar
Technical Head


Issued by
Ankit Das
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Address:
C/o - R.K. Tripathi, Indrapuri,
Road No. - 3, Ranchi,
Jharkhand - 834003, India

T. 06531 4986257
E. 98357 99477
M. 93849 73994
G. EPICLabTech@gmail.com

CIN - U74999JH2022PTC199685
Fax: 06531 536114
G. 17-25A NHC BEMTA 23

Accredited by:
SACI - ISO 9001:2015 Number 10 - 13001
Kankarla, Jharkhand, India
Certified by:
ISO 9001:2015 and ISO 17025:2017

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1268725000001102	Discipline	Chemical
Report Unique ID	RL02752535071	Group	Water
Issue date/time	01.09.2025/ 17:12	Sub Group	Surface Water

Report Issue to:

M/s - MINERALS & MINERALS LIMITED
VILLAGE- COURT ROAD, POST OFFICE- LOHARDAGA,
DIST- LOHARDAGA, STATE- JHARKHAND, INDIA 835302
MONITORING SITE: SIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
05.04.2025/ 10:10
Order Number
RP/MIB/MM/25/0114/00

References of Quality Management System (Date of Issuability Date)

Customer Registration No.	EPIC/OTH/0275	Sample Booking Number	EPIC-2535071
Sample(s) Code	2535071	Sample Receipt (D/T)	28.08.2025/ 10:22

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	25.08.2025/ 12:30	Sampling End (D/T)	25.08.2025/ 12:40
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS : 3025 (Part-1) 1967, R-2003		
Description/condition of sample		Receipt sample(s) were fit for analysis.	

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	70	Wind direction	45°-225°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Korie (Spring Water)	GPS coordinate	23° 17' 10.06" / 84° 26' 51.94"
---------------	----------------------	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	28.08.2025/ 11:30	Test completion date	01.09.2025/ 15:30
-----------------	-------------------	----------------------	-------------------

-Test Result-

Sl.	Test Parameters	Method used	Unit	Results	Limits
1.	pH value at 25°C	IS 3025 (P-11) 2022	-	6.73	-
2.	Turbidity	IS 3025 (P-10) 1984	NTU	0.09	-
3.	Colour	IS 3025 (P-04) 2023	Haen	5	-
4.	Odour	IS 3025 (P-05) 2018	-	Agreeable	-
5.	Taste	IS 3025 (P-07) 2017	-	Agreeable	-
6.	Total Dissolved Solids (TDS)	IS 3025 (P-16) 2023	mg/l	193.0	-
7.	Chloride (as Cl)	IS 3025 (P-32) 2019	mg/l	13.3	-
8.	Total Alkalinity (as CaCO ₃)	IS 3025 (P-23) 2018	mg/l	30.0	-
9.	Total Hardness (as CaCO ₃)	IS 3025 (P-21) 2009	mg/l	24.16	-
10.	Calcium (as Ca)	IS 3025 (P-40) 1991	mg/l	12.83	-
11.	Free Residual Chlorine	IS 3025 (P-26) 1986	mg/l	BDL(MDL-0.4)	-
12.	Sulphate (as SO ₄)	IS 3025 (P-24/Sec-1) 2022	mg/l	1.90	-
13.	Nitrate (as NO ₃)	APHA-2500 B 2023	mg/l	2.09	-
14.	Phenolic Compound	IS 3025 (P-43/Sec-1) 2022	mg/l	BDL(MDL-0.001)	-
15.	Magnesium (as Mg)	APHA 2500 Mg E 2023	mg/l	1.98	-

Disclaimer Notes : 1. This laboratory accepts responsibility for content of this report | 2. Test performed at laboratory's premises facility, at specific environmental condition as method required and results relate only to the sample tested in prescribed Date & Time | 3. The Test report shall not be reproduced full or in part & can't be used as proof in the court of law | 4. Any complaint about this report should be communicated in writing within 10 days of its issue | 5. Total Validity of EPIC LabTech Pvt. Ltd. will be limited to increased amount only | 6. All figures are subject to Burette Calibration and retestability of the laboratory does not exceed the testing and sampling ranges | 7. Options does not apply endorsement of the tested product by laboratory. Under no circumstances, laboratory accepts any caused by use or misuse of this report | 8. When the results are from external provider are marked as * mark | 9. Abbreviations - BDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LotQ (Limit of Quantitation) | Page 1 of 9



Analytical Test Certificate

Unique Lab Report No.	TC1288725000001102	Discipline	Chemical
Report Unique ID	RL02752635071	Group	Water
Issue date/time	01.09.2025/ 17:12	Sub Group	Surface Water

Report Issue to:

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST - LOHARDAGA, STATE - JHARKHAND, INDIA 835302
MONITORING SITE : SIMARLA BAUXITE MINE

Contact Person
Contact Number
Email Id
Order Date
Order Number

Mr. Ankit Das
+91 9871034775
ankit.das@advityabirla.com
05.04.2025/ 10:10
RP/MJS/MM/25/0114/00

Group - Residues and Contaminants in Water		Sub Group - Trace Metals Elements	
16.	Copper (as Cu)	APHA 3111 B 2023	mg/l
17.	Iron (as Fe)	APHA 3111 B 2023	mg/l
18.	Lead (as Pb)	APHA 3111 B 2023	mg/l
19.	Cadmium (as Cd)	APHA 3111 B 2023	mg/l
20.	Total Chromium (as Cr)	APHA 3111 B 2023	mg/l
21.	Nickel (as Ni)	APHA 3111 B 2023	mg/l
22.	Total Arsenic (as As)	APHA 3114 B 2023	mg/l
23.	Selenium (as Se)	APHA 3114 B 2023	mg/l
24.	Manganese (as Mn)	APHA 3111 B 2023	mg/l
25.	Zinc (as Zn)	APHA 3111 B 2023	mg/l

-Test result End -

Prescribed Limit

Operational Status

Analyzed by - Pappu Kumar

Unit was Operational During sampling.


Reviewed by
(Pappu Kumar)
Technical Head


Reviewed by
(Ankit Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand





Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02782535071	Group	Water
Issue date/time	01.09.2025/ 17:12	Sub Group	Surface Water

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST- LOHARDAGA, STATE- JHARKHAND, INDIA 835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9871034775
Email Id
ankit.das@editabirla.com
Order Date
05.04.2025/ 10:10
Order Number
RP/MUB/MM/25/0114/00

References of Quality Management System (Steps of Traceability Data)

Customer Registration No.	EPIC/OTH/0275	Sample Booking Number	EPIC-2535071
Sample(s) Code	2535071	Sample Receipt (D/T)	28.08.2025/ 10:22

Sampling References

Type of industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/038
Sampling Start (D/T)	25.08.2025/ 12:30	Sampling End (D/T)	25.08.2025/ 12:40
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample		Receipt sample(s) were fit for analysis.	

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	70	Wind direction	45°-225°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Korla (Spring Water)	GPS coordinate	23° 17' 10.06" / 84° 25' 51.84"
---------------	----------------------	----------------	---------------------------------

Data(s) of performance of the laboratory activities

Test start date	28.08.2025/ 11:30	Test completion date	01.09.2025/ 15:30
-----------------	-------------------	----------------------	-------------------

-Test Result-

Sl.	Test Parameters	Method used	Unit	Results	Limits
1.	Fluoride (as F)	APHA 4500 F-C 2020	mg/l	BDL(MOL-0.1)	-

Group- Residues and Contaminants in Water

Sub Group- Trace Metals Elements

2.	Aluminum	IS 2025 (P-56) 2019	mg/l	BDL(MOL-0.1)	-
3.	Boron	IS 2025 (P-67) 2021	mg/l	BDL(MOL-0.1)	-
4.	Polychlorinated biphenyls	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(HDL-0.2)	-
5.	Polynuclear Aromatic Hydrocarbons (PAH)	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(HDL-0.05)	-

Group- Residues and Contaminants in Water

Sub Group- Pesticides

6.	Alachlor	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MOL-0.5)	-
7.	Atrazine	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MOL-0.5)	-
8.	Dieldrin	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MOL-0.02)	-
9.	Alpha HCH	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MOL-0.005)	-
10.	Beta HCH	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MOL-0.02)	-
11.	Butachlor	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MOL-0.5)	-
12.	Chloryphos	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MOL-0.5)	-
13.	Delta HCH	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MOL-0.02)	-
14.	Ethion	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MOL-0.5)	-



Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02752530071	Group	Water
Issue date/time	01.05.2025/ 17:12	Sub Group	Surface Water

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST - LOHARDAGA, STATE - JHARKHAND, INDIA 835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person
Contact Number
Email Id
Order Date
Order Number

Mr. Ankit Das
+91 9871034775
ankit.das@adityabirla.com
05.04.2025/ 10:10
RP/PUB/MM/25/0114/00

15. Gamma-HCH(Lindane)	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	-
16. Malathion	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	-
17. Methyl parathion	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.2)	-
18. Monocrotophos	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	-
19. Phorate	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	-
20. DDT (o, p and p, p-isomer of DDT, DDE and DDD)	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.5)	-
21. Endosulfan (alpha, beta, and sulphate)	EPIC/LAB/SOP/WA/01/00	ug/l	BDL(MDL-0.05)	-

-Test result End -

Prescribed Limit

Operational Status

Unit was Operational During sampling



Analyzed by - Pappu Kumar

Reviewed by
(E.K. Kumar)
Technical Head
Ankit Das
17/05/2025
Issued by
Ankit Das
Laboratory HeadAuthorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Biological Test Certificate

Unique Lab Report No.	N/A	Discipline	Biological				
Report Unique ID	RLO2752536072	Group	Water				
Issue date/time	01.09.2025/ 17:15	Sub Group	Surface Water				
Report Issue to							
M/s - MINERALS & MINERALS LIMITED VILLAGE - COURT ROAD, POST OFFICE - LOHARDAGA, DIST - LOHARDAGA, STATE - JHARKHAND, INDIA 835302		Contact Person	Mr. Ankit Das				
MONITORING SITE : BIMARLA BAUXITE MINE		Contact Number	+91 9971034775				
		Email Id	ankit.das@adityabirla.com				
		Order Date	06.04.2025/ 10:10				
		Order Number	RP/MIB/MM/25/0114/00				
References of Quality Management System (Steps of Traceability Chart)							
Customer Registration No.	EPIC-OTH/0275	Sample Booking Number	EPIC-2536072				
Sample(s) Code	2536072	Sample Receipt (D/T)	28.08.2025/ 10:22				
Sampling References							
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036				
Sampling Start (D/T)	25.08.2025/ 12:30	Sampling End (D/T)	26.08.2025/ 12:40				
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team				
Sampling method used	IS : 3025 (Part-1) 1987, R-2003						
Description/condition of sample	Receipt sample(s) were fit for analysis.						
Environmental Condition during sampling							
Weather condition	Cloudy	Temperature (°C)	27	Humidity %	70	Wind direction	45°-225°
Sampling Location(s) with GPS coordinate(s)							
S. Location A	Korte (Spring Water)	GPS coordinate	23° 17' 10.06" / 84° 26' 51.94"				
Details of performance of the laboratory activities							
Test start date	28.08.2025/ 11:30	Test completion date	01.09.2025/ 15:30				
-Test Result-							
Sl	Test Parameters	Method used	Unit	Results		Limits	
1.	Total Coliform	IS 15186:2002	Per 100 ml	380		—	
2.	E.Coli	IS 15185:2002	Per 100 ml	260		—	
-Test result End --							

Prescribed Limit

Operational Status

Analyzed by - Sojata Kumar

Unit was Operational During sampling.


 Sojata Kumar
 Technical Head


 Deepak Singh
 Laboratory Head

 Authorized Signatory
 EPIC LabTech Pvt. Ltd.,
 Ranchi, Jharkhand



Address:
C/o - R.K. Tugardi, Jharkhand.
Road No. - 3, Ranchi,
Jharkhand - 834001, India

T. 091 988287
98357 88677
93049 12964
epiclabtech@gmail.com

CIN - U74999IN2022PTC018855
Accredited by
NABL, Accredited Number 10, T2001
Jharkhand State Pollution Control Board
Certified by:-
ISO 9001:2015 and ISO 14001:2015

TC-12887

Authorised Test Certificate

Unique Lab Report No.	TC128872500001103	Discipline	Chemical
Report Unique ID	RL02752535073	Group	Pollution & Environment
Issue date/time	01.09.2025/ 17:18	Sub Group	Waste Water (Effluent)

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9871034775
Email Id
ankit.das@adityabirla.com
Order Date
05.04.2025/ 10:10
Order Number
RP/MIB/MM/25/0114/00

References of Quality Management System (Steps of Traceability Chart)

Customer Registration No.	EPIC/OTH/0275	Sample Booking Number	EPIC-2535073
Sample(s) Code	2535073	Sample Receipt (D/T)	28.08.2025/ 10:23

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	25.08.2025/ 12:30	Sampling End (D/T)	25.08.2025/ 12:40
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample		Receipt sample(s) were fit for analysis.	

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	70	Wind direction	45°-225°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Work Shop (Outlet)	GPS coordinate	23° 18' 59" E 84° 25' 18.09"
---------------	--------------------	----------------	------------------------------

Data(s) of performance of the laboratory activities

Test start date	28.08.2025/ 10:43	Test completion date	01.09.2025/ 15:15
-----------------	-------------------	----------------------	-------------------

-Test Result-

Sl.	Test Parameters	Method used	Unit	Results	Limits
1.	pH value at 25°C	IS 3025 (P-11) 2022	-	6.73	6.5-8.5
2.	BOD (3 days at 27°C)	IS 3025 (P-44) 2009	mg/l	13.5	-
3.	CO ₂	IS 3025 (P-58) 2006	mg/l	64.0	150
4.	Oil & Grease	IS 3025 (P-39) 2021	mg/l	BDL(MDL-04)	10.0
5.	Total Suspended Solid	IS 3025 (P-17) 2022	mg/l	48.0	50
6.	Phosphate	IS 3025 (P-31/Sec-1) 2022	mg/l	0.56	-
7.	Zinc	APHA 2111 B 2025	mg/l	BDL(MDL-0.04)	-

-Test result End -

Prescribed Limit
Operational Status
Analyzed by - Pappu Kumar

Environmental (Protection) Rules-2016, Schedule 1, Serial No. 114
Unit was Operational During sampling.


Reviewed by
(P.K. Kumar)
Technical Head


Issued by
(Deepak)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand





Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	PLD2752535073	Group	Pollution & Environment
Issue date/time	01.09.2025/ 17:18	Sub Group	Waste Water (Effluent)

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA-835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person: Mr. Ankit Das
Contact Number: +91 9971034775
Email Id: ankit.das@adityabirla.com
Order Date: 05.04.2025/ 10:10
Order Number: BP/MB/MM/25/0114/00

References of Quality Management System (Copy of Traceability Data)

Customer Registration No.	EPIC/OTH/0275	Sample Booking Number	EPIC/2535073
Sample(s) Code	2535073	Sample Receipt (D/T)	28.08.2025/ 10:23

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	25.08.2025/ 12:30	Sampling End (D/T)	25.08.2025/ 12:40
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample		Receipt sample(s) were fit for analysis.	

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	70	Wind direction	45°-225°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Work Shop (Outlet)	GPS coordinate	23° 16' 58" E 84° 25' 18.09" N
---------------	--------------------	----------------	--------------------------------

Date(s) of performance of the laboratory activities

Test start date	28.08.2025/ 10:43	Test completion date	01.09.2025/ 15:15
-----------------	-------------------	----------------------	-------------------

-Test Result-

Sl.	Test Parameters	Method used	Unit	Results	Limits
1.	Total Dissolve Solids (TDS)	IS 3025 (P-16) 2023	mg/l	168.00	-

-Test result End --

Prescribed Limit: Environmental (Protection) Rules, 1986, Schedule I, Serial No. 114
Operational Status: Unit was Operational During sampling.

Analyzed by - Pappu Kumar


Reviewed by
(P.K. Kumar)
Technical Head


Issued by
(Ankit Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.,
Ranchi, Jharkhand





Environmental Test Certificate

Unique Lab Report No.	TC1288725000001259	Discipline	Chemical
Report Unique ID	RL03032530001	Group	Atmospheric Pollution
Issue date/time	25.09.2025/ 17:30	Sub Group	Ambient Air Quality

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST. LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9071034775
Email Id
ankit.das@adityabirla.com
Order Date
05.04.2025/ 10:10
Order Number
RP/MJ/B/MM/25/0114/00

References of Quality Management System (Days of Traceability Data)

Customer Registration No.	EPIC/OTH/0303	Sample Booking Number	EPIC-2530001
Sample(s) Code	2530001 (A) (B) (C) (D)	Sample Receipt (D/T)	22.09.2025/ 10:29

Sampling References

Type of Industry Bauxite Mines
Sampling Start (D/T) 18.09.2025/ 12:15
Mode of Sampling Conducted by Laboratory
Sampling method used IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)
Description/condition of sample Receipt sample(s) were fit for analysis.

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (PC)	27	Humidity %	66	Wind direction	200°-20°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Weigh Bridge	GPS coordinate	23° 17' 05.82" / 84° 25' 19.25"
S. Location B	Near Quarry No. 18	GPS coordinate	23° 17' 45.37" / 84° 25' 30.07"
S. Location C	Near Prathmik Vidayataya Barong Path	GPS coordinate	23° 17' 20.07" / 84° 25' 30.41"
S. Location D	Near Mine Entry Gate	GPS coordinate	23° 16' 49.80" / 84° 25' 33.67"

Data(s) of performance of the laboratory activities

Test start date	22.09.2025/ 10:49	Test completion date	25.09.2025/ 17:00
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Particulate Matter (PM ₁₀)	IS:5182 (P-23) 2022	µg/m ³	54.92	53.89	55.92	58.96	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	28.58	25.33	23.47	24.84	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-01) 2023	µg/m ³	09.71	07.18	07.54	09.33	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	20.97	12.97	13.96	16.94	80(24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	27.09	27.41	26.45	27.09	400(24 hr)
6.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m ³	19.54	20.27	20.63	20.99	180(1 hr)
7.	Lead (Pb)	IS:5182 (P-22) 2019	µg/m ³	BDL	BDL	BDL	BDL	1.0(24 hr)
8.	Nickel (Ni)	IS:5182 (P-26) 2020	µg/m ³	BDL	BDL	BDL	BDL	10(24 hr)
9.	Arsenic (As)	USEPA 10.2.2:1990	µg/m ³	BDL	BDL	BDL	BDL	10(24 hr)

-Test Results End -

Prescribed Limit Environmental (Protection) Rules-1986, Schedule VII.
Operational Status Unit was Operational During sampling.

Analysed by - Vishal Mangaraj


Received by
(ER Kumar)
Technical Head


Issued by
(ER Kumar)
Laboratory Head
Authorized Signatory
EPIC LabTech Pvt. Ltd.

Document No. TC-12887 Page 1 of 1

Contractual Note : 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's permanent facility at specific environmental condition as method required and results relate only to the sample tested in prescribed date & time. 3. The Test report shall not be reproduced full or in part & can't be used, as proof in the court of law. 4. Any complaint about this report should be communicated in writing within 10 days of its issue. 5. Total liability of EPIC LabTech Pvt. Ltd. will be limited to recovered amount only. 6. All disputes are subject to Ranchi jurisdiction and maximum liability of the laboratory does not exceed the testing and sampling charges. 7. Operator does not imply ownership of the tested product by laboratory. Under no circumstances, laboratory accepts any claim by user or receiver of this report. 8. When the results are from external provider are marked as "mark". 9. Information - BDL (Below Detection Limit), MDL (Minimum Detectable Limit), LQ (Limit of Quantitation).



Environmental Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL03032539001	Group	Atmospheric Pollution
Issue date/time	25.09.2025/ 17:30	Sub Group	Ambient Air Quality

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : SIMARIA BAUXITE MINE

Contact Person: Mr. Ankit Das
Contact Number: +91 9971004775
Email Id: ankit.das@adityabirla.com
Order Date: 06.04.2025/ 10:10
Order Number: RP/MIB/MM/25/0114/00

References of Quality Management System (Steps of Traceability Data)

Customer Registration No.	EPIC/OTH/0303	Sample Booking Number	EPIC-2539001
Sample(s) Code	2539001 (A) (B) (C) (D)	Sample Receipt (D/T)	22.09.2025/ 10:29

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	18.09.2025/ 12:15	Sampling End (D/T)	19.09.2025/ 10:58
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	66	Wind direction	200°-20°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Weigh Bridge	GPS coordinate	23° 17' 05.82" / 84° 25' 19.25"
S. Location B	Near Quarry No 1B	GPS coordinate	23° 17' 45.37" / 84° 25' 30.07"
S. Location C	Near Prathmik Vidayalaya Barang Path	GPS coordinate	23° 17' 20.07" / 84° 25' 30.41"
S. Location D	Near Mine Entry Gate	GPS coordinate	23° 17' 49.80" / 84° 25' 33.67"

Date(s) of performance of the laboratory activities

Test start date	22.09.2025/ 10:49	Test completion date	25.09.2025/ 17:00
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl.	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Benzene (C ₆ H ₆)	IS:5182(P-11) 2006	µg/m ³	BDL	BDL	BDL	BDL	-
2.	Benzo (a) Pyrene (Bap)- Particulate phase only	IS:5182(P-12) 2004	ng/m ³	BDL	BDL	BDL	BDL	-
3.	Carbon Monoxide (CO)	EPIC/LAB/SOP/14/P/01/00	mg/m ³	BDL	BDL	BDL	BDL	-

-Test Results End -

Prescribed Limit: Environmental (Protection) Rules-1986, Schedule VI.

Operational Status: Unit was Operational During sampling.

Analyzed by - Vimal Mengraj


 Reviewed by
(B.K. Kumar)
Technical Head




Address:
C/o - R.K. Belpahar, Indrapuri,
Road No. - 3, Ranchi,
Jharkhand - 834005, India

T. 0651 4966392
M. 98357 88677
E. 93043 73944
G. ankitdas@adityabirla.com

CIN - U74999DL2022PTC008555
Regd. under certificate Number 10/1360/
Jharkhand State Pollution Control Board
GST - 25AAHC35ETM023

Accredited by -
NABL, with certificate Number 10/1360/
Jharkhand State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 14001:2015

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000001260	Discipline	Chemical
Report Unique ID	RL03032539002	Group	Aerospheric Pollution
Issue date/time	25.09.2025/ 17:33	Sub Group	Ambient Air Quality

Report Issue to

M/S - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9871034775
Email Id
ankit.das@adityabirla.com
Order Date
05.04.2025/ 10:10
Order Number
RF/MIB/MM/25/0114/00

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0303	Sample Booking Number	EPIC-2539002
Sample(s) Code	2539002 (A) (B) (C) (D)	Sample Receipt (D/T)	22.09.2025/ 10:30

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	19.09.2025/ 12:00	Sampling End (D/T)	20.09.2025/ 09:56
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS 5182 and CPCB Air Manual Volume- 1 (NAAQM/36/2012-13)		
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	66	Wind direction	340°-360°
-------------------	--------	------------------	----	------------	----	----------------	-----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Korie Village	GPS coordinate	23° 17' 26.81" / 84° 25' 55.18"
S. Location B	Near Barang Village	GPS coordinate	23° 16' 32.45" / 84° 25' 12.72"
S. Location C	Near Ghaghra Village	GPS coordinate	23° 16' 55.80" / 84° 23' 36.22"
S. Location D	Near Bimaria Village	GPS coordinate	23° 17' 05.82" / 84° 23' 25.75"

Date(s) of performance of the laboratory activities

Test start date	22.09.2025/ 10:50	Test completion date	25.09.2025/ 17:00
-----------------	-------------------	----------------------	-------------------

-Test Results-

Sl.	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Particulate Matter (PM ₁₀)	IS:5182 (P-23) 2022	µg/m ³	59.06	56.61	63.34	58.86	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	24.91	21.95	25.27	27.16	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2020	µg/m ³	06.35	07.07	07.44	08.55	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	19.72	17.56	15.50	13.42	80(24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	28.05	27.09	26.77	27.41	400(24 hr)
6.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m ³	24.25	22.80	22.07	21.71	100(1 hr)
7.	Lead (Pb)	IS:5182 (P-22) 2019	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	1.0(24 hr)
8.	Nickel (Ni)	IS:5182 (P-26) 2020	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	7
9.	Arsenic (As)	USEPA ID 3.2-1999	ng/m ³	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	-

-Test Results End -

Prescribed Limit: Environmental (Protection) Rules-1986, Schedule VI.

Operational Status: Unit was Operational During sampling.

Analyzed by - Vishal Mengraj


Reviewed by
(S. Kumar),
Technical Head


Reviewed by
S. Kumar
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical					
Report Unique ID	RL03032539002	Group	Atmospheric Pollution					
Issue date/time	25.09.2025/ 17:30	Sub Group	Ambient Air Quality					
Report Issue to								
M/s - MINERALS & MINERALS LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE: BIMARLA BAUXITE MINE	Contact Person Mr. Ankit Das	Contact Number +91 9971034775	Email Id ankit.das@adityabirla.com					
Order Date 05.04.2025/ 10:10	Order Number RP/MIB/MM/25/0114/00							
References of Quality Management System (Days of Traceability Data)								
Customer Registration No.	EPIC/OTH/0303	Sample Booking Number	EPIC-2539002					
Sample(s) Code	2539002 (A) (B) (C) (D)	Sample Receipt (D/T)	22.09.2025/ 10:30					
Sampling References								
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036					
Sampling Start (D/T)	19.09.2025/ 12:00	Sampling End (D/T)	20.09.2025/ 09:55					
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team					
Sampling method used	IS 5182 and CPCB Air Manual Volume - 1 (NAAQM/36/2012-13)							
Description/condition of sample	Receipt sample(s) were fit for analysis.							
Environmental Condition during sampling								
Weather condition	Cloudy	Temperature (°C)	27					
		Humidity %	66					
		Wind direction	340°-160°					
Sampling Location(s) with GPS coordinate(s)								
S. Location A	Near Korin Village	GPS coordinate	23° 17' 26.81" / 84° 25' 55.18"					
S. Location B	Near Barang Village	GPS coordinate	23° 16' 32.45" / 84° 25' 12.72"					
S. Location C	Near Ghaghra Village	GPS coordinate	23° 16' 55.88" / 84° 23' 36.22"					
S. Location D	Near Bimarla Village	GPS coordinate	23° 17' 05.62" / 84° 23' 25.75"					
Date(s) of performance of the laboratory activities								
Test start date	22.09.2025/ 10:50	Test completion date	25.09.2025/ 17:00					
- Test Results -								
Sl.	Test Parameters	Method used	Unit	A	B	C	D	Limits
1.	Benzene (C ₆ H ₆)	IS:5182(P-11) 2006	µg/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
2.	Benzo (a) Pyrene (Bap)- Particulate phase only	IS:5182(P-12) 2004	ng/m ³	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	BDL (MDL-0.1)	-
3.	Carbon Monoxide (CO)	EPIC/LAB/ISOP/AT/01/00	mg/m ³	BDL (MDL-1.0)	BDL (MDL-1.0)	BDL (MDL-1.0)	BDL (MDL-1.0)	-
- Test Results End -								

Prescribed Limit Environmental (Protection) Rules-1996, Schedule VI.
Operational Status Unit was Operational During sampling.

Analysed by - Vishal Mangeri

Reviewed by
(A.K. Kumar)
Technical HeadIssued by
(Ankit Das)
Laboratory HeadAuthorized Signatory
EPIC LabTech Pvt. Ltd.
Panch, Jharkhand



Analytical Test Certificate

Unique Lab Report No.	TC1288725000001261	Discipline	Chemical
Report Unique ID	RL03032539003	Group	Pollution & Environment
Issue date/time	25.09.2025/ 17:36	Sub Group	Soil/Sediment

Report Issue to

M/S - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : SIMARLA BAUXITE MINE

Contact Person: Mr. Ankit Das
Contact Number: +91 9971034775
Email Id: ankit.das@adityabirla.com
Order Date: 05.04.2025/ 10:10
Order Number: RP/MIB/MM/25/0114/00

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0303	Sample Booking Number	EPIC-2539003
Sample(s) Code	2539003	Sample Receipt (D/T)	22.09.2025/ 10:31

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/006
Sampling Start (D/T)	18.09.2025/ 15:10	Sampling End (D/T)	18.09.2025/ 15:20
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	EPIC/LAB/SOP/PE/01/00		
Description/condition of sample: Receipt sample(s) were fit for analysis.			

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	66	Wind direction	200°-20°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Quarry NO. 18	GPS coordinate	23° 17' 46.17" / 84° 25' 31.27"
---------------	--------------------	----------------	---------------------------------

Data(x) of performance of the laboratory activities

Test start date	22.09.2025/10:40	Test completion date	25.09.2025/16:30
-----------------	------------------	----------------------	------------------

-Test Result-

Sl	Test Parameters	Method used	Unit	Results	Limits
1.	pH value at 25.7°C	MAGI 2013	-	6.82	-
2.	Available Phosphorus	MAGI 2013	Kg/ha	2.7	-
3.	Available Potassium	MAGI 2013	Kg/ha	92.50	-
4.	Organic Carbon	MAGI 2013	%	1.50	-
5.	Electrical Conductivity	MAGI 2013	µs/cm	140.9	-
6.	Magnesium	MAGI 2013	mg/kg	37.83	-
7.	Nitrogen	MAGI 2013	%	0.02	-
8.	Arsenic (as As)	USEPA 3050 B 1996	mg/kg	BDL/MDL-0.005	-
9.	Cadmium (as Cd)	USEPA 3050 B 1996	mg/kg	0.55	-
10.	Selenium (as Se)	USEPA 3050 B 1996	mg/kg	BDL/MDL-0.006	-

-Test result End -

Operational Status: Unit was Operational During sampling.

Analyzed by - Ishika Singh


Reviewed by
(E.K. Kumar)
Technical Head





EPIC LabTech Private Limited

Address:
C/o - R.K. Nigam, Ranchi,
Road No. - 3, Ranchi,
Jharkhand - 834001, India

T. 0651 4000292
M. 98352 88677
E. 93049 73964
G. ankitdas19@gmail.com

CIN - U74999JH2022PTC019685
PAN - AAHCE311M
GST - 25AAHCE311M1Z8

Accredited by -
Institute for NABL Accredited Laboratory
Certified by -
ISO 17025:2017 and ISO 9001:2015

Environmental Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL03032539003	Group	Pollution & Environment
Issue date/time	25.09.2025/ 17:36	Sub Group	Soil/Sediments

Report Issue to:

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LORIADAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : SIMARLA BAUXITE MINE

Contact Person: Mr. Ankit Das
Contact Number: +91 9871034775
Email Id: ankit.das@adityabirla.com
Order Date: 05.04.2025/ 10:10
Order Number: RPI/MIB/MM/25/0114/00

References of Quality Management System (Copy of Traceability Data)

Customer Registration No.	EPIC/OTH/0303	Sample Booking Number	EPIC-2539003
Sample(s) Code	2539003	Sample Receipt (D/T)	22.09.2025/ 10:31

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	18.09.2025/ 15:10	Sampling End (D/T)	18.09.2025/ 15:20
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	EPIC/LAB/SOP/PE/01/00		
Description/condition of sample		Receipt sample(s) were fit for analysis.	

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	60	Wind direction	200°/20°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Quarry NO.1B	GPS coordinate	23° 17' 46.17" / 84° 25' 31.27"
---------------	-------------------	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	22.09.2025/ 10:40	Test completion date	25.09.2025/ 16:30
-----------------	-------------------	----------------------	-------------------

—Test Result—

Sl.	Test Parameters	Method used	Unit	Results	Limits
1.	Chloride (as Cl)	EPIC/LAB/SOP/PE/01/00	%	0.035	-
2.	Mercury (as Hg)	USEPA 3050 B 1996	mg/kg	BDL (MDL-0.005)	-

—Test result End —

Operational Status: Unit was Operational During sampling.

Analyzed by - Ishika Singh.


Reviewed by
(A.K. Kumar)
Technical Head


Issued by
(A.K. Kumar)
Laboratory Head

Environmental Laboratory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Address:
C/o - R.K. Trigarthi, Indraprastha,
Road No. - 3, Ranchi,
Jharkhand - 834005, India

T. 0651 4000297
M. 98357 88677
E. 93049 10884
Gmail: epiclabtech@gmail.com

CIN - U74999IN2022PTC031685 Accredited by -
NABL (National Accreditation Board of India), Sector 10, T-2007
Held under the National Control Board
Certified by -
NABL (National Accreditation Board of India), Sector 10, T-2007

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC12887/25000001282	Discipline	Chemical
Report Unique ID	RLD3032539004	Group	Water
Issue date/time	25.09.2025/ 17:39	Sub Group	Surface Water

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: BIMARLA BAUXITE MINE

Contact Person: Mr. Ankit Das
Contact Number: +91 9971034775
Email Id: ankit.das@adityabirla.com
Order Date: 05.04.2025/ 10:10
Order Number: RP/MIB/MM/25/0114/00

References of Quality Management System (Copy of Traceability Chart)

Customer Registration No.	EPIC/OTH/0303	Sample Booking Number	EPIC-2539004
Sample(s) Code	2539004	Sample Receipt (D/T)	22.09.2025/ 10:32

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	18.09.2025/ 16:10	Sampling End (D/T)	18.09.2025/ 16:20
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample		Receipt sample(s) were fit for analysis.	

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	66	Wind direction	200°-20°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Quarry No. 1B	GPS coordinate	23° 17' 46.80" / 84° 26' 29.17"
---------------	--------------------	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	22.09.2025/ 10:52	Test completion date	25.09.2025/ 16:10
-----------------	-------------------	----------------------	-------------------

--Test Result--

SL	Test Parameters	Method used	Unit	Results	Limits
1.	pH value at 25°C	IS 3025 (P-11) 2022	-	6.71	-
2.	Total Dissolved Solids (TDS)	IS 3025 (P-16) 2023	mg/l	15.0	-
3.	Calcium (as Ca)	IS 3025 (P-40) 1991	mg/l	7.40	-

Group - Residues and Contaminants in Water, Sub Group - Trace Metals Elements

4.	Iron (as Fe)	APHA 23111-B 2023	-	BOL (MDL 0.1)	-
----	--------------	-------------------	---	---------------	---

--Test result End--

Operational Status	Unit was Operational During Sampling.
--------------------	---------------------------------------

Analysed by - Pappa Kumar



Reviewed by
(B.K. Kumar)
Technical Head

Issued by
(Bappa Kumar)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.,
Ranchi, Jharkhand



EPIC LabTech Private Limited

Address:
C/o - R.R. Nagarkot, Indrapuri
Road No. - S. Ranchi
Jharkhand - 834005, India

T: 0651 4666292
M: 98357 88677
E: 92040 12988
G: info@epiclabtech@gmail.com

CIN: U74999JH2022PTC019685. Accredited by:
National Testing Laboratory Council (NTLC)
Certified by:
ISO 9001:2015 and ISO 17025:2017

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL03032539004	Group	Water
Issue date/time	25.09.2025/ 17:39	Sub Group	Surface Water

Report Issue to

M/s - MINERALS & MINERALS LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : BIMARLA BAUXITE MINE

Contact Person: Mr. Ankit Das
Contact Number: +91 9971034775
Email Id: ankit.das@adityabirla.com
Order Date: 05.04.2025/ 10:10
Order Number: RPL/MIB/MM/25/0114/00

References of Quality Management System (Steps of Traceability Chart)

Customer Registration No.	EPIC/OTH/0303	Sample Booking Number	EPIC-2539004
Sample(s) Code	2539004	Sample Receipt (D/T)	22.09.2025/ 10:32

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	18.09.2025/ 16:10	Sampling End (D/T)	18.09.2025/ 16:20
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS : 3025 (Part-1) 1987, R-2003		
Description/condition of sample		Receipt sample(s) were fit for analysis.	

Environmental Condition during sampling

Weather condition	Cloudy	Temperature (°C)	27	Humidity %	65	Wind direction	200°-20°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Quarry No.1B	GPS coordinate	23° 17' 46.60" / 84° 25' 29.17"
---------------	-------------------	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	22.09.2025/ 10:52	Test completion date	25.09.2025/ 16:10
-----------------	-------------------	----------------------	-------------------

Test Result

Sl.	Test Parameters	Method used	Unit	Results	Limits
1.	Dissolve Oxygen (DO)	IS 3025 (P-38) 1989	mg/l	4.2	-
2.	Temperature	IS 3025 (P-09) 1986	°C	24.2	-
3.	BOD (3days at 27°C)	IS 3025 (P-44) 2000	mg/l	2.0	-
4.	COD	IS 3025 (P-58) 2006	mg/l	32.0	-
5.	Total Suspended Solids (TSS)	IS 3025 (P-17) 2022	mg/l	12.00	-
6.	Oil & Grease	IS 3025 (P-39) 2021	mg/l	BOD(MDL-64)	-

Group - Residues and Contaminants in Water

7.	Aluminum (as Al)	IS 3025 (P-55) 2003	Sub Group - Trace Metals Elements
			BOD(MDL-0.1)

Test result End

Operational Status: Unit was Operational During sampling

Analyzed by - Pappu Kumar


Reviewed by
(Pappu Kumar)
Technical Head



Comments Notes: 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's permanent facility, at specific environmental condition of method required and results refers only to the sample tested in prescribed date & time. 3. The Test report shall not be reproduced full or in part & can't be used as proof in the court of law. 4. Any complaint about this report should be communicated in writing within 30 days of its issue. 5. Total liability of EPIC LabTech Pvt. Ltd. will be limited to recovered amount only. 6. All disputes are subject to Ranchi jurisdiction and exclusive liability of the laboratory does not exceed the testing and sampling charges. 7. Citation does not imply endorsement of the tested product by laboratory. 8. Due to circumstances, laboratory accepts any claim by use or misuse of this report. 9. When the results are from external provider are marked as * mark.

MINERALS & MINERALS LIMITED

Regd. Office- Court Road, P.O. & Distt.-Lohardaga, Jharkhand-835302

Tel.-06526-223163

CIN NO. U26990JH1970PLC000875

Ref. :

Date

Annexure 3

Date – 01.05.2025

Office Order

Environmental Cell has been re-constituted for Bimarla Bauxite Mine (Area – 134.526 ha). This cell consists of the following team members who will ensure compliance with the Environment Acts, Rules & Regulations in respect of the said mines of Minerals & Minerals Limited.

1. Mr. Kiran Shankar Singh (Coordinator)
2. Mr. Pratyush Rout (Geologist)
3. Mr. Girija Tamrakar (Environment Engineer)
4. Mr. Anand Prakash Tiwari (Environment Engineer)

The Undersigned is the in charge of above Environment Management Cell constituted for the purpose of ensuring compliances of environmental acts, rules and regulations for the above mines.



Basudeb Gangopadhyay
AVP (Planning, Environment & Compliance)

Annexure 4

Production, Mined Out, Back Filled and Over Burden removal from April 2025 to September 2025								
S No	Name of the Mines	Mining lease area (ha)	Production Capacity (MT)*	Lease Period*	Production (MT)	Mined out area (ha)	Backfilled area (ha)	Over burden (Cu.M)
1	Bagru Bauxite Mine	75.41	85000	22.01.1974 to 31.03.2030	NIL	NIL	NIL	NIL
2	Bhusar Bauxite Mine	65.31	280000	11.07.1981 to 31.03.2030	79390	0.21	0.45	87427.68
3	Hisri (New) Bauxite Mine	14.55	100000	19.07.1981 to 31.03.2030	41829	0.11	0.23	13246.30
4	Pakhar (8.09) Bauxite Mine	8.09	80000	16.05.1973 to 31.03.2030	NIL	NIL	NIL	NIL
5	Pakhar (35.12) Bauxite Mine	35.12	200000	17.04.1975 to 31.03.2030	NIL	NIL	NIL	NIL
6	Pakhar (115.13) Bauxite Mine	115.13	300000	19.07.1996 to 31.03.2030	124975	1.58	0.50	153576.56
7	Sherangdag-A Bauxite Mine	155.81	260000	16.10.1974 to 31.03.2030	500	0.03	0.01	0.00
8	Serangdag-B Bauxite Mine	77.89	100000	04.10.1978 to 31.03.2030	57100	2.01	1.60	70755.24
9	Jalim & Sanai Bauxite Mine	12.14	50000	16.10.1974 to 31.03.2030	8547	0.13	0.10	8842.10
10	Gurdari Bauxite Mine	584.19	325000	23.03.1985 to 22.03.2035	94470	4.30	3.31	125642.99
11	Kujam - I Bauxite Mine	80.87	150000	13.03.2006 to 12.03.2056	NIL	NIL	NIL	NIL
12	Kujam - II Bauxite Mine	157.38	300000	24.03.2006 to 23.03.2056	63140	1.67	0.51	56988.56
13	Amtipani Bauxite Mine	190.95	150000	13.03.2006 to 12.03.2056	93765	3.168	1.21	209999.64

Annexure 4

Minerals & Minerals Limited								
14	Pakhar (109.507) Bauxite Mine	109.507	280000	26.07.2008 to 25.07.2058	100280	1.630	0.72	175833.99
15	Pakhar (15.58) Bauxite Mine	15.58	60000	28.04.1965 to 31.03.2030	NIL	NIL	NIL	NIL
16	Bimarla Bauxite Mine	134.526	300000	18.07.2009 to 17.07.2059	77100	0.849	0.30	62788.97
17	Amtipani Chirodih Bauxite Mine	130.01	450000	11.01.2017 to 10.01.2067	157400	5.320	4.600	218030.43

*Static information about the mines included in the above table



Basudev Gangopadhyay
AVP (Planning, Environment and Compliance)

Annexure-5

BREAK UP THE COST OF ENVIRONMENTAL MEASURES DURING THE YEAR 2025-26

The composite cost during the year 2025-26 for environmental protection & pollution control by Jharkhand Mines division of M/s Hindalco Industries Ltd & M/s Minerals & Minerals Ltd for implementation of the suggested measures in EC at our all the operating mines in the state of Jharkhand-namely Bagru (75.41 ha), Hisri New (14.55 ha), Bhusar (65.31 ha), Pakhar (115.13 ha), Pakhars (109.507 ha), Pakhar (15.58 ha), Pakhar (8.09 ha), Pakhar (35.12 ha), Sherangdag (155.81 ha), Serangdag (77.89 ha), Jalim & Sanai (12.14 ha), Bimarla Bauxite Mines (134.526 ha), Gurdari (584.19 ha), Amtipani (190.95 ha), Kujam I (80.87 ha) Kujam II (157.38 ha), and Amtipani Chirodih (130.01 ha) Bauxite mines.

S. No	Description	Budget (in Rupees) FY 2025-26 (From Apr'25 to Sep'25)	Actual (in Rupees) FY 2025-26 (From Apr'25 to Sep'25)
1	Pollution Control and Environmental Monitoring	1,71,00,000	59,45,184
2	Reclamation/ Back filing & Rehabilitation**	2,04,00,000	1,19,00,000
3	Green belt, Plantation & Water sprinkling arrangement	1,20,00,000	42,73,045
4	Rural Development	7,92,00,000	2,59,84,599

**Part of OB removed cost



Basudev Gangopadhyay
AVP (Planning, Environment & Compliance)