

HIL/LHD/ENV/MoEF&CC/418

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 Amtipani (190.95 Ha) Bauxite Mining project of M/s Hindalco Industries Limited, Gumla Jharkhand for the period from April 2025 to September 2025.

Ref: Environmental Clearance letter No. EC25A001JH139944, dated 29th July 2025.

Dear Sir,

With reference to the above, we are submitting herewith the Compliance status report of EC conditions for **Amtipani (190.95 Ha)** Bauxite mining project of **M/s Hindalco Industries Limited** located in Gumla, Jharkhand for the period from **April 2025 to September 2025** for your kind perusal please.

The lease details are as below:

Lease area (ha)	Production Capacity (MT)	Lease Period
190.95	150000	13.03.2006 to 12.03.2056

Hope you will find the same in order.

Thanking You

Yours faithfully,
For **Hindalco Industries Limited**

A handwritten signature in blue ink, appearing to read "Basudev Gangopadhyay".

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

**: Amtipani Bauxite Mine (190.95 ha)
M/s Hindalco Industries Limited,**

Environment Clearance No & date : EC25A001JH139944, dated 29.07.2025.

Period of compliance Report

: From 1st April 2025 to 30th September 2025

General Instructions:

Condition No 01 - The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC/ SEIAA website where it is displayed.

Reply to Condition No 01 – Complied. The information regarding grant of the EC has been published in two local newspapers, namely “Hindustan” and “Hindustan Times.” Copies of the advertisement in local newspapers have already been submitted to the Regional Office of MoEF&CC, Ranchi and JSPCB, Ranchi, vide letter no. HIL/LHD/ENV/JSPCB/262 dated 16.08.2025. The copy of the same advertisement in the newspapers is attached below.



Advertisement in the “Hindustan” Newspaper

Advertisement in the “Hindustan Times” Newspaper

The acknowledgement copy of the submission is attached as **Annexure – 6**.

Condition No 02 - The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

Reply to Condition No 02 – Complied. The copy of the environmental clearance has been submitted to the gram panchayats on dated 21.08.2025 vide letter no. HIL/LHD/ENV/GRAM-PANCHAYAT/271. The copy of the same is attached as **Annexure-7**.

Condition No 03 – The project proponent shall have a well laid down environmental policy duly approved by the Board of Directors (in case of Company) or competent

authority, duly prescribing standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/ forest / wildlife norms / conditions.

Reply to Condition No 03 – HIL has Formulated an Environmental Management Policy which has been duly approved by the Board of Directors/competent authority. The policy includes clearly defined standard operating procedures (SOPs) to ensure effective checks and balances. It also provides a structured mechanism to identify, report, and address any infringements, deviations, or violations related to environmental, forest, or wildlife norms and conditions. The copy of the Policy is attached as **Annexure-8**.

Condition No 04 – Action plan for implementing EMP and environmental conditions along with responsibility matrix of the project proponent (during construction phase) and authorized entity mandated with compliance of conditions (during operational phase) shall be prepared. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Six monthly progresses of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.

Reply to Condition No 04 – Environmental Management plan and environmental conditions along with responsibility matrix and its action plan has been already made and being complied. 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**. Compliance status is being submitted to MoEF&CC / Regional office on a six-monthly basis.

Condition No 05 – Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

Reply to Condition No 05 – Noted.

Condition No 06 –The Regional Office of this Ministry 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 to Condition No 06 – Noted and Agreed.

Condition No 07 –Any appeal against this EC shall lie with the National Green Tribunal, if preferred within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Reply to Condition No 07 – Noted.

Condition No 08 – PP needs to comply the OM dated 24.07.2024 of MoEFCC, where it is stated that the plantation of saplings shall be carried out in the earmarked 33% greenbelt

area as part of the tree plantation campaign “Ek Ped Ma ke Naam” (एक पेड़ माके नाम) and the details of the same shall be uploaded in the MeriLife portal (<https://merilife.nic.in>).

Reply to Condition No 08 – Progressive plantation and green belt developments of native species is being carried out in and around mining lease, reclaimed area etc. in consultation with local forest department on regular basis. During FY 2024-25, a total of 2710 nos. saplings have been planted in the mining premises. Cumulative 21.195 ha areas have been planted till date. Additionally, an “Ek Ped Maa Ke Naam” plantation campaign was organized, and photographs of the activity have been uploaded on the MeriLife portal. The same photographs are attached below:



Standard EC Conditions:

Condition No 01 – PP shall comply with all judgments, or decisions rendered by the Hon’ble Court of competent jurisdiction in the matter pf W.P.C No. 7320 of 2017, Hindalco Industries Limited vs. The State of Jharkhand and others. PP shall ensure prompt and full compliance with the final decision of the Hon’ble Court of competent jurisdiction and shall not act in any manner that is contrary to or inconsistent with such decision. PP shall take all necessary steps to give effect to the same.

Reply to Condition No 01 – Noted and Agreed.

Condition No 02 – The Environmental Clearance will not be operational till such time the project proponent complies with all the statutory requirements and judgement of Hon’ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.

Reply to Condition No 02 – Noted and Agreed.

Condition No 03 – State Government concerned shall ensure that mining operation shall not commence till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of judgement of Hon’ble Supreme Court dated 2nd August 2017 in Writ Petition (Civil) No.114 of 2014 in the matter of Common Cause versus Union of India and Ors.

Reply to Condition No 03 – Noted and Agreed.

Condition No 04 –Mobile tankers shall be used in the project for dust mitigation within the mine lease area. A logbook of water tankers should be maintained mentioning running hours, kilometre reading, maintenance hours of water tankers for each shift.

Reply to Condition No 04 – Mobile water tanker with sprinkling facility has been provided in and around the mining lease area to suppress the dust generation. Logbook of the water tanker is being maintained regularly.



Mobile water tanker with sprinkling facility

Condition No 05 – PP to submit a detailed report on the baseline environmental conditions of the area, including an assessment of air, water, soil quality, and ecological health, particularly focusing on potential impacts on the nearby Mahuadanar and Palamu Wildlife Sanctuary to Ministry’s Regional office on an annual basis.

Reply to Condition No 05 – A detailed baseline environmental assessment, including air, water, soil quality, and ecological status, has been conducted. A comprehensive biological study covering the core and buffer zones, including portions of the Palamu Wildlife Sanctuary and the Mahuadanr Wildlife region, has also been undertaken as part of the EIA/EMP study.

The EIA/EMP Report has already been submitted to the Ministry’s Regional Office. Additionally, environmental monitoring is being carried out on a regular basis, and the monitoring reports are submitted periodically to the concerned authorities.

Condition No 06 – The Project Proponent should take adequate measures to prevent the fly rock falling onto the nearby village. Project Proponent needs to set up a permanent monitoring facility in the nearby village to monitor the blast induced ground vibration and air over pressure.

Reply to Condition No 06 – Controlled blasting method is in practice. All efforts such as use of Nonel and delay, reduction in charge per delay etc. are being taken to mitigate impact of blasting. Blast vibration monitoring is being carried out periodically as per guidelines of DGMS and the report is attached herewith as **Annexure-9**.

Condition No 07 –The Project Proponent shall carry out the blasting in such a way that the direction of the blasting should be perpendicular to the Village and following the guidelines of DGMS (Metalliferous Mining Regulations).

Reply to Condition No 07 – Controlled blasting practices are being implemented, and all applicable DGMS guidelines are strictly followed.

Condition No 08 – The PP needs to execute the progressive backfilling plan in order to restore the land for the Agriculture or Pisciculture activity.

Reply to Condition No 08 – Concurrent backfilling is being carried out as per the approved mining plan and topsoil is being spread over the backfilled areas to support effective land reclamation. we return the land to the landowners for agriculture purpose or plantation whichever is desired by them (landowners /villagers)
A rainwater harvesting pond has also been developed, and necessary support has been provided to facilitate pisciculture activities. Photographs of the same are attached below.



Agricultural Activities on Reclaimed Land



Rainwater Harvesting Pond & Pisciculture Activity

Condition No 09 – The Project Proponent shall also organize employment-based apprenticeship/ internship training program every year with appropriate stipend for the youth and the other programs to enhance the skill of the local people. The data should be maintained for the training imparted to the persons and the outcome of the training, for the assessment of the training program should be analysed periodically and improved accordingly. The preference shall be given to the local people for the purpose of employment. An implementation report in this regard shall be submitted to Ministry's Regional Office on an annual basis.

Reply to Condition No 09 – Being Complied with. Training and livelihood development initiatives are being regularly undertaken with the objective of imparting employable skills, promoting entrepreneurship, and enabling long-term economic independence within the local community.

During the reporting period, a livelihood enhancement program on mushroom cultivation was conducted for women from **10 Self Help Groups (SHGs)** in the village of Gorapahar under the Amtipani Mines area. In addition to hands-on training, support materials including **50 kg mushroom spawn, Bavistin powder, polythene sheets, and rubber bands** provided to facilitate the initiation of mushroom cultivation.

This initiative aims to build technical capability, support sustainable income generation, and empower women through skill-based livelihood opportunities.



Skill development Training programmes for local Communities

Condition No 10 – The Project Proponent needs to submit the proof of submission of funds for Wildlife Conservation plan to be approved and its initiation/ commencement by Forest Department to Regional Office of the Ministry. The Project Proponent should follow-up the status of implementation on Wildlife Conservation Plan from the Forest Officials and the same shall be submitted to the Ministry’s Regional Office in the six-monthly compliance reports.

Reply to Condition No 10 – Noted and complied with. A Site-Specific Wildlife Conservation Plan (WLCP) has been prepared in consultation with the State Forest Department and approved by the PCCF (Wildlife), Jharkhand. As per the approved WLCP, we receive a demand note from the DFO each year and make the corresponding payment accordingly. A copy of the latest payment receipt is enclosed herewith as **Annexure-10**.

Condition No 11 – The Project Proponent shall monitor the air quality, noise level, water quality, water level and ground vibration during drilling and blasting at the edge of the mine, near the village and at other sensitive receptors and such collected data shall be submitted quarterly to the Ministry’s Regional Office.

Reply to Condition No 11 – Regular monitoring of environmental parameters, including ambient air quality, noise levels, water quality, and groundwater levels, is being carried out as per the prescribed norms. The monitoring reports are being submitted to the Ministry’s Regional Office on a regular basis. The analysis report is attached as **Annexure-2**.

In addition, ground vibration monitoring during drilling and blasting operations is being conducted periodically in accordance with DGMS guidelines. The monitoring report is enclosed as **Annexure-9**.

Condition No 12 – The Project Proponent needs to install the permanent fixed water sprinklers along the haul road and the approach road. Further, 10 nos. of fog canon/mist sprayer of at least 40 m throw shall be installed at various locations in the mine area including railway siding (and/ or other area prone to dust pollution). Effective dust suppression system shall also be adopted at others parts of the mining lease to arrest the fugitive dust emission.

Reply to Condition No 12 – To control fugitive dust emissions, mobile water tankers are deployed in and around the mine lease area, including the haul roads and approach roads. Mobile water tanker with sprinkling facility has been provided in and around the mining lease area to suppress the dust generation. Logbook of the water tanker is being maintained regularly

Condition No 13 – The air pollution control equipment’s like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at areas prone to air pollution. PP shall take necessary measures to avoid generation of fugitive dust emissions. Dense plantation shall be carried out in the vicinity of the crusher.

Reply to Condition No 13 – There is **no crusher installed within the mine lease area**; therefore, air pollution control systems such as bag filters, vacuum suction hoods, and dry fogging systems are **not applicable to this mine**.

However, measures to control fugitive dust emissions are being implemented. Mobile water tanker with sprinkling facility has been provided in and around the mining lease area to suppress the dust generation.

Condition No 14 – **The Project Proponent shall ensure that the transportation shall not occur through village road. Ore transportation trucks should be properly covered, and it should be ensured that there is no spillage of one of ore on the roads.**

Reply to Condition No 14 – Transportation of minerals through village roads is avoided. A dedicated road has been developed exclusively for village movement, while a separate haul road is being utilized for mining-related transportation activities. All vehicles transporting minerals are covered with tarpaulins, and non-overloading guidelines are strictly followed to prevent spillage during transit. Regular inspections are carried out to ensure there is no spillage of ore along the transportation route, and all mineral-carrying vehicles remain securely covered with tarpaulins throughout movement. Photographs of covered vehicles are enclosed herewith for reference.



Tarpaulin covered truck.

Condition No 15 – **The Project Proponent needs to explore the possibility to reduce the water consumption by using non-toxic chemicals for haul road dust suppression.**

Reply to Condition No 15 – Noted and to be explored.

Condition No 16 – **The Project Proponent needs to complete the entire 7.5 m peripheral plantation, safety barrier plantation and gap plantation within three years. The Project**

Proponent should plant quality sapling of appropriate height of native and fruit bearing species. In case of tall transplants (seedlings) the seedlings should have proper trained root stock with root biomass commensurate with seedling height to ensure good growth after out planting. Plantation shall be undertaken in consultation with the State Forest Department. The Project Proponent shall make the actual count on the saplings (2500/ha) planted and its survival rate and in case of failure of achievement of 95% survival rate, action plan for achieving the target survival rate shall be submitted to the Ministry's Regional Office.

Reply to Condition No 16 – Progressive plantation of native species is being carried out in and around mining lease, reclaimed area etc. in consultation with local forest department on regular basis During FY 2025-26 till September, a total of 2710 nos. saplings have been planted in the mining premises. Cumulative 21.195 ha areas have been planted till date. In addition to this agricultural activity is going on in reclaimed land with the consent of landowners. The Green belt development programme is in progress with the progress of mining activities



Plantation at Mine

Condition No 17 – The Project Proponent should adopt the proper mitigation measures as proposed under EMP. The adoption of mitigation measures and monitoring of the same as proposed in the EMP shall be done under the supervision of the qualified environmental personnel. The implementation status of the same shall be submitted to the Ministry's Regional Office.

Reply to Condition No 17 – All mitigation measures are being implemented in accordance with the approved EMP. Monitoring and management of rehabilitated areas are being carried out under effective supervision. Data pertaining to mine operations and backfilling is enclosed as **Annexure-4**.

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 No 18 – The Project Proponent should establish in house (as project site) environment laboratory for measurement of environment parameter with respect to air quality and water (surface and ground). A dedicated team to oversee environment management shall be setup at site which should comprise of Environment Engineers, Laboratory chemist and staff for monitoring of air, water quality parameters on routine basis instead of engaging environmental monitoring laboratories/consultants. Any non-compliance or infringement should be reported to the concerned authority.

Reply to Condition No 18 – We have engaged a NABL-accredited laboratory to carry out monitoring and testing of environmental parameters with respect to air quality and water (surface and ground). The monitoring reports are submitted regularly to the concerned authorities. A separate environmental management cell with comprises suitable qualified personnel and Environment Engineers 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 No 19 – The Project Proponent shall conduct third party audit of compliance of EC condition at an interval of one year and its report shall be submitted to RO, MoEF&CC.

Reply to Condition No 19 – Noted and Shall be complied.

Condition No 20 – The budget to address the concerns raised by the public in the public hearing/consultation to be completed within 3 years from the date of start of mining operations. PP shall comply with all action plans made for public hearing /consultation concerns and make regular maintenance and record the progressive activity outcomes. The Project proponent shall ensure that the activities proposed under the public hearing is different from the CSR activities.

Reply to Condition No 20 – Noted. The concerns raised during the Public Hearing/consultation is being implemented as per the budgetary provisions.

Condition No 21 – The Project proponent shall create awareness among the local people working within the project area as well as its surrounding area on the ban of Single Use Plastic (SUP) in order to ensure the compliance of Notification published by MoEF&CC on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six-monthly compliance report.

Reply to Condition No 21 – Awareness programmes on the ban of Single Use Plastic (SUP) have been conducted within the project area and in nearby villages to ensure compliance with the notification. Photograph of the awareness activities is enclosed below:



Awareness programmes

Condition No 22 – The Project Proponent shall explore the possibility of using 20% of Electric vehicles / CNG / Solar instead of diesel operation within three years.

Reply to Condition No 22 – 15 kVA solar power system has been installed in the mine office area, and approximately 60–70% of the energy requirement in this zone is currently being met through solar energy.



solar power system

Condition No 23 – The Project Proponent shall provide the rainwater harvesting structure at mine office and other infrastructures to recharge the ground water. Consultation with CGWA should be done in this regard.

Reply to Condition No 23 – The rainwater harvesting structure has been already constructed to recharge the ground water with consultation with CGWA. Photographs of the same is attached below:



Rainwater harvesting structure

Condition No 24 – Ther Project Proponent needs to obtain the permission from CGWA before intersection of ground water if applicable.

Reply to Condition No 24 – Noted. Shallow depth mining is being carried out in the 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. The copy of the same report is attached herewith as **Annexure 1**.

As the water table is not intersecting during mining operation, therefore it is not applicable to us.

Condition No 25 – The Project Proponent needs to provide the RO drinking water supply and also by laying network of pipelines to villages namely Amtipani, Chirodih & Gurdari at free of cost.

Reply to Condition No 25 – Drinking water is regularly supplied to the nearby villages, and the facility is provided free of cost to the local community.

Condition No 26 – The Project Proponent should periodically monitor and maintain the health records of the mine workers digitally prior to mining operations, at the time of operation of mine and post mining operations. Regular surveillance on Silicosis shall be carried through regular occupational health check-up every year for mine workers. PP shall also organize medical camp for the benefit of the local people and also the monitor the health impacts due to mining activity.

Reply to Condition No 26 – Periodic occupational health surveillance programs are conducted for all workers, and health records are maintained digitally in accordance with statutory requirements. Initial and Periodical Medical Examinations (IME/PME) are carried out under the supervision of a qualified Medical Officer. The IME/PME records are enclosed as **Annexure-11**.

Regular medical camps are also organized in nearby villages to benefit the local population and to monitor their health status.



Medical Camp

Condition No 27 – The Mining lease holders shall, after ceasing mining operations, undertake regressing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. The implementation report of the above said condition shall be submitted to the Ministry's Regional Office.

Reply to Condition No 27 – Concurrent backfilling is being carried out, and topsoil is spread over the backfilled areas to facilitate effective reclamation. Monitoring and management of rehabilitated zones continue until vegetation becomes self-sustaining under proper supervision.

Condition No 28 – The Project Proponent should install Continuous Ambient Air Quality Monitoring Stations (CAAQMS) as per the scientific study and in consultation with CPCB/SPCB. The real time data so generated should be displayed digitally at entry and exit gate of mine lease area for public display and shall be linked to server of CPCB/SPCB.

Reply to Condition No 28 – We have established four ambient air quality monitoring stations in the core zone as well as buffer zone. Monitoring is being carried out and reported to the concerned authorities including CPCB/JSPCB. The copy of the same report is attached as **Annexure-2**. A display board has also been installed in front of the mine office for public information.

Condition No 29 – The Project Proponent needs to use modern equipment's such as Camera Traps for ensuring presence and movement of wild animals in the study area in consultation with Wildlife Wing of Forest Department. Appropriate interventions shall be taken to minimise stress conditions for wild animals and to avoid Man-Animal Conflict.

Reply to Condition No 29 – Noted. We have installed CCTV Camera nearby office area to avoid Man-Animal Conflict.

Condition No 30 – PP needs to comply the OM dated 24.07.2024 of MoEFCC, wherein it is stated that the plantation of saplings shall be carried out in the earmarked 33% greenbelt as part of the tree plantation campaign “ Ek Ped Ma Ke Naam” (एक पेड मा के नाम) and the details of the same shall be uploaded in the MeriLife portal (<https://merilife.nic.in>).

Reply to Condition No 30 – Progressive plantation and green belt developments of native species is being carried out in and around mining lease, reclaimed area etc. in consultation with local forest department on regular basis. During FY 2024-25, a total of 2710 nos. saplings have been planted in the mining premises. Cumulative 21.195 ha areas have been planted till date. Additionally, an “Ek Ped Maa Ke Naam” plantation campaign was organized, and photographs of the activity have been uploaded on the MeriLife portal. The same photographs are attached below:



Condition No 31 – PP shall monitor the spring/natural streams discharge on long term basis both in terms of quantity and quality of water and records maintained. Six monthly report should be submitted to the Ministry's Regional Office located at Ranchi.

Reply to Condition No 31 – Water quality monitoring of the spring is being carried out regularly, and the analysis report is enclosed as **Annexure-2**. The six-monthly compliance report is also being submitted regularly to the Regional Office of MoEF&CC, Ranchi.

Standard Conditions (Non-Coal Mining)

1. Statutory Compliance

Condition No 1.1 - This Environmental Clearance (EC) is subject to orders/ judgement of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable.

Reply to Condition No 1.1 – Noted.

Condition No 1.2 - The Project proponent complies with all the statutory requirements and judgement of Hon'ble Supreme Court dated 2nd August.2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors before connecting the mining operations.

Reply to Condition No 1.2 – Noted and Agree.

Condition No 1.3 - The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the project proponent through their respective Department of Mining & Geology in Strict Compliance of Judgement of Hon'ble Supreme Court dated 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors.

Reply to Condition No 1.3 – Noted.

Condition No 1.4 - The Project Proponent shall follow the mitigation measures provided in MoEFCC's Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled “Impact of Mining activities on Habitations issues related to the mining Projects wherein Habitations and Villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area”.

Reply to Condition No 1.4 – Noted and Agree.

Condition No 1.5 - A copy of EC letter will be marked to concerned Panchayat/ local NGO etc. if any, from whom suggestion/ representation has been received while processing the proposal.

Reply to Condition No 1.5 – Complied. The copy of the environmental clearance has been submitted to the gram panchayats on dated 21.08.2025 vide letter no. HIL /LHD/ENV/GRAM-PANCHAYAT/271. The copy of the same is attached as **Annexure-7.**

Condition No 1.6 - State Pollution Control Board/Committee shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsilder's Office for days.

Reply to Condition No 1.6 – Noted.

Condition No 1.7 - The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board/Committee and website of the Ministry of Environment, Forest and Climate Change (www.parivesh.nic.in). A copy of the advertisement may be forwarded to the concerned MoEFCC Regional Office for compliance and record.

Reply to Condition No 1.7 – Complied. The information regarding grant of the EC has been published in two local newspapers, namely “Hindustan” and “Hindustan Times.” Copies of the advertisement in local newspapers have already been submitted to the Regional Office of

MoEF&CC, Ranchi and JSPCB, Ranchi, vide letter no. HIL/LHD/ENV/JSPCB/262 dated 16.08.2025. The copy of the same advertisement in the newspapers is attached below.



Advertisement in the “Hindustan” Newspaper



Advertisement in the “Hindustan Times” Newspaper

The acknowledgement copy of the submission is attached as **Annexure – 6**.

Condition No 1.8 - The Project Proponent shall inform the MoEFCC for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred than mining operation shall only be carried out after transfer of EC as per provisions of para 11 EIA Notification, 2006 as amended from time to time.

Reply to Condition No 1.8 – Noted and Agreed.

2. Air Quality monitoring and preservation:

Condition No 2.1 - The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. PM 10, PM 2.5, NO2, CO and SO2 etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/I, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.

Reply to Condition No 2.1 – We have established four ambient air quality monitoring stations in the core zone as well as buffer zone. Monitoring is being carried out and reported to the concerned authorities. The report is attached as **Annexure 2**. The display board is already installed in front of mine gate office. We have already installed an online PM10 analyzer at mine site.

Condition No 2.2 - Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM10 and PM2.5 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipments/ machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEFCC/ Central Pollution Control Board.

Reply to Condition No 2.2 - Continuous water sprinkling is being done to prevent dust suppression on haul road. Online PM10 analyzer has been installed for regular monitoring purposes. Suitable water-soluble chemical dust suppressing agents will be used in future if required.

3. Water quality monitoring and preservation:

Condition No 3.1 - In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEFCC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.

Reply to Condition No 3.1 – Noted. Since shallow depth mining is being carried out in Amtiani 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. The copy of the same report is attached herewith as **Annexure-1**. As the water table is not intersecting during mining operation, the detailed hydro-geological study is not applicable for this mine.

Condition No 3.2 - Project Proponent shall regularly monitor and maintain records w.r.t ground water level and quality in and around the mine lease by establishing a network of existing wells as wells as new piezo-meter installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department.

Reply to Condition No 3.2 – We regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease. However, we are not using groundwater for any mining purposes. As shallow depth mining is being carried out, there is no intersection of the groundwater table during the mining operation at present and in the future. A piezometer has also been installed in the mine to monitor the ground water level. The ground water level and quality report are attached herewith as **Annexure 1 and 2**.



Piezometer

Condition No 3.3 - The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease including upstream and downstream. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. The parameters to be monitored shall include their water quality vis-à-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and / or alteration be made to water bodies during mining operations without justification and prior approval of MoEFCC. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a year viz. pre-monsoon (April-May), monsoon (August), post-monsoon (November) and Winter (January) and the record of monitored data may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.

Reply to Condition No 3.3 – Regular monitoring of water quality parameters of natural water course/ water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease is being carried out and record is being maintained for the same.

However, we are not using groundwater for any mining purposes. As shallow depth mining is being carried out, there is no intersection of the groundwater table during the mining operation at present and in the future. No natural watercourse and/or water resource is being and will be obstructed due to mining operations.

The water quality reports are being submitted regularly on a six-monthly basis to the regional office of the Ministry, CGWA, and JSPCB. The same are attached herewith as **Annexure 2.**

Condition No 3.4 - Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J-20012/1/2006IA-II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.

Reply to Condition No 3.4 – There is no polluted water generated during mining operations. However, a negligible amount of wastewater is generated in the workshop from washing vehicles, and an Oil & grease trap system is already installed for Amtipani mines to treat this effluent. The treated water is in close circuit and being reused for washing of vehicle in the workshop.

Furthermore, the quality of this treated water is being monitored regularly, and all water parameters are within permissible limits. The monitoring report is attached herewith as **Annexure- 2**.

The monitoring report is being uploaded on the company website along with Six-monthly EC Compliance report regularly. An Environmental Display board is already installed at the Mine Main Gate.

Condition No 3.5 - Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office MoEF&CC annually.

Reply to Condition No 3.5 – Rainwater harvesting pond with proper fencing has been already constructed on long term basis to augment ground water in the area of Amtipani Bauxite Mines, in consultation with Central Ground Water Board. Photographs of the same have been attached below. Total amount of water recharge has been found to be 15,094 m³/Annum.



Rainwater Harvesting Pond

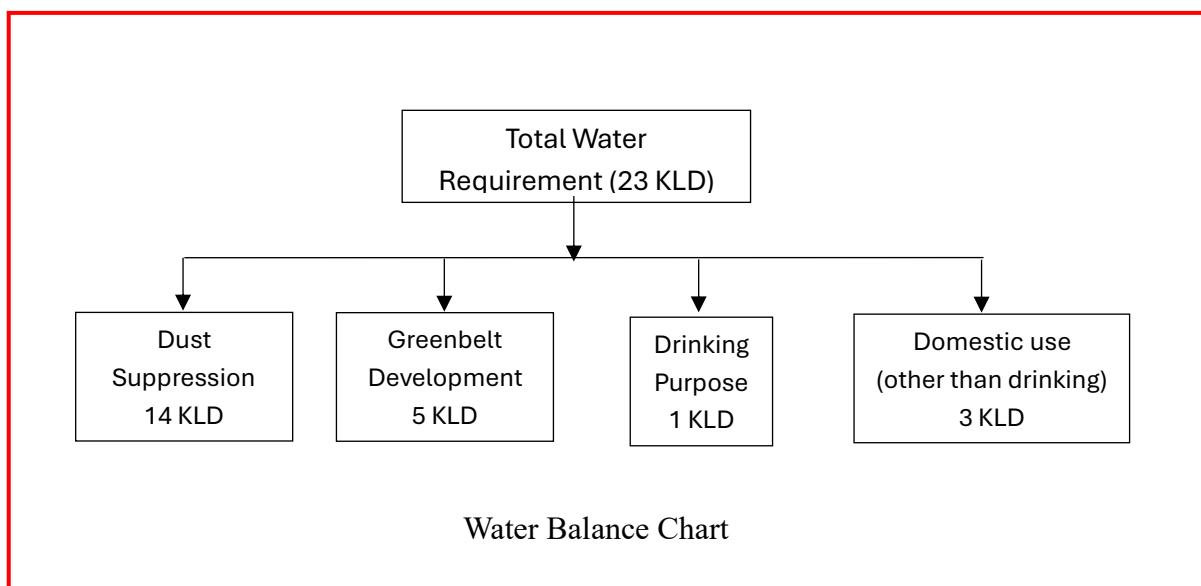
Condition No 3.6 - Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.

Reply to Condition No 3.6 – There is no polluted water generated during mining operations. However, a negligible amount of wastewater is generated in the workshop from vehicles washing, and an Oil & grease trap system is already installed for Amtipani Bauxite mines to treat this effluent. The treated water is in close circuit and being reused for washing of vehicle in the workshop.

Furthermore, the quality of this treated water is being monitored regularly, and all water parameters are within permissible limits. The monitoring report is attached herewith as **Annexure-2**.

Condition No 3.7 - The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC and State Pollution Control Board/Committee.

Reply to Condition No 3.7 – Noted. The water balance for this mine is attached below. We are taking water from the rainwater harvesting pond for sprinkling and other activities. We are not abstracting any ground water for mining purposes. However, we have obtained NOC from CGWA for drinking purposes only.



4. Noise and Vibration monitoring and prevention:

Condition No 4.1 - The peak particle velocity at 500m distance or within the nearest habitation. Whichever is closer shall be monitored periodically as per applicable DGMS guidelines.

Reply to Condition No 4.1 – Noted and being adhered to. Blast vibration study is being carried out on regular basis, and the report is attached herewith as **Annexure-9**.

Condition No 4.2 - The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day/night hours.

Reply to Condition No 4.2 – Noted. Mining operation is restricted to daytime only. So, there is no disturbance created in the nearby villages regarding illumination and sound.

Condition No 4.3 - The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The workers engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personal including labourers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/personals/ labourers are working without personal protective equipment.

Reply to Condition No 4.3 – Noted. The noise level monitoring is being conducted at a regular interval. The noise level is below the prescribed norms. The report has been attached as **Annexure 2**. All workers engaged in operation have been provided with PPEs. Training on Health and safety aspects is being imparted.

5. Mining Plan:

Condition No 5.1 - The Project Proponent shall adhere to approved mining plan, inter alia, including total excavation (quantum of mineral, waste, over burden, inter burden and topsoil etc.) ; mining technology ; lease area ; scope of working (method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining, concurrent reclamation and reclamation at mine closure; land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life; etc.).

Reply to Condition No 5.1 – Noted and being adhered to.

Condition No 5.2 - The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-à-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self-sustaining. The compliance status shall be submitted half-yearly to the MoEFCC and its concerned Regional Office.

Reply to Condition No 5.2 – Noted and being adhered. The excavated area is being back filled concurrently and the back filled area is used for afforestation/agricultural activity as required after reclamation. Monitoring and management of rehabilitated areas continues through supervision. The photograph is attached below. Data pertaining to Production, Mined Out area, backfilling are enclosed as **Annexure 4**. Half-yearly compliance status is being submitted to the MoEFCC and concerned authorities.

6. **Land Reclamation:**

Condition No 6.1 - The Overburden (O.B) waste and topsoil generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not keep active for a long period of time. The physical parameters of the OB/ waste dumps / topsoil dump like height, width angle of slope shall governed as per approved Mining Plan and the guidelines/circulars issued by D.G.M.S. The topsoil shall be used for land reclamation and plantation.

Reply to Condition No 6.1 – Overburden and waste rock are being used for concurrent backfilling, and topsoil is being spread on the backfilled area for reclamation as per mining plan approved by IBM. Currently, there is no OB dump present in the mine lease area. All Safety measures are being adhered to the guidelines/circulars issued by DGMS. Data pertaining to backfilling is enclosed as **Annexure 4**. Monitoring and management of rehabilitated areas is being done through effective supervision.



Condition No 6.2 - The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compacters thereby ensuring proper filling/ levelling of dump mass. In critical areas, use of geo textiles/ geo-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump.

Reply to Condition No 6.2 – Noted. Currently, there is no OB dump present in the mine lease area as we follow concurrent backfilling and reclamation process in scientific manner.

Condition No 6.3 - Catch drains, settling tanks and siltation ponds of appropriate size shall be constructed around the mine working, mineral yards and Top Soil/ OB / Waste dumps to prevent run off water and flow of sediment directly into the water bodies (Nallah/ River / Pond etc.). The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. The drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.

Reply to Condition No 6.3 – To collect & manage rainwater during monsoon, part of mined out area is used as a 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 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.

Condition No 6.4 - Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/ silt material. The sedimentation pits/ sumps shall be constructed at the corners of the garland drains.

Reply to Condition No 6.4 – To collect & manage rainwater during monsoon, part of mined out area is used as a 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 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.



Retaining wall and siltation pit to prevent solid



Garland drains

7. Transportation:

Condition No 7.1 - No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a “bypass” road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution under Control (PUC) certificate for all vehicles from authorized pollution testing centres. [If applicable in case of road transport]

Reply to Condition No 7.1 – Haul Road has been constructed for transportation of minerals. Mobile water tankers with sprinkling facility have been provided along-haul roads, loading, unloading & at transfer points to arrest dust emission. Regular maintenance of vehicles is undertaken to minimize vehicular emission. All measures are being taken to control vehicular emission. The vehicles are being covered with tarpaulin while transportation of mineral. PUC Certificate is attached as **Annexure-12**.



Tarpaulin covered vehicles

Condition No 7.2 - The Main haulage road within the mine lease should be provided with a permanent water sprinkling arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed a Crushers, belt-conveyors and the other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.

Reply to Condition No 7.2 – Haul Road has been constructed for transportation of minerals. Mobile water tankers with sprinkling facilities have been provided on long-haul roads, loading, unloading & at transfer points to arrest dust emission. Regular maintenance of vehicles is undertaken to minimize vehicular emission. All measures are being taken to control vehicular emission. The vehicles are being covered with tarpaulin while transportation of mineral.

8. Green Belt:

Condition No 8.1 - The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB to arrest pollution

emanating from mining operations within the lease. The whole green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.

Reply to Condition No 8.1 – Green belt development work is in progress in safety zone of mine lease already. Plantation work is being governed as per the approved mining plan and EC granted.



Plantation Activities in Mining lease area

Condition No 8.2 - The Project Proponent shall carry out plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/ Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall be also be adhered. The density of the trees should around 2500 saplings per Hectare. Adequate budgetary shall be made for protection and care of trees.

Reply to Condition No 8.2 – Progressive plantation and green belt developments of native species is being carried out in and around mining lease, reclaimed area etc. in consultation with local forest department on regular basis. During FY 2024-25, a total of 2710 nos. saplings have been planted in the mining premises. Cumulative 21.195 ha areas have been planted till date. In addition to these agricultural activities is going on reclaimed land as per the consent from landowners. The Green belt development program is in progress with the progress of mining activities. Photographs attached above.

Condition No 8.3 - The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which

are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/ protected against felling and plantation of such trees should be promoted.

Reply to Condition No 8.3 – As per the agreement by DC, we are acquiring land on the lease basis in consultation with the State Government and with the consent of the landowner. After completing mining operations followed by reclamation and topsoil spreading, we return the land to the landowners for agriculture purpose or plantation whichever is desired by them (landowners /villagers). Hence, we do not deteriorate the quality of the land and there is no need to create grazing land. No cutting of trees/ felling of trees are involved in the mining process.

9. Public hearing and human health issues:

Condition No 9.1 - Project Proponent shall make provision for the housing for workers/labors or shall construct labor camps within/ outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche for kids etc. The housing may be provided related infrastructure. The domestic wastewater should be treated with STP in order to avoid contamination of underground water.

Reply to Condition No 9.1 - Rest shelters have been provided to labourers. As most of the workers are from local villages, there is no need for labor camps.

10. Corporate Environment Responsibility (CER):

Condition No 10.1 - The Project Proponent shall submit the time-bound action plan to the concerned regional office of the Ministry within 6 months from the date of issuance of environmental clearance for undertaking the CER activities, committed during public consultation by the project proponent and as discussed by the EAC, in terms of the provisions of the MoEF&CC Office Memorandum No.22-65/2017-IA.III dated 30 September, 2020. The action plan shall be implemented within three years of commencement of the project.

Reply to Condition No 10.1 – Every year, the funds earmarked for environmental protection measures is budgeted separately and its expenditure is being reported to the regional office of Ministry. The copy of the same is attached as **Annexure - 5**.

11. Miscellaneous:

Condition No 11.1 - The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC.

Reply to Condition No 11.1 – Noted and will be complied with. However, Digital Map of land use and land cover is being prepared every year and is being submitted to IBM Ranchi. The same is attached herewith as **Annexure-13**.

Condition No 11.2 - The Project Authorities should inform to the Regional Office 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 to Condition No 11.2 – This is an operative mine hence provision related to financial closure is not applicable.

Condition No 11.3 - The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MOEFCC and its concerned Regional Office, Central Pollution Control Board and State Pollution Control Board.

Reply to Condition No 11.3 – Six monthly reports on the status of the EC conditions are being submitted regularly to MoEFCC and concerned authorities.

Condition No 11.4 - A separate ‘Environmental Management Cell’ with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of Qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEFCC.

Reply to Condition No 11.4 – 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 No 11.5 – The concerned Regional Office of the MoEF&CC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEFCC officer(s) by furnishing the requisite data/ information/ monitoring reports.

Reply to Condition No 11.5 – Noted and Agreed.

Condition No 11.6 – In pursuant to Ministry’s O.M No 22-34/2018-IA.III dated 16.01.2020 to comply with the direction made by Hon’ble Supreme Court on 08.01.2020 in W.P. (Civil) No 114/2014 in the matter Common Cause vs Union of India, the Mining lease holder shall after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to other mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.

Reply to Condition No 11.6 – Noted.

Condition No 11.7 – The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.

Reply to Condition No 11.7 – Noted and Agreed.

Condition No 11.8 – Concealing factual data failure to comply with any or submission of false/ fabricated data and of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

Reply to Condition No 11.8 – Noted and Agreed.

Condition No 11.9 – The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (prevention & Control of Pollution) Act, 1981, the Environment (protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any others passed by the Hon’ble Supreme Court of India/ High Court and any other Court of Law relating to the subject matter.

Reply to Condition No 11.9 – Noted.

Reply to Condition No 11.10 – Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Reply to Condition No 11.10 – Noted.

Piezometer Monitoring Report

Mine: Amtipani Bauxite Mine (190.95 Ha)

S No	Month	Ground Water Level (BGL) in meter
1	Apr-25	33.05
2	May-25	33.23
3	Jun-25	33.13
4	Jul-25	33.01
5	Aug-25	32.92
6	Sep-25	32.79



Analytical Test Certificate

Unique Lab Report No.	TC1288725000000394	Discipline	Chemical
Report Unique ID	RL0143251711	Group	Atmospheric Pollution
Issue date/time	26.04.2025 / 13:10	Sub Group	Ambient Air Quality

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE: AMTIPANI BAUXITE MINE	Contact Person Mr. Ankit Das
	Contact Number +91 9971034775
	Email Id ankit.das@adityabirla.com
	Order Date 31.03.2025 / 10:10

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0143	Sample Booking Number	EPIC-251711
Sample(s) Code	251711 (A) (B) (C) (D)	Sample Receipt (D/T)	21.04.2025 / 11:18

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)	18.04.2025 / 10:56	Sampling End (D/T)	19.04.2025 / 07:25
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Karan Kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	30	Humidity %	59	Wind direction	320°-140°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Mine Entrance Gate	GPS coordinate	23° 20' 41.02" / 84° 15' 24.41"
S. Location B	Near Mine Office/WB	GPS coordinate	23° 20' 37.09" / 84° 15' 32.23"
S. Location C	Mines Near Quarry - 1F	GPS coordinate	23° 20' 48.16" / 84° 15' 24.28"
S. Location D	Mines Near Quarry - 7C	GPS coordinate	23° 20' 18.12" / 84° 15' 34.07"

Date(s) of performance of the laboratory activities

Test start date	21.04.2025 / 11:45	Test completion date	25.04.2025 / 12:50
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-Test Result --

Sl	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	Particulate Matter (PM _{2.5})	IS:5182 (P-23) 2022	µg/m³	84.93	74.88	78.83	77.82	100 (24 hr)
2.	Fine Particulate Matter (PM ₁₀)	IS:5182 (P-24) 2019	µg/m³	46.30	33.43	36.91	35.55	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2023	µg/m³	09.94	10.05	08.13	07.86	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m³	25.77	22.50	23.61	22.54	80(24 hr)
5.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m³	38.47	37.83	35.89	34.59	180(1 hr)
6.	Ammonia (NH ₃)	IS:5182 (P-25) 2016	µg/m³	53.07	51.18	48.02	46.75	400(24 hr)
7.	Lead (Pb)	IS:5182 (P-22) 2019	µg/m³	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/m³	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/m³	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.

Analysed by - A. K. SHARMA

Checked by
(B.R. Kumar)
Technical HeadVerified & Issued by
(Umesh Das)
Laboratory Head

Unlocked Signature

Page 1 of 1

Contractual Notes: 1. The laboratory accepts responsibility for content of this report. 2. Test performed at laboratory's permanent facility or 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. Total liability of EPIC LabTech Pvt. Ltd. will be limited to involved 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 produce 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".

Disclaimer: MMT: Minimum Detection Limit; MMT: Minimum Detection Limit; LCL: Limit of Quantification.



Address:
C/o - R.K. Tripathi, Indrapuri,
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CIN - U14999JH2022NTHC00005
PAN - AAHCE3611M
GST - 20AAHCE3611M12X

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	RL0143251711	Group	Atmospheric Pollution
Issue date/time	26.04.2025 / 13:10	Sub Group	Ambient Air Quality

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD,
POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA,
STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025 / 10:10
Order Number
13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0143	Sample Booking Number	EPIC-251711
Sample(s) Code	251711 (A) (B) (C) (D)	Sample Receipt (D/T)	21.04.2025 / 11:18

Sampling References

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Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Karan Kumar & Team
Description/condition of sample			Receipt sample(s) were fit for analysis.

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	30	Humidity %	59	Wind direction	320°-140°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Mine Entrance Gate	GPS coordinate	23° 20' 41.02" / 84° 15' 24.41"
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Date(s) of performance of the laboratory activities

Test start date	21.04.2025 / 11:45	Test completion date	25.04.2025 / 12:50
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-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/SOP/AP/01/00	mg/m ³	BDL (MDL-1.6)	BDL (MDL-1.6)	BDL (MDL-1.6)	BDL (MDL-1.6)	-

--Test Result End --

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

Operational Status: Unit was Operational During sampling.

Analysed by -AK SIRIA



Checked by
(S.K. Kumar)
Technical Head

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



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CIN: U74899JH2022PTC019645
Accredited by:
NABL, certificate Number IC-12887
Part 4: Water Pollution Control Board
Certified by:
ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000395	Discipline	Chemical
Report Unique ID	RL0143251712	Group	Water
Issue date/time	26.04.2025/ 13:12	Sub Group	Drinking Water

Report Issue to:

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD,
POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA,
STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0143	Sample Booking Number	EPIC-251712
Sample(s) Code	251712	Sample Receipt (D/T)	21.04.2025/ 11:21

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)	18.04.2025/ 11:30	Sampling End (D/T)	18.04.2025/ 11:40
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Karan Kumar & Team
Description/condition of sample		Receipt sample(s) were fit for analysis.	

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	30	Humidity %	59	Wind direction	320°-140°
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Sampling Location(s) with GPS coordinate(s)		GPS coordinate	23° 20' 37.08" / 84° 15' 32.28"
S. Location A	Near office		

Date(s) of performance of the laboratory activities

Test start date	21.04.2025/ 11:35	Test completion date	26.04.2025/ 14:00
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--Test Result --

Sl	Test Parameters	Method used	Unit	Results	Limits	
					Acceptable Limit	Permissible limit
1.	pH value at 24.6°C	IS 3025 (P-11) 2022	-	6.80	6.5-8.5	No relaxation
2.	Turbidity	IS 3025 (P-10) 1984	NTU	0.37	1	5
3.	Colour	IS 3025 (P-04) 2021	Hazen	<5	6	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	89.00	500	2000
7.	Chloride (as Cl)	IS 3025 (P-32) 2019	mg/l	18.72	250	1000
8.	Total Alkalinity (as CaCO ₃)	IS 3025 (P-23) 2019	mg/l	50.00	200	600
9.	Total Hardness (as CaCO ₃)	IS 3025 (P-21) 2009	mg/l	70.00	200	600
10.	Calcium (as Ca)	IS 3025 (P-40) 1991	mg/l	12.34	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	1.30	200	400
13.	Nitrate (as NO ₃)	APHA 4500 B 2023	mg/l	1.04	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	9.52	30	100

Group - Residues and Contaminants in Water

Sub Group- Trace Metals Elements

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 10 days of its issue. 5. Testability of EPIC LabTech Pvt. Ltd. will be limited to intended analysis only. 6. All disputes are subjected 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. Under no circumstances, laboratory accepts any claim by user or misuse of this report. 8. When the results are from external provider are marked as * mark.

Abbreviation - BDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LOD (Limit of Quantitation).



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CIN: -UT4699IH2022PTC019685 Accredited by -
NABL with certificate Number TC-12887
Bharat Lab Accreditation Council Board
Certified by -
ISO 9001:2015 and ISO 45001:2018



TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000395	Discipline	Chemical
Report Unique ID	RL0143251712	Group	Water
Issue date/time	26.04.2025/ 13:12	Sub Group	Drinking Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD,
POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA,
STATE-JHARKHAND, INDIA 836302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person
Contact Number
Email Id
Order Date
Order Number

Mr. Ankit Das
+91 9971034775
ankit.das@adityabirla.com
31.03.2025/ 10:10
13612313868

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-0.09)	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.

Analysed by -Pratima Kumar/ Anjali Kumar



Checked by
(A.N. Kumar)
Technical Head

Verified & issued by
(Anil Kumar)
Laboratory Head
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0143251712	Group	Water
Issue date/time	26.04.2025/ 13:12	Sub Group	Drinking Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE : AMTIPANI BAUXITE MINE	Contact Person	Mr. Ankit Das
	Contact Number	+91 9971034775
	Email Id	ankit.das@adityabirla.com
	Order Date	31.03.2025/ 10:10
	Order Number	13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0143	Sample Booking Number	EPIC-251712
Sample(s) Code	251712	Sample Receipt (D/T)	21.04.2025/ 11:21

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)	18.04.2025/ 11:30	Sampling End (D/T)	18.04.2025/ 11:40
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Karan Kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	30	Humidity %	59	Wind direction	320°-140°
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Sampling Location(s) with GPS coordinate(s)		GPS coordinate	23° 20' 37.08" / 84° 15' 32.28"
S. Location A	Near office		

Date(s) of performance of the laboratory activities

Test start date	21.04.2025/ 11:35	Test completion date	25.04.2025/ 14:00
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--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.	Alachlor	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.	Chlopyrifos	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	RL0143251712	Group	Water
Issue date/time	26.04.2025/ 13:12	Sub Group	Drinking Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD,
POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA,
STATE-JHARKHAND, INDIA 835302

MONITORING SITE : AMTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10

Order Number
13612313868

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 10500:2021

Operational Status Unit was Operational During sampling.

Analysed by - Pratima Kumar/ Anjali Kumar



Checked by
(E.N. Kumar)
Technical Head

Verified & Issue by
(Animesh Das)
Laboratory Head

Authorized Signature
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Biological
Report Unique ID	RL0143251713	Group	Water
Issue date/time	26.04.2025/ 13:14	Sub Group	Drinking Water

Report Issue to

M/S - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : AMTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0143	Sample Booking Number	EPIC-251713
Sample(s) Code	251713	Sample Receipt (D/T)	21.04.2025/ 11:22

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)	18.04.2025/ 11:30	Sampling End (D/T)	18.04.2025/ 11:40
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Karan Kumar & Team
Description/condition of sample		Receipt sample(s) were fit for analysis.	

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	30	Humidity %	59	Wind direction	320°-140°
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Sampling Location(s) with GPS coordinate(s)	
S. Location A	Near office

GPS coordinate 23° 20' 37.08" / 84° 15' 32.28"

Date(s) of performance of the laboratory activities

Test start date	21.04.2025/ 11:35	Test completion date	25.04.2025/ 14:00
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--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.

Analysed by -Pratima Kumar/ Anjali Kumar

Checked by
(Anjali Kumar)
Technical HeadVerified & Issued by
(Mr. Ankit Das)
Laboratory HeadAuthorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



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PAN-AAHCE3611M
GST-20AAHCE3611M12X

Accredited by
NABL, certificate Number TU-13837
Jharkhand State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 45001:2018

TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000396	Discipline	Chemical
Report Unique ID	RL0143251714	Group	Water
Issue date/time	26.04.2025/ 13:18	Sub Group	Ground Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE: AMTIPANI BAUXITE MINE	Contact Person	Mr. Ankit Das
	Contact Number	+91 9971034775
	Email Id	ankit.das@adityabiria.com
	Order Date	31.03.2025/ 10:10
	Order Number	13612313868

References of Quality Management System (Days of Traceability Chain)

Customer Registration No.	EPIC/OTH/0143	Sample Booking Number	EPIC-251714
Sample(s) Code	251714	Sample Receipt (D/T)	21.04.2025/ 11:23

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)	18.04.2025/ 12:00	Sampling End (D/T)	18.04.2025/ 12:15
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Karan Kumar & Team
Description/condition of sample		Receipt sample(s) were fit for analysis.	

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	30	Humidity %	59	Wind direction	320°-140°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Weigh Bridge	GPS coordinate	23° 20' 38.01" / 84° 15' 30.41"
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Date(s) of performance of the laboratory activities

Test start date	21.04.2025/ 11:35	Test completion date	25.04.2025/ 14:00
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--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	-	7.16	6.5-8.5	No relaxation
2.	Turbidity	IS 3025 (P-10) 1984	NTU	0.41	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	130	500	2000
7.	Chloride (as Cl)	IS 3025 (P-32) 2019	mg/l	21.68	250	1000
8.	Total Alkalinity (as CaCO ₃)	IS 3025 (P-23) 2019	mg/l	68	200	600
9.	Total Hardness (as CaCO ₃)	IS 3025 (P-21) 2009	mg/l	98	200	600
10.	Calcium (as Ca)	IS 3025 (P-40) 1991	mg/l	18.44	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	2.90	200	400
13.	Nitrate (as NO ₃)	APHA 4500 B 2023	mg/l	1.99	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	12.63	30	100

Group - Residues and Contaminants in Water

Sub Group- Trace Metals Elements



Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL0143251714	Group	Water
Issue date/time	26.04.2025/ 13:16	Sub Group	Ground Water

Report Issue to

MM/s - HINDALCO INDUSTRIES LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE: AMTIPANI BAUXITE MINE	Contact Person	Mr. Ankit Das
	Contact Number	+91 9971034775
	Email Id	ankit.das@adityabirla.com
	Order Date	31.03.2025/ 10:10
	Order Number	13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0143	Sample Booking Number	EPIC-251714
Sample(s) Code	251714	Sample Receipt (D/T)	21.04.2025/ 11:23

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)	18.04.2025/ 12:00	Sampling End (D/T)	18.04.2025/ 12:15
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Karan Kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	30	Humidity %	59	Wind direction	320°-140°
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Sampling Location(s) with GPS coordinate(s)		GPS coordinate	
S. Location A	Near Weigh Bridge		23° 20' 38.01" / 84° 15' 30.41"

Date(s) of performance of the laboratory activities

Test start date	21.04.2025/ 11:35	Test completion date	25.04.2025/ 14:00
-----------------	-------------------	----------------------	-------------------

--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	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.	Alachlor	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.	Chlopyrifos	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	RL0143251714	Group	Water
Issue date/time	26.04.2025/ 13:16	Sub Group	Ground Water

Report Issue to

MM/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD,
POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA,
STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

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 10500:2021

Operational Status Unit was Operational During sampling.

Analysed by - Pratima Kumar/ Anjali Kumar



 Checked by
(B.N. Kumar)
Technical Head


 Verified & issued by
(Umesh 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 - 834003, India

• 0601 4006352
• 98357 86677
• 92043 73994
• epiclabtech@gmail.com

CIN - U74999JH2022PTC019685 Accredited by -
Jharkhand State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 16001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Biological
Report Unique ID	RL0143251715	Group	Water
Issue date/time	26.04.2025/ 13:18	Sub Group	Ground Water

Report Issue to

M/S - HINDALCO INDUSTRIES LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA, STATE-JHARKHAND,INDIA 835302 MONITORING SITE : AMTIPANI BAUXITE MINE	Contact Person	Mr. Ankit Das
	Contact Number	+91 9971034775
	Email Id	ankit.das@adityabirla.com
	Order Date	31.03.2025/ 10:10
	Order Number	13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0143	Sample Booking Number	EPIC-251715
Sample(s) Code	251715	Sample Receipt (D/T)	21.04.2025/ 11:23

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)	18.04.2025/ 12:00	Sampling End (D/T)	18.04.2025/ 12:15
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Karan Kumar & Team
Description/condition of sample	Receipt sample(s) were fit for analysis.		

Environmental Condition during sampling

Weather condition	Clear	Temperature (°C)	30	Humidity %	58	Wind direction	320°-140°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Weigh Bridge	GPS coordinate	23° 20' 38.01"/84° 15' 30.41"
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Date(s) of performance of the laboratory activities

Test start date	21.04.2025/ 11:35	Test completion date	25.04.2025/ 14:00
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-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.

Analysed by -Prema Kumar/ Ankit Kumar




Checked by
(B.N. Kumar)
Technical Head


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



EPIC LabTech Private Limited

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Jharkhand - 834005, India

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CIN - U74999JH2022PTC019683
PAN - AAHC3611M
GST - 20AAHC3611M12R

Accredited by -
ISI, certificate number TC-12887
Jharkhand State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 45001:2018



TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000525	Discipline	Chemical
Report Unique ID	RL0176252035	Group	Atmospheric Pollution
Issue date/time	21.05.2025/ 15:14	Sub Group	Ambient Air Quality

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST - LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

References of Quality Management System (Steps of Traceability Data)

Customer Registration No.	EPIC/OTH/0176	Sample Booking Number	EPIC-252035
Sample(s) Code	252035 (A) (B) (C) (D)	Sample Receipt (D/T)	16.05.2025/ 10:52

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	14.05.2025/ 11:29	Sampling End (D/T)	15.05.2025/ 08:32
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	Clear	Temperature (°C)	29	Humidity %	52	Wind direction	0°-180°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Mine Entrance Gate	GPS coordinate	23° 20' 41.02" / 84° 15' 24.41"
S. Location B	Near Mine Office/WB	GPS coordinate	23° 20' 37.09" / 84° 15' 32.23"
S. Location C	Mines Near Quarry - 1F	GPS coordinate	23° 20' 48.16" / 84° 15' 24.26"
S. Location D	Mines Near Quarry - 7C	GPS coordinate	23° 20' 18.12" / 84° 15' 34.07"

Date(s) of performance of the laboratory activities

Test start date	16.05.2025/ 11:15	Test completion date	20.05.2025/ 12:00
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-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	82.00	86.98	76.98	89.99	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	37.86	39.99	33.12	36.94	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2023	µg/m ³	7.15	10.18	7.77	9.49	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	1912	23.71	20.31	21.95	80(24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	40.58	38.64	43.83	47.73	400(24 hr)
6.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m ³	35.77	32.19	39.34	33.98	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 10.3.2:1999	ng/m ³	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	BDL (MDL-0.001)	

-Test Results End -

Prescribed Limit
Operational Status
Analyzed by - AK Seha

Reviewed by
(AK Seha)
Technical Head

Issued by
(Mr. Ankit Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited

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CIN - U74999JH2022PTC019681
PAN - AAHCE3611M
GST - 20AAHCE3611M12X

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	RL0176252035	Group	Atmospheric Pollution
Issue date/time	21.05.2025/ 15:14	Sub Group	Ambient Air Quality

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST - LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : ANTIKANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

References of Quality Management System (Steps of Traceability Data)

Customer Registration No.	EPIC/OTH/0176	Sample Booking Number	EPIC-252035
Sample(s) Code	252035 (A) (B) (C) (D)	Sample Receipt (D/T)	16.05.2025/ 10:52

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	14.05.2025/ 11:29	Sampling End (D/T)	15.05.2025/ 08:32
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	Clear	Temperature (°C)	29	Humidity %	52	Wind direction	0°-180°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Mine Entrance Gate	GPS coordinate	23° 20' 41.02" / 84° 15' 24.41"
S. Location B	Near Mine Office/WB	GPS coordinate	23° 20' 37.09" / 84° 15' 32.23"
S. Location C	Mines Near Quarry - 1F	GPS coordinate	23° 20' 48.16" / 84° 15' 24.28"
S. Location D	Mines Near Quarry - 7C	GPS coordinate	23° 20' 18.12" / 84° 15' 34.07"

Date(s) of performance of the laboratory activities

Test start date	16.05.2025/ 11:15	Test completion date	20.05.2025/ 12:00
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-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 VII.
Operational Status
Unit was Operational During sampling.

Analysed by - AK Seha



Reviewed by
(E.N. Kumar)
Technical Head

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



EPIC LabTech Private Limited

Address:
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epiclabtech@gmail.com

CIN: U74999JH2022PTC015485
PAN: AAHCE3551M
GST: 25AAHCE3551M12X

Accredited by :-
NABL, Lab Certificate Number TC-12887
Jharkhand State Pollution Control Board
Certified by :-
ISO 9001:2015 and ISO 45001:2018



TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000526	Discipline	Chemical
Report Unique ID	RL0176252036	Group	Atmospheric Pollution
Issue date/time	21.05.2025/ 15:16	Sub Group	Ambient Noise

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST - LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

References of Quality Management System (Steps of Traceability Data)

Customer Registration No.	EPIC/OTH/0176	Sample Booking Number	EPIC-252036
Sample(s) Code	252036 (A) (B) (C) (D)	Sample Receipt (D/T)	16.05.2025/ 10:55

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	14.05.2025/ 11:29	Sampling End (D/T)	15.05.2025/ 08:32
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Vishal 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)	29	Humidity %	52	Wind direction	0°-180°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Mine Entrance Gate	GPS coordinate	23° 20' 41.02" / 84° 15' 24.41"
S. Location B	Near Mine Office/WB	GPS coordinate	23° 20' 37.09" / 84° 15' 32.23"
S. Location C	Mines Near Quarry - 1F	GPS coordinate	23° 20' 48.16" / 84° 15' 24.28"
S. Location D	Mines Near Quarry - 7C	GPS coordinate	23° 20' 18.12" / 84° 15' 34.07"

Date(s) of performance of the laboratory activities

Test start date	16.05.2025/ 11:20	Test completion date	20.05.2025/ 12:05
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-Test Results-

Sl	Test Parameters	Method used	Unit	Results				Limits
				A	B	C	D	
1.	L ₁ (Day time)	IS: 9989:1981	dB(A)	58.8	53.9	49.2	47.0	75
2.	L ₁ (Night time)	IS: 9989:1981	dB (A)	43.9	41.8	39.8	37.4	70

Prescribed Limit

Environmental (Protection) Rules-1986, Schedule III.

Operational Status

Unit was Operational During sampling.



Reviewed by
(B.K. Kumar)
Technical Head

Issued by
(Ankit Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited

Address:
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epiclabtech@gmail.com

CIN - U74999JH2022PTC01968
PAN - AAHCE36Y1M
GST - 20AAHCE36Y1M12X

Accredited by -
NABL, Lab. certificate number TC - 12887
Jharkhand State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 45001:2018



TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000527	Discipline	Chemical
Report Unique ID	RL0176252037	Group	Pollution & Environment
Issue date/time	21.05.2025/ 15:18	Sub Group	Waste Water (Effluent)

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST - LOHARDAGA, STATE - JHARKHAND, INDIA 835302
MONITORING SITE : ANTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

References of Quality Management System (Steps of Traceability Data)

Customer Registration No.	EPIC/OTH/0176	Sample Booking Number	EPIC-252037
Sample(s) Code	252037	Sample Receipt (D/T)	16.05.2025/ 10:58

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	14.05.2025/ 16:30	Sampling End (D/T)	14.05.2025/ 16:50
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	Clear	Temperature (°C)	29	Humidity %	52	Wind direction	0°-180°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Work Shop (Outlet)	GPS coordinate	23° 20' 37.43" / 84° 15' 33.93"
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Date(s) of performance of the laboratory activities

Test start date	16.05.2025/ 11:15	Test completion date	21.05.2025/ 12:30
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--Test Result--

Sl.	Test Parameters	Method used	Unit	Results	Limits
1.	pH value at 25.2°C	IS 3025 (P-11) 2022	-	6.55	6.5-8.5
2.	BOD (3 days at 27°C)	IS 3025 (P-44) 2000	mg/l	14.00	-
3.	COD	IS 3025 (P-58) 2006	mg/l	64.00	150.0
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	45.00	50.0
6.	Phosphate	IS 3025 (P-31/Sec-1) 2022	mg/l	0.58	-
7.	Zinc	APHA 3111 B 2023	mg/l	BDL(MDL-04)	-

--Test result End --

Prescribed Limit
Operational Status
Analysed by -Anjali Kumar

Environmental (Protection) Rules-1986, Schedule -1, Serial No. 114.
Unit was Operational During sampling.


Reviewed by
(A.N. Kumar)
Technical Head



Page 1 of 3



EPIC LabTech Private Limited

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CIN - U74999JH2022PTC019685
PAN - AAHCE3611M
GST - 20AAHCE3611M12X

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	RL0176252037	Group	Pollution & Environment
Issue date/time	21.05.2025/ 15:18	Sub Group	Waste Water (Effluent)

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST - LOHARDAGA, STATE - JHARKHAND, INDIA 835302
MONITORING SITE : AMTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

References of Quality Management System (Steps of Traceability Data)

Customer Registration No.	EPIC/OTH/0176	Sample Booking Number	EPIC-252037
Sample(s) Code	252037	Sample Receipt (D/T)	16.05.2025/ 10:58

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	14.05.2025/ 16:30	Sampling End (D/T)	14.05.2025/ 16:50
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	Clear	Temperature (°C)	29	Humidity %	52	Wind direction	0°-180°
-------------------	-------	------------------	----	------------	----	----------------	---------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Work Shop (Outlet)	GPS coordinate	23° 20' 37.43" / 84° 15' 33.93"
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Date(s) of performance of the laboratory activities

Test start date	16.05.2025/ 11:15	Test completion date	21.05.2025/ 12:30
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--Test Result--

Sl	Test Parameters	Method used	Unit	Results	Limits
1.	Total Dissolve Solids (TDS)	IS 3025 (P-16) 2023	mg/l	161.00	-
2.	Dissolve Oxygen (DO)	IS 3025 (P-38) 1984	mg/l	1.80	-

--Test result End --

Prescribed Limit
Environmental (Protection) Rules-1986, Schedule - 1, Serial No. 114,
Operational Status
Unit was Operational During sampling.

Reviewed by
(A.K. Kumar)
Technical Head

Issued by
(Umesh Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand





EPIC LabTech Private Limited

Address:
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Road No. - S. Ranchi,
Jharkhand - 834003, India

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CIN - U74999JH2022PTC019883
PAN - AAHCES311M
GST - 28AAHCES311M12X

Accredited by -
NABL, Lab Certificate Number IC - 12887
Maharashtra State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 45001:2018



TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000701	Discipline	Chemical
Report Unique ID	RL0209252429	Group	Atmospheric Pollution
Issue date/time	18.06.2025/ 12:30	Sub Group	Ambient Air Quality

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: ANTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

References of Quality Management System (Steps of Traceability Data)

Customer Registration No.	EPIC/OTH/0209	Sample Booking Number	EPIC-252429
Sample(s) Code	252429 (A) (B) (C) (D)	Sample Receipt (D/T)	13.06.2025/ 10:09

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	11.06.2025/ 12:34	Sampling End (D/T)	12.06.2025/ 09:48
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	Clear	Temperature (°C)	26	Humidity %	50	Wind direction	240°-60°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Mine Entrance Gate	GPS coordinate	23° 20' 41.02" / 84° 15' 24.41"
S. Location B	Near Mine Office/WB	GPS coordinate	23° 20' 37.09" / 84° 15' 32.23"
S. Location C	Mines Near Quarry - 2 A11	GPS coordinate	23° 19' 59.00" / 84° 15' 49.02"
S. Location D	Mines Near Quarry - 7C 16	GPS coordinate	23° 19' 17.88" / 84° 15' 34.09"

Date(s) of performance of the laboratory activities

Test start date	13.06.2025/ 10:50	Test completion date	17.06.2025/ 11:43
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-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	80.03	84.19	75.15	87.43	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	35.47	38.24	30.48	34.36	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2023	µg/m ³	07.05	09.01	06.26	08.22	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	17.97	22.20	19.03	20.08	80(24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	39.29	37.01	42.21	46.10	400(24 hr)
6.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m ³	33.26	31.12	38.27	32.19	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 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-1986, Schedule VII.

Operational Status Unit was Operational During sampling.

Analysed by - Archana Gorain


Reviewed by
(E.N. Kumar)
Technical Head


Reviewed by
(Ankit Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.

Ranchi, Jharkhand

Page 1 of 1

Contractual Notes | 1. The laboratory accepts responsibility for content of this report | 2. Test performed at laboratory's permanent facility | 3. Specific environmental conditions as 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. Total liability of EPIC LabTech Pvt. Ltd. will be limited to limited 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. Opinion does not imply endorsement of the tested products 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), LoQ (Limit of Quantitation). |



EPIC LabTech Private Limited

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CIN-U74999JH2022PTC019683 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	RL0209252429	Group	Atmospheric Pollution
Issue date/time	18.06.2025/ 12:30	Sub Group	Ambient Air Quality

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

References of Quality Management System (Steps of Traceability Data)

Customer Registration No.	EPIC/OTH/0209	Sample Booking Number	EPIC-252429
Sample(s) Code	252429 (A) (B) (C) (D)	Sample Receipt (D/T)	13.06.2025/ 10:09

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	11.06.2025/ 12:34	Sampling End (D/T)	12.06.2025/ 09:48
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	Clear	Temperature (°C)	26	Humidity %	50	Wind direction	240°-60°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Mine Entrance Gate	GPS coordinate	23° 20' 41.02" / 84° 15' 24.41"
S. Location B	Near Mine Office/WB	GPS coordinate	23° 20' 37.09" / 84° 15' 32.23"
S. Location C	Mines Near Quarry - 2 A11	GPS coordinate	23° 19' 59.00" / 84° 15' 49.02"
S. Location D	Mines Near Quarry - 7C 16	GPS coordinate	23° 19' 17.88" / 84° 15' 34.09"

Data(s) of performance of the laboratory activities

Test start date	13.06.2025/ 10:50	Test completion date	17.06.2025/ 11:43
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-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 VII.

Operational Status: Unit was Operational During sampling.

Analyzed by - Archana Gorain



Reviewed by
(S.N. Kumar)
Technical Head

Reviewed by
(Animesh Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited

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CIN - U74999JH2022PTC019683
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	RL0209252430	Group	Atmospheric Pollution
Issue date/time	18.06.2025/ 12:32	Sub Group	Work Zone Noise

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: ANTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

References of Quality Management System (Steps of Traceability Chart)

Customer Registration No.	EPIC/OTH/0209	Sample Booking Number	EPIC-252430
Sample(s) Code	252430 (A) (B)	Sample Receipt (D/T)	13.06.2025/ 10:10

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D)	11.06.2025/ 12:34	Sampling End (D)	11.06.2025/ 09:33
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Akash Kumar & Team
Sampling method used	IS 9989:1981 (RA 2020) & CPCB MethodS.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 %	50	Wind direction	240°-60°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Mines Quarry - 7C16	GPS coordinate	23° 19' 59.00" / 84° 15' 49.02"
S. Location B	Near Mines Quarry 2A11	GPS coordinate	23° 19' 17.88" / 84° 15' 34.09"

Date(s) of performance of the laboratory activities

Test start date	13.06.2025/ 10:25	Test completion date	17.06.2025/ 11:44
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--Test Results--

Sl	Test Parameters	Method used	Unit	Results		Limits
				A	B	
1.	L_{eq}	IS: 9989:1981	dB (A)	73.1	71.3	85

--Test Results End --

Prescribed Limit
Operational Status
Analysed by -AK Saha


Mr. Ankit Das
Laboratory Head


Reviewed by
(A.K. Saha)
Technical Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand





Analytical Test Certificate

Unique Lab Report No.	TC1288725000000884	Discipline	Chemical
Report Unique ID	RL02362529012	Group	Atmospheric Pollution
Issue date/time	18.07.2025/ 17:25	Sub Group	Ambient Air Quality

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
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Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

References of Quality Management System (Steps of Traceability Data)

Customer Registration No.	EPIC/OTH/0236	Sample Booking Number	EPIC-2529012
Sample(s) Code	2529012 (A) (B) (C) (D)	Sample Receipt (D/T)	14.07.2025/ 11:30

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	11.07.2025/ 12:50	Sampling End (D/T)	12.07.2025/ 08:20
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/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	0°-180°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Mine Entrance Gate	GPS coordinate	23° 20' 41.02" / 84° 15' 24.41"
S. Location B	Near Mine Office/WB	GPS coordinate	23° 20' 37.09" / 84° 15' 32.23"
S. Location C	Mines Near Quarry - 2A11	GPS coordinate	23° 19' 59.00" / 84° 15' 49.02"
S. Location D	Mines Near Quarry - 7C 16	GPS coordinate	23° 19' 17.88" / 84° 15' 34.09"

Date(s) of performance of the laboratory activities

Test start date	14.07.2025/ 11:50	Test completion date	18.07.2025/ 16:00
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-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	76.16	80.19	71.12	83.22	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	32.11	35.31	27.64	30.85	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2023	µg/m ³	06.49	08.54	05.31	07.78	80(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	15.77	20.33	18.15	18.20	80(24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	36.18	34.50	39.55	44.04	400(24 hr)
6.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m ³	30.89	28.50	35.35	29.62	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 3.2:1999	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 Mangaraj

Reviewed by
(S.N. Kumar)
Technical Head

Reviewed by
(S.N. Kumar)
Laboratory Head

Authorized Signatory

EPIC LabTech Pvt. Ltd.

1 of 1

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PAN - AAHCE3615M
GST - 26AAHCE3615M12A
Certified by -
ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02362529012	Group	Atmospheric Pollution
Issue date/time	18.07.2025/ 17:25	Sub Group	Ambient Air Quality

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

References of Quality Management System (Steps of Traceability Data)

Customer Registration No.	EPIC/OTH/0236	Sample Booking Number	EPIC-2529012
Sample(s) Code	2529012 (A) (B) (C) (D)	Sample Receipt (D/T)	14.07.2025/11:30

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	11.07.2025/ 12:50	Sampling End (D/T)	12.07.2025/ 08:20
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/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	0°-180°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Mine Entrance Gate	GPS coordinate	23° 20' 41.02" / 84° 15' 24.41"
S. Location B	Near Mine Office/WB	GPS coordinate	23° 20' 37.09" / 84° 15' 32.23"
S. Location C	Mines Near Quarry - 2A11	GPS coordinate	23° 19' 59.00" / 84° 15' 49.02"
S. Location D	Mines Near Quarry - 7C 16	GPS coordinate	23° 19' 17.88" / 84° 15' 34.09"

Date(s) of performance of the laboratory activities

Test start date	14.07.2025/ 11:50	Test completion date	18.07.2025/ 16:00
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-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 VII.

Operational Status Unit was Operational During sampling.

Analysed by - Vishal Mangaraj


Reviewed by
(E.N. Kumar)
Technical Head


Issued by
(Omash Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand





Analytical Test Certificate

Unique Lab Report No.	TC1268725000000885	Discipline	Chemical
Report Unique ID	RL02362529013	Group	Water
Issue date/time	18.07.2025/ 17:27	Sub Group	Drinking Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: ANTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

References of Quality Management System (Steps of Traceability Data)

Customer Registration No.	EPIC/OTH/0236	Sample Booking Number	EPIC-2529013
Sample(s) Code	2529013	Sample Receipt (D/T)	14.07.2025/11:31

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	11.07.2025/ 13:40	Sampling End (D/T)	11.07.2025/ 13:52
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)	27	Humidity %	66	Wind direction	0°-180°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Near office	GPS coordinate	23° 20' 37.08" / 84° 15' 32.28"
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Date(s) of performance of the laboratory activities

Test start date	14.07.2025/ 11:51	Test completion date	18.07.2025/ 14:05
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-Test Result-

Sl.	Test Parameters	Method used	Unit	Results	Acceptable Limit	Limits Permissible limit
1.	pH value at 25.5°C	IS 3025 (P-11) 2022	-	6.90	6.5-8.5	No relaxation
2.	Turbidity	IS 3025 (P-10) 1984	NTU	0.40	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	85.00	500	2000
7.	Chloride (as Cl)	IS 3025 (P-32) 2019	mg/l	17.36	250	1000
8.	Total Alkalinity (as CaCO ₃)	IS 3025 (P-23) 2019	mg/l	48.00	200	600
9.	Total Hardness (as CaCO ₃)	IS 3025 (P-21) 2009	mg/l	68.00	200	600
10.	Calcium (as Ca)	IS 3025 (P-40) 1991	mg/l	11.89	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	1.24	200	400
13.	Nitrate (as NO ₃)	APHA 2500 B 2023	mg/l	1.00	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 2500 Mg E 2023	mg/l	9.00	30	100



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CIN: U74599JH2022PTC079483
PAN: AAHCE3871M
GST: 28AAHCE3871M12X

Accredited by -
NABL, certificate number 10-10867
Jharkhand State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 45001:2018



TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000000885	Discipline	Chemical
Report Unique ID	RL02362529013	Group	Water
Issue date/time	18.07.2025/ 17:27	Sub Group	Drinking Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST. LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: ANTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

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-0.09)	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.

Analysed by - Veshai Mangraj




Reviewed by
(EK 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	RL02362529013	Group	Water
Issue date/time	18.07.2025/ 17:27	Sub Group	Drinking Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

References of Quality Management System (Steps of Traceability Chart)

Customer Registration No.	EPIC/OTH/0236	Sample Booking Number	EPIC-2529013
Sample(s) Code	2529013	Sample Receipt (D/T)	14.07.2025/11:31

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	11.07.2025/ 13:40	Sampling End (D/T)	11.07.2025/ 13:52
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)	27	Humidity %	66	Wind direction	0°-180°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Near office	GPS coordinate	23° 20' 37.08" / 84° 15' 32.28"
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Date(s) of performance of the laboratory activities

Test start date	14.07.2025/ 11:51	Test completion date	11.07.2025/ 10:30
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--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.	Alachlor	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.	Chlopyriphos	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	RL02362529013	Group	Water
Issue date/time	18.07.2025/ 17:27	Sub Group	Drinking Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST - LOHARDAGA, STATE - JHARKHAND, INDIA 835302
MONITORING SITE: ANTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
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Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
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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 10500:2021

Operational Status

Unit was Operational During sampling.

Analysed by - Vishal Mangat


 Reviewed by
(B.N. Kumar)
Technical Head


 Issued by
(Ankit Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Page 2 of 2



EPIC LabTech Private Limited

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CIN: U74999JH2022PTC019645
PAN: AAHCE3611M
GST: 20AAHCE3611M12X

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	Biological
Report Unique ID	RL02302529014	Group	Water
Issue date/time	18.07.2025/ 17:29	Sub Group	Drinking Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: ANTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

References of Quality Management System (Class of Traceability Data)

Customer Registration No.	EPIC/OTH/0236	Sample Booking Number	EPIC-2529014
Sample(s) Code	2529014	Sample Receipt (D/T)	14.07.2025/11:31

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	11.07.2025/ 13:40	Sampling End (D/T)	11.07.2025/ 13:52
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	0°-180°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Near office	GPS coordinate	23° 20' 37.08" / 84° 15' 32.28"
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Date(s) of performance of the laboratory activities

Test start date	14.07.2025/ 12:30	Test completion date	18.07.2025/ 16:30
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-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

Operational Status

Analysed by - Sujata Kumari

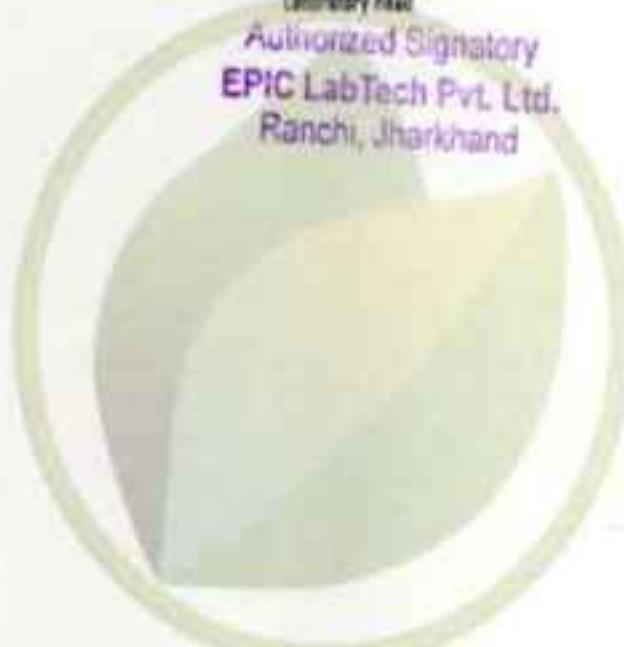
IS 10500:2021

Unit was Operational During sampling.


Reviewed by
(S.K. Kumar)
Technical Head


Issued by
(Ankit Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand





Analytical Test Certificate

Unique Lab Report No.	TC1268725000001027	Discipline	Chemical
Report Unique ID	RL02682534047	Group	Atmospheric Pollution
Issue date/time	26.08.2025/ 12:00	Sub Group	Ambient Air Quality

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST - LOHARDAGA, STATE - JHARKHAND, INDIA 835302
MONITORING SITE : AMTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirta.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

References of Quality Management System (Days of Traceability Data)

Customer Registration No.	EPIC/OTH/0268	Sample Booking Number	EPIC-2534047
Sample(s) Code	2534047 (A) (B) (C) (D)	Sample Receipt (D/T)	21.08.2025/ 10:53

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	19.08.2025/ 12:51	Sampling End (D/T)	20.08.2025/ 08:40
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Pawan Deep & Bhagat
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)	25	Humidity %	70	Wind direction	90°-270°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Mine Entrance Gate	GPS coordinate	23° 20' 41.02" / 84° 15' 24.41"
S. Location B	Near Mine Office WB	GPS coordinate	23° 20' 37.09" / 84° 15' 32.23"
S. Location C	Mines Near Quarry - 1F	GPS coordinate	23° 20' 48.16" / 84° 15' 24.28"
S. Location D	Mines Near Quarry - 7C	GPS coordinate	23° 20' 18.12" / 84° 15' 34.07"

Date(s) of performance of the laboratory activities

Test start date	21.08.2025/ 11:13	Test completion date	26.08.2025/ 11:00
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-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	76.03	79.65	70.98	82.78	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	31.59	35.19	27.47	30.19	60(24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2023	µg/m ³	06.08	08.11	06.29	07.34	60(24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	14.65	19.14	16.91	16.99	80(24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	34.22	33.66	38.43	40.95	400(24 hr)
6.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m ³	24.52	22.93	26.75	24.20	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 Mangaraj


Reviewed by
(S.N. Kumar)
Technical Head


Issue by
(Omash Das)
Laboratory Head

Authorized Signatory



EPIC LabTech Private Limited

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Jharkhand - 834005, India

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CIN - U74999JH2022PTC019683, Accredited by -
Jharkhand State Pollution Control Board
PAN - AAHCE3611M
GST - 20AAHCE3611M12X
Certified by -
ISO 9001:2015 and ISO 45001:2018

Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02682534047	Group	Atmospheric Pollution
Issue date/time	26.08.2025/ 12:00	Sub Group	Ambient Air Quality

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : AMTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

References of Quality Management System (Steps of Traceability Data)

Customer Registration No.	EPIC/OTH/0268	Sample Booking Number	EPIC-2534047
Sample(s) Code	2534047 (A) (B) (C) (D)	Sample Receipt (D/T)	21.08.2025/ 10:53

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	19.08.2025/ 12:51	Sampling End (D/T)	20.08.2025/ 08:40
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Pawan Deep Bhagat & 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)	25	Humidity %	70	Wind direction	90°-270°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Mine Entrance Gate	GPS coordinate	23° 20' 41.02" / 84° 15' 24.41"
S. Location B	Near Mine Office/WB	GPS coordinate	23° 20' 37.09" / 84° 15' 32.23"
S. Location C	Mines Near Quarry - 1F	GPS coordinate	23° 20' 48.16" / 84° 15' 24.28"
S. Location D	Mines Near Quarry - 7C	GPS coordinate	23° 20' 18.12" / 84° 15' 34.07"

Data(s) of performance of the laboratory activities

Test start date	21.08.2025/ 11:13	Test completion date	26.08.2025/ 11:00
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-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 VII.

Operational Status Unit was Operational During sampling.

Analysed by - Vishal Mangaraj


Reviewed by
(B.N. Kumar)
Technical Head


Date: 26/08/2025
Reviewed by
(B.N. Kumar)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Analytical Test Certificate

Unique Lab Report No.	TC1288725000001028	Discipline	Chemical
Report Unique ID	RL02682534048	Group	Water
Issue date/time	26.08.2025/ 12:03	Sub Group	Ground Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0268	Sample Booking Number	EPIC-2534048
Sample(s) Code	2534048	Sample Receipt (D/T)	21.08.2025/ 10:57

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	19.08.2025/ 16:05	Sampling End (D/T)	19.08.2025/ 16:15
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Pawan Deep Bhagat & 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)	25	Humidity %	70	Wind direction	90°-270°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Weigh Bridge	GPS coordinate	23° 20' 38.01" / 84° 15' 30.41"
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Date(s) of performance of the laboratory activities

Test start date	21.08.2025/ 11:15	Test completion date	26.08.2025/ 10:38
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-Test Result-

Sl.	Test Parameters	Method used	Unit	Results	Acceptable Limit	Limits Permissible limit
1.	pH value at 25.7°C	IS 3025 (P-11) 2022	-	7.57	6.5-8.5	No relaxation
2.	Turbidity	IS 3025 (P-10) 1984	NTU	0.46	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-18) 2023	mg/l	124.00	500	2000
7.	Chloride (as Cl)	IS 3025 (P-32) 2019	mg/l	20.48	250	1000
8.	Total Alkalinity (as CaCO ₃)	IS 3025 (P-23) 2019	mg/l	65.00	200	600
9.	Total Hardness (as CaCO ₃)	IS 3025 (P-21) 2009	mg/l	96.384	200	600
10.	Calcium (as Ca)	IS 3025 (P-40) 1991	mg/l	17.64	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	2.45	200	400
13.	Nitrate (as NO ₃)	APHA 4500-N 2023	mg/l	1.85	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	12.1	30	100



Analytical Test Certificate

Unique Lab Report No.	TC1288725000001028	Discipline	Chemical
Report Unique ID	RL02682534048	Group	Water
Issue date/time	26.08.2025/ 12:03	Sub Group	Ground Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST - LOHARDAGA, STATE - JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

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-0.09)	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 - Pappu Kumar



Reviewed by
(P.K. Kumar)
Technical Head

Ankit Das
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	RL02682534048	Group	Water
Issue date/time	26.08.2025/ 12:03	Sub Group	Ground Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE: AMTIPANI BAUXITE MINE	Contact Person Mr. Ankit Das
	Contact Number +91 9971034775
	Email Id ankit.das@adityabirla.com
	Order Date 31.03.2025/ 10:10
	Order Number 13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0268	Sample Booking Number	EPIC-2534048
Sample(s) Code	2534048	Sample Receipt (D/T)	21.08.2025/ 10:57

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	19.08.2025/ 16:05	Sampling End (D/T)	19.08.2025/ 16:15
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Pawan Deep Bhagat & 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)	25	Humidity %	70	Wind direction	90°-270°
-------------------	--------	------------------	----	------------	----	----------------	----------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Weigh Bridge	GPS coordinate	23° 20' 38.01" / 84° 15' 30.41"
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Date(s) of performance of the laboratory activities

Test start date	21.08.2025/ 11:15	Test completion date	26.08.2025/ 10:38
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--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.	Chlopyriphos	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 Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02682534048	Group	Water
Issue date/time	26.08.2025/ 12:03	Sub Group	Ground Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: ANTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

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.

Reviewed by
(P.K. Kumar)
Technical Head
Ankit Das
Issued by
(Ankit Das)
Laboratory HeadAuthorised Signature
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited

Address:
C/o - R.C. Tripathi, Indrapuri,
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Tel: 0651-4666332
28357 06677
93049 73994
epiclabtech@gmail.com

CIN: U74999JH2022PTC019683. Accredited by:
Jharkhand State Pollution Control Board
Certified by:
ISO 9001:2015 and ISO 45001:2018

Environmental Test Certificate

Unique Lab Report No.	N/A	Discipline	Biological
Report Unique ID	RL02682534049	Group	Water
Issue date/time	26.08.2025/ 12:06	Sub Group	Ground Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person
Mr. Arkit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0268	Sample Booking Number	EPIC-2534049
Sample(s) Code	2534049	Sample Receipt (D/T)	21.08.2025/ 10:57

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	19.08.2025/ 16:05	Sampling End (D/T)	19.08.2025/ 16:15
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Pawan Deep Bhagat & 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)	25	Humidity %	70	Wind direction	90°-270°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Near Weigh Bridge	GPS coordinate	23° 20' 38.01" / 84° 15' 30.41"
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Date(s) of performance of the laboratory activities

Test start date	21.08.2025/ 11:15	Test completion date	26.08.2025/ 10:38
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-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.


Reviewed by
(Sujata Kumar)
Technical Head


Issued by
(Arkit Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand





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

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98357 86677
93049 73994
epiclabtech@gmail.com

CIN: U74999JH2022PTC079583
PAN: KAHCE3881M
GST: 25AAHCE3881M12K
Accredited by -
NABL, MSL certificate Number TC-12887
Jharkhand State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 45001:2018



TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000001029	Discipline	Chemical		
Report Unique ID	RL02682534050	Group	Water		
Issue date/time	26.08.2025/ 12:09	Sub Group	Surface Water		
Report Issue to					
M/s - HINDALCO INDUSTRIES LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST - LOHARDAGA, STATE - JHARKHAND, INDIA 835302 MONITORING SITE: AMTIPANI BAUXITE MINE	Contact Person	Mr. Ankit Das			
	Contact Number	+91 9971034775			
	Email Id	ankit.das@adityabirla.com			
	Order Date	31.03.2025/ 10:10			
	Order Number	13612313868			
References of Quality Management System (Days of Traceability Date)					
Customer Registration No.	EPIC/OTH/0268	Sample Booking Number	EPIC-2534050		
Sample(s) Code	2534050	Sample Receipt (D/T)	21.08.2025/ 11:01		
Sampling References					
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036		
Sampling Start (D/T)	19.08.2025/ 14:45	Sampling End (D/T)	19.08.2025/ 14:55		
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Pawan Deep Bhagat & 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)	25		
		Humidity %	70		
		Wind direction	90°-270°		
Sampling Location(s) with GPS coordinate(s)					
S. Location A	Khani Part (Spring Water)	GPS coordinate	23° 21' 03.54" / 84° 15' 44.62"		
Date(s) of performance of the laboratory activities					
Test start date	21.08.2025/ 11:21	Test completion date	26.08.2025/ 11:25		
--Test Result--					
Sl.	Test Parameters	Method used	Unit	Results	Limits
1.	pH value at 25.7°C	IS 3025 (P-11) 2022	-	6.37	-
2.	Turbidity	IS 3025 (P-10) 1984	NTU	0.12	-
3.	Colour	IS 3025 (P-04) 2021	Hazen	<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	150.00	-
7.	Chloride (as Cl)	IS 3025 (P-32) 2019	mg/l	12.31	-
8.	Total Alkalinity (as CaCO ₃)	IS 3025 (P-23) 2019	mg/l	30.00	-
9.	Total Hardness (as CaCO ₃)	IS 3025 (P-21) 2009	mg/l	40.16	-
10.	Calcium (as Ca)	IS 3025 (P-40) 1991	mg/l	14.43	-
11.	Free Residual Chlorine	IS 3025 (P-20) 1986	mg/l	BDL(MDL-0.4)	-
12.	Sulphate (as SO ₄)	IS 3025 (P-24/Sec-1) 2022	mg/l	1.70	-
13.	Nitrate (as NO ₃)	APHA 4500 N 2023	mg/l	1.88	-
14.	Phenolic Compound	IS 3025 (P-43/Sec-1) 2022	mg/l	BDL(MDL-0.001)	-



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 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 30 days of its issue | 5. Total liability of EPIC LabTech Pvt. Ltd. will be limited to Unfixed 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. Opinion does not imply endorsement of the tested product by laboratory. Under no circumstance, laboratory accepts any claim 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), LoQ (Limit of Quantitation).



Analytical Test Certificate

Unique Lab Report No.	TC1288725000001029	Discipline	Chemical
Report Unique ID	RL02682534050	Group	Water
Issue date/time	26.08.2025/ 12:09	Sub Group	Surface Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST - LOHARDAGA, STATE - JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person
Contact Number
Email Id
Order Date
Order Number

Mr. Ankit Das
+91 9971034775
ankit.das@adityabirla.com
31.03.2025/ 10:10
13612313868

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

15. Copper (as Cu)	APHA 3111 B 2023	mg/l	BDL(MDL-0.2)	-
16. Iron (as Fe)	APHA 3111 B 2023	mg/l	BDL(MDL-0.1)	-
17. Lead (as Pb)	APHA 3111 B 2023	mg/l	BDL(MDL-0.01)	-
18. Cadmium (as Cd)	APHA 3111 B 2023	mg/l	BDL(MDL-0.003)	-
19. Total Chromium (as Cr)	APHA 3111 B 2023	mg/l	BDL(MDL-0.05)	-
20. Nickel (as Ni)	APHA 3111 B 2023	mg/l	BDL(MDL-0.02)	-
21. Total Arsenic (as As)	APHA 3114 B 2023	mg/l	BDL(MDL-0.005)	-
22. Selenium (as Se)	APHA 3114 B 2023	mg/l	BDL(MDL-0.005)	-
23. Manganese (as Mn)	APHA 3111 B 2023	mg/l	BDL(MDL-0.09)	-
24. Zinc (as Zn)	APHA 3111 B 2023	mg/l	BDL(MDL-0.04)	-

-Test result End -

Prescribed Limit

Operational Status

Unit was Operational During sampling.

Analysed by - Pappu Kumar

Reviewed by
(P.K. Kumar)
Technical Head
26/08/2025Issued by
(Ankit Das)
Laboratory HeadAuthorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02682534050	Group	Water
Issue date/time	26.08.2025/ 12:09	Sub Group	Surface Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST - LOHARDAGA, STATE - JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0268	Sample Booking Number	EPIC-2534050
Sample(s) Code	2534050	Sample Receipt (D/T)	21.08.2025/ 11:01

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	19.08.2025/ 14:45	Sampling End (D/T)	19.08.2025/ 14:55
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Pawan Deep Bhagat & 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)	25	Humidity %	70	Wind direction	90°-270°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Khari Part (Spring Water)	GPS coordinate	23° 21' 03.54" / 84° 15' 44.62"
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Date(s) of performance of the laboratory activities

Test start date	21.08.2025/ 11:21	Test completion date	26.08.2025/ 11:25
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-Test Result-

Sl	Test Parameters	Method used	Unit	Results	Limits
1.	Fluoride (as F)	APHA 4500 F-C 2023	mg/l	BDL(MDL-0.1)	-
Group-Residues and Contaminants in Water					
2.	Aluminum	IS 3025 (P-55):2019	mg/l	BDL(MDL-0.1)	-
3.	Boron	IS 3025 (P-57):2021	mg/l	BDL(MDL-0.1)	-
4.	Polychlorinated biphenyls	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.2)	-
5.	Polynuclear Aromatic Hydrocarbons (PAH)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.05)	-
Group-Residues and Contaminants in Water					
6.	Alachlor	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	-
7.	Atrazine	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	-
8.	Dieidrin	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.02)	-
9.	Alpha HCH	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.005)	-
10.	Beta HCH	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.02)	-
11.	Butachlor	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	-
12.	Chlopyriphos	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	-
13.	Delta HCH	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.02)	-
14.	Ethion	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	-



EPIC LabTech Private Limited

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CIN-U74999JH2012PTC019481

PAN-AKHCE5811M

GST-25AAHCE5811M12X

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	RL02682534050	Group	Water
Issue date/time	26.08.2025/ 12:09	Sub Group	Surface Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person
Contact Number
Email Id
Order Date
Order Number

Mr. Ankit Das
+91 9971034775
ankit.das@adityabirla.com
31.03.2025/ 10:10
13612313868

15. Gamma-HCH(Lindane)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	-
16. Malathion	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	-
17. Methyl parathion	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.2)	-
18. Monocrotophos	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	-
19. Phorate	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.5)	-
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)	-
21. Endosulfan (alpha, beta, and sulphate)	EPIC/LAB/SOP/WA/01/00	µg/l	BDL(MDL-0.05)	-

--Test result End--

Prescribed Limit

Operational Status

Unit was Operational During sampling

Reviewed by
(B.K. Kumar)
Technical Head

Reviewed by
(Ankit Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Page 2 of 2



Address:
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CIN: U74999JH2022PTC079685 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	Biological
Report Unique ID	RL02682534051	Group	Water
Issue date/time	26.08.2025/ 12:12	Sub Group	Surface Water
Report Issue to:			
M/s - HINDALCO INDUSTRIES LIMITED VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA, DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302 MONITORING SITE: AMTIPANI BAUXITE MINE	Contact Person Mr. Ankit Das	Contact Number +91 9971034775	Email Id ankit.das@adityabirla.com
Order Date 31.03.2025/ 10:10	Order Number 13612313868		
References of Quality Management System (Steps of Traceability Data)			
Customer Registration No.	EPIC/OTH/0268	Sample Booking Number	EPIC-2534051
Sample(s) Code	2534051	Sample Receipt (D/T)	21.08.2025/ 11:02
Sampling References			
Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	19.08.2025/ 14:45	Sampling End (D/T)	19.08.2025/ 14:55
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Pawan Deep Bhagat & 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)	25
		Humidity %	70
		Wind direction	90°-270°
Sampling Location(s) with GPS coordinate(s)			
S. Location A	Khari Part (Spring Water)	GPS coordinate	23° 21' 03.54" / 84° 15' 44.62"
Date(s) of performance of the laboratory activities			
Test start date	21.08.2025/ 11:21	Test completion date	26.08.2025/ 11:25
--Test Result--			
Sl.	Test Parameters	Method used	Unit
1.	Total Coliform	IS 15185:2002	Per 100 ml
2.	E. Coli	IS 15185:2002	Per 100 ml
--Test result End --			

Prescribed Limit

Operational Status

Analyzed by - Sujata Kumar

--
Unit was Operational During sampling.


Reviewed by
(S.K. Kumar)
Technical Head


Issued by
(Umesh Giri)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



Analytical Test Certificate

Unique Lab Report No.	TC1288725000001030	Discipline	Chemical
Report Unique ID	RL02682534052	Group	Pollution & Environment
Issue date/time	26.08.2025/ 12:15	Sub Group	Waste Water (Effluent)

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : ANTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

References of Quality Management System (Steps of Traceability Data)

Customer Registration No.	EPIC/OTH/0268	Sample Booking Number	EPIC-2534052
Sample(s) Code	2534052	Sample Receipt (D/T)	21.08.2025/ 11:03

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	19.08.2025/ 17:15	Sampling End (D/T)	19.08.2025/ 17:20
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Pawan Deep Bhagat & 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)	25	Humidity %	70	Wind direction	90°-270°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Work Shop (Outlet)	GPS coordinate	23° 20' 37.43" / 84° 15' 33.93"
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Date(s) of performance of the laboratory activities

Test start date	21.08.2025/ 11:23	Test completion date	26.08.2025/ 10:38
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-Test Result-

Sl	Test Parameters	Method used	Unit	Results	Limits
1.	pH value at 25.7°C	IS 3025 (P-11) 2022	-	6.89	6.5-8.5
2.	BOD (3 days at 27°C)	IS 3025 (P-44) 2000	mg/l	16.0	-
3.	COD	IS 3025 (P-58) 2006	mg/l	68.0	150.0
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	47.0	-
6.	Phosphate	IS 3025 (P-31/Sec-1) 2022	mg/l	0.55	-
7.	Zinc	APHA 3111 B 2023	mg/l	BDL(MDL-0.04)	-

-Test result End -

Prescribed Limit
Operational Status
Analysed by - Pappu Kumar

Environmental (Protection) Rules-1986, Schedule I, Serial No. 114

Unit was Operational During sampling.



Reviewed by
(P.K. Kumar)
Technical Head



Issued by
(Sumeet Das)
Laboratory Head

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





EPIC LabTech Private Limited

Address:
C/o - R.K. Tripathi, Indrapuri,
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Jharkhand - 834003, India

0631-4666292
98357 85677
93049 73894
epiclabtech@gmail.com

CIN - U74999JH2012PTC019483 | 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	RL02682534052	Group	Pollution & Environment
Issue date/time	26.08.2025/ 12:15	Sub Group	Waste Water (Effluent)

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE : ANTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0268	Sample Booking Number	EPIC-2534052
Sample(s) Code	2534052	Sample Receipt (D/T)	21.08.2025/ 11:03

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	19.08.2025/ 17:15	Sampling End (D/T)	19.08.2025/ 17:20
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Pawan Deep Bhagat & 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)	25	Humidity %	70	Wind direction	90°-270°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Work Shop (Outlet)	GPS coordinate	23° 20' 37.43" / 84° 15' 33.93"
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Date(s) of performance of the laboratory activities

Test start date	21.08.2025/ 11:23	Test completion date	26.08.2025/ 10:38
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--Test Result--

Sl	Test Parameters	Method used	Unit	Results	Limits
1.	Total Dissolve Solids (TDS)	IS 3025 (P-16) 2023	mg/l	162.00	-
2.	Dissolve Oxygen (DO)	IS 3025 (P-38) 1986	mg/l	1.0	-

--Test result End --

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

Reviewed by
(R.K. Kumar)
Technical Head

Issued by
(Ankit Das)
Laboratory Head

Authorized Signature
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand





Address:
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CIN - U74999JH2022PTC019645
PAN - AAHCE3671M
GST - 20AAHCE3671MA12X

Accredited by -
ISO/IEC 17025:2017
Jharkhand State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 45001:2018



TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000001199	Discipline	Chemical
Report Unique ID	RL02962538004	Group	Atmospheric Pollution
Issue date/time	18.09.2025/17:09	Sub Group	Ambient Air Quality

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

References of Quality Management System (Steps of Traceability Chart)

Customer Registration No.	EPIC/OTH/0296	Sample Booking Number	EPIC-2538004
Sample(s) Code	2538004 (A) (B) (C) (D)	Sample Receipt (D/T)	18.09.2025/ 10:42

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	12.09.2025/ 13:00	Sampling End (D/T)	13.09.2025/ 09:10
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Pawan Deep & Bhagat & 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 %	64	Wind direction	0°-180°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Mine Entrance Gate	GPS coordinate	23° 20' 41.02" / 84° 15' 24.41"
S. Location B	Near Mine Office/WB	GPS coordinate	23° 20' 37.09" / 84° 15' 32.23"
S. Location C	Mines Near Quarry - 1F	GPS coordinate	23° 20' 48.16" / 84° 15' 24.28"
S. Location D	Mines Near Quarry - 7C	GPS coordinate	23° 20' 18.12" / 84° 15' 34.07"

Date(s) of performance of the laboratory activities

Test start date	18.09.2025/ 11:02	Test completion date	18.09.2025/ 16:00
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-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	56.96	59.08	52.85	54.95	100 (24 hr)
2.	Fine Particulate Matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	22.27	25.33	26.32	29.91	60 (24 hr)
3.	Sulphur Dioxide (SO ₂)	IS:5182 (P-02) 2023	µg/m ³	07.27	08.87	06.84	08.85	80 (24 hr)
4.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-06) 2022	µg/m ³	16.83	17.92	16.77	18.99	80 (24 hr)
5.	Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	25.52	25.80	26.65	26.93	400 (24 hr)
6.	Ozone (O ₃)	IS:5182 (P-09) 2019	µg/m ³	13.69	14.01	14.97	15.60	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 03.2:1999	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.

Analyzed by - Vishal Mengraj



Reviewed by
(S.K. Kumar)
Technical Head



Issue by
(S.K. Kumar)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.

Report No. TC-12887

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 10 days of its issue | 5. Total liability of EPIC LabTech Pvt. Ltd. will be limited to uncollected 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 carry endorsement 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 we marked as * mark. | 9. Abbreviations - BDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LoQ (Limit of Quantitation). |



Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02962538004	Group	Atmospheric Pollution
Issue date/time	18.09.2025/17:09	Sub Group	Ambient Air Quality

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

References of Quality Management System (Steps of Traceability Chain)

Customer Registration No.	EPIC/OTH/0296	Sample Booking Number	EPIC-2538004
Sample(s) Code	2538004 (A) (B) (C) (D)	Sample Receipt (D/T)	15.09.2025/ 10:42

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	19.08.2025/ 13:00	Sampling End (D/T)	20.08.2025/ 09:10
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Pawan Deep Bhagat & 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 %	64	Wind direction	0°-180°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Mine Entrance Gate	GPS coordinate	23° 20' 41.02" / 84° 15' 24.41"
S. Location B	Near Mine Office/WB	GPS coordinate	23° 20' 37.09" / 84° 15' 32.23"
S. Location C	Mines Near Quarry - 1F	GPS coordinate	23° 20' 48.16" / 84° 15' 24.28"
S. Location D	Mines Near Quarry - 7C	GPS coordinate	23° 20' 18.12" / 84° 15' 34.07"

Date(s) of performance of the laboratory activities

Test start date	15.09.2025/ 11:02	Test completion date	18.09.2025/ 16:00
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-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 VII.

Operational Status Unit was Operational During sampling.

Analyzed by - Vishal Mangaraj


Reviewed by
(B.N. Kumar)
Technical Head


Issue by
(B.N. Kumar)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand





Analytical Test Certificate

Unique Lab Report No.	TC1288725000001200	Discipline	Chemical
Report Unique ID	RL02962538005	Group	Pollution & Environment
Issue date/time	18-09-2025/17:12	Sub Group	Soil/Sediments

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST. - LOHARDAGA, STATE - JHARKHAND, INDIA 835302
MONITORING SITE : AMTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

References of Quality Management System (Steps of Traceability Chart)

Customer Registration No.	EPIC/OTH/0296	Sample Booking Number	EPIC-2538005
Sample(s) Code	2538005	Sample Receipt (D/T)	15.09.2025/ 10:43

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	12.09.2025/ 16:10	Sampling End (D/T)	12.09.2025/ 16:20
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Pawan Deep Bhagat & 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)	26	Humidity %	64	Wind direction	0°-180°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Mines Near Quarry - IF	GPS coordinate	23° 20' 48.80" / 84° 15' 23.50"
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Date(s) of performance of the laboratory activities

Test start date	15.09.2025/ 11:35	Test completion date	18.09.2025/ 15:45
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--Test Result--

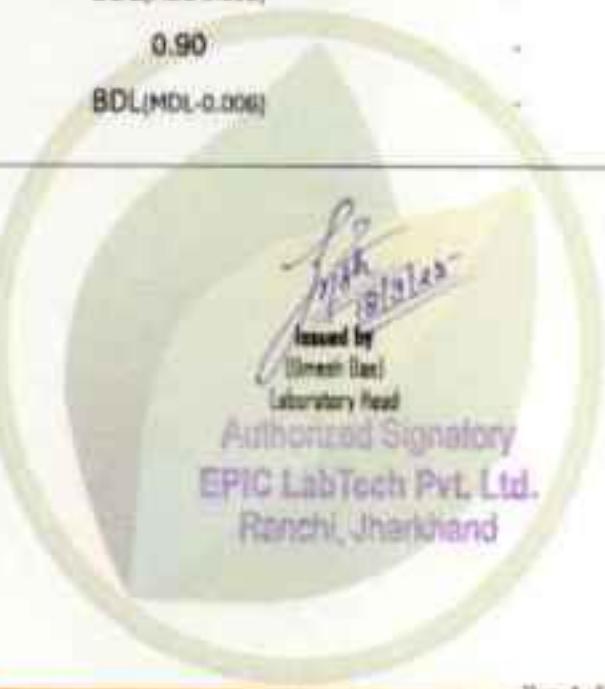
Sl.	Test Parameters	Method used	Unit	Results	Limits
1.	pH value at 25.7°C	MAGI 2011	-	6.02	-
2.	Available Phosphorus	MAGI 2011	Kg/ha	11.00	-
3.	Available Potassium	MAGI 2011	Kg/ha	130.00	-
4.	Organic Carbon	MAGI 2011	%	1.66	-
5.	Electrical Conductivity	MAGI 2011	µs/cm	121.0	-
6.	Magnesium	MAGI 2011	mg/kg	62.06	-
7.	Nitrogen	MAGI 2011	%	0.14	-
8.	Arsenic (as As)	USEPA 3050 B 1996	mg/kg	BDL(MDL-0.005)	-
9.	Cadmium (as Cd)	USEPA 3050 B 1996	mg/kg	0.90	-
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.A. Kumar)
Technical Head





Analytical Test Certificate

Unique Lab Report No.	N/A	Discipline	Chemical
Report Unique ID	RL02962538005	Group	Pollution & Environment
Issue date/time	18-09-2025/17:12	Sub Group	Soil/Sediments

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

References of Quality Management System (Code of Traceability Date)

Customer Registration No.	EPIC/OTH/0296	Sample Booking Number	EPIC-2538005
Sample(s) Code	2538005	Sample Receipt (D/T)	15.09.2025/ 10:43

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	12.09.2025/ 16:10	Sampling End (D/T)	12.09.2025/ 16:20
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Pawan Deep Bhagat & 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)	26	Humidity %	64	Wind direction	0°-180°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Mines Near Quarry - IF	GPS coordinate	23° 20' 48.80" / 84° 15' 23.50"
---------------	------------------------	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	15.09.2025/ 11:35	Test completion date	18.09.2025/ 15:45
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--Test Result--

Sl.	Test Parameters	Method used	Unit	Results	Limits
1.	Chloride (as Cl)	EPIC/LAB/SOP/PE/01/00	mg/kg	0.062	-
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
(Ishika Singh)
Technical Head


Issued by
(Ankit Das)
Laboratory Head

Authorized Signatory
EPIC LabTech Pvt. Ltd.
Ranchi, Jharkhand



EPIC LabTech Private Limited

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CIN - U74999JH2022PTC019643
PAN - AAHCE3613M
GST - 20AAHCE3613A12X

Accredited by -
NABL, certificate Number TC - 12887
Jharkhand State Pollution Control Board
Certified by -
ISO 9001:2015 and ISO 45001:2018



TC-12887

Analytical Test Certificate

Unique Lab Report No.	TC1288725000001201	Discipline	Chemical
Report Unique ID	RL02962538006	Group	Water
Issue date/time	18-09-2025/17:15	Sub Group	Surface Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST.-LOHARDAGA, STATE-JHARKHAND, INDIA 835302
MONITORING SITE: ANTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

References of Quality Management System (Steps of Traceability Data)

Customer Registration No.	EPIC/OTH/0296	Sample Booking Number	EPIC-2538006
Sample(s) Code	2538006	Sample Receipt (D/T)	15.09.2025/ 10:43

Sampling References

Type of Industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	12.09.2025/ 15:25	Sampling End (D/T)	12.09.2025/ 15:35
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Pawan Deep Bhagat & 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 %	64	Wind direction	0°-180°
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Sampling Location(s) with GPS coordinate(s)

S. Location A	Mines Near Quarry - 76	GPS coordinate	23° 20' 12.28" / 84° 15' 33.32"
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Date(s) of performance of the laboratory activities

Test start date	15.09.2025/ 11:03	Test completion date	18.09.2025/ 15:10
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--Test Result--

Sl.	Test Parameters	Method used	Unit	Results	Limits
1.	pH value at 25°C	IS 3025 (P-11) 2022	--	6.21	-
2.	Total Dissolved Solids (TDS)	IS 3025 (P-16) 2023	mg/l	4270.00	
3.	Calcium (as Ca)	IS 3025 (P-40) 1991	mg/l	28.00	
4.	Iron (as Fe)	APHA 3111 B 2023	mg/l	BDL(MDL-0.1)	-

--Test result End --

Operational Status
Unit was Operational During sampling.

Analyzed by - Peppu Kumar


Reviewed by
(P.K. 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	RL02962538006	Group	Water
Issue date/time	18-09-2025/17:15	Sub Group	Surface Water

Report Issue to

M/s - HINDALCO INDUSTRIES LIMITED
VILLAGE-COURT ROAD, POST OFFICE-LOHARDAGA,
DIST. - LOHARDAGA, STATE - JHARKHAND, INDIA 835302
MONITORING SITE: AMTIPANI BAUXITE MINE

Contact Person
Mr. Ankit Das
Contact Number
+91 9971034775
Email Id
ankit.das@adityabirla.com
Order Date
31.03.2025/ 10:10
Order Number
13612313868

References of Quality Management System (Steps of Traceability Chart)

Customer Registration No.	EPIC/OTH/0296	Sample Booking Number	EPIC-2538006
Sample(s) Code	2538006	Sample Receipt (D/T)	15.09.2025/ 10:43

Sampling References

Type of industry	Bauxite Mines	Ref. of Sampling Plan	EPIC/LAB/R/036
Sampling Start (D/T)	12.09.2025/ 15:25	Sampling End (D/T)	12.09.2025/ 15:35
Mode of Sampling	Conducted by Laboratory	Sample collected by	Mr. Pawan Deep Bhagat & 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 %	64	Wind direction	0°-180°
-------------------	--------	------------------	----	------------	----	----------------	---------

Sampling Location(s) with GPS coordinate(s)

S. Location A	Mines Near Quarry - 76	GPS coordinate	23° 20' 12.28" / 84° 15' 33.32"
---------------	------------------------	----------------	---------------------------------

Date(s) of performance of the laboratory activities

Test start date	15.09.2025/ 11:03	Test completion date	18.09.2025/ 15:10
-----------------	-------------------	----------------------	-------------------

--Test Result--

Sl.	Test Parameters	Method used	Unit	Results	Limits
1.	Dissolve Oxygen (DO)	IS 3025 (P-36) 1989	mg/l	2.0	-
2.	Temperature	IS 3025 (P-90) 1986	°C	26.1	-
3.	BOD (3days at 27°C)	IS 3025 (P-44) 2000	mg/l	8.4	-
4.	COD	IS 3025 (P-56) 2006	mg/l	34.0	-
5.	Total Suspended Solids (TSS)	IS 3025 (P-17) 2022	mg/l	22.00	-
6.	Oil & Grease	IS 3025 (P-39) 2021	mg/l	BDL(MDL-04)	-

Group - Residues and Contaminants in Water,

7.	Aluminium (as Al)	IS 3025 (P-55) 2003	mg/l	BDL(MDL-0.1)	Sub Group - Trace Metals Elements
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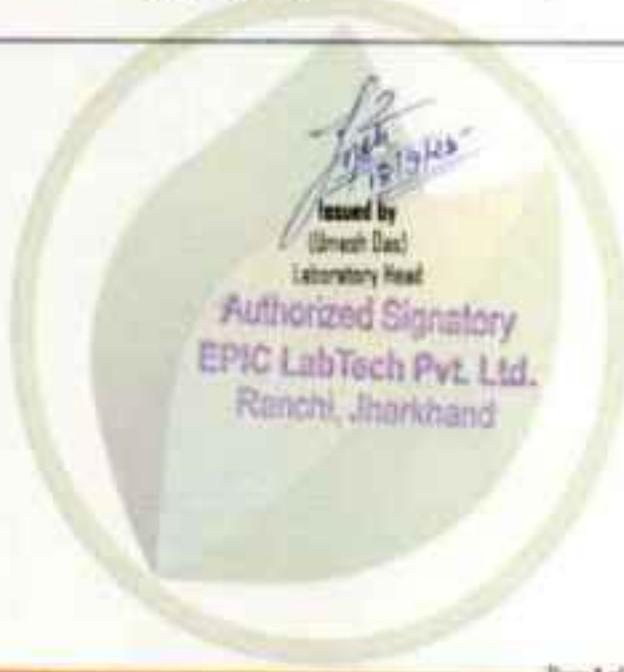
--Test result End --

Operational Status

Analysed by - Pappu Kumar

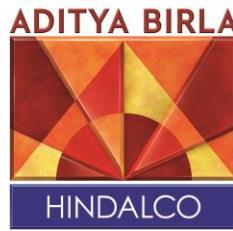
Unit was Operational During sampling.


Reviewed by
(P.K. Kumar)
Technical 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 conditions as method required and results relate only to the sample tested at 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 insured 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. Optima does not imply 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. | 9. Abbreviations - BDL (Below Detectable Limit), MDL (Minimum Detectable Limit), LoQ (Limit of Quantitation). |



Annexure 3

Date – 01.11.2025

Office Order

Environmental Cell has been re-constituted for Amtipani Bauxite Mine (Area 190.95 Ha) comprising below mentioned team members. The team will ensure compliance with the Environment Acts, Rules & Regulations in respect of the said mines of Hindalco Industries Limited.

1. Mr. Yogendra Lilhare (Coordinator)
2. Mr. Susovan Samanta (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.

A handwritten signature in blue ink, appearing to read "Basudev Gangopadhyay".

Basudev 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

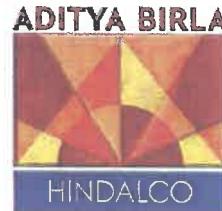
The composite cost during the year 2025-26 for environmental protection & pollution control by Jharkhand Mines division of M/s Hindalco Industries Ltd & M/s Minerals & Minerals Ltd for implementation of the suggested measures in EC at our all the operating mines in the state of Jharkhand-namely Bagru (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)



OK

Ref. No: HIL /LHD/ENV/JSPCB/262**Date: 16.08.2025****To,****The Dy. Director General of Forest (C)**Ministry of Environment, Forests and Climate Changes
Integrated Regional Office2nd Floor, Headquarter-Jharkhand State Housing Board
Harmu Chowk, Ranchi, Jharkhand-834002**Sub.:** Submission of Advertisement in Newspaper regarding Revalidated Environmental Clearance of Amtipani Bauxite Mine (Area 190.95 Ha).**Ref.:** Revalidated Environmental Clearance Identification No. EC25A001JH139944
dated 29.07.2025.

Dear Sir,

In compliance with Condition No. 1.7 of the statutory compliance section of the above Environmental Clearance, we have published the required advertisement in two local newspapers, **Hindustan** and **Hindustan Times**, on **03.08.2025**.

Copies of the published advertisements are enclosed herewith for your ready reference.

We kindly request you to acknowledge receipt of the same.

Thanking you,

Yours faithfully

For M/s Hindalco Industries Ltd.

Anand Tiwari**Assistant Manager (Environment & Compliance)**

19-08-2025
Encl: Copies of Advertisements in Newspaper regarding EC of Amtipani Bauxite Mine**CC:** The Member Secretary, Jharkhand State Pollution Board, Dhurwa, Ranchi.**CC:** The Regional Officer, Jharkhand State Pollution Board, Dhurwa, Ranchi.



Ref. No: HIL /LHD/ENV/GRAM-PANCHAYAT/271

Date: 21.08.2025

To,
The Gram Panchayat Mukhiya,
 Gram Panchayat- Amtipani,
 Village- Bahagara
 District- Gumla, Jharkhand

Sub.: Information regarding Grant of Revalidated Environmental Clearance (EC) for Amtipani Bauxite Mine (Area 190.95 Ha).

Ref.: Revalidated Environmental Clearance for Amtipani Bauxite Mine (190.95 Ha).

Dear Sir,

We would like to inform you that a revalidated Environmental Clearance (EC) has been granted for the Amtipani Bauxite Mine (Area: 190.95 Ha) of M/s Hindalco Industries Limited, located in District Gumla, Jharkhand. It has been issued by MoEF&CC, New Delhi, vide EC Identification No. EC25A001JH139944 dated 29.07.2025.

A copy of granted Environmental Clearance (EC) is attached herewith for your ready reference.

We request you to kindly acknowledge receipt of the same.

Thanking you,

Yours faithfully

Mukhiya
 ग्राम पंचायत-अमतीपानी
 पर्वणड-विशुनपुर. (गुमला)

For **M/s Hindalco Industries Ltd.**

Anand
Anand Tiwari
Assistant Manager (Environment & Compliance)

Encl: Copy of Revalidated Environmental Clearance (EC) – Amtipani Bauxite Mine



**Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)**

To,

The GENERALMANAGER
HINDALCO INDUSTRIES LTD JHARKHAND
MINES DIVISION, COURT ROAD, LOHARDAGA,
JHARKHAND, Lohardaga, Jharkhand-835302

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the Ministry vide proposal number IA/JH/MIN/409979/2022 dated 10 Jul 2023. The particulars of the environmental clearance granted to the project are as below.

1. EC Identification No.	EC25A001JH139944
2. File No.	J-11015/241/2005-IA-II(NCM)
3. Project Type	New
4. Category	A
5. Project/Activity including Schedule No.	1(a) Mining of minerals
6. Name of Project	Revalidation of EC Under MoEF&CC Notification S.C 1530(E) dated 06th April, 2018 for Amtipani Bauxite Mine (ML Area-190.95 ha) with Production Capacity of Bauxite 150000 TPA near Villages: Amtipani, Chirodih & Gurdari, Taluka: Bishunpur, District: Gumla, Jharkhand by M/s. Hindalco Industries Limited
7. Name of Company/Organization	HINDALCO INDUSTRIES LTD JHARKHAND
8. Location of Project	Jharkhand
9. TOR Date	N/A

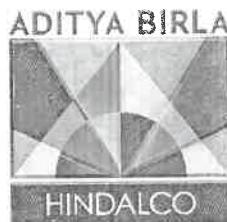
The project details along with terms and conditions are appended herewith from page no 2 onwards.

Date: 29/07/2025

(e-signed)
Rajeev Ranjan
Scientist E
IA - (Non-Coal Mining sector)

Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH. Please quote identification number in all future correspondence.

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Ref. No: HIL /LHD/ENV/GRAM-PANCHAYAT/271

Date: 21.08.2025

To,
The Gram Panchayat Mukhiya,
Gram Panchayat- Gurdari
Village: Gurdari
District- Gumla, Jharkhand

Sub.: Information regarding Grant of Revalidated Environmental Clearance (EC) for Amtipani Bauxite Mine (Area 190.95 Ha).

Ref.: Revalidated Environmental Clearance for Amtipani Bauxite Mine (190.95 Ha).

Dear Sir,

We would like to inform you that a revalidated Environmental Clearance (EC) has been granted for the Amtipani Bauxite Mine (Area: 190.95 Ha) of M/s Hindalco Industries Limited, located in District Gumla, Jharkhand. It has been issued by MoEF&CC, New Delhi, vide EC Identification No. EC25A001JH139944 dated 29.07.2025.

A copy of granted Environmental Clearance (EC) is attached herewith for your ready reference.

We request you to kindly acknowledge receipt of the same.

Thanking you,

Yours faithfully

For **M/s Hindalco Industries Ltd.**

Anand Tiwari

Assistant Manager (Environment & Compliance)

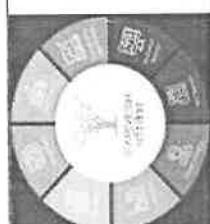
**मुखिया
पंचायत-गुरदरी
पखण्ड-बिशनपुर, गुमला**

Encl: Copy of Revalidated Environmental Clearance (EC) – Amtipani Bauxite Mine

PARIVESH

(Pro-Active and Responsive Facilitation by Interactive,
and Virtuous Environment Single-Window Hub)

ENVIRONMENTAL
CLEARANCE



Government of India Ministry of Environment, Forest and Climate Change (Impact Assessment Division)

To,

The GENERALMANAGER
HINDALCO INDUSTRIES LTD JHARKHAND
MINES DIVISION, COURT ROAD, LOHARDAGA,
JHARKHAND, Lohardaga, Jharkhand-835302

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity
under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the Ministry vide proposal number IA/JH/MIN/409979/2022 dated 10 Jul 2023. The particulars of the environmental clearance granted to the project are as below.

1. EC Identification No.	EC25A001JH139944
2. File No.	J-11015/241/2005-IA-II(NCM)
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5. Project/Activity including Schedule No.	1(a) Mining of minerals
6. Name of Project	Revalidation of EC Under MoEF&CC Notification S.O 1530(E) dated 06th April, 2018 for Amtipani Bauxite Mine (ML Area-190.95 ha) with Production Capacity of Bauxite 150000 TPA near Villages: Amtipani, Chirodih & Gurdari, Taluka: Bishunpur, District: Gumla, Jharkhand by M/s. Hindalco Industries Limited
7. Name of Company/Organization	HINDALCO INDUSTRIES LTD JHARKHAND
8. Location of Project	Jharkhand
9. TOR Date	N/A

The project details along with terms and conditions are appended herewith from page no 2 onwards.

(e-signed)
Rajeev Ranjan
Scientist E
IA - (Non-Coal Mining sector)

Date: 29/07/2025

Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH. Please quote identification number in all future correspondence.

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ENVIRONMENT POLICY

We, at Hindalco Industries Limited, operating across the process chain from mining to semi-fabricated products in non-ferrous metals, will strive to continually improve our environmental performance for sustainable operations and responsible growth globally, by integrating sound environmental systems & practices and Pollution Prevention approach.

To achieve this, we shall:

- Continue to comply with all applicable legal and other requirements on environment.
- Continually improve environmental performance by strengthening the Environmental Management System conforming to national /international standards, including setting up and reviewing targets and measuring, monitoring and reporting their progress.
- Allocate sufficient resources such as organisational structure, technology and funds for implementation of the policy and for regular monitoring of performance.
- Adopt pollution prevention approach for all our processes; enhance material efficiency and achieve high productivity.
- Conserve key resources like electricity, coal, water, oil, and raw materials, by promoting efficient technologies and manufacturing process improvements, water conservation programmes, and efficient use of raw materials.
- Adopt energy efficient and cleaner technologies based on techno-economic viability, appropriate to the region in which we operate, and in line with our growth and diversification plans.
- Promote the principles of waste prevention, reduction, reuse, recycling and recovery to minimize waste generation and strengthen the practices for management of wastes.
- Work in partnership with regulatory authorities, relevant suppliers, contractors, distributors and logistics partners and all other stakeholders, as applicable, to understand and initiate improvement actions.
- Engage with internal and external stakeholders including key business partners such as joint venture partners, licensees and outsourcing partners and wider communities, to broaden our understanding of environmental priorities and initiate actions on key environmental challenges.
- Adapt environmental performance over life cycle as an important input to the decision-making processes in the organization.
- Raise environmental awareness at all levels of our operations, through training and effective communication, participation and consultation.
- Communicate this Policy within the Organization. Develop and follow appropriate communication system to inform other stakeholders, as applicable, about our environmental commitment and performance.
- Conduct environmental, health and safety due diligence before undergoing any mergers and acquisitions.

This policy shall be made available to all employees, suppliers, customers, community and other stakeholders, as appropriate. The implementation of this policy is the responsibility of respective heads of units with the monitoring and tracking done by the Apex Sustainability Committee under the guidance of the Managing Director.

Satish Pai
MD, Hindalco Industries Limited
Date : 9th August, 2022

Date/Time MicL at 12:44:54 September 30, 2025
Trigger Source Geo: 0.500 mm/s, Mic: 2.000 pa.(L)
Range Geo: 254.0 mm/s
Record Time 4.251 sec (Auto=3Sec) at 1024 sps
Operator/Setup: Operator/Q AMTIPNI.MMB

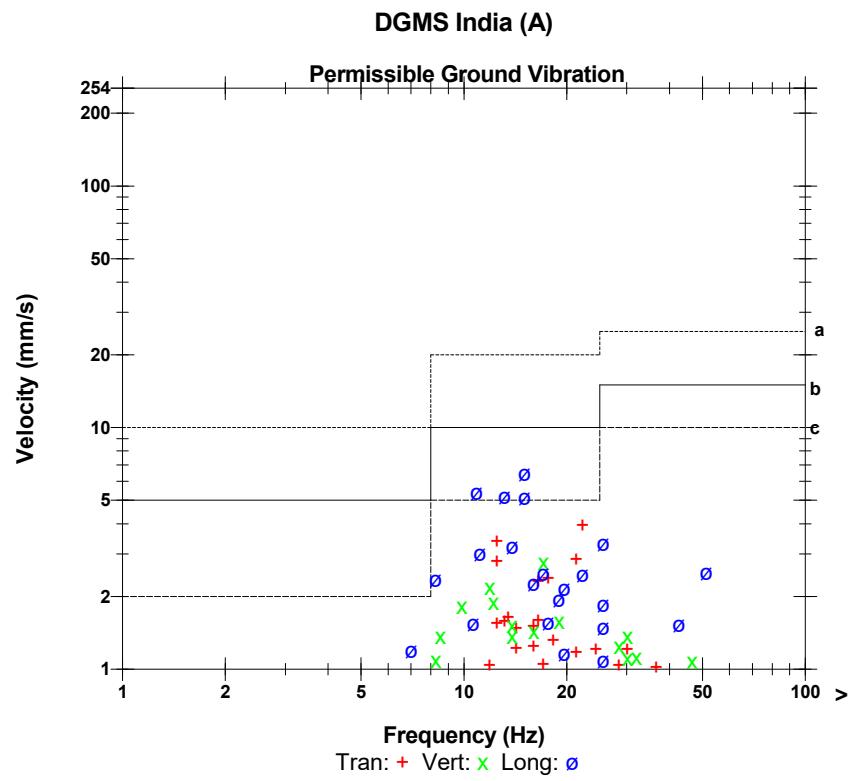
Serial Number UM17407 V 10-90FB Micromate ISSEE
Battery Level 3.7 Volts
Unit Calibration April 1, 2025 by UES New Delhi
File Name _TEMP.EVT

Notes
 Location: AMTIPANI quarry 2b 30/9/25
 Client:
 User Name: HINDALCO INDUSTRIES LTD
 General:

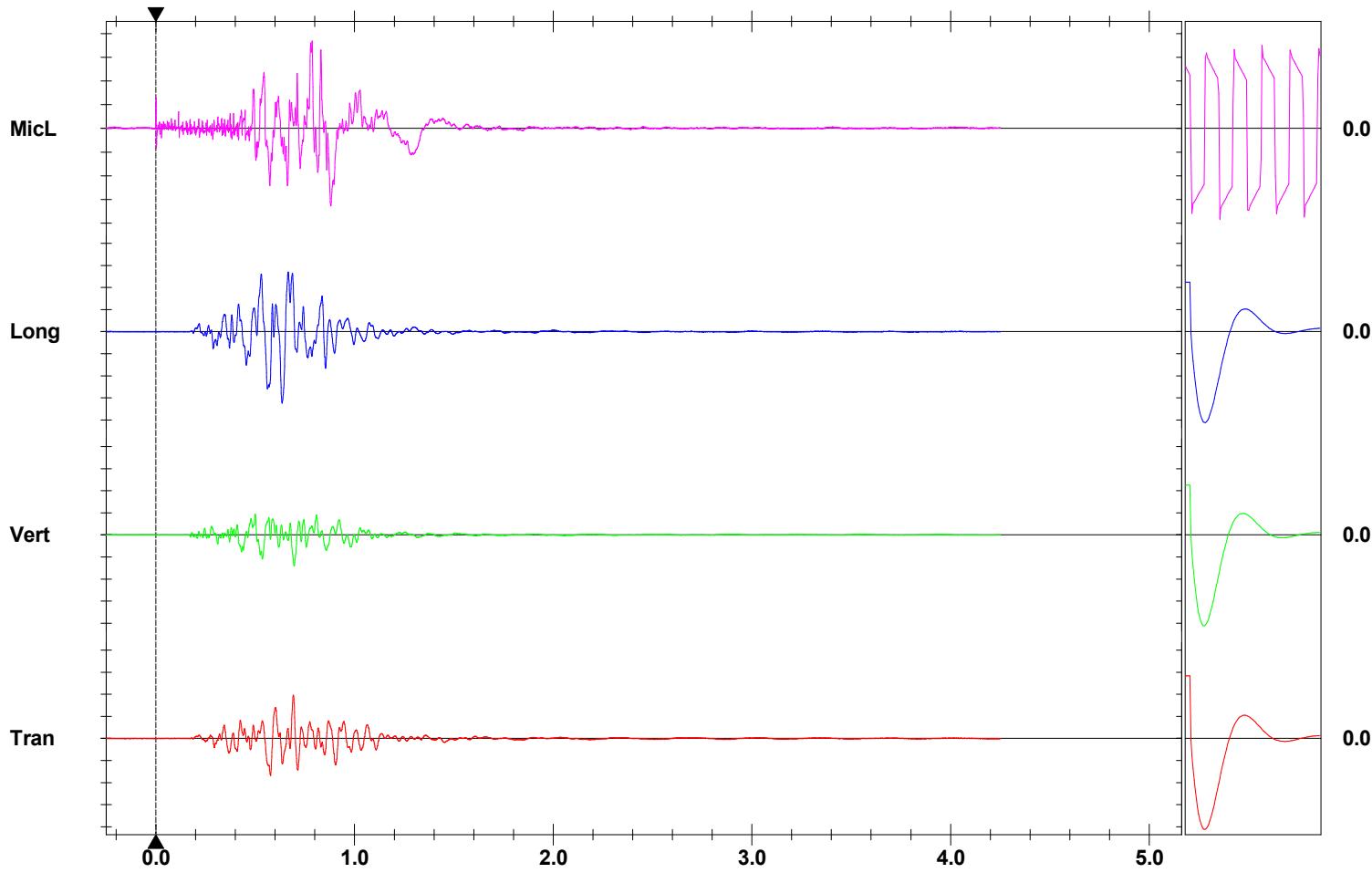
Microphone Linear Weighting
PSPL 7.401 pa.(L) at 0.786 sec
ZC Freq 10 Hz
Channel Test Passed (Freq = 19.7 Hz Amp = 1180 mv)

	Tran	Vert	Long	
PPV	3.941	2.790	6.479	mm/s
ZC Freq	22	17	15	Hz
Time (Rel. to Trig)	0.692	0.696	0.636	sec
Peak Acceleration	0.093	0.044	0.106	g
Peak Displacement	0.039	0.026	0.086	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.3	7.5	7.1	Hz
Overswing Ratio	3.9	4.2	4.0	

Peak Vector Sum 6.887 mm/s at 0.635 sec

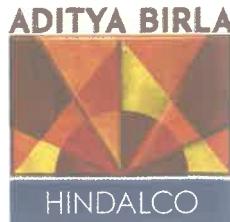


a)Industrial Buildings
 b)Domestic houses/structures
 c)Historic objects, sensitive structures



Time Scale: 0.20 sec/div Amplitude Scale: Geo: 2.000 mm/s/div Mic: 2.000 pa.(L)/div
 Trigger = ►

Sensor Check



Ref: HIL/JH/DFO-LOHARDAGA/WLCP Fees/143

Date: 27.06.2025

To,
Divisional Forest Officer,
Lohardaga, Jharkhand

Sub: Payment of Rs. 387.344 Lakhs (Rupees Three Hundred Eighty-Seven Lakhs Thirty-Four Thousand Four Hundred Only) towards Wildlife Conservation Plan fees as per sanctioned order by PCCF, Wildlife, Ranchi for our all-bauxite mines of Hindalco Industries Limited and Minerals & Minerals Limited in Lohardaga Forest Division, Jharkhand.

Ref: (i) Your Letter no. 597 dated 10.06.2025 (ii) Your Letter no. 598 dated 10.06.2025
 (iii) Your Letter no. 599 dated 10.06.2025

Dear Sir,
 The Wildlife Conservation Plans for following Bauxite mines of Hindalco Industries Ltd and Minerals & Minerals Limited have been approved by PCCF, Wildlife, Ranchi. Subsequently, we have received the demand notes from your good office as per the allocated fund mentioned in the sanctioned/approved documents.

As per the demand note received from your good office, a total amount of an amount of **Rs. 387.344 Lakhs (Rupees Three Hundred Eighty-Seven Lakhs Thirty-Four Thousand Four Hundred Only)** has to be paid to the Divisional Forest Officer, Lohardaga as per the sanctioned budget mentioned in the approved report according to the EC condition.

Therefore, we are submitting three demand drafts amounting to **Rs. 387.344 Lakhs (Rupees Three Hundred Eighty-Seven Lakhs Thirty-Four Thousand Four Hundred Only)** against the Wildlife Conservation Plan for the following bauxite mines of Hindalco Industries Ltd. and Minerals & Minerals Limited. The details of the bank drafts are as follows:

*Received 27/06/2025
Lohardaga Forest Office*

S. No.	Your reference Letter No	Amount in Demand note	Mining Project	Demand Draft (DD) In Favour of	Amount (Rs)	DD No. dated
	597 dated 10.06.2025	246.684 Lakhs	Bagru, Bhusar, Hisri New and Hisri Old, Pakhar (115.13 Ha), Pakhar (109.507 Ha), Pakhar (15.577 Ha) Shrengdag (155.81 Ha), Serengdag (140.07 Ha), Jalim & Sanai (12.14 Ha)	Range Officer of Forest, Lohardaga	246.684 Lakhs	567891 dated 19.06.2025
	599 dated 10.06.2025	124.560 Lakhs	Amitpani, Gurdari, Kujam-I and Kujam-II	Range Officer of Forest, Banari	124.560 Lakhs	567890 dated 19.06.2025
3	598 dated 10.06.2025	16.10 Lakhs	Amitpani Chirodih (130.01 Ha)	Range Officer of Forest, Banari	16.10 Lakhs	642410 dated 20.06.2025
Total		387.344 Lakhs				387.344 Lakhs

Please acknowledge the receipt.

Thanking You,
 Sincerely Yours,

(Signature)
 (Basudev Gangopadhyay)

AVP (Planning, Environment & Compliance)

Encl: As above

Hindalco Industries Limited

Mines Division, Court Road, Lohardaga 835302, Jharkhand, India | T: +91 6526 223163

Corporate Office: 6th & 7th Floor, Birla Birla Centurion, Pandurang Budhakar Marg, Worli, Mumbai-400030, India

T: +91 22 66626666/626105555 | F: +91 22 62610400/62610500

Registered Office: 21st Floor, One Unity Center, Senapati Bapat Marg, Prabhadevi, Mumbai - 400013, India

T: +91 22 69477000/69477150 | F: +91 22 69477001/69477090

W: www.hindalco.com | E: hilinvestors@adityabirla.com

FORM "O"

(See Rule 29 F(2) and 29L)

REPORT OF MEDICAL EXAMINATION UNDER RULE 29 B

(TO BE ISSUED IN TRIPPLICATE)**

Certificate No: HIL/AMT/PME/03/25

Certified that AMIT BENG has been examined for an PERIODICAL medical The findings of the examining authority are given in the attached sheet. It is considered that employed as WORKMAN in AMTIPANI BAUXITE MINES, Form-A No. 145 He appears to be 35 years of age.

a. Is medically fit for any employment in mines.

b. Is suffering from _____

- (i) Any employment in mines, or
- (ii) Any employment below ground, or
- (iii) Any employment or work _____

c. Is suffering from _____

examined within a period of _____ months. _____ of test of _____ He appear for re-examination with the result _____ specialist from _____ and the opinion _____ may be permitted/not permitted to carry on his duties during this period.



AMIT BENG

Omprakash Dubey
Consultant
Hindalco Mines Divi., Lohardaga
Reg. No. -33297, BR-2002

Signature of the examining authority
Name and designation in Block Letter

DR OMPRAKASH DUBEY
CONSULTANT
Reg-No-33297 BR2002

Dr. Omprakash Dubey
Sr. Consultant
Hindalco Mines Divi., Lohardaga
Reg No.-33297, BR-2002

Place Rajendra Hospital, Lohardaga
10-07-2025

*Delete whatever not applicable.

*One copy of the certificate shall be handed over to the person concerned and another copy shall be sent to the Manager of the mine concerned by registered post and the third copy shall be retained by the examining authority.

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

Authorised By :
Government of Jharkhand

Date : **24/06/2025**
Time : **09:25:41 AM**
Validity upto : **23/12/2025**



Certificate SL. No. : JH00700100013840
 Registration No. : JH07E6831
 Date of Registration : 20/May/2008
 Month & Year of Manufacturing : April-2008
 Valid Mobile Number : *****8309
 Emission Norms : BHARAT STAGE II
 Fuel : DIESEL
 PUC Code : JH0070010
 GSTIN :
 Fees : Rs.300.00
 MIL observation : No

Vehicle Photo with Registration plate
60 mm x 30 mm



Sr. No.	Pollutant (as applicable)	Units (as applicable)	Emission limits	Measured Value (upto 2 decimal places)
1	2	3	4	5
Idling Emissions	Carbon Monoxide (CO)	percentage (%)		
	Hydrocarbon, (THC/HC)	ppm		
High idling emissions	CO	percentage (%)		
	RPM	RPM	2500 ± 200	
Smoke Density	Lambda	-	1 ± 0.03	
	Light absorption coefficient	1/metre	2.45	0.39
This PUC certificate is system generated through the national register of motor vehicles and does not require any signature.				

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

