BHARAT ALUMINIUM COMPANY LIMITED
P.O. - BALCO Nagar, Korba, CG
India- 495684

BALCO/ENV/A-02(A)/2026/168 Date: 29.04.2026

To,
The Regional Officer (IRO),
Ministry of Environment and Forest, Climate Change,
Integrated Regional Office, Aranya Bhawan,
North Block, Sector-19,
Nava Raipur, Atal Nagar (CG) 492002.

Sub: Half Yearly Compliance Status Report (October 2025 to March 2026) of Bodai-Daldali Bauxite Mines, BALCO

Dear Sir,

This is in reference to the general condition no. xiii mentioned under the Environment Clearance No. J-11015/37/2010-IA II (M), dated 9th April, 2010. Consequently, please find enclosed herewith the Half Yearly Compliance Report of Bharat Aluminium Company Limited's (herein referred to as Balco) Bodai-Daldali Bauxite Mines.

We, on behalf of BALCO hope that the above is in line with the requirements under the above-referred Environment Clearance. In case you require any further information or clarification, we would be glad to furnish the same.

Thanking you,

Yours truly,
On behalf of Bharat Aluminium Company Ltd.

(Authorised Signatory)
Bodai Daldali Bauxite Mines

Enlc:- a/a

Copy to:

1. APCCF, MoEF&CC, Civil Line, Nagpur-44001.
2. The Regional Officer, Chhattisgarh Environment Conservation Board, Bhilai-Durg (C.G.)

Compliance Status for Environmental Clearance No.J-11015/37/2010-IA.II (M)
Dated: 9 April 2010
Bodai Daldali Bauxite Mines, District Kawardha, Chhattisgarh.
(0.3 MTPA to 1.25 MTPA)

October 2025 to March 2026

A. Specific Conditions:

S.No.	Condition	Compliance status
i	The Company shall pay compensation for acquisition of private land and rehabilitation of displaced families at rates not less than those prescribed in the applicable Central Government/State Government norms. The Resettlement of all the affected families should be completed as per their commitment, i.e. early 2010.	Affected families are compensated at a greater rate than the govt. norms and R&R plan. They have been paid @ Rs.1,00,000/- per acre in place of award rate given of Rs.17,000/- (average) per acre as per provisions of Land Acquisition Act, 1894. In addition to above, they are also paid @ Rs. 30,000/- & provided 10 dismil land @ each PAF for resettlement. Besides the above help, Rs. 20,000/- has been given in kind of transport, building materials etc. Specific funds have been earmarked for socio-economic measures and community development schemes for the displaced people. Displaced families have been resettled at fully developed rehabilitation villages, where 10 dismil land has been provided to each family, and all common facilities like electricity, drinking water, Primary health center, Primary school etc. facilities have been provided by company.
ii	The top soil shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation.	Topsoil is stacked properly with adequate measures at earmarked sites and is used for spreading over the reclaimed surface and thereafter rehabilitated. All excavated top soil is used for top spreading of back filled area. However, Mines are not in operation since June 2020. Please refer to **Annexure – II.**
Iii	The Company shall collect baseline data through field survey of the existing prevalent occupational diseases in the locality and facilities shall be provided for preventive and curative measures for the same.	Complied with.

Iv	Need based assessment for the nearby villages shall be conducted to study economic measures with action plan which can help in upliftment of poor section of society. Income generating projects consistent with the traditional skills of the people besides development of fodder farm, fruit bearing orchards, vocational training etc. can form a part of such programme. Company shall provide separate budget for community development activities and income generating programmes. This will be in addition to vocational training for individuals imparted to take up self employment and jobs.	A Socio – economic study on R&R plan and CSR interventions of BALCO has been conducted through M/s ORG Pvt. Ltd. Copy of the report has already been submitted to the MoEF. Based on the recommendations of the report, CSR activities are being carried out which include vocational training, watershed programme, up-gradation of schools, PHC, setting up seed godowns, community hall etc. Separate budget has been allocated for the CSR activities. During October 2025-March 2026, Rs. 76.95 lakhs have been spent on various CSR and welfare activities.
v	The mining operations shall be restricted to above ground water table and it should not intersect the groundwater table. In case of working below ground water table, prior approval of the Ministry of Environment and Forests and the Central Ground Water Authority shall be obtained, for which a detailed hydro-geological study shall be carried out.	The mining operation at Kawardha Mines is shallow mining and is restricted to less than 10 m b.g.l. and does not intersect the ground water table. However, Mines are not in operation since June 2020. Please refer to **Annexure – II.**
vi	The project proponent shall ensure that no natural watercourse and/or water resources are obstructed due to any mining operations. Adequate measures shall be taken while diverting first order streams, if any, emanating from the mine lease, during the course of mining operation.	Our mining operation is shallow depth mining of average 5 to 6 m b.g.l. No natural water course is found within the mine lease area except few seasonal streams and thus no water resources are obstructed during course of mining operation. However, Mines are not in operation since June 2020. Please refer to **Annexure – II.**
vii	The project proponent shall take adequate environmental safeguard measures for control of rolling down of silt and sediments and protection of the catchment area of Katai River during the course of mining operation.	Adequate measures have been taken to control the silt by construction of settling pits, garland drains, check dams and retaining walls. This restricts the silts from entering the watercourse at nearby nallas/ river. Total 40 nos. of check dams have been constructed so far and garland drain constructed at every working pits.

viii	Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, mineral and temporary OB dumps to prevent run off of water and flow of sediments directly into the Katai River and other water bodies. The water so collected shall be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted, particularly after the monsoon, and maintained properly. Garland drains, settling tanks and check dams of appropriate size, gradient and length shall be constructed around the mine pit, topsoil dump, temporary over burden dumps and mineral dumps to prevent run off of water and flow of sediments directly into the Katai River and other water bodies and sump capacity shall be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity shall also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and desilted at regular intervals.	Complied. Settling pits, garland drains, check dams have been constructed to prevent runoff water during rainy season, directly into nearby nallah/ river. The pits are regularly de-silted. Total 40 nos. of check dams have been constructed till date.
ix	Dimension of the retaining wall at the toe of temporary OB dump(s) and the over burden benches within the mine to check run-off and siltation shall be based on the rainfall data.	Being shallow depth of mine working, concurrent backfilling system has been adopted which results in minimal time exposure of open pit/dump and backfilled area is afforested, in this way land degradation is minimized in our mines as on date there is no temporary dump.
x	The void left unfilled shall be converted into the water body. The higher benches of the excavated void/mine pit shall be terraced and plantation done to stabilize the slopes. The slopes of higher benches shall be made gentler for easy accessibility by the local people to use the water body. Peripheral fencing shall be carried out all along the excavated area.	Total 5.33 Ha of mined out area has been developed as water reservoir / water recharge area.

xi	Regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of SPM and RSPM such as around crushing and screening plant, loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.	Regular water sprinkling is being carried out in fugitive dust prone areas. Fixed structure for water sprinkling over permanent dust source like crusher, screen plant, material transshipment point, loading point installed with adequate capacity. However, Mines are not in operation since June 2020. Please refer to **Annexure – II.** Ambient air quality being monitored regularly and found to be well within the norms. Please refer **Annexure–III** (October 2025-March 2026)
xii	The project authority shall implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.	A hydro-geological study has been already carried out and their recommendations are being implemented. As per plan 5.33 Ha of mined out area has been developed as a water reservoir/ water recharge area and at the end of mine life period, 10.46 Ha. more area will be developed as water reservoir / water recharge area. As per plan 15.79 Ha. of mined out area will be developed as pond for rainwater harvesting/ water recharge area. Please refer **Annexure-I.**
xiii	Regular monitoring of ground water level and quality shall be carried out by establishing a network of existing wells and constructing new piezometers in and around the project area during the beneficiation process. The periodic monitoring [(at least four times in a year- pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January); once in each season)] shall be carried out in consultation with the State Ground Water Board/Central Ground Water Authority and the data thus collected may be sent regularly to the Ministry of Environment and Forests and its Regional Office at Bhopal, the Central Ground Water Authority and the Regional Director, Central Ground Water Board. If at any stage, it is observed that the groundwater table is getting depleted due to the mining activity, necessary corrective measures shall be carried out.	Regular monitoring of ground water is being carried out as per the guidelines and the reports are submitted to the Board. Three Piezometric wells have been established. Please refer **Annexure–IV** (October 2025-March 2026).
xiv	Appropriate mitigative measures shall be taken to prevent pollution of the Katai River in consultation with the State Pollution Control Board.	No discharge from the mines except surface runoffs in the rainy season. Adequate measures have been taken to control the silt by construction of settling pits, garland drains, check dams etc. which restrict the silts from entering the nearby nalla/ river.

xv	The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of water (surface water and ground water, if any) required for the project.	Since the total requirement of ground water is 90 m^3/day, NOC is not required for ground water withdrawal from Central Ground Water Authority as per letter No. 21-4 (119)/NCCR/CGWA/2011-1823 dated 14th December 2011 issued by Central Ground Water Authority (**Annexure –V).**
xvi	Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with the Regional Director, Central Ground Water Board.	A hydro-geological study has been already carried out and their recommendations for rain water harvesting are being implemented in consultation with Regional Director, CGWB. Total 5.33 Ha. of mined out area is being developed as a water reservoir / water recharge area.
xvii	Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral within the mine lease. The mineral transportation within the mine lease shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded.	Vehicular emissions were being monitored for the vehicles entering the mines, by verification of PUC. Covering of trucks transporting mineral being ensured and no overloading was allowed. However, Mines are not in operation since June 2020. Please refer to **Annexure – II.**
xviii	Drills shall either be operated with dust extractors or equipped with water injection system.	Wet drilling system has been adopted. However, Mines are not in operation since June 2020. Please refer to **Annexure – II.**
xix	Mineral handling area shall be provided with adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.	Adequate measures have been taken to control the fugitives in the dust prone areas like adoption of wet drilling, regular water spraying. However, Mines are not in operation since June 2020. Please refer to **Annexure – II.**
xx	Sewage treatment plant shall be installed for the colony. ETP shall also be provided for the workshop and wastewater generated during the mining operation.	STP has been commissioned to treat domestic water. No wastewater is generated from mining operation. However, Mines are not in operation since June 2020. Please refer to **Annexure – II.**
xxi	Occupational Health Cell shall be created at the company under the charge of an officer of adequate seniority who is a qualified person in occupational health.	Complied with. First Aid Centre has been created, however full-fledged Occupational Health Centre established at BALCO for PME of our employees. However, Mines are not in operation since June 2020. Please refer to **Annexure – II.**
xxii	Particle analysis of the dust shall be carried and measures shall be undertaken to prevent impacts on the health of the workers. Personnel exposure monitoring for dust shall be carried out for the workers.	Complied with. Personal Exposure monitoring has been carried out for persons working in mining activity. However, Mines are not in operation since June 2020. Please refer to **Annexure – II.**

xxiii	Pre-placement medical examination and periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.	Complied with. PME being done regularly and records are maintained with us.
xxiv	The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered flora and fauna spotted in the study area.	No forest land has been acquired thus no obstruction to the flora & fauna, a comprehensive wildlife conservation plan has been drawn by CCF of Rs 81.4 Lakhs for the period 2008-11 for Kawardha Forest Division and same has been implemented through State Forest Department after deposition of fund by BALCO.
xxv	Data on ambient air quality (PM10. SO2, NOx) shall be regularly submitted to the Ministry including its Regional office located at Bhopal and the State Pollution Control Board / Central Pollution Control Board once in six months. The critical parameters such as PM_{10}, $S0_2$, NO_X in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further, quality of discharged water shall also be monitored [(TDS, DO, pH) and total Suspended solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the company in public domain. The circular no.J-20012/1/2006-IA.II (M) dated 2.5.2009 issued by the Ministry of Environment and Forests, which is available on the website of the Ministry www.envfor.nic.in shall also be referred in this regard for its compliance.	Ambient Air quality is being monitored and data is submitted to the CECB and Ministry's Regional office located at Raipur. Please refer **Annexure–III** (October 2025-March 2026) No effluent is discharged from the mines. Also, the monitored data is being uploaded to the company's website and displayed on a display board at the project site in compliance to the Circular No. J-20012/1/2006-IA.II (M) dated 02.05.2009 issued by the Ministry of Environment and Forests.
xxvi	Green belt development shall be done and selection of plant species shall be as per CPCB guidelines. Herbs and shrubs shall also form a part of afforestation programme besides tree plantation. Details of year wise afforestation programme including rehabilitation of mined out area shall be submitted to the Ministry within six months.	Green Belt development is being maintained in and around the mine area. Please refer to **Annexure – VI**.

xxvii	A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.	Progressive Mine closure Plan duly approved by IBM is already submitted to the MoEF on 17th November 2017. Further, as per provisions of MMDR (amendment) Act 2017, the Mine lease period is deemed to be extended and we are making study for using the low grade bauxite, which is available in good quantity in our mine, thus mine life will be extended, hence final mine closure plan will be submitted two year before to closure of mines.
xxviii	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Labours engaged in mine work are from nearby villages and safe drinking water, medical care facilities etc. have been provided on site. Free transport facilities are being provided for displaced families from their place of resettlement for coming to mines for their jobs. However, Mines are not in operation since June 2020. Please refer to **Annexure – II.**

B. <u>General Conditions:</u>

S.No.	Condition	Compliance
i.	No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment & Forests.	Complied with.
ii.	No change in the calendar plan including excavation, quantum of bauxite and waste shall be made.	Done as per approved mine plan, except closure of mine during Dec'12 to July'13, because of temporary suspension of our alumina refinery.
iii.	Fugitive dust emissions from all the sources shall be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points shall be provided and properly maintained.	Water sprinkling is done on regular basis on the dust prone areas and haul roads. However, Mines are not in operation since June 2020. Please refer to **Annexure – II.**
iv.	Ambient air quality-monitoring stations shall be established in the core zone as well as in the buffer zone for PM10, SO_2, NOx monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.	Ambient Air quality monitoring stations have been established for PM10, SO_2, NOx monitoring based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with State Pollution Control Board.
v.	Measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. shall be provided with ear plugs / muffs.	Preventive and scheduled maintenance of equipment's is regularly carried out for keeping the noise within permissible limit. Operator cabins have been provided in all

S.No.	Condition	Compliance
		HEMM. Controlled blasting and other measures are taken for control of noise levels below 85 dBA in the work environment. DG Sets of inbuilt enclosure has been purchased. The workers engaged in noise prone area have been provided with ear plugs and ear muffs. However, Mines are not in operation since June 2020. Please refer to **Annexure – II.**
vi.	Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluents.	No industrial waste water generated from the mines as we have not installed any beneficiation plant. However, Mines are not in operation since June 2020. Please refer to **Annexure – II.**
vii.	Personnel working in dusty areas shall be provided with protective respiratory devices and they shall also be imparted adequate training and information on safety and health aspects.	Personnel working in dusty areas have been provided with protective respiratory devices like dust masks and they are being imparted adequate training and information on safety and health aspects. However, Mines are not in operation since June 2020. Please refer to **Annexure-II.**
viii.	Provision shall be made for the housing of the labourers within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Labours engaged in mine work are from nearby villages and safe drinking water, medical care facilities, crèche etc. have been provided on site. Mobile bio toilet and mobile rest shelter are also available at the mining area. However, Mines are not in operation since June 2020. Please refer to **Annexure – II.**
ix.	A separate Environmental Management Cell with suitable qualified personnel shall be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.	Environmental Management Cell is in place headed by Senior Executive, directly reporting to the Head of the Organization. The environment management cell is enabled by trained professionals in respective fields of environment, safety and occupational health. The team is also assisted by NABL accredited environmental laboratory having trained manpower for carrying out monitoring and analysis of various samples collected in and around project sites.
x.	The project authorities shall inform to the Regional Office of the Ministry located at Bhopal regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	Complied.

S.No.	Condition	Compliance
xi.	The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year wise expenditure shall be reported to the Ministry and its Regional Office located at Bhopal.	Complied with. However, Mines are not in operation since June 2020. Please refer to **Annexure – II.**
xii.	The Regional Office of the Ministry located at Bhopal shall monitor compliance of the stipulated conditions. The project authorities shall extend full cooperation to the officer(s) of the Regional Office by furnishing the requisite data / information / monitoring reports.	We are extending full cooperation to the officers of the Regional Office by furnishing the requisite data / information / monitoring reports.
xiii.	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment and Forests, its Regional Office, Bhopal, Central Pollution Control Board and State Pollution Control Board. The project proponent shall upload the status of compliance of the environment of the environmental clearance conditions on their website and update the same periodically and simultaneously send the same bye-mail to the Regional Office, Ministry of Environment and Forests, Bhopal.	Complied with. The last six monthly report was submitted vide letter no. BALCO/ENV/A-02(A)/2025/530 dated 6th November 2025 and sent through mail to Regional office of Ministry. The same is updated in company's website (Please find the covering letter as **Annexure-VII**).
xiv.	The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality, / office of Municipal Corporation/Gram Panchayat concerned and on the company's web site within seven days from the date of this clearance letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the State Pollution Control Board/Committee and may also be seen at Website of the Ministry of Environment and Forests at http://envfor.nic.in.	Complied with. Advertised in two local newspaper. Please refer to **Annexure VIII.**
xv.	A copy of clearance letter will be marked to concerned Panchayat /local NGO, if any, from whom suggestion / representation has been received while processing the proposal. The clearance letter shall also be put on the website of the company.	Complied with.
xvi.	State Pollution Control Board shall display a copy of the clearance letter at the Regional office, District Industries Centre and Collector's office / Tehsildar's Office for 30 days.	Noted.
xvii	The environmental statement for each financial year ending 31st March in Form-V as is mandated	Environment Statement submitted in Form V

S.No.	Condition	Compliance
	shall be submitted to the State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and shall also be put on the website of the company along with the status of compliance of environmental clearance conditions. The same shall also be sent to the Regional Office of Ministry by e-mail.	for every year ending March, before 30th Sept of the present year. The Environment Statement for 2024-25 was submitted on 19th September 2025 vide our letter No. BALCO/KWD/ENVT/SEPT/2025/ 436.
6.	The Ministry of Environment and Forests reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the Ministry. MOEF may impose additional environmental conditions or modify the existing ones, if necessary.	Agreed.
7.	In case of any deviation or alteration in the project proposed from those submitted to this Ministry for clearance, a fresh reference should be made to the Ministry to assess the adequacy of the condition(s) imposed and to add additional environmental protection measures required, if any.	Agreed.
8.	Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Agreed.
9.	Any appeal against this extension of validity of environmental clearance shall lie with the National Environment Appellate Authority, if preferred, within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Authority Act, 1997.	Noted.
10.	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.	Noted.

Annexure I

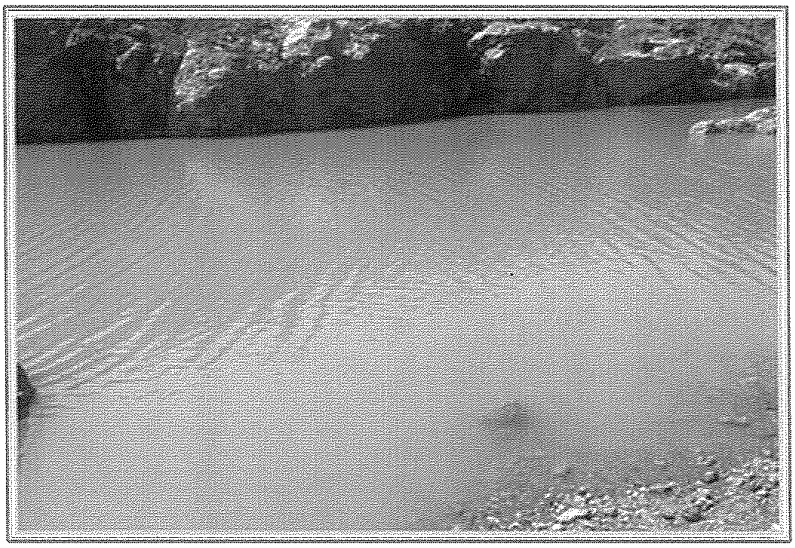
balco

Comprehensive Ground Water Monitoring Report

In and around

Bodai Daldali Bauxite Mine,

Bodla Block, Kabirdham District, Chhattisgarh



Prepared By

M/s Bharat Aluminium Company Limited

In Association with "The Care"

October-2016

Submitted to

Central Ground Water Authority

O/C

Annexure-II

vedanta
transforming elements

balco

BHARAT ALUMINIUM COMPANY LIMITED
P.O. - BALCO Nagar, Korba, CG
India - 495684

No./KWD/HM/2020/Oct/20

Date-17/10/2020

From:

Ajay Tiwari
Agent of Mines
Bodai-Daldali Bauxite Mines(M/s BALCO)
Kawardha, C.G.

To

1. Controller General of Mines
   IBM,Nagpur(M.H)
2. Regional controller of Mines
   IBM,Nagpur(M.H)
3. Regional Controller of Mines
   IBM,Raipur(C.G)
4. Directorate of Geology & Mining
   DGM,Raipur(C.G)
5. District Collector,
   Kabirdham(C.G)

Sub: Notice of Temporary Discontinuance of mine working of Bodai-Daldali Bauxite Mine in FORM- E(see rule 28(1) of MCDR 2017

Sir,

Please find attached here with FORM-E (See Rule28(1) underMCDR, 2017) with respect to temporary discontinuance of mine working of Bodai-Daldali Bauxite Mines, Kawardha (C.G.) of M/s Bharat Aluminium Company Limited,Korba(C.G.).

In the month of March'20, because of pandamic Covid-19 our mine was stopped. Last mines production was in the month of June of around 300 metric tonne. However, we had anticipated to start the mines operation in full fledge in the month of August or September'20. But, because of market slowdown and subsequent fall in prices of the commodities, we could not start the mines production. So, anticipating the future market scenario, we will not be able to start the mines production for next 6-8 months(May-July'21).

This is being submitted for your kind information and consideration for temporary discontinuance of our mine working.

Thanking You.

For Bharat Aluminium Co. Ltd.

17/10/20

(Ajay Tiwari)
Agent of Mines
Bodai-Daldali Bauxite Mines
Kawardha, C.G.

कार्यालय कलेक्टर कबीरधाम
क्रमांक PREM
दिनांक 20/10/20
आवक शाखा

FORM-E

[See rule 28(1) and 28(2) of MCDR'2017]

(Notice of temporary discontinuance of working in mines and obligations of lease holder)

To,

1. **Controller General of Mines**
   IBM,Nagpur(M.H)
2. **Regional controller of Mines**
   IBM,Nagpur(M.H)
3. **Regional Controller of Mines**
   IBM,Raipur(C.G)
4. **Directorate of Geology & Mining**
   DGM,Raipur(C.G)
5. **District Collector,**
   Kabirdham(C.G)

1.	**IBM Registration Number**	**IBM/602/2011**
2.	**Mining Lease Code**	**No. 3-71/92/12/3**
3.	**Mine Code**	**07 CHG 09002**
4.	**Name of mine**	**Bodai-Daldali Bauxite Mine**
5.	**Name and address of the lessee/owner**	M/S Bharat Aluminium Company Limited, P.O-Balconagar ,Dist-Korba(C.G)-495684

(Information will be system generated. Linked with Entry 3 of Form 'K'.)

6. **Particulars of the Mining Lease (ML)** **626.117 Hectare**
   (Information will be system generated. Linked with Entry 4 of Form 'K')

7. **Location of the Mining Lease** **Bodai-Daldali Bauxite Mines**
   PO- Baijalpur, Tahsil- Bodla
   Dist- Kabirdham,(C.G.)- 491995

(Information will be system generated. Linked with Entry 4 of Form 'K')

8. **Date of temporary discontinuance** — **25.06.2020**

9. **Reasons for temporary discontinuance** — [Please tick whichever is applicable]

i) Lack of demand	
ii) Non-availability of labour	
iii) Rains	
iv) Transport bottleneck	
v) Strike/Lockout	
vi) Operations becoming un-economic	√
vii) Other reasons (specify)	

10. **Probable date of re-opening of the mine** — **01.07.2021**

Place: Kawardha,Kabirdham(C.G.)
Date: 17/10/2020

Signature

17/10/20

Name in full: Ajay Tiwari
Designation : Agent of Mines

Vimta Labs Limited
Registered Office
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F : +91 40 2726 3657

Vimta
Driven by Quality. Inspired by Science.

ISSUED TO: **M/s. Bharat Aluminium Company Limited,** **KORBA (C.G.)**	Report No.:	VLL/VLS/25-26/24935/001
	Issue Date:	2026-03-05
	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT KAWARDHA MINES

Analysis starting date :- 2026-02-23 **Analysis Completion date :- 2026-03-04**

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH_3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

Test Results

Sampling Date			**2026-02-20**	**2026-02-20**	**2026-02-20**	**2026-02-20**	**Method**
Sampling Location			**Mines Office**	**Daldali Village**	**Darai Village**	**Weigh Bridge**	
Parameters	**Units**	**Limits**					
Sulphur Dioxide as SO_2	$\mu g/m^3$	80	7.6	8.6	6.2	9.9	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	$\mu g/m^3$	80	9.8	10.9	8.6	11.2	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	$\mu g/m^3$	100	48.5	60.2	46.5	52.9	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	$\mu g/m^3$	60	15.3	17.1	14.2	19.6	IS 5182 (PART-24) 2019
Ammonia as NH_3	$\mu g/m^3$	400	0.8	1.0	0.7	0.6	APHA 3rd Edition - 401
Benzene as C_6H_6	$\mu g/m^3$	5	<1.0	<1.0	<1.0	<1.0	IS 5182 (PART-11) RA 2017
Benzo(a) Pyrene in particulate phase	ng/m^3	1	<0.1	<0.1	<0.1	<0.1	IS 5182 (PART-12) RA 2019
Arsenic as As	ng/m^3	6	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m^3	20	3.8	4.2	3.4	4.5	USEPA IO 3.4
Lead as Pb	$\mu g/m^3$	1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	$\mu g/m^3$	2000	94	138	76	104	IS 5182 (PART-10) RA 2019
Ozone as O_3	$\mu g/m^3$	100	1.7	1.9	1.3	2.2	IS 5182 (PART-9) RA 2019

Ø PM2.5, PM10, SO_2, NO_2 and NH_3 is monitored on 24 hrs. Basis &CO, O_3 is monitored on 8 hrs basis.

Ø C_6H_6, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.

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ISSUED TO:	Report No.:	VLL/VLS/25-26/18084/001
M/s. Bharat Aluminium Company Limited,	Issue Date:	2025-12-05
KORBA (C.G.)	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT KAWARDHA MINES

Analysis starting date :- 2025-11-26 **Analysis Completion date :- 2025-12-04**

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH_3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

Test Results

Sampling Date			2025-11-24	2025-11-24	2025-11-24	2025-11-24	Method
Sampling Location			**Mines Office**	**Daldali Village**	**Darai Village**	**Weigh Bridge**	
Parameters	**Units**	**Limits**					
Sulphur Dioxide as SO_2	$\mu g/m^3$	80	7.1	9.4	5.8	8.6	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	$\mu g/m^3$	80	9.4	11.7	8.3	10.9	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	$\mu g/m^3$	100	51.2	47.8	42.7	50.4	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	$\mu g/m^3$	60	15.9	14.8	13.2	16.3	IS 5182 (PART-24) 2019
Ammonia as NH_3	$\mu g/m^3$	400	0.8	1.0	0.6	0.9	APHA 401
Benzene as C_6H_6	$\mu g/m^3$	5	<0.1	<0.1	<0.1	<0.1	IS 5182 (PART-11) RA 2017
Benzo(a) Pyrene in particulate phase	ng/m^3	1	<0.01	<0.01	<0.01	<0.01	IS 5182 (PART-12) RA 2019
Arsenic as As	ng/m^3	6	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m^3	20	3.2	4.7	2.5	4.9	USEPA IO 3.4
Lead as Pb	$\mu g/m^3$	1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	$\mu g/m^3$	2000	176	192	124	169	IS 5182 (PART-10) RA 2019
Ozone as O_3	$\mu g/m^3$	100	2.1	3.0	1.9	2.5	IS 5182 (PART-9) 2019

Ø PM2.5, PM10, SO_2, NO_2 and NH_3 is monitored on 24 hrs. Basis &CO, O_3 is monitored on 8 hrs basis.

Ø C_6H_6, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.

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ISSUED TO: **M/s. Bharat Aluminium Company Limited,** **KORBA (C.G.)**	Report No.:	VLL/VLS/25-26/20775/001
	Issue Date:	2026-01-05
	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT KAWARDHA MINES

Analysis starting date :- 2025-12-10 **Analysis Completion date :- 2025-12-23**

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH_3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

Test Results

Sampling Date			**2025-12-08**	**2025-12-08**	**2025-12-08**	**2025-12-08**	**Method**
Sampling Location			**Mines Office**	**Daldali Village**	**Darai Village**	**Weigh Bridge**	
Parameters	**Units**	**Limits**					
Sulphur Dioxide as SO_2	µg/m^3	80	11.3	15.6	9.1	13.3	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	µg/m^3	80	13.8	17.4	12.1	15.9	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m^3	100	55.7	64.1	47.3	68.9	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m^3	60	21.7	23.6	18.6	25.8	IS 5182 (PART-24) 2019
Ammonia as NH_3	µg/m^3	400	0.4	0.6	0.3	0.7	APHA 3rd Edition - 401
Benzene as C_6H_6	µg/m^3	5	<1.0	<1.0	<1.0	<1.0	IS 5182 (PART-11) RA 2017
Benzo(a) Pyrene in particulate phase	ng/m^3	1	<0.1	<0.1	<0.1	<0.1	IS 5182 (PART-12) RA 2019
Arsenic as As	ng/m^3	6	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m^3	20	5.4	4.9	4.3	5.7	USEPA IO 3.4
Lead as Pb	µg/m^3	1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	µg/m^3	2000	147	163	182	159	IS 5182 (PART-10) RA 2019
Ozone as O_3	µg/m^3	100	2.1	3.2	1.4	3.7	IS 5182 (PART-9) RA 2019

Ø PM2.5, PM10, SO_2, NO_2 and NH_3 is monitored on 24 hrs. Basis &CO, O_3 is monitored on 8 hrs basis.

Ø C_6H_6, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.

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ISSUED TO:	Report No.:	VLL/VLS/25-26/23223/001
M/s. Bharat Aluminium Company Limited,	Issue Date:	2026-02-05
KORBA (C.G.)	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT KAWARDHA MINES

Analysis starting date :- 2026-01-30 **Analysis Completion date :- 2026-02-05**

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH_3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

Test Results

Sampling Date			2026-01-27	2026-01-27	2026-01-27	2026-01-27	Method
Sampling Location			Mines Office	Daldali Village	Darai Village	Weigh Bridge	
Parameters	Units	Limits					
Sulphur Dioxide as SO_2	$\mu g/m^3$	80	7.3	10.4	6.8	8.5	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	$\mu g/m^3$	80	10.4	13.6	9.1	11.9	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	$\mu g/m^3$	100	56.9	60.3	51.4	58.7	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	$\mu g/m^3$	60	17.4	25.4	15.9	21.8	IS 5182 (PART-24) 2019
Ammonia as NH_3	$\mu g/m^3$	400	0.9	1.2	0.7	1.5	APHA 3rd Edition - 401
Benzene as C_6H_6	$\mu g/m^3$	5	<1.0	<1.0	<1.0	<1.0	IS 5182 (PART-11) RA 2017
Benzo(a) Pyrene in particulate phase	ng/m^3	1	<0.1	<0.1	<0.1	<0.1	IS 5182 (PART-12) RA 2019
Arsenic as As	ng/m^3	6	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m^3	20	4.7	6.2	4.1	5.8	USEPA IO 3.4
Lead as Pb	$\mu g/m^3$	1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	$\mu g/m^3$	2000	128	154	96	119	IS 5182 (PART-10) RA 2019
Ozone as O_3	$\mu g/m^3$	100	1.6	2.2	1.3	1.8	IS 5182 (PART-9) RA 2019

Ø PM2.5, PM10, SO_2, NO_2 and NH_3 is monitored on 24 hrs. Basis &CO, O_3 is monitored on 8 hrs basis.

Ø C_6H_6, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.

ENVIRONMENT LABORATORY Vimta REGD. No- DL-3300/90 VIMTA

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ISSUED TO:		
M/s. Bharat Aluminium Company Limited, KORBA (C.G.)	Report No.:	VLL/VLS/25-26/15704/001
	Issue Date:	2025-11-05
	P.O.No:	8500005780
	P.O. Date:	2022-06-29

AMBIENT AIR QUALITY MONITORING AT KAWARDHA MINES

Analysis starting date :- 2025-10-24 **Analysis Completion date :- 2025-11-04**

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH_3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

Test Results

Sampling Date			2025-10-22	2025-10-22	2025-10-22	2025-10-22	Method
Sampling Location			**Mines Office**	**Daldali Village**	**Darai Village**	**Weigh Bridge**	
Parameters	**Units**	**Limits**					
Sulphur Dioxide as SO_2	$\mu g/m^3$	80	8.3	10.5	6.8	8.9	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	$\mu g/m^3$	80	10.5	12.1	9.3	10.9	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	$\mu g/m^3$	100	45.2	59.2	41.6	56.8	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	$\mu g/m^3$	60	14.9	20.4	11.6	17.1	IS 5182 (PART-24) 2019
Ammonia as NH_3	$\mu g/m^3$	400	0.6	1.0	0.4	0.8	APHA 401
Benzene as C_6H_6	$\mu g/m^3$	5	<0.1	<0.1	<0.1	<0.1	IS 5182 (PART-11) RA 2017
Benzo(a) Pyrene in particulate phase	ng/m^3	1	<0.01	<0.01	<0.01	<0.01	IS 5182 (PART-12) RA 2019
Arsenic as As	ng/m^3	6	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m^3	20	3.1	3.7	2.6	4.2	USEPA IO 3.4
Lead as Pb	$\mu g/m^3$	1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	$\mu g/m^3$	2000	158	213	196	174	IS 5182 (PART-10) RA 2019
Ozone as O_3	$\mu g/m^3$	100	2.4	3.1	1.7	2.9	IS 5182 (PART-9) 2019

Ø PM2.5, PM10, SO_2, NO_2 and NH_3 is monitored on 24 hrs. Basis &CO, O_3 is monitored on 8 hrs basis.

Ø C_6H_6, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.

ENVIRONMENT LABORATORY Vimta VIMTA LABS Regd. No- DL 33004/99 Sr. No.-5

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ISSUED TO: **M/s. Bharat Aluminium Company Limited,** **KORBA (C.G.)**	Report No.:	VLL/VLS/25-26/28724/001
	Issue Date:	2026-04-04
	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT KAWARDHA MINES

Analysis starting date :- 2026-03-24 **Analysis Completion date :- 2026-04-03**

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH_3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

Test Results

Sampling Date			**2026-03-21**	**2026-03-21**	**2026-03-21**	**2026-03-21**	**Method**
Sampling Location			**Mines Office**	**Daldali Village**	**Darai Village**	**Weigh Bridge**	
Parameters	**Units**	**Limits**					
Sulphur Dioxide as SO_2	$\mu g/m^3$	80	8.2	12.4	7.5	10.7	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	$\mu g/m^3$	80	10.6	13.1	9.4	12.8	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	$\mu g/m^3$	100	47.2	55.7	42.8	59.3	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	$\mu g/m^3$	60	16.1	18.6	14.7	21.8	IS 5182 (PART-24) 2019
Ammonia as NH_3	$\mu g/m^3$	400	1.0	0.7	0.6	0.9	APHA 3rd Edition - 401
Benzene as C_6H_6	$\mu g/m^3$	5	<1.0	<1.0	<1.0	<1.0	IS 5182 (PART-11) RA 2017
Benzo(a) Pyrene in particulate phase	ng/m^3	1	<0.1	<0.1	<0.1	<0.1	IS 5182 (PART-12) RA 2019
Arsenic as As	ng/m^3	6	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m^3	20	5.1	5.8	4.4	6.2	USEPA IO 3.4
Lead as Pb	$\mu g/m^3$	1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	$\mu g/m^3$	2000	86	104	79	121	IS 5182 (PART-10) RA 2019
Ozone as O_3	$\mu g/m^3$	100	2.5	2.1	1.4	2.8	IS 5182 (PART-9) RA 2019

Ø PM2.5, PM10, SO_2, NO_2 and NH_3 is monitored on 24 hrs. Basis &CO, O_3 is monitored on 8 hrs basis.

Ø C_6H_6, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.

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ENVIRONMENT LABORATORY VIMTA REGD. No- DL 3300/99 Sr. No.-5 VIMTA

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ISSUED TO:

M/s. Bharat Aluminum Company Limited,
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Report Number	:	**VLL/VLS/25-26/24935/001**
Issued Date	:	**2026-03-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : GROUND WATER SAMPLES (KAWARDHA MINES)

Sample Registration Date	:	2026-02-23	Sampling Date	:	2026-02-20
Analysis Starting Date	:	2026-02-23	Analysis Completion Date	:	2026-03-04
Test Required	:	Water Analysis as per IS 10500 : 2012			
SAMPLE COLLECTED BY VIMTA LABS LTD					

TEST REPORT

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Guest House	Daldali Village	Keshmarda Village	Small dug well
1	pH value	-	6.5-8.5 (NR)	7.65	7.43	7.21	6.94
2	Color	Hazen	5(15)	Colorless	Colorless	Colorless	Colorless
3	Taste	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
5	Turbidity	NTU	1(5)	<0.1	1.0	<0.1	1.2
6	Total dissolved solids at 180°C	mg/l	500(2000)	243	190	175	98
7	Total Hardness as $CaCO_3$	mg/l	200(600)	140	108	101	47
8	Total Alkalinity as $CaCO_3$	mg/l	200(600)	135	110	85	50
9	Calcium as Ca	mg/l	75(200)	35.2	26.3	24.1	10.2
10	Magnesium as Mg	mg/l	30(100)	12.6	10.2	9.8	5.3
11	Free Residual chlorine	mg/l	0.2(1.0)	<0.1	<0.1	<0.1	<0.1
12	Boron as B	mg/l	0.5(1.0)	<0.01	0.017	0.023	0.013
13	Chlorides as Cl	mg/l	250(1000)	23.8	15.3	26.7	10.6
14	Sulphate as SO_4	mg/l	200(400)	11.90	9.80	10.20	8.70
15	Fluorides as F	mg/l	1.0(1.5)	0.089	0.067	0.102	0.045
16	Nitrates as NO_3	mg/l	45(NR)	3.2	2.4	2.3	1.1
17	Phenolic Compounds as C_6H_5OH	mg/l	0.001(0.002)	<0.001	<0.001	<0.001	<0.001
18	Cyanides	mg/l	0.05(NR)	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 23rd edition and IS 3025.
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

ENVIRONMENT LABORATORY VIMTA LABS REGD. No- DL 3300 Sr. No. 5 VIMTA

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ISSUED TO:

M/s. Bharat Aluminum Company Limited,
BALCO
KORBA
Chhattisgarh

Report Number	:	**VLL/VLS/25-26/24935/001**
Issued Date	:	**2026-03-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : GROUND WATER SAMPLES (KAWARDHA MINES)

Sample Registration Date	:	2026-02-23	Sampling Date	:	2026-02-20
Analysis Starting Date	:	2026-02-23	Analysis Completion Date	:	2026-03-04
Test Required	:	Water Analysis as per IS 10500 : 2012			
SAMPLE COLLECTED BY VIMTA LABS LTD					

TEST REPORT

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Guest House	Daldali Village	Keshmarda Village	Small dug well
19	Anionic detergents as MBAS	mg/l	0.2(1.0)	<0.02	<0.02	<0.02	<0.02
20	Mineral oil	mg/l	0.5(NR)	Absent	Absent	Absent	Absent
21	Cadmium as Cd	mg/l	0.003(NR)	<0.005	<0.005	<0.005	<0.005
22	Total Arsenic as As	mg/l	0.01(0.05)	<0.005	<0.005	<0.005	<0.005
23	Copper as Cu	mg/l	0.05(1.5)	<0.005	<0.005	<0.005	<0.005
24	Lead as Pb	mg/l	0.01(NR)	<0.005	<0.005	<0.005	<0.005
25	Manganese as Mn	mg/l	0.1(0.3)	<0.005	<0.005	<0.005	<0.005
26	Molybdenum as Mo	mg/l	0.07(NR)	<0.005	<0.005	<0.005	<0.005
27	Nickel as Ni	mg/l	0.02(NR)	<0.005	<0.005	<0.005	<0.005
28	Iron as Fe	mg/l	0.3(NR)	0.01	0.018	0.011	0.029
29	Total Chromium as Cr	mg/l	0.05(NR)	<0.05	<0.05	<0.05	<0.05
30	Selenium as Se	mg/l	0.05(NR)	<0.001	<0.001	<0.001	<0.001
31	Zinc as Zn	mg/l	5.0(15)	0.027	0.012	0.016	0.022
32	Aluminum as Al	mg/l	0.03(0.2)	0.017	0.028	0.013	0.012
33	Mercury as Hg	mg/l	0.001(NR)	<0.001	<0.001	<0.001	<0.001
34	Sulphide as H2S	mg/l	0.05(NR)	<0.05	<0.05	<0.05	<0.05
35	Chloramines as Cl2	mg/l	4.0(NR)	<0.05	<0.05	<0.05	<0.05
36	Ammonia (as total ammonia-N	mg/l	0.5(NR)	<0.05	<0.05	<0.05	<0.05
37	Barium as Ba	mg/l	0.7(NR)	0.013	0.027	0.017	0.023
38	Silver as Ag	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 23rd edition and IS: 3025.
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

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ISSUED TO:

M/s. Bharat Aluminum Company Limited,
BALCO
KORBA
Chhattisgarh

Report Number	:	**VLL/VLS/25-26/24935/001**
Issued Date	:	**2026-03-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (KAWARDHA MINES)**

Sample Registration Date	:	2026-02-23	Sampling Date	:	2026-02-20
Analysis Starting Date	:	2026-02-23	Analysis Completion Date	:	2026-03-04
Test Required	:	Water Analysis as per IS 10500 : 2012			
SAMPLE COLLECTED BY VIMTA LABS LTD					

TEST REPORT

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Guest House	Daldali Village	Keshmarda Village	Small dug well
39	Polychlorinated biphenyls	Absent	0.0005(NR)	Absent	Absent	Absent	Absent
40	Polynuclear aromatic hydrocarbon as PAH	mg/l	0.0001(NR)	<0.0001	<0.0001	<0.0001	<0.0001
41	Bromoform	mg/l	0.1(NR)	<0.0001	<0.0001	<0.0001	<0.0001
42	Dibromochloromethane	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01
43	Bromodichloromethane	mg/l	0.06(NR)	<0.01	<0.01	<0.01	<0.01
44	Chloroform	mg/l	0.2(NR)	<0.001	<0.001	<0.001	<0.001
	Pesticides						
45	Alachlor	µg/l	20	<0.01	<0.01	<0.01	<0.01
46	Atrazine	µg/l	2	<0.01	<0.01	<0.01	<0.01
47	Aldrin	µg/l	0.03	<0.01	<0.01	<0.01	<0.01
48	Alpha HCH	µg/l	0.01	<0.01	<0.01	<0.01	<0.01
49	Beta HCH	µg/l	0.04	<0.01	<0.01	<0.01	<0.01
50	Butachlor	µg/l	125	<0.01	<0.01	<0.01	<0.01
51	Chlorpyriphos	µg/l	30	<0.01	<0.01	<0.01	<0.01
52	Delta HCH	µg/l	0.04	<0.01	<0.01	<0.01	<0.01
53	2,4-Dichlorophenoxyacetic acid	µg/l	30	<0.01	<0.01	<0.01	<0.01
54	DDT	µg/l	1	<0.01	<0.01	<0.01	<0.01
55	Endosulfan (alpha, beta and Sulphate)	µg/l	0.4	<0.01	<0.01	<0.01	<0.01
56	Ethion	µg/l	3	<0.01	<0.01	<0.01	<0.01
57	Gamma HCH	µg/l	2	<0.01	<0.01	<0.01	<0.01
58	Isoproturon	µg/l	9	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 23rd edition and IS 3025.
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

VIMTA LABS REGD. No- DL 33004/99 Sr. No.-5

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Report Number	:	**VLL/VLS/25-26/24935/001**
Issued Date	:	**2026-03-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (KAWARDHA MINES)**

Sample Registration Date	:	2026-02-23	Sampling Date	:	2026-02-20
Analysis Starting Date	:	2026-02-23	Analysis Completion Date	:	2026-03-04
Test Required	:	Water Analysis as per IS 10500 : 2012			
SAMPLE COLLECTED BY VIMTA LABS LTD					

TEST REPORT

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Guest House	Daldali Village	Keshmarda Village	Small dug well
59	Malathion	µg/l	190	BDL	BDL	BDL	BDL
60	Methyl parathion	µg/l	0.3	BDL	BDL	BDL	BDL
61	Monocrotophos	µg/l	1	BDL	BDL	BDL	BDL
62	Phorate	µg/l	2	BDL	BDL	BDL	BDL
63	E.Coil	Per 100 ml	Absent	Absent	Absent	Absent	Absent
64	Total Coliforms (MPN/100ml)	Per 100 ml	Absent	Absent	Absent	Absent	Absent
	Radioactive						
65	Alpha emittters	Bq/l	0.1(NR)	BDL	BDL	BDL	BDL
66	Beta emittters	Bq/l	1.0(NR)	BDL	BDL	BDL	BDL

Method of Testing: As per APHA 23rd edition and IS 3025.
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

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Chhattisgarh

Report Number	:	**VLL/VLS/25-26/18084/001**
Issued Date	:	**2025-12-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : GROUND WATER SAMPLES (KAWARDHA MINES)

Sample Registration Date	:	2025-11-27	Sampling Date	:	2025-11-24
Analysis Starting Date	:	2025-11-27	Analysis Completion Date	:	2025-12-05
Test Required	:	Water Analysis as per IS 10500 : 2012			

SAMPLE COLLECTED BY VIMTA LABS LTD

TEST REPORT

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Guest House	Daldali Village	Keshmarda Village	Small dug well	Big Dug Well
1	pH value	-	6.5-8.5 (NR)	7.23	7.04	7.25	7.13	6.98
2	Color	Hazen	5(15)	Colorless	Colorless	Colorless	Colorless	Colorless
3	Taste	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
5	Turbidity	NTU	1(5)	<0.1	1.2	1.1	1.4	1.3
6	Total dissolved solids at 180°C	mg/l	500(2000)	64	93	80	94	75
7	Total Hardness as $CaCO_3$	mg/l	200(600)	35	43	37	51	38
8	Total Alkalinity as $CaCO_3$	mg/l	200(600)	25	40	32	40	30
9	Calcium as Ca	mg/l	75(200)	8.7	9.8	8.9	12.5	9.4
10	Magnesium as Mg	mg/l	30(100)	3.2	4.6	3.7	4.8	3.6
11	Free Residual chlorine	mg/l	0.2(1.0)	<0.1	<0.1	<0.1	<0.1	<0.1
12	Boron as B	mg/l	0.5(1.0)	<0.01	0.013	0.008	0.037	0.028
13	Chlorides as Cl	mg/l	250(1000)	16.3	21.2	20.5	22	19.6
14	Sulphate as SO_4	mg/l	200(400)	2.5	3.1	2.7	2.9	2.5
15	Fluorides as F	mg/l	1.0(1.5)	0.098	0.143	0.105	0.132	0.114
16	Nitrates as NO_3	mg/l	45(NR)	0.5	0.4	0.6	0.5	0.3
17	Phenolic Compounds as C_6H_5OH	mg/l	0.001(0.002)	<0.001	<0.001	<0.001	<0.001	<0.001
18	Cyanides	mg/l	0.05(NR)	<0.01	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 23rd edition and IS 3025.
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

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Issued Date	:	**2025-12-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : GROUND WATER SAMPLES (KAWARDHA MINES)

Sample Registration Date	:	2025-11-27	Sampling Date	:	2025-11-24
Analysis Starting Date	:	2025-11-27	Analysis Completion Date	:	2025-12-05
Test Required	:	Water Analysis as per IS 10500 : 2012			
SAMPLE COLLECTED BY VIMTA LABS LTD					

TEST REPORT

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Guest House	Daldali Village	Keshmarda Village	Small dug well	Big Dug Well
19	Anionic detergents as MBAS	mg/l	0.2(1.0)	<0.02	<0.02	<0.02	<0.02	<0.02
20	Mineral oil	mg/l	0.5(NR)	Absent	Absent	Absent	Absent	Absent
21	Cadmium as Cd	mg/l	0.003(NR)	<0.005	<0.005	<0.005	<0.005	<0.005
22	Total Arsenic as As	mg/l	0.01(0.05)	<0.005	<0.005	<0.005	<0.005	<0.005
23	Copper as Cu	mg/l	0.05(1.5)	<0.005	<0.005	<0.005	<0.005	<0.005
24	Lead as Pb	mg/l	0.01(NR)	<0.005	<0.005	<0.005	<0.005	<0.005
25	Manganese as Mn	mg/l	0.1(0.3)	<0.005	<0.005	<0.005	<0.005	<0.005
26	Molybdenum as Mo	mg/l	0.07(NR)	<0.005	<0.005	<0.005	<0.005	<0.005
27	Nickel as Ni	mg/l	0.02(NR)	<0.005	<0.005	<0.005	<0.005	<0.005
28	Iron as Fe	mg/l	0.3(NR)	0.017	0.025	0.016	0.032	0.029
29	Total Chromium as Cr	mg/l	0.05(NR)	<0.05	<0.05	<0.05	<0.05	<0.05
30	Selenium as Se	mg/l	0.05(NR)	<0.001	<0.001	<0.001	<0.001	<0.001
31	Zinc as Zn	mg/l	5.0(15)	0.01	0.017	0.024	0.036	0.022
32	Aluminum as Al	mg/l	0.03(0.2)	<0.01	0.021	0.016	0.014	0.017
33	Mercury as Hg	mg/l	0.001(NR)	<0.001	<0.001	<0.001	<0.001	<0.001
34	Sulphide as H2S	mg/l	0.05(NR)	<0.05	<0.05	<0.05	<0.05	<0.05
35	Chloramines as Cl2	mg/l	4.0(NR)	<0.05	<0.05	<0.05	<0.05	<0.05
36	Ammonia (as total ammonia-N	mg/l	0.5(NR)	<0.05	<0.05	<0.05	<0.05	<0.05
37	Barium as Ba	mg/l	0.7(NR)	0.017	0.019	0.023	0.021	0.018
38	Silver as Ag	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 23rd edition and IS: 3025.
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

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BALCO
KORBA
Chhattisgarh

Report Number	:	**VLL/VLS/25-26/18084/001**
Issued Date	:	**2025-12-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (KAWARDHA MINES)**

Sample Registration Date	:	2025-11-27	Sampling Date	:	2025-11-24
Analysis Starting Date	:	2025-11-27	Analysis Completion Date	:	2025-12-05
Test Required	:	Water Analysis as per IS 10500 : 2012			
SAMPLE COLLECTED BY VIMTA LABS LTD					

TEST REPORT

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Guest House	Daldali Village	Keshmarda Village	Small dug well	Big Dug Well
39	Polychlorinated biphenyls	Absent	0.0005(NR)	Absent	Absent	Absent	Absent	Absent
40	Polynuclear aromatic hydrocarbon as PAH	mg/l	0.0001(NR)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
41	Bromoform	mg/l	0.1(NR)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
42	Dibromochloromethane	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01	<0.01
43	Bromodichloromethane	mg/l	0.06(NR)	<0.01	<0.01	<0.01	<0.01	<0.01
44	Chloroform	mg/l	0.2(NR)	<0.001	<0.001	<0.001	<0.001	<0.001
	Pesticides							
45	Alachlor	µg/l	20	<0.01	<0.01	<0.01	<0.01	<0.01
46	Atrazine	µg/l	2	<0.01	<0.01	<0.01	<0.01	<0.01
47	Aldrin	µg/l	0.03	<0.01	<0.01	<0.01	<0.01	<0.01
48	Alpha HCH	µg/l	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
49	Beta HCH	µg/l	0.04	<0.01	<0.01	<0.01	<0.01	<0.01
50	Butachlor	µg/l	125	<0.01	<0.01	<0.01	<0.01	<0.01
51	Chlorpyriphos	µg/l	30	<0.01	<0.01	<0.01	<0.01	<0.01
52	Delta HCH	µg/l	0.04	<0.01	<0.01	<0.01	<0.01	<0.01
53	2,4-Dichlorophenoxyacetic acid	µg/l	30	<0.01	<0.01	<0.01	<0.01	<0.01
54	DDT	µg/l	1	<0.01	<0.01	<0.01	<0.01	<0.01
55	Endosulfan (alpha, beta and Sulphate)	µg/l	0.4	<0.01	<0.01	<0.01	<0.01	<0.01
56	Ethion	µg/l	3	<0.01	<0.01	<0.01	<0.01	<0.01
57	Gamma HCH	µg/l	2	<0.01	<0.01	<0.01	<0.01	<0.01
58	Isoproturon	µg/l	9	<0.01	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 23rd edition and IS 3025.
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

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Report Number	:	**VLL/VLS/25-26/18084/001**
Issued Date	:	**2025-12-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (KAWARDHA MINES)**

Sample Registration Date	:	2025-11-27	Sampling Date	:	2025-11-24
Analysis Starting Date	:	2025-11-27	Analysis Completion Date	:	2025-12-05
Test Required	:	Water Analysis as per IS 10500 : 2012			
SAMPLE COLLECTED BY VIMTA LABS LTD					

TEST REPORT

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Guest House	Daldali Village	Keshmarda Village	Small dug well	Big Dug Well
59	Malathion	µg/l	190	BDL	BDL	BDL	BDL	BDL
60	Methyl parathion	µg/l	0.3	BDL	BDL	BDL	BDL	BDL
61	Monocrotophos	µg/l	1	BDL	BDL	BDL	BDL	BDL
62	Phorate	µg/l	2	BDL	BDL	BDL	BDL	BDL
63	E.Coil	Per 100 ml	Absent	Absent	Absent	Absent	Absent	Absent
64	Total Coliforms (MPN/100ml)	Per 100 ml	Absent	Absent	Absent	Absent	Absent	Absent
	Radioactive							
65	Alpha emittters	Bq/l	0.1(NR)	BDL	BDL	BDL	BDL	BDL
66	Beta emittters	Bq/l	1.0(NR)	BDL	BDL	BDL	BDL	BDL

Method of Testing: As per APHA 23rd edition and IS 3025.
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

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Report Number	:	**VLL/VLS/25-26/20775/001**
Issued Date	:	**2026-01-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : GROUND WATER SAMPLES (KAWARDHA MINES)

Sample Registration Date	:	2025-12-15	Sampling Date	:	2025-12-08
Analysis Starting Date	:	2025-12-15	Analysis Completion Date	:	2025-12-30
Test Required	:	Water Analysis as per IS 10500 : 2012			
SAMPLE COLLECTED BY VIMTA LABS LTD					

TEST REPORT

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Guest House	Daldali Village	Keshmarda Village	Small dug well	Big Dug Well
1	pH value	-	6.5-8.5 (NR)	7.18	6.97	7.36	7.21	6.95
2	Color	Hazen	5(15)	Colorless	Colorless	Colorless	Colorless	Colorless
3	Taste	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
5	Turbidity	NTU	1(5)	<0.1	1.1	1.3	1.2	1.5
6	Total dissolved solids at 180°C	mg/l	500(2000)	74	101	93	106	85
7	Total Hardness as $CaCO_3$	mg/l	200(600)	41	48	44	52	42
8	Total Alkalinity as $CaCO_3$	mg/l	200(600)	30	35	40	45	35
9	Calcium as Ca	mg/l	75(200)	9.3	10.5	9.5	11.4	10.2
10	Magnesium as Mg	mg/l	30(100)	4.2	5.3	4.8	5.7	3.9
11	Free Residual chlorine	mg/l	0.2(1.0)	<0.1	<0.1	<0.1	<0.1	<0.1
12	Boron as B	mg/l	0.5(1.0)	<0.01	0.011	0.01	0.025	0.019
13	Chlorides as Cl	mg/l	250(1000)	18.6	27.8	21.5	24.6	21.9
14	Sulphate as SO_4	mg/l	200(400)	2.3	4.9	2.1	3.3	2.9
15	Fluorides as F	mg/l	1.0(1.5)	0.106	0.121	0.076	0.117	0.136
16	Nitrates as NO_3	mg/l	45(NR)	0.9	1.2	1.0	0.8	0.7
17	Phenolic Compounds as C_6H_5OH	mg/l	0.001(0.002)	<0.001	<0.001	<0.001	<0.001	<0.001
18	Cyanides	mg/l	0.05(NR)	<0.01	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 23rd edition and IS 3025.
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

ENVIRONMENT LAB VIMTA LABS REGD. No- DL 3300/99

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Report Number	:	VLL/VLS/25-26/20775/001
Issued Date	:	2026-01-05
P.O. No.	:	3402001553
P.O. Date	:	2025-10-01

SAMPLE PARTICULARS : GROUND WATER SAMPLES (KAWARDHA MINES)

Sample Registration Date	:	2025-12-15	Sampling Date	:	2025-12-08
Analysis Starting Date	:	2025-12-15	Analysis Completion Date	:	2025-12-30
Test Required	:	Water Analysis as per IS 10500 : 2012			
SAMPLE COLLECTED BY VIMTA LABS LTD					

TEST REPORT

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Guest House	Daldali Village	Keshmarda Village	Small dug well	Big Dug Well
19	Anionic detergents as MBAS	mg/l	0.2(1.0)	<0.02	<0.02	<0.02	<0.02	<0.02
20	Mineral oil	mg/l	0.5(NR)	Absent	Absent	Absent	Absent	Absent
21	Cadmium as Cd	mg/l	0.003(NR)	<0.005	<0.005	<0.005	<0.005	<0.005
22	Total Arsenic as As	mg/l	0.01(0.05)	<0.005	<0.005	<0.005	<0.005	<0.005
23	Copper as Cu	mg/l	0.05(1.5)	<0.005	<0.005	<0.005	<0.005	<0.005
24	Lead as Pb	mg/l	0.01(NR)	<0.005	<0.005	<0.005	<0.005	<0.005
25	Manganese as Mn	mg/l	0.1(0.3)	<0.005	<0.005	<0.005	<0.005	<0.005
26	Molybdenum as Mo	mg/l	0.07(NR)	<0.005	<0.005	<0.005	<0.005	<0.005
27	Nickel as Ni	mg/l	0.02(NR)	<0.005	<0.005	<0.005	<0.005	<0.005
28	Iron as Fe	mg/l	0.3(NR)	0.015	0.036	0.028	0.047	0.031
29	Total Chromium as Cr	mg/l	0.05(NR)	<0.05	<0.05	<0.05	<0.05	<0.05
30	Selenium as Se	mg/l	0.05(NR)	<0.001	<0.001	<0.001	<0.001	<0.001
31	Zinc as Zn	mg/l	5.0(15)	<0.01	0.021	0.018	0.027	0.025
32	Aluminum as Al	mg/l	0.03(0.2)	<0.01	0.014	0.023	0.019	0.022
33	Mercury as Hg	mg/l	0.001(NR)	<0.001	<0.001	<0.001	<0.001	<0.001
34	Sulphide as H2S	mg/l	0.05(NR)	<0.05	<0.05	<0.05	<0.05	<0.05
35	Chloramines as Cl2	mg/l	4.0(NR)	<0.05	<0.05	<0.05	<0.05	<0.05
36	Ammonia (as total ammonia-N	mg/l	0.5(NR)	<0.05	<0.05	<0.05	<0.05	<0.05
37	Barium as Ba	mg/l	0.7(NR)	0.013	0.024	0.019	0.016	0.019
38	Silver as Ag	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 23rd edition and IS: 3025.
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

VIMTA LABS
RECD. No- DL 3300
Sr. No.-5

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ISSUED TO:

M/s. Bharat Aluminum Company Limited,
BALCO
KORBA
Chhattisgarh

Report Number	:	**VLL/VLS/25-26/20775/001**
Issued Date	:	**2026-01-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (KAWARDHA MINES)**

Sample Registration Date	:	2025-12-15	Sampling Date	:	2025-12-08
Analysis Starting Date	:	2025-12-15	Analysis Completion Date	:	2025-12-30
Test Required	:	Water Analysis as per IS 10500 : 2012			
SAMPLE COLLECTED BY VIMTA LABS LTD					

TEST REPORT

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Guest House	Daldali Village	Keshmarda Village	Small dug well	Big Dug Well
39	Polychlorinated biphenyls	Absent	0.0005(NR)	Absent	Absent	Absent	Absent	Absent
40	Polynuclear aromatic hydrocarbon as PAH	mg/l	0.0001(NR)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
41	Bromoform	mg/l	0.1(NR)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
42	Dibromochloromethane	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01	<0.01
43	Bromodichloromethane	mg/l	0.06(NR)	<0.01	<0.01	<0.01	<0.01	<0.01
44	Chloroform	mg/l	0.2(NR)	<0.001	<0.001	<0.001	<0.001	<0.001
	Pesticides							
45	Alachlor	µg/l	20	<0.01	<0.01	<0.01	<0.01	<0.01
46	Atrazine	µg/l	2	<0.01	<0.01	<0.01	<0.01	<0.01
47	Aldrin	µg/l	0.03	<0.01	<0.01	<0.01	<0.01	<0.01
48	Alpha HCH	µg/l	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
49	Beta HCH	µg/l	0.04	<0.01	<0.01	<0.01	<0.01	<0.01
50	Butachlor	µg/l	125	<0.01	<0.01	<0.01	<0.01	<0.01
51	Chlorpyriphos	µg/l	30	<0.01	<0.01	<0.01	<0.01	<0.01
52	Delta HCH	µg/l	0.04	<0.01	<0.01	<0.01	<0.01	<0.01
53	2,4-Dichlorophenoxyacetic acid	µg/l	30	<0.01	<0.01	<0.01	<0.01	<0.01
54	DDT	µg/l	1	<0.01	<0.01	<0.01	<0.01	<0.01
55	Endosulfan (alpha, beta and Sulphate)	µg/l	0.4	<0.01	<0.01	<0.01	<0.01	<0.01
56	Ethion	µg/l	3	<0.01	<0.01	<0.01	<0.01	<0.01
57	Gamma HCH	µg/l	2	<0.01	<0.01	<0.01	<0.01	<0.01
58	Isoproturon	µg/l	9	<0.01	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 23rd edition and IS 3025.
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

VIMTA LABS REGD. No- DL 3300/99 Sr. No.-5

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ISSUED TO:

M/s. Bharat Aluminum Company Limited,
BALCO
KORBA
Chhattisgarh

Report Number	:	**VLL/VLS/25-26/20775/001**
Issued Date	:	**2026-01-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (KAWARDHA MINES)**

Sample Registration Date	:	2025-12-15	Sampling Date	:	2025-12-08
Analysis Starting Date	:	2025-12-15	Analysis Completion Date	:	2025-12-30
Test Required	:	Water Analysis as per IS 10500 : 2012			
SAMPLE COLLECTED BY VIMTA LABS LTD					

TEST REPORT

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Guest House	Daldali Village	Keshmarda Village	Small dug well	Big Dug Well
59	Malathion	µg/l	190	BDL	BDL	BDL	BDL	BDL
60	Methyl parathion	µg/l	0.3	BDL	BDL	BDL	BDL	BDL
61	Monocrotophos	µg/l	1	BDL	BDL	BDL	BDL	BDL
62	Phorate	µg/l	2	BDL	BDL	BDL	BDL	BDL
63	E.Coil	Per 100 ml	Absent	Absent	Absent	Absent	Absent	Absent
64	Total Coliforms (MPN/100ml)	Per 100 ml	Absent	Absent	Absent	Absent	Absent	Absent
	Radioactive							
65	Alpha emittters	Bq/l	0.1(NR)	BDL	BDL	BDL	BDL	BDL
66	Beta emittters	Bq/l	1.0(NR)	BDL	BDL	BDL	BDL	BDL

Method of Testing: As per APHA 23rd edition and IS 3025.
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

ENVIRONMENT LABORATORY VIMTA LABS REGD. No- DL 33004/99 Sr. No.-5

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KORBA
Chhattisgarh

Report Number	:	**VLL/VLS/25-26/23223/001**
Issued Date	:	**2026-02-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : GROUND WATER SAMPLES (KAWARDHA MINES)

Sample Registration Date	:	2026-01-29	Sampling Date	:	2026-01-27
Analysis Starting Date	:	2026-01-29	Analysis Completion Date	:	2026-02-05
Test Required	:	Water Analysis as per IS 10500 : 2012			

SAMPLE COLLECTED BY VIMTA LABS LTD

TEST REPORT

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Guest House	Daldali Village	Keshmarda Village	Small dug well
1	pH value	-	6.5-8.5 (NR)	7.72	7.59	7.17	6.54
2	Color	Hazen	5(15)	Colorless	Colorless	Colorless	Colorless
3	Taste	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
5	Turbidity	NTU	1(5)	1	1	2	3
6	Total dissolved solids at 180°C	mg/l	500(2000)	282	220	165	102
7	Total Hardness as $CaCO_3$	mg/l	200(600)	162	124	96	48
8	Total Alkalinity as $CaCO_3$	mg/l	200(600)	150	120	80	45
9	Calcium as Ca	mg/l	75(200)	40.8	30.4	21.6	11.2
10	Magnesium as Mg	mg/l	30(100)	14.6	11.7	10.2	4.9
11	Free Residual chlorine	mg/l	0.2(1.0)	<0.1	<0.1	<0.1	<0.1
12	Boron as B	mg/l	0.5(1.0)	<0.01	<0.01	<0.01	<0.01
13	Chlorides as Cl	mg/l	250(1000)	31.0	22.8	24.2	15.4
14	Sulphate as SO_4	mg/l	200(400)	16.7	12.5	11.9	10.2
15	Fluorides as F	mg/l	1.0(1.5)	0.067	0.049	0.048	0.020
16	Nitrates as NO_3	mg/l	45(NR)	4.50	3.10	2.50	1.30
17	Phenolic Compounds as C_6H_5OH	mg/l	0.001(0.002)	<0.001	<0.001	<0.001	<0.001
18	Cyanides	mg/l	0.05(NR)	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 23rd edition and IS 3025.
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

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VIMTA LABS
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M/s. Bharat Aluminum Company Limited,
BALCO
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Chhattisgarh

Report Number	:	**VLL/VLS/25-26/23223/001**
Issued Date	:	**2026-02-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : GROUND WATER SAMPLES (KAWARDHA MINES)

Sample Registration Date	:	2026-01-29	Sampling Date	:	2026-01-27
Analysis Starting Date	:	2026-01-29	Analysis Completion Date	:	2026-02-05
Test Required	:	Water Analysis as per IS 10500 : 2012			
SAMPLE COLLECTED BY VIMTA LABS LTD					

TEST REPORT

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Guest House	Daldali Village	Keshmarda Village	Small dug well
19	Anionic detergents as MBAS	mg/l	0.2(1.0)	<0.02	<0.02	<0.02	<0.02
20	Mineral oil	mg/l	0.5(NR)	Absent	Absent	Absent	Absent
21	Cadmium as Cd	mg/l	0.003(NR)	<0.005	<0.005	<0.005	<0.005
22	Total Arsenic as As	mg/l	0.01(0.05)	<0.005	<0.005	<0.005	<0.005
23	Copper as Cu	mg/l	0.05(1.5)	<0.005	<0.005	<0.005	<0.005
24	Lead as Pb	mg/l	0.01(NR)	<0.005	<0.005	<0.005	<0.005
25	Manganese as Mn	mg/l	0.1(0.3)	<0.005	<0.005	<0.005	<0.005
26	Molybdenum as Mo	mg/l	0.07(NR)	<0.005	<0.005	<0.005	<0.005
27	Nickel as Ni	mg/l	0.02(NR)	<0.005	<0.005	<0.005	<0.005
28	Iron as Fe	mg/l	0.3(NR)	0.012	0.026	0.019	0.035
29	Total Chromium as Cr	mg/l	0.05(NR)	<0.05	<0.05	<0.05	<0.05
30	Selenium as Se	mg/l	0.05(NR)	<0.001	<0.001	<0.001	<0.001
31	Zinc as Zn	mg/l	5.0(15)	0.038	0.014	0.011	0.034
32	Aluminum as Al	mg/l	0.03(0.2)	0.021	0.016	0.021	0.015
33	Mercury as Hg	mg/l	0.001(NR)	<0.001	<0.001	<0.001	<0.001
34	Sulphide as H2S	mg/l	0.05(NR)	<0.05	<0.05	<0.05	<0.05
35	Chloramines as Cl2	mg/l	4.0(NR)	<0.05	<0.05	<0.05	<0.05
36	Ammonia (as total ammonia-N	mg/l	0.5(NR)	<0.05	<0.05	<0.05	<0.05
37	Barium as Ba	mg/l	0.7(NR)	0.029	0.031	0.023	0.018
38	Silver as Ag	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 23rd edition and IS: 3025.
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

Vimta VIMTA LABS LTD. Regd. No- DL 33004/99 Sr. No.-5

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BALCO
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Chhattisgarh

Report Number	:	**VLL/VLS/25-26/23223/001**
Issued Date	:	**2026-02-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (KAWARDHA MINES)**

Sample Registration Date	:	2026-01-29	Sampling Date	:	2026-01-27
Analysis Starting Date	:	2026-01-29	Analysis Completion Date	:	2026-02-05
Test Required	:	Water Analysis as per IS 10500 : 2012			
SAMPLE COLLECTED BY VIMTA LABS LTD					

TEST REPORT

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Guest House	Daldali Village	Keshmarda Village	Small dug well
39	Polychlorinated biphenyls	Absent	0.0005(NR)	Absent	Absent	Absent	Absent
40	Polynuclear aromatic hydrocarbon as PAH	mg/l	0.0001(NR)	<0.0001	<0.0001	<0.0001	<0.0001
41	Bromoform	mg/l	0.1(NR)	<0.0001	<0.0001	<0.0001	<0.0001
42	Dibromochloromethane	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01
43	Bromodichloromethane	mg/l	0.06(NR)	<0.01	<0.01	<0.01	<0.01
44	Chloroform	mg/l	0.2(NR)	<0.001	<0.001	<0.001	<0.001
	Pesticides						
45	Alachlor	µg/l	20	<0.01	<0.01	<0.01	<0.01
46	Atrazine	µg/l	2	<0.01	<0.01	<0.01	<0.01
47	Aldrin	µg/l	0.03	<0.01	<0.01	<0.01	<0.01
48	Alpha HCH	µg/l	0.01	<0.01	<0.01	<0.01	<0.01
49	Beta HCH	µg/l	0.04	<0.01	<0.01	<0.01	<0.01
50	Butachlor	µg/l	125	<0.01	<0.01	<0.01	<0.01
51	Chlorpyriphos	µg/l	30	<0.01	<0.01	<0.01	<0.01
52	Delta HCH	µg/l	0.04	<0.01	<0.01	<0.01	<0.01
53	2,4-Dichlorophenoxyacetic acid	µg/l	30	<0.01	<0.01	<0.01	<0.01
54	DDT	µg/l	1	<0.01	<0.01	<0.01	<0.01
55	Endosulfan (alpha, beta and Sulphate)	µg/l	0.4	<0.01	<0.01	<0.01	<0.01
56	Ethion	µg/l	3	<0.01	<0.01	<0.01	<0.01
57	Gamma HCH	µg/l	2	<0.01	<0.01	<0.01	<0.01
58	Isoproturon	µg/l	9	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 23rd edition and IS 3025.
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

Vimta LABS LTD. Reg. No- DL 33004/99 Sr. No.-5

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BALCO
KORBA
Chhattisgarh

Report Number	:	**VLL/VLS/25-26/23223/001**
Issued Date	:	**2026-02-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (KAWARDHA MINES)**

Sample Registration Date	:	2026-01-29	Sampling Date	:	2026-01-27
Analysis Starting Date	:	2026-01-29	Analysis Completion Date	:	2026-02-05
Test Required	:	Water Analysis as per IS 10500 : 2012			
SAMPLE COLLECTED BY VIMTA LABS LTD					

TEST REPORT

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Guest House	Daldali Village	Keshmarda Village	Small dug well
59	Malathion	µg/l	190	BDL	BDL	BDL	BDL
60	Methyl parathion	µg/l	0.3	BDL	BDL	BDL	BDL
61	Monocrotophos	µg/l	1	BDL	BDL	BDL	BDL
62	Phorate	µg/l	2	BDL	BDL	BDL	BDL
63	E.Coil	Per 100 ml	Absent	Absent	Absent	Absent	Absent
64	Total Coliforms (MPN/100ml)	Per 100 ml	Absent	Absent	Absent	Absent	Absent
	Radioactive						
65	Alpha emittters	Bq/l	0.1(NR)	BDL	BDL	BDL	BDL
66	Beta emittters	Bq/l	1.0(NR)	BDL	BDL	BDL	BDL

Method of Testing: As per APHA 23rd edition and IS 3025.
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

ENVIRONMENT LABORATORY Vimta VIMTA LABS Regd. No- DL 3300/99 Sr. No.-5 VIMTA

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Report Number	:	**VLL/VLS/25-26/15704/001**
Issued Date	:	**2025-11-05**
P.O. No.	:	**8500005780**
P.O. Date	:	**2022-06-29**

SAMPLE PARTICULARS : GROUND WATER SAMPLES (KAWARDHA MINES)

Sample Registration Date	:	2025-10-25	Sampling Date	:	2025-10-22
Analysis Starting Date	:	2025-10-25	Analysis Completion Date	:	2025-11-04
Test Required	:	Water Analysis as per IS 10500 : 2012			
SAMPLE COLLECTED BY VIMTA LABS LTD					

TEST REPORT

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Guest House	Daldali Village	Keshmarda Village	Small dug well	Big Dug Well
1	pH value	-	6.5-8.5 (NR)	7.12	6.98	7.34	7.19	6.95
2	Color	Hazen	5(15)	Colorless	Colorless	Colorless	Colorless	Colorless
3	Taste	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
5	Turbidity	NTU	1(5)	<1.0	1.0	1.0	1.2	1.1
6	Total dissolved solids at 180°C	mg/l	500(2000)	70	83	75	86	68
7	Total Hardness as $CaCO_3$	mg/l	200(600)	38	40	34	42	36
8	Total Alkalinity as $CaCO_3$	mg/l	200(600)	30	35	28	35	25
9	Calcium as Ca	mg/l	75(200)	9.2	8.9	8.6	10.0	9.0
10	Magnesium as Mg	mg/l	30(100)	3.7	3.8	3.1	4.1	3.2
11	Free Residual chlorine	mg/l	0.2(1.0)	<0.1	<0.1	<0.1	<0.1	<0.1
12	Boron as B	mg/l	0.5(1.0)	<0.01	0.018	0.011	0.021	0.013
13	Chlorides as Cl	mg/l	250(1000)	16.3	18.2	19.4	21.2	18.8
14	Sulphate as SO_4	mg/l	200(400)	2.3	3.4	3.5	2.4	2.6
15	Fluorides as F	mg/l	1.0(1.5)	0.075	0.121	0.097	0.105	0.087
16	Nitrates as NO_3	mg/l	45(NR)	0.8	0.5	0.4	0.7	0.7
17	Phenolic Compounds as C_6H_5OH	mg/l	0.001(0.002)	<0.001	<0.001	<0.001	<0.001	<0.001
18	Cyanides	mg/l	0.05(NR)	<0.01	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 23rd edition and IS 3025.
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

Dr. Subba Reddy Mallampati
Manager - Environment

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Driven by Quality. Inspired by Science.

ISSUED TO:

M/s. Bharat Aluminum Company Limited,
BALCO
KORBA
Chhattisgarh

Report Number	:	**VLL/VLS/25-26/15704/001**
Issued Date	:	**2025-11-05**
P.O. No.	:	**8500005780**
P.O. Date	:	**2022-06-29**

SAMPLE PARTICULARS : GROUND WATER SAMPLES (KAWARDHA MINES)

Sample Registration Date	:	2025-10-25	Sampling Date	:	2025-10-22
Analysis Starting Date	:	2025-10-25	Analysis Completion Date	:	2025-11-04
Test Required	:	Water Analysis as per IS 10500 : 2012			
SAMPLE COLLECTED BY VIMTA LABS LTD					

TEST REPORT

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Guest House	Daldali Village	Keshmarda Village	Small dug well	Big Dug Well
19	Anionic detergents as MBAS	mg/l	0.2(1.0)	<0.02	<0.02	<0.02	<0.02	<0.02
20	Mineral oil	mg/l	0.5(NR)	Absent	Absent	Absent	Absent	Absent
21	Cadmium as Cd	mg/l	0.003(NR)	<0.005	<0.005	<0.005	<0.005	<0.005
22	Total Arsenic as As	mg/l	0.01(0.05)	<0.005	<0.005	<0.005	<0.005	<0.005
23	Copper as Cu	mg/l	0.05(1.5)	<0.005	<0.005	<0.005	<0.005	<0.005
24	Lead as Pb	mg/l	0.01(NR)	<0.005	<0.005	<0.005	<0.005	<0.005
25	Manganese as Mn	mg/l	0.1(0.3)	<0.005	<0.005	<0.005	<0.005	<0.005
26	Molybdenum as Mo	mg/l	0.07(NR)	<0.005	<0.005	<0.005	<0.005	<0.005
27	Nickel as Ni	mg/l	0.02(NR)	<0.005	<0.005	<0.005	<0.005	<0.005
28	Iron as Fe	mg/l	0.3(NR)	0.021	0.034	0.018	0.027	0.023
29	Total Chromium as Cr	mg/l	0.05(NR)	<0.05	<0.05	<0.05	<0.05	<0.05
30	Selenium as Se	mg/l	0.05(NR)	<0.001	<0.001	<0.001	<0.001	<0.001
31	Zinc as Zn	mg/l	5.0(15)	<0.01	0.021	0.038	0.031	0.036
32	Aluminum as Al	mg/l	0.03(0.2)	<0.01	0.01	0.01	0.02	0.019
33	Mercury as Hg	mg/l	0.001(NR)	<0.001	<0.001	<0.001	<0.001	<0.001
34	Sulphide as H2S	mg/l	0.05(NR)	<0.05	<0.05	<0.05	<0.05	<0.05
35	Chloramines as Cl2	mg/l	4.0(NR)	<0.05	<0.05	<0.05	<0.05	<0.05
36	Ammonia (as total ammonia-N	mg/l	0.5(NR)	<0.05	<0.05	<0.05	<0.05	<0.05
37	Barium as Ba	mg/l	0.7(NR)	0.011	0.021	0.017	0.015	0.013
38	Silver as Ag	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 23rd edition and IS: 3025.
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

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BALCO
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Chhattisgarh

Report Number	:	**VLL/VLS/25-26/15704/001**
Issued Date	:	**2025-11-05**
P.O. No.	:	**8500005780**
P.O. Date	:	**2022-06-29**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (KAWARDHA MINES)**

Sample Registration Date	:	2025-10-25	Sampling Date	:	2025-10-22
Analysis Starting Date	:	2025-10-25	Analysis Completion Date	:	2025-11-04
Test Required	:	Water Analysis as per IS 10500 : 2012			
SAMPLE COLLECTED BY VIMTA LABS LTD					

TEST REPORT

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Guest House	Daldali Village	Keshmarda Village	Small dug well	Big Dug Well
39	Polychlorinated biphenyls	Absent	0.0005(NR)	Absent	Absent	Absent	Absent	Absent
40	Polynuclear aromatic hydrocarbon as PAH	mg/l	0.0001(NR)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
41	Bromoform	mg/l	0.1(NR)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
42	Dibromochloromethane	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01	<0.01
43	Bromodichloromethane	mg/l	0.06(NR)	<0.01	<0.01	<0.01	<0.01	<0.01
44	Chloroform	mg/l	0.2(NR)	<0.001	<0.001	<0.001	<0.001	<0.001
	Pesticides							
45	Alachlor	µg/l	20	<0.01	<0.01	<0.01	<0.01	<0.01
46	Atrazine	µg/l	2	<0.01	<0.01	<0.01	<0.01	<0.01
47	Aldrin	µg/l	0.03	<0.01	<0.01	<0.01	<0.01	<0.01
48	Alpha HCH	µg/l	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
49	Beta HCH	µg/l	0.04	<0.01	<0.01	<0.01	<0.01	<0.01
50	Butachlor	µg/l	125	<0.01	<0.01	<0.01	<0.01	<0.01
51	Chlorpyriphos	µg/l	30	<0.01	<0.01	<0.01	<0.01	<0.01
52	Delta HCH	µg/l	0.04	<0.01	<0.01	<0.01	<0.01	<0.01
53	2,4-Dichlorophenoxyacetic acid	µg/l	30	<0.01	<0.01	<0.01	<0.01	<0.01
54	DDT	µg/l	1	<0.01	<0.01	<0.01	<0.01	<0.01
55	Endosulfan (alpha, beta and Sulphate)	µg/l	0.4	<0.01	<0.01	<0.01	<0.01	<0.01
56	Ethion	µg/l	3	<0.01	<0.01	<0.01	<0.01	<0.01
57	Gamma HCH	µg/l	2	<0.01	<0.01	<0.01	<0.01	<0.01
58	Isoproturon	µg/l	9	<0.01	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 23rd edition and IS 3025.
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

ENVIRONMENT LABORATORY VIMTA LABS REGD. No- DL 33004/99 Sr. No.-5

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Manager - Environment

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ISSUED TO:

M/s. Bharat Aluminum Company Limited,
BALCO
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Chhattisgarh

Report Number	:	**VLL/VLS/25-26/15704/001**
Issued Date	:	**2025-11-05**
P.O. No.	:	**8500005780**
P.O. Date	:	**2022-06-29**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (KAWARDHA MINES)**

Sample Registration Date	:	2025-10-25	Sampling Date	:	2025-10-22
Analysis Starting Date	:	2025-10-25	Analysis Completion Date	:	2025-11-04
Test Required	:	Water Analysis as per IS 10500 : 2012			
SAMPLE COLLECTED BY VIMTA LABS LTD					

TEST REPORT

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Guest House	Daldali Village	Keshmarda Village	Small dug well	Big Dug Well
59	Malathion	µg/l	190	BDL	BDL	BDL	BDL	BDL
60	Methyl parathion	µg/l	0.3	BDL	BDL	BDL	BDL	BDL
61	Monocrotophos	µg/l	1	BDL	BDL	BDL	BDL	BDL
62	Phorate	µg/l	2	BDL	BDL	BDL	BDL	BDL
63	E.Coil	Per 100 ml	Absent	Absent	Absent	Absent	Absent	Absent
64	Total Coliforms (MPN/100ml)	Per 100 ml	Absent	Absent	Absent	Absent	Absent	Absent
	Radioactive							
65	Alpha emitters	Bq/l	0.1(NR)	BDL	BDL	BDL	BDL	BDL
66	Beta emittters	Bq/l	1.0(NR)	BDL	BDL	BDL	BDL	BDL

Method of Testing: As per APHA 23rd edition and IS 3025.
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

ENVIRONMENT LABORATORY Vimta VIMTA LABS REGD. Sr. No. VIMTA

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Manager - Environment

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ISSUED TO:

M/s. Bharat Aluminum Company Limited,
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KORBA
Chhattisgarh

Report Number	:	**VLL/VLS/25-26/28724/001**
Issued Date	:	**2026-04-04**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : GROUND WATER SAMPLES (KAWARDHA MINES)

Sample Registration Date	:	2026-03-24	Sampling Date	:	2026-03-21
Analysis Starting Date	:	2026-03-24	Analysis Completion Date	:	2026-04-03
Test Required	:	Water Analysis as per IS 10500 : 2012			

SAMPLE COLLECTED BY VIMTA LABS LTD

TEST REPORT

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Guest House	Daldali Village	Keshmarda Village	Small dug well
1	pH value	-	6.5-8.5 (NR)	7.52	7.36	7.18	6.98
2	Color	Hazen	5(15)	Colorless	Colorless	Colorless	Colorless
3	Taste	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
5	Turbidity	NTU	1(5)	1.0	1.1	1.0	1.3
6	Total dissolved solids at 180°C	mg/l	500(2000)	180	175	137	110
7	Total Hardness as $CaCO_3$	mg/l	200(600)	97	94	76	53
8	Total Alkalinity as $CaCO_3$	mg/l	200(600)	110	100	75	55
9	Calcium as Ca	mg/l	75(200)	24.6	21.5	19.8	11.6
10	Magnesium as Mg	mg/l	30(100)	8.7	9.8	6.5	5.8
11	Free Residual chlorine	mg/l	0.2(1.0)	<0.1	<0.1	<0.1	<0.1
12	Boron as B	mg/l	0.5(1.0)	0.01	0.021	0.019	0.012
13	Chlorides as Cl	mg/l	250(1000)	11.7	20.2	16.8	15.2
14	Sulphate as SO_4	mg/l	200(400)	4.50	5.60	4.10	7.20
15	Fluorides as F	mg/l	1.0(1.5)	0.074	0.082	0.117	0.067
16	Nitrates as NO_3	mg/l	45(NR)	2.60	1.90	1.30	1.40
17	Phenolic Compounds as C_6H_5OH	mg/l	0.001(0.002)	<0.001	<0.001	<0.001	<0.001
18	Cyanides	mg/l	0.05(NR)	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 23rd edition and IS 3025.
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

Dr. Subba Reddy Mallampati
Manager - Environment

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KORBA
Chhattisgarh

Report Number	:	**VLL/VLS/25-26/28724/001**
Issued Date	:	**2026-04-04**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (KAWARDHA MINES)**

Sample Registration Date	:	2026-03-24	Sampling Date	:	2026-03-21
Analysis Starting Date	:	2026-03-24	Analysis Completion Date	:	2026-04-03
Test Required	:	Water Analysis as per IS 10500 : 2012			

SAMPLE COLLECTED BY VIMTA LABS LTD

TEST REPORT

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Guest House	Daldali Village	Keshmarda Village	Small dug well
19	Anionic detergents as MBAS	mg/l	0.2(1.0)	<0.02	<0.02	<0.02	<0.02
20	Mineral oil	mg/l	0.5(NR)	Absent	Absent	Absent	Absent
21	Cadmium as Cd	mg/l	0.003(NR)	<0.005	<0.005	<0.005	<0.005
22	Total Arsenic as As	mg/l	0.01(0.05)	<0.005	<0.005	<0.005	<0.005
23	Copper as Cu	mg/l	0.05(1.5)	<0.005	<0.005	<0.005	<0.005
24	Lead as Pb	mg/l	0.01(NR)	<0.005	<0.005	<0.005	<0.005
25	Manganese as Mn	mg/l	0.1(0.3)	<0.005	<0.005	<0.005	<0.005
26	Molybdenum as Mo	mg/l	0.07(NR)	<0.005	<0.005	<0.005	<0.005
27	Nickel as Ni	mg/l	0.02(NR)	<0.005	<0.005	<0.005	<0.005
28	Iron as Fe	mg/l	0.3(NR)	0.011	0.023	0.015	0.019
29	Total Chromium as Cr	mg/l	0.05(NR)	<0.005	<0.005	<0.005	<0.005
30	Selenium as Se	mg/l	0.05(NR)	<0.005	<0.005	<0.005	<0.005
31	Zinc as Zn	mg/l	5.0(15)	0.014	0.019	0.024	0.016
32	Aluminum as Al	mg/l	0.03(0.2)	0.015	0.021	0.017	0.010
33	Mercury as Hg	mg/l	0.001(NR)	<0.001	<0.001	<0.001	<0.001
34	Sulphide as H2S	mg/l	0.05(NR)	<0.05	<0.05	<0.05	<0.05
35	Chloramines as Cl2	mg/l	4.0(NR)	<0.05	<0.05	<0.05	<0.05
36	Ammonia (as total ammonia-N	mg/l	0.5(NR)	<0.05	<0.05	<0.05	<0.05
37	Barium as Ba	mg/l	0.7(NR)	0.011	0.018	0.021	0.017
38	Silver as Ag	mg/l	0.1(NR)	<0.005	<0.005	<0.005	<0.005

Method of Testing: As per APHA 23rd edition and IS: 3025.
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

ENVIRONMENT LABORATORY VIMTA

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Issued Date	:	**2026-04-04**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (KAWARDHA MINES)**

Sample Registration Date	:	2026-03-24	Sampling Date	:	2026-03-21
Analysis Starting Date	:	2026-03-24	Analysis Completion Date	:	2026-04-03
Test Required	:	Water Analysis as per IS 10500 : 2012			
SAMPLE COLLECTED BY VIMTA LABS LTD					

TEST REPORT

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Guest House	Daldali Village	Keshmarda Village	Small dug well
39	Polychlorinated biphenyls	Absent	0.0005(NR)	Absent	Absent	Absent	Absent
40	Polynuclear aromatic hydrocarbon as PAH	mg/l	0.0001(NR)	<0.0001	<0.0001	<0.0001	<0.0001
41	Bromoform	mg/l	0.1(NR)	<0.0001	<0.0001	<0.0001	<0.0001
42	Dibromochloromethane	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01
43	Bromodichloromethane	mg/l	0.06(NR)	<0.01	<0.01	<0.01	<0.01
44	Chloroform	mg/l	0.2(NR)	<0.001	<0.001	<0.001	<0.001
	Pesticides						
45	Alachlor	µg/l	20	<0.01	<0.01	<0.01	<0.01
46	Atrazine	µg/l	2	<0.01	<0.01	<0.01	<0.01
47	Aldrin	µg/l	0.03	<0.01	<0.01	<0.01	<0.01
48	Alpha HCH	µg/l	0.01	<0.01	<0.01	<0.01	<0.01
49	Beta HCH	µg/l	0.04	<0.01	<0.01	<0.01	<0.01
50	Butachlor	µg/l	125	<0.01	<0.01	<0.01	<0.01
51	Chlorpyriphos	µg/l	30	<0.01	<0.01	<0.01	<0.01
52	Delta HCH	µg/l	0.04	<0.01	<0.01	<0.01	<0.01
53	2,4-Dichlorophenoxyacetic acid	µg/l	30	<0.01	<0.01	<0.01	<0.01
54	DDT	µg/l	1	<0.01	<0.01	<0.01	<0.01
55	Endosulfan (alpha, beta and Sulphate)	µg/l	0.4	<0.01	<0.01	<0.01	<0.01
56	Ethion	µg/l	3	<0.01	<0.01	<0.01	<0.01
57	Gamma HCH	µg/l	2	<0.01	<0.01	<0.01	<0.01
58	Isoproturon	µg/l	9	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 23rd edition and IS 3025.
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

ENVIRONMENT LABORATORY VIMTA LABS Sr. No.-5 VIMTA

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Issued Date	:	**2026-04-04**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (KAWARDHA MINES)**

Sample Registration Date	: 2026-03-24	Sampling Date	:	2026-03-21
Analysis Starting Date	: 2026-03-24	Analysis Completion Date	:	2026-04-03
Test Required	: Water Analysis as per IS 10500 : 2012			
SAMPLE COLLECTED BY VIMTA LABS LTD				

TEST REPORT

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Guest House	Daldali Village	Keshmarda Village	Small dug well
59	Malathion	µg/l	190	BDL	BDL	BDL	BDL
60	Methyl parathion	µg/l	0.3	BDL	BDL	BDL	BDL
61	Monocrotophos	µg/l	1	BDL	BDL	BDL	BDL
62	Phorate	µg/l	2	BDL	BDL	BDL	BDL
63	E.Coil	Per 100 ml	Absent	Absent	Absent	Absent	Absent
64	Total Coliforms (MPN/100ml)	Per 100 ml	Absent	Absent	Absent	Absent	Absent
	Radioactive						
65	Alpha emittters	Bq/l	0.1(NR)	BDL	BDL	BDL	BDL
66	Beta emittters	Bq/l	1.0(NR)	BDL	BDL	BDL	BDL

Method of Testing: As per APHA 23rd edition and IS 3025.
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

Dr. Subba Reddy Mallampati
Manager - Environment

NP-5128 1/26/2011 K-2071, 240-28/12/2011

Annexure-V

Central Ground Water Authority

Ministry of Water Resources

Government of India

No. 21-4(120)/NCCR/CGWA/2011- 1823 **Dated- 14 DEC 2011**

To,

M/s Bharat Aluminium Corporation Ltd.
Mines Department, Engineering Building,
Plant – 1, BALCO
Korba 495684, Chhattisgarh.

Sub: Request for Ground Water clearance in respect of M/s Bharat Aluminium Corporation Ltd., for the proposed expansion of Bauxite mining at village Bodai- Daldah, Block & Tehsil Bodla, District Kawardha, Chhattisgarh -reg.

Sir,

The area where the project falls comes under safe category as per the ground water assessment carried out by Central Ground Water Board. Since the total requirement of ground water is **90 m^3/day**, NOC is not required for ground water withdrawal from Central Ground Water Authority. However, to neutralize the adverse impact of ground water withdrawal that may arise on a long term basis, the industry/ project is advised to undertake the following measures:

1. Ground Water withdrawal shall not exceed the proposed quantity of **90 m^3/day**.
2. All abstraction structures should be fitted with water meter by the industry and monitoring of ground water abstraction to be undertaken accordingly on regular basis, at least once in a month. The data may be submitted on a yearly basis to the Regional Director, Central Ground Water Board, North Central Chhattisgarh Region, Raipur for perusal and records.
3. The industry should adopt and implement artificial recharge measures/rain water harvesting measures for augmenting the ground water resources of the area as per the hydrogeological investigation.
4. The industry shall ensure proper conservation measures, recycling and reuse of waste water after adequate treatment.
5. The industry shall monitor the ambient ground water regime of the area through piezometers and submit the data on a yearly basis to the Regional Director, Central Ground Water Board, North Central Chhattisgarh Region, Raipur for perusal and records.

Yours faithfully,

Regional Director

Copy for information to the:

1. Member Secretary, Chhattisgarh Environment Conservation Board, 1-Tilak Nagar, Shiv Mandir Chowk, Main Road, Awanti Vihar, Raipur-492006, Chhatisgarh, with a request to ensure that Rain Water Harvesting and Artificial Recharge methods are being implemented by the firm and quantity of withdrawal is not exceeding **90** m^3/day.
2. Regional Director, Central Ground Water Board, North Central Chhattisgarh Region, Reena Apartments, 2nd Floor, Panchpedi Naka, Raipur 492001, Chhattisgarh. This has reference to your letter No. 35-1/NCCR/Vol-VII-1468 dated 25.11.2011.
3. TS to Chairman, Central Ground Water Board, NH-IV, Faridabad.

Regional Director

Central Ground Water Authority
Ministry of Water Resources
Government of India

No. 21-4(119)/NCCR/CGWA/2011- 1827 **Dated-** 14 DEC 2011

To,
M/s Bharat Aluminium Corporation Ltd.
Mines Department, Engineering Building,
Plant – 1, BALCO
Korba 495684, Chhattisgarh.

Sub: Request for Ground Water clearance in respect of M/s Bharat Aluminium Corporation Ltd., for the proposed expansion of Bauxite mining at village Mainpat, Block & Tehsil Mainpat, District Surguja, Chhattisgarh -reg.

Sir,

The area where the project falls comes under safe category as per the ground water assessment carried out by Central Ground Water Board. Since the total requirement of ground water is **17 m^3/day**, NOC is not required for ground water withdrawal from Central Ground Water Authority. However, to neutralize the adverse impact of ground water withdrawal that may arise on a long term basis, the industry/ project is advised to undertake the following measures:

1. Ground Water withdrawal shall not exceed the proposed quantity of **17 m^3/day**.
2. All abstraction structures should be fitted with water meter by the industry and monitoring of ground water abstraction to be undertaken accordingly on regular basis, at least once in a month. The data may be submitted on a yearly basis to the Regional Director, Central Ground Water Board, North Central Chhattisgarh Region, Raipur for perusal and records.
3. The industry should adopt and implement artificial recharge measures/rain water harvesting measures for augmenting the ground water resources of the area as per the hydrogeological investigation.
4. The industry shall ensure proper conservation measures, recycling and reuse of waste water after adequate treatment.
5. The industry shall monitor the ambient ground water regime of the area through piezometers and submit the data on a yearly basis to the Regional Director, Central Ground Water Board, North Central Chhattisgarh Region, Raipur for perusal and records.

Yours faithfully,

Regional Director

Copy for information to the:

1. Member Secretary, Chhattisgarh Environment Conservation Board, 1-Tilak Nagar, Shiv Mandir Chowk, Main Road, Awanti Vihar, Raipur-492006, Chhatisgarh, with a request to ensure that Rain Water Harvesting and Artificial Recharge methods are being implemented by the firm and quantity of withdrawal is not exceeding **17** m^3/day.
2. Regional Director, Central Ground Water Board, North Central Chhattisgarh Region, Reena Apartments, 2nd Floor, Panchpedi Naka, Raipur 492001, Chhattisgarh. This has reference to your letter No. 35-1/NCCR/Vol-VII-1456 dated 25.11.2011.
3. TS to Chairman, Central Ground Water Board, NH-IV, Faridabad.

Regional Director

West Block-2, Wing-3, Ground Floor, R. K. Puram, Sector-1, New Delhi- 110066
Tel: (011) 26175362, 26175373, 26175367: Fax (011) 26175369 e-mail: tsmsml-cgwb@nic.in web site http cgwb.gov.

PLANTATION DETAILS

KAWARDHA MINES

Year	No. of saplings planted
2006-2007	50000
2007-2008	10000
2008-2009	5000
2009-2010	5000
2010-2011	15000
2011-2012	21000
2012-2013	175000
2013-2014	100000
2014-2015	73000
2015-2016	37500
2016-2017	12000
2017-2018	70000
2018-2019	5000
2019-2020	15000
2020-2021	30000
2021-2022	10000
2022-2023	0
2023-2024	0
2023-2024	0
2024-2025	0
2025-2026	0

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transforming for good

balco
BHARAT ALUMINIUM COMPANY LIMITED
P.O. - BALCO Nagar, Korba, CG
India - 495684

BALCO/ENV/A-02(A)/2025/530

Date:06.11.2025

To,
The Regional Officer (IRO),
Ministry of Environment and Forest, Climate Change,
Integrated Regional Office, Aranya Bhawan,
North Block, Sector-19,
Nava Raipur, Atal Nagar (CG) 492002.

Subject: Half Yearly Compliance Status Report (April 2025 to September 2025) of Bodai-Daldali Bauxite Mines, BALCO

Dear Sir,

This is in reference to the general condition no. xiii mentioned under the Environment Clearance No. J-11015/37/2010-IA II (M), dated 9th April, 2010. Consequently, please find enclosed herewith the Half Yearly Compliance Report of Bharat Aluminium Company Limited's (herein referred to as Balco) Bodai-Daldali Bauxite Mines.

We, on behalf of BALCO hope that the above is in line with the requirements under the above-referred Environment Clearance. In case you require any further information or clarification, we would be glad to furnish the same.

Thanking you,
Yours truly,
On behalf of Bharat Aluminium Company Ltd.

(Authorised Signatory)
Bodai Daldali Bauxite Mines

Enlc:- a/a

Copy to:

1. APCCF, MoEF&CC, Civil Line, Nagpur-44001.
2. Regional Officer, Chhattisgarh Environment Conservation Board, Durg (C.G).

Tender/Notice/Appointment

Bharat Aluminium Co. Ltd.
Korba, Chhattisgarh.

PUBLIC NOTICE

This is to inform the general public that Ministry of Environment and Forests (MOEF) Govt. of India has accorded Environmental Clearance for Bodai-Daldali Bauxite Mine of Bharat Aluminium Company Limited (BALCO) for expansion of Bauxite Production Capacity from 0.3 MTPA to 1.25 MTPA. A copy of the clearance letter no. J-11015/37/2010 IA.II (M) dt. April 9, 2010 is available with Chhattisgarh Environment Conservation Board and also at website of MOEF http://envfor.nic.in.

For Bharat Aluminium Co. Ltd.
Korba, Chhattisgarh.

Central Chronicle : Apr 13, 2010

भारत एल्यूमिनियम
कम्पनी लिमिटेड
कोरबा, छत्तीसगढ़

सर्वसाधारण को यह सूचित किया जाता है कि पर्यावरण एवं वन मंत्रालय, भारत सरकार द्वारा भारत एल्यूमिनियम कम्पनी लिमिटेड (बालको) की बोदई दलदली बाक्साइट खदान की उत्खनन क्षमता 0.3 मिलियन टन प्रति वर्ष से बढ़ाकर 1.25 मिलियन टन प्रति वर्ष करने की अनुमति प्रदान की गई है । अनुमति पत्र क्रमांक जे-11015/37/2010-आई ए II (एम) दिनांक अप्रेल 9, 2010 की प्रति छत्तीसगढ़ पर्यावरण संरक्षण मंडल और पर्यावरण एवं वन मंत्रालय की वेबसाईट http://envfor.nic.in में उपलब्ध है

कृते
भारत एल्यूमिनियम
कम्पनी लिमिटेड
कोरबा, छत्तीसगढ़

Deshbandhu Apr 13, 2010