BALCO/ENV/A -02(A)/2026/404 Date: 28.10.2026

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

Sub: Half Yearly Compliance Status Report (April 2026 to September 2026) of the 1200 MW Coal based Thermal Power Plant.

Respected Sir,

As per the Environment Clearance (No J-13011/16/2007.IA-II (T) dated 14.08.2007, subsequent amendment dated 27.04.11 and extension dated 18.09.2014) received for the expansion of Thermal Power Plant by M/s Bharat Aluminium Company Limited (hereinafter referred to as 'BALCO'), Korba, please find enclosed herewith the compliance report along with the necessary supporting documents.

We hope that the above is in line with the requirements under the referred Environment Clearance. In case your good office requires any further information or clarification, we would be glad to furnish the same.

Thanking you,

Yours Truly,
On behalf of Bharat Aluminum Company Ltd.

(Authorized Signatory)

Encl: a/a

Copy to: The Regional Officer, Chhattisgarh Environment Conservation Board, Korba.

COMPLIANCE STATUS 1200MW COAL BASED THERMAL POWER PLANT
AT KORBA, CHHATTISGARH BY M/s BALCO LTD.
Duration: April 2026 to September 2026
MoEF&CC's Letter No: J-13011/16/2007-IA.II (T), dated 14.08.2007 and dated 27.04.11 and EC extension dated 18.09.2014.

S.No	Terms & Condition	Present Status
i	The total land requirement shall not exceed 355 acres for all the activities/facilities of the power project.	Noted and Complied.
ii	Ash & Sulphur contents in the coal to be used as fuel shall not exceed 42% and 0.5% respectively.	The ash and sulphur content in coal on feed basis is within the mentioned limits. With respect to this point, please note that there has been a MoEFCC notification dated 21.05.2020 and subsequent amendments that substituted Rule 3(8) of the Environment (Protection) Rules, 1986 and stated that the TPPs can use coal without any stipulations as to ash content or distance subject to fulfilment of certain conditions such conditions include technology solution for emission norms, management of ash pond, safe transportation among others. It is submitted that above conditions are being complied.
iii	Two bi-flue stacks of 275 m height shall be provided with continuous online monitoring equipment's for SOx, NOx, and PM2.5 & PM10. Exit velocity of flue gases shall not be less than 22 m/sec. Mercury emissions from stack may also monitored on periodic basis.	Two bi-flue stacks of 275m height have been installed. Analyzers have been installed and connected to CPCB&CECB server. Exit velocity of flue gases is being maintained ≥ 22 m/sec. Mercury emission from stack is being monitored on periodic basis and report is submitted on monthly basis to CECB.
iv	High efficiency Electrostatic Precipitator (ESP) with efficiency not less than 99.9% shall be installed so as to ensure that particulate emissions do not exceed 50mg/Nm^3.	Hybrid Electrostatic Precipitator (ESP) followed with bag filters have been installed for ensuring emission level below the norms i.e. 50 mg/Nm^3.
v	Space provision shall be made for Flue Gas De-sulphurisation (FGD) unit of requisite efficiency of removal of SO_2, if required at a later stage.	Space provision for flue gas De-sulphurisation (FGD) is being ensured.
vi	Low NOx burners shall be installed.	Low NOx burners have been installed.
vii	Closed Circuit Cooling system with cycle of concentration (COC) of 5 shall be provided.	Induced Draft Cooling Tower (IDCT) with COC 5 has been provided.
viii	For controlling fugitive dust, regular sprinkling of water in the coal handling area and other vulnerable areas of the plant shall be ensured.	Dust Suppression and Dust Extraction system, Rain guns & Water sprinklers have been provided to suppress dust emission from coal handling plant.

S.No	Terms & Condition	Present Status
ix	The project authorities should adhere to the provisions stipulated in the fly ash notification of September 1999 and as amended in august, 2003 in regard to fly ash utilization.	We are complying with the conditions as notified in the Fly Ash notification 2021. Presently, fly ash is being sent to Sustainable avenues like Cement manufacturing, Brick manufacturing, Road construction/NHAI, stone quarry etc.
x	The unutilized fly ash and bottom ash shall be disposed in the form of high concentration slurry in the abandoned red mud ponds. The ash pond shall be lined with Impervious lining to avoid any leaching into ground water. The ash dyke shall be so designed and strengthened to ensure guard against breaching. Adequate safety measures shall also be taken so that pond ash does not become air borne to cause air pollution in the surrounding areas.	High Concentrated Slurry Disposal system has been adopted for disposal of ash in ash ponds (abandoned red mud ponds). The Fly ash is being disposed in these ponds/ Ash Dyke as per the feasibility study and design submitted by the consultant. Adequate safety measures have been taken during construction. Further, adequate measures have been taken to ensure that pond ash doesn't become airborne.
xi	Rainwater harvesting should be adopted. Central Groundwater Authority /Board shall be consulted for finalization of appropriate rainwater harvesting structure within a period of three months from the date of clearance.	Complied.
xii	The study on reuse of 1920 m^3/day of discharge water shall be completed early latest within three months and submitted to MoEF. Based on the same, any additional safeguard measures required shall be implemented in the project. Zero discharge shall be adopted.	The wastewater generated in the power plant is being treated in ETP and recycled back into the system.
xii	Regular monitoring of ground water quality including heavy metals shall be undertaken around ash dyke and the project area to ascertain the change, if any, in the water quality due to leaching of contaminants from ash disposal area.	Regular monitoring of ground water quality including heavy metals is being carried out.
xiii	A green belt shall be developed all along the plant and ash pond boundary covering a total area of 1/3 of total project area.	Extensive tree plantation is being carried out every year in all open spaces available in and around the BALCO Plant including ash dyke and township. Approximate ~77,000 saplings were planted under GAP plantation and CSR in the year FY 2025-26.
xiv	First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	First aid and sanitation for the drivers and Business Partners have been provided.

S.No	Terms & Condition	Present Status
xv	Leq of Noise level should be limited to 75 dBA and regular maintenance of equipment be undertaken. For people working in the high noise areas, personal protection devices should be provided.	Equipment has been designed with acoustic enclosures to ensure that noise level at plant boundary is within the stipulated level. Personal protective equipment is being provided to the workers in high-noise areas.
xvi	Regular Monitoring of the ambient air quality shall be carried out in and around the power plant and records maintained. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Quarterly reports shall be submitted to the Regional Office of this Ministry.	Regular monitoring of AAQ is carried out at designated locations approved by Chhattisgarh Environment Conservation Board and reports are submitted to the board on a monthly basis. (**Annexure-I**).
xvii	The project proponent should advertise within seven days of issue of environmental clearance, in at least two local newspapers widely circulated in the region around the project, one of which should be in the vernacular language of the locality concerned, informing that the project has been accorded environmental clearance and copies of clearance letters are available with the State Pollution Control Board/Committee and may also be seen in the website of the Ministry of Environment and Forest in the http://envfor.nic.in.	Complied with. Newspaper publication Date as below. 1.Haribhumi – 18.08.07 2.Deshbandhu – 18.08.07 **(Annexure-II)**
xviii	A separate environment monitoring cell with suitable qualified staff should be set up for implementation of the stipulated environmental safeguards.	An environmental cell with qualified personnel under the control of a senior executive is already in place. Also NABL accredited third party has been appointed for environmental monitoring and analysis.
xix	Half Yearly report on the status of implementation of the conditions and environmental safeguards should be submitted to this ministry, the Regional office, CPCB and SPCB.	Half yearly Compliance report submitted regularly. Last submitted vide our letter BALCO/ENV/A - 02(A)/2026/216 dated 29th May 2026.
xx	Regional office of the Ministry of Environment & Forests located at Bhopal will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report, Environment Management Plan and the additional information / clarifications submitted subsequently should be forwarded to the Regional Office for their use during monitoring.	Complied with.

S.No	Terms & Condition	Present Status
xxi	Separate funds should be allocated for the implementation of environmental protection measures along with item-wise break-up. These costs should be included as part of the project cost. The funds earmarked for the environment protection measures should not be diverted for other purposes and year-wise expenditure should be reported to the ministry.	Separate funds are allocated for the implementation of environmental protection measures. The expenses incurred in environmental protection measures has been mentioned in Environment Statement and it is submitted to ministry every year.
xxii	Full cooperation should be extended to the scientists/Officers from the Ministry and its Regional Office at Bhopal / the CPCB/ the SPCB during monitoring of the project.	Complied.
xxiii	The project proponent shall upload the status of compliance of the conditions stipulated in the environmental clearance issued vide this Ministry's letter of even no. dated 14.08.2007, in its website and updated periodically and also simultaneously send the same by e-mail to the Regional Office of the Ministry of Environment and Forests.	Status of compliance of conditions stipulated in the environmental clearance issued vide this Ministry's letter dated 14.08.2007 is submitted regularly on BALCO's website and shared thoughe-mail to the Regional Office of the Ministry of Environment and Forests and Head Office, CECB.
xxiv	Criteria pollutants levels including NOx, RSPM (PM10 & PM 2.5), SOx (from stack & ambient air) shall be regularly monitored, and results displayed in your website and also at the main gate of the power plant.	Online monitoring equipment for stack & ambient air have been provided for continuous monitoring of pollutants and this is being displayed at the main gate, website and CPCB&CECB server.
xxv	The action plan formulated for CECB/CPCB shall be complied.	Korba action plan is reviewed by CECB and is being complied for 1200 MW power plant.
xxvi	Harnessing solar power within the premises of the plant particularly at available roof tops shall be undertaken and status of implementation shall be submitted periodically to the regional office of the ministry.	Complied with.
xxvii	A long-term study on radioactivity and heavy metals contents on coal to be used shall be carried out through a reputed institute. Thereafter mechanism for in-built continuous monitoring for radio activity and heavy metals in coal and fly ash (including bottom ash) shall be put in place.	Analysis of coal for radioactivity and heavy metal contents of coal carried out through NABL accredited Laboratory. For in-built continuous monitoring for radioactivity and heavy metals in coal and fly ash (including bottom ash), we have sought advice from the following departments: 1. Atomic Energy Regulatory board vide letter 1200/ Envt /A-01/2018/120 dated 30.04.2018 2. Uranium Corporation of India Ltd vide letter 1200/ Envt/ A-01 / 2018/ 142 dated 14.05.2018 3. Bhabha Atomic Research Centre vide letter1200 /Envt/ A-01 /2018 /143 dated 14.05.2018

S.No	Terms & Condition	Present Status
xxviii	Mercury emission from stack also shall be monitored on periodic basis.	Monitoring of mercury emissions from stack is carried out every month and reports submitted to Regional Office on monthly basis.
xxix	No ground water shall be extracted for use in the operation of power plant even in lean season. No water bodies including natural drainage system in the area shall be disturbed due to activities associated with the setting up /operation of the power plant.	Complied.
xxx	Minimum required flow suggested by the competent authority of the state Govt. shall be maintained in the channel /Rivers (as applicable) even in lean season.	Water is supplied to BALCO from the Water Management Division of Hasdeo Barrage as per the water withdrawal agreement only.
xxxi	Fly ash shall not be used for agricultural purpose. No mine void filling will be undertaken as an option for ash utilization without adequate lining of mine with suitable media such that no leachate shall take place at any point of time. In case the option of mine void filling is to be adopted, prior detailed study of soil characteristics of the mine area shall be undertaken from an institute of repute and adequate clay lining shall be ascertained by the state pollution control board and implementation done in close coordination with the state pollution control board.	Presently, fly ash is not used as soil conditioner in agricultural needs.
xxxii	Green belt shall also be developed around the ash pond over and above the green belt around the plant boundary.	Complied. Saplings have been planted in areas available on and around Ash dyke.
xxxiii	Monitoring of surface water quantity and quality shall also be regularly conducted, and records maintained. The monitored data shall be submitted to the ministry regularly. Further monitoring points shall be located between the plant and drainage in the direction of flow of ground water and records maintained. Monitoring for heavy metals in ground water shall be undertaken.	Complied. Surface water and ground water monitoring is being carried out regularly and reports being submitted to CECB on regular basis. Refer to **Annexure-III.**

S.No	Terms & Condition	Present Status
xxxiv	The environment statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned state pollution control board as prescribed under the environment protection rules 1986 as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective regional offices of the ministry by email.	Complied. Submitted vide letter no: CPP-II/ENVT/A-02(C)/2026/365, Dated: 28th September 2026.
xxxv	CSR schemes identified based on need-based assessment shall be implemented in consultation with the village panchayat and the district administration starting from development of project itself. As part of CSR prior identification of local employable youth and eventual employment in the project after imparting relevant training shall be also undertaken. Company shall provide separate budget for community development activities and income generating programs.	The company has set up a vocational skills school in BALCO currently in partnership with Social Empowerment & Economic Development Society (Learned Skills Limited) in FY'11-12. The centre along with residential setup provides vocational training and placement assistance in 7 disciplines namely, Welding, Electrician, Fitter, Hospitality (F&B), Solar PV Technician, Industrial Sewing and Mobile Repair. A separate amount is allocated for the centre each year and till date 17.89 crores rupees have been invested by BALCO under the project. Till date more than 14,968 Youths with 76% placement record.
xxxvi	The project proponent shall also adequately contribute in the development of the neighboring villages. Special package with implementation schedule for free potable drinking water supply in the nearby villages and schools shall be undertaken in a time bound manner.	BALCO has ensured the availability of water through creation of community assets in different villages and has always been proactive in fulfilling the needs of the community and in future, the organization will ensure the availability of water whenever the need arises from the community.

Rupal

S.No	Terms & Condition	Present Status
xxxvii	For proper and periodic monitoring of CSR activities, a CSR committee or a social audit committee or a suitable credible external agency shall be appointed. CSR activities shall also be evaluated by an independent external agency. This evaluation shall be both concurrent and final.	BALCO has a CSR Board Committee which meets once a year and approves the annual CSR plan. There is also a dedicated third party concurrent auditor who does a quarterly review of all expenditures. Also, the dedicated CSR professionals in the Company are responsible for project design, monitoring & reporting. For large flagship projects, we have monthly Project Steering Committees (PSCs) in place comprising of CSR team and implementing partners. The PSC is responsible for reviewing the projects.
xxxviii	An environment cell comprising of atleast one expert in environmental science/engineering, ecology, occupational health and social science, shall be created at the project site itself and shall be headed by an officer of appropriate superiority and qualification. It shall be ensured that the head of the cell shall directly report to the head of the plant who would be accountable for implementation of environmental regulations and social impact improvement/mitigation measures.	Environmental Management Cell is in place headed by Senior Executive, directly reporting to the Head of the Unit and is accountable for implementation of environmental regulations and social impact improvement/mitigation measures. The environment management cell is enabled by trained professionals in respective fields of environment, safety and occupational health.
xxxix	The project proponent shall formulate a well laid corporate environment policy and identify and designate responsible officers at all levels of its hierarchy for ensuring adherence to the policy and compliance with the conditions stipulated in this clearance letter and other applicable environmental laws and regulations.	Corporate Environment policy is formulated and designated officers are responsible for adherence to the policy and compliance with the conditions stipulated in this clearance letter and other applicable environmental laws and regulations.

Compliance status of Office Memorandum F.No.22-13/2019-IA.III MoEF&CC dated 28th August 2019.		
S. No	**Condition**	**Status**
i	The guidelines prepared by CPCB for the disposal of fly Ash for reclamation of low lying areas and in stowing /backfilling of abandoned mines/quarries shall be followed during disposal of ash in abandoned or working mines, as annexed.	The guidelines prepared by CPCB are being followed while disposal of fly ash for stowing/ backfilling of abandoned mines/ quarries. Due permission is sought from Chhattisgarh Environment Conservation Board (CECB) for backfilling of abandoned mines.
ii	There should at least be clearance of 500 m of safe distance be maintained from River and water body in case of ash disposal in abandoned mines to prevent embankment failure and fly ash flowing into the nearby water body.	Noted and Complied.
iii	The top layer of the fly ash disposal area in the abandoned mines shall be kept moist during disposal.	Noted and Complied.
iv	Top layer of disposal area should have 70 cm overburden or Gravels/stones and then 30 cm sweet soil cover. Subsequently, the vegetation shall be raised on the soil cover.	Noted and Complied.
v	Bioaccumulation and bio-magnification tests shall be conducted around the surrounding flora and fauna (tree leaves, vegetation, crop yields and cattle population) during pre-monsoon and post monsoon to find out any trace metals escaped through ground water or runoff.	Noted.
vi	Surface runoff and supernatant water, in any case shall not be let in to the surrounding areas. It shall be collected by providing adequate drains around the mine. The supernatant water along with surface runoff shall be treated and re-used for mixing ash and plant operations.	The surface run-off and supernatant water is being collected and recycled/ reused.
vii	To the extent possible, only decanted water from mine, make up water from treated effluents such as cooling tower blow down and treated sewage water shall be used for making ash slurry.	The water from treated effluent such as cooling tower blowdown is utilized for slurry making.
Viii	Fly ash to be used as soil conditioner in agriculture needs and to be applied in controlled manner to limit excessive application so as to prevent soil degradation. The optimize proportion of ash to be applied which is to be certified by the State Agriculture Universities /Collages based on the soil testing.	Presently, fly ash is not used as soil conditioner in agricultural needs.
ix	Approval from DGMS shall be obtained before disposing the ash in the mine voids.	Complied.

x	Technology for conversion of fly ash into coarse granules for stowing in the underground mines to be explored.	Presently, fly ash is being sent to Sustainable avenues like Cement manufacturing, Brick manufacturing, Road construction/NHAI, Stone quarry filling etc., Technology for conversion of fly ash into coarse granules will be explored if needed in future as demand for stowing in the underground mines arises.
xi	All the power plants should install different silos for dry collection of fly ash.	We have installed separate silos for dry collection of fly ash and the same are utilized for utilization of fly ash in cement and brick plants.
Xii	Records pertaining to details of month wise quantity of fly ash disposed and water consumption along with nature /source of water shall be maintained and submitted to Ministry /Regional Office annually.	Monthly details of quantity of fly ash disposed in mines is submitted to Regional Office-CEC. Specific Water consumption reports are also submitted to CPCB &CECB on quarterly basis.
xiii	Before starting the disposal of ash into mine voids, the NOC/permission from the mine owner is to be obtained in case the mine closure activities are not completed or State Government in case the mine has been handed over to the State Govt. after its closure. A copy of such NOC/Permission is to be submitted to the Ministry and its Regional Offices.	Presently, fly ash is being sent to Sustainable avenues like Cement manufacturing, Brick manufacturing, Road construction/NHAI, stone quarry filling etc.,

Compliance status of MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE NOTIFICATION dated 21st May 2020		
S. No	**Condition**	**Status**
i	**Setting Up Technology Solution for emission norms:** Compliance of specified emission norms for Particulate Matter, as per extant notifications and instructions of Central Pollution Control Board, issued from time to time.	Hybrid Electrostatic Precipitator (ESP) followed with bag filters have been installed for ensuring emission level below the norms i.e. 50 mg/Nm^3.
ii	**Management of Ash Ponds:** The thermal powers plants shall comply with conditions, as notified in the Fly Ash notification issued from time to time, without being entitled to additional capacity of fly ash pond (for existing power generation capacity) on ground of switching from washed coal to unwashed coal.	We are complying with the conditions as notified in the Fly Ash notification. Fly ash is being sent for road construction, cement plants and brick manufacturing as per fly ash notification.
iii	**Management of Ash Ponds:** Appropriate Technology solutions shall be applied to optimise water consumption for Ash management;	HCSD system has been adopted to optimize water consumption for ash management. Further decanted water from ash pond is recycled back for slurry making. Additionally,

		treated water from power plant is also being used for ash slurry making. This ensures the water consumption at optimum level.
iv	**Management of Ash Ponds:** The segregation of ash may be done at the Electro-Static Precipitator stage, if required, based on site specific conditions, to ensure maximum utilization of fly ash;	Separate dry ash collection is in place for collection of fly ash. The dry ash is provided to cement plants, brick manufacturers through these silos itself.
v	**Management of Ash Ponds:** The thermal power plants to dispose fly ash in abandoned or working mines (to be facilitated by mine owner) with environmental safeguards.	No fly ash has been sent for mine void filling between April 2026 to September 2026.
vi	**Transportation:** Coal transportation may be undertaken by covered Railway wagon (railway wagons covered by tarpaulin or other means) and/or covered conveyer beyond the mine area. However, till such time enabling Rail transport/conveyer infrastructure is not available, road transportation may be undertaken in trucks, covered by tarpaulin or other means.	Mode of transportation of coal is rail and road with mitigative measures. a. For the transportation of coal by railway it may be noted that it contains 10% to 15% moisture in dry season. As a result, there is no chance of particulate matter getting airborne - or spillage during transportation. b. For the transportation of coal by road, the coal is received in tarpaulin-covered trucks. We are complying with the office order dated 26.06.2024 given by CECB regarding transportation of materials using tarpaulin covered trucks.
vii	**Transportation:** It shall be ensured by the thermal power plant that a. Rail siding facility or conveyor facility is set up at or near the power plant, for transportation by rail or conveyor; and b. If transportation by rail or conveyor facility is not available, ensure that the coal is transported out from the Delivery Point of the respective mine in covered trucks (By tarpaulin or other means), or any mechanized closed trucks by road.	The plant receives coal through rail and road. a. For the transportation of coal by railways, railway siding facility has been set up inside the plant premises for unloading of coal. b. For the transportation of coal through road, the coal is received in tarpaulin-covered trucks.

Lupas

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ISSUED TO:	Report No.:	VLL/VLS/26-27/02504/001
M/s. Bharat Aluminium Company Limited,	Issue Date:	2026-05-05
KORBA (C.G.)	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT PARSABHATA GATE (BALCO)

Analysis starting date :- 2026-04-03 **Analysis Completion date :- 2026-05-04**

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : PARSABHATA GATE									
Sampling Date			2026-04-02	2026-04-04	2026-04-08	2026-04-10	2026-04-14	2026-04-16	2026-04-20	2026-04-22	2026-04-28	Method
Sulphur Dioxide as SO_2	µg/m³	80	37.3	28.1	38.2	35.0	33.7	29.3	39.3	26.6	27.0	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	µg/m³	80	16.1	14.7	22.7	14.7	20.7	18.9	14.8	18.5	14.7	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m³	100	57.8	55.1	63.5	58.3	47.9	59.6	62.4	58.6	54.7	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m³	60	23.3	21.8	26.7	24.0	19.5	25.3	26.8	22.7	20.9	IS 5182 (PART-24) 2019
Ammonia as NH_3	µg/m³	400	3.6	2.9	2.9	3.6	2.1	1.9	3.5	2.1	1.8	APHA 3rd Edition - 401
Benzene as C_6H_6	µg/m³	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	IS 5182 (PART-11) RA 2017
Benzo(a) Pyrene in particulate phase	ng/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	IS 5182 (PART-12) RA 2019
Arsenic as As	ng/m³	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m³	20	3.9	5.6	4.3	7.1	4.9	5.8	4.3	6.2	5.7	USEPA IO 3.4
Lead as Pb	µg/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	µg/m³	2000	105	176	168	147	172	139	120	185	142	IS 5182 (PART-10) RA 2019
Ozone as O_3	µg/m³	100	3.6	5.8	2.8	14.7	8.9	6.9	3.5	5.9	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/26-27/02504/002
M/s. Bharat Aluminium Company Limited,	Issue Date:	2026-05-05
KORBA (C.G.)	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT ETP SMELTER (BALCO)

Analysis starting date :- 2026-04-03 **Analysis Completion date :- 2026-05-04**

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : ETP SMELTER									
Sampling Date			**2026-04-02**	**2026-04-04**	**2026-04-08**	**2026-04-10**	**2026-04-14**	**2026-04-16**	**2026-04-20**	**2026-04-22**	**2026-04-28**	**Method**
Sulphur Dioxide as SO_2	$\mu g/m^3$	80	35.1	36.3	38.0	28.5	39.8	33.6	25.1	34.9	38.9	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	$\mu g/m^3$	80	14.1	19.8	18.7	17.5	20.8	16.0	18.6	14.5	14.9	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	$\mu g/m^3$	100	61.3	55.9	68.1	54.5	57.3	63.9	59.6	70.4	62.8	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	$\mu g/m^3$	60	25.3	22.8	28.3	21.7	24.6	26.9	25.0	30.3	27.5	IS 5182 (PART-24) 2019
Ammonia as NH_3	$\mu g/m^3$	400	1.9	2.1	3.1	0.9	2.9	1.4	1.0	1.7	2.8	APHA 3rd Edition - 401
Benzene as C_6H_6	$\mu g/m^3$	5	<1.0	<1.0	<1.0	<1.0	<1.0	<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	<0.1	<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	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m^3	20	5.3	3.2	5.7	4.1	6.6	4.9	5.3	6.2	5.8	USEPA IO 3.4
Lead as Pb	$\mu g/m^3$	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	$\mu g/m^3$	2000	134	161	87	117	141	169	182	221	153	IS 5182 (PART-10) RA 2019
Ozone as O_3	$\mu g/m^3$	100	9.3	7.6	5.2	16.1	9.2	11.6	6.6	4.3	4.2	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/26-27/02504/003
M/s. Bharat Aluminium Company Limited,	Issue Date:	2026-05-05
KORBA (C.G.)	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT COMPRESSOR HOUSE (BALCO)

Analysis starting date :- 2026-04-03 **Analysis Completion date :- 2026-05-04**

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : COMPRESSOR HOUSE									
Sampling Date			2026-04-02	2026-04-04	2026-04-08	2026-04-10	2026-04-14	2026-04-16	2026-04-20	2026-04-22	2026-04-28	Method
Sulphur Dioxide as SO_2	µg/m^3	80	32.7	42.3	37.7	28.8	36.9	34.2	29.7	31.0	40.4	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	µg/m^3	80	15.0	17.4	20.3	13.6	15.3	20.3	12.2	13.6	16.1	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m^3	100	58.9	62.7	56.4	59.2	61.7	53.6	68.1	65.8	57.4	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m^3	60	23.8	26.2	21.8	24.5	26.8	20.4	28.9	27.4	22.6	IS 5182 (PART-24) 2019
Ammonia as NH_3	µg/m^3	400	1.1	1.7	3.5	0.8	1.2	3.2	1.5	1.6	2.1	APHA 3rd Edition - 401
Benzene as C_6H_6	µg/m^3	5	<1.0	<1.0	<1.0	<1.0	<1.0	<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	<0.1	<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	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m^3	20	5.6	6.1	4.9	3.6	6.2	4.7	5.5	3.8	5.4	USEPA IO 3.4
Lead as Pb	µg/m^3	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	µg/m^3	2000	124	173	151	168	95	148	123	78	106	IS 5182 (PART-10) RA 2019
Ozone as O_3	µg/m^3	100	20.3	9.8	3.9	10.6	7.7	8.3	8.2	3.1	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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ISSUED TO: M/s. Bharat Aluminium Company Limited, KORBA (C.G.)	Report No.:	VLL/VLS/26-27/02504/004
	Issue Date:	2026-05-05
	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT RAILWAY CONTROL ROOM (BALCO)

Analysis starting date :- 2026-04-03 **Analysis Completion date :- 2026-05-04**

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : RAILWAY CONTROL ROOM									
Sampling Date			2026-04-02	2026-04-04	2026-04-08	2026-04-10	2026-04-14	2026-04-16	2026-04-20	2026-04-22	2026-04-28	Method
Sulphur Dioxide as SO_2	$\mu g/m^3$	80	38.8	37.6	28.5	38.4	27.3	36.0	28.7	39.6	39.7	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	$\mu g/m^3$	80	15.1	13.3	15.3	14.0	13.7	12.8	11.8	10.9	12.4	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	$\mu g/m^3$	100	50.7	53.1	61.9	64.4	56.3	66.9	69.4	58.6	60.5	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	$\mu g/m^3$	60	18.4	21.8	25.6	27.4	22.5	28.6	30.3	24.1	23.7	IS 5182 (PART-24) 2019
Ammonia as NH_3	$\mu g/m^3$	400	1.6	2.2	2.1	0.7	1.4	1.3	1.3	1.1	1.3	APHA 3rd Edition - 401
Benzene as C_6H_6	$\mu g/m^3$	5	<1.0	<1.0	<1.0	<1.0	<1.0	<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	<0.1	<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	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m^3	20	5.2	3.7	4.1	4.6	4.4	6.3	5.7	4.1	3.3	USEPA IO 3.4
Lead as Pb	$\mu g/m^3$	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	$\mu g/m^3$	2000	137	154	86	105	113	68	121	89	123	IS 5182 (PART-10) RA 2019
Ozone as O_3	$\mu g/m^3$	100	5.6	4.8	2.5	10.1	8.6	6.2	3.0	2.0	3.6	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: M/s. Bharat Aluminium Company Limited, KORBA (C.G.)	Report No.:	VLL/VLS/26-27/02504/005
	Issue Date:	2026-05-05
	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT 540MW, DM PLANT (BALCO)

Analysis starting date :- 2026-04-03 **Analysis Completion date :- 2026-05-04**

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : 540MW, DM PLANT									
Sampling Date			2026-04-02	2026-04-04	2026-04-08	2026-04-10	2026-04-14	2026-04-16	2026-04-20	2026-04-22	2026-04-28	Method
Sulphur Dioxide as SO_2	$\mu g/m^3$	80	24.8	32.7	31.9	35.8	38.6	36.0	29.1	37.6	37.0	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	$\mu g/m^3$	80	12.9	16.2	18.4	16.2	22.7	20.8	19.5	16.7	16.6	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	$\mu g/m^3$	100	64.7	59.1	60.3	54.2	69.6	52.9	68.3	70.5	62.8	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	$\mu g/m^3$	60	27.1	23.4	25.3	21.7	30.2	22.8	27.5	32.2	26.9	IS 5182 (PART-24) 2019
Ammonia as NH_3	$\mu g/m^3$	400	1.1	1.6	3.6	0.6	1.8	2.3	0.8	1.5	1.5	APHA 3rd Edition - 401
Benzene as C_6H_6	$\mu g/m^3$	5	<1.0	<1.0	<1.0	<1.0	<1.0	<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	<0.1	<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	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m^3	20	5.8	4.2	6.2	4.9	3.6	5.1	4.7	3.5	6.9	USEPA IO 3.4
Lead as Pb	$\mu g/m^3$	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	$\mu g/m^3$	2000	142	264	119	215	234	177	135	94	186	IS 5182 (PART-10) RA 2019
Ozone as O_3	$\mu g/m^3$	100	4.1	7.0	6.2	5.1	10.8	8.3	7.3	4.3	4.7	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:		
M/s. Bharat Aluminium Company Limited,	Report No.:	VLL/VLS/26-27/02504/012
KORBA (C.G.)	Issue Date:	2026-05-05
	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT ROGBHERI VILLAGE (ASH DYKE)

Analysis starting date :- 2026-04-03 **Analysis Completion date :- 2026-05-04**

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : ROGBHERI VILLAGE									
Sampling Date			**2026-04-02**	**2026-04-04**	**2026-04-08**	**2026-04-10**	**2026-04-14**	**2026-04-16**	**2026-04-20**	**2026-04-22**	**2026-04-28**	**Method**
Sulphur Dioxide as SO_2	$\mu g/m^3$	80	12.2	14.4	17.4	14.2	16.5	19.6	17.4	15.3	13.8	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	$\mu g/m^3$	80	8.1	9.7	8.7	10.6	11.9	12.7	9.0	8.4	10.1	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	$\mu g/m^3$	100	66.7	58.5	52.9	54.7	52.8	59.3	48.6	57.4	53.1	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	$\mu g/m^3$	60	24.3	20.8	16.2	20.4	18.7	21.4	16.5	19.1	17.9	IS 5182 (PART-24) 2019
Ammonia as NH_3	$\mu g/m^3$	400	0.6	0.5	0.9	0.6	0.8	0.6	0.5	0.7	1.0	APHA 3rd Edition - 401
Benzene as C_6H_6	$\mu g/m^3$	5	<1.0	<1.0	<1.0	<1.0	<1.0	<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	<0.1	<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	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m^3	20	5.7	3.8	4.1	5.2	4.9	5.1	3.4	4.9	3.5	USEPA IO 3.4
Lead as Pb	$\mu g/m^3$	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	$\mu g/m^3$	2000	87	69	104	72	81	134	75	94	119	IS 5182 (PART-10) RA 2019
Ozone as O_3	$\mu g/m^3$	100	2.1	1.7	1.4	3.8	2.8	2.4	3.2	1.9	1.5	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: M/s. Bharat Aluminium Company Limited, KORBA (C.G.)	Report No.:	VLL/VLS/26-27/05017/001
	Issue Date:	2026-06-04
	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT PARSABHATA GATE (BALCO)

Analysis starting date :- 2026-05-04

Analysis Completion date :- 2026-06-03

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : PARSABHATA GATE									
Sampling Date			2026-05-01	2026-05-07	2026-05-09	2026-05-13	2026-05-15	2026-05-19	2026-05-21	2026-05-25	2026-05-27	Method
Sulphur Dioxide as SO_2	µg/m³	80	25.7	35.8	24.5	41.0	37.6	26.2	34.1	44.4	33.5	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	µg/m³	80	20.6	17.0	11.5	14.1	14.7	17.6	13.7	19.4	15.5	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m³	100	57.6	68.3	64.9	58.3	67.8	60.4	68.1	56.3	60.5	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m³	60	22.0	28.3	25.8	23.2	27.3	24.6	29.4	22.4	24.7	IS 5182 (PART-24) 2019
Ammonia as NH_3	µg/m³	400	2.2	1.7	3.2	2.6	2.6	4.1	2.3	2.4	1.3	APHA 3rd Edition - 401
Benzene as C_6H_6	µg/m³	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	IS 5182 (PART-11) RA 2017
Benzo(a) Pyrene in particulate phase	ng/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	IS 5182 (PART-12) RA 2019
Arsenic as As	ng/m³	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m³	20	3.9	5.6	4.3	7.1	4.9	5.8	4.3	6.2	5.7	USEPA IO 3.4
Lead as Pb	µg/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	µg/m³	2000	105	176	168	147	172	139	120	185	142	IS 5182 (PART-10) RA 2019
Ozone as O_3	µg/m³	100	11.3	13.9	2.4	2.7	3.8	2.8	19.2	5.5	9.5	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:
M/s. Bharat Aluminium Company Limited,
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Report No.:	VLL/VLS/26-27/05017/002
Issue Date:	2026-06-04
P.O.No:	3402001553
P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT ETP SMELTER (BALCO)

Analysis starting date :- 2026-05-04

Analysis Completion date :- 2026-06-03

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : ETP SMELTER									
Sampling Date			2026-05-01	2026-05-07	2026-05-09	2026-05-13	2026-05-15	2026-05-19	2026-05-21	2026-05-25	2026-05-27	Method
Sulphur Dioxide as SO_2	µg/m³	80	40.4	45.2	37.0	34.4	42.8	32.7	30.4	41.2	27.1	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	µg/m³	80	12.7	15.6	16.3	17.1	19.1	17.6	11.7	11.3	13.7	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m³	100	59.4	57.5	61.9	70.1	68.5	66.7	73.3	59.4	63.8	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m³	60	24.2	22.3	25.7	29.3	26.8	24.4	30.1	23.5	27.2	IS 5182 (PART-24) 2019
Ammonia as NH_3	µg/m³	400	1.7	1.5	0.8	1.2	2.2	2.3	1.7	1.2	1.5	APHA 3rd Edition - 401
Benzene as C_6H_6	µg/m³	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	IS 5182 (PART-11) RA 2017
Benzo(a) Pyrene in particulate phase	ng/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	IS 5182 (PART-12) RA 2019
Arsenic as As	ng/m³	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m³	20	5.3	3.2	5.7	4.1	6.6	4.9	5.3	6.2	5.8	USEPA IO 3.4
Lead as Pb	µg/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	µg/m³	2000	134	161	87	117	141	169	182	221	153	IS 5182 (PART-10) RA 2019
Ozone as O_3	µg/m³	100	6.0	8.9	2.2	2.1	3.5	1.8	3.6	2.8	5.0	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:
M/s. Bharat Aluminium Company Limited,
KORBA (C.G.)

Report No.:	VLL/VLS/26-27/05017/003
Issue Date:	2026-06-04
P.O.No:	3402001553
P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT COMPRESSOR HOUSE (BALCO)

Analysis starting date :- 2026-05-04

Analysis Completion date :- 2026-06-03

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : COMPRESSOR HOUSE									
Sampling Date			2026-05-01	2026-05-07	2026-05-09	2026-05-13	2026-05-15	2026-05-19	2026-05-21	2026-05-25	2026-05-27	Method
Sulphur Dioxide as SO_2	$\mu g/m^3$	80	37.7	26.6	37.2	41.7	34.2	26.4	22.6	35.2	32.6	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	$\mu g/m^3$	80	15.9	18.4	11.2	18.1	20.5	14.3	14.5	16.5	17.0	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	$\mu g/m^3$	100	56.2	63.9	60.7	68.3	57.1	54.6	62.3	59.5	53.8	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	$\mu g/m^3$	60	20.9	24.7	22.8	27.9	21.6	18.6	24.3	22.8	19.5	IS 5182 (PART-24) 2019
Ammonia as NH_3	$\mu g/m^3$	400	1.1	1.9	1.0	0.7	1.6	1.5	1.0	1.9	1.2	APHA 3rd Edition - 401
Benzene as C_6H_6	$\mu g/m^3$	5	<1.0	<1.0	<1.0	<1.0	<1.0	<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	<0.1	<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	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m^3	20	5.6	6.1	4.9	3.6	6.2	4.7	5.5	3.8	5.4	USEPA IO 3.4
Lead as Pb	$\mu g/m^3$	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	$\mu g/m^3$	2000	124	173	151	168	95	148	123	78	106	IS 5182 (PART-10) RA 2019
Ozone as O_3	$\mu g/m^3$	100	9.9	7.1	7.6	5.2	4.7	3.4	7.0	23.6	10.3	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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Report No.:	VLL/VLS/26-27/05017/004
Issue Date:	2026-06-04
P.O.No:	3402001553
P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT RAILWAY CONTROL ROOM (BALCO)

Analysis starting date :- 2026-05-04

Analysis Completion date :- 2026-06-03

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : RAILWAY CONTROL ROOM									
Sampling Date			**2026-05-01**	**2026-05-07**	**2026-05-09**	**2026-05-13**	**2026-05-15**	**2026-05-19**	**2026-05-21**	**2026-05-25**	**2026-05-27**	**Method**
Sulphur Dioxide as SO_2	µg/m³	80	29.2	30.4	59.4	27.4	32.5	29.7	34.5	33.1	22.8	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	µg/m³	80	14.1	13.5	14.5	9.9	12.4	14.0	18.1	13.5	12.1	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m³	100	53.8	57.2	63.6	51.9	64.1	59.5	55.7	60.3	68.2	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m³	60	20.5	22.3	24.8	19.3	25.6	23.3	21.6	25.1	27.8	IS 5182 (PART-24) 2019
Ammonia as NH_3	µg/m³	400	1.6	1.0	4.1	2.4	1.8	2.0	1.0	1.4	1.0	APHA 3rd Edition - 401
Benzene as C_6H_6	µg/m³	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	IS 5182 (PART-11) RA 2017
Benzo(a) Pyrene in particulate phase	ng/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	IS 5182 (PART-12) RA 2019
Arsenic as As	ng/m³	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m³	20	5.2	3.7	4.1	4.6	4.4	6.3	5.7	4.1	3.3	USEPA IO 3.4
Lead as Pb	µg/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	µg/m³	2000	137	154	86	105	113	68	121	89	123	IS 5182 (PART-10) RA 2019
Ozone as O_3	µg/m³	100	8.1	11.3	1.4	2.7	4.1	3.1	4.1	6.4	4.4	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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Report No.:	VLL/VLS/26-27/05017/005
Issue Date:	2026-06-04
P.O.No:	3402001553
P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT 540MW, DM PLANT (BALCO)

Analysis starting date :- 2026-05-04

Analysis Completion date :- 2026-06-03

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : 540MW, DM PLANT									
Sampling Date			2026-05-01	2026-05-07	2026-05-09	2026-05-13	2026-05-15	2026-05-19	2026-05-21	2026-05-25	2026-05-27	Method
Sulphur Dioxide as SO_2	µg/m³	80	30.2	36.1	38.8	32.5	24.6	27.3	40.0	33.7	28.9	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	µg/m³	80	17.3	15.3	16.9	14.8	12.6	18.1	17.6	15.4	19.9	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m³	100	59.3	65.7	71.2	63.4	60.9	66.7	54.1	73.2	61.8	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m³	60	22.7	27.1	31.3	25.3	24.1	26.8	19.4	33.6	25.2	IS 5182 (PART-24) 2019
Ammonia as NH_3	µg/m³	400	1.2	1.3	1.2	0.8	1.2	1.7	0.8	2.3	1.6	APHA 3rd Edition - 401
Benzene as C_6H_6	µg/m³	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	IS 5182 (PART-11) RA 2017
Benzo(a) Pyrene in particulate phase	ng/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	IS 5182 (PART-12) RA 2019
Arsenic as As	ng/m³	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m³	20	5.8	4.2	6.2	4.9	3.6	5.1	4.7	3.5	6.9	USEPA IO 3.4
Lead as Pb	µg/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	µg/m³	2000	142	264	119	215	234	177	135	94	186	IS 5182 (PART-10) RA 2019
Ozone as O_3	µg/m³	100	5.8	13.9	5.0	3.4	3.2	2.6	3.9	4.1	6.0	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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Report No.:	VLL/VLS/26-27/05017/012
Issue Date:	2026-06-04
P.O.No:	3402001553
P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT ROGBHERI VILLAGE (ASH DYKE)

Analysis starting date :- 2026-05-04

Analysis Completion date :- 2026-06-03

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

Parameters	Units	Limits	AAQ Location : ROGBHERI VILLAGE									
Sampling Date			2026-05-01	2026-05-07	2026-05-09	2026-05-13	2026-05-15	2026-05-19	2026-05-21	2026-05-25	2026-05-27	Method
Sulphur Dioxide as SO_2	$\mu g/m^3$	80	11.5	16.5	22.5	19.4	15.6	9.2	13.7	15.2	13.5	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	$\mu g/m^3$	80	9.4	8.4	8.3	7.5	8.4	8.5	9.1	8.4	7.3	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	$\mu g/m^3$	100	52.9	49.4	57.2	50.9	61.1	54.8	56.9	53.5	58.7	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	$\mu g/m^3$	60	18.2	16.7	20.7	19.3	24.1	20.8	19.5	20.9	21.1	IS 5182 (PART-24) 2019
Ammonia as NH_3	$\mu g/m^3$	400	0.7	0.7	0.5	0.5	0.9	0.5	0.8	1.0	0.7	APHA 3rd Edition - 401
Benzene as C_6H_6	$\mu g/m^3$	5	<1.0	<1.0	<1.0	<1.0	<1.0	<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	<0.1	<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	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m^3	20	5.7	3.8	4.1	5.2	4.9	5.1	3.4	4.9	3.5	USEPA IO 3.4
Lead as Pb	$\mu g/m^3$	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	$\mu g/m^3$	2000	87	69	104	72	81	134	75	94	119	IS 5182 (PART-10) RA 2019
Ozone as O_3	$\mu g/m^3$	100	3.4	3.8	1.3	0.8	1.1	0.7	1.0	1.6	1.2	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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M/s. Bharat Aluminium Company Limited,	Issue Date:	2026-07-04
KORBA (C.G.)	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT PARSABHATA GATE (BALCO)

Analysis starting date :- 2026-06-05 **Analysis Completion date :- 2026-07-03**

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : PARSABHATA GATE								
Sampling Date			2026-06-04	2026-06-06	2026-06-10	2026-06-12	2026-06-16	2026-06-18	2026-06-22	2026-06-24	Method
Sulphur Dioxide as SO_2	$\mu g/m^3$	80	44.1	34.2	29.0	24.1	28.4	29.4	25.1	24.3	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	$\mu g/m^3$	80	27.4	23.3	24.7	19.4	27.8	14.5	17.8	9.5	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	$\mu g/m^3$	100	67.1	61.2	55.9	62.2	59.0	57.6	54.4	53.3	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	$\mu g/m^3$	60	28.1	23.8	21.7	25.4	23.1	24.8	18.0	14.4	IS 5182 (PART-24) 2019
Ammonia as NH_3	$\mu g/m^3$	400	1.7	1.5	2.0	1.4	4.0	4.2	2.2	4.2	APHA 3rd Edition - 401
Benzene as C_6H_6	$\mu g/m^3$	5	<1.0	<1.0	<1.0	<1.0	<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	<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	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m^3	20	5.3	6.7	4.1	7.5	5.8	6.2	4.9	5.4	USEPA IO 3.4
Lead as Pb	$\mu g/m^3$	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	$\mu g/m^3$	2000	132	168	91	147	124	156	139	162	IS 5182 (PART-10) RA 2019
Ozone as O_3	$\mu g/m^3$	100	6.2	4.8	6.9	8.0	4.1	9.9	5.8	7.0	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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M/s. Bharat Aluminium Company Limited,	Issue Date:	2026-07-04
KORBA (C.G.)	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT COMPRESSOR HOUSE (BALCO)

Analysis starting date :- 2026-06-05 **Analysis Completion date :- 2026-07-03**

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : COMPRESSOR HOUSE								
Sampling Date			**2026-06-04**	**2026-06-06**	**2026-06-10**	**2026-06-12**	**2026-06-16**	**2026-06-18**	**2026-06-22**	**2026-06-24**	**Method**
Sulphur Dioxide as SO_2	µg/m³	80	39.6	40.4	32.5	27.9	28.4	36.9	28.8	21.3	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	µg/m³	80	16.7	17.7	20.7	11.0	12.8	12.0	12.2	16.9	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m³	100	54.8	66.2	52.1	50.4	61.3	56.6	52.2	49.8	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m³	60	22.6	27.0	21.6	19.4	24.7	23.7	20.3	18.4	IS 5182 (PART-24) 2019
Ammonia as NH_3	µg/m³	400	1.7	2.7	3.3	0.6	1.6	1.0	1.2	2.5	APHA 3rd Edition - 401
Benzene as C_6H_6	µg/m³	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	IS 5182 (PART-11) RA 2017
Benzo(a) Pyrene in particulate phase	ng/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	IS 5182 (PART-12) RA 2019
Arsenic as As	ng/m³	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m³	20	4.8	5.2	4.1	3.7	6.4	5.8	6.1	3.9	USEPA IO 3.4
Lead as Pb	µg/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	µg/m³	2000	89	142	128	163	79	114	137	96	IS 5182 (PART-10) RA 2019
Ozone as O_3	µg/m³	100	4.4	10.1	2.6	3.9	16.0	10.1	5.7	6.8	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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M/s. Bharat Aluminium Company Limited,	Report No.:	VLL/VLS/26-27/07623/002
KORBA (C.G.)	Issue Date:	2026-07-04
	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT ETP SMELTER (BALCO)

Analysis starting date :- 2026-06-05 **Analysis Completion date :- 2026-07-03**

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : ETP SMELTER								
Sampling Date			**2026-06-04**	**2026-06-06**	**2026-06-10**	**2026-06-12**	**2026-06-16**	**2026-06-18**	**2026-06-22**	**2026-06-24**	**Method**
Sulphur Dioxide as SO_2	µg/m³	80	36.1	37.8	35.3	36.8	32.5	26.9	24.1	27.3	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	µg/m³	80	19.5	18.8	16.7	19.7	10.6	16.3	14.7	7.8	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m³	100	72.4	60.3	54.1	57.9	61.6	58.8	50.1	52.4	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m³	60	29.4	24.3	21.1	23.2	25.7	23.9	19.8	19.2	IS 5182 (PART-24) 2019
Ammonia as NH_3	µg/m³	400	1.2	1.3	0.9	1.9	2.3	3.8	3.8	2.5	APHA 3rd Edition - 401
Benzene as C_6H_6	µg/m³	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	IS 5182 (PART-11) RA 2017
Benzo(a) Pyrene in particulate phase	ng/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	IS 5182 (PART-12) RA 2019
Arsenic as As	ng/m³	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m³	20	4.1	6.8	5.4	5.1	3.6	4.8	7.2	5.6	USEPA IO 3.4
Lead as Pb	µg/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	µg/m³	2000	173	148	152	218	176	139	164	181	IS 5182 (PART-10) RA 2019
Ozone as O_3	µg/m³	100	5.0	5.7	3.4	4.8	9.6	3.9	6.4	10.2	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/26-27/07623/004
M/s. Bharat Aluminium Company Limited,	Issue Date:	2026-07-04
KORBA (C.G.)	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT RAILWAY CONTROL ROOM (BALCO)

Analysis starting date :- 2026-06-05 **Analysis Completion date :- 2026-07-03**

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : RAILWAY CONTROL ROOM								
Sampling Date			2026-06-04	2026-06-06	2026-06-10	2026-06-12	2026-06-16	2026-06-18	2026-06-22	2026-06-24	Method
Sulphur Dioxide as SO_2	µg/m³	80	27.1	35.2	29.1	25.9	33.8	36.8	29.3	29.6	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	µg/m³	80	15.8	18.7	21.6	15.4	13.0	9.2	8.3	12.6	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m³	100	58.6	47.9	64.8	58.9	60.8	55.0	52.3	50.2	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m³	60	20.1	16.7	23.6	20.1	22.8	19.4	17.9	18.9	IS 5182 (PART-24) 2019
Ammonia as NH_3	µg/m³	400	0.8	1.1	1.1	1.3	3.3	1.2	1.5	1.5	APHA 3rd Edition - 401
Benzene as C_6H_6	µg/m³	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	IS 5182 (PART-11) RA 2017
Benzo(a) Pyrene in particulate phase	ng/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	IS 5182 (PART-12) RA 2019
Arsenic as As	ng/m³	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m³	20	5.2	3.7	4.1	4.6	4.4	6.3	5.7	4.1	USEPA IO 3.4
Lead as Pb	µg/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	µg/m³	2000	95	133	141	87	93	109	118	132	IS 5182 (PART-10) RA 2019
Ozone as O_3	µg/m³	100	3.0	3.4	1.3	8.1	6.7	3.6	10.9	10.3	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/26-27/07623/005
M/s. Bharat Aluminium Company Limited,	Issue Date:	2026-07-04
KORBA (C.G.)	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT 540MW, DM PLANT (BALCO)

Analysis starting date :- 2026-06-05 **Analysis Completion date :- 2026-07-03**

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : 540MW, DM PLANT								
Sampling Date			**2026-06-04**	**2026-06-06**	**2026-06-10**	**2026-06-12**	**2026-06-16**	**2026-06-18**	**2026-06-22**	**2026-06-24**	**Method**
Sulphur Dioxide as SO_2	$\mu g/m^3$	80	27.2	21.8	41.8	45.5	26.9	53.3	38.2	29.9	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	$\mu g/m^3$	80	18.2	19.0	28.6	16.3	12.5	17.4	11.2	9.4	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	$\mu g/m^3$	100	62.5	54.7	61.4	63.3	63.5	59.6	54.7	51.3	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	$\mu g/m^3$	60	25.8	20.5	24.2	24.8	26.9	21.3	14.8	14.0	IS 5182 (PART-24) 2019
Ammonia as NH_3	$\mu g/m^3$	400	1.3	1.6	1.3	1.6	1.9	3.2	2.5	3.1	APHA 3rd Edition - 401
Benzene as C_6H_6	$\mu g/m^3$	5	<1.0	<1.0	<1.0	<1.0	<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	<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	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m^3	20	4.2	3.8	4.8	2.6	5.3	3.3	4.1	3.7	USEPA IO 3.4
Lead as Pb	$\mu g/m^3$	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	$\mu g/m^3$	2000	132	187	86	124	165	149	91	153	IS 5182 (PART-10) RA 2019
Ozone as O_3	$\mu g/m^3$	100	4.8	4.6	5.5	7.3	4.5	4.1	4.4	5.5	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: M/s. Bharat Aluminium Company Limited, KORBA (C.G.)	Report No.:	VLL/VLS/26-27/07623/012
	Issue Date:	2026-07-04
	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT ROGBHERI VILLAGE (ASH DYKE)

Analysis starting date :- 2026-06-05 **Analysis Completion date :- 2026-07-03**

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : ROGBHERI VILLAGE								
Sampling Date			2026-06-04	2026-06-06	2026-06-10	2026-06-12	2026-06-16	2026-06-18	2026-06-22	2026-06-24	Method
Sulphur Dioxide as SO_2	µg/m³	80	12.2	10.4	9.7	10.6	12.3	10.3	6.7	11.9	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	µg/m³	80	9.1	9.3	7.9	9.0	8.7	8.1	7.4	9.2	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m³	100	49.8	56.2	60.1	63.5	48.9	51.8	49.9	46.7	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m³	60	16.7	21.0	23.1	25.0	17.3	18.5	20.1	19.6	IS 5182 (PART-24) 2019
Ammonia as NH_3	µg/m³	400	0.5	0.7	0.4	0.5	0.6	0.9	0.6	1.0	APHA 3rd Edition - 401
Benzene as C_6H_6	µg/m³	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	IS 5182 (PART-11) RA 2017
Benzo(a) Pyrene in particulate phase	ng/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	IS 5182 (PART-12) RA 2019
Arsenic as As	ng/m³	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m³	20	5.8	6.3	4.7	6.1	4.8	6.6	5.2	5.7	USEPA IO 3.4
Lead as Pb	µg/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	µg/m³	2000	74	96	72	68	81	109	87	128	IS 5182 (PART-10) RA 2019
Ozone as O_3	µg/m³	100	1.4	1.2	2.8	1.8	1.5	1.2	0.7	1.0	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:		
M/s. Bharat Aluminium Company Limited,	Report No.:	VLL/VLS/26-27/10232/001
KORBA (C.G.)	Issue Date:	2026-08-05
	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT PARSABHATA GATE (BALCO)

Analysis starting date :- 2026-07-03 **Analysis Completion date :- 2026-08-05**

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : PARSABHATA GATE									
Sampling Date			2026-07-02	2026-07-04	2026-07-08	2026-07-10	2026-07-14	2026-07-16	2026-07-20	2026-07-22	2026-07-28	Method
Sulphur Dioxide as SO_2	µg/m³	80	34.8	35.2	34.7	34.0	38.1	32.7	35.5	34.2	30.2	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	µg/m³	80	15.4	16.7	14.9	12.7	13.9	12.2	15.8	12.1	18.4	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m³	100	58.3	47.0	55.0	54.1	59.7	50.6	48.1	52.8	56.5	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m³	60	24.1	19.4	18.5	19.1	18.1	18.7	17.2	19.5	21.8	IS 5182 (PART-24) 2019
Ammonia as NH_3	µg/m³	400	5.7	5.0	3.1	6.9	1.8	1.6	6.2	3.9	2.6	APHA 3rd Edition - 401
Benzene as C_6H_6	µg/m³	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	IS 5182 (PART-11) RA 2017
Benzo(a) Pyrene in particulate phase	ng/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	IS 5182 (PART-12) RA 2019
Arsenic as As	ng/m³	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m³	20	5.7	4.2	3.7	5.1	6.8	4.7	3.9	4.2	5.9	USEPA IO 3.4
Lead as Pb	µg/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	µg/m³	2000	163.0	144.0	219.0	253.0	191.0	127.0	176.0	184.0	151.0	IS 5182 (PART-10) RA 2019
Ozone as O_3	µg/m³	100	6.5	4.5	5.2	7.3	3.4	2.4	2.7	5.7	3.6	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/26-27/10232/002
M/s. Bharat Aluminium Company Limited,	Issue Date:	2026-08-05
KORBA (C.G.)	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT ETP SMELTER (BALCO)

Analysis starting date :- 2026-07-03 **Analysis Completion date :- 2026-08-05**

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : ETP SMELTER									
Sampling Date			**2026-07-02**	**2026-07-04**	**2026-07-08**	**2026-07-10**	**2026-07-14**	**2026-07-16**	**2026-07-20**	**2026-07-22**	**2026-07-28**	**Method**
Sulphur Dioxide as SO_2	µg/m³	80	38.9	36.3	34.9	27.5	26.6	32.5	29.9	31.8	29.3	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	µg/m³	80	15.0	18.8	13.1	11.0	12.6	14.8	13.8	10.4	16.5	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m³	100	50.9	45.9	57.5	52.2	54.7	51.7	49.4	53.8	54.9	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m³	60	20.5	17.7	18.2	19.4	18.1	18.2	16.5	19.6	16.5	IS 5182 (PART-24) 2019
Ammonia as NH_3	µg/m³	400	3.5	4.2	1.8	2.9	2.3	1.0	2.2	2.7	1.9	APHA 3rd Edition - 401
Benzene as C_6H_6	µg/m³	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	IS 5182 (PART-11) RA 2017
Benzo(a) Pyrene in particulate phase	ng/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	IS 5182 (PART-12) RA 2019
Arsenic as As	ng/m³	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m³	20	4.6	3.1	6.1	2.8	5.9	3.6	5.2	4.5	2.6	USEPA IO 3.4
Lead as Pb	µg/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	µg/m³	2000	177.0	153.0	219.0	148.0	184.0	127.0	203.0	249.0	195.0	IS 5182 (PART-10) RA 2019
Ozone as O_3	µg/m³	100	8.4	2.4	2.4	5.2	1.1	1.5	3.2	3.8	5.9	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:
M/s. Bharat Aluminium Company Limited,
KORBA (C.G.)

Report No.:	VLL/VLS/26-27/10232/003
Issue Date:	2026-08-05
P.O.No:	3402001553
P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT COMPRESSOR HOUSE (BALCO)

Analysis starting date :- 2026-07-03

Analysis Completion date :- 2026-08-05

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

Parameters	Units	Limits	AAQ Location : COMPRESSOR HOUSE									
Sampling Date			2026-07-02	2026-07-04	2026-07-08	2026-07-10	2026-07-14	2026-07-16	2026-07-20	2026-07-22	2026-07-28	Method
Sulphur Dioxide as SO_2	mg/m^3	80.0	36.3	37.5	32.4	29.2	26.4	38.6	26.1	23.3	31.2	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	mg/m^3	80.0	14.4	16.2	13.9	15.6	14.1	13.6	10.2	10.7	15.7	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	mg/m^3	100.0	56.5	45.3	54.9	49.7	51.7	53.8	49.6	51.6	52.2	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	mg/m^3	60.0	21.3	14.6	19.6	19.6	20.1	19.9	16.3	18.6	21.4	IS 5182 (PART-24) 2019
Ammonia as NH_3	mg/m^3	400.0	3.0	4.6	3.5	1.6	1.1	2.1	2.3	3.2	3.4	APHA 3rd Edition - 401
Benzene as C_6H_6	mg/m^3	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	IS 5182 (PART-12) RA 2019
Arsenic as As	ng/m^3	6.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m^3	20.0	6.2	5.7	6.8	7.2	4.9	5.2	6.7	4.6	6.3	USEPA IO 3.4
Lead as Pb	mg/m^3	1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	mg/m^3	2000.0	153.0	198.0	238.0	146.0	233.0	162.0	185.0	127.0	149.0	IS 5182 (PART-10) RA 2019
Ozone as O_3	mg/m^3	100.0	10.0	7.9	4.3	15.9	9.5	7.0	1.5	2.7	2.6	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/26-27/10232/004
M/s. Bharat Aluminium Company Limited,	Issue Date:	2026-08-05
KORBA (C.G.)	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT RAILWAY CONTROL ROOM (BALCO)

Analysis starting date :- 2026-07-03 **Analysis Completion date :- 2026-08-05**

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : RAILWAY CONTROL ROOM									
Sampling Date			2026-07-02	2026-07-04	2026-07-08	2026-07-10	2026-07-14	2026-07-16	2026-07-20	2026-07-22	2026-07-28	Method
Sulphur Dioxide as SO_2	µg/m³	80	23.9	25.3	28.4	24.9	20.3	23.4	22.0	22.4	22.9	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	µg/m³	80	11.5	11.9	11.5	10.5	13.3	11.3	11.6	9.7	12.5	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m³	100	51.8	49.0	54.4	54.3	51.5	48.8	53.1	47.6	56.9	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m³	60	22.4	18.3	21.6	19.7	18.5	16.1	19.3	17.6	20.8	IS 5182 (PART-24) 2019
Ammonia as NH_3	µg/m³	400	1.1	2.3	2.0	1.4	1.6	1.2	1.7	2.0	1.8	APHA 3rd Edition - 401
Benzene as C_6H_6	µg/m³	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	IS 5182 (PART-11) RA 2017
Benzo(a) Pyrene in particulate phase	ng/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	IS 5182 (PART-12) RA 2019
Arsenic as As	ng/m³	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m³	20	4.3	6.1	3.9	3.2	4.6	2.8	4.1	3.7	5.4	USEPA IO 3.4
Lead as Pb	µg/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	µg/m³	2000	125.0	73.0	91.0	115.0	136.0	87.0	107.0	156.0	98.0	IS 5182 (PART-10) RA 2019
Ozone as O_3	µg/m³	100	3.5	4.7	3.6	7.9	1.3	2.2	2.0	2.2	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/26-27/10232/005
M/s. Bharat Aluminium Company Limited,	Issue Date:	2026-08-05
KORBA (C.G.)	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT 540MW, DM PLANT (BALCO)

Analysis starting date :- 2026-07-03 **Analysis Completion date :- 2026-08-05**

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : 540MW, DM PLANT									
Sampling Date			2026-07-02	2026-07-04	2026-07-08	2026-07-10	2026-07-14	2026-07-16	2026-07-20	2026-07-22	2026-07-28	Method
Sulphur Dioxide as SO_2	µg/m³	80	23.9	25.3	28.4	24.9	20.3	23.4	22.0	22.4	22.9	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	µg/m³	80	11.5	11.9	11.5	10.5	13.3	11.3	11.6	9.7	12.5	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m³	100	51.8	49.0	54.4	54.3	51.5	48.8	53.1	47.6	56.9	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m³	60	22.4	18.3	21.6	19.7	18.5	16.1	19.3	17.6	20.8	IS 5182 (PART-24) 2019
Ammonia as NH_3	µg/m³	400	1.1	2.3	2.0	1.4	1.6	1.2	1.7	2.0	1.8	APHA 3rd Edition - 401
Benzene as C_6H_6	µg/m³	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	IS 5182 (PART-11) RA 2017
Benzo(a) Pyrene in particulate phase	ng/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	IS 5182 (PART-12) RA 2019
Arsenic as As	ng/m³	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m³	20	4.3	6.1	3.9	3.2	4.6	2.8	4.1	3.7	5.4	USEPA IO 3.4
Lead as Pb	µg/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	µg/m³	2000	125.0	73.0	91.0	115.0	136.0	87.0	107.0	156.0	98.0	IS 5182 (PART-10) RA 2019
Ozone as O_3	µg/m³	100	3.5	4.7	3.6	7.9	1.3	2.2	2.0	2.2	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:
M/s. Bharat Aluminium Company Limited,
KORBA (C.G.)

Report No.:	VLL/VLS/26-27/10232/012
Issue Date:	2026-08-05
P.O.No:	3402001553
P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT ROGBHERI VILLAGE (ASH DYKE)

Analysis starting date :- 2026-07-03

Analysis Completion date :- 2026-08-05

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : ROGBHERI VILLAGE (ASH DYKE)									
Sampling Date			2026-07-02	2026-07-04	2026-07-08	2026-07-10	2026-07-14	2026-07-16	2026-07-20	2026-07-22	2026-07-28	Method
Sulphur Dioxide as SO_2	µg/m³	80	11.6	13.5	11.7	13.3	10.9	12.3	11.2	12.1	13.2	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	µg/m³	80	9.7	11.3	9.5	10.8	9.4	8.5	9.1	10.1	11.3	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m³	100	48.7	50.3	40.8	43.9	56.9	46.4	42.1	47.6	45.2	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m³	60	16.7	17.1	13.4	14.7	14.1	15.8	13.9	16.1	15.6	IS 5182 (PART-24) 2019
Ammonia as NH_3	µg/m³	400	2.8	1.7	1.2	1.0	1.3	0.8	0.9	1.1	1.3	APHA 3rd Edition - 401
Benzene as C_6H_6	µg/m³	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	IS 5182 (PART-11) RA 2017
Benzo(a) Pyrene in particulate phase	ng/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	IS 5182 (PART-12) RA 2019
Arsenic as As	ng/m³	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m³	20	6.1	4.9	6.5	4.9	5.3	5.8	6.2	4.8	5.4	USEPA IO 3.4
Lead as Pb	µg/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	µg/m³	2000	94.0	137.0	112.0	86.0	109.0	154.0	128.0	74.0	142.0	IS 5182 (PART-10) RA 2019
Ozone as O_3	µg/m³	100	2.1	1.5	1.3	1.1	0.8	1.2	0.8	1.2	0.9	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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M/s. Bharat Aluminium Company Limited,	Issue Date:	2026-09-04
KORBA (C.G.)	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT PARSABHATA GATE (BALCO)

Analysis starting date :- 2026-08-03 **Analysis Completion date :- 2026-09-03**

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

Parameters	Units	Limits	AAQ Location : PARSABHATA GATE									
Sampling Date			2026-08-01	2026-08-06	2026-08-10	2026-08-12	2026-08-14	2026-08-18	2026-08-20	2026-08-24	2026-08-26	Method
Sulphur Dioxide as SO_2	µg/m³	80	15.0	23.0	23.2	15.1	24.8	21.8	23.2	17.6	21.6	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	µg/m³	80	16.2	15.3	16.6	13.3	15.8	16.0	12.8	15.7	19.3	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m³	100	49.1	42.0	45.8	52.9	45.1	54.9	47.6	44.8	54.6	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m³	60	18.2	14.1	16.7	19.2	16.4	20.6	17.3	15.8	18.7	IS 5182 (PART-24) 2019
Ammonia as NH_3	µg/m³	400	3.2	3.5	2.3	1.7	1.4	1.1	1.5	2.3	2.0	APHA 3rd Edition - 401
Benzene as C_6H_6	µg/m³	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	IS 5182 (PART-11) RA 2017
Benzo(a) Pyrene in particulate phase	ng/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	IS 5182 (PART-12) RA 2019
Arsenic as As	ng/m³	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m³	20	4.9	3.2	5.1	3.8	5.6	6.3	4.7	3.1	5.4	USEPA IO 3.4
Lead as Pb	µg/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	µg/m³	2000	153	92	129	187	241	164	133	159	217	IS 5182 (PART-10) RA 2019
Ozone as O_3	µg/m³	100	2.7	3.2	2.0	2.5	3.0	2.6	3.2	3.6	3.3	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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M/s. Bharat Aluminium Company Limited,	Issue Date:	2026-09-04
KORBA (C.G.)	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT ETP SMELTER (BALCO)

Analysis starting date :- 2026-08-03 **Analysis Completion date :- 2026-09-03**

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : ETP SMELTER									
Sampling Date			2026-08-01	2026-08-06	2026-08-10	2026-08-12	2026-08-14	2026-08-18	2026-08-20	2026-08-24	2026-08-26	Method
Sulphur Dioxide as SO_2	µg/m^3	80	16.7	22.8	23.4	16.6	25.6	21.4	22.7	21.8	22.2	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	µg/m^3	80	17.8	11.0	14.5	16.4	12.1	11.8	13.2	12.9	16.2	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m^3	100	50.6	46.3	52.1	54.6	42.8	47.4	51.2	44.5	52.7	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m^3	60	18.4	15.2	19.2	18.5	13.8	16.4	17.3	14.7	20.5	IS 5182 (PART-24) 2019
Ammonia as NH_3	µg/m^3	400	1.9	3.0	1.4	1.0	1.9	1.2	1.3	1.9	2.6	APHA 3rd Edition - 401
Benzene as C_6H_6	µg/m^3	5	<1.0	<1.0	<1.0	<1.0	<1.0	<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	<0.1	<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	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m^3	20	3.8	5.3	4.4	4.8	5.8	5.2	3.6	4.9	5.1	USEPA IO 3.4
Lead as Pb	µg/m^3	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	µg/m^3	2000	171	238	394	196	259	218	194	175	232	IS 5182 (PART-10) RA 2019
Ozone as O_3	µg/m^3	100	2.6	3.3	3.1	3.6	2.0	2.2	2.5	3.4	3.0	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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M/s. Bharat Aluminium Company Limited,	Issue Date:	2026-09-04
KORBA (C.G.)	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT COMPRESSOR HOUSE (BALCO)

Analysis starting date :- 2026-08-03 **Analysis Completion date :- 2026-09-03**

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : COMPRESSOR HOUSE									
Sampling Date			2026-08-01	2026-08-06	2026-08-10	2026-08-12	2026-08-14	2026-08-18	2026-08-20	2026-08-24	2026-08-26	Method
Sulphur Dioxide as SO_2	mg/m^3	80.0	12.6	22.0	22.0	20.9	23.0	18.6	22.4	19.8	23.4	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	mg/m^3	80.0	14.3	12.7	16.8	19.8	14.5	15.4	12.7	14.5	17.7	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	mg/m^3	100.0	48.3	54.8	53.8	50.5	46.8	52.6	56.3	43.1	51.3	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	mg/m^3	60.0	16.2	20.8	18.6	20.7	15.2	17.9	19.2	14.7	18.0	IS 5182 (PART-24) 2019
Ammonia as NH_3	mg/m^3	400.0	2.8	1.2	2.2	2.2	1.3	1.0	1.4	3.8	2.8	APHA 3rd Edition - 401
Benzene as C_6H_6	mg/m^3	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	IS 5182 (PART-12) RA 2019
Arsenic as As	ng/m^3	6.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m^3	20.0	4.7	5.1	5.9	4.3	6.6	4.3	5.4	6.3	4.1	USEPA IO 3.4
Lead as Pb	mg/m^3	1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	mg/m^3	2000.0	244	160	182	151	213	174	259	218	184	IS 5182 (PART-10) RA 2019
Ozone as O_3	mg/m^3	100.0	2.5	4.3	4.6	3.5	3.1	2.4	1.7	3.5	2.7	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/26-27/13104/004
M/s. Bharat Aluminium Company Limited,	Issue Date:	2026-09-04
KORBA (C.G.)	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT RAILWAY CONTROL ROOM (BALCO)

Analysis starting date :- 2026-08-03 **Analysis Completion date :- 2026-09-03**

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : RAILWAY CONTROL ROOM									
Sampling Date			2026-08-01	2026-08-06	2026-08-10	2026-08-12	2026-08-14	2026-08-18	2026-08-20	2026-08-24	2026-08-26	Method
Sulphur Dioxide as SO_2	µg/m^3	80	17.3	21.4	17.8	17.4	21.9	20.2	18.0	22.8	20.2	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	µg/m^3	80	13.3	11.5	12.9	11.7	13.4	13.5	11.3	13.2	11.4	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m^3	100	45.9	41.7	48.5	43.3	49.8	43.2	50.3	42.4	47.9	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m^3	60	16.7	13.1	17.3	20.9	18.0	14.8	19.1	16.8	12.8	IS 5182 (PART-24) 2019
Ammonia as NH_3	µg/m^3	400	1.0	0.7	1.6	1.2	1.5	0.8	1.2	1.8	2.0	APHA 3rd Edition - 401
Benzene as C_6H_6	µg/m^3	5	<1.0	<1.0	<1.0	<1.0	<1.0	<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	<0.1	<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	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m^3	20	5.8	6.7	6.2	4.8	5.1	4.9	6.2	5.9	4.7	USEPA IO 3.4
Lead as Pb	µg/m^3	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	µg/m^3	2000	94	132	81	109	142	171	125	91	117	IS 5182 (PART-10) RA 2019
Ozone as O_3	µg/m^3	100	1.5	2.6	3.3	3.4	1.6	2.5	2.3	2.4	2.5	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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M/s. Bharat Aluminium Company Limited,	Issue Date:	2026-09-04
KORBA (C.G.)	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT 540MW, DM PLANT (BALCO)

Analysis starting date :- 2026-08-03 **Analysis Completion date :- 2026-09-03**

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

Parameters	Units	Limits	AAQ Location : 540MW, DM PLANT									
Sampling Date			2026-08-01	2026-08-06	2026-08-10	2026-08-12	2026-08-14	2026-08-18	2026-08-20	2026-08-24	2026-08-26	Method
Sulphur Dioxide as SO_2	µg/m^3	80	22.2	21.2	21.2	16.2	21.8	23.2	23.5	21.0	22.5	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	µg/m^3	80	14.1	9.6	13.9	15.9	13.8	13.3	11.9	13.9	13.5	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m^3	100	55.2	48.5	50.6	49.7	47.5	51.6	54.9	46.7	56.2	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m^3	60	20.2	17.4	19.1	19.8	16.9	18.6	21.2	16.2	20.8	IS 5182 (PART-24) 2019
Ammonia as NH_3	µg/m^3	400	1.1	1.1	1.4	1.4	1.7	1.2	1.7	2.0	1.5	APHA 3rd Edition - 401
Benzene as C_6H_6	µg/m^3	5	<1.0	<1.0	<1.0	<1.0	<1.0	<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	<0.1	<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	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m^3	20	4.8	3.2	5.7	6.3	4.4	5.9	4.2	5.1	6.6	USEPA IO 3.4
Lead as Pb	µg/m^3	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	µg/m^3	2000	239	161	198	248	157	139	251	184	149	IS 5182 (PART-10) RA 2019
Ozone as O_3	µg/m^3	100	2.5	2.9	2.8	2.0	1.9	2.3	2.0	3.3	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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M/s. Bharat Aluminium Company Limited,	Issue Date:	2026-09-04
KORBA (C.G.)	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT ROGBHERI VILLAGE (ASH DYKE)

Analysis starting date :- 2026-08-03 **Analysis Completion date :- 2026-09-03**

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : ROGBHERI VILLAGE (ASH DYKE)									
Sampling Date			2026-08-01	2026-08-06	2026-08-10	2026-08-12	2026-08-14	2026-08-18	2026-08-20	2026-08-24	2026-08-26	Method
Sulphur Dioxide as SO_2	$\mu g/m^3$	80	15.6	11.7	13.1	15.7	16.9	11.9	13.4	12.7	14.2	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	$\mu g/m^3$	80	9.7	8.8	10.2	8.7	9.0	8.3	9.5	8.4	10.1	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	$\mu g/m^3$	100	43.9	39.4	36.7	48.5	40.7	46.8	43.8	38.7	44.2	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	$\mu g/m^3$	60	17.9	14.6	18.3	15.5	15.4	16.4	16.4	18.6	16.8	IS 5182 (PART-24) 2019
Ammonia as NH_3	$\mu g/m^3$	400	0.7	0.5	0.8	0.9	0.7	0.8	0.9	1.2	0.9	APHA 3rd Edition - 401
Benzene as C_6H_6	$\mu g/m^3$	5	<1.0	<1.0	<1.0	<1.0	<1.0	<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	<0.1	<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	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m^3	20	5.6	6.7	4.1	5.8	5.2	6.8	6.3	5.8	6.1	USEPA IO 3.4
Lead as Pb	$\mu g/m^3$	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	$\mu g/m^3$	2000	76	93	109	86	132	71	98	114	85	IS 5182 (PART-10) RA 2019
Ozone as O_3	$\mu g/m^3$	100	1.2	1.5	1.8	1.3	1.6	1.2	1.4	1.8	1.3	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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M/s. Bharat Aluminium Company Limited,	Issue Date:	2026-10-05
KORBA (C.G.)	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT PARSABHATA GATE (BALCO)

Analysis starting date :- 2026-09-04 **Analysis Completion date :- 2026-10-05**

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

Parameters	Units	Limits	AAQ Location : PARSABHATA GATE									
Sampling Date			2026-09-03	2026-09-05	2026-09-09	2026-09-11	2026-09-15	2026-09-17	2026-09-21	2026-09-23	2026-09-28	Method
Sulphur Dioxide as SO_2	$\mu g/m^3$	80	22.9	25.5	25.4	27.0	27.9	30.7	25.9	31.6	33.3	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	$\mu g/m^3$	80	20.4	17.8	13.3	17.8	15.2	18.6	12.9	19.7	13.6	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	$\mu g/m^3$	100	49.0	44.7	56.1	54.6	63.1	51.9	48.1	46.7	57.3	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	$\mu g/m^3$	60	18.3	16.4	22.1	20.8	24.7	19.8	17.7	16.5	21.8	IS 5182 (PART-24) 2019
Ammonia as NH_3	$\mu g/m^3$	400	1.7	1.3	1.8	2.5	1.9	1.5	2.0	3.1	2.7	APHA 3rd Edition - 401
Benzene as C_6H_6	$\mu g/m^3$	5	<1.0	<1.0	<1.0	<1.0	<1.0	<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	<0.1	<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	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m^3	20	6.1	5.7	6.9	4.7	4.4	5.6	6.1	5.3	4.5	USEPA IO 3.4
Lead as Pb	$\mu g/m^3$	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	$\mu g/m^3$	2000	177	128	152	137	95	149	180	156	209	IS 5182 (PART-10) RA 2019
Ozone as O_3	$\mu g/m^3$	100	4.3	5.1	2.8	4.2	5.4	3.2	5.7	7.5	5.2	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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M/s. Bharat Aluminium Company Limited,	Issue Date:	2026-10-05
KORBA (C.G.)	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT ETP SMELTER (BALCO)

Analysis starting date :- 2026-09-04 **Analysis Completion date :- 2026-10-05**

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : ETP SMELTER									
Sampling Date			**2026-09-03**	**2026-09-05**	**2026-09-09**	**2026-09-11**	**2026-09-15**	**2026-09-17**	**2026-09-21**	**2026-09-23**	**2026-09-28**	**Method**
Sulphur Dioxide as SO_2	µg/m^3	80	28.7	27.6	28.2	27.0	30.6	31.5	30.3	30.1	24.9	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	µg/m^3	80	19.3	14.4	12.5	15.1	17.5	14.0	17.9	14.5	11.4	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m^3	100	46.9	56.1	42.7	54.3	45.8	62.2	50.9	63.8	52.6	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m^3	60	18.2	21.4	15.7	20.7	17.2	23.7	19.4	24.7	20.3	IS 5182 (PART-24) 2019
Ammonia as NH_3	µg/m^3	400	1.5	2.2	1.3	2.7	1.5	2.1	2.7	1.4	1.5	APHA 3rd Edition - 401
Benzene as C_6H_6	µg/m^3	5	<1.0	<1.0	<1.0	<1.0	<1.0	<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	<0.1	<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	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m^3	20	5.8	5.3	6.9	6.4	5.8	5.2	6.6	4.9	5.7	USEPA IO 3.4
Lead as Pb	µg/m^3	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	µg/m^3	2000	154	87	196	247	176	248	209	185	212	IS 5182 (PART-10) RA 2019
Ozone as O_3	µg/m^3	100	3.8	8.7	2.1	6.4	4.2	5.5	7.8	5.7	3.8	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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M/s. Bharat Aluminium Company Limited,	Issue Date:	2026-10-05
KORBA (C.G.)	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT COMPRESSOR HOUSE (BALCO)

Analysis starting date :- 2026-09-04 **Analysis Completion date :- 2026-10-05**

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : COMPRESSOR HOUSE									
Sampling Date			2026-09-03	2026-09-05	2026-09-09	2026-09-11	2026-09-15	2026-09-17	2026-09-21	2026-09-23	2026-09-28	Method
Sulphur Dioxide as SO_2	mg/m^3	80.0	28.4	23.2	22.8	27.8	28.2	26.1	28.2	30.8	32.3	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	mg/m^3	80.0	16.5	16.8	11.8	17.4	16.0	13.7	15.0	17.7	11.5	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	mg/m^3	100.0	50.5	47.5	53.8	46.1	55.6	53.9	48.6	55.3	47.4	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	mg/m^3	60.0	20.6	16.5	20.9	19.3	20.6	19.6	17.8	15.5	18.2	IS 5182 (PART-24) 2019
Ammonia as NH_3	mg/m^3	400.0	1.1	1.2	3.6	1.5	1.3	1.7	2.2	3.5	3.1	APHA 3rd Edition - 401
Benzene as C_6H_6	mg/m^3	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	IS 5182 (PART-12) RA 2019
Arsenic as As	ng/m^3	6.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m^3	20.0	6.3	4.7	5.2	5.8	4.4	4.6	6.1	5.8	5.4	USEPA IO 3.4
Lead as Pb	mg/m^3	1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	mg/m^3	2000.0	165	192	176	231	153	174	112	96	149	IS 5182 (PART-10) RA 2019
Ozone as O_3	mg/m^3	100.0	4.4	6.2	10.0	5.4	4.7	3.3	4.8	5.4	9.3	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 3300/95 VIMTA

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ISSUED TO:	Report No.:	VLL/VLS/26-27/15382/004
M/s. Bharat Aluminium Company Limited,	Issue Date:	2026-10-05
KORBA (C.G.)	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT RAILWAY CONTROL ROOM (BALCO)

Analysis starting date :- 2026-09-04 **Analysis Completion date :- 2026-10-05**

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : RAILWAY CONTROL ROOM									
Sampling Date			2026-09-03	2026-09-05	2026-09-09	2026-09-11	2026-09-15	2026-09-17	2026-09-21	2026-09-23	2026-09-28	Method
Sulphur Dioxide as SO_2	µg/m³	80	24.2	26.1	25.6	27.0	24.3	28.8	31.2	32.3	30.3	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	µg/m³	80	13.9	12.7	11.7	14.8	14.4	13.1	12.5	11.1	9.8	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m³	100	46.0	52.7	48.9	54.7	52.8	51.7	50.4	47.3	53.2	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m³	60	16.7	20.1	17.8	23.1	21.7	19.4	18.6	15.8	21.2	IS 5182 (PART-24) 2019
Ammonia as NH_3	µg/m³	400	1.4	1.2	1.3	1.3	1.2	1.6	1.4	2.1	2.3	APHA 3rd Edition - 401
Benzene as C_6H_6	µg/m³	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	IS 5182 (PART-11) RA 2017
Benzo(a) Pyrene in particulate phase	ng/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	IS 5182 (PART-12) RA 2019
Arsenic as As	ng/m³	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m³	20	5.1	3.7	5.8	4.9	5.7	5.4	4.8	6.7	5.3	USEPA IO 3.4
Lead as Pb	µg/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	µg/m³	2000	86	119	163	144	93	163	147	107	151	IS 5182 (PART-10) RA 2019
Ozone as O_3	µg/m³	100	2.0	3.6	3.5	4.0	2.2	2.8	8.9	4.7	4.8	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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ISSUED TO:		
M/s. Bharat Aluminium Company Limited,	Report No.:	VLL/VLS/26-27/15382/005
KORBA (C.G.)	Issue Date:	2026-10-05
	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT 540MW, DM PLANT (BALCO)

Analysis starting date :- 2026-09-04 **Analysis Completion date :- 2026-10-05**

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : 540MW, DM PLANT									
Sampling Date			2026-09-03	2026-09-05	2026-09-09	2026-09-11	2026-09-15	2026-09-17	2026-09-21	2026-09-23	2026-09-28	Method
Sulphur Dioxide as SO_2	µg/m³	80	23.8	21.6	22.6	24.4	21.4	28.5	23.5	28.6	26.1	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	µg/m³	80	16.4	16.5	13.3	14.5	15.2	13.7	14.9	11.5	12.2	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m³	100	45.8	49.2	52.1	58.4	51.7	56.2	53.8	46.2	55.9	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m³	60	16.8	18.7	20.2	22.2	19.8	22.5	20.3	17.6	21.4	IS 5182 (PART-24) 2019
Ammonia as NH_3	µg/m³	400	1.3	1.6	1.7	2.4	1.5	1.9	2.7	1.1	1.2	APHA 3rd Edition - 401
Benzene as C_6H_6	µg/m³	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	IS 5182 (PART-11) RA 2017
Benzo(a) Pyrene in particulate phase	ng/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	IS 5182 (PART-12) RA 2019
Arsenic as As	ng/m³	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m³	20	5.6	5.3	4.8	6.2	5.1	4.8	6.7	5.8	5.2	USEPA IO 3.4
Lead as Pb	µg/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	µg/m³	2000	301	259	159	234	167	185	147	218	196	IS 5182 (PART-10) RA 2019
Ozone as O_3	µg/m³	100	6.9	5.2	2.9	7.0	3.2	4.5	10.7	8.0	7.3	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/26-27/15382/012
M/s. Bharat Aluminium Company Limited,	Issue Date:	2026-10-05
KORBA (C.G.)	P.O.No:	3402001553
	P.O. Date:	2025-10-01

AMBIENT AIR QUALITY MONITORING AT ROGBHERI VILLAGE (ASH DYKE)

Analysis starting date :- 2026-09-04 **Analysis Completion date :- 2026-10-05**

Tests required: Sulphur Dioxide (SO_2), Nitrogen Dioxide (NOx), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C_6H_6), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : ROGBHERI VILLAGE (ASH DYKE)									
Sampling Date			2026-09-03	2026-09-05	2026-09-09	2026-09-11	2026-09-15	2026-09-17	2026-09-21	2026-09-23	2026-09-28	Method
Sulphur Dioxide as SO_2	µg/m³	80	17.2	19.6	13.5	14.8	17.6	14.0	18.0	16.1	17.3	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO_2	µg/m³	80	10.4	11.2	9.1	10.2	11.5	8.9	10.3	9.3	8.7	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m³	100	42.8	51.7	46.7	48.2	51.6	49.3	43.0	56.9	44.1	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m³	60	14.2	19.6	17.9	19.2	20.3	18.8	15.1	22.1	16.9	IS 5182 (PART-24) 2019
Ammonia as NH_3	µg/m³	400	0.7	0.9	1.1	1.0	0.8	1.0	0.7	1.1	0.9	APHA 3rd Edition - 401
Benzene as C_6H_6	µg/m³	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	IS 5182 (PART-11) RA 2017
Benzo(a) Pyrene in particulate phase	ng/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	IS 5182 (PART-12) RA 2019
Arsenic as As	ng/m³	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	USEPA IO 3.4
Nickel as Ni	ng/m³	20	6.2	5.7	5.5	5.9	6.4	6.8	4.6	5.9	5.3	USEPA IO 3.4
Lead as Pb	µg/m³	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	USEPA IO 3.4
Carbon Monoxide as CO	µg/m³	2000	83	91	78	135	104	93	79	82	127	IS 5182 (PART-10) RA 2019
Ozone as O_3	µg/m³	100	1.5	1.9	1.1	1.6	1.3	1.5	2.0	1.6	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.

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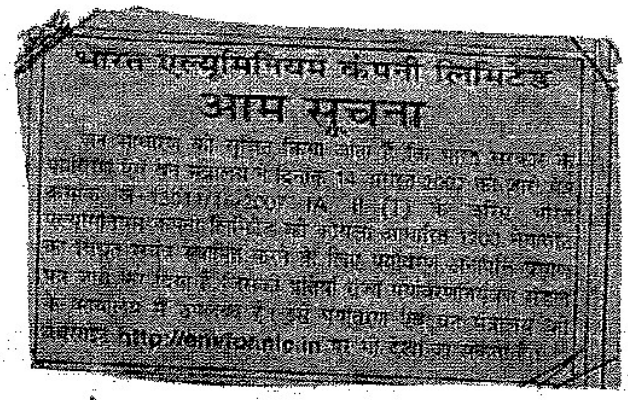
REGD. No- DL 33004/99
Dr. Subba Reddy Mallampati
Manager - Environment
VIMTA

Security: Internal (C3)

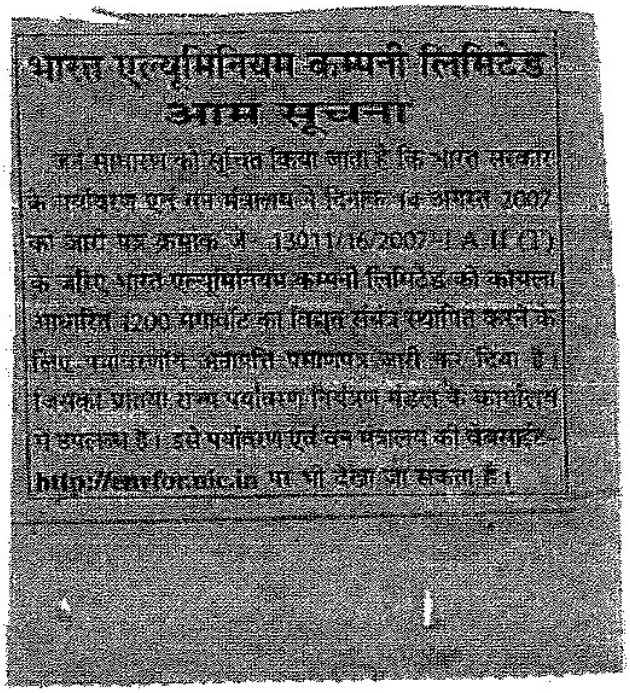


भारत एल्यूमिनियम कंपनी लिमिटेड

आम सूचना

इस साधारण को सूचित किया जाता है कि भारत सरकार के पर्यावरण एवं वन मंत्रालय ने दिनांक 14 अगस्त 2007 को अपने पत्र क्रमांक J-13011/16/2007-IA.II (I) के तहत भारत एल्यूमिनियम कंपनी लिमिटेड को कोरबा स्थापित 1200 मेगावॉट का विद्युत संयंत्र स्थापित करने के लिए पर्यावरणीय अनापत्ति प्रमाणपत्र जारी कर दिया है। जिसकी प्रतियां राज्य पर्यावरण नियंत्रण मंडल के कार्यालय में उपलब्ध है। इसे पर्यावरण एवं वन मंत्रालय की वेबसाइट http://envfor.nic.in पर भी देखा जा सकता है।

हरिभूमि दिनांक 18 अगस्त 2007



भारत एल्यूमिनियम कम्पनी लिमिटेड

आम सूचना

इस साधारण को सूचित किया जाता है कि भारत सरकार के पर्यावरण एवं वन मंत्रालय ने दिनांक 14 अगस्त 2007 को अपने पत्र क्रमांक J-13011/16/2007-I A.II (I) के तहत भारत एल्यूमिनियम कम्पनी लिमिटेड को कोरबा स्थापित 1200 मेगावॉट का विद्युत संयंत्र स्थापित करने के लिए पर्यावरणीय अनापत्ति प्रमाणपत्र जारी कर दिया है। जिसकी प्रतियां राज्य पर्यावरण नियंत्रण मंडल के कार्यालय में उपलब्ध है। इसे पर्यावरण एवं वन मंत्रालय की वेबसाइट http://envfor.nic.in पर भी देखा जा सकता है।

देशबंधु दिनांक 18 अगस्त 2007

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ISSUED TO:

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

Report Number	:	**VLL/VLS/26-27/02504/001**
Issued Date	:	**2026-05-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-04-12	Sampling Date	:	2026-04-06
Analysis Starting Date	:	2026-04-12	Analysis Completion Date	:	2026-04-28
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	*Rogbheri (B/W)*	*Rogbheri (D/W)*	*Bailgiri Basti(B/W)*	*Bailgiri Basti(D/W)*
1	pH value	-	6.5-8.5 (NR)	6.81	7.08	6.98	7.14
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)	4	3	1	2
6	Total dissolved solids at 180^{0}C	mg/l	500(2000)	410	330	530	398
7	Total Hardness as $CaCO_3$	mg/l	200(600)	258	130	295	248
8	Total Alkalinity as $CaCO_3$	mg/l	200(600)	125	116	260	165
9	Calcium as Ca	mg/l	75(200)	68.0	28.7	74.0	63.2
10	Magnesium as Mg	mg/l	30(100)	21.4	14.3	26.7	21.9
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)	0.024	0.016	0.018	0.023
13	Chlorides as Cl	mg/l	250(1000)	152.2	76.1	125.1	83.1
14	Sulphate as SO_4	mg/l	200(400)	63.9	30.6	45.8	28.4
15	Fluorides as F	mg/l	1.0(1.5)	0.279	0.319	0.518	0.490
16	Nitrates as NO_3	mg/l	45(NR)	4.3	3.8	5.6	2.7
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 33004/99 Sr. No.-5

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ISSUED TO:

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

Report Number	:	**VLL/VLS/26-27/02504/001**
Issued Date	:	**2026-05-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-04-12	Sampling Date	:	2026-04-06
Analysis Starting Date	:	2026-04-12	Analysis Completion Date	:	2026-04-28
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	*Rogbheri (B/W)*	*Rogbheri (D/W)*	*Bailgiri Basti(B/W)*	*Bailgiri Basti(D/W)*
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)	<0.003	<0.003	<0.003	<0.003
22	Total Arsenic as As	mg/l	0.01(0.05)	<0.01	<0.01	<0.01	<0.01
23	Copper as Cu	mg/l	0.05(1.5)	<0.01	<0.01	<0.01	<0.01
24	Lead as Pb	mg/l	0.01(NR)	<0.01	<0.01	<0.01	<0.01
25	Manganese as Mn	mg/l	0.1(0.3)	0.011	0.01	0.009	<0.01
26	Molybdenum as Mo	mg/l	0.07(NR)	<0.01	<0.01	<0.01	<0.01
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)	0.025	0.019	0.046	0.024
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)	<0.01	<0.01	<0.01	<0.01
31	Zinc as Zn	mg/l	5.0(15)	0.018	0.008	0.017	0.023
32	Aluminum as Al	mg/l	0.03(0.2)	0.01	0.026	0.021	0.013
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)	0.017	0.021	0.018	0.027
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

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

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ISSUED TO:

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

Report Number	:	**VLL/VLS/26-27/02504/001**
Issued Date	:	**2026-05-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-04-12	Sampling Date	:	2026-04-06
Analysis Starting Date	:	2026-04-12	Analysis Completion Date	:	2026-04-28
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	*Rogbheri (B/W)*	*Rogbheri (D/W)*	*Bailgiri Basti(B/W)*	*Bailgiri Basti(D/W)*
39	Polychlorinated biphenyls	mg/l	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
(A)	**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 VIMTA LABS LTD. RECD. No- DL 33004/99 Sr. No.-5

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KORBA
Chhattisgarh

Report Number	:	**VLL/VLS/26-27/02504/001**
Issued Date	:	**2026-05-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-04-12	Sampling Date	:	2026-04-06
Analysis Starting Date	:	2026-04-12	Analysis Completion Date	:	2026-04-28
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	*Rogbheri (B/W)*	*Rogbheri (D/W)*	*Bailgiri Basti(B/W)*	*Bailgiri Basti(D/W)*
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.coli	Per 100 ml	Absent	Absent	Absent	Absent	Absent
64	Total Coliforms	MPN/100ml	Absent	Absent	Absent	Absent	Absent
(B)	**Radioactive**						
65	Alpha emitters	Bq/l	0.1(NR)	BDL	BDL	BDL	BDL
66	Beta emitters	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

-END OF THE REPORTS-

Name and Designation of Authorized Signatory

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

SAMPLE PARTICULARS : GROUND WATER SAMPLES (BALCO PLANT)

Sample Registration Date	:	2026-04-12	Sampling Date	:	2026-04-06
Analysis Starting Date	:	2026-04-12	Analysis Completion Date	:	2026-04-28
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	*Parsabhata (B/W)*	*Parsabhata (D/W)*	*Karma Talkies (B/W)*	*Bhadrapada D/W)*
1	pH value	-	6.5-8.5 (NR)	7.24	6.72	6.82	6.88
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)	2	3	3	2
6	Total dissolved solids at 180°C	mg/l	500(2000)	250	313	204	360
7	Total Hardness as $CaCO_3$	mg/l	200(600)	140	98	96	214
8	Total Alkalinity as $CaCO_3$	mg/l	200(600)	120	130	70	118
9	Calcium as Ca	mg/l	75(200)	34.4	23.0	18.4	52.0
10	Magnesium as Mg	mg/l	30(100)	12.6	9.7	12.2	20.4
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)	0.034	0.015	0.022	0.011
13	Chlorides as Cl	mg/l	250(1000)	34.3	57.3	42.4	98.5
14	Sulphate as SO_4	mg/l	200(400)	19.1	23.4	28.8	27.3
15	Fluorides as F	mg/l	1.0(1.5)	0.352	0.366	0.251	0.283
16	Nitrates as NO_3	mg/l	45(NR)	1.9	2.6	1.5	7.4
17	Phenolic Compounds as C_6H_5OH	mg/l	0.001(0.002)	<0.001	<0.001	<0.001	<0.001
18	Cyanides as CN	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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Report Number	:	**VLL/VLS/26-27/02504/001**
Issued Date	:	**2026-05-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-04-12	Sampling Date	:	2026-04-06
Analysis Starting Date	:	2026-04-12	Analysis Completion Date	:	2026-04-28
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	*Parsabhata (B/W)*	*Parsabhata (D/W)*	*Karma Talkies(B/W)*	*Bhadrapada D/W)*
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)	<0.003	<0.003	<0.003	<0.003
22	Total Arsenic as As	mg/l	0.01(0.05)	<0.01	<0.01	<0.01	<0.01
23	Copper as Cu	mg/l	0.05(1.5)	<0.01	<0.01	<0.01	<0.01
24	Lead as Pb	mg/l	0.01(NR)	<0.01	<0.01	<0.01	<0.01
25	Manganese as Mn	mg/l	0.1(0.3)	0.014	0.01	0.013	<0.01
26	Molybdenum as Mo	mg/l	0.07(NR)	<0.01	<0.01	<0.01	<0.01
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)	0.017	0.034	0.029	0.032
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)	<0.01	<0.01	<0.01	<0.01
31	Zinc as Zn	mg/l	5.0(15)	0.022	0.031	0.043	0.016
32	Aluminum as Al	mg/l	0.03(0.2)	0.017	0.023	0.031	0.23
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)	0.023	0.018	0.013	0.026
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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SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date : 2026-04-12 Sampling Date : 2026-04-06
Analysis Starting Date : 2026-04-12 Analysis Completion Date : 2026-04-28
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	*Parsabhata (B/W)*	*Parsabhata (D/W)*	*Karma Talkies(B/W)*	*Bhadrapada D/W)*
39	Polychlorinated biphenyls	mg/l	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
(A)	**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

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SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-04-12	Sampling Date	:	2026-04-06
Analysis Starting Date	:	2026-04-12	Analysis Completion Date	:	2026-04-28
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	*Parsabhata (B/W)*	*Parsabhata (D/W)*	*Karma Talkies(B/W)*	*Bhadrapada D/W)*
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.coli	Per 100 ml	Absent	Absent	Absent	Absent	Absent
64	Total Coliforms	MPN/100ml	Absent	Absent	Absent	Absent	Absent
(B)	**Radioactive**						
65	Alpha emitters	Bq/l	0.1(NR)	BDL	BDL	BDL	BDL
66	Beta emitters	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 33 Sr. No.-5

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Issued Date	:	**2026-05-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **SURFACE WATER SAMPLE (BALCO PLANT)**

Sample Registration Date : 2026-04-12 Sampling Date : 2026-04-06
Analysis Starting Date : 2026-04-12 Analysis Completion Date : 2026-04-25
Samples Details : SW1-Bailgiri Nala (U/S)-Near Baigiri Village, SW2-Bailgiri Nala (D/S)-Near Bailgiri Basti, SW3- Dhengu Nala (U/S) Risbabasti SW4- Dhengu Nala (D/S)-near Check post Balco

SAMPLE COLLECTED BY VIMTA LABS LTD.

TEST REPORT

Sr. No.	Parameters	Unit	SW1	SW2	SW3	SW4
1	pH	-	7.10	7.49	7.62	6.29
2	Colour	Hazen	1	2	1	3
3	Conductivity	µS/cm	180	195	130	160
4	TDS	mg/l	115	125	83	104
5	DO	mg/l	6.2	4.6	6.0	5.8
6	BOD	mg/l	0.7	2.6	1.2	1.3
7	COD	mg/l	3.1	10	4.8	5.6
8	Turbidity	NTU	3.0	6.0	6.0	7.0
9	Total Hardness as $CaCO_3$	mg/l	53	54	40	42
10	Total Alkalinity as $CaCO_3$	mg/l	46	40	30	40
11	Calcium as Ca	mg/l	11.0	14.0	9.8	10.0
12	Magnesium as Mg	mg/l	6.2	4.5	3.7	4.2
13	Chlorides as Cl	mg/l	16.0	24.0	14.0	17.0
14	Residual free chlorine	mg/l	<0.2	<0.2	<0.2	<0.2
15	Phosphates as PO_4	mg/l	0.03	0.043	0.027	0.039
16	Sulphates as SO_4	mg/l	17.7	19.8	12.3	13.1
17	Fluorides as F	mg/l	0.066	0.229	0.348	0.328
18	Nitrates as NO_3	mg/l	0.9	1.2	0.9	1.1
19	Sodium as Na	mg/l	15.2	19.6	11	16.5
20	Potassium as K	mg/l	1.8	1.1	0.8	1.3
21	Total Boron as B	mg/l	<0.01	0.011	0.007	0.031
22	Phenolic Compounds	mg/l	<0.001	<0.001	<0.001	<0.001
23	Cyanides as CN	mg/l	<0.01	<0.01	<0.01	<0.01
24	Oil & grease	mg/l	<1.0	<1.0	<1.0	<1.0
25	Cadmium as Cd	mg/l	<0.003	<0.003	<0.003	<0.003
26	Arsenic as As	mg/l	<0.01	<0.01	<0.01	<0.01
27	Copper as Cu	mg/l	<0.01	<0.01	<0.01	<0.01
28	Lead as Pb	mg/l	<0.01	<0.01	<0.01	<0.01
29	Iron as Fe	mg/l	0.021	0.054	0.017	0.026
30	Chromium as Cr^{+6}	mg/l	<0.05	<0.05	<0.05	<0.05
31	Selenium as Se	mg/l	<0.01	<0.01	<0.01	<0.01
32	Zinc as Zn	mg/l	0.021	0.032	0.026	0.011
33	Aluminum as Al	mg/l	0.010	0.017	0.022	0.031
34	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001
35	SAR	-	0.91	1.17	0.76	1.10
36	Insecticides	mg/l	Absent	Absent	Absent	Absent
37	Anionic detergents as MBAS	mg/l	Absent	Absent	Absent	Absent
38	Total Coliforms	MPN/100	38	54	26	34

Method of Testing: As per APHA 23rd edition and IS: 3025
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)

-END OF THE REPORTS-

Name and Designation of Authorized Signatory

ENVIRONMENT LABORATORY Vimta VIMTA LABS REGD. No- DL-31 Sr. No.-5

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

SAMPLE PARTICULARS : GROUND WATER SAMPLES (BALCO PLANT)

Sample Registration Date	:	2026-04-12	Sampling Date	:	2026-04-06
Analysis Starting Date	:	2026-04-12	Analysis Completion Date	:	2026-04-28
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	*Rogbheri (B/W)*	*Rogbheri (D/W)*	*Bailgiri Basti(B/W)*	*Bailgiri Basti(D/W)*
1	pH value	-	6.5-8.5 (NR)	6.81	7.08	6.98	7.14
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)	4	3	1	2
6	Total dissolved solids at 180^{0}C	mg/l	500(2000)	410	330	530	398
7	Total Hardness as $CaCO_3$	mg/l	200(600)	258	130	295	248
8	Total Alkalinity as $CaCO_3$	mg/l	200(600)	125	116	260	165
9	Calcium as Ca	mg/l	75(200)	68.0	28.7	74.0	63.2
10	Magnesium as Mg	mg/l	30(100)	21.4	14.3	26.7	21.9
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)	0.024	0.016	0.018	0.023
13	Chlorides as Cl	mg/l	250(1000)	152.2	76.1	125.1	83.1
14	Sulphate as SO_4	mg/l	200(400)	63.9	30.6	45.8	28.4
15	Fluorides as F	mg/l	1.0(1.5)	0.279	0.319	0.518	0.490
16	Nitrates as NO_3	mg/l	45(NR)	4.3	3.8	5.6	2.7
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 3300/98 Sr. No.-5

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

Report Number	:	**VLL/VLS/26-27/02504/001**
Issued Date	:	**2026-05-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-04-12	Sampling Date	:	2026-04-06
Analysis Starting Date	:	2026-04-12	Analysis Completion Date	:	2026-04-28
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	*Rogbheri (B/W)*	*Rogbheri (D/W)*	*Bailgiri Basti(B/W)*	*Bailgiri Basti(D/W)*
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)	<0.003	<0.003	<0.003	<0.003
22	Total Arsenic as As	mg/l	0.01(0.05)	<0.01	<0.01	<0.01	<0.01
23	Copper as Cu	mg/l	0.05(1.5)	<0.01	<0.01	<0.01	<0.01
24	Lead as Pb	mg/l	0.01(NR)	<0.01	<0.01	<0.01	<0.01
25	Manganese as Mn	mg/l	0.1(0.3)	0.011	0.01	0.009	<0.01
26	Molybdenum as Mo	mg/l	0.07(NR)	<0.01	<0.01	<0.01	<0.01
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)	0.025	0.019	0.046	0.024
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)	<0.01	<0.01	<0.01	<0.01
31	Zinc as Zn	mg/l	5.0(15)	0.018	0.008	0.017	0.023
32	Aluminum as Al	mg/l	0.03(0.2)	0.01	0.026	0.021	0.013
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)	0.017	0.021	0.018	0.027
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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BALCO
KORBA
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Report Number	:	**VLL/VLS/26-27/02504/001**
Issued Date	:	**2026-05-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-04-12	Sampling Date	:	2026-04-06
Analysis Starting Date	:	2026-04-12	Analysis Completion Date	:	2026-04-28
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	*Rogbheri (B/W)*	*Rogbheri (D/W)*	*Bailgiri Basti(B/W)*	*Bailgiri Basti(D/W)*
39	Polychlorinated biphenyls	mg/l	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
(A)	**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

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Report Number	:	**VLL/VLS/26-27/02504/001**
Issued Date	:	**2026-05-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-04-12	Sampling Date	:	2026-04-06
Analysis Starting Date	:	2026-04-12	Analysis Completion Date	:	2026-04-28
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	*Rogbheri (B/W)*	*Rogbheri (D/W)*	*Bailgiri Basti(B/W)*	*Bailgiri Basti(D/W)*
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.coli	Per 100 ml	Absent	Absent	Absent	Absent	Absent
64	Total Coliforms	MPN/100ml	Absent	Absent	Absent	Absent	Absent
(B)	**Radioactive**						
65	Alpha emitters	Bq/l	0.1(NR)	BDL	BDL	BDL	BDL
66	Beta emitters	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

-END OF THE REPORTS-

Name and Designation of Authorized Signatory

ENVIRONMENT LABORATORY Vimta VIMTA LABS REGD. No- DL 33 Sr. No.-5

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Issued Date	:	**2026-05-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : GROUND WATER SAMPLES (BALCO PLANT)

Sample Registration Date	:	2026-04-12	Sampling Date	:	2026-04-06
Analysis Starting Date	:	2026-04-12	Analysis Completion Date	:	2026-04-28
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	*Parsabhata (B/W)*	*Parsabhata (D/W)*	*Karma Talkies(B/W)*	*Bhadrapada D/W)*
1	pH value	-	6.5-8.5 (NR)	7.24	6.72	6.82	6.88
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)	2	3	3	2
6	Total dissolved solids at 180°C	mg/l	500(2000)	250	313	204	360
7	Total Hardness as $CaCO_3$	mg/l	200(600)	140	98	96	214
8	Total Alkalinity as $CaCO_3$	mg/l	200(600)	120	130	70	118
9	Calcium as Ca	mg/l	75(200)	34.4	23.0	18.4	52.0
10	Magnesium as Mg	mg/l	30(100)	12.6	9.7	12.2	20.4
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)	0.034	0.015	0.022	0.011
13	Chlorides as Cl	mg/l	250(1000)	34.3	57.3	42.4	98.5
14	Sulphate as SO_4	mg/l	200(400)	19.1	23.4	28.8	27.3
15	Fluorides as F	mg/l	1.0(1.5)	0.352	0.366	0.251	0.283
16	Nitrates as NO_3	mg/l	45(NR)	1.9	2.6	1.5	7.4
17	Phenolic Compounds as C_6H_5OH	mg/l	0.001(0.002)	<0.001	<0.001	<0.001	<0.001
18	Cyanides as CN	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 VIMTA LABS REGD. No- DL-0000 Sr. No.-5

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ISSUED TO:

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BALCO
KORBA
Chhattisgarh

Report Number	:	**VLL/VLS/26-27/02504/001**
Issued Date	:	**2026-05-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-04-12	Sampling Date	:	2026-04-06
Analysis Starting Date	:	2026-04-12	Analysis Completion Date	:	2026-04-28
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	*Parsabhata (B/W)*	*Parsabhata (D/W)*	*Karma Talkies(B/W)*	*Bhadrapada D/W)*
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)	<0.003	<0.003	<0.003	<0.003
22	Total Arsenic as As	mg/l	0.01(0.05)	<0.01	<0.01	<0.01	<0.01
23	Copper as Cu	mg/l	0.05(1.5)	<0.01	<0.01	<0.01	<0.01
24	Lead as Pb	mg/l	0.01(NR)	<0.01	<0.01	<0.01	<0.01
25	Manganese as Mn	mg/l	0.1(0.3)	0.014	0.01	0.013	<0.01
26	Molybdenum as Mo	mg/l	0.07(NR)	<0.01	<0.01	<0.01	<0.01
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)	0.017	0.034	0.029	0.032
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)	<0.01	<0.01	<0.01	<0.01
31	Zinc as Zn	mg/l	5.0(15)	0.022	0.031	0.043	0.016
32	Aluminum as Al	mg/l	0.03(0.2)	0.017	0.023	0.031	0.23
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)	0.023	0.018	0.013	0.026
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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Sample Registration Date	:	2026-04-12	Sampling Date	:	2026-04-06
Analysis Starting Date	:	2026-04-12	Analysis Completion Date	:	2026-04-28
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	*Parsabhata (B/W)*	*Parsabhata (D/W)*	*Karma Talkies(B/W)*	*Bhadrapada D/W)*
39	Polychlorinated biphenyls	mg/l	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
(A)	**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 VIMTA LABS REGD. No- DL 33[illegible] Sr. No.-5

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SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-04-12	Sampling Date	:	2026-04-06
Analysis Starting Date	:	2026-04-12	Analysis Completion Date	:	2026-04-28
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	*Parsabhata (B/W)*	*Parsabhata (D/W)*	*Karma Talkies(B/W)*	*Bhadrapada D/W)*
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.coli	Per 100 ml	Absent	Absent	Absent	Absent	Absent
64	Total Coliforms	MPN/100ml	Absent	Absent	Absent	Absent	Absent
(B)	**Radioactive**						
65	Alpha emitters	Bq/l	0.1(NR)	BDL	BDL	BDL	BDL
66	Beta emitters	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 Sr. No.-5

Dr. Subba Reddy Mallampati
(Manager - Environment)

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

Report Number	:	**VLL/VLS/26-27/02504/001**
Issued Date	:	**2026-05-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **SURFACE WATER SAMPLE (BALCO PLANT)**

Sample Registration Date	:	2026-04-12	Sampling Date	:	2026-04-06
Analysis Starting Date	:	2026-04-12	Analysis Completion Date	:	2026-04-25
Samples Details	:	SW1-Bailgiri Nala (U/S)-Near Baigiri Village, SW2-Bailgiri Nala (D/S)-Near Bailgiri Basti, SW3- Dhengu Nala (U/S) Risbabasti SW4- Dhengu Nala (D/S)-near Check post Balco			

SAMPLE COLLECTED BY VIMTA LABS LTD.

TEST REPORT

Sr. No.	Parameters	Unit	SW1	SW2	SW3	SW4
1	pH	-	7.10	7.49	7.62	6.29
2	Colour	Hazen	1	2	1	3
3	Conductivity	µS/cm	180	195	130	160
4	TDS	mg/l	115	125	83	104
5	DO	mg/l	6.2	4.6	6.0	5.8
6	BOD	mg/l	0.7	2.6	1.2	1.3
7	COD	mg/l	3.1	10	4.8	5.6
8	Turbidity	NTU	3.0	6.0	6.0	7.0
9	Total Hardness as $CaCO_3$	mg/l	53	54	40	42
10	Total Alkalinity as $CaCO_3$	mg/l	46	40	30	40
11	Calcium as Ca	mg/l	11.0	14.0	9.8	10.0
12	Magnesium as Mg	mg/l	6.2	4.5	3.7	4.2
13	Chlorides as Cl	mg/l	16.0	24.0	14.0	17.0
14	Residual free chlorine	mg/l	<0.2	<0.2	<0.2	<0.2
15	Phosphates as PO_4	mg/l	0.03	0.043	0.027	0.039
16	Sulphates as SO_4	mg/l	17.7	19.8	12.3	13.1
17	Fluorides as F	mg/l	0.066	0.229	0.348	0.328
18	Nitrates as NO_3	mg/l	0.9	1.2	0.9	1.1
19	Sodium as Na	mg/l	15.2	19.6	11	16.5
20	Potassium as K	mg/l	1.8	1.1	0.8	1.3
21	Total Boron as B	mg/l	<0.01	0.011	0.007	0.031
22	Phenolic Compounds	mg/l	<0.001	<0.001	<0.001	<0.001
23	Cyanides as CN	mg/l	<0.01	<0.01	<0.01	<0.01
24	Oil & grease	mg/l	<1.0	<1.0	<1.0	<1.0
25	Cadmium as Cd	mg/l	<0.003	<0.003	<0.003	<0.003
26	Arsenic as As	mg/l	<0.01	<0.01	<0.01	<0.01
27	Copper as Cu	mg/l	<0.01	<0.01	<0.01	<0.01
28	Lead as Pb	mg/l	<0.01	<0.01	<0.01	<0.01
29	Iron as Fe	mg/l	0.021	0.054	0.017	0.026
30	Chromium as Cr^{+6}	mg/l	<0.05	<0.05	<0.05	<0.05
31	Selenium as Se	mg/l	<0.01	<0.01	<0.01	<0.01
32	Zinc as Zn	mg/l	0.021	0.032	0.026	0.011
33	Aluminum as Al	mg/l	0.010	0.017	0.022	0.031
34	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001
35	SAR	-	0.91	1.17	0.76	1.10
36	Insecticides	mg/l	Absent	Absent	Absent	Absent
37	Anionic detergents as MBAS	mg/l	Absent	Absent	Absent	Absent
38	Total Coliforms	MPN/100	38	54	26	34

Method of Testing: As per APHA 23rd edition and IS: 3025
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)

-END OF THE REPORTS-

Name and Designation of Authorized Signatory

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Chhattisgarh

Report Number	:	**VLL/VLS/26-27/02504/002**
Issued Date	:	**2026-05-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **SURFACE WATER SAMPLE (BALCO PLANT)**

Sample Registration Date	:	2026-04-12	Sampling Date	:	2026-04-06
Analysis Starting Date	:	2026-04-12	Analysis Completion Date	:	2026-04-25
Samples Details	:	SW5- Hasdeo river near Ramgarh (U/S) SW6- Hasdeo river near Gerwaghat, SW7- Hasdeo river near kohariya, SW8- Hasdeo river near kobra(D/S)-1, SW9- Hasdeo River near Kobra (D/S)-2.			

SAMPLE COLLECTED BY VIMTA LABS LTD.

TEST REPORT

Sr. No.	Parameters	Unit	SW5	SW6	SW7	SW8	SW9
1	pH	-	7.38	7.24	7.50	7.28	7.22
2	Colour	Hazen	1	4	3	3	2
3	Conductivity	µS/cm	172	158	160	176	167
4	TDS	mg/l	110	98	102	112	105
5	DO	mg/l	7.1	7.2	6.9	7.3	7.4
6	BOD	mg/l	1.6	1.7	1.5	2.0	1.5
7	COD	mg/l	6.4	7.2	6.4	8	7.2
8	Turbidity	NTU	8.0	6.0	9.0	10.0	8.0
9	Total Hardness as $CaCO_3$	mg/l	46	50	45	51	52
10	Total Alkalinity as $CaCO_3$	mg/l	40	35	38	40	40
11	Calcium as Ca	mg/l	10.5	9.5	11.2	12.3	11.9
12	Magnesium as Mg	mg/l	4.7	6.2	4.1	4.9	5.3
13	Chlorides as Cl	mg/l	25.8	26.4	23.3	27.2	25.8
14	Residual free chlorine	mg/l	<0.2	<0.2	<0.2	<0.2	<0.2
15	Phosphates as PO_4	mg/l	0.034	0.056	0.029	0.048	0.051
16	Sulphates as SO_4	mg/l	6.7	4.8	5.9	6.1	5.3
17	Fluorides as F	mg/l	0.492	0.541	0.487	0.561	0.510
18	Nitrates as NO_3	mg/l	1.2	1.8	1.9	1.7	0.9
19	Sodium as Na	mg/l	17.8	13.7	15.6	16.3	14.5
20	Potassium as K	mg/l	1.2	0.9	0.8	1.1	0.7
21	Total Boron as B	mg/l	0.01	0.023	0.034	0.026	0.018
22	Phenolic Compounds	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
23	Cyanides as CN	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
24	Oil & grease	mg/l	<1.0	<1.0	<1.0	<1.0	<1.0
25	Cadmium as Cd	mg/l	<0.003	<0.003	<0.003	<0.003	<0.003
26	Arsenic as As	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
27	Copper as Cu	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
28	Lead as Pb	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
29	Iron as Fe	mg/l	0.022	0.036	0.041	0.018	0.029
30	Chromium as Cr^{+6}	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05
31	Selenium as Se	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
32	Zinc as Zn	mg/l	0.035	0.052	0.039	0.024	0.037
33	Aluminum as Al	mg/l	0.023	0.019	0.027	0.018	0.026
34	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
35	SAR	-	1.15	0.85	1.01	0.99	0.88
36	Insecticides	mg/l	Absent	Absent	Absent	Absent	Absent
37	Anionic detergents as MBAS	mg/l	Absent	Absent	Absent	Absent	Absent
38	Total Coliforms	MPN/100	52	48	54	50	58

Method of Testing: As per APHA 23rd edition and IS: 3025
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)

-END OF THE REPORTS-

Name and Designation of Authorized Signatory

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

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Report Number	:	**VLL/VLS/26-27/05017/001**
Issued Date	:	**2026-06-04**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-05-11	Sampling Date	:	2026-05-04
Analysis Starting Date	:	2026-05-11	Analysis Completion Date	:	2026-05-29
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	*Rogbheri (B/W)*	*Rogbheri (D/W)*	*Bailgiri Basti(B/W)*	*Bailgiri Basti(D/W)*
1	pH value	-	6.5-8.5 (NR)	6.95	7.10	6.73	7.14
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)	2	2	2	2
6	Total dissolved solids at 180^{0}C	mg/l	500(2000)	610	270	673	408
7	Total Hardness as $CaCO_3$	mg/l	200(600)	214	110	330	230
8	Total Alkalinity as $CaCO_3$	mg/l	200(600)	190	85	290	210
9	Calcium as Ca	mg/l	75(200)	54.8	34.7	98.6	56.0
10	Magnesium as Mg	mg/l	30(100)	18.7	5.4	19.9	21.87
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)	0.017	0.011	0.026	0.015
13	Chlorides as Cl	mg/l	250(1000)	156.3	61.2	118.0	46.1
14	Sulphate as SO_4	mg/l	200(400)	58.8	32.5	51.1	31.2
15	Fluorides as F	mg/l	1.0(1.5)	0.538	0.640	0.467	0.569
16	Nitrates as NO_3	mg/l	45(NR)	5.3	4.1	6.2	3.8
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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Report Number : **VLL/VLS/26-27/05017/001**
Issued Date : **2026-06-04**
P.O. No. : **3402001553**
P.O. Date : **2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-05-11	Sampling Date	:	2026-05-04
Analysis Starting Date	:	2026-05-11	Analysis Completion Date	:	2026-05-29
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	*Rogbheri (B/W)*	*Rogbheri (D/W)*	*Bailgiri Basti(B/W)*	*Bailgiri Basti(D/W)*
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)	<0.003	<0.003	<0.003	<0.003
22	Total Arsenic as As	mg/l	0.01(0.05)	<0.01	<0.01	<0.01	<0.01
23	Copper as Cu	mg/l	0.05(1.5)	<0.01	<0.01	<0.01	<0.01
24	Lead as Pb	mg/l	0.01(NR)	<0.01	<0.01	<0.01	<0.01
25	Manganese as Mn	mg/l	0.1(0.3)	0.011	0.008	0.01	0.007
26	Molybdenum as Mo	mg/l	0.07(NR)	<0.001	<0.001	<0.001	<0.001
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)	0.021	0.017	0.032	0.018
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)	0.028	0.007	0.024	0.016
32	Aluminum as Al	mg/l	0.03(0.2)	0.01	0.019	0.014	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)	0.023	0.013	0.025	0.018
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

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

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-05-11	Sampling Date	:	2026-05-04
Analysis Starting Date	:	2026-05-11	Analysis Completion Date	:	2026-05-29
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	*Rogbheri (B/W)*	*Rogbheri (D/W)*	*Bailgiri Basti(B/W)*	*Bailgiri Basti(D/W)*
39	Polychlorinated biphenyls	mg/l	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
(A)	**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

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SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-05-11	Sampling Date	:	2026-05-04
Analysis Starting Date	:	2026-05-11	Analysis Completion Date	:	2026-05-29
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	*Rogbheri (B/W)*	*Rogbheri (D/W)*	*Bailgiri Basti(B/W)*	*Bailgiri Basti(D/W)*
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.coli	Per 100 ml	Absent	Absent	Absent	Absent	Absent
64	Total Coliforms	MPN/100ml	Absent	Absent	Absent	Absent	Absent
(B)	**Radioactive**						
65	Alpha emitters	Bq/l	0.1(NR)	BDL	BDL	BDL	BDL
66	Beta emitters	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

-END OF THE REPORTS-

Name and Designation of Authorized Signatory

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

SAMPLE PARTICULARS : GROUND WATER SAMPLES (BALCO PLANT)

Sample Registration Date	:	2026-05-11	Sampling Date	:	2026-05-04
Analysis Starting Date	:	2026-05-11	Analysis Completion Date	:	2026-05-29
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	*Parsabhata (B/W)*	*Parsabhata (D/W)*	*Karma Talkies(B/W)*	*Bhadrapada D/W)*
1	pH value	-	6.5-8.5 (NR)	7.49	6.85	6.92	6.96
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	3	3	2
6	Total dissolved solids at 180°C	mg/l	500(2000)	322	229	178	398
7	Total Hardness as $CaCO_3$	mg/l	200(600)	133	108	86	164
8	Total Alkalinity as $CaCO_3$	mg/l	200(600)	120	90	75	150
9	Calcium as Ca	mg/l	75(200)	28.0	24.2	18.4	38.8
10	Magnesium as Mg	mg/l	30(100)	15.4	11.5	9.72	16.3
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)	0.021	0.01	<0.01	0.022
13	Chlorides as Cl	mg/l	250(1000)	78.0	44.5	31.1	84.1
14	Sulphate as SO_4	mg/l	200(400)	20.1	23.2	17.6	33.2
15	Fluorides as F	mg/l	1.0(1.5)	0.392	0.687	0.377	0.291
16	Nitrates as NO_3	mg/l	45(NR)	2.5	1.2	1.1	6.4
17	Phenolic Compounds as C_6H_5OH	mg/l	0.001(0.002)	<0.001	<0.001	<0.001	<0.001
18	Cyanides as CN	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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ISSUED TO:

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

Report Number	:	**VLL/VLS/26-27/05017/001**
Issued Date	:	**2026-06-04**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-05-11	Sampling Date	:	2026-05-04
Analysis Starting Date	:	2026-05-11	Analysis Completion Date	:	2026-05-29
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	*Parsabhata (B/W)*	*Parsabhata (D/W)*	*Karma Talkies (B/W)*	*Bhadrapada D/W)*
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)	<0.003	<0.003	<0.003	<0.003
22	Total Arsenic as As	mg/l	0.01(0.05)	<0.01	<0.01	<0.01	<0.01
23	Copper as Cu	mg/l	0.05(1.5)	<0.01	<0.01	<0.01	<0.01
24	Lead as Pb	mg/l	0.01(NR)	<0.01	<0.01	<0.01	<0.01
25	Manganese as Mn	mg/l	0.1(0.3)	0.013	0.01	<0.005	0.008
26	Molybdenum as Mo	mg/l	0.07(NR)	<0.001	<0.001	<0.001	<0.001
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)	0.024	0.015	0.031	0.025
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)	0.019	0.021	0.01	0.013
32	Aluminum as Al	mg/l	0.03(0.2)	0.023	0.013	0.028	0.016
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)	0.027	0.016	0.021	0.011
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

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Report Number	:	**VLL/VLS/26-27/05017/001**
Issued Date	:	**2026-06-04**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-05-11	Sampling Date	:	2026-05-04
Analysis Starting Date	:	2026-05-11	Analysis Completion Date	:	2026-05-29
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	*Parsabhata (B/W)*	*Parsabhata (D/W)*	*Karma Talkies(B/W)*	*Bhadrapada D/W)*
39	Polychlorinated biphenyls	mg/l	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
(A)	**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

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Report Number	:	**VLL/VLS/26-27/05017/001**
Issued Date	:	**2026-06-04**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-05-11	Sampling Date	:	2026-05-04
Analysis Starting Date	:	2026-05-11	Analysis Completion Date	:	2026-05-29
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	*Parsabhata (B/W)*	*Parsabhata (D/W)*	*Karma Talkies(B/W)*	*Bhadrapada D/W)*
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.coli	Per 100 ml	Absent	Absent	Absent	Absent	Absent
64	Total Coliforms	MPN/100ml	Absent	Absent	Absent	Absent	Absent
(B)	**Radioactive**						
65	Alpha emitters	Bq/l	0.1(NR)	BDL	BDL	BDL	BDL
66	Beta emitters	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/26-27/05017/001**
Issued Date	:	**2026-06-04**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : SURFACE WATER SAMPLE (BALCO PLANT)

Sample Registration Date	:	2026-05-11	Sampling Date	:	2026-05-06
Analysis Starting Date	:	2026-05-11	Analysis Completion Date	:	2026-05-26
Samples Details	:	SW1-Bailgiri Nala (U/S)-Near Baigiri Village, SW2-Bailgiri Nala (D/S)-Near Bailgiri Basti, SW3- Dhengu Nala (U/S) Risbabasti SW4- Dhengu Nala (D/S)-near Check post Balco			

SAMPLE COLLECTED BY VIMTA LABS LTD.

TEST REPORT

Sr. No.	Parameters	Unit	SW1	SW2	SW3	SW4
1	pH	-	8.45	7.33	7.52	6.85
2	Colour	Hazen	1	3	1	2
3	Conductivity	µS/cm	227	288	120	148
4	TDS	mg/l	143	184	80	96
5	DO	mg/l	5.9	4.7	6.2	5.4
6	BOD	mg/l	1.5	2.9	1.5	2.2
7	COD	mg/l	7.2	11.2	5.6	9.6
8	Turbidity	NTU	2.0	4.0	5.0	8.0
9	Total Hardness as $CaCO_3$	mg/l	54	63	34	50
10	Total Alkalinity as $CaCO_3$	mg/l	45	50	30	40
11	Calcium as Ca	mg/l	10.5	16	8	12.8
12	Magnesium as Mg	mg/l	6.7	5.6	3.4	4.9
13	Chlorides as Cl	mg/l	38.2	45.6	13.3	15.8
14	Residual free chlorine	mg/l	<0.2	<0.2	<0.2	<0.2
15	Phosphates as PO_4	mg/l	0.037	0.054	0.036	0.044
16	Sulphates as SO_4	mg/l	13.07	24.1	11.2	9.40
17	Fluorides as F	mg/l	0.262	0.341	0.382	0.421
18	Nitrates as NO_3	mg/l	1.2	2.8	0.8	1.7
19	Sodium as Na	mg/l	26.2	35.1	12.4	9.8
20	Potassium as K	mg/l	2.4	3.8	0.8	0.9
21	Total Boron as B	mg/l	0.010	0.023	0.009	0.024
22	Phenolic Compounds	mg/l	<0.001	<0.001	<0.001	<0.001
23	Cyanides as CN	mg/l	<0.01	<0.01	<0.01	<0.01
24	Oil & grease	mg/l	<1.0	<1.0	<1.0	<1.0
25	Cadmium as Cd	mg/l	<0.005	<0.005	<0.005	<0.005
26	Arsenic as As	mg/l	<0.001	<0.001	<0.001	<0.001
27	Copper as Cu	mg/l	<0.005	<0.005	<0.005	<0.005
28	Lead as Pb	mg/l	<0.005	<0.005	<0.005	<0.005
29	Iron as Fe	mg/l	0.028	0.063	0.035	0.017
30	Chromium as Cr^{+6}	mg/l	<0.05	<0.05	<0.05	<0.05
31	Selenium as Se	mg/l	<0.005	<0.005	<0.005	<0.005
32	Zinc as Zn	mg/l	0.015	0.037	0.031	0.026
33	Aluminum as Al	mg/l	0.007	0.025	0.018	0.037
34	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001
35	SAR	-	1.55	1.92	0.93	0.59
36	Insecticides	mg/l	Absent	Absent	Absent	Absent
37	Anionic detergents as MBAS	mg/l	Absent	Absent	Absent	Absent
38	Total Coliforms	MPN/100	32	62	40	36

Method of Testing: As per APHA 23rd edition and IS: 3025
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)

-END OF THE REPORTS-

Name and Designation of Authorized Signatory

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ISSUED TO:

M/s. Bharat Aluminum Company Limited,
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KORBA
Chhattisgarh

Report Number	:	**VLL/VLS/26-27/05017/002**
Issued Date	:	**2026-06-04**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **SURFACE WATER SAMPLE (BALCO PLANT)**

Sample Registration Date	:	2026-05-11	Sampling Date	:	2026-05-06
Analysis Starting Date	:	2026-05-11	Analysis Completion Date	:	2026-05-26
Samples Details	:	SW5- Hasdeo river near Ramgarh (U/S) SW6- Hasdeo river near Gerwaghat, SW7- Hasdeo river near kohariya, SW8- Hasdeo river near kobra(D/S)-1, SW9- Hasdeo River near Kobra (D/S)-2.			

SAMPLE COLLECTED BY VIMTA LABS LTD.

TEST REPORT

Sr. No.	Parameters	Unit	SW5	SW6	SW7	SW8	SW9
1	pH	-	7.45	7.34	7.56	7.12	7.84
2	Colour	Hazen	1	3	4	2	3
3	Conductivity	µS/cm	196	166	190	180	176
4	TDS	mg/l	125	106	122	115	113
5	DO	mg/l	7.4	7.0	7.3	7.2	7.3
6	BOD	mg/l	1.8	1.3	2.1	2.4	1.4
7	COD	mg/l	7.2	5.6	8.8	9.6	7.2
8	Turbidity	NTU	5.0	6.0	7.0	5.0	7.0
9	Total Hardness as $CaCO_3$	mg/l	52	50	52	48	50
10	Total Alkalinity as $CaCO_3$	mg/l	45	40	47	40	40
11	Calcium as Ca	mg/l	13.6	14.4	14.4	13.6	12.8
12	Magnesium as Mg	mg/l	4.4	3.2	3.9	3.4	4.4
13	Chlorides as Cl	mg/l	27	21.5	24	23.6	25.7
14	Residual free chlorine	mg/l	<0.2	<0.2	<0.2	<0.2	<0.2
15	Phosphates as PO_4	mg/l	0.052	0.049	0.031	0.063	0.058
16	Sulphates as SO_4	mg/l	11	8.5	10.3	12.5	9.7
17	Fluorides as F	mg/l	0.562	0.521	0.509	0.543	0.517
18	Nitrates as NO_3	mg/l	1.6	2.3	1.5	1.9	1.2
19	Sodium as Na	mg/l	19.8	14.7	18.6	17.9	17.2
20	Potassium as K	mg/l	1.8	1.1	1.4	1.9	0.9
21	Total Boron as B	mg/l	0.017	0.036	0.028	0.023	0.035
22	Phenolic Compounds	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
23	Cyanides as CN	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
24	Oil & grease	mg/l	<1.0	<1.0	<1.0	<1.0	<1.0
25	Cadmium as Cd	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005
26	Arsenic as As	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
27	Copper as Cu	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005
28	Lead as Pb	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005
29	Iron as Fe	mg/l	0.038	0.045	0.056	0.039	0.043
30	Chromium as Cr^{+6}	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05
31	Selenium as Se	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005
32	Zinc as Zn	mg/l	0.043	0.067	0.033	0.028	0.044
33	Aluminum as Al	mg/l	0.021	0.017	0.024	0.032	0.038
34	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
35	SAR	-	1.20	0.91	1.12	1.11	1.06
36	Insecticides	mg/l	Absent	Absent	Absent	Absent	Absent
37	Anionic detergents as MBAS	mg/l	Absent	Absent	Absent	Absent	Absent
38	Total Coliforms	MPN/100	58	53	56	54	51

Method of Testing: As per APHA 23rd edition and IS: 3025
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)

-END OF THE REPORTS-

Name and Designation of Authorized Signatory

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

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Chhattisgarh

Report Number	:	**VLL/VLS/26-27/07623/001**
Issued Date	:	**2026-07-04**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : GROUND WATER SAMPLES (BALCO PLANT)

Sample Registration Date	:	2026-06-11	Sampling Date	:	2026-06-05
Analysis Starting Date	:	2026-06-11	Analysis Completion Date	:	2026-06-26
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	*Rogbheri (B/W)*	*Rogbheri (D/W)*	*Bailgiri Basti(B/W)*	*Bailgiri Basti(D/W)*
1	pH value	-	6.5-8.5 (NR)	6.84	6.93	6.78	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	3	1	1
6	Total dissolved solids at 180°C	mg/l	500(2000)	548	308	642	390
7	Total Hardness as $CaCO_3$	mg/l	200(600)	186	120	276	210
8	Total Alkalinity as $CaCO_3$	mg/l	200(600)	180	95	280	195
9	Calcium as Ca	mg/l	75(200)	47.6	37.3	75.0	52.4
10	Magnesium as Mg	mg/l	30(100)	16.3	6.7	21.6	19.5
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)	0.014	0.01	0.017	0.012
13	Chlorides as Cl	mg/l	250(1000)	139.8	72.0	113.0	48.4
14	Sulphate as SO_4	mg/l	200(400)	46.40	37.6	45.6	29.5
15	Fluorides as F	mg/l	1.0(1.5)	0.486	0.594	0.391	0.489
16	Nitrates as NO_3	mg/l	45(NR)	3.8	2.9	4.6	2.8
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 33004/99 Sr. No. 5

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Chhattisgarh

Report Number	:	**VLL/VLS/26-27/07623/001**
Issued Date	:	**2026-07-04**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-06-11	Sampling Date	:	2026-06-05
Analysis Starting Date	:	2026-06-11	Analysis Completion Date	:	2026-06-26
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	*Rogbheri (B/W)*	*Rogbheri (D/W)*	*Bailgiri Basti(B/W)*	*Bailgiri Basti(D/W)*
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)	<0.001	<0.001	<0.001	<0.001
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)	0.01	0.008	0.009	0.006
26	Molybdenum as Mo	mg/l	0.07(NR)	<0.001	<0.001	<0.001	<0.001
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)	0.018	0.015	0.026	0.013
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)	0.021	0.009	0.015	0.011
32	Aluminum as Al	mg/l	0.03(0.2)	0.01	0.012	0.009	0.014
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)	0.018	0.01	0.017	0.021
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

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

Report Number	:	**VLL/VLS/26-27/07623/001**
Issued Date	:	**2026-07-04**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-06-11	Sampling Date	:	2026-06-05
Analysis Starting Date	:	2026-06-11	Analysis Completion Date	:	2026-06-26
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	*Rogbheri (B/W)*	*Rogbheri (D/W)*	*Bailgiri Basti(B/W)*	*Bailgiri Basti(D/W)*
39	Polychlorinated biphenyls	mg/l	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
(A)	**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

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

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

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-06-11	Sampling Date	:	2026-06-05
Analysis Starting Date	:	2026-06-11	Analysis Completion Date	:	2026-06-26
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	*Rogbheri (B/W)*	*Rogbheri (D/W)*	*Bailgiri Basti(B/W)*	*Bailgiri Basti(D/W)*
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.coli	Per 100 ml	Absent	Absent	Absent	Absent	Absent
64	Total Coliforms	MPN/100ml	Absent	Absent	Absent	Absent	Absent
(B)	**Radioactive**						
65	Alpha emitters	Bq/l	0.1(NR)	BDL	BDL	BDL	BDL
66	Beta emitters	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

-END OF THE REPORTS-

Name and Designation of Authorized Signatory

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Issued Date	:	**2026-07-04**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : GROUND WATER SAMPLES (BALCO PLANT)

Sample Registration Date	:	2026-06-11	Sampling Date	:	2026-06-05
Analysis Starting Date	:	2026-06-11	Analysis Completion Date	:	2026-06-26
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	*Parsabhata (B/W)*	*Parsabhata (D/W)*	*Karma Talkies (B/W)*	*Bhadrapada D/W)*
1	pH value	-	6.5-8.5 (NR)	7.33	6.84	6.78	6.85
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)	2	2	2	3
6	Total dissolved solids at 180°C	mg/l	500(2000)	295	242	192	383
7	Total Hardness as $CaCO_3$	mg/l	200(600)	125	115	95	180
8	Total Alkalinity as $CaCO_3$	mg/l	200(600)	110	95	80	140
9	Calcium as Ca	mg/l	75(200)	27.0	25.0	19.5	41.5
10	Magnesium as Mg	mg/l	30(100)	13.5	12.4	11.3	18.6
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)	0.025	<0.005	<0.005	0.018
13	Chlorides as Cl	mg/l	250(1000)	69.2	48.4	33.7	88.3
14	Sulphate as SO_4	mg/l	200(400)	18.7	22.5	19.8	31.6
15	Fluorides as F	mg/l	1.0(1.5)	0.345	0.568	0.352	0.271
16	Nitrates as NO_3	mg/l	45(NR)	4.8	2.1	1.1	5.3
17	Phenolic Compounds as C_6H_5OH	mg/l	0.001(0.002)	<0.001	<0.001	<0.001	<0.001
18	Cyanides as CN	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 VIMTA LABS REGD. No- DL 33004/99

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

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-06-11	Sampling Date	:	2026-06-05
Analysis Starting Date	:	2026-06-11	Analysis Completion Date	:	2026-06-26
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	*Parsabhata (B/W)*	*Parsabhata (D/W)*	*Karma Talkies(B/W)*	*Bhadrapada D/W)*
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)	<0.001	<0.001	<0.001	<0.001
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)	0.012	<0.005	<0.005	0.010
26	Molybdenum as Mo	mg/l	0.07(NR)	<0.001	<0.001	<0.001	<0.001
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)	0.021	0.011	0.028	0.017
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)	0.017	0.019	0.011	0.008
32	Aluminum as Al	mg/l	0.03(0.2)	0.021	0.016	0.023	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)	0.015	0.012	0.01	0.009
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 LABS REGD. No- DL 3300/99 Sr. No.-5

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Report Number	:	**VLL/VLS/26-27/07623/001**
Issued Date	:	**2026-07-04**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-06-11	Sampling Date	:	2026-06-05
Analysis Starting Date	:	2026-06-11	Analysis Completion Date	:	2026-06-26
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	*Parsabhata (B/W)*	*Parsabhata (D/W)*	*Karma Talkies(B/W)*	*Bhadrapada D/W)*
39	Polychlorinated biphenyls	mg/l	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
(A)	**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

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P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-06-11	Sampling Date	:	2026-06-05
Analysis Starting Date	:	2026-06-11	Analysis Completion Date	:	2026-06-26
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	*Parsabhata (B/W)*	*Parsabhata (D/W)*	*Karma Talkies(B/W)*	*Bhadrapada D/W)*
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.coli	Per 100 ml	Absent	Absent	Absent	Absent	Absent
64	Total Coliforms	MPN/100ml	Absent	Absent	Absent	Absent	Absent
(B)	**Radioactive**						
65	Alpha emitters	Bq/l	0.1(NR)	BDL	BDL	BDL	BDL
66	Beta emitters	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 33004/99 Sr. No.-6

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P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : SURFACE WATER SAMPLE (BALCO PLANT)

Sample Registration Date	:	2026-06-11	Sampling Date	:	2026-06-05
Analysis Starting Date	:	2026-06-11	Analysis Completion Date	:	2026-06-26
Samples Details	:	SW1-Bailgiri Nala (U/S)-Near Baigiri Village, SW2-Bailgiri Nala (D/S)-Near Bailgiri Basti, SW3- Dhengu Nala (U/S) Risbabasti SW4- Dhengu Nala (D/S)-near Check post Balco			

SAMPLE COLLECTED BY VIMTA LABS LTD.

TEST REPORT

Sr. No.	Parameters	Unit	SW1	SW2	SW3	SW4
1	pH	-	7.94	7.33	7.52	6.35
2	Colour	Hazen	1	2	1	3
3	Conductivity	µS/cm	198	265	145	180
4	TDS	mg/l	125	166	92	113
5	DO	mg/l	5.6	4.8	6.4	5.6
6	BOD	mg/l	1.6	2.7	1.2	2.2
7	COD	mg/l	7.0	10.0	5.0	9.0
8	Turbidity	NTU	3.0	2.0	4.0	7.0
9	Total Hardness as $CaCO_3$	mg/l	47	60	38	57
10	Total Alkalinity as $CaCO_3$	mg/l	40	45	35	45
11	Calcium as Ca	mg/l	9.8	14	10.5	13.7
12	Magnesium as Mg	mg/l	5.4	6.2	2.8	5.6
13	Chlorides as Cl	mg/l	32.2	46.1	16.7	22.6
14	Residual free chlorine	mg/l	<0.2	<0.2	<0.2	<0.2
15	Phosphates as PO_4	mg/l	0.056	0.084	0.067	0.092
16	Sulphates as SO_4	mg/l	11.6	18.7	9.8	8.7
17	Fluorides as F	mg/l	0.322	0.348	0.382	0.314
18	Nitrates as NO_3	mg/l	0.9	1.8	1.1	2.4
19	Sodium as Na	mg/l	23.2	31.3	14.5	13.6
20	Potassium as K	mg/l	1.6	2.6	1.1	1.4
21	Total Boron as B	mg/l	0.009	0.027	0.010	0.021
22	Phenolic Compounds	mg/l	<0.001	<0.001	<0.001	<0.001
23	Cyanides as CN	mg/l	<0.01	<0.01	<0.01	<0.01
24	Oil & grease	mg/l	<1.0	<1.0	<1.0	<1.0
25	Cadmium as Cd	mg/l	<0.005	<0.005	<0.005	<0.005
26	Arsenic as As	mg/l	<0.001	<0.001	<0.001	<0.001
27	Copper as Cu	mg/l	<0.005	<0.005	<0.005	<0.005
28	Lead as Pb	mg/l	<0.005	<0.005	<0.005	<0.005
29	Iron as Fe	mg/l	0.031	0.058	0.046	0.019
30	Chromium as Cr^{+6}	mg/l	<0.05	<0.05	<0.05	<0.05
31	Selenium as Se	mg/l	<0.005	<0.005	<0.005	<0.005
32	Zinc as Zn	mg/l	0.012	0.023	0.045	0.016
33	Aluminum as Al	mg/l	0.009	0.015	0.011	0.027
34	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001
35	SAR	-	1.48	1.75	1.03	0.78
36	Insecticides	mg/l	Absent	Absent	Absent	Absent
37	Anionic detergents as MBAS	mg/l	Absent	Absent	Absent	Absent
38	Total Coliforms	MPN/100	28	41	36	54

Method of Testing: As per APHA 23rd edition and IS: 3025
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)

-END OF THE REPORTS-

Name and Designation of Authorized Signatory



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ISSUED TO:

M/s. Bharat Aluminum Company Limited,
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Chhattisgarh

Report Number	:	**VLL/VLS/26-27/07623/002**
Issued Date	:	**2026-07-04**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **SURFACE WATER SAMPLE (BALCO PLANT)**

Sample Registration Date	:	2026-06-11	Sampling Date	:	2026-06-05
Analysis Starting Date	:	2026-06-11	Analysis Completion Date	:	2026-06-26
Samples Details	:	SW5- Hasdeo river near Ramgarh (U/S) SW6- Hasdeo river near Gerwaghat, SW7- Hasdeo river near kohariya, SW8- Hasdeo river near kobra(D/S)-1, SW9- Hasdeo River near Kobra (D/S)-2.			

SAMPLE COLLECTED BY VIMTA LABS LTD.

TEST REPORT

Sr. No.	Parameters	Unit	SW5	SW6	SW7	SW8	SW9
1	pH	-	7.45	7.34	7.56	7.12	7.84
2	Colour	Hazen	1	4	3	2	2
3	Conductivity	µS/cm	175	220	205	155	165
4	TDS	mg/l	110	142	130	101	106
5	DO	mg/l	7.1	7.2	7.4	7.0	7.2
6	BOD	mg/l	1.7	1.2	2.1	2.7	2.3
7	COD	mg/l	6.0	5.0	8.0	10.0	9.0
8	Turbidity	NTU	6.0	4.0	8.0	4.0	8.0
9	Total Hardness as $CaCO_3$	mg/l	46	60	54	42	46
10	Total Alkalinity as $CaCO_3$	mg/l	40	50	45	35	40
11	Calcium as Ca	mg/l	12.4	15.6	13.5	12.2	13.2
12	Magnesium as Mg	mg/l	3.7	4.3	4.9	2.9	3.2
13	Chlorides as Cl	mg/l	25.6	31.4	29.8	21.7	22.5
14	Residual free chlorine	mg/l	<0.2	<0.2	<0.2	<0.2	<0.2
15	Phosphates as PO_4	mg/l	0.075	0.085	0.079	0.11	0.14
16	Sulphates as SO_4	mg/l	9.7	12.3	11.8	9.8	8.2
17	Fluorides as F	mg/l	0.294	0.365	0.421	0.256	0.274
18	Nitrates as NO_3	mg/l	1.2	2.7	2.5	1.2	1.9
19	Sodium as Na	mg/l	18.4	23.2	21.2	15.4	16.2
20	Potassium as K	mg/l	1.4	2.6	1.9	1.3	0.8
21	Total Boron as B	mg/l	0.018	0.018	0.024	0.011	0.027
22	Phenolic Compounds	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
23	Cyanides as CN	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
24	Oil & grease	mg/l	<1.0	<1.0	<1.0	<1.0	<1.0
25	Cadmium as Cd	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005
26	Arsenic as As	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
27	Copper as Cu	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005
28	Lead as Pb	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005
29	Iron as Fe	mg/l	0.027	0.039	0.062	0.045	0.051
30	Chromium as Cr^{+6}	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05
31	Selenium as Se	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005
32	Zinc as Zn	mg/l	0.035	0.054	0.018	0.107	0.031
33	Aluminum as Al	mg/l	0.031	0.026	0.022	0.018	0.023
34	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
35	SAR	-	1.18	1.34	1.26	1.03	1.04
36	Insecticides	mg/l	Absent	Absent	Absent	Absent	Absent
37	Anionic detergents as MBAS	mg/l	Absent	Absent	Absent	Absent	Absent
38	Total Coliforms	MPN/100	52	43	56	48	53

Method of Testing: As per APHA 23rd edition and IS: 3025
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)

-END OF THE REPORTS-

Name and Designation of Authorized Signatory

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ISSUED TO:

M/s. Bharat Aluminum Company Limited,
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KORBA
Chhattisgarh

Report Number	:	**VLL/VLS/26-27/10232/001**
Issued Date	:	**2026-08-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-07-13	Sampling Date	:	2026-07-06
Analysis Starting Date	:	2026-07-13	Analysis Completion Date	:	2026-07-28
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	*Rogbheri (B/W)*	*Rogbheri (D/W)*	*Bailgiri Basti(B/W)*	*Bailgiri Basti(D/W)*
1	pH value	-	6.5-8.5 (NR)	7.12	7.02	6.97	7.23
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)	2	3	3	2
6	Total dissolved solids at 180°C	mg/l	500(2000)	535	250	687	386
7	Total Hardness as $CaCO_3$	mg/l	200(600)	210	127	285	236
8	Total Alkalinity as $CaCO_3$	mg/l	200(600)	170	85	265	180
9	Calcium as Ca	mg/l	75(200)	44.8	25.6	73.6	58.4
10	Magnesium as Mg	mg/l	30(100)	23.4	15.4	24.3	21.9
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)	0.023	0.017	0.012	0.01
13	Chlorides as Cl	mg/l	250(1000)	151.2	62.2	143.8	55.3
14	Sulphate as SO_4	mg/l	200(400)	39.7	23.4	58.0	36.7
15	Fluorides as F	mg/l	1.0(1.5)	0.511	0.534	0.426	0.501
16	Nitrates as NO_3	mg/l	45(NR)	3.4	2.2	4.8	2.1
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 REGD. No- DL 33004/99 Sr. No. 5 VIMTA

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ISSUED TO:

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Chhattisgarh

Report Number	:	**VLL/VLS/26-27/10232/001**
Issued Date	:	**2026-08-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-07-13	Sampling Date	:	2026-07-06
Analysis Starting Date	:	2026-07-13	Analysis Completion Date	:	2026-07-28
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	Rogbheri (B/W)	Rogbheri (D/W)	Bailgiri Basti(B/W)	Bailgiri Basti(D/W)
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)	<0.001	<0.001	<0.001	<0.001
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)	0.009	0.01	0.007	0.005
26	Molybdenum as Mo	mg/l	0.07(NR)	<0.001	<0.001	<0.001	<0.001
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)	0.023	0.017	0.019	0.016
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)	0.16	0.010	0.019	0.007
32	Aluminum as Al	mg/l	0.03(0.2)	0.013	0.01	0.011	0.008
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)	0.015	0.011	0.019	0.026
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

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

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BALCO
KORBA
Chhattisgarh

Report Number	:	**VLL/VLS/26-27/10232/001**
Issued Date	:	**2026-08-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-07-13	Sampling Date	:	2026-07-06
Analysis Starting Date	:	2026-07-13	Analysis Completion Date	:	2026-07-28
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	*Rogbheri (B/W)*	*Rogbheri (D/W)*	*Bailgiri Basti(B/W)*	*Bailgiri Basti(D/W)*
39	Polychlorinated biphenyls	mg/l	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
(A)	**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

ENVIRONMENT LABORATORY Vimta VIMTA LABS Sr. No.-5

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Chhattisgarh

Report Number	:	**VLL/VLS/26-27/10232/001**
Issued Date	:	**2026-08-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-07-13	Sampling Date	:	2026-07-06
Analysis Starting Date	:	2026-07-13	Analysis Completion Date	:	2026-07-28
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	*Rogbheri (B/W)*	*Rogbheri (D/W)*	*Bailgiri Basti(B/W)*	*Bailgiri Basti(D/W)*
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.coli	Per 100 ml	Absent	Absent	Absent	Absent	Absent
64	Total Coliforms	MPN/100ml	Absent	Absent	Absent	Absent	Absent
(B)	**Radioactive**						
65	Alpha emitters	Bq/l	0.1(NR)	BDL	BDL	BDL	BDL
66	Beta emitters	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

-END OF THE REPORTS-

Name and Designation of Authorized Signatory

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Chhattisgarh

Report Number	:	**VLL/VLS/26-27/10232/001**
Issued Date	:	**2026-08-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : GROUND WATER SAMPLES (BALCO PLANT)

Sample Registration Date	:	2026-07-13	Sampling Date	:	2026-07-06
Analysis Starting Date	:	2026-07-13	Analysis Completion Date	:	2026-07-28
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	*Parsabhata (B/W)*	*Parsabhata (D/W)*	*Karma Talkies (B/W)*	*Bhadrapada D/W)*
1	pH value	-	6.5-8.5 (NR)	7.45	6.78	6.84	6.96
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)	2	2	3	2
6	Total dissolved solids at 180°C	mg/l	500(2000)	298	210	175	372
7	Total Hardness as $CaCO_3$	mg/l	200(600)	94	87	90	130
8	Total Alkalinity as $CaCO_3$	mg/l	200(600)	120	80	70	125
9	Calcium as Ca	mg/l	75(200)	18.4	24.5	19.5	34
10	Magnesium as Mg	mg/l	30(100)	11.7	6.3	9.2	11.2
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)	0.106	<0.005	<0.005	0.011
13	Chlorides as Cl	mg/l	250(1000)	63.7	39.8	31.2	93.2
14	Sulphate as SO_4	mg/l	200(400)	17.3	19.8	17.4	28.7
15	Fluorides as F	mg/l	1.0(1.5)	0.412	0.587	0.369	0.345
16	Nitrates as NO_3	mg/l	45(NR)	3.6	2.3	1.4	4.3
17	Phenolic Compounds as C_6H_5OH	mg/l	0.001(0.002)	<0.001	<0.001	<0.001	<0.001
18	Cyanides as CN	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

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

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Chhattisgarh

Report Number	:	**VLL/VLS/26-27/10232/001**
Issued Date	:	**2026-08-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-07-13	Sampling Date	:	2026-07-06
Analysis Starting Date	:	2026-07-13	Analysis Completion Date	:	2026-07-28
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	*Parsabhata (B/W)*	*Parsabhata (D/W)*	*Karma Talkies(B/W)*	*Bhadrapada D/W)*
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)	<0.001	<0.001	<0.001	<0.001
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)	0.01	<0.005	<0.005	0.011
26	Molybdenum as Mo	mg/l	0.07(NR)	<0.001	<0.001	<0.001	<0.001
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)	0.023	0.013	0.031	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)	0.012	0.015	0.01	0.006
32	Aluminum as Al	mg/l	0.03(0.2)	0.014	0.018	0.026	0.011
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)	0.018	0.013	0.011	0.010
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

ENVIRONMENTAL LABORATORY Vimta VIMTA LABS LTD. REGD. No- DL 33004/99 Sr. No.-5 KIMTA

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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/26-27/10232/001**
Issued Date	:	**2026-08-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-07-13	Sampling Date	:	2026-07-06
Analysis Starting Date	:	2026-07-13	Analysis Completion Date	:	2026-07-28
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	*Parsabhata (B/W)*	*Parsabhata (D/W)*	*Karma Talkies(B/W)*	*Bhadrapada D/W)*
39	Polychlorinated biphenyls	mg/l	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
(A)	**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 REGD. No- DL-33004/99 Sr. No.-5

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M/s. Bharat Aluminum Company Limited,
BALCO
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Chhattisgarh

Report Number	:	**VLL/VLS/26-27/10232/001**
Issued Date	:	**2026-08-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-07-13	Sampling Date	:	2026-07-06
Analysis Starting Date	:	2026-07-13	Analysis Completion Date	:	2026-07-28
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	*Parsabhata (B/W)*	*Parsabhata (D/W)*	*Karma Talkies(B/W)*	*Bhadrapada D/W)*
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.coli	Per 100 ml	Absent	Absent	Absent	Absent	Absent
64	Total Coliforms	MPN/100ml	Absent	Absent	Absent	Absent	Absent
(B)	**Radioactive**						
65	Alpha emitters	Bq/l	0.1(NR)	BDL	BDL	BDL	BDL
66	Beta emitters	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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Report Number	:	**VLL/VLS/26-27/10232/002**
Issued Date	:	**2026-08-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **SURFACE WATER SAMPLE (BALCO PLANT)**

Sample Registration Date	:	2026-07-13	Sampling Date	:	2026-07-06
Analysis Starting Date	:	2026-07-13	Analysis Completion Date	:	2026-07-28
Samples Details	:	SW5- Hasdeo river near Ramgarh (U/S) SW6- Hasdeo river near Gerwaghat, SW7- Hasdeo river near kohariya, SW8- Hasdeo river near kobra(D/S)-1, SW9- Hasdeo River near Kobra (D/S)-2.			

SAMPLE COLLECTED BY VIMTA LABS LTD.

TEST REPORT

Sr. No.	Parameters	Unit	SW5	SW6	SW7	SW8	SW9
1	pH	-	7.12	7.09	7.14	6.94	7.22
2	Colour	Hazen	2	4	2	3	2
3	Conductivity	µS/cm	184	168	178	165	154
4	TDS	mg/l	117	110	113	105	101
5	DO	mg/l	7.2	7.5	7.1	6.9	7.2
6	BOD	mg/l	2.1	1.7	1.9	2.0	1.8
7	COD	mg/l	7.4	7.0	7.2	7.3	7.1
8	Turbidity	NTU	12.0	14.0	13.0	16.0	14.0
9	Total Hardness as $CaCO_3$	mg/l	47	46	47	45	43
10	Total Alkalinity as $CaCO_3$	mg/l	35	40	40	38	32
11	Calcium as Ca	mg/l	11.5	12.2	10.5	12.6	10.8
12	Magnesium as Mg	mg/l	4.5	3.8	4.8	3.2	3.8
13	Chlorides as Cl	mg/l	29.3	21.4	24.7	22.6	24.6
14	Residual free chlorine	mg/l	<0.2	<0.2	<0.2	<0.2	<0.2
15	Phosphates as PO_4	mg/l	0.084	0.093	0.075	0.12	0.13
16	Sulphates as SO_4	mg/l	13.4	10.2	11.3	9.4	8.7
17	Fluorides as F	mg/l	0.254	0.301	0.378	0.201	0.227
18	Nitrates as NO_3	mg/l	1.8	1.7	1.4	1.2	1.9
19	Sodium as Na	mg/l	19.7	16.3	18.7	16.1	15.8
20	Potassium as K	mg/l	1.8	1.2	1.6	1.2	0.7
21	Total Boron as B	mg/l	0.019	0.015	0.028	0.013	0.021
22	Phenolic Compounds	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
23	Cyanides as CN	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
24	Oil & grease	mg/l	<1.0	<1.0	<1.0	<1.0	<1.0
25	Cadmium as Cd	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005
26	Arsenic as As	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
27	Copper as Cu	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005
28	Lead as Pb	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005
29	Iron as Fe	mg/l	0.018	0.032	0.056	0.037	0.044
30	Chromium as Cr^{+6}	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05
31	Selenium as Se	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005
32	Zinc as Zn	mg/l	0.026	0.043	0.014	0.098	0.067
33	Aluminum as Al	mg/l	0.037	0.023	0.019	0.027	0.018
34	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
35	SAR	-	1.25	1.04	1.20	1.05	1.05
36	Insecticides	mg/l	Absent	Absent	Absent	Absent	Absent
37	Anionic detergents as MBAS	mg/l	Absent	Absent	Absent	Absent	Absent
38	Total Coliforms	MPN/100	74	72	86	80	76

Method of Testing: As per APHA 23rd edition and IS: 3025
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)

-END OF THE REPORTS-

Name and Designation of Authorized Signatory

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

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ISSUED TO:
M/s. Bharat Aluminum Company Limited,
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KORBA
Chhattisgarh

Report Number	:	**VLL/VLS/26-27/10232/001**
Issued Date	:	**2026-08-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **SURFACE WATER SAMPLE (BALCO PLANT)**

Sample Registration Date	:	2026-07-13	Sampling Date	:	2026-07-06
Analysis Starting Date	:	2026-07-13	Analysis Completion Date	:	2026-07-28
Samples Details	:	SW1-Bailgiri Nala (U/S)-Near Baigiri Village, SW2-Bailgiri Nala (D/S)-Near Bailgiri Basti, SW3- Dhengu Nala (U/S) Risbabasti SW4- Dhengu Nala (D/S)-near Check post Balco			

SAMPLE COLLECTED BY VIMTA LABS LTD.

TEST REPORT

Sr. No.	Parameters	Unit	SW1	SW2	SW3	SW4
1	pH	-	7.85	7.21	7.35	6.54
2	Colour	Hazen	2	3	1	2
3	Conductivity	µS/cm	205	232	125	151
4	TDS	mg/l	130	145	80	98
5	DO	mg/l	5.6	7.2	6.4	6.4
6	BOD	mg/l	1.3	1.4	1.5	1.4
7	COD	mg/l	5.8	5.1	6.2	5.7
8	Turbidity	NTU	6.0	13.0	5.0	11.0
9	Total Hardness as $CaCO_3$	mg/l	45	51	34	43
10	Total Alkalinity as $CaCO_3$	mg/l	42	40	30	40
11	Calcium as Ca	mg/l	10.2	11.8	9.6	10.3
12	Magnesium as Mg	mg/l	4.7	5.2	2.5	4.2
13	Chlorides as Cl	mg/l	34.2	42.2	15.4	18.5
14	Residual free chlorine	mg/l	<0.2	<0.2	<0.2	<0.2
15	Phosphates as PO_4	mg/l	0.067	0.093	0.056	0.086
16	Sulphates as SO_4	mg/l	9.8	13.5	8.5	7.6
17	Fluorides as F	mg/l	0.256	0.3	0.3	0.278
18	Nitrates as NO_3	mg/l	1.1	1.5	1.2	1.8
19	Sodium as Na	mg/l	25.3	28.7	12.4	14.4
20	Potassium as K	mg/l	1.7	1.8	1	1.3
21	Total Boron as B	mg/l	0.010	0.023	0.014	0.025
22	Phenolic Compounds	mg/l	<0.001	<0.001	<0.001	<0.001
23	Cyanides as CN	mg/l	<0.01	<0.01	<0.01	<0.01
24	Oil & grease	mg/l	<1.0	<1.0	<1.0	<1.0
25	Cadmium as Cd	mg/l	<0.005	<0.005	<0.005	<0.005
26	Arsenic as As	mg/l	<0.001	<0.001	<0.001	<0.001
27	Copper as Cu	mg/l	<0.005	<0.005	<0.005	<0.005
28	Lead as Pb	mg/l	<0.005	<0.005	<0.005	<0.005
29	Iron as Fe	mg/l	0.029	0.047	0.038	0.022
30	Chromium as Cr^{+6}	mg/l	<0.05	<0.05	<0.05	<0.05
31	Selenium as Se	mg/l	<0.005	<0.005	<0.005	<0.005
32	Zinc as Zn	mg/l	0.010	0.017	0.031	0.019
33	Aluminum as Al	mg/l	0.023	0.019	0.017	0.029
34	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001
35	SAR	-	1.64	1.75	0.92	0.96
36	Insecticides	mg/l	Absent	Absent	Absent	Absent
37	Anionic detergents as MBAS	mg/l	Absent	Absent	Absent	Absent
38	Total Coliforms	MPN/100	42	68	54	62

Method of Testing: As per APHA 23rd edition and IS: 3025
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)

-END OF THE REPORTS-

Name and Designation of Authorized Signatory

ENVIRONMENT LABORATORY Vimta VIMTA LABS REGD. No- DL 3400/WS Sr. No.

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ISSUED TO:

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

Report Number	:	**VLL/VLS/26-27/13104/001**
Issued Date	:	**2026-09-04**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-08-11	Sampling Date	:	2026-08-04
Analysis Starting Date	:	2026-08-12	Analysis Completion Date	:	2026-08-27
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	*Rogbheri (B/W)*	*Rogbheri (D/W)*	*Bailgiri Basti(B/W)*	*Bailgiri Basti(D/W)*
1	pH value	-	6.5-8.5 (NR)	7.25	6.89	6.82	7.12
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)	2	1	3	2
6	Total dissolved solids at 180°C	mg/l	500(2000)	475	240	624	342
7	Total Hardness as $CaCO_3$	mg/l	200(600)	180	114	272	218
8	Total Alkalinity as $CaCO_3$	mg/l	200(600)	150	60	210	130
9	Calcium as Ca	mg/l	75(200)	50.4	28.0	73.5	51.6
10	Magnesium as Mg	mg/l	30(100)	13.1	10.7	21.4	21.6
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)	0.015	0.013	0.024	0.011
13	Chlorides as Cl	mg/l	250(1000)	116.5	70.1	153.5	68.5
14	Sulphate as SO_4	mg/l	200(400)	49.6	31.4	56.7	41.9
15	Fluorides as F	mg/l	1.0(1.5)	0.489	0.529	0.419	0.463
16	Nitrates as NO_3	mg/l	45(NR)	4.7	1.8	5.6	1.4
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 3300/99 Sr. No.-5

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Chhattisgarh

Report Number	:	**VLL/VLS/26-27/13104/001**
Issued Date	:	**2026-09-04**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-08-11	Sampling Date	:	2026-08-04
Analysis Starting Date	:	2026-08-12	Analysis Completion Date	:	2026-08-27
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	*Rogbheri (B/W)*	*Rogbheri (D/W)*	*Bailgiri Basti(B/W)*	*Bailgiri Basti(D/W)*
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)	<0.001	<0.001	<0.001	<0.001
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	0.008	0.005
26	Molybdenum as Mo	mg/l	0.07(NR)	<0.001	<0.001	<0.001	<0.001
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)	0.025	0.015	0.028	0.021
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)	0.043	0.008	0.017	0.009
32	Aluminum as Al	mg/l	0.03(0.2)	0.017	0.006	0.013	0.01
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)	0.017	0.01	0.023	0.015
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 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/26-27/13104/001**
Issued Date	:	**2026-09-04**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-08-11	Sampling Date	:	2026-08-04
Analysis Starting Date	:	2026-08-12	Analysis Completion Date	:	2026-08-27
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	*Rogbheri (B/W)*	*Rogbheri (D/W)*	*Bailgiri Basti(B/W)*	*Bailgiri Basti(D/W)*
39	Polychlorinated biphenyls	mg/l	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
(A)	**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

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Report Number	:	**VLL/VLS/26-27/13104/001**
Issued Date	:	**2026-09-04**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-08-11	Sampling Date	:	2026-08-04
Analysis Starting Date	:	2026-08-12	Analysis Completion Date	:	2026-08-27
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	*Rogbheri (B/W)*	*Rogbheri (D/W)*	*Bailgiri Basti(B/W)*	*Bailgiri Basti(D/W)*
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.coli	Per 100 ml	Absent	Absent	Absent	Absent	Absent
64	Total Coliforms	MPN/100ml	Absent	Absent	Absent	Absent	Absent
(B)	**Radioactive**						
65	Alpha emitters	Bq/l	0.1(NR)	BDL	BDL	BDL	BDL
66	Beta emitters	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

-END OF THE REPORTS-

Name and Designation of Authorized Signatory

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Report Number	:	**VLL/VLS/26-27/13104/001**
Issued Date	:	**2026-09-04**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : GROUND WATER SAMPLES (BALCO PLANT)

Sample Registration Date	:	2026-08-11	Sampling Date	:	2026-08-04
Analysis Starting Date	:	2026-08-12	Analysis Completion Date	:	2026-08-27
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	*Parsabhata (B/W)*	*Parsabhata (D/W)*	*Karma Talkies(B/W)*	*Bhadrapada D/W)*
1	pH value	-	6.5-8.5 (NR)	7.25	6.71	6.78	6.81
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)	3	1	3	2
6	Total dissolved solids at 180°C	mg/l	500(2000)	262	198	140	295
7	Total Hardness as $CaCO_3$	mg/l	200(600)	110	119	92	116
8	Total Alkalinity as $CaCO_3$	mg/l	200(600)	95	40.48	30	70
9	Calcium as Ca	mg/l	75(200)	24.0	32.2	17.5	25.6
10	Magnesium as Mg	mg/l	30(100)	12.2	9.2	11.7	12.6
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)	0.034	<0.005	<0.005	<0.005
13	Chlorides as Cl	mg/l	250(1000)	62.4	71.7	46.0506	98
14	Sulphate as SO_4	mg/l	200(400)	19.1	20.2	19.8	27.4
15	Fluorides as F	mg/l	1.0(1.5)	0.453	0.559	0.354	0.329
16	Nitrates as NO_3	mg/l	45(NR)	3.4	2.1	1.7	3.4
17	Phenolic Compounds as C_6H_5OH	mg/l	0.001(0.002)	<0.001	<0.001	<0.001	<0.001
18	Cyanides as CN	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 VIMTA LABS REGD. No- DL 33004/99 VIMTA

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Report Number : **VLL/VLS/26-27/13104/001**
Issued Date : **2026-09-04**
P.O. No. : **3402001553**
P.O. Date : **2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-08-11	Sampling Date	:	2026-08-04
Analysis Starting Date	:	2026-08-12	Analysis Completion Date	:	2026-08-27
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	*Parsabhata (B/W)*	*Parsabhata (D/W)*	*Karma Talkies(B/W)*	*Bhadrapada D/W)*
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)	<0.001	<0.001	<0.001	<0.001
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)	0.011	<0.005	<0.005	0.011
26	Molybdenum as Mo	mg/l	0.07(NR)	<0.001	<0.001	<0.001	<0.001
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)	0.034	0.018	0.028	0.011
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)	0.01	0.013	0.007	0.008
32	Aluminum as Al	mg/l	0.03(0.2)	0.016	0.024	0.018	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)	0.022	0.026	0.016	0.015
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

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Report Number : **VLL/VLS/26-27/13104/001**
Issued Date : **2026-09-04**
P.O. No. : **3402001553**
P.O. Date : **2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-08-11	Sampling Date	:	2026-08-04
Analysis Starting Date	:	2026-08-12	Analysis Completion Date	:	2026-08-27
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	*Parsabhata (B/W)*	*Parsabhata (D/W)*	*Karma Talkies(B/W)*	*Bhadrapada D/W)*
39	Polychlorinated biphenyls	mg/l	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
(A)	**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 VIMTA LABS REGD. No.- DL 3300/99 VIMTA

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Issued Date	:	**2026-09-04**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-08-11	Sampling Date	:	2026-08-04
Analysis Starting Date	:	2026-08-12	Analysis Completion Date	:	2026-08-27
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	*Parsabhata (B/W)*	*Parsabhata (D/W)*	*Karma Talkies(B/W)*	*Bhadrapada D/W)*
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.coli	Per 100 ml	Absent	Absent	Absent	Absent	Absent
64	Total Coliforms	MPN/100ml	Absent	Absent	Absent	Absent	Absent
(B)	**Radioactive**						
65	Alpha emitters	Bq/l	0.1(NR)	BDL	BDL	BDL	BDL
66	Beta emitters	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 LABS REGD. No- DL 33004/99 VIMTA

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Report Number	:	**VLL/VLS/26-27/13104/001**
Issued Date	:	**2026-09-04**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **SURFACE WATER SAMPLE (BALCO PLANT)**

Sample Registration Date	:	2026-08-11	Sampling Date	:	2026-08-04
Analysis Starting Date	:	2026-08-12	Analysis Completion Date	:	2026-08-25
Samples Details	:	SW1-Bailgiri Nala (U/S)-Near Baigiri Village, SW2-Bailgiri Nala (D/S)-Near Bailgiri Basti, SW3- Dhengu Nala (U/S) Risbabasti SW4- Dhengu Nala (D/S)-near Check post Balco			

SAMPLE COLLECTED BY VIMTA LABS LTD.

TEST REPORT

Sr. No.	Parameters	Unit	SW1	SW2	SW3	SW4
1	pH	-	7.24	7.08	7.21	6.74
2	Colour	Hazen	1	2	1	3
3	Conductivity	µS/cm	260	298	205	230
4	TDS	mg/l	160	186	125	144
5	TSS	mg/l	270	380	310	450
6	DO	mg/l	6.2	5.2	6.5	5.7
7	BOD	mg/l	0.4	2.2	0.6	1.3
8	COD	mg/l	1.6	8.0	2.4	5.6
9	Turbidity	NTU	12	25	14	26
10	Total Hardness as $CaCO_3$	mg/l	67	75	61	70
11	Total Alkalinity as $CaCO_3$	mg/l	50	55	45	50
12	Calcium as Ca	mg/l	12.5	16.4	11.5	14.4
13	Magnesium as Mg	mg/l	8.7	8.3	7.8	8.3
14	Chlorides as Cl	mg/l	44.7	51.2	25.6	26.7
15	Residual free chlorine	mg/l	<0.2	<0.2	<0.2	<0.2
16	Phosphates as PO_4	mg/l	0.056	0.084	0.068	0.094
17	Sulphates as SO_4	mg/l	13.1	17.8	15.1	21.7
18	Fluorides as F	mg/l	0.187	0.246	0.252	0.278
19	Nitrates as NO_3	mg/l	1.6	2.4	1.3	2.1
20	Sodium as Na	mg/l	27.3	32.5	16.6	18.4
21	Potassium as K	mg/l	1.9	2.3	1.5	2.1
22	Total Boron as B	mg/l	0.012	0.034	0.011	0.028
23	Phenolic Compounds	mg/l	<0.001	<0.001	<0.001	<0.001
24	Cyanides as CN	mg/l	<0.01	<0.01	<0.01	<0.01
25	Oil & grease	mg/l	<1.0	<1.0	<1.0	<1.0
26	Cadmium as Cd	mg/l	<0.005	<0.005	<0.005	<0.005
27	Arsenic as As	mg/l	<0.001	<0.001	<0.001	<0.001
28	Copper as Cu	mg/l	<0.005	<0.005	<0.005	<0.005
29	Lead as Pb	mg/l	<0.005	<0.005	<0.005	<0.005
30	Iron as Fe	mg/l	0.017	0.032	0.024	0.014
31	Chromium as Cr^{+6}	mg/l	<0.05	<0.05	<0.05	<0.05
32	Selenium as Se	mg/l	<0.005	<0.005	<0.005	<0.005
33	Zinc as Zn	mg/l	0.009	0.016	0.028	0.015
34	Aluminum as Al	mg/l	0.019	0.011	0.021	0.021
35	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001
36	SAR	-	1.45	1.63	0.93	0.96
37	Insecticides	mg/l	Absent	Absent	Absent	Absent
38	Anionic detergents as MBAS	mg/l	Absent	Absent	Absent	Absent
39	Total Coliforms	MPN/100	190	270	150	290

Method of Testing: As per APHA 23rd edition and IS: 3025
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)

Name and Designation of Authorized Signatory

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

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ISSUED TO:

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

Report Number	:	**VLL/VLS/26-27/13104/002**
Issued Date	:	**2026-09-04**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **SURFACE WATER SAMPLE (BALCO PLANT)**

Sample Registration Date	:	2026-08-11	Sampling Date	:	2026-08-04
Analysis Starting Date	:	2026-08-12	Analysis Completion Date	:	2026-08-25
Samples Details	:	SW5- Hasdeo river near Ramgarh (U/S) SW6- Hasdeo river near Gerwaghat, SW7- Hasdeo river near kohariya, SW8- Hasdeo river near kobra(D/S)-1, SW9- Hasdeo River near Kobra (D/S)-2.			

SAMPLE COLLECTED BY VIMTA LABS LTD.

TEST REPORT

Sr. No.	Parameters	Unit	SW5	SW6	SW7	SW8	SW9
1	pH	-	7.03	6.98	7.01	6.87	7.01
2	Colour	Hazen	1	2	3	4	3
3	Conductivity	µS/cm	215	250	241	195	230
4	TDS	mg/l	136	160	151	121	142
5	TSS	mg/l	225	390	340	470	430
6	DO	mg/l	7.4	7.7	7.3	7.2	7.4
7	BOD	mg/l	1.5	1.7	1.3	1.9	1.8
8	COD	mg/l	5.2	6.4	5.6	7.2	7.2
9	Turbidity	NTU	36	35	32	35	35
10	Total Hardness as $CaCO_3$	mg/l	69	70	76	62	74
11	Total Alkalinity as $CaCO_3$	mg/l	40	50	45	35	40
12	Calcium as Ca	mg/l	16.8	15.2	14.4	13.6	16.0
13	Magnesium as Mg	mg/l	6.5	7.8	9.7	6.9	8.3
14	Chlorides as Cl	mg/l	31.2	37	34.3	28.7	36
15	Residual free chlorine	mg/l	<0.2	<0.2	<0.2	<0.2	<0.2
16	Phosphates as PO_4	mg/l	0.071	0.056	0.063	0.098	0.11
17	Sulphates as SO_4	mg/l	21.1	20.1	24.6	18.9	19.8
18	Fluorides as F	mg/l	0.274	0.296	0.209	0.254	0.239
19	Nitrates as NO_3	mg/l	1.3	2.1	1.5	1.5	2.7
20	Sodium as Na	mg/l	16.7	23.6	19.5	15.3	17.6
21	Potassium as K	mg/l	2.3	3.4	1.9	1.1	1.5
22	Total Boron as B	mg/l	0.017	0.011	0.031	0.016	0.018
23	Phenolic Compounds	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
24	Cyanides as CN	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
25	Oil & grease	mg/l	<1.0	<1.0	<1.0	<1.0	<1.0
26	Cadmium as Cd	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005
27	Arsenic as As	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
28	Copper as Cu	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005
29	Lead as Pb	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005
30	Iron as Fe	mg/l	0.022	0.043	0.061	0.037	0.041
31	Chromium as Cr^{+6}	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05
32	Selenium as Se	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005
33	Zinc as Zn	mg/l	0.032	0.037	0.019	0.076	0.052
34	Aluminum as Al	mg/l	0.024	0.018	0.021	0.034	0.026
35	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
36	SAR	-	0.88	1.23	0.97	0.84	0.89
37	Insecticides	mg/l	Absent	Absent	Absent	Absent	Absent
38	Anionic detergents as MBAS	mg/l	Absent	Absent	Absent	Absent	Absent
39	Total Coliforms	MPN/100	210	410	380	460	567

Method of Testing: As per APHA 23rd edition and IS: 3025
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)

-END OF THE REPORTS-

Name and Designation of Authorized Signatory

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

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ISSUED TO:

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

Report Number	:	**VLL/VLS/26-27/15382/001**
Issued Date	:	**2026-10-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-09-10	Sampling Date	:	2026-09-01
Analysis Starting Date	:	2026-09-10	Analysis Completion Date	:	2026-09-25
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	*Rogbheri (B/W)*	*Rogbheri (D/W)*	*Bailgiri Basti(B/W)*	*Bailgiri Basti(D/W)*
1	pH value	-	6.5-8.5 (NR)	6.97	6.81	6.84	6.85
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)	2	2	2	2
6	Total dissolved solids at 180^{0}C	mg/l	500(2000)	544	210	645	633
7	Total Hardness as $CaCO_3$	mg/l	200(600)	218	86	261	284
8	Total Alkalinity as $CaCO_3$	mg/l	200(600)	165	50	220	250
9	Calcium as Ca	mg/l	75(200)	55.2	21.5	67.2	73.5
10	Magnesium as Mg	mg/l	30(100)	19.4	7.8	22.6	24.4
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	0.021	0.009
13	Chlorides as Cl	mg/l	250(1000)	151.4	58.2	164.7	115.8
14	Sulphate as SO_4	mg/l	200(400)	47.6	29.7	49.8	68.7
15	Fluorides as F	mg/l	1.0(1.5)	0.667	0.416	0.661	0.626
16	Nitrates as NO_3	mg/l	45(NR)	3.5	2.3	4.5	2.9
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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Report Number	:	**VLL/VLS/26-27/15382/001**
Issued Date	:	**2026-10-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-09-10	Sampling Date	:	2026-09-01
Analysis Starting Date	:	2026-09-10	Analysis Completion Date	:	2026-09-25
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	Rogbheri (B/W)	Rogbheri (D/W)	Bailgiri Basti(B/W)	Bailgiri Basti(D/W)
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)	<0.001	<0.001	<0.001	<0.001
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	0.009	0.006
26	Molybdenum as Mo	mg/l	0.07(NR)	<0.001	<0.001	<0.001	<0.001
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)	0.021	0.019	0.034	0.027
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)	0.028	0.007	0.015	0.008
32	Aluminum as Al	mg/l	0.03(0.2)	0.015	0.009	0.017	0.011
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)	0.015	0.011	0.026	0.018
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

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BALCO
KORBA
Chhattisgarh

Report Number	:	**VLL/VLS/26-27/15382/001**
Issued Date	:	**2026-10-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-09-10	Sampling Date	:	2026-09-01
Analysis Starting Date	:	2026-09-10	Analysis Completion Date	:	2026-09-25
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	*Rogbheri (B/W)*	*Rogbheri (D/W)*	*Bailgiri Basti(B/W)*	*Bailgiri Basti(D/W)*
39	Polychlorinated biphenyls	mg/l	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
(A)	**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

ENVIRONMENT LABORATORY Vimta VIMTA LABS REGD. No- DL 33004/99 Sr. No.-8 VIMTA

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M/s. Bharat Aluminum Company Limited,
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Chhattisgarh

Report Number	:	**VLL/VLS/26-27/15382/001**
Issued Date	:	**2026-10-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-09-10	Sampling Date	:	2026-09-01
Analysis Starting Date	:	2026-09-10	Analysis Completion Date	:	2026-09-25
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	*Rogbheri (B/W)*	*Rogbheri (D/W)*	*Bailgiri Basti(B/W)*	*Bailgiri Basti(D/W)*
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.coli	Per 100 ml	Absent	Absent	Absent	Absent	Absent
64	Total Coliforms	MPN/100ml	Absent	Absent	Absent	Absent	Absent
(B)	**Radioactive**						
65	Alpha emitters	Bq/l	0.1(NR)	BDL	BDL	BDL	BDL
66	Beta emitters	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

-END OF THE REPORTS-

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

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Chhattisgarh

Report Number	:	**VLL/VLS/26-27/15382/001**
Issued Date	:	**2026-10-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : GROUND WATER SAMPLES (BALCO PLANT)

Sample Registration Date	:	2026-09-10	Sampling Date	:	2026-09-01
Analysis Starting Date	:	2026-09-10	Analysis Completion Date	:	2026-09-25
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	*Parsabhata (B/W)*	*Parsabhata (D/W)*	*Karma Talkies(B/W)*	*Bhadrapada D/W)*
1	pH value	-	6.5-8.5 (NR)	7.16	6.90	6.88	6.92
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	2	3	3
6	Total dissolved solids at 180°C	mg/l	500(2000)	315	210	405	366
7	Total Hardness as $CaCO_3$	mg/l	200(600)	146	115	164	176
8	Total Alkalinity as $CaCO_3$	mg/l	200(600)	130	50	104	110
9	Calcium as Ca	mg/l	75(200)	32.8	27.2	37.6	46.4
10	Magnesium as Mg	mg/l	30(100)	15.6	11.2	17.0	14.6
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)	0.027	<0.005	0.056	<0.005
13	Chlorides as Cl	mg/l	250(1000)	64.1	67.6	197.8	97.8
14	Sulphate as SO_4	mg/l	200(400)	19.4	20.0	70.1	37.5
15	Fluorides as F	mg/l	1.0(1.5)	0.372	0.420	0.682	0.525
16	Nitrates as NO_3	mg/l	45(NR)	4.7	3.2	2.8	4.7
17	Phenolic Compounds as C_6H_5OH	mg/l	0.001(0.002)	<0.001	<0.001	<0.001	<0.001
18	Cyanides as CN	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

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

Name and Designation of Authorized Signatory

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Report Number	:	**VLL/VLS/26-27/15382/001**
Issued Date	:	**2026-10-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-09-10	Sampling Date	:	2026-09-01
Analysis Starting Date	:	2026-09-10	Analysis Completion Date	:	2026-09-25
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	*Parsabhata (B/W)*	*Parsabhata (D/W)*	*Karma Talkies(B/W)*	*Bhadrapada D/W)*
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)	<0.001	<0.001	<0.001	<0.001
23	Copper as Cu	mg/l	0.05(1.5)	<0.005	<0.005	0.011	<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)	0.01	<0.005	0.011	0.008
26	Molybdenum as Mo	mg/l	0.07(NR)	<0.001	<0.001	<0.001	<0.001
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)	0.039	0.014	0.078	0.023
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)	0.011	0.016	0.067	0.010
32	Aluminum as Al	mg/l	0.03(0.2)	0.018	0.026	0.019	0.011
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)	0.021	0.024	0.014	0.019
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 VIMTA LABS REGD. Sr. No. VIMTA

Dr. Subba Reddy Mallampati
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ISSUED TO:

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

Report Number	:	**VLL/VLS/26-27/15382/001**
Issued Date	:	**2026-10-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-09-10	Sampling Date	:	2026-09-01
Analysis Starting Date	:	2026-09-10	Analysis Completion Date	:	2026-09-25
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	*Parsabhata (B/W)*	*Parsabhata (D/W)*	*Karma Talkies(B/W)*	*Bhadrapada D/W)*
39	Polychlorinated biphenyls	mg/l	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
(A)	**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

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ISSUED TO:
M/s. Bharat Aluminum Company Limited,
BALCO
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Chhattisgarh

Report Number	:	**VLL/VLS/26-27/15382/001**
Issued Date	:	**2026-10-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **GROUND WATER SAMPLES (BALCO PLANT)**

Sample Registration Date	:	2026-09-10	Sampling Date	:	2026-09-01
Analysis Starting Date	:	2026-09-10	Analysis Completion Date	:	2026-09-25
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	*Parsabhata (B/W)*	*Parsabhata (D/W)*	*Karma Talkies(B/W)*	*Bhadrapada D/W)*
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.coli	Per 100 ml	Absent	Absent	Absent	Absent	Absent
64	Total Coliforms	MPN/100ml	Absent	Absent	Absent	Absent	Absent
(B)	**Radioactive**						
65	Alpha emitters	Bq/l	0.1(NR)	BDL	BDL	BDL	BDL
66	Beta emitters	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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ISSUED TO:
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BALCO
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Report Number	:	**VLL/VLS/26-27/15382/001**
Issued Date	:	**2026-10-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **SURFACE WATER SAMPLE (BALCO PLANT)**

Sample Registration Date	:	2026-09-10	Sampling Date	:	2026-09-01
Analysis Starting Date	:	2026-09-10	Analysis Completion Date	:	2026-09-22
Samples Details	:	SW1-Bailgiri Nala (U/S)-Near Baigiri Village, SW2-Bailgiri Nala (D/S)-Near Bailgiri Basti, SW3- Dhengu Nala (U/S) Risbabasti SW4- Dhengu Nala (D/S)-near Check post Balco			

SAMPLE COLLECTED BY VIMTA LABS LTD.

TEST REPORT

Sr. No.	Parameters	Unit	SW1	SW2	SW3	SW4
1	pH	-	7.52	6.98	6.56	6.79
2	Colour	Hazen	1	3	1	4
3	Conductivity	µS/cm	353	224	120	210
4	TDS	mg/l	180	270	290	378
5	TSS	mg/l	220	143	80	134
6	DO	mg/l	6.9	6.1	7.1	6.0
7	BOD	mg/l	6.3	9.2	6.7	7.7
8	COD	mg/l	30.4	35.2	25.6	33.6
9	Turbidity	NTU	11	17	8	14
10	Total Hardness as $CaCO_3$	mg/l	110	60	32	58
11	Total Alkalinity as $CaCO_3$	mg/l	70	50	30	45
12	Calcium as Ca	mg/l	22.4	11.2	6.4	10.4
13	Magnesium as Mg	mg/l	13.1	7.8	3.9	7.8
14	Chlorides as Cl	mg/l	57.2	28.1	11.3	28.7
15	Residual free chlorine	mg/l	<0.2	<0.2	<0.2	<0.2
16	Phosphates as PO_4	mg/l	0.047	0.093	0.056	0.084
17	Sulphates as SO_4	mg/l	22.0	18.0	12.0	16.5
18	Fluorides as F	mg/l	0.386	0.402	0.326	0.382
19	Nitrates as NO_3	mg/l	1.5	2.4	1.3	1.9
20	Sodium as Na	mg/l	29.6	21.5	12.2	19.6
21	Potassium as K	mg/l	2.1	3.7	1.5	3.6
22	Total Boron as B	mg/l	0.010	0.025	0.031	0.025
23	Phenolic Compounds	mg/l	<0.001	<0.001	<0.001	<0.001
24	Cyanides as CN	mg/l	<0.01	<0.01	<0.01	<0.01
25	Oil & grease	mg/l	<1.0	<1.0	<1.0	<1.0
26	Cadmium as Cd	mg/l	<0.005	<0.005	<0.005	<0.005
27	Arsenic as As	mg/l	<0.001	<0.001	<0.001	<0.001
28	Copper as Cu	mg/l	<0.005	<0.005	<0.005	<0.005
29	Lead as Pb	mg/l	<0.005	<0.005	<0.005	<0.005
30	Iron as Fe	mg/l	0.015	0.026	0.035	0.028
31	Chromium as Cr^{+6}	mg/l	<0.05	<0.05	<0.05	<0.05
32	Selenium as Se	mg/l	<0.005	<0.005	<0.005	<0.005
33	Zinc as Zn	mg/l	0.010	0.019	0.024	0.019
34	Aluminum as Al	mg/l	0.021	0.015	0.025	0.018
35	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001
36	SAR	-	1.23	1.21	0.94	1.12
37	Insecticides	mg/l	Absent	Absent	Absent	Absent
38	Anionic detergents as MBAS	mg/l	Absent	Absent	Absent	Absent
39	Total Coliforms	MPN/100	170	240	160	310

Method of Testing: As per APHA 23rd edition and IS: 3025
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)

Name and Designation of Authorized Signatory

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

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Report Number	:	**VLL/VLS/26-27/15382/002**
Issued Date	:	**2026-10-05**
P.O. No.	:	**3402001553**
P.O. Date	:	**2025-10-01**

SAMPLE PARTICULARS : **SURFACE WATER SAMPLE (BALCO PLANT)**

Sample Registration Date : 2026-09-10 Sampling Date : 2026-09-01
Analysis Starting Date : 2026-09-10 Analysis Completion Date : 2026-09-22
Samples Details : SW5- Hasdeo river near Ramgarh (U/S) SW6- Hasdeo river near Gerwaghat, SW7- Hasdeo river near kohariya, SW8- Hasdeo river near kobra(D/S)-1, SW9- Hasdeo River near Kobra (D/S)-2.

SAMPLE COLLECTED BY VIMTA LABS LTD.

TEST REPORT

Sr. No.	Parameters	Unit	SW5	SW6	SW7	SW8	SW9
1	pH	-	6.87	7.02	7.10	6.85	6.94
2	Colour	Hazen	1	3	4	3	4
3	Conductivity	µS/cm	170	187	160	155	165
4	TDS	mg/l	245	360	320	410	385
5	TSS	mg/l	108	120	105	96	110
6	DO	mg/l	7.7	7.5	7.7	7.7	7.6
7	BOD	mg/l	6.8	7.0	6.9	6.8	6.4
8	COD	mg/l	27.2	30.4	28.8	27.2	32.0
9	Turbidity	NTU	18	16	17	18	16
10	Total Hardness as $CaCO_3$	mg/l	50	43	50	50	56
11	Total Alkalinity as $CaCO_3$	mg/l	35	40	40	30	35
12	Calcium as Ca	mg/l	11.2	9.6	10.4	9.6	11.2
13	Magnesium as Mg	mg/l	5.4	4.7	5.8	6.3	6.8
14	Chlorides as Cl	mg/l	25.7	26.1	19.8	23.2	24.7
15	Residual free chlorine	mg/l	<0.2	<0.2	<0.2	<0.2	<0.2
16	Phosphates as PO_4	mg/l	0.056	0.078	0.095	0.13	0.12
17	Sulphates as SO_4	mg/l	12.1	13.2	10.5	12.4	10.3
18	Fluorides as F	mg/l	0.398	0.385	0.378	0.398	0.374
19	Nitrates as NO_3	mg/l	1.1	2.2	1.2	1.3	1.9
20	Sodium as Na	mg/l	15.3	21.5	13.5	12.2	11.7
21	Potassium as K	mg/l	1.8	2.6	1.1	0.9	1.2
22	Total Boron as B	mg/l	0.015	0.013	0.028	0.019	0.024
23	Phenolic Compounds	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
24	Cyanides as CN	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
25	Oil & grease	mg/l	<1.0	<1.0	<1.0	<1.0	<1.0
26	Cadmium as Cd	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005
27	Arsenic as As	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
28	Copper as Cu	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005
29	Lead as Pb	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005
30	Iron as Fe	mg/l	0.045	0.037	0.058	0.043	0.034
31	Chromium as Cr^{+6}	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05
32	Selenium as Se	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005
33	Zinc as Zn	mg/l	0.037	0.045	0.032	0.087	0.041
34	Aluminum as Al	mg/l	0.027	0.013	0.018	0.022	0.021
35	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
36	SAR	-	0.93	1.42	0.83	0.75	0.68
37	Insecticides	mg/l	Absent	Absent	Absent	Absent	Absent
38	Anionic detergents as MBAS	mg/l	Absent	Absent	Absent	Absent	Absent
39	Total Coliforms	MPN/100	230	390	360	410	480

Method of Testing: As per APHA 23rd edition and IS: 3025
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)

-END OF THE REPORTS-

Name and Designation of Authorized Signatory

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