

BALCO/ENV/A-02(A)/2026/209

Date: 16.05.2026

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

**Sub:** Half yearly compliance status (October 2025 to March 2026) of New Cold Rolling Mill.

Respected Sir,

Please find enclosed herewith the half yearly compliance report of the Environmental Clearance No. J - 11011/10/1994-IA II, dated 10.8.1994 for the New Cold Rolling Mill.

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

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



(Authorized Signatory)

Encl: a/a

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

*BOU*

**Compliance Status of conditions stipulated in Environmental clearance in installation of  
New Cold Rolling Mill and Modernization of Smelter  
Duration: October 2025 to March 2026  
MoEF No. 11011/10/94-IA II dated 10.8.1994**

S.No.	Consent conditions	Present status
1.	The Project Authorities must strictly adhere to the stipulations laid down by the State Pollution Control Board and the State Government.	The stipulations laid down by the State Pollution Control Board and the State Government are being followed.
2.	Any expansion of the plant either with the existing product mix or new products can be taken up only with the prior approval of this Ministry.	Noted.
3.	The gaseous emissions from various process units should conform to the standards prescribed by the concerned authorities from time to time. At no time, the emission level should go beyond the stipulated standards. In the event of failure of any pollution control system adopted by the unit, the respective unit should be put out of operation immediately and should not be restored until the control measures are rectified to achieve the desired efficiency.	Emissions from various processes are within the stipulated standards. Regular monitoring is being carried out to estimate the efficiency of the pollution control equipment; any deviation from the design is being rectified immediately. In case of failure of the control equipment the corresponding process unit is stopped till such time the control equipment is brought in line.
4.	Adequate number of ambient air quality monitoring station should be set up in the down wind direction as well as where maximum ground level concentrations are anticipated in consultation with the State Pollution Control Board. Monitoring network should be designed taking into account land use pattern, location of the stacks, meteorological conditions and topographic features including existing ambient air quality data.	Adequate number of Ambient Air Quality monitoring stations have been fixed in up-wind and down-wind direction based on the meteorological conditions, stack locations, land use pattern in consultation with the State Pollution Control Board. Monitoring is being carried out as per the requirements laid down by MoEF&CC, CPCB & CECB. Please refer <b>Annexure - I</b> for monitoring results for the period of October 2025 to March 2026.
5.	All the stacks of the plant must be provided with Online automatic stack emission monitoring equipment. Stack emission and ambient air quality data must be submitted to the State Pollution Control Board once in 3 months and to this Ministry once in 6 months along with statistical analysis and interpretation.	Plant I Smelter has been dismantled for phasing out from VSS to PFPB technology. Online stack emission monitoring equipment provided in the new Smelter. Ambient Air Quality is being monitored, and data being submitted on monthly basis to Chhattisgarh Environment Conservation Board (CECB) and on half yearly basis to Ministry.
6.	Fugitive emissions of dust/mists, vapors, fumes etc. should be controlled and work environment monitored for prevailing contaminants regularly.	Fugitive emissions of dust/mists, vapors, fumes are controlled and the work environment is monitored.

7.	There should be no change in the stack design without prior approval of the State Pollution Control Board and this Ministry.	Noted.
8.	Adequate number of effluent monitoring stations must be set up in consultation with the State Pollution Control Board. If the effluent quality at any time exceeds the standards prescribed, the corresponding unit of the plant which are contributing to the excessive pollution load shall be immediately stopped from the operation till the quality of pollutant discharged from units are brought down to the required standards.	No water is required for industrial use in the New Cold Rolling Mill. There is no discharge from New Cold Rolling Mill & Smelter, hence, this clause is not applicable.
9.	The treated effluent should conform to the prescribed standards and should be utilized for Green Belt Development to the maximum extent possible.	No effluent is generated in the New Cold Rolling Mill.
10.	Water quality and quantity in Belgiri Nallah and Dengur Nallah during summer season along with flow data after discharge of effluent should also be monitored.	No effluent generation, thus zero discharge. The water quality of Belgiri and Dengur Nallah is being monitored regularly in all seasons. Please refer to <b>Annexure-II</b> for the period of October 2025 to March 2026 water quality reports.
11.	Ash pond water should be recycled to the maximum extent possible. The ground water quality around the ash pond should also be regularly monitored especially for heavy metals.	Not Applicable as plant has rolling mill only and no ash generation from New Cold Rolling Mill.
12.	The Project Authorities should ensure that villages located around the plant within 10 km radius should have no pollution problem especially from fluoride because of the existing and proposed operations. Drinking water should be provided to all those villages where fluoride contamination has been taken place. Fluoride levels in drinking water should be within the WHO standards of 1.5 mg. per liter. Wherever necessary de-F Plant may be installed for giving drinking water free from fluoride.	We are ensuring periodic monitoring of the drinking water sources of the villages for relevant parameters including Fluoride. The monitoring data does not indicate any contamination. All the sources have no contamination of fluoride. Ground water monitoring is being done monthly. Please refer <b>Annexure-II</b> for the period of for the period of October 2025 to March 2026.
13.	Disposal sites of red mud, spent cathodes should be made impervious to avoid ground water contamination. These sites should have approval of State Pollution Control Board. Adequate monitoring of the impoundment sites (soil, surface	Red mud and Spent cathodes are not generated from NCRM.

	and ground water) should be carried out regularly and record maintained.	
14.	Spent cathodes should be enclosed in reinforced cement concrete vaults/container before disposal. Recovery of carbon and fluoride from the spent cathodes lining should be attempted by Balco to minimize ground water pollution.	Spent cathodes are not generated from NCRM.
15.	Proper earth cover should be provided for red mud ponds, which are completely filled up and are of no use. Embankment should be provided around the ponds to prevent surface run-off. Balco should also explore the possibility of recovery of $TiO_2$ , $Fe_2O_3$ , and $Al_2O_3$ from red mud. The Balco should also explore the possibility of supplying red mud to the cement industries in the nearby area for production of ferrite cement so as to utilize the same to the maximum extent possible.	Operation of alumina plant has been stopped since 2009. The existing red mud ponds have been converted into ash dyke for disposal of fly ash generated from power plants as per approval granted in Environment Clearances received for BALCO Power plants. Embankment is also provided around the ponds to prevent surface run-off.
16.	The guidelines published by Ministry of Environment and Forests for management and handling of hazardous wastes in 1991 should be adopted by Balco while disposing the hazardous wastes generated.	The guidelines of MoEF&CC, as amended from time to time, are being followed.
17.	Impact study (carrying capacity) to assess the assimilating and the supportive capacity of local environment should be carried out. The scope of the carrying capacity should be finalized in consultation with the State Pollution Control Board/Central Pollution Control Board and this Ministry.	M/s NEERI carried out a comprehensive environmental impact assessment study. Further, Impact study (carrying capacity) to assess the assimilating and the supportive capacity of local environment has been carried out by M/s Bhagwati Ana Labs in consultation with CECB and report submitted to CECB.
18.	Inventorisation of pollution sources and loads in terms of liquid, gases and solid wastes should also be carried out and report submitted to the State Pollution Control Board and Ministry of Environment and Forests once in six months.	Six monthly reports are submitted to the State Pollution Control Board and Ministry of Environment and Forests. Last report was submitted vide: Letter No. BALCO/ENV/A-02(A)/2025/498 dated 18 <sup>th</sup> October 2025.
19.	Biological monitoring of flora must be started within the vicinity of the smelter plant and pollution. Isopleths should also be plotted based	We are carrying out monitoring of forage fluoride in vicinity of Smelter and submitting report to CECB and MOEF regularly.

	on the fluoride contents of certain species and plants.	Please refer <b>Annexure-III</b> for the period of for the period of October 2025 to March 2026.
20.	Cyanide and fluoride levels in the ground water around Balco complex should be monitored on a regular basis and report submitted to this Ministry every 6 months.	Ground water quality in and around BALCO is being monitored periodically for relevant parameters and the report submitted regularly. Please refer <b>Annexure-II</b> for the period of for the period of October 2025 to March 2026.
21.	Performance evaluation report on the existing pollution control systems at Balco should be furnished to this Ministry within 3 months.	Complied with.
22.	Environmental Audit Report for the year 1993-94 should also be submitted.	Environment Statement is submitted every year to the CECB. The Environment Statement for 2025-26 was submitted on 26 <sup>th</sup> September 2025 vide our letter No. BALCO/ENVT/A-01/2025/ 454.
23.	In addition to the above all recommendations made in the Environmental Management Plan based on the rapid EIA study should be implemented.	Environmental Management Plan is being implemented.
24.	A time bound action plan to implement the conditions stipulated by the Ministry as well as the recommendations of the consultants should be submitted within a period of 3 months.	Complied with.
25.	The Project authorities must set up laboratory facilities for collection and analysis of samples under the supervision of competent technical personnel who will directly report to the Chief Executive.	We have appointed a NABL accredited laboratory for collection and analysis of environmental samples under the supervision of competent technical personnel.
26.	A separate Environmental Management Cell with suitable qualified people to carry out various functions should be set up under the control of senior executive who will report directly to the Head of Organization.	A full-fledged Environment Management Cell is in place and is headed by a senior executive directly reporting to the Head of Organization.
27.	The funds earmarked for the environmental protection measures should not be diverted for any other purpose and year wise expenditure should be reported to this Ministry.	Complied with.

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



<b>ISSUED TO:</b> M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)	Report No.:	VLL/VLS/25-26/15704/002
	Issue Date:	2025-11-05
	P.O.No:	8500005780
	P.O. Date:	2022-06-29

**AMBIENT AIR QUALITY MONITORING AT NEW ETP (BALCO)**

Analysis starting date :- 2025-10-02

Analysis Completion date :- 2025-11-04

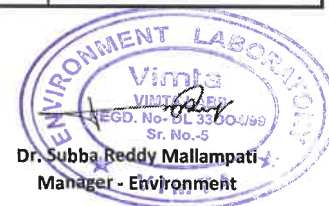
**Tests required:** Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>x</sub>), Particulate Matter (PM<sub>10</sub>), Particulate Matter (PM<sub>2.5</sub>), Ammonia (NH<sub>3</sub>), Benzene (C<sub>6</sub>H<sub>6</sub>), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

**TEST RESULTS**

Parameters	Units	Limits	AAQ Location : NEW ETP										Method
			2025-10-01	2025-10-04	2025-10-07	2025-10-09	2025-10-13	2025-10-15	2025-10-19	2025-10-21	2025-10-27		
Sulphur Dioxide as SO <sub>2</sub>	µg/m <sup>3</sup>	80	29.6	33.4	23.8	33.1	21.8	34.9	25.0	36.6	31.9	IS 5182 (PART-2) RA 2017	
Oxides of Nitrogen as NO <sub>2</sub>	µg/m <sup>3</sup>	80	10.6	12.8	15.5	13.4	16.3	18.4	14.7	17.0	15.4	IS 5182 (PART-6) RA 2017	
Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	100	53.9	48.2	51.2	55.8	49.3	57.6	55.7	46.5	52.3	IS 5182 (PART-23) RA 2017	
Particulate Matter (PM <sub>2.5</sub> )	µg/m <sup>3</sup>	60	18.4	14.7	17.2	21.7	19.1	22.8	25.3	26.1	22.4	IS 5182 (PART-24) 2019	
Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	400	1.5	2.1	1.8	1.5	1.8	1.3	1.2	1.0	1.3	APHA 401	
Benzene as C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	IS 5182 (PART-11) RA 2017	
Benzo(a) Pyrene in particulate phase	ng/m <sup>3</sup>	1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	IS 5182 (PART-12) RA 2019	
Arsenic as As	ng/m <sup>3</sup>	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 <sup>3</sup>	20	4.6	5.8	5.2	7.3	6.8	5.1	5.9	7.7	6.1	USEPA IO 3.4	
Lead as Pb	µg/m <sup>3</sup>	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 <sup>3</sup>	2000	0.296	0.342	0.361	0.418	0.339	0.372	0.307	0.446	0.384	IS 5182 (PART-10) RA 2019	
Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	100	3.4	7.1	2.2	4.8	5.5	7.6	8.4	10.9	6.8	IS 5182 (PART-9) 2019	

Ø PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>2</sub> and NH<sub>3</sub> is monitored on 24 hrs. Basis & CO, O<sub>3</sub> is monitored on 8 hrs basis.

Ø C<sub>6</sub>H<sub>6</sub>, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.



Dr. Subba Reddy Mallampati  
Manager - Environment

<b>ISSUED TO:</b> M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)	Report No.:	VLL/VLS/25-26/15704/003
	Issue Date:	2025-11-05
	P.O.No:	8500005780
	P.O. Date:	2022-06-29

**AMBIENT AIR QUALITY MONITORING AT GAP & BAKE OVEN ROAD (BALCO)**

Analysis starting date :- 2025-10-02 Analysis Completion date :- 2025-11-04

**Tests required:** Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>x</sub>), Particulate Matter (PM<sub>10</sub>), Particulate Matter (PM<sub>2.5</sub>), Ammonia (NH<sub>3</sub>), Benzene (C<sub>6</sub>H<sub>6</sub>), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS												
Parameters	Units	Limits	AAQ Location : GAP & BAKE OVEN									Method
			2025-10-01	2025-10-04	2025-10-07	2025-10-09	2025-10-13	2025-10-15	2025-10-19	2025-10-21	2025-10-27	
Sampling Date												
Sulphur Dioxide as SO <sub>2</sub>	µg/m <sup>3</sup>	80	28.7	32.7	38.6	41.6	43.3	40.4	34.3	39.1	35.1	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO <sub>2</sub>	µg/m <sup>3</sup>	80	13.8	19.4	17.1	15.5	22.0	24.4	12.1	13.9	18.5	IS 5182 (PART-6) RA 2017
Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	100	52.5	57.9	53.7	59.4	64.1	54.6	60.7	59.0	56.8	IS 5182 (PART-23) RA 2017
Particulate Matter (PM <sub>2.5</sub> )	µg/m <sup>3</sup>	60	18.1	21.7	19.1	25.1	25.2	20.6	26.0	25.7	23.4	IS 5182 (PART-24) 2019
Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	400	1.9	2.9	2.2	1.9	2.6	1.8	1.0	1.1	1.2	APHA 401
Benzene as C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	IS 5182 (PART-11) RA 2017
Benzo(a) Pyrene in particulate phase	ng/m <sup>3</sup>	1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	IS 5182 (PART-12) RA 2019
Arsenic as As	ng/m <sup>3</sup>	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 <sup>3</sup>	20	6.2	5.7	5.3	7.1	5.9	6.2	6.5	7.4	6.2	USEPA IO 3.4
Lead as Pb	µg/m <sup>3</sup>	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 <sup>3</sup>	2000	0.325	0.268	0.493	0.342	0.359	0.409	0.317	0.456	0.362	IS 5182 (PART-10) RA 2019
Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	100	5.7	9.4	4.0	6.8	6.3	6.4	7.3	8.6	9.7	IS 5182 (PART-9) 2019

Ø PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>2</sub> and NH<sub>3</sub> is monitored on 24 hrs. Basis & CO, O<sub>3</sub> is monitored on 8 hrs basis.  
Ø C<sub>6</sub>H<sub>6</sub>, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.



<b>ISSUED TO:</b> M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)	Report No.:	VLL/VLS/25-26/15704/006
	Issue Date:	2025-11-05
	P.O.No:	8500005780
	P.O. Date:	2022-06-29

**AMBIENT AIR QUALITY MONITORING AT COAL GATE (BALCO)**

Analysis starting date :- 2025-10-02

Analysis Completion date :- 2025-11-04

**Tests required:** Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>x</sub>), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH<sub>3</sub>), Benzene (C<sub>6</sub>H<sub>6</sub>), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

**TEST RESULTS**

Parameters	Units	Limits	AAQ Location : COAL GATE									Method
			2025-10-01	2025-10-04	2025-10-07	2025-10-09	2025-10-13	2025-10-15	2025-10-19	2025-10-21	2025-10-27	
Sulphur Dioxide as SO <sub>2</sub>	µg/m <sup>3</sup>	80	40.7	29.3	41.0	37.6	34.8	38.2	34.5	39.7	43.7	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO <sub>2</sub>	µg/m <sup>3</sup>	80	12.8	18.3	20.2	17.1	20.5	22.5	15.3	18.0	17.8	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	54.8	52.6	58.5	58.5	51.7	59.3	60.9	51.7	56.0	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	19.5	18.0	26.2	24.9	22.0	28.0	27.2	26.8	26.0	IS 5182 (PART-24) 2019
Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	400	1.3	2.6	2.4	2.0	2.4	2.2	1.4	1.5	1.4	APHA 401
Benzene as C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	IS 5182 (PART-11) RA 2017
Benzo(a) Pyrene in particulate phase	ng/m <sup>3</sup>	1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	IS 5182 (PART-12) RA 2019
Arsenic as As	ng/m <sup>3</sup>	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 <sup>3</sup>	20	5.9	7.3	6.2	5.9	4.6	5.4	6.3	7.8	6.4	USEPA IO 3.4
Lead as Pb	µg/m <sup>3</sup>	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 <sup>3</sup>	2000	0.319	0.264	0.378	0.299	0.252	0.283	0.359	0.436	0.371	IS 5182 (PART-10) RA 2019
Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	100	3.8	8.4	4.6	6.5	5.0	8.6	8.9	10.3	7.6	IS 5182 (PART-9) 2019

Ø PM2.5, PM10, SO<sub>2</sub>, NO<sub>2</sub> and NH<sub>3</sub> is monitored on 24 hrs. Basis & CO, O<sub>3</sub> is monitored on 8 hrs basis.

Ø C<sub>6</sub>H<sub>6</sub>, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.

**Vimta**  
VIMTA LABS  
REGD. No- DL 33004/99  
Sr. *[Signature]*  
**Dr. Subba Reddy Mallampati**  
Manager - Environment

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

**AMBIENT AIR QUALITY MONITORING AT PARSABHATA GATE (BALCO)**

Analysis starting date :- 2025-11-03

Analysis Completion date :- 2025-12-04

**Tests required:** Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>x</sub>), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH<sub>3</sub>), Benzene (C<sub>6</sub>H<sub>6</sub>), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

**TEST RESULTS**

Parameters	Units	Limits	AAQ Location : PARSABHATA GATE										Method
			2025-11-01	2025-11-06	2025-11-08	2025-11-12	2025-11-14	2025-11-18	2025-11-20	2024-11-24	2025-11-26		
Sampling Date													
Sulphur Dioxide as SO <sub>2</sub>	µg/m <sup>3</sup>	80	32.5	34.7	30.4	36.9	31.2	14.8	21.0	30.9	28.8		IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO <sub>2</sub>	µg/m <sup>3</sup>	80	13.3	13.0	12.0	14.9	12.5	10.7	11.2	10.0	11.6		IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	48.7	52.1	45.9	56.5	53.2	57.0	54.2	58.9	54.3		IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	14.2	18.3	16.5	23.1	17.9	23.1	20.9	24.3	19.0		IS 5182 (PART-24) 2019
Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	400	1.3	0.9	1.1	0.9	1.1	0.6	0.7	1.2	1.5		APHA 401
Benzene as C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		IS 5182 (PART-11) RA 2017
Benzo(a) Pyrene in particulate phase	ng/m <sup>3</sup>	1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		IS 5182 (PART-12) RA 2019
Arsenic as As	ng/m <sup>3</sup>	6	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1		USEPA IO 3.4
Nickel as Ni	ng/m <sup>3</sup>	20	5.6	5.7	4.2	6.6	5.2	4.9	4.1	6.8	5.1		USEPA IO 3.4
Lead as Pb	µg/m <sup>3</sup>	1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		USEPA IO 3.4
Carbon Monoxide as CO	µg/m <sup>3</sup>	2000	0.274	0.327	0.284	0.239	0.294	0.301	0.244	0.286	0.315		IS 5182 (PART-10) RA 2019
Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	100	3.7	3.4	3.6	3.9	3.4	4.1	5.0	5.7	3.6		IS 5182 (PART-9) 2019

- Ø PM2.5, PM10, SO<sub>2</sub>, NO<sub>2</sub> and NH<sub>3</sub> is monitored on 24 hrs. Basis & CO, O<sub>3</sub> is monitored on 8 hrs basis.
- Ø C<sub>6</sub>H<sub>6</sub>, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.



<b>ISSUED TO:</b> M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)	Report No.:	VLL/VLS/25-26/18084/003
	Issue Date:	2025-12-05
	P.O.No:	3402001553
	P.O. Date:	2025-10-01

**AMBIENT AIR QUALITY MONITORING AT COMPRESSOR HOUSE (BALCO)**

Analysis starting date :- 2025-11-03

Analysis Completion date :- 2025-12-04

**Tests required:** Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>x</sub>), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH<sub>3</sub>), Benzene (C<sub>6</sub>H<sub>6</sub>), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

**TEST RESULTS**

Parameters	Units	Limits	AAQ Location : COMPRESSOR HOUSE										Method
			2025-11-01	2025-11-06	2025-11-08	2025-11-12	2025-11-14	2025-11-18	2025-11-20	2024-11-24	2025-11-26		
Sampling Date													
Sulphur Dioxide as SO <sub>2</sub>	µg/m <sup>3</sup>	80	29.7	21.8	33.5	36.8	30.8	22.7	20.9	31.3	27.4	IS 5182 (PART-2) RA 2017	
Oxides of Nitrogen as NO <sub>2</sub>	µg/m <sup>3</sup>	80	14.3	18.5	15.1	16.2	17.6	14.4	16.1	13.9	15.8	IS 5182 (PART-6) RA 2017	
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	50.9	47.6	54.9	63.9	58.7	51.9	55.3	57.8	60.5	IS 5182 (PART-23) RA 2017	
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	18.6	16.8	19.9	25.3	22.8	19.2	21.5	23.9	24.8	IS 5182 (PART-24) 2019	
Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	400	1.5	1.3	1.1	1.2	1.2	1.1	1.4	1.2	1.0	APHA 401	
Benzene as C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	IS 5182 (PART-11) RA 2017	
Benzo(a) Pyrene in particulate phase	ng/m <sup>3</sup>	1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	IS 5182 (PART-12) RA 2019	
Arsenic as As	ng/m <sup>3</sup>	6	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	USEPA IO 3.4	
Nickel as Ni	ng/m <sup>3</sup>	20	5.3	5.4	6.1	6.4	5.9	5.5	4.6	7.2	6.8	USEPA IO 3.4	
Lead as Pb	µg/m <sup>3</sup>	1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	USEPA IO 3.4	
Carbon Monoxide as CO	µg/m <sup>3</sup>	2000	0.241	0.219	0.263	0.378	0.282	0.301	0.329	0.257	0.283	IS 5182 (PART-10) RA 2019	
Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	100	8.0	5.9	6.6	4.8	6.0	2.9	3.4	4.1	3.6	IS 5182 (PART-9) 2019	

Ø PM2.5, PM10, SO<sub>2</sub>, NO<sub>2</sub> and NH<sub>3</sub> is monitored on 24 hrs. Basis & CO, O<sub>3</sub> is monitored on 8 hrs basis.

Ø C<sub>6</sub>H<sub>6</sub>, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.



<b>ISSUED TO:</b> M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)	Report No.:	VLL/VLS/25-26/18084/002
	Issue Date:	2025-12-05
	P.O.No:	3402001553
	P.O. Date:	2025-10-01

**AMBIENT AIR QUALITY MONITORING AT ETP SMELTER (BALCO)**

Analysis starting date :- 2025-11-03

Analysis Completion date :- 2025-12-04

**Tests required:** Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>x</sub>), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH<sub>3</sub>), Benzene (C<sub>6</sub>H<sub>6</sub>), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

**TEST RESULTS**

Parameters	Units	Limits	AAQ Location : ETP SMELTER										Method
			2025-11-01	2025-11-06	2025-11-08	2025-11-12	2025-11-14	2025-11-18	2025-11-20	2024-11-24	2025-11-26		
Sulphur Dioxide as SO <sub>2</sub>	µg/m <sup>3</sup>	80	38.7	34.2	32.3	30.5	36.4	30.1	34.5	29.5	33.6	IS 5182 (PART-2) RA 2017	
Oxides of Nitrogen as NO <sub>2</sub>	µg/m <sup>3</sup>	80	12.8	14.8	12.2	17.5	18.5	14.0	15.3	14.3	18.0	IS 5182 (PART-6) RA 2017	
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	46.3	57.2	49.3	54.9	52.3	55.8	57.2	51.3	56.4	IS 5182 (PART-23) RA 2017	
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	16.3	23.5	17.1	21.9	20.7	22.8	24.3	20.7	24.1	IS 5182 (PART-24) 2019	
Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	400	1.1	1.4	1.2	1.5	1.2	1.6	1.0	1.1	1.4	APHA 401	
Benzene as C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	IS 5182 (PART-11) RA 2017	
Benzo(a) Pyrene in particulate phase	ng/m <sup>3</sup>	1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	IS 5182 (PART-12) RA 2019	
Arsenic as As	ng/m <sup>3</sup>	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 <sup>3</sup>	20	5.7	5.2	6.7	6.4	5.5	4.9	6.3	5.8	5.1	USEPA IO 3.4	
Lead as Pb	µg/m <sup>3</sup>	1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	USEPA IO 3.4	
Carbon Monoxide as CO	µg/m <sup>3</sup>	2000	0.268	0.351	0.324	0.303	0.258	0.273	0.268	0.324	0.295	IS 5182 (PART-10) RA 2019	
Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	100	4.5	3.1	5.6	4.7	5.3	7.2	3.7	3.9	5.3	IS 5182 (PART-9) 2019	

Ø PM2.5, PM10, SO<sub>2</sub>, NO<sub>2</sub> and NH<sub>3</sub> is monitored on 24 hrs. Basis & CO, O<sub>3</sub> is monitored on 8 hrs basis.

Ø C<sub>6</sub>H<sub>6</sub>, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.



<b>ISSUED TO:</b> M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)	Report No.:	VLL/VLS/25-26/18084/004
	Issue Date:	2025-12-05
	P.O.No:	3402001553
	P.O. Date:	2025-10-01

**AMBIENT AIR QUALITY MONITORING AT RAILWAY CONTROL ROOM (BALCO)**

Analysis starting date :- 2025-11-03

Analysis Completion date :- 2025-12-04

**Tests required:** Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>x</sub>), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH<sub>3</sub>), Benzene (C<sub>6</sub>H<sub>6</sub>), 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										Method
			2025-11-01	2025-11-06	2025-11-08	2025-11-12	2025-11-14	2025-11-18	2025-11-20	2024-11-24	2025-11-26		
Sulphur Dioxide as SO <sub>2</sub>	µg/m <sup>3</sup>	80	19.8	24.0	18.7	27.4	26.1	11.0	12.6	21.6	18.2	IS 5182 (PART-2) RA 2017	
Oxides of Nitrogen as NO <sub>2</sub>	µg/m <sup>3</sup>	80	11.0	12.5	11.0	13.0	12.2	8.2	9.7	10.1	9.5	IS 5182 (PART-6) RA 2017	
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	53.2	48.9	55.4	58.7	46.2	56.3	50.9	54.8	57.4	IS 5182 (PART-23) RA 2017	
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	18.7	16.3	19.3	23.3	20.6	21.8	21.7	24.6	22.8	IS 5182 (PART-24) 2019	
Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	400	1.0	0.8	0.9	0.6	1.0	1.2	1.0	0.9	1.1	APHA 401	
Benzene as C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	IS 5182 (PART-11) RA 2017	
Benzo(a) Pyrene in particulate phase	ng/m <sup>3</sup>	1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	IS 5182 (PART-12) RA 2019	
Arsenic as As	ng/m <sup>3</sup>	6	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	USEPA IO 3.4	
Nickel as Ni	ng/m <sup>3</sup>	20	4.4	4.4	5.6	4.2	3.8	5.7	6.2	4.9	5.3	USEPA IO 3.4	
Lead as Pb	µg/m <sup>3</sup>	1	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	USEPA IO 3.4	
Carbon Monoxide as CO	µg/m <sup>3</sup>	2000	0.193	0.282	0.256	0.238	0.275	0.242	0.267	0.31	0.269	IS 5182 (PART-10) RA 2019	
Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	100	5.2	2.7	3.2	2.5	1.8	3.1	2.7	3.1	3.2	IS 5182 (PART-9) 2019	

Ø PM2.5, PM10, SO<sub>2</sub>, NO<sub>2</sub> and NH<sub>3</sub> is monitored on 24 hrs. Basis & CO, O<sub>3</sub> is monitored on 8 hrs basis.  
Ø C<sub>6</sub>H<sub>6</sub>, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.



# Vimta Labs Limited

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

<b>ISSUED TO:</b> M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)	Report No.:	VLL/VLS/25-26/18084/005
	Issue Date:	2025-12-05
	P.O.No:	3402001553
	P.O. Date:	2025-10-01

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

Analysis starting date :- 2025-11-03

Analysis Completion date :- 2025-12-04

**Tests required:** Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>x</sub>), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH<sub>3</sub>), Benzene (C<sub>6</sub>H<sub>6</sub>), 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										Method
			2025-11-01	2025-11-06	2025-11-08	2025-11-12	2025-11-14	2025-11-18	2025-11-20	2024-11-24	2025-11-26		
Sulphur Dioxide as SO <sub>2</sub>	µg/m <sup>3</sup>	80	26.9	37.4	21.8	38.5	31.2	25.4	22.8	34.2	41.1	IS 5182 (PART-2) RA 2017	
Oxides of Nitrogen as NO <sub>2</sub>	µg/m <sup>3</sup>	80	18.8	20.6	17.1	15.5	20.9	11.7	14.0	16.0	18.5	IS 5182 (PART-6) RA 2017	
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	54.8	51.3	66.8	62.9	56.4	60.6	58.2	52.1	67.8	IS 5182 (PART-23) RA 2017	
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	20.3	18.1	24.2	26.7	22.3	24.5	23.1	21.6	28.4	IS 5182 (PART-24) 2019	
Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	400	1.8	1.3	1.4	1.6	1.5	0.9	1.2	1.5	1.0	APHA 401	
Benzene as C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	IS 5182 (PART-11) RA 2017	
Benzo(a) Pyrene in particulate phase	ng/m <sup>3</sup>	1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	IS 5182 (PART-12) RA 2019	
Arsenic as As	ng/m <sup>3</sup>	6	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	USEPA IO 3.4	
Nickel as Ni	ng/m <sup>3</sup>	20	6.7	5.9	5.4	6.3	5.8	5.3	6.6	5.9	6.1	USEPA IO 3.4	
Lead as Pb	µg/m <sup>3</sup>	1	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	USEPA IO 3.4	
Carbon Monoxide as CO	µg/m <sup>3</sup>	2000	0.236	0.297	0.314	0.342	0.328	0.276	0.241	0.337	0.265	IS 5182 (PART-10) RA 2019	
Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	100	8.2	7.6	6.4	8.0	4.8	5.6	6.2	5.9	5.7	IS 5182 (PART-9) 2019	

∅ PM2.5, PM10, SO<sub>2</sub>, NO<sub>2</sub> and NH<sub>3</sub> is monitored on 24 hrs. Basis & CO, O<sub>3</sub> is monitored on 8 hrs basis.

∅ C<sub>6</sub>H<sub>6</sub>, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.



Plot No. 5, Life Sciences Facility, Neovantage Science & Technology Park Private Limited, Shamirpet, Genome Valley, Turkapally Medchal-Malkajgiri, Hyderabad-500 101, Telangana, India. T : +91 40 6740 4040 E : mdoffice@vimta.com URL : www.vimta.com

CIN : L24110TG1990PLC011977

Seal/Stamp: Internal [CO]

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



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

**AMBIENT AIR QUALITY MONITORING AT PARSABHATA GATE (BALCO)**

Analysis starting date :- 2025-12-05

Analysis Completion date :- 2026-01-04

**Tests required:** Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>x</sub>), Particulate Matter (PM<sub>10</sub>), Particulate Matter (PM<sub>2.5</sub>), Ammonia (NH<sub>3</sub>), Benzene (C<sub>6</sub>H<sub>6</sub>), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

**TEST RESULTS**

Parameters	Units	Limits	AAQ Location : PARSABHATA GATE										Method
			2025-12-04	2025-12-06	2025-12-10	2025-12-12	2025-12-16	2025-12-18	2025-12-22	2025-12-24	2025-12-28		
Sulphur Dioxide as SO <sub>2</sub>	µg/m <sup>3</sup>	80	19.1	16.9	27.7	24.8	39.1	26.7	35.8	31.0	37.6	IS 5182 (PART-2) RA 2017	
Oxides of Nitrogen as NO <sub>2</sub>	µg/m <sup>3</sup>	80	10.9	12.8	15.3	8.1	13.2	12.7	16.4	13.1	14.9	IS 5182 (PART-6) RA 2017	
Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	100	57.2	65.4	63.9	58.7	65.1	67.4	61.3	64.5	59.2	IS 5182 (PART-23) RA 2017	
Particulate Matter (PM <sub>2.5</sub> )	µg/m <sup>3</sup>	60	21.8	27.1	24.9	23.4	26.3	28.6	25.4	28.1	24.2	IS 5182 (PART-24) 2019	
Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	400	1.1	0.6	1.3	0.8	1.2	1.0	0.4	0.6	0.9	APHA 3rd Edition - 401	
Benzene as C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	20	6.3	6.8	5.4	5.9	5.2	6.6	4.8	6.1	5.5	USEPA IO 3.4	
Lead as Pb	µg/m <sup>3</sup>	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 <sup>3</sup>	2000	152	196	171	214	125	163	185	142	175	IS 5182 (PART-10) RA 2019	
Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	100	3.8	4.0	3.3	3.6	1.3	7.2	1.9	2.1	2.4	IS 5182 (PART-9) RA 2019	

Ø PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>2</sub> and NH<sub>3</sub> is monitored on 24 hrs. Basis & CO, O<sub>3</sub> is monitored on 8 hrs basis.

Ø C<sub>6</sub>H<sub>6</sub>, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.



**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



<b>ISSUED TO:</b> M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)	Report No.:	VLL/VLS/25-26/20775/003
	Issue Date:	2026-01-05
	P.O.No:	3402001553
	P.O. Date:	2025-10-01

**AMBIENT AIR QUALITY MONITORING AT COMPRESSOR HOUSE (BALCO)**

Analysis starting date :- 2025-12-05

Analysis Completion date :- 2026-01-04

**Tests required:** Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>x</sub>), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH<sub>3</sub>), Benzene (C<sub>6</sub>H<sub>6</sub>), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

**TEST RESULTS**

Parameters	Units	Limits	AAQ Location : COMPRESSOR HOUSE									
			2025-12-04	2025-12-06	2025-12-10	2025-12-12	2025-12-16	2025-12-18	2025-12-22	2025-12-24	2025-12-28	Method
Sulphur Dioxide as SO <sub>2</sub>	µg/m <sup>3</sup>	80	34.5	28.3	36.8	30.0	27.8	31.4	27.4	40.6	37.8	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO <sub>2</sub>	µg/m <sup>3</sup>	80	15.8	13.5	14.2	10.3	17.7	15.7	20.8	22.0	19.3	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	64.6	69.1	53.6	56.9	60.5	61.8	63.3	58.4	62.9	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	24.4	27.0	21.7	22.9	25.4	27.6	24.0	21.0	23.3	IS 5182 (PART-24) 2019
Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	400	1.0	0.6	0.8	1.1	0.5	0.9	0.5	0.9	0.7	APHA 3rd Edition - 401
Benzene as C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	20	6.2	5.8	6.7	6.4	4.9	5.3	6.8	5.9	5.4	USEPA IO 3.4
Lead as Pb	µg/m <sup>3</sup>	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 <sup>3</sup>	2000	194	231	268	159	187	219	206	174	242	IS 5182 (PART-10) RA 2019
Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	100	3.1	1.5	5.1	2.9	4.1	4.0	8.7	7.0	5.7	IS 5182 (PART-9) RA 2019

Ø PM2.5, PM10, SO<sub>2</sub>, NO<sub>2</sub> and NH<sub>3</sub> is monitored on 24 hrs. Basis & CO, O<sub>3</sub> is monitored on 8 hrs basis.

Ø C<sub>6</sub>H<sub>6</sub>, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.



# Vimta Labs Limited

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

<b>ISSUED TO:</b> M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)	Report No.:	VLL/VLS/25-26/20775/002
	Issue Date:	2026-01-05
	P.O.No:	3402001553
	P.O. Date:	2025-10-01

## AMBIENT AIR QUALITY MONITORING AT ETP SMELTER (BALCO)

Analysis starting date :- 2025-12-05

Analysis Completion date :- 2026-01-04

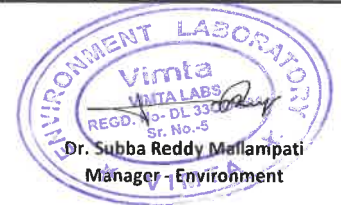
**Tests required:** Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>x</sub>), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH<sub>3</sub>), Benzene (C<sub>6</sub>H<sub>6</sub>), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

### TEST RESULTS

Parameters	Units	Limits	AAQ Location : ETP SMELTER									
			2025-12-04	2025-12-06	2025-12-10	2025-12-12	2025-12-16	2025-12-18	2025-12-22	2025-12-24	2025-12-28	Method
Sulphur Dioxide as SO <sub>2</sub>	µg/m <sup>3</sup>	80	32.4	25.7	37.0	29.6	32.6	25.2	33.3	26.3	34.8	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO <sub>2</sub>	µg/m <sup>3</sup>	80	14.9	13.0	15.6	12.8	16.2	14.3	16.5	19.8	17.1	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	60.9	64.2	57.9	63.0	59.2	66.6	68.4	56.9	64.1	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	24.1	26.5	23.3	24.0	22.2	27.8	30.8	21.6	25.0	IS 5182 (PART-24) 2019
Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	400	0.8	1.1	1.0	1.4	0.6	1.2	0.5	1.3	1.2	APHA 3rd Edition - 401
Benzene as C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	20	7.4	5.8	6.3	6.9	7.1	6.5	5.4	6.9	6.2	USEPA IO 3.4
Lead as Pb	µg/m <sup>3</sup>	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 <sup>3</sup>	2000	181	274	169	308	256	287	242	157	285	IS 5182 (PART-10) RA 2019
Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	100	3.6	2.2	4.7	3.0	2.3	5.5	0.7	4.5	3.4	IS 5182 (PART-9) RA 2019

Ø PM2.5, PM10, SO<sub>2</sub>, NO<sub>2</sub> and NH<sub>3</sub> is monitored on 24 hrs. Basis & CO, O<sub>3</sub> is monitored on 8 hrs basis.

Ø C<sub>6</sub>H<sub>6</sub>, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.



<b>ISSUED TO:</b> M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)	Report No.:	VLL/VLS/25-26/20775/004
	Issue Date:	2026-01-05
	P.O.No:	3402001553
	P.O. Date:	2025-10-01

**AMBIENT AIR QUALITY MONITORING AT RAILWAY CONTROL ROOM (BALCO)**

Analysis starting date :- 2025-12-05

Analysis Completion date :- 2026-01-04

**Tests required:** Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>x</sub>), Particulate Matter (PM<sub>10</sub>), Particulate Matter (PM<sub>2.5</sub>), Ammonia (NH<sub>3</sub>), Benzene (C<sub>6</sub>H<sub>6</sub>), 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									Method
			2025-12-04	2025-12-06	2025-12-10	2025-12-12	2025-12-16	2025-12-18	2025-12-22	2025-12-24	2025-12-28	
Sulphur Dioxide as SO <sub>2</sub>	µg/m <sup>3</sup>	80	25.7	20.5	27.6	19.5	27.0	22.4	37.1	25.0	34.7	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO <sub>2</sub>	µg/m <sup>3</sup>	80	9.7	12.2	9.8	9.7	10.5	11.4	23.2	17.2	14.4	IS 5182 (PART-6) RA 2017
Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	100	54.9	63.7	58.6	52.8	60.3	50.8	55.1	57.7	62.1	IS 5182 (PART-23) RA 2017
Particulate Matter (PM <sub>2.5</sub> )	µg/m <sup>3</sup>	60	20.7	29.2	23.5	21.4	26.4	20.4	23.1	25.2	28.0	IS 5182 (PART-24) 2019
Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	400	1.3	0.9	0.0	0.0	0.8	0.6	0.6	0.8	0.4	APHA 3rd Edition - 401
Benzene as C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	20	5.6	4.3	5.4	6.1	4.8	5.2	4.9	5.5	6.3	USEPA IO 3.4
Lead as Pb	µg/m <sup>3</sup>	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 <sup>3</sup>	2000	174	196	214	172	213	145	191	168	205	IS 5182 (PART-10) RA 2019
Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	100	2.5	3.8	15.7	15.4	2.4	2.2	1.6	2.1	2.4	IS 5182 (PART-9) RA 2019

Ø PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>2</sub> and NH<sub>3</sub> is monitored on 24 hrs. Basis & CO, O<sub>3</sub> is monitored on 8 hrs basis.

Ø C<sub>6</sub>H<sub>6</sub>, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.



<b>ISSUED TO:</b> M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)	Report No.:	VLL/VLS/25-26/20775/005
	Issue Date:	2026-01-05
	P.O.No:	3402001553
	P.O. Date:	2025-10-01

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

Analysis starting date :- 2025-12-05

Analysis Completion date :- 2026-01-04

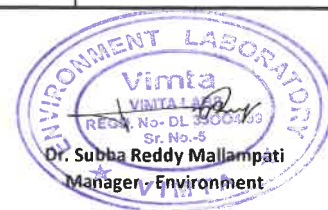
**Tests required:** Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>x</sub>), Particulate Matter (PM<sub>10</sub>), Particulate Matter (PM<sub>2.5</sub>), Ammonia (NH<sub>3</sub>), Benzene (C<sub>6</sub>H<sub>6</sub>), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

**TEST RESULTS**

Parameters	Units	Limits	AAQ Location : 540MW, DM PLANT										Method
			2025-12-04	2025-12-06	2025-12-10	2025-12-12	2025-12-16	2025-12-18	2025-12-22	2025-12-24	2025-12-28		
Sulphur Dioxide as SO <sub>2</sub>	µg/m <sup>3</sup>	80	20.4	14.7	21.5	18.2	40.6	36.3	24.9	28.8	30.2	IS 5182 (PART-2) RA 2017	
Oxides of Nitrogen as NO <sub>2</sub>	µg/m <sup>3</sup>	80	12.4	15.5	13.3	17.5	12.5	16.3	11.4	18.3	18.8	IS 5182 (PART-6) RA 2017	
Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	100	58.3	67.1	52.3	60.5	64.8	71.8	59.3	63.4	66.5	IS 5182 (PART-23) RA 2017	
Particulate Matter (PM <sub>2.5</sub> )	µg/m <sup>3</sup>	60	23.0	29.4	21.5	24.5	26.7	30.5	23.6	25.2	26.9	IS 5182 (PART-24) 2019	
Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	400	1.3	0.9	0.7	1.1	1.7	1.2	0.4	0.5	0.9	APHA 3rd Edition - 401	
Benzene as C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	20	5.6	3.8	6.2	4.4	5.7	5.1	6.8	4.2	7.3	USEPA IO 3.4	
Lead as Pb	µg/m <sup>3</sup>	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 <sup>3</sup>	2000	278	341	309	256	179	212	309	194	214	IS 5182 (PART-10) RA 2019	
Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	100	4.8	2.6	4.1	3.4	3.8	2.5	3.8	2.7	4.2	IS 5182 (PART-9) RA 2019	

Ø PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>2</sub> and NH<sub>3</sub> is monitored on 24 hrs. Basis & CO, O<sub>3</sub> is monitored on 8 hrs basis.

Ø C<sub>6</sub>H<sub>6</sub>, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.



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

**AMBIENT AIR QUALITY MONITORING AT PARSABHATA GATE (BALCO)**

Analysis starting date :- 2026-01-05

Analysis Completion date :- 2026-02-05

**Tests required:** Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>x</sub>), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH<sub>3</sub>), Benzene (C<sub>6</sub>H<sub>6</sub>), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

**TEST RESULTS**

Parameters	Units	Limits	AAQ Location : PARSABHATA GATE									
			2026-01-02	2026-01-08	2026-01-10	2026-01-14	2026-10-16	2026-01-20	2026-01-22	2026-01-26	2026-01-28	Method
Sulphur Dioxide as SO <sub>2</sub>	µg/m <sup>3</sup>	80	15.3	22.0	26.8	33.6	30.8	32.2	18.7	20.8	24.9	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO <sub>2</sub>	µg/m <sup>3</sup>	80	15.1	14.7	13.6	15.0	13.4	22.0	17.6	14.7	15.9	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	61.6	57.1	53.9	64.2	58.5	63.1	56.9	57.2	63.5	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	24.2	22.0	19.0	27.5	23.8	25.6	21.2	24.6	26.4	IS 5182 (PART-24) 2019
Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	400	0.9	0.7	1.0	1.0	1.0	0.9	1.0	0.9	0.8	APHA 3rd Edition - 401
Benzene as C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	20	5.4	4.8	6.3	4.1	3.9	6.2	5.4	5.2	4.9	USEPA IO 3.4
Lead as Pb	µg/m <sup>3</sup>	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 <sup>3</sup>	2000	186	251	237	312	208	226	185	164	243	IS 5182 (PART-10) RA 2019
Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	100	5.4	2.5	2.3	3.8	3.1	2.5	2.4	1.9	2.7	IS 5182 (PART-9) RA 2019

Ø PM2.5, PM10, SO<sub>2</sub>, NO<sub>2</sub> and NH<sub>3</sub> is monitored on 24 hrs. Basis & CO, O<sub>3</sub> is monitored on 8 hrs basis.

Ø C<sub>6</sub>H<sub>6</sub>, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.



Dr. Subba Reddy Mallampati  
Manager - Environment  
Sr. No.-5

<b>ISSUED TO:</b> M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)	Report No.:	VLL/VLS/25-26/23223/003
	Issue Date:	2026-02-05
	P.O.No:	3402001553
	P.O. Date:	2025-10-01

**AMBIENT AIR QUALITY MONITORING AT COMPRESSOR HOUSE (BALCO)**

Analysis starting date :- 2026-01-05

Analysis Completion date :- 2026-02-05

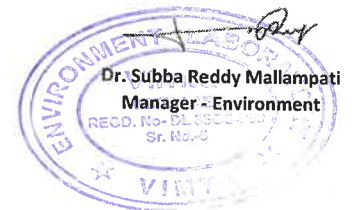
**Tests required:** Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>x</sub>), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH<sub>3</sub>), Benzene (C<sub>6</sub>H<sub>6</sub>), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

**TEST RESULTS**

Parameters	Units	Limits	AAQ Location : COMPRESSOR HOUSE										Method
			2026-01-02	2026-01-08	2026-01-10	2026-01-14	2026-10-16	2026-01-20	2026-01-22	2026-01-26	2026-01-28		
Sampling Date													
Sulphur Dioxide as SO <sub>2</sub>	µg/m <sup>3</sup>	80	39.6	27.7	22.2	29.1	27.9	35.7	33.3	26.3	31.6	IS 5182 (PART-2) RA 2017	
Oxides of Nitrogen as NO <sub>2</sub>	µg/m <sup>3</sup>	80	16.1	10.0	9.3	11.9	13.1	14.9	16.1	11.9	15.4	IS 5182 (PART-6) RA 2017	
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	61.2	56.4	59.7	66.1	58.9	47.3	53.4	60.9	64.8	IS 5182 (PART-23) RA 2017	
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	25.0	21.7	23.6	27.8	23.9	19.4	20.7	25.4	28.9	IS 5182 (PART-24) 2019	
Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	400	0.9	0.6	0.8	0.8	0.8	0.6	3.8	1.3	1.0	APHA 3rd Edition - 401	
Benzene as C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	20	6.1	5.9	6.3	6.9	4.7	5.2	5.8	6.9	5.4	USEPA IO 3.4	
Lead as Pb	µg/m <sup>3</sup>	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 <sup>3</sup>	2000	172	189	219	238	252	183	228	191	264	IS 5182 (PART-10) RA 2019	
Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	100	8.4	5.0	4.4	3.3	3.7	3.2	4.0	2.7	4.5	IS 5182 (PART-9) RA 2019	

∅ PM2.5, PM10, SO<sub>2</sub>, NO<sub>2</sub> and NH<sub>3</sub> is monitored on 24 hrs. Basis & CO, O<sub>3</sub> is monitored on 8 hrs basis.

∅ C<sub>6</sub>H<sub>6</sub>, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.



<b>ISSUED TO:</b> M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)	Report No.:	VLL/VLS/25-26/23223/002
	Issue Date:	2026-02-05
	P.O.No:	3402001553
	P.O. Date:	2025-10-01

**AMBIENT AIR QUALITY MONITORING AT ETP SMELTER (BALCO)**

Analysis starting date :- 2026-01-05

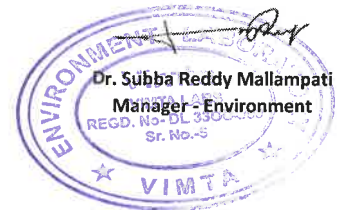
Analysis Completion date :- 2026-02-05

**Tests required:** Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>x</sub>), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH<sub>3</sub>), Benzene (C<sub>6</sub>H<sub>6</sub>), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

**TEST RESULTS**

Parameters	Units	Limits	AAQ Location : ETP SMELTER										Method
			2026-01-02	2026-01-08	2026-01-10	2026-01-14	2026-10-16	2026-01-20	2026-01-22	2026-01-26	2026-01-28		
Sulphur Dioxide as SO <sub>2</sub>	µg/m <sup>3</sup>	80	37.0	30.4	35.4	38.1	21.9	34.1	22.4	33.7	20.7	IS 5182 (PART-2) RA 2017	
Oxides of Nitrogen as NO <sub>2</sub>	µg/m <sup>3</sup>	80	18.6	16.0	18.3	12.8	14.2	13.0	15.0	13.9	18.8	IS 5182 (PART-6) RA 2017	
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	54.9	59.1	71.3	61.9	65.0	57.8	62.4	54.1	58.6	IS 5182 (PART-23) RA 2017	
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	22.7	24.1	29.4	25.3	26.9	23.1	25.7	21.1	25.8	IS 5182 (PART-24) 2019	
Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	400	0.8	0.5	0.7	0.9	1.2	0.3	0.9	1.1	0.7	APHA 3rd Edition - 401	
Benzene as C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	20	4.7	6.3	7.1	6.8	5.9	5.3	6.4	5.3	4.9	USEPA IO 3.4	
Lead as Pb	µg/m <sup>3</sup>	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 <sup>3</sup>	2000	164	245	344	146	173	261	183	237	191	IS 5182 (PART-10) RA 2019	
Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	100	7.1	1.6	3.4	2.0	4.3	1.7	3.6	5.5	3.1	IS 5182 (PART-9) RA 2019	

Ø PM2.5, PM10, SO<sub>2</sub>, NO<sub>2</sub> and NH<sub>3</sub> is monitored on 24 hrs. Basis & CO, O<sub>3</sub> is monitored on 8 hrs basis.  
Ø C<sub>6</sub>H<sub>6</sub>, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.



# Vimta Labs Limited

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

<b>ISSUED TO:</b> <b>M/s. Bharat Aluminium Company Limited,</b> <b>KORBA ( C.G.)</b>	Report No.:	VLL/VLS/25-26/23223/004
	Issue Date:	2026-02-05
	P.O.No:	3402001553
	P.O. Date:	2025-10-01

## AMBIENT AIR QUALITY MONITORING AT RAILWAY CONTROL ROOM (BALCO)

Analysis starting date :- 2026-01-05

Analysis Completion date :- 2026-02-05

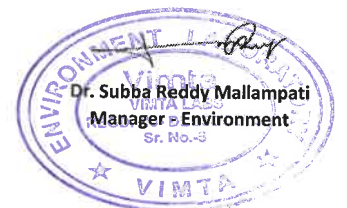
**Tests required:** Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>x</sub>), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH<sub>3</sub>), Benzene (C<sub>6</sub>H<sub>6</sub>), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

### TEST RESULTS

Parameters	Units	Limits	AAQ Location : RAILWAY CONTROL ROOM										Method
			2026-01-02	2026-01-08	2026-01-10	2026-01-14	2026-10-16	2026-01-20	2026-01-22	2026-01-26	2026-01-28		
Sampling Date													
Sulphur Dioxide as SO <sub>2</sub>	µg/m <sup>3</sup>	80	23.0	24.2	20.6	22.2	31.6	11.5	18.4	21.7	28.1	IS 5182 (PART-2) RA 2017	
Oxides of Nitrogen as NO <sub>2</sub>	µg/m <sup>3</sup>	80	18.2	15.4	12.8	12.8	11.2	14.9	12.2	10.1	13.5	IS 5182 (PART-6) RA 2017	
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	57.2	63.1	54.8	51.1	62.9	59.5	56.7	49.6	60.3	IS 5182 (PART-23) RA 2017	
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	25.9	31.6	22.7	20.1	29.5	26.2	21.7	17.3	27.1	IS 5182 (PART-24) 2019	
Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	400	0.6	0.4	0.6	0.8	1.0	0.3	0.9	0.6	0.8	APHA 3rd Edition - 401	
Benzene as C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	20	4.9	5.3	5.7	6.2	4.9	5.8	6.4	4.7	5.1	USEPA IO 3.4	
Lead as Pb	µg/m <sup>3</sup>	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 <sup>3</sup>	2000	147	193	164	214	177	184	159	136	109	IS 5182 (PART-10) RA 2019	
Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	100	2.1	4.8	3.6	5.2	3.4	2.9	3.1	4.5	2.7	IS 5182 (PART-9) RA 2019	

Ø PM2.5, PM10, SO<sub>2</sub>, NO<sub>2</sub> and NH<sub>3</sub> is monitored on 24 hrs. Basis & CO, O<sub>3</sub> is monitored on 8 hrs basis.

Ø C<sub>6</sub>H<sub>6</sub>, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.



# Vimta Labs Limited

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

<b>ISSUED TO:</b> <b>M/s. Bharat Aluminium Company Limited,</b> <b>KORBA ( C.G.)</b>	Report No.:	VLL/VLS/25-26/23223/005
	Issue Date:	2026-02-05
	P.O.No:	3402001553
	P.O. Date:	2025-10-01

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

Analysis starting date :- 2026-01-05

Analysis Completion date :- 2026-02-05

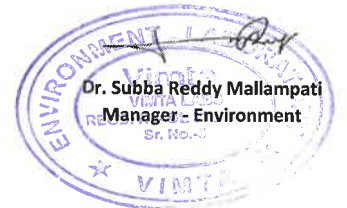
**Tests required:** Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>x</sub>), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH<sub>3</sub>), Benzene (C<sub>6</sub>H<sub>6</sub>), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

### TEST RESULTS

Parameters	Units	Limits	AAQ Location : 540MW, DM PLANT										Method
			2026-01-02	2026-01-08	2026-01-10	2026-01-14	2026-10-16	2026-01-20	2026-01-22	2026-01-26	2026-01-28		
Sulphur Dioxide as SO <sub>2</sub>	µg/m <sup>3</sup>	80	21.3	35.8	32.9	25.0	20.7	16.0	26.8	31.9	24.9	IS 5182 (PART-2) RA 2017	
Oxides of Nitrogen as NO <sub>2</sub>	µg/m <sup>3</sup>	80	15.6	11.1	10.5	11.5	14.4	15.8	15.1	10.5	17.2	IS 5182 (PART-6) RA 2017	
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	58.7	63.2	67.9	51.1	66.3	54.2	56.7	60.3	64.9	IS 5182 (PART-23) RA 2017	
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	22.9	26.2	31.0	21.9	27.7	20.1	22.7	24.2	27.5	IS 5182 (PART-24) 2019	
Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	400	0.5	0.6	0.9	1.0	1.2	0.4	0.8	0.7	0.9	APHA 3rd Edition - 401	
Benzene as C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	20	6.3	5.8	5.2	6.6	4.9	5.1	6.4	4.8	5.3	USEPA IO 3.4	
Lead as Pb	µg/m <sup>3</sup>	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 <sup>3</sup>	2000	173	158	192	214	167	139	185	142	207	IS 5182 (PART-10) RA 2019	
Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	100	5.4	1.0	1.9	1.7	2.8	3.4	3.8	2.5	3.6	IS 5182 (PART-9) RA 2019	

Ø PM2.5, PM10, SO<sub>2</sub>, NO<sub>2</sub> and NH<sub>3</sub> is monitored on 24 hrs. Basis & CO, O<sub>3</sub> is monitored on 8 hrs basis.

Ø C<sub>6</sub>H<sub>6</sub>, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.



# Vimta Labs Limited

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

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

## AMBIENT AIR QUALITY MONITORING AT PARSABHATA GATE (BALCO)

Analysis starting date :- 2026-02-06

Analysis Completion date :- 2026-03-04

**Tests required:** Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>x</sub>), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH<sub>3</sub>), Benzene (C<sub>6</sub>H<sub>6</sub>), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

### TEST RESULTS

Parameters	Units	Limits	AAQ Location : PARSABHATA GATE								Method
			2026-02-05	2026-02-07	2026-02-11	2026-02-13	2026-02-17	2026-02-19	2026-02-23	2026-02-25	
Sampling Date											
Sulphur Dioxide as SO <sub>2</sub>	µg/m <sup>3</sup>	80	39.1	37.2	24.4	32.8	34.6	22.4	28.2	25.7	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO <sub>2</sub>	µg/m <sup>3</sup>	80	21.9	15.8	12.5	36.8	26.8	22.8	19.9	10.8	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	57.9	61.3	53.7	58.3	56.1	64.7	60.3	54.5	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	22.5	24.1	21.6	23.4	22.1	25.7	23.4	21.0	IS 5182 (PART-24) 2019
Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	400	0.8	0.9	0.8	1.6	1.1	0.8	3.0	0.8	APHA 3rd Edition - 401
Benzene as C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	20	6.3	4.8	5.6	7.3	6.8	6.1	5.9	6.6	USEPA IO 3.4
Lead as Pb	µg/m <sup>3</sup>	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 <sup>3</sup>	2000	195	239	264	178	147	195	226	182	IS 5182 (PART-10) RA 2019
Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	100	5.0	3.8	4.2	4.8	1.8	3.8	3.7	6.1	IS 5182 (PART-9) RA 2019

Ø PM2.5, PM10, SO<sub>2</sub>, NO<sub>2</sub> and NH<sub>3</sub> is monitored on 24 hrs. Basis & CO, O<sub>3</sub> is monitored on 8 hrs basis.

Ø C<sub>6</sub>H<sub>6</sub>, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.



# Vimta Labs Limited

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

<b>ISSUED TO:</b> <b>M/s. Bharat Aluminium Company Limited,</b> <b>KORBA ( C.G.)</b>	Report No.:	VLL/VLS/25-26/24935/003
	Issue Date:	2026-03-05
	P.O.No:	3402001553
	P.O. Date:	2025-10-01

## AMBIENT AIR QUALITY MONITORING AT COMPRESSOR HOUSE (BALCO)

Analysis starting date :- 2026-02-06

Analysis Completion date :- 2026-03-04

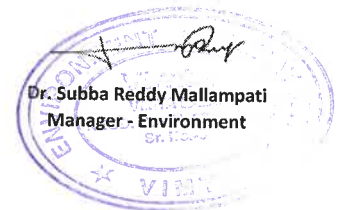
**Tests required:** Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>x</sub>), Particulate Matter (PM<sub>10</sub>), Particulate Matter (PM<sub>2.5</sub>), Ammonia (NH<sub>3</sub>), Benzene (C<sub>6</sub>H<sub>6</sub>), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

### TEST RESULTS

Parameters	Units	Limits	AAQ Location : COMPRESSOR HOUSE								Method
			2026-02-05	2026-02-07	2026-02-11	2026-02-13	2026-02-17	2026-02-19	2026-02-23	2026-02-25	
Sampling Date											
Sulphur Dioxide as SO <sub>2</sub>	µg/m <sup>3</sup>	80	27.7	24.2	28.7	40.1	31.3	42.8	38.1	32.3	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO <sub>2</sub>	µg/m <sup>3</sup>	80	13.6	11.0	12.1	28.9	13.5	20.1	17.1	9.1	IS 5182 (PART-6) RA 2017
Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	100	53.1	59.7	66.2	52.5	63.1	58.4	52.9	61.5	IS 5182 (PART-23) RA 2017
Particulate Matter (PM <sub>2.5</sub> )	µg/m <sup>3</sup>	60	21.9	23.6	29.1	20.7	26.4	22.7	19.5	24.9	IS 5182 (PART-24) 2019
Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	400	1.7	0.7	0.9	0.5	0.8	0.5	1.5	1.4	APHA 3rd Edition - 401
Benzene as C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	20	5.3	7.8	5.2	6.1	4.6	5.8	6.7	6.4	USEPA IO 3.4
Lead as Pb	µg/m <sup>3</sup>	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 <sup>3</sup>	2000	291	186	237	248	195	176	219	163	IS 5182 (PART-10) RA 2019
Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	100	6.4	5.8	6.2	4.4	5.0	5.5	1.2	8.2	IS 5182 (PART-9) RA 2019

Ø PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>2</sub> and NH<sub>3</sub> is monitored on 24 hrs. Basis & CO, O<sub>3</sub> is monitored on 8 hrs basis.

Ø C<sub>6</sub>H<sub>6</sub>, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.



# Vimta Labs Limited

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

<b>ISSUED TO:</b> <b>M/s. Bharat Aluminium Company Limited,</b> <b>KORBA ( C.G.)</b>	Report No.:	VLL/VLS/25-26/24935/002
	Issue Date:	2026-03-05
	P.O.No:	3402001553
	P.O. Date:	2025-10-01

## AMBIENT AIR QUALITY MONITORING AT ETP SMELTER (BALCO)

Analysis starting date :- 2026-02-06

Analysis Completion date :- 2026-03-04

**Tests required:** Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>x</sub>), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH<sub>3</sub>), Benzene (C<sub>6</sub>H<sub>6</sub>), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

### TEST RESULTS

Parameters	Units	Limits	AAQ Location : ETP SMELTER								Method
			2026-02-05	2026-02-07	2026-02-11	2026-02-13	2026-02-17	2026-02-19	2026-02-23	2026-02-25	
Sulphur Dioxide as SO <sub>2</sub>	µg/m <sup>3</sup>	80	37.3	31.1	38.8	39.0	36.8	34.6	38.1	35.4	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO <sub>2</sub>	µg/m <sup>3</sup>	80	16.7	12.7	16.7	18.6	12.7	13.1	13.6	12.0	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	54.8	58.2	50.4	59.6	65.8	53.7	61.1	63.9	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	20.6	24.8	28.7	23.7	25.4	19.2	25.1	27.3	IS 5182 (PART-24) 2019
Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	400	0.7	0.8	0.5	0.7	0.9	0.6	1.2	1.3	APHA 3rd Edition - 401
Benzene as C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	20	6.8	5.1	6.4	4.9	5.7	5.4	6.3	5.9	USEPA IO 3.4
Lead as Pb	µg/m <sup>3</sup>	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 <sup>3</sup>	2000	159	203	192	185	163	231	171	149	IS 5182 (PART-10) RA 2019
Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	100	5.7	4.2	5.1	5.3	3.4	2.4	4.0	9.6	IS 5182 (PART-9) RA 2019

Ø PM2.5, PM10, SO<sub>2</sub>, NO<sub>2</sub> and NH<sub>3</sub> is monitored on 24 hrs. Basis & CO, O<sub>3</sub> is monitored on 8 hrs basis.

Ø C<sub>6</sub>H<sub>6</sub>, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.



<b>ISSUED TO:</b> <b>M/s. Bharat Aluminium Company Limited,</b> <b>KORBA ( C.G.)</b>	Report No.:	VLL/VLS/25-26/24935/004
	Issue Date:	2026-03-05
	P.O.No:	3402001553
	P.O. Date:	2025-10-01

**AMBIENT AIR QUALITY MONITORING AT RAILWAY CONTROL ROOM (BALCO)**

Analysis starting date :- 2026-02-06

Analysis Completion date :- 2026-03-04

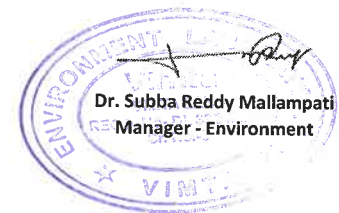
**Tests required:** Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>x</sub>), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH<sub>3</sub>), Benzene (C<sub>6</sub>H<sub>6</sub>), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

**TEST RESULTS**

Parameters	Units	Limits	AAQ Location : RAILWAY CONTROL ROOM								Method
			2026-02-05	2026-02-07	2026-02-11	2026-02-13	2026-02-17	2026-02-19	2026-02-23	2026-02-25	
Sampling Date											
Sulphur Dioxide as SO <sub>2</sub>	µg/m <sup>3</sup>	80	29.3	35.3	37.8	24.7	31.2	27.7	25.2	30.3	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO <sub>2</sub>	µg/m <sup>3</sup>	80	13.6	12.5	10.5	14.0	17.6	17.2	20.3	8.8	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	48.5	53.7	51.9	58.1	54.2	52.4	60.8	65.3	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	19.4	21.7	20.5	23.2	21.8	19.6	24.3	26.3	IS 5182 (PART-24) 2019
Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	400	0.7	0.7	0.6	0.6	0.4	0.4	1.0	1.1	APHA 3rd Edition - 401
Benzene as C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	20	4.1	5.7	5.4	5.9	6.3	4.8	5.1	4.9	USEPA IO 3.4
Lead as Pb	µg/m <sup>3</sup>	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 <sup>3</sup>	2000	158	139	183	167	197	228	164	149	IS 5182 (PART-10) RA 2019
Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	100	6.4	7.2	2.7	8.9	6.5	2.2	3.7	6.3	IS 5182 (PART-9) RA 2019

Ø PM2.5, PM10, SO<sub>2</sub>, NO<sub>2</sub> and NH<sub>3</sub> is monitored on 24 hrs. Basis & CO, O<sub>3</sub> is monitored on 8 hrs basis.

Ø C<sub>6</sub>H<sub>6</sub>, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.



# Vimta Labs Limited

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657

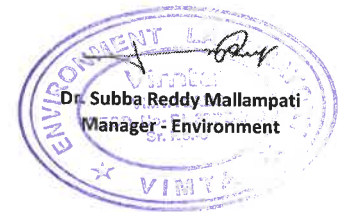


Driven by Quality. Inspired by Science.

<b>ISSUED TO:</b> M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report No.:		VLL/VLS/25-26/24935/005						
			Issue Date:		2026-03-05						
			P.O.No:		3402001553						
			P.O. Date:		2025-10-01						
<b>AMBIENT AIR QUALITY MONITORING AT 540MW, DM PLANT (BALCO)</b>											
Analysis starting date :- 2026-02-06						Analysis Completion date :- 2026-03-04					
<b>Tests required:</b> Sulphur Dioxide (SO <sub>2</sub> ), Nitrogen Dioxide (NO <sub>x</sub> ), Particulate Matter (PM <sub>10</sub> ), Particulate Matter (PM <sub>2.5</sub> ), Ammonia (NH <sub>3</sub> ), Benzene (C <sub>6</sub> H <sub>6</sub> ), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.											
<b>TEST RESULTS</b>											
			<b>AAQ Location : 540MW, DM PLANT</b>								
<b>Parameters</b>	<b>Units</b>	<b>Limits</b>	<b>2026-02-05</b>	<b>2026-02-07</b>	<b>2026-02-11</b>	<b>2026-02-13</b>	<b>2026-02-17</b>	<b>2026-02-19</b>	<b>2026-02-23</b>	<b>2026-02-25</b>	<b>Method</b>
<b>Sampling Date</b>											
Sulphur Dioxide as SO <sub>2</sub>	µg/m <sup>3</sup>	80	34.9	35.5	27.4	40.0	21.6	26.7	32.7	32.9	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO <sub>2</sub>	µg/m <sup>3</sup>	80	11.6	9.6	13.7	16.4	13.5	14.8	15.5	11.1	IS 5182 (PART-6) RA 2017
Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	100	52.9	60.7	66.8	59.3	63.1	57.4	61.7	56.2	IS 5182 (PART-23) RA 2017
Particulate Matter (PM <sub>2.5</sub> )	µg/m <sup>3</sup>	60	21.8	25.3	29.2	23.6	26.9	22.8	24.7	23.4	IS 5182 (PART-24) 2019
Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	400	0.9	0.9	0.9	0.6	0.9	0.7	1.4	0.5	APHA 3rd Edition - 401
Benzene as C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	20	6.2	5.8	5.2	4.7	5.4	6.2	4.9	5.1	USEPA IO 3.4
Lead as Pb	µg/m <sup>3</sup>	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 <sup>3</sup>	2000	182	249	161	159	177	215	183	154	IS 5182 (PART-10) RA 2019
Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	100	12.1	5.4	4.1	10.3	3.3	2.8	3.9	5.7	IS 5182 (PART-9) RA 2019

Ø PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>2</sub> and NH<sub>3</sub> is monitored on 24 hrs. Basis & CO, O<sub>3</sub> is monitored on 8 hrs basis.

Ø C<sub>6</sub>H<sub>6</sub>, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.



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

**AMBIENT AIR QUALITY MONITORING AT PARSABHATA GATE (BALCO)**

Analysis starting date :- 2026-03-06

Analysis Completion date :- 2026-04-03

**Tests required:** Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>x</sub>), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH<sub>3</sub>), Benzene (C<sub>6</sub>H<sub>6</sub>), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

**TEST RESULTS**

Parameters	Units	Limits	AAQ Location : PARSABHATA GATE								Method
			2026-03-05	2026-03-07	2026-03-11	2026-03-13	2026-03-17	2026-03-19	2026-03-25	2026-03-27	
Sulphur Dioxide as SO <sub>2</sub>	µg/m <sup>3</sup>	80	31.9	45.8	36.4	39.7	37.8	33.5	27.1	35.7	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO <sub>2</sub>	µg/m <sup>3</sup>	80	23.2	20.4	19.1	16.7	18.7	17.3	15.6	17.5	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	65.9	72.3	63.7	57.2	56.8	61.4	52.6	59.1	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	25.3	30.8	24.4	22.5	20.7	27.0	19.5	23.2	IS 5182 (PART-24) 2019
Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	400	3.6	2.9	1.6	3.2	2.2	3.7	3.8	2.3	APHA 3rd Edition - 401
Benzene as C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	20	5.6	7.2	4.9	6.1	4.4	5.7	7.2	5.9	USEPA IO 3.4
Lead as Pb	µg/m <sup>3</sup>	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 <sup>3</sup>	2000	229	154	196	206	191	242	163	147	IS 5182 (PART-10) RA 2019
Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	100	17.3	8.7	13.8	20.7	9.2	11.0	20.6	15.7	IS 5182 (PART-9) RA 2019

Ø PM2.5, PM10, SO<sub>2</sub>, NO<sub>2</sub> and NH<sub>3</sub> is monitored on 24 hrs. Basis & CO, O<sub>3</sub> is monitored on 8 hrs basis.

Ø C<sub>6</sub>H<sub>6</sub>, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.



**Dr. Subba Reddy Mallampati**  
**Manager - Environment**

<b>ISSUED TO:</b> M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)	Report No.:	VLL/VLS/25-26/28724/003
	Issue Date:	2026-04-04
	P.O.No:	3402001553
	P.O. Date:	2025-10-01

**AMBIENT AIR QUALITY MONITORING AT COMPRESSOR HOUSE (BALCO)**

Analysis starting date :- 2026-03-06

Analysis Completion date :- 2026-04-03

**Tests required:** Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>x</sub>), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH<sub>3</sub>), Benzene (C<sub>6</sub>H<sub>6</sub>), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

**TEST RESULTS**

Parameters	Units	Limits	AAQ Location : COMPRESSOR HOUSE								Method
			2026-03-05	2026-03-07	2026-03-11	2026-03-13	2026-03-17	2026-03-19	2026-03-25	2026-03-27	
Sulphur Dioxide as SO <sub>2</sub>	µg/m <sup>3</sup>	80	34.7	30.2	24.2	25.1	33.4	26.5	31.3	28.5	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO <sub>2</sub>	µg/m <sup>3</sup>	80	10.0	14.2	13.1	12.9	26.1	26.8	12.5	14.7	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	56.7	77.5	64.2	58.4	61.7	66.9	70.2	63.9	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	22.1	31.4	25.8	23.2	24.6	27.5	30.2	23.4	IS 5182 (PART-24) 2019
Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	400	1.2	2.1	1.2	0.9	1.0	1.3	1.1	1.4	APHA 3rd Edition - 401
Benzene as C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	20	6.2	5.8	7.7	6.4	5.7	4.2	5.9	5.3	USEPA IO 3.4
Lead as Pb	µg/m <sup>3</sup>	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 <sup>3</sup>	2000	152	194	171	231	165	148	192	186	IS 5182 (PART-10) RA 2019
Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	100	15.7	12.6	8.7	24.3	27.0	17.8	9.3	11.8	IS 5182 (PART-9) RA 2019

Ø PM2.5, PM10, SO<sub>2</sub>, NO<sub>2</sub> and NH<sub>3</sub> is monitored on 24 hrs. Basis & CO, O<sub>3</sub> is monitored on 8 hrs basis.  
Ø C<sub>6</sub>H<sub>6</sub>, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.



<b>ISSUED TO:</b> <b>M/s. Bharat Aluminium Company Limited,</b> <b>KORBA ( C.G.)</b>	Report No.:	VLL/VLS/25-26/28724/002
	Issue Date:	2026-04-04
	P.O.No:	3402001553
	P.O. Date:	2025-10-01

**AMBIENT AIR QUALITY MONITORING AT ETP SMELTER (BALCO)**

Analysis starting date :- 2026-03-06

Analysis Completion date :- 2026-04-03

**Tests required:** Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>x</sub>), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH<sub>3</sub>), Benzene (C<sub>6</sub>H<sub>6</sub>), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

**TEST RESULTS**

Parameters	Units	Limits	AAQ Location : ETP SMELTER								Method
			2026-03-05	2026-03-07	2026-03-11	2026-03-13	2026-03-17	2026-03-19	2026-03-25	2026-03-27	
Sulphur Dioxide as SO <sub>2</sub>	µg/m <sup>3</sup>	80	29.2	40.6	32.5	37.2	32.5	34.3	23.7	31.8	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO <sub>2</sub>	µg/m <sup>3</sup>	80	18.9	21.6	15.6	17.5	20.7	22.2	21.1	23.6	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	62.3	68.7	55.2	67.9	60.2	64.1	59.7	61.9	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	23.9	28.4	22.6	27.6	24.3	26.5	23.8	25.1	IS 5182 (PART-24) 2019
Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	400	1.6	2.0	0.9	1.1	1.7	1.3	1.6	2.0	APHA 3rd Edition - 401
Benzene as C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	20	5.5	7.2	5.7	7.6	5.3	6.8	4.6	5.1	USEPA IO 3.4
Lead as Pb	µg/m <sup>3</sup>	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 <sup>3</sup>	2000	184	247	181	190	142	164	256	167	IS 5182 (PART-10) RA 2019
Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	100	3.6	5.3	9.6	15.8	17.7	14.1	5.5	10.5	IS 5182 (PART-9) RA 2019

Ø PM2.5, PM10, SO<sub>2</sub>, NO<sub>2</sub> and NH<sub>3</sub> is monitored on 24 hrs. Basis & CO, O<sub>3</sub> is monitored on 8 hrs basis.

Ø C<sub>6</sub>H<sub>6</sub>, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.



<b>ISSUED TO:</b> M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)	Report No.:	VLL/VLS/25-26/28724/004
	Issue Date:	2026-04-04
	P.O.No:	3402001553
	P.O. Date:	2025-10-01

**AMBIENT AIR QUALITY MONITORING AT RAILWAY CONTROL ROOM (BALCO)**

Analysis starting date :- 2026-03-06

Analysis Completion date :- 2026-04-03

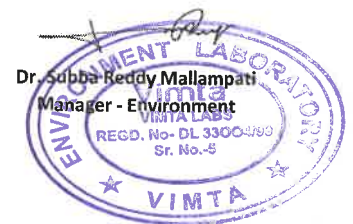
**Tests required:** Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>x</sub>), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH<sub>3</sub>), Benzene (C<sub>6</sub>H<sub>6</sub>), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

**TEST RESULTS**

Parameters	Units	Limits	AAQ Location : RAILWAY CONTROL ROOM								Method
			2026-03-05	2026-03-07	2026-03-11	2026-03-13	2026-03-17	2026-03-19	2026-03-25	2026-03-27	
Sulphur Dioxide as SO <sub>2</sub>	µg/m <sup>3</sup>	80	22.7	27.7	21.9	15.6	28.3	12.8	25.9	38.3	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO <sub>2</sub>	µg/m <sup>3</sup>	80	9.7	16.3	11.4	14.6	15.2	15.3	15.5	13.0	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	65.4	60.8	58.1	54.7	57.3	68.5	53.2	62.9	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	27.2	25.7	23.8	20.9	22.4	28.6	19.7	26.1	IS 5182 (PART-24) 2019
Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	400	1.2	1.3	0.9	1.1	1.7	1.1	1.0	1.1	APHA 3rd Edition - 401
Benzene as C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	20	3.8	5.2	4.4	5.8	6.2	4.1	3.4	5.6	USEPA IO 3.4
Lead as Pb	µg/m <sup>3</sup>	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 <sup>3</sup>	2000	166	131	104	128	163	108	159	172	IS 5182 (PART-10) RA 2019
Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	100	9.8	4.8	5.9	18.9	9.8	14.9	3.7	4.9	IS 5182 (PART-9) RA 2019

Ø PM2.5, PM10, SO<sub>2</sub>, NO<sub>2</sub> and NH<sub>3</sub> is monitored on 24 hrs. Basis & CO, O<sub>3</sub> is monitored on 8 hrs basis.

Ø C<sub>6</sub>H<sub>6</sub>, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.



<b>ISSUED TO:</b> M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)	Report No.:	VLL/VLS/25-26/28724/005
	Issue Date:	2026-04-04
	P.O.No:	3402001553
	P.O. Date:	2025-10-01

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

Analysis starting date :- 2026-03-06

Analysis Completion date :- 2026-04-03

**Tests required:** Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>x</sub>), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH<sub>3</sub>), Benzene (C<sub>6</sub>H<sub>6</sub>), 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								Method
			2026-03-05	2026-03-07	2026-03-11	2026-03-13	2026-03-17	2026-03-19	2026-03-25	2026-03-27	
Sulphur Dioxide as SO <sub>2</sub>	µg/m <sup>3</sup>	80	31.8	38.7	15.9	36.0	25.4	23.9	30.5	27.5	IS 5182 (PART-2) RA 2017
Oxides of Nitrogen as NO <sub>2</sub>	µg/m <sup>3</sup>	80	10.5	14.9	16.7	15.2	13.6	13.1	12.6	15.7	IS 5182 (PART-6) RA 2017
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	60.8	68.5	54.3	59.1	64.7	71.1	56.2	69.3	IS 5182 (PART-23) RA 2017
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	26.2	30.2	22.7	24.6	28.6	32.1	24.2	28.4	IS 5182 (PART-24) 2019
Ammonia as NH <sub>3</sub>	µg/m <sup>3</sup>	400	1.3	1.8	1.9	0.9	1.2	1.6	1.5	1.6	APHA 3rd Edition - 401
Benzene as C <sub>6</sub> H <sub>6</sub>	µg/m <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	20	4.7	6.1	5.5	5.8	4.7	5.2	5.8	6.4	USEPA IO 3.4
Lead as Pb	µg/m <sup>3</sup>	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 <sup>3</sup>	2000	170	158	197	131	214	168	142	183	IS 5182 (PART-10) RA 2019
Ozone as O <sub>3</sub>	µg/m <sup>3</sup>	100	17.5	12.9	9.4	6.6	7.2	6.9	5.6	5.3	IS 5182 (PART-9) RA 2019

Ø PM2.5, PM10, SO<sub>2</sub>, NO<sub>2</sub> and NH<sub>3</sub> is monitored on 24 hrs. Basis & CO, O<sub>3</sub> is monitored on 8 hrs basis.

Ø C<sub>6</sub>H<sub>6</sub>, B (a) P & Heavy Metals (As, Ni, Pb) is monitored on 24 hrs basis.



**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 1 of 4

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

Sample Registration Date : 2025-10-11 Sampling Date : 2025-10-04  
Analysis Starting Date : 2025-10-11 Analysis Completion Date : 2025-10-29  
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)	6.91	6.96	6.82	7.04
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	2	4
6	Total dissolved solids at 180°C	mg/l	500(2000)	172	205	310	269
7	Total Hardness as CaCO <sub>3</sub>	mg/l	200(600)	115	134	203	190
8	Total Alkalinity as CaCO <sub>3</sub>	mg/l	200(600)	50	55	110	90
9	Calcium as Ca	mg/l	75(200)	30.0	37.6	61.0	58.4
10	Magnesium as Mg	mg/l	30(100)	9.8	9.7	12.3	10.5
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)	0.034	0.026	0.018	0.029
13	Chlorides as Cl	mg/l	250(1000)	40.0	51.2	69.3	72.2
14	Sulphate as SO <sub>4</sub>	mg/l	200(400)	29.1	34.2	34.8	22.3
15	Fluorides as F	mg/l	1.0(1.5)	0.192	0.137	0.319	0.274
16	Nitrates as NO <sub>3</sub>	mg/l	45(NR)	1.6	2.7	1.5	1.2
17	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	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 23<sup>rd</sup> edition and IS: 3025  
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)  
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

  
**Dr. Subba Reddy Mallampati  
(Manager - Environment)**

**ISSUED TO:**

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

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

Page 2 of 4

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

Sample Registration Date : 2025-10-11      Sampling Date : 2025-10-04  
Analysis Starting Date : 2025-10-11      Analysis Completion Date : 2025-10-29  
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	0.014	0.008	0.016
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)	0.043	0.028	0.052	0.031
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)	0.012	0.018	0.026	0.009
32	Aluminum as Al	mg/l	0.03(0.2)	0.016	0.024	0.015	0.031
33	Mercury as Hg	mg/l	0.001(NR)	<0.001	<0.001	<0.001	<0.001
34	Sulphide as H <sub>2</sub> S	mg/l	0.05(NR)	<0.05	<0.05	<0.05	<0.05
35	Chloramines as Cl <sub>2</sub>	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)	0.012	0.023	0.013	0.022
38	Silver as Ag	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 23<sup>rd</sup> edition and IS: 3025

Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)

Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory



**Dr. Subba Reddy Mallampati**  
(Manager - Environment)

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 3 of 4

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

Sample Registration Date : 2025-10-11 Sampling Date : 2025-10-04  
Analysis Starting Date : 2025-10-11 Analysis Completion Date : 2025-10-29  
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)	<b>Pesticides</b>						
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	Chlorpyrifos	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 23<sup>rd</sup> edition and IS: 3025  
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)  
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory



**Dr. Subba Reddy Mallampati  
(Manager - Environment)**

**Vimta Labs Limited**

Registered Office  
 142, IDA Phase II, Cherlapally  
 Hyderabad-500 051, Telangana, India  
 T : +91 40 2726 4141  
 F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 4 of 4

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

Sample Registration Date : 2025-10-11 Sampling Date : 2025-10-04  
 Analysis Starting Date : 2025-10-11 Analysis Completion Date : 2025-10-29  
 Test Required : Water Analysis as per IS 10500 : 2012  
 SAMPLE COLLECTED BY VIMTA LABS LTD.

**TEST REPORT**

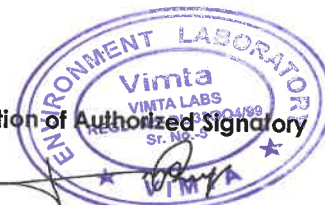
Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Rogbheri (B/W)	Rogbheri (D/W)	Bailgiri Basti(B/W)	Bailgiri Basti(D/W)
59	Malathion	µg/l	190	BDL	BDL	BDL	BDL
60	Methyl parathion	µg/l	0.3	BDL	BDL	BDL	BDL
61	Monocrotophos	µg/l	1	BDL	BDL	BDL	BDL
62	Phorate	µg/l	2	BDL	BDL	BDL	BDL
63	E.coli	Per 100 ml	Absent	Absent	Absent	Absent	Absent
64	Total Coliforms	MPN/100ml	Absent	Absent	Absent	Absent	Absent
(B)	<b>Radioactive</b>						
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 23<sup>rd</sup> 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

**Dr. Subba Reddy Mallampati  
 (Manager - Environment)**



**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 1 of 4

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

Sample Registration Date : 2025-10-11 Sampling Date : 2025-10-04  
Analysis Starting Date : 2025-10-11 Analysis Completion Date : 2025-10-29  
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)	7.19	6.85	6.87	7.05
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	2	2	3
6	Total dissolved solids at 180°C	mg/l	500(2000)	279	201	250	230
7	Total Hardness as CaCO <sub>3</sub>	mg/l	200(600)	186	138	166	150
8	Total Alkalinity as CaCO <sub>3</sub>	mg/l	200(600)	85	75	80	70
9	Calcium as Ca	mg/l	75(200)	55.2	40.0	48.5	45
10	Magnesium as Mg	mg/l	30(100)	11.6	9.2	10.8	9.1
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)	0.036	0.014	0.043	0.037
13	Chlorides as Cl	mg/l	250(1000)	79.4	44.0	61.7	63.5
14	Sulphate as SO <sub>4</sub>	mg/l	200(400)	25.4	23.5	29.5	23.5
15	Fluorides as F	mg/l	1.0(1.5)	0.359	0.256	0.174	0.118
16	Nitrates as NO <sub>3</sub>	mg/l	45(NR)	2.6	1.3	2.1	1.3
17	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	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 23<sup>rd</sup> edition and IS: 3025  
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)  
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory



**Dr. Subba Reddy Mallampati  
(Manager - Environment)**

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 2 of 4

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

Sample Registration Date : 2025-10-11 Sampling Date : 2025-10-04  
Analysis Starting Date : 2025-10-11 Analysis Completion Date : 2025-10-29  
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)	<0.01	0.024	0.037	0.009
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)	0.024	0.036	0.041	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)	<0.01	<0.01	<0.01	<0.01
31	Zinc as Zn	mg/l	5.0(15)	0.022	0.015	0.028	0.013
32	Aluminum as Al	mg/l	0.03(0.2)	0.017	0.025	0.014	0.008
33	Mercury as Hg	mg/l	0.001(NR)	<0.001	<0.001	<0.001	<0.001
34	Sulphide as H <sub>2</sub> S	mg/l	0.05(NR)	<0.05	<0.05	<0.05	<0.05
35	Chloramines as Cl <sub>2</sub>	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)	0.008	0.011	0.017	0.019
38	Silver as Ag	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01

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

Name and Designation of Authorized Signatory



**Dr. Subba Reddy Mallampati  
(Manager - Environment)**

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 3 of 4

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

Sample Registration Date : 2025-10-11 Sampling Date : 2025-10-04  
Analysis Starting Date : 2025-10-11 Analysis Completion Date : 2025-10-29  
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	Bromoforn	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)	<b>Pesticides</b>						
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 23<sup>rd</sup> edition and IS: 3025  
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)  
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory



**Dr. Subba Reddy Mallampati**  
(Manager - Environment)

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 4 of 4

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

Sample Registration Date : 2025-10-11 Sampling Date : 2025-10-04  
Analysis Starting Date : 2025-10-11 Analysis Completion Date : 2025-10-29  
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)	<b>Radioactive</b>						
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 23<sup>rd</sup> edition and IS: 3025  
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)  
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory



**Dr. Subba Reddy Mallampati  
(Manager - Environment)**

# Vimta Labs Limited

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

## ISSUED TO:

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

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

Page 1 of 1

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

Sample Registration Date : 2025-10-11 Sampling Date : 2025-10-04  
Analysis Starting Date : 2025-10-11 Analysis Completion Date : 2025-10-24  
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.

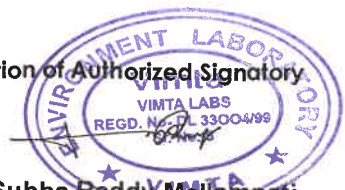
## TEST REPORT

Sr. No.	Parameters	Unit	SW1	SW2	SW3	SW4
1	pH	-	7.24	7.09	7.17	7.21
2	Colour	Hazen	1	3	1	3
3	Conductivity	µS/cm	125	174	145	193
4	TDS	mg/l	79	110	90	119
5	DO	mg/l	6.8	5.2	5.4	5.6
6	BOD	mg/l	0.7	1.9	0.8	2.2
7	COD	mg/l	2.4	7.2	3.2	9.6
8	Turbidity	NTU	7.0	13.0	15.0	11.0
9	Total Hardness as CaCO <sub>3</sub>	mg/l	36	56	50	68
10	Total Alkalinity as CaCO <sub>3</sub>	mg/l	30	40	35	42
11	Calcium as Ca	mg/l	8.5	15.6	11	16
12	Magnesium as Mg	mg/l	3.5	4.1	5.5	6.7
13	Chlorides as Cl	mg/l	19.4	21.8	22.6	28.5
14	Residual free chlorine	mg/l	<0.2	<0.2	<0.2	<0.2
15	Phosphates as PO <sub>4</sub>	mg/l	<0.01	0.03	0.02	0.04
16	Sulphates as SO <sub>4</sub>	mg/l	4.5	11	3.8	9.7
17	Fluorides as F	mg/l	0.094	0.172	0.153	0.116
18	Nitrates as NO <sub>3</sub>	mg/l	0.5	0.9	0.6	1.1
19	Sodium as Na	mg/l	12.3	14	9.7	13
20	Potassium as K	mg/l	0.3	0.8	0.4	0.4
21	Total Boron as B	mg/l	0.007	0.024	0.012	0.054
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	0.020	0.078	0.052	0.038
30	Chromium as Cr <sup>6+</sup>	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	0.024	0.160	0.074	0.043
33	Aluminum as Al	mg/l	0.014	0.019	0.022	0.023
34	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001
35	SAR	-	0.90	0.82	0.60	0.69
36	Insecticides	mg/l	Absent	Absent	Absent	Absent
37	Anionic detergents as MBAS	mg/l	Absent	Absent	Absent	Absent
38	Total Coliforms	MPN/100	210	220	180	290

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

-END OF THE REPORTS-

Name and Designation of Authorized Signatory



Dr. Subba Reddy Mallampati  
(Manager – Environment)

# Vimta Labs Limited

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

## ISSUED TO:

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

Report Number : VLL/VLS/25-26/15704/002  
Issued Date : 2025-11-05  
P.O. No. : 8500005780  
P.O. Date : 2022-06-29

Page 1 of 1

**SAMPLE PARTICULARS** : **SURFACE WATER SAMPLE (BALCO PLANT)**  
Sample Registration Date : 2025-10-11 Sampling Date : 2025-10-04  
Analysis Starting Date : 2025-10-11 Analysis Completion Date : 2025-10-24  
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	-	7.37	7.41	7.36	7.21	7.23
2	Colour	Hazen	1	2	2	3	2
3	Conductivity	µS/cm	148	160	152	174	168
4	TDS	mg/l	81	100	94	105	112
5	DO	mg/l	7.7	7.9	7.4	7.1	7.3
6	BOD	mg/l	1.6	1.5	1.7	2.3	2.2
7	COD	mg/l	5.6	8.0	7.2	8.8	8.0
8	Turbidity	NTU	7.0	9.0	6.0	12.0	10.0
9	Total Hardness as CaCO <sub>3</sub>	mg/l	38	50	49	54	57
10	Total Alkalinity as CaCO <sub>3</sub>	mg/l	30	38	35	50	55
11	Calcium as Ca	mg/l	10.2	12.5	13.5	14.3	16.2
12	Magnesium as Mg	mg/l	3.1	4.3	3.8	4.5	3.9
13	Chlorides as Cl	mg/l	15.2	22.3	18.4	15.4	17.3
14	Residual free chlorine	mg/l	<0.2	<0.2	<0.2	<0.2	<0.2
15	Phosphates as PO <sub>4</sub>	mg/l	0.02	0.04	0.01	0.03	0.02
16	Sulphates as SO <sub>4</sub>	mg/l	3.7	6.8	7.3	4.2	4.9
17	Fluorides as F	mg/l	0.429	0.518	0.473	0.494	0.517
18	Nitrates as NO <sub>3</sub>	mg/l	0.9	1.1	1.2	0.6	0.7
19	Sodium as Na	mg/l	15.8	13.8	12.7	14.3	11.6
20	Potassium as K	mg/l	1.6	0.9	1.2	1.1	1.4
21	Total Boron as B	mg/l	<0.01	0.013	0.037	0.019	0.015
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	0.017	0.032	0.028	0.034	0.017
30	Chromium as Cr <sup>6+</sup>	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	0.063	0.150	0.097	0.058	0.073
33	Aluminum as Al	mg/l	0.014	0.028	0.026	0.019	0.027
34	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
35	SAR	-	1.11	0.86	0.79	0.84	0.67
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	220	580	370	490	610

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

-END OF THE REPORTS-

Name and Designation of Authorized Signatory



Dr. Subba Reddy Mallampati  
(Manager – Environment)

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 1 of 4

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

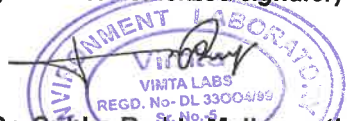
Sample Registration Date : 2025-11-10 Sampling Date : 2025-11-03  
Analysis Starting Date : 2025-11-10 Analysis Completion Date : 2025-11-26  
Test Required : Water Analysis as per IS 10500 : 2012  
SAMPLE COLLECTED BY VIMTA LABS LTD.

**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)	6.98	7.18	6.95	7.26
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	1.2	1.6	1.9
6	Total dissolved solids at 180°C	mg/l	500(2000)	326	255	445	360
7	Total Hardness as CaCO <sub>3</sub>	mg/l	200(600)	161	155	233	206
8	Total Alkalinity as CaCO <sub>3</sub>	mg/l	200(600)	120	90	165	130
9	Calcium as Ca	mg/l	75(200)	35.6	42.6	58.0	52.5
10	Magnesium as Mg	mg/l	30(100)	17.4	11.8	21.4	18.2
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)	0.05	0.03	0.05	0.04
13	Chlorides as Cl	mg/l	250(1000)	67.8	55.4	97.5	85.3
14	Sulphate as SO <sub>4</sub>	mg/l	200(400)	37.2	29.8	44	28.5
15	Fluorides as F	mg/l	1.0(1.5)	0.192	0.137	0.319	0.874
16	Nitrates as NO <sub>3</sub>	mg/l	45(NR)	2.8	3.2	4.1	2.4
17	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	mg/l	0.001(0.002)	<0.001	<0.001	<0.001	<0.001
18	Cyanides	mg/l	0.05(NR)	<0.02	<0.02	<0.02	<0.02

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

**Name and Designation of Authorized Signatory**

  
**Dr. Subba Reddy Mallampati**  
(Manager - Environment)

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

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

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

Page 2 of 4

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

Sample Registration Date	: 2025-11-10	Sampling Date	: 2025-11-03
Analysis Starting Date	: 2025-11-10	Analysis Completion Date	: 2025-11-26
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)	<0.003	<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)	0.02	<0.01	0.02	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)	0.02	<0.01	0.01	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)	<0.01	<0.01	<0.01	<0.01
28	Iron as Fe	mg/l	0.3(NR)	0.07	0.04	0.12	0.06
29	Total Chromium as Cr	mg/l	0.05(NR)	<0.01	<0.01	<0.01	<0.01
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)	0.03	0.06	0.03	0.05
32	Aluminum as Al	mg/l	0.03(0.2)	0.02	0.01	0.02	0.02
33	Mercury as Hg	mg/l	0.001 (NR)	<0.001	<0.001	<0.001	<0.001
34	Sulphide as H <sub>2</sub> S	mg/l	0.05(NR)	<0.05	<0.05	<0.05	<0.05
35	Chloramines as Cl <sub>2</sub>	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)	0.014	0.021	0.015	0.011
38	Silver as Ag	mg/l	0.1 (NR)	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 23<sup>rd</sup> edition and IS: 3025

Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)

Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

  
**Dr. Subba Reddy Mallampati**  
(Manager, Environment)

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 3 of 4

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

Sample Registration Date : 2025-11-10 Sampling Date : 2025-11-03  
Analysis Starting Date : 2025-11-10 Analysis Completion Date : 2025-11-26  
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)	<b>Pesticides</b>						
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	Chlorpyrifos	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 23<sup>rd</sup> edition and IS: 3025  
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)  
Analysis as per IS 10500: 2012 Drinking Water specification

**Name and Designation of Authorized Signatory**

**Dr. Subba Reddy Mallampati  
(Manager - Environment)**

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 4 of 4

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

Sample Registration Date : 2025-11-10 Sampling Date : 2025-11-03  
Analysis Starting Date : 2025-11-10 Analysis Completion Date : 2025-11-26  
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)	<b>Radioactive</b>						
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 23<sup>rd</sup> 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

**Dr. Subba Reddy Mallampati**  
(Manager - Environment)



**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

**Report Number :  
Issued Date :  
P.O. No. :  
P.O. Date :**

**VLL/VLS/25-26/18084/001  
2025-12-05  
3402001553  
2025-10-01**

Page 1 of 4

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

Sample Registration Date : 2025-11-10      Sampling Date : 2025-11-03  
Analysis Starting Date : 2025-11-10      Analysis Completion Date : 2025-11-26  
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)	7.38	7.41	7.11	7.29
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)	2.5	2.7	1.5	1.1
6	Total dissolved solids at 180°C	mg/l	500(2000)	298	285	434	285
7	Total Hardness as CaCO <sub>3</sub>	mg/l	200(600)	173	130	205	176
8	Total Alkalinity as CaCO <sub>3</sub>	mg/l	200(600)	95	110	140	85
9	Calcium as Ca	mg/l	75(200)	45.0	31.0	54.5	48.0
10	Magnesium as Mg	mg/l	30(100)	14.6	12.5	16.8	13.5
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)	0.09	0.03	0.11	0.08
13	Chlorides as Cl	mg/l	250(1000)	83.7	58.6	97.8	77.6
14	Sulphate as SO <sub>4</sub>	mg/l	200(400)	24.3	26.8	56.9	31.6
15	Fluorides as F	mg/l	1.0(1.5)	0.459	0.256	0.174	0.118
16	Nitrates as NO <sub>3</sub>	mg/l	45(NR)	3.2	2.1	3.9	2.9
17	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	mg/l	0.001(0.002)	<0.001	<0.001	<0.001	<0.001
18	Cyanides as CN	mg/l	0.05(NR)	<0.02	<0.02	<0.02	<0.02

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

Name and Designation of Authorized Signatory

  
**Dr. Subba Reddy Mallampati**  
(Manager - Environment)

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 2 of 4

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

Sample Registration Date : 2025-11-10 Sampling Date : 2025-11-03  
Analysis Starting Date : 2025-11-10 Analysis Completion Date : 2025-11-26  
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)	<0.003	<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)	<0.01	0.02	0.03	0.02
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)	<0.01	<0.01	<0.01	<0.01
28	Iron as Fe	mg/l	0.3(NR)	0.17	0.19	0.08	0.06
29	Total Chromium as Cr	mg/l	0.05(NR)	<0.01	<0.01	<0.01	<0.01
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)	0.08	0.07	0.05	0.08
32	Aluminum as Al	mg/l	0.03(0.2)	0.03	0.02	0.01	0.02
33	Mercury as Hg	mg/l	0.001(NR)	<0.001	<0.001	<0.001	<0.001
34	Sulphide as H <sub>2</sub> S	mg/l	0.05(NR)	<0.05	<0.05	<0.05	<0.05
35	Chloramines as Cl <sub>2</sub>	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	0.038	0.029	0.024
38	Silver as Ag	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01

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

Name and Designation of Authorized Signatory

  
**Dr. Subba Reddy Mallampati**  
(Manager - Environment)

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 3 of 4

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

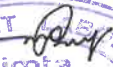
Sample Registration Date : 2025-11-10 Sampling Date : 2025-11-03  
Analysis Starting Date : 2025-11-10 Analysis Completion Date : 2025-11-26  
Test Required : Water Analysis as per IS 10500 : 2012  
SAMPLE COLLECTED BY VIMTA LABS LTD.

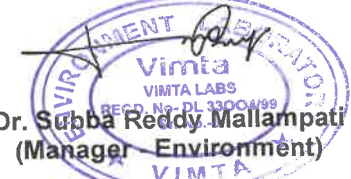
**TEST REPORT**

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)	<b>Pesticides</b>						
45	Alachlor	µg/l	20	<0.01	<0.01	<0.01	<0.01
46	Airazine	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 23<sup>rd</sup> edition and IS: 3025  
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)  
Analysis as per IS 10500: 2012 Drinking Water specification

**Name and Designation of Authorized Signatory**

  
Dr. Subba Reddy Mallampati  
(Manager - Environment)



**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 4 of 4

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

Sample Registration Date : 2025-11-10 Sampling Date : 2025-11-03  
Analysis Starting Date : 2025-11-10 Analysis Completion Date : 2025-11-26  
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)	<b>Radioactive</b>						
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 23<sup>rd</sup> edition and IS: 3025  
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)  
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

  
Dr. Subba Reddy Mallampati  
(Manager - Environment)

# Vimta Labs Limited

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

## ISSUED TO:

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

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

Page 1 of 1

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

Sample Registration Date : 2025-11-10 Sampling Date : 2025-11-03  
Analysis Starting Date : 2025-11-10 Analysis Completion Date : 2025-11-21  
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	-	7.54	7.26	7.84	7.39
2	Colour	Hazen	1	2	1	2
3	Conductivity	µS/cm	175	210	160	220
4	TDS	mg/l	108	115	98	130
5	DO	mg/l	6.7	6.1	6.3	6.0
6	BOD	mg/l	0.5	2.1	0.9	2.3
7	COD	mg/l	2.6	7.5	3.5	10.7
8	Turbidity	NTU	3.6	4.7	3.3	5.6
9	Total Hardness as CaCO <sub>3</sub>	mg/l	56	82	55	80
10	Total Alkalinity as CaCO <sub>3</sub>	mg/l	40	55	40	50
11	Calcium as Ca	mg/l	10.5	17	12.5	18
12	Magnesium as Mg	mg/l	7.3	9.5	5.9	8.4
13	Chlorides as Cl	mg/l	29.3	43.5	23.2	54.3
14	Residual free chlorine	mg/l	<0.2	<0.2	<0.2	<0.2
15	Phosphates as PO <sub>4</sub>	mg/l	0.01	0.03	0.02	0.06
16	Sulphates as SO <sub>4</sub>	mg/l	5.2	8.6	4.8	7.5
17	Fluorides as F	mg/l	0.131	0.343	0.346	0.412
18	Nitrates as NO <sub>3</sub>	mg/l	1.1	2.3	0.9	2.8
19	Sodium as Na	mg/l	14.4	21.5	10.5	26.6
20	Potassium as K	mg/l	0.5	1.1	0.9	1.8
21	Total Boron as B	mg/l	0.01	0.078	0.017	0.095
22	Phenolic Compounds	mg/l	<0.001	<0.001	<0.001	<0.001
23	Cyanides as CN	mg/l	<0.02	<0.02	<0.02	<0.02
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	0.02	0.011
28	Lead as Pb	mg/l	<0.01	<0.01	<0.01	<0.01
29	Iron as Fe	mg/l	0.017	0.052	0.064	0.087
30	Chromium as Cr <sup>6+</sup>	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	0.017	0.089	0.056	0.038
33	Aluminum as Al	mg/l	0.011	0.024	0.017	0.028
34	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001
35	SAR	-	0.84	1.04	0.61	1.30
36	Insecticides	mg/l	Absent	Absent	Absent	Absent
37	Anionic detergents as MBAS	mg/l	Absent	Absent	Absent	Absent
38	Total Coliforms	MPN/100	230	350	190	310

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

-END OF THE REPORTS-

Name and Designation of Authorized Signatory

Dr. Subba Reddy Mallampati  
(Manager – Environment)



**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

Report Number : VLL/VLS/25-26/18084/002  
Issued Date : 2025-12-05  
P.O. No. : 3402001553  
P.O. Date : 2025-10-01

Page 1 of 1

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

Sample Registration Date : 2025-11-10 Sampling Date : 2025-11-03  
Analysis Starting Date : 2025-11-10 Analysis Completion Date : 2025-11-21  
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	-	7.48	7.56	7.28	7.65	7.51
2	Colour	Hazen	2	3	2	3	3
3	Conductivity	µS/cm	160	218	175	182	157
4	TDS	mg/l	104	135	110	120	103
5	DO	mg/l	6.9	7.2	7.3	6.8	6.7
6	BOD	mg/l	1.5	1.7	1.9	2.8	2.6
7	COD	mg/l	5.2	6.8	6.6	9.3	8.1
8	Turbidity	NTU	4.3	5.6	5.2	5.4	5.7
9	Total Hardness as CaCO <sub>3</sub>	mg/l	40	60	50	52	45
10	Total Alkalinity as CaCO <sub>3</sub>	mg/l	40	45	40	55	50
11	Calcium as Ca	mg/l	10.8	15.3	14.2	15.5	12.5
12	Magnesium as Mg	mg/l	3.5	5.2	4.1	3.2	3.1
13	Chlorides as Cl	mg/l	21.1	34.6	25.7	19.8	14.2
14	Residual free chlorine	mg/l	<0.2	<0.2	<0.2	<0.2	<0.2
15	Phosphates as PO <sub>4</sub>	mg/l	0.02	0.03	0.02	0.01	0.02
16	Sulphates as SO <sub>4</sub>	mg/l	7.8	11.5	8.7	5.4	5.1
17	Fluorides as F	mg/l	0.436	0.384	0.534	0.413	0.521
18	Nitrates as NO <sub>3</sub>	mg/l	1.5	2.3	1.1	1.5	1.3
19	Sodium as Na	mg/l	17.2	21.7	15.8	16.7	14.8
20	Potassium as K	mg/l	1.2	1.4	1.1	2.1	1.2
21	Total Boron as B	mg/l	0.01	0.026	0.021	0.037	0.028
22	Phenolic Compounds	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
23	Cyanides as CN	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
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	0.035	0.073	0.041	0.053	0.067
30	Chromium as Cr <sup>+6</sup>	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	0.021	0.096	0.072	0.084	0.049
33	Aluminum as Al	mg/l	0.013	0.026	0.018	0.015	0.021
34	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
35	SAR	-	1.16	1.22	0.95	1.01	0.97
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	210	340	280	320	330

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

-END OF THE REPORTS-

Name and Designation of Authorized Signatory

Dr. Subba Reddy Mallampati  
(Manager - Environment)



# Vimta Labs Limited

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

## ISSUED TO:

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

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

Page 1 of 4

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

Sample Registration Date : 2025-12-11 Sampling Date : 2025-12-02  
Analysis Starting Date : 2025-12-11 Analysis Completion Date : 2025-12-30  
Test Required : Water Analysis as per IS 10500 : 2012  
SAMPLE COLLECTED BY VIMTA LABS LTD.

## TEST REPORT

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Rogbheri (B/W)	Rogbheri (D/W)	Bailgiri Basti(B/W)	Bailgiri Basti(D/W)
1	pH value	-	6.5-8.5 (NR)	7.17	7.24	6.98	7.32
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	2	1
6	Total dissolved solids at 180°C	mg/l	500(2000)	375	245	450	334
7	Total Hardness as CaCO <sub>3</sub>	mg/l	200(600)	180	150	220	197
8	Total Alkalinity as CaCO <sub>3</sub>	mg/l	200(600)	140.0	85.0	170.0	120.0
9	Calcium as Ca	mg/l	75(200)	41.6	37.5	49.3	43.7
10	Magnesium as Mg	mg/l	30(100)	18.3	13.4	23.2	21.4
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)	0.027	0.019	0.021	0.017
13	Chlorides as Cl	mg/l	250(1000)	75.8	57.4	89.5	79.3
14	Sulphate as SO <sub>4</sub>	mg/l	200(400)	43.8	26.7	47.4	31.9
15	Fluorides as F	mg/l	1.0(1.5)	0.231	0.156	0.341	0.375
16	Nitrates as NO <sub>3</sub>	mg/l	45(NR)	3.1	2.5	3.9	2.8
17	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	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 23<sup>rd</sup> edition and IS: 3025  
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)  
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory



Dr. Subba Reddy Mallampati  
(Manager - Environment)

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 2 of 4

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

Sample Registration Date : 2025-12-11 Sampling Date : 2025-12-02  
Analysis Starting Date : 2025-12-11 Analysis Completion Date : 2025-12-30  
Test Required : Water Analysis as per IS 10500 : 2012

SAMPLE COLLECTED BY VIMTA LABS LTD.

**TEST REPORT**


Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	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)	0.007	0.012	0.009	0.013
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)	0.032	0.021	0.045	0.029
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)	0.023	0.014	0.032	0.01
32	Aluminum as Al	mg/l	0.03(0.2)	0.017	0.022	0.013	0.028
33	Mercury as Hg	mg/l	0.001(NR)	<0.001	<0.001	<0.001	<0.001
34	Sulphide as H <sub>2</sub> S	mg/l	0.05(NR)	<0.05	<0.05	<0.05	<0.05
35	Chloramines as Cl <sub>2</sub>	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)	0.014	0.019	0.023	0.016
38	Silver as Ag	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 23<sup>rd</sup> edition and IS: 3025

Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)

Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

  
Dr. Subba Reddy Mallampati  
(Manager - Environment)

**ISSUED TO:**

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

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

Page 3 of 4

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

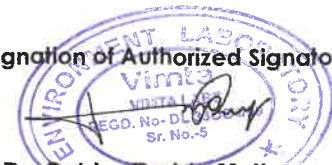
Sample Registration Date : 2025-12-11 Sampling Date : 2025-12-02  
Analysis Starting Date : 2025-12-11 Analysis Completion Date : 2025-12-30  
Test Required : Water Analysis as per IS 10500 : 2012  
SAMPLE COLLECTED BY VIMTA LABS LTD.

**TEST REPORT**

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	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)	<b>Pesticides</b>						
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	Chlorpyrifos	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 23<sup>rd</sup> edition and IS: 3025  
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)  
Analysis as per IS 10500: 2012 Drinking Water specification

**Name and Designation of Authorized Signatory**



**Dr. Subba Reddy Mallampati  
(Manager - Environment)**

# Vimta Labs Limited

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



## ISSUED TO:

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

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

Page 4 of 4

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

Sample Registration Date : 2025-12-11 Sampling Date : 2025-12-02  
Analysis Starting Date : 2025-12-11 Analysis Completion Date : 2025-12-30  
Test Required : Water Analysis as per IS 10500 : 2012  
SAMPLE COLLECTED BY VIMTA LABS LTD.

## TEST REPORT

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	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)	<b>Radioactive</b>						
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 23<sup>rd</sup> 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

  
Dr. Subba Reddy Mallampati  
(Manager Environment)

**ISSUED TO:**

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

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

Page 1 of 4

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

Sample Registration Date : 2025-12-11 Sampling Date : 2025-12-02  
Analysis Starting Date : 2025-12-11 Analysis Completion Date : 2025-12-30  
Test Required : Water Analysis as per IS 10500 : 2012  
SAMPLE COLLECTED BY VIMTA LABS LTD.

**TEST REPORT**

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Parsabhata (B/W)	Parsabhata (D/W)	Karma Talkies(B/W)	Bhadrapada D/W)
1	pH value	-	6.5-8.5 (NR)	7.21	7.36	6.95	7.31
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)	320	270	470	275
7	Total Hardness as CaCO <sub>3</sub>	mg/l	200(600)	200	125	221	166
8	Total Alkalinity as CaCO <sub>3</sub>	mg/l	200(600)	90.0	95.0	160.0	80.0
9	Calcium as Ca	mg/l	75(200)	52.4	28.8	56.2	42.5
10	Magnesium as Mg	mg/l	30(100)	16.7	13.4	19.5	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)	0.024	0.013	0.035	0.018
13	Chlorides as Cl	mg/l	250(1000)	89.4	64.5	106.4	78.5
14	Sulphate as SO <sub>4</sub>	mg/l	200(400)	37.5	24.7	53.8	29.4
15	Fluorides as F	mg/l	1.0(1.5)	0.323	0.282	0.195	0.137
16	Nitrates as NO <sub>3</sub>	mg/l	45(NR)	4.8	1.9	4.1	2.3
17	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	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 23<sup>rd</sup> edition and IS: 3025  
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)  
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory



**Dr. Subba Reddy Mallampati  
(Manager - Environment)**

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 2 of 4

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

Sample Registration Date	: 2025-12-11	Sampling Date	: 2025-12-02
Analysis Starting Date	: 2025-12-11	Analysis Completion Date	: 2025-12-30
Test Required	: Water Analysis as per IS 10500 : 2012		
SAMPLE COLLECTED BY VIMTA LABS LTD.			

**TEST REPORT**

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	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	0.02	<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)	<0.01	0.018	0.021	0.007
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)	0.015	0.027	0.038	0.014
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)	0.019	0.022	0.029	0.018
32	Aluminum as Al	mg/l	0.03(0.2)	0.016	0.023	0.017	0.011
33	Mercury as Hg	mg/l	0.001(NR)	<0.001	<0.001	<0.001	<0.001
34	Sulphide as H <sub>2</sub> S	mg/l	0.05(NR)	<0.05	<0.05	<0.05	<0.05
35	Chloramines as Cl <sub>2</sub>	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)	0.012	0.021	0.015	0.021
38	Silver as Ag	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01

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

Name and Designation of Authorized Signatory



**Dr. Subba Reddy Mallampati  
(Manager - Environment)**

**ISSUED TO:**

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

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

Page 3 of 4

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

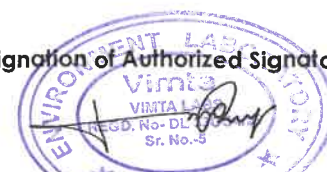
Sample Registration Date : 2025-12-11 Sampling Date : 2025-12-02  
Analysis Starting Date : 2025-12-11 Analysis Completion Date : 2025-12-30  
Test Required : Water Analysis as per IS 10500 : 2012  
SAMPLE COLLECTED BY VIMTA LABS LTD.

**TEST REPORT**

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	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)	<b>Pesticides</b>						
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 23<sup>rd</sup> edition and IS: 3025  
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)  
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory



**Dr. Subba Reddy Mallampati  
(Manager - Environment)**

**ISSUED TO:**

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

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

Page 4 of 4

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

Sample Registration Date : 2025-12-11 Sampling Date : 2025-12-02  
Analysis Starting Date : 2025-12-11 Analysis Completion Date : 2025-12-30  
Test Required : Water Analysis as per IS 10500 : 2012

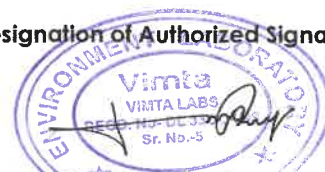
SAMPLE COLLECTED BY VIMTA LABS LTD.

**TEST REPORT**

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	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)	<b>Radioactive</b>						
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 23<sup>rd</sup> edition and IS: 3025  
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)  
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory



**Dr. Subba Reddy Mallampati**  
(Manager - Environment)

# Vimta Labs Limited

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

## ISSUED TO:

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

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

Page 1 of 1

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

Sample Registration Date : 2025-12-11 Sampling Date : 2025-12-02  
Analysis Starting Date : 2025-12-11 Analysis Completion Date : 2025-12-27  
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	-	7.48	7.31	7.65	7.28
2	Colour	Hazen	1	2	1	2
3	Conductivity	µS/cm	154	232	146	261
4	TDS	mg/l	95	143	90	160
5	DO	mg/l	7.1	6.7	6.9	6.4
6	BOD	mg/l	0.5	1.6	0.7	1.8
7	COD	mg/l	2.1	6.3	2.9	8.7
8	Turbidity	NTU	3.4	7.4	4.6	7.5
9	Total Hardness as CaCO <sub>3</sub>	mg/l	48	73	45	75
10	Total Alkalinity as CaCO <sub>3</sub>	mg/l	35	50	30	45
11	Calcium as Ca	mg/l	11.6	15.5	10.8	16.5
12	Magnesium as Mg	mg/l	4.6	8.3	4.3	7.8
13	Chlorides as Cl	mg/l	25.6	38.7	26.6	52.2
14	Residual free chlorine	mg/l	<0.2	<0.2	<0.2	<0.2
15	Phosphates as PO <sub>4</sub>	mg/l	<0.01	0.02	0.03	0.03
16	Sulphates as SO <sub>4</sub>	mg/l	4.5	7.4	3.8	6.3
17	Fluorides as F	mg/l	0.156	0.197	0.184	0.212
18	Nitrates as NO <sub>3</sub>	mg/l	0.8	1.7	1.1	3.2
19	Sodium as Na	mg/l	13.1	18.9	12.6	24.8
20	Potassium as K	mg/l	0.4	1.2	0.8	2.3
21	Total Boron as B	mg/l	<0.01	0.018	0.009	0.043
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	0.018	0.065	0.048	0.027
30	Chromium as Cr <sup>6+</sup>	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	0.015	0.098	0.056	0.038
33	Aluminum as Al	mg/l	0.016	0.021	0.026	0.018
34	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001
35	SAR	-	0.82	0.96	0.82	1.26
36	Insecticides	mg/l	Absent	Absent	Absent	Absent
37	Anionic detergents as MBAS	mg/l	Absent	Absent	Absent	Absent
38	Total Coliforms	MPN/100	180	260	140	270

Method of Testing: As per APHA 23<sup>rd</sup> 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 3300489  
Dr. Subba Reddy Mallampati  
(Manager - Environment)

# Vimta Labs Limited

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

## ISSUED TO:

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

Report Number : VLL/VLS/25-26/20775/002  
Issued Date : 2026-01-05  
P.O. No. : 3402001553  
P.O. Date : 2025-10-01

Page 1 of 1

## SAMPLE PARTICULARS

: SURFACE WATER SAMPLE (BALCO PLANT)

Sample Registration Date : 2025-12-11 Sampling Date : 2025-12-02  
Analysis Starting Date : 2025-12-11 Analysis Completion Date : 2025-12-27  
Samples Details : SW5- Hasdeo river near Ramgarh (U/S) SW6- Hasdeo river near Genwaghat, 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	-	7.34	7.43	7.15	7.54	7.27
2	Colour	Hazen	1	3	3	2	2
3	Conductivity	µS/cm	139	205	170	195	175
4	TDS	mg/l	90	126	110	125	112
5	DO	mg/l	7.2	6.8	7.2	6.8	6.9
6	BOD	mg/l	1.4	1.6	1.6	2.0	1.8
7	COD	mg/l	5.2	7.6	6.8	7.8	7.4
8	Turbidity	NTU	7.8	8.3	5.3	11.3	9.7
9	Total Hardness as CaCO <sub>3</sub>	mg/l	36	56	48	58	50
10	Total Alkalinity as CaCO <sub>3</sub>	mg/l	35	40	38	50	45
11	Calcium as Ca	mg/l	9.7	14.6	13.2	16.3	13.8
12	Magnesium as Mg	mg/l	2.9	4.8	3.7	4.1	3.5
13	Chlorides as Cl	mg/l	18.5	35.8	26.4	27.3	22.5
14	Residual free chlorine	mg/l	<0.2	<0.2	<0.2	<0.2	<0.2
15	Phosphates as PO <sub>4</sub>	mg/l	0.04	0.03	0.02	0.04	0.03
16	Sulphates as SO <sub>4</sub>	mg/l	5.9	7.8	6.4	7.3	8.4
17	Fluorides as F	mg/l	0.327	0.194	0.442	0.314	0.426
18	Nitrates as NO <sub>3</sub>	mg/l	1.2	2.1	1.4	1.3	1.1
19	Sodium as Na	mg/l	14.6	19.8	16.2	17.5	16.8
20	Potassium as K	mg/l	0.9	1.2	0.8	1.8	1.5
21	Total Boron as B	mg/l	<0.01	0.018	0.024	0.023	0.031
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	0.014	0.023	0.036	0.022	0.015
30	Chromium as Cr <sup>6+</sup>	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	0.071	0.087	0.104	0.063	0.082
33	Aluminum as Al	mg/l	0.012	0.031	0.022	0.017	0.021
34	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
35	SAR	-	1.06	1.15	1.02	1.00	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	110	160	120	140	190

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

-END OF THE REPORTS-

Name and Designation of Authorized Signatory



Dr. Subba Reddy Mallampati  
(Manager – Environment)

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 1 of 4

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

Sample Registration Date : 2026-01-09      Sampling Date : 2026-01-03  
Analysis Starting Date : 2026-01-10      Analysis Completion Date : 2026-01-29  
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	6.81	6.80	7.27
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	2	2
6	Total dissolved solids at 180°C	mg/l	500(2000)	490	258	480	427
7	Total Hardness as CaCO <sub>3</sub>	mg/l	200(600)	172	144	148	154
8	Total Alkalinity as CaCO <sub>3</sub>	mg/l	200(600)	190	110	185	170
9	Calcium as Ca	mg/l	75(200)	46.4	36.8	38.4	43.2
10	Magnesium as Mg	mg/l	30(100)	13.6	12.6	12.6	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)	0.021	0.015	0.017	0.023
13	Chlorides as Cl	mg/l	250(1000)	87.5	49.3	125.2	58.1
14	Sulphate as SO <sub>4</sub>	mg/l	200(400)	30.1	18.7	40.9	27.8
15	Fluorides as F	mg/l	1.0(1.5)	0.128	0.106	0.360	0.271
16	Nitrates as NO <sub>3</sub>	mg/l	45(NR)	4.6	2.8	5.9	3.8
17	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	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 23<sup>rd</sup> edition and IS: 3025  
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)  
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

**Dr. Subba Reddy Mallampati  
(Manager - Environment)**

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 2 of 4

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

Sample Registration Date : 2026-01-09 Sampling Date : 2026-01-03  
Analysis Starting Date : 2026-01-10 Analysis Completion Date : 2026-01-29  
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)	0.01	0.008	<0.01	0.011
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)	0.047	0.016	0.034	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)	<0.01	<0.01	<0.01	<0.01
31	Zinc as Zn	mg/l	5.0(15)	0.016	0.008	0.024	<0.01
32	Aluminum as Al	mg/l	0.03(0.2)	0.014	0.011	0.018	0.023
33	Mercury as Hg	mg/l	0.001(NR)	<0.001	<0.001	<0.001	<0.001
34	Sulphide as H <sub>2</sub> S	mg/l	0.05(NR)	<0.05	<0.05	<0.05	<0.05
35	Chloramines as Cl <sub>2</sub>	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	0.027	0.018
38	Silver as Ag	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01

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

Name and Designation of Authorized Signatory

Dr. Subba Reddy Mallampati  
(Manager - Environment)

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 3 of 4

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

Sample Registration Date : 2026-01-09 Sampling Date : 2026-01-03  
Analysis Starting Date : 2026-01-10 Analysis Completion Date : 2026-01-29  
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)	<b>Pesticides</b>						
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	Chlorpyrifos	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 23<sup>rd</sup> edition and IS: 3025  
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)  
Analysis as per IS: 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory



**Dr. Subba Reddy Mallampati  
(Manager - Environment)**

## Vimta Labs Limited

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



### ISSUED TO:

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

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

Page 4 of 4

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

Sample Registration Date : 2026-01-09 Sampling Date : 2026-01-03  
Analysis Starting Date : 2026-01-10 Analysis Completion Date : 2026-01-29  
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)	<b>Radioactive</b>						
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 23<sup>rd</sup> 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

Dr. Subba Reddy Mallampati  
(Manager - Environment)

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 1 of 4

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

Sample Registration Date : 2026-01-09 Sampling Date : 2026-01-03  
Analysis Starting Date : 2026-01-10 Analysis Completion Date : 2026-01-29  
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)	7.34	7.00	6.90	6.87
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	3
6	Total dissolved solids at 180°C	mg/l	500(2000)	285	310	193	358
7	Total Hardness as CaCO <sub>3</sub>	mg/l	200(600)	150	100	102	128
8	Total Alkalinity as CaCO <sub>3</sub>	mg/l	200(600)	140	110	70	80
9	Calcium as Ca	mg/l	75(200)	32.8	20.8	25.6	30.4
10	Magnesium as Mg	mg/l	30(100)	16.5	11.7	9.2	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)	0.032	0.019	0.042	0.015
13	Chlorides as Cl	mg/l	250(1000)	42.5	74.8	38.6	131.2
14	Sulphate as SO <sub>4</sub>	mg/l	200(400)	16.8	21.6	23.1	23.0
15	Fluorides as F	mg/l	1.0(1.5)	0.388	0.250	0.179	0.125
16	Nitrates as NO <sub>3</sub>	mg/l	45(NR)	2.9	3.4	2.8	3.7
17	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	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 23<sup>rd</sup> edition and IS: 3025  
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)  
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory



**Dr. Subba Reddy Mallampati  
(Manager - Environment)**

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 2 of 4

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

Sample Registration Date : 2026-01-09 Sampling Date : 2026-01-03  
Analysis Starting Date : 2026-01-10 Analysis Completion Date : 2026-01-29  
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)	<0.01	0.016	0.019	0.008
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)	0.012	0.039	0.046	0.012
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)	0.015	0.026	0.031	0.013
32	Aluminum as Al	mg/l	0.03(0.2)	0.019	0.027	0.013	0.01
33	Mercury as Hg	mg/l	0.001(NR)	<0.001	<0.001	<0.001	<0.001
34	Sulphide as H <sub>2</sub> S	mg/l	0.05(NR)	<0.05	<0.05	<0.05	<0.05
35	Chloramines as Cl <sub>2</sub>	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)	0.014	0.029	0.012	0.029
38	Silver as Ag	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01

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

Name and Designation of Authorized Signatory



Dr. Subba Reddy Mallampati  
(Manager - Environment)

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 3 of 4

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

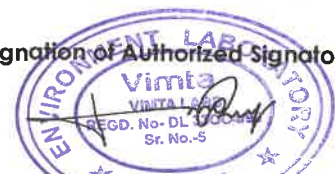
Sample Registration Date : 2026-01-09 Sampling Date : 2026-01-03  
Analysis Starting Date : 2026-01-10 Analysis Completion Date : 2026-01-29  
Test Required : Water Analysis as per IS 10500 : 2012  
SAMPLE COLLECTED BY VIMTA LABS LTD.

**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)	<b>Pesticides</b>						
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	Chlorpyrifos	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 23<sup>rd</sup> edition and IS: 3025  
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)  
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory



**Dr. Subba Reddy Mallampati  
(Manager - Environment)**

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 4 of 4

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

Sample Registration Date : 2026-01-09 Sampling Date : 2026-01-03  
Analysis Starting Date : 2026-01-10 Analysis Completion Date : 2026-01-29  
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)	<b>Radioactive</b>						
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 23<sup>rd</sup> edition and IS: 3025  
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)  
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory



Dr. Subba Reddy Mallampati  
(Manager - Environment)

# Vimta Labs Limited

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

## ISSUED TO:

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

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

Page 1 of 1

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

Sample Registration Date : 2026-01-09 Sampling Date : 2026-01-03  
Analysis Starting Date : 2026-01-10 Analysis Completion Date : 2026-01-24  
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	-	7.48	7.31	7.65	7.28
2	Colour	Hazen	1	2	1	2
3	Conductivity	µS/cm	134	210	150	100
4	TDS	mg/l	85	132	95	135
5	DO	mg/l	6.8	5.2	5.4	5.6
6	BOD	mg/l	0.6	1.9	0.8	2.0
7	COD	mg/l	2.4	7.2	3.2	9.6
8	Turbidity	NTU	5.0	8.0	7.0	9.0
9	Total Hardness as CaCO <sub>3</sub>	mg/l	38	65	46	48
10	Total Alkalinity as CaCO <sub>3</sub>	mg/l	30	50	40	42
11	Calcium as Ca	mg/l	9.6	12.8	11.2	10.4
12	Magnesium as Mg	mg/l	3.4	8.3	4.4	5.3
13	Chlorides as Cl	mg/l	16.0	22.5	16.0	28.8
14	Residual free chlorine	mg/l	<0.2	<0.2	<0.2	<0.2
15	Phosphates as PO <sub>4</sub>	mg/l	0.01	0.04	0.02	0.05
16	Sulphates as SO <sub>4</sub>	mg/l	13.0	18.8	10.5	19.9
17	Fluorides as F	mg/l	0.108	0.133	0.126	0.163
18	Nitrates as NO <sub>3</sub>	mg/l	0.50	0.90	0.80	0.90
19	Sodium as Na	mg/l	12.6	16.5	12.6	24.8
20	Potassium as K	mg/l	1.1	1.6	0.8	2.3
21	Total Boron as B	mg/l	0.010	0.013	0.010	0.038
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	0.037	0.023
30	Chromium as Cr <sup>+6</sup>	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	0.011	0.067	0.041	0.015
33	Aluminum as Al	mg/l	0.012	0.018	0.024	0.022
34	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001
35	SAR	-	0.89	0.88	0.81	1.56
36	Insecticides	mg/l	Absent	Absent	Absent	Absent
37	Anionic detergents as MBAS	mg/l	Absent	Absent	Absent	Absent
38	Total Coliforms	MPN/100	9.4	38	14	35

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

-END OF THE REPORTS-

Name and Designation of Authorized Signatory



Dr. Subba Reddy Mallampati  
(Manager – Environment)

# Vimta Labs Limited

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

## ISSUED TO:

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

Report Number : VLL/VLS/25-26/23223/002  
Issued Date : 2026-02-05  
P.O. No. : 3402001553  
P.O. Date : 2025-10-01

Page 1 of 1

## SAMPLE PARTICULARS

: SURFACE WATER SAMPLE (BALCO PLANT)

Sample Registration Date : 2026-01-09 Sampling Date : 2026-01-03  
Analysis Starting Date : 2026-01-10 Analysis Completion Date : 2026-01-24  
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	-	7.31	7.37	7.42	7.39	7.27
2	Colour	Hazen	1	2	2	3	2
3	Conductivity	$\mu\text{S/cm}$	154	182	167	180	164
4	TDS	mg/l	97	115	104	110	103
5	DO	mg/l	7.7	7.9	7.4	7.1	7.3
6	BOD	mg/l	1.5	1.7	1.7	2.2	1.9
7	COD	mg/l	5.6	8.0	7.2	8.8	8.0
8	Turbidity	NTU	6.0	8.0	6.0	9.0	8.0
9	Total Hardness as CaCO <sub>3</sub>	mg/l	50	57	50	52	46
10	Total Alkalinity as CaCO <sub>3</sub>	mg/l	30	43	40	41	35
11	Calcium as Ca	mg/l	10.5	13.2	10.4	10.4	11.2
12	Magnesium as Mg	mg/l	5.3	5.8	5.8	6.3	4.4
13	Chlorides as Cl	mg/l	26.0	27.0	24.0	26.8	25.8
14	Residual free chlorine	mg/l	<0.2	<0.2	<0.2	<0.2	<0.2
15	Phosphates as PO <sub>4</sub>	mg/l	0.03	0.06	0.03	0.05	0.04
16	Sulphates as SO <sub>4</sub>	mg/l	9.4	6.8	6.2	8.2	7.9
17	Fluorides as F	mg/l	0.442	0.587	0.523	0.608	0.537
18	Nitrates as NO <sub>3</sub>	mg/l	0.8	1.7	1.1	1.2	0.9
19	Sodium as Na	mg/l	13.6	15.2	14.8	16.4	15.6
20	Potassium as K	mg/l	0.7	1.1	0.6	1.4	1.3
21	Total Boron as B	mg/l	<0.01	0.021	0.032	0.027	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	0.011	0.035	0.028	0.019	0.023
30	Chromium as Cr <sup>+6</sup>	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	0.058	0.073	0.098	0.043	0.065
33	Aluminum as Al	mg/l	0.019	0.036	0.021	0.015	0.031
34	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
35	SAR	-	0.85	0.88	0.91	0.99	1.00
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	32	39	34	38	33

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

-END OF THE REPORTS-

Name and Designation of Authorized Signatory



Dr. Subba Reddy Mallampati  
(Manager - Environment)

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 1 of 4

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

Sample Registration Date : 2026-02-09 Sampling Date : 2026-02-04  
Analysis Starting Date : 2026-02-09 Analysis Completion Date : 2026-02-26  
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)	6.92	6.89	6.83	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	4	2	3
6	Total dissolved solids at 180°C	mg/l	500(2000)	395	265	421	410
7	Total Hardness as CaCO <sub>3</sub>	mg/l	200(600)	172	150	128	156
8	Total Alkalinity as CaCO <sub>3</sub>	mg/l	200(600)	160	100	140	158
9	Calcium as Ca	mg/l	75(200)	41.6	43.2	36.8	46.4
10	Magnesium as Mg	mg/l	30(100)	16.5	10.2	8.7	9.7
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)	0.037	0.019	0.023	0.015
13	Chlorides as Cl	mg/l	250(1000)	136.1	66.1	143.8	64.1
14	Sulphate as SO <sub>4</sub>	mg/l	200(400)	27.1	18.9	39.1	26.1
15	Fluorides as F	mg/l	1.0(1.5)	0.131	0.098	0.342	1.450
16	Nitrates as NO <sub>3</sub>	mg/l	45(NR)	3.6	2.1	4.7	4.1
17	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	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 23<sup>rd</sup> edition and IS: 3025  
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)  
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

**Dr. Subba Reddy Mallampati  
(Manager - Environment)**

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 2 of 4

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

Sample Registration Date : 2026-02-09 Sampling Date : 2026-02-04  
Analysis Starting Date : 2026-02-09 Analysis Completion Date : 2026-02-26  
Test Required : Water Analysis as per IS 10500 : 2012  
SAMPLE COLLECTED BY VIMTA LABS LTD.

**TEST REPORT**

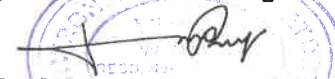
Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Rogbheri (B/W)	Rogbheri (D/W)	Bailgiri Basti(B/W)	Bailgiri Basti(D/W)
19	Anionic detergents as MBAS	mg/l	0.2(1.0)	<0.02	<0.02	<0.02	<0.02
20	Mineral oil	mg/l	0.5(NR)	Absent	Absent	Absent	Absent
21	Cadmium as Cd	mg/l	0.003(NR)	<0.003	<0.003	<0.003	<0.003
22	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	0.008	<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)	0.038	0.012	0.027	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)	<0.01	<0.01	<0.01	<0.01
31	Zinc as Zn	mg/l	5.0(15)	0.024	0.010	0.021	0.01
32	Aluminum as Al	mg/l	0.03(0.2)	0.013	0.023	0.015	0.018
33	Mercury as Hg	mg/l	0.001(NR)	<0.001	<0.001	<0.001	<0.001
34	Sulphide as H <sub>2</sub> S	mg/l	0.05(NR)	<0.05	<0.05	<0.05	<0.05
35	Chloramines as Cl <sub>2</sub>	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	0.018	0.021	0.014
38	Silver as Ag	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 23<sup>rd</sup> edition and IS: 3025

Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)

Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

  
**Dr. Subba Reddy Mallampati**  
(Manager - Environment)

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 3 of 4

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

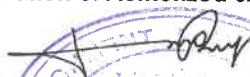
Sample Registration Date : 2026-02-09 Sampling Date : 2026-02-04  
Analysis Starting Date : 2026-02-09 Analysis Completion Date : 2026-02-26  
Test Required : Water Analysis as per IS 10500 : 2012  
SAMPLE COLLECTED BY VIMTA LABS LTD.

**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)	<b>Pesticides</b>						
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	Chlorpyrifos	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 23<sup>rd</sup> edition and IS: 3025  
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)  
Analysis as per IS 10500: 2012 Drinking Water specification

**Name and Designation of Authorized Signatory**

  
**Dr. Subba Reddy Mallampati**  
**(Manager - Environment)**

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 4 of 4

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

Sample Registration Date : 2026-02-09 Sampling Date : 2026-02-04  
Analysis Starting Date : 2026-02-09 Analysis Completion Date : 2026-02-26  
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)	<b>Radioactive</b>						
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 23<sup>rd</sup> 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

  
Dr. Subba Reddy Mallampati  
(Manager - Environment)

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 1 of 4

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

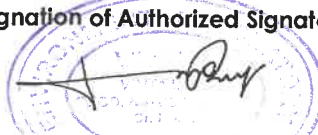
Sample Registration Date : 2026-02-09 Sampling Date : 2026-02-04  
Analysis Starting Date : 2026-02-09 Analysis Completion Date : 2026-02-26  
Test Required : Water Analysis as per IS 10500 : 2012  
SAMPLE COLLECTED BY VIMTA LABS LTD.

**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)	7.42	7.03	6.94	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)	2	3	4	3
6	Total dissolved solids at 180°C	mg/l	500(2000)	212	310	202	360
7	Total Hardness as CaCO <sub>3</sub>	mg/l	200(600)	124	136	106	102
8	Total Alkalinity as CaCO <sub>3</sub>	mg/l	200(600)	95	110	80	95
9	Calcium as Ca	mg/l	75(200)	30.8	35.2	27.2	20.0
10	Magnesium as Mg	mg/l	30(100)	11.5	11.7	9.2	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)	0.045	0.012	0.035	0.017
13	Chlorides as Cl	mg/l	250(1000)	35.5	78.1	37.2	110.0
14	Sulphate as SO <sub>4</sub>	mg/l	200(400)	18.4	21.6	21.9	33.2
15	Fluorides as F	mg/l	1.0(1.5)	0.369	0.287	0.164	0.131
16	Nitrates as NO <sub>3</sub>	mg/l	45(NR)	2.2	3.9	2.1	3.2
17	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	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 23<sup>rd</sup> edition and IS: 3025  
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)  
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

  
**Dr. Subba Reddy Mallampati**  
(Manager - Environment)

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 2 of 4

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

Sample Registration Date : 2026-02-09 Sampling Date : 2026-02-04  
Analysis Starting Date : 2026-02-09 Analysis Completion Date : 2026-02-26  
Test Required : Water Analysis as per IS 10500 : 2012

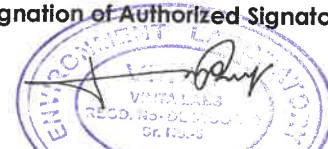
SAMPLE COLLECTED BY VIMTA LABS LTD.

**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)	<0.003	<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)	0.012	0.009	0.014	<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)	0.015	0.031	0.039	0.026
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)	0.017	0.029	0.034	0.021
32	Aluminium as Al	mg/l	0.03(0.2)	0.013	0.016	0.024	0.021
33	Mercury as Hg	mg/l	0.001(NR)	<0.001	<0.001	<0.001	<0.001
34	Sulphide as H <sub>2</sub> S	mg/l	0.05(NR)	<0.05	<0.05	<0.05	<0.05
35	Chloramines as Cl <sub>2</sub>	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	0.017	0.015	0.023
38	Silver as Ag	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01

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

Name and Designation of Authorized Signatory



**Dr. Subba Reddy Mallampati**  
(Manager - Environment)

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 3 of 4

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

Sample Registration Date : 2026-02-09 Sampling Date : 2026-02-04  
Analysis Starting Date : 2026-02-09 Analysis Completion Date : 2026-02-26  
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)	<b>Pesticides</b>						
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	Chlorpyrifos	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 23<sup>rd</sup> edition and IS: 3025  
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)  
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

**Dr. Subba Reddy Mallampati  
(Manager - Environment)**

## Vimta Labs Limited

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

### ISSUED TO:

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

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

Page 4 of 4

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

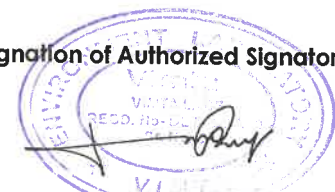
Sample Registration Date : 2026-02-09 Sampling Date : 2026-02-04  
Analysis Starting Date : 2026-02-09 Analysis Completion Date : 2026-02-26  
Test Required : Water Analysis as per IS 10500 : 2012  
SAMPLE COLLECTED BY VIMTA LABS LTD.

### 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)	<b>Radioactive</b>						
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 23<sup>rd</sup> edition and IS: 3025  
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)  
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory



Dr. Subba Reddy Mallampati  
(Manager - Environment)

# Vimta Labs Limited

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

## ISSUED TO:

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

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

Page 1 of 1

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

Sample Registration Date : 2026-02-09 Sampling Date : 2026-02-04  
Analysis Starting Date : 2026-02-09 Analysis Completion Date : 2026-02-23  
Samples Details : SW1-Baigiri Nala (U/S)-Near Baigiri Village, SW2-Baigiri Nala (D/S)-Near Baigiri Basti,  
SW3- Dhengu Nala (U/S) Risbabasti SW4- Dhengu Nala (D/S)-near Check post Balco

SAMPLE COLLECTED BY VIMTA LABS LTD.

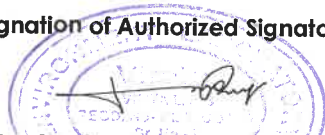
## TEST REPORT

Sr. No.	Parameters	Unit	SW1	SW2	SW3	SW4
1	pH	-	6.79	7.21	7.34	7.41
2	Colour	Hazen	1	3	2	4
3	Conductivity	µS/cm	185	142	84	114
4	TDS	mg/l	97	158	112	144
5	DO	mg/l	6.7	4.9	5.1	5.7
6	BOD	mg/l	0.8	1.7	1.0	1.8
7	COD	mg/l	3.2	6.4	4.0	8.8
8	Turbidity	NTU	4.0	7.0	8.0	6.0
9	Total Hardness as CaCO <sub>3</sub>	mg/l	52	72	50	68
10	Total Alkalinity as CaCO <sub>3</sub>	mg/l	33	58	38	48
11	Calcium as Ca	mg/l	12.0	19.2	12.0	18.4
12	Magnesium as Mg	mg/l	5.3	5.8	4.9	5.3
13	Chlorides as Cl	mg/l	16.0	22.5	16.0	28.8
14	Residual free chlorine	mg/l	<0.2	<0.2	<0.2	<0.2
15	Phosphates as PO <sub>4</sub>	mg/l	0.02	0.035	0.03	0.046
16	Sulphates as SO <sub>4</sub>	mg/l	16.6	29.8	19.7	21.6
17	Fluorides as F	mg/l	0.075	0.284	0.132	0.358
18	Nitrates as NO <sub>3</sub>	mg/l	0.5	0.9	0.8	0.9
19	Sodium as Na	mg/l	12.6	16.5	12.6	24.8
20	Potassium as K	mg/l	1.1	1.6	0.8	2.3
21	Total Boron as B	mg/l	<0.01	0.012	0.008	0.026
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	0.017	0.048	0.026	0.031
30	Chromium as Cr <sup>6+</sup>	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	0.023	0.054	0.038	0.018
33	Aluminum as Al	mg/l	0.011	0.021	0.018	0.034
34	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001
35	SAR	-	0.76	0.85	0.78	1.31
36	Insecticides	mg/l	Absent	Absent	Absent	Absent
37	Anionic detergents as MBAS	mg/l	Absent	Absent	Absent	Absent
38	Total Coliforms	MPN/100	11	36	18	42

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

-END OF THE REPORTS-

Name and Designation of Authorized Signatory

  
Dr. Subba Reddy Mallampati  
(Manager – Environment)

# Vimta Labs Limited

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

## ISSUED TO:

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

Report Number : VLL/VLS/25-26/24935/002  
Issued Date : 2026-03-05  
P.O. No. : 3402001553  
P.O. Date : 2025-10-01

Page 1 of 1

## SAMPLE PARTICULARS

**SURFACE WATER SAMPLE (BALCO PLANT)**

Sample Registration Date : 2026-02-09 Sampling Date : 2026-02-04  
Analysis Starting Date : 2026-02-09 Analysis Completion Date : 2026-02-23  
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

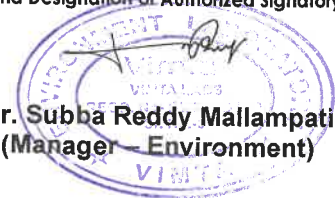
Sr. No.	Parameters	Unit	SW5	SW6	SW7	SW8	SW9
1	pH	-	7.35	7.36	7.58	7.24	7.22
2	Colour	Hazen	1	3	3	4	2
3	Conductivity	$\mu\text{S}/\text{cm}$	176	165	154	168	159
4	TDS	mg/l	110	98	90	105	102
5	DO	mg/l	7.2	7.6	7.3	7.4	7.6
6	BOD	mg/l	1.2	1.5	1.8	2.1	1.9
7	COD	mg/l	4.8	7.2	8.0	8.5	8.0
8	Turbidity	NTU	7.0	9.0	6.0	11.0	8.0
9	Total Hardness as CaCO <sub>3</sub>	mg/l	50	54	51	52	50
10	Total Alkalinity as CaCO <sub>3</sub>	mg/l	43	40	40	42	41
11	Calcium as Ca	mg/l	11.2	12.0	12.8	10.4	12.8
12	Magnesium as Mg	mg/l	5.3	5.8	4.7	6.3	4.4
13	Chlorides as Cl	mg/l	26.0	27.0	24.0	26.8	25.8
14	Residual free chlorine	mg/l	<0.2	<0.2	<0.2	<0.2	<0.2
15	Phosphates as PO <sub>4</sub>	mg/l	0.02	0.062	0.041	0.06	0.05
16	Sulphates as SO <sub>4</sub>	mg/l	7.8	4.1	5.2	7.6	6.1
17	Fluorides as F	mg/l	0.407	0.564	0.502	0.589	0.542
18	Nitrates as NO <sub>3</sub>	mg/l	1.1	1.8	1.6	1.4	1.2
19	Sodium as Na	mg/l	16.7	12.5	11.5	14.0	13.1
20	Potassium as K	mg/l	1.1	1.0	0.8	1.2	1.1
21	Total Boron as B	mg/l	<0.01	0.018	0.029	0.034	0.015
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	0.015	0.042	0.034	0.022	0.031
30	Chromium as Cr <sup>+6</sup>	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	0.047	0.065	0.087	0.035	0.049
33	Aluminum as Al	mg/l	0.026	0.041	0.029	0.013	0.025
34	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
35	SAR	-	1.03	0.74	0.70	0.84	0.81
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	34	32	35	39	38

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

-END OF THE REPORTS-

Name and Designation of Authorized Signatory

Dr. Subba Reddy Mallampati  
(Manager - Environment)



**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 1 of 4

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


Sample Registration Date : 2026-03-10 Sampling Date : 2026-03-03  
Analysis Starting Date : 2026-03-11 Analysis Completion Date : 2026-03-25  
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)	6.84	7.15	6.81	7.03
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	2	3
6	Total dissolved solids at 180°C	mg/l	500(2000)	604	262	624	403
7	Total Hardness as CaCO <sub>3</sub>	mg/l	200(600)	294	118	267	231
8	Total Alkalinity as CaCO <sub>3</sub>	mg/l	200(600)	180	90	230	195
9	Calcium as Ca	mg/l	75(200)	71.2	26.8	74.0	64.8
10	Magnesium as Mg	mg/l	30(100)	28.2	12.4	20.0	16.7
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)	0.026	0.012	0.037	0.023
13	Chlorides as Cl	mg/l	250(1000)	163.8	54	143.1	55.2
14	Sulphate as SO <sub>4</sub>	mg/l	200(400)	65.8	34.1	46.8	29.7
15	Fluorides as F	mg/l	1.0(1.5)	0.246	0.404	0.680	1.070
16	Nitrates as NO <sub>3</sub>	mg/l	45(NR)	4.9	3.2	5.2	3.5
17	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	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 23<sup>rd</sup> edition and IS: 3025  
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)  
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory

  
**Dr. Subba Reddy Mallampati**  
(Manager Environment)

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 2 of 4

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

Sample Registration Date : 2026-03-10 Sampling Date : 2026-03-03  
Analysis Starting Date : 2026-03-11 Analysis Completion Date : 2026-03-25  
Test Required : Water Analysis as per IS 10500 : 2012

SAMPLE COLLECTED BY VIMTA LABS LTD.

**TEST REPORT**

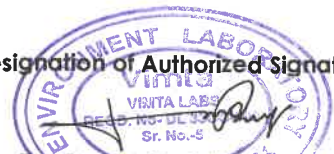
Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Rogbheri (B/W)	Rogbheri (D/W)	Bailgiri Basti(B/W)	Bailgiri Basti(D/W)
19	Anionic detergents as MBAS	mg/l	0.2(1.0)	<0.02	<0.02	<0.02	<0.02
20	Mineral oil	mg/l	0.5(NR)	Absent	Absent	Absent	Absent
21	Cadmium as Cd	mg/l	0.003(NR)	<0.003	<0.003	<0.003	<0.003
22	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	<0.005	0.012	<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)	0.026	0.01	0.019	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)	<0.001	<0.001	<0.001	<0.001
31	Zinc as Zn	mg/l	5.0(15)	0.034	0.013	0.027	0.016
32	Aluminum as Al	mg/l	0.03(0.2)	0.021	0.016	0.018	0.023
33	Mercury as Hg	mg/l	0.001(NR)	<0.001	<0.001	<0.001	<0.001
34	Sulphide as H <sub>2</sub> S	mg/l	0.05(NR)	<0.05	<0.05	<0.05	<0.05
35	Chloramines as Cl <sub>2</sub>	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)	0.024	0.019	0.028	0.017
38	Silver as Ag	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 23<sup>rd</sup> edition and IS: 3025

Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)

Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory



**Dr. Subba Reddy Mallampati**  
(Manager - Environment)

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 3 of 4

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

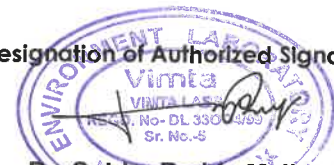
Sample Registration Date : 2026-03-10 Sampling Date : 2026-03-03  
Analysis Starting Date : 2026-03-11 Analysis Completion Date : 2026-03-25  
Test Required : Water Analysis as per IS 10500 : 2012  
SAMPLE COLLECTED BY VIMTA LABS LTD.

**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)	<b>Pesticides</b>						
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	Chlorpyrifos	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 23<sup>rd</sup> edition and IS: 3025  
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)  
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory



**Dr. Subba Reddy Mallampati  
(Manager - Environment)**

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 4 of 4

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

Sample Registration Date : 2026-03-10 Sampling Date : 2026-03-03  
Analysis Starting Date : 2026-03-11 Analysis Completion Date : 2026-03-25  
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)	<b>Radioactive</b>						
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 23<sup>rd</sup> 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

Dr. Subba Reddy Mallampati  
(Manager - Environment)

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 1 of 4

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

Sample Registration Date : 2026-03-10 Sampling Date : 2026-03-03  
Analysis Starting Date : 2026-03-11 Analysis Completion Date : 2026-03-25  
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)	7.39	6.79	6.72	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)	2	4	3	2
6	Total dissolved solids at 180°C	mg/l	500(2000)	300	147	174	335
7	Total Hardness as CaCO <sub>3</sub>	mg/l	200(600)	144	50	90	146
8	Total Alkalinity as CaCO <sub>3</sub>	mg/l	200(600)	120	50	60	60
9	Calcium as Ca	mg/l	75(200)	36.0	8.8	19.2	32.0
10	Magnesium as Mg	mg/l	30(100)	13.1	6.8	10.2	16.0
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	0.011	0.028	0.031
13	Chlorides as Cl	mg/l	250(1000)	68.4	31	37.5	135
14	Sulphate as SO <sub>4</sub>	mg/l	200(400)	17.5	16.5	21.1	27.1
15	Fluorides as F	mg/l	1.0(1.5)	0.960	0.428	0.232	0.309
16	Nitrates as NO <sub>3</sub>	mg/l	45(NR)	1.9	3.1	3.5	2.9
17	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH	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 23<sup>rd</sup> edition and IS: 3025  
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)  
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory



**Dr. Subba Reddy Mallampati  
(Manager - Environment)**

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 2 of 4

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

Sample Registration Date	: 2026-03-10	Sampling Date	: 2026-03-03
Analysis Starting Date	: 2026-03-11	Analysis Completion Date	: 2026-03-25
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)	<0.003	<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)	0.008	0.01	0.017	<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)	0.013	0.028	0.024	0.031
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)	<0.001	<0.001	<0.001	<0.001
31	Zinc as Zn	mg/l	5.0(15)	0.028	0.031	0.025	0.018
32	Aluminum as Al	mg/l	0.03(0.2)	0.027	0.015	0.029	0.014
33	Mercury as Hg	mg/l	0.001(NR)	<0.001	<0.001	<0.001	<0.001
34	Sulphide as H <sub>2</sub> S	mg/l	0.05(NR)	<0.05	<0.05	<0.05	<0.05
35	Chloramines as Cl <sub>2</sub>	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)	0.020	0.025	0.013	0.018
38	Silver as Ag	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01

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

Name and Designation of Authorized Signatory



**Dr. Subba Reddy Mallampati**  
(Manager - Environment)

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 3 of 4

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

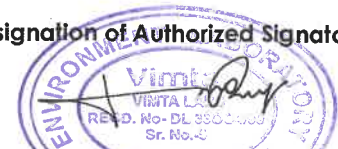
Sample Registration Date : 2026-03-10 Sampling Date : 2026-03-03  
Analysis Starting Date : 2026-03-11 Analysis Completion Date : 2026-03-25  
Test Required : Water Analysis as per IS 10500 : 2012  
SAMPLE COLLECTED BY VIMTA LABS LTD.

**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	Bromoforn	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	Chloroforn	mg/l	0.2(NR)	<0.001	<0.001	<0.001	<0.001
(A)	<b>Pesticides</b>						
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	Chlorpyrifos	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 23<sup>rd</sup> edition and IS: 3025  
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)  
Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory



Dr. Subba Reddy Mallampati  
(Manager - Environment)

**Vimta Labs Limited**

Registered Office  
 142, IDA Phase II, Cherlapally  
 Hyderabad-500 051, Telangana, India  
 T : +91 40 2726 4141  
 F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

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

Page 4 of 4

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

Sample Registration Date : 2026-03-10 Sampling Date : 2026-03-03  
 Analysis Starting Date : 2026-03-11 Analysis Completion Date : 2026-03-25  
 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)	<b>Radioactive</b>						
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 23<sup>rd</sup> edition and IS: 3025  
 Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)  
 Analysis as per IS 10500: 2012 Drinking Water specification

Name and Designation of Authorized Signatory



**Dr. Subba Reddy Mallampati  
 (Manager - Environment)**

# Vimta Labs Limited

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

## ISSUED TO:

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

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

Page 1 of 1

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

Sample Registration Date : 2026-03-10 Sampling Date : 2026-03-03  
Analysis Starting Date : 2026-03-10 Analysis Completion Date : 2026-03-23  
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.

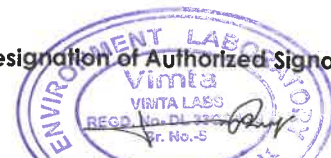
## TEST REPORT

Sr. No.	Parameters	Unit	SW1	SW2	SW3	SW4
1	pH	-	7.03	7.69	7.68	6.19
2	Colour	Hazen	1	2	1	3
3	Conductivity	µS/cm	56	243	88	115
4	TDS	mg/l	60	150	75	72
5	DO	mg/l	6.3	4.4	5.8	5.2
6	BOD	mg/l	0.5	3.0	2.0	1.5
7	COD	mg/l	1.6	11.2	7.2	6.4
8	Turbidity	NTU	3.0	8.0	6.0	8.0
9	Total Hardness as CaCO <sub>3</sub>	mg/l	18	68	32	42
10	Total Alkalinity as CaCO <sub>3</sub>	mg/l	14	55	25	45
11	Calcium as Ca	mg/l	4.8	16.0	6.4	8.8
12	Magnesium as Mg	mg/l	1.5	6.8	3.9	4.9
13	Chlorides as Cl	mg/l	15.0	21.0	16.3	19.7
14	Residual free chlorine	mg/l	<0.2	<0.2	<0.2	<0.2
15	Phosphates as PO <sub>4</sub>	mg/l	0.023	0.032	0.011	0.024
16	Sulphates as SO <sub>4</sub>	mg/l	10.6	12.5	10.0	22.7
17	Fluorides as F	mg/l	0.186	0.284	0.351	0.399
18	Nitrates as NO <sub>3</sub>	mg/l	0.3	1.1	1.0	1.2
19	Sodium as Na	mg/l	12.6	16.5	12.6	24.8
20	Potassium as K	mg/l	1.1	1.6	0.8	2.3
21	Total Boron as B	mg/l	<0.005	0.015	0.009	0.032
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	0.010	0.035	0.014	0.031
30	Chromium as Cr <sup>6+</sup>	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	0.017	0.048	0.021	0.032
33	Aluminum as Al	mg/l	0.008	0.031	0.010	0.025
34	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001
35	SAR	-	1.29	0.87	0.97	1.67
36	Insecticides	mg/l	Absent	Absent	Absent	Absent
37	Anionic detergents as MBAS	mg/l	Absent	Absent	Absent	Absent
38	Total Coliforms	MPN/100	13	42	26	38

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

-END OF THE REPORTS-

Name and Designation of Authorized Signatory



Dr. Subba Reddy Mallampati  
(Manager - Environment)

# Vimta Labs Limited

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

## ISSUED TO:

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

Report Number : VLL/VLS/25-26/28724/002  
Issued Date : 2026-04-04  
P.O. No. : 3402001553  
P.O. Date : 2025-10-01

Page 1 of 1

## SAMPLE PARTICULARS

: SURFACE WATER SAMPLE (BALCO PLANT)

Sample Registration Date : 2026-03-10 Sampling Date : 2026-03-03  
Analysis Starting Date : 2026-03-10 Analysis Completion Date : 2026-03-23  
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	7.31	7.46	7.21	7.26
2	Colour	Hazen	1	2	2	3	2
3	Conductivity	µS/cm	164	172	161	169	162
4	TDS	mg/l	105	108	103	110	105
5	DO	mg/l	7.6	7.4	7.1	7.5	7.7
6	BOD	mg/l	1.6	1.9	1.7	2.0	1.9
7	COD	mg/l	5.6	6.4	5.6	7.2	6.4
8	Turbidity	NTU	5.0	7.0	8.0	6.0	9.0
9	Total Hardness as CaCO <sub>3</sub>	mg/l	50	52	56	54	52
10	Total Alkalinity as CaCO <sub>3</sub>	mg/l	40	42	45	40	42
11	Calcium as Ca	mg/l	12.8	12	14.4	15.2	14.4
12	Magnesium as Mg	mg/l	4.8	5.3	4.8	3.9	4.0
13	Chlorides as Cl	mg/l	25.0	26.4	21.1	24.8	22.3
14	Residual free chlorine	mg/l	<0.2	<0.2	<0.2	<0.2	<0.2
15	Phosphates as PO <sub>4</sub>	mg/l	0.013	0.028	0.017	0.021	0.015
16	Sulphates as SO <sub>4</sub>	mg/l	5.9	4.4	4.7	6.9	5.4
17	Fluorides as F	mg/l	0.623	0.594	0.576	0.621	0.619
18	Nitrates as NO <sub>3</sub>	mg/l	0.5	0.9	0.6	1.2	1.1
19	Sodium as Na	mg/l	14.2	15.1	11.5	13.5	12.8
20	Potassium as K	mg/l	0.8	1.1	0.7	1.1	1.0
21	Total Boron as B	mg/l	<0.005	0.016	0.018	0.025	0.019
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	0.015	0.031	0.027	0.029	0.036
30	Chromium as Cr <sup>6+</sup>	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	0.039	0.051	0.041	0.036	0.031
33	Aluminum as Al	mg/l	0.028	0.036	0.024	0.019	0.027
34	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
35	SAR	-	0.86	0.91	0.67	0.80	0.77
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	47	52	44	72	67

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

-END OF THE REPORTS-

Name and Designation of Authorized Signatory

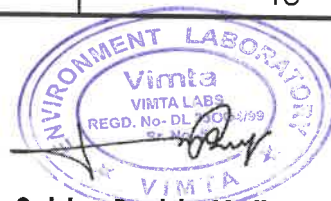
Dr. Subba Reddy Mallampati  
(Manager - Environment)

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



<b>ISSUED TO:</b>		Report No.:	VLL/VLS/25-26/15704/Forage	
<b>M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)</b>		Issue Date:	2025-11-05	
		P.O.No:	8500005780	
		P.O. Date:	2022-06-29	
<b>FORAGE FLUORIDE</b>				
<b>Registration Date: 2025-10-07</b>		<b>Sampling Date: 2025-10-04</b>		
<b>Analysis starting date: 2025-10-07</b>		<b>Analysis Completion date: 2025-10-10</b>		
<b>Test Required :- Fluoride;</b>				
<b>TEST RESULTS</b>				
S. No.	Location	Unit	Norms	Results
1	In Side of the plant	PPM	80	39
2	Near Parsabhata	PPM	80	16
3	Near Lal ghat	PPM	80	23
4	Near check post	PPM	80	18
5	Near Sharma petrol pump	PPM	80	25
6	Bhadrapara	PPM	80	19
7	Risdi	PPM	80	16
8	Rampur	PPM	80	9
9	Manikpur	PPM	80	12
10	jambahar	PPM	80	11
11	Rumgarha	PPM	80	18
12	Gerwan	PPM	80	13



**Dr. Subba Reddy Mallampati**  
**Manager - Environment**

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

<b>ISSUED TO:</b> <b>M/s. Bharat Aluminium Company Limited,</b> <b>KORBA ( C.G.)</b>	Report No.:	VLL/VLS/25-26/18084/Forge		
	Issue Date:	2025-12-05		
	P.O.No:	3402001553		
	P.O. Date:	2025-10-01		
<b>FORAGE FLUORIDE</b>				
<b>Registration Date: 2025-11-10</b>		<b>Sampling Date: 2025-11-04</b>		
<b>Analysis starting date: 2025-11-10</b>		<b>Analysis Completion date: 2025-11-14</b>		
<b>Test Required :- Fluoride;</b>				
<b>TEST RESULTS</b>				
S. No.	Location	Unit	Norms	Results
1	In Side of the plant	PPM	80	36
2	Near Parsabhata	PPM	80	18
3	Near Lal ghat	PPM	80	27
4	Near check post	PPM	80	23
5	Near Sharma petrol pump	PPM	80	26
6	Bhadrapara	PPM	80	17
7	Risdi	PPM	80	18
8	Rampur	PPM	80	10
9	Manikpur	PPM	80	15
10	jambahar	PPM	80	12
11	Rumgarha	PPM	80	16
12	Gerwan	PPM	80	14

  
**Dr. Subba Reddy Mallampati**  
**Manager - Environment**  




**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

<b>ISSUED TO:</b> <b>M/s. Bharat Aluminium Company Limited,</b> <b>KORBA ( C.G.)</b>	Report No.:	VLL/VLS/25-26/23223/Forge		
	Issue Date:	2026-02-05		
	P.O.No:	3402001553		
	P.O. Date:	2025-10-01		
<b>FORAGE FLUORIDE</b>				
<b>Registration Date:</b>	<b>2026-01-15</b>	<b>Sampling Date:</b>	<b>2026-01-13</b>	
<b>Analysis starting date:</b>	<b>2026-01-15</b>	<b>Analysis Completion date:</b>	<b>2026-01-20</b>	
<b>Test Required :- Fluoride;</b>				
<b>TEST RESULTS</b>				
S. No.	Location	Unit	Norms	Results
1	In Side of the plant	PPM	80	37
2	Near Parsabhata	PPM	80	19
3	Near Lal ghat	PPM	80	24
4	Near check post	PPM	80	25
5	Near Sharma petrol pump	PPM	80	20
6	Bhadrapara	PPM	80	16
7	Risdi	PPM	80	14
8	Rampur	PPM	80	13
9	Manikpur	PPM	80	10
10	jambahar	PPM	80	11
11	Rumgarha	PPM	80	12
12	Gerwan	PPM	80	9

  
**Dr. Subba Reddy Mallampati**  
**Manager - Environment**



**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
F : +91 40 2726 3657



Driven by Quality. Inspired by Science.

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

**FORAGE FLUORIDE**

Registration Date: 2026-03-09      Sampling Date: 2026-03-06  
Analysis starting date: 2026-03-09      Analysis Completion date: 2026-03-17

Test Required :- Fluoride;

**TEST RESULTS**

S. No.	Location	Unif	Norms	Results
1	In Side of the plant	PPM	80	38
2	Near Parsabhata	PPM	80	17
3	Near Lal ghat	PPM	80	24
4	Near check post	PPM	80	18
5	Near Sharma petrol pump	PPM	80	14
6	Bhadrapara	PPM	80	20
7	Risdi	PPM	80	10
8	Rampur	PPM	80	12
9	Manikpur	PPM	80	14
10	jambahar	PPM	80	13
11	Rumgarha	PPM	80	11
12	Gerwan	PPM	80	8

  
Dr. Subba Reddy Mallampati  
Manager - Environment  
