

BALCO/ENV/A-02(A)/2022/122

31<sup>st</sup> May 2022

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

**Sub:** Half yearly compliance status (October 2021 to March 2022) for Chotia - II captive coal mine.

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Dear Sir,

On behalf of Bharat Aluminium Company Limited (hereinafter referred to as "BALCO"), Please find enclosed herewith the half yearly compliance report for the period October 2021 to March 2022 of the Environmental Clearance No.J-11015/96/2004-IA-II(M) dated 18<sup>th</sup> July, 2018 (EC transferred from M/s Prakash industries Limited to BALCO) for Chotia-II Captive coal mine.

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

Thanking you,

Yours truly,



**Saurabh Pandey**  
Head – Chotia Mines-II



Copy to:

1. APCCF, MoEF&CC, Civil Line, Nagpur-44001
2. Regional Officer, CECB, KORBA

**Compliance status on Environmental Clearance**  
**BALCO CHOTIA COAL MINES, KORBA (C.G.)**  
**Duration: October - 2021 to March - 2022**

1. MoEF Letter No: J – 11015/96/2004-IA.II (M), dated 18.07.2018
2. MoEF Letter No: J – 11015/96/2004-IA.II (M), dated 06.05.2019

**A. SPECIFIC CONDITIONS:**

S.No	GENERAL CONDITION	COMPLIANCE STATUS
(i)	The capacity of the project shall be 1 MTPA (opencast) for first 5 Years and 0.30 MTPA (underground) from 6th year till life of the mine.	Agreed.
(iii)	To control the dust production at source, crusher and in-pit belt conveyors shall be provided with mist type sprinklers.	There is no crusher or in-pit belt conveyors at Chotia Mines
(iv)	Mitigative measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient numbers of water sprinklers. Adequate corrective measures shall be undertaken to control dust emissions as presented before the Committee, which would include mechanized sweeping, water sprinklers/mist spraying on haul roads and loading sites, long range misting/fogging arrangement, wind barrier wall and vertical greenery system, green belt, dust suppression arrangement at barrier wall and vertical greenery system, green belt, dust suppression arrangement at railway siding, etc.	Complied with. Water sprinklers for suppressing dust in haul roads, face, loading sites have been provided. Mine operation has been suspended since April 2020.
(v)	Persons of nearby villages shall be given training on livelihood and skill development to make them employable.	Complied with. Skill development training has been provided to villagers at Skill school operated by BALCO at Korba.
(vi)	To ensure health and welfare of nearby villages, regular medical camps shall be organized at least once in six months.	Complied with. Health camps are being organized in and around villages of Chotia.
(vii)	Thick green belt of adequate width in the down wind direction of the project site shall be developed to mitigate/check the dust pollution. Plantation plan shall be prepared in consultation with the State Forest Department.	Complied with. Green belt has been developed inside the safety zone of the mine. Plantation program has been undertaken in consultation with Forest department.
(viii)	Mine water shall be disposed of after treatment.	Agreed
(ix)	The project proponent shall upgrade the road (black topping) connecting Chotia - II Coal Mine to the nearest State Highway ( Chotia- Chirimiri)	Complied with. The road connecting Chotia - II Coal Mine to the nearest State Highway (Chotia-Chirimiri) is black topped.

<b>4.1</b>	<b>The grant of EC is further subject to compliance of the generic conditions for OC as under :</b>	
<b>(a)</b>	<b>Mining</b>	
(i)	Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.	Agreed.
(ii)	No Change in mining method i.e. OC to UG , calendar program and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forest and Climate Change (MoEFCC)	Agreed.
(iii)	Mining shall be carried out as per the approved mining plan (including Mine Closure Plan) abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General Mines Safety (DGMS)	Agreed.
(iv)	No mining shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980 and also adhering to The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 read with provisions of Indian Forest Act, 1927.	Complied with. The entire lease area of Chotia-II Mine is forest land and Forest Clearance has been transferred by MoEF&CC vide letter no F. No 8-64/2005 dated 18th May 2015. <b>Annexure I</b>
<b>(b)</b>	<b>Land reclamation and water conservation</b>	
(i)	Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale shall be submitted to Ministry of Environment, Forest and Climate Change/ Regional Office ( RO)	Digital survey report submitted on July 2021.
(ii)	The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations, considering the presence of river/rivulet/pond/lake etc., shall be prepared and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the approved Mining Plan/EIA/EMP report and with due approved Mining Plan and as per the permission of DGMS.	Complied and Agreed with.

(iii)	<p>The final mine void depth should preferably be as per the approved Mine Closure Plan, and in case it exceeds 40 m, adequate engineering interventions shall be provided for sustenance of aquatic life therein. The remaining area shall be backfilled and covered with thick and alive top soil. Post - mining land be rendered usable for agricultural/forestry purposes and shall be handed over to the respective state government as specified in the guidelines for Preparation of Mine Closure Plan issued by the Ministry of Coal dated 27th August , 2009 and subsequent amendments.</p>	<p>Agreed.</p>
(iv)	<p>The entire excavated area, backfilling, external OB dumping (including top soil) and afforestation plan shall be in conformity with the "during mining"/"post mining" land use pattern, which is an integral part of the approved Mining Plan and EIA/EMP submitted to this Ministry. Progressive compliance status vis-a-vis the post mining land use pattern shall be submitted to the Ministry of Environment, Forest and Climate Change/ regional Office on six monthly basis.</p>	<p>Agreed.</p>
(v)	<p>The top soil shall temporarily be stored at earmarked site(s) only and shall not be kept unutilized for long. The top soil shall be used for land reclamation and plantation purposes. Active OB dumps shall be stabilized with native grass species to prevent erosion and surface run off. The other overburden dumps shall be vegetated with native flora species. The excavated area shall be backfilled and afforested in line with the approved Mine Closure Plan. Monitoring and management of rehabilitated area shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change/ Regional Office on six monthly basis.</p>	<p>Complied with. The top soil is being stored at earmarked sites which will be further used for reclamation and plantation purposes. Simultaneous backfilling has been adopted in excavated area.</p>



(c)	Emissions, effluents and waste disposal	
(i)	Transportation of Coal, to the extent permitted by road shall be carried out by covered trucks/conveyors. Effective control measures such as regular water/mist sprinkling/rain gun etc. shall be carried out in critical areas prone to air pollution (with higher values of PM10/PM2.5) such as haul road, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.	Complied with. The coal dispatch trucks are covered with Tarpaulin. Mist type water sprinkling arrangement has been provided for control of dust pollution in Haul roads, loading/unloading, etc., Mine operation has been suspended since April 2020.
(ii)	Greenbelt consisting of 3-tier plantation of width not less than 7.5 m shall be developed all along the mine lease area in a phased manner. The green belt comprising a mix of native species shall be developed all along the major approach/coal transportation roads.	Plantation in 7.5m safety belt zone has been completed and the same is being protected by double layer concertina fencing.
(iii)	The transportation of coal shall be carried out as per the provisions and route proposed in the approved Mining Plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed so that the impact of sound, dust and accidents could be appropriately mitigated.	Complied with.
(iv)	Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centers.	Complied with. Regular vehicle checkup system has been implemented and the vehicles engaged in mining & allied activities are allowed to operate after verifying PUC Certificate.
(v)	Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered to avoid air borne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.	Complied with. Dust suppression is being done by Water Sprinklers at Coal stock pile, material transfer points, etc., No crushers or conveyors are installed at Chotia II Mine. Wet drilling is being practiced. However presently mines is not in operation. Mine operation has been suspended since April 2020.
(vi)	Coal handling plant shall be operated with effective control measures viz. bag filters/water or mist sprinkling system etc. to check fugitive emissions from crushing operations, conveyor system, transfer points, etc.	Not applicable There is no plan of Coal Handling plant at Mine site.

(vii)	Ground water, excluding mine water, shall not be used for mining operation. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.	Complied with. Rain water harvesting structures has been constructed in office complex and Bachelor's hostel for recharge of ground water. The design of Rainwater harvesting structures has been approved by Regional Director, CGWA–Raipur vide no. 35-1/NCCR/CGWA/Vol-X/038 dated 20th October 2016. <b>Annexure II</b>
(viii)	Catch/garland drains and siltation ponds of appropriate size shall be constructed around the mine working, coal heaps & OB dumps to prevent run off of water and flow of sediments directly into the river and water bodies. Further, dump material shall be properly consolidated/ compacted and accumulation of water over dumps shall be avoided by providing adequate channels for flow of silt into the drains. The drains/ponds so constructed shall be regularly de-silted particularly before onset of monsoon and maintained properly. Sump capacity should provide adequate retention period to allow proper settling of silt material. The water so collected in the sump shall be utilized for dust suppression measures and green belt development. Dimension of the retaining wall constructed, if any, at the toe of the OB dumps within the mine to check run-off and siltation should be based on the rainfall data. The plantation of native species to be made between toe of the dump and adjacent field/habitation/water bodies.	Complied with. Garland drains has been provided all along the OB dumps to prevent run off water and flow of sediments directly into the river/water bodies. Water collected in the sump is used for dust suppression in haul roads, coal stock pile, etc., 5 check dams with estimated storage capacity of 4000KL each is in place. Plantation of native species will be made in toe of the dump.
(ix)	Industrial waste water generated from CHP, workshop and other waste water, shall be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time. Oil and grease trap shall be installed and maintained fully functional with effluents discharge adhering to the norms. Sewage treatment plant of adequate capacity shall be installed for treatment of domestic waste.	Complied with. ETP is in place to treat waste water generated from workshop and STP has been installed for treating domestic waste water inside the colony.

(x)	Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.	Complied with. Rain water harvesting structures has been constructed in office complex and Bachelor's hostel for recharge of ground water. The design of Rainwater harvesting structures has been approved by Regional Director, CGWA–Raipur vide no. 35-1/NCCR/CGWA/Vol-X/038 dated 20th October 2016.
(d)	<b>Illumination, Noise &amp; Vibration</b>	
(I)	Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The Report on the same shall be submitted to this ministry & it's RO on six-monthly basis.	Complied with. The Illumination Standards inside mine is as per the DGMS Standards and monitored weekly. Mine operation has been suspended since April 2020.
(II)	Adequate measures shall be taken for control of noise levels below 85 dB(A) in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc. shall be provided with personal protective equipment (PPE) like ear plugs/muffs in conformity with the prescribed norms and guidelines in this regard. Adequate awareness program for users to be conducted. Progress in usage of such accessories to be monitored.	Complied with. Workers engaged in blasting and drilling operations, operation of HEMM, etc., has been provided with Ear Plugs/Muffs. Regular training programs are conducted to aware the workers for its usage. <b>Annexure III</b> Mine operation has been suspended since April 2020.
(III)	Controlled blasting techniques shall be practiced in order to mitigate ground vibrations and fly rocks as per the guidelines prescribed by the DGMS.	Complied with. Controlled blasting techniques to mitigate ground vibrations and fly rocks as per the guidelines prescribed by the DGMS are being practiced. Mine operation has been suspended since April 2020.
(IV)	The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workman at vulnerable points in the mine premises and report in this regard shall be submitted to the Ministry/RO on six- monthly basis.	Agreed.
(e)	<b>Occupational health &amp; safety</b>	

(i)	The project proponent shall undertake occupational health survey for initial and periodical medical examination of the workers engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the workers identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational and hearing impairment, if any.	Agreed. Initial and periodical medical examination of the workers engaged in the Mines are being carried out as per Mines Rules 1955.
(ii)	Personnel (including outsourcing employees) working in dusty areas shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.	Complied with. Personnel (including outsourcing employees) are being provided with protective respiratory device and adequate training & information on safety and health aspects regularly.
(iii)	Skill training as per safety norms specified by DGMS shall be provided to all workman including the outsourcing employees to ensure high safety standards in mines.	Complied with.
<b>(f)</b>	<b>Ecosystem and biodiversity conservation</b>	
(i)	The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered flora/fauna, if any, spotted/reported in the study area. The Action plan in this regard, if any, shall be prepared and implemented in consultation with the state forest and wildlife department.	Complied with. Wildlife Conservation & Management Plan has been approved by State Forest Department. We have also deposited requisite fund of Rs. 4.43 Crores for implementation of Wild Life Conservation and Management Plan to State CAMPA account. Its details are given at <b>Annexure – IV</b>
<b>(g)</b>	<b>Public hearing , R&amp;R and CSR</b>	
(i)	Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land outsees shall be compensated as per the norms laid down in the R&R policy of the company /state Government /Central Government, as applicable.	Agreed. BALCO has undertaken various tasks/measures for addressing the issues raised during Public Hearing.
(ii)	The project proponent shall ensure the expenditure towards socio-economic development in and around the mine, in every financial year in pursuance of the corporate social responsibility policy as per the provisions under section 135 of the companies Act, 2013.	Complied with.

(iii)	The project proponent shall follow the mitigation measures provided in this ministry's OM No.Z-11013/5712014-IA.I1 (M) dated 29th October,2014 titled 'Impact of mining activities on habitations-issues related to the mining project wherein habitations and villagers are the part of mine lease areas or habitations and villagers are surrounded by the mine lease area '.	Complied with. The entire lease area of Chotia II Mine falls under Forest Land for which FC has already been granted by MoEF&CC. <b>Annexure I</b>
(iv)	The project proponent shall consultation with the state government to provide alternative arrangements. If grazing lands is involved in core zone, in consultation with the state government to provide alternate areas for livestock grazing, if any. In this context the project proponent shall implement the direction of Hon'ble Supreme Court with regard to acquiring grazing land.	Complied with. The entire lease area of Chotia II Mine falls under Forest Land for which FC has already been granted by MoEF&CC.
(h)	Corporate environment responsibility	
(i)	The Company shall have a well laid down environment policy duly approved by Board of Directors. The environment policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions. Also, the company shall have a defined system of reporting of non-compliances/violations of environmental norms to the Board of Directors and/or shareholders/stakeholders.	Complied with. The well laid down environment policy duly approved by Board of Directors is in place. The system of reporting of non-compliances/violations of environmental norms to the Board of Directors and/or shareholders/stakeholders is in place.
(ii)	The project proponent shall comply with the provisions contained in this Ministry's OM dated 1st May, 2018, as applicable, regarding Corporate Environment Responsibility.	Complied with.
(iii)	A separate environmental management cell both at the project and company headquarter level, with suitable qualified personnel shall be set-up under the control of a Senior Executive, who will report directly to the Board level executive/Head of the Organization.	Complied with. Environmental Management Cell has been constituted and is given at <b>Annexure-V</b> .

(iv)	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report	Agreed.
(v)	Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.	Agreed
(vi)	Skill training as per safety norms specified by DGMS shall be provided to all workmen including the outsourcing employees to ensure high safety standards in mines.	Complied with.
(vii)	Effective arrangement shall be made to provide and maintain at suitable points conveniently situated, a sufficient supply of drinking water for all the persons employed.	Complied with.
(i)	<b>Statutory Obligations</b>	
(i)	The environmental clearance shall be subject to orders of Hon'ble Supreme Court of India, Hon'ble High Court, NGT and any other Court of Law from time to time, and as applicable to the project.	Agreed.
(ii)	This environmental clearance shall be subject to obtaining wildlife clearance, if applicable, from the Standing Committee of National Board for Wildlife.	Agreed.
(iii)	The project proponent shall obtain Consent to Establish/Operate under the Air Act, 1981 and the Water Act, 1974 from the concerned State Pollution Control Board.	<b>Complied</b> The Consent to Establish/Operate under the Air Act, 1981 and the Water Act, 1974 from Chhattisgarh Environment Conservation Board has been obtained.
(iv)	The project proponent shall obtain the necessary permission from the Central Ground Water Authority (CGWA).	Agreed. NOC from Central Ground Water Authority (CGWA) has been approved for Ground Water Abstraction. <b>Annexure VI</b>  CGWA/NOC/MIN/REN/2/2021/6179
(j)	<b>Monitoring of project</b>	

(i)	Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM10, PM2.5, SO <sub>2</sub> and NO <sub>x</sub> . Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and /or in consultation with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc. to be carried out at least once in six months.	Complied with. Four Ambient Air Quality Monitoring Stations (AAQMS) have been established. Manual monitoring of ambient air quality is carried out twice in a week and Online ambient quality monitoring is not required. There is no source for Hg, As, Ni, Cd, Cr, in mines.
(ii)	The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742(E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr, and other monitoring data shall be regularly reported to the Ministry/Regional Office and to the CPCB/SPCB.	Complied with. Report of AAQM data are being sent regularly to all concerned <b>Annexure VII</b>
(iii)	The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Coal Industry Standards vide GSR 742 (E) dated 25.9.2000 and as amended from time by the Central Pollution Control Board.	Complied with.
(iv)	The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No. J-20012/1/2006-IA.II(M) dated 27.05.2009 issued by the Ministry shall also be referred in this regard for its compliance.	Complied with Monitoring data has been uploaded on company's website with Half yearly reports.
(v)	Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area through a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre monsoon, monsoon, post monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MoEF & CC/Regional Office.	Regular monitoring of ground water level and Quality is being done at existing wells and Piezometers installed in and around the Mine Lease area. The data thus collected is being sent regularly to Ministry of Environment & Forests, Central Ground Water Authority and Regional Director, Central Ground Water Board.

(vi)	Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.	Agreed. Annexure VIII
(vii)	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental conditions to the Ministry of Environment, Forest and climate change/Regional Office. For half yearly monitoring reports, the data should be monitored for the period of April to September and October to March of the financial years.	Agreed.
(viii)	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data/information/Monitoring reports.	Agreed.
(K)	<b>Miscellaneous</b>	
(i)	Efforts should be made to reduce energy consumption by conservation, efficiency improvements and of renewable energy.	Agreed.
(ii)	The project authorities shall inform to the Regional Office regarding commencement of mining operations.	Complied with. The Intimation for commencement of Mining operations has been provided to Regional Office vide Letter no. Balco/Cho/2018/RO/2018/17 dated 11.10.2018 Annexure IX
(iii)	A copy of the Environmental Clearance shall be marked to concerned Panchayat. A copy of the same shall also be sent to the concerned State Pollution Control Board, Regional Office, District Industry Sector and Collector's office/Tehsildar office for information in public domain within 30 days.	Complied with A copy of Environmental Clearance has been submitted to concerned panchayat, concerned State Pollution Control Board, Regional Office, District Industry Sector and Collector's office/Tehsildar office. It is enclosed as <b>Annexure - X</b>
(iv)	The EC shall be uploaded on the company's website. The compliances status of the stipulated EC conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in public domain.	Complied with The copy of Environmental Clearance has been uploaded on company's website.



(v)	The project authorities shall advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of this clearance, informing that the project has been accorded environmental clearance and a copy of the same is available with the State Pollution Control Board and also at website of the Ministry.	Complied with The grant of EC has been informed via advertisement in two local newspapers. It is enclosed as <b>Annexure – XI</b>
(vi)	The environmental statement for each financial year ending 31 March in Form - V is mandated to be submitted by the project proponent for the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986 as amended subsequently, shall also be uploaded on the Company's website along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MoEF&CC by e-mail. Concerns raised during hearing.	Agreed. The Environment Statement has been submitted vide letter No. CHOTIA/ENVT/B-01/2021/236 dated 29 <sup>th</sup> September 2021
(vii)	The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India/High Courts and any other Court of Law relating to the subject matter.	Agreed.
5	The Proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also that during presentation to the EAC. All the commitments made on the issues raised during public hearing shall also be implemented in letter and spirit.	Agreed.
6	The proponent shall obtain all necessary clearances/approvals that may be required before the start of the project. The Ministry or any other competent authority may stipulate any further condition for environmental protection. The Ministry or any other competent authority may stipulate any further condition for environmental protection.	Complied with.

7	The Coal Company/Project proponent shall be liable to pay the compensation against the illegal mining, if any , and as raised by the respective State Governments at any point of time, in terms of the orders dated 2nd August , 2017 of Hon'ble Supreme Court in WP (Civil) No.114/2014 in the matter of ' Common cause vs Union of India & others.'	Agreed.
8	The Concerned State Government shall ensure that the mining operations shall not commence till the entire compensation for illegal mining, if any, is paid by the project proponent through their respective Department of Mining & Geology, in strict compliance of the judgment of the Hon'ble Supreme Court.	Agreed.
9	This environment clearance shall not be operational till such time the project proponent complies with the above said judgement of Hon'ble Supreme Court, as applicable, and other statutory requirements.	Agreed.
10	This EC supersedes the earlier environmental clearance granted vide letter No. J-1105/96/2004-IA.II (M) dated 10th November, 2005.	Agreed.

# **Annexure – 1**

## **Forest Clearance**

**F. No. 8-64/2005 - FC**  
Government of India  
Ministry of Environment, Forests and Climate Change  
(Forest Conservation Division)

Indira Paryavaran Bhawan,  
Aliganj, Jor Bag Road,  
New Delhi - 110003.  
**Dated: 18<sup>th</sup> May, 2015**

To

The Principal Secretary (Forests),  
Government of Chhattisgarh,  
Raipur.

**Sub: Transfer of lease in respect of diversion of 960.286 ha of forest land (Out of which 726.349 ha accorded approval on 7.11.2011 for open cast mining while 188.326 ha accorded on 29.03.2006 for underground mining) for underground/open cast mining in Chotia Coal Block in Korba District in the State of Chhattisgarh from the original user i.e. M/s Prakash Industries Limited to new user agency i.e. M/s Bharat Aluminium Company Limited in whose favour the coal block was auctioned/re-allotted by the Ministry of Coal – regarding.**

Sir,

I am directed to refer to the Ministry of Coal's letter no. 13016/38/2015-CA-II dated 16.04.2015 on the above subject requesting this Ministry's to transfer its approval granted under the Forest (Conservation) Act, 1980 for diversion of forest land for coal mining at Chotia Coal Block in Korba District in the State of Chhattisgarh from the original user i.e. M/s Prakash Industries Limited, in whose favour the forest land was diverted, to new user agency i.e. M/s Bharat Aluminium Company Limited in whose favour the coal block was auctioned/re-allotted by the Ministry of Coal, in accordance with para 2.8 of the Guidelines issued under the Forest (Conservation) Act, 1980 read with the Guidelines dated 3.05.2010, 3.05.2013 and latest Guidelines dated 31.03.2015.

In this connection, I am directed to say that after careful examination of the proposal for transfer of forest clearance and on the basis of recommendations of the Ministry of Coal, the Central Government hereby conveys its approval for transfer of approval granted for diversion of 960.286 ha of forest land involving of Stage-I and Stage-II approvals granted by the Ministry vide its letters of even number dated 4.01.2011 and 7.06.2011, respectively in respect of diversion of 726.349 ha of forest land for open cast coal mining and Stage-I and Stage-II approval dated 10.11.2005 and 29.03.2006, respectively in respect of diversion of 188.326 ha of forest land for underground coal mining at Chotia Coal Block in Korba District in the State of Chhattisgarh from the original user i.e. M/s Prakash Industries Limited, in whose favour the forest land was diverted, to new user agency i.e. M/s Bharat Aluminium Company Limited, in whose favour the coal block was auctioned/re-allotted by the Ministry of Coal, subject to the conditions as given below:

- (i) Lease transfer charges @ 10% of the NPV or Rs. 1,00,000/- (1 Lakh) whichever is less will be realized from the new user agency and will be deposited in the account of Ad-hoc CAMPA before execution of lease in favour of the new user agency.



- (ii) Reimbursement of amount paid by the original user agency shall be dealt with in the manner, as provided in the Coal Mines (Special Provisions) Second Ordinance, 2014 and Rules framed thereunder.
- (iii) The new user agency shall pay the NPV as per the approval granted under FC Act if not paid earlier. The new user agency shall also furnish an undertaking to pay the additional NPV, if so determined by the Hon'ble Supreme Court of India.
- (iv) The new user agency shall abide by all the conditions on which the forest land was leased to the original user agency.
- (v) The new user agency shall abide by any other condition that may be stipulated by the Central Government/Regional Offices/State Government in future in the interest of conservation, protection and development of forests & wildlife.

Yours faithfully,

  
(B. K. Singh)  
Director (FC)

Copy to:

1. Secretary, Ministry of Coal, Shastri Bhawan, New Delhi.
2. Principal Chief Conservation of Forests, Government of Chhattisgarh, Raipur.
3. Addl. PCCF (Central), Regional Office, Nagpur.
4. Nodal Officer, O/o the PCCF, Government of Government of Jharkhand, Ranchi.
5. User Agencies:
  - a) M/s Prakash Industries Limited
  - b) M/s Bharat Aluminium Company Limited
6. Monitoring Cell, FC Division, MoEF&CC, New Delhi
7. Guard File.

  
(B. K. Singh)  
Director (FC)

## **Annexure – 2**

# **Rainwater Harvesting System**



**SPEED POST**

**No. 35-1/NCCR/CGWA/Vol-X**

1038

Central Ground Water Board,  
North Central Chhattisgarh Region,  
2<sup>nd</sup> Floor, Reena Apartment,  
Pachpedinaka, Dhamtari Road,  
Raipur – 492001  
Telefax: 0771-2413689  
Date: 20.10.2016

20 OCT 2016

✓ To,  
Sh. Rajiv Kumar, AGM(Mines),  
M/s Bharat Aluminium Company Limited,  
Baloco Nagar, Korba, District-Korba-495684  
Chhattisgarh

**Sub: Approval for design of Artificial Recharge and Rain water harvesting Structures-Reg.**

Sir,

Kindly refer to your letter no. Nil, dated 27.08.2016 on the above cited subject. The proposal submitted for Chotia Coal mines, Korba prepared by M/s Gumjuwala Lab & Projects Pvt. Limited has been examined and found satisfactory for Artificial Recharge and Rain water harvesting. After implementation of the proposal the firm is advised to carry out the impact assessment study of ground water recharge in and around 10km radius of the mines area and the report along with design details and photographs of the Artificial Recharge and Rain water harvesting structures constructed may be submitted to this office within a period of two years. After construction of the above structures the firm may intimate this office so that site visit for verification can be made accordingly.

Yours faithfully

*Paul Prabhakar*

(C. Paul Prabhakar)  
Regional Director

## **Annexure – 4**

# **Wildlife Conservation and Management Plan**



**TABLE-9.1**  
**FINANCIAL ALLOCATION**

S.N.	ITEM	ESTIMATED EXPENDITURE (IN LACS)
1	CONSERVATION OF SOIL AND WATER	
1.1	Watershed improvement	39.975
1.2	Improvement of existing water sources	50.000
1.3	Development of new water sources	16.000
2	IMPROVEMENT OF FOOD	
2.1	Pasture Development	19.960
2.2	Control of Grazing	10.000
2.3	Weed control	6.000
2.4	Burning to remove seedling and grass cutting	10.000
2.5	Development of browse, fruit, seeds & meat.	19.960
3	IMPROVEMENT OF COVER	
3.1	Escape cover	25.973
3.2	Ambush cover	10.153
3.3	Reproductive cover	19.978
3.4	Special Refuges	4.000
3.5	Shade and resting places	39.120
4	Creation of Conservation Awareness	40.000
5	Mitigating Human - Wild Life Conflict	25.000
6	Preparation of Biodiversity Register	17.000
7	Provision of Salt Licks	5.000
8	Fire Protection	15.000
	<b>TOTAL</b>	<b>443.017</b>

Total estimated budget of Rs. 4.43 Crore for implementation of this Plan is already been deposited into CAMPA account.

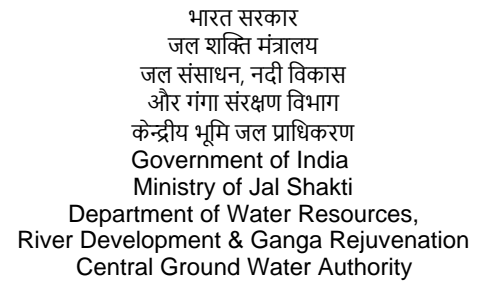
9.1.1 Year wise Expenditure Allocation for various Activities is given in Table-9.2.



वन मण्डलाधिकारी  
कुदपारा वनमण्डल, कटखोरा

# **Annexure – 6**

**NOC CGWA**



(भूजल निकासी हेतु अनापत्ति प्रमाण पत्र)

1.	NOC No.:	CGWA/NOC/MIN/REN/2/2021/6179																	
2.	Application No.:	21-4/309/CT/MIN/2015					3.	Category: (GWRE 2017)			Safe								
4.	Project Status:	Existing Ground Water					5.	NOC Type:			Renewal								
6.	Valid from:	12/06/2021					7.	Valid up to:			11/06/2023								
8.	Ground Water Abstraction Permitted:																		
Fresh Water			Saline Water				Dewatering				Total								
m³/day		m³/year		m³/day		m³/year		m³/day		m³/year		m³/day		m³/year					
90.00		32850.00																	
9.	Details of ground water abstraction /Dewatering structures																		
Total Existing No.:6							Total Proposed No.:0												
							DW	DCB	BW	TW	MP	MPu	DW	DCB	BW	TW	MP	MPu	
Abstraction Structure*							0	0	4	0	0	0	0	0	0	0	0	0	0
Dewatering Structure*							0	0	0	0	2	0	0	0	0	0	0	0	0
*DW- Dug Well; DCB-Dug-cum-Bore Well; BW-Bore Well; TW-Tube Well; MP-Mine Pit;MPu-Mine Pumps																			
10.	Ground Water Abstraction/Restoration Charges paid (Rs.):							28170.00											
11.	Number of Piezometers(Observation wells) to be constructed/ monitored & Monitoring mechanism.							No. of Piezometers		Monitoring Mechanism									
										Manual	DWLR**	DWLR With Telemetry							
**DWLR - Digital Water Level Recorder							1		0		1		0						

This is an auto generated document & need not to be signed.

Website: [cgwa-noc.gov.in](http://cgwa-noc.gov.in)

**पानी बचाये – जीवन बचाये**  
**SAVE WATER - SAVE LIFE**

CENTRAL GROUND WATER AUTHORITY

---

18/11, जामनगर हाउस, मानसिंह रोड, नई दिल्ली - 110011 / 18/11, Jamnagar House, Mansingh Road, New Delhi-110011

Phone: (011) 23383561 Fax: 23382051, 23386743

Website: [cgwa-noc.gov.in](http://cgwa-noc.gov.in)

पानी बचाये – जीवन बचाये  
SAVE WATER - SAVE LIFE

**Validity of this NOC shall be subject to compliance of the following conditions:**

**Mandatory conditions:**

- 1) Installation of tamper proof digital water flow meter with telemetry on all the abstraction structure(s) shall be mandatory for all users seeking No Objection Certificate and intimation regarding their installation shall be communicated to the CGWA within 30 days of grant of No Objection Certificate.
- 2) Proponents shall mandatorily get water flow meter calibrated from an authorized agency once in a year.
- 3) Construction of purpose-built observation wells (piezometers) for ground water level monitoring shall be mandatory as per Section 14 of Guidelines. Water level data shall be made available to CGWA through web portal. Detailed guidelines for construction of piezometers are given in Annexure-II of the guidelines.
- 4) Proponents shall monitor quality of ground water from the abstraction structure(s) once in a year. Water samples from bore wells/ tube wells / dug wells shall be collected during April/May every year and analysed in NABL accredited laboratories for basic parameters (cations and anions), heavy metals, pesticides/ organic compounds etc. Water quality data shall be made available to CGWA through the web portal.
- 5) In case of mining projects, additional key wells shall be established in consultation with the Regional Director, CGWB for ground water level monitoring four (4) times a year (January, May, August and November) in core as well as buffer zones of the mine.
- 6) In case of mining project the firm shall submit water quality report of mine discharge/ seepage from Govt. approved/ NABL accredited lab.
- 7) The firm shall report compliance of the NOC conditions online in the website ([www.cgwa-noc.gov.in](http://www.cgwa-noc.gov.in)) within one year from the date of issue of this NOC.
- 8) Industries abstracting ground water in excess of 100 m<sup>3</sup>/d shall undertake annual water audit through certified auditors and submit audit reports within three months of completion of the same to CGWA. All such industries shall be required to reduce their ground water use by at least 20% over the next three years through appropriate means.
- 9) Application for renewal can be submitted online from 90 days before the expiry of NOC. Ground water withdrawal, if any, after expiry of NOC shall be illegal & liable for legal action as per provisions of Environment (Protection) Act, 1986.
- 10) This NOC is subject to prevailing Central/State Government rules/laws/norms or Court orders related to construction of tube well/ground water abstraction structure / recharge or conservation structure/discharge of effluents or any such matter as applicable.

**General conditions:**

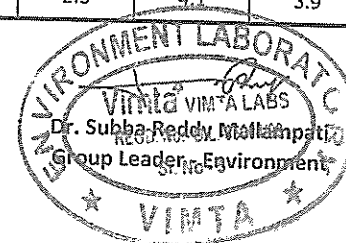
- 11) No additional ground water abstraction and/or de-watering structures shall be constructed for this purpose without prior approval of the Central Ground Water Authority (CGWA).
- 12) The proponent shall seek prior permission from CGWA for any increase in quantum of groundwater abstraction (more than that permitted in NOC for specific period).
- 13) Proponents shall install roof top rain water harvesting in the premise as per the existing building bye laws in the premise.
- 14) The project proponent shall take all necessary measures to prevent contamination of ground water in the premises failing which the firm shall be responsible for any consequences arising thereupon.
- 15) In case of industries that are likely to contaminate the ground water, no recharge measures shall be taken up by the firm inside the plant premises. The runoff generated from the rooftop shall be stored and put to beneficial use by the firm.
- 16) Wherever feasible, requirement of water for greenbelt (horticulture) shall be met from recycled / treated waste water.
- 17) Wherever the NOC is for abstraction of saline water and the existing wells (s) is /are yielding fresh water, the same shall be sealed and new tubewell(s) tapping saline water zone shall be constructed within 3 months of the issuance of NOC. The firm shall also ensure safe disposal of saline residue, if any.
- 18) Unexpected variations in inflow of ground water into the mine pit, if any, shall be reported to the concerned Regional Director, Central Ground Water Board.
- 19) In case of violation of any NOC conditions, the applicant shall be liable to pay the penalties as per Section 16 of Guidelines.
- 20) This NOC does not absolve the proponents of their obligation / requirement to obtain other statutory and administrative clearances from appropriate authorities.
- 21) The issue of this NOC does not imply that other statutory / administrative clearances shall be granted to the project by the concerned authorities. Such authorities would consider the project on merits and take decisions independently of the NOC.
- 22) In case of change of ownership, new owner of the industry will have to apply for incorporation of necessary changes in the No Objection Certificate with documentary proof within 60 days of taking over possession of the premises.
- 23) This NOC is being issued without any prejudice to the directions of the Hon'ble NGT/court orders in cases related to ground water or any other related matters.
- 24) Proponents, who have installed/constructed artificial recharge structures in compliance of the NOC granted to them previously and have availed rebate of upto 50% (fifty percent) in the ground water abstraction charges/ground water restoration charges, shall continue to regularly maintain artificial recharge structures.
- 25) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, pharmaceutical, other hazardous units etc. (as per CPCE list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution as per Annexure III of the guidelines.
- 26) In case of new infrastructure projects having ground water abstraction of more than 20 m<sup>3</sup>/day, the firm/entity shall ensure implementation of dual water supply system in the projects.
- 27) In case of infrastructure projects, paved/parking area must be covered with interlocking/perforated tiles or other suitable measures to ensure groundwater infiltration/harvesting.
- 28) In case of coal and other base metal mining projects, the project proponent shall use the advance dewatering technology (by construction of series of dewatering abstraction structures) to avoid contamination of surface water.
- 29) The NOC issued is conditional subject to the conditions mentioned in the Public notice dated 27.01.2021 failing which penalty/EC/cancellation of NOC shall be imposed as the case may be.
- 30) This NOC is issued subject to the clearance of Expert Appraisal Committee (EAC) (if applicable).

**(Non-compliance of the conditions mentioned above is likely to result in the cancellation of NOC and legal action against the proponent.)**

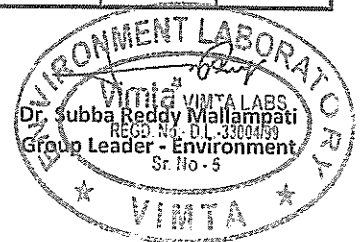
# **Annexure – 7**

## **Ambient Air Quality Monitoring Report**

<b>ISSUED TO:</b> M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			<b>Report Number :-</b> VLL/VLS/21/09392/001 <b>Issue Date :-</b> 2021/11/03 <b>Your Ref :-</b> 8500003497 <b>and date :-</b> 2019/02/16							
<b>Sample Particulars</b>			<b>AMBIENT AIR QUALITY MONITORING AT D G SET (CHOTIA 1)</b>							
Analysis starting date :- 2021-10-05			Analysis Completion date :- 2021-11-02							
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 : D G SET - (CHOTIA 1)							
Sampling Date			2021-10-04	2021-10-08	2021-10-11	2021-10-14	2021-10-18	2021-10-20	2021-10-23	2021-10-26
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	18.1	11.3	15.7	13.7	21.3	14.9	16.1	10.8
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	15.9	15.1	18.1	10.8	9.4	16.2	14.1	13.9
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	56.9	58.1	51.3	47.6	55.2	50.9	54.7	52.9
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	12.9	15.1	11.3	9.6	12.8	14.6	13.1	11.4
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	3.9	4.5	2.8	6.2	4.7	2.6	1.7	3.7
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	2.2	2.8	1.6	2.1	1.9	2.3	1.5	1.8
Lead as Pb	µg/m <sup>3</sup>	1	0.021	0.019	0.014	0.032	0.016	0.025	0.027	0.014
Carbon Monoxide	µg/m <sup>3</sup>	2000	351	496	287	481	362	478	519	395
Ozone	µg/m <sup>3</sup>	100	6.3	4.2	5.9	1.9	3.7	2.3	4.1	3.9

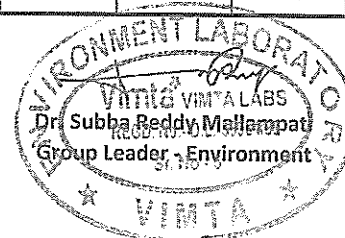


<b>ISSUED TO:</b> M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			<b>Report Number :-</b> VLL/VLS/21/09392/002 <b>Issue Date :-</b> 2021/11/03 <b>Your Ref :-</b> 8500003497 <b>and date :-</b> 2019/02/16							
<b>Sample Particulars</b>			<b>AMBIENT AIR QUALITY MONITORING AT DHANSAR CAMP (CHOTIA - 1)</b>							
<b>Analysis starting date :-</b> 2021-10-05			<b>Analysis Completion date :-</b> 2021-11-02							
<b>Tests required:</b> 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.										
<b>TEST RESULTS</b>										
Parameters	Units	Limits	AAQ Location : Dhansar Camp (Chotia - 1)							
Sampling Date			2021-10-04	2021-10-08	2021-10-11	2021-10-14	2021-10-18	2021-10-20	2021-10-23	2021-10-26
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	10.6	5.9	8.4	6.3	9.1	12.4	7.6	8.2
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	12.8	8.6	11.3	9.6	11.5	15.1	10.4	10.8
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	45.1	48.9	44.6	51.8	46.6	48.7	52.1	47.9
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	11.6	13.1	11.2	14.3	9.8	10.9	14.8	12.9
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	2.2	1.9	3.6	4.1	1.8	2.9	2.2	1.6
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	<0.1	0.5	1.2	1.1	<0.1	<0.1	1.9	1.3
Lead as Pb	µg/m <sup>3</sup>	1	0.014	0.008	0.016	0.021	0.011	0.027	0.016	0.031
Carbon Monoxide	µg/m <sup>3</sup>	2000	236	314	282	279	312	432	296	384
Ozone	µg/m <sup>3</sup>	100	3.9	6.4	5.2	2.8	4.1	3.6	2.7	4.9

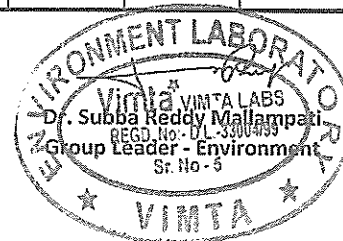




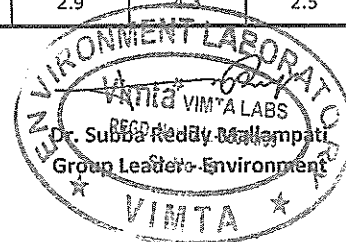
<b>ISSUED TO:</b> M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			<b>Report Number :-</b> VLL/VLS/21/09392/003 <b>Issue Date :-</b> 2021/11/03 <b>Your Ref :-</b> 8500003497 <b>and date :-</b> 2019/02/16							
<b>Sample Particulars</b>			<b>AMBIENT AIR QUALITY MONITORING AT GUEST HOUSE (CHOTIA -1)</b>							
<b>Analysis starting date :-</b> 2021-10-05			<b>Analysis Completion date :-</b> 2021-11-02							
<b>Tests required:</b> 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.										
<b>TEST RESULTS</b>										
<b>Parameters</b>	<b>Units</b>	<b>Limits</b>	<b>AAQ Location : Guest House (Chotia - 1)</b>							
<b>Sampling Date</b>			2021-10-04	2021-10-08	2021-10-11	2021-10-14	2021-10-18	2021-10-20	2021-10-23	2021-10-26
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	15.4	13.8	11.2	17.4	12.7	11.6	16.3	14.9
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	17.8	16.1	14.2	16.3	15.8	14.2	19.3	18.4
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	56.1	54.9	60.2	58.7	43.8	52.7	59.3	62.4
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	14.3	12.8	19.7	15.4	11.3	13.1	16.8	18.9
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	3.1	2.8	3.6	4.2	1.9	2.6	3.3	2.4
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	3.6	2.5	2.8	1.9	1.1	2.4	3	2.8
Lead as Pb	µg/m <sup>3</sup>	1	0.028	0.021	0.036	0.018	0.022	0.014	0.037	0.019
Carbon Monoxide	µg/m <sup>3</sup>	2000	524	597	628	432	418	552	463	579
Ozone	µg/m <sup>3</sup>	100	5.3	2.8	9.1	4.7	6.8	3.3	5.9	7.4



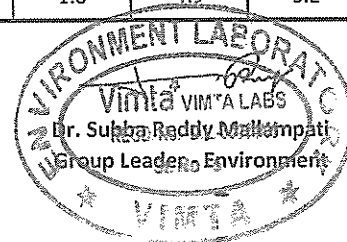
ISSUED TO: M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/VLS/21/09392/004 Issue Date :- 2021/11/03 Your Ref :- 8500003497 and date :- 2019/02/16							
Sample Particulars			AMBIENT AIR QUALITY MONITORING AT DHANSAR CAMP (CHOTIA - 1)							
Analysis starting date :- 2021-10-05			Analysis Completion date :- 2021-11-02							
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 : Weigh Bridge (Chotia - 1)							
Sampling Date			2021-10-04	2021-10-08	2021-10-11	2021-10-14	2021-10-18	2021-10-20	2021-10-23	2021-10-26
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	15.9	21.3	12.6	16.3	14.7	17.9	13.6	18.2
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	18.1	16.4	14.9	18.6	16.9	20.1	15.8	16.5
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	58.4	62.2	54.1	59.7	60.2	47.5	52.7	56.3
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	16.8	21.3	13.9	17.2	19.4	12.1	14.8	15.1
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	3.2	2.5	2.8	3.4	1.6	2.1	4.6	2.7
Benzene (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
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
Arsenic as Pb	ng/m <sup>3</sup>	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Nickel as Pb	ng/m <sup>3</sup>	20	1.8	3.1	2.6	2.2	1.5	1.9	3.7	2.4
Lead as Pb	µg/m <sup>3</sup>	1	0.012	0.024	0.028	0.016	0.029	0.02	0.011	0.025
Carbon Monoxide	µg/m <sup>3</sup>	2000	334	218	562	274	395	471	256	388
Ozone	µg/m <sup>3</sup>	100	5.6	3.4	7.8	4.9	2.3	6.9	4.1	7.3



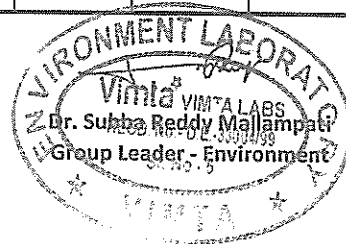
ISSUED TO: M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/VLS/21/09392/005 Issue Date :- 2021/11/03 Your Ref :- 8500003497 and date :- 2019/02/16							
Sample Particulars			AMBIENT AIR QUALITY MONITORING AT BHUJANG VILLAGE (CHOTIA 2)							
Analysis starting date :- 2021-10-05			Analysis Completion date :- 2021-11-02							
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 : Bhujang Village - (CHOTIA 2)							
Sampling Date			2021-10-04	2021-10-08	2021-10-11	2021-10-14	2021-10-18	2021-10-20	2021-10-23	2021-10-26
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	9.1	7.6	12.1	8.4	13.9	10.7	7.4	6.9
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	11.5	10.7	14.5	10.6	12.1	12.9	9.6	9.3
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	46.8	42.1	39.4	44.2	31.9	38.7	40.4	49.2
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	13.8	10.9	8.7	11.3	7.2	9.4	12.6	15.7
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	2.1	1.8	1.3	1.9	2.2	1.4	1.3	1.7
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	<0.1	1.1	<0.1	<0.1	<0.1	1.4	0.7	1.3
Lead as Pb	µg/m <sup>3</sup>	1	0.021	0.018	0.011	0.016	0.024	0.017	0.019	0.026
Carbon Monoxide	µg/m <sup>3</sup>	2000	267	412	359	325	412	289	349	319
Ozone	µg/m <sup>3</sup>	100	3.9	5.1	2.4	4.7	3.6	2.9	4.3	2.5



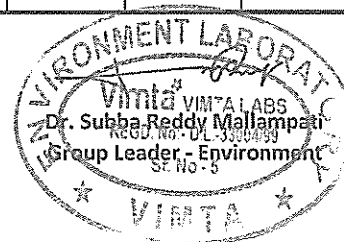
ISSUED TO: M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/VLS/21/09392/006 Issue Date :- 2021/11/03 Your Ref :- 8500003497 and date :- 2019/02/16							
Sample Particulars			AMBIENT AIR QUALITY MONITORING AT D G SET (CHOTIA - 2)							
Analysis starting date :- 2021-10-05			Analysis Completion date :- 2021-11-02							
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 : D G SET (Chotia - 2)							
Sampling Date			2021-10-04	2021-10-08	2021-10-11	2021-10-14	2021-10-18	2021-10-20	2021-10-23	2021-10-26
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	12.8	14.6	8.2	17.2	16.9	10.3	9.6	13.7
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	15.9	16.8	10.6	14.8	11.7	12.8	10.3	14.9
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	51.2	48.7	46.9	58.2	54.9	56.3	49.2	52.9
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	13.1	11.2	10.8	17.1	14.9	16.1	12.4	15.8
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	3.8	2.4	2.9	1.7	3.4	1.9	2.6	2.7
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	2.1	1.9	2.3	2.5	2.7	1.9	1.8	2.6
Lead as Pb	µg/m <sup>3</sup>	1	0.031	0.022	0.029	0.015	0.036	0.021	0.014	0.018
Carbon Monoxide	µg/m <sup>3</sup>	2000	465	328	534	527	259	361	449	506
Ozone	µg/m <sup>3</sup>	100	7.1	3.9	5.8	7.4	6.6	1.8	4.9	5.2



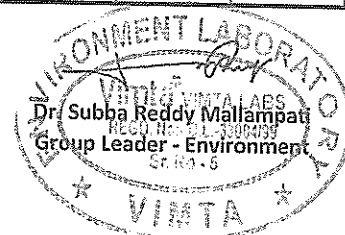
<b>ISSUED TO:</b> M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/MLS/21/09392/007 Issue Date :- 2021/11/03 Your Ref :- 8500003497 and date :- 2019/02/16							
<b>Sample Particulars</b>			<b>AMBIENT AIR QUALITY MONITORING AT GOVT SOLAR PANEL (CHOTIA -2)</b>							
Analysis starting date :- 2021-10-05			Analysis Completion date :- 2021-11-02							
<b>Tests required:</b> 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 : Govt. Solar Panel (Chotia - 2)							
Sampling Date			2021-10-04	2021-10-08	2021-10-11	2021-10-14	2021-10-18	2021-10-20	2021-10-23	2021-10-26
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	11.5	6.3	8.2	10.6	7.4	5.9	12.4	10.8
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	13.9	8.5	10.6	12.9	9.8	8.3	14.6	13.1
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	41.3	52.8	36.4	48.6	40.3	39.4	43.1	37.5
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	10.3	13.8	9.6	15.1	8.4	10.9	12.4	9.4
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	1.5	1.8	2.6	1.7	3.1	3.9	2.6	1.4
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	1.2	<0.1	<0.1	0.9	1.4	1.6	0.7	0.6
Lead as Pb	µg/m <sup>3</sup>	1	0.021	0.028	0.016	0.031	0.012	0.015	0.021	0.009
Carbon Monoxide	µg/m <sup>3</sup>	2000	352	432	469	284	316	341	259	468
Ozone	µg/m <sup>3</sup>	100	3.5	1.9	2.4	5.2	2.6	3.3	4.1	6.2



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<b>Sample Particulars</b>			<b>AMBIENT AIR QUALITY MONITORING AT WEIGH BRIDGE (CHOTIA -2)</b>							
Analysis starting date :- 2021-10-05			2Analysis Completion date :- 2021-11-02							
<b>Tests required:</b> 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.										
<b>TEST RESULTS</b>										
Parameters	Units	Limits	AAQ Location : Weigh Bridge (Chotia - 2)							
Sampling Date			2021-10-04	2021-10-08	2021-10-11	2021-10-14	2021-10-18	2021-10-20	2021-10-23	2021-10-26
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	15.1	10.3	18.4	13.9	8.4	10.6	12.1	14.8
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	17.5	12.8	20.2	16.3	11.2	13.8	14.6	16.9
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	51.3	54.9	47.2	58.7	44.3	50.4	49.8	53.6
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	12.6	14.8	12.8	16.1	11.6	12.3	13.0	15.3
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	4.1	2.8	1.9	2.5	2.3	3.4	2.7	3.1
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	2.6	1.4	3.6	3.8	2.4	1.6	2.1	3.7
Lead as Pb	µg/m <sup>3</sup>	1	0.021	0.026	0.035	0.027	0.014	0.019	0.025	0.039
Carbon Monoxide	µg/m <sup>3</sup>	2000	326	471	264	285	311	365	492	384
Ozone	µg/m <sup>3</sup>	100	5.9	6.1	4.7	3.8	5.2	3.4	2.9	5.3



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<b>Sample Particulars</b>			<b>AMBIENT AIR QUALITY MONITORING AT D G SET (CHOTIA 1)</b>							
<b>Analysis starting date :- 2021-11-03</b>			<b>Analysis Completion date :- 2021-12-02</b>							
<b>Tests required:</b> 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 : D G SET - (CHOTIA 1)							
Sampling Date			2021-11-03	2021-11-08	2021-11-11	2021-11-15	2021-11-18	2021-11-22	2021-11-25	2021-11-27
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	9.5	10.2	8.7	9.5	8.4	10.1	5.6	14.2
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	9.2	6.4	11.2	13.5	4.9	6.1	8.4	12.6
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	43.6	50.4	56.9	44.1	24.8	45.0	42.3	47.4
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	14.0	16.3	21.7	13.9	10.7	19.4	11.5	15.1
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	1.6	3.4	1.9	2.0	3.8	2.1	4.2	2.8
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	2.6	2.4	1.5	1.8	1.1	3.4	1.5	2.7
Lead as Pb	µg/m <sup>3</sup>	1	0.017	0.024	0.022	0.029	0.021	0.019	0.013	0.025
Carbon Monoxide	µg/m <sup>3</sup>	2000	367	451	289	554	264	409	387	364
Ozone	µg/m <sup>3</sup>	100	3.5	7.3	4.9	6.9	3.4	2.8	4.5	5.2

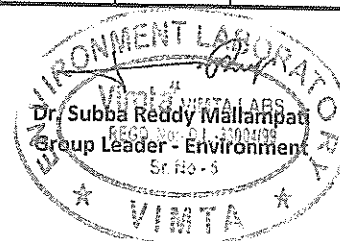


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<b>Sample Particulars</b>			<b>AMBIENT AIR QUALITY MONITORING AT DHANSAR CAMP (CHOTIA - 1)</b>							
<b>Analysis starting date :- 2021-11-03</b>			<b>Analysis Completion date :- 2021-12-02</b>							
<b>Tests required:</b> Sulphur Dioxide (SO <sub>2</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 : Dhansar Camp (Chotia - 1)							
Sampling Date			2021-11-03	2021-11-08	2021-11-11	2021-11-15	2021-11-18	2021-11-22	2021-11-25	2021-11-27
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	8.9	13.3	11.6	9.3	10.1	12.4	8.2	6.1
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	11.3	9.8	12.2	11.1	4.1	13.0	10.3	7.8
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	53.8	51.9	52.3	33.9	46.2	32.0	36.9	44.7
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	23.4	16.2	25.4	14.0	13.8	11.7	19.9	15.5
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	3.9	2.6	4.6	3.8	2.5	3.0	3.7	4.9
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	1.6	1.3	2.1	1.5	1.4	2.6	1.4	2.6
Lead as Pb	µg/m <sup>3</sup>	1	0.023	0.027	0.014	0.019	0.022	0.026	0.021	0.029
Carbon Monoxide	µg/m <sup>3</sup>	2000	462	594	331	268	506	317	492	277
Ozone	µg/m <sup>3</sup>	100	11.3	9.8	12.2	11.1	4.1	13.0	10.3	7.8

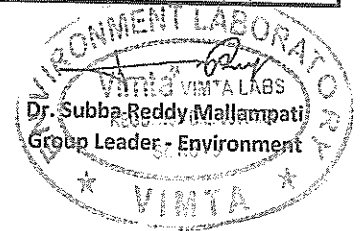




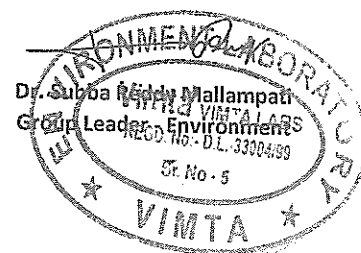
<b>ISSUED TO:</b> <b>M/s. Bharat</b> <b>Aluminium Company</b> <b>Limited,</b> <b>KORBA ( C.G.)</b>			<b>Report Number :- VLL/VLS/21/10611/003</b> <b>Issue Date :- 2021/12/03</b> <b>Your Ref :- 8500003497</b> <b>and date :- 2019/02/16</b>							
<b>Sample Particulars</b>			<b>AMBIENT AIR QUALITY MONITORING AT GUEST HOUSE (CHOTIA -1)</b>							
<b>Analysis starting date :- 2021-11-03</b>			<b>Analysis Completion date :- 2021-12-02</b>							
<b>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 &amp; Lead.</b>										
TEST RESULTS										
Parameters	Units	Limits	AAQ Location : Guest House (Chotia - 1)							
Sampling Date			2021-11-03	2021-11-08	2021-11-11	2021-11-15	2021-11-18	2021-11-22	2021-11-25	2021-11-27
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	10.7	8.3	10.4	12.3	8.2	14.2	6.6	7.8
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	11.9	10.7	11.8	13.7	4.6	13.3	7.5	9.1
Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	100	53.5	51.1	58.9	46.2	56.7	54.9	54.8	56.8
Particulate Matter (PM <sub>2.5</sub> )	µg/m <sup>3</sup>	60	23.9	14.3	21.1	13.5	22.4	21.7	15.1	17.2
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	2.6	4.1	3.9	5.8	2.4	2.2	1.5	3.4
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	2.2	2.8	3.4	4.6	3.1	4.9	2.8	3.7
Lead as Pb	µg/m <sup>3</sup>	1	0.035	0.028	0.024	0.016	0.007	0.032	0.024	0.021
Carbon Monoxide	µg/m <sup>3</sup>	2000	664	359	552	473	284	184	603	349
Ozone	µg/m <sup>3</sup>	100	4.4	3.2	4.9	5.8	3.2	3.6	5.3	6.7



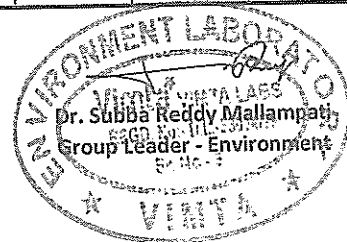
<b>ISSUED TO:</b> M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/VLS/21/10611/004 Issue Date :- 2021/12/03 Your Ref :- 8500003497 and date :- 2019/02/16							
<b>Sample Particulars</b>			<b>AMBIENT AIR QUALITY MONITORING AT DHANSAR CAMP (CHOTIA - 1)</b>							
Analysis starting date :- 2021-11-03			Analysis Completion date :- 2021-12-02							
<b>Tests required:</b> 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 : Weigh Bridge (Chotia - 1)							
Sampling Date			2021-11-03	2021-11-08	2021-11-11	2021-11-15	2021-11-18	2021-11-22	2021-11-25	2021-11-27
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	9.4	8.5	12.8	7.6	10.8	6.1	11.7	13.9
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	10.7	8.4	6.3	9.1	11.8	7.2	12.1	14.4
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	65.0	55.7	61.7	51.6	62.5	50.9	51.3	53.7
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	26.2	16.5	19.3	13.5	26.8	18.0	12.9	15.1
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	2.6	3.9	4.4	3.1	2.8	3.3	2.1	2.8
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	2.5	2.6	3.4	4.3	2.9	3.3	3.7	3.1
Lead as Pb	µg/m <sup>3</sup>	1	0.023	0.029	0.014	0.026	0.034	0.044	0.025	0.038
Carbon Monoxide	µg/m <sup>3</sup>	2000	385	346	265	397	512	447	267	617
Ozone	µg/m <sup>3</sup>	100	6.3	5.3	3.2	5.5	4.4	2.9	5.0	7.6



<b>ISSUED TO:</b> <b>M/s. Bharat</b> <b>Aluminium Company</b> <b>Limited,</b> <b>KORBA ( C.G.)</b>			<b>Report Number :- VLL/VLS/21/10611/005</b> <b>Issue Date :- 2021/12/03</b> <b>Your Ref :- 8500003497</b> <b>and date :- 2019/02/16</b>							
<b>Sample Particulars</b>			<b>AMBIENT AIR QUALITY MONITORING AT BHUJANG VILLAGE (CHOTIA 2)</b>							
<b>Analysis starting date :- 2021-11-03</b>			<b>Analysis Completion date :- 2021-12-02</b>							
<b>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 &amp; Lead.</b>										
TEST RESULTS										
Parameters	Units	Limits	AAQ Location : Bhujang Village - (CHOTIA 2)							
Sampling Date			2021-11-03	2021-11-08	2021-11-11	2021-11-15	2021-11-18	2021-11-22	2021-11-25	2021-11-27
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	5.7	7.0	5.4	6.9	4.4	5.3	7.8	6.1
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	8.4	9.8	7.9	10.2	7.1	7.9	10.5	8.7
Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	100	46.8	54.3	52.0	44.1	35.0	35.4	50.7	39.4
Particulate Matter (PM <sub>2.5</sub> )	µg/m <sup>3</sup>	60	11.8	18.9	13.2	12.8	9.2	11.9	16.0	9.6
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	1.9	3.6	2.8	2.4	1.7	3.1	2.2	1.6
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	1.3	1.8	<0.1	<0.1	1.3	0.8	1.5	1.9
Lead as Pb	µg/m <sup>3</sup>	1	0.018	0.026	0.035	0.017	0.022	0.026	0.019	0.014
Carbon Monoxide	µg/m <sup>3</sup>	2000	251	233	612	343	528	403	348	273
Ozone	µg/m <sup>3</sup>	100	3.3	2.2	2.8	5.1	4.3	3.6	2.3	4.7



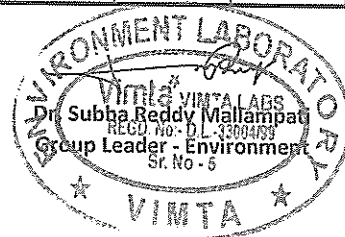
<b>ISSUED TO:</b> <b>M/s. Bharat</b> <b>Aluminium Company</b> <b>Limited,</b> <b>KORBA ( C.G.)</b>			<b>Report Number :- VLL/VLS/21/10611/006</b> <b>Issue Date :- 2021/12/03</b> <b>Your Ref :- 8500003497</b> <b>and date :- 2019/02/16</b>							
<b>Sample Particulars</b> <b>Analysis starting date :- 2021-11-03</b>			<b>AMBIENT AIR QUALITY MONITORING AT D G SET (CHOTIA - 2)</b> <b>Analysis Completion date :- 2021-12-02</b>							
<b>Tests required:</b> 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.										
<b>TEST RESULTS</b>										
			<b>AAQ Location : D G SET (Chotia - 2)</b>							
<b>Parameters</b>	<b>Units</b>	<b>Limits</b>	<b>2021-11-03</b>	<b>2021-11-08</b>	<b>2021-11-11</b>	<b>2021-11-15</b>	<b>2021-11-18</b>	<b>2021-11-22</b>	<b>2021-11-25</b>	<b>2021-11-27</b>
<b>Sampling Date</b>										
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	13.1	10.7	11.2	7.3	16.5	9.0	14.3	17.2
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	12.3	13.1	13.7	10.2	21.4	10.3	16.5	19.6
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	58.2	64.4	55.9	60.4	62.7	57.4	54.2	59.9
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	18.9	22.3	20.4	24.9	21.5	14.8	20.2	23.3
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	4.2	3.9	5.1	2.8	2.2	1.6	2.9	3.4
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	1.4	3.6	3.4	2.8	1.3	3.1	2.6	2.5
Lead as Pb	µg/m <sup>3</sup>	1	0.026	0.021	0.041	0.029	0.033	0.027	0.035	0.032
Carbon Monoxide	µg/m <sup>3</sup>	2000	562	541	397	413	519	338	472	251
Ozone	µg/m <sup>3</sup>	100	8.4	4.7	5.4	3.0	4.1	3.7	5.3	3.6



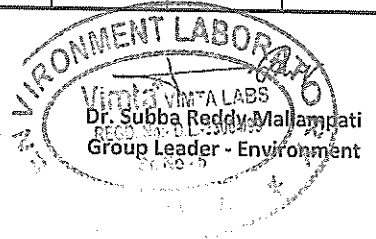
<b>ISSUED TO:</b> <b>M/s. Bharat</b> <b>Aluminium Company</b> <b>Limited,</b> <b>KORBA ( C.G.)</b>			<b>Report Number :- VLL/VLS/21/10611/007</b> <b>Issue Date :- 2021/12/03</b> <b>Your Ref :- 8500003497</b> <b>and date :- 2019/02/16</b>							
<b>Sample Particulars</b>			<b>AMBIENT AIR QUALITY MONITORING AT GOVT SOLAR PANEL (CHOTIA -2)</b>							
<b>Analysis starting date :- 2021-11-03</b>			<b>Analysis Completion date :- 2021-12-02</b>							
<b>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 &amp; Lead.</b>										
TEST RESULTS										
Parameters	Units	Limits	AAQ Location : Govt. Solar Panel (Chotia - 2)							
Sampling Date			2021-11-03	2021-11-08	2021-11-11	2021-11-15	2021-11-18	2021-11-22	2021-11-25	2021-11-27
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	5.9	7.5	8.1	6.7	10.3	7.4	5.8	12.7
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	8.1	9.3	11.3	8.9	13.3	9.6	6.9	15.6
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	45.4	52.2	63.7	52.4	54.5	50.7	51.4	56.2
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	11.1	14.6	17.3	12.8	24.6	17.1	23.4	13.8
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	2.2	1.9	2.7	3.4	1.9	2.2	1.7	2.6
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	1.9	2.5	2.1	3.4	1.7	2.6	2.4	1.9
Lead as Pb	µg/m <sup>3</sup>	1	0.031	0.029	0.015	0.014	0.033	0.037	0.026	0.024
Carbon Monoxide	µg/m <sup>3</sup>	2000	412	431	294	336	273	456	372	449
Ozone	µg/m <sup>3</sup>	100	3.1	2.9	5.3	6.3	3.1	2.5	2.6	3.3

Dr. Subba Reddy Mallampati  
Group Leader - Environment  
Sr. No - 6  
VIMTA

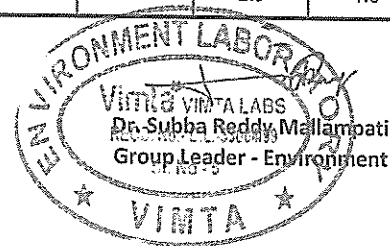
ISSUED TO: M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/VLS/21/10611/008 Issue Date :- 2021/12/03 Your Ref :- 8500003497 and date :- 2019/02/16							
Sample Particulars			AMBIENT AIR QUALITY MONITORING AT WEIGH BRIDGE (CHOTIA -2)							
Analysis starting date :- 2021-11-03			Analysis Completion date :- 2021-12-02							
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 : Weigh Bridge (Chotia - 2)							
Sampling Date			2021-11-03	2021-11-08	2021-11-11	2021-11-15	2021-11-18	2021-11-22	2021-11-25	2021-11-27
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	12.0	11.7	9.6	11.5	10.7	13.9	7.1	8.9
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	14.3	13.2	11.9	13.5	6.8	10.9	9.8	10.1
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	56.4	68.4	61.7	59.3	54.3	52.7	59.4	51.3
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	16.6	28.1	22.2	27.7	13.6	15.6	21.3	14.0
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	2.9	3.6	1.8	2.2	3.4	2.9	3.4	1.6
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	1.8	3.4	2.9	2.2	2.7	1.9	4.2	3.6
Lead as Pb	µg/m <sup>3</sup>	1	0.042	0.028	0.039	0.025	0.031	0.048	0.037	0.020
Carbon Monoxide	µg/m <sup>3</sup>	2000	268	343	568	276	506	364	439	352
Ozone	µg/m <sup>3</sup>	100	3.6	5.3	7.0	9.0	3.5	5.6	3.1	3.9



<b>ISSUED TO:</b> M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/VLS/21/12527/001 Issue Date :- 2022/01/05 Your Ref :- 8500003497 and date :- 2019/02/16							
<b>Sample Particulars</b>			<b>AMBIENT AIR QUALITY MONITORING AT D G SET (CHOTIA 1)</b>							
Analysis starting date :- 2021-12-05			Analysis Completion date :- 2022-01-04							
<b>Tests required:</b> 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 : D G SET - (CHOTIA 1)							
Sampling Date			2021-12-04	2021-12-07	2021-12-10	2021-12-13	2021-12-17	2021-12-20	2021-12-23	2021-12-27
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	11.6	12.8	9.4	6.7	9.1	12.7	10.8	8.3
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	13.1	15.8	10.6	9.8	6.8	9.7	12.1	11.8
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	46.9	52.8	54.7	49.3	36.9	41.2	50.4	37.1
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	12.1	15.8	16.1	14.3	11.3	12.9	15.6	10.7
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	2.6	2.9	1.4	4.3	2.7	1.9	3.1	2.5
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	2.1	1.9	3.6	2.5	2.7	1.4	3.1	2.6
Lead as Pb	µg/m <sup>3</sup>	1	0.023	0.017	0.006	0.024	0.011	0.016	0.032	0.028
Carbon Monoxide	µg/m <sup>3</sup>	2000	364	259	341	437	241	477	516	429
Ozone	µg/m <sup>3</sup>	100	3.9	6.1	2.8	4.3	6.9	5.7	3.1	2.6

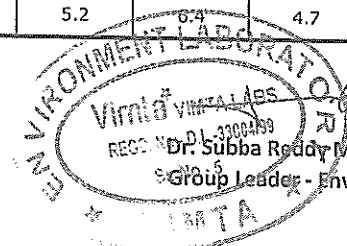


ISSUED TO: M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/VLS/21/12527/002 Issue Date :- 2022/01/05 Your Ref :- 8500003497 and date :- 2019/02/16							
Sample Particulars			AMBIENT AIR QUALITY MONITORING AT DHANSAR CAMP (CHOTIA - 1)							
Analysis starting date :- 2021-12-05			Analysis Completion date :- 2022-01-04							
Tests required: Sulphur Dioxide (SO <sub>2</sub> ), Nitrogen Dioxide (NO <sub>x</sub> ), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), 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 : Dhansar Camp (Chotia - 1)							
Sampling Date			2021-12-04	2021-12-07	2021-12-10	2021-12-13	2021-12-17	2021-12-20	2021-12-23	2021-12-27
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	9.4	6.8	9.1	7.2	6.6	11.2	9.8	7.3
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	11.8	9.3	11.6	10.1	9.2	13.5	12.1	10.6
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	43.9	53.6	58.1	47.9	52.9	42.1	41.3	51.7
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	12.3	15.4	18.7	14.1	15.8	10.6	12.9	16.3
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	2.7	2.1	3.2	3.5	1.6	2.2	1.9	3.7
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	1.6	3.5	2.8	2.4	3.1	2.4	1.8	2.2
Lead as Pb	µg/m <sup>3</sup>	1	0.032	0.018	0.025	0.022	0.013	0.034	0.014	0.026
Carbon Monoxide	µg/m <sup>3</sup>	2000	362	283	415	487	253	498	249	372
Ozone	µg/m <sup>3</sup>	100	5.8	3.4	6.9	8.4	3.7	8.1	2.9	4.6

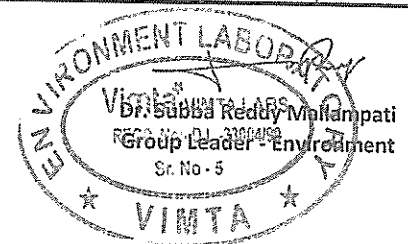




ISSUED TO: M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/VLS/21/12527/003 Issue Date :- 2022/01/05 Your Ref :- 8500003497 and date :- 2019/02/16							
Sample Particulars			AMBIENT AIR QUALITY MONITORING AT GUEST HOUSE (CHOTIA -1)							
Analysis starting date :- 2021-12-05			Analysis Completion date :- 2022-01-04							
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 : Guest House (Chotia - 1)							
Sampling Date			2021-12-04	2021-12-07	2021-12-10	2021-12-13	2021-12-17	2021-12-20	2021-12-23	2021-12-27
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	12.1	8.1	10.2	9.6	13.4	11.7	8.6	11.6
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	10.8	11.9	12.6	7.6	10.8	12.9	11.3	8.9
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	52.9	60.4	58.7	55.6	61.3	54.9	63.8	58.1
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	15.1	21.3	18.7	16.3	23.1	15.7	22.4	17.3
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	5.1	1.9	3.6	5.2	4.7	2.9	3.6	4.2
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	3.6	2.9	3.5	3.4	1.6	0.9	3.6	2.8
Lead as Pb	µg/m <sup>3</sup>	1	0.005	0.016	0.034	0.028	0.014	0.032	0.029	0.038
Carbon Monoxide	µg/m <sup>3</sup>	2000	528	465	412	587	364	387	563	429
Ozone	µg/m <sup>3</sup>	100	6.1	8.4	2.9	3.7	5.2	6.4	4.7	3.9

  
 Dr. Subba Reddy Mallampati  
 Group Leader - Environment

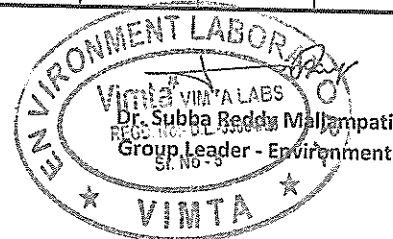
<b>ISSUED TO:</b> <b>M/s. Bharat</b> <b>Aluminium Company</b> <b>Limited,</b> <b>KORBA ( C.G.)</b>			<b>Report Number :- VLL/VLS/21/12527/004</b> <b>Issue Date :- 2022/01/05</b> <b>Your Ref :- 8500003497</b> <b>and date :- 2019/02/16</b>							
<b>Sample Particulars</b>			<b>AMBIENT AIR QUALITY MONITORING AT DHANSAR CAMP (CHOTIA - 1)</b>							
<b>Analysis starting date :- 2021-12-05</b>			<b>Analysis Completion date :- 2022-01-04</b>							
<b>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 &amp; Lead.</b>										
<b>TEST RESULTS</b>										
<b>Parameters</b>	<b>Units</b>	<b>Limits</b>	<b>AAQ Location : Weigh Bridge (Chotia - 1)</b>							
<b>Sampling Date</b>			2021-12-04	2021-12-07	2021-12-10	2021-12-13	2021-12-17	2021-12-20	2021-12-23	2021-12-27
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	11.8	14.1	13.2	19.4	13.6	14.7	12.9	15.1
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	12.1	16.3	17.4	14.1	15.8	9.6	14.3	10.8
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	61.2	58.4	58.7	46.3	60.8	55.7	56.9	53.9
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	24.2	27.4	17.6	12.1	18.9	14.3	16.1	13.8
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	1.6	2.8	3.9	4.1	2.9	3.7	3.3	2.9
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	3.1	1.5	0.6	3.3	0.8	2.4	1.9	2.6
Lead as Pb	µg/m <sup>3</sup>	1	0.018	0.009	0.032	0.028	0.035	0.041	0.019	0.028
Carbon Monoxide	µg/m <sup>3</sup>	2000	521	456	329	387	228	413	439	562
Ozone	µg/m <sup>3</sup>	100	5.3	8.4	4.3	2.9	6.8	5.6	3.9	4.4



ISSUED TO: M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/VLS/21/12527/005 Issue Date :- 2022/01/05 Your Ref :- 8500003497 and date :- 2019/02/16							
Sample Particulars			AMBIENT AIR QUALITY MONITORING AT BHUJANG VILLAGE (CHOTIA 2)							
Analysis starting date :- 2021-12-05			Analysis Completion date :- 2022-01-04							
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 : Bhujang Village - (CHOTIA 2)							
Sampling Date			2021-12-04	2021-12-07	2021-12-10	2021-12-13	2021-12-17	2021-12-20	2021-12-23	2021-12-27
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	8.1	6.3	9.4	8.2	10.9	7.1	9.6	11.2
Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	80	10.6	8.9	11.6	10.5	11.3	9.6	10.8	9.4
Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	100	41.8	39.6	55.2	48.2	40.3	38.2	52.1	44.7
Particulate Matter (PM <sub>2.5</sub> )	µg/m <sup>3</sup>	60	11.3	10.8	16.2	13.8	10.6	9.3	14.1	12.9
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	2.6	3.4	2.9	5.2	1.9	3.6	2.7	2.2
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	2.1	1.6	1.8	3.4	1.7	2.6	3.3	2.8
Lead as Pb	µg/m <sup>3</sup>	1	0.019	0.032	0.026	0.014	0.018	0.022	0.034	0.026
Carbon Monoxide	µg/m <sup>3</sup>	2000	352	269	541	383	462	399	415	289
Ozone	µg/m <sup>3</sup>	100	4.2	3.9	2.1	3.9	4.1	2.6	3.3	2.7

ENVIRONMENT LABORATORY  
Vimta VIMTA LABS  
REGD. Dr. Subba Reddy Mallampati  
Group Leader - Environment

ISSUED TO: M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/VLS/21/12527/006 Issue Date :- 2022/01/05 Your Ref :- 8500003497 and date :- 2019/02/16							
Sample Particulars			AMBIENT AIR QUALITY MONITORING AT D G SET (CHOTIA - 2)							
Analysis starting date :- 2021-12-05			Analysis Completion date :- 2022-01-04							
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 : D G SET (Chotia - 2)							
Sampling Date			2021-12-04	2021-12-07	2021-12-10	2021-12-13	2021-12-17	2021-12-20	2021-12-23	2021-12-27
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	15.2	7.3	11.3	9.6	10.4	8.1	7.3	12.9
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	12.6	10.5	13.9	11.8	12.6	9.6	11.2	10.9
Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	100	52.6	49.3	61.2	59.3	66.4	63.7	58.2	54.3
Particulate Matter (PM <sub>2.5</sub> )	µg/m <sup>3</sup>	60	16.7	12.9	23.9	20.6	25.1	22.9	19.8	18.6
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	3.3	1.9	5.2	2.9	3.1	2.4	1.8	1.2
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	2.5	2.9	3.6	3.3	2.7	4.3	2.5	1.5
Lead as Pb	µg/m <sup>3</sup>	1	0.016	0.031	0.035	0.011	0.028	0.017	0.029	0.024
Carbon Monoxide	µg/m <sup>3</sup>	2000	361	552	498	612	264	484	262	386
Ozone	µg/m <sup>3</sup>	100	6.5	3.4	7.1	9.5	11.3	5.4	3.9	4.6



ISSUED TO:  
M/s. Bharat  
Aluminium Company  
Limited,  
KORBA ( C.G.)

Report Number :- VLL/VLS/21/12527/007  
Issue Date :- 2022/01/05  
Your Ref :- 8500003497  
and date :- 2019/02/16

Sample Particulars

AMBIENT AIR QUALITY MONITORING AT GOVT SOLAR PANEL (CHOTIA -2)

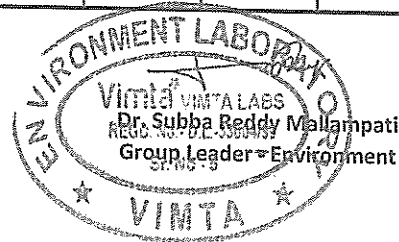
Analysis starting date :- 2021-12-05

Analysis Completion date :- 2022-01-04

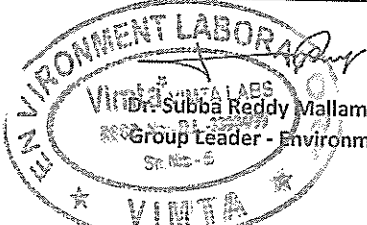
Tests required: Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>x</sub>), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), Benzene (C<sub>6</sub>H<sub>6</sub>), Benzo (a) Pyrene in particulate phase, Heavy metals in particulate phase for Arsenic, Nickel & Lead.

TEST RESULTS

Parameters	Units	Limits	AAQ Location : Govt. Solar Panel (Chotia - 2)							
Sampling Date			2021-12-04	2021-12-07	2021-12-10	2021-12-13	2021-12-17	2021-12-20	2021-12-23	2021-12-27
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	10.6	7.4	5.9	11.3	8.2	9.6	12.1	6.8
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	7.4	11.8	8.6	12.9	10.9	12.8	10.5	9.7
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	49.1	36.9	58.4	42.9	55.3	52.6	50.9	47.3
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	14.8	8.4	19.1	12.3	17.4	15.1	13.9	11.5
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	1.6	3.5	1.9	2.4	2.2	1.9	2.7	3.1
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	3.6	2.8	1.4	0.6	2.9	1.6	1.1	1.9
Lead as Pb	µg/m <sup>3</sup>	1	0.021	0.029	0.016	0.031	0.027	0.019	0.025	0.022
Carbon Monoxide	µg/m <sup>3</sup>	2000	356	268	665	419	385	216	334	357
Ozone	µg/m <sup>3</sup>	100	5.2	3.1	2.9	6.4	1.8	3.4	3.9	2.6



<b>ISSUED TO:</b> M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			<b>Report Number :-</b> VLL/VLS/21/12527/008 <b>Issue Date :-</b> 2022/01/05 <b>Your Ref :-</b> 8500003497 <b>and date :-</b> 2019/02/16							
<b>Sample Particulars</b>			<b>AMBIENT AIR QUALITY MONITORING AT WEIGH BRIDGE (CHOTIA -2)</b>							
<b>Analysis starting date :-</b> 2021-12-05			<b>Analysis Completion date :-</b> 2022-01-04							
<b>Tests required:</b> 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 : Weigh Bridge (Chotia - 2)							
Sampling Date			2021-12-04	2021-12-07	2021-12-10	2021-12-13	2021-12-17	2021-12-20	2021-12-23	2021-12-27
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	13.2	15.8	9.4	12.1	14.6	10.9	13.4	11.8
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	15.8	9.3	12.1	17.2	15.4	13.6	8.4	13.9
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	61.3	59.4	61.8	56.1	63.1	58.7	62.9	57.9
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	20.6	18.4	25.1	16.9	21.9	19.4	23.6	22.7
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	3.9	2.5	1.9	6.4	3.5	3.3	2.9	3.1
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	2.9	3.1	2.6	2.4	1.9	1.2	3.6	3.2
Lead as Pb	µg/m <sup>3</sup>	1	0.032	0.039	0.025	0.022	0.016	0.008	0.021	0.041
Carbon Monoxide	µg/m <sup>3</sup>	2000	521	496	232	451	615	398	405	589
Ozone	µg/m <sup>3</sup>	100	5.6	6.1	8.4	3.9	4.9	7.7	5.9	4.7

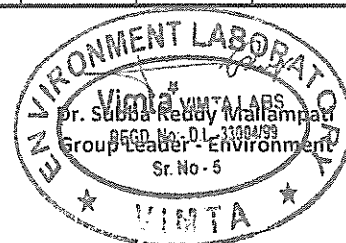
  
**Dr. Subba Reddy Mallampati**  
Group Leader - Environment  
Sr. No. - 5  
**VIMTA**

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ISSUED TO: M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/VLS/21-22/14209/001 Issue Date :- 2022/02/05 Your Ref :- 8500003497 and date :- 2019/02/16							
Sample Particulars			AMBIENT AIR QUALITY MONITORING AT D G SET (CHOTIA 1)							
Analysis starting date :- 2022-01-05			Analysis Completion date :- 2022-02-04							
Tests required: Sulphur Dioxide (SO <sub>2</sub> ), Nitrogen Dioxide (NO <sub>x</sub> ), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), 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 : D G SET - (CHOTIA 1)							
Sampling Date			2022-01-04	2022-01-08	2022-01-11	2022-01-14	2022-01-17	2022-01-22	2022-01-25	2022-01-28
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	10.6	14.2	8.4	6.9	12.3	9.7	11.5	7.6
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	12.9	9.1	11.6	9.3	8.7	11.9	14.3	10.2
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	52.6	59.4	47.2	36.2	58.4	54.3	49.6	51.7
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	14.3	17.1	12.6	8.9	15.3	13.8	10.9	11.7
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	2.9	6.4	5.8	3.7	8.4	5.1	6.6	3.2
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	1.9	3.6	5.2	1.7	4.2	3.3	2.8	3.4
Lead as Pb	µg/m <sup>3</sup>	1	0.026	0.017	0.015	0.031	0.022	0.019	0.034	0.028
Carbon Monoxide	µg/m <sup>3</sup>	2000	561	238	524	339	487	324	386	471
Ozone	µg/m <sup>3</sup>	100	5.2	4.9	6.3	2.8	7.4	3.7	6.2	8.1

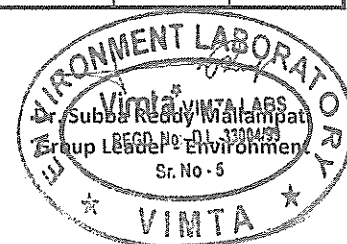


<b>ISSUED TO:</b> M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/VLS/21-22/14209/002 Issue Date :- 2022/02/05 Your Ref :- 8500003497 and date :- 2019/02/16							
Sample Particulars			AMBIENT AIR QUALITY MONITORING AT DHANSAR CAMP (CHOTIA - 1)							
Analysis starting date :- 2022-01-05			Analysis Completion date :- 2022-02-04							
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.										
<b>TEST RESULTS</b>										
Parameters	Units	Limits	AAQ Location : Dhansar Camp (Chotia - 1)							
Sampling Date			2022-01-04	2022-01-08	2022-01-11	2022-01-14	2022-01-17	2022-01-22	2022-01-25	2022-01-28
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	9.8	11.9	8.2	10.6	12.6	6.4	8.1	7.9
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	12.3	15.2	10.6	9.3	5.9	8.7	11.6	10.7
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	41.9	54.2	39.4	47.5	59.2	45.1	58.7	49.3
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	12.8	18.4	10.3	15.1	23.8	14.3	20.2	17.6
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	5.2	3.9	3.6	2.1	4.9	2.6	1.6	4.1
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	2.6	3.4	1.9	3.1	2.8	1.9	4.2	3.6
Lead as Pb	µg/m <sup>3</sup>	1	0.034	0.028	0.022	0.016	0.047	0.036	0.035	0.027
Carbon Monoxide	µg/m <sup>3</sup>	2000	326	481	169	335	452	287	497	308
Ozone	µg/m <sup>3</sup>	100	6.4	8.2	3.9	6.7	5.8	9.4	4.9	7.8





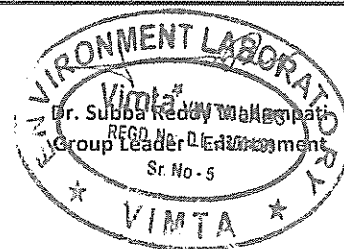
<b>ISSUED TO:</b> M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/VLS/21-22/14209/003 Issue Date :- 2022/02/05 Your Ref :- 8500003497 and date :- 2019/02/16							
Sample Particulars			AMBIENT AIR QUALITY MONITORING AT GUEST HOUSE (CHOTIA -1)							
Analysis starting date :- 2022-01-05			Analysis Completion date :- 2022-01-04							
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.										
<b>TEST RESULTS</b>										
Parameters	Units	Limits	AAQ Location : Guest House (Chotia - 1)							
Sampling Date			2022-01-04	2022-01-08	2022-01-11	2022-01-14	2022-01-17	2022-01-22	2022-01-25	2022-01-28
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	12.3	9.4	15.6	8.2	9.9	12.3	10.4	13.8
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	10.6	12.3	14.8	11.6	12.8	15.3	9.6	12.7
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	56.4	63.8	49.3	58.2	61.2	44.6	57.2	50.9
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	14.3	24.6	12.1	18.7	20.3	11.8	16.4	12.9
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	5.2	6.9	4.2	2.2	3.7	5.6	3.1	2.9
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	1.6	1.8	3.4	2.8	4.4	3.7	2.1	1.3
Lead as Pb	µg/m <sup>3</sup>	1	0.029	0.024	0.021	0.018	0.013	0.024	0.033	0.014
Carbon Monoxide	µg/m <sup>3</sup>	2000	546	531	412	482	419	362	459	424
Ozone	µg/m <sup>3</sup>	100	2.8	6.0	3.9	4.4	2.9	1.6	5.9	4.7



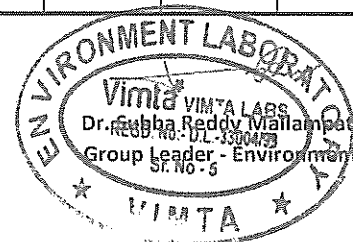
ISSUED TO: M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/VLS/21-22/14209/004 Issue Date :- 2022/02/05 Your Ref :- 8500003497 and date :- 2019/02/16							
Sample Particulars			AMBIENT AIR QUALITY MONITORING AT DHANSAR CAMP (CHOTIA - 1)							
Analysis starting date :- 2022-01-05			Analysis Completion date :- 2022-02-04							
Tests required: Sulphur Dioxide (SO <sub>2</sub> ), Nitrogen Dioxide (NO <sub>x</sub> ), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), 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 : Weigh Bridge (Chotia - 1)							
Sampling Date			2022-01-04	2022-01-08	2022-01-11	2022-01-14	2022-01-17	2022-01-22	2022-01-25	2022-01-28
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	15.3	12.1	9.4	10.6	12.8	14.3	8.2	13.4
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	11.9	16.4	8.4	13.2	10.3	9.7	13.9	12.1
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	62.9	54.1	49.6	57.3	66.2	58.2	54.3	60.7
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	22.9	15.3	13.6	16.8	25.4	18.3	17.1	21.9
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	3.6	3.8	2.4	1.9	5.2	6.7	3.9	2.2
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	1.3	2.8	3.3	2.9	2.4	2.1	3.6	3.4
Lead as Pb	µg/m <sup>3</sup>	1	0.038	0.022	0.029	0.024	0.02	0.018	0.022	0.039
Carbon Monoxide	µg/m <sup>3</sup>	2000	363	298	421	348	413	452	416	423
Ozone	µg/m <sup>3</sup>	100	5.2	4.9	2.6	3.8	5.1	2.2	6.4	4.4



ISSUED TO: M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/VLS/21-22/14209/005 Issue Date :- 2022/02/05 Your Ref :- 8500003497 and date :- 2019/02/16							
Sample Particulars			AMBIENT AIR QUALITY MONITORING AT BHUJANG VILLAGE (CHOTIA 2)							
Analysis starting date :- 2022-01-05			Analysis Completion date :- 2022-02-04							
Tests required: Sulphur Dioxide (SO <sub>2</sub> ), Nitrogen Dioxide (NO <sub>x</sub> ), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), 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 : Bhujang Village - (CHOTIA 2)							
Sampling Date			2022-01-04	2022-01-08	2022-01-11	2022-01-14	2022-01-17	2022-01-22	2022-01-25	2022-01-28
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	6.3	8.1	10.6	9.4	11.6	7.3	8.6	9.7
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	8.6	10.8	12.1	11.3	11.9	9.6	10.9	12.3
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	39.6	50.2	47.3	51.4	36.6	45.4	48.2	53.2
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	9.8	11.3	10.8	11.8	7.4	12.9	9.6	13.6
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	2.8	1.9	3.4	1.6	3.5	2.7	1.8	3.4
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	0.3	0.9	<0.1	1.1	<0.1	<0.1	1.1	<0.1
Lead as Pb	µg/m <sup>3</sup>	1	0.013	0.009	0.021	0.016	0.017	0.023	0.027	0.019
Carbon Monoxide	µg/m <sup>3</sup>	2000	354	493	259	472	339	236	394	346
Ozone	µg/m <sup>3</sup>	100	4.3	2.9	6.5	3.3	4.7	2.1	3.5	3.7



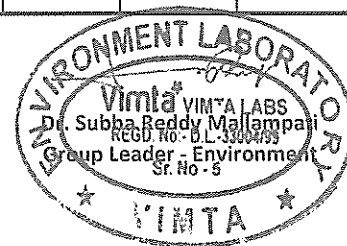
ISSUED TO: M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/VLS/21-22/14209/006 Issue Date :- 2022/02/05 Your Ref :- 8500003497 and date :- 2019/02/16							
Sample Particulars			AMBIENT AIR QUALITY MONITORING AT D G SET (CHOTIA - 2)							
Analysis starting date :- 2022-01-05			Analysis Completion date :- 2022-02-04							
Tests required: Sulphur Dioxide (SO <sub>2</sub> ), Nitrogen Dioxide (NO <sub>x</sub> ), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), 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 : D G SET (Chotia - 2)							
Sampling Date			2022-01-04	2022-01-08	2022-01-11	2022-01-14	2022-01-17	2022-01-22	2022-01-25	2022-01-28
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	16.2	14.1	10.8	12.3	9.3	11.9	13.4	10.3
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	12.6	8.4	14.1	6.9	11.7	12.9	10.3	13.2
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	47.9	51.1	53.2	52.2	54.3	52.3	48.2	51.8
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	21.4	22.7	19.4	20.3	20.6	23.9	17.3	21.8
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	6.3	5.4	1.9	3.8	4.5	2.8	5.6	4.9
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	2.6	2.8	3.6	4.5	4.3	2.9	3.6	2.7
Lead as Pb	µg/m <sup>3</sup>	1	0.021	0.036	0.039	0.041	0.028	0.015	0.037	0.022
Carbon Monoxide	µg/m <sup>3</sup>	2000	359	513	669	385	496	213	461	398
Ozone	µg/m <sup>3</sup>	100	6.3	5.4	3.8	5.9	6.7	8.4	11.3	7.6



ISSUED TO: M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/VLS/21-22/14209/007 Issue Date :- 2022/02/05 Your Ref :- 8500003497 and date :- 2019/02/16							
Sample Particulars			AMBIENT AIR QUALITY MONITORING AT GOVT SOLAR PANEL (CHOTIA -2)							
Analysis starting date :- 2022-01-05			Analysis Completion date :- 2022-02-04							
Tests required: Sulphur Dioxide (SO <sub>2</sub> ), Nitrogen Dioxide (NO <sub>x</sub> ), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), 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 : Govt. Solar Panel (Chotia - 2)							
Sampling Date			2022-01-04	2022-01-08	2022-01-11	2022-01-14	2022-01-17	2022-01-22	2022-01-25	2022-01-28
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	8.9	10.2	9.6	13.2	11.9	8.4	9.7	10.8
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	11.3	13.5	11.8	10.6	13.2	10.8	11.3	12.9
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	50.9	47.1	39.4	55.9	51.7	48.2	42.9	57.4
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	14.8	18.3	11.9	20.7	16.9	15.3	13.8	19.3
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	3.5	2.9	1.7	5.4	3.6	2.9	1.3	3.9
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	2.2	2.9	1.4	1.3	1.9	2.3	3.4	2.8
Lead as Pb	µg/m <sup>3</sup>	1	0.021	0.029	0.026	0.014	0.023	0.018	0.013	0.037
Carbon Monoxide	µg/m <sup>3</sup>	2000	323	395	475	528	164	229	308	413
Ozone	µg/m <sup>3</sup>	100	3.6	2.9	5.1	7.4	1.9	3.5	2.9	4.7



ISSUED TO: M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/VLS/21-22/14209/008 Issue Date :- 2022/02/05 Your Ref :- 8500003497 and date :- 2019/02/16							
Sample Particulars			AMBIENT AIR QUALITY MONITORING AT WEIGH BRIDGE (CHOTIA -2)							
Analysis starting date :- 2022-01-05			Analysis Completion date :- 2022-02-04							
Tests required: Sulphur Dioxide (SO <sub>2</sub> ), Nitrogen Dioxide (NO <sub>x</sub> ), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), 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 : Weigh Bridge (Chotia - 2)							
Sampling Date			2022-01-04	2022-01-08	2022-01-11	2022-01-14	2022-01-17	2022-01-22	2022-01-25	2022-01-28
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	11.6	14.1	8.5	12.9	17.4	16.2	12.8	13.8
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	13.9	11.3	10.8	15.1	8.7	12.9	6.3	10.7
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	49.4	52.9	46.3	48.4	45.2	43.9	57.5	49.1
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	21.8	19.7	23.9	20.9	20.9	20.7	24.9	22.1
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	6.5	2.9	4.1	3.7	3.9	5.6	3.9	2.2
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	3.1	2.9	4.5	4.2	3.9	3.3	2.7	2.6
Lead as Pb	µg/m <sup>3</sup>	1	0.032	0.039	0.047	0.016	0.026	0.038	0.011	0.041
Carbon Monoxide	µg/m <sup>3</sup>	2000	332	329	342	358	394	337	496	427
Ozone	µg/m <sup>3</sup>	100	6.3	7.4	9.3	4.9	6.6	2.8	7.4	8.2

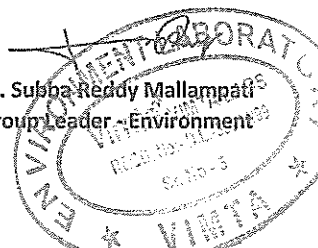


ISSUED TO: M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/VLS/21-22/15854/001 Issue Date :- 2022/03/05 Your Ref :- 8500003497 and date :- 2019/02/16							
Sample Particulars			AMBIENT AIR QUALITY MONITORING AT D G SET (CHOTIA 1)							
Analysis starting date :- 2022-02-04			Analysis Completion date :- 2022-03-04							
Tests required: Sulphur Dioxide (SO <sub>2</sub> ), Nitrogen Dioxide (NO <sub>x</sub> ), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), 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 : D G SET - (CHOTIA 1)							
Sampling Date			2022-02-03	2022-02-07	2022-02-11	2022-02-14	2022-02-16	2022-02-19	2022-02-23	2022-02-25
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	13.6	9.6	15.1	12.8	10.4	8.1	11.6	14.7
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	15.1	11.9	12.4	15.3	13.8	10.9	14.6	12.9
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	59.1	60.2	48.3	55.7	43.8	60.5	56.6	53.9
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	18.4	22.1	13.6	16.2	11.6	19.3	15.9	12.7
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	5.9	6.4	11.3	2.8	5.9	7.2	4.3	3.9
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	2.6	2.1	1.9	4.3	3.7	2.3	4.1	3.9
Lead as Pb	µg/m <sup>3</sup>	1	0.029	0.031	0.011	0.027	0.026	0.038	0.024	0.037
Carbon Monoxide	µg/m <sup>3</sup>	2000	472	549	266	581	367	449	615	498
Ozone	µg/m <sup>3</sup>	100	6.3	7.5	4.9	8.2	5.3	6.6	3.9	6.7

Dr. Subba Reddy Mallampati  
Group Leader - Environment

ISSUED TO: M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/VLS/21-22/16654/002 Issue Date :- 2022/03/05 Your Ref :- 8500003497 and date :- 2019/02/16							
Sample Particulars			AMBIENT AIR QUALITY MONITORING AT DHANSAR CAMP (CHOTIA - 1)							
Analysis starting date :- 2022-02-04			Analysis Completion date :- 2022-03-04							
Tests required: Sulphur Dioxide (SO <sub>2</sub> ), Nitrogen Dioxide (NO <sub>x</sub> ), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), 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 : Dhansar Camp (Chotia - 1)							
Sampling Date			2022-02-03	2022-02-07	2022-02-11	2022-02-14	2022-02-16	2022-02-19	2022-02-23	2022-02-25
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	6.9	12.1	14.7	8.3	10.6	9.7	11.3	13.7
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	9.6	14.8	16.3	11.8	13.4	12.5	13.9	11.6
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	50.3	38.4	45.1	52.9	47.3	56.4	52.1	46.8
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	14.6	10.9	12.7	15.8	11.3	17.2	14.9	11.6
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	3.9	2.8	4.3	1.9	6.4	2.7	3.2	4.8
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	3.4	2.9	2.2	1.5	3.7	1.5	3.9	2.4
Lead as Pb	µg/m <sup>3</sup>	1	0.026	0.017	0.037	0.022	0.019	0.008	0.043	0.019
Carbon Monoxide	µg/m <sup>3</sup>	2000	528	216	394	247	187	347	469	328
Ozone	µg/m <sup>3</sup>	100	5.2	3.9	4.7	2.1	3.9	4.5	6.4	3.4

Dr. Subba Reddy Mallampati  
Group Leader - Environment





ISSUED TO: M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/VLS/21-22/15854/003 Issue Date :- 2022/03/05 Your Ref :- 8500003497 and date :- 2019/02/16							
Sample Particulars			AMBIENT AIR QUALITY MONITORING AT GUEST HOUSE (CHOTIA -1)							
Analysis starting date :- 2022-02-04			Analysis Completion date :- 2022-03-04							
Tests required: Sulphur Dioxide (SO <sub>2</sub> ), Nitrogen Dioxide (NO <sub>x</sub> ), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), 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 : Guest House (Chotia - 1)							
Sampling Date			2022-02-03	2022-02-07	2022-02-11	2022-02-14	2022-02-16	2022-02-19	2022-02-23	2022-02-25
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	13.1	11.6	9.8	14.8	8.7	10.6	12.2	15.2
Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	80	10.8	13.8	12.2	7.6	11.6	13.2	14.5	8.7
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	52.4	61.1	57.6	64.2	47.2	53.8	59.4	54.3
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	15.1	21.9	17.3	23.9	12.1	14.7	18.2	15.6
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	7.3	5.9	3.6	2.9	4.7	6.2	2.9	5.4
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	2.6	3.9	4.1	1.6	3.9	6.3	2.9	5.4
Lead as Pb	µg/m <sup>3</sup>	1	0.023	0.021	0.039	0.017	0.022	0.035	0.027	0.031
Carbon Monoxide	µg/m <sup>3</sup>	2000	562	487	621	339	527	298	461	357
Ozone	µg/m <sup>3</sup>	100	3.9	5.2	2.3	5.2	6.8	3.7	4.9	4.3

Dr. Subba Reddy Mallampati  
Group Leader - Environment  
VIMTA  
VIMTA LABS  
DISC. No. DL/2000/05  
S.No. 1  
VIMTA

ISSUED TO: M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/VLS/21-22/15854/004 Issue Date :- 2022/03/05 Your Ref :- 8500003497 and date :- 2019/02/16							
Sample Particulars			AMBIENT AIR QUALITY MONITORING AT DHANSAR CAMP (CHOTIA - 1)							
Analysis starting date :- 2022-02-04			Analysis Completion date :- 2022-03-04							
Tests required: Sulphur Dioxide (SO <sub>2</sub> ), Nitrogen Dioxide (NO <sub>x</sub> ), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), 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 : Weigh Bridge (Chotia - 1)							
Sampling Date			2022-02-03	2022-02-07	2022-02-11	2022-02-14	2022-02-16	2022-02-19	2022-02-23	2022-02-25
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	10.6	14.8	12.4	15.6	10.9	8.6	13.7	16.2
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	12.8	17.4	14.2	12.1	13.1	10.8	15.4	11.6
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	57.8	65.4	59.3	54.2	62.1	59.3	53.4	62.8
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	16.5	22.6	18.7	13.8	21.9	18.7	16.3	23.7
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	6.2	3.9	4.1	2.6	1.9	5.4	3.3	2.8
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	2.1	3.9	4.6	2.8	2.2	1.6	3.1	2.8
Lead as Pb	µg/m <sup>3</sup>	1	0.023	0.039	0.027	0.021	0.035	0.033	0.045	0.026
Carbon Monoxide	µg/m <sup>3</sup>	2000	552	394	472	356	489	537	408	537
Ozone	µg/m <sup>3</sup>	100	6.1	2.8	3.9	5.4	6.2	4.7	3.9	4.9

Dr. Subha Reddy Mallampati  
Group Leader - Environment  
REGD. LAB NO. L-8500499  
C.No-5  
VIMTA

ISSUED TO: M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/VLS/21-22/15854/005 Issue Date :- 2022/03/05 Your Ref :- 8500003497 and date :- 2019/02/16							
Sample Particulars			AMBIENT AIR QUALITY MONITORING AT BHUJANG VILLAGE (CHOTIA 2)							
Analysis starting date :- 2022-02-04			Analysis Completion date :- 2022-03-04							
Tests required: Sulphur Dioxide (SO <sub>2</sub> ), Nitrogen Dioxide (NO <sub>x</sub> ), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), 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 : Bhujang Village - (CHOTIA 2)							
Sampling Date			2022-02-03	2022-02-07	2022-02-11	2022-02-14	2022-02-16	2022-02-19	2022-02-23	2022-02-25
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	9.4	11.6	10.8	15.1	12.9	8.7	13.1	10.8
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	11.3	13.8	8.9	12.4	9.4	10.8	14.9	12.7
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	46.3	54.7	39.8	48.2	37.3	51.2	39.7	49.7
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	11.9	15.8	9.3	15.1	8.6	12.7	10.3	14.8
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	3.9	2.8	5.4	4.7	6.5	2.9	5.7	6.9
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	<0.1	0.6	<0.1	1.2	<0.1	0.7	0.9	1.6
Lead as Pb	µg/m <sup>3</sup>	1	0.021	0.019	0.022	0.016	0.008	0.017	0.006	0.014
Carbon Monoxide	µg/m <sup>3</sup>	2000	252	187	364	298	451	339	358	406
Ozone	µg/m <sup>3</sup>	100	3.6	2.9	1.8	5.2	6.3	4.9	3.3	2.8

Dr. Subba Reddy Mallampati  
Group Leader - Environment

ENVIRONMENT LABORATORY  
VIMTA LABS  
REGD. NO. DL-000000  
CIN No - 5  
VIMTA

ISSUED TO: M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/VLS/21-22/15854/006 Issue Date :- 2022/03/05 Your Ref :- 8500003497 and date :- 2019/02/16							
Sample Particulars			AMBIENT AIR QUALITY MONITORING AT D G SET (CHOTIA - 2)							
Analysis starting date :- 2022-02-04			Analysis Completion date :- 2022-03-04							
Tests required: Sulphur Dioxide (SO <sub>2</sub> ), Nitrogen Dioxide (NO <sub>x</sub> ), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), 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 : D G SET (Chotia - 2)							
Sampling Date			2022-02-03	2022-02-07	2022-02-11	2022-02-14	2022-02-16	2022-02-19	2022-02-23	2022-02-25
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	12.9	10.4	15.1	13.9	14.3	16.8	14.6	13.4
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	8.7	13.2	11.4	12.8	16.2	12.7	9.8	14.9
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	56.4	61.2	58.2	43.9	59.8	61.4	54.3	53.7
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	16.8	20.9	18.7	11.6	17.6	21.1	15.7	13.4
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	4.6	3.9	2.8	5.1	3.9	4.6	2.8	6.1
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	3.2	2.9	1.6	3.3	4.8	2.8	4.5	1.7
Lead as Pb	µg/m <sup>3</sup>	1	0.036	0.028	0.017	0.041	0.023	0.039	0.025	0.034
Carbon Monoxide	µg/m <sup>3</sup>	2000	451	339	524	485	462	354	289	473
Ozone	µg/m <sup>3</sup>	100	3.9	6.1	5.8	2.2	4.7	6.8	7.1	3.9

Dr. Subba Reddy Mallampati  
Group Leader, Environment  
VIMTA  
CIN : L24110TG1990PLC011977

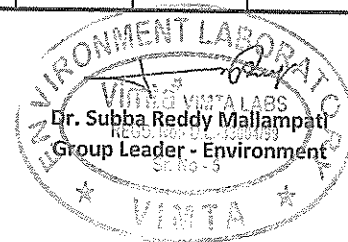
ISSUED TO: M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/VLS/21-22/15854/007 Issue Date :- 2022/03/05 Your Ref :- 8500003497 and date :- 2019/02/16							
Sample Particulars			AMBIENT AIR QUALITY MONITORING AT GOVT SOLAR PANEL (CHOTIA -2)							
Analysis starting date :- 2022-02-04			Analysis Completion date :- 2022-03-04							
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 : Govt. Solar Panel (Chotia - 2)							
Sampling Date			2022-02-03	2022-02-07	2022-02-11	2022-02-14	2022-02-16	2022-02-19	2022-02-23	2022-02-25
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	9.4	11.8	14.1	9.7	13.1	10.6	6.9	12.3
Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	80	11.8	13.6	10.9	12.1	9.7	13.7	10.2	14.2
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	56.2	49.3	52.9	36.7	47.2	54.1	57.9	51.6
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	16.2	12.8	14.1	8.4	13.9	11.9	15.6	13.2
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	2.9	4.2	1.5	3.9	2.6	2.2	1.9	3.7
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	3.1	1.6	2.8	2.2	2.9	3.5	2.1	2.7
Lead as Pb	µg/m <sup>3</sup>	1	0.035	0.028	0.022	0.016	0.034	0.022	0.019	0.024
Carbon Monoxide	µg/m <sup>3</sup>	2000	421	258	359	476	261	385	158	347
Ozone	µg/m <sup>3</sup>	100	4.2	3.9	3.4	2.8	5.4	4.8	3.9	3.7

Dr. Subba Reddy Mallampati  
Group Leader - Environment

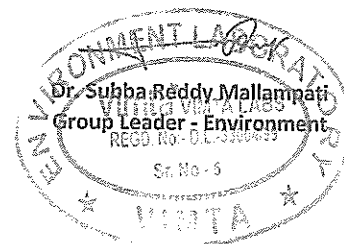
ISSUED TO: M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/VLS/21-22/15854/008 Issue Date :- 2022/03/05 Your Ref :- 8500003497 and date :- 2019/02/16							
Sample Particulars			AMBIENT AIR QUALITY MONITORING AT WEIGH BRIDGE (CHOTIA -2)							
Analysis starting date :- 2022-02-04			Analysis Completion date :- 2022-03-04							
Tests required: Sulphur Dioxide (SO <sub>2</sub> ), Nitrogen Dioxide (NO <sub>x</sub> ), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), 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 : Weigh Bridge (Chotia - 2)							
Sampling Date			2022-02-03	2022-02-07	2022-02-11	2022-02-14	2022-02-16	2022-02-19	2022-02-23	2022-02-25
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	13.1	11.6	14.2	9.5	15.4	18.2	13.9	15.6
Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	80	16.4	13.9	11.9	12.4	9.4	10.9	16.4	12.8
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	56.4	59.1	63.8	58.7	50.4	48.8	55.3	57.6
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	16.7	18.2	21.1	17.3	14.9	12.3	15.9	19.4
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	5.8	6.9	2.8	3.7	4.6	4.7	2.8	4.1
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	1.6	2.9	3.4	3.7	2.9	3.7	3.2	3.9
Lead as Pb	µg/m <sup>3</sup>	1	0.026	0.034	0.014	0.028	0.035	0.027	0.019	0.024
Carbon Monoxide	µg/m <sup>3</sup>	2000	356	547	298	612	594	326	476	252
Ozone	µg/m <sup>3</sup>	100	3.9	5.7	8.4	2.8	5.7	11.3	8.3	6.8

**ENVIRONMENT LABORATORY**  
**Dr. Subba Reddy Mallampati**  
**Group Leader - Environment**  
**VIMTA LABS**  
**VIMTA**

<b>ISSUED TO:</b> M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			<b>Report Number :-</b> VLL/VLS/21-22/17798/002 <b>Issue Date :-</b> 2022-04-05 <b>Your Ref :-</b> 8500003497 <b>and date :-</b> 2019-02-16							
<b>Sample Particulars</b>			<b>AMBIENT AIR QUALITY MONITORING AT DHANSAR CAMP (CHOTIA - 1)</b>							
<b>Analysis starting date :-</b> 2022-03-05			<b>Analysis Completion date :-</b> 2022-04-04							
<b>Tests required:</b> 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.										
<b>TEST RESULTS</b>										
<b>Parameters</b>	<b>Units</b>	<b>Limits</b>	<b>AAQ Location : Dhansar Camp (Chotia - 1)</b>							
<b>Sampling Date</b>			2022-03-03	2022-03-06	2022-03-09	2022-03-12	2022-03-16	2022-03-21	2022-03-24	2022-03-28
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	9.3	7.8	12.7	8.5	11.6	8.6	7.2	10.4
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	12.5	10.1	15.6	11.2	14.6	10.8	9.8	12.9
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	56.1	48.7	51.7	46.9	55.8	58.4	50.7	53.9
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	17.2	13.7	20.9	11.6	14.3	18.7	15.8	16.2
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	4.8	5.3	2.8	4.6	6.2	3.9	1.6	3.7
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	2.5	2.7	1.3	1.8	4.2	1.7	2.9	2.4
Lead as Pb	µg/m <sup>3</sup>	1	0.032	0.015	0.027	0.023	0.027	0.026	0.019	0.024
Carbon Monoxide	µg/m <sup>3</sup>	2000	384	529	276	449	436	290	314	562
Ozone	µg/m <sup>3</sup>	100	3.8	6.5	2.9	5.6	4.4	8.2	3.8	6.7

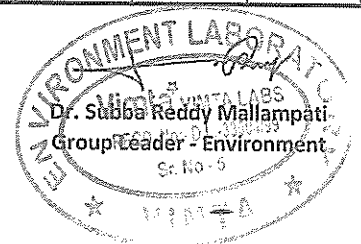


ISSUED TO: M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/VLS/21-22/17798/001 Issue Date :- 2022-04-05 Your Ref :- 8500003497 and date :- 2019-02-16							
Sample Particulars			AMBIENT AIR QUALITY MONITORING AT D G SET (CHOTIA 1)							
Analysis starting date :- 2022-03-05			Analysis Completion date :- 2022-04-04							
Tests required: Sulphur Dioxide (SO <sub>2</sub> ), Nitrogen Dioxide (NO <sub>x</sub> ), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), 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 : D G SET - (CHOTIA 1)							
Sampling Date			2022-03-03	2022-03-06	2022-03-09	2022-03-12	2022-03-16	2022-03-21	2022-03-24	2022-03-28
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	18.3	21.4	12.7	16.8	14.6	19.2	13.7	17.4
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	11.6	18.9	16.8	10.5	15.8	18.2	12.3	9.6
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	58.9	54.3	57.7	49.2	62.3	56.2	59.4	53.6
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	20.6	16.8	18.2	12.9	22.5	14.8	19.3	15.2
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	6.1	5.9	4.3	3.6	7.6	4.9	5.1	3.9
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	1.7	3.4	3.7	2.2	2.8	2.5	1.5	3.2
Lead as Pb	µg/m <sup>3</sup>	1	0.022	0.028	0.016	0.031	0.025	0.018	0.027	0.038
Carbon Monoxide	µg/m <sup>3</sup>	2000	516	396	522	476	378	425	554	372
Ozone	µg/m <sup>3</sup>	100	7.8	4.6	6.7	9.8	4.8	7.2	5.6	8.7

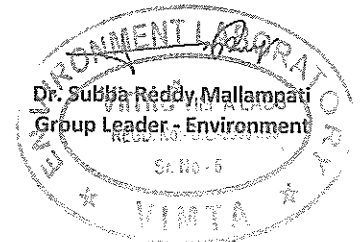




ISSUED TO: M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/VLS/21-22/17798/003 Issue Date :- 2022-04-05 Your Ref :- 8500003497 and date :- 2019-02-16							
Sample Particulars			AMBIENT AIR QUALITY MONITORING AT GUEST HOUSE (CHOTIA -1)							
Analysis starting date :- 2022-03-05			Analysis Completion date :- 2022-04-04							
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 : Guest House (Chotia - 1)							
Sampling Date			2022-03-03	2022-03-06	2022-03-09	2022-03-12	2022-03-16	2022-03-21	2022-03-24	2022-03-28
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	10.5	15.8	12.6	17.2	11.8	19.3	13.4	16.9
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	12.9	18.3	15.7	13.4	14.2	17.3	15.8	10.2
Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	100	58.2	54.8	57.6	62.1	55.9	52.4	54.3	61.2
Particulate Matter (PM <sub>2.5</sub> )	µg/m <sup>3</sup>	60	24.5	13.9	17.9	19.8	15.2	12.7	16.1	21.8
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	3.8	5.2	4.4	2.9	3.6	5.2	4.8	3.1
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	3.2	3.6	2.7	4.3	1.6	2.8	2.1	3.5
Lead as Pb	µg/m <sup>3</sup>	1	0.019	0.025	0.032	0.016	0.029	0.034	0.018	0.027
Carbon Monoxide.	µg/m <sup>3</sup>	2000	463	656	489	246	412	448	637	342
Ozone	µg/m <sup>3</sup>	100	4.6	2.8	4.2	4.9	5.6	2.1	8.7	5.9



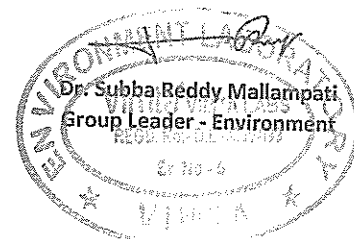
ISSUED TO: M/s. Bharat Aluminium Company Limited; KORBA ( C.G.)			Report Number :- VLL/VLS/21-22/17798/004 Issue Date :- 2022-04-05 Your Ref :- 8500003497 and date :- 2019-02-16							
Sample Particulars			AMBIENT AIR QUALITY MONITORING AT DHANSAR CAMP (CHOTIA - 1)							
Analysis starting date :- 2022-03-05			Analysis Completion date :- 2022-04-04							
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 : Weigh Bridge (Chotia - 1)							
Sampling Date			2022-03-03	2022-03-06	2022-03-09	2022-03-12	2022-03-16	2022-03-21	2022-03-24	2022-03-28
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	14.1	11.6	16.2	9.4	13.1	7.8	12.7	8.4
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	8.9	14.2	11.6	12.1	15.8	10.4	14.9	11.3
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	62.7	57.8	52.9	56.4	54.3	59.8	54.1	58.5
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	21.8	19.8	18.7	17.9	25.4	20.8	15.8	22.4
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	5.4	2.7	6.4	4.4	6.8	4.9	4.1	5.7
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	3.4	1.6	2.2	4.3	2.8	3.4	2.9	2.5
Lead as Pb	µg/m <sup>3</sup>	1	0.023	0.041	0.027	0.019	0.014	0.027	0.039	0.033
Carbon Monoxide	µg/m <sup>3</sup>	2000	496	342	757	536	293	447	612	358
Ozone	µg/m <sup>3</sup>	100	3.9	6.2	5.8	4.9	5.1	3.6	4.2	7.4



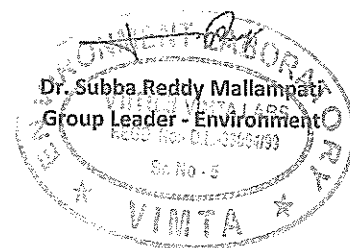
<b>ISSUED TO:</b> <b>M/s. Bharat</b> <b>Aluminium Company</b> <b>Limited,</b> <b>KORBA ( C.G.)</b>			<b>Report Number :- VLL/VLS/21-22/17798/005</b> <b>Issue Date :- 2022-04-05</b> <b>Your Ref :- 8500003497</b> <b>and date :- 2019-02-16</b>							
<b>Sample Particulars</b>			<b>AMBIENT AIR QUALITY MONITORING AT BHUJANG VILLAGE (CHOTIA 2)</b>							
<b>Analysis starting date :- 2022-03-05</b>			<b>Analysis Completion date :- 2022-04-04</b>							
<b>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 &amp; Lead.</b>										
TEST RESULTS										
Parameters	Units	Limits	AAQ Location : Bhujang Village - (CHOTIA 2)							
Sampling Date			2022-03-03	2022-03-06	2022-03-09	2022-03-12	2022-03-16	2022-03-21	2022-03-24	2022-03-28
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	10.6	7.3	12.1	9.4	7.9	8.3	11.7	9.2
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	12.5	10.6	14.7	11.6	10.2	10.8	13.9	11.6
Particulate Matter (PM <sub>10</sub> )	µg/m <sup>3</sup>	100	48.2	44.7	53.9	37.6	41.5	55.6	51.8	47.3
Particulate Matter (PM <sub>2.5</sub> )	µg/m <sup>3</sup>	60	12.1	10.2	13.5	9.4	11.6	16.9	14.8	15.4
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	2.1	4.3	1.9	1.4	3.6	2.4	4.2	3.8
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	<0.1	0.6	<0.1	1.2	<0.1	0.7	0.9	1.6
Lead as Pb	µg/m <sup>3</sup>	1	0.019	0.022	0.029	0.017	0.024	0.031	0.028	0.011
Carbon Monoxide	µg/m <sup>3</sup>	2000	264	342	413	228	193	423	376	289
Ozone	µg/m <sup>3</sup>	100	4.6	7.2	3.8	2.2	3.1	5.4	6.3	2.7



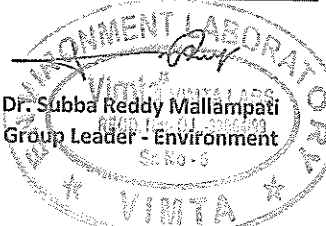
ISSUED TO: M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/VLS/21-22/17798/006 Issue Date :- 2022-04-05 Your Ref :- 8500003497 and date :- 2019-02-16							
Sample Particulars			AMBIENT AIR QUALITY MONITORING AT D G SET (CHOTIA - 2)							
Analysis starting date :- 2022-03-05			Analysis Completion date :- 2022-04-04							
Tests required: Sulphur Dioxide (SO <sub>2</sub> ), Nitrogen Dioxide (NO <sub>x</sub> ), Particulate Matter (PM10), Particulate Matter (PM2.5), Ammonia (NH3), 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 : D G SET (Chotia - 2)							
Sampling Date			2022-03-03	2022-03-06	2022-03-09	2022-03-12	2022-03-16	2022-03-21	2022-03-24	2022-03-28
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	14.8	21.4	12.8	16.2	19.4	23.6	15.0	20.8
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	12.6	9.8	15.4	13.9	21.5	11.7	14.2	10.9
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	56.4	59.7	64.2	52.8	54.1	58.7	62.8	59.3
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	17.4	20.6	25.7	13.8	15.9	18.4	22.9	20.6
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	3.2	3.7	1.7	2.8	5.2	6.7	4.9	2.6
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	2.1	3.4	4.1	2.8	3.9	1.5	3.2	2.8
Lead as Pb	µg/m <sup>3</sup>	1	0.024	0.029	0.033	0.016	0.029	0.036	0.031	0.037
Carbon Monoxide	µg/m <sup>3</sup>	2000	537	784	472	558	396	448	632	486
Ozone	µg/m <sup>3</sup>	100	8.4	4.7	6.3	6.9	4.3	5.9	3.8	7.2



ISSUED TO: M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/VLS/21-22/17798/007 Issue Date :- 2022-04-05 Your Ref :- 8500003497 and date :- 2019-02-16							
Sample Particulars			AMBIENT AIR QUALITY MONITORING AT GOVT SOLAR PANEL (CHOTIA -2)							
Analysis starting date :- 2022-03-05			Analysis Completion date :- 2022-04-04							
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 : Govt. Solar Panel (Chotia - 2)							
Sampling Date			2022-03-03	2022-03-06	2022-03-09	2022-03-12	2022-03-16	2022-03-21	2022-03-24	2022-03-28
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	7.9	10.6	8.7	11.9	10.4	6.9	9.4	8.2
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	9.3	12.7	10.8	11.5	12.8	9.3	11.7	10.4
Particulate Matter. (PM <sub>10</sub> )	µg/m <sup>3</sup>	100	48.3	50.7	55.2	47.9	38.7	52.1	46.8	53.7
Particulate Matter (PM <sub>2.5</sub> )	µg/m <sup>3</sup>	60	11.6	12.5	14.7	13.9	10.6	9.4	10.9	11.6
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	3.8	5.1	2.6	2.3	4.3	3.4	1.8	2.7
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	2.7	3.4	2.9	4.3	2.6	1.9	2.5	3.2
Lead as Pb	µg/m <sup>3</sup>	1	0.029	0.031	0.029	0.026	0.033	0.041	0.024	0.028
Carbon Monoxide	µg/m <sup>3</sup>	2000	341	564	278	453	226	434	387	537
Ozone	µg/m <sup>3</sup>	100	5.6	2.9	7.3	5.4	2.6	4.1	3.3	6.2



ISSUED TO: M/s. Bharat Aluminium Company Limited, KORBA ( C.G.)			Report Number :- VLL/VLS/21-22/17798/008 Issue Date :- 2022-04-05 Your Ref :- 8500003497 and date :- 2019-02-16							
Sample Particulars			AMBIENT AIR QUALITY MONITORING AT WEIGH BRIDGE (CHOTIA -2)							
Analysis starting date :- 2022-03-05			Analysis Completion date :- 2022-04-04							
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 : Weigh Bridge (Chotia - 2)							
Sampling Date			2022-03-03	2022-03-06	2022-03-09	2022-03-12	2022-03-16	2022-03-21	2022-03-24	2022-03-28
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	80	11.9	9.4	16.3	7.8	12.6	19.4	11.6	8.7
Nitrogen Dioxide (NO <sub>x</sub> )	µg/m <sup>3</sup>	80	13.7	11.6	13.2	10.6	14.3	11.8	13.2	10.6
Particulate Matter (PM10)	µg/m <sup>3</sup>	100	64.7	56.2	59.3	55.4	61.7	54.9	47.8	59.2
Particulate Matter (PM2.5)	µg/m <sup>3</sup>	60	20.8	19.8	25.4	17.9	23.1	16.9	15.7	22.4
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	400	4.8	7.3	5.9	6.2	7.8	3.9	4.2	6.8
Benzene (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
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
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
Nickel as Ni	ng/m <sup>3</sup>	20	2.3	4.1	3.3	3.7	3.2	2.9	2.6	3.2
Lead as Pb	µg/m <sup>3</sup>	1	0.029	0.022	0.011	0.018	0.047	0.038	0.034	0.036
Carbon Monoxide	µg/m <sup>3</sup>	2000	645	324	473	581	419	226	458	507
Ozone	µg/m <sup>3</sup>	100	4.6	2.4	7.1	6.8	4.9	8.2	5.9	7.6

  
 Dr. Subba Reddy Mallampati  
 Group Leader - Environment  
 S.No - 6  
 \* VIMTA \*

## **Annexure – 8**

# **Water Monitoring Report**

**Vimta Labs Limited**

Registered Office

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**ISSUED TO:**

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

Report Number : VLL/VLS/21/09392/001  
Issued Date : 2021-11-03  
Your Ref : 8500003497  
P.O. Date : 2019-02-16

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

Sample Registration Date : 2021-10-11 Sampling Date : 2021-10-09  
Analysis Starting Date : 2021-10-12 Analysis Completion Date : 2021-10-30  
Test Required : Water Analysis as per IS 10500 : 2012

SAMPLE COLLECTED BY VIMTA LABS LTD

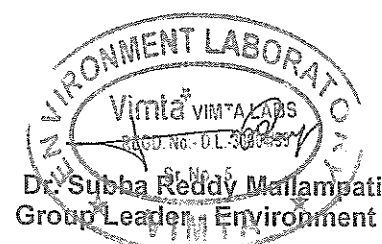
**TEST REPORT**

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Chotia-1 Guest house water	Chotia-1 mines water (B/W)	Chotia-1 Dhansar Camp (B/W)	Chotia-2 mines water (B/W)	Chotia-2 Bhujang nagar Village
1	pH value	-	6.5-8.5 (NR)	6.9	7.3	7.2	5.9	6.8
2	Color	Hazen	5(15)	Colorless	Colorless	Colorless	Colorless	Colorless
3	Taste	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
5	Turbidity	NTU	1(5)	1	2	1	3	2
6	Total dissolved solids at 180°C	mg/l	500(2000)	210	458	197	96	72
7	Total Hardness as CaCO <sub>3</sub>	mg/l	200(600)	122.6	253.4	68.0	42.0	30.0
8	Total Alkalinity as CaCO <sub>3</sub>	mg/l	200(600)	75	158	75	34	28
9	Calcium as Ca	mg/l	75(200)	28.8	54.6	11.2	8.8	6.4
10	Magnesium as Mg	mg/l	30(100)	12.3	28.4	9.7	4.9	3.4
11	Free Residual chlorine	mg/l	0.2(1.0)	<0.2	<0.2	<0.2	<0.2	<0.2
12	Boron	mg/l	0.5(1.0)	0.08	0.18	0.27	0.11	0.09
13	Chlorides as Cl	mg/l	250(1000)	48.2	124.6	46.9	24.7	14.6
14	Sulphates as SO <sub>4</sub>	mg/l	200(400)	19.1	25.0	10.4	5.9	6.4
15	Fluorides as F	mg/l	1.0(1.5)	2.37	1.19	0.03	0.01	0.01
16	Nitrates as NO <sub>3</sub>	mg/l	45(NR)	0.9	4.7	1.8	1.3	0.5
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	<0.001
18	Cyanides	mg/l	0.05(NR)	<0.02	<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) &amp; ICP-MS (agilent)

Analysis as per IS 10500: 2012 Drinking Water specification





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

Sample Registration Date : 2021-10-11 Sampling Date : 2021-10-09  
Analysis Starting Date : 2021-10-12 Analysis Completion Date : 2021-10-30  
Test Required : Water Analysis as per IS 10500 : 2012

SAMPLE COLLECTED BY VIMTA LABS LTD

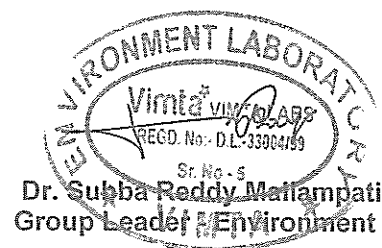
**TEST REPORT**

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Chotia-1 Guest house water	Chotia-1 mines water (B/W)	Chotia-1 Dhansar Camp (B/W)	Chotia-2 mines water (B/W)	Chotia-2 Bhujang nagar Village
19	Anionic detergents as MBAS	mg/l	0.2(1.0)	<0.02	<0.02	<0.02	<0.02	<0.02
20	Mineral oil	mg/l	0.5(NR)	Absent	Absent	Absent	Absent	Absent
21	Cadmium as Cd	mg/l	0.003(NR)	<0.003	<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	<0.01
23	Copper as Cu	mg/l	0.05(1.5)	<0.01	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	<0.01
25	Manganese as Mn	mg/l	0.1(0.3)	<0.01	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	<0.01
27	Nickel as Ni	mg/l	0.02(NR)	<0.01	<0.01	<0.01	<0.01	<0.01
28	Iron as Fe	mg/l	0.3(NR)	0.03	0.14	0.08	0.11	0.02
29	Total Chromium as Cr	mg/l	0.05(NR)	<0.05	<0.05	<0.05	<0.05	<0.05
30	Selenium as Se	mg/l	0.05(NR)	<0.01	<0.01	<0.01	<0.01	<0.01
31	Zinc as Zn	mg/l	5.0(15)	0.07	0.18	0.09	0.03	0.11
32	Aluminum as Al	mg/l	0.03(0.2)	<0.01	0.05	0.07	0.11	0.06
33	Mercury as Hg	mg/l	0.001(NR)	<0.001	<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	<0.05
35	Chloramines as Cl <sub>2</sub>	mg/l	4.0(NR)	<0.05	<0.05	<0.05	<0.05	<0.05
36	Ammonia (as total ammonia-N)	mg/l	0.5(NR)	<0.05	<0.05	<0.05	<0.05	<0.05
37	Barium as Ba	mg/l	0.7(NR)	0.02	0.042	0.063	0.048	0.057
38	Silver as Ag	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 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



**ISSUED TO:**

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BALCO  
KORBA  
Chhattisgarh**

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Issued Date : 2021-11-03  
Your Ref : 8500003497  
P.O. Date : 2019-02-16

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

Sample Registration Date : 2021-10-11 Sampling Date : 2021-10-09  
Analysis Starting Date : 2021-10-12 Analysis Completion Date : 2021-10-30  
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	Chotia-1 Guest house water	Chotia-1 mines water (B/W)	Chotia-1 Dhansar Camp (B/W)	Chotia-2 mines water (B/W)	Chotia-2 Bhujang nagar Village
39	Polychlorinated biphenyls	mg/l	0.0005(NR)	Absent	Absent	Absent	Absent	Absent
40	Polynuclear aromatic hydrocarbon as PAH	mg/l	0.0001(NR)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
41	Bromoform	mg/l	0.1(NR)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
42	Dibromochloromethane	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01	<0.01
43	Bromodichloromethane	mg/l	0.06(NR)	<0.01	<0.01	<0.01	<0.01	<0.01
44	Chloroform	mg/l	0.2(NR)	<0.001	<0.001	<0.001	<0.001	<0.001
(A)	<b>Pesticides</b>							
45	Alachlor	µg/l	20	<0.01	<0.01	<0.01	<0.01	<0.01
46	Atrazine	µg/l	2	<0.01	<0.01	<0.01	<0.01	<0.01
47	Aldrin	µg/l	0.03	<0.01	<0.01	<0.01	<0.01	<0.01
48	Alpha HCH	µg/l	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
49	Beta HCH	µg/l	0.04	<0.01	<0.01	<0.01	<0.01	<0.01
50	Butachlor	µg/l	125	<0.01	<0.01	<0.01	<0.01	<0.01
51	Chlorpyrifos	µg/l	30	<0.01	<0.01	<0.01	<0.01	<0.01
52	Delta HCH	µg/l	0.04	<0.01	<0.01	<0.01	<0.01	<0.01
53	2,4-Dichlorophenoxyacetic acid	µg/l	30	<0.01	<0.01	<0.01	<0.01	<0.01
54	DDT	µg/l	1	<0.01	<0.01	<0.01	<0.01	<0.01
55	Endosulfan (alpha, beta and Sulphate)	µg/l	0.4	<0.01	<0.01	<0.01	<0.01	<0.01
56	Ethion	µg/l	3	<0.01	<0.01	<0.01	<0.01	<0.01
57	Gamma HCH	µg/l	2	<0.01	<0.01	<0.01	<0.01	<0.01
58	Isoproturon	µg/l	9	<0.01	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 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

**ENVIRONMENT LABORATORY**  
Vimta VIMTA LABS  
REGD. No. DL/03/00004  
Sr. No. - 5  
Dr. Subba Reddy Mallampati  
Group Leader - Environment

**ISSUED TO:**

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BALCO  
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P.O. Date : **2019-02-16**

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

Sample Registration Date : 2021-10-11 Sampling Date : 2021-10-09  
Analysis Starting Date : 2021-10-12 Analysis Completion Date : 2021-10-30  
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	Chotia-1 Guest house water	Chotia-1 mines water (B/W)	Chotia-1 Dhansar Camp (B/W)	Chotia-2 mines water (B/W)	Chotia-2 Bhujang nagar Village
59	Malathion	µg/l	190	BDL	BDL	BDL	BDL	BDL
60	Methyl parathion	µg/l	0.3	BDL	BDL	BDL	BDL	BDL
61	Monocrotophos	µg/l	1	BDL	BDL	BDL	BDL	BDL
62	Phorate	µg/l	2	BDL	BDL	BDL	BDL	BDL
63	E.coli	Per 100 ml	Absent	Absent	Absent	Absent	Absent	Absent
64	Total Coliforms	MPN/100ml	Absent	Absent	Absent	Absent	Absent	Absent
(B)	<b>Radioactive</b>							
65	Alpha emitters	Bq/l	0.1(NR)	BDL	BDL	BDL	BDL	BDL
66	Beta emitters	Bq/l	1.0(NR)	BDL	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

**ENVIRONMENT LABORATORY**  
Vimta VIMTA LABS  
RECD No- 0000000000  
Sr No-5  
**Dr. Subba Reddy Mallampati**  
Group Leader - Environment

**ISSUED TO:**

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BALCO  
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Report Number : VLL/VLS/21/09392/002  
Issue Date : 2021-11-03  
You're Ref : 8500003497  
P.O. Date : 2018-02-16

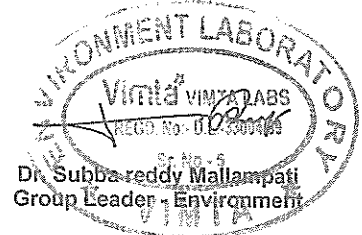
Sample Particulars: SURFACE WATER (CHOTIA MINES)

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Sample Registration Date: 2021-10-11	Sampling collection date: 2021-10-09
Analysis starting date : 2021-10-12	Analysis Completion date: 2021-10-31
Sample collected at: SW1 (Chotia-I Nala Up stream, SW2 (Chotia-I) Nala Down Stream, SW3 (Chotia-II-Hasdev river Downstream), SW4 (Chotia-II-Hasdev river Up Stream)	
SAMPLES COLLECTED BY VIMTA LABS LTD	LAB REF.: EC

**TEST RESULTS**

Sr.No.	Parameters	Unit	SW1	SW2	SW3	SW4
1	pH	-	7.44	7.65	6.99	6.81
2	Color	Hazen	2	5	6	5
3	Conductivity	µS/cm	312	420	387	321
4	TDS	mg/l	152	203	191	150
5	DO	mg/l	5.6	5.2	5.4	5.7
6	BOD	mg/l	<3.0	<3.0	<3.0	<3.0
7	COD	mg/l	<5.0	<5.0	<5.0	<5.0
8	Turbidity	NTU	3	6	7	4
9	Total Hardness as CaCO <sub>3</sub>	mg/l	78.2	97.9	67.5	61.6
10	Total Alkalinity as CaCO <sub>3</sub>	mg/l	57	72	65	60
11	Calcium as Ca	mg/l	15.3	18.6	14.8	10.5
12	Magnesium as Mg	mg/l	9.7	12.5	7.4	8.6
13	Chlorides as Cl	mg/l	31.2	45.6	42.8	32.6
14	Residual free chlorine	mg/l	<0.2	<0.2	<0.2	<0.2
15	Phosphates as PO <sub>4</sub>	mg/l	0.06	0.14	0.47	0.23
16	Sulphates as SO <sub>4</sub>	mg/l	17.4	21.5	19.8	10.2
17	Fluorides as F	mg/l	0.108	0.013	0.011	0.042
18	Nitrates as NO <sub>3</sub>	mg/l	0.8	2.3	1.7	1.4
19	Sodium as Na	mg/l	19.2	27.4	34.8	24.8
20	Potassium as K	mg/l	1.2	2.6	4.2	1.6
21	Total Boron as B	mg/l	0.07	0.25	0.34	0.11
22	Phenolic Compounds	mg/l	<0.001	<0.001	<0.001	<0.001
23	Cyanides	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	0.02	0.01	<0.01
28	Lead as Pb	mg/l	<0.01	<0.01	<0.01	<0.01
29	Iron as Fe	mg/l	0.11	0.26	0.29	0.07
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	0.18	0.24	0.12	0.08
33	Aluminum as Al	mg/l	0.05	0.11	0.17	0.07
34	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001
35	SAR	-	0.95	1.20	1.84	1.37
36	Insecticides	mg/l	Absent	Absent	Absent	Absent
37	Anionic detergents as MBAS	mg/l	Absent	Absent	Absent	Absent
38	Total Coliforms	MPN/100	2130	2860	3240	2120



**Vimta Labs Limited**

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Issued Date : 2021-12-01  
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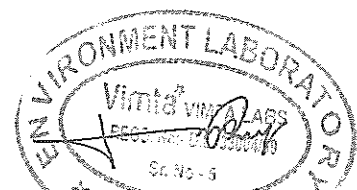
**SAMPLE PARTICULARS : GROUND WATER SAMPLES (CHOTIA MINES)**

Sample Registration Date : 2021-11-08 Sampling Date : 2021-11-06  
Analysis Starting Date : 2021-11-09 Analysis Completion Date : 2021-11-30  
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	Chotia-1 Guest house water	Chotia-1 mines water (B/W)	Chotia-1 Dhansar Camp (B/W)	Chotia-2 mines water (B/W)	Chotia-2 Bhujang nagar Village
1	pH value	-	6.5-8.5 (NR)	6.91	7.42	7.26	6.94	7.43
2	Color	Hazen	5(15)	Colorless	Colorless	Colorless	Colorless	Colorless
3	Taste	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
5	Turbidity	NTU	1(5)	1	2	2	2	2
6	Total dissolved solids at 180°C	mg/l	500(2000)	269	542	261	115	85
7	Total Hardness as CaCO <sub>3</sub>	mg/l	200(600)	166.4	207.0	114.0	68.7	60.6
8	Total Alkalinity as CaCO <sub>3</sub>	mg/l	200(600)	118	150	110	40	38
9	Calcium as Ca	mg/l	75(200)	38.9	47.4	25.2	13.5	12.4
10	Magnesium as Mg	mg/l	30(100)	16.8	21.5	12.4	8.5	7.2
11	Free Residual chlorine	mg/l	0.2(1.0)	0.2	<0.2	0.2	<0.2	0.2
12	Boron	mg/l	0.5(1.0)	0.05	0.21	0.18	0.08	0.13
13	Chlorides as Cl	mg/l	250(1000)	51.1	183.2	41.2	27.5	15.2
14	Sulphates as SO <sub>4</sub>	mg/l	200(400)	13.6	9.9	11.7	10.1	6.9
15	Fluorides as F	mg/l	1.0(1.5)	0.140	0.091	0.078	0.086	0.013
16	Nitrates as NO <sub>3</sub>	mg/l	45(NR)	2.6	5.3	3.4	2.7	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	<0.001
18	Cyanides	mg/l	0.05(NR)	<0.02	<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



Dr. Subba Reddy Mallampati  
Group Leader - Environment

**Vimta Labs Limited**

Registered Office  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
T : +91 40 2726 4141  
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Driven by Quality. Inspired by Science.

**ISSUED TO:**

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

Report Number : VLL/VLS/21/10611/001  
Issued Date : 2021-12-01  
Your Ref : 8500003497  
P.O. Date : 2019-02-16

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

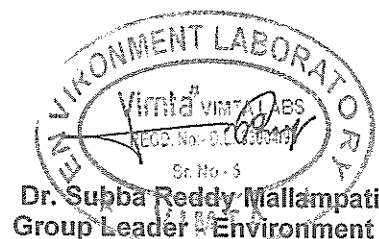
Sample Registration Date : 2021-11-08 Sampling Date : 2021-11-06  
Analysis Starting Date : 2021-11-09 Analysis Completion Date : 2021-11-30  
Test Required : Water Analysis as per IS 10500 : 2012

SAMPLE COLLECTED BY VIMTA LABS LTD

**TEST REPORT**

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Chotia-1 Guest house water	Chotia-1 mines water (B/W)	Chotia-1 Dhansar Camp (B/W)	Chotia-2 mines water (B/W)	Chotia-2 Bhujang nagar Village
19	Anionic detergents as MBAS	mg/l	0.2(1.0)	<0.02	<0.02	<0.02	<0.02	<0.02
20	Mineral oil	mg/l	0.5(NR)	Absent	Absent	Absent	Absent	Absent
21	Cadmium as Cd	mg/l	0.003(NR)	<0.003	<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	<0.01
23	Copper as Cu	mg/l	0.05(1.5)	<0.01	0.02	<0.01	0.01	<0.01
24	Lead as Pb	mg/l	0.01(NR)	<0.01	<0.01	<0.01	<0.01	<0.01
25	Manganese as Mn	mg/l	0.1(0.3)	<0.01	0.03	0.02	0.02	<0.01
26	Molybdenum as Mo	mg/l	0.07(NR)	<0.01	<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	<0.01
28	Iron as Fe	mg/l	0.3(NR)	0.04	0.17	0.06	0.23	0.04
29	Total Chromium as Cr	mg/l	0.05(NR)	<0.05	<0.05	<0.05	<0.05	<0.05
30	Selenium as Se	mg/l	0.05(NR)	<0.01	<0.01	<0.01	<0.01	<0.01
31	Zinc as Zn	mg/l	5.0(15)	0.06	0.21	0.11	0.13	0.08
32	Aluminum as Al	mg/l	0.03(0.2)	<0.01	0.03	0.04	0.09	0.05
33	Mercury as Hg	mg/l	0.001(NR)	<0.001	<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	<0.05
35	Chloramines as Cl <sub>2</sub>	mg/l	4.0(NR)	<0.05	<0.05	<0.05	<0.05	<0.05
36	Ammonia (as total ammonia-N)	mg/l	0.5(NR)	<0.05	<0.05	<0.05	<0.05	<0.05
37	Barium as Ba	mg/l	0.7(NR)	0.012	0.036	0.051	0.038	0.047
38	Silver as Ag	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 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



**ISSUED TO:**

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

Report Number : **VLL/VLS/21/10611/001**  
Issued Date : **2021-12-01**  
Your Ref : **8500003497**  
P.O. Date : **2019-02-16**

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

Sample Registration Date : 2021-11-08 Sampling Date : 2021-11-06  
Analysis Starting Date : 2021-11-09 Analysis Completion Date : 2021-11-30  
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	Chotia-1 Guest house water	Chotia-1 mines water (B/W)	Chotia-1 Dhansar Camp (B/W)	Chotia-2 mines water (B/W)	Chotia-2 Bhujang nagar Village
39	Polychlorinated biphenyls	mg/l	0.0005(NR)	Absent	Absent	Absent	Absent	Absent
40	Polynuclear aromatic hydrocarbon as PAH	mg/l	0.0001(NR)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
41	Bromoform	mg/l	0.1(NR)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
42	Dibromochloromethane	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01	<0.01
43	Bromodichloromethane	mg/l	0.06(NR)	<0.01	<0.01	<0.01	<0.01	<0.01
44	Chloroform	mg/l	0.2(NR)	<0.001	<0.001	<0.001	<0.001	<0.001
(A)	<b>Pesticides</b>							
45	Alachlor	µg/l	20	<0.01	<0.01	<0.01	<0.01	<0.01
46	Atrazine	µg/l	2	<0.01	<0.01	<0.01	<0.01	<0.01
47	Aldrin	µg/l	0.03	<0.01	<0.01	<0.01	<0.01	<0.01
48	Alpha HCH	µg/l	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
49	Beta HCH	µg/l	0.04	<0.01	<0.01	<0.01	<0.01	<0.01
50	Butachlor	µg/l	125	<0.01	<0.01	<0.01	<0.01	<0.01
51	Chlorpyrifos	µg/l	30	<0.01	<0.01	<0.01	<0.01	<0.01
52	Delta HCH	µg/l	0.04	<0.01	<0.01	<0.01	<0.01	<0.01
53	2,4-Dichlorophenoxyacetic acid	µg/l	30	<0.01	<0.01	<0.01	<0.01	<0.01
54	DDT	µg/l	1	<0.01	<0.01	<0.01	<0.01	<0.01
55	Endosulfan (alpha, beta and Sulphate)	µg/l	0.4	<0.01	<0.01	<0.01	<0.01	<0.01
56	Ethion	µg/l	3	<0.01	<0.01	<0.01	<0.01	<0.01
57	Gamma HCH	µg/l	2	<0.01	<0.01	<0.01	<0.01	<0.01
58	Isoproturon	µg/l	9	<0.01	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 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

**ENVIRONMENT LABORATORY**  
Vimta VIMTA LABS  
REG. NO. DL 1004499  
Sr. No. - 5  
**Dr. Subba Reddy Mallampati**  
Group Leader, Environment

**ISSUED TO:**

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

Report Number : VLL/VLS/21/10611/001  
Issued Date : 2021-12-01  
Your Ref : 8500003497  
P.O. Date : 2019-02-16

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

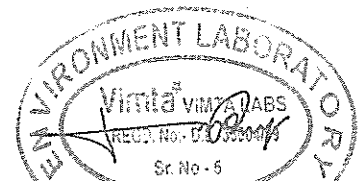
Sample Registration Date : 2021-11-08 Sampling Date : 2021-11-06  
Analysis Starting Date : 2021-11-09 Analysis Completion Date : 2021-11-30  
Test Required : Water Analysis as per IS 10500 : 2012

SAMPLE COLLECTED BY VIMTA LABS LTD

**TEST REPORT**

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Chotia-1 Guest house water	Chotia-1 mines water (B/W)	Chotia-1 Dhansar Camp (B/W)	Chotia-2 mines water (B/W)	Chotia-2 Bhujang nagar Village
59	Malathion	µg/l	190	BDL	BDL	BDL	BDL	BDL
60	Methyl parathion	µg/l	0.3	BDL	BDL	BDL	BDL	BDL
61	Monocrotophos	µg/l	1	BDL	BDL	BDL	BDL	BDL
62	Phorate	µg/l	2	BDL	BDL	BDL	BDL	BDL
63	E.coli	Per 100 ml	Absent	Absent	Absent	Absent	Absent	Absent
64	Total Coliforms	MPN/100ml	Absent	Absent	Absent	Absent	Absent	Absent
(B)	<b>Radioactive</b>							
65	Alpha emitters	Bq/l	0.1(NR)	BDL	BDL	BDL	BDL	BDL
66	Beta emitters	Bq/l	1.0(NR)	BDL	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



Dr. Subba Reddy Mallampati  
Group Leader - Environment



**ISSUED TO:**

M/s. Bharat Aluminum Company Limited,  
BALCO  
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Chhattisgarh

Report Number :  
Issued Date :  
Your Ref :  
P.O. Date :

VLL/VLS/21/12527/001  
2022-01-04  
8500003497  
2019-02-16

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

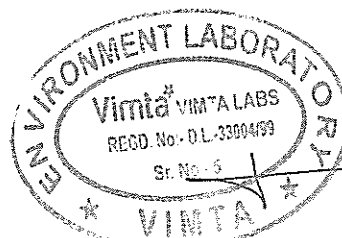
Sample Registration Date : 2021-12-07 Sampling Date : 2021-12-06  
Analysis Starting Date : 2021-12-08 Analysis Completion Date : 2021-12-30  
Test Required : Water Analysis as per IS 10500 : 2012

SAMPLE COLLECTED BY VIMTA LABS LTD

**TEST REPORT**

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Chotia-1 Guest house water	Chotia-1 mines water (B/W)	Chotia-1 Dhansar Camp (B/W)	Chotia-2 mines water (B/W)	Chotia-2 Bhujang nagar Village
1	pH value	-	6.5-8.5 (NR)	7.41	7.02	6.58	6.92	6.2
2	Color	Hazen	5(15)	Colorless	Colorless	Colorless	Colorless	Colorless
3	Taste	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
5	Turbidity	NTU	1(5)	<1	2	3	3	2
6	Total dissolved solids at 180°C	mg/l	500(2000)	192	374	228	164	91
7	Total Hardness as CaCO <sub>3</sub>	mg/l	200(600)	108.8	172.8	126.7	166.0	58.3
8	Total Alkalinity as CaCO <sub>3</sub>	mg/l	200(600)	62	95	65	72	26.0
9	Calcium as Ca	mg/l	75(200)	26.7	34.9	23.5	31.5	12.3
10	Magnesium as Mg	mg/l	30(100)	10.2	20.8	16.5	21.2	6.7
11	Free Residual chlorine	mg/l	0.2(1.0)	<0.2	<0.2	<0.2	<0.2	<0.2
12	Boron	mg/l	0.5(1.0)	0.03	0.14	0.09	0.13	0.11
13	Chlorides as Cl	mg/l	250(1000)	49.8	112.5	75.4	65.7	24.6
14	Sulphates as SO <sub>4</sub>	mg/l	200(400)	10.8	28.9	12.9	17.0	5.2
15	Fluorides as F	mg/l	1.0(1.5)	0.178	0.142	0.063	0.131	0.141
16	Nitrates as NO <sub>3</sub>	mg/l	45(NR)	1.8	4.7	2.9	3.6	2.2
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	<0.001
18	Cyanides	mg/l	0.05(NR)	<0.02	<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



Dr. Subba Reddy Mallampati  
Group Leader - Environment

**ISSUED TO:**

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

Report Number : VLL/VLS/21/12527/001  
Issued Date : 2022-01-04  
Your Ref : 8500003497  
P.O. Date : 2019-02-16

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

Sample Registration Date : 2021-12-07 Sampling Date : 2021-12-06  
Analysis Starting Date : 2021-12-08 Analysis Completion Date : 2021-12-30  
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	Chotia-1 Guest house water	Chotia-1 mines water (B/W)	Chotia-1 Dhansar Camp (B/W)	Chotia-2 mines water (B/W)	Chotia-2 Bhujang nagar Village
19	Anionic detergents as MBAS	mg/l	0.2(1.0)	<0.02	<0.02	<0.02	<0.02	<0.02
20	Mineral oil	mg/l	0.5(NR)	Absent	Absent	Absent	Absent	Absent
21	Cadmium as Cd	mg/l	0.003(NR)	<0.003	<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	<0.01
23	Copper as Cu	mg/l	0.05(1.5)	<0.01	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	<0.01
25	Manganese as Mn	mg/l	0.1(0.3)	<0.01	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	<0.01
27	Nickel as Ni	mg/l	0.02(NR)	<0.01	<0.01	<0.01	<0.01	<0.01
28	Iron as Fe	mg/l	0.3(NR)	0.02	0.12	0.09	0.18	0.03
29	Total Chromium as Cr	mg/l	0.05(NR)	<0.05	<0.05	<0.05	<0.05	<0.05
30	Selenium as Se	mg/l	0.05(NR)	<0.01	<0.01	<0.01	<0.01	<0.01
31	Zinc as Zn	mg/l	5.0(15)	0.04	0.18	0.09	0.11	0.06
32	Aluminum as Al	mg/l	0.03(0.2)	<0.01	0.02	0.06	0.07	0.03
33	Mercury as Hg	mg/l	0.001(NR)	<0.001	<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	<0.05
35	Chloramines as Cl <sub>2</sub>	mg/l	4.0(NR)	<0.05	<0.05	<0.05	<0.05	<0.05
36	Ammonia (as total ammonia-N)	mg/l	0.5(NR)	<0.05	<0.05	<0.05	<0.05	<0.05
37	Barium as Ba	mg/l	0.7(NR)	0.008	0.025	0.036	0.041	0.032
38	Silver as Ag	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 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

**ENVIRONMENT LABORATORY**  
Vimta VIMTA LABS  
REGD. No. D.L. 3304/199  
Sr. No. - 5  
Dr. Subba Reddy Mallampati  
Group Leader - Environment

**ISSUED TO:**

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

Report Number : VLL/VLS/21/12527/001  
Issued Date : 2022-01-04  
Your Ref : 8500003497  
P.O. Date : 2019-02-16

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

Sample Registration Date : 2021-12-07 Sampling Date : 2021-12-06  
Analysis Starting Date : 2021-12-08 Analysis Completion Date : 2021-12-30  
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	Chotia-1 Guest house water	Chotia-1 mines water (B/W)	Chotia-1 Dhansar Camp (B/W)	Chotia-2 mines water (B/W)	Chotia-2 Bhujang nagar Village
39	Polychlorinated biphenyls	mg/l	0.0005(NR)	Absent	Absent	Absent	Absent	Absent
40	Polynuclear aromatic hydrocarbon as PAH	mg/l	0.0001(NR)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
41	Bromoform	mg/l	0.1(NR)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
42	Dibromochloromethane	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01	<0.01
43	Bromodichloromethane	mg/l	0.06(NR)	<0.01	<0.01	<0.01	<0.01	<0.01
44	Chloroform	mg/l	0.2(NR)	<0.001	<0.001	<0.001	<0.001	<0.001
(A)	<b>Pesticides</b>							
45	Alachlor	µg/l	20	<0.01	<0.01	<0.01	<0.01	<0.01
46	Atrazine	µg/l	2	<0.01	<0.01	<0.01	<0.01	<0.01
47	Aldrin	µg/l	0.03	<0.01	<0.01	<0.01	<0.01	<0.01
48	Alpha HCH	µg/l	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
49	Beta HCH	µg/l	0.04	<0.01	<0.01	<0.01	<0.01	<0.01
50	Butachlor	µg/l	125	<0.01	<0.01	<0.01	<0.01	<0.01
51	Chlorpyrifos	µg/l	30	<0.01	<0.01	<0.01	<0.01	<0.01
52	Delta HCH	µg/l	0.04	<0.01	<0.01	<0.01	<0.01	<0.01
53	2,4-Dichlorophenoxyacetic acid	µg/l	30	<0.01	<0.01	<0.01	<0.01	<0.01
54	DDT	µg/l	1	<0.01	<0.01	<0.01	<0.01	<0.01
55	Endosulfan (alpha, beta and Sulphate)	µg/l	0.4	<0.01	<0.01	<0.01	<0.01	<0.01
56	Ethion	µg/l	3	<0.01	<0.01	<0.01	<0.01	<0.01
57	Gamma HCH	µg/l	2	<0.01	<0.01	<0.01	<0.01	<0.01
58	Isoproturon	µg/l	9	<0.01	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 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

**ENVIRONMENT LABORATORY**  
Vimta VIMTA LABS  
REGD. No. D.L. 33004/09  
Sr. No. 5  
Dr. Subba Reddy Mallampati  
Group Leader - Environment

**ISSUED TO:**

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

Report Number : VLL/VLS/21/12527/001  
Issued Date : 2022-01-04  
Your Ref : 8500003497  
P.O. Date : 2019-02-16

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

Sample Registration Date : 2021-12-07 Sampling Date : 2021-12-06  
Analysis Starting Date : 2021-12-08 Analysis Completion Date : 2021-12-30  
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	Chotia-1 Guest house water	Chotia-1 mines water (B/W)	Chotia-1 Dhansar Camp (B/W)	Chotia-2 mines water (B/W)	Chotia-2 Bhujang nagar Village
59	Malathion	µg/l	190	BDL	BDL	BDL	BDL	BDL
60	Methyl parathion	µg/l	0.3	BDL	BDL	BDL	BDL	BDL
61	Monocrotophos	µg/l	1	BDL	BDL	BDL	BDL	BDL
62	Phorate	µg/l	2	BDL	BDL	BDL	BDL	BDL
63	E.coli	Per 100 ml	Absent	Absent	Absent	Absent	Absent	Absent
64	Total Coliforms	MPN/100ml	Absent	Absent	Absent	Absent	Absent	Absent
(B)	<b>Radioactive</b>							
65	Alpha emitters	Bq/l	0.1(NR)	BDL	BDL	BDL	BDL	BDL
66	Beta emitters	Bq/l	1.0(NR)	BDL	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

**ENVIRONMENT LABORATORY**  
Vimta VIMTA LABS  
REGD. No. DL-33004/199  
Dr. Subba Reddy Mallampati  
Group Leader - Environment

**Vimta Labs Limited**

Registered Office  
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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/21/14209/001  
Issued Date : 2022-02-03  
Your Ref : 8500003497  
P.O. Date : 2019-02-16

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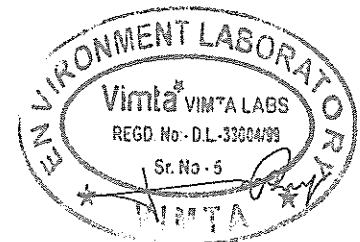
**SAMPLE PARTICULARS : GROUND WATER SAMPLES (CHOTIA MINES)**

Sample Registration Date : 2022-01-11 Sampling Date : 2022-01-08  
Analysis Starting Date : 2022-01-12 Analysis Completion Date : 2022-01-31  
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	Chotia-1 Guest house water	Chotia-1 mines water (B/W)	Chotia-1 Dhansar Camp (B/W)	Chotia-2 mines water (B/W)	Chotia-2 Bhujang nagar Village
1	pH value	-	6.5-8.5 (NR)	7.14	7.36	7.08	6.89	6.78
2	Color	Hazen	5(15)	Colorless	Colorless	Colorless	Colorless	Colorless
3	Taste	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
5	Turbidity	NTU	1(5)	1	2	3	4	3
6	Total dissolved solids at 180°C	mg/l	500(2000)	252	475	273	128	106
7	Total Hardness as CaCO <sub>3</sub>	mg/l	200(600)	148.5	184.8	130.4	75.2	67.5
8	Total Alkalinity as CaCO <sub>3</sub>	mg/l	200(600)	110	140	95	44	48
9	Calcium as Ca	mg/l	75(200)	34.2	42.3	27.8	14.6	13.5
10	Magnesium as Mg	mg/l	30(100)	15.3	19.2	14.8	9.4	8.2
11	Free Residual chlorine	mg/l	0.2(1.0)	0.2	<0.2	0.2	<0.2	0.2
12	Boron	mg/l	0.5(1.0)	0.07	0.16	0.23	0.09	0.11
13	Chlorides as Cl	mg/l	250(1000)	49.7	153.5	68.8	31.2	19.8
14	Sulphates as SO <sub>4</sub>	mg/l	200(400)	11.2	8.4	18.3	9.6	5.9
15	Fluorides as F	mg/l	1.0(1.5)	0.98	0.0745	0.0941	0.0684	0.0421
16	Nitrates as NO <sub>3</sub>	mg/l	45(NR)	2.6	5.3	3.4	2.7	1.5
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	<0.001
18	Cyanides	mg/l	0.05(NR)	<0.02	<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



Dr. Subba Reddy Mallampati  
Group Leader - Environment

**ISSUED TO:**

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

Report Number : **VLL/VLS/21/14209/001**  
Issued Date : **2022-02-03**  
Your Ref : **8500003497**  
P.O. Date : **2019-02-16**

Page 2 of 4

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

Sample Registration Date : 2022-01-11 Sampling Date : 2022-01-08  
Analysis Starting Date : 2022-01-12 Analysis Completion Date : 2022-01-31  
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	Chotia-1 Guest house water	Chotia-1 mines water (B/W)	Chotia-1 Dhansar Camp (B/W)	Chotia-2 mines water (B/W)	Chotia-2 Bhujang nagar Village
19	Anionic detergents as MBAS	mg/l	0.2(1.0)	<0.02	<0.02	<0.02	<0.02	<0.02
20	Mineral oil	mg/l	0.5(NR)	Absent	Absent	Absent	Absent	Absent
21	Cadmium as Cd	mg/l	0.003(NR)	<0.003	<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	<0.01
23	Copper as Cu	mg/l	0.05(1.5)	<0.01	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	<0.01
25	Manganese as Mn	mg/l	0.1(0.3)	<0.01	0.02	0.01	0.03	<0.01
26	Molybdenum as Mo	mg/l	0.07(NR)	<0.01	<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	<0.01
28	Iron as Fe	mg/l	0.3(NR)	0.07	0.12	0.09	0.18	0.08
29	Total Chromium as Cr	mg/l	0.05(NR)	<0.05	<0.05	<0.05	<0.05	<0.05
30	Selenium as Se	mg/l	0.05(NR)	<0.01	<0.01	<0.01	<0.01	<0.01
31	Zinc as Zn	mg/l	5.0(15)	0.08	0.26	0.13	0.21	0.09
32	Aluminum as Al	mg/l	0.03(0.2)	<0.01	0.02	0.03	0.06	0.04
33	Mercury as Hg	mg/l	0.001(NR)	<0.001	<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	<0.05
35	Chloramines as Cl <sub>2</sub>	mg/l	4.0(NR)	<0.05	<0.05	<0.05	<0.05	<0.05
36	Ammonia (as total ammonia-N)	mg/l	0.5(NR)	<0.05	<0.05	<0.05	<0.05	<0.05
37	Barium as Ba	mg/l	0.7(NR)	0.023	0.041	0.036	0.029	0.032
38	Silver as Ag	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 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

**ENVIRONMENT LABORATORY**  
Vimta VIMTA LABS  
REGD. No. - D.L. 33004/99  
Sr. No. - 5  
Dr. Subbaraj Mallampati  
Group Leader - Environment

**ISSUED TO:**

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

Report Number : VLL/VLS/21/14209/001  
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P.O. Date : 2019-02-16

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

Sample Registration Date : 2022-01-11 Sampling Date : 2022-01-08  
Analysis Starting Date : 2022-01-12 Analysis Completion Date : 2022-01-31  
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	Chotia-1 Guest house water	Chotia-1 mines water (B/W)	Chotia-1 Dhansar Camp (B/W)	Chotia-2 mines water (B/W)	Chotia-2 Bhujang nagar Village
39	Polychlorinated biphenyls	mg/l	0.0005(NR)	Absent	Absent	Absent	Absent	Absent
40	Polynuclear aromatic hydrocarbon as PAH	mg/l	0.0001(NR)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
41	Bromoform	mg/l	0.1(NR)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
42	Dibromochloromethane	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01	<0.01
43	Bromodichloromethane	mg/l	0.06(NR)	<0.01	<0.01	<0.01	<0.01	<0.01
44	Chloroform	mg/l	0.2(NR)	<0.001	<0.001	<0.001	<0.001	<0.001
(A)	<b>Pesticides</b>							
45	Alachlor	µg/l	20	<0.01	<0.01	<0.01	<0.01	<0.01
46	Atrazine	µg/l	2	<0.01	<0.01	<0.01	<0.01	<0.01
47	Aldrin	µg/l	0.03	<0.01	<0.01	<0.01	<0.01	<0.01
48	Alpha HCH	µg/l	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
49	Beta HCH	µg/l	0.04	<0.01	<0.01	<0.01	<0.01	<0.01
50	Butachlor	µg/l	125	<0.01	<0.01	<0.01	<0.01	<0.01
51	Chlorpyrifos	µg/l	30	<0.01	<0.01	<0.01	<0.01	<0.01
52	Delta HCH	µg/l	0.04	<0.01	<0.01	<0.01	<0.01	<0.01
53	2,4-Dichlorophenoxyacetic acid	µg/l	30	<0.01	<0.01	<0.01	<0.01	<0.01
54	DDT	µg/l	1	<0.01	<0.01	<0.01	<0.01	<0.01
55	Endosulfan (alpha, beta and Sulphate)	µg/l	0.4	<0.01	<0.01	<0.01	<0.01	<0.01
56	Ethion	µg/l	3	<0.01	<0.01	<0.01	<0.01	<0.01
57	Gamma HCH	µg/l	2	<0.01	<0.01	<0.01	<0.01	<0.01
58	Isoproturon	µg/l	9	<0.01	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 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



Dr. Subba Reddy Mallampati  
Group Leader - Environment

**ISSUED TO:**

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

Report Number : **VLL/VLS/21/14209/001**  
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Your Ref : **8500003497**  
P.O. Date : **2019-02-16**

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

Sample Registration Date : 2022-01-11 Sampling Date : 2022-01-08  
Analysis Starting Date : 2022-01-12 Analysis Completion Date : 2022-01-31  
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	Chotia-1 Guest house water	Chotia-1 mines water (B/W)	Chotia-1 Dhansar Camp (B/W)	Chotia-2 mines water (B/W)	Chotia-2 Bhujang nagar Village
59	Malathion	µg/l	190	BDL	BDL	BDL	BDL	BDL
60	Methyl parathion	µg/l	0.3	BDL	BDL	BDL	BDL	BDL
61	Monocrotophos	µg/l	1	BDL	BDL	BDL	BDL	BDL
62	Phorate	µg/l	2	BDL	BDL	BDL	BDL	BDL
63	E.coli	Per 100 ml	Absent	Absent	Absent	Absent	Absent	Absent
64	Total Coliforms	MPN/100ml	Absent	Absent	Absent	Absent	Absent	Absent
(B)	<b>Radioactive</b>							
65	Alpha emitters	Bq/l	0.1(NR)	BDL	BDL	BDL	BDL	BDL
66	Beta emitters	Bq/l	1.0(NR)	BDL	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

**ENVIRONMENT LABORATORY**  
Vimta VIMTA LABS  
REGD. No. UL-330040  
Sr. No - 5  
Dr. Subba Reddy Mallampati  
Group Leader - Environment



**Vimta Labs Limited**

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BALCO  
KORBA  
Chhattisgarh

Report Number : VLL/VLS/21-22/15854/001  
Issued Date : 2022-03-05  
Your Ref : 8500003497  
P.O. Date : 2019-02-16

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

Sample Registration Date : 2022-02-08 Sampling Date : 2022-02-07  
Analysis Starting Date : 2022-02-09 Analysis Completion Date : 2022-02-28  
Test Required : Water Analysis as per IS 10500 : 2012  
SAMPLE COLLECTED BY VIMTA LABS LTD

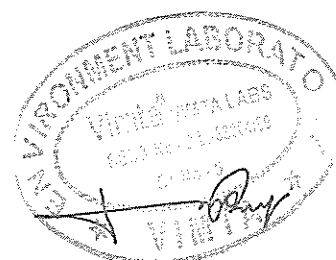
**TEST REPORT**

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Chotia-1 Guest house water	Chotia-1 mines water (B/W)	Chotia-1 Dhansar Camp (B/W)	Chotia-2 mines water (B/W)	Chotia-2 Bhujang nagar Village
1	pH value	-	6.5-8.5 (NR)	7.25	7.48	7.12	6.97	7.34
2	Color	Hazen	5(15)	Colorless	Colorless	Colorless	Colorless	Colorless
3	Taste	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
5	Turbidity	NTU	1(5)	1	3	2	4	3
6	Total dissolved solids at 180°C	mg/l	500(2000)	208	375	234	142	120
7	Total Hardness as CaCO <sub>3</sub>	mg/l	200(600)	116.7	160.7	116.4	78.4	71.3
8	Total Alkalinity as CaCO <sub>3</sub>	mg/l	200(600)	98	120	90	50	52
9	Calcium as Ca	mg/l	75(200)	25.6	37.1	24.5	17.2	15.7
10	Magnesium as Mg	mg/l	30(100)	12.8	16.5	13.4	8.6	7.8
11	Free Residual chlorine	mg/l	0.2(1.0)	<0.2	<0.2	<0.2	<0.2	<0.2
12	Boron	mg/l	0.5(1.0)	0.05	0.24	0.18	0.07	0.09
13	Chlorides as Cl	mg/l	250(1000)	36.1	98.2	54.3	36.5	24.8
14	Sulphates as SO <sub>4</sub>	mg/l	200(400)	9.4	12.5	7.6	8.7	4.6
15	Fluorides as F	mg/l	1.0(1.5)	0.057	0.063	0.085	0.092	0.074
16	Nitrates as NO <sub>3</sub>	mg/l	45(NR)	1.2	4.7	2.9	1.6	2.1
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	<0.001
18	Cyanides	mg/l	0.05(NR)	<0.02	<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



Dr. Subba Reddy Mallampati  
Group Leader - Environment

**ISSUED TO:**

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

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P.O. Date : **2019-02-16**

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

Sample Registration Date : 2022-02-08 Sampling Date : 2022-02-07  
Analysis Starting Date : 2022-02-09 Analysis Completion Date : 2022-02-28  
Test Required : Water Analysis as per IS 10500 : 2012

**SAMPLE COLLECTED BY VIMTA LABS LTD**

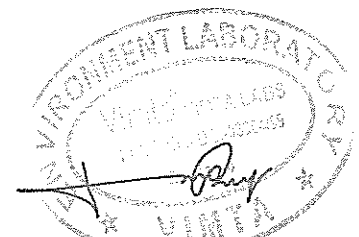
**TEST REPORT**

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Chotia-1 Guest house water	Chotia-1 mines water (B/W)	Chotia-1 Dhansar Camp (B/W)	Chotia-2 mines water (B/W)	Chotia-2 Bhujang nagar Village
19	Anionic detergents as MBAS	mg/l	0.2(1.0)	<0.02	<0.02	<0.02	<0.02	<0.02
20	Mineral oil	mg/l	0.5(NR)	Absent	Absent	Absent	Absent	Absent
21	Cadmium as Cd	mg/l	0.003(NR)	<0.003	<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	<0.01
23	Copper as Cu	mg/l	0.05(1.5)	<0.01	0.02	0.01	0.03	<0.01
24	Lead as Pb	mg/l	0.01(NR)	<0.01	<0.01	<0.01	<0.01	<0.01
25	Manganese as Mn	mg/l	0.1(0.3)	<0.01	0.01	0.02	0.02	<0.01
26	Molybdenum as Mo	mg/l	0.07(NR)	<0.01	<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	<0.01
28	Iron as Fe	mg/l	0.3(NR)	0.06	0.17	0.05	0.13	0.07
29	Total Chromium as Cr	mg/l	0.05(NR)	<0.05	<0.05	<0.05	<0.05	<0.05
30	Selenium as Se	mg/l	0.05(NR)	<0.01	<0.01	<0.01	<0.01	<0.01
31	Zinc as Zn	mg/l	5.0(15)	0.03	0.14	0.23	0.19	0.06
32	Aluminum as Al	mg/l	0.03(0.2)	<0.01	0.03	0.04	0.03	0.02
33	Mercury as Hg	mg/l	0.001(NR)	<0.001	<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	<0.05
35	Chloramines as Cl <sub>2</sub>	mg/l	4.0(NR)	<0.05	<0.05	<0.05	<0.05	<0.05
36	Ammonia (as total ammonia-N)	mg/l	0.5(NR)	<0.05	<0.05	<0.05	<0.05	<0.05
37	Barium as Ba	mg/l	0.7(NR)	0.015	0.032	0.027	0.043	0.037
38	Silver as Ag	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 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



**Dr. Subba Reddy Mallampati**  
Group Leader - Environment

**ISSUED TO:**

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

Report Number : **VLL/VLS/21-22/15854/001**  
Issued Date : **2022-03-05**  
Your Ref : **8500003497**  
P.O. Date : **2019-02-16**

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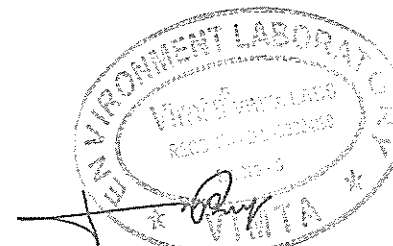
**SAMPLE PARTICULARS : GROUND WATER SAMPLES (CHOTIA MINES)**

Sample Registration Date : 2022-02-08 Sampling Date : 2022-02-07  
Analysis Starting Date : 2022-02-09 Analysis Completion Date : 2022-02-28  
Test Required : Water Analysis as per IS 10500 : 2012  
SAMPLE COLLECTED BY VIMTA LABS LTD

**TEST REPORT**

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

Method of Testing: As per APHA 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



**Dr. Subba Reddy Mallampati**  
Group Leader - Environment

**ISSUED TO:**

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

Report Number : **VLL/VLS/21-22/15854/001**  
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P.O. Date : **2019-02-16**

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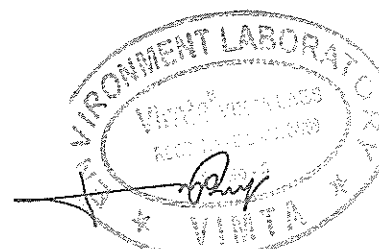
**SAMPLE PARTICULARS : GROUND WATER SAMPLES (CHOTIA MINES)**

Sample Registration Date : 2022-02-08 Sampling Date : 2022-02-07  
Analysis Starting Date : 2022-02-09 Analysis Completion Date : 2022-02-28  
Test Required : Water Analysis as per IS 10500 : 2012  
SAMPLE COLLECTED BY VIMTA LABS LTD

**TEST REPORT**

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Chotia-1 Guest house water	Chotia-1 mines water (B/W)	Chotia-1 Dhansar Camp (B/W)	Chotia-2 mines water (B/W)	Chotia-2 Bhujang nagar Village
59	Malathion	µg/l	190	BDL	BDL	BDL	BDL	BDL
60	Methyl parathion	µg/l	0.3	BDL	BDL	BDL	BDL	BDL
61	Monocrotophos	µg/l	1	BDL	BDL	BDL	BDL	BDL
62	Phorate	µg/l	2	BDL	BDL	BDL	BDL	BDL
63	E.coli	Per 100 ml	Absent	Absent	Absent	Absent	Absent	Absent
64	Total Coliforms	MPN/100ml	Absent	Absent	Absent	Absent	Absent	Absent
(B)	<b>Radioactive</b>							
65	Alpha emitters	Bq/l	0.1(NR)	BDL	BDL	BDL	BDL	BDL
66	Beta emitters	Bq/l	1.0(NR)	BDL	BDL	BDL	BDL	BDL

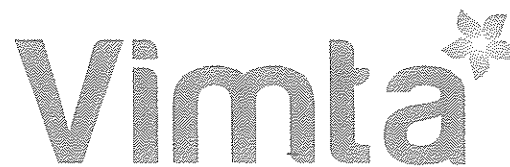
Method of Testing: As per APHA 23<sup>rd</sup> edition and IS: 3025  
Instrument Used: ICP-OES (Perkin-Elmer) & ICP-MS (agilent)  
Analysis as per IS 10500: 2012 Drinking Water specification



**Dr. Subba Reddy Mallampati**  
Group Leader - Environment

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Report Number : VLL/VLS/21-22/17798/001  
Issued Date : 2022-04-04  
Your Ref : 8500003497  
P.O. Date : 2019-02-16

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

Sample Registration Date : 2022-03-08 Sampling Date : 2022-03-07  
Analysis Starting Date : 2022-03-09 Analysis Completion Date : 2022-03-31  
Test Required : Water Analysis as per IS 10500 : 2012

SAMPLE COLLECTED BY VIMTA LABS LTD

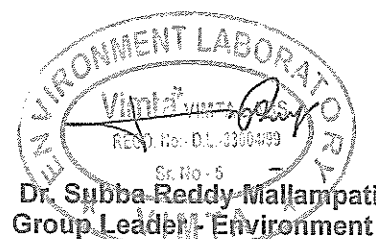
**TEST REPORT**

Sr. No.	Parameters	UOM	Limit IS 10500 : 2012	Chotia-1 Guest house water	Chotia-1 mines water (B/W)	Chotia-1 Dhansar Camp (B/W)	Chotia-2 mines water (B/W)	Chotia-2 Bhujang nagar Village
1	pH value	-	6.5-8.5 (NR)	7.26	6.97	7.23	6.89	6.74
2	Color	Hazen	5(15)	Colorless	Colorless	Colorless	Colorless	Colorless
3	Taste	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
5	Turbidity	NTU	1(5)	1	2	3	3	3
6	Total dissolved solids at 180°C	mg/l	500(2000)	187	295	190	157	128
7	Total Hardness as CaCO <sub>3</sub>	mg/l	200(600)	104.1	140.4	96.5	87.9	77.9
8	Total Alkalinity as CaCO <sub>3</sub>	mg/l	200(600)	96	107	75	58	55
9	Calcium as Ca	mg/l	75(200)	23.2	34.6	21.8	19.7	17.5
10	Magnesium as Mg	mg/l	30(100)	11.2	13.1	10.2	9.4	8.3
11	Free Residual chlorine	mg/l	0.2(1.0)	<0.2	<0.2	<0.2	<0.2	<0.2
12	Boron	mg/l	0.5(1.0)	0.07	0.19	0.14	0.11	0.08
13	Chlorides as Cl	mg/l	250(1000)	33.1	82.8	45.4	39.3	28.6
14	Sulphates as SO <sub>4</sub>	mg/l	200(400)	8.3	9.7	5.6	7.9	6.2
15	Fluorides as F	mg/l	1.0(1.5)	0.063	0.074	0.095	0.085	0.063
16	Nitrates as NO <sub>3</sub>	mg/l	45(NR)	1.1	3.6	2.4	1.8	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	<0.001
18	Cyanides	mg/l	0.05(NR)	<0.02	<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



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Your Ref : 8500003497  
P.O. Date : 2019-02-16

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

Sample Registration Date : 2022-03-08 Sampling Date : 2022-03-07  
Analysis Starting Date : 2022-03-09 Analysis Completion Date : 2022-03-31  
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	Chotia-1 Guest house water	Chotia-1 mines water (B/W)	Chotia-1 Dhansar Camp (B/W)	Chotia-2 mines water (B/W)	Chotia-2 Bhujang nagar Village
19	Anionic detergents as MBAS	mg/l	0.2(1.0)	<0.02	<0.02	<0.02	<0.02	<0.02
20	Mineral oil	mg/l	0.5(NR)	Absent	Absent	Absent	Absent	Absent
21	Cadmium as Cd	mg/l	0.003(NR)	<0.003	<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	<0.01
23	Copper as Cu	mg/l	0.05(1.5)	<0.01	0.02	0.01	0.03	<0.01
24	Lead as Pb	mg/l	0.01(NR)	<0.01	<0.01	<0.01	<0.01	<0.01
25	Manganese as Mn	mg/l	0.1(0.3)	<0.01	0.01	0.02	0.02	<0.01
26	Molybdenum as Mo	mg/l	0.07(NR)	<0.01	<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	<0.01
28	Iron as Fe	mg/l	0.3(NR)	0.06	0.17	0.05	0.13	0.07
29	Total Chromium as Cr	mg/l	0.05(NR)	<0.05	<0.05	<0.05	<0.05	<0.05
30	Selenium as Se	mg/l	0.05(NR)	<0.01	<0.01	<0.01	<0.01	<0.01
31	Zinc as Zn	mg/l	5.0(15)	0.03	0.14	0.23	0.19	0.06
32	Aluminum as Al	mg/l	0.03(0.2)	<0.01	0.03	0.04	0.03	0.02
33	Mercury as Hg	mg/l	0.001(NR)	<0.001	<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	<0.05
35	Chloramines as Cl <sub>2</sub>	mg/l	4.0(NR)	<0.05	<0.05	<0.05	<0.05	<0.05
36	Ammonia (as total ammonia-N)	mg/l	0.5(NR)	<0.05	<0.05	<0.05	<0.05	<0.05
37	Barium as Ba	mg/l	0.7(NR)	0.015	0.032	0.027	0.043	0.037
38	Silver as Ag	mg/l	0.1(NR)	<0.01	<0.01	<0.01	<0.01	<0.01

Method of Testing: As per APHA 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

  
Dr. Subba Reddy Mallampati  
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Issued Date : 2022-04-04  
Your Ref : 8500003497  
P.O. Date : 2019-02-16

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

Sample Registration Date : 2022-03-08 Sampling Date : 2022-03-07  
Analysis Starting Date : 2022-03-09 Analysis Completion Date : 2022-03-31  
Test Required : Water Analysis as per IS 10500 : 2012

SAMPLE COLLECTED BY VIMTA LABS LTD

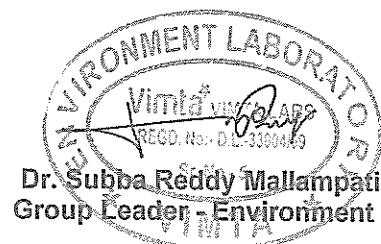
**TEST REPORT**

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

Method of Testing: As per APHA 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



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Issued Date : 2022-04-04  
Your Ref : 8500003497  
P.O. Date : 2019-02-16

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

Sample Registration Date : 2022-03-08 Sampling Date : 2022-03-07  
Analysis Starting Date : 2022-03-09 Analysis Completion Date : 2022-03-31  
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	Chotia-1 Guest house water	Chotia-1 mines water (B/W)	Chotia-1 Dhansar Camp (B/W)	Chotia-2 mines water (B/W)	Chotia-2 Bhujang nagar Village
59	Malathion	µg/l	190	BDL	BDL	BDL	BDL	BDL
60	Methyl parathion	µg/l	0.3	BDL	BDL	BDL	BDL	BDL
61	Monocrotophos	µg/l	1	BDL	BDL	BDL	BDL	BDL
62	Phorate	µg/l	2	BDL	BDL	BDL	BDL	BDL
63	E.coli	Per 100 ml	Absent	Absent	Absent	Absent	Absent	Absent
64	Total Coliforms	MPN/100ml	Absent	Absent	Absent	Absent	Absent	Absent
(B)	<b>Radioactive</b>							
65	Alpha emitters	Bq/l	0.1(NR)	BDL	BDL	BDL	BDL	BDL
66	Beta emitters	Bq/l	1.0(NR)	BDL	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



Dr. Subba Reddy Mallampati  
Group Leader - Environment



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Report Number : VLL/VLS/21/10611/002  
Issue Date : 2021-12-01  
You're Ref : 8500003497  
P.O. Date : 2019-02-16

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Sample Particulars: SURFACE WATER (CHOTIA MINES)

Sample Registration Date: 2021-11-08  
Analysis starting date : 2021-11-09

Sampling collection date: 2021-11-06  
Analysis Completion date: 2021-11-30

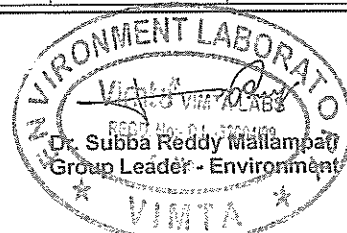
Sample collected at: SW1 (Chotia -I Nala Up stream, SW2 (Chotia-I) Nala Down Stream, SW3 (Chotia-II-Hasdev river Downstream), SW4 (Chotia-II-Hasdev river Up Stream)

SAMPLES COLLECTED BY VIMTA LABS LTD

LAB REF.: EC

**TEST RESULTS**

Sr. No.	Parameters	Unit	SW1	SW2	SW3	SW4
1	pH	-	7.44	7.65	6.81	6.99
2	Color	Hazen	3	7	8	3
3	Conductivity	µS/cm	220	305	245	181
4	TDS	mg/l	139	194	153	116
5	DO	mg/l	5.3	5.1	5.2	5.9
6	BOD	mg/l	<3.0	<3.0	<3.0	<3.0
7	COD	mg/l	<5.0	<5.0	<5.0	<5.0
8	Turbidity	NTU	4	5	7	4
9	Total Hardness as CaCO <sub>3</sub>	mg/l	66.0	88.7	66.9	52.1
10	Total Alkalinity as CaCO <sub>3</sub>	mg/l	50	75	46	38
11	Calcium as Ca	mg/l	15.2	19.5	14.4	11.3
12	Magnesium as Mg	mg/l	6.8	9.7	7.5	5.8
13	Chlorides as Cl	mg/l	32.7	42.1	45.2	27.8
14	Residual free chlorine	mg/l	<0.2	<0.2	<0.2	<0.2
15	Phosphates as PO <sub>4</sub>	mg/l	0.08	0.16	0.53	0.19
16	Sulphates as SO <sub>4</sub>	mg/l	12.4	13.6	10.5	16.9
17	Fluorides as F	mg/l	0.143	0.126	0.104	0.093
18	Nitrates as NO <sub>3</sub>	mg/l	1.1	2.6	2.8	1.4
19	Sodium as Na	mg/l	19.7	27.4	24.8	17.2
20	Potassium as K	mg/l	1.2	2.6	1.9	5.4
21	Total Boron as B	mg/l	0.06	0.19	0.26	0.08
22	Phenolic Compounds	mg/l	<0.001	<0.001	<0.001	<0.001
23	Cyanides	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	<0.01
28	Lead as Pb	mg/l	<0.01	<0.01	<0.01	<0.01
29	Iron as Fe	mg/l	0.13	0.28	0.31	0.05
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	0.14	0.27	0.18	0.06
33	Aluminum as Al	mg/l	0.04	0.12	0.19	0.09
34	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001
35	SAR	-	1.06	1.27	1.32	1.04
36	Insecticides	mg/l	Absent	Absent	Absent	Absent
37	Anionic detergents as MBAS	mg/l	Absent	Absent	Absent	Absent
38	Total Coliforms	MPN/100	2360	2910	3140	2230



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Report Number : VLL/VLS/21/12527/002

Issue Date : 2022-01-04

You're Ref : 8500003497

P.O. Date : 2019-02-16

Sample Particulars: SURFACE WATER (CHOTIA MINES)

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Sample Registration Date: 2021-12-09

Sampling collection date: 2021-12-07

Analysis starting date : 2021-12-10

Analysis Completion date: 2021-12-30

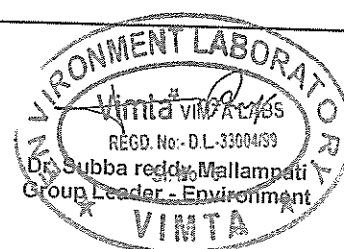
Sample collected at: SW1 (Chotia -I Nala Up stream, SW2 (Chotia-I) Nala Down Stream, SW3 (Chotia-II-Hasdev river Downstream), SW4 (Chotia-II-Hasdev river Up Stream)

SAMPLES COLLECTED BY VIMTA LABS LTD

LAB REF.: EC

**TEST RESULTS**

Sr. No.	Parameters	Unit	SW1	SW2	SW3	SW4
1	pH	-	6.58	7.08	7.11	6.83
2	Color	Hazen	2	5	6	2
3	Conductivity	µS/cm	274	341	254	312
4	TDS	mg/l	178	222	165	203
5	DO	mg/l	5.6	5.2	5.8	5.7
6	BOD	mg/l	<3.0	<3.0	<3.0	<3.0
7	COD	mg/l	<5.0	<5.0	<5.0	<5.0
8	Turbidity	NTU	3	6	8	5
9	Total Hardness as CaCO <sub>3</sub>	mg/l	95.3	114.8	71.4	115.7
10	Total Alkalinity as CaCO <sub>3</sub>	mg/l	53	65	45	48
11	Calcium as Ca	mg/l	19.7	23.2	12.6	31.8
12	Magnesium as Mg	mg/l	11.2	13.8	9.7	8.8
13	Chlorides as Cl	mg/l	48.6	62.5	46.0	53.6
14	Residual free chlorine	mg/l	<0.2	<0.2	<0.2	<0.2
15	Phosphates as PO <sub>4</sub>	mg/l	0.05	0.12	0.36	0.23
16	Sulphates as SO <sub>4</sub>	mg/l	13.1	12.9	15.4	30.3
17	Fluorides as F	mg/l	0.31	0.22	0.16	0.02
18	Nitrates as NO <sub>3</sub>	mg/l	1.5	3.6	1.7	2.4
19	Sodium as Na	mg/l	18.7	24.6	24.8	16.4
20	Potassium as K	mg/l	1.2	2.3	1.9	4.63
21	Total Boron as B	mg/l	0.08	0.23	0.15	0.11
22	Phenolic Compounds	mg/l	<0.001	<0.001	<0.001	<0.001
23	Cyanides	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	0.02	0.01	<0.01
28	Lead as Pb	mg/l	<0.01	<0.01	<0.01	<0.01
29	Iron as Fe	mg/l	0.11	0.23	0.25	0.08
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	0.09	0.32	0.24	0.23
33	Aluminum as Al	mg/l	0.06	0.15	0.13	0.12
34	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001
35	SAR	-	0.83	1.00	1.28	0.66
36	Insecticides	mg/l	Absent	Absent	Absent	Absent
37	Anionic detergents as MBAS	mg/l	Absent	Absent	Absent	Absent
38	Total Coliforms	MPN/100	2180	3250	2840	2060

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T : +91 40 6740 4040 E : mdoffice@vimta.com URL : www.vimta.com

CIN : L24110TG1990PLC011977

**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



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**ISSUED TO:**

M/s. Bharat Aluminum Company Limited  
BALCO  
KORBA  
Chhattisgarh

Report Number : VLL/VLS/21/14209/002

Issue Date : 2022-02-03

You're Ref : 8500003497

P.O. Date : 2018-02-16

Page 1 of 1

Sample Particulars: SURFACE WATER (CHOTIA MINES)

Sample Registration Date: 2022-01-11

Sampling collection date: 2022-01-08

Analysis starting date : 2022-01-12

Analysis Completion date: 2022-11-30

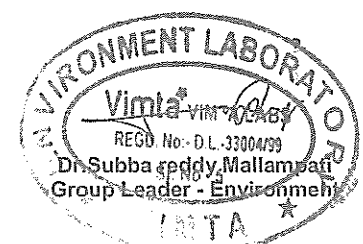
Sample collected at: SW1 (Chotia -I Nala Up stream, SW2 (Chotia-I) Nala Down Stream, SW3 (Chotia-II-Hasdev river Downstream), SW4 (Chotia-II-Hasdev river Up Stream)

SAMPLES COLLECTED BY VIMTA LABS LTD

LAB REF.: EC

**TEST RESULTS**

Sr.No.	Parameters	Unit	SW1	SW2	SW3	SW4
1	pH	-	7.28	7.43	6.97	7.36
2	Color	Hazen	4	6	7	3
3	Conductivity	µS/cm	240	328	198	266
4	TDS	mg/l	149	210	127	170
5	DO	mg/l	5.2	5.7	5.4	5.6
6	BOD	mg/l	<3.0	<3.0	<3.0	<3.0
7	COD	mg/l	<5.0	<5.0	<5.0	<5.0
8	Turbidity	NTU	3	6	5	3
9	Total Hardness as CaCO <sub>3</sub>	mg/l	73.5	89.1	50.8	70.4
10	Total Alkalinity as CaCO <sub>3</sub>	mg/l	56	78	42	50
11	Calcium as Ca	mg/l	17.4	21.8	12.6	16.8
12	Magnesium as Mg	mg/l	7.3	8.4	4.7	6.9
13	Chlorides as Cl	mg/l	38.2	49.6	26.2	47.1
14	Residual free chlorine	mg/l	<0.2	<0.2	<0.2	<0.2
15	Phosphates as PO <sub>4</sub>	mg/l	0.05	0.11	0.43	0.08
16	Sulphates as SO <sub>4</sub>	mg/l	9.8	11.6	15.9	12.7
17	Fluorides as F	mg/l	0.153	0.142	0.084	0.231
18	Nitrates as NO <sub>3</sub>	mg/l	1.8	3.1	1.6	3.4
19	Sodium as Na	mg/l	21.8	32.4	18.6	27.5
20	Potassium as K	mg/l	0.9	3.2	4.6	2.5
21	Total Boron as B	mg/l	0.08	0.14	0.16	0.06
22	Phenolic Compounds	mg/l	<0.001	<0.001	<0.001	<0.001
23	Cyanides	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	0.01	<0.01
28	Lead as Pb	mg/l	<0.01	<0.01	<0.01	<0.01
29	Iron as Fe	mg/l	0.16	0.09	0.08	0.11
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	0.06	0.14	0.21	0.09
33	Aluminum as Al	mg/l	0.02	0.08	0.13	0.07
34	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001
35	SAR	-	1.11	1.49	1.14	1.43
36	Insecticides	mg/l	Absent	Absent	Absent	Absent
37	Anionic detergents as MBAS	mg/l	Absent	Absent	Absent	Absent
38	Total Coliforms	MPN/100	2130	2670	2960	2310



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CIN : L24110TG1990PLC011977

**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



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**ISSUED TO:**

M/s. Bharat Aluminum Company Limited  
BALCO  
KORBA  
Chhattisgarh

Report Number : VLL/VLS/21-22/15854/002

Issue Date : 2022-03-05

You're Ref : 8500003497

P.O. Date : 2019-02-16

Sample Particulars: SURFACE WATER (CHOTIA MINES)

Page 1 of 1

Sample Registration Date: 2022-02-08

Sampling collection date: 2022-02-07

Analysis starting date : 2022-02-09

Analysis Completion date: 2022-02-28

Sample collected at: SW1 (Chotia -I Nala Up stream, SW2 (Chotia-I) Nala Down Stream, SW3 (Chotia-II-Hasdev river Downstream), SW4 (Chotia-II-Hasdev river Up Stream)

SAMPLES COLLECTED BY VIMTA LABS LTD

LAB REF.: EC

**TEST RESULTS**

Sr. No.	Parameters	Unit	SW1	SW2	SW3	SW4
1	pH	-	7.82	7.78	7.21	6.83
2	Color	Hazen	3	5	4	4
3	Conductivity	$\mu S/cm$	230	375	290	215
4	TDS	mg/l	148	240	185	137
5	DO	mg/l	5.6	5.3	5.1	5.9
6	BOD	mg/l	<3.0	<3.0	<3.0	<3.0
7	COD	mg/l	<5.0	<5.0	<5.0	<5.0
8	Turbidity	NTU	2	4	6	4
9	Total Hardness as $CaCO_3$	mg/l	62.4	102.5	84.1	59.3
10	Total Alkalinity as $CaCO_3$	mg/l	54	82	56	45
11	Calcium as Ca	mg/l	13.6	23.7	19.3	14.5
12	Magnesium as Mg	mg/l	6.9	10.5	8.7	5.6
13	Chlorides as Cl	mg/l	36.1	63.3	52.6	34.7
14	Residual free chlorine	mg/l	<0.2	<0.2	<0.2	<0.2
15	Phosphates as $PO_4$	mg/l	0.04	0.19	0.26	0.07
16	Sulphates as $SO_4$	mg/l	8.3	13.5	9.6	10.8
17	Fluorides as F	mg/l	0.093	0.059	0.092	0.104
18	Nitrates as $NO_3$	mg/l	1.2	2.6	4.7	2.1
19	Sodium as Na	mg/l	23.5	37.9	26.2	19.8
20	Potassium as K	mg/l	1.2	2.6	3.1	3.9
21	Total Boron as B	mg/l	0.06	0.09	0.12	0.08
22	Phenolic Compounds	mg/l	<0.001	<0.001	<0.001	<0.001
23	Cyanides	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	<0.01	<0.01
28	Lead as Pb	mg/l	<0.01	<0.01	<0.01	<0.01
29	Iron as Fe	mg/l	0.13	0.24	0.15	0.08
30	Chromium as $Cr^{6+}$	mg/l	<0.05	<0.05	<0.05	<0.05
31	Selenium as Se	mg/l	<0.01	<0.01	<0.01	<0.01
32	Zinc as Zn	mg/l	0.07	0.26	0.19	0.05
33	Aluminum as Al	mg/l	0.04	0.11	0.08	0.05
34	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001
35	SAR	-	1.29	1.63	1.24	1.12
36	Insecticides	mg/l	Absent	Absent	Absent	Absent
37	Anionic detergents as MBAS	mg/l	Absent	Absent	Absent	Absent
38	Total Coliforms	MPN/100	1860	2430	2670	2160

Dr. Subba reddy Mallampati  
Group Leader - Environment

**Vimta Labs Limited**

Registered Office .  
142, IDA Phase II, Cherlapally  
Hyderabad-500 051, Telangana, India  
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**ISSUED TO:**

M/s. Bharat Aluminum Company Limited  
BALCO  
KORBA  
Chhattisgarh

Report Number : VLL/VLS/21-22/17798/002  
Issue Date : 2022-04-04  
You're Ref : 8500003497  
P.O. Date : 2019-02-16

Page 1 of 1

Sample Particulars: SURFACE WATER (CHOTIA MINES)

Sample Registration Date: 2022-03-08  
Analysis starting date : 2022-03-09

Sampling collection date: 2022-03-07  
Analysis Completion date: 2022-03-31

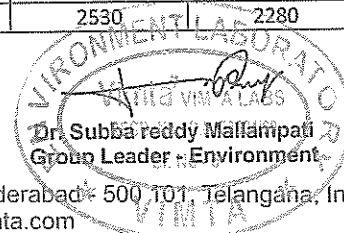
Sample collected at: SW1 (Chotia -I Nala Up stream, SW2 (Chotia-I) Nala Down Stream, SW3 (Chotia-II-Hasdev river Downstream), SW4 (Chotia-II-Hasdev river Up Stream)

SAMPLES COLLECTED BY VIMTA LABS LTD

LAB REF.: EC

**TEST RESULTS**

Sr. No.	Parameters	Unit	SW1	SW2	SW3	SW4
1	pH	-	7.38	7.29	7.02	7.46
2	Color	Hazen	2	4	5	3
3	Conductivity	µS/cm	219	332	203	276
4	TDS	mg/l	137	210	128	167
5	DO	mg/l	5.2	5.4	5.3	5.7
6	BOD	mg/l	<3.0	<3.0	<3.0	<3.0
7	COD	mg/l	<5.0	<5.0	<5.0	<5.0
8	Turbidity	NTU	3	5	5	4
9	Total Hardness as CaCO <sub>3</sub>	mg/l	61.2	93.3	59.5	81.0
10	Total Alkalinity as CaCO <sub>3</sub>	mg/l	52	78	43	56
11	Calcium as Ca	mg/l	12.8	21.5	13.6	18.4
12	Magnesium as Mg	mg/l	7.1	9.6	6.2	8.5
13	Chlorides as Cl	mg/l	34.1	52.3	33.2	49.7
14	Residual free chlorine	mg/l	<0.2	<0.2	<0.2	<0.2
15	Phosphates as PO <sub>4</sub>	mg/l	0.05	0.21	0.18	0.09
16	Sulphates as SO <sub>4</sub>	mg/l	7.4	11.9	9.6	8.3
17	Fluorides as F	mg/l	0.182	0.114	0.121	0.242
18	Nitrates as NO <sub>3</sub>	mg/l	1.7	2.9	2.3	3.4
19	Sodium as Na	mg/l	21.6	32.2	18.1	24.2
20	Potassium as K	mg/l	1.4	3.1	2.5	3.7
21	Total Boron as B	mg/l	0.09	0.34	0.11	0.26
22	Phenolic Compounds	mg/l	<0.001	<0.001	<0.001	<0.001
23	Cyanides	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	0.01	<0.01
28	Lead as Pb	mg/l	<0.01	<0.01	<0.01	<0.01
29	Iron as Fe	mg/l	0.19	0.08	0.13	0.11
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	0.04	0.17	0.07	0.13
33	Aluminum as Al	mg/l	0.02	0.13	0.09	0.06
34	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001
35	SAR	-	1.20	1.45	1.02	1.17
36	Insecticides	mg/l	Absent	Absent	Absent	Absent
37	Anionic detergents as MBAS	mg/l	Absent	Absent	Absent	Absent
38	Total Coliforms	MPN/100	1740	2350	2530	2280



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T : +91 40 6740 4040 E : mdoffice@vimta.com URL : www.vimta.com

CIN : L24110TG1990PLC011977

## **Annexure – 9**

### **RO Intimation Letter Chotia-2 Operation**



BHARAT ALUMINIUM COMPANY LIMITED  
P.O. - BALCO Nagar, Korba, CG  
India - 495084

Balco/Chc/2018/RO/2018/17-

Date: 11.10.2018

To  
The Director,  
Ministry of Environment, Forests and Climate Change,  
Regional Office (WC2), Ground Floor,  
East Wing, New Secretariat Building,  
Civil Line, Nagpur - 440 001.

Sub: Intimation for commencement of Mining Operations at Chotia II Coal Captive Coal Mining Project  
of M/s Bharat Aluminium Company Limited

Ref: Environment Clearance issued by MoEF&CC vide no. J-11015/96/2004.IA.II (M) dated 18<sup>th</sup> July 2018.

Dear Sir,

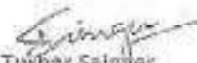
Chotia II Captive Coal Mining Project of M/s Bharat Aluminium Company Limited has been granted Environment Clearance (EC) for 1.0 MTPA on 18<sup>th</sup> July 2018. Subsequent to the grant of EC by MoEF&CC, we had applied for various state and central Govt. approvals to start the mining operation at Chotia II Coal Mine.

We wish to inform your goodself that the requisite approvals have been obtained and the mining operation has been commenced from Chotia II Coal Mine on 10.10.2018. This is being submitted to comply with condition no. 4 (k) (ii) of EC issued on 18<sup>th</sup> July 2018.

Thanking You,

Yours sincerely

For Bharat Aluminium Company Limited

  
Tushar Salinger

Authorized Signatory



Copy: Regional Officer, Chhattisgarh Environment Conservation Board, District Korba (CG)

9/c

# **Annexure – 10**

## **EC Submission to RO**





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

Balco/Coal Mines/2018/July/01

Date: Friday, 20 July, 2018

To,

1. Member Secretary,  
CECB, Raipur (C.G.)
2. Collector,  
Korba,  
District- Korba (C.G.)
3. Regional Office,  
CECB, Korba  
District Korba (C.G.)
4. General Manager  
District Industry and Business center,  
Korba (C.G.)
5. Tehsildar  
Tehsil Office, Podiuprodha  
District Korba, (C.G.)
- ✓ 6. Sarpanch  
Office of Sarpanch,  
Ghuchapur Panchayat,  
Podiuprodha, District Korba (C.G.)

Subject: Chotia II Captive Coal Mining Project of 1 MTPA of M/s Bharat Aluminium Company Limited (BALCO) in mine lease area of 316.826 Ha located in Salaiot Village, Tehsil Podiuprodha, District Korba (Chhattisgarh) - Environmental Clearance-reg.

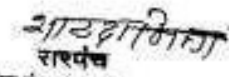
Reference: Letter No. J-11015/96/2004-IA.II (M) from MOEF & CC, New Delhi Dated 18 July 2018.

Sir/Mam,

With reference to the above mentioned subject, this is to inform your good office that the Ministry of Environment, Forests & Climate Change (MOEF&CC), New Delhi, Government of India has accorded Environmental Clearance to M/s Bharat Aluminium Company Limited for proposed project Chotia II Captive Coal Mining Project for 1.0 MTPA in mine lease area of 316.826 ha located in Salaiot village, Tehsil Podiuprodha, District Korba Chhattisgarh. The copy of said letter is also enclosed for your kind reference.

Thanking You  
Yours Sincerely

  
Tushar Sainger  
Associate Manager  
For Bharat Aluminium Company Limited

  
सरपंच  
ग्राम बंधावत-पुसापुर  
पि.ख.-पोंडी उपरोडा  
जिला-कोरबा (उ.प्र.) 20/07/18

Enclosed: - As mentioned above.



BHARAT ALUMINIUM COMPANY LIMITED  
P.O. - BALCO Nagar, Korba, C.G.  
India - 495002

Balco/Coal Mines/2018/July/01

Date: Friday, 20 July, 2018

To,

1. Member Secretary,  
CLCB, Raipur (C.G.)
2. Collector,  
Korba,  
District- Korba (C.G.)
3. Regional Office,  
CLCB, Korba  
District Korba (C.G.)
4. General Manager,  
District Industry and Business center,  
Korba (C.G.)
5. Tehsildar  
Tehsil Office, Poduprodha  
District Korba (C.G.)
6. Sarpanch  
Office of Sarpanch,  
Chuthapur Panchayat,  
Poduprodha, District Korba (C.G.)

Subject: Chotia II Captive Coal Mining Project of 1 MTPA of M/s Bharat Aluminium Company Limited (BALCO) in mine lease area of 316.826 Ha located in Salagot Village, Tehsil Poduprodha, District Korba (Chhattisgarh) - Environmental Clearance-reg.

Reference: Letter No. J-11015/96/2004-IA II (M) from MOEF & CC, New Delhi Dated 18 July 2018

Sir/Mam,

With reference to the above mentioned subject, this is to inform your good office that the Ministry of Environment, Forests & Climate Change (MOEF&CC), New Delhi, Government of India has accorded Environmental Clearance to M/s Bharat Aluminium Company Limited for proposed project Chotia -II Captive Coal Mining Project for 1.0 MTPA in mine lease area of 316.826 ha located in Salagot village, Tehsil Poduprodha, District Korba Chhattisgarh. The copy of said letter is also enclosed for your kind reference.

Thanking You

Yours Sincerely

  
Tushar Sanger

Associate Manager

For Bharat Aluminium Company Limited



Enclosed: - As mentioned above.



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

Balco/Coal Mines/2018/July/01

Date: Friday, 20 July, 2018

To,

1. Member Secretary,  
CECB, Raipur (C.G.)
2. Collector,  
Korba,  
District- Korba (C.G.)
- ✓ 3. Regional Office,  
CECB, Korba  
District Korba (C.G.)
- ✓ 4. General Manager  
District Industry and Business center,  
Korba (C.G.)
5. Tehsildar  
Tehsil Office, Podiuprodha  
District Korba, (C.G.)
6. Sarpanch  
Office of Sarpanch,  
Ghuchapur Panchayat,  
Podiuprodha, District Korba (C.G.)

Subject: Chotia II Captive Coal Mining Project of 1 MTPA of M/s Bharat Aluminium Company Limited (BALCO) in mine lease area of 316.826 Ha located in Salaigot Village, Tehsil Podiuprodha, District Korba (Chhattisgarh) - Environmental Clearance-reg.

Reference: Letter No. J-11015/96/2004-IA II (M) from MOEF & CC, New Delhi Dated 18 July 2018

Sir/Mam,

With reference to the above mentioned subject, this is to inform your good office that the Ministry of Environment, Forests & Climate Change (MOEF&CC), New Delhi, Government of India has accorded Environmental Clearance to M/s Bharat Aluminium Company Limited for proposed project Chotia -II Captive Coal Mining Project for 1.0 MTPA in mine lease area of 316.826 ha located in Salaigot village, Tehsil Podiuprodha, District Korba Chhattisgarh. The copy of said letter is also enclosed for your kind reference.

Thanking You  
Yours Sincerely

  
Tushar Sainger  
Associate Manager  
For Bharat Aluminium Company Limited



Enclosed: - As mentioned above.





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

Balco/Coal Mines/2018/July/01

Date: Friday, 20 July, 2018

To,

1. Member Secretary,  
CECB, Raipur (C.G.)
2. Collector,  
Korba,  
District- Korba (C.G.)
3. Regional Office,  
CECB, Korba  
District Korba (C.G.)
4. General Manager  
District Industry and Business center,  
Korba (C.G.)
- ✓ 5. Tehsildar  
Tehsil Office, Podiuprodha  
District Korba, (C.G.)
6. Sarpanch  
Office of Sarpanch,  
Ghuchapur Panchayat,  
Podiuprodha, District Korba (C.G.)



Subject: Chotia II Captive Coal Mining Project of 1 MTPA of M/s Bharat Aluminium Company Limited (BALCO) in mine lease area of 316.826 Ha located in Salaigot Village, Tehsil Podiuprodha, District Korba (Chhattisgarh) - Environmental Clearance-reg.

Reference: Letter No. J-11015/96/2004-IA.II (M) from MOEF & CC, New Delhi Dated 18 July 2018.

Sir/Mam,

With reference to the above mentioned subject, this is to inform your good office that the Ministry of Environment, Forests & Climate Change (MOEF&CC), New Delhi, Government of India has accorded Environmental Clearance to M/s Bharat Aluminium Company Limited for proposed project Chotia -II Captive Coal Mining Project for 1.0 MTPA in mine lease area of 316.826 ha located in Salaigot village, Tehsil Podiuprodha, District Korba Chhattisgarh. The copy of said letter is also enclosed for your kind reference.

Thanking You  
Yours Sincerely

Tushar Sainger  
Associate Manager  
For Bharat Aluminium Company Limited

Enclosed: - As mentioned above.

# **Annexure – 11**

## **Newspaper Advertisement**





