MP BIRLA GROUP

Birla Corporation Limited
Unit: Satna Cement Works
P.O.: Birla Vikas, Satna - 485005
Madhya Pradesh
P : 07672 412000/01 F : 07672 257456
E : admin.scw@birlacorp.com

Ref No.: BCL/SLM/MoEF&CC/EC compliance/2025-26/40 Dated: 24.05.2025

To,
Dy. Director General Forest (Central)
Regional Office, Western Region,
Kendriya Paryavaran Bhavan,
Link Road No. 3, E/5, Ravi Shankar Nagar,
Bhopal – 462016 (M.P.)

Sub: Six Monthly Environmental Clearance Compliance Status reports of Sagmania Limestone mines of Birla Corporation Limited, Unit: Satna Cement Works for the period from October-2024 to March -2025.

Ref: Environmental Clearance Letter No. J-11015/271/2006-IA. II (M) Dated 27th Dec-2007

Dear Sir,

With reference to aforesaid subjected matter, we are herewith submitting six monthly Environment Clearance compliance report for the period of October-2024 to March -2025.-of Sagmania Limestone mines M/s Birla Corporation Limited, Unit: Satna Cement Works.

This is for your kind information & record please.

Thanking You,
Yours faithfully,

For Birla Corporation Limited,
Unit: Satna Cement Works,

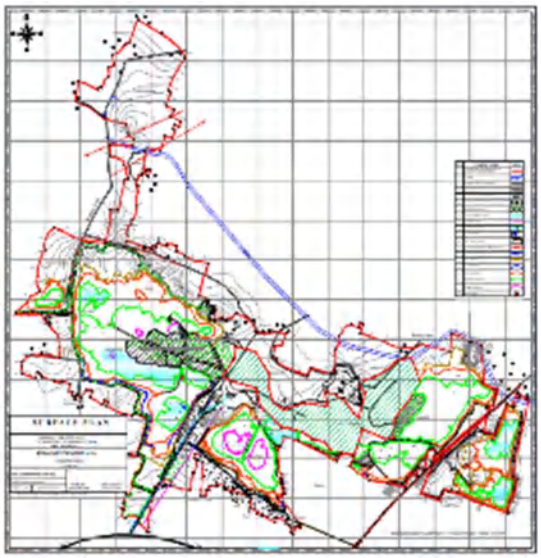
Kaushal Mishra
(Unit Head)

Encl: As above
Copy to:

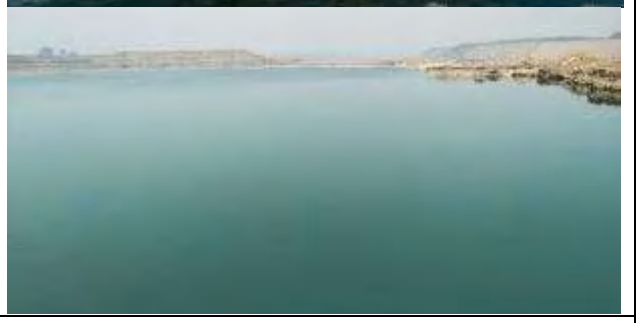
1. Director
   Ministry of Environment, Forest & Climate Change (GoI), Indira Paryavaran Bhawan
   Jorbagh Road, New Delhi- 110003
2. Member Secretary
   M.P. Pollution Control Board, Paryavaran Parisar, E- 5 / Arera Colony, Bhopal – 462 016
3. Regional Director
   Central Pollution Control Board, Paryavaran Parisar, E-5, Arera Colony, Bhopal (M.P.) - 462016

A comprehensive compliance report in respect of all the condition of EC with adequate reasoning and supporting data showing the summary of the monitored data in a tabular format within the compliance report itself.

COMPLIANCE STATUS OF ENVIRONMENT CLEARANCE CONDITIONS		
Compliance status for the period of **October-2024 to March-2025** of Environmental Clearance issued by MoEF, New Delhi vide letter **Reference No. J-11015/271/2006-IA. II (M) Dated 27th Dec-2007**		
Detail of Project: - Sagmania Limestone Mines of M/s Birla Corporation Limited, Unit: Satna Cement Works. Located in Village– Puraini, Bharjunakala, Bathiakhurd, Naina, Nimi, Baraj & Barikalan, Taluka Raghurajnagar, District Satna, State - Madhya Pradesh		
A) Specific Conditions		
EC Sr. No.	**EC conditions**	**EC Compliance Status**
(i)	The environmental clearance is subject to approval of the State Land use Department, Government of Madhya Pradesh for diversion of agricultural land for non-agricultural use	Mining Lease of Sagmania Limestone Mines was granted by Govt. of Madhya Pradesh on dated 19.10.56 and renewed vide letter no-F3-234/97/12/1 dated 13.10.10 and same was executed on 06.03.2013 for mining of limestone, Copy of grant order and lease deed in enclosed for reference as **Annexure SC-1A**. It is subsequently renewed vide letter no. F-19-5/2015/12-1, Bhopal dated 12.03.2015 till 31.03.2030 **Annexure SC-1B**. Mining Lease Deed dated on 6th March 2013 in Form K is enclosed as **Annexure SC-1C.**
(ii)	All the conditions stipulated by the State Pollution Control Board in their NOC should be effectively implemented	All conditions stipulated by State Pollution Control Board in their NOC are already implemented, Copy of NOC (CTE) vides letter no. 4834/TS/MPPCB/2006 dated 24.05.2006 and detailed compliance status is enclosed as **Annexure SC-2.** **NOC Compliance points:** 1) The waste water generated at workshop is properly treated and segregated at ETP in different settling tanks. Clean water collected from ETP is used for dust suppression as well as for plantation. 2) Water sprinkling system is installed along the haulage road. Additionally, dedicated water tanker with water sprinkling system is deployed at Mines for haul road. Crusher is equipped with four Bag Dust Collector, Pocket filters, Belt curtain at hopper with water fogging, water sprinkling at conveyor belt etc. to avoid fugitive dust. 3) Four ambient air quality monitoring stations established & Two CAAQMS installed to for continuous monitoring of AAQ data. 4) Proper Catch drains and siltation ponds of appropriate size have been constructed for the working pit to arrest flow of silt and sediment.

<table>
<tr><td></td><td></td><td>5) Till date about 3.15 Lacs plantation has been done within Mines Lease area.
We have planted 20400 no of saplings in the year 2024-25 within the ML area.</td></tr>
<tr><td>(iii)</td><td>The mining operations shall be restricted to above ground water table and it should not intersect groundwater table. Prior approval of the Ministry of Environment & Forests and Central Ground Water Authority shall be obtained for mining below water table.</td><td>Present mining operation is restricted to above ground water table.
We are planning for mining below the Ground Water Table in coming days.
Accordingly, we are applying for amendment in existing EC.
For proposed deeper mining, we will be intersecting ground water. Hence, we had applied for NOC from CGWA and accordingly CGWA has issued NOC for 3594 KLD of dewatering water used for Mines & Cement Plant and 49 KLD of ground water abstraction for domestic uses in mines.
Copy of CGWA NOC No. CGWA/NOC/MIN/REN/1/2025/10903 is enclosed as Annexure SC-3
<table>
<tr><th>Season</th><th>Level (M)</th></tr>
<tr><td>Post-Monsoon</td><td>21.50 – 23.75</td></tr>
<tr><td>Winter</td><td>18.32 – 24.36</td></tr>
</table></td></tr>
<tr><td>(iv)</td><td>The project proponent shall ensure that no natural watercourse shall be obstructed due to any mining operations.</td><td>No any natural water course is passing through mining lease area. Surface plan is enclosed for reference as Annexure SC-4.
  </td></tr>
<tr><td>(v)</td><td>Top soil should be temporarily stacked with proper slope at earmarked site (s) only with adequate measures and should not be kept unutilized for a period more than 3years. The topsoil should be used for land reclamation and plantation.</td><td>Top Soil generated is concurrently used directly for reclamation & rehabilitation in the backfilled areas. Top soil is generated during removal of soil overburden, which is spread over reclaimed area for plantation. Trees are planted considering their suitability to the environment in the rehabilitated area. Top soil generated in last two year is 51386 and 124221 cubic meter and for the compliance period (October-24 to March-25) 105900 cubic meter and same was utilized over backfilled area</td></tr>
</table>

		for plantation. Top soil has been stacked earlier with proper slope for soil ridge all around the mining lease boundary line with plantation to make a green belt.
(vi)	The entire waste generated shall be concurrently backfilled and there shall be no external over burden dumps. The entire backfilled area of 166 ha shall be reclaimed by' plantation. The back filling should be carried out in such a manner that it is restored to the normal ground level. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forests and its Regional Office Bhopal on six monthly basis.	The entire waste generated is being used in backfilling of excavated areas for reclamation & rehabilitation. The backfilling is carried out up to the level of normal ground level. Top soil generated during removal of soil overburden, is spread over reclaimed area for plantation. Reclamation & Plantation is being done in phased manner as per approved Mining Plan. Six monthly Compliance status is regularly being submitted to MoEF&CC Regional Office, Bhopal.
(vii)	The void left unfilled in an area of 565.78ha shall be converted into water body. The higher benches of excavated void/mining pit shall be terraced and plantation done to stabilize the slopes. The slope of higher benches shall be made gentler for easy accessibility by local people to use the water body. Peripheral fencing shall be carried out along the excavated area.	Presently the total opened up area is about 409.70 Ha in 5 pits. The mining operations are in progress since 1959 (prior to issuance of EC) and continuing. Void details: Out of 409.70 Ha opened area, reclaimed area is about 55.29 ha and is being used for plantation; and remaining pits are used for rain water harvesting.

		The void area of 565.78 Ha shall be suitably reclaimed by end of Mine life (31.03.2030). Photographs are attached as **Annexure SC-7**. 
(viii)	Catch drains and siltation ponds of appropriate size shall be constructed for the working pit to arrest flow of silt and sediment. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly desilted, particularly after monsoon, and maintained properly. Garland drain of appropriate size, gradient and length shall be constructed for mine pit and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits should be constructed at the corners of the garland drains and desilted at regular intervals.	Catch drains and siltation ponds of appropriate size are constructed for the working pit to arrest flow of silt and sediment. Collected rain water is utilized for watering the mines area, roads and green belt development etc. Photograph of Siltation pond is attached as **Annexure SC-8A.** Garland drains of appropriate size, gradient & length are constructed. Photograph of garland drain is attached as **Annexure SC-8B.**

(ix)	Plantation shall be raised in an area of 251ha including a 7.5m wide green belt in the safety zone around the mining lease by planting the native species around ML area, reclaimed and backfilled area, around water body, roads etc. in consultation with the local DFO/ Agriculture Department. At least 1500 trees per year shall be planted and the density of the trees should be around 2500 plants per ha.	Till date we have planted about 3.15 lacs saplings in our Mines Lease area. About 20400 saplings have been planted during April 2024 – March 2025. Afforestation programme is being carried out with consultation of local Forest department, and as per their advice saplings, are being procured from various nursery. Plantation is being carried out as per approved Mining plan. Plantation details and photograph of plantation is attached as **Annexure SC-9.**

<table>
<tr>
<td>(x)</td>
<td>Regular water sprinkling should be carried out in critical areas prone to air pollution and having high levels of SPM and RPM such as haul road, loading, unloading and transfer points and other vulnerable areas. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.</td>
<td>Water sprinkling system is installed along the haulage road. Haulage road are adequately sprayed with water by sprinkler installed water tanker. Trees are planted on both side of road to arrest air borne dust. Our existing crusher are equipped with Bag Dust Collector, Pocket filters, Belt curtain at hopper etc. which ensure adequate suppressions of air borne dust in crusher with arrangement of water spraying at all transfer points. Photographs attached as Annexure SC-10A.

The Ambient air quality monitoring parameters are well within permissible limits of the proposed standard of SPM & RPM. Online AAQ Monitoring report is attached as Annexure SC-10B & Third party AAQ Monitoring report is attached as Annexure SC-10C.
<table>
<tr><th>Parameter</th><th>Unit</th><th>Range</th></tr>
<tr><td>PM_{10}</td><td>$\mu g/m^3$</td><td>59.4 – 67.3</td></tr>
<tr><td>$PM_{2.5}$</td><td>$\mu g/m^3$</td><td>30.4 – 37.4</td></tr>
<tr><td>SO_2</td><td>$\mu g/m^3$</td><td>10.2 – 14.3</td></tr>
<tr><td>NO_2</td><td>$\mu g/m^3$</td><td>16.7 – 26.4</td></tr>
</table>
</td>
</tr>
<tr>
<td>(xi)</td>
<td>The project authority should implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.</td>
<td>Mining operation started in 1959 and considering future water need and to recharge ground water table, three big Rain Water Harvesting Ponds were created to augment ground water resources in the mine out area.
However, above activities were carried out in initial phases of mining operation, and hence the information on various initiatives for water conservations was mentioned and communicated in our application to CGWB for abstracting ground water.</td>
</tr>
</table>

Also, we have communicated to CGWA for guidance/suggestions on developing suitable Rain Water Harvesting measures on long term basis at our Sagmania Lime stone mine vide letter no. SCW/Q/51/2020-21; Dt. On 21.10.2020.

Copy of the same is attached as **Annexure SC-11A**

Photographs of water reservoir and recharging structures attached as **Annexure SC-11B.**

(xii) Regular monitoring of ground water level and quality should be carried out in and around the mine lease by establishing a network of existing wells and constructing new piezometers during the mining operation.

The monitoring should be carried out four times in a year - pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected may be sent regularly to Ministry of Environment and Forests, its Regional Office located at Bhopal, Central Ground Water Authority and Regional Director, Central Ground Water Board.

Ground Water level & Quality monitoring is carried out in & around mining lease area in all the four seasons. The monitoring Report is carried out four times in a year-pre-monsoon (April-May), Monsoon (August), post monsoon (November) & winter (January). All collected data is also sent regularly to concerned authority. Water level monitoring data and ground water quality reports are attached as **Annexure SC12B.**

Season	Level (M)
Post-Monsoon	21.50 – 23.75
Winter	18.32 – 24.36

Ground Water Quality.

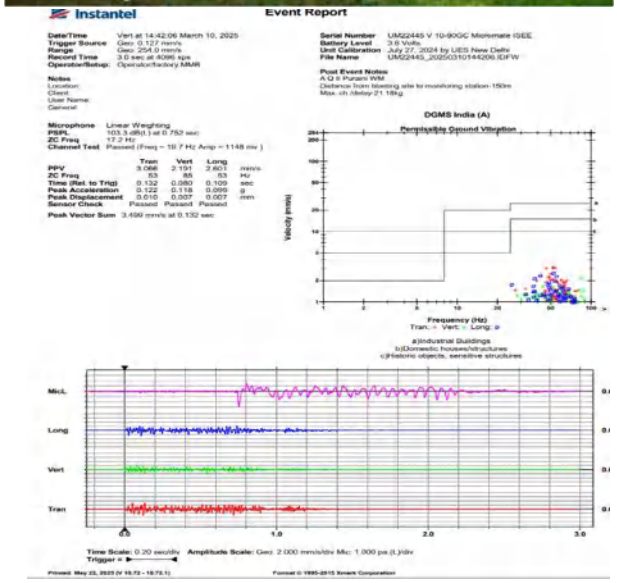
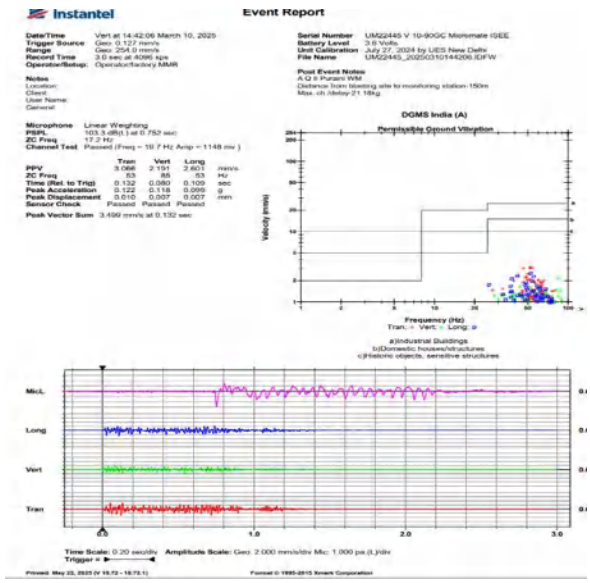
Parameter	Unit	Norms	Min	Max
pH	-	6.5 – 8.5	7.06	7.84
Conductivity	µS/Cm	-	514	736
Total Solids	mg/L	-	338	485
Total Dissolved Solids	mg/L	2000	330	474
Total Alkalinity (as CaCO3)	mg/L	600	124	193

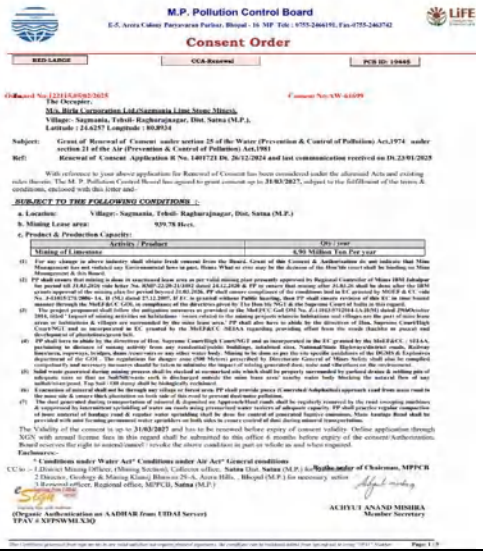
Total Hardness (as CaCO3)	mg/L	600	113	189
Calcium Hardness (as CaCO3)	mg/L	-	31.6	56.5
Magnesium Hardness (as CaCO3)	mg/L	-	8.6	16.3
Chloride (as Cl)	mg/L	1000	32.1	43.4

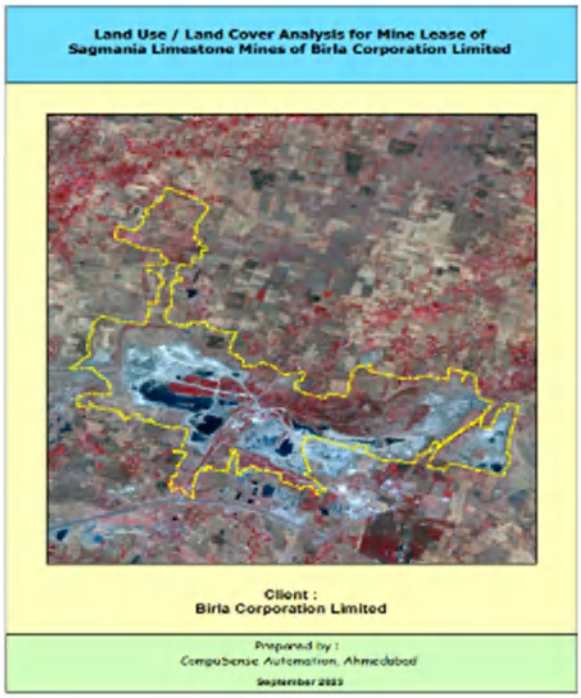
(xiii)	Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with Regional Director, Central Ground Water Board.	Sagmania Limestone Mine was started in 1959. **Existing lease hold area is 852.50 Ha.** The average mining depth is about 12 to 15 mtr. Till date the total opened up area is about 409.70 Ha. Total 5 pits have been created since inception. The mined-out pits are reclaimed either by backfilling supported by plantation or by converting into Rain Water Harvesting pits. Photograph of rain water harvesting in mined out pits is attached as **Annexure SC-7**. In addition to above we have also constructed Ground Water Recharge structure to tune-up ground water level at Colony, Hospital and Nearby School, Villages etc. The details are follows: A) 15 Nos of Ground water recharge structures are constructed in Staff colony, SCW plant, R K Missionary School etc. B) 7 nos. are RWH structures constructed at mines office and colony area. We have also written letter to CGWB seeking guidance/suggestion for developing Suitable rainwater harvesting measures on long term basis at our Sagmania Limestone Mines, Satna. Copy attached as **Annexure SC-11A**

(xiv)	The project authorities shall obtain prior approval of the competent authority for drawl of groundwater, required for the project.	Presently the water requirement for operational activities is being met from Rain Water Harvested in Mines Pit. However, considering our proposed deeper mining operation and working below ground water table, we had applied for NOC from CGWA for abstraction of 290 KLD ground water for domestic uses and 329 KLD seepage (Ground) water for dewatering to facilitate mining operation. CGWA has granted us NOC for 3594 KLD of dewatering water used for Mines & Cement Plant and 49 KLD of ground water abstraction for domestic uses in mines. Copy of CGWA NOC No. CGWA/NOC/MIN/REN/1/2025/10903 is enclosed as **Annexure SC-3**
(xv)	The mineral handling plant should be provided with adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.	Existing Crushers are equipped with Bag dust collectors, Pocket filters. De-dusting cyclones etc. which ensures adequate suppression of air borne dust in crusher and conveyor belt transfer points. There is also adequate arrangement of water spraying at crusher hopper and conveyor belts. Details are as follows: 1) Four nos. of BDC installed at crusher. 2) Water spraying system at Crusher hopper. 3) PVC curtain provided at Crusher hopper. 4) Water sprinkling system provided at transfer points. Water sprinkling on haul road by a dedicated water tanker.

		Photograph of belt curtains at hopper and water sprinkling at Crusher hopper and Conveyor belt, BDC at belt transfer point are attached as **Annexure SC-10A**.
(xvi)	Blasting operation should be carried out only during the daytime. Controlled blasting should be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.	Blasting operation is always carried out only during daytime in lunch break with controlled blasting method. Monitoring of vibration is being done in regular interval with the help of new Instantel Micromate vibration monitoring equipment. Photograph of Micromate and Vibration monitoring report is attached as **Annexure SC-16**.
(xvii)	Drills shall either be operated with dust extractors or equipped with water injection system.	Drill machine are equipped with water injection system to suppress the dust and Dust collection system which is continuously operating to avoid dust getting airborne. Photograph of Drilling machine equipped with dust extraction system is attached as **Annexure SC-17.**

		  
(xviii)	The project proponent shall ensure monitoring of vibrations (peak article velocity likely to be generated) with each blast.	Vibration (Peak Particle Velocity-PPV) is being monitored at regular interval by new Instantel Micromate and kept well within permissible limits. Safe limit of PPV is 10 mm/second as per recommendation given by DGMS, attached as **Annexure SC-16.** 

(xix)	Consent to operate shall be obtained from the State Pollution Control Board before starting enhanced production from the mine.	Complied. Consent to Operate from MPPCB is attached as **Annexure SC-19**.  M.P. Pollution Control Board Consent Order RED LARGE CCA-Renewal PCB ID: 19445 Consent No.XW-61099 The Occupier, M/s. Birla Corporation Ltd.(Sagmania Lime Stone Mines), Village:- Sagmania, Tehsil- Raghurajnagar, Dist. Satna (M.P.). Latitude : 24.6257 Longitude : 80.8924 Subject: Grant of Renewal of Consent under section 25 of the Water (Prevention & Control of Pollution) Act,1974 under section 21 of the Air (Prevention & Control of Pollution) Act,1981 Ref: Renewal of Consent Application # No. 1401723 Dt. 26/12/2024 and last communication received on Dt.23/01/2025 With reference to your above application for Renewal of Consent has been considered under the aforesaid Acts and existing rules thereto. The M. P. Pollution Control Board has agreed to grant consent up to 31/03/2027, subject to the fulfillment of the terms & conditions, enclosed with this letter and- SUBJECT TO THE FOLLOWING CONDITIONS :- a. Location: Village:- Sagmania, Tehsil- Raghurajnagar, Dist. Satna (M.P.) b. Mining Lease area: 929.78 Hect. c. Product & Production Capacity: Activity / Product | Qty / year Mining of Limestone | 6.50 Million Ton Per year (i) For any change in above industry shall obtain fresh consent from the Board. Grant of this Consent & Authorisation do not indicate that Mine Management has not violated any Environmental laws in past. Hence What so ever may be the decision of the Hon'ble court shall be binding to Mine Management. (ii) PP shall ensure that mining is done in sanctioned lease area as per valid mining plan presently approved by Regional Controller of Mines IBM Jabalpur for period till 31.03.2026 vide letter No. RMP/22/20/21/1002 dated 24.12.2020 & PP to ensure that mining after 31.03.20 shall be done after the IBM grants approval of the mining plan for period beyond 31.03.2026. PP shall ensure compliance of the conditions laid in EC granted by MoEF & CC vide No. J-11015/171/2006- IA. II (M.) dated 27.12.2007, If EC is granted without Public hearing, then PP shall ensure revision of this EC in time bound manner through the MoEF&CC GoI, in compliance of the directions given by Ten Hon'ble NGT & the Supreme Court of India in this regard. (iii) The project proponent shall follow the mitigation measures as provided in the MoEF&CC GoI DM No. Z-11012/37/2014-IA.III(M) dated 29thOctober 2014, in addition to activities on belt/plantation – issues related to the mining projects relocation/resettlement villages are the part of mine lease area, so the relocation of villages are recommended by the mine lease area. PP shall also have to abide by the directions of Hon. Supreme Court/High Court/NGT and as incorporated in EC granted by the MoEF&CC. MHA& regarding providing offset from the crude (backfill or project) and development of plantation/green belt. (iv) PP shall have to abide by the directions of Hon. Supreme Court/High Court/NGT and as incorporated in the EC granted by the MoEF&CC, MHA& pertaining to distance of mining activity from any residential/public buildings, notified sites, National/State Highways/district roads, Railway functions, reservoirs, bridges, drains/rivers/nala or any other water body. Mining to be done as per the site specific guidelines of the DGMS & Explosives department of GOI. The regulations for danger zone (500 Meters) prescribed by Directorate General of Mines Safety shall also be complied scrupulously and necessary measures should be taken to minimize the impact of blasting generated dust, noise and vibrations on the surroundings. (v) Adequate measures should be taken to prevent the ingress of water into the mine workings and to prevent the outflow of water from the workings pits of adequate sizes so that no bund/dyke/walls, soil, is discharged outside the mine lease area/ nearby water body. Blocking the natural flow of any nallah/river/pond. Top soil / OB dump shall be biologically reclaimed. (vi) Conversion of mineral shall not be through any village or forest area. PP shall provide pucca (Concreted/Asphalted) approach road from mine road to the mine site & ensure thick plantation on both side of this road to prevent dust/noise pollution. (vii) The dust generated during transportation of mineral & deposited on Approach/Haul roads shall be regularly removed by the road sweeping machines & suppressed by intermittent sprinkling of water on roads using pressurized water sprinkers of adequate capacity. PP shall practice regular compaction of loose material of haulage road & regular water sprinkling shall be done for control of generated fugitive emissions. Mine haulage Road shall be provided with mist for mitigating permanent water sprinklers on both sides to ensure control of dust during mineral transportation. The Validity of the consent is up to 31/03/2027 and has to be renewed before expiry of consent validity. Online application through SGN with annual license fees in this regard shall be submitted to this office 6 months before expiry of the consent/Authorization. Board reserves the right to amend/cancel/ revoke the above conditions in part or whole as and when required. Enclosures:- * Conditions under Water Act* Conditions under Air Act* General conditions CC to :- 1.District Mining Officer, (Mining Section), Collector office, Satna Dist. Satna (M.P.) for Kindly under of Chairman, MPPCB 2.Director, Geology & Mining Klaraj Bhawan 29-A, Arera Hills, , Bhopal (M.P.) for necessary action 3.Regional officer, Regional office, MPPCB, Satna (M.P.) (Digital Authentication on AADHAR from UIDAI Server) TPAV # XPPSWMLX3Q ACHYUT ANAND MISHRA Member Secretary Page: 1 / 5
(xx)	Vehicular emissions should be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral. The vehicles should be covered with a tarpaulin and shall not be overloaded.	Vehicular emission is under control. Appropriate measures are taken for maintenance of Heavy Earth Moving Machinery. Hauling Vehicles ply within ML area and are loaded as per OEM recommendation & not overloaded. Copy of Vehicular Emission test report is attached as **Annexure SC-20**.
(xxi)	Digital processing of the entire lease area using remote sensing technique should be done regularly once in three years for monitoring land use pattern and report submitted to Ministry of Environment and Forests and its Regional Office.	Digital processing by remote sensing technique of the entire lease is being done regularly once in three years for monitoring land use pattern & report is being submitted to MoEF & its Regional Office. Copy of submission letter is attached as **Annexure SC-21**.

		
(xxii)	Sewage treatment plant should be installed for the colony. ETP should also be provided for workshop and mine waste water.	Sewage Treatment Plant of 50KLD & 1080 KLD capacity is installed at staff colony to treat waste generated from colony. The treated water is used for green belt developments is for cement plant. However, in mines, domestic waste water is allowed to treat through septic tank. Effluent Treatment Plant is installed to treat waste generated due to washing of HEMM is at Mines workshop and the treated water is used for plantation. No waste water is generated from mining process. Photographs of ETP & STP is attached as **Annexure SC-22.**

(xxiii)	A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.	Final Mine Closure Plan along with details of Corpus fund will be submitted to MOEF 5 years in advance of final mine closure for approval.

B) General Conditions

EC Sr. No.	EC conditions	EC Compliance Status
(i)	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment and Forests.	There is no change in mining technology & scope of working. All working & reclamation activity is being carried out as per approved Mining Plan Certified copy of Production is attached as **Annexure GC-1**
(ii)	No change in the calendar plan including excavation, quantum of mineral limestone and waste should be made.	There is no change in mining technology & scope of working. All working & reclamation activity is being carried out as per approved Mining Plan Certified copy of Production is attached as **Annexure GC-1** Six Month Production Report / Production in MT October -24 / 267804 November - 24 / 166909 December - 24 / 285382 January - 25 / 203505 February -25 / 190121 March – 25 / 154058 Total / 1267779
(iii)	Conservation measures for protection of flora and fauna in the core & buffer zone should be drawn up in consultation with the local forest and wildlife department.	The biodiversity in the area is not very high due to intense biotic pressure. The area is predominantly agro-system with poor irrigation facilities. There is no suitable habitat for occurrence of important fauna in the area. No significant endangered species have been reported in the area. The density of plants is very low with dominating tree species of Mango, Mahuwa, Neem, and Peepal. However, preservation measures for flora & fauna in the core & buffer zone are taken up considering following aspects

<table>
<tr><td></td><td></td><td>1. Prevention of Pollution: controlled blasting, Drill machines are equipped with water injection system, Water sprinkling on haul road with water sprinklers and water tankers, Bag filters for Crusher, pocket filters for belt conveyors, Belt curtain at hopper, water sprinkling at transfer points and Massive tree plantation of native species.
2. Soil Conservation: Top Soil generated is concurrently used directly for reclamation & rehabilitation in the backfilled areas and plantation is done. Proper Catch drains and siltation ponds to arrest silt and sediment
3. Water Conservation: In the areas of water harvesting, only the berms are been planted and high-water consuming trees like Eucalyptus are avoided.
We have requested guidance from the local forest department for above mentioned protection measures. Copy of the Authenticated list of Flora & Fauna and conservation plan approved by forest department is enclosed as Annexure GC-3A & B.</td></tr>
<tr><td>(iv)</td><td>At least four ambient air quality monitoring stations should be established in the core zone as well as the buffer zone for RPM, SPM, S02, NOx, and CO monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Data on ambient air quality (RPM, SPM, S02, NOx, and CO) should be regularly submitted to the Ministry including its Regional Office at Bhopal and to the State Pollution Control Board/Central Pollution Control Board once in six months.</td><td>Four ambient air quality monitoring stations are already established for monitoring of PM10, PM2.5, SO_2 and NO_2. In addition to this 02 nos. CAAQMS has been installed at Quarry Station no.1 (In South direction) & Quarry Station no.2 (In North direction) and online AAQ data is transmitting continuously to CPCB & MPPCB.
Regular monitoring of ambient air quality at 04 locations is being carried on regular interval through the NABL accredited laboratory and monitoring reports are enclosed as Annexure SC-10C
<table>
<tr><th>Parameter</th><th>Unit</th><th>Range</th></tr>
<tr><td>PM_{10}</td><td>µg/m^3</td><td>59.4 – 67.3</td></tr>
<tr><td>$PM_{2.5}$</td><td>µg/m^3</td><td>30.4 – 37.4</td></tr>
<tr><td>SO_2</td><td>µg/m^3</td><td>10.2 – 14.3</td></tr>
<tr><td>NO_2</td><td>µg/m^3</td><td>16.7 – 26.4</td></tr>
</table></td></tr>
<tr><td>(v)</td><td>Fugitive dust emissions from all the sources should be controlled regularly monitored and data recorded properly. Water spraying arrangements on haul roads, wagon loading, dumps, loading & unloading
points should be provided and properly maintained.</td><td>Fugitive dust emissions from all the sources are under control, regular monitoring is being done & data recorded. Water spray system is provided at all dust prone areas & maintained regularly.
Photograph of water spraying on roads to control fugitive dust is enclosed as Annexure GC-5.</td></tr>
</table>

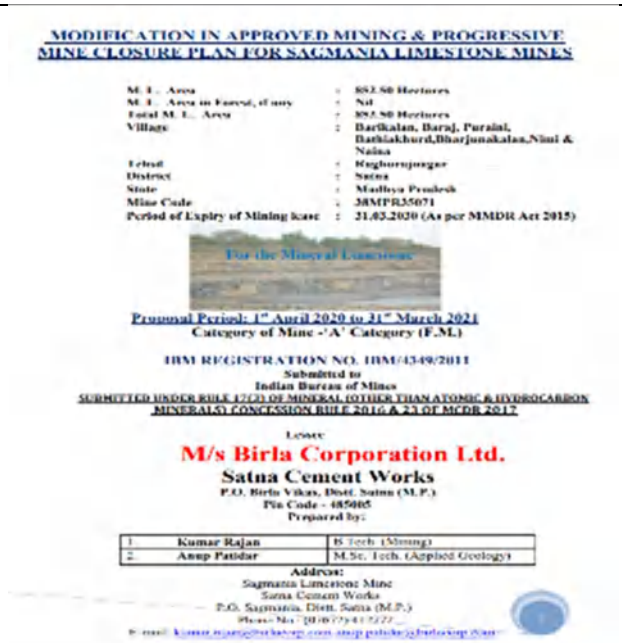
<table>
<tr><td></td><td></td><td>

</td></tr>
<tr><td>(vi)</td><td>Adequate measures should be taken for control of noise levels within prescribed standards. Workers engaged in blasting and drilling operations, operations of HEMM, etc., should be provided with ear plugs/muffs.</td><td>Adequate measures are taken for controlling noise level. Regular monitoring of the noise level is being done and found within the stipulated norms. Workers are provided ear plugs / muffs etc. where ever necessary. Noise monitoring carried out by an NABL accredited laboratory and monitoring reports are enclosed as Annexure GC-6.
Noise level observed 51.6 dBA to 82.60 dBA 81.5
<table>
<tr><th>Location</th><th>Unit</th><th>Range</th></tr>
<tr><td>Near Crusher</td><td>dB(A)</td><td>74.3 – 81.5</td></tr>
<tr><td>Near Unloading Hopper</td><td>dB(A)</td><td>78.4 – 80.3</td></tr>
<tr><td>Near Mines office</td><td>dB(A)</td><td>65.6 – 69.4</td></tr>
<tr><td>Near Dumper Garage</td><td>dB(A)</td><td>60.6 – 61.2</td></tr>
<tr><td>Vehicle operator cabin</td><td>dB(A)</td><td>59.5 – 60.4</td></tr>
<tr><td>1200 TPH crusher (Inside CCR)</td><td>dB(A)</td><td>58.5 – 59.2</td></tr>
</table></td></tr>
<tr><td>(vii)</td><td>Industrial wastewater (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards
prescribed under GSR 422(E) dated 19th May 1993 and 31st December 1993 or as amended from time to time. Oil and grease trap should be
Installed before discharge of effluents from workshop.</td><td>The waste water generated at workshop is properly treated in ETP. Oil and Grease Trap is also installed to remove oil and grease. The treated water is used for plantation. The treated water quality meets the standards prescribed as per GSR 422 (E).
There is no additional source of waste water generation from Mining operation.
Effluent waste water analysis carried out by an NABL accredited laboratory and reports are enclosed as Annexure GC-7.</td></tr>
</table>

<table>
<tr><td></td><td></td><td>
<table>
<tr><th>Parameter</th><th>Unit</th><th>Norms</th><th>Min</th><th>Max</th></tr>
<tr><td>pH</td><td>-</td><td>6.5 – 8.5</td><td>7.15</td><td>7.32</td></tr>
<tr><td>TSS</td><td>mg/L</td><td>100</td><td>26.7</td><td>29.7</td></tr>
<tr><td>TDS</td><td>mg/L</td><td>2100</td><td>432</td><td>448</td></tr>
<tr><td>COD</td><td>mg/L</td><td>250</td><td>56</td><td>58</td></tr>
<tr><td>BOD</td><td>mg/L</td><td>30</td><td>11.2</td><td>12.1</td></tr>
<tr><td>Oil & Grease</td><td>mg/L</td><td>10</td><td>≤2</td><td>≤2</td></tr>
<tr><td>Chloride (as Cl)</td><td>mg/L</td><td>1000</td><td>192</td><td>196</td></tr>
</table></td></tr>
<tr><td>(viii)</td><td>Acid mine water, if any has to be treated and disposed of after conforming to the standard prescribed the competent authority.</td><td>Not applicable
Pyritic Sulphur content in Lime stone is very low. Hence no acid mine water is anticipated.</td></tr>
<tr><td>(ix)</td><td>Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.
Occupational health surveillance programme of the workers should be undertaken periodically to observe any contractions due to exposure to radioactive mineral dust and take corrective measures, if needed. The same programme may be extended to adjoining villages also.</td><td>Person working in dust prone areas are provided with dust mask. Adequate training and information regarding Safety and health aspects is provided to them. OHS programmed of the workers is under taken periodically.
Training report attached as Annexure GC-9.
Occupational health & Safety surveillance programmed as per mining act/rules is carried out regularly.</td></tr>
<tr><td>(x)</td><td>Environmental laboratory should be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board.</td><td>Fully equipped environmental laboratory is already in function and is working satisfactorily. Photographs attached as Annexure GC-10.
 </td></tr>
</table>

<table>
<tr><td></td><td></td><td> </td></tr>
<tr><td>(xi)</td><td>A separate environmental management cell with suitable qualified personnel should be set up under the control of a senior Executive, who will report directly to the Head of the organization.</td><td>Environmental Management cell comprises of SD-Head, Environment Manager, Environmental Engineer and monitoring team. Well-equipped environmental laboratory of is established.
Organization structure of Environment is attached as Annexure-GC-11.
</td></tr>
<tr><td>(xii)</td><td>The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purposes. Year-wise expenditure Should be reported to the Ministry of Environment and Forests and its Regional Office, Bhopal.</td><td>Expenditure details for Environment protection (2024-2025)
<table>
<tr><th>S. N.</th><th>Description</th><th>Amount (In Lacs)</th></tr>
<tr><td>1</td><td>Green Belt development Maintenance & Security</td><td>625000</td></tr>
<tr><td>2</td><td>Water Tanker (5KL)</td><td>213900</td></tr>
<tr><td>3</td><td>Water Tanker (35KL)</td><td>2628501</td></tr>
<tr><td>4</td><td>Water Tanker (10KL)</td><td>163102</td></tr>
<tr><td>5</td><td>Fencing</td><td>993130</td></tr>
<tr><td>6</td><td>Garland Drain</td><td>665973</td></tr>
<tr><td>7</td><td>Environment Monitoring Charges</td><td>413354</td></tr>
<tr><td colspan="2">Total Expenses</td><td>5702960</td></tr>
</table></td></tr>
<tr><td>(xiii)</td><td>The Regional Office of this Ministry located at Bhopal shall monitor compliance of the stipulated conditions. The Project authorities should extend full cooperation to the officer(s) of the Regional Office by furnishing requisite data/information/monitoring reports.</td><td>Complied.
Full cooperation is given to officers of Regional Office and will be continued in future also.</td></tr>
</table>

(xiv)	The project proponent shall submit six monthly report on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment and Forests, its Regional Office, Bhopal, Central Pollution Control Board and State Pollution Control Board.	Regularly being submitted. Previous six-monthly compliance report Ref No.: BCL/SLM/MoEF&CC/EC compliance/2024-25/133 Dated: 22.11.2024 MP BIRLA GROUP **Birla Corporation Limited** **Unit: Satna Cement Works** P.O.: Birla Vikas, Satna – 485005 Madhya Pradesh P.: 07672 412000/01 F.: 07672 257456 T: admin.scw@birlacorp.com Ref No.: BCL/SLM/MoEF&CC/EC compliance/2024-25/133 Dated: 22.11.2024 To, Dy. Director General Forest (Central) Regional Office, Western Region, Kendriya Paryavaran Bhavan, Link Road No. 3, E/5, Ravi Shankar Nagar, Bhopal – 462016 (M.P.) **Sub:** Six Monthly Environmental Clearance Compliance Status reports of Sagmania Limestone mines of Birla Corporation Limited, Unit: Satna Cement Works for the period from April- to September -2024. **Ref:** Environmental Clearance Letter No. J-11015/271/2006-IA. II (M) Dated 27th Dec-2007 Dear Sir, With reference to aforesaid subjected matter, we are herewith submitting six monthly Environment Clearance compliance report for the period of April to September-2024 of Sagmania Limestone mines M/s Birla Corporation Limited, Unit: Satna Cement Works. This is for your kind information & record please. Thanking You, Yours faithfully, For Birla Corporation Limited, Unit: Satna Cement Works, Sunil Sood Unit Head Encl: As above **Copy to:** 1. Director Ministry of Environment, Forest & Climate Change (GoI), Indira Paryavaran Bhawan Jorbagh Road, New Delhi- 110003 2. Member Secretary M.P. Pollution Control Board, Paryavaran Parisar, E- 5 / Arera Colony, Bhopal – 462 016 3. Regional Director Central Pollution Control Board, Paryavaran Parisar, E-5, Arera Colony, Bhopal (M.P.) - 462016 Registered Office: Birla Building, 9/1 R.N. Mukherjee Road, Kolkata – 700001 ; CIN : L01132WB1919PLC001334 ; www.birlacorporation.com P : 033 66166745/46/26 ; F : 033 22483872
(xv)	A copy of the clearance letter will be marked to the concerned Panchayat /Iocal NGO, if any, from whom any suggestions/representation has been received while processing the proposal.	Complied We have already informed to DM, Satna & District Industry Center, Satna after getting EC letter Copy of letter is enclosed as **Annexure GC-15.** Date : 10.01.2008 To, **District Collector** Satna (M.P.) Subject: Sagmania Limestone Mining Project of M/s Birla Corporation Limited located in Village Sagmania, Tehsil Raghuraj Nagar, District-Satna, Madhya Pradesh-Environmental Clearance reg. Dear Sir, We thankfully acknowledge the receipt of letter No.J-11015/271/2006-IA.II(M) dated 27 December 2007 from Government of India, Ministry of Environment and Forest, New Delhi regarding Environmental Clearance of our Sagmania Limestone Mining Project of M/s Birla Corporation Limited located in Village-Sagmania, Tehsil-Raghuraj Nagar, District-Satna, Madhya Pradesh. Subsequently what action we are required to take, a copy of the same is enclosed for your kind reference. As per the General Condition No. (XVII) laid down in the above referred letter, we request you to please display the copy of the said Environmental clearance letter in the notice board of your Office for 30 days. Thanking you, Yours faithfully, for BIRLA CORPORATION LIMITED (CEMENT DIVISION) SATNA (D.ROY) GENERAL MANAGER(MINES) Encl.As above.
(xvi)	The project authorities should inform to the Regional Office located at Bhopal regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	We have informed Regional office, Bhopal on financial closure & final approval of the project. Copy attached as **Annexure GC-16.**

		 MODIFICATION IN APPROVED MINING & PROGRESSIVE MINE CLOSURE PLAN FOR SAGMANIA LIMESTONE MINES M. L. Area : 852.50 Hectares M. L. Area in Forest, if any : Nil Total M. L. Area : 852.50 Hectares Village : Barikalan, Baraj, Purainl, Barikakhurd,Bharjunakalan,Niul & Naina Tehsil : Raghurajnagar District : Satna State : Madhya Pradesh Mine Code : 38MPR35071 Period of Expiry of Mining lease : 21.03.2020 (As per MMDR Act 2015) Proposal Period: 1st April 2020 to 31st March 2021 Category of Mine -'A' Category (F.M.) IBM REGISTRATION NO. IBM/4349/2011 Submitted to Indian Bureau of Mines SUBMITTED UNDER RULE 17(3) OF MINERAL (OTHER THAN ATOMIC & HYDROCARBON MINERALS) CONCESSION RULE 2016 & 23 OF MCDR 2017 Lessee M/s Birla Corporation Ltd. Satna Cement Works P.O. Birla Vikas, Distt. Satna (M.P.) Pin Code - 485005 Prepared by: 1 Kumar Rajan B.Tech (Mining) 2 Anup Patidar M.Sc. Tech. (Applied Geology) Address: Sagmania Limestone Mine Satna Cement Works P.O. Sagmania, Distt. Satna (M.P.)
(xvii)	State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industry center and Collector's/Tehsildar's Office for 30 days.	**The MPPCB is the concerned authority in this regard.**
(xviii)	The project authorities should 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 the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and may also be seen at web site of the Ministry of Environment and Forests at http://envfor.nic.in and a copy of the same should be forwarded to the Regional Office of this Ministry located Bhopal.	Advertisement had been published during EC process. Paper cutting is attached as **Annexure-GC-18**. आम सूचना सर्व साधारण को सूचित किया जाता है कि बिरला कार्पोरेशन लिमिटेड की ग्राम सगमनिया, तहसील रघुराजनगर, जिला सतना (म.प्र.) स्थित सगमनिया लाइम स्टोन माइन्स को पर्यावरण एवं वन मंत्रालय, भारत सरकार, नई दिल्ली द्वारा अपने पत्र क्रमांक J-11015/271/2006/IA. II (M) दिनांक 27 दिसंबर 2007 द्वारा लाईम स्टोन के उत्खनन की क्षमता 3.3 MTPA से 4.9 MTPA करने की स्वीकृति प्रदान की गई है. सगमनिया लाईम स्टोन माईन्स का माईनिंग लीज एरिया 939.78 हेक्टेयर है. उपरोक्त पत्र की प्रति मध्यप्रदेश प्रदूषण नियंत्रण बोर्ड (सतना), जिला उद्योग केन्द्र (सतना), कलेक्ट्रेट ऑफिस (सतना) एवं पर्यावरण एवं वन मंत्रालय की वेबसाईट http//envfor.inc.in पर उपलब्ध है.

ANNEXURE - P-1

16

मध्यप्रदेश शासन
खनिज साधन विभाग
मंत्रालय

-: आदेश :-

भोपाल, दिनाँक - 13/10/10

क्रमाँक - एफ 3-234/97/12/1 - यह कि जिला सतना के ग्राम पुरेनी, बारीकला, बराज, नीमी, भुर्जनाकला, बठियाखुर्द, नैना में 1000 हेक्टेयर क्षेत्र पर मेसर्स बिरला जूट इण्डस्ट्रीज लिमिटेड (अब मेसर्स बिरला कार्पोरेशन लिमिटेड) के नाम पर विभागीय आदेश क्रमाँक एफ 3-183/76/12/6 दिनाँक 22.04.77 द्वारा चूना पत्थर के खनिपट्टे का प्रथम नवकरण स्वीकृत था। प्रथम नवकरण पर खनिपट्टे की अवधि दिनाँक 19.10.76 से 18.10.96 तक के लिए स्वीकृत था। उक्त स्वीकृत क्षेत्र 1000 हेक्टेयर मे से 939.787 हेक्टेयर क्षेत्र पर मेसर्स बिरला जूट एण्ड इण्डस्ट्रीज लिमिटेड (अब मेसर्स बिरला कार्पोरेशन लिमिटेड) द्वारा आगामी बीस वर्ष की अवधि के लिए द्वितीय नवकरण आवेदन पत्र दिनाँक 13.10.95 को प्रस्तुत किया गया है। द्वितीय नवकरण में आवेदित क्षेत्र का ग्रामवार विवरण निम्नानुसार है :-

क्र.	ग्राम का नाम	स्वीकृत क्षेत्र का विवरण (हेक्टेयर में)
01.	पुरेनी	83.980
02.	बारीकला	162.890
03.	बराज	149.600
04.	नीमी	108.500
05.	भर्जुनाकला	227.080
06.	बठियाखुर्द	132.750
07.	नैना	135.200
	योग	1000.000

02. आवेदक कंपनी मेसर्स बिरला जूट कंपनी लिमिटेड का नाम दिनाँक 31.03.97 से बिरला पॉवर लिमिटेड हो गया था। इसके पश्चात् दिनाँक 27.10.97 से बिरला पॉवर लिमिटेड से बिरला कार्पोरेशन लिमिटेड हो गया है।

03. भारतीय खान ब्यूरो, नागपुर के पत्र क्रमाँक एन-11011/17/आर.एम.एल./97/सी.सी.ओ.एम./1277 नागपुर, दिनाँक 27.12.07 से द्वितीय नवकरण किये जाने की अनुशंसा की गई है। भारत सरकार, पर्यावरण एवं वन मंत्रालय के पत्र क्रमाँक जे-11015/271/2006/आई.ए.-2(एम) दिनाँक 27.12.07 से इनवायरमेंटल क्लियरेंस भी पट्टाधारी को प्राप्त है।

04. द्वितीय नवकरण में आवेदित क्षेत्र 939.787 हेक्टेयर क्षेत्र में से 57.000 हेक्टेयर क्षेत्र (142 एकड़ क्षेत्र) वन भूमि था। अपर मुख्य सचिव, वन की अध्यक्षता

D:\2010\MISC\ORDER\RENEW\ALBIRLA CORPORATION 10..doc

This Annexure is the true Copy Of the Original Document
ARVIND SHRIVASTAVA
Advocate

गठित समिति के समक्ष इस प्रकरण को दिनाँक 26.12.09 को रखा गया था पर समिति द्वारा सर्व सम्मति से यह निर्णय लिया गया था कि नवकरण आवेदित क्षेत्र के भीतर जो 57.000 हेक्टेयर क्षेत्र वन भूमि है, उसे छोड़कर तथा 7.000 हेक्टेयर की सीमा से चारो ओर की 50.00 मीटर की दूरी का क्षेत्र छोड़कर जो शेष क्षेत्र उपलब्ध होता हो उस पर नवकरण की कार्यवाही करने में कोई आपत्ति नहीं है। कलेक्टर, सतना से इस सम्बन्ध में प्रतिवेदन प्राप्त करने पर कलेक्टर द्वारा निम्नानुसार 852.50 हेक्टेयर क्षेत्र उपलब्ध होना प्रतिवेदित किया है। यह उपलब्ध क्षेत्र दो खण्डों में है। उपलब्ध क्षेत्र का ग्रामवार विवरण निम्नानुसार है :-

क्र.	ग्राम का नाम	रकबा एकड़ में
1.	पुरैनी	207.00
2.	बराज	288.00
3.	बारीकला	268.10
4.	नीमी	268 10
5.	नैना	333.10
6.	बठियाखुर्द	328.00
7.	भर्जुनाकला	413.30
	योग	2105.67 एकड़ 852.50 हेक्टेयर

05. अतः राज्य शासन द्वारा पूर्ण विचारोपरांत खान एवं खनिज (विकास एवं विनियमन) अधिनियम 1957 की धारा 6(1)(सी) के तहत शिथिलीकरण प्रदान करते हुए उक्त उपलब्ध क्षेत्र 852.50 हेक्टेयर (2105.67 एकड़) क्षेत्र पर चूना पत्थर खनिज के खनिपट्टे का द्वितीय नवकरण निम्नलिखित शर्तों एवं विवरण पर स्वीकृत किया जाता है।

(1)	आवेदक का नाम	:	मेसर्स बिरला कार्पोरेशन लिमिटेड पो. आ. बिरला विकास, सतना म.प्र. - पिन - 485005।
(2)	स्वीकृत क्षेत्र का विवरण	:	जिला सतना के ग्राम पुरैनी, बराज, बारीकला, नीमी, नैना, बठियाखुर्द, भर्जुनाकला का कुल रकबा 852.50 हेक्टेयर (2105.67 एकड़) (संलग्न शेडयूल अनुसार)
(3)	खनिज का नाम	:	चूना पत्थर
(4)	द्वितीय नवकरण में स्वीकृत अवधि	:	दिनाँक 19.10.96 से 20 वर्ष (बीस वर्ष)
(5)	रायल्टी/डेंडरेंट आदि	:	नियमों में प्रावधानित दर से
(6)	पियोडोलाईट सर्वे आदि	:	यदि आवश्यक हो तो किया जावे।

This Annexure is the True Copy Of the Original Document
ARVIND SHRIVASTAVA
Advocate

(7) अनुबंध निष्पादन के पूर्व यह सुनिश्चित कर लिया जावे कि आवेदक के ऊपर म.प्र. ग्रामीण अवसंरचना तथा सड़क विकास नियम 2005 के तहत देय कर की राशि पूर्णतः जमा हो।

(8) अनुबंध निष्पादन के पूर्व यह भी सुनिश्चित कर लिया जावे कि आवेदक के ऊपर खनिज राजस्व की राशि/ 1:1.6 परिवर्तन सूत्र के तहत निकाली गई अतिरिक्त राशि में से माननीय न्यायालय द्वारा स्थगित राशि छोड़कर शेष राशि मय ब्याज सहित पूर्णतः जमा हो।

(9) यह सुनिश्चित कर लिया जावे कि स्वीकृत क्षेत्र वन संरक्षण अधिनियम से 1980 के प्रावधानो से प्रभावित तो नहीं होता है।

(10) भारत सरकार, वन एवं पर्यावरण मंत्रालय की अधिसूचना दिनांक 14-9-2006 की अपेक्षा अनुसार कार्यवाही की जावे।

(11) आवेदक द्वारा स्वीकृत क्षेत्र पर ही खनन कार्य किया जावेगा।

यदि आवेदक को उपरोक्त शर्ते मान्य हो तो नियमानुसार जमानत राशि जमा कराई जाकर छः माह के अंदर अनुबंध का निष्पादन कराया जावे एवं निष्पादित अनुबंध की एक प्रति तत्काल इस विभाग को भेजी जावे।

मध्यप्रदेश के राज्यपाल के नाम से
तथा आदेशानुसार

(एस. के. शिवानी)
अवर सचिव,
म.प्र.शासन, खनिज साधन विभाग

पृ. क्रमाँक – एफ 3-234/97/12/1 भोपाल, दिनाँक – 13/10/10

प्रतिलिपि –

01. कलेक्टर, जिला सतना म.प्र.।
02. संचालक, भौमिकी तथा खनिकर्म मध्यप्रदेश, भोपाल।
03. डायरेक्टर जनरल ऑफ माइन्स एण्ड सेफ्टी, धनबाद (झारखण्ड)।
04. कन्ट्रोलर जनरल, इण्डियन ब्यूरो ऑफ माइन्स, नागपुर।
05. क्षेत्रीय खान नियंत्रक, भारतीय खान ब्यूरो, जबलपुर।
06. मेसर्स बिरला कार्पोरेशन लिमिटेड, पो. आ. बिरला विकास, सतना म.प्र. – 485005।

की ओर सूचनार्थ एवं आवश्यक कार्यवाही हेतु अग्रेषित।

07. गार्ड फाईल।

13/10/2010
अवर सचिव
म.प्र.शासन, खनिज साधन विभाग

D:\20HMAS\ORDER\BIRLA CORPORATION LTD.doc

This Annexure is the Copy
Of the Original Document
ARVIND SHRIVASTAVA
Advocate

खान एवं खनिज (विकास तथा विनियम) अधिनियम,1957 संशोधन अध्यादेश 2015 के अधीन खनिपटट्ो की अवधि वृद्धि कि संबंध में

पूरक अनुबंध पत्र निष्पादन दिनाक - 12-09-2017

यह पूरक अनुबंध, खान एवं खनिज (विकास तथा विनियम) अधिनियम, 1957 संशोधन अध्यादेश 2015 के अधीन तथा म0प्र0 शासन खनिज साधन विभाग मंत्रालय के आदेश क्रमांक एफ–19–5/2015/12–1 भोपाल दिनांक 12.03.2015 के अनुसार केप्टिव उपयोग हेतु स्वीकृत खनिपटट्ो की मूल स्वीकृति अवधि के स्थान पर 50 वर्ष या अंतिम नवकरण समाप्ति दिनांक से 31.03.2030 इनमें से जो भी बाद में हो स्वीकृत मान्य (Deemed) किये जाने के संबंध में अधिनियम की धारा 8 ए (5) अनुसार किया जा रहा हैं।

खनिपटट्ाधारी **मेसर्स बिरला कारपोरेशन लिमिटेड** यूनिट–सतना सीमेन्ट वर्क्स, सतना जिला सतना को म0प्र0 शासन खनिज साधन विभाग के द्वारा ग्राम बारीकलां, बराज, पुरैनी, नीमी, बठियाखुर्द, नैना एवं भरजुना कला तहसील रघुराजनगर के रकबा 6101 एकड़ (2469 हेक्टेयर) पर खनिज 20 वर्ष की अवधि के लिए स्वीकृत किया गया था, जिसके अनुबंध का निष्पादन दिनांक 19.10.1956 को हुआ था।

स्वीकृत खनिपटट्ा म0प्र0 शासन खनिज साधन विभाग के नवीनीकृत आदेश क्रमांक एफ–3–182/76/12/6 दिनांक 22.04.1977 द्वारा प्रथम नवकरण में रकबा 1000 हेक्टेयर क्षेत्र पर खनिज चूनापत्थर खनिपटट्ा 20 वर्ष के लिए नवीनीकृत होकर दिनांक 19.10.1976 से 18.10.1996 तक स्वीकृत व अनुबंधित था। द्वितीय नवीनीकरण आवेदन पत्र दिनांक 13.10.1995 को प्रस्तुत किया गया था स्वीकृत खनिपटट्ा म0प्र0 शासन खनिज साधन विभाग के नवीनीकृत आदेश क्रमांक एफ–3–234/97/12/1 दिनांक 13.10.2010 द्वारा द्वितीय नवकरण में रकबा 852.500 हेक्टेयर क्षेत्र पर खनिज चूनापत्थर खनिपटट्ा 20 वर्श के लिए नवीनीकृत होकर दिनांक 19.10.1996 से 18.10.2016 तक स्वीकृत व अनुबंधित था। तृतीय नवीनीकरण आवेदन पत्र दिनांक 31.07.2015 को प्रस्तुत किया गया था।

म0प्र0 शासन खनिज साधन विभाग मंत्रालय के आदेश कमांक एफ–19–5/2015/12–1 भोपाल दिनांक 12.03.2015 के अनुसार कैप्टिव उपयोग हेतु स्वीकृत खनिपटट्ों के अधिनियम के प्रावधानों के अधीन वृद्धि किये जाने के संबंध में एम.एम.डी.आर. अधिनियम 2015 के नियम 8 ए (5) के अनुसार जबकि खनिज कैप्टिव उपयोग के लिए किया जा रहा हैं, स्वीकृत लीज दिनांक से 50 वर्ष या अंतिम नवकरण समाप्ति दिनांक से 31 मार्च 2030 इनमें से जो भी बाद में हो, स्वीकृत मान्य (Deemed Renewal) किया जाकर लीज अवधि वृद्धि की जायेगी अर्थात स्वीकृत खनिपटट्ा अंतिम नवकरण समाप्ति दिनांक 18.10.2016 से 31.03.2030 प्रतिस्थापित कर स्वीकृत मान्य समझा (Deemed) जाकर दिनांक 18.10.2016 से कैप्टिव खनिपटट्ा के लिए आदेशित न्यूनतम अवधि 31.03.2030 तक विस्तारित खनिपटट्ा अवधि हेतु पूरक अनुबंध किया जा रहा हैं।

खान एवं खनिज (विकास एवं विनियमन) संशोधित अधिनियम 2015 के अधीन खनिपटट्ो की अवधि वृद्धि के संबंध में शर्ते खनिपटट्ा मूल स्वीकृत आदेश, नवीनीकरण स्वीकृत आदेश तथा, खनिपटट्ा मूल अनुबंध पत्र तथा नवीनीकरण अनुबंध पत्र के अनुसार यथावत् रहेगी तथा यह पूरक अनुबंध पत्र, मूल अनुबंध पत्र का भाग होगा।

पूरक अनुबंध पत्र स्वीकृत खनिपटट्ा की विस्तारित अवधि 18.10.2016 से 31.03.2030 तक कुल 13 वर्ष 5 माह एवं 13 दिन के लिए किया जा रहा हैं।स्टाम्प ड्यूटी के लिए औसत वार्षिक रायल्टी रुपये 2944000000/- है। भारतीय स्टाम्प अधिनियम 1899 के तहत स्टाम्प शुल्क रजिस्ट्रीकरण अधिनियम 1908 के तहत रजिस्ट्रेशन फीस जमा किया जाना तथा निश्पादित पूरक अनुबंध का पंजीयन कराया जाना अनिवार्य होगा।

साक्षी .....

1. .....

2. .....

Mining Officer
(For, Collector
SATNA (M.P.)

कलेक्टर
जिला सतना (म0प्र0)

साक्षी : –

1 .....

2 .....

पट्टेदार

जे.एस. कालरा,
(सीनियर ज्वाइंट प्रेसीडेंट)
वास्ते–मेसर्स बिरला कार्पोरेशन लिमिटेड,
यूनिट–सतना सीमेन्ट वर्क्स, सतना

4849

भारतीय गैर न्यायिक

भारत INDIA

500 FIVE HUNDRED RUPEES

Rs. 500

INDIA NON JUDICIAL

मध्य प्रदेश MADHYA PRADESH

K 459300

File No.

AGREEMENT Dt.

To go with sanctioned Second Renewal Mining Lease for Limestone in Village Puraini, Barikala etc. Teh. Raghuraj Nagar , District Satna over an area of 852.500 Hect. for a Period Twenty years vide Govt. order No.-3-234/97/12/1 Bhopal dated 15.09.2011 in favour of M/s Birla Corporation Ltd., Satna Cement Works Satna (M.P.)

Agreement executed Between the Governor of M.P. through the Collector Satna (M.P.) and M/s Birla Corporation Ltd., Through Shri P.S. Marwah (President) M/s Birla Corporation Ltd. Satna Cement Works Satna (M.P.)

For : BIRLA CORPORATION LTD.
Unit : Satna Cement Works

(P.S. MARWAH)
President

खनि अधिकारी
जिला- सतना (म० प्र०)

रतीय गैर न्यायिक

भारत INDIA

500 FIVE HUNDRED RUPEES

पाँच रुपये

Rs. 500

INDIA NON JUDICIAL

मध्य प्रदेश MADHYA PRADESH

K 459299

For : BIRLA CORPORATION LTD.
Unit : Satna Cement Works

(P. S. MARWAH)
President

व्यक्ति अधिकारी
सतना (म० प्र०).

FORM – K

MODEL FORM OF MINING LEASE

(See Rule 31)

When the Lessee is an individual

THIS INDENTURE made this 6Th day of March 2013 between the Governor of **M.P.** through the **Collector, Satna,** the **President of India** (hereinafter referred to as the State Governments which expression shall where the context so admits be deemed to include the successors and assigns) of the one, part, and _____ (Name of person with address and occupation)(hereinafter referred to as "The Lessee" which expression shall where the context so admits be deemed to include his heirs, executors, administrators, representatives and permitted assigns.

When the Lessee are more than one individual

_____(Name of person with address and occupation) and_____(Name of person with address and occupation) (hereinafter to be called as the lessee which expression shall where the context so admits be deemed to include their respective heirs, executors, administrators, representatives and their permitted assigns

When the Lessee is a Registered Firm

_____(Name and address of partner) son of

_____of_____son of

_____of_____son of

_____of_____son of

all carrying on business in partnership under the firm name and style of_____ (Registered under the Indian Partnership Act 1932 (9 of 1932) and having their registered office at_____in the town of_____ (hereinafter referred to as 'The Licensee' which expression where the context so admits be deemed to include all the said partners their respective heirs, executors, legal representatives and permitted assigns).

When the Lessee is a Registered Company

M/s BIRLA **CORPORATION LIMITED, UNIT: SATNA CEMENT WORKS,** SATNA. (Name of Company) a company registered under the **COMPANY'S Act 1956** under which Incorporated) and having its registered office at **9/1 R.N. Mukherjee Road, Kolkata** (Address) (hereinafter referred to include its successors and permitted assigns) of the other part.

सतना (म.प्र.)

WHEREAS THE Lessee has/have applied to State Government in accordance with the minerel concession Rules 1960 (hereinafter referred to as the said Rules) for a mining lease for **LIMESTONE**. In respect of the lands described in Part I of the Schedule hereunder written and has/have deposited with the State Government the sum of **Rs.1000/-** as security & the sum of **Rs.2500/-** for meeting the preliminary expenses for a mining lease.

WITNESSETH that in consideration of the rents and royalties covenants and agreements by and in these presents and the schedule hereunder written reserved & contained and on the part of the lessee/lessees to be paid observed and performed the State Government (with the approval of the Central Government) hereby grants and demises unto lessee/lessees.

All those the mines beds/veins seems of **LIMESTONE** (here the mineral cr minerals) [hereinafter and in the schedule referred to as the said rals situated lying and being in or under the lands which are referred to in

For : BIRLA CORPORATION LTD.
Unit : Satna Cement Works

(P. S. MARWAH)
President

खनि अधिकारी
जिला- सतना (म० प्र०)

उप संचालक (खनिज प्रशासन)
कलेक्टर कार्यालय
खनि शाखा, सतना (म.प्र.)

part 1 the said schedule, together with the liberties powers and privileges to be exercised enjoyed in connection herewith which are mentioned in part II of the said Schedule subject to the restriction and conditions as to exercise and enjoyment of such liberty powers and privileges which are mentioned in part III of the said Schedule EXCEPT and reserving out of this demise upto the State Government the liberties, powers privileges mentioned in part IV of the said Schedule TO HOLD the premises here granted and demise unto the lessees from the 19 day **October, 1996** for the term of **20** years thence next ensuing YIELDING AND PAY therefore unto the State Government the several rents and royalties mentioned Part V of the said Schedule at the respective times therein specified subject to the provisions contained in Part Vi of the said Schedule and lessee/ lessees hereby covenant with the State Government as in part VII of the said Schedule is expression and the State Government hereby covenants with the lessee/lessees as in part VIII the said schedule as expressed AND it is hereby mutually agreed between the part IX hereto as in part IX of the said Schedule is expressed.

IN WITNESS WHERE OF these presents have been executed in manner hereunder appearing day and year first above written.

The Schedule above referred to

PART-I

THE AREA OF THIS LEASE

Location and area of the lease:-

All that tract of lands situated at village **PURAINI, BARIKALAN, BARAJ, NIMI, BHARJUNAKALAN, BATHIAKHURD, & NAINA** Description of area or are **852.50 Hectare** in (Pargana) in **Reghurajnagar** the Registration **Dist. Satna, Thana Kolgawan** bear Cadastral Survey Nos. **KHASRA NO.SCHEDULE ENCLOSED** containing an area of **8.52 Sq. K.M.** or there about delineated on the plan here to annexed and thereon coloured **RED** and bounded as follows.

On the North by - Part of village Bharjunakalan, Barikalan, Baraj and Nimi thereafter Bharjunakhurd and Poindha

On the South by - Part of village Bathiakhurd, Naina, BCL Mining Lease area of Birhuli and Sakaria village.

On the East by - Village Birhuli, Phutaundha and Barikalan

and

On the West by - Part of village Bathiakhurd, Bharjunakalan and thereafter Umri.

Hereinafter referred to as "the said lands"

Sl.No.	Name of the Village	Area in Acres	Area in Hectares
01.	Puraini	207.07	84.100
02.	Baraj	288.00	116.630
03.	Barikalan	268.10	108.540
04.	Nimi	268.10	108.540
05.	Naina	333.10	134.860
06.	Bathiakhurd	328.00	132.793
07.	Bharjunakalan	413.30	167.327
	Total	**2105.67**	**852.50**

For : BIRLA CORPORATION LTD.
Unit : Satna Cement Works

(P. S. MARWAH)
President

संचालक (खनिज प्रशासन)
कलेक्टर कार्यालय
नि शाखा, सतना (म.प्र.)

अधिकारी
जिला सतना (म० प्र०)

PART - II

Liberties, powers and privileges to be exercised and enjoyed by the lessee/lessees subject to the restrictions and conditions in part III.

To bring upon land and search for win work etc.

1 Liberty and power at all times during the term hereby demised to enter upon the said lands and to search for mine bore big drill for win work press process convert carry away and dispose of the said Mineral/minerals.

To sink drive & make pits shafts & incline etc.

2 Liberty and power for or in connection with any of the purpose mentioned in this part to sink drive make maintain and use in the said lands any pits shafts inolines drafts levels waterways airways and other works [and to use maintain deepen or extend any existing works of the like nature in the said lands].

To bring and use machinery equipment, etc.

3 Liberty and power for or in connection with any of the purposes mentioned in this part to erect construct maintain and use on or under the said lands any engines machinery plant dressing floors furnaces coke ovens brik-kilns workshops store houses bungalows godowns sheds and other buildings and other works and conveniences of the like nature on or under the said lands.

To make roads and ways and use existing roads and ways

4 Liberty and power for or in connection with any of the purposes mentioned in this part to make any tramways, railways roads, landing grounds and other ways in or over the said lands and to use maintain and go and repass with or without horses cattle wagons aircrafts locomotives or other vehicles over the same (or any existing tramways railways roads and other ways in or over the said lands) on such conditions as may be agreed to.

To get building and road materials etc.

5 Liberty and power for in connection with any of the purposes mentioned in the part to quarry and get stone gravel and other building and roads materials and clay and to use and employ the same and to manufacture such clay into brisk or tiles and to use such bricks or tiles but not to sell any such material bricks or tiles.

To use water from streams etc.

6 Liberty and power for or in connection with any of the purpose mentioned in this part but subject to the right of any existing or future lessees and with the written permission of Deputy Commissioner Collector to appropriate and use water from any streams water sources springs or other sources in or upon the said lands and to divert step up or down any such stream or water source and collect or impound any such water and to make construct and maintain any water-source culverts drains or reservoirs but not as to deprive any cultivated lands, villages, buildings or watering places for livestock of a reasonable supply of water as before accustomed not in any way to foul or pollute any streams or springs. Provided that the lessee/lessees shall not interfere with the navigation in any navigable stream or shall divert such stream without the previous written permission of the State Govt.

To use land for staking heaping depositing purposes.

7 Liberty and power to enter upon and use a sufficient part of the surface of the such lands for the purpose of stacking heaping storing or depositing therein any produce of the mines or works carried on and any tools equipment earth and materials and substancos dug or raised under the liberties & power mentioned in this part.

Beneficiation and conveying away of production.

8. (a) Liberty and power to enter upon and use a sufficient part of the said land to beneficiate any ore produced from the said lands and to carry away such beneficiated ore.

For : BIRLA CORPORATION LTD.
Unit : Satna Cement Works

(P.S. MARWAH)
President

उप कलेक्टर (खनिज प्रशासन)
कलेक्टर कार्यालय
सतना (म.प्र.)

खनिज अधिकारी
जिला- सतना (म० प्र०)

from any reserved canal or other public work such as public road and buildings or inhabited site except with the previous written permission of the Deputy Commissioner/ Collector or any other officer authorised by the State Government in this behalf and other wise in accordance with such instructions, restrictive and condition either general or special which may be attached to such permission. The said distance of 50 metres shall be measured In the case of railway reservoir or canal horizontally from the outer toe of the tank or the outer edge of the cutting as the case may be and in case of a building horizontally from the plinth there of in the case of village roads no working shall be carried on within a distance of the 10 meters of the outer edge of the cutting except with the previous permission of Deputy Commissioner/ Collector or any other officer duly authorised by the State Government in this behalf and otherwise than in accordance with such directions, restrictions and additions, either general or special, which may be attached to such permission.

Explanation - For the purposes of this clause the expression 'Railway Administration shall have the same meaning as it is defined tc have in the Indian Railway Act 1880, by clause(6) of section 3 cf thet Act, 'Public Road' shall mean a road which has been constructed by artificially surfaced as distinct from a track resulting from repeated use, Village road will include any track shown in the Revenue record as village road.

Facilities for adjoining Govt. license & lease

6 The lessee/lessees shall allow existing and future holder of Government licences or leases over any land which is comprised in or adjoins or is reached by the land held by the lessee/lessees reasonable facilities or access thereto.

PROVIDED THAT no substantial hindrance or interference shall be caused by such holders of licences or leases to the operations of the lessee/lessees under these presents and fair compensation [as may be mutually agreed upon or in the event of disagreement as may be decided by the state Government] shall be made to the lessee/lessees for loss or damage sustained by the lessee/lessees by reason of the exercise of this liberty.

PART – IV

Liberties, powers and Privileges reserved to the State Government

To work cther minerals

1 Liberty and Power for the State Government or to any lessee or persons authorised by it in that behalf of enter into and upon the said lands and to search for win work dig get raise dress process convert and carry away minerals other than the said minerals and any other substances and for those purpose to sink, drive, make, erect, construct maintain and use such pits shafts inclines drifts levels and other lines water ways, airways, water courses, drains, reservoirs, engine, engines machinery plant building canals tramways railways roadways and other works and conveniences as may be deemed necessary or convenient.

PROVIDED THAT in the exercise of such liberty and pcwer no substantial hinderance, or interference shall be caused to or with the liberties powers and privilege of the lessee/lessees under these present and that fair compensation [as may mutually agreed upon or in consequence of disagreement as may be decided by the state Government] shall be made to the lessee/lesses for all loss or damage sustained by the lessee/lessees by reason or in consequence of the exercise of such liberty and power.

For : BIRLA CORPORATION LTD.
Unit : Satna Cement Works

(P. S. MARWAH)
President

खनि अधिकारी
जिला- सतना (म० प्र०)

उप संचालक (खनिज प्रशा...)
कलेक्टर कार्यालय
खनि शाखा, सतना (म.प्र.)

use until the area shall cease to be occupied or used and shall as for as possible rent & the surface land so used to its original condition surface rent and water rate shall be paid as hereinbefore detailed in class 2. PROVIDED THAT NO such rent water rate shall be payable in respect of the occupation and use of the area comprised in any road or ways to which the public have full right of access.

PART - VI

PROVISION RELATING TO THE RENTS AND ROYALTIES

Rent and royalties to be free from deductions etc.

1. The rent water rate and royalties mentioned in Part V of this Schedule shall be paid free from any deductions the State Government at Satna and in such manner as the State Government may prescribe PROVIDED ALWAYS and it is hereby agreed that Rs.1000/- the balance standing to the credit of the lessee/leesses on account of the deposit made by him/ them as a licensee/licensees over area which included the said lands shall be retained and receipted by the State Government in satisfaction of the rents and royalties mentioned in part V until they reach that amount.

Mode of computation of royalty

2. For the purpose of computing the said royalties the lessee/lessees shall keep a correct account of the mineral/minerals produced and despatched the accounts as wall as the weignt of the mineral/minerals in stock or in the process of export may be checked by an officer authorised by the Central or State Government.

   Here specify the mode of arriving at sale price, prices at pits mouth of mineral/minerals.

Course of action if rents & royalties are not paid in time

3. Should any rent, royalty or other sums due to the State Government under the terms and conditions of these presents be not paid by the lessee/lessees within the prescribed time the same together with a simple interest due thereon at the rate of 15% per annum may be recovered on a certificate of such officer as may be specified by the state Government by general or special order in the same manner as an arrear of land revenue.

PART – VII

The Covenants of the Lessee/Lessees

Lessee to pay rents & royalties taxes etc.

1 The lessee/lessees shall pay the rent, water rate and royalties reserved by this lease at such times and in the manner provided in PARTS V & VI of these presents and shall also pay and discriarge all taxes, rules, assessments and impositions whatsoever being in the nature of public demands which shall from time to time be charged/assessed or imposed by the authority of the Central and State Govt. upon or in respect of the premises and works of a like nature except demands for land revenues.

To maintain & keep boundary mark in good order

2 The lessee/lessees shall at his their own expense erect at all time maintain and keep in repair boundary marks and pillars according to the demarcation to be shown in the plain annexed to this lease. Such marks and piliars shall be sufficiently clear of the shrubs and other obstructions as to allow easy identification.

For: BIRLA CORPORATION LTD.
Unit . Satna Cement Works

(P. S. MARWAH)
President

उप संचालक (खनिज प्रशासन)
कलेक्टर कार्यालय
खनि शाखा, सतना (म.प्र.)

खनि अधिकारी
जिला- सतना (म० प्र०)

To report discovery of other Minerals

9 The lessee/Lessees shall report to the State Government the discovery leased area of any mineral not specified in the lease within sixty days of such discovery alongwith full particulars of the nature and position of each such find. If any mine specified in the lease is discovered in the leased area, the lessee/lessees shall not dispose of such mineral unless such mineral is included in the lease or a separate obtained thereof.

To keep records & accounts recording production & employees etc.

10. The Lessee/Lessees shall at all time during the said terms keep or cause to at an office to be situated upon or near the said lands, correct and intelligible accounts, which shall contain entries showing from time to time.

1) Quantity and quality of the said mineral/minerals realised from the said lands.

2) Quantity of the various qualities or ores beneficiated or converted (for coal converted into coke)

3) Quantity of the various qualities of the said mineral/minerals sold and exported separately.

4) Quantities of the various qualities of the said mineral/minerals otherwise disposed of and the manner and purpose of such disposal

5) The prices and shall other particulars of said mineral/minerals.

6) The number of person employed in the mines or works or upon the said lands specifying nationality, qualifications and pay of the technical personnel.

7) Such other facts, particulars and circumstances as the Central or the State Govts. may from time to time require and shall also furnish free of charge to such officers and at such times as the Central and State Governments may appoint true and correct obstracts of all or any such books of accounts and such information and returns to all or any of the matters aforesaid as the State Govt. may prescribe and shall at all reasonable times allow such officers as the Central Govt. or State Govt. shall in their behalf appoint to enter into and have free access to the said officer for the purpose of examining and inspecting the said books of accounts and to make copies thereof and make extracts therefrom.

To maintain plans etc.

11 The lessee/lessees shall at all times during the said term maintain at the mine office correct intelligible up-to-date and complete plans and section of the mines in the said lands. They shall show all the operations and workings and all the trenches, pits and drillings made by him/them in the course of operations carried on by him/them under the lease, faults and other disturbances encountered and geological data and all such plans and sections shall be amended and filled up by and from actual surveys to be made for that purpose at the end of twelve months or any period specified from time to time and the lessee/lessees shall furnish free of charge to the Central and State Govt. true and correct copies of such plans and Sections whenever these unto required. Accurate records of all trenches, pits and drillings shall show: -

For : BIRLA CORPORATION LTD.
Unit : Satna Cement Works

(P. S. MARWAH)
President

उप संचालक (खनिज प्रशासन)
कलेक्टर कार्यालय
खनि शाखा, सतना (म.प्र.)

स्वामि अधिकारी
जिला- सतना (म० प्र०)

To allow test of weighing machine

14. The lessee/lessees shall allow any person or persons appointed in that behalf by the State Govt. at any time or times during the said term to examine and test every weighting machine to be provided and kept as aforesaid and the weights used there with in order to ascertain whether the same respectively are correct and in good repair and order and if upon any such examination or testing any such weighing machine or weights shall be found incorrect or out of repair order the state Government may require that the same be adjusted repaired and put in order by at the expense of the lessee/lessees and if such requisition be not complied with within fourteen days after the same shall have been made, the State Government may cause such weighing machine or weights to be adjusted repaired and put in order and the expense of so doing shall be paid by the lessee/lessees to the state Government on demand and if upon any such examination or testing as aforesaid any error shall be discovered in any weighing machine or weights to the prejudice of the State Government such error shall be regarded as having existed for three calendar months previous to the discovery thereof from the last occasion of so examining and testing the same weighing machine and weights in case such occasion shall be within such period of three moths and the said rent and royalty shall be paid and accounted for accordingly.

To pay compensation for injury or third parties

15. The lessee/lessees shall make and pay reasonable satisfaction and compensation for all damage injury or disturbance of person or property situated both in private and Government land which may be done by or on the part of lessee/lessees in exercise of the liberties and power granted by these presents and shall at all times have harmless and keep indemnified the State Govt. from the and against all suits. Claims and demands which may be brought or made by any person or persons in respect of any such damage, injury or disturbances. In case of Govt. Land the lessees shall grant compensation equal to sixty or ninety times of land revenue (that may be assessed in case it has not been assessed) in case of lease upto 20 and 30 years respectively.

Not to obstruct working of other minerals

16. The lessee/lessees will exercise the liberties and powers here by granted in such a manner as to offer no unnecessary or reasonably avoidable obstruction or interruption to the development and working within the said land, of any minerals not included in this lease and shall at all times afford to the Central and State Government and to the holders of prospecting licences or mining lease in respect of any such minerals within any land adjacent to the said lands as the said lands as the case may be reasonable means to access and safe and convenient passage upon and across the said lands to such minerals for purpose of getting working developing and carrying away the same provided that the lessee/lessees shall receive reasonable compensation for any damage or injury which he/they may sustain by reason or in consequence of the use of such passage by such lessee or holders of prospecting licences.

Transfer of lease

17. The lessee/lessees shall not without the previous consent in writing of the State Government.

a) assign, subject, mortgage or in any other manner transfer the Mining lease or any right title or interest therein or

For : BIRLA CORPORATION
Unit : Satna Cement Wor

(P. S. MARWAH)
President

संधारक (खनिज प्रशासन)
कलेक्टर कार्यालय
जिला सतना, सतना (म.प्र.)

खनि अधिकारी
जिला- सतना (म० प्र०)

aforesaid) shall only be entered into or made and shall always be subject to an express condition binding upon the other party or parties there to that on the occasion of a State of Emergency of which the president of India in his discretion shall be the sole judge it shall be terminable if so required in writing by the State Government and shall in the event of any such requisition being made be forth with thereafter determined by the lessee/lessees accordingly.

Lessee shall deposit any additional amount necessary

19. Whenever the security deposit of **Rs.1000/-** or any part thereof or any further sum thereafter deposited with the State Government in replenishment thereof shall be forfeited or applied by the Central or State Govt. pursuant to the power hereinafter declared in that behalf he lessee/lessees shall deposit with the State Government such further sum as may be sufficient with the unappropriated part thereof to bring the amount in deposit with the State Government upto the sum or **Rs.1000/-**.

Delivery of working in goed order to state Govt. after determination of lease

20. The lessee/lessees shall at the expiration or sooner determination of the said term or any renewal thereof upto the State Government all mines pits shafts inclines drifts levels waterways airways and on or under the said lands except such as have been abandoned with the sanction of the State Government and in any ordinary any fair course of working all engines, machinery, plant buildings, structures, other works and convenience which at the commencement of the said term whereupon or under that said land and all such machinery set up by the lessee/lessees below ground which cannot be removed without causing injury to the mines or work under the said lands except such of the same as may with sanction of the State Government have become discussed and all buildings and structures cf bricks or stone erected by the lessee/lessees above ground level in good repair order and conditions and fit al respects for further working of the said mines and said minerals.

Right of pre-exemption

21 (a) The State Government shall from time to time and all times during the said term have the right (t) be exercised by notice in writing to the lessee/lessees laying in or upon the said lands, hereby demised or elsewhere under the control of the lessee/lessees and the lessee/lessees shall with all possible expenditure deliver all minerals or products or minerals purchased by State or pre-emption of the said minerals (and all products Government under the power conferred by this provision in the quantities at the time in the manner and at the place specified in the notice exercising the said right.

(b) Should the right or pre-emption conferred by this present provision be exercised and vessel chartered to carry the minerals or products thereof procured on behalf of the State Govt. or the Central Govt. be detained on demurrage at the part of loading the lessee/lessees shall pay the amount due for demurrage according to the terms of the chartered party of such vessel unless the state government shall be satisfied that the delay is due to cause beyond the control of the lessee/lessees.

(c) The price to be paid for all minerals or products of minerals taken in pre-emption by the State Govt. in exercise of the right hereby conferred shall be the fair market price prevailing at the time of pre-emption PROVIDED THAT in order to assist the arriving at the

For : BIRLA CORPORATION LTD.
Unit : Satna Cement Wor

(P.S. MARWAH)
President

खनि अधिकारी
जिला- सतना (म० प्र०)

खनिज (खनिज प्रशासन)
कलेक्टर कार्यालय
सतना (म.प्र.)

PART – VIII

The covenants of the State Government

Lessee/Lessees may hold enjoy rights quietly.

1 The lessee/lessees paying the rents and royalties hereby reserved and observing and performing all the covenants and agreements contained and on the part of the lease/lessees to be observed and performed shall and may quietly hold and enjoy the rights and premises hereby demised for an during the term hereby granted without any unlawful interruption from or by the State Govt. or any person rightfully claiming under it.

Acquisition of lands of third parties and compensation thereof

2 If in accordance with the provision of Clause 4 of part VII of this Schedule the lessee/lessees shall offer to pay to an occupier of the surface of any pert of the said lands compensation for any damage or injury which may arise from the proposed operations of the lessee/lessees and the said occupier shall refuse his consent to the exercise of the right and powers reserved to the State Govt. and demised to the lessee/lessees by these presents and the lessee/lessees shall report the matter to the State Govt. and shall deposit with it the amount offered as compensation and if the Central and State Govt. are satisfied that the amount of compensation offered is fair and reasonable or if it is not so satisfied and the lessee shall have deposited with it such further amount as the State and Central Govt. shall consider fair and reasonable the State Govt. shall order the occupier to allow the lessee/lessees to enter the land and to carry out such operations as may be necessary for the purpose of this lease. In assessing the amount of such compensation the State Govt. shall be guided by the principles of the Land Acquisition Act.

Right to Renew

3. The mining lease is renewable in terms of the provisions of the Act. and the rules made thereunder.

Provided that the State Government may for reasons to be recorded in writing reduce the area applied for.

If the lease is in respect of minerals specified in First Schedule to the Act renewed will be subject to the prior approval of the Central Government.

If the lessee/lessees be desirous of taking a renewed lease of the premises hereby demised or any pert or parts of them for a further term from the expiration of the term hereby granted and is otherwise eligible, he/they shall prior to the explanation of the last mentioned term give to the State Govt. six calendar months previous notice in writing and shall pay the rents, rates and royalties hereby reserved and shall observe and perform the several covenants and agreement herein contained and on the part of the lessee/lessees to be and performed upto the explanation of the term hereby granted. The State Govt. on receipt of application for renewal shall consider it in accordance with rule 280 the said rules and shall pass orders as it deem fit. If renewal is granted the State Govt. will at the expense of the lessee/lessees and upon his executing and delivering to the State Govt. if required a counterpart thereof execute and delivery to the lessee/lessees a renewed lease of the said premises or part thereof for the further **Twenty years** at such rents rates and royalties and on terms and subject to such covenants and agreements including the present covenants to renew as shall be in accordance with the mineral concession Rules 1960 applicable to **LIMESTONE** (Names of minerals) on the day next following the explanation of the term hereby granted.

For : BIRLA CORPORATION LTD.
Unit : Satna Cement Works

(P. S. MARWAH)
President

स्वामि अधिकारी
जिला- सतना (म० प्र०)

Penalty for repeated breachers to covenants

3. In cases of repeated breaches of covenants and agreements by the lessee/lessees for which notice has been given by the State Government in accordance with clues (1) and (2) afore mentioned on earlier occasion, the State Government without giving any further notice, may impose such penalty not exceeding twice the amount of the annual deed rent specified in clause 2 part V.

Failure to fulfill the terms of lease due to "Force Majeure"

4. Failure on the part of the lessee/lessee to fulfill any of the terms and conditions of this lease shall not give the central of State Government any claim against the lessee/lessees or be deemed breach of this lese in so far as such failure is considered by the said Government to arise from "Force Majeure" and if through "Force Majeure" the fulfillment by the lessee/lessees of any of the terms and condition of this lease be delayed the period of such delay shall be added to the period fixed by this lease. In this clause the expression "Force majeure" means Act of God, war, insurrection, slot, civil commotion, strike earthquake, tide, storm, tidal wage flood, lighting, explosion, fire earthquake and any other happening which the lessee/lessees could not reasonably prevent or control.

Lessee/Lessees to remove his/ their properties on the expiry of lease

5. The lessee/lessees having first paid and discharged the rent and royalties payable by virture of those presents may at the expiration or sooner determination of the said term or within six calendar moths thereafter (uless the lease shall be determined under clauses 1and 2 of this part and in that case at any time not less than three calendar months not more than six calendar months after such determination take down and remove for his/their own benefit all or any engines, machinery, plant, building structure tramways, railways and other works, erections and convenience which must have been erected set up or placed by the lessee/lessees in or upon the said lands and which the lessee/lessees is are not bound to deliver to the State Government under clause 20 of Part VII of this Schedule and which the State Government shall not desire to purchase.

Forfeiture of property left more than six months after determination of lease

6. If at the end of six calendar months after the expiration or sooner determination of the said term under the provision contained in clause 4 of Part VIII of this schedule become effective there shall remain in or upon the said land any [2][ore or mineral] engines, machinery plant buildings structures tramways, Railways and other work erections and convenience or other property which are not required by the lessee/lessees in connection with operations in any other lands hold by him/them under prospecting licence or mining lease the same shall if not removed by the lessee/lessees within one calendar month after notice in writing requiring their removal has been given to the lessee/lessee by the State Government be deemed to become the property of the State Govt. and may be sold or disposed of in such manner as the State Govt. shall deem fit without liability to pey any compensation or to account to the lessee/lessees in respect thereof.

Notice

7 Every notice by these presents required to be given to the lessee/lessees shall be given in writing to such person resident on the said lands as the lessee/lessees may appoint for the purpose of receiving such notices and if there shall have been no such appointment then every such notice shall be sent to the lessee/lessees by registered post addressed to the lessee/lessees at ate addressed recorded in this lease or at such other address in India as the lessee/lessees may from time to time in writing to the State Govt. designate for the receipt of notices and every such service shall be deemed to be proper and valid service upon the lessee/lessees and shall not be questioned or challenged by him/them.

For : BIRLA CORPORATION LTD.
Unit : Satna Cement Works

(P.S. MARWAH)
President

उप संचालक (खनिज प्रशासन)
कलेक्टर कार्यालय
खनि शाखा, सतना (म.प्र.)

खनि अधिकारी
जिला- सतना (म० प्र०)

MADHYA PRADESH POLLUTION CONTROL BOARD
Paryawaran Parisar, E-5, Arera Colony, BHOPAL- 462 016

Reg AD

No. 11834 /TS/MPPCB/2006 Date: 24-5-06

To,

M/s. Birla Corporation Ltd.,
[Unit: Sagmania Lime Stone Mines]
P.O. Birla Vikas,
Distt. Satna-485 005 [M. P.]

Sub: No Objection Certificate for obtaining Environmental Clearance from Govt. of India for proposed expansion of ***Captive Lime Stone Mines at*** **Sagmania, P.O. Birla Vikas, Distt. SATNA {M. P.}.**

Ref: Your application No. NIL dated:10/08/2005.

As per requirement under Environmental Impact Assessment Notification 1994 No. 60[E] dated: 27/01/94 [as amended on 04/05/94] and notification No. 318[E] dated: 10/04/97, No objection certificate is hereby issued for proposed expansion of ***Captive Lime Stone*** for Mining project from ***3.3 MTPA to 4.9 MTPA [Three Point Three to Four Point Nine Million Tonnes per Annum]*** at **Sagmania Teh. Raghurajnagar, Distt. Satna [M. P.],** subject to following conditions:

1. The Mine discharge water/domestic waste shall be properly treated and fully utilized in plantation/sprinkling or other useful purpose. No treated/untreated water shall be let out at any point of time outside of mine premises. Treated effluent quality shall meet the standards prescribed by M. P. Pollution Control Board in gazette Notification of M.P. dated: 25/03/88.

2. The construction of effluent treatment plant shall be taken up simultaneously with other civil work. Sewage treatment plant shall be installed for the residential colony. ETP should also be provided for workshop waste water. Mine shall make arrangement of suitable drains/pipe networks to ensure adequate flow for full utilization of treated effluent insides of the premises.

3. Appropriate air pollution control equipments shall be installed at all points of emission sources and shall ensure that these are always kept running and in good working order all the time. Effective steps shall be taken to control fugitive emissions during excavation of mine, its handling/crushing/transportation etc.

4. Crushers at the mine handling plant should be operated with high efficiency bag filters, water sprinkling system should be provided to control fugitive emissions from crushing operations, haulage roads, transfer points etc.

5. Fugitive dust emission from all the sources should be controlled effectively and duely monitored. Water required for in spraying arrangement on haul roads, wagon loading, dump trucks [loading & unloading] points should be provided and properly maintained.

6. Mine shall ensure that the concentration of particulate matter from point sources shall not exceed 150 Mg/Nm^3.

7. Ambient air quality at the boundary of the mine premises shall conform to the following limits:

	24 Hours		Annual	
a. Suspended Particulate Matter	300 Microgram/Cubic Meter		500	Microgram/Cubic Meter
b. Sulphur Dioxide [SO2]	80	-"-	120	-"-
c. Nitrogen Oxides [Nox]	80	-"-	120	-"-
d. Carbon Monoxide [CO]	--	--	5000	-"-
e. RSPM	180	-"-	250	-"-

8. Mines shall take effective steps to check the soil erosion from waste material dumping area and causing siltation problem in nearby nalla/river pond during rainy season. All the slopes of external dumps of over burden should be maintained at a maximum of 28 degrees.

9. The Mine shall take proper action to control the noise pollution. The ambient noise level shall not exceed the limit 75dB [A] during the day time and 70dB [A] during the night time.

10. Extensive tree plantation shall be done on both side of transportation roads and around mining lease area. The tree plantation shall be carried out in phase manner preferably with local species.

11. Mining activity shall be carried out in such a way so that prime land area may not get degraded.

12. Mines shall obtain necessary permission from Central Ground Water Board before start of the Mining activity.

13. Controlled blasting should be practiced with the use of delay detonators and only during daytime. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders should be implemented.

14. Vehicular emissions should be kept under control and regularly monitored for compliance of emission norms. Vehicles used for transporting the mineral should be covered with tarpaulins and optimally loaded.

15. A separate Environmental Cell with suitably qualified technical personnel to carryout various functions should be set up under the control of senior executive who will report directly to head of the organization.

16. Digital processing of the entire lease area using remote sensing techniques should be done regularly once in three years for monitoring land use pattern and report submitted to Board.

17. Good house keeping practice shall be adopted by the Mine.

18. The Board reserves the right to amend cancel any of the above conditions as a whole or in part as and when deemed necessary.

This "No Objection Certificate" is issued only for the purpose of obtaining Environmental clearance from Ministry of Environment & Forests, Govt. of India. This shall not be treated as consent under Water [Prevention & Control of Pollution] Act, 1974 and the Air [Prevention & Control of Pollution] Act, 1981.

The mine shall be required to obtain following permissions from the Board prior to commencement of expansion:

(a) Consent under the Water [Prevention & Control of Pollution] Act, 1974.
(b) Consent under the Air [[Prevention & Control of Pollution] Act, 1981.
(c) Membership of Emergency Response Centre.
(d) Authorization under the provisions of the manufacture, storage & impact of Hazardous Chemicals Rules, 1989 [as amended in 2003]

For & on behalf of
M.P. Pollution Control Board

O/C (B. K. Singh)
Member Secretary

Endt No. 4835/TS/MPPCB/2006 Date: 24-5-06

Copy to:-

1. Secretary, Govt. of India, MoEF, CGO Complex, Paryawaran Bhawan, CGO complex, Lodhi Road, ***New Delhi*** for information please.

2. Regional Officer, M.P. Pollution Control Board, ***Satna.***

3. IT Section, M.P. Pollution Control Board, Bhopal.

O/C (B. K. Singh)
Member Secretary

भारत सरकार
जल शक्ति मंत्रालय
जल संसाधन, नदी विकास
और गंगा संरक्षण विभाग
केन्द्रीय भूमि जल प्राधिकरण
Government of India
Ministry of Jal Shakti
Department of Water Resources,
River Development & Ganga Rejuvenation
Central Ground Water Authority

(भूजल निकासी हेतु अनापत्ति प्रमाण पत्र)
NO OBJECTION CERTIFICATE (NOC) FOR GROUND WATER ABSTRACTION

Project Name:	Birla Corporation Limited-sagmania Mines		
Project Address:	Sagmania Limestone Mines,, Satna Cement Works,, P.o. Sagmania		
Village:	Naina	Block:	Sohawal
District:	Satna	State:	Madhya Pradesh
Pin Code:			
Communication Address:	Birla Corporation Limited, Satna Cement Works, P.o. Birla Vikas, Sohawal, Satna, Madhya Pradesh - 485005		
Address of CGWB Regional Office :	Central Ground Water Board North Central Region, Block-1, 4th Floor, Paryawas Bhawan, Area Hills, Jail Road, Bhopal, Madhya Pradesh - 462011		

1.	**NOC No.:**	CGWA/NOC/MIN/REN/1/2025/10903	2.	**Date of Issuence**	24/02/2025
3.	Application No.:	21-4/1137/MP/MIN/2021	4.	Category: (GWRE 2024)	Semi Critical
5.	Project Status:	Existing Ground Water	6.	NOC Type:	Renewal
7.	**Valid from:**	16/11/2023	8.	**Valid up to:**	15/11/2025

9. 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
49.00	17885.00			3594.00	1311810.00	3643.00	1329695.00

10. Details of ground water abstraction /Dewatering structures

	Total Existing No						**Total Proposed No**					
	DW	DCB	BW	TW	MP	MPu	DW	DCB	BW	TW	MP	MPu
Abstraction Structure*	0	0	0	0	0	2	0	0	0	0	0	0
Dewatering Structure*	0	0	4	0	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

11.	Ground Water Abstraction/Restoration Charges paid (Rs.):	9189863.00
12.	Environment Compensation (if applicable) paid (Rs.):	0.00

13.	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	2	0	1	1

(Compliance Conditions given overleaf)

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

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) within one year from the date of issue of this NOC.

8) Industries abstracting ground water in excess of 100 m 3 /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 CPCB 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 m3/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).
31) In the self-compliance report, the PP shall submit details of Drilling Agency/ Agencies, which has/ have constructed BW(s)/ TW(s) along with undertaking to the effect that all necessary measures have been taken as per directions of Hon'ble Supreme Court provided in Annexure-VII of guidelines dated 24.09.2020 in respect of abandoned/ failed BW(s)/ TW(s)/Piezometer(s), if any. The PP is advised to engage registered drilling agency/ agencies. In the event of any mishap/ unfortunate incident due to negligence in taking measures for prevention of accident due to falling in Bore Well, both PP and concerned drilling agency shall jointly be held responsible and penal action as per extant Government rules shall be taken.

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

CENTRAL GROUND WATER AUTHORITY

Department of Water Resources, River Development and Ganga Rejuvenation
Ministry of Jal Shakti, Govt. of India

Receipt

(As per the guideline Gazette Notification S.O. 3281(E) regarding the New Guidelines dated 24.09.2020 of CGWA, MoJS, Govt. of India)
https://cgwa-noc.gov.in

Application No,:	21-4/1137/MP/MIN/2021		Date of Issuence:24/02/2025
Name of Firm:	BIRLA CORPORATION LIMITED-SAGMANIA MINES		
AppType Category:	*Limestone*		
Application Type:	*Mining*		
PAN/GSTIN No. of Firm/Individual:		/	

SN	Description	Amount (Rs.)
1.	Application Processing Fee	**5000.00**
2.	Ground Water Abstraction charges	**9189863.00**
3.	Ground Water Restoration charges	**0**
4.	Environmental Compensation Charges (ECRGW) *(Date From to) Days-*	
5.	Penalty for non-Compliance of NOC conditions *Condition to be mentioned*	**200000.00**
6.	Adjustment Charges	
7.	Rebate	
8.	Charges for correction/modification in the existing issued No Objection Certificate	

S.No.	Description	Rate
(i)	Change in User ID	Rs. 1000
(ii)	Change in firm Name	Rs. 5000
(iii)	Extension of No Objection Certificate	Rs. 5000
(iv)	Issuance of duplicate No Objection Certificate	Rs. 5000
(v)	Issuance of corrigendum to No Objection Certificate	Rs. 5000
(vi)	Any other items/correction etc.	Rs. 500

Rs. Rupees Ninty Three Lakh Ninty Four Thousand Eight Hundred Sixty Three Only	**9394863.00**

This is an system generated invoice, hence, does not require ink signed.

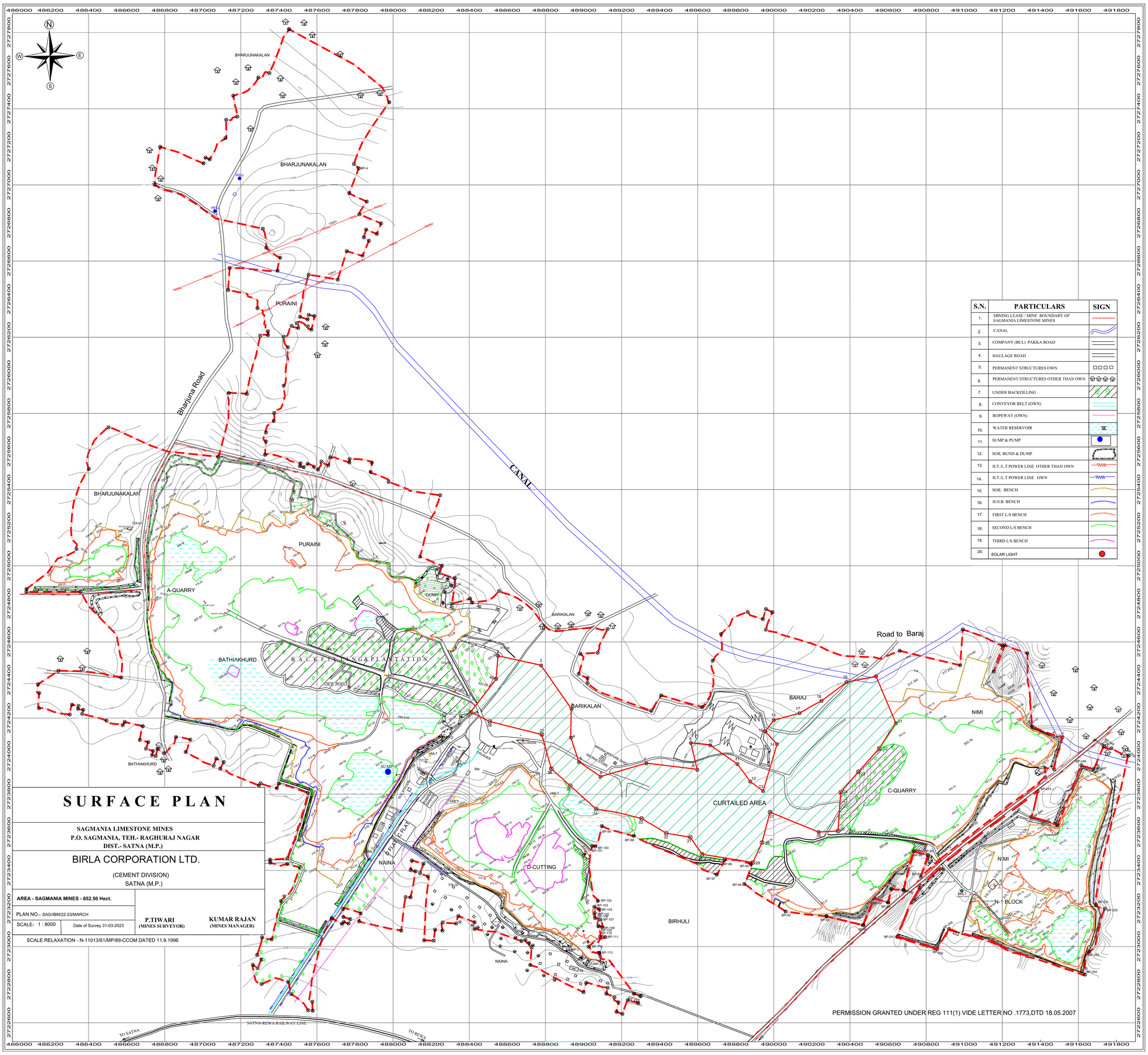
18/11, जामनगर हाउस, मानसिंह रोड, नई दिल्ली - 110011 / 18/11, Jamnagar House, Mansingh Road, New Delhi-110011
Phone: (011) 23383561 Fax: 23382051, 23386743
Website: cgwa-noc.gov.in

पानी बचाये – जीवन बचाये
SAVE WATER - SAVE LIFE

Term and conditions:

i. All disputes are subject to Delhi Jurisdiction.
ii. Any complaint in regard to the rates will not be entertained.

Member-Secretary
CGWA, New Delhi



C:\Users\51156\Desktop\consep1.dwg, 24/04/2023 08:05:58 PM, DWG To PDF.pc3

Water Reservoir

Water Reservoir

Garland & Catch Drains

Sagmania Lime Stone Mines New Plantation Photographs *Annexure_9*

Sagmania Plantation		
Month	**No. of saplings Planted**	**Species**
Jul-24	2500	Shyamakesia, Karanj
Aug-24	8550	Shyamakesia, Karanj
Sep-24	7500	Alastonia, Karanj, Mahogni, Sheesam, Kadam
Total	**18550**	

Bag Filter installed at transfer points

Bag House installed at covered Crusher

Covered hopper to control fugitive emission

Fixed Water Sprinklers along Haul road

Madhya Pradesh Pollution Control Board

Environmental Surveillance Center

Paryavaran Parisar, E-5, Arera Colony, Bhopal - 462016 (M.P.)
Ph : 0755-2469180, **Fax** : 0755-2463742, **E-mail** : ercmppcb@nic.in, **Web** : www.erc.mp.gov.in

Real Time Data Acquisition And Monitoring

Custom Report

Industry Name : Birla Corporation Limited
From Date: 2024/10/01 00:00:00 To Date : 2025/03/31 23:59:17
Industry Status: site_status

Description	Quarry_Station_1-PM10_U	Quarry_Station_1-PM2.5_U	Quarry_Station_1-CO_U	Quarry_Station_1-SO2_U	Quarry_Station_1-NOx_U
Prescribed Standards	0 - 100	0 - 60	0 - 4	0 - 80	0 - 80
Maximum Data	70.13	40.02	1.0	20.02	18.24
Minimum Data	28.93	21.6	0.5	6.85	8.21
Geometric Mean	43.03	27.1	0.8	13.71	13.29
Median	42.04	25.1	0.84	14.25	15.0
Standard Deviation	15.01	6.5	0.2	6.44	4.12
Maximum Value At Time	2024-10-01	2024-10-01	2025-01-01	2025-01-01	2024-10-01
Minimum Value At Time	2024-11-01	2025-02-01	2024-12-01	2024-11-01	2024-11-01
Valid Data Points	6	6	6	6	6
Total Data Points	6	6	6	6	6
Data Availability %	100.0%	100.0%	100.0%	100.0%	100.0%

Sl No	Time	Quarry_Station_1-PM10_U	Quarry_Station_1-PM2.5_U	Quarry_Station_1-CO_U	Quarry_Station_1-SO2_U	Quarry_Station_1-NOx_U
1	2024-10-01	70.13	40.02	0.76	10.20	16.24
2	2024-11-01	28.93	25.75	0.65	6.65	8.21
3	2024-12-01	29.99	25.13	0.50	6.85	8.21
4	2025-01-01	45.04	25.07	1.00	20.02	14.98
5	2025-02-01	39.04	21.60	0.91	18.30	15.06
6	2025-02-01	45.03	25.03	0.99	20.02	15.01

Madhya Pradesh Pollution Control Board

Environmental Surveillance Center

Paryavaran Parisar, E-5, Arera Colony, Bhopal - 462016 (M.P.)
Ph : 0755-2469180, **Fax** : 0755-2463742, **E-mail** : ercmppcb@nic.in, **Web** : www.erc.mp.gov.in

Real Time Data Acquisition And Monitoring

Custom Report

Industry Name : Birla Corporation Limited
From Date: 2024/10/01 00:00:00 To Date : 2025/03/31 23:59:09
Industry Status: site_status

Description	Quarry_Station_2-PM10_U	Quarry_Station_2-PM2.5_U	Quarry_Station_2-CO_U	Quarry_Station_2-SO2_U	Quarry_Station_2-NOx_U
Prescribed Standards	0 - 100	0 - 60	0 - 4	0 - 80	0 - 80
Maximum Data	62.36	30.56	1.85	50.43	30.11
Minimum Data	49.19	19.05	0.72	1.82	20.64
Geometric Mean	53.51	27.35	1.31	17.08	25.16
Median	50.84	29.92	1.19	12.32	24.58
Standard Deviation	5.45	4.71	0.46	16.93	3.23
Maximum Value At Time	2025-02-01	2025-01-01	2025-03-01	2025-02-01	2025-03-01
Minimum Value At Time	2024-12-01	2024-10-01	2024-10-01	2025-03-01	2024-10-01
Valid Data Points	6	6	6	6	6
Total Data Points	6	6	6	6	6
Data Availability %	100.0%	100.0%	100.0%	100.0%	100.0%

Sl No	Time	Quarry_Station_2-PM10_U	Quarry_Station_2-PM2.5_U	Quarry_Station_2-CO_U	Quarry_Station_2-SO2_U	Quarry_Station_2-NOx_U
1	2024-10-01	58.22	19.05	0.72	11.16	20.64
2	2024-11-01	49.64	30.02	1.08	12.31	27.29
3	2024-12-01	49.19	29.83	1.08	12.33	24.63
4	2025-01-01	50.54	30.56	1.30	14.44	24.53
5	2025-02-01	62.36	24.30	1.84	50.43	23.77
6	2025-02-01	51.13	30.36	1.85	1.82	30.11

TEST REPORT CODE: VGL/A/24/11/09/N-001 ULR NO. TC144552400000604F TEST REPORT ISSUE DATE: 14.11.2024

TEST REPORT (AMBIENT AIR)

Name and Address of Customer	:	**M/S. BIRLA CORPORATION LIMITED** UNIT- SAGMANIA LIMESTONE MINES (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005. M. P. INDIA
Sampling Location	:	**LABOUR COLONY (EAST)**
Duration of Sampling	:	06.11.2024 TO 07.11.2024
Time of Sampling	:	10:20 AM TO 10:20 AM
Sampling Done by	:	VGL STAFF
Packing Condition	:	SEALED
Sample Id No.	:	001
Environmental Condition Temp.(°C) & RH (%)	:	25.2 & 55
Method of Sampling	:	IS:5182
Sample Receiving Date	:	09.11.2024
Sample Processing Date	:	11.11.2024 TO 14.11.2024
Equipment Used	:	RESPIRABLE DUST SAMPLER (PM 10) FINE PARTICULATE SAMPLER (PM 2.5)

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Specification / Limits (As per CPCB)
1.	Particulate Matter (PM2.5)	IS 5182 (Part-24)	30.4	µg/m3	60.0
2.	Particulate Matter (PM10)	IS 5182 (Part-23)	61.2	µg/m3	100.0
3.	Sulphur Dioxide (SO2)	IS 5182 (Part-2)	11.2	µg/m3	80.0
4.	Nitrogen Dioxides (NO2)	IS 5182 (Part-6)	17.6	µg/m3	80.0
5.	Ozone (O3)	IS 5182 (Part-9)	9.0	µg/m3	180.0
6.	Ammonia (NH3)	IS 5182 (Part-25)	10.6	µg/m3	400.0
7.	Lead (Pb)	IS 5182 (Part-22)	<1.0	µg/m3	1.0
8.	Nickel (Ni)	IS 5182 (Part-26)	<1.0	ng/m3	20.0
9.	Arsenic (As)	VGL/SOP/AIR/01	<1.0	ng/m3	6.0
10.	Corban Monoxide (CO)	IS 5182 (Part-10)	0.40	mg/m^3	4.0
11.	Benzo (a) Pyrene (BaP)	IS 5182 (Part-12)	<0.05	ng/m3	1.0
12.	Benzene (C6H6)	IS 5182 (Part-11)	<1.0	µg/m3	5.0

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above results are related to the tested sample only.
5. BDL: Below detection limit

Review By:
Dr. Ashok Kumar
Technical Manager

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory
D. K. Y
Lab In-charge
Authorised Signatory

TEST REPORT CODE: VGL/A/24/11/09/N-002 ULR NO. TC144552400000605F TEST REPORT ISSUE DATE: 14.11.2024

TEST REPORT (AMBIENT AIR)

Name and Address of Customer	:	**M/S. BIRLA CORPORATION LIMITED** UNIT- SAGMANIA LIMESTONE MINES (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005, M. P. INDIA
Sampling Location	:	**A- QUARRY PUMP HOUSE (WEST)**
Duration of Sampling	:	06.11.2024 TO 07.11.2024
Time of Sampling	:	11:30 AM TO 11:30 AM
Sampling Done by	:	VGL STAFF
Packing Condition	:	SEALED
Sample Id No.	:	002
Environmental Condition Temp.(°C) & RH (%)	:	25.2 & 55
Method of Sampling	:	IS:5182
Sample Receiving Date	:	09.11.2024
Sample Processing Date	:	11.11.2024 TO 14.11.2024
Equipment Used	:	RESPIRABLE DUST SAMPLER (PM 10) FINE PARTICULATE SAMPLER (PM 2.5)

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Specification / Limits (As per CPCB)
1.	Particulate Matter (PM2.5)	IS 5182 (Part-24)	33.4	µg/m3	60.0
2.	Particulate Matter (PM10)	IS 5182 (Part-23)	65.6	µg/m3	100.0
3.	Sulphur Dioxide (SO2)	IS 5182 (Part-2)	12.9	µg/m3	80.0
4.	Nitrogen Dioxides (NO2)	IS 5182 (Part-6)	20.6	µg/m3	80.0
5.	Ozone (O3)	IS 5182 (Part-9)	10.2	µg/m3	180.0
6.	Ammonia (NH3)	IS 5182 (Part-25)	9.2	µg/m3	400.0
7.	Lead (Pb)	IS 5182 (Part-22)	<1.0	µg/m3	1.0
8.	Nickel (Ni)	IS 5182 (Part-26)	<1.0	ng/m3	20.0
9.	Arsenic (As)	VGL/SOP/AIR/01	<1.0	ng/m3	6.0
10.	Corban Monoxide (CO)	IS 5182 (Part-10)	0.36	mg/m^3	4.0
11.	Benzo (a) Pyrene (BaP)	IS 5182 (Part-12)	<0.05	ng/m3	1.0
12.	Benzene (C6H6)	IS 5182 (Part-11)	<1.0	µg/m3	5.0

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above results are related to the tested sample only.

BDL: Below detection limit

Dr. Ashok Kumar
Technical Manager

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorized Signatory

D. K. Yadav
Authorised Signatory
Lab In-charge

TEST REPORT CODE: VGL/A/24/11/09/N-003 ULR NO. TC144552400000606F TEST REPORT ISSUE DATE: 14.11.2024

TEST REPORT (AMBIENT AIR)

Name and Address of Customer	:	**M/S. BIRLA CORPORATION LIMITED** UNIT- SAGMANIA LIMESTONE MINES (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005, M. P. INDIA
Sampling Location	:	**ANFO MIXING SHELTER (NORTH)**
Duration of Sampling	:	07.11.2024 TO 08.11.2024
Time of Sampling	:	11:10 PM TO 11:10 PM
Sampling Done by	:	VGL STAFF
Packing Condition	:	SEALED
Sample Id No.	:	003
Environmental Condition Temp.(°C) & RH (%)	:	25.2 & 55
Method of Sampling	:	IS:5182
Sample Receiving Date	:	09.11.2024
Sample Processing Date	:	11.11.2024 TO 14.11.2024
Equipment Used	:	RESPIRABLE DUST SAMPLER (PM 10) FINE PARTICULATE SAMPLER (PM 2.5)

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Specification / Limits (As per CPCB)
1.	Particulate Matter (PM2.5)	IS 5182 (Part-24)	32.2	µg/m3	60.0
2.	Particulate Matter (PM10)	IS 5182 (Part-23)	59.4	µg/m3	100.0
3.	Sulphur Dioxide (SO2)	IS 5182 (Part-2)	10.2	µg/m3	80.0
4.	Nitrogen Dioxides (NO2)	IS 5182 (Part-6)	16.7	µg/m3	80.0
5.	Ozone (O3)	IS 5182 (Part-9)	10.2	µg/m3	180.0
6.	Ammonia (NH3)	IS 5182 (Part-25)	9.1	µg/m3	400.0
7.	Lead (Pb)	IS 5182 (Part-22)	<1.0	µg/m3	1.0
8.	Nickel (Ni)	IS 5182 (Part-26)	<1.0	ng/m3	20.0
9.	Arsenic (As)	VGL/SOP/AIR/01	<1.0	ng/m3	6.0
10.	Corban Monoxide (CO)	IS 5182 (Part-10)	0.40	mg/m^3	4.0
11.	Benzo (a) Pyrene (BaP)	IS 5182 (Part-12)	<0.05	ng/m3	1.0
12.	Benzene (C6H6)	IS 5182 (Part-11)	<1.0	µg/m3	5.0

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above results are related to the tested sample only.
5. BDL: Below detection limit

Review By:
Dr. Ashok Kumar
Technical Manager

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/A/24/11/09/N-004 ULR NO. TC144552400000607F TEST REPORT ISSUE DATE: 14.11.2024

TEST REPORT (AMBIENT AIR)

Name and Address of Customer	:	**M/S. BIRLA CORPORATION LIMITED** UNIT- SAGMANIA LIMESTONE MINES (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005, M. P. INDIA
Sampling Location	:	**QUARRY DISPENSARY (SOUTH)**
Duration of Sampling	:	07.11.2024 TO 08.11.2024
Time of Sampling	:	12:30 PM TO 12:30 PM
Sampling Done by	:	VGL STAFF
Packing Condition	:	SEALED
Sample Id No.	:	004
Environmental Condition Temp.(°C) & RH (%)	:	25.2 & 55
Method of Sampling	:	IS:5182
Sample Receiving Date	:	09.11.2024
Sample Processing Date	:	11.11.2024 TO 14.11.2024
Equipment Used	:	RESPIRABLE DUST SAMPLER (PM 10) FINE PARTICULATE SAMPLER (PM 2.5)

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Specification / Limits (As per CPCB)
1.	Particulate Matter (PM2.5)	IS 5182 (Part-24)	37.4	µg/m3	60.0
2.	Particulate Matter (PM10)	IS 5182 (Part-23)	66.8	µg/m3	100.0
3.	Sulphur Dioxide (SO2)	IS 5182 (Part-2)	12.9	µg/m3	80.0
4.	Nitrogen Dioxides (NO2)	IS 5182 (Part-6)	19.3	µg/m3	80.0
5.	Ozone (O3)	IS 5182 (Part-9)	10.2	µg/m3	180.0
6.	Ammonia (NH3)	IS 5182 (Part-25)	11.1	µg/m3	400.0
7.	Lead (Pb)	IS 5182 (Part-22)	<1.0	µg/m3	1.0
8.	Nickel (Ni)	IS 5182 (Part-26)	<1.0	ng/m3	20.0
9.	Arsenic (As)	VGL/SOP/AIR/01	<1.0	ng/m3	6.0
10.	Corban Monoxide (CO)	IS 5182 (Part-10)	0.48	mg/m³	4.0
11.	Benzo (a) Pyrene (BaP)	IS 5182 (Part-12)	<0.05	ng/m3	1.0
12.	Benzene (C6H6)	IS 5182 (Part-11)	<1.0	µg/m3	5.0

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above results are related to the tested sample only.
5. BDL - Below detection limit

Review By:
Dr. Ashok Kumar
Technical Manager

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorized Signatory
D. K. Yadav
Authorised Signatory
Lab In-charge

TEST REPORT CODE: VGL/A/25/02/22/001 ULR NO. TC144552400000357F TEST REPORT ISSUE DATE: 28.02.2025

TEST REPORT (AMBIENT AIR)

Name and Address of Customer	:	**M/S. BIRLA CORPORATION LIMITED** UNIT- SAGMANIA LIMESTONE MINES (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005, M. P. INDIA
Sampling Location	:	**LABOUR COLONY (EAST)**
Duration of Sampling	:	19.02.2025 TO 20.02.2025
Time of Sampling	:	10:50 AM TO 10:50 AM
Sampling Done by	:	VGL STAFF
Packing Condition	:	SEALED
Sample Id No.	:	001
Environmental Condition Temp.(ºC) & RH (%)	:	26.5 & 58
Method of Sampling	:	IS:5182
Sample Receiving Date	:	22.02.2025
Sample Processing Date	:	24.02.2025 TO 28.02.2025
Equipment Used	:	RESPIRABLE DUST SAMPLER (PM 10) FINE PARTICULATE SAMPLER (PM 2.5)

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Specification / Limits (As per CPCB)
1.	Particulate Matter (PM2.5)	IS 5182 (Part-24)	32.1	µg/m3	60.0
2.	Particulate Matter (PM10)	IS 5182 (Part-23)	59.6	µg/m3	100.0
3.	Sulphur Dioxide (SO2)	IS 5182 (Part-2)	11.2	µg/m3	80.0
4.	Nitrogen Dioxides (NO2)	IS 5182 (Part-6)	21.4	µg/m3	80.0
5.	Ozone (O3)	IS 5182 (Part-9)	9.5	µg/m3	180.0
6.	Ammonia (NH3)	IS 5182 (Part-25)	11.3	µg/m3	400.0
7.	Lead (Pb)	IS 5182 (Part-22)	<1.0	µg/m3	1.0
8.	Nickel (Ni)	IS 5182 (Part-26)	<1.0	ng/m3	20.0
9.	Arsenic (As)	VGL/SOP/AIR/01	<1.0	ng/m3	6.0
10.	Corban Monoxide (CO)	IS 5182 (Part-10)	0.44	mg/m^3	4.0
11.	Benzo (a) Pyrene (BaP)	IS 5182 (Part-12)	<0.05	ng/m3	1.0
12.	Benzene (C6H6)	IS 5182 (Part-11)	<1.0	µg/m3	5.0

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above results are related to the tested sample only.
5. BDL: Below detection limit

Review by

Dr. Ashok Kumar
Technical Manager

Authorized Signatory

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory

D. K. Yadav
Lab In-Charge

TEST REPORT CODE: VGL/A/25/02/22/002 ULR NO. TC144552400000358F TEST REPORT ISSUE DATE: 28.02.2025

TEST REPORT (AMBIENT AIR)

Name and Address of Customer	:	**M/S. BIRLA CORPORATION LIMITED** UNIT- SAGMANIA LIMESTONE MINES (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005, M. P. INDIA
Sampling Location	:	**A- QUARRY PUMP HOUSE (WEST)**
Duration of Sampling	:	19.02.2025 TO 20.02.2025
Time of Sampling	:	11:45 AM TO 11:45 AM
Sampling Done by	:	VGL STAFF
Packing Condition	:	SEALED
Sample Id No.	:	002
Environmental Condition Temp.(ºC) & RH (%)	:	26.5 & 58
Method of Sampling	:	IS:5182
Sample Receiving Date	:	22.02.2025
Sample Processing Date	:	24.02.2025 TO 28.02.2025
Equipment Used	:	RESPIRABLE DUST SAMPLER (PM 10) FINE PARTICULATE SAMPLER (PM 2.5)

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Specification / Limits (As per CPCB)
1.	Particulate Matter (PM2.5)	IS 5182 (Part-24)	34.8	µg/m3	60.0
2.	Particulate Matter (PM10)	IS 5182 (Part-23)	62.2	µg/m3	100.0
3.	Sulphur Dioxide (SO2)	IS 5182 (Part-2)	14.3	µg/m3	80.0
4.	Nitrogen Dioxides (NO2)	IS 5182 (Part-6)	25.5	µg/m3	80.0
5.	Ozone (O3)	IS 5182 (Part-9)	10.4	µg/m3	180.0
6.	Ammonia (NH3)	IS 5182 (Part-25)	11.2	µg/m3	400.0
7.	Lead (Pb)	IS 5182 (Part-22)	<1.0	µg/m3	1.0
8.	Nickel (Ni)	IS 5182 (Part-26)	<1.0	ng/m3	20.0
9.	Arsenic (As)	VGL/SOP/AIR/01	<1.0	ng/m3	6.0
10.	Corban Monoxide (CO)	IS 5182 (Part-10)	0.50	mg/m^3	4.0
11.	Benzo (a) Pyrene (BaP)	IS 5182 (Part-12)	<0.05	ng/m3	1.0
12.	Benzene (C6H6)	IS 5182 (Part-11)	<1.0	µg/m3	5.0

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above results are related to the tested sample only.
5. BDL: Below detection limit

Review By:
Dr. Ashok Kumar
Technical Manager

Authorized Signatory
VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
D. K. Yadav
Lab In-charge
Authorised Signatory

TEST REPORT CODE: VGL/A/25/02/22/003 ULR NO. TC144552400000359F TEST REPORT ISSUE DATE: 28.02.2025

TEST REPORT (AMBIENT AIR)

Name and Address of Customer	:	**M/S. BIRLA CORPORATION LIMITED** UNIT- SAGMANIA LIMESTONE MINES (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005, M. P. INDIA
Sampling Location	:	**ANFO MIXING SHELTER (NORTH)**
Duration of Sampling	:	20.02.2025 TO 21.02.2025
Time of Sampling	:	12:20 PM TO 12:20 PM
Sampling Done by	:	VGL STAFF
Packing Condition	:	SEALED
Sample Id No.	:	003
Environmental Condition Temp.(ºC) & RH (%)	:	26.5 & 58
Method of Sampling	:	IS:5182
Sample Receiving Date	:	22.02.2025
Sample Processing Date	:	24.02.2025 TO 28.02.2025
Equipment Used	:	RESPIRABLE DUST SAMPLER (PM 10) FINE PARTICULATE SAMPLER (PM 2.5)

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Specification / Limits (As per CPCB)
1.	Particulate Matter (PM2.5)	IS 5182 (Part-24)	33.8	µg/m3	60.0
2.	Particulate Matter (PM10)	IS 5182 (Part-23)	60.2	µg/m3	100.0
3.	Sulphur Dioxide (SO2)	IS 5182 (Part-2)	12.3	µg/m3	80.0
4.	Nitrogen Dioxides (NO2)	IS 5182 (Part-6)	22.4	µg/m3	80.0
5.	Ozone (O3)	IS 5182 (Part-9)	9.5	µg/m3	180.0
6.	Ammonia (NH3)	IS 5182 (Part-25)	10.2	µg/m3	400.0
7.	Lead (Pb)	IS 5182 (Part-22)	<1.0	µg/m3	1.0
8.	Nickel (Ni)	IS 5182 (Part-26)	<1.0	ng/m3	20.0
9.	Arsenic (As)	VGL/SOP/AIR/01	<1.0	ng/m3	6.0
10.	Corban Monoxide (CO)	IS 5182 (Part-10)	0.52	mg/m^3	4.0
11.	Benzo (a) Pyrene (BaP)	IS 5182 (Part-12)	<0.05	ng/m3	1.0
12.	Benzene (C6H6)	IS 5182 (Part-11)	<1.0	µg/m3	5.0

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above results are related to the tested sample only.
5. BDL: Below detection limit

Reviewed by:
Dr. Ashok Kumar
Technical Manager

Authorized Signatory
VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/A/25/02/22/004 ULR NO. TC144552400000360F TEST REPORT ISSUE DATE: 28.02.2025

TEST REPORT (AMBIENT AIR)

Name and Address of Customer	:	**M/S. BIRLA CORPORATION LIMITED** UNIT- SAGMANIA LIMESTONE MINES (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005, M. P. INDIA
Sampling Location	:	**QUARRY DISPENSARY (SOUTH)**
Duration of Sampling	:	20.02.2025 TO 21.02.2025
Time of Sampling	:	01:30 PM TO 01:30 PM
Sampling Done by	:	VGL STAFF
Packing Condition	:	SEALED
Sample Id No.	:	004
Environmental Condition Temp.(ºC) & RH (%)	:	26.5 & 58
Method of Sampling	:	IS:5182
Sample Receiving Date	:	22.02.2025
Sample Processing Date	:	24.02.2025 TO 28.02.2025
Equipment Used	:	RESPIRABLE DUST SAMPLER (PM 10) FINE PARTICULATE SAMPLER (PM 2.5)

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Specification / Limits (As per CPCB)
1.	Particulate Matter (PM2.5)	IS 5182 (Part-24)	34.5	µg/m3	60.0
2.	Particulate Matter (PM10)	IS 5182 (Part-23)	67.3	µg/m3	100.0
3.	Sulphur Dioxide (SO2)	IS 5182 (Part-2)	13.5	µg/m3	80.0
4.	Nitrogen Dioxides (NO2)	IS 5182 (Part-6)	26.4	µg/m3	80.0
5.	Ozone (O3)	IS 5182 (Part-9)	11.2	µg/m3	180.0
6.	Ammonia (NH3)	IS 5182 (Part-25)	15.3	µg/m3	400.0
7.	Lead (Pb)	IS 5182 (Part-22)	<1.0	µg/m3	1.0
8.	Nickel (Ni)	IS 5182 (Part-26)	<1.0	ng/m3	20.0
9.	Arsenic (As)	VGL/SOP/AIR/01	<1.0	ng/m3	6.0
10.	Corban Monoxide (CO)	IS 5182 (Part-10)	0.53	mg/m^3	4.0
11.	Benzo (a) Pyrene (BaP)	IS 5182 (Part-12)	<0.05	ng/m3	1.0
12.	Benzene (C6H6)	IS 5182 (Part-11)	<1.0	µg/m3	5.0

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above results are related to the tested sample only.
5. BDL: Below detection limit

Review By:

Dr. Ashok Kumar
Technical Manager

Authorized Signatory

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)

D. K. Yadav
Lab In-charge
Authorised Signatory

O/C

Birla Corporation Limited
Unit: Satna Cement Works
P.O.: Birla Vikas Satna - 485005
Madhya Pradesh
P: 07672 412000/01 F: 07672 257456
E : admin.scw@birlacorp.com

MP BIRLA GROUP SCW/B/51/2020-21

Date: 21.10.2020

To,
The Regional Director,
Central Ground Water Board,
North Central Region
Block-1, 4th Floor,
Parayawas Bhawan,
Arera Hills, Jail Road,
BHOPAL (M.P.)
PIN- 462011

Sub: Seeking guidance/suggestion for developing Suitable rainwater harvesting measures on long term basis at our Sagmania Limestone Mines, Satna, M.P of M/s Birla corporation Ltd., Unit Satna Cement works.

Dear Sir,

Sagmania Limestone is a captive minesof M/s. Birla Corporation Ltd. Unit-Satna Cement Works. Sagmania Limestone Mine started in 1959. The total lease hold area is 852.50 Ha, in village Barikalan, Baraj, Puraini, Bathiakhurd,Bharjunakalan,Nimi&Naina of Raghurajnagar Tehsil, dist. Satna, Madhya Pradesh. This mine is fully mechanized mine & worked in two benches. The average height of 1stbench is about 9m & height of second bench is about 6m. The average mining depth is about 15 mtr. Till date the total opened up area is about 350 Ha. Total 5 pits have been created since inception. The mined out pits are reclaimed either by backfilling supported by plantation or by converting into Rain Water Harvesting pits. Photograph of rain water harvesting in mined out pits is attached as Annexure-1.

In addition to above we have also constructed Ground Water Recharge structure to tune-up ground water level at Colony, Hospital and Nearby School, Villages etc. The details are follows:

A) 15 Nos of Ground water recharge structures are constructed in Staff colony, SCW plant, R K Missionary School etc.

B) 17 nos. are planned and work shall start shortly

C) Under CSR Activities, Construction of check dams and pond deepening at 7 locations have completed with an expenditure of Rs. 38,06,500/- till date.

In this regard we would like to seek your suggestion and guidance for Suitable rainwater harvesting measures on long term basis.

Thanking you,
Yours faithfully,

Authorised Signatory
For,Birla Corporation Ltd.
Unit-Satna Cement Ltd.

ANNEXURE-11B

Water Reservoir

Recharging Structures

TEST REPORT CODE: VGL/WL/24/11/09/N-001-007 TEST REPORT ISSUE DATE: 14.11.2024

TEST REPORT (WATER LEVEL)

Name & Address of Customer : **M/S. BIRLA CORPORATION LIMITED**
UNIT- SAGMANIA LIMESTONE MIINES
(A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS,
SATNA-485005, M. P. INDIA
Sample Done By : VGL STAFF
Weather Condition : CLEAR

TEST RESULTS

Sr. No.	Locations	Monitoring Date	Unit	Water Level (Below Ground Level)- Meter
1	Near ANFO Mixing Shelter	07.11.2024	Meter	22.05
2	Birhuli OH Tank, Sarpanch Gali (Public Water Supply)	07.11.2024	Meter	23.75
3	Naina Village (Public Water Supply)	07.11.2024	Meter	22.30
4	Bari Kala (Public Water Supply)	07.11.2024	Meter	23.70
5	Bhatia Primary School	08.11.2024	Meter	24.35
6	Piezometer – 1 near Star Gate	18.11.2024	Meter	22.75
7	Piezometer – 2 near Mines store	08.11.2024	Meter	22.00
8	Near Mines Main Gate Bore well	08.11.2024	Meter	21.58
9	Near Mines Time office Bore well	08.11.2024	Meter	21.70
10	Near Mines Health Center Bore well	08.11.2024	Meter	21.50

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above results are related to the tested sample only.

Review By:
Ashok Kumar
Technical Manager

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory
Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/24/11/09/N-001 ULR NO. TC144552400000610F TEST REPORT ISSUE DATE: 14.11.2024

TEST REPORT (WATER)

Name and Address of Customer	:	**M/S. BIRLA CORPORATION LIMITED** UNIT- SAGMANIA LIMESTONE MINES (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005, M. P. INDIA
Location of Sample	:	**NEAR ANFO MIXING SHELTER**
Sample Description	:	GROUND WATER
Date & Time of Sampling	:	07.11.2024 10:30 AM
Sample Collected by	:	VGL STAFF
Weather Condition	:	CLEAR
Laboratory Sample Receiving Date	:	09.11.2024
Duration of Sample Analysis	:	11.11.2024 TO 14.11.2024
Method of Sampling	:	APHA 1060B & 9060A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.12	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510- B:	731.0	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	26.7	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	451.3	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	449.5	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	154.3	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	175.6	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	48.6	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	13.2	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	30.7	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	10.6	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.23	mg/L	-	-

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit.

Review By:
Mr. Ashok Kumar
Technical Manager

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/24/11/09/N-001 ULR NO. TC144552400000610F TEST REPORT ISSUE DATE: 14.11.2024

TEST REPORT (WATER)

TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.19	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	38.4	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.21	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit.

Review By:
Dr. Ashok Kumar
Technical Manager

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorized Signatory
Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/24/11/09/N-002 ULR NO. TC144552400000611F TEST REPORT ISSUE DATE: 14.11.2024

TEST REPORT (WATER)

Name and Address of Customer	:	**M/S. BIRLA CORPORATION LIMITED** UNIT- SAGMANIA LIMESTONE MINES (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005, M. P. INDIA
Location of Sample	:	**BIRHULI OH TANK, SARPANCH GALI (PUBLIC WATER SUPPLY)**
Sample Description	:	GROUND WATER
Date & Time of Sampling	:	07.11.2024 11:20 AM
Sample Collected by	:	VGL STAFF
Weather Condition	:	CLEAR
Laboratory Sample Receiving Date	:	09.11.2024
Duration of Sample Analysis	:	11.11.2024 TO 14.11.2024
Method of Sampling	:	APHA 1060B & 9060A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.41	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510- B:	702	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	27.8	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	468.0	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	463.0	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	162.0	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	168.0	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	44.2	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	14.0	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	26.8	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	11.1	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.52	mg/L	-	-

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit.

Review By:
Dr. Ashok Kumar
Technical Manager

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/24/11/09/N-002 ULR NO. TC144552400000611F TEST REPORT ISSUE DATE:14.11.2024

TEST REPORT (WATER)

TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.23	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	32.1	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.25	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit

Review By:
Dr. Ashok Kumar
Technical Manager

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/24/11/09/N-003 ULR NO. TC144552400000612F TEST REPORT ISSUE DATE: 14.11.2024

TEST REPORT (WATER)

Name and Address of Customer	:	**M/S. BIRLA CORPORATION LIMITED** UNIT- SAGMANIA LIMESTONE MINES (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005, M. P. INDIA
Location of Sample	:	**NAINA VILLAGE (PUBLIC WATER SUPPLY)**
Sample Description	:	GROUND WATER
Date & Time of Sampling	:	07.11.2024 12:10 PM
Sample Collected by	:	VGL STAFF
Weather Condition	:	CLEAR
Laboratory Sample Receiving Date	:	09.11.2024
Duration of Sample Analysis	:	11.11.2024 TO 14.11.2024
Method of Sampling	:	APHA 1060B & 9060A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.62	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510-B:	514	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	25.9	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	338.0	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	330.0	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	132.0	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	146.0	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	31.6	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	16.3	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	21.2	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	9.5	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.22	mg/L	-	-

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit.

Review By:
Dr. Ashok Kumar
Lab Manager

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorized Signatory
Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/24/11/09/N-003 ULR NO. TC144552400000612F TEST REPORT ISSUE DATE:14.11.2024

TEST REPORT (WATER)

TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.21	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	32.3	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.15	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit

Review By LAB (A Division of Aseries Envirotek India Pvt. Ltd.)

Dr. Ashok Kumar
Technical Manager

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorized Signatory
Authorised Signatory

D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/24/11/09/N-004 ULR NO. TC144552400000613F TEST REPORT ISSUE DATE: 14.11.2024

TEST REPORT (WATER)

Name and Address of Customer : **M/S. BIRLA CORPORATION LIMITED**
UNIT- SAGMANIA LIMESTONE MINES
(A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS,
SATNA-485005, M. P. INDIA

Location of Sample : **BARI KALA (PUBLIC WATER SUPPLY)**
Sample Description : GROUND WATER
Date & Time of Sampling : 07.11.2024 12:40 PM
Sample Collected by : VGL STAFF
Weather Condition : CLEAR
Laboratory Sample Receiving Date : 09.11.2024
Duration of Sample Analysis : 11.11.2024 TO 14.11.2024
Method of Sampling : APHA 1060B & 9060A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.41	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510- B:	703.4	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	26.2	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	435.0	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	431.0	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+B	145.6	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	157.3	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	38.7	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	14.7	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	35.4	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	10.1	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.62	mg/L	-	-

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL - Below Detection limit.

Review By:
Dr. Ashok Kumar
Technical Manager

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorized Signatory
Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/24/11/09/N-004 ULR NO. TC144552400000613F TEST REPORT ISSUE DATE:14.11.2024

TEST REPORT (WATER)

TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.14	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	40.3	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.21	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit.

Review By:
Dr. Ashok Kumar
Technical Manager

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorized Signatory
Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/24/11/09/N-005 ULR NO. TC144552400000614F TEST REPORT ISSUE DATE: 14.11.2024

TEST REPORT (WATER)

Name and Address of Customer : **M/S. BIRLA CORPORATION LIMITED**
UNIT- SAGMANIA LIMESTONE MINES
(A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS,
SATNA-485005, M. P. INDIA

Location of Sample : **BHATIA PRIMARY SCHOOL**
Sample Description : GROUND WATER
Date & Time of Sampling : 07.11.2024 01:40 PM
Sample Collected by : VGL STAFF
Weather Condition : CLEAR
Laboratory Sample Receiving Date : 09.11.2024
Duration of Sample Analysis : 11.11.2024 TO 14.11.2024
Method of Sampling : APHA 1060 B & 9060 A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.42	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510- B:	652.0	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	26.7	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	424.0	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	422.0	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	135.0	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	146.0	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	32.6	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	15.7	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	28.7	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	10.6	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.54	mg/L	-	-

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below Detection Limit

Review By:
Dr. Ashok Kumar
Technical Manager

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorized Signatory
Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/24/11/09/N-005 ULR NO. TC144552400000614F TEST REPORT ISSUE DATE:14.11.2024

TEST REPORT (WATER)

TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.24	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	42.3	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.10	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not he detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not he detectable in 100 ml.	

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit.

Review By:
Dr. Ashok Kumar
Technical Manager

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorized Signatory
Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/24/11/09/N-006 ULR NO. TC144552400000615F TEST REPORT ISSUE DATE:14.11.2024

TEST REPORT (WATER)

Name and Address of Customer	:	**M/S. BIRLA CORPORATION LIMITED** UNIT- SAGMANIA LIMESTONE MINES (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005, M. P. INDIA
Location of Sample	:	**PIEZOMETER – I NEAR STAR GATE**
Sample Description	:	GROUND WATER
Date & Time of Sampling	:	07.11.2024 02:30 PM
Sample Collected by	:	VGL STAFF
Weather Condition	:	CLEAR
Laboratory Sample Receiving Date	:	09.11.2024
Duration of Sample Analysis	:	11.11.2024 TO 14.11.2024
Method of Sampling	:	APHA 1060B & 9060A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.41	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510- B:	715.0	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	26.9	°C	-	-
5.	Odour	APHA 2150-B	Agrecable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	424.0	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	416.0	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	124.0	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	113.0	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	52.3	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	4.5	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	31.3	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	9.1	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.36	mg/L	-	-

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit.

Review By:
Dr. Ashok Kumar
Technical Manager

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/24/11/09/N-006 ULR NO. TC144552400000615F TEST REPORT ISSUE DATE:14.11.2024

TEST REPORT (WATER)

TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.15	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	32.3	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.16	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit

Review By
Dr. Ashok Kumar
Technical Manager

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/24/11/09/N-007 ULR NO. TC144552400000616F TEST REPORT ISSUE DATE:14.11.2024

TEST REPORT (WATER)

Name and Address of Customer	:	**M/S. BIRLA CORPORATION LIMITED** UNIT- SAGMANIA LIMESTONE MINES (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005, M. P. INDIA
Location of Sample	:	**PIEZOMETER – 2 NEAR MINES STORE**
Sample Description	:	GROUND WATER
Date & Time of Sampling	:	07.11.2024 03:00 PM
Sample Collected by	:	VGL STAFF
Weather Condition	:	CLEAR
Laboratory Sample Receiving Date	:	09.11.2024
Duration of Sample Analysis	:	11.11.2024 TO 14.11.2024
Method of Sampling	:	APHA 1060 B & 9060 A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.21	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510- B:	712.0	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	27.2	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	445.0	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	439.0	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	164.0	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	168.0	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	53.1	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	8.6	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	23.4	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	8.6	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.56	mg/L	-	-

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit.

Review By:
Dr. Ashok Kumar
Technical Manager

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorized Signatory
Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/24/11/09/N-007 ULR NO. TC144552400000616F TEST REPORT ISSUE DATE:14.11.2024

TEST REPORT (WATER)

TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.27	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	40.2	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.21	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit

Review By:
Dr. Ashok Kumar
Technical Manager

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/24/11/09/N-008 ULR NO. TC144552400000617F TEST REPORT ISSUE DATE: 14.11.2024

TEST REPORT (WATER)

Name and Address of Customer	:	**M/S. BIRLA CORPORATION LIMITED** UNIT- SAGMANIA LIMESTONE MINES (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005, M. P. INDIA
Location of Sample	:	**NEAR MINES MAIN GATE BOREWELL**
Sample Description	:	GROUND WATER
Date & Time of Sampling	:	07.11.2024 03:30 PM
Sample Collected by	:	VGL STAFF
Weather Condition	:	CLEAR
Laboratory Sample Receiving Date	:	09.11.2024
Duration of Sample Analysis	:	11.11.2024 TO 14.11.2024
Method of Sampling	:	APHA 1060B & 9060A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.21	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510- B:	721.0	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	26.8	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	465.3	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	461.5	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	146.0	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	143.6	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	42.3	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	9.2	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	23.5	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	9.6	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.24	mg/L	-	-

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit.

Review By:
Dr. Ashok Kumar
Technical Manager

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorized Signatory
Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/24/11/09/N-008 ULR NO. TC144552400000617F TEST REPORT ISSUE DATE:14.11.2024

TEST REPORT (WATER)

TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.16	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	43.2	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.20	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit.

Review By:
Dr. Ashok Kumar
Technical Manager

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory
Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/24/11/09/N-009 ULR NO. TC14455240000061 8F TEST REPORT ISSUE DATE: 14.11.2024

TEST REPORT (WATER)

Name and Address of Customer	:	**M/S. BIRLA CORPORATION LIMITED** UNIT- SAGMANIA LIMESTONE MINES (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005, M. P. INDIA
Location of Sample	:	**NEAR MINES TIME OFFICE BOREWELL**
Sample Description	:	GROUND WATER
Date & Time of Sampling	:	07.11.2024 04:00 PM
Sample Collected by	:	VGL STAFF
Weather Condition	:	CLEAR
Laboratory Sample Receiving Date	:	09.11.2024
Duration of Sample Analysis	:	11.11.2024 TO 14.11.2024
Method of Sampling	:	APHA 1060B & 9060A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.25	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510- B:	736.0	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	26.2	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	462.0	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	459.2	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	157.3	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	162.4	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	48.3	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	10.8	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	25.6	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	9.3	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.23	mg/L	-	-

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit.

Review By:
Dr. Ashok Kumar
Technical Manager

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorized Signatory
Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/24/11/09/N-009 ULR NO. TC144552400000618F TEST REPORT ISSUE DATE:14.11.2024

TEST REPORT (WATER)

TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.19	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	36.8	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.25	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit

Review By:
Dr. Ashok Kumar
Technical Manager

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorized Signatory
Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/24/11/09/N-010 ULR NO. TC144552400000619F TEST REPORT ISSUE DATE: 14.11.2024

TEST REPORT (WATER)

Name and Address of Customer	:	**M/S. BIRLA CORPORATION LIMITED** UNIT- SAGMANIA LIMESTONE MINES (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005, M. P. INDIA
Location of Sample	:	**NEAR MINES HEALTH CENTRE BOREWELL**
Sample Description	:	GROUND WATER
Date & Time of Sampling	:	07.11.2024 04:30 PM
Sample Collected by	:	VGL STAFF
Weather Condition	:	CLEAR
Laboratory Sample Receiving Date	:	09.11.2024
Duration of Sample Analysis	:	11.11.2024 TO 14.11.2024
Method of Sampling	:	APHA 1060B & 9060A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.06	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510- B:	635.0	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	25.9	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	432.1	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	428.6	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	132.1	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	142.6	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	36.1	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	12.7	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	20.2	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	8.3	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.11	mg/L	-	-

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit.

Review By:
Dr. Ashok Kumar
Technical Manager

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory
Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/24/11/09/N-010 ULR NO. TC144552400000619F TEST REPORT ISSUE DATE:14.11.2024

TEST REPORT (WATER)

TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.18	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	36.3	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.21	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit.

Review By:
Dr. Ashok Kumar
Technical Manager

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt Ltd.)
Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/WL/25/02/22/001-010 TEST REPORT ISSUE DATE: 28.02.2025

TEST REPORT (WATER LEVEL)

Name & Address of Customer : **M/S. BIRLA CORPORATION LIMITED**
UNIT- SAGMANIA LIMESTONE MIINES
(A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS,
SATNA-485005, M. P. INDIA
Sample Done By : VGL STAFF
Weather Condition : CLEAR

TEST RESULTS

Sr. No.	Locations	Monitoring Date	Unit	Water Level (Below Ground Level)- Meter
1	**Near ANFO Mixing Shelter**	20.02.2025	Meter	**18.32**
2	**Birhuli OH Tank, Sarpanch Gali (Public Water Supply)**	20.02.2025	Meter	**23.24**
3	**Naina Village (Public Water Supply)**	20.02.2025	Meter	**22.54**
4	**Bari Kala (Public Water Supply)**	20.02.2025	Meter	**23.15**
5	**Bhatia Primary School**	20.02.2025	Meter	**24.36**
6	**Piezometer – 1 near Star Gate**	21.02.2025	Meter	**19.24**
7	**Piezometer – 2 near Mines store**	21.02.2025	Meter	**19.25**
8	**Near Mines Main Gate Bore well**	21.02.2025	Meter	**19.36**
9	**Near Mines Time office Bore well**	21.02.2025	Meter	**20.78**
10	**Near Mines Health Center Bore well**	21.02.2025	Meter	**18.36**

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above results are related to the tested sample only.

Review By:
Dr. Ashok Kumar
Technical Manager

Authorized Signatory
VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/25/02/22/001 ULR NO. TC144552500000363F TEST REPORT ISSUE DATE: 28.02.2025

TEST REPORT (WATER)

Name and Address of Customer	:	**M/S. BIRLA CORPORATION LIMITED** UNIT- SAGMANIA LIMESTONE MINES (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005, M. P. INDIA
Location of Sample	:	**NEAR ANFO MIXING SHELTER**
Sample Description	:	GROUND WATER
Date & Time of Sampling	:	07.11.2024 10:30 AM
Sample Collected by	:	VGL STAFF
Weather Condition	:	CLEAR
Laboratory Sample Receiving Date	:	22.02.2025
Duration of Sample Analysis	:	24.02.2025 TO 28.02.2025
Method of Sampling	:	APHA 1060B & 9060A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.84	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510- B:	732.0	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	24.5	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	485.4	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	474.0	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	193.0	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	189.0	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	56.5	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	11.6	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	36.7	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	12.3	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.32	mg/L	-	-

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit.

Review By:
Dr. Ashish Kumar
Technical Manager

Approved Signatory
VIRAT GLOBAL LAB (A Division of Aseries Envirotek India Pvt. Ltd.) Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/25/02/22/001 ULR NO. TC144552500000363F TEST REPORT ISSUE DATE:28.02.2025

TEST REPORT (WATER)

TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.24	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	43.4	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.26	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit.

Review By:

Dr. Ashok Kumar
Technical Manager

Authorized Signatory

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory

D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/25/02/22/002 ULR NO. TC144552500000364F TEST REPORT ISSUE DATE: 28.02.2025

TEST REPORT (WATER)

Name and Address of Customer	:	**M/S. BIRLA CORPORATION LIMITED** UNIT- SAGMANIA LIMESTONE MINES (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005, M. P. INDIA
Location of Sample	:	**BIRHULI OH TANK, SARPANCH GALI (PUBLIC WATER SUPPLY)**
Sample Description	:	GROUND WATER
Date & Time of Sampling	:	07.11.2024 11:20 AM
Sample Collected by	:	VGL STAFF
Weather Condition	:	CLEAR
Laboratory Sample Receiving Date	:	22.02.2025
Duration of Sample Analysis	:	24.02.2025 TO 28.02.2025
Method of Sampling	:	APHA 1060B & 9060A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.51	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510- B:	706	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	27.2	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	478.0	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	462.0	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	166.0	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	167.0	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	48.5	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	11.1	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	26.2	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	10.3	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.50	mg/L	-	-

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit.

Review By:
Dr. Ashok Kumar
Technical Manager

Authorized Signatory
VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
D. K. Yadav
Lab In-charge
Authorised Signatory

TEST REPORT CODE: VGL/W/25/02/22/002 ULR NO. TC144552500000364F TEST REPORT ISSUE DATE:28.02.2025

TEST REPORT (WATER)

TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.28	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	30.4	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.23	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit

Review By:

Dr. Ashok Kumar
Technical Manager

Authorized Signatory

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory

D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/25/02/22/003 ULR NO. TC144552500000365F TEST REPORT ISSUE DATE: 28.02.2025

TEST REPORT (WATER)

Name and Address of Customer	:	**M/S. BIRLA CORPORATION LIMITED** UNIT- SAGMANIA LIMESTONE MINES (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005, M. P. INDIA
Location of Sample	:	**NAINA VILLAGE (PUBLIC WATER SUPPLY)**
Sample Description	:	GROUND WATER
Date & Time of Sampling	:	07.11.2024 12:10 PM
Sample Collected by	:	VGL STAFF
Weather Condition	:	CLEAR
Laboratory Sample Receiving Date	:	22.02.2025
Duration of Sample Analysis	:	24.02.2025 TO 28.02.2025
Method of Sampling	:	APHA 1060B & 9060A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.54	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510- B:	675	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	25.6	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	435.0	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	445.0	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	138.0	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	154.0	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	36.5	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	15.2	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	22.3	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	8.4	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.20	mg/L	-	-

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit.

Review By:

Dr. Ashok Kumar
Tech. Manager

Authorized Signatory

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory

D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/25/02/22/003 ULR NO. TC144552500000365F TEST REPORT ISSUE DATE:28.02.2025

TEST REPORT (WATER)

TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.28	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	31.3	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.15	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit

Review By:

VIRAT GLOBAL LAB (A Division of Aseries Envirotek India Pvt. Ltd.) LUCKNOW

Dr. Ashok Kumar
Technical Manager

Authorized Signatory

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory

D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/25/02/22/004 ULR NO. TC144552500000366F TEST REPORT ISSUE DATE: 28.02.2025

TEST REPORT (WATER)

Name and Address of Customer	:	**M/S. BIRLA CORPORATION LIMITED** UNIT- SAGMANIA LIMESTONE MINES (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005, M. P. INDIA
Location of Sample	:	**BARI KALA (PUBLIC WATER SUPPLY)**
Sample Description	:	GROUND WATER
Date & Time of Sampling	:	07.11.2024 12:40 PM
Sample Collected by	:	VGL STAFF
Weather Condition	:	CLEAR
Laboratory Sample Receiving Date	:	22.02.2025
Duration of Sample Analysis	:	24.02.2025 TO 28.02.2025
Method of Sampling	:	APHA 1060B & 9060A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.84	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510- B:	698	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	25.6	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	465.0	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	457.0	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	148.5	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	155.5	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	39.4	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	13.8	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	35.2	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	9.3	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.42	mg/L	-	-

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit.

Reviewed by:

Dr. Ashish Kumar
Technical Manager

Authorized Signatory

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory

D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/25/02/22/004 ULR NO. TC144552500000366F TEST REPORT ISSUE DATE:28.02.2025

TEST REPORT (WATER)

TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.18	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	36.5	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.18	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit.

Review By:

Dr. Ashok Kumar
Technical Manager

Authorized Signatory

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory

D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/25/02/22/005 ULR NO. TC144552500000367F TEST REPORT ISSUE DATE: 28.02.2025

TEST REPORT (WATER)

Name and Address of Customer	:	**M/S. BIRLA CORPORATION LIMITED** UNIT- SAGMANIA LIMESTONE MINES (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005, M. P. INDIA
Location of Sample	:	**BHATIA PRIMARY SCHOOL**
Sample Description	:	GROUND WATER
Date & Time of Sampling	:	07.11.2024 01:40 PM
Sample Collected by	:	VGL STAFF
Weather Condition	:	CLEAR
Laboratory Sample Receiving Date	:	22.02.2025
Duration of Sample Analysis	:	24.02.2025 TO 28.02.2025
Method of Sampling	:	APHA 1060 B & 9060 A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.25	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510- B:	678	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	26.5	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	448.0	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	437.0	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	138.0	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	148.0	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	30.5	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	17.4	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	25.5	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	10.2	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.52	mg/L	-	-

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit.

Reviewed By:

Dr. Ashish Kumar
Technical Manager

Authorised Signatory

VIRAT GLOBAL LAB (A Division of Aseries Envirotek India Pvt. Ltd.) Authorised Signatory

D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/25/02/22/005 ULR NO. TC144552500000367F TEST REPORT ISSUE DATE:28.02.2025

TEST REPORT (WATER)

TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.21	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	42.6	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.12	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit.

Review By:
Dr. Ashok Kumar
Technical Manager

Authorized Signatory
VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/25/02/22/006 ULR NO. TC144552500000368F TEST REPORT ISSUE DATE:28.02.2025

TEST REPORT (WATER)

Name and Address of Customer	:	**M/S. BIRLA CORPORATION LIMITED** UNIT- SAGMANIA LIMESTONE MINES (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005, M. P. INDIA
Location of Sample	:	**PIEZOMETER – 1 NEAR STAR GATE**
Sample Description	:	GROUND WATER
Date & Time of Sampling	:	07.11.2024 02:30 PM
Sample Collected by	:	VGL STAFF
Weather Condition	:	CLEAR
Laboratory Sample Receiving Date	:	22.02.2025
Duration of Sample Analysis	:	24.02.2025 TO 28.02.2025
Method of Sampling	:	APHA 1060B & 9060A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.51	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510- B:	653	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	26.3	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	428.0	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	422.0	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	134.0	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	132.0	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	46.5	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	3.8	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	32.1	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	10.0	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.33	mg/L	-	-

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit.

Review By:
Dr. Ashok Kumar
Technical Manager

Authorized Signatory
VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/25/02/22/006 ULR NO. TC144552500000368F TEST REPORT ISSUE DATE:28.02.2025

TEST REPORT (WATER)

TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.16	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	32.5	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.14	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit

Prepared By:
Ashok Kumar
Technical Manager

Authorized Signatory
VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/25/02/22/007 ULR NO. TC144552500000369F TEST REPORT ISSUE DATE:28.02.2025

TEST REPORT (WATER)

Name and Address of Customer	:	**M/S. BIRLA CORPORATION LIMITED** UNIT- SAGMANIA LIMESTONE MINES (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005, M. P. INDIA
Location of Sample	:	**PIEZOMETER – 2 NEAR MINES STORE**
Sample Description	:	GROUND WATER
Date & Time of Sampling	:	07.11.2024 03:00 PM
Sample Collected by	:	VGL STAFF
Weather Condition	:	CLEAR
Laboratory Sample Receiving Date	:	22.02.2025
Duration of Sample Analysis	:	24.02.2025 TO 28.02.2025
Method of Sampling	:	APHA 1060 B & 9060 A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.54	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510- B:	701	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	27.5	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	464.0	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	457.0	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	168.0	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	171.0	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	55.5	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	7.9	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	25.1	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	8.2	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.52	mg/L	-	-

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit.

Review By:

Dr. Ashok Kumar
Technical Manager

Authorized Signatory

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory

D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/25/02/22/007 ULR NO. TC144552500000369F TEST REPORT ISSUE DATE:28.02.2025

TEST REPORT (WATER)

TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.23	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	40.4	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.22	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit

Review By:

Dr. Ashok Kumar
Technical Manager

Authorized Signatory

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory

D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/25/02/22/008 ULR NO. TC144552500000370F TEST REPORT ISSUE DATE: 28.02.2025

TEST REPORT (WATER)

Name and Address of Customer	:	**M/S. BIRLA CORPORATION LIMITED** UNIT- SAGMANIA LIMESTONE MINES (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005, M. P. INDIA
Location of Sample	:	**NEAR MINES MAIN GATE BOREWELL**
Sample Description	:	GROUND WATER
Date & Time of Sampling	:	07.11.2024 03:30 PM
Sample Collected by	:	VGL STAFF
Weather Condition	:	CLEAR
Laboratory Sample Receiving Date	:	22.02.2025
Duration of Sample Analysis	:	24.02.2025 TO 28.02.2025
Method of Sampling	:	APHA 1060B & 9060A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.35	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510- B:	678	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	27.5	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	442.2	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	438.3	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	142.0	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	140.3	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	40.4	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	9.5	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	23.2	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	9.2	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.34	mg/L	-	-

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit.

Review By:

Dr. Ashok Kumar
Technical Manager

Authorized Signatory

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)

D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/25/02/22/008 ULR NO. TC144552500000370F TEST REPORT ISSUE DATE:28.02.2025

TEST REPORT (WATER)

TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.13	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	43.2	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.21	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit.

Reviewed by

Dr. Ashok Kumar
Technical Manager

Authorized Signatory

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory

D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/25/02/22/009 ULR NO. TC144552500000371F TEST REPORT ISSUE DATE: 28.02.2025

TEST REPORT (WATER)

Name and Address of Customer	:	**M/S. BIRLA CORPORATION LIMITED** UNIT- SAGMANIA LIMESTONE MINES (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005, M. P. INDIA
Location of Sample	:	**NEAR MINES TIME OFFICE BOREWELL**
Sample Description	:	GROUND WATER
Date & Time of Sampling	:	07.11.2024 04:00 PM
Sample Collected by	:	VGL STAFF
Weather Condition	:	CLEAR
Laboratory Sample Receiving Date	:	22.02.2025
Duration of Sample Analysis	:	24.02.2025 TO 28.02.2025
Method of Sampling	:	APHA 1060B & 9060A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.84	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510- B:	698	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	26.3	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	468.0	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	452.3	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	157.4	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	162.7	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	48.2	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	10.3	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	25.6	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	8.9	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.22	mg/L	-	-

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit.

Reviewed By
Dr. Sanjeev Kumar
Technical Manager

Authorized Signatory
VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/25/02/22/009 ULR NO. TC144552500000371F TEST REPORT ISSUE DATE:28.02.2025

TEST REPORT (WATER)

TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.14	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	36.2	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.23	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit

Review By: **Authorized Signatory**

VIRAT GLOBAL LAB (A Division of Aseries Envirotek India Pvt. Ltd.) LUCKNOW

VIRAT GLOBAL LAB (A Division of Aseries Envirotek India Pvt. Ltd.) Authorised Signatory

Dr. Ashok Kumar
Technical Manager

D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/25/02/22/010 ULR NO. TC144552500000372F TEST REPORT ISSUE DATE: 28.02.2025

TEST REPORT (WATER)

Name and Address of Customer	:	**M/S. BIRLA CORPORATION LIMITED** UNIT- SAGMANIA LIMESTONE MINES (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005, M. P. INDIA
Location of Sample	:	**NEAR MINES HEALTH CENTRE BOREWELL**
Sample Description	:	GROUND WATER
Date & Time of Sampling	:	07.11.2024 04:30 PM
Sample Collected by	:	VGL STAFF
Weather Condition	:	CLEAR
Laboratory Sample Receiving Date	:	22.02.2025
Duration of Sample Analysis	:	24.02.2025 TO 28.02.2025
Method of Sampling	:	APHA 1060B & 9060A

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:1991 (Reaff:2012)	
					Desirable	Permissible
1.	pH at 25° C	APHA 4500 H+A+B	7.35	-	6.5-8.5	No relaxation
2.	Conductivity	APHA 2510- B:	653	µS/cm	-	-
3.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
4.	Temperature	APHA 2550 A+B	26.2	°C	-	-
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Colour	APHA 2120-B	<5.0	Hazen	5	15
7.	Total Solids	APHA 2540-B	424.5	mg/L	-	-
8.	Total Dissolved Solids	APHA2540-C	422.3	mg/L	500	2000
9.	Alkalinity	APHA 2320-A+ B	127.5	mg/L	200	600
10.	Total Hardness	APHA 2340 A+C	135.4	mg/L	200	600
11.	Calcium	APHA 3500 Ca- A+B	32.3	mg/L	75	200
12.	Magnesium	APHA 3500 Mg A+B	13.3	mg/L	30	100
13.	Sulfate	APHA 4500-SO42-E	20.8	mg/L	200	400
14.	Nitrate	APHA 4500-NO3- B	8.4	mg/L	45.0	-
15.	Phosphate	APHA 4500-P- D	0.10	mg/L	-	-

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit.

Prepared By:
Ashok Kumar
Technical Manager

Authorized Signatory
VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/W/25/02/22/010 ULR NO. TC144552500000372F TEST REPORT ISSUE DATE:28.02.2025

TEST REPORT (WATER)

TEST RESULTS

16.	Iron	APHA 3500 Fe B	0.14	mg/L	0.3	No relaxation
17.	Chloride	APHA 4500 Cl A+B	33.2	mg/L	250	1000
18.	Fluoride	APHA 4500-C	0.22	mg/L	1.0	1.5
19.	Zinc	APHA 3111 A+B	< 0.02	mg/L	5	15
20.	Total Chromium	APHA 3111 A+B	<0.01	mg/L	0.05	No relaxation
21.	Total Coliform Count	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	
22.	Fecal coliform	IS 1622:1981, 2019	Absent	MPN/100 ML	Shall not be detectable in 100 ml.	

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above Results are related to the tested sample only.
5. BDL: Below detection limit.

Review By:

Dr. Ashok Kumar
Technical Manager

Authorized Signatory

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory

D. K. Yadav
Lab In-charge

Event Report

Date/Time	Vert at 14:42:06 March 10, 2025
Trigger Source	Geo: 0.127 mm/s
Range	Geo: 254.0 mm/s
Record Time	3.0 sec at 4096 sps
Operator/Setup:	Operator/factory.MMB

Serial Number	UM22445 V 10-90GC Micromate ISEE
Battery Level	3.6 Volts
Unit Calibration	July 27, 2024 by UES New Delhi
File Name	UM22445_20250310144206.IDFW

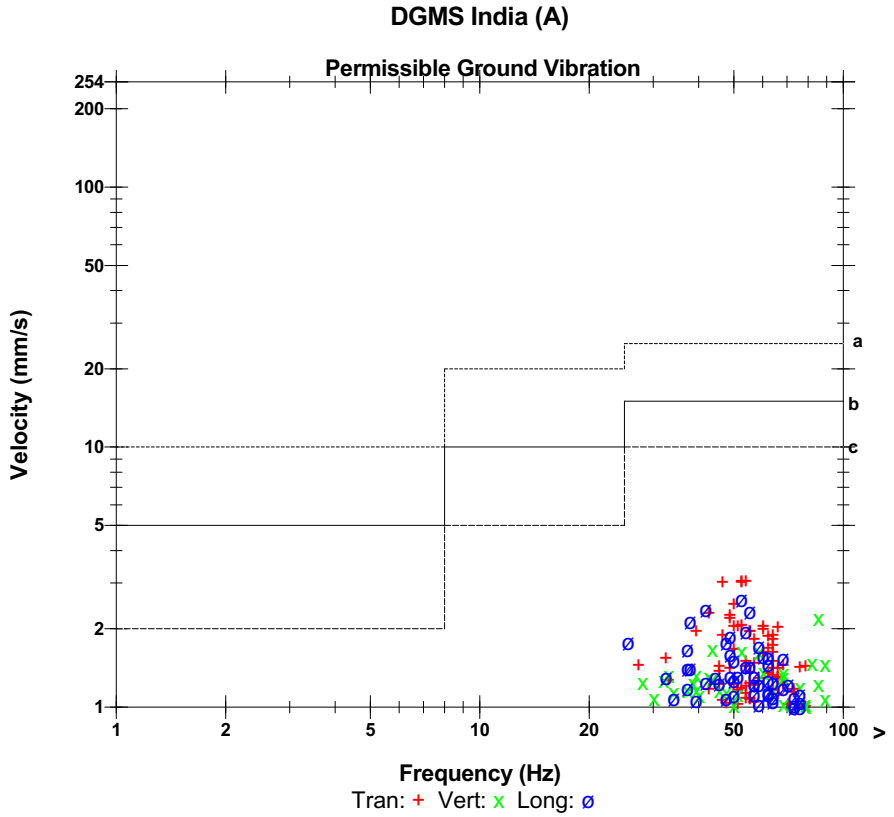
Notes
Location:
Client:
User Name:
General:

Post Event Notes
A Q II Puraini WM
Distance from blasting site to monitoring station-150m
Max. ch./delay-21.18kg.

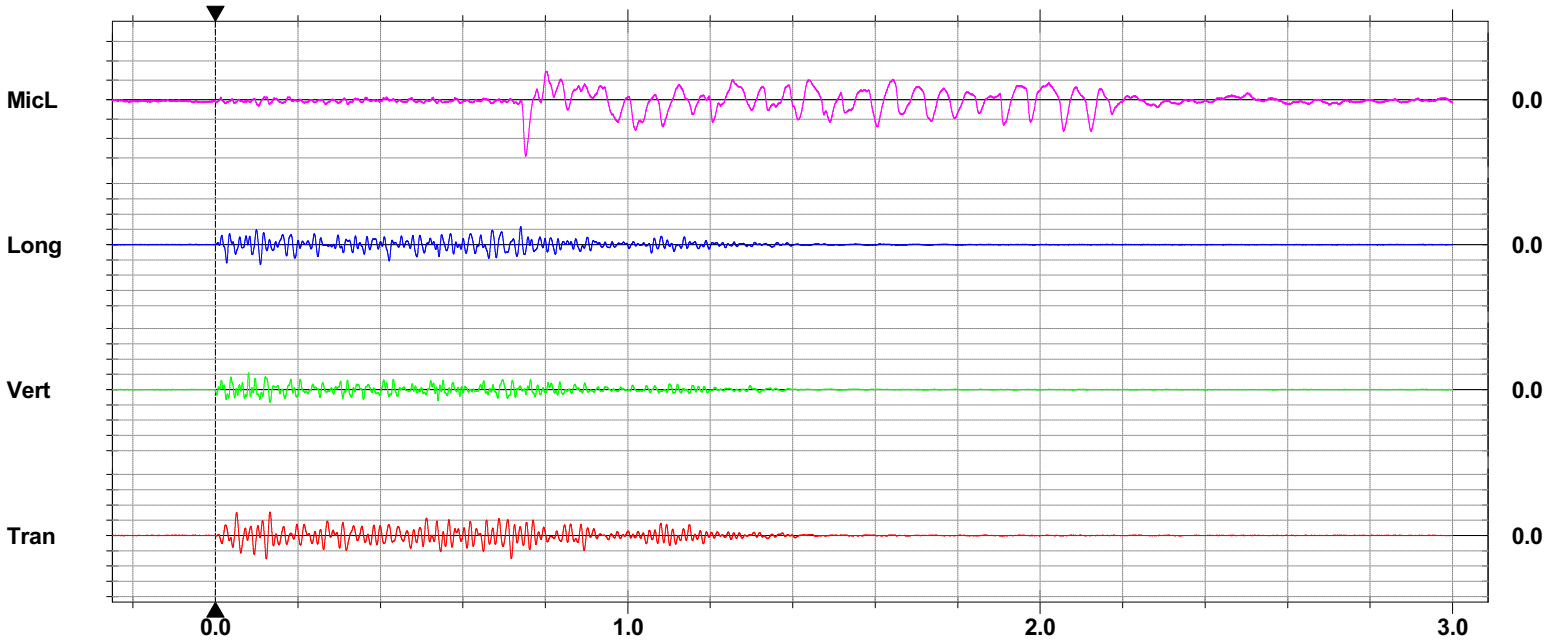
Microphone	Linear Weighting
PSPL	103.3 dB(L) at 0.752 sec
ZC Freq	17.2 Hz
Channel Test	Passed (Freq = 19.7 Hz Amp = 1148 mv)

	Tran	Vert	Long	
PPV	3.066	2.191	2.601	mm/s
ZC Freq	53	85	53	Hz
Time (Rel. to Trig)	0.132	0.080	0.109	sec
Peak Acceleration	0.122	0.118	0.099	g
Peak Displacement	0.010	0.007	0.007	mm
Sensor Check	Passed	Passed	Passed	

Peak Vector Sum 3.499 mm/s at 0.132 sec



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



Time Scale: 0.20 sec/div **Amplitude Scale:** Geo: 2.000 mm/s/div Mic: 1.000 pa.(L)/div
Trigger = ▶----------◀

Format © 1995-2015 Xmark Corporation

M.P. Pollution Control Board

E-5, Arera Colony Paryavaran Parisar, Bhopal - 16 MP Tele : 0755-2466191, Fax-0755-2463742

Consent Order

RED-LARGE | **CCA-Renewal** | **PCB ID: 19445**

Outward No:122115,05/02/2025 Consent No:AW-61699

To,
The Occupier,
M/s. Birla Corporation Ltd.(Sagmania Lime Stone Mines),
Village:- Sagmania, Tehsil- Raghurajnagar, Dist. Satna (M.P.),
Latitude : 24.6257 Longitude : 80.8934

Subject: **Grant of Renewal of Consent under section 25 of the Water (Prevention & Control of Pollution) Act,1974 under section 21 of the Air (Prevention & Control of Pollution) Act,1981**

Ref: **Renewal of Consent Application R No. 1401721 Dt. 26/12/2024 and last communication received on Dt.23/01/2025**

With reference to your above application for Renewal of Consent has been considered under the aforesaid Acts and existing rules therein. The M. P. Pollution Control Board has agreed to grant consent up to **31/03/2027,** subject to the fulfillment of the terms & conditions, enclosed with this letter and-

SUBJECT TO THE FOLLOWING CONDITIONS :-

a. Location: **Village:- Sagmania, Tehsil- Raghurajnagar, Dist. Satna (M.P.)**

b. Mining Lease area: **939.78 Hect.**

c. Product & Production Capacity:

Activity / Product	Qty / year
Mining of Limestone	4.90 Million Ton Per year

(1) **For any change in above industry shall obtain fresh consent from the Board. Grant of this Consent & Authorisation do not indicate that Mine Management has not violated any Environmental laws in past, Hence What so ever may be the decision of the Hon'ble court shall be binding on Mine Management & this Board.**

(2) **PP shall ensure that mining is done in sanctioned lease area as per valid mining plan presently approved by Regional Controller of Mines IBM Jabalpur for period till 31.03.2026 vide letter No. RMP-22/20-21/3482 dated 24.12.2020 & PP to ensure that mining after 31.03.26 shall be done after the IBM grants approval of the mining plan for period beyond 31.03.2026. PP shall ensure compliance of the conditions laid in EC granted by MOEF & CC vide No. J-11015/271/2006- IA. II (M.) dated 27.12.2007. If EC is granted without Public hearing, then PP shall ensure revision of this EC in time bound manner through the MoEF&CC GOI, in compliance of the directives given by The Hon ble NGT & the Supreme Court of India in this regard.**

(3) **The project proponent shall follow the mitigation measures as provided in the MoEFCC GoI OM No. Z-11013/5712014-IA.II(M) dated 29thOctober 2014, titled ' Impact of mining activities on habitations - issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations & villages are surrounded by the mine lease area.' PP shall also have to abide by the directives of Hon. Supreme Court/High Court/NGT and as incorporated in EC granted by the MoEF&CC /SEIAA regarding providing offset from the roads (kuchha or pucca) and development of plantations/green belt.**

(4) **PP shall have to abide by the directives of Hon. Supreme Court/High Court/NGT and as incorporated in the EC granted by the MoEF&CC / SEIAA, pertaining to distance of mining activity from any residential/public buildings, inhabited sites, National/State Highways/district roads, Railway lines/area, ropeways, bridges, dams /reservoirs or any other water body. Mining to be done as per the site specific guidelines of the DGMS & Explosives department of the GOI . The regulations for danger zone (500 Metres) prescribed by Directorate General of Mines Safety shall also be complied compulsorily and necessary measures should be taken to minimise the impact of mining generated dust, noise and vibrations on the environment.**

(5) **Solid waste generated during mining process shall be stacked at earmarked site which shall be properly surrounded by garland drains & settling pits of adequate sizes so that no Soil/Silt/waste rock is discharged outside the mine lease area/ nearby water body blocking the natural flow of any nallah/river/pond. Top Soil / OB dump shall be biologically reclaimed.**

(6) **Evacuation of mineral shall not be through any village or forest area. PP shall provide pucca (Concreted/Ashphalted) approach road from main road to the mine site & ensure thick plantation on both side of this road to prevent dust/noise pollution.**

(7) **The dust generated during transportation of mineral & deposited on Approach/Haul roads shall be regularly removed by the road sweeping machines & suppressed by intermittent sprinkling of water on roads using pressurized water tankers of adequate capacity. PP shall practice regular compaction of loose material of haulage road & regular water sprinkling shall be done for control of generated fugitive emissions. Main haulage Road shall be provided with mist forming permanent water sprinklers on both sides to ensure control of dust during mineral transportation.**

The Validity of the consent is up to **31/03/2027** and has to be renewed before expiry of consent validity. Online application through XGN with annual license fees in this regard shall be submitted to this office 6 months before expiry of the consent/Authorization. Board reserves the right to amend/cancel / revoke the above condition in part or whole as and when required.

Enclosures:-

*** Conditions under Water Act* Conditions under Air Act* General conditions**

By the order of Chairman, MPPCB

CC to :- 1.District Mining Officer, (Mining Section), Collector office, **Satna** Dist. **Satna** (M.P.) for information.
2.Director, Geology & Mining Khanij Bhawan 29-A, Arera Hills, , Bhopal (M.P.) for necessary action
3.Regional officer, Regional office, MPPCB, **Satna** (M.P.)

Achyut mishra

ACHYUT ANAND MISHRA
Member Secretary

(Organic Authentication on AADHAR from UIDAI Server)
TPAV # XFPSWMLX3Q

CONDITIONS PERTAINING TO WATER (PREVENTION & CONTROL OF POLLUTION) ACT 1974 :-

Sector Specific Water condition:-

1 Mines shall take effective steps to check the soil erosion from waste material dumping area to prevent silt ation problem in near by nalla/river pond during rainy season. All the slopes of external dumps of over burden should be maintained at a maximum of 28 degrees. The check bunds shall be constructing for control of surface run off .

2 a. Arrangements for overhead sprinklers with solar pumps / water tankers should be provided for dust suppression at the exit of the lease area and fixed types sprinklers on the evacuation road.

b. Mine water should not be discharged from the lease and be used for sprinkling & plantations. For surface runoff and storm water garland drains and settling tanks of suitable sizes shall be provided.

c. Mine shall have to take effective steps to check the soil erosion from over burden/waste material dumping area, causing silting problem into nearby nallah/ river/ pond during the rainy season. Mine shall have to inform about the progress regularly to the Board.

d. All garland drains shall be connected to settling tanks through settling pits and settled water shall be used for dust suppression, green belt development and other beneficial purposes..

e. Regular de-silting of drains and pits should be carried out. Adequate provisions of water for irrigating the plantations shall be made by PP.

3 Water sprinkling with adequately designed nozzle which produces tiny droplets of water should be provided during raw materials unloading.

4 a. PP shall ensure that blasting is done in compliance of various directives issued by Department of Explosives Govt. Of India. No mining to be done within 100 meters of any residential housing establishment.

b. Controlled blasting should be practiced with use of delay detonators only during day time between 10.0 AM to 4.0 PM.

c. To avoid vibration, no overcharging shall be carried out during blasting, and muffle blasting shall be adopted.

d. Top soil/solid waste shall be stacked with proper slope and adequate safeguards; it shall be utilized for backfilling (wherever applicable) for reclamation and rehabilitation of mined out area.

e. Top soil shall be separately stacked for biological reclamation and shall not be stacked along with over burden. Top soil shall be simultaneously used for plantations within the lease area and no OB/dump shall be stacked outside the lease area.

1. The daily quantity of trade effluent of the unit shall not exceed 0.000 KL/day, and the daily quantity of sewage of the unit shall not exceed 5.500 KL/day.

2. Trade Effluent Treatment:-

The applicant shall operate and maintain effluent treatment system properly to achieve following standards-

pH	Between	5.5 – 9.0
Suspended Solids	Not exceed	100 mg/l.
BOD_3 Days 27 ^0C	Not exceed	30 mg/l.
COD	Not exceed	250 mg/l.
Oil and grease	Not exceed	10 mg/l.

TDS	Not exceed	2100 mg/l.
Chlorides	Not exceed	1000 mg/l.

For other parameters general standards of discharge as notified under EP Act 1986 shall be applicable.

3. Sewage Treatment :- The applicant shall operate and maintain Sewage Treatment System properly to achieve following standards-

pH	Between	5.5 – 9.0
Suspended Solids	Not exceed	100 mg/l.
BOD_3 Days 27 ^0C	Not exceed	30 mg/l.
COD	Not exceed	250 mg/l.
Oil and grease	Not exceed	10 mg/l.
fecal coliform	Not exceed	1000 MPN/100 ml

Sr	Water Code (Qty in klpd - Kilo Ltr per Day)	WC 500.000	WWG : 5.500	Water Source	Remark
1	Domestic Purpose	6.000	5.500	Borewell	Eff .treated through Septic Tank Soak pit.
2	Dust Suppression	290.000	0.000	Mine Water	Mine pit water to be used on priority.`
3.	Plantation/Other	204.000	0.000	Mine Water	plantation, mine spray & supply to colony/plant.

4. The effluent shall be treated up to prescribed Standards and reuse in the process, for cooling and for green belt devolvement/gardening within premises. Hence zero discharge condition shall be practiced. In no case treated effluent shall be discharged outside of industry/unit premises.

5. Any change in production capacity, process, raw material used etc. and for any enhancement of the above prior permission of the Board shall be obtained. All authorized discharges shall be consistent with terms and conditions of this consent. Facility expansions, production increases or process modifications which result new or increased discharges of pollutants must be reported by submission of a fresh consent application for prior permission of the Board.

6. All treatment/control facilities/systems installed or used by the applicant shall be regularly maintained in good working order and operate effectively/efficiently to achieve compliance of the terms and conditions of this consent

7. The Consent does not authorize or approve the Construction of any physical structures or facilities or the undertaking of any work in any water course or within its high flood level (HFL) area

8. The specific effluent limitations and pollution control systems applicable to the discharge permitted herein are set forth as above conditions.

9. Compilation of Monitoring data-
i. Samples and measurements taken to meet the monitoring requirements specified above shall be representative of the volume and nature of monitored discharge. ii. Following promulgation of guidelines establishing test procedures for the analysis of pollutants, all sampling and analytical methods used to meet the monitoring requirements specified above shall conform to such guidelines unless otherwise specified sampling and analytical methods shall conform to the latest edition of the Indian Standard specifications and where it is not specified the guidelines as per standard methods for the examination of Water and Waste latest edition of the American Public Health Association, New York U.S.A. shall be used.

10. Recording of Monitoring Activities & Results-
i. The applicant shall make and maintain online records of all information resulting from monitoring activities by this Consent.
ii. The applicant shall record for each measurement of samples taken pursuant to the requirements of this Consent as follows:

(i) The date, exact place and time of sampling
(ii) The dates on which analysis were performed
(iii)Who performed the analysis?
(iv)The analytical techniques or methods used and
(v)The result of all required analysis

iii. If the applicant monitors any Pollutant more frequently as is by this Consent he shell include the results of such monitoring in the calculation and reporting of values required in the discharge monitoring reports which may be prescribed by the Board. Such increased frequency shall be indicated on the Discharge Monitoring Report Form.
iv. The applicant shall retain for a minimum of 3 years all records of monitoring activities including all records of Calibration and maintenance of instrumentation and original strip chart regarding continuous monitoring instrumentation. The period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the applicant or when requested by Central or State Board or the court.

11. Reporting of Monitoring Results:-
Monitoring Information required by this Consent shall be summarized and reported by submitting a Discharge Monitoring report on line to the Board.

12. Limitation of discharge of oil Hazardous Substance in harmful quantities:-
The applicant shall not discharge oil or other hazardous substances in quantities defined as harmful in relevant regulations into natural water course. Nothing in this Consent shall be deemed to neither preclude the institution of any legal action nor relive the applicant from any responsibilities, liabilities, or penalties to which the applicant is or may be subject to clauses.

13. Limitation of visible floating solids and foam:
During the period beginning date of issuance the applicant shall not discharge floating solids or visible foam.

14. Disposal of Collected Solid waste/sludge-
All hazardous waste/sludge shall be disposed of as per the Authorization issued under Hazardous & other waste (M&TM) Rules 2016. And/other Solids Sludge, dirt, silt or other pollutant separated from or resulting from treatment shall be disposed of in such a manner as to prevent any pollutant from such materials from entering any such water Any live fish, Shall fish or other animal collected or trapped as a result of intake water screening or treatment may be returned to eaters body habitat.

15. Provision for Electric Power Failure-
The applicant shall assure to the consent issuing authority that the applicant has installed or provided for an alternative electric power source sufficient to operate all facilities utilized by the applicant to maintain compliance with the terms and conditions of the Consent.

16. Prohibition of Bypass system of treatment facilities-
The diversion or by-pass of any discharge from facilities utilized by the applicant to maintain compliance with the terms and conditions of this Consent is prohibited except:
i. where unavoidable to prevent loss of life or severe property damage, or
ii. Where excessive storm drainage or run off would damage any facilities necessary for compliance with the terms and conditions of this Consent. The applicant shall immediately notify the consent issuing authorities in writing of each such diversion or by-pass in accordance with the procedure specified above for reporting non-compliance.

17. Industry/Institute/mine management shall submit the information online through XGN in reference to compliance of consent conditions.

CONDITIONS PERTAINING TO AIR (PREVENTION & CONTROL OF POLLUTION) ACT 1981 :-

1. The applicant shall operate and maintain air pollution control system to achieve the level of pollutants to the following standards:-

Name of section	Capacity	Control equipment to be installed	SPM/RSPM/SO2/NOx (Time weighted Average)* (µg/Nm3)
Loading-unloading, Haul road, Transportation etc,	**Fugitive Emission**	**Dust Collector, Dust Suppressor, Green Belt, Water Sprinkler, Wind Breaking Wall,**	**Annual average : 430 / 215/80/80 24 hour average : 600/300/120/120**

2. The Ambient air quality norms are prescribed in MoEF gazette notification no. GSR/826(E), dated: 16/11/09. Some of the parameters are as follows:
a. Particulate Matter (less than 10 micron) - 100 µg/m³ (PM10 µg/m³ 24 hrs. basis)
b. Particulate Matter (less than 2.5 micron) - 60 µg/m³ (PM2.5 µg/m³ 24 hrs. basis)
c. Sulphur Dioxide [SO2] (24 hrs. Basis) - 80 µg/m³
d. Nitrogen Oxides [NOx] (24 hrs. Basis) - 80 µg/m³
e. Carbon Monoxide [CO] (8 hrs. Basis) - 2000 µg/m³

3. The industry shall take adequate measures for control of noise level generated from industrial activities within the premises less than 75 dB(A) during day time and 70 dB(A) during night time.

4. The industry/unit shall make the necessary arrangements for control of the fugitive emission from any source of emission/section/activities.

5. All other fugitive emission sources such as leakages, seepages, spillages etc shall be ensured to be plugged or sealed or made airtight to avoid the public nuisance.

6. The industry/ unit shall ensure all necessary arrangements for control of odour nuisance from the industrial activities or process within premises

7. All the internal roads shall be made pucca to control the fugitive emissions of particulate matter generated due to transportation and internal movements. Good housekeeping practices shall be adopted to avoid leakages, seepages, spillages etc.

8. Industry shall take effective steps for extensive tree plantation preferably in 03 rows of the local tree species with minimum spacing of 2X2 meters within or around the industry/unit premises for general improvement of environmental conditions and as stated in below.

Sector Specific Air condition:-

1 Controlled blasting should be practiced with the use of delay detonators and only during daytime. The meditative measures for control of ground vibrations and to arrest the fly rocks and boulders should be implemented. Only wet drilling of holes shall be practiced.

2 Extensive tree plantation shall be carried out in open area available within and around the mine premises and also over burden dumps in consultation with expert agency; Good housekeeping practice shall be adopted.

3 The mine management shall take preventive measures to control Fugitive dust emission from all the sources should be controlled effectively and duly monitored.

4 Water spraying arrangement on haul roads, dump trucks (loading & unloading) point should be provided and properly maintained.

5 Mines management shall have to make suitable arrangement for handling and disposal of solid waste, over burden etc.

6 Vehicular emissions should be kept under control and regularly monitored for compliance of emission norms. Vehicles used for transporting the mineral should be covered with tarpaulins and optimally loaded.

GENERAL CONDITIONS:

1. The non hazardous solid waste arresting in the industry/unit/unit premises sweeping, etc. be disposed off scientifically so as not to cause any nuisance/pollution. The applicant shall take necessary permission from civic authorities for disposal to dumping site. If required.

Non Hazardous Solid wastes:-

Type of waste	Quantity	Disposal
Scrap/ Plastic packing material wood, card board, gunny bags etc		Re-Use/Sale to M.P. Pollution Control Board's authorized party

2. The applicant shall allow the staff of Madhya Pradesh Pollution Control Board and/or their authorized representative, upon the representation of credentials:

a. To inspect raw material stock, manufacturing processes, reactors, premises etc to perform the functions of the Board.
b. To enter upon the applicant's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this Consent.
c. To have access at reasonable times to any records required to be kept under the terms and conditions of this Consent.
d. To inspect at reasonable times any monitoring equipment or monitoring method required in this Consent: or,
e. To sample at reasonable times any discharge or pollutants.

3. This consent / authorisation is transferable in nature, in case of any change in ownership / management, the new owner / partner / directors / proprietor shall immediately apply for the consent with new requisite information.

4. The issuance of this Consent does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorise any invasion of personal rights, nor any infringement of Central, State or local laws or regulations.

5. This consent is granted in respect of Water pollution control Act 1974 or Air Pollution Control act, 1981 or Authorization under the provisions of Hazardous and other Waste (Management & Transboundary movement) Rules 2016 only and does not relate to any other Department/Agencies. License required from other Department/Agencies have to be obtained by the unit separately and have to comply separately as per there Act / Rules.

6. Balance consent/authorisation fee, if any shall be recoverable by the Board even at a later date.

7. The applicant shall submit such information, forms and fees as required by the board not letter than 180 day prior to the date of expiration of this consent/authorisation

8. Knowingly making any false statement for obtaining consent or compliance of consent conditions shall result in the imposition of criminal penalties as provided under the section 42(g) of the Water Act or section 38 (g) of the Air Act.

9. After notice and opportunity for the hearing, this consent may be modified, suspended or revoked by the Board in whole or in part during its term for cause including, but not limited to, the following:

(a) Violation of any terms and conditions of this Consent.
(b) Obtaining this Consent by misrepresentation of failure to disclose fully all relevant facts.
(c) A change in any condition that requires temporary or permanent reduction or elimination of the authorized discharge.

10. This consent may not be taken as a measures of proof that mine has not violated pollution control law at any period of time in the past.

11. Mine Management shall comply with all the relevant Acts/Rules, directions, guidelines issued by MoEF/CPCB/ MPPCB from time to time as required and (if applicable).

12. Mine Management shall comply with the direction of Hon'ble Supreme Court, National Green Tribunal & Hon;b le High Court issued in the relevant writ petitions.

13. Mine shall have to close down mining activities in case there is any public complaint regarding health & environmental degradation and Board find the facts correct and direct the mine to do so at any time.

14. On violation of any of the above-mentioned conditions the consent granted will automatically be taken as canceled and necessary action will be initiated against the industry.

Consent/authorization as required under the Water (Prevention & Control of Pollution) Act, 1974, The Air (Prevention & Control of Pollution) Act, 1981 is granted to your industry subject to fulfillment of all the conditions mentioned above. For renewal purpose you shall have to make an application to this Board through XGN at least Six months before the date of expiry of this consent/authorisation. The applicant without valid consent (for operation) of the Board shall not bring in to use any outlet for the discharge of effluent and gaseous emission.

By the order of Chairman, MPPCB
For and on behalf of
M.P. Polluti

Achyut mishra

ACHYUT ANAND MISHRA
Member Secretary

(Organic Authentication on AADHAR from UIDAI Server)
TPAV # XFPSWMLX3Q

Consent No:AW-61699

REPORT DATE :13/04/2024

DETAILED DIESEL REPORT

DEALER CODE : BIRLA/01

DEALER NAME : BIRLA CORPORATION LIMITED UNIT SATNA

ADDRESS : BIRLA CORPORATION LIMITED UNIT SATNA CEMENT

For Duration from : MM/DD/YYYY- 13/04/24 to 12/10/24,14/04/2024 to 13/10/2024 PUC Checked From:00047/00067/From- 00068/00090

PTC No.	V. Reg. No.	Test Date Time	Valid UpTo	Make	Model	Category	Reg. Year	% HSU	Result
47	MP19GA0847	13/04/2024 08:07AM	12-10-2024	TATA MOTORS	EXPLOSIVE 1613	TRUCK	06-11-2009	52.04%	PASS
48	MP19GA1091	13/04/2024 08:12AM	12-10-2024	TATA MOTORS	TATA 407 BS2	MINI TRUCK	23-12-2010	45.40%	PASS
49	MP19GA2737	13/04/2024 08:19AM	12-10-2024	TATA MOTORS	TATA 407 BS4	MINI TRUCK	21/11/2014	41.60%	PASS
50	MP19GA3725	13/04/2024 08:26AM	12-10-2024	TATA MOTORS	TATA 407 BS4	MINI TRUCK	16-10-2017	30.60%	PASS
52	MKA-9708 (NO-1)	13/04/2024 08:55AM	12-10-2024	TATA MOTORS	EXPLOSIVE VAN-1210 S	TRUCK	02-10-1989	62.90%	PASS
56	MP19-9845 (NO-2)	13/04/2024 09:10AM	12-10-2024	HMT	TRACTOR	TRACTOR	14/11/1991	62.03%	PASS
57	MBA-7239	13/04/2024 09:18AM	12-10-2024	FORD	TRACTOR	TRACTOR	14/10/1983	60.05%	PASS
58	MP19AB2956	13/04/2024 09:18AM	12-10-2024	ESCORT	FARM TRACTOR NO.1	TRACTOR	15-01-2009	54.04%	PASS
59	MP19AB4177	13/04/2024 09:48AM	12-10-2024	ESCORTS	FARM TRACTOR 65	TRACTOR	03-05-2011	38.04%	PASS
61	VOLVO NO-1	13/04/2024 10:30AM	12-10-2024	VOLVO	EC750 DL	VOLVO	24-11-2016	40.06%	PASS
62	VOLVO NO-2	13/04/2024 10:52AM	12-10-2024	VOLVO	EC750 DL	VOLVO	22-11-2019	22.04%	PASS
63	DOZER NO-10	13/04/2024 11:10AM	12-10-2024	KOMATSU	D155A	DOZER	07-12-2006	50.02%	PASS
64	DOZER NO-12	13/04/2024 11:21AM	12-10-2024	KOMATSU	D155A	DOZER	16/03/2009	51.01%	PASS
65	DOZER NO-13	13/04/2024 11:32AM	12-10-2024	KOMATSU	D155A	DOZER	16/03/2009	55.09%	PASS

66	DOZER NO-14	13/04/2024 11:42AM	12-10-2024	CAT	D8R	DOZER	09-12-2011	54.03%	PASS
67	DOZER NO-15	13/04/2024 11:52AM	12-10-2024	CAT	D8R	DOZER	19/12/2013	45.04%	PASS
68	DRILL NO-7	14/04/2024 12:12PM	13-10-2024	ATLAS COPCO	IR IBH-10	DRILL	06-11-2000	58.07%	PASS
69	DRILL NO-9	14/04/2024 12:26PM	13-10-2024	ATLAS COPCO	IR IBH-10	DRILL	04-05-2004	40.08%	PASS
70	DRILL NO-10	14/04/2024 12:39PM	13-10-2024	ATLAS COPCO	ATLAS COPCO IBH-12	DRILL	18/10/2005	58.03%	PASS
71	DRILL NO-11	14/04/2024 12:49PM	13-10-2024	ATLAS COPCO	ATLAS COPCO IBH-12	DRILL	18/06/2008	50.80%	PASS
72	DRILL NO-12	14/04/2024 01:09PM	13-10-2024	ATLAS COPCO	ROC L8	DRILL	11-03-2012	45.12%	PASS
73	EXCAVATOR P-5	14/04/2024 01:22PM	13-10-2024	L&T	L&T 300 CK	EXCAVATOR	16-04-2009	48.55%	PASS
74	EXCAVATOR PC-1	14/04/2024 01:33PM	13-10-2024	KOMATSU	K-PC1250-7	EXCAVATOR	14-07-2009	47.02%	PASS
75	LOADER NO-9	14/04/2024 01:46PM	13-10-2024	CAT	20-21 Z BAR	LOADER	09-09-2008	53.19%	PASS
76	LOADER	14/04/2024 02:16PM	13-10-2024	CAT	LWL988H	LOADER	05-10-2011	51.28%	PASS
77	ROCK BREAKER-3	14/04/2024 02:35PM	13-10-2024	L&T	90CK	ROCK BREAKER	00/12/2005	55.24%	PASS
78	ROCK BREAKER-4	14/04/2024 02:48PM	13-10-2024	L&T	90CK	ROCK BREAKER	08-12-2008	45.55%	PASS
79	ROCK BREAKER-5	14/04/2024 03:08PM	13-10-2024	L&T	300CK	ROCK BREAKER	28-03-2011	51.45%	PASS
80	TATA HITACHI	14/04/2024 03:22PM	13-10-2024	TATA HITACHI	ZX650H	TATA HITACHI	06-12-2013	52.14%	PASS
81	CAT DUMPER NO-2	14/04/2024 03:35PM	13-10-2024	CATERPILLAR	CAT773D	CAT DUMPER	18-12-2008	45.43%	PASS
82	CAT DUMPER NO-3	14/04/2024 03:47PM	13-10-2024	CATERPILLAR	CAT773D	CAT DUMPER	19-01-2009	40.27%	PASS
83	CAT DUMPER NO-4	14/04/2024 03:57PM	13-10-2024	CATERPILLAR	CAT773E	CAT DUMPER	24-02-2011	42.26%	PASS

84	CAT DUMPER NO-5	14/4/2024 04:07PM	13-10-2024	CATERPILLAR	CAT773E	CAT DUMPER	24-02-2011	53.42%	PASS
85	CAT DUMPER NO-6	14/04/2024 04:17PM	13-10-2024	CATERPILLAR	CAT773E	CAT DUMPER	14-03-2011	56.45%	PASS
86	CAT DUMPER NO-7	14/04/2023 04:17PM	13-10-2024	CATERPILLAR	CAT773E	CAT DUMPER	16-01-2017	38.61%	PASS
87	CAT DUMPER NO-8	14/04/2024 04:30PM	13-10-2024	CATERPILLAR	CAT773E	CAT DUMPER	18-01-2018	29.24%	PASS
88	CAT DUMPER NO-9	14/04/2024 04:48PM	13-10-2024	CATERPILLAR	CAT773E	CAT DUMPER	18-02-2019	24.16%	PASS
89	CAT DUMPER NO-10	14/04/2024 05:18PM	13-10-2024	CATERPILLAR	CAT773E	CAT DUMPER	25-03-2022	16.29%	PASS
90	CAT DUMPER NO-1	14/04/2024 05:38PM	13-10-2024	CATERPILLAR	CAT773D	CAT DUMPER	18-12-2008	56.76%	PASS

	MP19CB1866	07/11/2023 07:40AM	13-10-2024	MAHINDRA & MAHINDRA	JEEP	JEEP	04-06-2015	47.77%	PASS
	MP19CA7115	07/11/2023 08:09AM	13-10-2024	MAHINDRA & MAHINDRA	XYLO	CAR	28/02/2013	34.58%	PASS
	MP19CA9591	07/11/2023 08:21AM	13-10-2024	MAHINDRA & MAHINDRA	BOLERO EX BS3	JEEP	13-12-2013	40.66%	PASS
	MP19L0369	07/11/2023 08:22AM	13-10-2024	TATA MOTORS	WINGER BS2	JEEP	14-10-2009	46.89%	PASS
	MP19CC6297	07/11/2023 08:34AM	13-10-2024	MAHINDRA & MAHINDRA	BOLERO B6 (O) BS6	JEEP	16-02-2021	19.10%	PASS
	MP19CB6624	07/11/2023 08:35AM	13-10-2024	MAHINDRA & MAHINDRA	BOLERO EX BS4	JEEP	31-08-2017	27.26%	PASS
	MP19CA8438	07/11/2023 08:37AM	13-10-2024	MAHINDRA & MAHINDRA	BOLERO EX BS3	JEEP	18-02-2013	44.88%	PASS
NEW VEHICLE (BS-6)	MP19ZB9515	08/05/2023 1:20PM	13-10-2024	MAHINDRA & MAHINDRA	SCORPIO CLASSIC S MT 7S	JEEP	27-02-2023		PASS
							TOTAL :		**47**

M.P. Pollution under control certificate

(ALL INDIA VALID)

(authorized by transport department govt. of m.p.certified that the vehicleco. Initial level conform to the

Prescribed under rule 115 (2) of cmv rule 1989)

CENTRE NAME : PREM MOBILE PUC CENTRE

COMPUTERISED EMISSION TEST CERTIFICATE (Rule163 B(3) OF BMV 1992)

S.NO:04025

100 RS	150 RS	250 RS	300 RS	500 RS

CENTRE NAME:PREM MOBILE PUC CENTRE
Near RTO OFFICE KARGIL DHABA SATNA.(M.P)

Pollution Checking Centre Code Number

P	U	C	0	7	S	T	N	2	0	2	3	

Type of Vehicle		Accurate Limit	Measure Limit
Emission by petrol vehicle to ideling c.e.o limit	2/3 vehicle wheel	Volume of 4.5%	
	4 wheeler vehicle	volume of 3%	
Density of all vehicle implication dicenaree	volume of dicenaree	65% volume of hydric unit	54.04%
	C.O.	14 gm/kwh	
	H.C -	35 gm/kwh	
	N.O.	gm/kwh	

DIST.--------SATNA
VEHICLE REGI. NO.-----CAT DUMPER NO.2
OWNER NAME—---M/S BIRLA CORPORATION LTD
MAKE—----------CATERPILLAR
MODEL----------CAT773E
Catogery----------HGV
YEAR----------2008
Checking fees ----------500RS
Checkingdate----------14/10/2024
Time----------01:15PM
Fuel uses----------DIESEL
Validity----------13/04/2025

चालित वाहन प्रदूषण जाँच केन्द्र सतना (म.प्र.) प्रेमचन्द साहू

Again checking the vehicle after 90 days, then any problem
For you to please contact transport department.

Authorized by
MR. PREMCHANDRA SAHU

M.P. Pollution under control certificate

(ALL INDIA VALID)

(authorized by transport department govt. of m.p.certified that the vehicleco. Initial level conform to the

Prescribed under rule 115 (2) of cmv rule 1989)

CENTRE NAME : PREM MOBILE PUC CENTRE

COMPUTERISED EMISSION TEST CERTIFICATE (Rule163 B(3) OF BMV 1992)

S.NO:04011

100 RS	150 RS	250 RS	300 RS	500 RS

CENTRE NAME:PREM MOBILE PUC CENTRE
Near RTO OFFICE KARGIL DHABA SATNA.(M.P)

Pollution Checking Centre Code Number

P	U	C	0	7	S	T	N	2	0	2	3	

Type of Vehicle		Accurate Limit	Measure Limit
Emission by petrol vehicle to ideling c.e.o limit	2/3 vehicle wheel	Volume of 4.5%	
	4 wheeler vehicle	volume of 3%	
Density of all vehicle implication dicenaree	volume of dicenaree	65% volume of hydric unit	39.07%
	C.O.	14 gm/kwh	
	H.C -	35 gm/kwh	
	N.O.	gm/kwh	

DIST.--------SATNA
VEHICLE REGI. NO.-------DOZER NO.15
OWNER NAME—---M/S BIRLA CORPORATION LTD
MAKE—----------CAT LTD
MODEL----------D8R
Catogery----------HGV
YEAR----------2013
Checking fees ----------500RS
Checkingdate----------13/10/2024
Time----------11:32AM
Fuel uses----------DIESEL
Validity----------12/04/2025

वाहन प्रदूषण जाँच केन्द्र सतना (म.प्र.) प्रेमचन्द साहू

Again checking the vehicle after 90 days, then any problem
For you to please contact transport department.

Authorized by
MR. PREMCHANDRA SAHU

File No: J-11015/271/2006-IA.II (M) dated 27.12.2007_Submission of digital processing of lease area of Sagmania Limestone Mines of M/s Birla Corporation Ltd

Rajeev Kr Pradhan <admin.scw@birlacorp.com>

Wed 9/20/2023 5:47 PM

To:rowz.bpl-mef@nic.in <rowz.bpl-mef@nic.in>

Cc:Ashwani Karwariya <ashwani.karwariya@birlacorp.com>;Rajesh Chaubey <rajesh.chaubey@birlacorp.com>

1 attachments (2 MB)

Digital Processing report_Sagmania Limestone Mines.pdf;

Dear Sir,

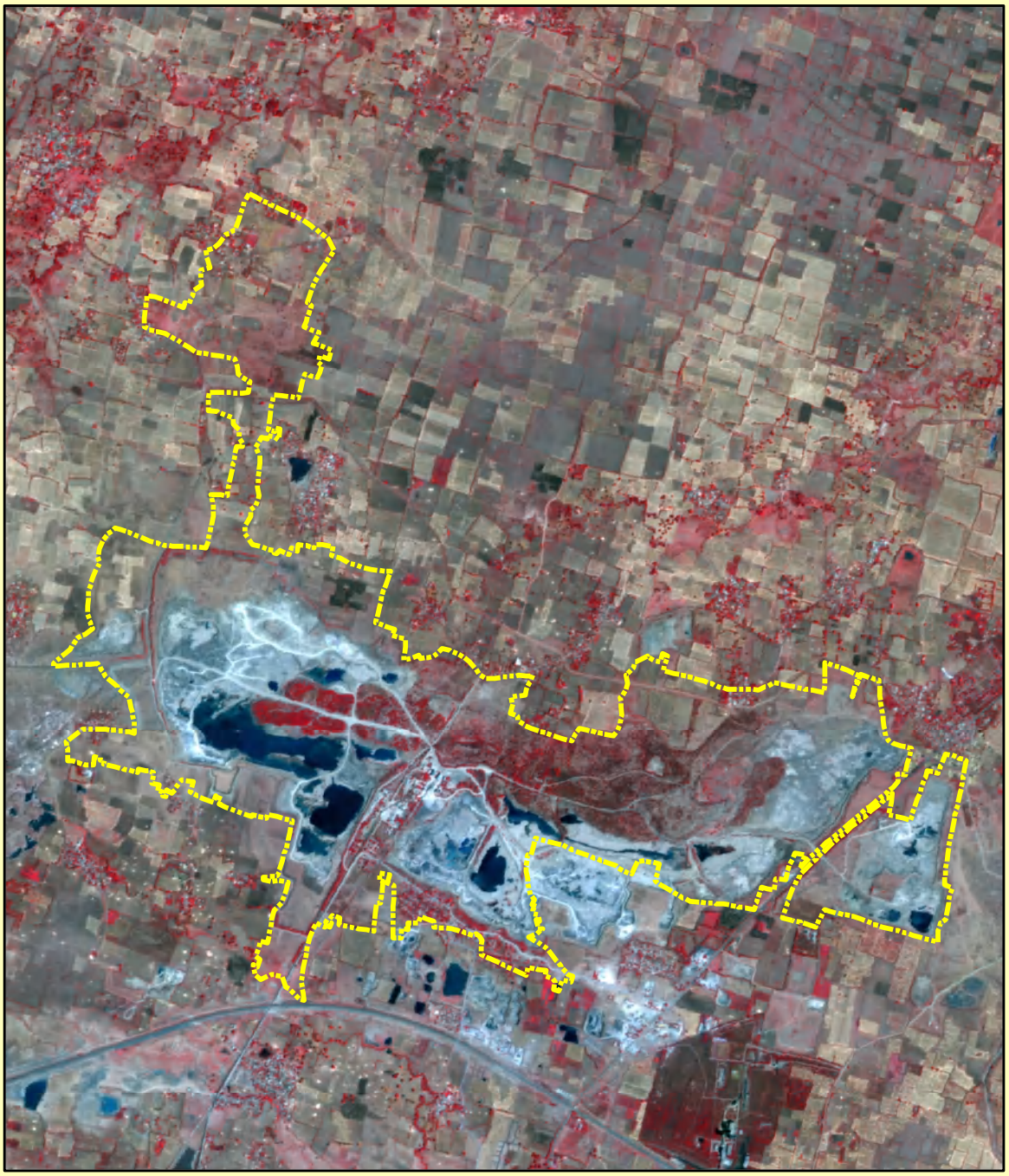
With reference to the above subject matter and condition laid down in the Environment Clearance, please find attached the Digital processing report of entire lease area by using remote sensing technique for monitoring of land use pattern based on satellite imaginary of Sagmania Lime Stone Mines of M/s Birla Corporation Limited, Unit: Satna Cement Works, Dist. Satna (M.P.) for your kind information and compliance purpose.

Thanking You,

For, Birla Corporation Limited
Unit: Satna Cement Works,

Sunil Sood
Unit Head

Land Use / Land Cover Analysis for Mine Lease of Sagmania Limestone Mines of Birla Corporation Limited



Client :
Birla Corporation Limited

Prepared by :
CompuSense Automation, Ahmedabad

September 2023

Table of Contents

1. Introduction 2
2. Objectives.....3
3. Data Used 3
4. Methodology 4
5. Classification System 5
6. Maps and Statistics – Sagmania Limestone Mines.....8

1. Introduction

Present study of mapping Land Use / Land Cover using remote sensing data for Sagmania Limestone Mines near Sagmania village and surrounding in Raghurajnagar Tehsil of Satna district is carried out on behalf of Birla Corporation Limited. Now a days, it has become mandatory to carry out a Land Use / Land Cover analysis of the project site using satellite data similar to preliminary site survey. Comprehensive and chronological Land Use/ Land Cover information is very vital for management of land. Accurate & precise compilation of this information helps in deciding the proper use of the land. Optimum economic use in accordance with minimal disturbance of the present ecology should be the prime objective of any industrial activity. Remote Sensing technology because of synoptic, repetitive and multi spectral characteristics becomes very vital technology for mapping Land Use and Land Cover. In addition to this, such studies provide the facility of constant monitoring of any particular area. Geographic Information System (GIS) is a tool, which allows the integration of spatial data with non - spatial data.

Systematic and comprehensive compilation of Land Use / Land Cover maps and data is necessary for planned development of agriculture, forest, grasslands, rural settlements, urban spread, Industries and a host of other land based programs and activities. Land Use refers to the various ways, the land is being utilized for different purposes by man mainly to generate income as well as for residential purpose. Whereas, 'Land Cover' refers to the natural surrounding present on the area under study. The existing information on Land Use / Land Cover is largely in the form of statistics based on compilation of village records. Whatever information available in the form of maps, suffers from the problems of spotty coverage, lack of consistency and a large time gap between data compilation and map publication.

In the present study, Land Use and Land Cover information of the mine lease, has been mapped using the digital data as detailed in Table 1.

Data has been corrected geometrically and radiometrically. This corrected data has been used for classifying the image. Various major categories like agriculture, wasteland, water body, forest, etc. were identified and mapped. Area statistics was calculated for different Land Use / Land Cover categories along with generating of pie charts. A thematic map was generated depicting various classes with different symbols.

2. Objectives

Main objectives of this analysis are:

- To analyze Land Use / Land Cover of the study area using latest remote sensing satellite data .
- To generate statistics of Land Use / Land Cover classes and thematic map.

3. Data Used

Data shown in following table was selected and procured from NRSC, Hyderabad.

Table 1

Satellite	Sensor	Path-Row	Date
Resourcesat-II	L4FMX	100_54D	21st April 2023

4. Methodology

General methodology using Multi-temporal digital data for one season, to derive Land Use / Land Cover.

The methodology comprises the following functional component.

Data loading and image preparation

Three bands of data were downloaded from FTP and stacked to form a false colour composite (FCC). This raw data was georeferenced and projected in Universal Transverse Mercator (UTM), zone 44N projection. This projection was adopted from National Spatial Framework (NSF). This data was radiometrically enhanced for ease of interpretation.

Delineation of study area

Mine lease area boundaries were taken from the surface plan in UTM Coordinates provided by Birla Corporation Limited.

Base map features mapping

Mapping of base map feature like roads, river, nala, water bodies and drainage were done using standard remote sensing data interpretation methods.

Maps and Statistics

Statistics for buffer zones was generated in Arc GIS software and different base maps, Land Use maps, reference and location maps are composed in Arc Map software.

5. Classification System

A three level classification system based on Environmental Impact Assessment Guidance Manual for mineral beneficiation prepared by Administrative Staff College of India, Hyderabad. (February 2010) has been adopted as shown in table 2.

TABLE - 2 LAND USE / LAND COVER CLASSIFICATION SYSTEM

	Level – I	Level - II
1	Built-up land	Residential
		Industrial
		Transportation
2	Agricultural land	Agricultural land
3	Forest Land	Dense Forest
		Open Forest
4	Waste land	Dense Scrub
		Open Scrub
		Stony Waste
5	Water bodies	River/Canal
		Lake/ Pond
6	Others	Mining Pit
		Afforestation/Plantation
		Mining Dump
		Plantation on Dump
		Mine Sump
		Back Filled Area
		Plantation on Back Filled Area
		Stone Quarry

Following sections describe various classes.

5.1 Built up Land

Built-up Residential

It generally refers to an area, which is not cultivated and is used for human residential purpose. Villages come under this category. Vacant land within or near by settlements used for industrial activities are also considered under this broad category.

Built-up Industrial

These are areas where the human activity is observed in the form of manufacturing along with other supporting establishments of maintenance. Heavy metallurgical industry, thermal, cement, petrochemical, engineering plants etc., are included under this. Certain built-up

structures found in mining area like mine office, workshop are further classified in Infrastructure sub category.

Transportation

Land used for transportation and communication purpose like roads,railway and airport is also categories as built-up land.

5.2 Agricultural land

This areas are primarily used for raising agricultural crops, fiber, vegetables, fruits, cultivated fodder and other plant material of medicinal and commercial value.

Afforestation

These areas are separable from cropland, especially with the data acquired during rabi / Jayad seasons. Afforestation appears in dark-red to red tone of different sizes with regular and sharp edges indicating the presence of a fence around. Forests are different from plantations characterized by big contiguous patches often having shape similar to natural or topographical features.

5.3 Forest Land

Forests are defined as, “all lands bearing vegetative association dominated by trees of any size, exploited or not, capable of producing wood or other forest products and exerting an influence on climatic or water regimes or providing shelter for wild life and live stock”.

Dense Forest

This category includes all the forest areas where the canopy cover/crown density range between 40-70%.

Open Forest

This category includes all the forest areas where the canopy cover/crown density range between 10-40%.

5.4 Wastelands

Wasteland is described as degraded land which is currently not used for cultivation and is deteriorating for lack of appropriate water and soil management.

Dense Scrub

The area mainly covered by dense scrub is classified under this category. This area is appears vegetated through out the year.

Open Scrub

The area mainly covered by scrub which is sparse is classified as open scrub. It is land devoid of any vegetation and appears barren.

Stony waste

These are rock exposures of varying lithology often barren and devoid of soil and vegetation cover. Such lands can be easily discriminated from other categories of wastelands because of their characteristics spectral response. They appear in greenish blue to yellow to brownish in color depending on the rock type.

5.5 Water bodies

This class comprises areas of surface water found in the form of ponds, lakes, reservoirs.

River

This is a natural course of water flowing on the land surface along a definite channel and may be seasonal or perennial.

Lake / Pond

These are accumulation of water in a depression of various sizes either natural or man made.

5.6 Others

Excavated area (Mining pits)

These are the areas subjected to removal of different earth material (both surfacial and sub surfacial) by manual and mechanized operations.

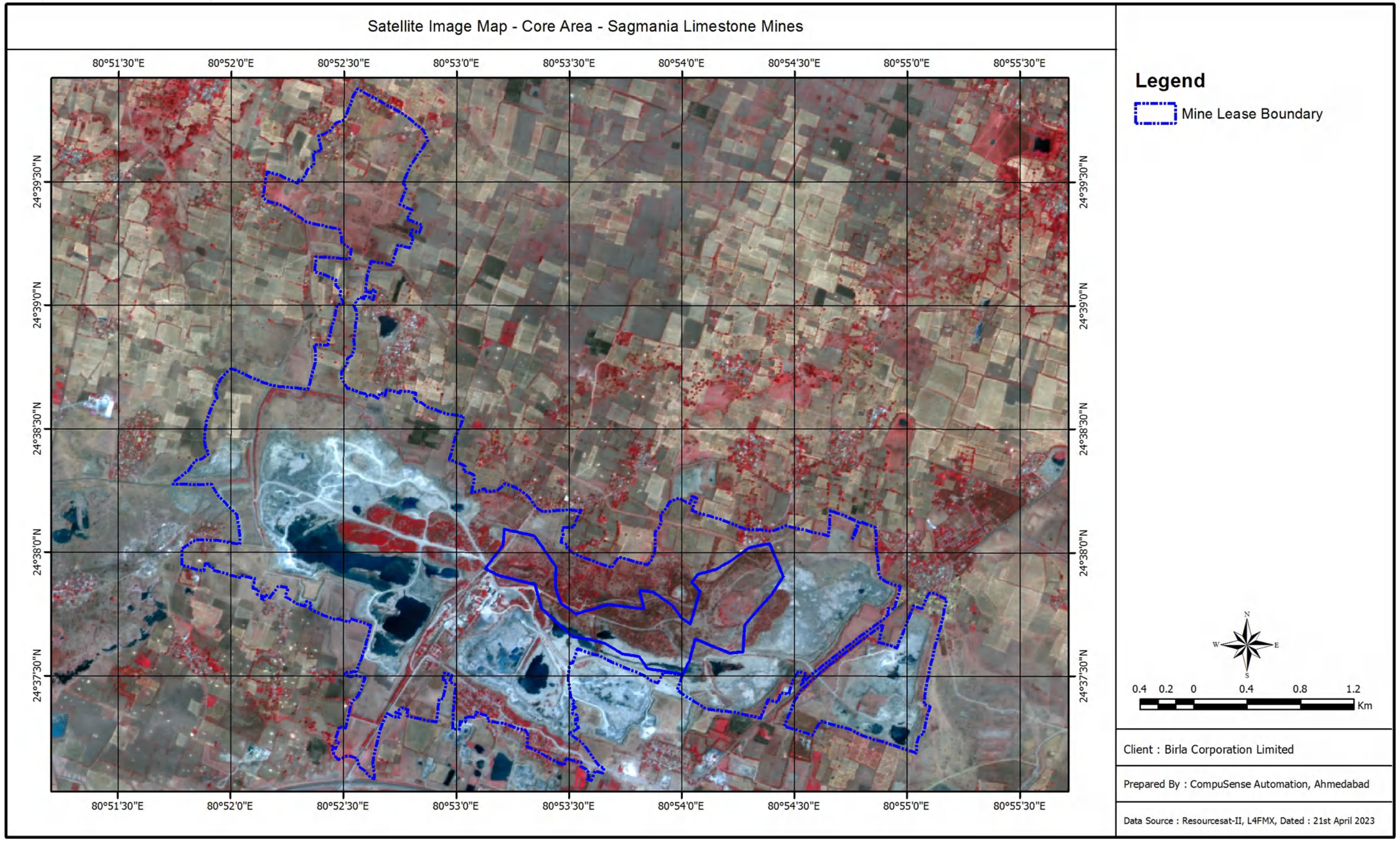
Mining Dump

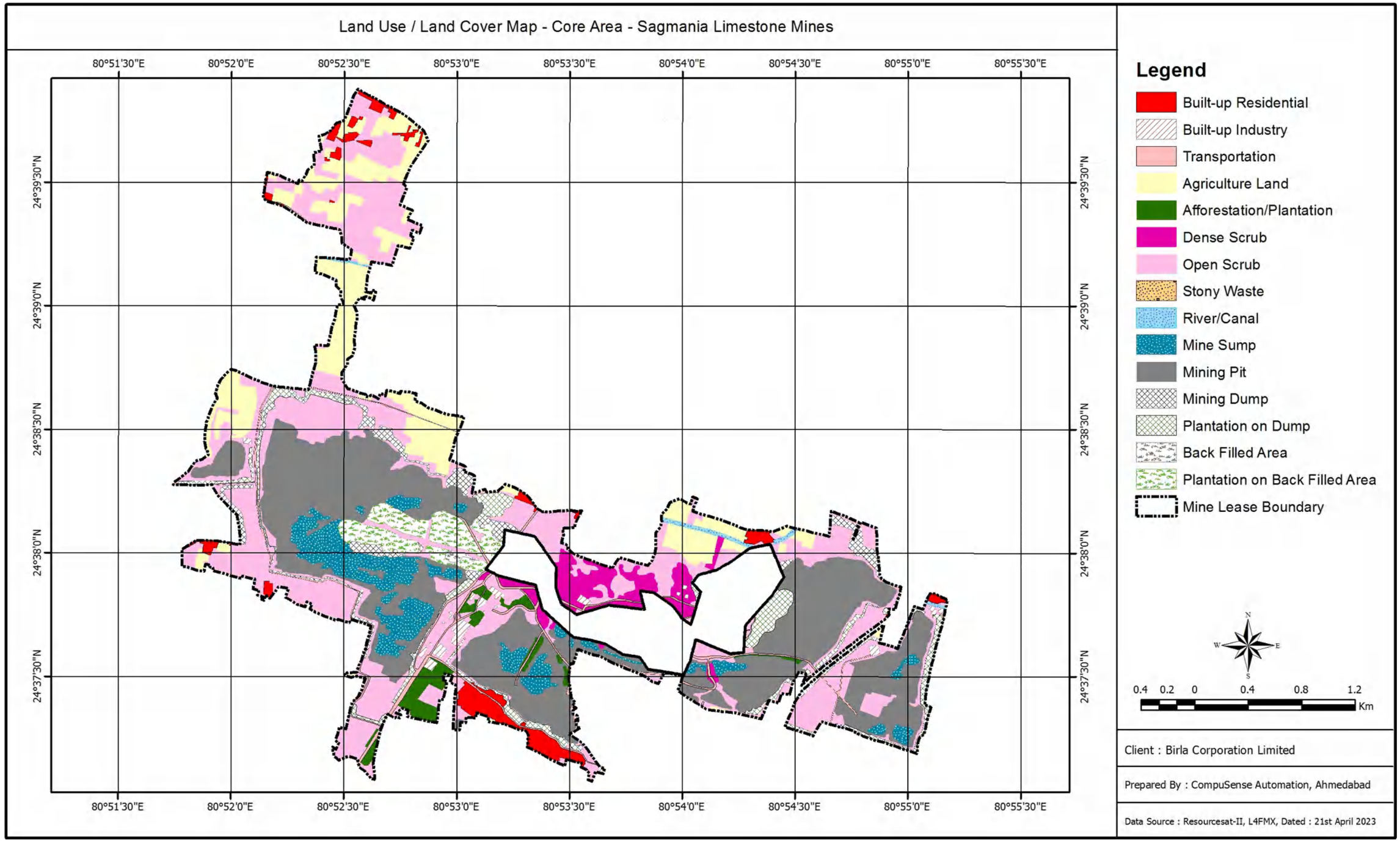
Dumps are those areas where debris is accumulated after extraction of required minerals. Generally, these lands are confined to the surrounding of the active mining area.

Mine Sump

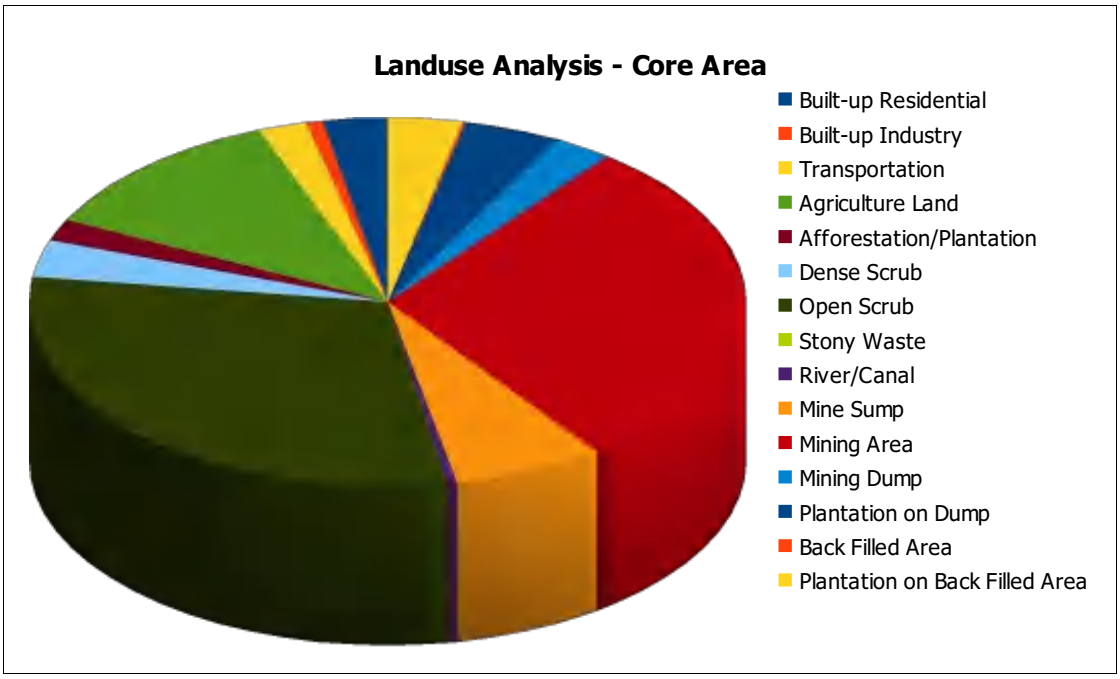
Excavated area in mines where rain water is harvested.

6. Maps and Statistics – Sagmania Limestone Mines




Land Use / Land Cover Map - Core Area - Sagmania Limestone Mines
80°51'30"E
80°52'0"E
80°52'30"E
80°53'0"E
80°53'30"E
80°54'0"E
80°54'30"E
80°55'0"E
80°55'30"E
24°39'30"N
24°39'0"N
24°38'30"N
24°38'0"N
24°37'30"N
Legend
Built-up Residential
Built-up Industry
Transportation
Agriculture Land
Afforestation/Plantation
Dense Scrub
Open Scrub
Stony Waste
River/Canal
Mine Sump
Mining Pit
Mining Dump
Plantation on Dump
Back Filled Area
Plantation on Back Filled Area
Mine Lease Boundary
N
W
E
S
0.4 0.2 0 0.4 0.8 1.2
Km
Client : Birla Corporation Limited
Prepared By : CompuSense Automation, Ahmedabad
Data Source : Resourcesat-II, L4FMX, Dated : 21st April 2023

Land Use/Land Cover Statistics – Core Area			
CLASSIFICATION			
LEVEL – I	**LEVEL – II**	**% Area**	**Area (Ha)**
Built-up	Built-up Residential	2.90	24.74
	Built-up Industry	0.78	6.61
	Transportation	2.19	18.65
	Sub-total	***5.87***	***50.00***
Agriculture Land	Agriculture Land	11.83	100.88
	Sub-total	***11.83***	***100.88***
Wastelands	Dense Scrub	3.26	27.78
	Open Scrub	29.84	254.41
	Stony Waste	0.01	0.05
	Sub-total	***33.11***	***282.25***
Water bodies	River/Canal	0.42	3.59
	Sub-total	***0.42***	***3.59***
Others	Mining Pit	29.60	252.31
	Mine Sump	6.81	58.04
	Afforestation/Plantation	1.86	15.86
	Mine Dump	2.65	22.58
	Plantation on Dump	4.36	37.19
	Back Filled Area	0.13	1.10
	Plantation on Back Filled Area	3.37	28.70
	Sub-total	***48.77***	***415.78***
	Total	**100.00**	**852.50**



Annexure : 1 Projection Parameters

- **Projection Type** :Universal Transverse Mercator zone 44N
- **Spheroid Name** :WGS84
- **Datum** :WGS84

  Parameters
- **False_Easting** : 500000.000000
- **False_Northing** : 0.000000
- **Central_Meridian** : 81.000000
- **Scale_Factor** : 0.999600
- **Latitude_Of_Origin**: 0.000000
- **Linear Unit** : Meter (1.000000)
- **Geographic Coordinate System**: GCS_WGS_1984
- **Angular Unit:** Degree (0.017453292519943299)
- **Prime Meridian:** Greenwich (0.000000000000000000)
- **Datum:** D_WGS_1984
- **Spheroid:** WGS_1984
- **Semimajor Axis** **:** 6378137.000000000000000000
- **Semiminor Axis** : 6356752.314245179300000000
- **Inverse Flattening** : 298.257223563000030000

Annexure : 2 Interpretation Key

Land Use / Land Cover Interpretation Key Using Satellite Imagery

Sr. No.	Land Use / Land Cover Category	Tone / Colour	Size	Shape	Texture	Pattern
1	Built-up Land	Dark bluish green in the core and bluish on the periphery	Small to big	Irregular & Discontinuous	Coarse & mottled	Clustered to Scattered & non-contiguous
2	Transportation	Very dark to dark bluish green, light yellow for minor roads , red if vegetation along the road	Small in width for roads and narrow for rail	Regular with straight/sharp and smooth curves	Smooth to fine	Linear to sinuous and contiguous
3	Crop Land	Bright red to red	Varying in size	Regular to irregular	Medium to smooth	Contiguous to non-contiguous
4	Fallow Land	Yellow to greenish blue (depending on soil type and moisture)	Small to large	Regular to irregular	Medium to smooth	Contiguous to non-contiguous
5	Afforestation (Plantation)	Dark red to red	Small to medium	Regular with sharp edges	Coarse to medium	Dispersed, contiguous
6	Dense Forest	Bright red to dark red	Varying in size	Irregular, discontinuous	Smooth to medium depending up on crown density	Contiguous to non contiguous
7	Open Forest	Light yellow to light brown	Small	Regular to irregular	Coarse to mottled	Non-contiguous dispersed /scattered
8	Land with or without scrub	Light yellow to brown to greenish blue(subject to surface moisture and cover	Varying in size	Irregular-discontinuous	Coarse to mottled (Subject to vegetation cover)	Contiguous dispersed in patches
9	River	Light blue to dark blue	Long narrow to wide	Irregular, Sinuous	Smooth to medium	Contiguous, nonlinear to dendritic/ sub-dendritic etc.
10	Lake/Pond	Light blue to dark blue(subject to weeds/vegetation)	Small/medium to large	Regular to irregular	Smooth to mottled	Non-contiguous dispersed

Interpretation keys may change for different satellite sensors depending upon their band combinations and enhancement made.

Annexure SC-22

Photographs of STP & ETP

Sewage Treatment Plant

Effluent Treatment Plant

Drilling machine equipped with dust extraction system

MP BIRLA GROUP

Birla Corporation Limited
Unit: Satna Cement Works
P.O. Birla Vikas, Satna - 485005
Madhya Pradesh
P : 07672 412000/01 F : 07672 257456
E : admin.scw@birlacorp.com

Year 2024-25	Sagmania Mines Production (Tons)
October-2024	267804
November-2024	166909
December-2024	285382
January-2025	203505
February-2025	190121
March-2025	154058
Total	1267779

Per Satna Cement Works

Sagmania Limestone Mine

Scanned with OKEN Scanner

LIST OF FLORA AND FAUNA

Core Zone and Buffer Zone of Sagmania Limestone Mines (852.50 Ha)

List of Flora

SL. NO	SCIENTIFIC NAME	COMMON NAME
TREE		
1.	*Acacia catechu*	Katha
2.	*Acacia nilotica*	Babul
3.	*Aegle marmelos*	Bael
4.	*Ailanthus excelsa*	Maharukh
5.	*Albizia lebbeck*	Siris
6.	*Alstonia scholaris*	Devils Tree
7.	*Annona squamosa*	Sita phal
8.	*Anogeissus latifolia*	Dhaora
9.	*Anthocephalus kadamba*	Kadamb
10.	*Azadirachta indica*	Neem
11.	*Boswellia serrata*	Salai
12.	*Bridelia retusa*	Kasai
13.	*Buchanania lanzan*	Chironji
14.	*Butea monosperma*	Palas
15.	*Caesaria tomentosa*	Chilla
16.	*Calotropis gigantea*	Safed
17.	*Cassia fistula*	Amaltas
18.	*Dalbergia latifolia*	Kala shisam
19.	*Dalbergia paniculata*	Dhobein
20.	*Diospyros melanoxylon*	Tendu
21.	*Emblica officinalis*	Amla

वन मण्डलाधिकारी
वन मण्डल, सतना (म.प्र.)

SL. NO	SCIENTIFIC NAME	COMMON NAME
22.	*Eucalyptus angophora*	Liptus
23.	*Eucalyptus grandis*	Eucalyptus
24.	*Feronia limonia*	Kaitha
25.	*Ficus bengalensis*	Banyan
26.	*Ficus glomerata*	Gular
27.	*Ficus racemosa*	Cluster Fig
28.	*Ficus religiosa*	Peepal
29.	*Holarrhena antidysenterica*	Kurchi
30.	*Lagerstroemia parviflora*	Landia
31.	*Lannea coromandelica*	Gunja
32.	*Leucaena leucocephala*	Jumbay
33.	*Madhuca indica*	Mahua
34.	*Madhuca longifolia*	Mahua
35.	*Mangifera indica*	Anacardiaceae
36.	*Miliusa tomentosa*	Kari
37.	*Mitragyna parviflora*	Lendi
38.	*Neolamarckia cadamba*	Kadamba
39.	*Nyctanthes arbor-tristis*	Parijat
40.	*Ougeinia oojeinensis*	Sandan
41.	*Peltophorum pterocarpum*	Yellow Flame Tree
42.	*Pithecellobium dulce*	Vilayati Imli
43.	*Pongamia pinnata*	Karanj/Indian Beech
44.	*Prosopis juliflora*	Vilayati Babul
45.	*Salmalia malabarica*	Semal
46.	*Samanea saman*	Gulabi Siris
47.	*Schleichera oleosa*	Kusum
48.	*Shorea robusta*	Sal

वन मण्डलाधिकारी
वन मण्डल, सतना (म.प्र.)

SL. NO	SCIENTIFIC NAME	COMMON NAME
49.	*Syzygium cumini*	Jamun
50.	*Syzygium heyneanum*	Chhoti jamun
51.	*Tectona grandis*	Teak
52.	*Terminalia arjuna*	Arjun
53.	*Terminalia bellerica*	Bahera
54.	*Terminalia elliptica-tomentosa*	Saaj
55.	*Terminalia tomentosa*	Saja
56.	*Woodfordia floribunda*	Dhataki
57.	*Wrightia tinctoria*	Dudhi
58.	*Zizyphus jujuba*	Ber
SHRUB		
59.	*Butea superba*	Palas lata
60.	*Hyptis suaveolens*	Pignut
61.	*Lantana camara*	Raimuniya
62.	*Nerium indicum*	Oleander
63.	*Ziziphus oenoplia*	Jackal jujube
64.	*Calotropis procera*	Madar
65.	*Zizyphus nummularia*	Jharberi
66.	*Ziziphus xylopyrus*	Ghont
HERBS & GRASSES		
67.	*Apluda mutica*	Mauritian Grass
68.	*Argemone mexicana*	Satynashi
69.	*Cenchrus ciliaris*	Foxtail buffalo grass
70.	*Chlorophytum borivilianum*	Safed
71.	*Commelina benghalensis*	Bengal Day flower
72.	*Convolvulus sabatius*	Hiran Khuri
73.	*Cyano dactylon*	Bermuda grass

वन मण्डलाधिकारी
वन मण्डल, सतना (म.प्र.)

SL. NO	SCIENTIFIC NAME	COMMON NAME
74.	*Cymbopogon martini*	Lemon grass
75.	*Cynodon dactylon*	Bermuda grass
76.	*Cyperus rotundus*	Nut grass
77.	*Dendrocalamus strictus*	Bans/Bamboo
78.	*Dichanthium annulatum*	Marvel Grass
79.	*Heteropogon contortus*	Khad Grass
80.	*Hyptis suaveolens*	Van tulsi
81.	*Ichnocarpus frutescens*	Kali Dhudhi
82.	*Justicia ovata*	Walter
83.	*Leucas aspera*	Dudhi
84.	*Nicotiana tobacum*	Tobacco
85.	*Parthenium hysterophorus*	Gajar grass
86.	*Sida acuta*	Bala
87.	*Tephrosia purpurea*	Sarphunka
88.	*Themeda quadrivalvis*	Grader Grass
89.	*Tridax procumbens*	Mexican Daisy
90.	*Vetiver zizanioides*	Vetiver grass
CLIMBER		
91.	*Bauhinia vahlii*	Camel foot climber
92.	*Cissus quadrangularis*	Hathjod
93.	*Abrus precatorius*	Crab Eye seeds
94.	*Tinospora cordifolia*	Gulvel
95.	*Cocculus hirsutus*	Broom Creeper
96.	*Clitorea ternatea*	Shankapusphi

List of Fauna

वन मण्डलाधिकारी
वन मण्डल, सतना (म.प्र.)

SL. NO.	SCIENTIFIC NAME	COMMON NAME	SCHEDULE
AMPHIBIANS			
1.	*Bufo melanostictus*	Toad	-
2.	*Hoplobatrachus tigerinus*	Bullfrog	IV
REPTILES			
3.	*Calotes versicolor*	Garden lizard	-
4.	*Chameleon zeylanicus*	Chameleon	II
5.	*Hemidactylus flaviviridis*	Northern House	-
6.	*Hemidactylus frenatus*	Common house gecko	-
7.	*Naja naja*	Cobra	II
8.	*Ptyas mucosa*	Rat snake	II
MAMMALS			
9.	*Bandicota indica*	Greater Bandicoot	IV
10.	*Bos indicus*	Cow	-
11.	*Boselaphus tragocamelus*	Blue Bull or Nilgai	III
12.	*Bubalus bubalis*	Domestic buffalo	-
13.	*Canis aureus*	Jackal	II
14.	*Canis lupus familiaris*	Common dog	-
15.	*Capra hircus aegagrus*	Goat	-
16.	*Felis chaus*	Jungle Cat	II
17.	*Felis silvestris catus*	Common cat	-
18.	*Funambulus palamarum*	Three Striped Palm Squirrel	IV
19.	*Herpestes edwardsii*	Common Mongoose	II
20.	*Herpestes javanicus*	Asian small mongoose	II
21.	*Lepus nigricollis*	Black Naped Indian Hare	IV
22.	*Macaca mulatta*	Rhesus Macaque	II
23.	*Mus booduga*	Indian field mouse	IV
24.	*Mus musculus*	House mouse	IV
25.	*Presbytis entellus*	Hanuman Langur	II

वन मण्डलाधिकारी
वन मण्डल, सतना (म.प्र.)

SL. NO.	SCIENTIFIC NAME	COMMON NAME	SCHEDULE
26.	*Pteropus giganteus*	Fruit Bats	V
27.	*Rattus rattus*	Common rat	IV
28.	*Sus scrofa*	Wild Boar	III
29.	*Vulpes bengalensis*	Indian Fox	II
AVES			
30.	*Acridotheres tristis*	Common myna	-
31.	*Adreola grayii*	Pond Heron	IV
32.	*Aegithina tiphia*	Common Iora	IV
33.	*Alcedo atthis*	Common kingfisher	IV
34.	*Anas acuta*	Common Teal	IV
35.	*Anhinga melanogaster*	Indian Darter	IV
36.	*Anser indicus*	Bar Headed Goose	IV
37.	*Anthulus rufulus*	Paddy Field Pipit	IV
38.	*Apus affinis*	House Swift	IV
39.	*Athene brama*	Spotted owlet	IV
40.	*Aythya ferina*	Common Poachard	IV
41.	*Bubulcus ibis*	Cattle egret	IV
42.	*Centropus sinensis*	Crow pheasant	IV
43.	*Charadius hiaticula*	Common Ringed Plover	IV
44.	*Columba livia*	Blue Rock Pigeon	V
45.	*Columba livia domestica*	Pigeon	IV
46.	*Coracias benghalensis*	Indian Roller	IV
47.	*Corvus macrorhynchos*	Jungle crow	IV
48.	*Corvus splendens*	Common Crow	V
49.	*Cuculus micropterus*	Indian cuckoo	IV
50.	*Dicrurus macrocercus*	Black drongo	IV
51.	*Ergetta garzetta*	Little Egret	IV
52.	*Eudynamys scolopacea*	Asiatic Koel	IV

वन मण्डलाधिकारी
वन मण्डल, सतना (म.प्र.)

SL. NO.	SCIENTIFIC NAME	COMMON NAME	SCHEDULE
53.	*Francolinus pondicerianus*	Grey Partridge	IV
54.	*Fulica atra*	Common Coots	IV
55.	*Gallus gallus*	Red Jungle Fowl	IV
56.	*Halcyon smyrnensis*	The white breasted Kingfisher	IV
57.	*Himantopus himantopus*	Black Winged Stilt	IV
58.	*Hirundo rustica*	Barn Swallow	IV
59.	*Hydrophasianus chirurgus*	Pheasant tailed Jacana	IV
60.	*Lanius cristatus*	Brown Shrike	IV
61.	*Lonchura malabarica*	White throated Munia	IV
62.	*Lonchura punctulata*	Spotted Munia	IV
63.	*Megalalma haemacephala*	Copper Smith Barbets	IV
64.	*Merops orientalis*	Asian green bee-eater	IV
65.	*Merops orientalis*	Green Bee Eater	IV
66.	*Mesophoyx intermedia*	Median Egret	IV
67.	*Microcarbo nlger*	Little Cormorant	IV
68.	*Molpastes cafer*	Red vented Bulbul	IV
69.	*Motaclla cinerea*	Grey Wagtail	IV
70.	*Nectarinia asiatica*	Purple Rumped Sunbird	IV
71.	*Oriolus orlolus*	Golden Oriole	IV
72.	*Orthotomus sutorius*	Tailor Bird	IV
73.	*Passer domesticus*	Domestic sparrow	IV
74.	*Pavo Cristatus*	Pea fowl	I
75.	*Ploceus phillppinus*	Baya Weaver	IV
76.	*Prinia socialis*	Ashy prinia	IV
77.	*Psittacula krameri*	Rose Ringed parakeet	IV
78.	*Pycnonotus cafer*	Red vented bulbul	IV
79.	*Rhipidura albogularis*	White spotted fintail	IV
80.	*Sterna aurantia*	Indian River Tern	IV

वन मण्डलाधिकारी
वन मण्डल, सतना (म.प्र.)

SL. NO.	SCIENTIFIC NAME	COMMON NAME	SCHEDULE
81.	*Streptopelia chinensis*	Spotted Dove	IV
82.	*Sturnus roseus*	Rosy Starling	IV
83.	*Tyto alba*	Barn Owl	IV
84.	*Upupa epops*	Hoopoe	IV
85.	*Vanellus indicus*	Red Wattled- Lapwing	IV

वन मण्डलाधिकारी
वन मण्डल, सतना (म.प्र.)

M/s Birla Corporation Limited.

CONSERVATION PLAN

FOR

Pavo cristatus(Indian Peafowl)

वन मण्डलाधिकारी
वन मण्डल, सतना (म.प्र.)

PROJECT PROPONENT	ENVIRONMENTAL CONSULTANT
M/s Birla Corporation Limited	M/s Perfact Enviro Solutions Pvt. Ltd.
Address - Village: Barikalan, Baraj, Puraini, Bathiakhurd, Bharjunakalan, Nimi & Naina, Tehsil: Raghurajnagar, District: Satna State: Madhya Pradesh	Certificate-NABET/EIA/2225/RA 0284
Name -Sunil Sood	(An ISO 9001:2015 & ISO 14001:2015 Certified Company)
Designation - Authorized Signatory	5th Floor, NN Mall, Mangalam Place, Sector-3, Rohini, New Delhi-110085
Email- admin.scw@birlacorp.com	Email: info@perfactgroup.in
Phone No- 07672-412000	

Table of Contents

1. Conservation and Development **4**

1.1 Forestry Scenario **5**

2. Conservation Plan – Thoughts and Processes **5**

2.1. About the project 5

2.1. Objectives of the Plan 6

2.2. The Need of the Conservation Plan 7

2.3. Scope of the Plan 7

2.4. The Integrated Approach 7

3. Impact Area & Project Impacts **8**

3.1. Project Introduction 8

3.2. Brief description of Project 8

3.3. Project Location 9

3.4. Topographical Map 11

3.5. Environmental Sensitivity 12

4. Methodology for the study of Flora and Fauna- 13

4.1. Flora of core Zone 15

4.2. Flora of the Buffer Zone 15

4.3. Fauna of Buffer zone: 20

5. Principle of Wildlife Conservation **25**

6. Need of Wildlife Conservation & Management **26**

7. Indian Peafowl (Pavo cristatus) **29**

7.1 Introduction 29

7.2 General description 30

7.3 Morphology 30

7.4 Habitat 31

7.5 Physical Characteristics 31

7.6 Behavior 32

7.7 Food Habit 33

7.8 Conservation and relationship with man 33

7.9 Population threats to Endangered Species 34

8. Conservation strategies for biodiversity **36**

8.1. Specific Conservation Measures to be taken in consultation with forest department **37**

9. Project Budget **38**

1. Conservation and Development

Conservation is the act of preventing injury, decay, waste or loss of both natural and cultural heritage. Conservation may also refer to the careful utilization of a natural resource in order to prevent depletion and the preservation and restoration of works of cultural significance. Whereas development is the process of economic and social transformation that is based on complex cultural and environmental factors and their interactions. Development may also be understood as the systematic use of natural laws (science) and cultural knowledge to meet specific objectives or requirements of a society.

Historically, conservation and developmental goals have been at opposing ends of the spectrum, and still are in many ways. The prospect of a blend of conservation and human welfare, therefore, has the appeal of a panacea. Over the past few decades, there has been a move in the field of conservation to a more pragmatic approach that could address generating alternatives and improving livelihoods and compensation for lost benefits. There has been increased emphasis on working with the weakest and on improving governance and institutions as increasing evidence has questioned age-old and entrenched assumptions about poverty-environment interactions.

“There has been a lot of wishful thinking about a win-win solution for conservation, in the context of livelihoods and conservation. There can be win-win but they are effective when they come with perspectives of both sides, the local people and conservationists. There have been assumptions that good forests would be good for livelihoods.

1.1 Forestry Scenario

According to the Forest Department of Madhya Pradesh, GoI, the state's forest vegetation and as per the Champion & Seth Classification of Forest Types (1968), the forests in Maharashtra belong to twenty one (21) forest types on the basis of zonation against rainfall variations in respect to both spatial and temporal aspects along with the other factors as topography, soil, temperature and the types of forests are namely, (1) 3B/C1c Slightly Moist Teak Forest (2) 3B/C2 Southern Moist Mixed Deciduous Forest (3) 3C/DS1 Moist Sal Savannah (4) 3C/C2e (i) Moist Peninsular High Level Sal (5) 4E/RS1 Riparian Fringing Forest (6) 5/1S2 Khair-Sissu Forest (7) 5/E1/DS1 Anogeissus pendula Scrub (8) 5/DS1 Dry Deciduous Scrub (9) 5/DS2 Dry Savannah Forest (10) 5/DS4 (Dry Grass Land) (11) 5/E1 Anogeissus pendula Forest (12) 5/E2 Boswellia Forest (13) 5/E5 Butea Forest (14) 5/E9 Dry Bamboo Brake (15) 5A/C1a Very Dry Teak Forest (16) 5A/C1b Dry Teak Forest (17) 5A/C3 Southern Dry Mixed Deciduous Forest (18) 5B/C1c Dry Peninsular Sal Forest (19) 5B/C2 Northern Dry Mixed Deciduous Forest (20) 6B/C2 Ravine Thorn Forest (21) 8A/C3 Central Indian Subtropical Hill Forest (India State Forest Report, 2019).

2. Conservation Plan – Thoughts and Processes

2.1. About the project

The proposed project of the Sagmania Limestone Mine of M/s. Birla Corporation Limited is located at Village: Barikalan, Baraj, Puraini, Bathain Khurd, Bharjunakalan, Nimi & Naina, Tehsil: Raghurajnagar, District: Satna State: Madhya Pradesh, India.

2.1. Objectives of the Plan

Broad objectives this Wild Life Plan attempts to address can be verbalized as follows:

- To provide a relatively stress-free habitat to wildlife in the Impact Area that would be capable of meeting the basic needs of resident wildlife.
- To provide habitat supplement to the spill over population of wild animals from the Project Area to the Impact Area.
- To provide safe spill over corridors for wildlife from Impact Area to relatively rich neighboring forest areas.
- To provide safeguarding measures and protection of wildlife from unsavory elements.
- Providing site specific, need based, and participatory eco-development inputs to local stakeholders for reducing their resource dependency on forests and for eliciting their support towards conservation in the area.
- Capacity Building of local people, particularly Eco-Development Committee members.
- To provide the local Forest Department officials / staff with required resources to help implement this plan.
- While increasing man-animal conflict is an outcome of shrinkage, fragmentation and deterioration of habitats, it has caused destruction of wildlife and generated animosity against wild animals and protected areas. This is a crucial management issue, which needs to be addressed through innovative approaches.

2.2. The Need of the Conservation Plan

Endangered and threatened animals of India have been listed in the Schedule I of the Wildlife (Protection) Act, 1972 (amended in 2002), one (1) schedule I Species is reported in the Buffer zone.

2.3. Scope of the Plan

This Conservation Plan is specifically for the conservation of the wildlife of the 10 km Impact Area around the proposed Plant. This Conservation Plan tries to take into consideration the various related & apparently unrelated factors that affect Wildlife and their intricate relationships.

The plan intends to make prescriptions that would minimize such negative effects on the habitat in general and the wild animals in particular. Further, this plan is designed for 5 years and would need revision thereafter considering the improvement in the forest-in-question or degradation for the said Impact Area.

2.4. The Integrated Approach

This Wildlife Conservation Plan is prepared for the Impact Area especially. There may be other old/new projects nearby the study area which may have their own impacts and this project for the Impact Area of 10 km surrounding the site probably would not be sufficient for entire area conservation.

In a large-scale view this Conservation Plan suggests that any Conservation Plan / Plans for any kind of developmental activities in the vicinity of the area must definitely take into consideration the prescriptions and the approach of the present plan. A holistic & integrated approach by redefining the Integrated Impact Area which would include impact areas of future mine allocations and or developmental activities should be the cornerstone of future conservation planning for wildlife in and around the area.

3. Impact Area & Project Impacts

3.1. Project Introduction

The proposed project of the Sagmania Limestone Mine of M/s. Birla Corporation Limited is located at Village: Barikalan, Baraj, Puraini, Bathain Khurd, Bharjunakalan, Nimi & Naina, Tehsil: Raghurajnagar, District: Satna State: Madhya Pradesh, India.

3.2. Brief description of Project

It is a Limestone Mine with production capacity of 4.9 MTPA in the mine lease area of 852.50 Ha, located at Village- Puraini, Bharjunakala, Bathain Khurd, Naina, Nimi, Baraj & Barikalan, Taluka Raghurajnagar, District Satna, State - Madhya Pradesh by M/s Birla Corporation Limited.The present proposal falls under item 1(a) of mining under category A project as per EIA Notification dated 14.09.2006 subsequent amendment thereof.

3.3. Project Location

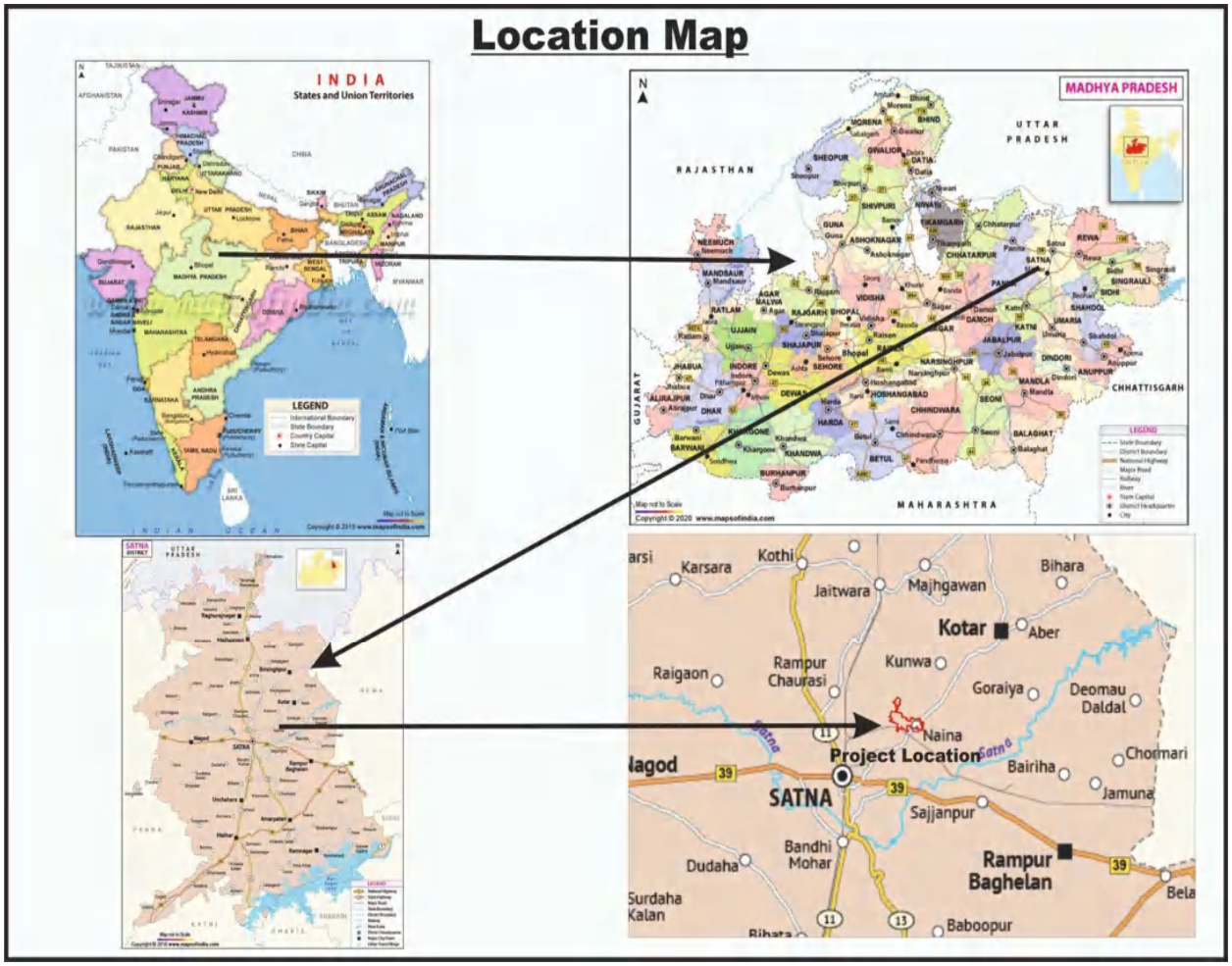


Figure 1. Project Location

Table 1. Connectivity

Roads/Highways	Aerial Distance (Km)
NH - 75	3.55 Km East
Panna- Khajuraho road	5.30 Km SSW
Sakariya Railway Station	1.69 km SE
Khajuraho Airport -	97.99 km WNW

3.4. Topographical Map

Figure 2. Topographical map

3.5. Environmental Sensitivity

Table 2. Environmental Sensitivity

Water bodies	Aerial Distance and Directions
Badkhar Nala	1.26 Km SSE
Talab near Chakmurar	2.48 Km SE
Pond near Muran	3.83 Km SE
Magardaha N	5.08 km NW
Chuhar N	5.20 Km NW
Satna River	5.22 km SE
Tons or Tamasa River	5.29 km SE
Sindhi Comp Talab	5.30 Km SW
Simrawal Nadi	5.49 Km NE
Narayan Talab	6.03 Km SSW
Bagha Pond (Talab)	6.23 km SW
Gahira N	6.51 Km S
Jagat Dev Talab	6.83 km SW
Hathia N	7.28 km NNE
Rani Talao	7.55 Km SSE
Choker N	7.80 Km N

Lagna Nala	8.04 km NNW
Dhawari Talab	9.45 Km SW
Canal near Ganesha	9.55 km SE

Table 3. Reserve Forest

Forest	Distance
Reserved Forest near Khamharia	2.74 Km
Reserved Forest near Bhatpurwa	2.93 Km
Reserved Forest near Khamhariya payasin	3.79 Km
Jamori Reserved Forest	3.95 Km
Reserved Forest near Khajurehara	6.23 Km
Reserved Forest near Bandarkha	8.10 Km
Reserved Forest near Hinauta	8.15 KM
Reserved Forest near R F Majhiar	8.53 Km
Reserved Forest near Majhiar	8.91 Km
Reserved Forest near Chulhi	9.19 Km

4. Methodology for the study of Flora and Fauna-

During the study, the floral composition of the area was evaluated through a primary questionnaire based survey. The study area was divided according to habitat types followed by the random identification of flora species, exploration of the area, collection of species, and preparation of specimens for later identification if required. Faunal species were observed with the help of methods like standard walk transect, visual encounter survey, etc at different times of the day.

Primary and Secondary data collected was cross-checked with the traditional knowledge of the people of the study region and cross-checked with forest data and other secondary resources.

Cropping pattern

The crops sown during Kharif season are soybean, rice, maize, bajra and tur etc., and in Rabi season wheat, gram, mustered and vegetables. Bananas are also grown in some districts.

Forest Type

According to the Champion & Seth Classification of Forest Types (1968), the forests in Maharashtra belong to twenty one (21) forest types on the basis of zonation against rainfall variations in respect to both spatial and temporal aspects along with the other factors as topography, soil, temperature and the types of forests are namely, (1) 3B/C1c Slightly Moist Teak Forest (2) 3B/C2 Southern Moist Mixed Deciduous Forest (3) 3C/DS1 Moist Sal Savannah (4) 3C/C2e (i) Moist Peninsular High Level Sal (5) 4E/RS1 Riparian Fringing Forest (6) 5/1S2 Khair-Sissu Forest (7) 5/E1/DS1 Anogeissus pendula Scrub (8) 5/DS1 Dry Deciduous Scrub (9) 5/DS2 Dry Savannah Forest (10) 5/DS4 (Dry Grass Land) (11) 5/E1 Anogeissus pendula Forest (12) 5/E2 Boswellia Forest (13) 5/E5 Butea Forest (14) 5/E9 Dry Bamboo Brake (15) 5A/C1a Very Dry Teak Forest (16) 5A/C1b Dry Teak Forest (17) 5A/C3 Southern Dry Mixed Deciduous Forest (18) 5B/C1c Dry Peninsular Sal Forest (19) 5B/C2 Northern Dry Mixed Deciduous Forest

(20) 6B/C2 Ravine Thorn Forest (21) 8A/C3 Central Indian Subtropical Hill Forest (India State Forest Report, 2019).

4.1. Flora of core Zone

Existing Plantation detail

Plantation around 2,73,550 has been done in an area of 102 Ha.The major species planted is Sagaun, Kesia Semia, Karanj, Neem etc.

4.2. Flora of the Buffer Zone

In the Buffer Zone varieties of trees, shrubs, and grasses are found for which Primary survey and Public consultation was carried out in the 10 Km Buffer Zone. A secondary survey (including literature review) for the same was carried out.

Table 4. Flora of the Buffer Zone

Sl. No	Scientific Name	Common Name
Tree		
1.	*Acacia catechu*	Katha
2.	*Acacia nilotica*	Babul
3.	*Aegle marmelos*	Bael
4.	*Ailanthus excelsa*	Maharukh
5.	*Albizia lebbeck*	Siris
6.	*Alstonia scholaris*	Devils Tree
7.	*Annona squamosa*	Sita phal
8.	*Anogeissus latifolia*	Dhaora
9.	*Anthocephalus kadamba*	Kadamb
10.	*Azadirachta indica*	Neem
11.	*Boswellia serrata*	Salai
12.	*Bridelia retusa*	Kasai
13.	*Buchanania lanzan*	Chironji
14.	*Butea monosperma*	Palas
15.	*Caesaria tomentosa*	Chilla
16.	*Calotropis gigantea*	Safed
17.	*Cassia fistula*	Amaltas

Sl. No	Scientific Name	Common Name
18.	*Dalbergia latifolia*	Kala shisam
19.	*Dalbergia paniculata*	Dhobein
20.	*Diospyros melanoxylon*	Tendu
21.	*Emblica officinalis*	Amla
22.	*Eucalyptus angophora*	Liptus
23.	*Eucalyptus grandis*	Eucalyptus
24.	*Feronia limonia*	Kaitha
25.	*Ficus bengalensis*	Banyan
26.	*Ficus glomerata*	Gular
27.	*Ficus racemosa*	Cluster Fig
28.	*Ficus religiosa*	Peepal
29.	*Holarrhena antidysenterica*	Kurchi
30.	*Lagerstroemia parviflora*	Landia
31.	*Lannea coromandelica*	Gunja
32.	*Leucaena leucocephala*	Jumbay
33.	*Madhuca indica*	Mahua
34.	*Madhuca longifolia*	Mahua
35.	*Mangifera indica*	Anacardiaceae
36.	*Miliusa tomentosa*	Kari
37.	*Mitragyna parviflora*	Lendi
38.	*Neolamarckia cadamba*	Kadamba
39.	*Nyctanthes arbor-tristis*	Parijat
40.	*Ougeinia oojeinensis*	Sandan

Sl. No	Scientific Name	Common Name
41.	*Peltophorum pterocarpum*	Yellow Flame Tree
42.	*Pithecellobium dulce*	Vilayati Imli
43.	*Pongamia pinnata*	Karanj/Indian Beech
44.	*Prosopis juliflora*	Vilayati Babul
45.	*Salmalia malabarica*	Semal
46.	*Samanea saman*	Gulabi Siris
47.	*Schleichera oleosa*	Kusum
48.	*Shorea robusta*	Sal
49.	*Syzygium cumini*	Jamun
50.	*Syzygium heyneanum*	Chhoti jamun
51.	*Tectona grandis*	Teak
52.	*Terminalia arjuna*	Arjun
53.	*Terminalia bellerica*	Bahera
54.	*Terminalia elliptica-tomentosa*	Saaj
55.	*Terminalia tomentosa*	Saja
56.	*Woodfordia floribunda*	Dhataki
57.	*Wrightia tinctoria*	Dudhi
58.	*Zizyphus jujuba*	Ber
Shrub		
59.	*Butea superba*	*Palas lata*
60.	*Hyptis suaveolens*	*Pignut*
61.	*Lantana camara*	*Raimuniya*
62.	*Nerium indicum*	*Oleander*

Sl. No	Scientific Name	Common Name
63.	*Ziziphus oenoplia*	*Jackal jujube*
64.	*Calotropis procera*	*Madar*
65.	*Zizyphus nummularia*	*Jharberi*
66.	*Ziziphus xylopyrus*	*Ghont*
Herbs & Grasses		
67.	*Apluda mutica*	*Mauritian Grass*
68.	*Argemone mexicana*	*Satynashi*
69.	*Cenchrus ciliaris*	*Foxtail buffalo grass*
70.	*Chlorophytum borivilianum*	*Safed*
71.	*Commelina benghalensis*	*Bengal Day flower*
72.	*Convolvulus sabatius*	Hiran Khuri
73.	*Cyano dactylon*	Bermuda grass
74.	*Cymbopogon martini*	Lemon grass
75.	*Cynodon dactylon*	Bermuda grass
76.	*Cyperus rotundus*	Nut grass
77.	*Dendrocalamus strictus*	Bans/Bamboo
78.	*Dichanthium annulatum*	Marvel Grass
79.	*Heteropogon contortus*	Khad Grass
80.	*Hyptis suaveolens*	Van tulsi
81.	*Ichnocarpus frutescens*	Kali Dhudhi
82.	*Justicia ovata*	Walter
83.	*Leucas aspera*	Dudhi
84.	*Nicotiana tobacum*	Tobacco

Sl. No	Scientific Name	Common Name
85.	*Parthenium hysterophorus*	Gajar grass
86.	*Sida acuta*	Bala
87.	*Tephrosia purpurea*	Sarphunka
88.	*Themeda quadrivalvis*	Grader Grass
89.	*Tridax procumbens*	Mexican Daisy
90.	*Vetiver zizanioides*	Vetiver grass
Climber		
91.	*Bauhinia vahlii*	Camel foot climber
92.	*Cissus quadrangularis*	Hathjod
93.	*Abrus precatorius*	Crab Eye seeds
94.	*Tinospora cordifolia*	Gulvel
95.	*Cocculus hirsutus*	Broom Creeper
96.	*Clitorea ternatea*	Shankapusphi

(Source: Primary Survey and Public consultation)

4.3. Fauna of Buffer zone:

Table 5. Fauna of Buffer zone

SL. NO.	SCIENTIFIC NAME	COMMON NAME	SCHEDULE
AMPHIBIANS			
1.	*Bufo melanostictus*	Toad	-
2.	*Hoplobatrachus tigerinus*	Bull frog	IV
REPTILES			
3.	*Calotes versicolor*	Garden lizard	-

SL. NO.	SCIENTIFIC NAME	COMMON NAME	SCHEDULE
4.	*Chameleon zeylanicus*	Chameleon	II
5.	*Hemidactylus flaviviridis*	Northern House	-
6.	*Hemidactylus frenatus*	Common house gecko	-
7.	*Naja naja*	Cobra	II
8.	*Ptyas mucosa*	Rat snake	II
MAMMALS			
9.	*Bandicota indica*	Greater Bandicoot	IV
10.	*Bos indicus*	Cow	-
11.	*Boselaphus tragocamelus*	Blue Bull or Nilgai	III
12.	*Bubalus bubalis*	Domestic buffalo	-
13.	*Canis aureus*	Jackal	II
14.	*Canis lupus familiaris*	Common dog	-
15.	*Capra hircus aegagrus*	Goat	-
16.	*Felis chaus*	Jungle Cat	II
17.	*Felis silvestris catus*	Common cat	-
18.	*Fumanbulus palamarum*	Three Striped Palm Squirrel	IV
19.	*Herpestes edwardsii*	Common Mongoose	II
20.	*Herpestes javanicus*	Asian small mongoose	II
21.	*Lepus nigricollis*	Black Naped Indian Hare	IV
22.	*Macaca mulatta*	Rhesus Macaque	II
23.	*Mus booduga*	Indian field mouse	IV

SL. NO.	SCIENTIFIC NAME	COMMON NAME	SCHEDULE
24.	*Mus musculus*	House mouse	IV
25.	*Presbytis entellus*	Hanuman Langur	II
26.	*Pteropus giganteus*	Fruit Bats	V
27.	*Rattus rattus*	Common rat	IV
28.	*Sus scrofa*	Wild Boar	III
29.	*Vulpes bengalensis*	Indian Fox	II
AVES			
30.	*Acridotheres tristis*	Common myna	-
31.	*Adreola grayii*	Pond Heron	IV
32.	*Aegithina tiphia*	Common Iora	IV
33.	*Alcedo atthis*	Common kingfisher	IV
34.	*Anas acuta*	Common Teal	IV
35.	*Anhinga melanogaster*	Indian Darter	IV
36.	*Anser indicus*	Bar Headed Goose	IV
37.	*Anthulus rufulus*	Paddy Field Pipit	IV
38.	*Apus affinis*	House Swift	IV
39.	*Athene brama*	Spotted owlet	IV
40.	*Aythya ferina*	Common Poachard	IV
41.	*Bubulcus ibis*	Cattle egret	IV
42.	*Centropus sinensis*	Crow pheasant	IV
43.	*Charadius hiaticula*	Common Ringed Plover	IV
44.	*Columba livia*	Blue Rock Pigeon	V
45.	*Columba livia domestica*	Pigeon	IV

SL. NO.	SCIENTIFIC NAME	COMMON NAME	SCHEDULE
46.	*Coracias benghalensis*	Indian Roller	IV
47.	*Corvus macrorhynchos*	Jungle crow	IV
48.	*Corvus splendens*	Common Crow	V
49.	*Cuculus micropterus*	Indian cuckoo	IV
50.	*Dicrurus macrocercus*	Black drongo	IV
51.	*Ergetta garzetta*	Little Egret	IV
52.	*Eudynamys scolopacea*	Asiatic Koel	IV
53.	*Francolinus pondicerianus*	Grey Partridge	IV
54.	*Fulica atra*	Common Coots	IV
55.	*Gallus gallus*	Red Jungle Fowl	IV
56.	*Halcyon smyrnensis*	The white breasted Kingfisher	IV
57.	*Himantopus himantopus*	Black Winged Stilt	IV
58.	*Hirundo rustica*	Barn Swallow	IV
59.	*Hydrophasianus chirurgus*	Pheasant tailed Jacana	IV
60.	*Lanius cristatus*	Brown Shrike	IV
61.	*Lonchura malabarica*	White throated Munia	IV
62.	*Lonchura punctulata*	Spotted Munia	IV
63.	*Megalaima haemacephala*	Copper Smith Barbets	IV
64.	*Merops orientalis*	Asian green bee-eater	IV
65.	*Merops orientalis*	Green Bee Eater	IV
66.	*Mesophoyx intermedia*	Median Egret	IV
67.	*Microcarbo niger*	Little Cormorant	IV

SL. NO.	SCIENTIFIC NAME	COMMON NAME	SCHEDULE
68.	*Molpastes cafer*	Red vented Bulbul	IV
69.	*Motacilla cinerea*	Grey Wagtail	IV
70.	*Nectarinia asiatica*	Purple Rumped Sunbird	IV
71.	*Oriolus oriolus*	Golden Oriole	IV
72.	*Orthotomus sutorius*	Tailor Bird	IV
73.	*Passer domesticus*	Domestic sparrow	IV
74.	*Pavo Cristatus*	Pea fowl	I
75.	*Ploceus philippinus*	Baya Weaver	IV
76.	*Prinia socialis*	Ashy prinia	IV
77.	*Psittacula krameri*	Rose Ringed parakeet	IV
78.	*Pycnonotus cafer*	Red vented bulbul	IV
79.	*Rhipidura albogularis*	White spotted fintail	IV
80.	*Sterna aurantia*	Indian River Tern	IV
81.	*Streptopelia chinensis*	Spotted Dove	IV
82.	*Sturnus roseus*	Rosy Starling	IV
83.	*Tyto alba*	Barn Owl	IV
84.	*Upupa epops*	Hoopoe	IV
85.	*Vanellus indicus*	Red Wattled- Lapwing	IV

(Source: Primary survey & Secondary Data)

Buffer Zone: Primary survey and Public consultation was carried out in the 10 Km Buffer Zone. Secondary literature sources were also referred.

ENDANGERED SPECIES

There are 1 Schedule I species found in the study area i.e. 10 km of the buffer zone named as; Peacock (*Pavo cristatus*).

5. Principle of Wildlife Conservation

Wildlife resources share a vital relationship with the human species and have been an important issue all over the world. Today, the wildlife habitats are under intense human pressure which is directly linked to constraints on and declines in biodiversity. Protected areas with strict biodiversity conservation objectives significantly lower the human pressure. Since every one of us depends on flora and fauna for all vital components of our welfare, it is more than a matter of convenience that they continue to exist. As living units of the ecosystem, flora and fauna contribute to human welfare by means of providing

- material benefit to human life;
- knowledge about genetic resources and their preservation;
- Recreational Activities

The Presence or absence of flora and fauna in a particular region is determined by ecological factors and historical factors. Flora and Fauna are living indicators of the characteristics of their environment; their range marks the region where environmental factors are the same or familiar. To interpret the range of a species properly, it is necessary to know, in detail, the conditions required for the species to live and thrive. The science of zoogeography has both ecological and historical factors. On this basis, the world can be divided into six zoogeographical realms

- Nearctic: North America and Greenland
- Palaearctic: Eurasia, without India

- Ethiopian: Africa, south of the Sahara
- **Oriental: India and Indochina**
- Australian: Australia and New Zealand
- Neotropical: South and Central America, and the Antilles

India is further ecologically divided into three main regions, the Himalayan Mountain system, the peninsular India subregion (woodlands and desert); and the tropical rain forest region. Earlier, the Indian subcontinent was once blessed with relatively rich biodiversity as compared to the present scenario. Years of increasing intensity and frequency of humans have led to mismanagement of ecosystems. Today, India contains 172 species (2.9% of the world's overall number) of fauna that are considered to be globally threatened by the IUCN. These include 53 species of mammals, 69 species of birds, 23 species of reptiles, and 3 species of amphibians.

Success in evolution is measured in terms of survival rate: failure, by species extinction. Most recent extinctions can be attributed, either directly or indirectly, to human demographic and technological expansion, commercialized exploitation of species, and human-caused environmental change. These factors, in turn, have affected the reproductive rate of endangered species and their adaptability to changing environmental conditions.

6. Need of Wildlife Conservation & Management

- Several species of flora and fauna in the country are highly threatened due to over exploitation, habitat degradation and loss. Of these, many have been pushed to the brink of extinction. Such species, especially endangered and critically endangered, need immediate conservation measures by way of conducting status surveys, preparation of recovery plans, and identification and protection of critical habitats.

- Conservation of threatened species of flora especially local endemics and highly traded species such as medicinal plants and orchids have received relatively less attention so far.
- Climate change is expected to make major impacts on global biodiversity through drivers such as carbon dioxide, changes in fire frequencies, insect and pathogen attacks, latitudinal and altitudinal shifts in species distributions, and altered community interactions resulting in changes in species abundance. The present-day boundaries of major terrestrial ecosystems or vegetation types would change significantly. Freshwater, coastal and marine ecosystems would be similarly impacted.
- With a rich diversity of flora and fauna, India has always been a target of the illegal wildlife trade as a source country. It has emerged as one of the most serious threats to wildlife. The international trade in wildlife and its derivatives is an organized and established global criminal activity with hubs and trade routes spanning countries and continents. International efforts such as CITES, CAWT, TRAFFIC: THE WILDLIFE TRADE MONITORING NETWORK, etc. have been great steps by the global leaders in containing the international wildlife trade and its derivatives to ascertain extent.
- India as a nation is well-known for its demonstrated concern for conservation of wildlife and biodiversity, further its national laws to protect wildlife (for eg. Wildlife Protection Act 1972) are some of the most stringent in the region . It thus assumes greater responsibility and leadership even in the global conservation of natural heritage. The country is obliged to undertake necessary steps to prevent illegal trade or transfer of wildlife and wildlife articles which are regulated under various appendices of CITES.
- Although the wildlife protection laws and policies of the country are one of the best of its kind in the world, the implementation of these laws and policies is a major

problem. The conviction rate in wildlife crime cases is very low, resulting in persistence of habitual offenders in the illegal wildlife trade. Preventive measures along with enforcement of deterrent law are necessary to ensure the reduction of incidents of wildlife crime across the country. To make this a reality, appropriate policies need to be evolved, and put in place urgently.

7. Indian Peafowl (Pavo cristatus)

7.1 Introduction

The Indian Peafowl (*Pavo cristatus*) has been an integral part of the people of India and their culture for centuries. From religion and mythology to civilization and socio-culture, the Indian Peafowl occupies an important place in the lives of the people. In addition to this, the Indian Peafowl is well recognized for its ecological and aesthetic values, and hence aptly declared as the 'National Bird' of India in the year 1963. Since the early 1990s, there have been reports of increasing illegal trade in peafowl feathers, large-scale mortalities due to increased use of insecticides/pesticides in agricultural lands, poaching, and retaliatory killings by people due to alleged crop depredation by peafowl. Several peafowl strong hold areas in the country are now concerned about the current declining status. Peacock which is in schedule-I of the wildlife (protection) Act 1972 is reported in the study area.

Taxonomy

Table 6. Taxonomy.

Kingdom	Animalia
Phylum	Chordata
Class	Aves

Order	Galliformes
Family	Phasianidae
Sub family	Phasianinae
Genus	*Pavo*
Species	*cristatus*
Vernacular Name	Mor or Peacock

7.2 General description

Peacock or Indian peafowl (*Pavo cristatus*) is a familiar and universally known large pheasant. It is the National bird of India. The term "Peacock" is commonly used to refer to birds of both sexes. Technically, males are Peacock, females are peahens and together they are called peafowl. The male has spectacular glossy green long tail feathers that may be more than 60 percent of the bird's total body length. These feathers have blue, golden green and copper colored a celli (eyes). The long tail feathers are used for mating rituals like courtship displays. The feathers are arched into a magnificent shape across the back of the bird and almost touching on both sides. Females do not have these graceful tail feathers. They have the fan-like crest with a whitish face and throat, chestnut brown crown and hind neck, metallic green upper breast and mantle, white belly and brown back rump and tail. Their primaries are dark brown.

7.3 Morphology

Table 8. Morphology

Scientific Name	*Pavo cristatus*
Type	Bird

Diet	Omnivore
Size (L)	86 cm-107 cm (34in- 42in)
Wing span	120 cm-300 cm (47in-118in)
Weight	2.7 Kg-6 Kg (6lbs-13.2lbs)
Top speed	16 Km/h (10 mph)
Life span	12-20 years
Lifestyle	Solitary
Conservation Status	Schedule I (As per Wildlife protection act, 1972)
Average clutch size	6
Main Prey	Grains, Seeds, Insects
Predators	Dogs, Tigers, Wild Cats, Raccoon
Distinctive features	Long tail feathers and Colorful tail of Males

7.4 Habitat

It is found in moist and dry-deciduous forests, but can adapt to live in cultivated regions and around human habitations and is usually found where water is available. Size of the male tail feathers, its coloration and eyes determine the don menace of the male in the peacock hierarchy. The females are believed to be attracted towards the male with the longest and most colorful tail feathers.

7.5 Physical Characteristics

The male Indian Peafowl, commonly known as the peacock, is one of the most recognizable birds in the world. The brightly coloured Indian peacock birds have a distinctive crest and an ornamental train. The train (1.4-1.6 meters in length) accounts for more than 60% of their total body length (2.3 meters). Combined with a large wingspan (1.4-1.6 meters), this train makes the male peafowl one of the largest flying birds in the world. The train is formed by 100-150 highly specialized upper tail coverts. Each of these feathers sports an eyespot, and has long disintegrated barbs, giving the feathers a loose, fluffy look. When displaying to a female, the peacock bird erects this train into a spectacular fan, presenting the ocelli to their best advantage (Fowler, 2011) Size of the male tail feathers, its coloration and numbers of eyes present determine the dominance of the male in the peacock hierarchy. The females are believed to be attracted towards the male with the longest and most colorful tail feathers (Kushwaha & Kumar, 2016).

Other physical Characteristics of peacock

Table 8. Physical Characteristics of Peacock

Body length	Male 110-230 cm, Female: 85 cm
Weight	2750-6000 gm
Habitat	In the undergrowth in deciduous forests near streams and neighbourhoods of villages and cultivated countries and tall trees for roosting.

7.6 Behavior

In the breeding season they are usually seen in small parties of one male three to five females whereas in the non-breeding season they remain in separate parties of adult males and females with juveniles. Peacocks roost in tall trees and emerge from the dense thickets to feed in fields and open in forest fields.

Call: Kee-ow, Kee-ow, Ka-an, Ka-an, Ka-an, Kok-kok, Kok-Kok, cain-kok,may-yow c calls at dusk and dawn, also loud nasal calls and cackles, very noisy during the rains, when breeding.

Nesting: On tall Trees.

Breeding: Peak season in southern India is April to May and June in Northern India.

Other habits: Male sheds its colorful tail feathers during winters which grow again till autumn.

7.7 Food Habit

Peacocks are ground feeders. Indian peafowl do most of their foraging early in the morning and shortly before sunset. They retreat to the shade and security of the trees for the hottest portion of the day. They make a meal of grains, drupes of wild and some cultivated crops. They can also eat insects, small reptiles and small mammals (Fowler, 2011).

7.8 Conservation and relationship with man

The great beauty and popularity of the Indian Peafowl has ensured its protection throughout most of its native ranges. It enjoys the grace of the National Bird of India. The Peafowl is prominent in the mythology and folklore of the Indian people. The Hindus consider the bird to be sacred because of its association with Lord Krishna, who used to wear its feather as crown (Mor Mukut). It is also associated with the God Kartikey, son of Lord Shiva and Parvati and brother of Lord Ganesha. It is “Vaahan '' (transport) of Lord Kartikeya. This long and close association with humans has proven the Peafowl’s

adaptability to human altered landscapes. In villages where it is protected, it becomes quite tame, but is very shy and secretive where hunted. Peacock is generally protected by the local people.

7.9 Population threats to Endangered Species

Biodiversity is facing severe threats from multiple factors that may be anthropogenic and natural. A number of references have been cited for various factors that are threatening our biodiversity such as, Habitat loss through degradation and fragmentation, Urban development (Population growth and Habitat is lost through conversion to agriculture and housing), Over exploitation of natural resources leads to Pollution, Invasive species, Climate change, Weak enforcement of law, Stochastic events and Poaching & Killing (for wildlife products like Ivory & Fur).

This report presents a conservation strategy for 1 endangered species around the project buffer zone. This species is not endemic or native to this area however they must have migrated to this area due to loss of habitat in another nearby area. Therefore, it is critical that this species should be properly conserved with proper mitigation measures.

The following guidelines and policies will be followed:

1. Wild life Protection Act, 1972 as amended during 1991.

3. Forest (Conservation) Act, 1980.

4. Environment (Protection) Act, 1986.

5. National Forest Policy, 1988.

6. Guidelines for the preparation of working plans issued by the Government of India.

7. Directives of the Supreme Court of India on encroachments and reservation of 10% of areas under protected area network.

8. Policy on wildlife management, 1990.

9. Report of the Expert committee-I constituted for identification of ‘Forests’ 1997.

10. Report of the Expert Committee-IS constituted to determine the sustainability of forests, 1997.

11. Guidelines on policies and procedures to be applied to all working plans.

12. State government's policy decisions on working plans through a series of workshops and discussions held with senior officers and guidance received from time to time.

13. State government's policy decisions on working plans through a series of workshops and discussions held with senior officers and guidance received from time to time like Climate change, Carbon Sink Projects, CDM and REDD+ etc.

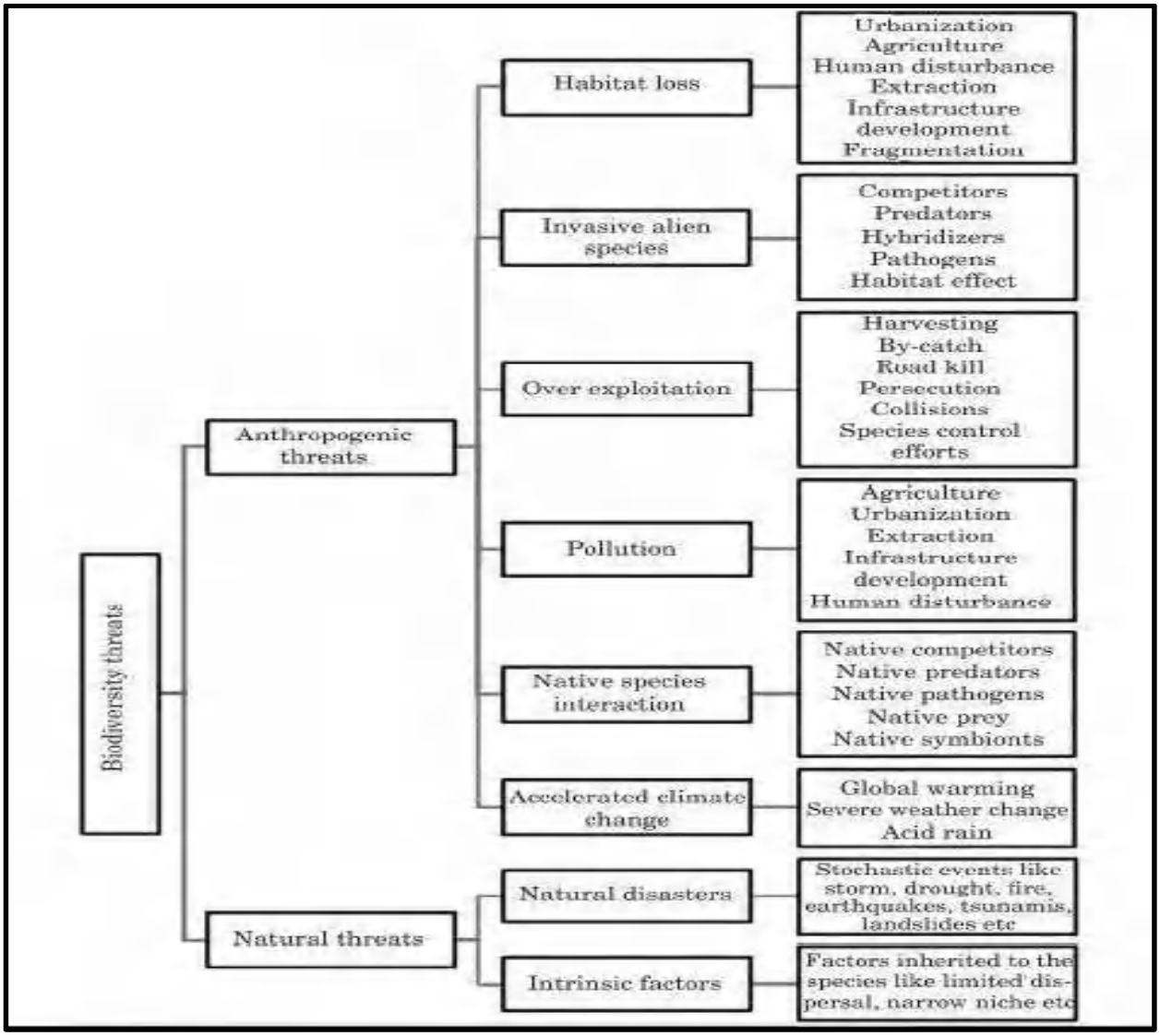
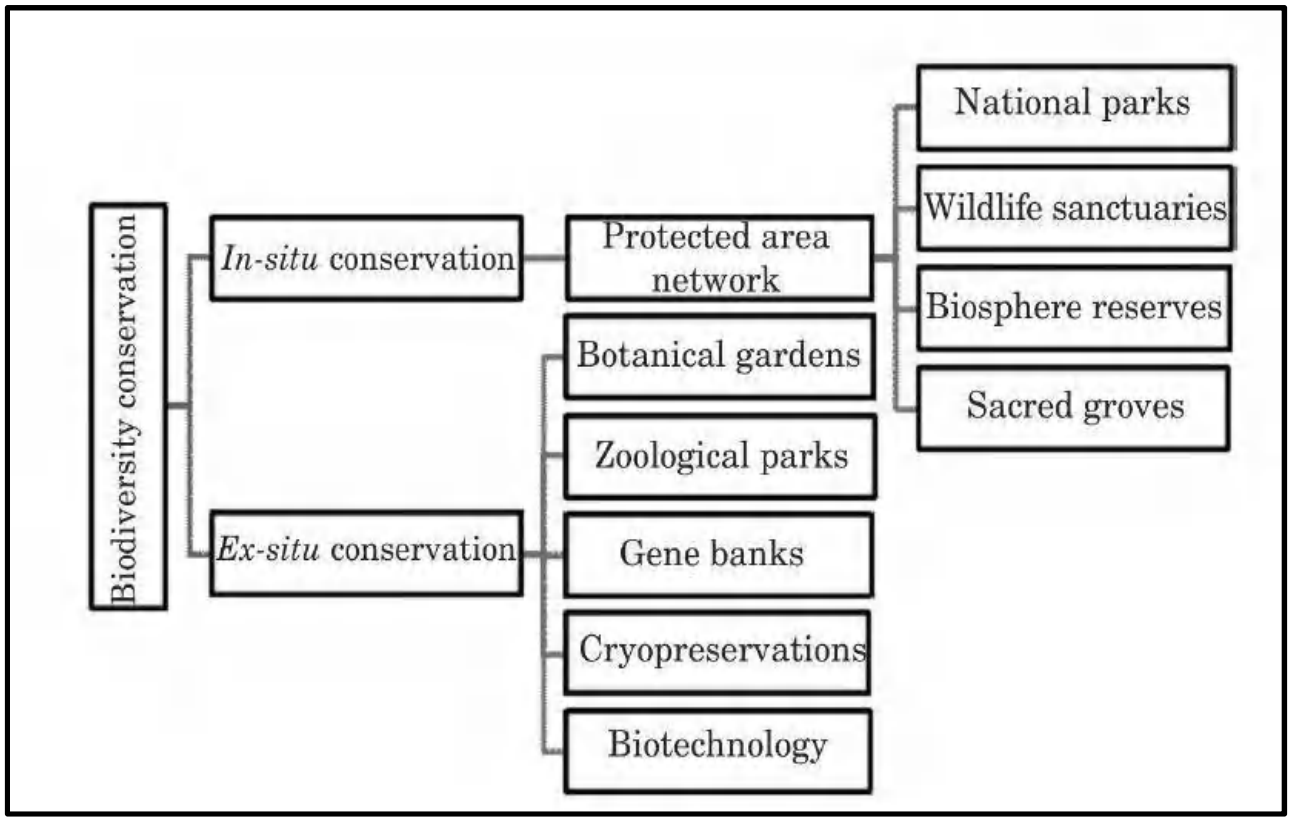


Figure 4. Biodiversity Threats

8. Conservation strategies for biodiversity

The conservation strategies can be broadly classified into two categories; namely, in-situ conservation and ex-situ conservation, which are equally important and both of the conservation practices are used in a complementary manner to conserve biodiversity and to make them available for potential utilization. The conservation strategies for



biodiversity can be classified into two categories *In- site* and *Ex-situ* Conservation. **Details given below.**

8.1. Specific Conservation Measures to be taken in consultation with forest department

a) **Plantation details and programs:** Plantation details and programs: (In consultation with forest department) Preferred roosting trees for the herbivorous species and Native or fruit bearing species plantation would be specially taken up in the green belt area of the project and nearby area.

b) Small earthen

c) material lined water tanks will be created in the Core-zone Green area as well as select areas in the Buffer Zone to ensure availability of clean drinking water to the Peacocks. The availability of clean water will ensure a permanent stay of peafowl in these areas because peafowl are effectively confined to undisturbed water sources during the dry months.

d) **Awareness program:** Gardeners and farmers would be encouraged to use natural manure such as cow dung and vermicompost (compost prepared by earthworms which convert organic waste into manure) instead of chemical fertilizers and pesticides to maintain flower beds and plants that mostly kill insects and seasonal weeds which limit food supply. Insects are an important prey-item during the incubation period and for juvenile's growth. Awareness generation like in schools, setting up of interpretation zones, etc. for next five years. (includes farmers and local villagers)

9. Project Budget

The Proponent has proposed a sum of Rs 5.0 Lakh for conservation of species under the following heads with a time frame of 5 years. The total financial plan is presented below:

Table 9. Project Budget

S. N.	Activity & Provision	1st year (in thousands)	2nd year (in thousands)	3rd Year (in thousands)	4th Year (in thousands)	5th Year (in thousands)	Total Cost (in lakhs)
1	Improvement of water availability- Construction maximum number of water sources such as earthen tanks, and small ponds and maintain a number of water sources every year.	40,000	40,000	40,000	40,000	40,000	2
2	Food Availability and improvement of Habitat- Plantation of edible fruit bearing trees (In consultation with the Forest Department) for herbivorous animals which will lead to the improvement of habitat. Also provision of availability of food grains near the water bodies will be provided.	30,000	30,000	30,000	30,000	30,000	1.5
3	Awareness generation like in schools, setting up of interpretation zones, etc. for the next 05 years. (includes farmers and local villagers)	30,000	30,000	30,000	30,000	30,000	1.5
Total							5.0 Lakhs

Annexure GC-5.

Water sprinkling on haul roads

Fixed water sprinklers installed at mine roads

Annexure GC-5.

Water spray system installed at conveyor belt

Fixed water sprinklers installed at mine haul roads

TEST REPORT CODE: VGL/N/24/11/09/N-001-004 ULR NO. TC144552400000603F TEST REPORT ISSUE DATE: 14.11.2024

TEST REPORT (AMBIENT NOISE)

Name And Address of Customer	:	**M/S. BIRLA CORPORATION LIMITED** UNIT- SAGMANIA LIMESTONE MINES (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005, M. P. INDIA
Duration Of Monitoring	:	24 HOURS
Monitoring Done By	:	VGL STAFF
Sampling Method	:	IS 9989
Sampling Machine Placed at Height	:	ABOVE 1.5 METER FROM GROUND LEVEL

TEST RESULT

Test Parameters				Noise Level- Day Time			Noise Level- Night Time		
Unit				Leq dB(A)			Leq dB(A)		
Test Method				IS: 9989			IS: 9989		
Sl. No.	Location	Monitoring Date	Sample ID	Leq dB(A)	Max. dB(A)	Min. dB(A)	Leq dB(A)	Max. dB(A)	Min. dB(A)
Limit (as Per CPCB)- Industrial Area				75			70		
1	LABOUR COLONY (EAST)	07.11.2024	N-001	51.4	52.2	42.7	42.4	43.2	38.3
2	A- QUARRY PUMP HOUSE (WEST)	07.11.2024	N-002	50.3	56.2	49.7	45.3	49.1	41.6
3	ANFO MIXING SHELTER (NORTH)	08.11.2024	N-003	51.5	54.7	50.5	43.7	47.2	42.4
4	QUARRY DISPENSARY (SOUTH)	08.11.2024	N-004	56.4	59.3	52.6	44.4	49.3	41.5

Remark: Day time is reckoned in between 06.00 A.M. and 10.00 P.M
Night time is reckoned in between 10.00 P.M. and 06.00 A.M.

1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission inwriting.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above results are related to the tested sample only.

Review By:
Dr. Ashok Kumar
Technical Manager

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorized Signatory
Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/N/24/11/09/N-005-010 ULR NO. TC144552400000629F TEST REPORT ISSUE DATE: 14.11.2024

TEST REPORT (WORK NOISE)

Name And Address of Customer	:	**M/S. BIRLA CORPORATION LIMITED** UNIT- SAGMANIA LIMESTONE MINES (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005, M. P. INDIA
Duration Of Monitoring	:	8 HOURS
Monitoring Done By	:	VGL STAFF
Sampling Method	:	IS 9876
Instrument Used	:	NOISE DOSIMETER

TEST RESULT

Test Parameters				Work Noise Level- Day Time
Unit				dB(A)
Standard as per OHSAS				90
Test Method				IS: 9876
Sl. N	**Location**	**Monitoring Date**		**Time Weight Average dB(A)**
1	Near 1200 TPH CRUSHER LIMESTONE	07.11.2024	Inside	74.3
			Outside	79.4
2	MINE CRUSHER HOPPER	07.11.2024	Outside	78.4
3	NEAR MINE OFFICE	07.11.2024	Inside	51.6
			Outside	65.6
4	NEAR DUMPER GARAGE	08.11.2024		61.2
5	1200 TPH CRUSHER INSIDE CCR	08.11.2024		59.2
6	NEAR DRILLING AND OPERATOR CABIN	08.11.2024		60.4

Note:-

1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission inwriting.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above results are related to the tested sample only.

Review By:
Dr. Ashok Kumar
Technical Manager

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory
D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/N/25/02/22/001-004 ULR NO. TC144552500000356F TEST REPORT ISSUE DATE: 28.02.2025

TEST REPORT (AMBIENT NOISE)

Name And Address of Customer	:	**M/S. BIRLA CORPORATION LIMITED** UNIT- SAGMANIA LIMESTONE MINES (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005, M. P. INDIA
Duration Of Monitoring	:	24 HOURS
Monitoring Done By	:	VGL STAFF
Sampling Method	:	IS 9989
Sampling Machine Placed at Height	:	ABOVE 1.5 METER FROM GROUND LEVEL

TEST RESULT

Test Parameters				**Noise Level- Day Time**			**Noise Level- Night Time**		
Unit				Leq dB(A)			Leq dB(A)		
Test Method				IS: 9989			IS: 9989		
Sl. No.	**Location**	**Monitoring Date**	**Sample ID**	**Leq dB(A)**	**Max. dB(A)**	**Min. dB(A)**	**Leq dB(A)**	**Max. dB(A)**	**Min. dB(A)**
Limit (as Per CPCB)- Industrial Area				75			70		
1	**LABOUR COLONY (EAST)**	20.02.2025	N-001	53.5	55.4	46.4	44.4	45.4	40.1
2	**A- QUARRY PUMP HOUSE (WEST)**	20.02.2025	N-002	54.4	60.8	50.2	48.2	50.5	39.4
3	**ANFO MIXING SHELTER (NORTH)**	21.02.2025	N-003	54.2	57.2	51.3	46.5	50.8	41.2
4	**QUARRY DISPENSARY (SOUTH)**	21.02.2025	N-004	57.3	62.3	51.2	48.3	50.2	40.3

Remark: Day time is reckoned in between 06.00 A.M. and 10.00 P.M
Night time is reckoned in between 10.00 P.M. and 06.00 A.M.

1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission inwriting.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above results are related to the tested sample only.

Reviewed By
Dr. Ashok Kumar
Technical Manager

Authorized Signatory
VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
D. K. Yadav
Lab In-charge
Authorised Signatory

TEST REPORT CODE: VGL/N/25/02/22/005-010 ULR NO. TC144552500000382F TEST REPORT ISSUE DATE: 28.02.2025

TEST REPORT (WORK NOISE)

Name And Address of Customer : **M/S. BIRLA CORPORATION LIMITED**
UNIT- SAGMANIA LIMESTONE MINES
(A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005, M. P. INDIA

Duration Of Monitoring : 8 HOURS
Monitoring Done By : VGL STAFF
Sampling Method : IS 9876
Instrument Used : NOISE DOSIMETER

TEST RESULT

Test Parameters				Work Noise Level- Day Time
Unit				dB(A)
Standard as per OHSAS				90
Test Method				IS: 9876
Sl. N	**Location**	**Monitoring Date**		**Time Weight Average dB(A)**
1	Near 1200 TPH CRUSHER LIMESTONE	20.02.2025	Inside	75.1
			Outside	81.5
2	MINE CRUSHER HOPPER	20.02.2025	Outside	80.3
3	NEAR MINE OFFICE	20.02.2025	Inside	55.2
			Outside	69.4
4	NEAR DUMPER GARAGE	21.02.2025		60.6
5	1200 TPH CRUSHER INSIDE CCR	21.02.2025		58.5
6	NEAR DRILLING AND OPERATOR CABIN	21.02.2025		59.5

Note:-

1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission inwriting.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above results are related to the tested sample only.

Review By

Dr. Ashok Kumar
Technical Manager

Authorized Signatory

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory

D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/WW/24/11/09/N-001 ULR NO. TC144552400000608F TEST REPORT ISSUE DATE: 14.11.2024

TEST REPORT (WASTE WATER)

Name and Address of Customer	:	**M/S. BIRLA CORPORATION LIMITED** UNIT- SAGMANIA LIMESTONE MINES (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005, M. P. INDIA
Location of Sample	:	**ETP WATER**
Sample Description	:	**EFFLUENT TREATED WATER**
Date & Time of Sampling	:	08.11.2024 & 01:10 PM
Sample Collected by	:	VGL STAFF
Weather Condition	:	CLEAR
Sample Id No.	:	001
Laboratory Sample Receiving Date	:	09.11.2024
Duration of Sample Analysis	:	11.11.2024 TO 14.11.2024
Method of Sampling	:	APHA 1060B & 9060A

TEST RESULTS

SL. NO.	TESTS	UNIT	PROTOCOL	RESULT	SPECIFICATION/LIMIT (AS PER CPCB)
1	pH at 25° C	--	APHA 4500-B	7.15	6.5-9.0
2	Suspended Solids	mg/L	APHA 2540-D	26.7	100
3	Total Dissolved Solid as TDS	mg/L	APHA 2540-C	432.0	2100
4	Oil & Grease as (O & G)	mg/L	APHA 5520-B	<2.0	10
5	Biological Oxygen Demand as (BOD 3days 27^{0}C)	mg/L	IS: 3025 (Part-44)	11.2	30
6	Chemical Oxygen Demand as (COD)	mg/L	APHA 5220-A+C	56.0	250
7	Chloride as Cl	mg/L	APHA 4500 Cl A+B	192.0	1000

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above results are related to the tested sample only.
5. BDL- Below Detection Limit.

Review By:
Dr. Ashok Kumar
Technical Manager

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory

D. K. Yadav
Lab In-charge

TEST REPORT CODE: VGL/WW/25/02/22/001 ULR NO. TC144552400000361F TEST REPORT ISSUE DATE: 28.02.2025

TEST REPORT (WASTE WATER)

Name and Address of Customer	:	**M/S. BIRLA CORPORATION LIMITED** UNIT- SAGMANIA LIMESTONE MINES (A UNIT OF MP BIRLA GROUP) PO- BIRLA VIKAS, SATNA-485005, M. P. INDIA
Location of Sample	:	**ETP WATER**
Sample Description	:	**EFFLUENT TREATED WATER**
Date & Time of Sampling	:	21.02.2025 & 02:40 PM
Sample Collected by	:	VGL STAFF
Weather Condition	:	CLEAR
Sample Id No.	:	001
Laboratory Sample Receiving Date	:	22.02.2025
Duration of Sample Analysis	:	24.02.2025 TO 28.02.2025
Method of Sampling	:	APHA 1060B & 9060A

TEST RESULTS

SL. NO.	TESTS	UNIT	PROTOCOL	RESULT	SPECIFICATION/LIMIT (AS PER CPCB)
1	pH at 25° C	--	APHA 4500-B	7.32	6.5-9.0
2	Suspended Solids	mg/L	APHA 2540-D	29.7	100
3	Total Dissolved Solid as TDS	mg/L	APHA 2540-C	448.0	2100
4	Oil & Grease as (O & G)	mg/L	APHA 5520-B	<2.0	10
5	Biological Oxygen Demand as (BOD 3days 27^0C)	mg/L	IS: 3025 (Part-44)	12.1	30
6	Chemical Oxygen Demand as (COD)	mg/L	APHA 5220-A+C	58.0	250
7	Chloride as Cl	mg/L	APHA 4500 Cl A+B	196.0	1000

Note:
1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15Days.
4. The above results are related to the tested sample only.
5. BDL- Below Detection Limit.

Review By:

Dr. A[illegible] Kumar
Technical Manager

Authorized Signatory

VIRAT GLOBAL LAB
(A Division of Aseries Envirotek India Pvt. Ltd.)
Authorised Signatory

D. K. Yadav
Lab In-charge

S.B.

(FORM – O)

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

Report of medical examination under rule 29B

(To be issued in triplicate)**

Certificate No 25/041/1300

Certified that Shri ~~Ramashish~~ Ram Ashish Yadav employed as shovel operator in Open Cast mine, Form B No..... has been examined for ~~initial~~/periodical medicalexamination. He appears to be 58 years of age. The findings of the examining authority are given in the attached sheet. It is considered that

Shri Ram Ashish Yadav S/o - Chottu Yadav

(a)* is medically fit for any employment in mines.

(b)* is suffering from..... and is medically unfit for

(i) any employment in mine; or

(ii) any employment below ground; or

(iii) any employment or work.....

(c)* is suffering from..... is should get this disability* cured/controlled and should be again examined within a period of .....months. He/She will appear for re -examination with the result of test of.....and the opinion of.....Specialist from..... He/She may be permitted/not* permitted to carry on his duties during this period.

Dr. Tabrez Kheera
Chief Medical Officer
OHC Sagmania Mines
Birla Corporation Limited
Reg.No.MP-33456

Dr. Tabrez Kheera
Chief Medical Officer
OHC Sagmania Mines
Birla Corporation Limited
Reg.No.MP-33456

Place: OHC Sagmana Mines

Signature of the examining authority

Date: 18/3/2025

.....
Name and designation in Block letters

* Delete whatever is not applicable.

Report of the examining authority

(To be filled in for every medical examination whether initial or periodical or re-examination or aftercure/control of disability).

Annexure to Certificate No. 25/04/13 as result of medical examination on 15/8/25

Identification Mark (R) Hand [illegible]

1. General development- Good/Fair/Poor
2. Height 160 Cms. Left thumb impression of the candidate
3. Weight 68 kg.
4. Eyes :
   (i) Visual acuity-Distant vision (with or ~~without~~ glasses)- Right eye 6/9 Left eye 6/9
   (ii) Any organic disease of the eyes — With glasses 6/6 6/6
   (iii) Night blindness
   (iv) Colour blindness — NAIL
   (v) Squint
5. Ears :
   (i) Hearing : Right ear (N) Left ear (N)
   (ii) Any orgauic diseases of the ears
6. Respiratory system.
   Chest measurement :
   (i) after full inspiration 90 cms.
   (ii) After full expiration 86 cms.
7. Circulatory system:
   Blood Pressure- — 128/78 mmHg
   Pulse-
8. Abdomen : — [illegible]
   Tenderness.
   Liver.
   Spleen.
   Tumour. — NAD
9. Nervous system:
   History of fits or epilepsy
   Paralysis.
   Mental health. — NAD
10. Locomotory system
11. Skin.
12. Hydrocele. — NAD
13. Hernia.
14. Any other abnormality
15. Urine : Acidity
    Reaction.
    Albumin.
    Sugar. NIL
16. Skiagram of chest. NAD
17. Any other test considered necessary by the examining authority. NAIL
18. Any opinion of specialist considered necessary.

Place: OHC Saymana Minojh

Dr. Tabrez Kheera
Chief Medical Officer
OHC Saymana Mines
Birla Corporation Limited
Reg. No. MP-33456

Signature of the examining authority

Report of medical examination as per the recommendations of National Safety Conference in Mines

(To be used in continuation with form O)

Certificate No: 25/041/1300

Name: Ram Manish Yadav

Identification mark: (R) Hand injai Hum

1. Cardiological assessment:

Auscultation	S1	(+)
	S2	(+)
	Additional sound	(−)
ECG findings:		Normal/Abnormal

Enclosed ECG

2. Neurological assessment:

Findings	Normal/Abnormal
Superficial reflexes	
Deep reflexes	Normal
Peripheral circulation	
Vibrational syndromes	

3. ILO classification of chest radiograph:

Profusion of pneumoconiotic opacities	Grade	Type
Absent ✓	—	—

Enclosed chest radiograph

4. **Audiometry findings:**

Conduction type	Left ear	Right ear
Ear conduction	Normal/Abnormal	Normal/Abnormal
Bone conduction	Normal/Abnormal	Normal/Abnormal

Enclosed audiometry report

5. **Pathological/Microbiological investigations:**

S.No	Test	Findings
1	Blood- Tc, Dc, Hb, ESR, Platelets	WNL/Abnormal
2	Blood sugar- Fasting & PP	WNL/Abnormal
3	Blood urea, creatinine	WNL/Abnormal
4	Lipid profile	WNL/Abnormal
5	Urine routine	WNL/Abnormal
6	Stool routine	WNL/Abnormal

Enclosed investigation reports

6. **Special tests for Mn exposure:**

Behavioral disturbances		Present/Not present
Neurological disturbances	Speech defect	Present/Not present
	Tremor	Present/Not present
	Adiadocokinesia	Present/Not present
	Emotional changes	Present/Not present

7. **Any other special test required:** None

Dr Shabbir Kheera
Chief Medical Officer
OHC Sagmaria Mines
Birla Corporation Limited
Reg.No. MP-33456

Signature of the examining authority

Report of Medical Examination under Mines Rule 29 B

(To be used in continuation with From O)

Certificate No. 25/041/1300

Name : Ram Ashish Yadav

Identification Marks : (1) Hand injury Alun

Result of Lung Function Test (Spirometry)

Parameters	Predicted Value	Performed Value	% of Predicted
Forced Vital Capacity (FEV)	3.41	4.42	124
Forceed Vital Capacity 1 (FEV1)	3.02	4.31	143
FEV1/FVC	81.40	91.33	112
Peak Expiratory Flow	7.08	7.48	106

Spirometry Report enclosed

13/02/25

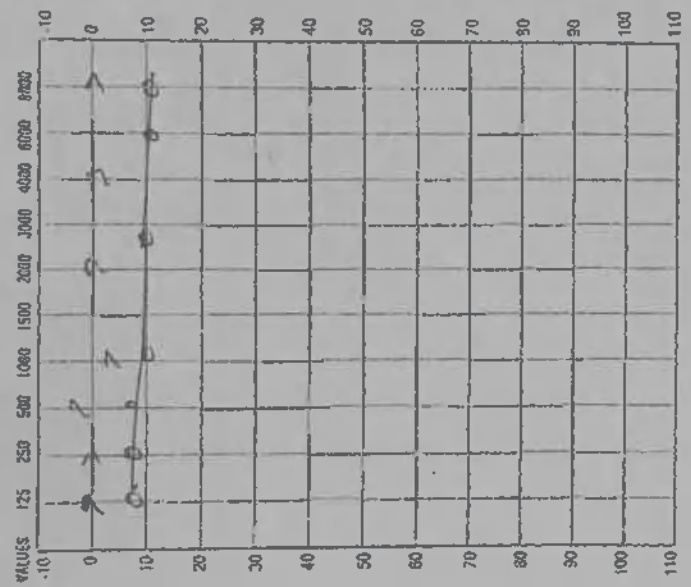
Dr. Tabrez Kheera
Chief Medical Officer
OHC Sagmania Mines
Birla Corporation Limited
Medical Authority

Signature of the Examination Authority

Komalika Yadav

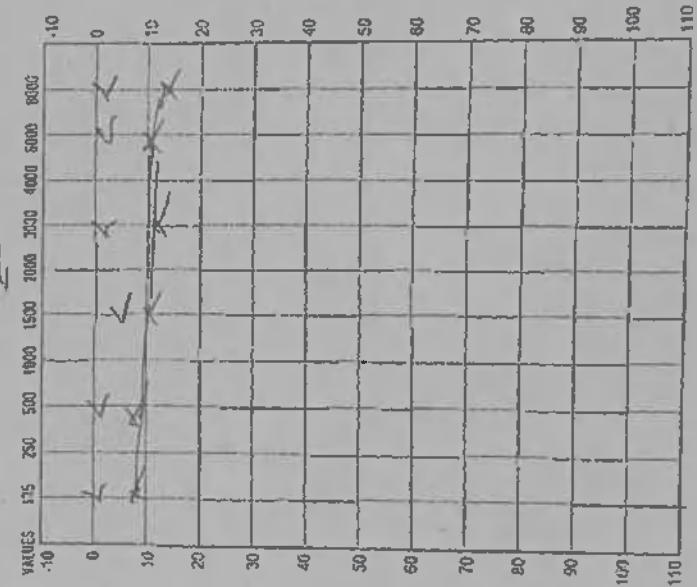
Test by

HEARING LOSS IN dB
FREQUENCIES IN HERTZ



AIR CONDUCTION
O- Rt. Ear
X-Lt. Ear
With Masking
Rt. Ear ^
Lt. Ear [ ]
BONCONDUCTION
Rt. Ear (Unmasked) >

HEARING LOSS IN dB
FREQUENCIES IN HERTZ



(With masking]
Lt. Ear (unmasked) <
(With Masking [
MASKING USED
I- White Noise [ ]
II- Saw Tooth Noise [ ]
III- Filtered White Noise [ ]
No Response ↓

Remarks

SARDAR VALLABHBHAI PATEL DISTRICT GOVT. HOSPITAL-SATNA
CENTRAL PROCESSING LAB
JAGATDEV TALAB ROAD PUSHPRAJ COLONY SATNA
SATNA MADHYA PRADESH (485001)
PHONE NO - 9324347474
DEPARTMENT OF Clinical Pathology

PATIENT NAME MR. RAMASHISH GARG S/O
AGE/GENDER 58 Y / MALE
ORDER NO 171120326/ 00793444
REFERRED DEPT GENERAL MEDICINE
SAMPLE COLLECTION 12-MAR-2025 12:17 PM

MOBILE 0000000000
VISIT TYPE OPD
REFERRED BY DR. VIKRAM SINGH
PRINTED ON 13-MAR-2025 10:27 AM

SHUHID NO 1712503/ 003391
OPD/IPD/ANC #
ORDERED ON: 12-MAR-2025 12:16 PM

TEST	RESULT	REFERENCE RANGE
CBC		
HEMOGLOBIN *	16.0 gm/dl	(M:- 12.5-14.5) gm/dl (F:- 11.5-13.5) gm/dl
H C T *	47.3 %	(40-59) %
TOTAL ERYTHROCYTE COUNT *	4.82 10^6/µL	(M:- 4.5-5.5) 10^6/µL (F:- 3.8-4.8) 10^6/µL
M C V *	98.1 fL	(80-96) fL
M C H *	33.2 pg	(26-35) pg
M C H C *	33.8 g/dL	(29-37) g/dL
R D W-CV *	13.6 %	(11-14) %
TOTAL LEUCOCYTE COUNT *	7.24 10^3/µL	(4-11) 10^3/µL
NEUTROPHILS *	74.3 %	(40-75) %
LYMPHOCYTES *	20.1 %	(20-45) %
MONOCYTES *	5.4 %	(2-10) %
EOSINOPHILS *	0.1 %	(1-6) %
BASOPHILS *	0.1 %	(<1) %
PLATELET COUNT *	151 10^3/µL	(150-450) 10^3/µL
P D W *	18.9 fl	(8.3-25.0) fl
M P V *	13.1 fl	(8-9.5) fl
P C T *	0.20 %	(0.15-0.62) %

Note:

TEST	RESULT	REFERENCE RANGE
FBS (GLUCOSE)		
FASTING BLOOD SUGAR	108.43 mg/dl	(70 - 110) mg/dl

Note:

TEST	RESULT	REFERENCE RANGE
KIDNEY FUNCTION TEST		
Blood Urea	23.15 mg/dl	(12.8-42.8) mg/dl
Serum Creatinine	0.99 mg/dl	(Men : 0.7 - 1.2) mg/dl (Women: 0.5 - 0.9) mg/dl
Uric Acid	6.53 mg/dl	(Male:- 3.5-7.2) mg/dl (Female :- 2.6-6) mg/dl

Note:

TEST	RESULT	REFERENCE RANGE
LIPID PROFILE		
Total Cholesterol	200.30 mg/dl	Desirable: <200 mg/dl Border Line: 200-239 mg/dl High Risk: >240 mg/dl
Triglycerides	99.28 mg/dl	Normal: (<150) mg/dl High: 150-199 mg/dl Borderline High: 200-499 mg/dl High Risk: >500 mg/dl
HDL Cholesterol (D)	35.52 mg/dl	(M:- 30-55) , (F:- 45-65) mg/dl
LDL Cholesterol (D) *	161.27 mg/dl	Optimal: <100 mg/dl Above Optimal : 100- 129 mg/dl Borderline High: 130 - 159 mg/dl High: 160 -189 mg/dl
VLDL Cholesterol *	19.86 mg/dl	(25-45) mg/dl
Chol/HDL Ratio *	5.64	(high risk if > 6.0)
LDL/HDL Ratio *	4.54	(< 3.0)

Note:

TEST	RESULT	REFERENCE RANGE

	LT Yellow	(Pale yellow)
ENCY *	Clear	(Clear)
GRAVITY *	1.015	(1.005 - 1.030)
ION PH *	5.0	(Acidic)
OTEIN *	Absent mg/dl	(Absent) - less than 10 mg/dl
LUCOSE *	Absent mg/dl	(Absent) - less than 100 mg/dl
KETONE BODIES *	Absent mg/dl	(Absent) - less than 5 mg/dl
BILE SALTS/BILE PIGMENT *	Absent mg/dl	(Absent) - less than 0.5 mg/dl
NITRATE *	Absent	(Absent)
BLOOD *	5 RBC/uL	(Absent) - less than 10 RBC/uL
UROBILINOGEN *	Normal mg/dl	(Normal) 0 to 10 mg/dl
PUS CELLS / LEUCOCYTES *	Absent WBC/uL	less than 25 cell/µl WBC/uL

Note:

Signature

Dr. Devendra Singh Patel

Drrashmi Jain

Printed By

Technician

pathologist

NOTE: PLEASE CORRELATE WITH CLINICAL CONDITION DISCLAIMER: THIS REPORT IS ELECTRONICALLY SIGNED.

NOTE: *NOT ACCREDITED DISCLAIMER: * WILL NOT APPEAR ON THE PARAMETERS ON WHICH NABL(MELT) HAS BEEN RECEIVED.

Medical examinations October 2024 to March 2025

Category	IME	PME	Total
Contractor	37	3	40
Own	0	0	0

MP BIRLA GROUP

Birla Corporation Limited
Unit: Satna Cement Works
P.O.: Birla Vikas, Satna - 485005
Madhya Pradesh
P : 07672 412000/01 F : 07672 257456
E : admin.scw@birlacorp.com

Regd. A/D

06.01.2025

SCW/ Q/VT/ 18 /2024-25

The Director General of Mines Safety
Dhanbad -826001

Sub: Progress Chart of Quarter ending December'2024 and Programme Chart of Quarter ending March'2025 of Sagmania Limestone Mines Vocational Training Centre as per Mines Vocational Training Rules, 1966 (Revised training module).

Please find enclosed herewith the Progress Chart for Quarter ending December'2024 and Programme Chart of Quarter ending March'2025 of Sagmania Limestone Mines Vocational Training Centre as per Mines Vocational Training Rules, 1966.

Thanking you,

Yours faithfully

For Satna Cement Works

6/1/2025

Mines Manager
Sagmania Limestone Mines

Encl: As above.

Cc: 1) Director of Mines Safety
Plot No.1936 to 1949,
JDA Scheme No.5
Behind Joy Higher Secondary School
Vijay Nagar, Jabalpur-482002

MINES VOCATIONAL TRAINING RULES - 1966

SCHEDULE - XII

APPENDIX IN FORM - 7

Progress Chart of Training Centre for the Quarter Ending-March 2025

Name of Centre : **Sagmania Limestone Mines**
Vocational Training Centre
State/District in which it is situated : **Madhya Pradesh, Satna**
Name of Mine Catered : **Sagmania Limestone Mines**

Sl. No.	Category of workers	Type of Course	Batch No.	Schedule	Date of commencement of course	Date of completion of course	Number of trainees		Successful in the test	Remark
							Enrolled in the batch	Completed the Course		
1	**Safe Operaton & Maintenance:-** Fitter, Operator, Helper & General Majdoor.	R	554	4(IX) & Self made module	05.02.2025	28.02.2025	20	20	20	NIL

Note: (1) For Session - Use M for morning, **E** for Evening.
(2) Category of workers
(3) Type of Course - Use B for basic, S for Special, R for Refresher.

Signature of Training Officer
Date : 07.04.2025
Name in block letter :**AMOL DHOMNE**

MINES VOCATIONAL TRAINING RULES - 1966
SCHEDULE - XII

Notice of Programme of Training during Quarter Ending -June 2025
APPENDIX IN FORM - I

Name of Centre : Sagmania Limestone Mines
Vocational Training Centre

Code No. of Training Centre- Nil

State/District in which it is situated : Madhya Pradesh, Satna
Name of Mine Centred : Sagmania Limestone Mines
Approximate No. of Student in each Centre :

No.of week	Actual Date			Category of workers	Type of Course	Schedule	Batch No.
	From	To	Session				
3	08.05.2025	31.05.2025	M&E	**Safe Operaton & Maintenance:**-Fitter, Helper & General Majdoor.	R	4(IX) & Self made module	555
--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--

Note: (1) For Session - Use M for morning, E for Evening.
(2) Category of workers
(3) Type of Course - Use B for basic, S for Special, R for Refresher.

Signature of Training Officer
Date : 07.04.2025
Name in block letter : **AMOL DHOMNE**

TRAINING RECORD CARD

Training Programme	:	General Safety Awareness
Faculty/Trainer	:	Mr Saurabh Sahu
Date	:	27.12.2024
Time	:	10 AM TO 12 PM
Venue	:	VT-Center (Mines) - casual /Permanent Workmen

SN	Code	Name	section	Dept.	Signature
1.	59573	वीर प्रकाश चौधरी	फिटर	वर्कशाप	वीर प्रकाश
2.	88603	चन्द्रशेखर सिंह	हेल्पर		चन्द्रशेखर सिंह
3.	88602	दुलारचन्द	फिटर		दुलारचन्द
4.	93591	रमाशंकर वर्मा	फिटर	welfare	Ramashanker
5.	99932	सौलीला चसकेत	ड्राईवर	रेजिंग	सौलीलाम
6.	107-61	रामचन्द्र	ड्राईवर	रेजिंग	रामचन्द्र
7.	94661			कामन	
8.	94889	नरेन्द्र कुमार	ड्राईवर		
9.					
10.	91355	विनोद यादव	मैकानिक	डीजल	
11.	87404	दयाराम	फिटर	दयाराम	
12.	54912	राजेश मिश्रा	ऑपरेटर	रेजिंग	
13.	95845	कपिलदेव कुमार			कपिलदेव कुमार
14.	91120	दीपक कोल	VT सेन्टर		दीपक कोल
15.					
16.	59593	रामलाल	लोडर	लोडिंग	रामलाल
17.	91356	रमेश कोल			रमेश कोल
18.			क्लीनर		
19.	94672	अजय रजक	हेल्पर	क्लासरूम	अजय रजक
20.	97845	Krishna Mohan Pandey	helper	शेवले	K.M.Pandey
21.	87424	राम निवास विश्वकर्मा	हेल्पर	अपरगरज	राम निवास
22.	87403	मेहराज सिंह	हेल्पर	क्लासरूम	मेहराज सिंह
23.	68057	सरमन सेन	हेल्पर	क्लासरूम	सरमन सेन
24.	87405	शहजाद	ड्राईवर	क्लासरूम	शहजाद
25.	86525	विजय प्रकाश सिंह	ड्राईवर	क्लासरूम	विजय

(R.P. Dwivedi)

INCHARGE (HRD)

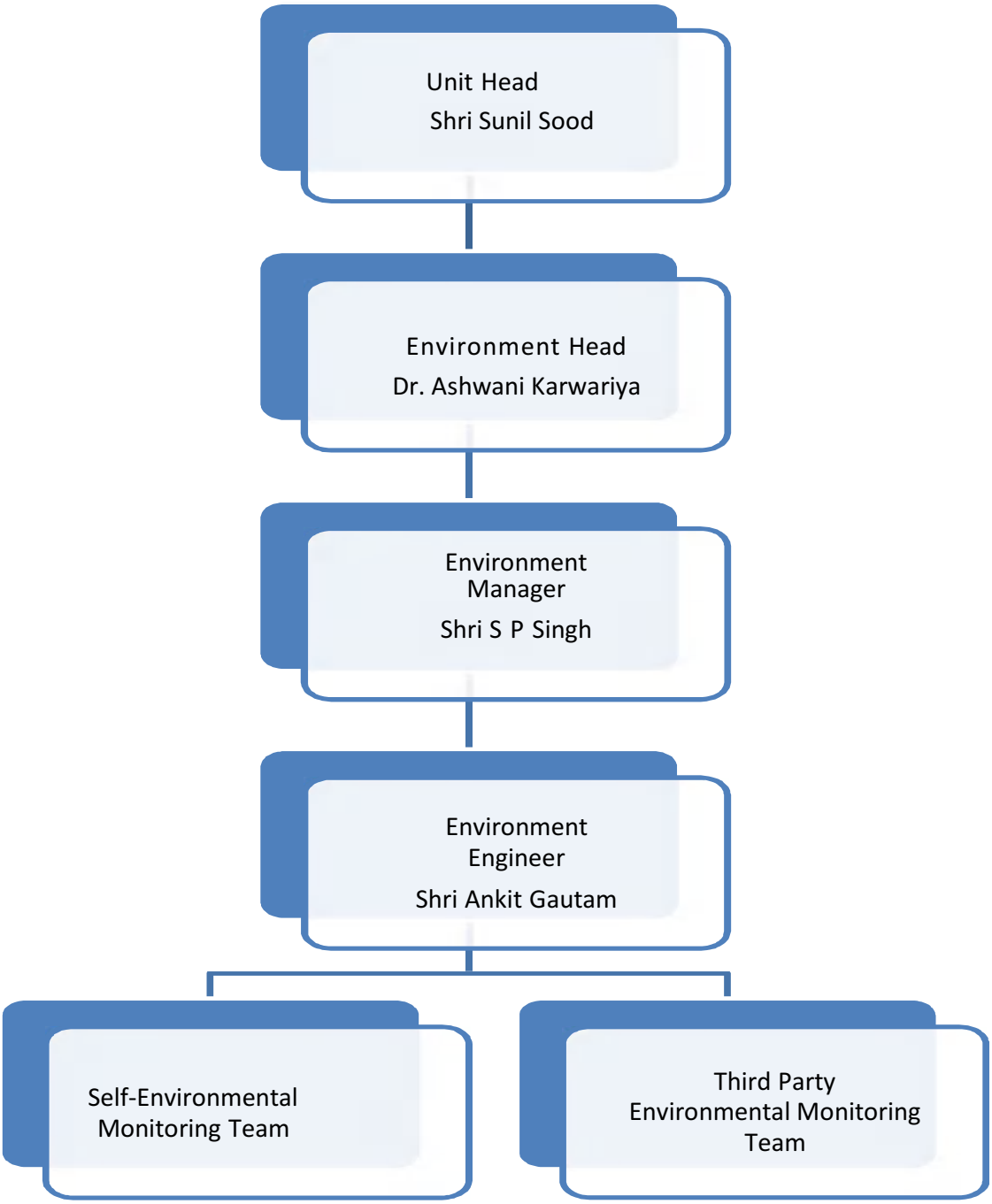
Fully equipped Environmental Lab

SPECTROPHOTO METER
BALANCE
SAMPLER
APM-460
BANNER
बिरला कार्पोरेशन लिमि

INCUBATOR
OVEN
DECICATOR
PH METER
ELECTRONIC BALANCE
CONDUCTIVITY METER
ALMIRAH-7 GENERAL ITEMS
ALMIRAH-6 ESP. INT. CHECK. DRESS & TORCH

ANNEXURE GC-11

Organization Structure: Environment Management Cell



Date : 10.01.2008

To,
District Collector
Satna (M.P.)

Subject: Sagmania Limestone Mining Project of M/s Birla Corporation Limited located in Village Sagmania, Tehsil Raghuraj Nagar, District-Satna, Madhya Pradesh- Environmental Clearance reg.

Dear Sir,

We thankfully acknowledge the receipt of letter No.J-11015/271/2006-IA.Ii(M) dated 27 December,2007 from Government of India, Ministry of Environment and Forest, New Delhi regarding Environmental Clearance of our Sagmania Limestone Mining Project of M/s Birla Corporation Limited located in Village-Sagmania, Tehsil-Raghuraj Nagar, District-Satna, Madhya Pradesh. Subsequently what action we are required to take, a copy of the same is enclosed for your kind reference.

As per the General Condition No. (XVII) laid down in the above roferred letter, we request you to please display the copy of the said Environmental clearance letter in the notice board of your Office for 30 days.

Thanking you,

Yours faithfully,
for BIRLA CORPORATION LIMITED
(CEMENT DIVISION) SATNA

(D.ROY)
GENERAL MANAGER(MINES)

Encl.As above.

Date : 10.01.2008

To,
District Industry Center
Satna (M.P.)

Subject: Sagmania Limestone Mining Project of M/s Birla Corporation Limited located in Village Sagmania, Tehsil Raghuraj Nagar, District-Satna, Madhya Pradesh- Environmental Clearance reg.

Dear Sir,

We thankfully acknowledge the receipt of letter No.J-11015/271/2006-IA.II(M) dated 27 December,2007 from Government of India, Ministry of Environment and Forest, New Delhi regarding Environmental Clearance of our Sagmania Limestone Mining Project of M/s Birla Corporation Limited located in Village-Sagmania, Tehsil-Raghuraj Nagar, District-Satna, Madhya Pradesh. Subsequently what action we are required to take, a copy of the same is enclosed for your kind reference.

As per the General Condition No. (XVII) laid down in the above referred letter, we request you to please display the copy of the said Environmental clearance letter in the notice board of your Office for 30 days.

Thanking you,

Yours faithfully,
for BIRLA CORPORATION LIMITED
(CEMENT DIVISION) SATNA

(D.ROY)
GENERAL MANAGER(MINES)

Encl.As above.

REVIEW OF MINING PLAN ALONGWITH PROGRESSIVE MINE CLOSURE PLAN FOR SAGMANIA LIMESTONE MINES

M. L. Area	:	852.50 Hectares
M. L. Area in Forest, if any	:	Nil
Total M. L. Area	:	852.50Hectares
Village	:	Barikalan, Baraj, Puraini, Bathiakhurd,Bharjunakalan,Nimi&Naina
Tehsil	:	Raghurajnagar
District	:	Satna
State	:	Madhya Pradesh
Mine Code	:	38MPR35071
Period of Expiry of Mining lease	:	31.03.2030 (As per MMDR Act 2015)

अनुमोदित/APPROVED

For the Mineral Limestone

Proposal Period: 1st April 2021 to 31st March 2026

Category of Mine -'A' Category (F.M.)

24.12.2020

क्षेत्रीय खान नियंत्रक
REGIONAL CONTROLLER OF MINES
भारतीय खान ब्यूरो
INDIAN BUREAU OF MINES
जबलपुर/ JABALPUR

IBM REGISTRATION NO. IBM/4349/2011

Submitted to

Indian Bureau of Mines

SUBMITTED UNDER RULE 17(2) OF MINERAL (OTHER THAN ATOMIC & HYDROCARBON MINERALS)CONCESSION RULE 2016 & 23 OF MCDR 2017

Lessee

M/s Birla Corporation Ltd.

Satna Cement Works

P.O. Birla Vikas, Distt. Satna (M.P.), Pin Code - 485005

Prepared by:

1.	**Kumar Rajan**	B.Tech. (Mining)
2.	**AnupPatidar**	M.Sc. Tech. (Applied Geology)

Address:

Sagmania Limestone Mine, Satna Cement Works,
P.O. Sagmania, Distt. Satna (M.P.), Phone No.: (07672) 412772
E-mail: kumar.rajan@birlacorp.com; anup.patidar@birlacorp.com

MP/Satna Lst.
RMY - 22/2020-21 - 24/12/2020.

8.6 FINANCIAL ASSURANCE:

The Financial assurance has been submitted in form of Bank Guarantee of Rs 137409000only for the area 458.03 Hect. For period up to 31.03.2021.

This is a 'A' category mine and hence the amount has been calculated as under.

467.21 Ha x Rs. 3 Lacs per Ha = Rs. 140163000/- = say Rs. 14.0163 Million

Table indicating the break-up of areas in the Mining Lease for calculation of Financial Assurance

Sl. No.	Head	Area put on use at start of Scheme of Mining (ha)	Additional requirement during Plan period (ha)	Total Area (ha)	Area considered as fully reclaimed & rehabilitated (ha)	Net area considered for calculation (ha)
(a)	(b)	(c)	(d)	(c+d)=e	(f)	(e – f =g)
1	Area under mining	372.35	49.27	421.62	-	421.62
2	Storage for top soil	8.0	1.76	9.76	-	9.76
3	Waste dump site	17.5	8.80	26.30	-	26.30
4	Mineral storage	0.5	0	0.5	-	0.5
5	Infrastructure Workshop administrative building etc.	2.0	-	2.0		2.0
6	Roads	2.03	-	2.03	-	2.03
7	Railways	-	-	-	-	-
8	Tailing pond	-	-	-	-	-
9	Effluent Treatment Plant		-	-	-	-
10	Mineral Separation Plant			-		
11	Township area	5.0	-	5.0		5.0
12	Others (specify) Protective Bund	-				
	Grand Total	**407.38**	**59.83**	**467.21**	-	**467.21**

अनुमोदित/APPROVED

24 Dec 2020
क्षेत्रीय खान नियंत्रक
REGIONAL CONTROLLER OF MINES
भारतीय खान ब्यूरो
INDIAN BUREAU OF MINES
जबलपुर/JABALPUR

आम सूचना

सर्व साधारण को सूचित किया जाता है कि बिरला कार्पोरेशन लिमिटेड की ग्राम सगमनिया, तहसील रघुराजनगर, जिला सतना (म.प्र.) स्थित सगमनिया लाइम स्टोन माइन्स को पर्यावरण एवं वन मंत्रालय, भारत सरकार, नई दिल्ली द्वारा अपने पत्र क्रमांक J-11015/271 / 2006 / IA. II (M) दिनांक 27 दिसम्बर 2007 द्वारा लाईम स्टोन के उत्खनन की क्षमता 3.3 MTPA से 4.9 MTPA करने की स्वीकृति प्रदान की गई है। सगमनिया लाईम स्टोन माईन्स का माईनिंग लीज एरिया 939.78 हेक्टेयर है। उपरोक्त पत्र की प्रति मध्यप्रदेश प्रदूषण नियंत्रण बोर्ड (सतना), जिला उद्योग केन्द्र (सतना), कलेक्ट्रेक्ट आफिस (सतना) एवं पर्यावरण एवं वन मंत्रालय की वेबसाईट http//envfor.inc.in पर उपलब्ध है।

नवभारत - 31.1.08

आम सूचना

सर्व साधारण को सूचित किया जाता है कि बिरला कार्पोरेशन लिमिटेड की ग्राम सगमनिया, तहसील रघुराजनगर, जिला सतना (म.प्र.) स्थित सगमनिया लाइम स्टोन माइन्स को पर्यावरण एवं वन मंत्रालय, भारत सरकार, नई दिल्ली द्वारा अपने पत्र क्रमांक J-11015/271/2006/IA. II (M) दिनांक 27 दिसंबर 2007 द्वारा लाईम स्टोन के उत्खनन की क्षमता 3.3 MTPA से 4.9 MTPA करने की स्वीकृति प्रदान की गई है. सगमनिया लाईम स्टोन माईन्स का माईनिंग लीज एरिया 939.78 हेक्टेयर है.

उपरोक्त पत्र की प्रति मध्यप्रदेश प्रदूषण नियंत्रण बोर्ड (सतना), जिला उद्योग केन्द्र (सतना), कलेक्ट्रेट ऑफिस (सतना) एवं पर्यावरण एवं वन मंत्रालय की वेबसाईट http//envfor.inc.in पर उपलब्ध है.