

**WESTERN COALFIELDS LIMITED  
(MINIRATNA COMPANY)**

**SIX MONTHLY ENVIRONMENTAL  
COMPLIANCE REPORT**

**(From 01/04/2023 to 30/09/2023)**

*IN RESPECT OF*

**DINESH (MAKARDHOKRA-III)  
OPEN CAST PROJECT**

**MAKARDHOKRA SUB AREA  
UMRER AREA**

Compliance of Environmental Clearance conditions in respect of proposed Dinesh  
(Makardhokra-III) OC Project of WCL as on 30/09/2023

**Ref: MOEF Environment Clearance Letter No. J-11015/537/2008-I A. II (M) dated  
29/11/2018 for 4.20 MTPA**

**A. Specific Conditions:**

S.No	Compliance Condition	Status
i.	Project proponent shall obtain Consent to establish from the state pollution control boards for the proposed peak capacity of 4.2 MTPA prior to commencement of the increased production.	<p><b>Complied.</b></p> <p>Environmental Clearance has been secured for Expansion of Dinesh (Makardhokra III) Opencast Project for the production capacity of 4.20 MTPA in land area of 919.63 ha, vide MoEF &amp; CC letter no. F. no. J-11015/537/2008-IA-II (M) dated 29/11/2018 (Copy enclosed as Annexure-I).</p> <p>Consent to establish along with consent to operate for 4.20 MTPA has been secured from MPCB vide letter no. Format 1.0/CAC/UAN No.0000062939/CO-2002001040 dated 25/02/2020 which was valid till 31/03/2021 (Copy enclosed as Annexure-II).</p> <p>Subsequently, Consent to operate has been renewed vide letter no. Format 1.0/CAC/UAN No. MPCB-CONSNET-00001077252/CR/2211000598 dt 09/11/2022 (Copy enclosed as Annexure: III).</p> <p>Environmental clearance for the increase in the production capacity from 4.2 MTPA to 4.5 MTPA (MOEF OM No. J-11015/537/2008-IA. II (M) dated 26/05/2022) has been secured as per the provisions of OM vide no F. NO.IA3-22/10/2022-IA.III dated 07/05/2022 (Copy Enclosed as Annexure-IV).</p> <p>Subsequently, Consent to Establish for 4.5 MTPA has been secured vide letter no: Letter no. Format1.0/ CAC/ UAN No. MPCB-CONSENT-0000142418/ CE/ 2211001310 dt. 16/11/2022 (Copy enclosed as Annexure-V) and Consent to operate for 4.5 MTPA has been secured vide letter no. Format1.0/ CAC/ UAN No. MPCB- CONSNET-0000142515/ CO/ 2211001308 dt 16/11/2022, which is valid up to 31/03/2024 (Copy enclosed as Annexure-VI).</p>
ii.	Transportation of coal from face to coal heap shall be carried out by tippers. Further, the coal transportation from coal heap to Coal Handling Plant shall be carried out through covered trucks.	<p><b>Complied.</b></p> <p>Transportation of coal from face to coal heap/ stock yard and coal heap/ stock yard to Coal Handling Plant is carried out by dumpers and tippers. All the trucks leaving the mine premises are covered with tarpaulin.</p>

iii.	To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers.	<p><b>Complied.</b></p> <p>In order to control generation of dust at source, Mist Spray Arrangement system has been provided at Coal Handling Plant. 10 nos of fixed water sprinklers have been provided at CHP for dust suppression. 03 nos of Trolley mounted mist/fog generator has been provided at CHP.</p> <p>01 no of trolly mounted mist/fog generator and spray nozzles have been provided at crusher for dust suppression. In addition, proposal for procurement of additional 09 nos of Trolley mounted mist/fog generator is also initiated.</p> <p>Construction/ Installation of conveyor belt and silo is under progress. 69% of work has been completed. All efforts are being made to complete the work in 2024.</p>										
iv.	Mitigative measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient number of water sprinklers. Adequate corrective measures shall be undertaken to control dust emissions as presented before the Committee, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and loading sites, long range misting/fogging arrangement, wind barrier wall and vertical greenery system, green belt, dust suppression arrangement at railway siding etc.	<p><b>Complied.</b></p> <p>Fugitive dust emissions from all the dust generating sources are controlled by Fixed Water Sprinklers along weigh bridge, approach road &amp; coal transportation road. Rain guns are provided at railway siding and Mist spray arrangement is provided at all transfer points of CHP to prevent the dust formation.</p> <p>In addition to fixed water sprinklers &amp; rain guns, trolley mounted mist/fog generator; Mobile Water tanker/sprinkler are used in all three shifts for dust suppression at approach roads, haul roads, coal transportation roads and coal stock yard. The Fugitive dust is also monitored regularly and is kept under control.</p> <p>Details of Air pollution control measures installed:</p> <ul style="list-style-type: none"><li>Automatic tyre washing system is installed at main check post of Umrer Area.</li><li>2 No. of mobile water tankers of 20 KL capacity and 6 nos of 10 KL Capacity are in operation.</li><li>90 nos. fixed sprinklers are installed along coal transportation road, railway siding, weigh bridge and CHP, details are as follows:</li></ul> <table><tr><th>Location</th><th>Nos. of fixed sprinklers</th></tr><tr><td>CHP</td><td>10</td></tr><tr><td>Siding</td><td>44</td></tr><tr><td>Along Coal stock approach Road and Weigh bridge</td><td>12</td></tr><tr><td>Along coal transportation road and Coal Stock Yard</td><td>24</td></tr></table> <ul style="list-style-type: none"><li>Mist Spray Arrangement system (150 nos nozzles)</li></ul>	Location	Nos. of fixed sprinklers	CHP	10	Siding	44	Along Coal stock approach Road and Weigh bridge	12	Along coal transportation road and Coal Stock Yard	24
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		<p>and 03 nos of trolley mounted mist/fog generators are provided at CHP.</p> <ul style="list-style-type: none"> <li>• One no of trolley mounted mist/ fog generator and spray nozzles are provided at Crusher.</li> <li>• One no of truck mounted mist/ fog cannon is in operation.</li> <li>• In addition to this, installation of 90 nos of fixed sprinklers along the coal transportation road is under process.</li> </ul>
v.	The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 4.2 MTPA.	<p><b>Complied.</b></p> <p>Obtained NOC from CGWA for abstracting Ground Water (NOC No. CGWA/NOC/MIN/ORIG/2019/5548) which was valid up to 09/06/2021. Renewal application for NOC is submitted to CGWA and application is under process.</p> <p>Copy of NOC is enclosed as Annexure – VII.</p>
vi.	Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.	<p><b>Complied.</b></p> <p>For surveillance of occupational health among workers, Periodical Medical Examination (PME) is carried out compulsorily for each employee once in three year with the purpose of detecting and keeping records of diseases with specific importance of Coal Workers Pneumoconiosis. This is covered under Statute.</p> <p>Moreover, for every new employee Initial Medical Examination (IME) is also carried out for both departmental and contractual employee as per the provisions of the statute.</p> <p>During PME, the candidates are subjected to complete clinical examination (including acuity of vision and hearing) radiological examination of chest and routine examination of blood and urine.</p> <p>All the activities within the mine are carried out with complying safety aspect and regular awareness is created among employees regarding safety and to avoid any accidents. All the employees working in projects are provided with PPE like mask, ear muffs, helmets and protective shoes.</p> <p>Various national and International Days are observed to increase awareness and educate general population (e.g. No Tobacco Day/ No Smoking Day, World AIDS day, World Breast Feeding Week etc.).</p> <p>Regular Family Welfare (L.T.T.) Camps organized with the help of State Govt. Full Co-operation is extended to State Govt. for Pulse Polio immunization. Medical facilities are being extended to non-employees in all sorts of acute</p>

		<p>emergencies.</p> <p>The details of the set up at Umrer Area Hospital are as follows:</p> <ul style="list-style-type: none"> <li>• Periodical Medical Examination (PME) Centres: 1 (Occupational Health Centres)</li> <li>• No. of Doctor engaged in Periodical Medical Examination: 3</li> <li>• No. of Doctor trained in Periodical Medical Examination: 2</li> <li>• No. of X-Ray machines (500 mA): 1</li> <li>• No. of Audiometer units: 1</li> <li>• No. of Spirometer units: 1</li> <li>• No. of pathology Labs: 1</li> <li>• No. of X-Ray Technicians: 1</li> <li>• No. of Laboratory Technicians: 3</li> <li>• No of ECG Technicians: 2</li> </ul> <p>As seen from the above details that Area Hospital, Umrer Area, WCL is having all the infrastructural facilities to comply all the statutory obligations regarding occupational health survey of all employees.</p> <p>Details of IME/PME done in last 4 years are given below:</p> <table border="1"> <thead> <tr> <th rowspan="2">Year</th><th colspan="2">No. of workers (Dept. &amp; Cont.)</th></tr> <tr> <th>IME</th><th>PME</th></tr> </thead> <tbody> <tr> <td>2020-21</td><td>120</td><td>52</td></tr> <tr> <td>2021-22</td><td>186</td><td>68</td></tr> <tr> <td>2022-23</td><td>902</td><td>68</td></tr> <tr> <td>2023-24 (Till Sep' 23)</td><td>165</td><td>09</td></tr> </tbody> </table>	Year	No. of workers (Dept. & Cont.)		IME	PME	2020-21	120	52	2021-22	186	68	2022-23	902	68	2023-24 (Till Sep' 23)	165	09
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vii.	Persons of nearby villages shall be given training on livelihood and skill development to make them employable.	<p><b>Complied.</b></p> <p>Skill development trainings are being conducted in the villages and also in the Group VTC of Umrer Area for livelihood and self-employment. Details of Skill Development programs are as follows:</p> <table border="1"> <thead> <tr> <th>Year</th><th>Training Programs</th><th>No. of beneficiaries</th></tr> </thead> <tbody> <tr> <td>2016-17</td><td>Apparel designing, Beauty parlor and Electrician</td><td>85</td></tr> <tr> <td>2017-18</td><td>Office automation and</td><td>26</td></tr> </tbody> </table>	Year	Training Programs	No. of beneficiaries	2016-17	Apparel designing, Beauty parlor and Electrician	85	2017-18	Office automation and	26								
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viii.	To ensure health and welfare of nearby villages, regular medical camps shall be organized at least once in six months.	<p><b>Complied.</b></p> <p>Medical camps are organized on regular basis by WCL, Umrer Area.</p> <p>Details of medical camps conducted in last 6 years are given below:</p> <table> <tr> <th>Year</th><th>No. of Medical camps</th><th>No. of Beneficiaries</th></tr> <tr> <td>2018-19</td><td>57</td><td>4691</td></tr> <tr> <td>2019-20</td><td>34</td><td>1878</td></tr> <tr> <td>2020-21</td><td>3*</td><td>90</td></tr> <tr> <td>2021-22</td><td>27</td><td>1849</td></tr> <tr> <td>2022-23</td><td>39</td><td>3400</td></tr> <tr> <td>2023-24 (Till Sep'23)</td><td>29</td><td>3022</td></tr> </table> <p>*Due to Covid 19 pandemic, medical camps couldn't be conducted during lockdown period. Free covid 19 testing were conducted for nearby villagers on regular basis and a blood donation camp was also conducted.</p> <p>During the Covid 19 Pandemic period, following initiatives were taken to support State Government and Nearby Villagers.</p>	Year	No. of Medical camps	No. of Beneficiaries	2018-19	57	4691	2019-20	34	1878	2020-21	3*	90	2021-22	27	1849	2022-23	39	3400	2023-24 (Till Sep'23)	29	3022
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		<p style="text-align: right;"><u>WCL Umrer Area initiatives during</u></p> <p style="text-align: center;"><u>Period of Support – 2020-21, 2021-22</u></p> <p><b>A. Support to State Government</b></p> <table><tr><th>S No.</th><th>Particular</th></tr><tr><td>1</td><td>Providing 5 BiPAP machine to State administration<ul style="list-style-type: none"><li>- BiPAP - bi-level positive airway pressure</li><li>- This machine is used for supporting breathing for patients whose lungs are not operating efficiently</li></ul></td></tr><tr><td>2</td><td>1) 2 nos. oxygen concentrator machine 2) 200 PPE kits 3) 25 hospital bed and mattress</td></tr></table> <p><b>B. Support to nearby communities</b></p> <table><tr><th>S No</th><th>Particular</th></tr><tr><td>1</td><td>Ration packets</td></tr><tr><td>2</td><td>Food Packets</td></tr></table> <p><b>C. Support to ZP Schools</b></p> <table><tr><th>S No.</th><th>Particular</th></tr><tr><td>1</td><td>No. of schools supported</td></tr><tr><td>2</td><td>Mask and Sanitizer to Students</td></tr><tr><td>3</td><td>Pulse Oximeter, Thermal Gun, Soap, Sodium</td></tr></table> <p>OPD facility is also provided for surrounding villages. No. of beneficiaries are mentioned below:</p> <table><tr><th>Year</th><th>No. of Beneficiaries who availed OPD facility</th></tr><tr><td>2018-19</td><td>2499</td></tr><tr><td>2019-20</td><td>2691</td></tr><tr><td>2020-21</td><td>1587</td></tr><tr><td>2021-22</td><td>2890</td></tr><tr><td>2022-23</td><td>3118</td></tr><tr><td>2023-24 (Till Sep’23)</td><td>1968</td></tr></table>	S No.	Particular	1	Providing 5 BiPAP machine to State administration <ul style="list-style-type: none"><li>- BiPAP - bi-level positive airway pressure</li><li>- This machine is used for supporting breathing for patients whose lungs are not operating efficiently</li></ul>	2	1) 2 nos. oxygen concentrator machine 2) 200 PPE kits 3) 25 hospital bed and mattress	S No	Particular	1	Ration packets	2	Food Packets	S No.	Particular	1	No. of schools supported	2	Mask and Sanitizer to Students	3	Pulse Oximeter, Thermal Gun, Soap, Sodium	Year	No. of Beneficiaries who availed OPD facility	2018-19	2499	2019-20	2691	2020-21	1587	2021-22	2890	2022-23	3118	2023-24 (Till Sep’23)	1968
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ix.	Thick green belt of adequate width at the final boundary in the down wind direction of the project site shall be developed to mitigate/check the dust pollution.	<p><b>Being complied.</b></p> <p>The mine has started its operation on 25/11/2016. Till date, 45,000 nos of saplings have been planted on plain land and OB dump. Details are given below:</p> <table><tr><th>Year of plantation</th><th>No of plants</th><th>Area in Ha</th><th>Plantation site</th></tr><tr><td>2022-23</td><td>15,000</td><td>6.00</td><td>Plain land</td></tr><tr><td>2023-24</td><td>25,000</td><td>10.00</td><td>Plain land</td></tr><tr><td></td><td>5,000</td><td>2.00</td><td>OB dump</td></tr><tr><td><b>Total</b></td><td><b>45,000</b></td><td><b>18.00</b></td><td></td></tr></table> <p>Plantation work is carried out through Madhya Pradesh Van Vikas Nigam. The species planted are Amla, Jamun, Neem,</p>	Year of plantation	No of plants	Area in Ha	Plantation site	2022-23	15,000	6.00	Plain land	2023-24	25,000	10.00	Plain land		5,000	2.00	OB dump	<b>Total</b>	<b>45,000</b>	<b>18.00</b>															
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		<p>Kala Siras, Safad Sirus, Karanj, Casiya, Bamboo, Khamer, Amrood etc.</p> <p>Further on, as proposed in the EMP, plantation will be done on external OB clumps, backfilled area, along road sides, vacant land and township by planting native species in consultation with State Forest Department. Density of the plants will be maintained at 2500 plants per ha.</p>
x.	Efforts shall be made for utilizing alternate source of surface water, abandoned mines or else whatsoever and thus minimizing the dependability on a single source.	<p><b>Being complied.</b></p> <p>Mine discharge water is the primary source of water for all the industrial purposes. Mine water is collected in sump of capacity 93 Million gallons in the quarry area of mine. This sump allows settlement of suspended particles present in water. The supernatant from these sumps is then pumped out on surface and fed into the surface sedimentation tank. This mine water is used for industrial purposes such as dust suppression, fire fighting and plantation etc.</p> <p>Domestic requirement of water is fulfilled by 02 nos. of tube well in Umrer Colony.</p> <p>As such mine water and water from bore well is being used for industrial and domestic purpose and thus minimizing the dependability on a single source.</p>
xi.	A third-party assessment of EC compliance shall be undertaken once in three years through agency like ICFRI/NEERI/IIT or any other expert agency identified by the Ministry.	<p><b>Complied.</b></p> <p>Third party assessment of EC compliance will be carried out once in three years.</p> <p>The third part assessment of EC compliance has been undertaken through CSIR-NEERI (Expert Agency identified by Ministry). Inspection was carried out on 18/11/2021 in which no non compliances were observed.</p>

## B. General Conditions:

Sl.No	Compliance Condition	Status
(a)	<b>Mining</b>	
i.	Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there– under as applicable.	<p><b>Agreed.</b></p> <p>Mining is being carried out as per the provisions of the Mines Act 1952 and subordinate legislations made there– under as applicable.</p>
ii.	No change in mining method, Calendar programme and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forest	<p><b>Agreed.</b></p> <p>Method of mining is opencast with shovel-dumper combination. There has been no change in scope of work and production programme beyond EC/ approved Mining</p>



	and Climate Change.	<p>Plan.</p> <p>No change in technology, mining method, calendar programme and scope of working will be made without prior approval of the MOEF&amp;CC.</p>
iii.	Mining shall be carried out as per the approved mining plan including mine closure plan, abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General Mines Safety (DGMS).	<p><b>Agreed.</b></p> <p>Mining is being carried out as per the provisions outlined in approved mining plan as well as by abiding to the relevant laws related to coal mining and the circulars issued by Directorate General Mines Safety (DGMS).</p>
iv.	No mining activity shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980 and also adhering to the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 read with provisions of Indian forest act, 1927.	<p><b>Agreed.</b></p> <p>Project does not involve any forest land.</p> <p>In future also, no mining activity will be carried out in forest land without obtaining Forestry Clearance.</p>
<b>(b) Land Reclamation and Water Conservation</b>		
i.	Digital survey of entire lease hold area/ core zone using Satellite Remote sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale shall be submitted to Ministry of Environment, Forest and Climate Change/ Regional Office (RO).	<p><b>Complied.</b></p> <p>Digital processing of the entire lease area using Remote sensing technique is done every year by CMPDIL.</p> <p>Reports of which are available on WCL website. The same is submitted to Ministry of Environment, Forest and Climate Change/ Regional Office on regular basis.</p> <p>Land Restoration / Reclamation monitoring report of Dinesh OC mine based on satellite data for the year 2022 is enclosed as Annexure –VIII.</p>
ii.	The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations, considering the presence of any river/ rivulet/ pond/lake etc., shall be prepared and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the approved Mining	<p><b>Complied.</b></p> <p>There is only one seasonal nallah (Amb Nallah) flowing through the mine lease. The surface drainage plan considering the presence of this nallah is prepared and implemented.</p> <p>The embankment is constructed along the Amb nallah (at the south side of nallah). The height of the embankment provided to protect the mine along its boundary has been kept 6.00 meters above the HFL of the nallah. The Top</p>

	Plan/EIA/EMP report and with due approval of the concerned State/GoI Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved Mining Plan and as per the permission of DGMS.	width of embankment has been kept 34.00 m which is sufficient to protect the mine from peak flow of the nallah.  Mining is being carried out as per the approved Mining Plan/EIA/EMP report and all precautions are being taken for avoiding any adverse impact on surface drainage as envisaged in the approved reports.																		
iii.	The final mine void depth should preferably be as per the approved Mine Closure Plan, and in case it exceeds 40m, adequate engineering interventions shall be provided for sustenance of adequate life therein. The remaining area shall be backfilled and covered with thick and alive top soil. Post-mining land be rendered usable for agricultural/forestry purpose and shall be handled over to the respective state government as specified in the guidelines for preparation of mine closure plan issued by the ministry of coal dated 27 <sup>th</sup> august, 2009 and subsequent amendments.	<b>Being Complied.</b>  Final mine void depth is 144.50 m (after Phase-II), as per approved Mining plan. As it exceeds more than 40 m, suitable engineering interventions will be provided for sustenance.  The backfilled quarry will be reclaimed with plantation as per EMP in consultation with State Forest Department.  Density of the plants will be maintained at 2500 plants per ha. The proposed water body of 152 ha of decoaled void will be gently sloped and upper benches shall be terraced and stabilized with plantation.  Post Mining activities will be taken up according to the approved Mine Plan/EIA/EMP. The mine closure plan is the integral part of approved mining plan/EIA/EMP as per the guidelines issued by MOC and being followed up.																		
iv.	The entire excavated area, backfilling, external OB dumping (including top soil) and afforestation plan shall be in conformity with the “during mining”/ “post mining” land-use pattern, which is an integral part of the approved Mining Plan and the EIA/EMP submitted to this Ministry. Progressive compliance status vis-a-vis the post mining land use pattern shall be submitted to the Ministry of Environment, Forest and climate change/ Regional Office on six monthly basis.	<b>Being Complied.</b>  All the mining work is being conducted as per Approved Mining Plan and shall be continued.  Progressive compliance status of land use pattern is submitted regularly to the Ministry of Environment, Forest and climate change/ Regional Office along with Six Monthly compliance Report.  Land Use Plan During Mining (as on 30/09/2023) <table border="1"> <thead> <tr> <th>Sl No.</th><th>Particulars</th><th>Area in Ha</th></tr> </thead> <tbody> <tr> <td>1</td><td>Quarry Area (Excavation area)</td><td>184.696</td></tr> <tr> <td>2</td><td>External OB dumps</td><td>99.00</td></tr> <tr> <td>3</td><td>Rationalization/ Blasting zone</td><td>329.22</td></tr> <tr> <td>4</td><td>Infrastructure &amp; Roads</td><td>7.77</td></tr> <tr> <td>5</td><td>Other area</td><td>298.944</td></tr> </tbody> </table>	Sl No.	Particulars	Area in Ha	1	Quarry Area (Excavation area)	184.696	2	External OB dumps	99.00	3	Rationalization/ Blasting zone	329.22	4	Infrastructure & Roads	7.77	5	Other area	298.944
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5	Other area	298.944																		

		Total	919.63									
v.	<p>The top soil shall temporarily be stored at earmarked site(s) only and shall not be kept unutilized for long. The top soil shall be used for land reclamation and plantation purposes. Active OB dumps shall be stabilised with native grass species to prevent erosion and surface run off.</p> <p>The other overburden dumps shall be vegetated with native flora species. The excavated area shall be backfilled and afforested in line with the approved Mine Closure Plan. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to Ministry of Environment, Forest and Climate Change/ Regional Office on six monthly basis.</p>	<p><b>Being complied.</b></p> <p>The mine has started its operation on 25/11/2016. Dumping of top soil is in progress at earmarked site in the western side of the quarry with proper slope. Till 30/09/2023, 8.813 Mm<sup>3</sup> of Top soil has been removed and out of this, 6.86 Mm<sup>3</sup> of top soil has been stacked at earmarked site.</p> <p>This soil will be used as early as possible for reclamation and development of green belt.</p> <p>OB generated is stored in external OB dump no. 1 and 2 of slope not exceeding 28° in ML area. All the dumps are active.</p> <p>The reclamation of dump sites with plantation using native species will start only after the dumps get in-active, as directed the reclamation will be continued till the same are self-sustaining and report will be submitted accordingly.</p> <p>The maximum height, final slope with benches etc will be reached in due course of operation. As planned, the backfilling will start and OB dump would ultimately get merged with the backfilling area. As stated earlier, the biological reclamation will start only after the dumps attain the full height &amp; technically reclaimed.</p> <p>Till 30/09/23, 92.681 Mm<sup>3</sup> of OB has been excavated. 75.842 Mm<sup>3</sup> of excavated OB has been stacked at external OB dumps.</p> <p>Details of OB dump is given below:</p> <table><tr><th>Dump</th><th>Area in Ha</th><th>Height of Dump (m)</th></tr><tr><td>External OB (Dump 2)</td><td>101.745</td><td>54</td></tr><tr><td>External OB (Dump 3)</td><td>96.68</td><td>45</td></tr></table> <p>Till 30/09/23, 16.839 Mm<sup>3</sup> of the excavated OB has been backfilled in decoaled area of Mine.</p>		Dump	Area in Ha	Height of Dump (m)	External OB (Dump 2)	101.745	54	External OB (Dump 3)	96.68	45
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(c)	Emissions, Effluents, and Waste Disposal											
i.	Transporting of coal, to the extent permitted by road, shall be carried out	<p><b>Being complied.</b></p> <p>All the vehicles transporting coal are loaded within</p>										

<p>by covered trucks/ conveyors.</p> <p>Effective control measures such as regular water/mist sprinkling/rain gun etc. shall be carried out in critical areas prone to air pollution (with higher values PM<sub>10</sub>/PM<sub>2.5</sub>) such as haul road, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/ State Pollution Control Board.</p>	<p>permissible limit and trucks leaving the mine premises are covered with tarpaulin. It is ensured by using CCTV cameras. At present four nos of CCTV Cameras are installed at main check post of Umrer Area. CCTV footages are regularly monitored. Security guards are also deployed at main check post to check whether all the trucks leaving the mine premises are properly covered or not.</p> <p>Fugitive dust emissions from all the dust generating sources are controlled by Fixed Water Sprinklers along weigh bridge, approach road &amp; coal transportation road. Rain guns are provided at railway siding and Mist spray arrangement is provided at all transfer points of CHP to prevent the dust formation.</p> <p>In addition to fixed water sprinklers &amp; rain guns, Trolley mounted fogging cannons &amp; Mobile Water tankers / Sprinklers are used in all three shifts for dust suppression at approach roads, haul roads, coal transportation roads and coal stock yard. The Fugitive dust is also monitored regularly and is kept under control.</p> <p>Details of Air pollution control measures installed:</p> <ul style="list-style-type: none"> <li>Automatic tyre washing system has been installed at main check post of Umrer Area.</li> <li>2 No. of mobile water tankers of 20 KL capacity and 6 nos of 10 KL Capacity are in operation.</li> <li>90 nos. fixed sprinklers are installed along coal transportation road, railway siding, weigh bridge and CHP, details are as follows:</li> </ul> <table border="1" data-bbox="808 1255 1474 1507"> <thead> <tr> <th>Location</th><th>Nos. of fixed sprinklers</th></tr> </thead> <tbody> <tr> <td>CHP</td><td>10</td></tr> <tr> <td>Siding</td><td>44</td></tr> <tr> <td>Along Coal stock approach Road and Weigh bridge</td><td>12</td></tr> <tr> <td>Along coal transportation road and Coal Stock Yard</td><td>24</td></tr> </tbody> </table> <ul style="list-style-type: none"> <li>Mist Spray Arrangement system (150 nos nozzles) and 03 nos of trolley mounted mist/fog generators are provided at CHP.</li> <li>One no of trolley mounted mist/ fog generator and spray nozzles are provided at Crusher.</li> <li>One no of truck mounted mist/ fog cannon is in operation.</li> </ul>	Location	Nos. of fixed sprinklers	CHP	10	Siding	44	Along Coal stock approach Road and Weigh bridge	12	Along coal transportation road and Coal Stock Yard	24
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		<ul style="list-style-type: none"><li>• In addition to this, installation of 90 nos of fixed sprinklers along the coal transportation road is under process.</li></ul>																			
ii.	Greenbelt, consisting of 3-tier plantation, of width not less than 7.5m, shall be developed all along the mine lease area in a phased manner. The green belt comprising of a mix of native species shall be developed all along the major approach / coal transportation roads.	<p><b>Being Complied.</b> The mine has started its operation on 25/11/2016. Till date, 45,000 nos of saplings have been planted on plain land and OB dump. Details are given below:</p> <table><tr><th>Year of plantation</th><th>No of plants</th><th>Area in Ha</th><th>Plantation site</th></tr><tr><td>2022-23</td><td>15,000</td><td>6.00</td><td>Plain land along the boundary</td></tr><tr><td rowspan="2">2023-24</td><td>25,000</td><td>10.00</td><td>Plain land along the boundary</td></tr><tr><td>5,000</td><td>2.00</td><td>OB dump</td></tr><tr><td><b>Total</b></td><td><b>45,000</b></td><td><b>18.00</b></td><td></td></tr></table> <p>Plantation work is carried out through Madhya Pradesh Van Vikas Nigam. The species planted are Amla, Jamun, Neem, Kala Siras, Safad Sirus, Karanj, Casiya, Bamboo, Khamer, Amrood etc.</p> <p>Density of the plants will be maintained at 2500 plants per ha.</p>	Year of plantation	No of plants	Area in Ha	Plantation site	2022-23	15,000	6.00	Plain land along the boundary	2023-24	25,000	10.00	Plain land along the boundary	5,000	2.00	OB dump	<b>Total</b>	<b>45,000</b>	<b>18.00</b>	
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iii.	The transportation of coal shall be carried out as per the provisions and route proposed in the approved mining plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a “bypass” road, it should be constructed so that the impact of sound, dust and accidents could be appropriately mitigated.	<p><b>Being complied.</b> The transportation of coal is carried out as per the provisions and route proposed in the approved mining plan.</p> <p>The coal transportation road is properly maintained and it is directly connected to State Highways (BT road).</p> <p>There is no village in the mine lease area and coal is not transported through any village/ habitation. There is no need for bypass road.</p>																			
iv.	Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining “PUC” certificate from the authorized pollution testing centres.	<p><b>Being complied.</b> As per the present practice, the PUC certificate is obtained for all vehicles and the same will be continued.</p>																			
v.	Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provide with dust suppression system. Belt- conveyors	<p><b>Complied.</b> Fugitive dust emissions from all the dust generating sources are controlled by Fixed Water Sprinklers along weigh bridge, approach road &amp; coal transportation road. Rain guns</p>																			

	<p>shall be fully covered to avoid air borne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust.</p> <p>Drills shall be wet operated or fitted with dust extractors.</p>	<p>are provided at railway siding and Mist spray arrangement is provided at all transfer points of CHP to prevent the dust formation.</p> <p>Side cladding is provided along belt conveyors. Drills have wet drilling arrangement.</p> <p>Details of Air pollution control measures installed:</p> <ul style="list-style-type: none"><li>Automatic tyre washing system has been installed at main check post of Umrer Area.</li><li>2 No. of mobile water tankers of 20 KL capacity and 6 nos of 10 KL Capacity are in operation.</li><li>90 nos. fixed sprinklers are installed along coal transportation road, railway siding, weigh bridge and CHP, details are as follows:</li></ul> <table><thead><tr><th>Location</th><th>Nos. of fixed sprinklers</th></tr></thead><tbody><tr><td>CHP</td><td>10</td></tr><tr><td>Siding</td><td>44</td></tr><tr><td>Along Coal stock approach Road and Weigh bridge</td><td>12</td></tr><tr><td>Along coal transportation road and Coal Stock Yard</td><td>24</td></tr></tbody></table> <ul style="list-style-type: none"><li>Mist Spray Arrangement system (150 nos nozzles) and 03 nos of trolley mounted mist/fog generators are provided at CHP.</li><li>One no of trolley mounted mist/ fog generator and spray nozzles are provided at Crusher.</li><li>One no of truck mounted mist/ fog cannon is in operation.</li><li>In addition to this, installation of 90 nos of fixed sprinklers along the coal transportation road is under process.</li></ul>	Location	Nos. of fixed sprinklers	CHP	10	Siding	44	Along Coal stock approach Road and Weigh bridge	12	Along coal transportation road and Coal Stock Yard	24
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vi.	<p>Coal Handling Plant shall be operated with effective measures viz. bag filters/ water or mist sprinkling system etc. to check fugitive emissions from crushing operations, conveyor system, transfer points, etc.</p>	<p><b>Being complied.</b></p> <p>Coal handling Plant is being maintained with mist type water sprinkling arrangement in order to arrest/check fugitive emissions at source.</p> <p>In addition to the mist spraying arrangement, fixed type water sprinkling arrangement and trolley mounted mist/fog</p>										

	<p>generators has been provided.</p> <p>90 nos. fixed sprinklers are installed along coal transportation road, railway siding, weigh bridge and CHP, details are as follows:</p> <table><tr><th>Location</th><th>Nos. of fixed sprinklers</th></tr><tr><td>CHP</td><td>10</td></tr><tr><td>Siding</td><td>44</td></tr><tr><td>Along Coal stock approach Road and Weigh bridge</td><td>12</td></tr><tr><td>Along coal transportation road and Coal Stock Yard</td><td>24</td></tr></table> <p>Air quality parameters are being monitored by CMPDIL on fortnightly basis. Maximum and minimum concentration of parameters (SPM, PM<sub>10</sub>, NO<sub>x</sub>, SO<sub>x</sub> and PM<sub>2.5</sub>) as per Environmental monitoring report (from April 23 to Sep 23) is as follows:</p> <table><tr><th rowspan="2">Parameters</th><th rowspan="2">Core Zone/ Buffer Zone</th><th rowspan="2">Permissible limit</th><th colspan="2">Concentration (24 hourly values in µg/m<sup>3</sup>)</th></tr><tr><th>Min</th><th>Max</th></tr><tr><td rowspan="2">SPM</td><td>Core</td><td>600</td><td>242</td><td>320</td></tr><tr><td>Buffer</td><td>-</td><td>120</td><td>148</td></tr><tr><td rowspan="2">PM<sub>10</sub></td><td>Core</td><td>300</td><td>150</td><td>215</td></tr><tr><td>Buffer</td><td>100</td><td>60</td><td>88</td></tr><tr><td rowspan="2">NO<sub>x</sub></td><td>Core</td><td>120</td><td>11</td><td>21</td></tr><tr><td>Buffer</td><td>80</td><td>10</td><td>15</td></tr><tr><td rowspan="2">SO<sub>2</sub></td><td>Core</td><td>120</td><td>BDL</td><td>14</td></tr><tr><td>Buffer</td><td>80</td><td>BDL</td><td>BDL</td></tr><tr><td rowspan="2">PM<sub>2.5</sub></td><td>Core</td><td>-</td><td>45</td><td>59</td></tr><tr><td>Buffer</td><td>60</td><td>24</td><td>40</td></tr></table> <p>It may be seen from the data that the values are well within the permissible limits.</p> <p>The Monitoring Report in respect of Makardhokra – III OCP is enclosed as Annexure-IX.</p>	Location	Nos. of fixed sprinklers	CHP	10	Siding	44	Along Coal stock approach Road and Weigh bridge	12	Along coal transportation road and Coal Stock Yard	24	Parameters	Core Zone/ Buffer Zone	Permissible limit	Concentration (24 hourly values in µg/m <sup>3</sup> )		Min	Max	SPM	Core	600	242	320	Buffer	-	120	148	PM <sub>10</sub>	Core	300	150	215	Buffer	100	60	88	NO <sub>x</sub>	Core	120	11	21	Buffer	80	10	15	SO <sub>2</sub>	Core	120	BDL	14	Buffer	80	BDL	BDL	PM <sub>2.5</sub>	Core	-	45	59	Buffer	60	24	40
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vii.	<p>Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for construction and augmentation of ground water</p>	<p><b>Being complied.</b></p> <p>Ground water is not used for any mining operations.</p> <p>Rainwater harvesting measures implemented are listed below:</p>																																																													

	<p>resources.</p>	<ul style="list-style-type: none"><li>• The Mine sump (Capacity: 93 Million gallons) is unlined and have potential for augmentation of ground water resources.</li><li>• A Check Dam has also been provided at Lal Puliya Railway Bridge. Dimensions (Length-55 m, height-1.2 m from river bed)</li></ul> <table><tr><th>Location</th><th>Storage capacity / Volume (m<sup>3</sup>) (a)</th><th>Number of fillings (b)</th><th>Estimated yearly recharge (a*b*0.75) (m<sup>3</sup>/year)</th></tr><tr><td>Check Dam on Amb river near Umrer OC Expn. Mine</td><td>31350</td><td>3</td><td>70537</td></tr></table> <p>Note: Annual Recharge due to Check Dam = 75% of gross storage (in m<sup>3</sup>/yr)</p> <p>Where gross storage = Storage capacity x no. of fillings</p> <ul style="list-style-type: none"><li>• Roof top Rainwater harvesting system has been provided at AGM Office and Canteen building of Umrer OCM</li></ul> <table><tr><th>Location</th><th>Roof Area (m<sup>2</sup>)</th><th>Annual Rainfall (mm)</th><th>Runoff Coefficient</th><th>Estimated Yearly Recharge (m<sup>3</sup>/Y)</th></tr><tr><td>Area General Manager office</td><td>850</td><td>1365</td><td>0.85</td><td>986</td></tr></table> <p>Note: Water available (in liters) = Annual rainfall (in mm) x Roof area (in sq. m.) x Runoff Coefficient (for concrete roof top value is taken-0.85)</p> <p>Unused/ vacant land within the lease area also continuing the ground water recharge.</p>	Location	Storage capacity / Volume (m <sup>3</sup> ) (a)	Number of fillings (b)	Estimated yearly recharge (a*b*0.75) (m <sup>3</sup> /year)	Check Dam on Amb river near Umrer OC Expn. Mine	31350	3	70537	Location	Roof Area (m <sup>2</sup> )	Annual Rainfall (mm)	Runoff Coefficient	Estimated Yearly Recharge (m <sup>3</sup> /Y)	Area General Manager office	850	1365	0.85	986
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viii.	<p>Catch/ garland drains and siltation ponds of appropriate size shall be constructed around the mine working, coal heaps &amp; OB dumps to prevent run off of water and flow of sediments directly into the river and water bodies.</p>	<p><b>Being Complied.</b></p> <p>To arrest the flow of silt and sediments, following actions are taken:</p> <p>i) To arrest flow of silt &amp; sediment during monsoon, catch drain of size (top width 3 m, bottom width 2 m &amp; height 2</p>																		



	<p>Further, dump material shall be properly consolidated/ compacted and accumulation of water over dumps shall be avoided by providing adequate channels for flow of silt into the drains. The drains/ponds so constructed shall be regularly desilted particularly before onset of monsoon and maintained properly. Sump capacity should provide adequate retention period to allow proper settling of silt material. The water so collected in the sump shall be utilised for dust suppression measures and green belt development. Dimension of the retaining wall constructed, if any, at the toe of the OB dumps within the mine to check run-off and siltation should be based on the rainfall data. The plantation of native species to be made between toe of the dump and adjacent field/habitation/water bodies.</p>	<p>m) has been constructed.</p> <p>ii) The silt and sediment from OB benches are guided through cross drainage into the sump (80m x 150m x 2m) having capacity of 24000 m<sup>3</sup> to allow settlement of suspended particles.</p> <p>iii) The drain and sumps are desilted before onset of every monsoon.</p> <p>Sump capacity is adequate to allow proper settlement of particles. Water collected in the sump is utilised for dust suppression measures.</p> <p>The catch drains at the toe of the dump provide all protection measures against flow of silt and sediments. As such no separate construction of toe wall is required.</p>																							
ix.	<p>Industrial waste water from CHP, workshop and other waste water, shall be properly collected and treated so as to conform to the standards prescribed under Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time. Oil and grease trap shall be installed and maintained fully functional with effluents discharge adhering to the norms. Sewage treatment plant of adequate capacity shall be installed for treatment of domestic waste.</p>	<p><b>Being complied.</b></p> <p>The effluent from workshop is treated in ETP provided with oil &amp; grease trap (capacity: 150 KLD). Treated effluent is recycled and used in workshop for washing of HEMM.</p> <p>The quality water is monitored fortnightly and adequate measures will be taken (if need arises) to maintain the quality of water within permissible limits.</p> <p>Maximum and minimum concentration of Water parameters as per Environmental monitoring report (from April 2023 to Sep 2023) is as follows:</p> <table><tr><th rowspan="2">Parameters</th><th colspan="3">Concentration (mg/L)</th></tr><tr><th>Permissible Limit</th><th>Min</th><th>Max</th></tr><tr><td>pH</td><td>5.5 to 9.0</td><td>7.05</td><td>8.54</td></tr><tr><td>TSS</td><td>100</td><td>18</td><td>44</td></tr><tr><td>COD</td><td>250</td><td>28</td><td>72</td></tr><tr><td>O &amp; G</td><td>10</td><td colspan="2">BDL</td></tr></table> <p>The Monitoring Report in respect of Makardhokra – III</p>	Parameters	Concentration (mg/L)			Permissible Limit	Min	Max	pH	5.5 to 9.0	7.05	8.54	TSS	100	18	44	COD	250	28	72	O & G	10	BDL	
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		<p>OCP is enclosed as Annexure-IX.</p> <p>The domestic sewage disposal arrangement of 0.3 MLD capacity using Phytorid technology has been provided in combined township of Umrer area where employees of Makardhokra-III OC project reside.</p>																		
x.	<p>Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.</p>	<p><b>Being complied.</b></p> <p>Groundwater recharge measures taken up are listed below:</p> <ul style="list-style-type: none"> <li>The Mine sump (Capacity-93 Million gallons) is unlined and have potential for augmentation of ground water resources.</li> <li>A Check Dam has also been provided at Lal Puliya Railway Bridge. Dimensions (Length-55 m, height-1.2 m from river bed)</li> </ul> <p>Presently, no water shortage has been observed in the nearby villages. However, if there is any water shortage in future it will be supplemented by necessary arrangement based on the requisition of the villagers</p>																		
<b>(d) Illumination, Noise &amp; Vibration Control</b>																				
i.	<p>Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry &amp; RO on six-monthly basis.</p>	<p><b>Complied.</b></p> <p>Adequate lighting arrangements are provided in mine premises to meet DGMS standards. These are monitored regularly by lux meter.</p>																		
ii.	<p>Adequate measures shall be taken for control of noise levels below 85 Db (A) in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with personal protective equipments (PPE) like ear plugs/ muffs in conformity with the prescribed norms/ guidelines in this regard. Adequate awareness programme for users to be conducted. Progress in usage of such accessories to be monitored.</p>	<p><b>Complied.</b></p> <p>Noise pollution control measures are being implemented. Personnel working in operating mine are being provided with PPE like Ear plugs/ muffs.</p> <p>Numbers of Ear Plugs issued in last 4 years are given below:</p> <table border="1"> <thead> <tr> <th>Sl.No.</th><th>Year</th><th>Nos of ear plugs provided</th></tr> </thead> <tbody> <tr> <td>1</td><td>2019-20</td><td>154</td></tr> <tr> <td>2</td><td>2020-21</td><td>59</td></tr> <tr> <td>3</td><td>2021-22</td><td>45</td></tr> <tr> <td>4</td><td>2022-23</td><td>15</td></tr> <tr> <td>5</td><td>2023-24 (Till Sep 2023)</td><td>12</td></tr> </tbody> </table>	Sl.No.	Year	Nos of ear plugs provided	1	2019-20	154	2	2020-21	59	3	2021-22	45	4	2022-23	15	5	2023-24 (Till Sep 2023)	12
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		Regular awareness programmes are also undertaken at VTC.																			
iii.	Controlled blasting techniques shall be practiced in order to Mitigative ground vibrations and fly rocks as per the guidelines prescribed by the DGMS.	<b>Being complied.</b>  Controlled blasting techniques with use of delay detonators are being practiced to control the ground vibration and to arrest the fly rocks. Controlled blasting technique as permitted by DGMS is adapted.  Survey is being carried out in nearby village by project authorities.																			
iv.	The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises and report in this regard shall be submitted to this Ministry/ RO on six-monthly basis.	<b>Being complied.</b>  Noise level monitoring station is established near Pit Office. Day time & night time noise level data are monitored fortnightly as per Env. (protection) Amendment Rule, 2000. Report of the same is being submitted to MoEF & CC on six-monthly basis.  Noise level, as per Environmental monitoring report (from April 23 to Sep 23) is as follows: <table border="1"><thead><tr><th rowspan="2">Time</th><th colspan="3">Noise level in dB(A)</th></tr><tr><th>Permissible limit</th><th>Min</th><th>Max</th></tr></thead><tbody><tr><td colspan="4"><b>Near Pit Office</b></td></tr><tr><td>Day time</td><td>75</td><td>53.5</td><td>55.3</td></tr><tr><td>Night time</td><td>70</td><td>52.1</td><td>54.1</td></tr></tbody></table>  The Monitoring Report in respect of Makardhokra – III OCP is enclosed as Annexure-IX.	Time	Noise level in dB(A)			Permissible limit	Min	Max	<b>Near Pit Office</b>				Day time	75	53.5	55.3	Night time	70	52.1	54.1
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Night time	70	52.1	54.1																		
(e)	<b>Occupational Health &amp; Safety</b>																				
i.	The project Proponent shall undertake occupational health survey for initial and periodical medical examination of the workers engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS Circulars. Besides regular periodic health check-up, 20% of the workers identified from workforce engaged in active mining operations shall be subjected to health check up	<b>Being complied.</b>  Periodical Medical Examination (PME) is carried out compulsorily for each employee once in three year with the purpose of detecting and keeping records of diseases with specific importance of Coal Workers Pneumoconiosis. This is covered under Statute.  During PME, the candidates are subjected to complete clinical examination (including acuity of vision and hearing) radiological examination of chest and routine examination of blood and urine.																			

<p>for occupational diseases and hearing impairment, if any.</p>	<p>In case some abnormality is detected during the course of the above examination further investigations are carried out as required.</p> <p>When a person is diagnosed with a certain disease, he/ she is referred to the concerned specialist for confirmation and initiation of treatment.</p> <p>If, on radiological examination, a person is suspected to be having Coal Worker's Pneumoconiosis he is referred to WCL Pneumoconiosis Board. There is a team of specialist trained in Pneumoconiosis, examine him and comes to a conclusion as to whether he suffers from Coal Worker's Pneumoconiosis or not, compensation to be paid and his fitness for continuing his job. In suitable cases, as per the recommendation of the Apex Medical Board, there is provision for change of job.</p> <p>Various national and International Days are observed to increase awareness and educate general population (e.g. No Tobacco Day/ No Smoking Day, World AIDS day, World Breast Feeding Week etc.).</p> <p>Regular Family Welfare (L.T.T.) Camps organized with the help of State Govt. Full Co-operation is extended to State Govt. for Pulse Polio immunization. Medical facilities are being extended to non-employees in all sorts of acute emergencies.</p> <p>The details of the set up at Umrer Area Hospital are as follows:</p> <ul style="list-style-type: none"> <li>• Periodical Medical Examination (PME) Centres: 1 (Occupational Health Centres)</li> <li>• No. of Doctor engaged in Periodical Medical Examination: 3</li> <li>• No. of Doctor trained in Periodical Medical Examination: 2</li> <li>• No. of X-Ray machines (500 mA): 1</li> <li>• No. of Audiometer units: 1</li> <li>• No. of Spirometer units: 1</li> <li>• No. of pathology Labs: 1</li> <li>• No. of X-Ray Technicians: 1</li> <li>• No. of Laboratory Technicians: 3</li> <li>• No of ECG Technicians: 2</li> </ul> <p>As per the Statute/ DGMS guidelines, all the workers are examined once in 3 years.</p> <p>As seen from the above details that Area Hospital, Umrer Area, WCL is having all the infrastructural facilities to comply all the statutory obligations regarding occupational</p>
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		<p>health survey of all employees.</p> <p>Details of IME/PME done in last 4 years are given below:</p> <table><tr><th rowspan="2">Year</th><th colspan="2">No. of workers (Dept. &amp; Cont.)</th></tr><tr><th>IME</th><th>PME</th></tr><tr><td>2020-21</td><td>120</td><td>52</td></tr><tr><td>2021-22</td><td>186</td><td>68</td></tr><tr><td>2022-23</td><td>902</td><td>68</td></tr><tr><td>2023-24 (Till Sep 2023)</td><td>165</td><td>09</td></tr></table>	Year	No. of workers (Dept. & Cont.)		IME	PME	2020-21	120	52	2021-22	186	68	2022-23	902	68	2023-24 (Till Sep 2023)	165	09																								
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ii.	<p>Personnel (including outsourcing employees) working in dusty areas shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.</p>	<p><b>Being complied.</b></p> <p>Persons exposed to dusty areas are provided with protective gears like dust masks with goggles.</p> <p>Numbers of Dust Masks issued in last 5 years are given below:</p> <table><tr><th>Sl.No.</th><th>Year</th><th>Nos of Dust Masks provided</th></tr><tr><td>1</td><td>2019-20</td><td>182</td></tr><tr><td>2</td><td>2020-21</td><td>136</td></tr><tr><td>3</td><td>2021-22</td><td>89</td></tr><tr><td>4</td><td>2022-23</td><td>84</td></tr><tr><td>5</td><td>2023-24 (Till Sep 2023)</td><td>69</td></tr></table> <p>As per statute all personnel working in mines are given training and retraining on safety and health aspects on different trades for both departmental and contractual workers.</p> <p>Number of persons given training in last 4 Years are given below:</p> <table><tr><th rowspan="2">Year</th><th colspan="3">No. of workers</th></tr><tr><th>Departmental</th><th>Contractual</th><th>Total</th></tr><tr><td>2020-21</td><td>28</td><td>102</td><td>130</td></tr><tr><td>2021-22</td><td>105</td><td>140</td><td>245</td></tr><tr><td>2022-23</td><td>98</td><td>585</td><td>683</td></tr><tr><td>2023-24 (Till Sep 2023)</td><td>12</td><td>189</td><td>201</td></tr></table>	Sl.No.	Year	Nos of Dust Masks provided	1	2019-20	182	2	2020-21	136	3	2021-22	89	4	2022-23	84	5	2023-24 (Till Sep 2023)	69	Year	No. of workers			Departmental	Contractual	Total	2020-21	28	102	130	2021-22	105	140	245	2022-23	98	585	683	2023-24 (Till Sep 2023)	12	189	201
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iii.	Skill training as per safety norms specified by DGMS shall be provided to all workmen including the outsourcing employees to ensure high safety standards in mines.	<b>Being complied</b>  Skill training as per safety norms specified by DGMS is given to all workmen including the outsourcing employees to ensure high safety standards in mines.  Number of persons given training in last 4 Years are given below: <table><tr><th rowspan="2">Year</th><th colspan="3">No. of workers</th></tr><tr><th>Departmental</th><th>Contractual</th><th>Total</th></tr><tr><td>2020-21</td><td>28</td><td>102</td><td>130</td></tr><tr><td>2021-22</td><td>105</td><td>140</td><td>245</td></tr><tr><td>2022-23</td><td>98</td><td>585</td><td>683</td></tr><tr><td>2023-24 (Till Sep 2023)</td><td>12</td><td>189</td><td>201</td></tr></table>	Year	No. of workers			Departmental	Contractual	Total	2020-21	28	102	130	2021-22	105	140	245	2022-23	98	585	683	2023-24 (Till Sep 2023)	12	189	201
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<b>(f)</b>	<b>Ecosystem and Biodiversity conservation</b>																								
i.	The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered flora/fauna, if any, spotted/reported in the study area. Action plan, in this regard, if any shall be prepared and implemented in consultation with the State Forest and Wildlife Department.	<b>Being Complied</b>  Not applicable as there are no endangered flora/ fauna in core and buffer zone as per baseline data generated in EIA/EMP.  As such, no precautionary measures are needed for conservation and protection of endangered flora / fauna.  However. Plantation is being taken up along with mining activities through State Level Expert Forest Agency (MPRVVN) with MoU for 4 years maintenance after each year of plantation. This MoU is applicable for all mines of WCL in Maharashtra.																							
<b>(g)</b>	<b>Public Hearing, R&amp;R &amp; CSR</b>																								
i.	Implementation of Action Plan on the issues raised during the Public Hearing shall be ensured. The Project Proponent shall undertake all the tasks/measures as per the Action Plan submitted with budgetary provisions during the Public Hearing.  Land oustees shall be compensated as per the norms laid out R&R Policy of the Company/ or the National R&R Policy/R&R Policy of the State Government, as applicable.	<b>Complied.</b> Action Taken Report on the issues raised during the Public Hearing is enclosed as Annexure: X.  The details as per the present status of land acquisition is as follows: <ul style="list-style-type: none"><li>Land notified u/s 9(i) of CBA Act vide Gazette notification dated 11/08/12.</li><li>The Employment Roll of 1234 against 1385.54 Ha approved by WCL Board in 270<sup>th</sup> meeting on 24/10/15.</li><li>Compensatory jobs provided: 933 nos</li><li>Monitory compensation provided: 165 nos</li><li>Total: 1098 nos</li><li>Land compensation paid till date: 346.60 Crore</li><li>Monitory compensation paid: 31.91 Crore</li></ul>																							

		Rehabilitation of Hewati village is proposed with capital provision of Rs. 35.92 crore, considering 360 nos of PAF. The rehabilitation site is under construction near Udas village on Umrer- Nagpur Highway.																												
ii.	The project proponent shall ensure that the expenditure towards, socio-economic development in and around the mine, in every financial year as per the Corporate Social Responsibility policy as per the provisions under Section 135 of the Components Act, 2013.	<p><b>Being complied.</b></p> <p>The activities undertaken for the specific villages adopted under CSR are displayed on the company website and are updated accordingly.</p> <p>In every year area-wise detailed CSR plan is prepared after due consultation with local beneficiaries. Umrer Area has spent the following under CSR in last 12 years:</p> <table> <tr> <th>Year</th> <th>Rs. in lakhs</th> </tr> <tr><td>2022-23</td><td>54.79</td></tr> <tr><td>2021-22</td><td>46.84</td></tr> <tr><td>2020-21</td><td>53.17</td></tr> <tr><td>2019-20</td><td>64.80</td></tr> <tr><td>2018-19</td><td>12.01</td></tr> <tr><td>2017-18</td><td>15.84</td></tr> <tr><td>2016-17</td><td>6.09</td></tr> <tr><td>2015-16</td><td>8.46</td></tr> <tr><td>2014-15</td><td>39.98</td></tr> <tr><td>2013-14</td><td>216.88</td></tr> <tr><td>2012-13</td><td>152.98</td></tr> <tr><td>2011-12</td><td>85.80</td></tr> <tr><td>2010-11</td><td>49.59</td></tr> </table> <p>*CSR funds for the year 2015-16 and 2016-17 were diverted to Swaccha Bharat Abhiyan.</p> <p>The activities broadly include:</p> <ul style="list-style-type: none"> <li>• Construction of WBM and CC road at nearby villages</li> <li>• Construction of Well and Storage arrangement and pipe line for providing drinking water</li> <li>• Installation of RO plant at nearby villages and ZP schools.</li> <li>• Construction of Green Haat at village</li> <li>• Construction of Compound wall at ZP Schools.</li> <li>• Skill development training for nearby villagers.</li> </ul> <p>Details enclosed as Annexure XI.</p>	Year	Rs. in lakhs	2022-23	54.79	2021-22	46.84	2020-21	53.17	2019-20	64.80	2018-19	12.01	2017-18	15.84	2016-17	6.09	2015-16	8.46	2014-15	39.98	2013-14	216.88	2012-13	152.98	2011-12	85.80	2010-11	49.59
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iii.	The project proponent shall follow the mitigation measures provided in the	<p><b>Being complied.</b></p> <p>There is no habitation/village in the mine lease area. Nearest</p>																												

	<p>Ministries OM No.Z-11013/5712014-IA.II (M), dated 29th October, 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 and villages are surrounded by the mine lease area".</p> <p>village (Hewati Village) is approx. 1200 m north from the mine boundary.</p> <p>The coal transportation route lies in the south of mine lease area which is approx. 2050 m away from the Hewati village. Approx. 75 - 80% coal is transported through rail to all the major consumers. The remaining 20 – 25% coal is transported through tarpaulin covered trucks. The coal transportation road is properly maintained and it is directly connected to State Highways (BT road).</p> <p>However, rehabilitation of Hewati village is proposed with capital provision of Rs. 35.92 crore, considering 360 nos of PAF. The rehabilitation site is under construction near Udasa village on Umrer- Nagpur Highway.</p> <p>Monitoring station is set up in this village for regular monitoring of ambient air and noise. Analysis results of the same for the month, Sep 23 is given below:</p> <table><tr><th colspan="7">HEOTI VILLAGE: UM10A5</th></tr><tr><th colspan="2" rowspan="2">DATE(dd.mm.yy) OF SAMPLING</th><th colspan="4">PARAMETERS (24 hourly values in µg/m<sup>3</sup>)</th><th rowspan="2">ENVIRONMENT CONDITIONS (Sky/Wind)</th></tr><tr><th>PM<sub>10</sub></th><th>PM<sub>2.5</sub></th><th>NO<sub>2</sub></th><th>SO<sub>2</sub></th></tr><tr><th>FROM</th><th>TO</th><th>1</th><th>2</th><th>3</th><th>4</th><th></th></tr><tr><td>01-09-23</td><td>02-09-23</td><td>84</td><td>32</td><td>9</td><td>BDL</td><td>Clear / Calm</td></tr><tr><td>02-09-23</td><td>03-09-23</td><td>82</td><td>30</td><td>8</td><td>BDL</td><td>Clear / Calm</td></tr><tr><td>08-09-23</td><td>09-09-23</td><td>66</td><td>24</td><td>7</td><td>BDL</td><td>Rainy / Light breeze</td></tr><tr><td>09-09-23</td><td>10-09-23</td><td>68</td><td>26</td><td>8</td><td>BDL</td><td>Rainy / Light breeze</td></tr><tr><td>15-09-23</td><td>16-09-23</td><td>72</td><td>28</td><td>8</td><td>BDL</td><td>Rainy / Light breeze</td></tr><tr><td>16-09-23</td><td>17-09-23</td><td>80</td><td>30</td><td>9</td><td>BDL</td><td>Clear / Calm</td></tr><tr><td>22-09-23</td><td>23-09-23</td><td>64</td><td>24</td><td>6</td><td>BDL</td><td>Rainy / Light breeze</td></tr><tr><td>23-09-23</td><td>24-09-23</td><td>66</td><td>26</td><td>7</td><td>BDL</td><td>Rainy / Light breeze</td></tr><tr><td>29-09-23</td><td>30-09-23</td><td>78</td><td>28</td><td>8</td><td>BDL</td><td>Clear / Calm</td></tr><tr><td>30-09-23</td><td>01-10-23</td><td>80</td><td>30</td><td>8</td><td>BDL</td><td>Clear / Light breeze</td></tr><tr><td colspan="2">NAAQS, 2009</td><td>100</td><td>60</td><td>80</td><td>80</td><td></td></tr></table> <table><tr><th colspan="4">HEOTI VILLAGE: UM10N3</th></tr><tr><th rowspan="2">MONTH</th><th>DATE OF SAMPLE COLLECTION</th><th colspan="2">NOISE LEVEL IN dB(A)</th></tr><tr><th>DETECTION LIMIT</th><th>DAY TIME</th><th>NIGHT TIME</th></tr><tr><td>SEPT'2023</td><td>11-09-23</td><td>43.9</td><td>42.4</td></tr><tr><td>SEPT'2023</td><td>25-09-23</td><td>43.7</td><td>42.2</td></tr><tr><td colspan="2">NOISE POLLUTION (REGULATION AND CONTROL) RULES</td><td>55</td><td>45</td></tr></table> <p>Regular monitoring of Ground Water level is also done in Hewati village for four times a year i.e. during pre-monsoon (May), monsoon (August), post-monsoon (November), and winter (January). Till date, no depletion in ground water level has been recorded. Ground water monitoring report is enclosed as Annexure: XII.</p> <p>All blasting practices are carried out as per the permission of Director General of Mines Safety (DGMS). Ground vibration study is conducted for Hewati village and the results show Peak Particle Velocity (PPV) within the permissible limit.</p>	HEOTI VILLAGE: UM10A5							DATE(dd.mm.yy) OF SAMPLING		PARAMETERS (24 hourly values in µg/m <sup>3</sup> )				ENVIRONMENT CONDITIONS (Sky/Wind)	PM <sub>10</sub>	PM <sub>2.5</sub>	NO <sub>2</sub>	SO <sub>2</sub>	FROM	TO	1	2	3	4		01-09-23	02-09-23	84	32	9	BDL	Clear / Calm	02-09-23	03-09-23	82	30	8	BDL	Clear / Calm	08-09-23	09-09-23	66	24	7	BDL	Rainy / Light breeze	09-09-23	10-09-23	68	26	8	BDL	Rainy / Light breeze	15-09-23	16-09-23	72	28	8	BDL	Rainy / Light breeze	16-09-23	17-09-23	80	30	9	BDL	Clear / Calm	22-09-23	23-09-23	64	24	6	BDL	Rainy / Light breeze	23-09-23	24-09-23	66	26	7	BDL	Rainy / Light breeze	29-09-23	30-09-23	78	28	8	BDL	Clear / Calm	30-09-23	01-10-23	80	30	8	BDL	Clear / Light breeze	NAAQS, 2009		100	60	80	80		HEOTI VILLAGE: UM10N3				MONTH	DATE OF SAMPLE COLLECTION	NOISE LEVEL IN dB(A)		DETECTION LIMIT	DAY TIME	NIGHT TIME	SEPT'2023	11-09-23	43.9	42.4	SEPT'2023	25-09-23	43.7	42.2	NOISE POLLUTION (REGULATION AND CONTROL) RULES		55	45
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iv.	<p>The Project Proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State</p> <p><b>Not applicable.</b></p> <p>As per the baseline data there is no grazing land in the core zone of the project. So, there is no necessity of making</p>																																																																																																																													





	Government to provide alternate areas for livestock grazing, if any. In this context, the Project Proponent shall implement the directions of the Hon'ble Supreme Court with regard to acquiring grazing land.	alternate arrangement for livestock grazing.
<b>(h)</b>	<b>Corporate Environment Responsibility</b>	
i.	The Company shall have a well laid down Environment Policy duly approved by the Board of Directors. The Environment Policy should prescribe for standard operating procedures to have proper checks & balances and to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions. Also the company shall have a defined system of reporting of non-compliances/violations of environmental norms to the Board of Directors and/or shareholders or stakeholders.	<p><b>Complied.</b></p> <p>Coal India Limited (CIL) has formulated a comprehensive Environment Policy only in March 2012, followed by a revised policy in December 2018 approved by CIL Board in its 377th Meeting held on 20th December'2018 for implementation at CIL and its subsidiaries.</p> <p>This Corporate Environment Policy 2018 of CIL was subsequently discussed in the 309<sup>th</sup> Meeting of the Board of Directors of WCL held on 04.03.2019. After deliberation, WCL Board has adopted the policy in principle for implementation in WCL and the same was communicated vide Ref: WCL/BD/SECTT/BM-309/2019/267 dated 15.03.2019.</p> <p>For monitoring of EC/FC norms &amp; conditions, an online MDMS portal (Mine Data Management System) of MoC, GoI is already existing where in the environmental data namely, air quality, water quality, noise quality data are uploaded and regularly updated. In addition to that, compliance report of each condition of EC is also uploaded in the portal and the same is also updated every six months.</p> <p>This management system has the access of CIL &amp; MoC</p> <p>To deal with environmental issues and for ensuring compliance with environmental clearance conditions, At project level Environmental management cell is headed by Sub Area Manager and is assisted by Project Nodal officer (Env).</p> <p>At area level, Area General Manager, Heads the environment cell and is assisted by General Manager (Op) and Nodal officer (Env).</p> <p>At corporate level at HQ, there is full-fledged Environment Department which is headed by General Manager (Env)</p>

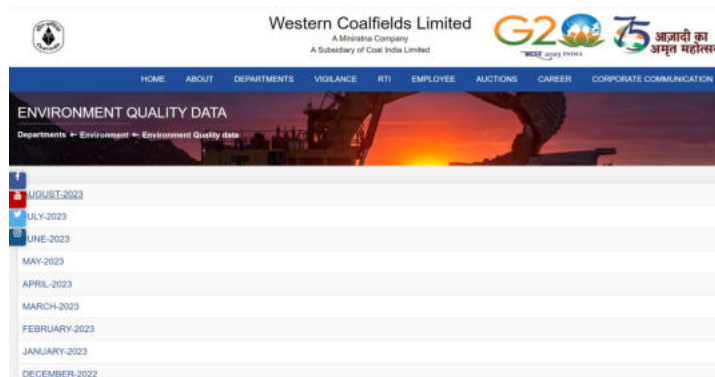
		<p>with a multi-disciplinary team of qualified and experienced engineers. The head of Corporate Environment department reports directly the Director (Tech), who is nominated owner of the company.</p> <p>In this regard, it may be mentioned here that at the Company Level a Sustainable Development Cell has been set up with multi-disciplinary officials for pursuing sustainable mining integrating environmental, social and economic factors. This cell is being monitored at the level of Director of the Company and further monitoring is being also done by CIL and MOC at the highest level.</p> <p>Coal India Limited has framed an Environment Policy which is being complied within all the mines. Copy is enclosed as Annexure – XIII.</p>
ii.	The project proponent shall comply with the provisions contained in this Ministry's OM dated 1 <sup>st</sup> May, 2018, as applicable, regarding Corporate Environment Responsibility.	<p><b>Not applicable.</b></p> <p>As per the O.M dated 1st May 2018, the provision of CER is not applicable.</p>
iii.	The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions should be displayed on website of the Company.	<p><b>Complied.</b></p> <p>The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions is displayed on company website <a href="http://www.westerncoal.in">www.westerncoal.in</a>.</p>
iv.	A separate environmental management cell, both at the project level and company headquarter level, with suitable qualified personnel shall be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.	<p><b>Complied.</b></p> <p>The Environmental Management cell at corporate level is headed by GM (Env) and assisted by a multidisciplinary team of qualified and trained engineers under the control of Director (Tech.)</p> <p>At Area level, the cell is headed by Area General Manager, Umrer Area, assisted by Area Nodal Officer (Environment) Umrer Area, Project Officer/Sub Area Manager, Umrer Sub Area, Staff Officer (Civil), Umrer Area.</p> <p>At Project level, it is headed by Sub-Area Manager, Umrer Sub Area and assisted by Mine Manager/Safety Officer, Umrer Sub Area, Survey Officer, Umrer Sub Area and Nodal Officer (Environment) of the project.</p>






v.	<p>Action plan for implementing the EMP and environmental clearance conditions shall be prepared and shall be duly approved by the competent authority. The Year-wise funds earmarked for environmental protection measures shall be kept in separate account and not be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry / Regional Office along with the Six Monthly Compliance Report.</p>	<p><b>Being complied.</b></p> <p>The Action Plan for implementing EMP/EIA conditions are in built in the mining plan approved by Company Board.</p> <p>The funds earmarked for environment will not be diverted for other works.</p> <p>Expenditure incurred till date is given below:</p> <table border="1" data-bbox="797 489 1487 1356"> <thead> <tr> <th>Financial Year</th><th>Expenditure (Rs. Lakhs)</th><th>Remarks</th></tr> </thead> <tbody> <tr> <td rowspan="2">2016-17</td><td>15.44</td><td>Construction of sedimentation tank</td></tr> <tr> <td>30.99</td><td>Construction of Effluent Treatment plant and washing ramp</td></tr> <tr> <td rowspan="2">2017-18</td><td>10.90</td><td>Construction of building for housing of CAAQMS</td></tr> <tr> <td>26.47</td><td>Installation of fixed sprinklers for dust suppression including water reservoir, pipeline</td></tr> <tr> <td>2019-20</td><td>21.53</td><td>Providing and installation of fixed sprinklers for dust suppression including pipeline along coal stock</td></tr> <tr> <td rowspan="2">2021-22</td><td>2.58</td><td>Procurement and installation of Water flow meter</td></tr> <tr> <td>12.42</td><td>Installation of 02 nos of Piezometers with DWLR</td></tr> <tr> <td>2022-23</td><td>34.10</td><td>Procurement of one no of truck mounted Mist/Fog Generator</td></tr> </tbody> </table>	Financial Year	Expenditure (Rs. Lakhs)	Remarks	2016-17	15.44	Construction of sedimentation tank	30.99	Construction of Effluent Treatment plant and washing ramp	2017-18	10.90	Construction of building for housing of CAAQMS	26.47	Installation of fixed sprinklers for dust suppression including water reservoir, pipeline	2019-20	21.53	Providing and installation of fixed sprinklers for dust suppression including pipeline along coal stock	2021-22	2.58	Procurement and installation of Water flow meter	12.42	Installation of 02 nos of Piezometers with DWLR	2022-23	34.10	Procurement of one no of truck mounted Mist/Fog Generator
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vi.	<p>Self Environmental Audit shall be conducted annually. Every three years, a third-party environmental audit shall be carried out.</p>	<p><b>Complied.</b></p> <p>Internal environmental audit system has been setup in the company. At Area level, a multi-disciplinary committee has been constituted by order of competent authority to review the compliance status through a formatted checklist. Inter-area inspection to review compliance status is being done on quarterly basis. The report of the inspection is put up to the subsidiary level apex committee which has been constituted under the chairmanship of Director (Technical), WCL.</p> <p>Every three years the third-party assessment of EC</p>																								

		<p>compliance will be carried out.</p> <p>The third part assessment of EC compliance has been undertaken through CSIR-NEERI (Expert Agency identified by Ministry). Inspection was carried out on 18/11/2021 in which no non compliances were observed.</p>
<b>(i)</b>	<b>Statutory Obligations</b>	
i.	Environmental clearance shall be subject to orders of Hon'ble Supreme Court of India, Hon'ble High Court, NGT and any other Court of Law, from time to time, and as applicable to this project.	Noted
ii.	This Environmental Clearance shall be obtaining wildlife Clearance, if applicable from the Standing Committee of National Board for Wildlife.	Not applicable as there are no endangered flora/ fauna in core and buffer zone as per baseline data generated for EIA/EMP.
iii.	The Project Proponent shall obtain Consent to Establish/Operate under the Air Act, 1981 and water Act, 1974 from the concerned State Pollution Control Board.	<p><b>Complied.</b></p> <p>Consent to establish along with consent to operate for 4.20 MTPA has been secured from MPCB vide letter no. Format1.0/CAC/UAN No.0000062939/CO-2002001040 dated 25/02/2020 which was valid till 31/03/2021 (Copy enclosed as Annexure-II).</p> <p>Subsequently, Consent to operate has been renewed vide letter no. Format 1.0/CAC/UAN No. MPCB-CONSNET-00001077252/CR/2211000598 dt 09/11/2022 (Copy enclosed as Annexure: III).</p> <p>Subsequently, Consent to Establish for 4.5 MTPA has been secured vide letter no: Letter no. Format1.0/ CAC/ UAN No. MPCB-CONSENT-0000142418/ CE/ 2211001310 dt. 16/11/2022 (Copy enclosed as Annexure-V) and Consent to operate for 4.5 MTPA has been secured vide letter no. Format1.0/ CAC/ UAN No. MPCB- CONSNET-0000142515/ CO/ 2211001308 dt 16/11/2022, which is valid up to 31/03/2024 (Copy enclosed as Annexure-VI).</p>
iv.	The project proponent shall obtain necessary permission of the Central Ground Water Authority (CGWA).	<p><b>Complied.</b></p> <p>Obtained NOC from CGWA for abstracting Ground Water (NOC No. CGWA/NOC/MIN/ORIG/2019/5548) which was valid up to 09/06/2021. Renewal application for NOC is submitted to CGWA, which is under process.</p> <p>Copy of NOC is enclosed as Annexure – VII.</p>
<b>(j)</b>	<b>Monitoring of Project</b>	




i.	<p>Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, and NO<sub>x</sub>. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the SPCB.</p> <p>Online ambient air quality monitoring station/ stations may also be installed in addition to the regular air monitoring stations as per the requirement and/or in consultation with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc. to be carried out at least once in six months.</p>	<p><b>Being complied.</b></p> <p>Four nos. of ambient air quality monitoring stations have been established in consultation with MPCB Officials. considering meteorological data, Topographical features and environmentally and ecologically sensitive targets which are as follows:</p> <ul style="list-style-type: none"><li>• Manager office</li><li>• Railway Weigh Bridge</li><li>• Pipardol Village</li><li>• Welsakara Village</li></ul> <p>Maximum and minimum concentration of parameters (SPM, PM<sub>10</sub>, NO<sub>x</sub>, SO<sub>x</sub> and PM<sub>2.5</sub>) as per Environmental monitoring report (from April 23 to Sep 23) is as follows:</p> <table><tr><th rowspan="2">Parameters</th><th rowspan="2">Core Zone/ Buffer Zone</th><th rowspan="2">Permissible limit</th><th colspan="2">Concentration (24 hourly values in µg/m<sup>3</sup>)</th></tr><tr><th>Min</th><th>Max</th></tr><tr><td rowspan="2">SPM</td><td>Core</td><td>600</td><td>242</td><td>320</td></tr><tr><td>Buffer</td><td>-</td><td>120</td><td>148</td></tr><tr><td rowspan="2">PM<sub>10</sub></td><td>Core</td><td>300</td><td>150</td><td>215</td></tr><tr><td>Buffer</td><td>100</td><td>60</td><td>88</td></tr><tr><td rowspan="2">NO<sub>x</sub></td><td>Core</td><td>120</td><td>11</td><td>21</td></tr><tr><td>Buffer</td><td>80</td><td>10</td><td>15</td></tr><tr><td rowspan="2">SO<sub>2</sub></td><td>Core</td><td>120</td><td>BDL</td><td>14</td></tr><tr><td>Buffer</td><td>80</td><td>BDL</td><td>BDL</td></tr><tr><td rowspan="2">PM<sub>2.5</sub></td><td>Core</td><td>-</td><td>45</td><td>59</td></tr><tr><td>Buffer</td><td>60</td><td>24</td><td>40</td></tr></table> <p>The Monitoring Report in respect of Makardhokra – III OCP is enclosed as Annexure-IX.</p> <p>One Online Continuous Ambient Air Quality Monitoring Station has also been set up in consultation with MPCB and is in operation.</p> <p>Monitoring of heavy metals is being carried out once in six months by CMPDIL and the report of the same is submitted to MOEF &amp; CC Nagpur &amp; Maharashtra Pollution Control Board. Analysis result of the same is tabulated below:</p>	Parameters	Core Zone/ Buffer Zone	Permissible limit	Concentration (24 hourly values in µg/m <sup>3</sup> )		Min	Max	SPM	Core	600	242	320	Buffer	-	120	148	PM <sub>10</sub>	Core	300	150	215	Buffer	100	60	88	NO <sub>x</sub>	Core	120	11	21	Buffer	80	10	15	SO <sub>2</sub>	Core	120	BDL	14	Buffer	80	BDL	BDL	PM <sub>2.5</sub>	Core	-	45	59	Buffer	60	24	40
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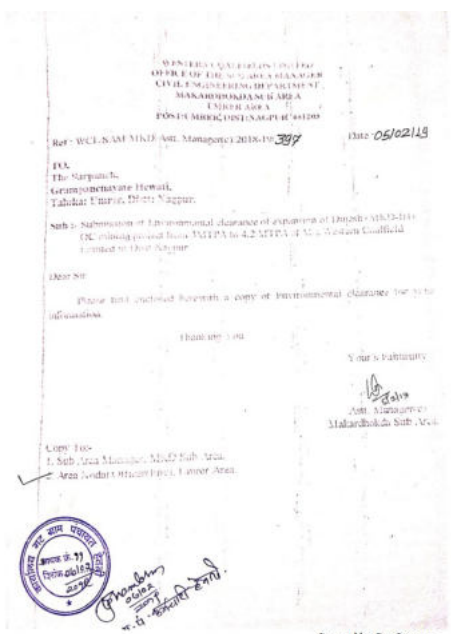
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ii.	<div>The Ambient Air Quality Monitoring in the core zone shall be carried out to ensure the coal industry standards notified vide GSR 742(E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/ Regional Office and to CPCB/SPCB.</div>	<div>Being complied.</div> <div>Ambient air quality is being monitored as per the coal industry standards notified vide GSR 742(E) dated 25.9.2000 &amp; reports are submitted to MOEF &amp; CC Nagpur &amp; Maharashtra Pollution Control Board.</div> <div>Copy of Monitoring Report is enclosed as Annexure - IX.</div> <div>Monitoring of heavy metals is being carried out once in six months by CMPDIL and the report of the same is submitted to MOEF &amp; CC Nagpur &amp; Maharashtra Pollution Control Board. Copy of heavy metal monitoring report is enclosed as Annexure -XIV.</div>																																																																																																				
iii.	<div>Effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Coal Industry Standard notified vide GSR 742(E) dated 25.9.2000 and as amended from time to time by the Central Pollution</div>	<div>Being complied.</div> <div>The quality of mine discharge water is monitored fortnightly basis as per GSR 742(E) of dated 25-05-2000.</div> <div>Maximum and minimum concentration of Water parameters as per Environmental monitoring report (from April 2023 to Sep 2023) is as follows:</div>																																																																																																				

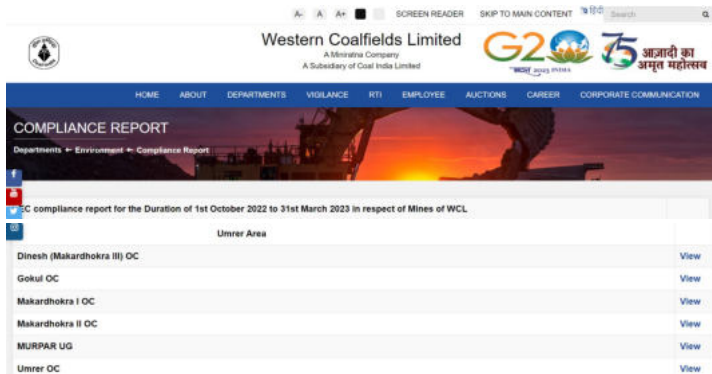

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iv.	<p>The monitoring data shall be updated on the company’s website and displayed at the project site. The circular No: J-20012/1/2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.</p>	<p><b>Being complied.</b></p> <p>Environment monitoring reports are sent to R.O, MoEF, Nagpur and MPCB on regular basis and displayed on the company website also.</p>  <p>Reports enclosed as Annexure-IX.</p>																							
v.	<p>Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of groundwater levels shall be carried out four times in a year i.e, pre- monsoon, monsoon, post-monsoon and winter and the ground water quality shall be monitored once in a year and data thus collected shall be sent regularly to Ministry of Environment, Forest and Climate Change / Regional Office.</p>	<p><b>Being complied.</b></p> <p>Regular monitoring of ground water level from existing wells at 27 locations of Buffer zone is being done for four times a year i.e. during pre-monsoon (May), monsoon (August), post-monsoon (November), and winter (January).</p> <p>Quality of groundwater as per IS: 10500: 2012 is analyzed for 27 locations in Buffer zone once a year.</p> <p>Ground water level and quality monitoring report is sent to R.O., MoEF&amp; CC, Nagpur and CGWA on regular basis.</p> <p>Ground water monitoring report is enclosed as Annexure: XII.</p> <p>In compliance with the condition stipulated in the NOC for</p>																							


		ground water abstraction issued by CGWA, 2 nos of piezometers are installed in core zone for continuous monitoring of ground water level.																																																																																																																																		
vi.	Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring date shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change / Regional Office.	<div>Being complied.</div> <div>Water quality of Amb river is monitored regularly as per GSR 742(E) of dated 25-05-2000 and report is sent to Ministry of Environment, Forest and Climate Change / Regional Office along with the EC compliance report. Analysis result of the same is given below:</div> <div><table><tr><td colspan="2">Environment Laboratory CMPDI RI-IV, NAGPUR</td><td colspan="2">Test Report Surface water quality monitoring data</td><td></td></tr><tr><td>TEST REPORT NO.</td><td>RIN/TR/JUNE-23/SW30</td><td>DATE OF ISSUE</td><td colspan="2">31-08-23</td></tr><tr><td>NAME OF CUSTOMER</td><td>GM(ENV.), WCL(HQ), NAGPUR</td><td>SAMPLE DESCRIPTION</td><td colspan="2">WATER SAMPLE</td></tr><tr><td>NAME OF AREA</td><td>UMRER</td><td>SAMPLING METHOD: LQIP 5</td><td colspan="2"></td></tr><tr><td>NAME OF PROJECT</td><td>UMRER OC</td><td>SAMPLING PLAN: LQR 47</td><td colspan="2"></td></tr><tr><td>NO. OF PAGES</td><td>1</td><td colspan="3"></td></tr></table><table><tr><td colspan="2">NAME OF LOCATION: DOWN STREAM OF AMB RIVER WRT MINE DISCHARGE</td><td colspan="3">SAMPLING DATE: 13-05-23</td></tr><tr><th>SL. 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(3 days at 27°C) - mg/l</td><td>IS 3025 Part 44 : 1993 (RA 2014)</td><td>2</td><td>4.2</td></tr><tr><td>7</td><td>Arsenic (As)-mg/l</td><td>APHA, 23rd Edition 3114 C AAS-VGA Method:2017</td><td>0.005</td><td>BDL</td></tr><tr><td>8</td><td>Lead as (Pb) -mg/l</td><td>APHA, 23rd Edition 3113 B AAS GTA Method:2017</td><td>0.005</td><td>BDL</td></tr><tr><td>9</td><td>Hexavalent Chromium -mg/l</td><td>APHA, 23rd Edition 3500-Cr B Colorimetric Method: 2017</td><td>0.01</td><td>BDL</td></tr><tr><td>10</td><td>Copper (as Cu) -mg/l</td><td>IS 3025 Part-42 AAS Flame Method :2014</td><td>0.03</td><td>BDL</td></tr><tr><td>11</td><td>Zinc as (Zn) -mg/l</td><td>IS 3025 Part-49 AAS Flame Method:2014</td><td>0.01</td><td>BDL</td></tr><tr><td>12</td><td>Selenium (Se) -mg/l</td><td>APHA, 23rd Edition 3114 C AAS-VGA Method:2017</td><td>0.005</td><td>BDL</td></tr><tr><td>13</td><td>Cadmium as (Cd)- mg/l</td><td>APHA, 23rd Edition 3113 B AAS GTA Method:2017</td><td>0.0005</td><td>BDL</td></tr><tr><td>14</td><td>Fluoride (as F) - mg/l</td><td>APHA, 23rd Edition 4500-F D SPADNS Method: 2017</td><td>0.02</td><td>0.62</td></tr><tr><td>15</td><td>Iron (as Fe) -mg/l</td><td>IS 3025 Part-53 AAS Flame Method:2014</td><td>0.06</td><td>BDL</td></tr><tr><td>16</td><td>Nitrate Nitrogen - mg/l</td><td>APHA, 23rd Edition 4500-NO<sup>3</sup> B UV Spectrophotometric Method: 2017</td><td>0.5</td><td>3.2</td></tr><tr><td>17</td><td>Sulphate (as SO<sub>4</sub><sup>-2</sup>) -mg/l</td><td>APHA (23rd Edition) 4500E Turbidimetric Method:2017</td><td>2</td><td>48</td></tr><tr><td>18</td><td>Chlorides (as Cl<sup>-</sup>) - mg/l</td><td>IS 3025 Part-32 1988 Argentometric Method:2014</td><td>2</td><td>82</td></tr></table><div><div>BDL: BELOW DETECTION LIMIT</div><div><div> SCIENTIFIC ASSISTANT</div><div> DEEPANSHU SAHU AUTHORIZED SIGNATORY</div></div></div></div>	Environment Laboratory CMPDI RI-IV, NAGPUR		Test Report Surface water quality monitoring data			TEST REPORT NO.	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RIN/TR/JUNE-23/SW29	DATE OF ISSUE	31-08-23	NAME OF CUSTOMER	GM(ENV.), WCL(HQ), NAGPUR	SAMPLE DESCRIPTION	WATER SAMPLE	NAME OF AREA	UMRER	SAMPLING METHOD: LSOP 5		NAME OF PROJECT	UMRER OC	SAMPLING PLAN: LQR 47		NO. OF PAGES	1			NAME OF LOCATION: UP STREAM OF AMB RIVER WRT MINE DISCHARGE		SAMPLING DATE: 13-05-23		SL. NO.	PARAMETER	TEST METHOD	DETECTION LIMIT	ANALYSIS RESULT	1	pH Value	IS 3025 Part-11 Electrometric Method: 2017	2	7.98	2	Colour (Hazen)	IS 3025 Part-4 Pt-Co Method: 2017	1	1	3	TDS -mg/l	IS 3025 Part-16 Gravimetric Method: 2017	25	340	4	Oil & Grease - mg/l	IS 3025 (Part 39): 1991 (RA 2003) Partition gravimetric Method	2	BDL	5	Dissolved Oxygen - mg/l	IS 3025 (Part-38): 1989 (RA 2003) Winkler Azide Method	0.1	4.7	6	B.O.D. 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vii.	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental conditions to the Ministry of Environment, Forest and Climate Change/ Regional Office. For half yearly monitoring reports, the data should be monitored for the period of April to September and October to march of the financial years.	<div><div>Being complied.</div><div>Six monthly reports on the status of the implementation of the stipulated environmental safeguards are submitted regularly to Regional office of Ministry of Environment, Forest and Climate Change.</div><div>The six-monthly report for the period from Oct 2022 to March 2023 is submitted to MoEF&amp;CC on 30/05/2022 through email.</div></div>																																																																																																																							
viii.	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full	Noted.																																																																																																																							

	cooperation to the officer(s) of the Regional Office by furnishing the requisite data/information/monitoring reports.	
<b>(k)</b>	<b>Miscellaneous</b>	
i.	Efforts should be made to reduce energy consumption by conservation, efficiency improvements and use of renewable energy.	<p><b>Complied.</b> Efforts are being made for the uses of Solar energy and conventional light bulbs are replaced by LEDs to reduce energy consumption.</p> <p>01 no of 40 KWp On-Grid-Connected Roof Top Mounted solar power plant is installed at AGM Office of Umrer area and 01 no of 12 KWp On-Grid-Connected Roof Top Mounted solar power plant is installed at Area Hospital, Umrer Area.</p>
ii.	The project authorities shall inform to the Regional Office regarding commencement of mining operations	Noted and complied.
iii.	A copy of Environment Clearance shall be marked to concerned Panchayat. A copy of the same shall also be sent to the concerned State Pollution Control Board, Regional office, District Industry sector and Collector's office/Tehsildar Office for information in public domain within 30 days.	<p><b>Complied.</b> A copy of Environmental Clearance letter for 4.2 MTPA has marked to concerned Panchayat vide letter no. WCL/ SAM/ MKD/Asst. Manager (C)/ 2018-19/ 397 dated 05/02/19.</p>  <p>A copy of Environmental Clearance letter for 4.5 MTPA sent to concerned Panchayat vide letter no. WCL/ SAM/ MKD/Asst. Manager (C)/ 2022-23/249 dated 05/07/2022.</p>

		<p>WESTERN COALFIELDS LIMITED OFFICE OF THE SUB AREA MANAGER CIVIL ENGINEERING DEPARTMENT MAKARDHOKDA SUB AREA UMRER AREA POST:UMRER, DIST:NAGPUR 441203</p> <p>Ref: WCL/SAM/MKD/Astt.Manager(s)/2022-23/ 249</p> <p>TO, The Sarpanch, Grampanchayat Hewati, Taluka: Umrer, Dist. Nagpur.</p> <p>Sub :- Environment clearance for expansion of Dinesh (Makardh mining project for increase in production capacity from 4.2 MTP area of 919.63 Ha by M/s Western Coalfields Limited in Distt. Nag</p> <p>Dear Sir,</p> <p>Please find enclosed herewith a copy of Environment information.</p>
		Copy enclosed as Annexure – XVI.
iv.	<p>The Environmental Clearance shall be uploaded on the company's website. The, compliance status of the stipulated EC conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in public domain.</p>	<p><b>Complied.</b></p> <p>The clearance letter and the six-monthly compliance report had been uploaded on the company's website so as to bring the same in the public domain.</p> 
i.	<p>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 this clearance, informing that the project has been accorded environmental clearance and a copy of the same is available with the State Pollution Control Board and also at website of the Ministry.</p>	<p><b>Complied.</b></p> <p>The same had been done after receipt of EC.</p> <p>Advertisements are given in the following News Papers:</p> <ol style="list-style-type: none"> <li>1. 'The Hitavada' (English daily, Nagpur) dated 19/12/2018</li> </ol> 

		<p>2. 'Lokmat' (Marathi daily, Nagpur) dated 19/12/2018</p>  <p>3. 'Punya Nagari' (Marathi daily, Nagpur) dated 31/05/2022</p>  <p>4. 'The Times of India' (English daily, Nagpur) dated 31/05/2022</p>  <p>(Copy enclosed as annexure-XVII)</p>
ii.	The Environmental Statement for each financial year ending 31 March in Form-V is mandated to be submitted by the Project Proponent for the	<p><b>Complied.</b></p> <p>The environmental statement for each financial year is submitted regularly to the MOEF's Regional Office, Nagpur</p>





6	The proponent shall obtain all necessary clearances clearances/approvals that may be required before the start of the project. The Ministry or any other competent authority may stipulate any further condition for environmental protection.	Noted.
7	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Noted.
8	The coal company/ project proponent shall be liable to pay the compensation against the illegal mining, if any, and as raised by the respective State Governments at any point of time, in terms of the orders dated 2 <sup>nd</sup> August, 2017 of Hon'ble Supreme Court in WP (Civil) No. 114/2014 in the matter of ' Common Cause Vs Union of India & others.	Noted.
9	The concerned State Government shall ensure no mining operations to commence till the entire compensation for illegal mining, if any, is paid by the project proponent through their respective Department of Mining & Geology, in strict compliance of the judgement of Hon'ble Supreme Court	Does not pertain to the project.
10	This environmental clearance shall not be operational till such time the project proponent complies with the above said judgement of Hon'ble Supreme Court.	Noted.
11	This issues in supersession of the earlier EC granted vide letter No- J- 11015/537/2008-IA.II (M) dated 21 <sup>st</sup> June, 2011.	Noted.

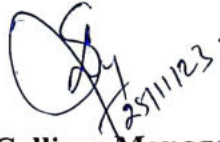
**Ref: MOEF Environment Clearance Letter No. J-11015/537/2008-IA. II (M) dated  
26/05/2022 for 4.5 MTPA**

S.No	Compliance Condition	Status
i	PP shall submit Certified Compliance Report of the EC Vide No. F. No. J-11015/537/2008-IA.II (M). Dated 29 <sup>th</sup> November, 2018 granted for total 40% expansion, along with EIA/EMP report, prepared based on standard ToRs for the additional capacity of 10% on PARIVESH portal within six months of enhancement of production beyond 40%.	<b>Complied.</b> Certified Compliance of Environmental Clearance of Dinesh (Makardhokra-III) Open Cast project for 4.20 MTPA accorded from MOEF & CC vide letter no: F. No. EC-1739/RON/2022-NGP/10457 dated 17.10.2022 wherein no non compliance was reported. One partially complied condition was reported and ATR against the partially complied condition is submitted to IRO, MOEF & CC on 03/11/2022. (Copy enclosed as Annexure: XIX)
ii	In view of above (i), Ministry shall ascertain the adequacy of the proposed environmental safeguards and stipulate necessary conditions, if required, which shall be monitored as a part of the EC compliance monitoring.	Agreed.
iii	PP shall obtain necessary prior consent for enhanced capacity from State Pollution Control Board under Air and Water Act.	<b>Complied.</b> Consent to Establish for 4.5 MTPA has been secured vide letter no: Letter no. Format1.0/ CAC/ UAN No. MPCB-CONSENT-0000142418/ CE/ 2211001310 dt. 16/11/2022 (Copy enclosed as Annexure-V) and Consent to operate for 4.5 MTPA has been secured vide letter no. Format1.0/ CAC/ UAN No. MPCB- CONSNET-0000142515/ CO/ 2211001308 dt 16/11/2022, which is valid up to 31/03/2024 (Copy enclosed as Annexure-VI).
iv	Environmental quality parameters arising out of proposed expansion shall be within the prescribed norms and the same shall be maintained as per prescribed norms.	Agreed.
v	Hon'ble Supreme Court in an Writ Petition (s) Civil No. 114/ 2014, Common cause vs Union of India & Ors vide its judgement dated 8 <sup>th</sup> January, 2020 has directed the Union of India to impose a condition in the mining lease and similar condition in the environmental clearance and the mining plan to the effect that the mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to	Grassing of Stylo Hemata species on vulnerable points of OB dump has been carried out on pilot scale basis. Stylo Hemata is a deep rooted species of grass which is well suited for erosion control. Stylo Hemata grass seeds were spread over 1.00 ha of land. After assessing the outcome of this activity, grassing of remaining area will be taken up in the upcoming monsoon.

	a condition which is fit for growth of fodder, flora, fauna etc. Compliance of this condition after the mining activity is over at the cost of the mining lease holders/ project Proponent.	
vi	All other terms and conditions as prescribed in Ministry's letter dated 21.06.2011 & 29.11.2018 shall remain the same and need to be complied by PP.	Noted and agreed.

  
28/11/23

**Sub Area Manager**  
Makardhokra-III OC Mine  
Makardhokra Sub Area

  
25/11/23

**Colliery Manager**  
Makardhokra-III OC Mine  
Makardhokra Sub Area

  
28/11/23

**Asst. Manager (Env.)**  
Makardhokra-III OC Mine  
Makardhokra Sub Area