WESTERN COALFIELDS LIMITED (MINIRATNA COMPANY)

SIX MONTHLY ENVIRONMENTAL COMPLIANCE REPORT

(From 01/10/2022 to 31/03/2023)

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 31/03/2023

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	Complied.	
	to establish from the state pollution control boards for the proposed peak capacity of 4.2 MTPA prior to commencement of the increased production.	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 & CC letter no. F. no. J-11015/537/2008-IA-II (M) dated 29/11/2018 (Copy enclosed as Annexure-I).	
		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).	
		Renewal application for consent to operate for production capacity of 4.20 MTPA was submitted to MPCB through its online portal dated 27/01/2021. Consent has been secured from MPCB vide letter no. Format 1.0/CAC/UAN No.MPCB-CONSNET-00001077252/CR/2211000598 dt 09/11/2022 (Copy enclosed as Annexure: III).	
		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).	
		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).	
ii.	Transportation of coal from face to	Complied.	
	coal heap shall be carried out by tippers. Further, the coal transportation from coal heap to Coal Handling Plant	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	
L	shall be carried out through covered	dumpers and uppers. An the trucks leaving the finite prefitises	

	trucks.	are covered with tarpaulin.		
iii.	To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers.	Complied. 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 provided at CHP. In addition, additional 09 nos of Trolley nalso initiated.	proposal for procurement of	
iv.	Mitigative measures shall be	Complied.		
	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	Fugitive dust emissions from all the dust generating sources are controlled by Fixed Water Sprinklers along weigh bridge, approach road & 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.		
	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	In addition to fixed water spin mounted mist/fog generator; Mare used in all three shifts for roads, haul roads, coal transpoyard. The Fugitive dust is also nunder control.	Mobile Water tanker/sprinkler dust suppression at approach ortation roads and coal stock	
	arrangement at railway siding etc.	Details of Air pollution control measures installed:		
		 Automatic tyre washing system is installed at main check post of Umrer Area. 		
		 4 No. of mobile water tankers of 12 KL capacity and 2 nos of 10 KL Capacity are in operation. 90 nos. fixed sprinklers are installed along coatransportation road, railway siding, weigh bridge and CHP, details are as follows: 		
		Location	Nos. of fixed sprinklers	
		CHP	10	
		Siding Along Coal stock approach	44	
		Road and Weigh bridge	12	
		Along coal transportation road and Coal Stock Yard	24	
		Mist Spray Arrangement provided at CHP.	nt system (150 nos nozzles) is	
		One no of trolley me	ounted mist/fog generator is	

		provided at Coal Stock Yard.	
		One no of truck mounted fog cannon is in operation.	
V.	The company shall obtain approval of	Complied.	
capacity of 4.2 MTPA.		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 on 07/06/2021 and approved by CGWA. Formal NOC Letter is awaited.	
		Copy of NOC is enclosed as Annexure – VII.	
vi.	Continuous monitoring of occupational	Complied.	
	safety and other health hazards, and the corrective actions need to be ensured.		
		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.	
		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.	
	All the activities within the mine are carried complying safety aspect and regular awareness among employees regarding safety and to accidents. All the employees working in projects with PPE like mask, ear muffs, helmets and protect		
		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.).	
		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.	
		The details of the set up at Umrer Area Hospital are as follows:	
		 Periodical Medical Examination (PME) Centres: 1 (Occupational Health Centres) No. of Doctor engaged in Periodical Medical 	

Examination: 3

- No. of Doctor trained in Periodical Medical Examination: 2
- No. of X-Ray machines (500 mA): 1
- No. of Audiometer units: 1
- No. of Spirometer units: 1
- No. of pathology Labs: 1
 - No. of X-Ray Technicians: 1
 - No. of Laboratory Technicians: 3
- No of ECG Technicians:2

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.

Details of IME/PME done in last 3 years are given below:

Year	No. of workers (Dept. & Cont.)		
r ear	IME	PME	
2020-21	120	52	
2021-22	186	68	
2022-23	902	68	

vii. Persons of nearby villages shall be given training on livelihood and skill development to make them employable.

Complied.

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:

Year	Training Programs	No. of beneficiaries
2016-17	Apparel designing, Beauty parlor and Electrician	85
2017-18	Office automation and Data entry operator	26
2018-19	Tailoring and Apparel designing	60
2019-20	Beauty parlor, Tailoring and Apparel designing	240
2020-21	Not conducted due to	Nil
2021-22	restrictions imposed by the Govt in Covid 19 Pandemic period	

		2022-23	Machine operator- Plastics Processing PP) and driver	(MO-
viii.	To ensure health and welfare of nearby	Complied.		
	villages, regular medical camps shall be organized at least once in six months.	Medical camps are organized on regular basis by WCL, Umrer Area.		
	montais.	Details of medica below:	l camps conducted i	n last 5 years are given
		Year	No. of	
		2010 10	camps	Beneficiaries
		2018-19	57	4691
		2019-20	34	1878
		2020-21	3*	90
		2021-22	27	1849
		2022-23	39	al 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. During the Covid 19 Pandemic period, following initiatives were taken to support State Government and Nearby Villagers. WCL Umrer Area initiatives during COVID-19 Period of Support - 2020-21, 2021-22		
		S No. Particula 1	BIPAP machine to State administration AP - bi-level positive airway pressure machine is used for supporting breathing for ients whose lungs are not operating efficiently os. oxygen concentrator machine	Remark State Govt hospital, Umrer and Kuhi Chimur tehsil office for
			PPE kits nospital bed and mattress	support to setting up Covid Care Centre(CCC facility)
		S No Particular	nearby communities	Count of packets
		1 Ration pa 2 Food Paci		852 4750
		C. Support to		Amount
		1 No.	o. of schools supported	11
		3 Pu	ulse Oximeter, Thermal Gun, Soap, Sodium	Provided to administration for
			ypochlorite, Sanitisor bottle COVID-19 testing and vaccination	maintaining covid-19 protocols
		S No. Particu	ılar N	os. 317
		E. Fund transfi All the employe amounting to R	Vaccination administered at WCL premises 1 er from WCL Umrer employees to PM-Cares fun es of Umrer Area contributed one day Basic salai	d d y to PM-Cares fund
				mount(Rs) 7.23 Lakh
		100		lical camps on Cardiac
				onducted on 17/08/2022

in collaboration with Wockhardt Hospital for providing awareness on the topic which was opened for employees of

WCL and all villagers. Around 183 persons were availed the facility.

A Cancer detection camp was also organized with the support of Rashtrasant Tukdoji Cancer hospital at Umrer area through Area Hospital, WCL Umrer Area. This camp was also made opened for villagers and Employees of WCL. In coordination with govt. PHC, patients from 5 sub centres in our command area were ferried in our ambulances for giving access to this medical service to villagers. Asha workers of these villages were roped in supporting this initiative. Overall 87 persons were screened for oral, breast and cervix cancer.

OPD facility is also provided for surrounding villages. No. of beneficiaries are mentioned below:

Year	No. of Beneficiaries who availed OPD facility
2018-19	2499
2019-20	2691
2020-21	1587
2021-22	2890
2022-23	3118

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.

Being complied.

The mine has started its operation on 25/11/2016. In 2022, 15,000 nos of trees have been planted over 6.00 ha through Madhya Pradesh Van Vikas Nigam. The species planted are Neem, Karanj, Sisso, Peltafarm, Gulmohar, Saptapanni, etc.

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.

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.

Being complied.

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.

Domestic requirement of water is fulfilled by 02 nos. of tube

		well in Umrer Colony. 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.
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.	Complied. Third party assessment of EC compliance will be carried out once in three years. 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.

B. General Conditions:

Sl.No	Compliance Condition	Status	
(a)	Mining		
i.	Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there—under as applicable.	Agreed. Mining is being carried out as per the provisions of the Mines Act 1952 and subordinate legislations made thereunder as applicable.	
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 and Climate Change.	Method of mining is opencast with shovel-dumper combination. There has been no change in scope of work	
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).	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	
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	Agreed. Project does not involve any forest land. In future also, no mining activity will be carried out in forest	

	Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 read with provisions of Indian forest act, 1927.	land without obtaining Forestry Clearance.
(b)	Land Reclamation and Water Conserv	vation
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).	Complied. Digital processing of the entire lease area using Remote sensing technique is done every year by CMPDIL. 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. Land Restoration / Reclamation monitoring report of Dinesh OC mine based on satellite data for the year 2022 is enclosed as Annexure –VIII.
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 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.	Complied. 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. The embankment is constructed along the Amb nallah (at the south side of nallah), as per the provision of approved Mining Plan. 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 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	Being Complied. 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.
	sustenance of adequate life therein. The remaining area shall be backfilled and covered with thick and alive top	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

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 preparation of mine closure plan issued by the ministry of coal dated 27th august, 2009 and subsequent amendments.

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.

Being Complied.

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 31/03/2023)

Sl No.	Particulars	Area in Ha
1	Quarry Area	152.09
	(Excavation area)	
2	External OB dumps	99.00
3	Rationalization/	329.22
	Blasting zone	
4	Infrastructure &	7.77
	Roads	
5	Other area	331.55
	Total	919.63

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.

v.

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.

Being complied.

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 31/03/2023,7.603 Mm³ of Top soil has been removed and out of this, 6.86 Mm³ of top soil has been stacked in 134.75 Ha of land.

This soil will be used as early as possible for reclamation and development of green belt.

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.

The reclamation of dump sites with plantation using native

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.

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.

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 & technically reclaimed.

Till 31/03/23, 83.448 Mm³ of OB has been excavated. 72.034 Mm³ of excavated OB has been stacked at external OB dumps.

Details of OB dump is given below:

Dump	Area in Ha	Height of Dump (m)
External OB (Dump 2)	101.745	54
External OB (Dump 3)	96.68	45

Till 31/03/23, 11.414 Mm³ of the excavated OB has been backfilled in decoaled area of Mine.

(c) Emissions, Effluents, and Waste Disposal

i. Transporting of coal, to the extent permitted by road, shall be carried out by covered trucks/ conveyors.

Effective control measures such as regular water/mist sprinkling/rain gun etc. shall be carried out in critical areas prone to air pollution (with higher values PM₁₀/PM_{2.5}) such as haul road, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/ State Pollution Control Board.

Being complied.

All the vehicles transporting coal are loaded within 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.

Fugitive dust emissions from all the dust generating sources are controlled by Fixed Water Sprinklers along weigh bridge, approach road & 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.

In addition to fixed water sprinklers & rain guns, Trolley mounted fogging cannons & 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. Details of Air pollution control measures installed: Automatic tyre washing system has been installed at main check post of Umrer Area. 4 No. of mobile water tankers of 12 KL capacity and 2 nos of 10KL Capacity are in operation. 90 nos. fixed sprinklers are installed along coal transportation road, railway siding, weigh bridge and CHP, details are as follows: Location Nos. of fixed sprinklers **CHP** 10 44 Siding Along Coal stock approach 12 Road and Weigh bridge Along coal transportation 24 road and Coal Stock Yard Mist Spray Arrangement system has been provided One no of trolley mounted mist/fog generator has been provided at Coal stock yard One no of truck mounted fog cannon is in operation ii. Greenbelt, 3-tier Being Complied. consisting The mine has started its operation on 25/11/2016. plantation, of width not less than 7.5m, In 2022, 15,000 nos of trees have been planted over 6.00 ha shall be developed all along the mine of plain land through Madhya Pradesh Van Vikas Nigam. lease area in a phased manner. The The species planted are Karanj, Jamun, Amla, Guava, green belt comprising of a mix of Neem, Kala Sirus, Safed Sirus, Cassia, Shivan/Ghamar etc native species shall be developed all along the major approach / coal Plantation programme for next 2 years is given below: transportation roads. Year Target (Nos) 2023-24 30,000 35,000 2024-25 Plantation will be carried out by Madhya Pradesh Rajya Van Vikas Nigam (MPRVVN) under long term MoU with maintenance of four years after each year of planting. Density of the plants will be maintained at 2500 plants per iii. The transportation of coal shall be Being complied.

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.

The transportation of coal is carried out as per the provisions and route proposed in the approved mining plan.

The coal transportation road is properly maintained and it is directly connected to State Highways (BT road).

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.

Vehicular emissions shall be kept iv. 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.

Being complied.

As per the present practice, the PUC certificate is obtained for all vehicles and the same will be continued.

(Copy of PUC certificates is enclosed for reference as Annexure-IX).

Coal stock pile/crusher/feeder and v. breaker material transfer points shall invariably be provide with

suppression system. Belt- conveyors shall be fully covered to avoid air borne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust.

Drills shall be wet operated or fitted with dust extractors.

Complied.

Fugitive dust emissions from all the dust generating sources are controlled by Fixed Water Sprinklers along weigh bridge, approach road & 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.

Side cladding is provided along belt conveyors. Drills have wet drilling arrangement.

Details of Air pollution control measures installed:

- Automatic tyre washing system has been installed at main check post of Umrer Area.
- 4 No. of mobile water tankers of 12 KL capacity and 2 nos of 10 KL Capacity are in operation.
- 90 nos. fixed sprinklers has been installed along coal transportation road, railway siding, weigh bridge and CHP, details are as follows:

Location	Nos. of fixed sprinklers
СНР	10
Siding	44
Along Coal stock approach Road and Weigh bridge	12
Along coal transportation road and Coal Stock Yard	24

Mist Spray Arrangement system has been provided

vi.	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.

at CHP.

- One no of trolley mounted mist/fog generator is provided at Coal stock yard
- One no of truck mounted fog cannon is in operation.

Being complied.

Coal handling Plant is being maintained with mist type water sprinkling arrangement in order to arrest/check fugitive emissions at source.

In addition to the mist spraying arrangement, fixed type water sprinkling arrangement and trolley mounted mist/fog generators has been provided.

90 nos. fixed sprinklers are installed along coal transportation road, railway siding, weigh bridge and CHP, details are as follows:

Location	Nos. of fixed sprinklers
СНР	10
Siding	44
Along Coal stock approach Road and Weigh bridge	12
Along coal transportation road and Coal Stock Yard	24

Air quality parameters are being monitored by CMPDIL on fortnightly basis. Maximum and minimum concentration of parameters (SPM, PM_{10} , NO_X , SO_X and $PM_{2.5}$) as per Environmental monitoring report (from Oct 22 to Mar 23) is as follows:

Parameters	Core Zone/ Buffer	Permissible limit	Concentration (24 hourly values in µg/m³)		
	Zone		Min	Max	
SPM	Core	600	242	320	
SPM	Buffer	-	120	148	
DM.	Core	300	150	215	
PM_{10}	Buffer	100	60	88	
NO	Core	120	11	21	
NO_x	Buffer	80	10	15	
50	Core	120	BDL	14	
SO_2	Buffer	80	BDL	BDL	
DM	Core	-	45	59	
$PM_{2.5}$	Buffer	60	24	40	

		It may be seen from the permissible line		ta that the	e values a	re well within	
		The Monitoring Report in respect of Makardhokra – OCP is enclosed as Annexure-X.					
vii.	Ground water, excluding mine water,	Being complied.					
	shall not be used for mining operations. Rainwater harvesting shall be implemented for construction and augmentation of ground water resources.	be Ground water is not used for any mining operations. Rainwater harvesting measures implemented are					
		 A Check Dam has also been provided at Lal Railway Bridge. Dimensions (Length-55 m, h 1.2 m from river bed) 					
		Location	Storage capacity Volume (m ³)	/ Nui of fi	mber llings b)	Estimated yearly recharge (a*b*0.75) (m ³ /year)	
		Check Dam on Amb river near Umrer OC Expn. Mine	31350)	3	70537	
		Note: Annual Rec storage (in m3/yr)		e to Chec	k Dam =	75% of gross	
		Where gross stora	ge = Stora	age capac	ity x no. o	of fillings	
			at AGM			tem has beer en building of	
		Location	Roof Area (m²)	Annual Rainfall (mm)	Runoff Coefficion	I Cally	
		Area General Manager office	850	1200	0.85	867	
		Canteen of Umrer Sub-	170	1200	0.85	173	

Area office

	T	
		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)
		Unused/vacant land (35.78 %) within the lease area also continuing the ground water recharge.
viii.	Catch/ garland drains and siltation ponds of appropriate size shall be constructed around the mine working, coal heaps & OB dumps to prevent run off of water and flow of sediments directly into the river and water bodies. Further, dump material shall be properly consolidated/ compacted and accumulation of water over dumps shall be avoided by providing adequate channels for flow of silt into the drains. The drains/ponds so constructed shall be regularly 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 runoff 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.	Being Complied. To arrest the flow of silt and sediments, following actions are taken: i) To arrest flow of silt & sediment during monsoon, catch drain of size (top width 3 m, bottom width 2 m & height 2 m) has been constructed. 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 m³ to allow settlement of suspended particles. iii) The drain and sumps are desilted before onset of every monsoon. Sump capacity is adequate to allow proper settlement of particles. Water collected in the sump is utilised for dust suppression measures. 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.
ix.	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,	Being complied. The effluent from workshop is treated in ETP provided with oil & grease trap (capacity: 150 KLD). Treated effluent is recycled and used in workshop for washing of HEMM. The quality water is monitored fortnightly and adequate
	and as amended from time to time. Oil and grease trap shall be installed and	measures will be taken (if need arises) to maintain the quality of water within permissible limits.

	maintained fully functional with			um concentration		•	
	effluents discharge adhering to the		23) is as follow		ort (mo	III OCI	2022 10
	norms. Sewage treatment plant of	Wiai 20	23) is as follow	Concentration (mg/L)]
	adequate capacity shall be installed for		Parameters	Permissible			
	treatment of domestic waste.		1 arameters	Limit	Min	Max	
			рН	5.5 to 9.0	7.04	8.15	
			TSS	100	28	48	
			COD	250	36	52	
			O & G	10	B	DL	
		The M	onitoring Repo	ort in respect o	f Mak	ardhoki	ra – III
			enclosed as Ar	_			
		The do	omestic sewage	disposal arrang	gement	of 0.3	8 MLD
		capacit	y using Phyto	rid technology	has be	en pro	vided in
		combin	ed township o	of Umrer area	where	emplo	yees of
		Makard	hokra-III OC pro	oject reside.			
X.	Adequate groundwater recharge	Being	complied.				
	measures shall be taken up for	Cassas	l.v.otom mooh omoo	measures taken		listad b	alovu
	augmentation of ground water. The	Ground	iwater recharge	measures taken	up are	iistea o	elow:
	project authorities shall meet water	•	The Mine su	mp (Capacity-9)	3 Milli	on gal	lons) is
	requirement of nearby village(s) in			have potential			
	case the village wells go dry due to	ground water resources.					
	dewatering of mine.	A Check Dam has also been provided at Lal Puliya					
		•		ge. Dimensions (
			1.2 m from riv		(Length	1 33 III,	neight
		Present	ly, no water	shortage has b	een ob	served	in the
				ever, if there is			
		future	it will be sup	plemented by n	ecessar	y arrar	ngement
(-)			on the requisition	on of the villager	S		
(d)	Illumination, Noise & Vibration Contr		• 1				
i.	Adequate illumination shall be ensured	Compl	ied.				
	in all mine locations (as per DGMS	_		rrangements are	•		
	standards) and monitored weekly. The	_		SMS standards.	These	are mo	onitored
	report on the same shall be submitted	regular	ly by lux meter	•			
	to this ministry & RO on six-monthly	Copy o	f illumination s	survey report is e	enclose	d as An	nexure-
	basis.	XI.		_			
ii.	Adequate measures shall be taken for	Compl	ied.				
	control of noise levels below 85 Db	-					
	(A) in the work environment. Workers		•	ol measures are	_	•	
	engaged in blasting and drilling		~	operating min	e are t	eing p	rovided
	operations, operation of HEMM, etc	with PI	PE like Ear plug	gs/ muffs.			
	- · ·						

	shall be provided with personal protective equipments (PPE) like ear plugs/ muffs in conformity with the	Number below:	s of Ear	Plugs issued i	n last 4	years are given	
	prescribed norms/ guidelines in this regard. Adequate awareness	Sl.No) .	Year		ear plugs vided	
	programme for users to be conducted.	1	20)19-20	1	.54	
	Progress in usage of such accessories	2	20)20-21		59	
	to be monitored.	3	20)21-22		45	
		4	20)22-23		15	
iii.	Controlled blasting techniques shall be practiced in order to Mitigative ground vibrations and fly rocks as per the guidelines prescribed by the DGMS.	Controlled blasting techniques with use of delay detonato					
		authoriti	es. Report	is enclosed as A	Annexure-	XII.	
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.	Being complied. 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 Oct 22 to Mar 22) is as follows:					
				Noise l	evel in dE	B (A)	
			Time	Permissible limit	Min	Max	
		Ne	ear Pit Off	fice			
		$ \overline{\Gamma}$	Day time	75	54.2	56.3	
		N:	ight time	70	53.4	55.5	
(e)	Occupational Health & Safety		_	Report in respess Annexure-X.	ect of Ma	kardhokra – III	
(0)	Occupational ficultiff of Datety						

i. The project Proponent shall undertake occupational health survey for initial and periodical medical examination of the workers engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS Circulars. Besides regular periodic health check-up, 20% of the workers identified from workforce engaged in active mining operations shall be subjected to health check up for occupational diseases and hearing impairment, if any.

Being complied.

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.

In case some abnormality is detected during the course of the above examination further investigations are carried out as required.

When a person is diagnosed with a certain disease, he/ she is referred to the concerned specialist for confirmation and initiation of treatment.

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.

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.).

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.

The details of the set up at Umrer Area Hospital are as follows:

- Periodical Medical Examination (PME) Centres: 1 (Occupational Health Centres)
- No. of Doctor engaged in Periodical Medical Examination: 3
- No. of Doctor trained in Periodical Medical Examination: 2
- No. of X-Ray machines (500 mA): 1
- No. of Audiometer units: 1

- No. of Spirometer units: 1
- No. of pathology Labs: 1
- No. of X-Ray Technicians: 1
- No. of Laboratory Technicians: 3
- No of ECG Technicians:2

As per the Statute/ DGMS guidelines, all the workers are examined once in 3 years.

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.

Details of IME/PME done in last 3 years are given below:

Year	No. of workers (Dept. & Cont.)				
1 ear	IME	PME			
2020-21	120	52			
2021-22	186	68			
2022-23	902	68			

ii. Personnel (including outsourcing employees) working in dusty areas shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.

Being complied.

Persons exposed to dusty areas are provided with protective gears like dust masks with goggles.

Numbers of Dust Masks issued in last 4 years are given below:

Sl.No.	Year	Nos of Dust Masks
		provided
1	2019-20	182
2	2020-21	136
3	2021-22	89
4	2022-23	84

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.

Number of persons given training in last 3 Years are given below:

Voor	No.	No. of workers				
Year	Departmental	Contractual	Total			
2020-21	28	102	130			

		2021-22	105	140	245		
		2022-23	98	585	683		
iii.	Skill training as per safety norms	Being complied	70	303	003		
	specified by DGMS shall be provided	20					
	to all workmen including the	Skill training as	per safety norms	specified by D	GMS is		
	outsourcing employees to ensure high	given to all works	nen including the	outsourcing en	nployees		
	safety standards in mines.	to ensure high safe	_	_			
	surety standards in immess		•				
		Number of person below:	s given training is	n last 3 Years	are give		
		*7	No.	of workers			
		Year	Departmental	Contractual	Total		
		2020-21	28	102	130		
		2021-22	105	140	245		
		2022-23	98	585	683		
(f)	Ecosystem and Biodiversity conservat	iversity conservation					
i.	The project proponent shall take all						
	precautionary measures during mining						
	operation for conservation and	Not applicable as there are no endangered flora/ fauna in core					
	protection of endangered flora/fauna, if	and buffer zone as	per baseline data g	generated in EIA	EMP.		
	any, spotted/reported in the study area.	As such, no pr	rocoutionery moe	curac ara naa	dod fo		
	Action plan, in this regard, if any shall be prepared and implemented in	conservation and p	•				
	consultation with the State Forest and	However. Plantati	on is being taken	ı un along with	minin		
	Wildlife Department.		~	_			
	Winding Department.	activities through State Level Expert Forest Agency (MPRVVN) with MoU for 4 years maintenance after each					
		year of plantation.					
		WCL in Maharash		pheadle for an i	illines 0		
		VV CLI III IVIAIIAI ASII	uu.				
(g)	Public Hearing, R&R & CSR						
i.	Implementation of Action Plan on the	Complied.					
	issues raised during the Public Hearing	Action Taken Rep			e Publi		
	shall be ensured. The Project	Hearing is enclose	d as Annexure: X	III.			
	Proponent shall undertake all the	The details as per the	ha nracant etetue et	fland acquisition	•		
	tasks/measures as per the Action Plan	is as follows:	ne present status Ol	i ianu acquisiuoi	1		
	submitted with budgetary provisions		fied u/s 9(i) of	CBA Act vide	Gazett		
	during the Public Hearing.		n dated 11.08.2012		Guzett		
			oyment Roll of 1		85.54 h		
	Land oustees shall be compensated as	approved	by WCL Board				
	per the norms laid out R&R Policy of	24.10.2015					
	the Company/ or the National R&R	_	tory jobs provided				
		Monitory	compansation prov	idad: 165 nos			

Monitory compensation provided: 165 nos

	Policy/R&R Policy of the State Government, as applicable.	 Total: 1085 nos Land compensation paid till date: 346.59 Crore Monitory compensation paid: 31.65 Crore 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.				
ii.	The project proponent shall ensure that	Doing compli	. d			
111.	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	Being complied. The activities undertaken for the specific villages adopted under CSR are displayed on the company website and are updated accordingly. In every year area-wise detailed CSR plan is prepared after				
	Section 135 of the Components Act, 2013.	due consultation with local beneficiaries. Umrer Area has spent the following under CSR in last 12 years:				
	2013.	Ī	Year	Do in Joleho		
			2022-23	Rs. in lakhs 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		
		diverted to Sv	for the year vaccha Bharat broadly includ		016-17 were	
				M and CC road at	nearby	
		villag	ges			
		 Const 	ruction of Wel	l and Storage arran	gement and	
		pipe l	ine for providi	ng drinking water		
		• Install	lation of RO pl	ant at nearby villag	ges and ZP	
		schoo	ols.			
		 Const 	ruction of Gree	en Haat at village		
		 Const 	ruction of Con	npound wall at ZP	Schools.	
				aining for nearby v		

iii. The project proponent shall follow the mitigation measures provided in the Ministries OM No.Z-11013/5712014-IA.I1 (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".

Details enclosed as Annexure XIV.

Being complied.

There is no habitation/village in the mine lease area. Nearest village (Hewati Village) is approx. 1200 m north from the mine boundary.

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).

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.

Monitoring station is set up in this village for regular monitoring of ambient air and noise. Analysis results of the same for the month, Mar 23 is given below:

		HEOTI VILLAGE					
DATE(dd:mm:yy	OF SAMPLING		PARAMETERS	(24 hourly va	ilues in µg/m²)	ENVIRONMENT CONDITIONS
FROM	TO	5	5	2	6	10	(Sky/Wind)
04-03-2023	05-03-2023	136	89	42	14	BDL	Cloudy / Calm
23-03-2023	24-03-2023	139	76	32	12	BDL	Clear / Calm
NAAQS	, 2009		100	60	80	80	

	HEOTI VILLAGE:	UM10N3			
	DATE OF SAMPLE	NOISE LEVEL IN dB(A)			
MONTH	COLLECTION	DAY TIME	NIGHT TIME		
	DETECTION LIMIT	20	20		
MAR'2023	14-03-2023	42.2	41.4		
MAR'2023	28-03-2023	42.4	41.6		
	ION (REGULATION AND TROL) RULES	55	45		

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: XV.

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.

iv. The Project Proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, consultation with the State 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 acquiring grazing land.

Not applicable.

As per the baseline data there is no grazing land in the core zone of the project. So, there is no necessity of making alternate arrangement for livestock grazing.

(h) Corporate Environment Responsibility

i. The Company shall have a well laid Environment Policy duly approved by the Board of Directors. The Environment Policy should standard operating prescribe for procedures to have proper checks & balances and to bring into focus any infringements/deviation/violation of the environmental forest norms/conditions. Also the company shall have a defined system of reporting of noncompliances/violations of environmental norms to the Board of and/or shareholders Directors stakeholders.

Complied.

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.

This Corporate Environment Policy 2018 of CIL was subsequently discussed in the 309th 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.

For monitoring of EC/FC norms & 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.

This management system has the access of CIL & MoC

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).

At area level, Area General Manager, Heads the environment cell and is assisted by General Manager (Op)

		and Nodal officer (Env).
		At corporate level at HQ, there is full-fledged Environment Department which is headed by General Manager (Env) 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.
		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.
		Coal India Limited has framed an Environment Policy which is being complied within all the mines. Copy is enclosed as Annexure – XVI.
ii.	The project proponent shall comply with the provisions contained in this Ministry's OM dated 1 st May, 2018, as applicable, regarding Corporate Environment Responsibility.	Not applicable. As per the O.M dated 1st May 2018, the provision of CER is not applicable.
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.	Complied. 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 www.westerncoal.in .
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	Complied. 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.)
	Executive, who will report directly to the Head of the Organization.	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.
		At Project level, it is headed by Sub-Area Manager, Umrer Sub Area and assisted by Mine Manager/Safety Officer,

				Area, Survey C r (Environment)	Officer, Umrer Sub Area and of the project.
v. Action plan for implementing the EM and environmental clearance conditions shall be prepared and shall be duly approved by the competer authority. The Year-wise function measures shall be kept in separate account and not be diverted for any other purpose. Year wife		T in T	n built in the The funds ea for other work	Plan for impleme mining plan app armarked for env ks.	enting EMP/EIA conditions are broved by Company Board. vironment will not be diverted e is given below:
	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.		Financial Year	Expenditure (Rs. Lakhs)	Remarks
				15.44	Construction of sedimentation tank
			2016-17	30.99	Construction of Effluent Treatment plant and washing ramp
				10.90	Construction of building for housing of CAAQMS
			2017-18	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
			~		
vi.	Self Environmental Audit shall be conducted annually. Every three years, a third-party environmental audit shall be carried out.	Complied. 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. Interarea 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.
		Every three years the third-party assessment of EC compliance will be carried out.
		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.
(i)	Statutory Obligations	
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.	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).
		Renewal application for consent to operate for production capacity of 4.20 MTPA was submitted to MPCB through its online portal dated 27/01/2021. Consent has been secured from MPCB vide letter no. Format 1.0/CAC/UAN No.MPCB-CONSNET-00001077252/CR/2211000598 dt 09/11/2022 (Copy enclosed as Annexure: III).
		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).
iv.	The project proponent shall obtain	Complied.
	necessary permission of the Central Ground Water Authority (CGWA).	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 on 07/06/2021 and approved by CGWA. Formal NOC Letter is awaited.

Copy of NOC is enclosed as Annexure – VII.

(j) Monitoring of Project

ambient i. Adequate air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM₁₀, PM_{2.5}, SO₂, and NO_x. Location of the stations shall be decided based on the meteorological topographical data, features environmentally and ecologically sensitive targets in consultation with the SPCB.

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.

Being complied.

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:

- Manager office
- Railway Weigh Bridge
- Pipardol Village
- Welsakara Village

Maximum and minimum concentration of parameters (SPM, PM_{10} , NO_X , SO_X and $PM_{2.5}$) as per Environmental monitoring report (from Oct 22 to Mar 22) is as follows:

Parameters	Core Zone/ Buffer Zone	Permissible limit	Concent (24 ho values in Min	urly
CD) (Core	600	242	320
SPM	Buffer	-	120	148
DM	Core	300	150	215
PM_{10}	Buffer	100	60	88
NO	Core	120	11	21
NO_x	Buffer	80	10	15
50	Core	120	BDL	14
SO_2	Buffer	80	BDL	BDL
DM	Core	-	45	59
PM _{2.5}	Buffer	60	24	40

The Monitoring Report in respect of Makardhokra – III OCP is enclosed as Annexure-X.

One Online Continuous Ambient Air Quality Monitoring Station has also been set up in consultation with MPCB and is in operation.

Monitoring of heavy metals is being carried out once in six months by CMPDIL and the report of the same is submitted to MOEF & CC Nagpur & Maharashtra Pollution Control

Board. Analysis result of the same is tabulated below: ENV. MONITORING REPORT **Test Report** nt Air quality monitoring data for heavy metals CMPDI RI-IV, NAGPUR RIN/TR/DEC/HM24 GM(EN/), WCL(NQ), NAGPUR ERENCE NO. WCL(NQ), NAGPUR SERENCE NO. WCL(NQ), NAGPUR SEREN Arsenic - CPCB Guidelines for the measurement of Ambient air pollutants Volume 1, Cd and Cr - USEPA Compendium Meth IO 3.2, Pb - IS 5182 PART 22, Ni - IS 5182 Part 26, Hg - Cpcb guidelines for the Measurement of Ambient Air Pollutants Volum 2 NEAR RAILWAY WEIGH BRIDG 11-10-2022 Air Quality andard NAAQS Parameter analysis limit IIM304-1 шмзпа-2 UM3OA-3 HM3O4-4 2009 0.006 µg/m³ 1 0.0007 µg/m BDL BDL BDL Arsenia, µg/m .0 µg/m³ IS 5182 PART 22 Lead, µg/m3 BDL BDL 7.0 µg/m² 0.02 µg/m3 IS 5182 Part 3 Nickle, µg/m³ 0.007 µg/m Compendium Method IO 3.2 CPCR BDL BDL BDL: BELOW DETECTION LIMIT Teatible DEEPANSHU SAHU AUTHORIZED SIGNATORY Copy of heavy metal monitoring report is enclosed as Annexure -XVII. The Ambient Air Quality Monitoring Being complied. ii. in the core zone shall be carried out to Ambient air quality is being monitored as per the coal ensure the coal industry standards industry standards notified vide GSR 742(E) dated notified vide GSR 742(E) dated 25.9.2000 & reports are submitted to MOEF & CC Nagpur 25.9.2000 and as amended from time & Maharashtra Pollution Control Board. to time by the Central Pollution Copy of Monitoring Report is enclosed as Annexure - X. Control Board. Data on ambient air quality and heavy metals such as Hg, Monitoring of heavy metals is being carried out once in six As, Ni, Cd, Cr and other monitoring months by CMPDIL and the report of the same is submitted data shall be regularly reported to the to MOEF & CC Nagpur & Maharashtra Pollution Control Ministry/ Regional Office and to Board. Copy of heavy metal monitoring report is enclosed CPCB/SPCB. as Annexure -XVII. Effluent discharge (mine waste water, iii. Being complied. workshop effluent) shall be monitored The quality of mine discharge water is monitored fortnightly in terms of the parameters notified basis as per GSR 742(E) of dated 25-05-2000. 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 Control Board.

Maximum and minimum concentration of Water parameters as per Environmental monitoring report (from Oct 2022 to March 2023) is as follows:

	Concentration (mg/L)						
Parameters	Permissible Limit	Min	Max				
Ph	5.5 to 9.0	7.54	7.98				
TSS	100	36	58				
COD	250	32	56				
0 & G	10	BDL					

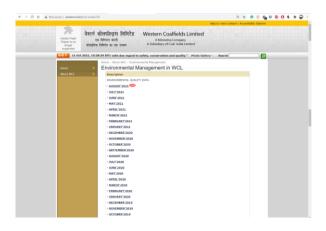
Copy of Monitoring Report is enclosed as Annexure - X.

iv. 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.1I (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.

Being complied.

Environment monitoring reports are sent to R.O, MoEF, Nagpur and MPCB on regular basis and displayed on the company website also.

Reports enclosed as Annexure-X.



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 regularly to **Ministry** Environment, Forest and Climate

v.

Being complied.

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).

Quality of groundwater as per IS: 10500: 2012 is analyzed for 15 locations in Buffer zone once a year.

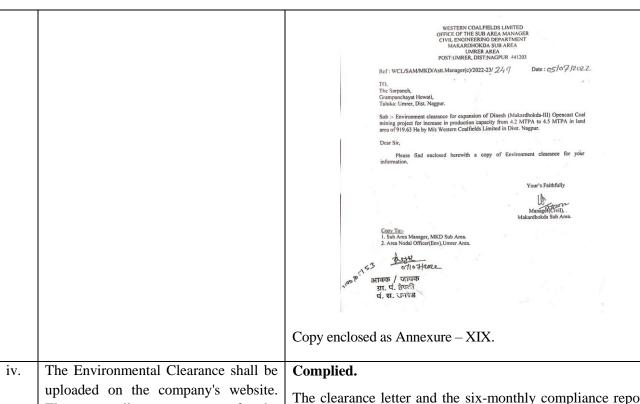
Ground water level and quality monitoring report is sent to R.O., MoEF& CC, Nagpur and CGWA on regular basis.

Ground water monitoring report is enclosed as Annexure:

	Change / Regional Office.	XV.				
		ground piezome	water abstra	action issuestalled in	ed b	oulated in the NOo by CGWA, 2 no zone for contin
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.	Water q 742(E) of Environ along w same is	of dated 25-0 ment, Forest	5-2000 and and Climat ompliance re	reporte Ch	ed regularly as per rt is sent to Minist ange / Regional C . Analysis result c
			invironment Laboratory CMPDI RI-IV, NAGPUR	Test Re Surface water quality		data
			REPORT NO. RIN/TR/DEC-22			DATE OF ISSUE 30-01-2023
			E OF CUSTOMER GM(ENV.), WO OMER LETTER REFERENCE NO.	L(HQ), NAGPUR WCL/HQ/ENV/14-I/206-220 Di		SAMPLE DESCRIPTION WATER SAMPLE 022
			E OF AREA UMRER			SAMPLING METHOD: LSOP 5
			F PAGES UMRER OC		J I	SAMPLING PLAN: LQR 47
		NO. C		AMB RIVER WRT MINE DISCHARGE]	SAMPLING PLAN: LUK 47 SAMPLING DATE: 13-12-2022
		NO. C	AME OF LOCATION: UP STREAM OF	AMB RIVER WRT MINE DISCHARGE TEST METHOD	DETECTION LIMIT	
		NO. C	OF PAGES 1 AME OF LOCATION: UP STREAM OF PARAMETER			SAMPLING DATE: 13-12-2022
		NO. (AME OF LOCATION: UP STREAM OF . O. PARAMETER PH Value	IS 3025 Part-11 Electrometric Method: 2017 IS 3025 Part-4 Pt-Co Method:	LIMIT	SAMPLING DATE: 13-12-2022 ANALYSIS RESULT
		NO. 6	AME OF LOCATION: UP STREAM OF. O. PARAMETER PH Value Colour (Hazen)	IS 3025 Part-11 Electrometric Method: 2017 IS 3025 Part-4 P01-C0 Method: 2017 IS 3025 Part-16 Gravimetric	2	SAMPLING DATE: 13-12-2022 ANALYSIS RESULT 7.94
		NC. 6 N. 5L. 8 1 2	AME OF LOCATION: JUP STREAM OF. O. PARAMETER PH Value Colour (Hazen) TDS-mg/l	TEST METHOD IS 3025 Part-11 Electrometric Method: 2017 IS 3025 Part-4 PP.CO Method: 2017 IS 3025 Part-16 Gravimetric Method: 2017 IS 3025 [Part 39]: 1991 [RA 2003]	1 25	SAMPUNG DATE: 13-12-2022 ANALYSIS RESULT 7.94 2 347
		NO. 6 NO. 6 SL N 1 2 3	AME OF LOCATION: JUP STREAM OF. D. PARAMETER pht Value Colour (Hazen) TDS-mg/l Oil & Greese - mg/l	TEST METHOD IS 3025 Part-11 Electrometric Method: 2017 IS 3025 Part-4 Pt-Co Method: 2017 IS 3025 Part-16 Gravimetric Method: 2017	1 25 2	SAMPING DATE: 13-12-2022 ANALYSIS RESULT 7.94 2 347 BDL
		NO. 6 N. 5L. N. 2 2 3 4	AME OF LOCATION: UP STREAM OF. O. PARAMETER	TEST METHOD IS 3025 Part-1 II Exctrometric Method: 2017 IS 3005 Part-4 Pr-Co Method: 2017 IS 3005 Part-4 Pr-Co Method: 2017 IS 3005 Part-1 Signification Si	1 25 2 0.1	SAMPIING DATE: 13-12-2022 ANALYSIS RESULT 7.94 2 347 BDL 4.5
		NO. 6 N. 5L. N. 1 1 2 3 4 5. 6	AME OF LOCATION: UP STREAM OF. O. PARAMETER	TEST METHOD IS 3025 Part-11 Electrometric Method: 2017 IS 3025 Part-4 Pr.Co Method: 2017 IS 3025 Part-4 Pic On Method: 2017 IS 3025 Part-3 Derwimetric Method: 2017 IS 3025 Part-3331:1989 (RA 2003) Winker Anide Method S 3025 Part-4 4: 1993 (RA 2003) Winker Anide Method APPHA, 23rd Edition 3114C	1 25 2 0.1 2	SAMPING DATE: 13-12-2022 ANALYSIS RESULT 7.94 2 347 BDL
		NO. 6 N. 5L. N. 2 2 3 4	AME OF LOCATION: UP STREAM OF.	TEST METHOD IS 3025 Part-11 Electrometric Method: 2017 IS 3025 Part-4 Pr.CO Method: 2017 IS 3025 Part-4 Pc.CO Method: 2017 IS 3025 Part-4 Signal Psyll (pa. 2003) Partition gravimetric Method IS 3025 Part-4 333(1989 (pl. 2003) Workee Anide Method IS 3025 Part-4 41: 1993 (pl. 2003) Workee Anide Method S 3025 Part-4 41: 1993 (pl. 2003) APPHA, 2 2nd Edition 3114 C AAS-VGA Method-2017 APPHA, 2 2nd Edition 3114 C	1 25 2 0.1	SAMPING DATE: 13-12-2022 ANALYSIS RESULT 7.94 2 347 BDL 4.5 3.2
		NO. 6 N. 5L. N. 1 1 2 3 4 5 6	AME OF LOCATION: UP STREAM OF.	TEST METHOD 15 3025 Part-11 Electrometric Method: 2017 15 3025 Part-14 Electrometric Method: 2017 15 3025 Part-14 Fice Method: 2017 15 3025 Part-18 Type (Re. 2003) Partition gravimetric Method: 15 3025 Part-18 Type (Re. 2003) Partition gravimetric Method: 15 3025 Part-18 Type (Re. 2003) Winsker Aulie Method: 5 3025 Part-18 Type (Re. 2004) AS AVGA Method: 2017 APPA, 2784 Edition 31136 ASG GTA Method: 2017 APPA, 2374 Edition 3150-C Ts ASG GTA Method: 2017 APPA, 2374 Edition 3150-C Ts	2 1 25 2 0.1 2 0.005	SAMPUNG DATE: 13-12-2022 ANALYSIS RESULT 7.94 2 347 BDL 4.5 3.2 BDL
		NO. 6 N. 5L. N. 1 1 2 3 4 5 6 6	AME OF LOCATION: UP STREAM OF. O. PARAMETER	TEST METHOD 15 3025 Part-11 Electrometric Method: 2017 15 3025 Part-14 Co- Method: 2017 15 3025 Part-14 Co- Method: 2017 15 3025 Part-15 Gravimetric Method: 2017 15 3025 Part-15 Gravimetric Method: 3025 (Part-38): 1999 (IA 2028) 15 3025 (Part-38): 1999 (IA 2028) 15 3025 (Part-38): 1999 (IA 2028) 16 3025 Part 44: 1999 (IA 2028) APPA, 224 Edition 3114 C. APPA, 234 Edition 3104 C. APPA, 237 Edition 5100 C. B. ASS (TA Method: 2017 APPA, 237 Edition 5100 C. B. Colorimetric Method: 2017 15 3025 Part 24 ASF Fizze	2 1 25 2 0.11 2 0.005 0.005	SAMPUNG DATE: 13-12-2022 ANALYSIS RESULT 7.94 2 347 BDL 4.5 3.2 BDL BDL
		NO. 6 N. SL. N. 1 1 2 3 4 5 6 7 8	AME OF LOCATION: UP STREAM OF. O. PARAMETER	TEST METHOD 15 3025 Part-11 Electrometric Method: 2017 S 3025 Part-14 Electrometric 2017 S 3025 Part-14 Electrometric 2017 S 3025 Part-14 Electrometric 2017 S 3025 Part-18 S 1918 (Ba 2003) Partition gravimetric Method: 15 3015 Part-38 1918 (Ba 2003) Winder Aside Method: 15 3015 Part-48 1918 (Ba 2003) Winder Aside Method: 53 0015 Part-48 1918 (Ba 2003) APHA, 23rd elfation 3114 C ASI-VGA Method: 2017 APHA, 23rd elfation 3150 C r S 3025 Part-24 ASI Fainer IS 3025 Part-24 ASI Fainer	UMIT 2 1 25 2 0.1 2 0.005 0.005	SAMPLING DATE: 13-12-2022 ANALYSIS RESULT 7.94 2 347 BDL 4.5 3.2 BDL BDL BDL BDL
		NO. 6	AME OF LOCATION: UP STREAM OF. O. PARAMETER	TEST METHOD 15 3025 Part-11 Electrometric Method: 2017 15 3025 Part-14 Electrometric Method: 2017 15 3025 Part-14 Electrometric Method: 2017 15 3025 Part-14 Electrometric Method: 2017 15 3025 Part-15 Gravimetric Method: 3015 Part-15 Gravimetric Method: 15 3025 Part-189; IRA 2019 15 3025 Part-189; IRA 2019 16 3025 Part-189; IRA 2019 16 3025 Part-189; IRA 2019 16 3025 Part-189; IRA 2019 17 3025 Part-18 3025 Part-18 3025 Part-18 3025 Part-18 3025 Part-18 3050 Part-18 3025 Part-18 ANG Flammetric Method: 2017 15 3025 Part-18 ANG Flammetric Method: 2017 15 3025 Part-18 ANG Flammetric Method: 2017 16 3025 Part-18 ANG Flammetric Method: 2017 16 3025 Part-18 ANG Flammetric Method: 2017 17 3025 Part-18 ANG Flammetric Method: 2017 17 3025 Part-18 ANG Flammetric Method: 2017 18 3025 Part-18 ANG Flammetric Method: 2017 20 3025 Part-18 ANG Flammetric Method: 2017 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	UMIT 2 1 25 2 0.1 2 0.005 0.005 0.01 0.03 0.01 0.005	\$AMPLING DATE: 13-12-2022 ANALYSIS RESULT 7.94 2 347 BDL 4.5 3.2 BDL BDL BDL BDL BDL BDL BDL BD
		NO. 6	### AME OF LOCATION: UP STREAM OF. ### OF LOCATION: UP STREAM OF. ### OF VAlue Colour (Hazen) TDS -mg/l Dissolved Oxygen - mg/l B.O.D. (3 days at 27°C) - mg/l Arsenic (As)-mg/l Lead as (Pb) -mg/l Hexavalent (Chromium -mg/l Copper (as Cu) -mg/l Zinc as (Zn) -mg/l Selenium (Se) -mg/l Cadmium as (Cd) -mg/l Cadmium as (Cd) -mg/l	TEST METHOD IS 3025 Part-11 Electrometric Method: 2017 IS 3025 Part-16 Co-Method: 2017 IS 3025 Part-189: 11991 (IA 2003) Winsker Anider Method IS 3025 Part-144: 11993 (IA 2014) APHA, 23rd Edition 3111A APHA, 23rd Edition 3111A APHA, 23rd Edition 311A APHA, 23rd Edition 311A S 3025 Part-14A Filame Method: 2014 IS 3025 Part-14A Filame Method: 2014 IS 3025 Part-14A Filame Method: 2014 APHA, 23rd Edition 310A Filame Method: 2014 APHA, 23rd Edition 310A Filame APHA, 23rd Edition 310A Filame APHA, 23rd Edition 310A Filame APHA, 23rd Edition 311A APHA, 23rd Edition 311A APHA, 23rd Edition 31A Filame APHA, 23rd Edition 31A Filame APHA, 23rd Edition 31A Filame APHA, 23rd Edition 31A APHA, 37rd Edition 31A APHA	UMIT 2 1 25 2 0.1 2 0.005 0.005 0.01 0.03 0.01 0.005 0.0005	SAMPLING DATE: 13-12-2022 ANALYSIS RESULT 7.94 2 347 BDL 4.5 3.2 BDL BDL BDL BDL BDL BDL BDL BD
		NO. 6 N. 5L. N.	### AME OF LOCATION: UP STREAM OF. ### OF LOCATION: UP STREAM OF. ### OF Value Colour (Hazen) TDS -mg/l Dissolved Oxygen - mg/l B.O.D. (3 days at 27°C) - mg/l Arsenic (As)-mg/l Lead as (As)-mg/l Lead as (Ca)-mg/l Expose (as Cu) -mg/l Zinc as (Zn) -mg/l Selenium (Se) -mg/l Cadmium as (Cd) -mg/l Fibroride (as F) -mg/l	TEST METHOD IS 3025 Part-11 Electrometric Method: 2017 IS 3025 Part-16 FO. Method: 2017 IS 3025 Part-16 FO. Method: 2017 IS 3025 Part-16 Gravimetric Method: 2017 IS 3025 Part-18 1991 (IA 2003) Winsker Aide Method: 3017 Santillos gravimetric Method: 3012 Part-181; 1989 (IA 2004) Winsker Aide Method: 3012 Part-141: 1993 (IA 2014) APHA, 21d Edition 3113 AC APHA, 23rd Edition 3130 Cr and ASS VGA Method: 2017 APHA, 23rd Edition 3130 Cr and Method: 2017 APHA, 23rd Edition 3104 Cr and Method: 2017 APHA, 23rd Edition 3104 Cr and Method: 2014 APHA, 23rd Edition 3114 Cr APHA, 23rd Edition 3144 Cr APHA, 23rd Edition 3145 Cr APHA, 2	UMIT 2 1 25 2 0.1 2 0.005 0.005 0.001 0.003 0.01 0.005 0.0005 0.0005	SAMPLING DATE: [13-12-2022 ANALYSIS RESULT 7.94 2 347 BDL 4.5 3.2 BDL BDL BDL BDL BDL BDL BDL BD
		800.0 No. 1	AME OF LOCATION: UP STREAM OF.	TEST METHOD IS 3025 Part-11 Electrometric Method: 2017 IS 3025 Part-16 FCO METHOD: 2017 IS 3025 Part-18 JEST SER 3025 Method: 2017 IS 3025 Part-18 JEST SER 3025 Method: 2017 APHA, 21rd Iddinol 3114 C AND VICA Method: 2017 APHA, 21rd Iddinol 3114 C Colorimetric Method: 2017 APHA, 21rd Iddinol 3114 C Colorimetric Method: 2017 APHA, 21rd Iddinol 3114 C S 3025 Part-14 AS Flame Method: 2014 APHA, 21rd Iddinol 3114 C AND VICA Method: 2014 AND VICA METHOD: 2017 APHA, 22rd Iddinol 3114 C AND VICA METHOD: 2017 APHA, 22rd Iddinol 3114 C AND VICA METHOD: 2017 AND VICA METHOD: 2017 APHA, 22rd Iddinol 2017 APHA, 22rd Idd	UMIT 2 1 25 2 0.11 2 0.005 0.005 0.01 0.03 0.01 0.005 0.0005 0.0005 0.0005	SAMPUNG DATE: 13-12-2022 ANALYSIS RESULT 7.94 2 347 BDL 4.5 3.2 BDL BDL BDL BDL BDL BDL BDL BD
		NO. 6 N. 5L. N.	AME OF LOCATION: UP STREAM OF.	TEST METHOD 15 3025 Part-11 Electrometric Method: 2017 15 3025 Part-14 Electrometric Method: 2017 15 3025 Part-14 Electrometric Method: 2017 15 3025 Part-15 Edwinnetts: Method: 2017 15 3025 Part-15 Edwinnetts: Method: 2017 15 3025 Part-15 Electrometric Method: 15 3025 Part-15 1989 (IA 2003) 16 3025 Part-15 1989 (IA 2003) 16 3025 Part-15 1989 (IA 2003) 16 3025 Part-15 1989 (IA 2003) 17 3025 Part-15 1989 (IA 2003) 17 3025 Part-15 2AS Fizzer 18 3025 Part-15 AS Fizzer 19 3400 Part-15	UMIT 2 1 25 2 0.1 2 0.005 0.005 0.001 0.003 0.01 0.005 0.0005 0.0005	SAMPLING DATE: [13-12-2022 ANALYSIS RESULT 7.94 2 347 BDL 4.5 3.2 BDL BDL BDL BDL BDL BDL BDL BD
		800.0 No. 1	AME OF LOCATION: UP STREAM OF.	TEST METHOD 15 3025 Part-11 Electrometric Method: 2017 15 3025 Part-15 Convincetor. 2017 16 3025 Part-15 Convincetor. 2017 16 3025 Part-15 Convincetor. 2017 17 3025 Part-15 ANS Filmen 18 3025 Part-15 ANS Filmen 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	UMIT 2 1 25 2 0.11 2 0.005 0.005 0.01 0.03 0.01 0.005 0.0005 0.0005 0.0005	SAMPUNG DATE: 13-12-2022 ANALYSIS RESULT 7.94 2 347 BDL 4.5 3.2 BDL BDL BDL BDL BDL BDL BDL BD
		NO. 6	AME OF LOCATION: JUP STREAM OF. DAME OF LOCATION: JUP STREAM OF. PARAMETER pH Value Colour (Hazen) TDS -mg/l Dissolved Oxygen - mg/l B.O.D. (3 days at 27°C) - mg/l Arsenic (As)-mg/l Lead as (Pb) -mg/l Jene (as (Pb) -mg/l Zinc as (Zn) -mg/l Selenium (Se) -mg/l Cadmium as (Cd) -mg/l Fluoride (as F) -mg/l Iron (as Fe) -mg/l Nitrate Nitrogen - mg/l Sulphate (as SO _x ²) -mg/l	TEST METHOD IS 3025 Part-11 Electrometric Method: 2017 IS 3025 Part-16 Con Method: 2017 IS 3025 Part-16 Con Method: 2017 IS 3025 Part-16 Gravimetric Method: 2017 IS 3025 Part-18 (12) 1991 (IR 2020) Winsiker Aide Method: 2017 AS 1992 Part-381; 1999 (IR 2020) Winsiker Aide Method: 2017 APHA, 23rd Edition 3113 C APHA, 23rd Edition 3113 C APHA, 23rd Edition 3114 C AS 1993 Part-381; 1993 (IR 2020) S 3025 Part-42 ASS Faines Method: 2017 APHA, 23rd Edition 3114 C AS 1993 Part-381; 1993 (IR 2020) S 3025 Part-382 ASS Faines Method: 2014 APHA, 23rd Edition 3114 C AS 1993 Part-382 ASS Faines ASS GTA Method: 2017 APHA, 23rd Edition 3114 C AS 1994 ASS Faines ASS GTA Method: 2017 APHA, 23rd Edition 3115 B AAS GTA Method: 2017 APHA, 23rd Edition 3115 B AAS GTA Method: 2017 APHA, 23rd Edition 3104 C APPA, 23rd Edition 4500 N° 19	UMIT 2 1 25 2 0.1 2 0.005 0.005 0.01 0.005 0.001 0.005 0.005 0.006 0.006 0.006	SAMPLING DATE: 13-12-2022 ANALYSIS RESULT 7.94 2 347 BDL 4.5 3.2 BDL BDL BDL BDL BDL BDL BDL BD
		NO. 6	AME OF LOCATION: UP STREAM OF. D. PARAMETER pH Value Colour (Hazen) TDS-mg/l Oil & Greese - mg/l Dissolved Orygen - mg/l 8. O.D. (3 days at 27°C) - mg/l Arsenic (As)-mg/l Lead as (Pb)-mg/l Hexavalent Chromium -mg/l Zinc as (Zn)-mg/l Zinc as (Zn)-mg/l Zinc as (Zn)-mg/l Selenium (Se)-mg/l Fluoride (as F)-mg/l Fluoride (as F)-mg/l Nitrate Nitrogen - mg/l Sulphate (as SO ₂) - mg/l Chlorides (as CI)- mg/l	TEST METHOD 15 3025 Part-11 Electrometric Method: 2017 15 3025 Part-14 Electrometric Method: 2017 15 3025 Part-14 Electrometric Method: 2017 15 3025 Part-18 Part 16 Gravimetric Method: 2017 15 3025 Part-18 Part 16 Gravimetric Method: 2017 15 3025 Part-18 Part 16 Gravimetric Method: 2017 15 3025 Part-18 Part 16 (As 2018) Minister Asile (Method: 2017 APHA, 23rd Edition 3114 C AAS-VGA Method: 2017 APHA, 23rd Edition 3104 C ASS 2015 Part-18 Part 16 Gravimetric Method: 2017 APHA, 23rd Edition 3104 C ASS 2015 Part-18 Part 16 Gravimetric Method: 2017 APHA, 23rd Edition 3104 C ASS 2015 Part-18 Part 16 Gravimetric Method: 2017 APHA, 23rd Edition 3104 C SPANON Method: 2017 APHA, 23rd Edition 3104 C APHA, 23rd Edition 3104	UMIT 2 1 25 2 0.1 2 0.005 0.001 0.003 0.01 0.005 0.0005 0.0005 0.0005 0.0005	SAMPLING DATE: 13-12-2022 ANALYSIS RESULT 7.94 2 347 BDL 4.5 3.2 BDL BDL BDL BDL BDL BDL BDL BD
		NO. 6	AME OF LOCATION: JUP STREAM OF. DAME OF LOCATION: JUP STREAM OF. PARAMETER pH Value Colour (Hazen) TDS -mg/l Dissolved Oxygen - mg/l B.O.D. (3 days at 27°C) - mg/l Arsenic (As)-mg/l Lead as (Pb) -mg/l Jene (as (Pb) -mg/l Zinc as (Zn) -mg/l Selenium (Se) -mg/l Cadmium as (Cd) -mg/l Fluoride (as F) -mg/l Iron (as Fe) -mg/l Nitrate Nitrogen - mg/l Sulphate (as SO _x ²) -mg/l	TEST METHOD 15 3025 Part-11 Electrometric Method: 2017 15 3025 Part-14 Electrometric Method: 2017 15 3025 Part-14 Electrometric Method: 2017 15 3025 Part-18 Part 16 Gravimetric Method: 2017 15 3025 Part-18 Part 16 Gravimetric Method: 2017 15 3025 Part-18 Part 16 Gravimetric Method: 2017 15 3025 Part-18 Part 16 (As 2018) Minister Asile (Method: 2017 APHA, 23rd Edition 3114 C AAS-VGA Method: 2017 APHA, 23rd Edition 3104 C ASS 2015 Part-18 Part 16 Gravimetric Method: 2017 APHA, 23rd Edition 3104 C ASS 2015 Part-18 Part 16 Gravimetric Method: 2017 APHA, 23rd Edition 3104 C ASS 2015 Part-18 Part 16 Gravimetric Method: 2017 APHA, 23rd Edition 3104 C SPANON Method: 2017 APHA, 23rd Edition 3104 C APHA, 23rd Edition 3104	UMIT 2 1 25 2 0.1 2 0.005 0.001 0.003 0.01 0.005 0.0005 0.0005 0.0005 0.0005	SAMPLING DATE: 13-12-2022 ANALYSIS RESULT 7.94 2 347 BDL 4.5 3.2 BDL BDL BDL BDL BDL BDL BDL BD

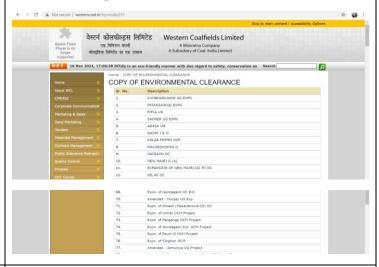
			ENV. MOI	NITORING REPORT				
				ironment Laboratory IPDI RI-IV, NAGPUR	Test Re Surface water quality		g data	
			TEST REF	PORT NO. RIN/TR/DEC-22	/SW30		DATE OF ISSUE 30-01-2023	1
				F CUSTOMER GM(ENV.), WCL ER LETTER REFERENCE NO.	1 141	ATED: 35 03	SAMPLE DESCRIPTION WATER SAMPLE	
			NAME OF	F AREA UMRER F PROJECT UMRER OC	WCL/HQ/ENV/14-I/206-220 D	ATED: 25.03.	SAMPLING METHOD: LSOP S SAMPLING PLAN: LQR 47	J
			NO. OF P	E OF LOCATION: DOWN STREAM	OF AMB RIVER WRT MINE DISCHA	ARGE	SAMPLING DATE: 13-12-2022]
			SL NO.	PARAMETER	TEST METHOD	DETECTION	ANALYSIS RESULT	
			1	pH Value	IS 3025 Part-11 Electrometric Method: 2017 IS 3025 Part-4 Pt-Co Method:	2	8.09	
			2	Colour (Hazen)	2017 IS 3025 Part-16 Gravimetric		-	
			3	TDS -mg/l	Method: 2017 IS 3025 (Part 39): 1991 (RA 2003)	25	387	-
			4	Oil & Greese - mg/l	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. (3 days at 27°C) - mg/l	IS 3025 Part 44: 1993 (RA 2014) APHA, 23rd Edition 3114 C	2	3.8	
			7	Arsenic (As)-mg/l	AAS-VGA Method:2017 APHA, 23rd Edition 3113 B	0.005	BDL	
			8	Lead as (Pb) -mg/l	AAS GTA Method:2017	0.005	BDL	
			9	Hexavalent Chromium -mg/l	APHA, 23rd Edition 3500-Cr B Colorimetric Method: 2017 IS 3025 Part-42 AAS Flame	0.01	BDL	
			10	Copper (as Cu) -mg/l	Method :2014 IS 3025 Part-49 AAS Flame	0.03	BDL	
			11	Zinc as (Zn) -mg/l	Method:2014 APHA, 23rd Edition 3114 C	0.01	BDL	
			12	Selenium (Se) -mg/l Cadmium as (Cd)- mg/l	AAS-VGA Method:2017 APHA, 23rd Edition 3113 B	0.005	BDL BDL	
			14	Fluoride (as F)- mg/l	AAS GTA Method:2017 APHA, 23rd Edition 4500-F D	0.0005	0.42	-
			15	Iron (as Fe) -mg/l	SPADNS Method: 2017 IS 3025 Part-53 AAS Flame	0.06	BDL	1
			16	Nitrate Nitrogen - mg/l	Method:2014 APHA, 23rd Edition 4500-NO ³ B UV Spectrophotometric	0.5	2.4	
					Method: 2017 APHA (23rd Edition) 4500E	-	48	-
			17	Sulphate (as SO ₄ *) -mg/l Chlorides (as CI)- mg/l	Turbidimetric Method:2017 IS 3025 Part-32 1988	2	74	-
				Limited (as Ely ing)	Argentometric Method:2014	_	RDI - BELOW DETECTION LIMIT	J
				SCIENTIFIC ASSISTANT			DEEPANSHU SAHU AUTHORIZED SIGNATORY	
				the surface re: XVIII.	water mon	itorin	ng report is enclos	ed as
vii.	The project proponent shall submit six	Bein	g co	mplied.				
	monthly reports on the status of the							
	• •	Six r	non	thly reports	on the state	us of	the implementati	on of
	implementation of the stipulated	the	stip	ulated envi	ronmental	safe	guards are subn	nitted
	environmental conditions to the		_				nistry of Environ	
	Ministry of Environment, Forest and			nd Climate C			instry of Environ	,
	•	TOIC	st an	ia Cililate C	mange.			
	Climate Change/ Regional Office. For	The	civ.	monthly ron	ort for the	nori	od from April 20	22 to
	half yearly monitoring reports, the data					_	od from April 20	
	should be monitored for the period of	Sep 2	2022	2 is submitte	d to MoEF	&CC	on 30/11/2022 thi	rough
		emai	1.					
	April to September and October to		-					
	march of the financial years.							
viii.	The Regional Office of this Ministry	Note	d.					
	shall monitor compliance of the							
	stipulated conditions. The project							
	authorities should extend full							
	cooperation to the officer(s) of the							
	Regional Office by furnishing the							
<u> </u>		l						

	requisite data/information/monitoring reports.	
(k)	Miscellaneous	
i.	Efforts should be made to reduce energy consumption by conservation, efficiency improvements and use of renewable energy.	Complied. Efforts are being made for the uses of Solar energy and conventional light bulbs are replaced by LEDs to reduce energy consumption. O1 no of 40 KWp On-Grid-Connected Roof Top Mounted solar power plant is installed at AGM Office of Umrer area and O1 no of 12 KWp On-Grid-Connected Roof Top Mounted solar power plant is installed at Area Hospital, Umrer Area.
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.	Complied. 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. **Concerned Panchayat vide letter no. WCL/SAM/MKD/Asst. Manager (C)/ 2018-19/ 397 dated 05/02/19. **Ref: WCL/SAM/MKD/Asst. Devisions of states of concerned the concerned of the concerne



iv. 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.

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.



i. 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

Complied.

The same had been done after receipt of EC.

Advertisements are given in the following News Papers:

1. 'The Hitavada' (English daily, Nagpur) dated 19/12/2018

the same is available with the State Pollution Control Board and also at website of the Ministry.



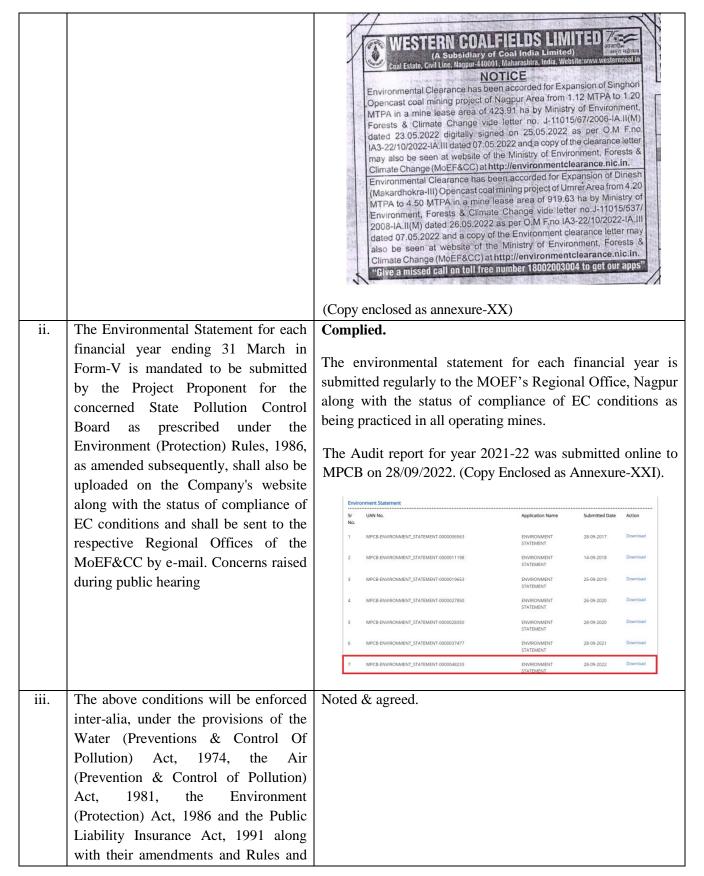
2. 'Lokmat' (Marathi daily, Nagpur) dated 19/12/2018



3. 'Punya Nagari' (Marathi daily, Nagpur) dated 31/05/2022



4. 'The Times of India' (English daily,Nagpur) dated 31/05/2022



	any other orders passed by the Hon'ble	
	Supreme Court of India/ Hon'ble High	
	Court and any other Court of Law	
	relating to the subject matter.	
5	The proponent shall abide by all the	Agreed.
3	commitments and recommendations	Agreeu.
	made in the EIA/EMP report and also	
	that during presentation to the EAC. All	
	the commitments made on the issues	
	raised during public hearing shall also	
	be implemented in letter and spirit.	
6	The proponent shall obtain all necessary	Noted.
	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.	
7	Any appeal against this environmental	Noted.
	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.	AY 1
8	The coal company/ project proponent	Noted.
	shall be liable to pay the compensation	
	against the illegal mining, if any, and as raised by the respective State	
	raised by the respective State Governments at any point of time, in	
	terms of the orders dated 2 nd August,	
	2017 of Hon'ble Supreme Court in WP	
	(Civil) No. 114/2014 in the matter of '	
	Common Cause Vs Union of India &	
	others.	
9	The concerned State Government shall	Does not pertain to the project.
	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	
1.0	judgement of Hon'ble Supreme Court	
10	This environmental clearance shall not	Noted.
	be operational till such time the project	
	proponent complies with the above said	
11	judgement of Hon'ble Supreme Court.	N-4-1
11	This issues in supersession of the earlier	Noted.
	EC granted vide letter No- J-	
	11015/537/2008-IA.II (M) dated 21 st	
	June, 2011.	

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 th 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%.	Complied. 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: XXII)
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.	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 8th 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	During monsoon 2022, 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 01 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		Noted and agreed.
	prescribed in Ministry's letter dated	
	21.06.2011 & 29.11.2018 shall remain	
	the same and need to be complied by	
	PP.	

Sub Area Manager Makardhokra-III OC Mine

Makardhokra Sub Area

Colliery Manager
Makardhokra-III OC Mine
Makardhokra Sub Area

Nodal Officer (Env.) Makardhokra-III OC Mine Makardhokra Sub Area