

केवल नागपुर कोर्ट के अधिकार क्षेत्र में

Under Jurisdiction of Nagpur Court only



वेस्टर्न कोलफील्ड्स लिमिटेड/Western Coalfields Limited

मिनिरात कम्पनी (A Miniratna Company)

कोल इंडिया लिमिटेड की अनुषंगी कम्पनी (A Subsidiary of Coal India Limited)

CIN-U10100MH1975GOI018626



उपक्षेत्रीय प्रबंधक कार्यालय, अम्बाडा उपक्षेत्र, कन्हान क्षेत्र

Office of The Sub Area Manager, Ambara Sub Area, Kanhan Area

पता: गुड्डी, अम्बाडा पो:पालाचौरड, जिला:छिन्दवाड़ा (म.प्र)

Address: Gudhi Ambara, PO: Palachouri, Dist: Chhindwara, M.P PIN: 480449

पिन: 480449

Phone: 7587595600

Email: wclambarasubarca@gmail.com

07160-268023(O), 268029(R)

संदर्भ:- पत्र कं. वेकोलि/कन्हान/अ.स./उ.क्षे.प्र/35/2026- 159

दिनांक 25.05.2026

प्रति,

**1. Regional Officer,
Integrated Regional Officer(Bhopal), MOEF&CC,
Kendriya Paryavarn Bhavan, Link Road No.3,
E-5, Ravishankar Nagar, Bhopal-462016(M.P)**

**2. Director (Monitoring Cell), MOEF&CC,
Indira Paryavarn Bhayan, Jorbag Road, Aligunj,
New Delhi-110003**

विषय: Submission of Six Monthly EC Compliance Report of Ambara OC Mine (EC letter no J-11015/252/2007-IA.II(M) dated 19.03.2008 For production Capacity 1.0 MTPA in Area of 162.153 HA) for the period of Oct-2025 to March 2026 .

महोदय,

Reference to the above subject, please find enclosed herewith Six Monthly EC Compliance Report of Ambara OC Mine of Kanhan Area, WCL for the period of Oct-2025 to March 2026 for kind perusal.

उपक्षेत्रीय प्रबंधक
अंबाडा उपक्षेत्र

प्रतिलिपि:

1. महाप्रबंधक (माइनिंग)/विभागाध्यक्ष (पर्यावरण) वेकोलि मुख्यालय, नागपुर
2. क्षेत्रीय महाप्रबंधक, कन्हान क्षेत्र
3. क्षेत्रीय नोडल अधिकारी (पर्यावरण), कन्हान क्षेत्र

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**WORLD
ENVIRONMENT
DAY**



**SIX MONTHLY COMPLIANCE REPORT OF
ENVIRONMENTAL CLEARANCE**

**AMBARA OC PATCHES COAL MINE
(1.00 MTPA IN AREA OF 162.153 HA)**

**EC NO. - J-11015/252/2007/IA.IIM
DATED 18.03.2008**



**WESTERN COALFIELDS LIMITED
KANHAN AREA
PO: DUNGARIA, CHHINDWARA (MP)-480553
PERIOD – OCTOBER 2025 TO MARCH 2026**

Western Coalfields Ltd.



Present Status
Kanhana Area
Ambara OC
(1.0 MTPA)

Sl.No	Contents
1	Data Sheet
2	EC Letter (1.00 MTPA)
3	Compliance status of Environmental Clearance Condition
4	Letter to Sarpanch ((1.00 MTPA)
5	Consent to Operate issued by MPPCB
6	Accreditation Certificate Environmental Laboratory
7	Environmental Management at Ambara OC mine-Air Pollution & Water Pollution Control Measures
8	Production Data
9	Air, Water & Noise Monitoring Reports for period Oct'25 to Mar'26
10	Groundwater Monitoring Reports for period Oct'25 to Mar'26
11	Copy of Approval of Mine Closure Plan and Approved MCP

Monitoring Implementation of Environmental Safeguards
Ministry of Environment & Forest
Western Regional, Regional office, Bhopal
MONITORING REPORT

DATA SHEET

S.NO	Particulars	Details
1	Project type : River-Valley/Mining/Industry/Thermal/Nuclear/Other (Specify)	MINING.
2.	Name of Project	Ambara OC (including Mohan OC patches)
3.	Clearance letter (s) OM No. & date	MOEF No J-11015/252/2007/IA.II (Mining) dated 19.03.2008
4	Location a). Districts b). State (S) c) .Location Latitude/ Longitude	Chhindwara Madhya Pradesh Village: Ambara, Teh - Junnardeo N 22 ⁰ 10' 47'' to 22 12' 56'' E 78 ⁰ 37' 39'' to 78 41' 54''
5	Address for Correspondence a) Address of the Concerned Project Chief Engineer (With Pin Code & telephone/ telex / fax numbers b) Address of the Executive/ Project Engineer/ Manager (With Code & telephone / telex/ fax/ numbers	Area General Manager, Kanhana Area, WCL Post- Dungariya, Teh – Junnardeo, Dist- Chhindwara (MP) - 480553 07160-231245-48 07160-230504 Sub Area Manager, Ambara Sub-Area, WCL Distt- Chhindwara (M.P.), Pin- 480449 07160-268023 07160-268029 Shri Pradeep Kumar Chand Manager, Ambara O/C Po.- Palachourai, Distt- ChhindwarA (M.P.)
6	Salient Features a) of the Project b) Of the environmental Management plan.	Total lease area : 162.153 ha Agricultural land : 111.679 ha Forest Land-16 ha Wasteland-35.574 ha Production Capacity- 1 MTPA
7.	Break-up of the project Area A. Submergence area : forest & non- forest B. Others	A. Nil B. Forest- 16.00 Ha. Non-Forest- 146.153 Ha .
8.	Beak up of the project affected population with enumeration of those losing house/dwelling	NOT APPLICABLE

	<p>units only agricultural land only both dwelling units & agricultural land & landless laborers /artisans</p> <p>a) SC, ST/ Divas</p> <p>b) Others</p> <p>(Please Indicate Whether these figures are based on any scientific and systematic survey carried out or only provisional figures, if a survey is carried out give details & year of survey)</p>	
9.	<p>Financial Details :</p> <p>a) Project cost as originally planned and subsequent revised estimates and the year of price reference.</p>	1.8 CRORES (FY2006-07)
	<p>b) Allocation made for environmental management plans with item wise and year wise breakup.</p>	Yes
	<p>c) Benefit Cost ratio /Internal rate of items of refund & year of assessment</p>	-----
	<p>d) Whether includes the cost of environmental management as shown in above</p>	Yes

	e) Actual expenditure incurred on the environmental management plans so far	Details	2023-24 (Rs. Lakhs)	2024-25 (Rs. Lakhs)	2025- 26 (Rs. Lakhs)
		Env. Monitoring	19.75 (Monitoring Charges)	76.54 (Monitoring Charges)	77.32
			11.87 (Drilling of Bore and Installation of Piezometer for GW monitoring)		
		Consent Fees	6.48	11.38 as CGWA NOC fees	Nil
		Plantation	Nil	Nil	Nil
		Water Sprinkling on Coal transport road	2.31		Nil
		TOTAL	40.41	87.92	77.32
	f) Actual Expenditure incurred on the environmental management plans so far.	Final audited figure to be furnished.			
10	Forest land requirement	Forest Clearance obtained vide letter no. 8-113/2011-FC dated 02/07/2015 for 48.918 Ha of forest land for combined area of both Mohan UG and Ambara OC under Forest Conservation Act, 1980.			
	a) The status of approval for diversion of forest land for non-forestry use.				
	b) The status of clearing /felling	Complied as per Forest Conservation Act, 1980.			
	c) The status of compensatory Afforestation ,if any	Complied as per Forest Conservation Act, 1980.			
	d) Comments on the viability & sustainability of compensatory afforestation programme in the light of actual field experience so far	Complied as per Forest Conservation Act, 1980.			

11	The status of clear felling in non –forest areas (such as submergence area of reservoir, approach road etc) if any with quantitative information required	Not Applicable
12	Status of construction (Actual & or planned) a) Date of commencement (Actual & or planned)	Old Mine Started From 1995 – 96
	b. Date of completion (Actual & or planed)	Construction For Expansion Started From 25.03.2008 And Completed On 31.07.2008
13	Reason for delay ,if project is yet to start	Not Applicable
14	Date of site visit a) Date on which the project was monitored by the Regional office on previous occasions if any site visit b) Date of site visits for this Monitoring report	NOT APPLICABLE
15	Details of corresponding with project authorities for obtaining action plans /information on status of compliance to safeguards other than the routine letters for logistic support for site visits) (The first monitoring report may contains the details of all the letter issued so far ,but the later report may cover only the letter issued subsequently)	-----

WESTERN COALFIELDS LIMITED
Annual Environmental Monitoring Report
Project of Kanhan Area for the period Oct'25 to Mar'26
Ambara OC
Part -I

Name of the project	Ambara OC mine including Mohan OC.
Location & Address	Kanhan Area (WCL) Near Ambara Village Teh: Junnardeo Dist Chhindwara State M.P
Address for Corresponding Ambara Sub Area	Near Ambara Sub Area, Ambara Village Teh: Junnardeo, Dist Chhindwara State M.P
MOEF's Clearance Letter No. & Date	J-11015/250/2007-IA II(M) Dt:-19/03/2008
Period of Status Report	Oct'25 to Mar'26

Status of Land Acquisition:-

Type of Land	Required as per EMP (Ha)	Actual acquired (Ha)as on
Forest	16.00	16.00
Agriculture	111.679	111.679
Other (Government land)	35.574	35.574
Total	162.153	162.153

a. Consent under section 25/26 of water (prevention and Control of Pollution) Act 1974	Consent granted vide Consent no. AW 57962 dated 10/04/2023. Consent valid till 31/03/2025. Mine is not in operation since September 2022, CTO renewal has been discontinued.
b. . Consent under section 21 of AIR (prevention and Control of Pollution) Cess Act 1981	Consent granted vide Consent no. AW 57962 dated 10/04/2023. Consent valid till 31/03/2025. Mine is not in operation since September 2022, CTO renewal has been discontinued.
c. Environment Statement	Environment Audit Statement 2024-25 submitted online through MPPCB XGN portal.

Part:-II Status of Environment

Air Pollution Control:-

a. No of Ambient Air Monitoring stations	Four shown on Plan
b. Name of Location (*) :-	1) SAM's Office 2) Pit Office (Mohan) 3) Colony 4) Ambara Village
c. Ambient Air Quality Status for the parameters prescribed by status Pollution Control boards (average 95 % time weighted Values)**	Monitoring Reports enclosed for the period of Oct'25 to Mar'26

(**) Detailed report of sampling and analysis of ambient air quality carried out as per statutes through standard and approved laboratory to be enclosed.

Water pollution control:-

- a. No. of stations and frequency of monitoring :- There is only one station i.e. Mine discharge and frequency of monitoring will be quarterly.
- b. Description of location (*) :- Mine water discharge is monitored during operational stage of the Mine.
- c. Average concentration of major pollutants prescribed by state pollution control Board ** (fig. in mg/ lit except pH)

Monitoring Reports enclosed for the period Oct'25 to Mar'26

(*) Location of sampling stations are to be delineated on the working mine plan.

(**) Detailed report of sampling and analysis of ambient air quality carried out as per Status through standard and approved laboratory to be enclosed.

Quantity of effluent discharged to local water course from each source in cubic meter per day: - nil

Noise pollution Control:-

- a. No. of noise monitoring stations: - 2 (Two)
- b. Description of location (*) and dB (a) value **: -

1. Near Manager Office
2. Colony (Mohan)

(*) Location of sampling stations are to be delineated on the working mine plan.

(**) Detailed report monitoring of noise as per statute to be enclosed

Noise level is always within 75 db (A) copy of latest monitoring report for the period Oct'25 to Mar'26 is enclosed.

Part –III
Status of Implementation of Provision of EMP

Production:-

1. Targeted Capacity as per EC -1.00 MTPA
2. Present Capacity/Production in FY 2025-26 - Nil (Not operational since September 2022)

Area Under plantation (progressive) :- 144678 No. of plants on an area of 57.87 Ha approximately.

S.No.	Location	Plantation Figures (nos.) Year wise							Progressive (till date)
		2006-07	2007-08	2009-10	2010-11	2011-12	2012-13	2013-14	
1.	OB dumps & embankments	16026	17627	20000	20000	Nil	20000	20000	113653
2.	Safety Zones	Not applicable							--
3.	Back Filled Area	9615	15000	-	--	--	--	--	24615
4.	Plane Area	6410	-	--	--	--	--		6410
	Total	32010	32627	20000	20000	Nil	20000	20000	144678

Note-No plantation has been carried out since 2013-14 as land was not available for reclamation.

Nos. of plants per hectare :- 2500 per Ha.
Species Planted : Karonj ,Neem, Jamun, Eucalyptus
Silver Oak, Babool, Gul Mohar etc.

Organizational Setup Project Level:-

Shri. Narendra Kumar Soni SAM/Agent

Ambara Sub Area

Shri Rajesh Thakur Colliery Manager

Ambara Open Cast-Mohan OC patch

Shri Rajesh Thakur Manager/NO (Env.)

Ambara Sub Area

No.J-11015/252/2007-IA.II(M)
Government of India
Ministry of Environment & Forests

Paryavaran Bhawan,
C.G.O.Complex,
New Delhi -110510.

Dated: 19th March 2008

To
Director (Tech.)
M/s Western Coalfields Ltd.,
Coal Estate, Civil Lines,
Nagpur- 440001.

Sub: Ambara Opencast Patches Coal Mine Project (to 1 MTPA) of M/s Western Coalfields Ltd. (WCL), located in village Ambara, Tehsil Junnardeo, District Chindwara, Madhya Pradesh - Environmental clearance ? reg.
Sir,

This has reference to letter No. 43011/31/2007-CPAM dated 05.03.2007 forwarding your application, your letters dated 13.06.2007, 12.02.2008, 07.03.2008 and 15.03.2008 on the above-mentioned subject. The Ministry of Environment & Forests has considered your application. It has been noted that the project is for expansion in production of coal in the Ambara Opencast Patches Opencast Coalmine Project to 1 million tonnes per annum (MTPA). The total lease area is 162.153 ha of which 111.679 ha is agricultural land, 16 ha is forestland and 35.574 ha is wasteland. There are no National Parks, Wildlife Sanctuary, Biosphere Reserves found in the 10 km buffer zone. A number of Reserve Forest are found within 5-10km of the core zone. The entire lease area is to be excavated. There is no township. River Rench flows 7km from the mine lease. The project does involve modification of the natural drainage. Project does involve R&R. Mining will be opencast by mechanised method. **Rated capacity of the mine is 1 MTPA of coal production.** Mineral transportation of 3030 TPD of coal is by road to railway siding covering a distance of 4 km. Ultimate working depth of the mine is 65m below ground level (bgl) which has been reached. Water table is in the range of 2.60 m ? 18.05 m bgl during pre-monsoon season and 0.55m-13.85 bgl during post-monsoon. Mining has intersected water table. Peak water requirement is 20 m³/d, which will be met from ground water. An estimated 59 Mm³ of OB would be generated over the life of mine of which 50.20 Mm³ would be generated in the balance life of mine. There are no external OB dumps

and the entire OB would be backfilled leaving a void of 47.646 ha which would be converted into a water body. Balance life of the mine at the rated capacity is 10 years. Public Hearing was held on 21.11.2005. NOC has been obtained from M.P. State Pollution Control Board on 10.02.2006 and vide letter dated 13.03.2008. The project has been approved by M/s WCL on 07.01.2006. The capital cost of the project is Rs. 1.80 crores.

2. The Ministry of Environment & forests hereby accords environmental clearance for the above-mentioned **Ambara Opencast Patches Coal Mine Project of M/s WCL for production of coal at 1 MTPA rated capacity** under the provisions of the Environmental Impact Assessment Notification, 2006 subject to the compliance of the terms and conditions mentioned below:

A. Specific Conditions

- (i) No external dumping of OB. The entire OB being generated in the balance life of mine shall be backfilled.
- (ii) The road for coal transport shall be black topped and avenue trees developed on both sides.
- (iii) Drills should be wet operated.
- (iv) High efficiency bag filters/water sprinkling system to check fugitive emissions from crushing operations, conveyor system/ropeway, haulage roads, transfer points, etc. shall be installed and operated effectively at all times of operation. The water sprinklers should be of mist type with fine nozzle to avoid slurry formation along the roads. Plantation should be developed in the area around the CHP with native species.
- (v) Controlled blasting should be practiced with use of delay detonators. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders should be implemented.
- (vi) Area brought under afforestation shall be not less than 50 ha and include backfilled area (50 ha), along ML boundary, along roads and vacant area within and outside the lease by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha.
- (vii) A Progressive Mine Closure Plan shall be implemented by reclamation of decoaled quarry area and afforestation by planting native plant species in consultation

with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha.

(viii) Mine discharge water shall be treated to conform to prescribed standards particularly for pH and TSS before discharge into any natural water course or nala outside the mine. Quality of water at discharge points shall be monitored regularly and records maintained thereof.

(ix) Regular monitoring of groundwater level and quality should be carried out by establishing a network of existing wells and construction of new piezometers. The monitoring for quantity should be done four times a year in pre-monsoon (May), monsoon (August), post-monsoon (November) and winter (January) seasons and for quality in May. Data thus collected should be submitted to the Ministry of Environment & Forests and to the Central Pollution Control Board quarterly within one month of monitoring.

(x) Besides carrying out regular periodic health check up of their workers, 10% 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, through an agency such as NIOH, Ahmedabad within a period of two years and the results reported to this Ministry and to DGMS.

(xi) A Detailed Final Mine Closure Plan along with details of Corpus Fund should be submitted five years to the Ministry of Environment & Forests RO, Bhopal for approval.

(xii) For monitoring land use pattern and for post mining land use, a time series of land use maps, based on satellite imagery (on a scale of 1: 5000) of the core zone and buffer zone, from the start of the project until end of mine life shall be prepared once in 3 years (for any one particular season which is consistent in the time series), and the report submitted to MOEF and its Regional office at Bhopal.

B. General Conditions

(i) No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment and Forests.

(ii) No change in the calendar plan including excavation, quantum of mineral coal and waste should be made.

(iii) Four ambient air quality monitoring stations should be established in the core zone as well as in the buffer zone for SPM, RPM, SO₂ and NO_x monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board.

(iv) Fugitive dust emissions (SPM and RPM) from all the sources should be controlled regularly monitored and data recorded properly. Water spraying arrangement on haul roads, wagon loading, dump trucks (loading and unloading) points should be provided and properly maintained.

(v) Data on ambient air quality (SPM, RPM, SO₂ and NO_x) should be regularly submitted to the Ministry including its Regional Office at Bhopal and to the State Pollution Control Board and the Central Pollution Control Board once in six months.

(vi) Adequate measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc should be provided with ear plugs/muffs.

(vii) Industrial wastewater (workshop and wastewater from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May 1993 and 31st December 1993 or as amended from time to time before discharge. Oil and grease trap should be installed before discharge of workshop effluents.

(viii) Vehicular emissions should be kept under control and regularly monitored. Vehicles used for transporting the mineral should be covered with tarpaulins and optimally loaded.

(ix) Environmental laboratory should be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board.

(x) Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.

Occupational health surveillance programme of the workers should be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed and records maintained thereof.

(xi) A separate environmental management cell with suitable qualified personnel should be set up under the control of a Senior Executive, who will report directly to the Head of the company.

(xii) The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year-wise expenditure should be reported to this Ministry and its Regional Office at Bhopal.

(xiii) The Regional Office of this Ministry located at Bhopal shall monitor compliance of the stipulated conditions. The Project authorities shall extend full cooperation to the office(s) of the Regional Office by furnishing the requisite data/information/monitoring reports.

(xiv) A copy of the will be marked to concerned Panchayat/ local NGO, if any, from whom any suggestion/representation has been received while processing the proposal.

(xv) State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industry Centre and Collector's Office/Tehsildar's Office for 30 days.

(xvi) The Project authorities should advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within seven days of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution control Board and may also be seen at the website of the ministry of Environment & Forests at <http://envfor.nic.in>.

3. The Ministry or any other competent authority may stipulate any further condition for environmental protection.

4. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract the provisions of the Environment (Protection) Act, 1986.

5. The above conditions will be enforced *inter-alia*, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and Rules.

(Dr.T.Chandini)

Director

Copy to:

1. Secretary, Ministry of Coal, Shastri Bhawan, New Delhi.
2. Secretary, Department of Environment & Forests, Government of Madhya Pradesh, Secretariat, Bhopal.
3. Chief Conservator of Forests, Regional office (EZ), Ministry of Environment & Forests, E-2/240 Arear Colony, Bhopal ? 462016.
4. Chairman, Madhya Pradesh State Pollution Control Board, Paryavaran Parisar, E-5, Arera Colony, Bhopal ? 462016.
5. Chairman, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, New Delhi -110032.
6. Member-Secretary, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi.
7. Shri M.K. Shukla, CGM, Coal India Limited, SCOPE Minar, Core-I, 4t Floor, Vikas Marg, Laxminagar, New Delhi.
8. District Collector, Chindwara, Government of Madhya Pradesh, New Delhi.
9. Monitoring File
10. Guard
11. Record File

(Dr. T.Chandini)
Director

**Compliance of conditions of Environmental Clearance accorded by M.O.E.F. for
Ambara OC Patches (including Mohan OC patches) (1MTPA)**

Vide letter No. 11015/252/2007-II (M) Dated 19th March 2008

Status as on 31.03.2025

S.NO.	CONDITIONS OF ENVIRONMENTAL CLEARANCE	STATUS OF COMPLIANCE / ACTION PLAN															
	A) SPECIFIC CONDITIONS																
(I)	No external dumping of OB. The entire OB being generated in the balance life of mine shall be back filled.	Entire OB excavation is being back filled into de-coaled void. No OB is dumped externally.															
(ii)	The road for coal transport shall be black topped and avenue trees developed on both side.	The existing road for transport of coal is already black topped. Coal transport road from Weighbridge to Palachourai siding has been widened and strengthened.															
(iii)	Drills should be wet operated	The drills are wet operated as and when considered necessary and also implemented as per guide lines of DGMS.															
(iv)	High efficiency bag filters / water sprinkling system to check fugitive emissions from crushing operation conveyor system / rope way haulage roads, transfer points etc. shall be installed and operated effectively at all times of operation. The water sprinklers should be of mist type with fine nozzles to avoid slurry formation along the roads Plantation should be developed in the area around the CHP with native species.	Sprinklers have been installed around CHP hopper and conveyor using pipe arrangement. Also, arrangements have been made for sprinkling by mobile water tankers around CHP. Presently mine has been discontinued since September 2022.															
(v)	Controlled blasting should be practiced with use of delay detonators. The initiative measures for control of ground vibrations and to arrest the fly rocks and boulders should be implemented.	Blasting is being done in a scientific manner so that no damages occur to nearby settlements. Furthermore no subsidence has been observed during the mining operation. The blasting is done as per permission of DGMS so as to effectively control ground vibration and fly rock and bolder using delay detonators. Use of locking caps for control of ground vibrations, fly rock control and improvement in blasting performance is being practiced.															
vi	Area bought under afforestation shall be not less than 50 Ha and include. Back filled area (50Ha) along ML boundary, along roads and vacant area within and outside the lease by planting native species in consultation with local DFO / Agriculture Department. The density of the trees should be around 2500 plants per hectare.	Till date 144678 nos. plants has been planted in 57.87 ha. of backfilled area by planting native species with a density of 2500 plants per hectare. The plantation work has been awarded to Madhya Pradesh Rajya Van Vikas Nigam along-with maintenance of 04 years. The details of Plantation carried out in the recent years are tabulated below- <table border="1" style="width: 100%; margin-top: 10px;"> <thead> <tr> <th>S. No.</th> <th>Year</th> <th>Location</th> <th>Plantation Back-filled</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2009-10</td> <td>Ambara O/C & Mohan O/C</td> <td>20000</td> <td>20000</td> </tr> <tr> <td>2</td> <td>2010-11</td> <td>--,,--</td> <td>20000</td> <td>20000</td> </tr> </tbody> </table>	S. No.	Year	Location	Plantation Back-filled	Total	1	2009-10	Ambara O/C & Mohan O/C	20000	20000	2	2010-11	--,,--	20000	20000
S. No.	Year	Location	Plantation Back-filled	Total													
1	2009-10	Ambara O/C & Mohan O/C	20000	20000													
2	2010-11	--,,--	20000	20000													

		3	2011-12	--,,--	Nil	Nil
		4	2012-13	--,,--	20000	20000
		5	2013-14	--,,--	20000	20000
vii	A progressive mine closure plan shall be implemented by reclamation of decoaled quarry area and afforestation by planting native plant species in consultation with local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha.	Approved Mine Closure Plan for the mine exists and accordingly funds are deposited in an Escrow account. Copy of Approved Mine Enclosure Plan enclosed. Plantation on OB dump and surrounding areas is carried out through MP Rajya Van Vikas Nigam Limited (MPRVVN) and the density of plantation is 2500 nos. per hectare.				
viii	Mine discharge water shall be treated to conform to prescribed standards particularly for pH and TSS before discharge into any natural watercourse or nallah outside the mine. Quality of water at discharge points shall be monitored regularly and records maintained thereof.	<p>Mine has been discontinued since September 2022 due to exhaustion of the reserves. Further extension of mine is proposed for which mining plan has been approved by the competent authority. Mine shall start its operations after obtaining all the statutory clearances.</p> <p>The mine water, during operation of the mine is dewatered into an adjacent abandoned quarry for storage. The water from the abandoned quarry is supplied to WCL colony and nearby Ambara village for domestic use, after adequate treatment in the filtration plant. Quality of the water is monitored periodically and records are maintained.</p>				
ix	Regular monitoring of groundwater level and quality should be carried out by establishing a network of existing wells and construction of new piezometers. The monitoring for quality should be done four times a year in pre-monsoon (May) Monsoon (August), post monsoon (November) and winter (January) seasons and for quality in May. Data thus collected should be submitted to the Ministry of Environment & Forest and to the Central pollution control Board quarterly within one month of monitoring.	<p>Monitoring of ground water level along with quality is being done through a certified agency, four times a year as specified. The annual ground water monitoring and groundwater quality reports are submitted to Regional Offices of MOEF Bhopal and CGWB Bhopal. Reports for the period of Oct'25 to Mar'26 are enclosed.</p>				
x	Besides carrying out regular periodic health check up of their workers, 10% 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 through an agency such as NIOH, Ahmedabad within a period of two yrs. and the results reported to this ministry and to DGMS.	<p>Periodical Medical Examination (P.M.E.) are carried out compulsorily on each employee once in five years with the purpose of detecting and keeping the record of diseases with specific importance to the coal workers viz. Pneumoconiosis. During P.M.E. the candidates are subject to complete clinical examination relating to occupational diseases and hearing impairment. As WCL is having all the infrastructure facilities to comply with all statutory obligations regarding occupational health survey of all its employees, help from external organization i.e.: NIOH, Ahmedabad is not required.</p> <p>Presently Mine is not operational since September 2022.</p>				
xi	A detailed mine closure plan along with details of Corpus Fund should be submitted five years to the Ministry of Environment and Forests RO, Bhopal for Approval.	Copy of Approved Mine Closure Plan enclosed with six monthly EC compliance report. Total Amount deposited in Escrow account of Ambara OC mine is 1829.3445 lakhs till date and balance as on 31/03/25 is INR 21,75,89,860.41/-				

xii	For monitoring land use pattern and for post mining land uses time series of land use maps based on satellite imagery (on a scale of 1:5000) of the core zone and buffer zone from the start of the project until end of mine life shall be prepared once in 3 years (for any one particular season which is consistence in the time series) and the report submitted to MOEF and its regional office at Bhopal	Land Use monitoring is being done through satellite imagery as specified. The land use monitoring report for Pench-Kanhan- Tawa valley for the year 2020 is uploaded on the website of WCL (westerncoal.in). The hyperlink of the report is - http://103.59.142.228:8081/wclweb/TPK_CF_2020.pdf
B	General Conditions	
(i)	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & Forests.	No change in mining technology is proposed
(ii)	No change in calendar plan including excavation, quantum of mineral coal and waste should be made.	No change in calendar program is proposed.
iii	Four ambient air quality monitoring stations should be established in the core zone as well in the buffer zone for SPM , RPM , SO ₂ and Nox monitoring Location of the stations should be decided based on meteorological	Four air quality - monitoring station already exist at this mine. Monitoring reports for period Oct 25- Mar 26 are enclosed. Also, CAAQMS Monitoring station has been established in the buffer zone of the mine, to monitor the air quality parameters in compliance of the CTO conditions issued by MPPCB.
iv	Fugitive dust emissions (SPM and RPM) from all the sources should be controlled regularly monitored and data recorded properly. Water spraying arrangement on haul roads, wagon loading and dump trucks (loading and unloading) point should be provided and properly maintained.	Fugitive dust emission is being controlled by water spraying through mobile water tankers of capacity 4500 litres and 12000 litres (Photographs enclosed). The SPM and RPM is also regularly monitored every fortnight at four locations in the core and buffer zone around the mine. Coal transportation trucks are optimally loaded and covered with tarpaulin. Presently mine has been temporarily discontinued since Sep'22.
v	Data on ambient air quality (SPM, RPM, SO ₂ and NO _x) should be regularly submitted to the Ministry including its Regional Office and to the state pollution Control Board and Central Pollution Control Board once in six months.	Ambient Air Quality monitoring is being done regularly as per GSR 742 (E) dated 25/09/2000. The monitoring reports are submitted along with six monthly EC compliance report to MOEF Regional Office, Bhopal and MPPCB, Bhopal. Also, CAAQMS Monitoring station has been established in the buffer zone of the mine, to monitor the air quality parameters in compliance of the CTO conditions issued by MPPCB.
vi	Adequate measures should be taken for control of noise levels below 85 dBA in the work enrichment workers engaged in blasting and drilling operation, operation of HEMM etc should be provided with ear plugs / muffs.	All measures for noise pollution control are taken, regular monitoring is also carried out & workers are provided with ear plugs / ear muffs.
vii	Industrial waste water (workshop and waste water from the mine) should be properly collected treated so as to conform to the standard prescribed under GSR 422 (E) dated 19 May 1993 and 31 December or as amended from time to time before discharge. Oil and grease trap should be installed before discharge.	Mine does not have Workshop, so no workshop effluent is discharged. However mine pumped out water is regularly monitored and collected in old abandoned quarry and being used for domestic purpose. Regular water quality monitoring is done, same is periodically submitted to Pollution Control Board

viii	Vehicular emissions should be kept under control and regularly monitored vehicles used for transporting the mineral should be covered with tarpaulins and optimally loaded.	All vehicles used in the project are mandated to have a PUC certificate. Coal truck are covered with tarpaulin and optimally loaded.
ix	Environmental laboratory should be established with adequate number and type of pollution monitoring and analysis equipment in consultation with state pollution control board.	Environmental monitoring is done by CMPDIL. A well established environment laboratory exists in CMPDIL which is NABL accredited. (Copy of NABL Certificate enclosed)
x	Personal working in dusty areas should wear protective respiratory device and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance programs of the worker should be undertaken periodically to observe any contraction due to exposure to dust.	Workers are provided with protective gears. Occupational health surveillance is carried out for every worker once in five years. Presently Mine is not operational since September 2022.
xi	A separate environmental management cell with suitable qualified personal should be set up under the control of a Senior Executive, who will report directly to the Head of the company.	There is well established environmental cell at corporate HQ, headed by GM (Env) reporting to Director (Tech) P & P .He is assisted by well qualified & well trained team of Engineers of Mining, Civil & Environment disciplines. At area level, the team is headed by General Manger (Operations) & assisted by Area Nodal Officer (Environmental) under the overall control of General Manger of the Area. At project level the team is headed by Sub Area Manger of the project & assisted by project Nodal officer (Environment).
xii	The funds earmarked from incremental protection measures should be kept in separate account and should not be diverted for other purposes. Year wise expenditure should be reported to this Ministry and its Regional Office at Bhopal.	A separate budget for Environmental Cell is provided and the funds are utilized for the assigned purposes only. Year-wise Environmental expenditure is reported in the Six Monthly EC compliance report and Environmental Audit Statement submitted yearly.
xiii	The Regional Office of this Ministry located at Bhopal shall monitor compiled of the stipulated conditions. The project authorities shall extend full cooperation to the office (s) of the Regional Office by furnishing the requisite data/information monitoring reports.	Noted for compliance
xiv	A copy of environmental clearance letter will be marked to the concerned Panchayat / Local NGO if any, from whom any suggestion / representation has been received while processing the proposal	Copies of letters marked to panchayat enclosed
xv	State pollution control board should be display a copy of the clearance letter at the regional office, District industry center and collector's office / Tehsildar office for 30 Days.	This is for MPPCB.

xvi	The project authorities should advertise at least in two local newspapers widely circulated around the project / one of which shall be in the vernacular language of the locality concerned with in seven days of the clearance of the latter, informing that the project has been accorded environmental clearance letters is available with the state pollution control board and may also be sent at the website of Ministry of Environment and forest at http://envfor.nic.in	Already advertised in English and Hindi Newspaper by WCL.
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-Under Jurisdiction of Nagpur Court Only

वेस्टर्न कोलफील्ड्स लिमिटेड
Western Coalfields Limited
A Govt. of India Undertaking

1. कार्यालय: कोल इस्टेट, सिविल लाइन्स, नगपुर-४४०००१
2. Office: Coal Estate, Civil Lines, Nagpur-440001
3. Website: <http://westerncoal.nio.in>

File No: WCL/AMB/AG/ON II/ 27

दिनांक: 15.4.2008
Date:

To

The Sarpanch
Grampanchayat - Ambur/ambur/Nazimabad/eklebari/
Gogri I/II Proj

Sub: Environment Clearance for proposed O.G. patented
Coal Mine Project No 1 Mine at W/S, Western Coal
fields Ltd. located in village Ambur Tehsil
Jannalgaon Distt. Chhindwara Madhya Pradesh Environment
clearance Reg.

Ref: letter No. J-11015/252/2007-08 dt 14/3/08
Dated 19 March 2008 by Minister of Environment
& Forest.

Dear Sir,

Enclosed please find here with a copy of Environment
Clearance letter as mentioned to above reference for your record.

Thanking you.

Yours faithfully

Handwritten signature and stamp of the Sarpanch, Grampanchayat, Ambur.

Handwritten signature and stamp of the Sarpanch, Grampanchayat, Ambur.

Handwritten signature and stamp of the Sarpanch, Grampanchayat, Ambur.



Consent Order

M.P. Pollution Control Board
E-5, Arera Colony
Paryavaran Parisar, Bhopal - 16 MP
Tele : 0755-2466191, Fax-0755-2463742

RED-LARGE

CCA-Renewal

CONSENT NO: ***

PCB ID: 15981

Outward No:117814,10/04/2023

Consent No:AW-57962

To,

The Occupier,

M/s. Ambra O/c Coal Mine Wcl Khanan Aera Chhindwara,

Aera - 162.153 Hact. Village:Ambara, Tal : Parasia,

Dist : Chhindwara, (M.P.) Latitude : 22.1820 Longitude : 78.6836

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

Ref: Renewal of Consent Application R. No. 1260945 Dt. 02/03/2023 and last communication received on Dt.16.03.2023

With reference to your above application for Renewal of Consent has been considered under the aforesaid Acts and existing rules therein. The M. P. Pollution Control Board has agreed to grant consent up to 31/03/2025, subject to the fulfillment of the terms & conditions, enclosed with this letter and-

SUBJECT TO THE FOLLOWING CONDITIONS :-

- Location: Vill:Ambara , Teh: Jamai, Distt: Chhindwara (M.P.)
- Mining Lease area: 162.153 Hectares
- Product & Production Capacity:

Activity / Product	Qty / year
Mining of Coal	1.0 Million Ton per year.

- For any change in above industry shall obtain fresh consent from the Board.
- PP shall inform about restart of the mine as soon as further working is approved by the WCL Board. PP shall ensure & inform about the compliances made towards installation of adequate Water/Air pollution control Measures on the new working pit like Mine fencing, wind barrier wall around the coal stock yard, plantation & water sprinkling over haul road & installation of adequate STP for the generated 160.0 KLD domestic effluent before restart of mine.
- PP shall ensure that mining is done in sanctioned lease area as per valid mining plan approved by the competent Authority & in compliance of conditions laid in EC granted by MoEF & CC vide letter No. J-11015/252/2007-IA.II (M) dt 19.03.2008.
- Management to ensure timely repair and maintenance of its damaged coverings of transfer points and proper maintenance of conveyor belt to avoid any leakages/ spillage of coal dust. Coal to be transported in fully covered condition to prevent its spillage during transportation through rail/road. Proper water spraying arrangements to be installed to suppress the fugitive emission generated during handling & transportation of the coal op roads. Mine management shall ensure proper maintenance of STP and ETP so as to treat and properly utilize the treated effluent within mine lease area.
- As directed in the Fly Ash Utilisation Notification Issued by MoEF & CC, GOI on dt 31.12.2021; The PP shall initiate all necessary actions from the project level to ensure time bound compliances listed in the notification to start utilisation of fly ash in the OB dumps without delay. As per the notification, the fly ash generated since First Jan. 2022 is to be utilised on priority

The Validity of the consent is up to 31/03/2025 and has to be renewed before expiry of consent validity. Online application through XGN with annual license fees in this regard shall be submitted to this office 6 months before expiry of the consent/Authorization. Board reserves the right to amend/cancel / revoke the above condition in part or whole as and when required.

Enclosures:-

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

CC to :-

- District Mining Officer, (Mining Section), Collector office, Chhindwara Dist. Chhindwara (M.P.) for information.
- M.P. State Mining Corporation, Arera Hills, Jail Road, Bhopal (M.P.) for necessary action please.
- Regional officer, Regional office, MPPCB, Chhindwara (M.P.)

By the order of Chairman, MPPCB



(Organic Authentication on AADHAR from UIDAI Server)
TPAV # 7FU5HMUJPB

Signature Not Verified
Digitally Signed by : Chandra
Mohan Thakur,IAS
Date: 10/04/2023 07:46:44 PM


CHANDRA MOHAN THAKUR
Member Secretary



Consent Order

M.P. Pollution Control Board
E-5, Arera Colony
Paryavaran Parisar, Bhopal - 16 MP
Tele : 0755-2466191, Fax-0755-2463742

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

1. The daily quantity of sewage shall not exceed 160.00 KL/day & it shall be treated through STP to be constructed in time Bound manner before restart of the mining activity.

2. Trade Effluent Treatment:-

The applicant shall provide comprehensive effluent treatment system as per the proposal submitted to the Board and maintain the same properly to achieve following standards-

pH	Between	5.5 - 9.0	TDS	Not exceed	2100 mg/l
Suspended Solids	Not exceed	100 mg/l	Chlorides	Not exceed	1000 mg/l
BOD 3 Days 27°C	Not exceed	30 mg/l			
COD	Not exceed	250 mg/l			
Oil and grease	Not exceed	10 mg/l			

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

3. Sewage Treatment :- The applicant shall provide comprehensive sewage treatment system as per the proposal submitted to the Board and maintain the same properly to achieve following standards-

pH	Between	5.5 - 9.0
Suspended Solids	Not exceed	100 mg/l
BOD 3 Days 27°C	Not exceed	30 mg/l
COD	Not exceed	250 mg/l
Oil and grease	Not exceed	10 mg/l
Total Colliform	Not exceed	1000 (MPN/100ML)

Sr	Water Code (Qty in klpd - Kilo Ltr per Day)	WC : 436.000	WWG : 5.00	Water Source	Remark
1	Domestic Purpose	200.000	160.000	Borewell	To be treated through STP & recycled back or utilised in the Mine Lease Area of 162.15 Ha for dust suppression /plantation development.
2	Fire fighting /Dust Suppression / Plantation	50.000	0.000	Recycled Mine Water	

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

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

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

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

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

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9. Compilation of Monitoring data-

- i. Samples and measurements taken to meet the monitoring requirements specified above shall be representative of the volume and nature of monitored discharge.
- ii. Following promulgation of guidelines establishing test procedures for the analysis of pollutants, all sampling and analytical methods used to meet the monitoring requirements specified above shall conform to such guidelines unless otherwise specified sampling and analytical methods shall conform to the latest edition of the Indian Standard specifications and where it is not specified the guidelines as per standard methods for the examination of Water and Waste latest edition of the American Public Health Association, New York U.S.A. shall be used.
- iii. The applicant shall take samples and measurement to meet the monthly requirements specified above and report online through XGN the same to the Board.

10. Recording of Monitoring Activities & Results-

- i. The applicant shall make and maintain online records of all information resulting from monitoring activities by this Consent.
- ii. The applicant shall record for each measurement of samples taken pursuant to the requirements of this Consent as follows:
 - (i) The date, exact place and time of sampling
 - (ii) The dates on which analysis were performed
 - (iii) Who performed the analysis?
 - (iv) The analytical techniques or methods used and
 - (v) The result of all required analysis
- iii. If the applicant monitors any Pollutant more frequently as is by this Consent he shall include the results of such monitoring in the calculation and reporting of values required in the discharge monitoring reports which may be prescribed by the Board. Such increased frequency shall be indicated on the Discharge Monitoring Report Form.
- iv. The applicant shall retain for a minimum of 3 years all records of monitoring activities including all records of Calibration and maintenance of instrumentation and original strip chart regarding continuous monitoring instrumentation. The period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the applicant or when requested by Central or State Board or the court.

11. Reporting of Monitoring Results:-

Monitoring Information required by this Consent shall be summarized and reported by submitting a Discharge Monitoring report on line to the Board.

12. Limitation of discharge of oil Hazardous Substance in harmful quantities:-

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

13. Limitation of visible floating solids and foam:

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

14. Disposal of Collected Solid waste/sludge-

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

15. Provision for Electric Power Failure-

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

16. Prohibition of Bypass system of treatment facilities-

The diversion or by-pass of any discharge from facilities utilized by the applicant to maintain compliance with the terms and conditions of this Consent is prohibited except:

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

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17. The mine management shall maintain zero discharge conditions as far as possible. The Mine management shall optimize the water abstraction from the surface water source, if any, by utilizing the mine discharge for spraying on haul roads, mine area and loading - unloading area after proper treatment. The treated mine discharge shall also be utilized for sanitary purposes by providing separate supply lines, dust suppression and for plantation in order to ensure zero discharge status as far as possible.

18. Rain water harvesting shall be undertaken to recharge ground water source and status of implementation shall be submitted to the Board. Hydro-geological study of the area shall be reviewed annually. In case any adverse effect on ground water quality and quantity is observed, mining shall be stopped and resumed only after applying mitigating steps to restore the same.

19. Following works shall be completed in time bound manner --

- A.. PP shall provide drinking water facilities like installation of RO plants with proper water supply pipe fittings to nearby rural areas and also install hand pumps by seeking consent from Panchayat of the villages located within the study area of 10 km radius buffer zone.
- B.. PP shall desilt and deepen ponds in nearby villages .
- C.. PP shall without delay install 01 No. continuous ambient air quality monitoring station at suitable location preferably village side with in this mine in consultation of the MP Pollution Control Board. The real time data so generated shall be uploaded on company website & transmitted to the central server of MPPCB installed at ESC Bhopal. In addition data should also be displayed digitally at entry and exit gate of mine lease area for public display.
- D.. PP to replace the existing water sprinkler with Fog cannon mist sprayer in time bound manner. Also additional Fog canons be installed to reduce the impact of air pollution at dust generating sources such as haul road, CHP etc.
- E.. PP shall plant Sal trees and other native species and create a nursery to distribute the species freely in the region for redevelopment of Sal forest in the region.

20. The effluent discharges (Mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act 1974 Coal industry standards vide GSR 742 (E) dated 25th September, 2000 and as amended from time to time by the Central Pollution Control Board.

21. Regular monitoring of ground water level and quality shall be carried out in the around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre monsoon, monsoon, post monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to M P pollution control Board along with the Regional Office Ministry of Environment, Forest and Climate Change.

22. PP shall carry out monthly water monitoring quality of River bodies located within 5 Km radius and conduct Bio- assay test half yearly and further monitoring Ground water level.

23. Monitoring of water quality upstream and downstream of nearby water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the MP pollution Control Board along with the Regional Office Ministry of Environment, Forest and Climate Change.

24. Ground water shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources & water thus stored shall be used for the mining operations & control of fugitive emissions.

25. Catch and/or garland drains and siltation ponds in adequate numbers and 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.

26. Dump material shall be properly consolidated / compacted and accumulation of water over dumps shall be avoided by providing adequate channels for flow of silt into the drains. The drains/ponds so constructed shall be regularly de-silted particularly before onset of monsoon and maintained properly. Sump capacity should be adequate to provide proper retention to allow settling of silt material. The Water so collected in the sump shall be utilised for dust suppression and green belt development and other industrial use

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27. 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 dump and adjacent field/habitation/water bodies.
28. Adequate ground water recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) after due treatment conforming to the specific requirement (Standards).
29. Industrial waste water generated from CHP, workshop and other waste water, shall be properly collected and treated so as to conform to the standards prescribed By the Board under Water Act 1974 and Environment (protection) Act 1986 and the rules made there under and as amended from time to time. PP shall ensure that adequate ETP/STP are provided for the above stated effluents.
30. The water pumped out from the mine after siltation, shall be utilized for industrial purpose viz watering the mine area. Roads Green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.
31. The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations considering the presence of the river/rivulet/pond/take 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 the due approval of the concerned State/GoI Authority.
32. 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 or any other authority as prescribed by the law.
33. The project proponent shall take all precautionary measures to ensure riverine/riparian ecosystem in and around the coal mine up distance of 5 Km. A riverine/riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation/Water resource department Government of MP.

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

1. The applicant shall provide comprehensive air pollution control system consisting of control equipments as per the proposal submitted to the Board with reference to generation of emission and same shall be operated & maintained continuously so as to achieve the level of pollutants to the following standards:-

Name of section	Type of Emissions	Control equipment to be installed	SPM/RSPM/SO ₂ /NO _x (Time weighted annual Average)* (µg/Nm ³)	SPM/RSPM/SO ₂ /NO _x (Time weighted 24 hr Average) (µg/Nm ³)*
Loading-unloading, Haul road, Coal Transportation Road, CHP, Railway Siding, Blasting, Drilling, OB Dumps etc	Fugitive	Dust Collector, Dust Suppressor, Green Belt, Water Sprinkler, Wind Breaking Wall	430/215/80/80	600/300/120/120

2. Ambient air quality at the boundary of the industry/unit premises shall be monitored and reported to the Board regularly on quarterly basis. The Ambient air quality norms are prescribed in MoEF gazette notification no. GSR/826(E), dated: 16/11/09. Some of the parameters are as follows:

- Particulate Matter (less than 10 micron) - 100 µg/m³ (PM₁₀ µg/m³ 24 hrs. basis)
- Particulate Matter (less than 2.5 micron) - 60 µg/m³ (PM_{2.5} µg/m³ 24 hrs. basis)
- Sulphur Dioxide [SO₂] (24 hrs. Basis) - 80 µg/m³
- Nitrogen Oxides [NO_x] (24 hrs. Basis) - 80 µg/m³
- Carbon Monoxide [CO] (8 hrs. Basis) - 2000 µg/m³

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3. The industry shall take adequate measures for control of noise level generated from industrial activities within the premises less than 75 dB(A) during day time and 70 dB(A) during night time.
4. The industry/unit shall make the necessary arrangements for control of the fugitive emission from any source of emission/section/activities.
5. All other fugitive emission sources such as leakages, seepages, spillages etc shall be ensured to be plugged or sealed or made airtight to avoid the public nuisance.
6. All the internal roads shall be made pucca to control the fugitive emissions of particulate matter generated due to transportation and internal movements. Good housekeeping practices shall be adopted to avoid leakages, seepages, spillages etc.
7. Industry shall take effective steps for extensive tree plantation preferably in 03 rows of the local tree species with minimum spacing of 2X2 meters within or around the industry/unit premises for general improvement of environmental conditions and as stated in below..
8. Mine management shall install CAAQMS stations at suitable locations to monitor ambient air quality in the leased area of the mine itself and shall provide its suitable unhindered connectivity with Environment Surveillance Centre of the MPPCB and transmit the data at the earliest.
09. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated. Dust control measures shall be adopted at coal transfer points as per the need.
10. Mine management shall provide continuous water sprinkler systems at all suitable locations on the road side and also provide proper pollution control arrangements to control the fugitive emission generates due to transportation of Coal from CHP to siding.
11. Drills shall be wet operated to reduce the fugitive emission. Coal stock area should have all APC arrangement e.g. wind breaking wall of height 6 meter with fixed type water spraying system.
12. Continuous ambient air quality monitoring stations as prescribed in the statue be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM10 PM25 SO2 and NO2. Location of the stations shall be decided based on the meteorological data topographical features and environmentally and ecologically sensitive targets in consultation with RO MPPCB Chhindwara. Online ambient air quality monitoring stations shall be installed in addition to the regular monitoring stations as per the requirement, Monitoring of heavy metal such as Hg, As, Cd, Cr, etc shall also be carried out at regular interval.
13. Transportation of coal, to the extent permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water/mist sprinkling/rain gun etc shall be carried out in critical areas prone to air pollution (higher values of MP10/PM25) such as haul road, loading/unloading and transfer points.
14. Fugitive dust emission from all sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the MP Pollution Control Board.
15. The transportation of coal shall be carried out as per the provisions and route envisaged in the approved Mining Plan or environment monitoring plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a bypass road, it should be so constructed so that the impact of sound, dust and accidents could be appropriately mitigated.
16. Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall be operate only after obtaining „PUC“ certificate from the authored pollution testing centres.
17. Coal stock pile/crusher/feeder and breaker material transfer points 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.

Consent No:AW-57962



Consent Order

M.P. Pollution Control Board
E-5, Arera Colony
Paryavaran Parisar, Bhopal - 16 MP
Tele : 0755-2466191, Fax-0755-2463742

18. PP should install adequate Wind breaker/shield arrangement along the railway siding for reducing the dust propagation in upwind direction in consultation with RO MPPCB Chhindwara.
19. The project proponent shall monitor the criteria pollutants level namely: PM10 SO2 NOx (ambient levels) or critical sectoral parameters indicated for the project and display the same at a convenient location for disclosure to the public and put on the website of the company.
20. Adequate measures shall be taken for control of noise levels as per Noise Pollution Rules, 2016 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 and guideline in the regard. Adequate awareness Programme for users to be conducted. Progress in usage of such accessories shall be monitored.
21. The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. PPs must ensure that the biological clock of the villages is not disturbed. PP shall orient the floodlights/masks away from the villagers and keep the noise levels well within the prescribed limits for day light/night hour.

GENERAL CONDITIONS:

MANAGEMENT & DISPOSAL OF FLY ASH

1.

MoEF &CC GOI has come up with recent notification dated 31.12.2021 regarding procedures & mandate to increase utilisation of fly ash generated by the thermal power plants through the Coal mines under extended producers responsibility. This notification No.SO 5481 (E) dated 31.12.2021 has been published suppressing the previous Fly Ash Utilisation Notification dt 14.09.199 as amended.

2. Following paras no. 3 & 4 of part B at page no. 16 of the notification are reproduced for taking necessary action at your end ---

(3)

It shall be obligatory on all mines located within 300 Kilometres radius of thermal power plant to undertake backfilling of ash in mine voids or mixing of ash with external overburden dumps under extended Producer Responsibility (EPR). All mine owners or operators (Government, Public and Private sector) within three Hundred kilometres (by road) from coal or lignite based thermal power plants, shall undertake measure to mix at least 25 percent of ash on weight to weight basis of the materials used for external dump of overburden, backfilling or stowing of mine (running or abandoned as the case may be) as per the guidelines of the Director General of Mines Safety (DGMS).

Provided that such thermal power stations shall facilitate the availability of required quality of ash by delivering ash free of cost and bearing the cost of transportation or transportation arrangement decided on mutually agreed terms and mixing of ash with overburden in mine voids and dumps shall be applicable for the overburden generated from the date of publication of this notification and the utilisation of ash in the said activities shall be carried out in accordance with guidelines laid down by the Central Pollution Control Board, Director General of Mines Safety and Indian Bureau of Mines.

Explanation- For the purpose of this sub paragraph, it is also clarified that the provisions of ash free of cost and free transportation shall be applicable, if thermal power plants serve a notice on the mine owner for the same and the mandate of using 25 percent of ash for mixing with overburden dump and filling up of mine voids shall not be applicable unless a notice is served on the mine owner by thermal power plant.

(4)

(i) All mine owners shall get mine closure plans (progressive and final) to accommodate ash in the mine voids and the concerned authority shall approve mine plans for disposal of ash in mine voids and mixing of ash with overburden dumps. The Ministry of Environment Forest and Climates Change (MOEFCC) has issued guidelines on 28th August, 2019 regarding exemption of requirement of Environment Clearance of thermal power plants and coal mines along with the guidelines to be followed for such disposal.

(ii) The Ministry in consultation with Central Pollution Control Board (CPCB), Director General of Mine Safety (DGMS) and Indian Bureau of Mines (IBM) may issue further guidelines time to time to facilitate ash disposal in mine voids and mixing with overburden dumps and it shall be the responsibility of mine owners to get the necessary amendments of modification in the permission issued by various regulatory authorities within one year from the date of identification of such mines.

Consent No:AW-57962



Consent Order

M.P. Pollution Control Board
E-5, Arera Colony
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Consent No:AW-57962



Consent Order

M.P. Pollution Control Board
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13. Garland drain of appropriate size, gradient and length shall be constructed for both mine pit and for waste dump & sump capacity shall be designed keeping 50% safely margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. The garland drain shall be stone pitched /lined to prevent the erosion. Sump capacity shall also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and de-silted at regular intervals.
14. Mine management shall provide retaining wall at the toe of the dumps and OB benches within the mine to check runoff and siltation. Design of these structures shall be based on rainfall data.
15. Appropriate embankment shall be provided along the side of the river / nallah flowing near or adjacent to the mine and there shall be no overflow of OB into the river and into agricultural fields.
16. Progressive backfilling of mine and progressive reclamation of OB dump shall be done. Active OB Dump should not be kept barren/Open and should be covered by temporary grass to avoid air born of particles and adequate width and height of toe wall shall be provided all along with OB Dump.
17. The Mine shall have to do the work of biological reclamation as per direction of Indian Bureau of mines; GOI and ministry of Environmental & Forest Govt. of India on the internal and external dumps and yearly reclamation data shall be submitted to the Board.
18. The final mine void depth should preferably be as per the approved Mine Closure Plan, and in case it exceeds 40 mt adequate engineering investments shall be provided for sustenance of aquatic life therein. The remaining area shall be backfilled and covered with thick and alive top soil.
19. Post-mining land be rendered usable for agricultural/forestry purposes and shall be diverted. Further action will be treated as specified in the guidelines for Preparation of Mine Closure Plan issued by the Ministry of Coal dated 27th August 2009 and subsequent amendments.
20. The entire excavated area, backfilling, external OB dumping (including top soil) and forestation 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 . Progressive compliance status vis-a-vis the post mining land use pattern shall be submitted to the Board along with MOEF&CC
21. Greenbelt consisting of 3 tier plantation of adequate width shall be developed all along the mine lease area as soon as possible. The green belt comprising a mix of native species, (endemic species should be given priority) shall be developed all along the major approach/coal transportation roads.
22. The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any, In this context the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.
23. 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 or as notified by Ministry of Environment Forest and Climate Change (MOEFCC).
24. Mine Management shall submit environmental statement for the previous year ending 31st March on or before 30th September every year to the Board. Mine Management shall comply with all the relevant Acts/Rules, directions, guide lines issued by MoEF/CPCB/MPPCB from time to time as required and, if applicable.
25. The issuance of this Consent does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorise any invasion of personal rights, nor any infringement of Central, State or local laws or regulations.
26. Industry shall install separate electric metering arrangement for running of pollution control devices and this arrangement shall be made in such fashion that any non functioning of pollution control devices shall immediately stop electric supply to the production and shall remain tripped till such time unless the pollution control device/devices are made functional. The record of electricity consumption for running of pollution control equipment shall be maintained and submitted to the Board every month.

Consent No: AIV-57962



Consent Order

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

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

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

30. The industry/unit shall establish a separate environmental cell, headed by senior officer of the unit for reporting the environmental compliances. The industry/ Unit shall submit environmental statement for the previous year ending 31st March on or before 30th September every year to the Board.

31. Industry shall obtain membership of Emergency Response Center of the Board if needed.

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

33. Mine management shall ensure the disposal of Garbage/ Municipal solid waste of mine's colony area as per the Solid Waste Management Rules, 2016.

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

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

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

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

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

By the order of Chairman, MPPCB

CHANDRA MOHAN THAKUR
Member Secretary



(Organic Authentication on AADHAR from UIDAI Server)
TPAV # 7FU5HMUJPB

Consent No:AW-57962



National Accreditation Board for
Testing and Calibration Laboratories

CERTIFICATE OF ACCREDITATION

ENVIRONMENT LABORATORY, CMPDI

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

**"General Requirements for the Competence of Testing &
Calibration Laboratories"**

for its facilities at

GROUND FLOOR, CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED, REGIONAL
INSTITUTE-IV, NAGPUR, MAHARASHTRA, INDIA

in the field of

TESTING

Certificate Number: TC-7102

Issue Date: 29/06/2022

Valid Until: 28/06/2024

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.
(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Name of Legal Identity : CENTRAL MINE PLANNING & DESIGN INSTITUTE LIMITED

Signed for and on behalf of NABL



N. Venkateswaran
Chief Executive Officer

ENVIRONMENTAL MANAGEMENT AT AMBARA OC MINE

Mine has been discontinued since September 2022 due to exhaustion of the reserves. Further extension of mine is proposed for which mining plan has been approved by the competent authority. Mine shall start its operations after obtaining all the statutory clearances.

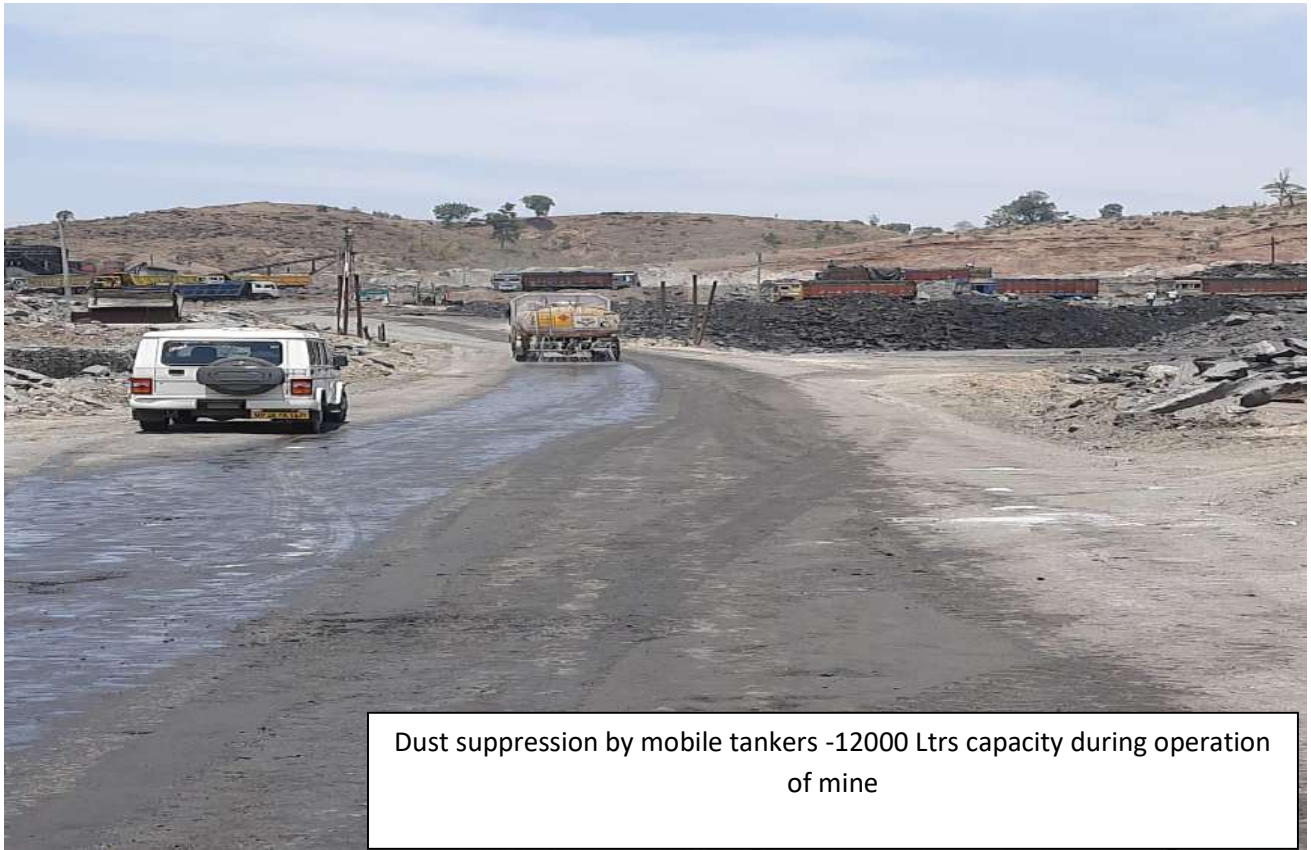
Air Pollution Control Measures

- **Mobile water tankers (Capacity – 4500 litres & 12000 litres) during operation of mine** were used for dust suppression on coal transport roads.
- The mine has small open cast patches which operate for short periods only. Hence, fixed sprinklers are not required.
- **Wind Barrier wall** (Height – 6.0 metres, Length – 380 metres) provided at Palachourai Railway siding at a cost of Rs. 19.15 Lakhs in the year 2016-17 (Photograph enclosed)
- **144676 Nos. of saplings planted in approx. 57.87 Ha till date.**
- For Air Quality monitoring purpose, CAAQMS Monitoring station has been established in the buffer zone of the mine, to monitor the air quality parameters in compliance of the CTO conditions issued by MPPCB.

Water Pollution Control Measures-

- **Individual Septic Tank & Soak Pit** provided at each quarter of combined township of Ambara OC, Ambara UG & Mohan UG mines.
- There is no departmental HEMM involved and there is no workshop for HEMM.
- No mine water is discharged outside the mine boundary. The water accumulated in abandoned quarries serves as rainwater harvesting structures and is utilized for domestic water supply and for dust suppression.






Dust suppression by mobile tankers -12000 Ltrs capacity during operation of mine



Dust suppression by mobile tankers -12000 Ltrs capacity during operation of mine



 **GPS Map Camera**

Ambada, Madhya Pradesh, India
5MJH+43R, Hinglaj Mata Mandir Marg, Ambada, Madhya Pradesh 480449, India
Lat 22.181075°
Long 78.678726°
06/11/24 11:52 AM GMT +05:30



Gabion Wall around OB dumps

 **GPS Map Camera**

Najarpur, Madhya Pradesh, India
5MPF+QHP, Najarpur, Madhya Pradesh 480449, India
Lat 22.187513°
Long 78.674089°
06/11/24 12:13 PM GMT +05:30





Plantation over backfilled area at Ambara
OC mine

22°11'1", 78°40'49", 774.0m
27/05/2021 1:14:18 pm



Plantation over backfilled area at Ambara
OC mine

22.18371, 78.67893, 801.0m
10-Feb-2023 12:03:39 PM





Rain water Harvesting in Abandoned Kalyani OC patch

Kanhana Area
Ambara Open Cast Mine

**Statement showing year wise production for last 05 years in respect of
Ambara OC patches (including Mohan OC patches)**

Sl.No.	Year	Production
1	2017-18	0.598 Million Tonne (Mohan OC Patch)
2	2018-19	0.371 Million Tonne (Mohan OC Phase-III Patch)
3	2019-20	0.256 Million Tonne (Mohan OC Phase-IV Patch)
4	2020-21	0.515 Million Tonne (Mohan OC Phase-IV Patch)
5	2021-22	0.373 Million Tonne (Mohan OC Phase-IV Patch)
6	2022-23	0.1414 Million Tonne (Mohan OC Phase-IV Extension Patch). Mine not operational since September 2022
7	2023-24	Nil
8	2024-25	Nil
9	2025-26	Nil



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ENVIRONMENTAL MONITORING REPORT

AMBARA OC

KANHAN AREA

WESTERN COALFIELDS LTD.

JOB NO. 4094423067



APRIL 2025

Environment Laboratory
NABL Accredited vide Cert. No. TC-7102
CMPDI
REGIONAL INSTITUTE-IV, KASTURBA NAGAR,
JARIPATKA, NAGPUR, PIN – 440 014

AN ISO 9001:2015 COMPANY

Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report	 TC-7102
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TEST REPORT NO.	RIN/TR/APRIL-25/67	DATE OF ISSUE	25-05-2025
NAME OF CUSTOMER	GM(ENV.), WCL(HQ), NAGPUR		
TEST REQUIRED	SPM: IS 5182 Part-4, PM-10: IS-5182 Part 23, PM2.5: IS 5182 Part 24, NO2: IS 5182 Part-06, SO2:IS 5182 Part-2		
SAMPLE DESCRIPTION	AIR SAMPLE	SAMPLING PLAN :	LQR 47
SAMPLING METHOD : LSOP 4	PERIOD OF PERFORMANCE OF LAB ACTIVITIES:		16-04-25 TO 15-05-25

MANAGER OFFICE KAOA1							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	SPM	PM ₁₀	PM _{2.5}	NO ₂	SO ₂	
		5	5	2	6	10	
07-04-2025	08-04-2025	283	175	45	18	13	Clear sky / Calm
22-04-2025	23-04-2025	295	185	52	20	15	Clear sky / Calm
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25 TH September 2000		600	300	-	120	120	


PIT OFFICE KAUA2							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	SPM	PM ₁₀	PM _{2.5}	NO ₂	SO ₂	
		5	5	2	6	10	
07-04-2025	08-04-2025	275	165	47	15	13	Clear sky / Calm
22-04-2025	23-04-2025	280	170	49	17	12	Clear sky / Calm
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25 TH September 2000		600	300	-	120	120	

COLONY HEALTH CENTER KMUA3							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	PM ₁₀	PM _{2.5}	NO ₂	SO ₂		
		5	2	6	10		
03-04-2025	04-04-2025	80	22	7	BDL	Clear sky / Calm	
04-04-2025	05-04-2025	83	25	8	BDL	Clear sky / Calm	
10-04-2025	11-04-2025	85	27	9	BDL	Clear sky / Calm	
11-04-2025	12-04-2025	87	29	10	BDL	Clear sky / Calm	
18-04-2025	19-04-2025	90	31	11	BDL	Clear sky / Calm	
19-04-2025	20-04-2025	93	33	13	10	Clear sky / Calm	
28-04-2025	29-04-2025	91	32	10	BDL	Clear sky / Calm	
29-04-2025	30-04-2025	92	31	12	BDL	Clear sky / Calm	
NAAQS, 2009		100	60	80	80		

AMBARA VILLAGE KMUA4							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	PM ₁₀	PM _{2.5}	NO ₂	SO ₂		
		5	2	6	10		
03-04-2025	04-04-2025	81	23	7	BDL	Clear sky / Calm	
04-04-2025	05-04-2025	84	27	7	BDL	Clear sky / Calm	
10-04-2025	11-04-2025	86	29	9	BDL	Clear sky / Calm	
11-04-2025	12-04-2025	85	26	7	BDL	Clear sky / Calm	
18-04-2025	19-04-2025	88	28	8	BDL	Clear sky / Calm	
19-04-2025	20-04-2025	90	32	10	BDL	Clear sky / Calm	
28-04-2025	29-04-2025	93	31	12	10	Clear sky / Calm	
29-04-2025	30-04-2025	95	34	13	11	Clear sky / Calm	
NAAQS, 2009		100	60	80	80		

J. Shrivastava

Analysed by


Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report	 TC-7102
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SAMPLE DESCRIPTION	Water sample		
Test Required	pH: IS 3025 -Part 11, TSS: IS 3025-Part 17, COD: APHA (24th Edition) 5220 C, O & G: IS 3025-Part 39 & BOD: IS 3025 (Part 44)		
SAMPLING METHOD	LSOP 5	PERIOD OF PERFORMANCE OF LAB ACTIVITIES :	16-04-25 TO 15-05-25

MINE WATER DISCHARGE: KAOW				
DATE OF SAMPLE COLLECTION	ANALYSIS RESULTS			
	pH	TSS (in mg/l)	COD(in mg/l)	O & G(in mg/l)
DETECTION LIMIT	2	10	4	2
07-04-2025	4.91	38	52	BDL
28-04-2025	4.88	32	48	BDL
STANDARDS FOR COAL MINE, GSR 742E, dt. 25/09/2000	5.5 - 9.0	100	250	10

J. Shrivastava

Analysed by

Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report	 TC-7102
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NOISE LEVEL MONITORING DATA

SAMPLE DESCRIPTION	NOISE SAMPLE
Test Required	CPCB PROTOCOL FOR AMBIENT NOISE MEASUREMENT
SAMPLING METHOD	LSOP 6

MANAGER OFFICE: KAON1			
MONTH	DATE OF SAMPLE	NOISE LEVEL IN dB(A)	
	COLLECTION	DAY TIME	NIGHT TIME
	DETECTION LIMIT	20	20
APRIL'25	08-04-2025	44.7	40.1
APRIL'25	28-04-2025	45.4	43.6
NOISE POLLUTION (REGULATION AND CONTROL) RULES		75	70

COLONY(MOHAN/MAORI): KMUN2			
MONTH	DATE OF SAMPLE	NOISE LEVEL IN dB(A)	
	COLLECTION	DAY TIME	NIGHT TIME
	DETECTION LIMIT	20	20
APRIL'25	08-04-2025	43.9	40.7
APRIL'25	28-04-2025	43.6	41.2
NOISE POLLUTION (REGULATION AND CONTROL) RULES		55	45


Yogesh Pidurkar
Reviewed by


Amol Kamble
Authorised by

1. This report cannot be reproduced in part or full without written of the management.
2. Laboratory activities are performed at the Laboratory permanent facility that is ground floor, Environment Lab, CMPDI RI-IV, Nagpur.
3. This report refers to the values related to the items tested.
***** End of report *****



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ENVIRONMENTAL MONITORING REPORT

AMBARA OC

KANHAN AREA

WESTERN COALFIELDS LTD.

JOB NO. 4094423067



JUNE 2025

NABL Accredited vide Cert. No. TC-7102

Environment Laboratory

CMPDI
REGIONAL INSTITUTE-IV, KASTURBA NAGAR,
JARIPATKA, NAGPUR, PIN – 440 014

AN ISO 9001:2015 COMPANY

Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report	
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TEST REPORT NO.	RIN/TR/JUNE-25/67	DATE OF ISSUE	7/25/2025
NAME OF CUSTOMER	GM(ENV.), WCL(HQ), NAGPUR		
TEST REQUIRED	SPM: IS 5182 (Part-4), PM-10: IS-5182 (Part 23), PM2.5: IS 5182 (Part 24), NO2: IS 5182 (Part-06), SO2:IS 5182 (Part-2)		
SAMPLE DESCRIPTION	AIR SAMPLE	SAMPLING PLAN :	LQR 47
SAMPLING METHOD : LSOP 4	PERIOD OF PERFORMANCE OF LAB ACTIVITIES:		16-06-25 TO 15-07-25


MANAGER OFFICE KAOA1							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	SPM	PM ₁₀	PM _{2.5}	NO ₂	SO ₂	
6/14/2025	6/15/2025	255	155	45	13	11	Clear sky / Calm
6/29/2025	6/30/2025	247	149	40	12	10	Rainy sky / Calm
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25 TH September 2000		600	300	-	120	120	

PIT OFFICE KAUZ							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	SPM	PM ₁₀	PM _{2.5}	NO ₂	SO ₂	
6/14/2025	6/15/2025	280	168	55	14	12	Clear sky / Calm
6/29/2025	6/30/2025	271	159	50	13	11	Rainy sky / Calm
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25 TH September 2000		600	300	-	120	120	

COLONY HEALTH CENTER KMUA3						
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)				ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	PM ₁₀	PM _{2.5}	NO ₂	SO ₂	
6/3/2025	6/4/2025	89	30	10	BDL	Clear sky / Calm
6/4/2025	6/5/2025	85	32	11	10	Clear sky / Calm
6/12/2025	6/13/2025	83	29	13	11	Clear sky / Calm
6/13/2025	6/14/2025	80	28	9	BDL	Clear sky / Calm
6/17/2025	6/18/2025	79	26	7	BDL	Clear sky / Calm
6/18/2025	6/19/2025	76	27	6	BDL	Cloudy sky / Light breeze
6/23/2025	6/24/2025	81	31	10	BDL	Cloudy sky / Light breeze
6/24/2025	6/25/2025	74	25	6	BDL	Rainy / windy
NAAQS, 2009		100	60	80	80	

AMBARA VILLAGE KMUA4						
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)				ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	PM ₁₀	PM _{2.5}	NO ₂	SO ₂	
6/3/2025	6/4/2025	84	33	10	BDL	Clear sky / Calm
6/4/2025	6/5/2025	82	30	9	BDL	Clear sky / Calm
6/12/2025	6/13/2025	80	29	8	BDL	Clear sky / Calm
6/13/2025	6/14/2025	86	35	11	BDL	Clear sky / Calm
6/17/2025	6/18/2025	81	32	10	BDL	Clear sky / Calm
6/18/2025	6/19/2025	78	27	8	BDL	Cloudy sky / Light breeze
6/23/2025	6/24/2025	76	26	7	BDL	Cloudy sky / Light breeze
6/24/2025	6/25/2025	75	25	6	BDL	Rainy / windy
NAAQS, 2009		100	60	80	80	

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SAMPLE DESCRIPTION	Water sample	
Test Required	pH: IS 3025 -(Part 11), TSS: IS 3025-(Part 17), COD: APHA (24th Edition) 5220 C , O & G: IS 3025-(Part 39) & BOD: IS 3025 (Part 44)	
SAMPLING METHOD	LSOP 5	PERIOD OF PERFORMANCE OF LAB ACTIVITIES : 16-06-25 TO 15-07-25

MINE WATER DISCHARGE: KAOW		ANALYSIS RESULTS		
DATE OF SAMPLE COLLECTION	pH	TSS (in mg/l)	COD(in mg/l)	O & G(in mg/l)
DETECTION LIMIT	2	10	4	2
6/14/2025	4.61	21	32	BDL
6/22/2025	4.44	19	28	BDL
STANDARDS FOR COAL MINE, GSR 742E, dt. 25/09/2000	5.5 - 9.0	100	250	10

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NOISE LEVEL MONITORING DATA

SAMPLE DESCRIPTION	NOISE SAMPLE
Test Required	CPCB PROTOCOL FOR AMBIENT NOISE MEASUREMENT
SAMPLING METHOD	LSOP 6

MANAGER OFFICE: KAON1			
MONTH	DATE OF SAMPLE COLLECTION	NOISE LEVEL IN dB(A)	
		DAY TIME	NIGHT TIME
		DETECTION LIMIT	20
JUNE'25	6/4/2025	44.2	42.6
JUNE'25	6/23/2025	46.4	45.1
NOISE POLLUTION (REGULATION AND CONTROL) RULES		75	70

COLONY(MOHAN/MAORI): KMUN2			
MONTH	DATE OF SAMPLE COLLECTION	NOISE LEVEL IN dB(A)	
		DAY TIME	NIGHT TIME
		DETECTION LIMIT	20
JUNE'25	6/4/2025	43.8	41.7
JUNE'25	6/23/2025	42.9	40.5
NOISE POLLUTION (REGULATION AND CONTROL) RULES		55	45


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ENVIRONMENTAL MONITORING REPORT

AMBARA OC

KANHAN AREA

WESTERN COALFIELDS LTD.

JOB NO. 4094423067



JULY 2025



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TEST REPORT NO.	RIN/TR/JULY-25/67	DATE OF ISSUE	25-08-2025
NAME OF CUSTOMER	GM(ENV.), WCL(HQ), NAGPUR		
TEST REQUIRED	SPM: IS 5182 (Part-4), PM-10: IS-5182 (Part 23), PM2.5: IS 5182 (Part 24), NO2: IS 5182 (Part-06), SO2:IS 5182 (Part-2)		
SAMPLE DESCRIPTION	AIR SAMPLE	SAMPLING PLAN :	LQR 47
SAMPLING METHOD : L SOP 4	PERIOD OF PERFORMANCE OF LAB ACTIVITIES:		16-07-25 TO 15-08-25

MANAGER OFFICE KAOA1							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	SPM	PM ₁₀	PM _{2.5}	NO ₂	SO ₂	
06-07-2025	07-07-2025	262	161	48	14	12	Rainy sky / Light breeze
21-07-2025	22-07-2025	270	173	54	15	13	cloudy sky / Calm
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25 TH September 2000		600	300	-	120	120	

PIT OFFICE KAU2							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	SPM	PM ₁₀	PM _{2.5}	NO ₂	SO ₂	
06-07-2025	07-07-2025	255	158	45	13	11	Rainy sky / Light breeze
21-07-2025	22-07-2025	278	179	56	17	15	cloudy sky / Calm
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25 TH September 2000		600	300	-	120	120	

COLONY HEALTH CENTER KMUA3							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	PM ₁₀	PM _{2.5}	NO ₂	SO ₂		
01-07-2025	02-07-2025	80	29	8	BDL	Rainy sky / Light breeze	
02-07-2025	03-07-2025	77	27	7	BDL	Rainy sky / Light breeze	
07-07-2025	08-07-2025	79	28	8	BDL	Rainy sky / Light breeze	
08-07-2025	09-07-2025	81	31	10	BDL	Rainy sky / Light breeze	
13-07-2025	14-07-2025	76	25	6	BDL	Cloudy sky / Calm	
18-07-2025	19-07-2025	82	32	10	BDL	Cloudy sky / Calm	
19-07-2025	20-07-2025	84	33	11	BDL	Cloudy sky / Calm	
24-07-2025	25-07-2025	80	28	7	BDL	Cloudy sky / Calm	
25-07-2025	26-07-2025	81	30	9	BDL	Rainy sky / Calm	
30-07-2025	31-07-2025	87	35	12	10	Cloudy sky / Calm	
NAAQS, 2009		100	60	80	80		

AMBARA VILLAGE KMUA4							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	PM ₁₀	PM _{2.5}	NO ₂	SO ₂		
01-07-2025	02-07-2025	81	32	9	BDL	Rainy sky / Light breeze	
02-07-2025	03-07-2025	78	28	7	BDL	Rainy sky / Light breeze	
07-07-2025	08-07-2025	75	26	6	BDL	Rainy sky / Light breeze	
08-07-2025	09-07-2025	79	30	8	BDL	Rainy sky / Light breeze	
13-07-2025	14-07-2025	83	33	12	BDL	Cloudy sky / Calm	
17-07-2025	18-07-2025	77	28	6	BDL	Cloudy sky / Calm	
22-07-2025	23-07-2025	80	31	11	BDL	Cloudy sky / Calm	
23-07-2025	24-07-2025	82	33	12	10	Cloudy sky / Calm	
28-07-2025	29-07-2025	84	35	13	11	Cloudy sky / Calm	
29-07-2025	30-07-2025	85	36	14	11	Cloudy sky / Calm	
NAAQS, 2009		100	60	80	80		



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SAMPLE DESCRIPTION	Water sample		
Test Required	pH: IS 3025 -(Part 11), TSS: IS 3025-(Part 17), COD: APHA (24th Edition) 5220 C , O & G: IS 3025-(Part 39) & BOD: IS 3025 (Part 44)		
SAMPLING METHOD	LSOP 5	PERIOD OF PERFORMANCE OF LAB ACTIVITIES :	16-07-25 TO 15-08-25

MINE WATER DISCHARGE: KAOW				
DATE OF SAMPLE COLLECTION	ANALYSIS RESULTS			
	pH	TSS (in mg/l)	COD(in mg/l)	O & G(in mg/l)
DETECTION LIMIT	2	10	4	2
07-07-2025	4.55	20	28	BDL
21-07-2025	3.76	17	24	BDL
STANDARDS FOR COAL MINE, GSR 742E, dt. 25/09/2000	5.5 - 9.0	100	250	10



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NOISE LEVEL MONITORING DATA

SAMPLE DESCRIPTION	NOISE SAMPLE
Test Required	CPCB PROTOCOL FOR AMBIENT NOISE MEASUREMENT
SAMPLING METHOD	LSOP 6

MANAGER OFFICE: KAON1			
MONTH	DATE OF SAMPLE COLLECTION	NOISE LEVEL IN dB(A)	
		DAY TIME	NIGHT TIME
	DETECTION LIMIT	20	20
JULY'25	12-07-2025	58.5	55.2
JULY'25	26-07-2025	56.5	54.3
NOISE POLLUTION (REGULATION AND CONTROL) RULES		75	70

COLONY(MOHAN/MAORI): KMUN2			
MONTH	DATE OF SAMPLE COLLECTION	NOISE LEVEL IN dB(A)	
		DAY TIME	NIGHT TIME
	DETECTION LIMIT	20	20
JULY'25	12-07-2025	43.2	41.0
JULY'25	26-07-2025	42.2	40.3
NOISE POLLUTION (REGULATION AND CONTROL) RULES		55	45


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KANHAN AREA

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DECEMBER 2025



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Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report	 TC-7182
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TEST REPORT NO.	RIN/TR/DEC-25/67	DATE OF ISSUE	25-01-2026
NAME OF CUSTOMER	GM(ENV.), WCL(HQ), NAGPUR		
TEST REQUIRED	SPM: IS 5182 (Part-4), PM-10: IS-5182 (Part 23), PM2.5: IS 5182 (Part 24), NO2: IS 5182 (Part-06), SO2:IS 5182 (Part-2)		
SAMPLE DESCRIPTION	AIR SAMPLE	SAMPLING PLAN :	LQR 47
SAMPLING METHOD : LSOP 4	PERIOD OF PERFORMANCE OF LAB ACTIVITIES:		16-12-25 TO 15-01-26

MANAGER OFFICE KAOA1							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	SPM	PM ₁₀	PM _{2.5}	NO ₂	SO ₂	
08-12-2025	09-12-2025	265	159	48	17	14	Clear sky / Calm
22-12-2025	23-12-2025	257	152	44	15	13	Clear sky / Calm
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25TH DECEMBER 2000		600	300	-	120	120	

PIT OFFICE KAU2							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	SPM	PM ₁₀	PM _{2.5}	NO ₂	SO ₂	
13-12-2025	14-12-2025	280	177	56	23	18	Clear sky / Calm
27-12-2025	28-12-2025	275	166	54	20	16	Clear sky / Calm
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25TH DECEMBER 2000		600	300	-	120	120	

COLONY HEALTH CENTER KMUA3							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	PM ₁₀	PM _{2.5}	NO ₂	SO ₂		
02-12-2025	03-12-2025	80	29	10	BDL	Cloudy sky / Calm	
03-12-2025	04-12-2025	75	27	9	BDL	Cloudy sky / Calm	
09-12-2025	10-12-2025	78	28	8	BDL	Clear sky / Calm	
10-12-2025	11-12-2025	73	26	8	BDL	Clear sky / Calm	
17-12-2025	18-12-2025	70	24	9	BDL	Clear sky / Calm	
18-12-2025	19-12-2025	84	35	13	11	Clear sky / Calm	
23-12-2025	24-12-2025	85	36	14	12	Clear sky / Calm	
24-12-2025	25-12-2025	77	27	8	BDL	Clear sky / Calm	
NAAQS, 2009		100	60	80	80		

AMBARA VILLAGE KMUA4							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	PM ₁₀	PM _{2.5}	NO ₂	SO ₂		
04-12-2025	05-12-2025	83	33	12	10	Cloudy sky / Calm	
05-12-2025	06-12-2025	85	34	13	11	Cloudy sky / Calm	
11-12-2025	12-12-2025	82	30	10	BDL	Clear sky / Calm	
12-12-2025	13-12-2025	79	27	8	BDL	Clear sky / Calm	
19-12-2025	20-12-2025	75	25	7	BDL	Clear sky / Calm	
20-12-2025	21-12-2025	76	24	7	BDL	Clear sky / Calm	
25-12-2025	26-12-2025	78	28	9	BDL	Clear sky / Calm	
26-12-2025	27-12-2025	81	31	11	BDL	Clear sky / Calm	
NAAQS, 2009		100	60	80	80		


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SAMPLE DESCRIPTION	Water sample		
Test Required	pH: IS 3025 -(Part 11), TSS: IS 3025-(Part 17), COD: APHA (24th Edition) 5220 C , O & G: IS 3025-(Part 39) & BOD: IS 3025 (Part 44)		
SAMPLING METHOD	LSOP 5	PERIOD OF PERFORMANCE OF LAB ACTIVITIES :	16-12-25 TO 15-01-26

MINE WATER DISCHARGE: KAOW				
DATE OF SAMPLE COLLECTION	ANALYSIS RESULTS			
	pH	TSS (in mg/l)	COD(in mg/l)	O & G(in mg/l)
DETECTION LIMIT	2	10	4	2
14-12-2025	4.45	23	32	BDL
28-12-2025	4.75	19	28	BDL
STANDARDS FOR COAL MINE, GSR 742E, dt. 25/09/2000	5.5 - 9.0	100	250	10

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NOISE LEVEL MONITORING DATA

SAMPLE DESCRIPTION	NOISE SAMPLE
Test Required	CPCB PROTOCOL FOR AMBIENT NOISE MEASUREMENT
SAMPLING METHOD	LSOP 6

MANAGER OFFICE: KAON1			
MONTH	DATE OF SAMPLE COLLECTION	NOISE LEVEL IN dB(A)	
		DAY TIME	NIGHT TIME
		DETECTION LIMIT	20
DEC'25	12-12-2025	44.6	41.7
DEC'25	29-12-2025	47.3	45.5
NOISE POLLUTION (REGULATION AND CONTROL) RULES		75	70

COLONY(MOHAN/MAORI): KMUN2			
MONTH	DATE OF SAMPLE COLLECTION	NOISE LEVEL IN dB(A)	
		DAY TIME	NIGHT TIME
		DETECTION LIMIT	20
DEC'25	12-12-2025	43.1	40.2
DEC'25	29-12-2025	42.2	39.4
NOISE POLLUTION (REGULATION AND CONTROL) RULES		55	45


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OCTOBER 2025



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Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report	
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TEST REPORT NO.	RIN/TR/OCT-25/67	DATE OF ISSUE	25.11.2025
NAME OF CUSTOMER	GM(ENV.), WCL(HQ), NAGPUR		
TEST REQUIRED	SPM: IS 5182 (Part-4), PM-10: IS-5182 (Part 23), PM2.5: IS 5182 (Part 24), NO2: IS 5182 (Part-06), SO2:IS 5182 (Part-2)		
SAMPLE DESCRIPTION	AIR SAMPLE	SAMPLING PLAN :	LQR 47
SAMPLING METHOD : LSOP 4	PERIOD OF PERFORMANCE OF LAB ACTIVITIES:		16-10-25 TO 15-11-25

MANAGER OFFICE KAOA1							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	SPM	PM ₁₀	PM _{2.5}	NO ₂	SO ₂	
03.10.2025	04.10.2025	305	175	46	17	14	Cloudy sky / Light breeze
18.10.2025	19.10.2025	321	189	52	19	16	Clear sky / Calm
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25TH OCTember 2000		600	300	-	120	120	

PIT OFFICE KAU2							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	SPM	PM ₁₀	PM _{2.5}	NO ₂	SO ₂	
03.10.2025	04.10.2025	330	182	55	24	17	Cloudy sky / Light breeze
18.10.2025	19.10.2025	314	170	50	20	15	Clear sky / Calm
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25TH OCTember 2000		600	300	-	120	120	

COLONY HEALTH CENTER KMUA3							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	PM ₁₀	PM _{2.5}	NO ₂	SO ₂		
08.10.2025	09.10.2025	71	25	10	BDL	Cloudy sky / Light breeze	
09.10.2025	10.10.2025	65	22	9	BDL	Cloudy sky / Light breeze	
13.10.2025	14.10.2025	77	26	11	BDL	Cloudy sky / Light breeze	
17.10.2025	18.10.2025	80	28	13	10	Cloudy sky / Calm	
22.10.2025	23.10.2025	69	23	8	BDL	Cloudy sky / Calm	
23.10.2025	24.10.2025	82	30	14	11	Cloudy sky / Calm	
28.10.2025	29.10.2025	83	33	16	12	Cloudy sky / Calm	
29.10.2025	30.10.2025	74	27	9	BDL	Cloudy sky / Calm	
NAAQS, 2009		100	60	80	80		

AMBARA VILLAGE KMUA4							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	PM ₁₀	PM _{2.5}	NO ₂	SO ₂		
06.10.2025	07.10.2025	81	30	13	11	Cloudy sky / Light breeze	
07.10.2025	08.10.2025	75	26	7	BDL	Cloudy sky / Light breeze	
11.10.2025	12.10.2025	67	22	7	BDL	Cloudy sky / Light breeze	
12.10.2025	13.10.2025	76	27	8	BDL	Cloudy sky / Light breeze	
20.10.2025	21.10.2025	69	23	7	BDL	Cloudy sky / Calm	
21.10.2025	22.10.2025	64	20	6	BDL	Cloudy sky / Calm	
26.10.2025	27.10.2025	78	28	12	10	Cloudy sky / Calm	
27.10.2025	28.10.2025	66	24	8	BDL	Cloudy sky / Calm	
NAAQS, 2009		100	60	80	80		



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SAMPLE DESCRIPTION	Water sample	
Test Required	pH: IS 3025 -(Part 11), TSS: IS 3025-(Part 17), COD: APHA (24th Edition) 5220 C , O & G: IS 3025-(Part 39) & BOD: IS 3025 (Part 44)	
SAMPLING METHOD	LSOP 5	PERIOD OF PERFORMANCE OF LAB ACTIVITIES : 16-10-25 TO 15-11-25

MINE WATER DISCHARGE: KAOW				
DATE OF SAMPLE	ANALYSIS RESULTS			
COLLECTION	pH	TSS (in mg/l)	COD(in mg/l)	O & G(in mg/l)
DETECTION LIMIT	2	10	4	2
06.10.2025	3.82	22	36	BDL
19.10.2025	3.91	24	40	BDL
STANDARDS FOR COAL MINE, GSR 742E, dt. 25/09/2000	5.5 - 9.0	100	250	10



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NOISE LEVEL MONITORING DATA

SAMPLE DESCRIPTION	NOISE SAMPLE
Test Required	CPCB PROTOCOL FOR AMBIENT NOISE MEASUREMENT
SAMPLING METHOD	LSOP 6

MANAGER OFFICE: KAON1			
MONTH	DATE OF SAMPLE COLLECTION	NOISE LEVEL IN dB(A)	
		DAY TIME	NIGHT TIME
		20	20
	DETECTION LIMIT		
OCT'25	11.10.2025	44.4	42.5
OCT'25	29.10.2025	45.4	42.8
NOISE POLLUTION (REGULATION AND CONTROL) RULES		75	70

COLONY(MOHAN/MAORI): KMUN2			
MONTH	DATE OF SAMPLE COLLECTION	NOISE LEVEL IN dB(A)	
		DAY TIME	NIGHT TIME
		20	20
	DETECTION LIMIT		
OCT'25	11.10.2025	43.4	41.6
OCT'25	29.10.2025	42.3	39.5
NOISE POLLUTION (REGULATION AND CONTROL) RULES		55	45


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ENVIRONMENTAL MONITORING REPORT

AMBARA OC

KANHAN AREA

WESTERN COALFIELDS LTD.

JOB NO. 4094423067



DECEMBER 2025



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Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report	 TC-7182
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TEST REPORT NO.	RIN/TR/DEC-25/67	DATE OF ISSUE	25-01-2026
NAME OF CUSTOMER	GM(ENV.), WCL(HQ), NAGPUR		
TEST REQUIRED	SPM: IS 5182 (Part-4), PM-10: IS-5182 (Part 23), PM2.5: IS 5182 (Part 24), NO2: IS 5182 (Part-06), SO2:IS 5182 (Part-2)		
SAMPLE DESCRIPTION	AIR SAMPLE	SAMPLING PLAN :	LQR 47
SAMPLING METHOD : LSOP 4	PERIOD OF PERFORMANCE OF LAB ACTIVITIES:		16-12-25 TO 15-01-26

MANAGER OFFICE KAOA1							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	SPM	PM ₁₀	PM _{2.5}	NO ₂	SO ₂	
08-12-2025	09-12-2025	265	159	48	17	14	Clear sky / Calm
22-12-2025	23-12-2025	257	152	44	15	13	Clear sky / Calm
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25TH DECEMBER 2000		600	300	-	120	120	

PIT OFFICE KAU2							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	SPM	PM ₁₀	PM _{2.5}	NO ₂	SO ₂	
13-12-2025	14-12-2025	280	177	56	23	18	Clear sky / Calm
27-12-2025	28-12-2025	275	166	54	20	16	Clear sky / Calm
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25TH DECEMBER 2000		600	300	-	120	120	

COLONY HEALTH CENTER KMUA3							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	PM ₁₀	PM _{2.5}	NO ₂	SO ₂		
02-12-2025	03-12-2025	80	29	10	BDL	Cloudy sky / Calm	
03-12-2025	04-12-2025	75	27	9	BDL	Cloudy sky / Calm	
09-12-2025	10-12-2025	78	28	8	BDL	Clear sky / Calm	
10-12-2025	11-12-2025	73	26	8	BDL	Clear sky / Calm	
17-12-2025	18-12-2025	70	24	9	BDL	Clear sky / Calm	
18-12-2025	19-12-2025	84	35	13	11	Clear sky / Calm	
23-12-2025	24-12-2025	85	36	14	12	Clear sky / Calm	
24-12-2025	25-12-2025	77	27	8	BDL	Clear sky / Calm	
NAAQS, 2009		100	60	80	80		

AMBARA VILLAGE KMUA4							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	PM ₁₀	PM _{2.5}	NO ₂	SO ₂		
04-12-2025	05-12-2025	83	33	12	10	Cloudy sky / Calm	
05-12-2025	06-12-2025	85	34	13	11	Cloudy sky / Calm	
11-12-2025	12-12-2025	82	30	10	BDL	Clear sky / Calm	
12-12-2025	13-12-2025	79	27	8	BDL	Clear sky / Calm	
19-12-2025	20-12-2025	75	25	7	BDL	Clear sky / Calm	
20-12-2025	21-12-2025	76	24	7	BDL	Clear sky / Calm	
25-12-2025	26-12-2025	78	28	9	BDL	Clear sky / Calm	
26-12-2025	27-12-2025	81	31	11	BDL	Clear sky / Calm	
NAAQS, 2009		100	60	80	80		



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SAMPLE DESCRIPTION	Water sample		
Test Required	pH: IS 3025 -(Part 11), TSS: IS 3025-(Part 17), COD: APHA (24th Edition) 5220 C , O & G: IS 3025-(Part 39) & BOD: IS 3025 (Part 44)		
SAMPLING METHOD	LSOP 5	PERIOD OF PERFORMANCE OF LAB ACTIVITIES :	16-12-25 TO 15-01-26

MINE WATER DISCHARGE: KAOW				
DATE OF SAMPLE COLLECTION	ANALYSIS RESULTS			
	pH	TSS (in mg/l)	COD(in mg/l)	O & G(in mg/l)
DETECTION LIMIT	2	10	4	2
14-12-2025	4.45	23	32	BDL
28-12-2025	4.75	19	28	BDL
STANDARDS FOR COAL MINE, GSR 742E, dt. 25/09/2000	5.5 - 9.0	100	250	10



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NOISE LEVEL MONITORING DATA

SAMPLE DESCRIPTION	NOISE SAMPLE
Test Required	CPCB PROTOCOL FOR AMBIENT NOISE MEASUREMENT
SAMPLING METHOD	LSOP 6

MANAGER OFFICE: KAON1			
MONTH	DATE OF SAMPLE COLLECTION	NOISE LEVEL IN dB(A)	
		DAY TIME	NIGHT TIME
		DETECTION LIMIT	20
DEC'25	12-12-2025	44.6	41.7
DEC'25	29-12-2025	47.3	45.5
NOISE POLLUTION (REGULATION AND CONTROL) RULES		75	70

COLONY(MOHAN/MAORI): KMUN2			
MONTH	DATE OF SAMPLE COLLECTION	NOISE LEVEL IN dB(A)	
		DAY TIME	NIGHT TIME
		DETECTION LIMIT	20
DEC'25	12-12-2025	43.1	40.2
DEC'25	29-12-2025	42.2	39.4
NOISE POLLUTION (REGULATION AND CONTROL) RULES		55	45


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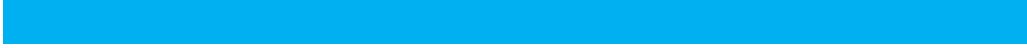



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Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report	 TC-7182
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TEST REPORT NO.	RIN/TR/JAN-26/67	DATE OF ISSUE	25-02-2026
NAME OF CUSTOMER	GM(ENV.), WCL(HQ), NAGPUR		
TEST REQUIRED	SPM: IS 5182 (Part-4), PM-10: IS-5182 (Part 23), PM2.5: IS 5182 (Part 24), NO ₂ : IS 5182 (Part-06), SO ₂ :IS 5182 (Part-2)		
SAMPLE DESCRIPTION	AIR SAMPLE	SAMPLING PLAN :	LQR 47
SAMPLING METHOD : LSOP 4	PERIOD OF PERFORMANCE OF LAB ACTIVITIES:		16-01-26 TO 15-02-26

MANAGER OFFICE KAOA1							
DATE(dd:mm:yy)) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	SPM ₅	PM ₁₀ ₅	PM _{2.5} ₂	NO ₂ ₆	SO ₂ ₁₀	
07-01-2026	08-01-2026	296	186	51	22	18	Cloudy sky / Calm
19-01-2026	20-01-2026	314	204	53	24	20	Cloudy sky / Calm
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25TH DECEMBER 2000		600	300	-	120	120	

PIT OFFICE KAU2							
DATE(dd:mm:yy)) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	SPM ₅	PM ₁₀ ₅	PM _{2.5} ₂	NO ₂ ₆	SO ₂ ₁₀	
07-01-2026	08-01-2026	322	208	55	26	21	Cloudy sky / Calm
19-01-2026	20-01-2026	286	179	50	18	16	Cloudy sky / Calm
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25TH DECEMBER 2000		600	300	-	120	120	

COLONY HEALTH CENTER KMUA3							
DATE(dd:mm:yy)) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	PM ₁₀ ₅	PM _{2.5} ₂	NO ₂ ₆	SO ₂ ₁₀		
05-01-2026	06-01-2026	85	35	23	12		Cloudy sky / Calm
06-01-2026	07-01-2026	82	32	17	BDL		Cloudy sky / Calm
11-01-2026	12-01-2026	84	34	18	BDL		Cloudy sky / Calm
12-01-2026	13-01-2026	80	29	16	BDL		Cloudy sky / Calm
16-01-2026	17-01-2026	77	27	14	BDL		Cloudy sky / Calm
17-01-2026	18-01-2026	76	25	12	BDL		Cloudy sky / Calm
23-01-2026	24-01-2026	81	31	16	BDL		Cloudy sky / Calm
24-01-2026	25-01-2026	83	33	19	11		Cloudy sky / Calm
29-01-2026	30-01-2026	78	28	12	BDL		Cloudy sky / Calm
30-01-2026	31-01-2026	75	26	10	BDL		Cloudy sky / Calm
NAAQS, 2009		100	60	80	80		

AMBARA VILLAGE KMUA4							
DATE(dd:mm:yy)) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	PM ₁₀ ₅	PM _{2.5} ₂	NO ₂ ₆	SO ₂ ₁₀		
03-01-2026	04-01-2026	86	36	24	13		Cloudy sky / Calm
04-01-2026	05-01-2026	83	32	18	BDL		Cloudy sky / Calm
09-01-2026	10-01-2026	82	31	16	BDL		Cloudy sky / Calm
10-01-2026	11-01-2026	80	28	14	BDL		Cloudy sky / Calm
16-01-2026	17-01-2026	81	32	17	BDL		Cloudy sky / Calm
17-01-2026	18-01-2026	77	26	9	BDL		Cloudy sky / Calm
21-01-2026	22-01-2026	78	29	8	BDL		Cloudy sky / Calm
22-01-2026	23-01-2026	84	35	20	12		Cloudy sky / Calm
27-01-2026	28-01-2026	80	30	15	BDL		Cloudy sky / Calm
28-01-2026	29-01-2026	79	29	9	BDL		Cloudy sky / Calm
NAAQS, 2009		100	60	80	80		



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SAMPLE DESCRIPTION	Water sample		
Test Required	pH: IS 3025 -(Part 11), TSS: IS 3025-(Part 17), COD: APHA (24th Edition) 5220 C , O & G: IS 3025-(Part 39) & BOD: IS 3025 (Part 44)		
SAMPLING METHOD	LSOP 5	PERIOD OF PERFORMANCE OF LAB ACTIVITIES :	16-01-26 TO 15-02-26

MINE WATER DISCHARGE: KAOW				
DATE OF SAMPLE COLLECTION	ANALYSIS RESULTS			
	pH	TSS (in mg/l)	COD(in mg/l)	O & G(in mg/l)
DETECTION LIMIT	2	10	4	2
04-01-2026	4.40	28	40	BDL
22-01-2026	5.97	24	32	BDL
STANDARDS FOR COAL MINE, GSR 742E, dt. 25/09/2000	5.5 - 9.0	100	250	10

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NOISE LEVEL MONITORING DATA

SAMPLE DESCRIPTION	NOISE SAMPLE
Test Required	CPCB PROTOCOL FOR AMBIENT NOISE MEASUREMENT
SAMPLING METHOD	LSOP 6

MANAGER OFFICE: KAON1			
MONTH	DATE OF SAMPLE COLLECTION	NOISE LEVEL IN dB(A)	
		DAY TIME	NIGHT TIME
		DETECTION LIMIT	20
JAN'26	10-01-2026	45.2	42.4
JAN'26	29-01-2026	46.2	44.6
NOISE POLLUTION (REGULATION AND CONTROL) RULES		75	70

COLONY(MOHAN/MAORI): KMUN2			
MONTH	DATE OF SAMPLE COLLECTION	NOISE LEVEL IN dB(A)	
		DAY TIME	NIGHT TIME
		DETECTION LIMIT	20
JAN'26	10-01-2026	42.4	40.6
JAN'26	29-01-2026	42.2	39.4
NOISE POLLUTION (REGULATION AND CONTROL) RULES		55	45


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Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report	 TC-7182
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TEST REPORT NO.	RIN/TR/FEB-26/67	DATE OF ISSUE	25-03-2026
NAME OF CUSTOMER	GM(ENV.), WCL(HQ), NAGPUR		
TEST REQUIRED	SPM: IS 5182 (Part-4), PM-10: IS-5182 (Part 23), PM2.5: IS 5182 (Part 24), NO2: IS 5182 (Part-06), SO2:IS 5182 (Part-2)		
SAMPLE DESCRIPTION	AIR SAMPLE	SAMPLING PLAN :	LQR 47
SAMPLING METHOD : L SOP 4	PERIOD OF PERFORMANCE OF LAB ACTIVITIES:		16-02-26 TO 15-03-26

MANAGER OFFICE KAOA1							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	SPM	PM ₁₀	PM _{2.5}	NO ₂	SO ₂	
07-02-2026	08-02-2026	330	220	57	25	19	Cloudy sky / Calm
26-02-2026	27-02-2026	304	211	54	22	17	Cloudy sky / Calm
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25TH DECember 2000		600	300	-	120	120	

PIT OFFICE KAOA2							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	SPM	PM ₁₀	PM _{2.5}	NO ₂	SO ₂	
07-02-2026	08-02-2026	298	195	52	20	16	Cloudy sky / Calm
26-02-2026	27-02-2026	315	201	53	24	18	Cloudy sky / Calm
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25TH DECember 2000		600	300	-	120	120	

COLONY HEALTH CENTER KMUA3							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	PM ₁₀	PM _{2.5}	NO ₂	SO ₂		
05-02-2026	06-02-2026	83	32	20	10	Cloudy sky / Calm	
06-02-2026	07-02-2026	80	29	18	BDL	Cloudy sky / Calm	
11-02-2026	12-02-2026	78	27	16	BDL	Cloudy sky / Calm	
12-02-2026	13-02-2026	82	30	19	BDL	Cloudy sky / Calm	
19-02-2026	20-02-2026	79	28	16	BDL	Cloudy sky / Calm	
20-02-2026	21-02-2026	75	26	15	BDL	Cloudy sky / Calm	
24-02-2026	25-02-2026	73	25	14	BDL	Cloudy sky / Calm	
25-02-2026	26-02-2026	74	24	13	BDL	Cloudy sky / Calm	
NAAQS, 2009		100	60	80	80		

AMBARA VILLAGE KMUA4							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	PM ₁₀	PM _{2.5}	NO ₂	SO ₂		
03-02-2026	04-02-2026	80	30	21	BDL	Cloudy sky / Calm	
04-02-2026	05-02-2026	77	28	17	BDL	Cloudy sky / Calm	
09-02-2026	10-02-2026	75	27	18	BDL	Cloudy sky / Calm	
10-02-2026	11-02-2026	84	31	22	12	Cloudy sky / Calm	
17-02-2026	18-02-2026	76	27	16	BDL	Cloudy sky / Calm	
18-02-2026	19-02-2026	74	25	15	BDL	Cloudy sky / Calm	
22-02-2026	23-02-2026	76	26	16	BDL	Cloudy sky / Calm	
23-02-2026	24-02-2026	72	23	15	BDL	Cloudy sky / Calm	
NAAQS, 2009		100	60	80	80		


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SAMPLE DESCRIPTION	Water sample		
Test Required	pH: IS 3025 -(Part 11), TSS: IS 3025-(Part 17), COD: APHA (24th Edition) 5220 C , O & G: IS 3025-(Part 39) & BOD: IS 3025 (Part 44)		
SAMPLING METHOD	LSOP 5	PERIOD OF PERFORMANCE OF LAB ACTIVITIES :	16-02-26 TO 15-03-26

MINE WATER DISCHARGE: KAOW				
DATE OF SAMPLE COLLECTION	ANALYSIS RESULTS			
	pH	TSS (in mg/l)	COD(in mg/l)	O & G(in mg/l)
DETECTION LIMIT	2	10	4	2
04-02-2026	3.80	20	36	BDL
22-02-2026	5.12	22	28	BDL
STANDARDS FOR COAL MINE, GSR 742E, dt. 25/09/2000	5.5 - 9.0	100	250	10

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NOISE LEVEL MONITORING DATA

SAMPLE DESCRIPTION	NOISE SAMPLE
Test Required	CPCB PROTOCOL FOR AMBIENT NOISE MEASUREMENT
SAMPLING METHOD	LSOP 6

MANAGER OFFICE: KAON1			
MONTH	DATE OF SAMPLE COLLECTION	NOISE LEVEL IN dB(A)	
		DAY TIME	NIGHT TIME
		DETECTION LIMIT	20
FEB'26	13-02-2026	46.3	44.5
FEB'26	26-02-2026	46.6	43.6
NOISE POLLUTION (REGULATION AND CONTROL) RULES		75	70

COLONY(MOHAN/MAORI): KIMUN2			
MONTH	DATE OF SAMPLE COLLECTION	NOISE LEVEL IN dB(A)	
		DAY TIME	NIGHT TIME
		DETECTION LIMIT	20
FEB'26	13-02-2026	42.2	39.4
FEB'26	26-02-2026	43.2	41.5
NOISE POLLUTION (REGULATION AND CONTROL) RULES		55	45


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Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report	 TC-7102
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TEST REPORT NO.	RIN/TR/MAR-26/67	DATE OF ISSUE	25-04-2026
NAME OF CUSTOMER	GM(ENV.), WCL(HQ), NAGPUR		
TEST REQUIRED	SPM: IS 5182 (Part-4), PM-10: IS-5182 (Part 23), PM2.5: IS 5182 (Part 24), NO2: IS 5182 (Part-06), SO2:IS 5182 (Part-2)		
SAMPLE DESCRIPTION	AIR SAMPLE	SAMPLING PLAN :	LQR 47
SAMPLING METHOD : L SOP 4	PERIOD OF PERFORMANCE OF LAB ACTIVITIES:		16-03-26 TO 15-04-26

MANAGER OFFICE KAOA1							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	SPM	PM ₁₀	PM _{2.5}	NO ₂	SO ₂	
06-03-2026	07-03-2026	325	220	55	24	18	Clear sky / Calm
20-03-2026	21-03-2026	336	232	58	28	20	Clear sky / Calm
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25TH DECember 2000		600	300	-	120	120	

PIT OFFICE KAU2							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	SPM	PM ₁₀	PM _{2.5}	NO ₂	SO ₂	
06-03-2026	07-03-2026	305	208	50	20	15	Clear sky / Calm
20-03-2026	21-03-2026	316	210	52	22	16	Clear sky / Calm
STANDARDS FOR COAL MINE, GSR 742(E), dt. 25TH DECember 2000		600	300	-	120	120	

COLONY HEALTH CENTER KMUA3							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	PM ₁₀	PM _{2.5}	NO ₂	SO ₂		
04-03-2026	05-03-2026	74	25	14	BDL	Clear sky / Calm	
05-03-2026	06-03-2026	76	27	15	BDL	Clear sky / Calm	
11-03-2026	12-03-2026	80	29	17	BDL	Clear sky / Calm	
12-03-2026	13-03-2026	78	26	15	BDL	Clear sky / Calm	
18-03-2026	19-03-2026	82	30	18	12	Clear sky / Calm	
19-03-2026	20-03-2026	84	32	17	11	Clear sky / Calm	
24-03-2026	25-03-2026	80	31	16	BDL	Clear sky / Calm	
25-03-2026	26-03-2026	86	35	18	13	Clear sky / Calm	
NAAQS, 2009		100	60	80	80		

AMBARA VILLAGE KMUA4							
DATE(dd:mm:yy) OF SAMPLING		PARAMETERS (24 hourly values in $\mu\text{g}/\text{m}^3$)					ENVIRONMENT CONDITIONS (Sky/Wind)
FROM	TO	PM ₁₀	PM _{2.5}	NO ₂	SO ₂		
01-03-2026	02-03-2026	75	26	15	BDL	Clear sky / Calm	
02-03-2026	03-03-2026	80	32	16	10	Clear sky / Calm	
09-03-2026	10-03-2026	79	29	14	BDL	Clear sky / Calm	
10-03-2026	11-03-2026	81	33	17	11	Clear sky / Calm	
16-03-2026	17-03-2026	83	34	16	BDL	Clear sky / Calm	
17-03-2026	18-03-2026	85	35	18	12	Clear sky / Calm	
24-03-2026	25-03-2026	86	37	18	11	Clear sky / Calm	
25-03-2026	26-03-2026	84	34	16	BDL	Clear sky / Calm	
NAAQS, 2009		100	60	80	80		



Analysed by

Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report	 TC-7102
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SAMPLE DESCRIPTION	Water sample		
Test Required	pH: IS 3025 -(Part 11), TSS: IS 3025-(Part 17), COD: APHA (24th Edition) 5220 C , O & G: IS 3025-(Part 39) & BOD: IS 3025 (Part 44)		
SAMPLING METHOD	LSOP 5	PERIOD OF PERFORMANCE OF LAB ACTIVITIES :	16-03-26 TO 15-04-26

MINE WATER DISCHARGE: KAOW				
DATE OF SAMPLE COLLECTION	ANALYSIS RESULTS			
	pH	TSS (in mg/l)	COD(in mg/l)	O & G(in mg/l)
DETECTION LIMIT	2	10	4	2
07-03-2026	3.42	24	32	BDL
20-03-2026	3.35	28	40	BDL
STANDARDS FOR COAL MINE, GSR 742E, dt. 25/09/2000	5.5 - 9.0	100	250	10

J. Choug

Analysed by

Environment Laboratory CMPDI RI-IV, NAGPUR	Test Report	 TC-7182
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NOISE LEVEL MONITORING DATA

SAMPLE DESCRIPTION	NOISE SAMPLE
Test Required	CPCB PROTOCOL FOR AMBIENT NOISE MEASUREMENT
SAMPLING METHOD	LSOP 6

MANAGER OFFICE: KAON1			
MONTH	DATE OF SAMPLE COLLECTION	NOISE LEVEL IN dB(A)	
		DAY TIME	NIGHT TIME
		DETECTION LIMIT	20
MAR'26	11-03-2026	44.8	41.3
MAR'26	27-03-2026	45.1	43.3
NOISE POLLUTION (REGULATION AND CONTROL) RULES		75	70

COLONY(MOHAN/MAORI): KMUN2			
MONTH	DATE OF SAMPLE COLLECTION	NOISE LEVEL IN dB(A)	
		DAY TIME	NIGHT TIME
		DETECTION LIMIT	20
MAR'26	11-03-2026	43.2	40.6
MAR'26	27-03-2026	43.6	41.2
NOISE POLLUTION (REGULATION AND CONTROL) RULES		55	45


Yogesh Pidurkar
Reviewed by


Amol Kamble
Authorised by

1. This report cannot be reproduced in part or full without written of the management.
2. Laboratory activities are performed at the Laboratory permanent facility that is ground floor, Environment Lab, CMPDI RI-IV, Nagpur.
3. This report refers to the values related to the items tested.
***** End of report *****

REPORT ON
MONITORING OF GROUND WATER LEVEL
OF
AMBARA OC MINE
KANHAN AREA
WESTERN COALFIELDS LTD.



PERIOD- MAY 2025 (PRE MONSOON), AUG 2025 (MONSOON), NOV 2025 (POST-MONSOON) & JAN 2026 (WINTER)



M/s Anacon Laboratories Pvt. Ltd., Nagpur

MoEF&CC (GOI) Recognized Laboratory
ISO 9001:2015, ISO 14001:2015, ISO 45001:2018
Lab. & Consultancy: FP-34, 35, Food Park,
MIDC, Butibori, Nagpur – 441122
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Email: ngp@anacon.in
Website: www.anaconlaboratories.com
Report No. ANqr /PD/20A/2023/199

2025-26

Certificate

Groundwater level monitoring has been conducted with due diligence, and a comprehensive report on the monitoring of groundwater levels in all observation wells has been prepared as per the scope of work outlined in work order no. वेकोलि/मुख्यालय/पर्यावरण/14-L/1122-1148, dated 19.04.2025 for the Jan 2026 (Winter) Period.

The report includes the monitoring of groundwater levels and water quality analysis of observation wells pertaining to AMBARA OC MINE, of the Kanhan area of Chhindwara district, M.P.

The groundwater level monitoring was meticulously carried out by Anacon Laboratories Pvt. Ltd., and the analysis of the samples was performed by Anacon Laboratories Pvt. Ltd., a NABL Accredited Laboratory. (NABL Certificate no. TC-12998)

Anacon Laboratories Pvt. Ltd. gratefully acknowledges the full cooperation rendered by the concerned WCL officials, which facilitated the timely completion of the project.



Krupali Raut
(Geologist)



Gyanchand Bohra
NABET Accredited EIA Expert
for Hydrogeology & Geology

Nagpur
Jan-2026



(Dr. D. G. Garway)
Head of Organization
Anacon Laboratories Pvt. Ltd., Nagpur

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I-TABLE	AMBARA OC MINE	PERIOD- MAY 2025 (PRE MONSOON), AUG 2025 (MONSOON), NOV 2025 (POST-MONSOON) & JAN 2026 (WINTER)	7
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Ganraj

INTRODUCTION

Environment Department of Western Coalfield Limited (WCL), Nagpur has awarded the assignment engaged M/s Anacon Laboratories Pvt. Ltd, for conducting Ground water Monitoring (i.e. Borewell/Piezometer water level) for the year 2025-26 vide work order no. वेकोलि/मुख्यालय/पर्यावरण/14-L/1122-1148, dated 19.04.2025 for the Jan 2026 (Winter) Period.

AMBARA OC MINE is located in Chhindwara district of Madhya Pradesh. All Mines are administered by Kanhan Area of Western Coalfields Limited. Ground water Level monitoring for all the mines have been done for the year 2025-26 i.e. **PERIOD- MAY 2025 (PRE MONSOON), AUG 2025 (MONSOON), NOV 2025(POST MONSOON) & JAN 2026 (WINTER).**

GENERAL HYDROGEOLOGICAL CONDITION

The major part of the district is occupied by Deccan Trap, consisting of different lava flows whose thickness ranges between 7 to 21 m. The recent alluvium deposits are found at places along the Pench and the Kanhan rivers with thickness varying from 5.00 to 20.00 m. Alluvium comprises clayey material with intercalated layers of sand and gravels. Archaeans are exposed in parts of Sausar, Bichhua, Chhindwara, Jamai and Mohkhed blocks whereas the Coal bearing lower Gondwanas in parts of Jamai, Parasia and Jamai blocks. The upper Gondwanas occupy parts of Harrai and Tamia blocks. Ground water occurs under phreatic and semi-confined to confined conditions. Alluvium, weathered granites/gneisses, lower Gondwana sandstones, weathered, fractured and jointed massive basalts and vesicular basalts form the major phreatic aquifers; and weathered, fractured granites are noticed as main water-bearing zones at deeper levels.



Gaurav

**AMBARA OC MINE,
KANHAN AREA
WESTERN COALFIELDS LTD.**

**PERIOD- MAY 2025 (PRE MONSOON), AUG 2025 (MONSOON), NOV 2025 (POST MONSOON) & JAN 2026
(WINTER)**



Gaurav



Dgauray

TABLE-I: Ground Water level Monitoring data from dugwells/piezometers in buffer zone of AMABARA OC MINE KANHAN AREA

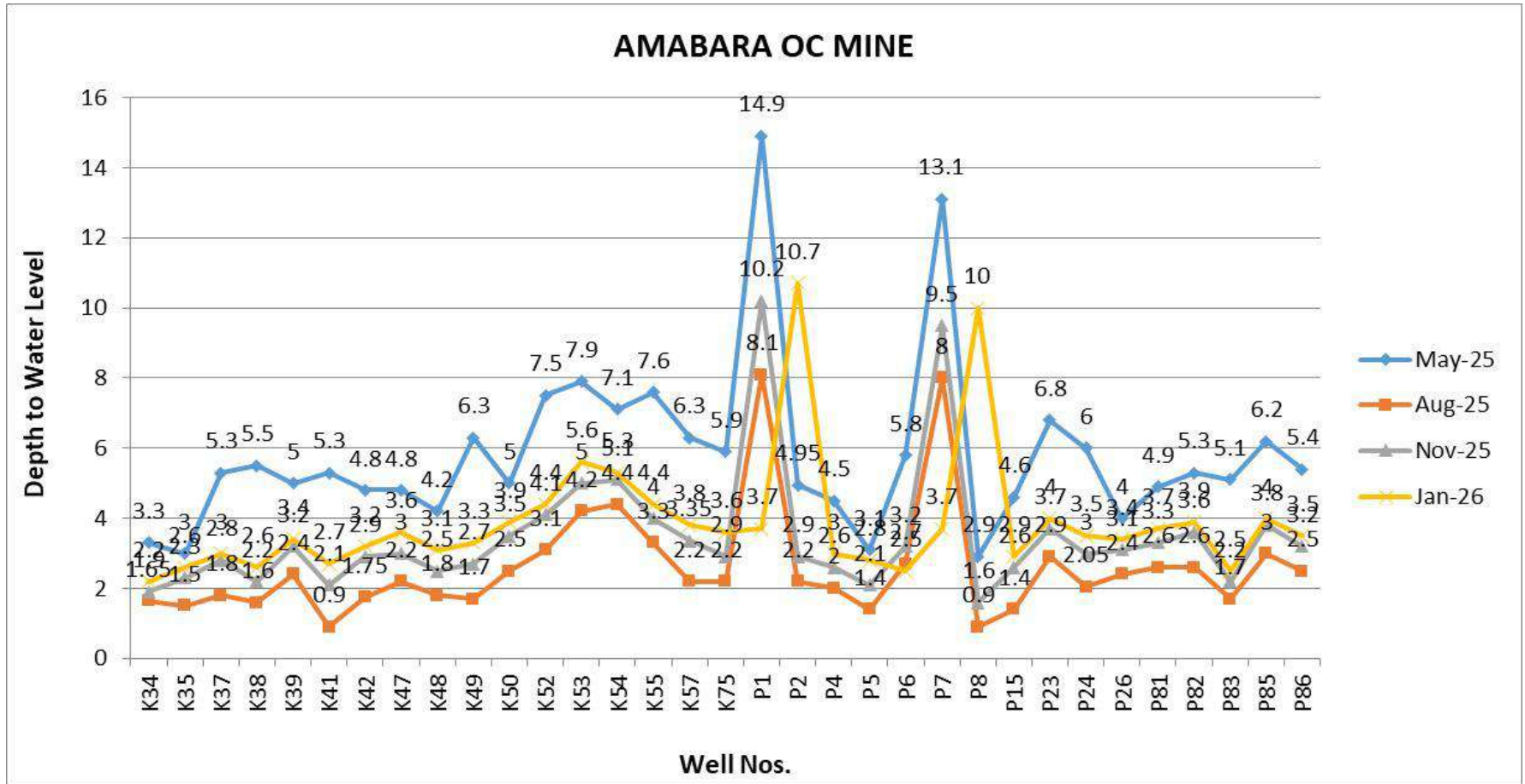
SR. NO	Well No.	Name of village	Well location	latitude	longitude	R.L. in m	Utliity	Well depth (m bmp)	Well dia (m)	Height of measuring point (m agl)	Depth to Water (BGL-Below Ground Level)				G/F
											May-25	Aug-25	Nov-25	Jan-26	
1	K34	GUDDAM	Near G.P. office in low lying near Nala	22°16'7.565001 58655768"	78°38'26.01 8048478637 3"	712	Domestic	2.85	2.6	0.85	3.30	1.65	1.90	2.20	M/B sandstone
2	K35	MANDKADAI	In the openfield about 300 m away from village	22°16'0.714750 552555188"	78°39'20.17 2607732380 3"	722	Irrigation No pump	5.2	4.2	0.5	3.00	1.50	2.30	2.60	Basalt
3	K37	GHUTTI	Near LP school	22°12'34.46551 12699527"	78°37'34.32 5399136001 7"	726	Domestic	10.00	6.4	0.6	5.30	1.80	2.80	3.00	M/B sandstone
4	K38	KEVLARI	About 100 m NE of G.P office openfield of Shobharam	22°13'5.945839 27598649"	78°38'56.71 0987496417 3"	729	Irrigation	10.6	3.5	0	5.50	1.60	2.20	2.60	M/B S.stone with Dyke
5	K39	RICHHORA	Near Bajrang Mandir & Phulchand Mistra	22°13'22.01925 79841836"	78°40'21.09 0909851062 8"	690	Domestic	9.5	5.5	1.2	5.00	2.40	3.20	3.40	M/B sandstone
6	K41	SUKRI CHOWKI NALA	In the openfield Near Nala on Parasis-Jurdeo Road	22°11'30.11434 03543605"	78°37'8.201 9894374797 2"	650	Irrigation	10.2	5.8	0	5.30	0.90	2.10	2.70	M/B sandstone
7	K42	CHIKALMAU	In the centre of village Near house HARICHANDRA DHURVE	22°12'42.44881 04302284"	78°35'56.07 9740913639 7"	685	Domestic	8.5	3.2	0.7	4.80	1.75	2.90	3.20	M/B sandstone
8	K47	MAURI	About 100 m East of Hingula Mandir near O/C patch Mauri	22°10'31.42328 64237184"	78°41'24.37 1103900906 5"	745	Domestic	7.90	6.1	0.75	4.80	2.20	3.00	3.60	Barakar sandstone
9	K48	MAYRI	Near Milk Dairy Depo. House of Roshan Vishkarma single house	22°9'33.390867 3272873"	78°41'22.66 8318929142 9"	785	Irrigation	4.70	4.01	0.8	4.20	1.80	2.50	3.10	Barakar sandstone
10	K49	SILADEHI	Outside village towards Umreth Road Back of house of Panchu Lal	22°8'51.883333 3720849"	78°41'32.93 2983620107 7"	768	Irrigation	10.50	5.2	0	6.30	1.70	2.70	3.30	Barakar sandstone
11	K50	GAJANDO MINE (Field Area)	In the field of Jaipal power 100 m from road to mine	22°9'41.741408 730195"	78°43'5.034 9498243701 6"	695	Irrigation	9.10	6.1	0.1	5.00	2.50	3.50	3.90	Barakar sandstone

SR. NO	Well No.	Name of village	Well location	latitude	longitude	R.L. in m	Utliity	Well depth (m bmp)	Well dia (m)	Height of measuring point (m agl)	Depth to Water (BGL-Below Ground Level)				G/F
											May-25	Aug-25	Nov-25	Jan-26	
12	K52	SAKRADOL RAKIDHANA	Side of Road well mark on Electric pole	22°6'55.041630 3934995"	78°42'55.66 5342195191 1"	705	Irrigation	13.70	6.2	GL	7.50	3.10	4.10	4.40	Metamorphics
13	K53	CHOPAN TEKRI	Near Temple on side of Road & nala PWS well	22°6'47.251217 8317317"	78°41'38.64 4775830666 7"	706	Domestic	17.00	5.1	GL	7.90	4.20	5.00	5.60	Motur
14	K54	GHUGHRI	CENTER OF THE VILLAGE	22°5'52.761904 7850436"	78°41'0.983 8976081106 84"	705	Irrigation	14.10	5.8	0.35	7.10	4.40	5.10	5.30	Metamorphics
15	K55	MENDKI	Out side village Back of house of Bargu Maskole	22°5'55.749439 2382893"	78°39'10.44 0660119494 3"	778	Irrigation	13.60	5	0.5	7.60	3.30	4.00	4.40	Motur
16	K57	AMBARA	Side of Road to Parasia about 100 south in the field of Farukh Bhai	22°11'12.98121 36862654"	78°39'51.73 1451404098 1"	745	Irrigation	12.40	7.5	1	6.30	2.20	3.35	3.80	Barakar sandstone
17	K75	UPLI	OPEN FIELD	22°8'19.25"	78°37'3.98"	690	Domestic	12.60	5.6	0.9	5.90	2.20	2.90	3.60	M/B SANDSTONE
18	P1	LIKHA WARI ROAD	West of Parasia Pipariya Road near house of Dhanraj Yadav	22°14'34.34945 46067419"	78°44'12.58 1630426681 3"	771	Domestic	29.00	2.5	0.5	14.90	8.10	10.20	3.70	Motur
19	P2	CHIKLI KALAN	In the pump house right hand side of the road when moving towards pagara village.	22°13'13.47510 52259759"	78°44'29.60 2878091831 3"	773	Domestic	12.80	3	0.1	4.95	2.20	2.90	10.70	Motur
20	P4	DONGAR CHIKLI	West of Parasia pipariya Road in the low lying field opp. Bhimsen Majar	22°11'57.28463 54410274"	78°45'16.54 8920502577 9"	745	Domestic	9.70	3.75	0.3	4.50	2.00	2.60	3.00	Motur
21	P5	KHIRSADOH	On East of chindwara Parasia Road in the Bunflow of Mr Mehta	22°10'41.11079 22204636"	78°46'20.96 0982788576 3"	765	Domestic	5.20	4.2	0.5	3.10	1.40	2.10	2.80	Motur
22	P6	GAJANDO	On south of Mahadeo Puri-Gajando Road in open field of Ram Prasad Pawar	22°9'16.605301 2800262"	78°43'57.57 5910062071 2"	759	Irrigation	13.00	5	GL	5.80	2.70	3.20	2.50	Motur
23	P 7	UMRATH	Abour 1 km from Umrath on Sila Devi Road in openfield of Narayan pawar	22°8'1.9864976 2874084"	78°42'40.89 9166557624 2"	760	Irrigation	26.70	6	0.3	13.10	8.00	9.50	3.70	BASALT

SR. NO	Well No.	Name of village	Well location	latitude	longitude	R.L. in m	Utliity	Well depth (m bmp)	Well dia (m)	Height of measuring point (m agl)	Depth to Water (BGL-Below Ground Level)				G/F
											May-25	Aug-25	Nov-25	Jan-26	
24	P8	DIWADHANA	West of Umrath Sukri Road in openfield of Premchand Yadav	22°7'41.731374 2952288"	78°39'22.21 0821917585 6"	785	Domestic	4.70	4.01	0.8	2.90	0.90	1.60	10.00	BASALT
25	P 15	GANPATI U/G MINE	North of B.G. siding of Ganpati Mine WCL	22°11'44.83076 77024715"	78°46'25.65 1410430227 6"	811	Domestic	9.60	7.5	0.8	4.60	1.40	2.60	2.90	BASALT
26	P23	PAGARA	Near Govt school in the middle of village, 20 m from Road	22°15'17.77165 86543056"	78°45'12.85 9077527645 "	795	Domestic	13.10	3	0.4	6.80	2.90	3.70	4.00	Motur
27	P24	LAHAGOUA (CGWB HS)	On Parasia-Tambia Road between KM/st 14 & 13 Parasia Low laying field	22°16'18.41021 25149479"	78°43'6.228 3909313077 6"	782	Domestic	10.10	3.8	0.2	6.00	2.05	3.00	3.50	Basalt
28	P26	BARKUHI	Back side of officess club Pench Area out side of club boundary	22°11'31.10705 1465959"	78°42'23.43 0073504487 3"	776	Domestic	8.70	3	0.6	4.00	2.40	3.10	3.40	Motur
29	P81	DONGAR PARASIA	IN THE OWNER FIELD	22°11'35.52"	78°45'21.6"	760	Domestic	11.50	5.2	0.6	4.90	2.60	3.30	3.70	BASALT
30	P82	SUKRI	BACKSIDE OF KHEDAPATI MANDIR	22°10'56.88"	78°44'36.09' "	780	Domestic	8.60	5.6	0.4	5.30	2.60	3.60	3.90	BASALT
31	P83	JAMKUNDA	ABOUT 350 METER FROM MAIN ROAD	22°11'20.59"	78°37'59.79' "	710	Domestic	14.50	5.8	0.5	5.10	1.70	2.20	2.50	MOTUR
32	P85	BHAJIPANI	INSIDE ROAD ABOUT 300 MT	22°12'17.79"	78°42'15.89' "	781	Domestic	12.60	4	0.75	6.20	3.00	3.80	4.00	Basalt
33	P86	EKLEHRA	ON THE JUNNARDEO PARASIA ROAD	22°12'11.41"	78°41'28.97' "	825	Domestic	11.40	6	0.6	5.40	2.50	3.20	3.50	BASALT



D. Gawari



II-FIGURE:- HYDROGRAPH OF AMABARA OC MINE KANHAN AREA



K34-GUDDAM



K35-MANDKADAI



K36-MOHARIYA



K38-KEVLARI



K39-RICHHORA



K41-SUKRI CHOWKI NALA



K42-CHIKALMAU



K47-MAURI



K48-MAYRI



K49-SILADEHI



K50-GAJANDO MINE



K52-SAKRADOL RAKIDHANA



K53-CHOPAN TEKRI



K54-GHUGHRI



K55-MENDKI



K57-AMBARA



K75-UPLI



P1-LIKHA WARI ROAD



P2-CHIKLI KALAN



P4-DONGAR CHIKLI



P5-KHIRSADOH



P6-GAJANDO



P7-UMRATH



P8-DIWADHANA



P15-GANPATI U/G MINE



P23-PAGARA



P24-LAHAGOUA (CGWB HS)



P26-BARKUHI



P81-DONGAR PARASIA



P82-SUKRI



P83-JAMKUNDA



P85-BHAJIPANI



P86-EKLEHRA

Mine wise details of Mine Closure Plan as Approved by WCL Board in 252nd meeting held on 6th February 2014

Sl. No.	Name of Project	Total Project area as per EC (ha)	Closure Cost@ Rs In lakhs/ha	Life as on 01.04.2012 In years	Corpus as on 2009 In Rs Lakhs	WPI considered for current value	Current value In lakhs	Annual Corpus in Rs Lakhs in 2012-13	Total Corpus in Rs Lakhs
1	Gharawari OC	1296.011	6.00	25	7776.06	April'12	9810.07	392.40	18728.11
2	Datla OC	57.753	6.00	0.00	346.51	April'12	437.14	437.14	437.14
3	Padmapur OC	826.19	6.00	9	4975.14	April'12	6276.50	697.38	7689.71
4	Hindustan Lalpeth OC	311.66	6.00	11	1869.96	April'12	2359.09	214.46	3046.79
5	Juna Kunada OC	186.00	6.00	10	1116.00	April'12	1407.91	140.79	1770.84
6	Ukni OC	1285.12	6.00	16	7710.72	April'12	9727.64	607.97	14383.05
7	Extention of Nandan-II UG	656.14	1.00	10	656.14	April'12	827.76	82.77	1041.07
8	Ambara OC	162.153	6.00	9	972.91	April'12	1227.39	136.37	1503.69
9	Damua UG	1080.918	1.00	21	1080.918	April'12	1363.65	64.93	2319.25
10	Pathakhera-I UG	248.50	1.00	0.00	248.50	April'12	313.50	313.50	313.50
11	Pathakhera-II	281.37	1.00	0.00	281.37	April'12	354.99	354.99	354.99
12	Satpura-II UG	458.00	1.00	0.00	458.00	April'12	577.80	577.80	577.80
13	Gouri Deep OC	356.11	6.00	21	2136.66	July'13	2891.75	137.70	4918.54

Chapter-1

INTRODUCTION

1.1 About the Mine

Ambara Opencast Mine is under Kanhan Area of Western Coal Fields Limited, and a Subsidiary of Coal India Limited .The Colliery is opened in the year 1925 by M/s M.S. Ojha & Company .The major part of the area has been extracted by underground method. However, left out coal has been planned for extraction by opencast method.

The mine is discontinued since 11.07.2012. Total project area is 162.153. ha. A proposal/scheme has been prepared by area which as follows, coal reserve-3.47 mt, OB-26.8mm³, S.R.-8.3 m³/t and life 8years. On this basis, this Mine Closure Plan has been prepared. The scheme is awaiting approval of competent authority.

The financial provision for Mine Closure Plan of this mine at present works out to around Rs 1503.69 lakhs (Based on April 2012 WPI)

1.1.1 Name of mine owner/company

Project : Ambara Open Cast Mine
Area : Kanhan
Company : Western Coal Fields Limited
Mine Owner : Director (T) (P&P), WCL

1.1.2 Address for Communication with PIN and Phone nos.

Project : Ambara Open Cast Mine
Post Office : Palachourai
Tehsil : Junnardeo
District : Chhindwara
State : Madhya Pradesh
PIN : 480551
Telephone : (07160)268034

1.1.3 Location of mine

Project : Ambara Open Cast Mine
Area : Kanhan
Coalfields : PENCH-KANHAN VALLEY COALFIELD

Latitude : 22⁰-10'-47" to 22⁰-12'-56"N
Longitude : 78⁰-37'-39" to 78⁰-41'-54"E

1.1.4 Capacity of mine: 0.50 MTPA

1.1.5 Date of start

Date of start : 1991
Present Status : Discontinue since 11.07.2012

1.1.6 Total Project Area of the mine: 162.153 Ha

1.1.7 Communication

The mine is approachable by metalled PWD Road linking Parasia and Damua. The mine is around 10 Km & 12 Km respectively from Junnardeo & Parasia. Palachourai is the nearest railhead on the Chhindwara- Amla broad gauge rail line of Central Railway and the distance of Palachourai is 4 Km from the Mine Site.

1.1.8 Topography of the area

The area has a rugged topography. The area is generally undulating in the mineable area of the mine with surface elevation ranging from 750m to 830m. The area which is covered under this Mine Closure Plan is mostly undulating with a significant drainage towards North, which is controlled by seasonal nallahs ultimately discharging to Pench River. Pench River flows at a distance of 7 Km from the mine on the North-Eastern side.

1.2 Reasons for Closure

The reason for closure of mine is exhaustion of coal from approved PR limits.

1.3 Need of mine closure planning

1.3.1 Mining activities leave long lasting impacts on the landscape, ecology and on local inhabitants. These activities disturb the delicate environmental and social equilibrium that exists in its area of influence. Hence, it becomes imperative on part of the mine operator to restore the equilibrium in the mine affected area that existed in the pre-mining period. Thus, any mining venture must have adequate closure plan, aimed at rehabilitation of disturbed area, which should be acceptable to local community as well as regulatory authority.

1.3.2 Mine closure encompasses rehabilitation process designed to restore Physical, chemical and biological quality disturbed by the mining activities. Mine closure is not

just something that happens at the end of a mine's life rather mine closure is an ongoing series of decisions and activities beginning in the pre-mining stage of mine and ending with a sustainable site that can be returned to the community.

1.3.3 Thus, a Mine closure plan needs to define the liabilities, responsibilities and authorities of the different agencies like the mine management, other regulatory bodies, Central and State Governments after mine closure. Various objectives of the advance mine closure planning are as follows:

- a. To allow productive and sustainable after-use of the site, which is acceptable to the mine owner and the regulatory authority.
- b. To protect public health and safety.
- c. To eliminate environmental damage and thereby encourage environmental sustainability.
- d. To minimize adverse socio-economic impacts of mining activities.
- e. To protect the flora and fauna of the area affected by the mining.
- f. Effective use of the assets created in course of mining.

1.3.4 Primarily, the mine closure activities are planned in two stages. The initial plan identifies the activities required to be executed as the mining activities progress after the inception of the mine. These activities may undergo subtle changes depending upon the actual site condition during implementation. Finally, a detailed closure plan is prepared 4-5 years before the actual closure time of the mine depending upon the existing parameters at that point of time.

1.4 Mine closure planning strategy in respect of Ambara OC Mine based on existing set of parameters

The life of the mine as on 1.04.2012 is 9 years and coal production Programme from 2013-14 is given below.

S.No.	Year	Coal production(Mt)
1.	2013-14	0.11
2.	2014-15	0.50
3.	2015-16	0.50
4.	2016-17	0.50
5.	2017-18	0.50
6.	2018-19	0.50
7.	2019-20	0.50
8.	2020-21	0.36
	Total	3.47

Following activities are envisaged towards mine closure programme in respect of Ambara Open cast Mine.

Progressive mine closure activities will continue as envisaged in the approved Project Scheme and as enumerated in the various approvals, permits, consents etc for which adequate financial provision is available.

1.5 Statutory Obligations

The statutory obligations on part of the mine operator have been enumerated in various approvals, permits, consents etc. such as lease deed, approved Mining Plan, approval obtained from MoEF , approval/consent from State Pollution Control Board and the other relevant statutes .The copies of environment clearance and consent to operate obtained from State Govt. are enclosed.

All the applicable obligations are being strictly complied with and regular reports, wherever required is being sent to respective authorities.

Some obligations relating to the Mine Management Companies are as follows:

(a) Health & Safety :Regulation Nos. 6,61,106,112 of Coal MinesRegulation, 1957 and its related DGMS Circulars

(b) Environment:

Water (Prevention & Control of Pollution Act 1974)

Air (Prevention & Control of Pollution Act 1981)

Environmental (Protection) Act 1986 and Environmental Protection (Amendment) Rule 2000.

DGMS Directives on Noise & Ground Vibration.

(c) Forest: Forest (Conservation) Act 1980

(d) Rehabilitation: CIL's R & R policy.

Chapter - 1

MINE DESCRIPTION / MINING PARAMETERS

2.0 Geology in brief

The stratum contours of the seam floor prepared on the basis of borehole data indicate that the strike of the coal seams are swinging from North-East to South-West.

The dips of the coal seams, deduced from stratum contours of the seam indicate a gradient of 1 in 8. The coal encountered in the block is designated in the descending order commencing from Seam-I at the top and Seam-III at the bottom.

Seam No.	Ambara Open Cast
I	Major part of Area is fully Depillared from floor (upto 3m height) by stook method and workings are standing on stooks. Below PWD Road & Built-up Area only development by Board & Pillar method is done.
II	Extensively worked by Board & pillar method before nationalization and seam is very thin (0.90 m)
III	Extensively worked by Board & pillar method (in the area matching with U/G workings of Seam-II) before nationalization and seam is very thin (0.75 m)

2.1 Brief description of Mining System

Within the Open cast project area, Open cast Mine is proposed in Seam-I keeping safety barrier from the lease hold boundary. Quarry batter is drawn at 45 degree, as the type of rock is hard.

PWD road passes through the property. It is initially proposed to work on the southern flank of the road up to the dip most limits. Thereafter the road is to be diverted & the balance area is to be worked in dip- rise direction.

Seams-II&III have been extensively worked by Bord & Pillar method before and after nationalization. Due to limited reserves in isolated areas, thinning & very high depth, Seam II & III are declared unworkable seams in the area amenable to Opencast method of working. The mine is being worked by HOE Patches by the combination of Excavator and dumpers & OB backfilled in the de-coaled area of the Mine. Presently the Mine is discontinued since 11.07.2012.

2.2 Seam-wise Mine Details

Table-1

Seam	Thickness Range	Depth (m)	Gr.	Balance mineable Reserves as on 1.04.2013
Seam-I	5.0m- 6.0m	50m – 95m	ROM Gr. 'D'	3.47Mt

Table – 2 Performance of mine for last 5 years

Particulars	Unit	Year				
		2006-07	2007-08	2008-09	2009-10	2010-11
Production	M t	0.1795	0.3085	0.2379	0.2663	0.2381

2.3 Mine boundary details

North : Common Mine Boundary Ambara & Barkui Colliery.

South : Common Mine Boundary Ambara & Mohan Colliery & Chandametta Colliery.

East : Common Mine Boundary Ambara & Barkui Colliery.

West : Ambara U/G Mine.

2.4 Surface Water bodies and their status

There is no prominent water body on the surface except few seasonal nallahs.

2.5 OB dumps and their status

OB dumps are internally dumped within the quarry of Ambara Opencast in de-coaled area and after reclamation plantation has been done. There is no external dump.

Internal dump			
S.No.	Dump Area(ha)	Dump height(m)	Volume(Lm3)
1.	40.00ha	55m(avg)	240.00
2.	15.00ha	45m(avg)	48.00

2.6 Maximum depth of the OCP workings

The maximum depth of the working is 80 m.

2.7 Coal processing / beneficiation operation

Coal is directly dispatched by Rail to power sectors through Palachuri siding.

Chapter - 2

CLOSURE PLAN AND RELATED ACTIVITIES

3.1 Mined out Land & proposed final land use

3.1.1 Management of mined out area

- a. Total mined out area (ha): present: 80ha proposed: 82.153ha Total: 162.153ha
- b. Backfilled area (ha): present : 60ha proposed: 95ha Total: 155.00ha
- c. Balance mined out area (ha) which will not be backfilled: 7.153ha
- d. Land used of balanced mined out area

A part of the land will be backfilled and remaining de-coaled void will be developed into a water lagoon. The water lagoon will be handed over to State Authorities for conversion into a picnic spot with proper fencing and security. If necessary the lagoon may also be used by the State authority for supplying water to local community after proper treatment of the same.

- e. Details of past subsidence

Not applicable because it is an open cast mine.

3.2 Water Regime management

3.2.1 Drainage pattern of the area (pre and post closure)

Existing drainage pattern

Pench river which flows North-East at a distance of 7 KM from lease boundary, controls the master drainage of the area.

The major part of the mine water is discharged through settling pond into seasonal nallahs which leads ultimately to the Pench River.

Post closure drainage pattern

In course of mining throughout the life, the general drainage pattern would not get disturbed. As regards the drainage from the mine out area and the OB Dumps, Garland drain of appropriate cross section would be provided around the quarry edge. This drain would be connected to the above natural seasonal nallahs, which would carry the run-off water to the Pench River.

3.2.2 Mine water discharge details

Existing mine water discharge details

- a. Water required for Industrial use is provided from the mine water discharge.
- b. Excess pumped out mine water is allowed to flow into the surface drainage system after passing through a settling pond constructed in a suitable place.

Post closure Mine water discharge

A major portion of the quarry will be backfilled and the remaining void will act as water reservoir. It is proposed to develop a water lagoon in the dip side area of the quarry, which could not be back filled. The water lagoon will be handed over to State Authorities for conversion into a picnic spot with proper fencing and security. If necessary, the lagoon may also be used by the State Authority for supplying water to local community after proper treatment of the same. The existing water supply facilities would be handed over to the State authorities for future upkeep and maintenance, if required local authorities may use the lagoon as a source of domestic water supply for the local community.

3.2.3 Water Quality Monitoring

Present Practice

Fortnightly samples of mine water as well as Quarterly samples of drinking water are collected and these samples are analyzed at Environmental Laboratory, CMPDI, Nagpur and the results are compared with MoEF standard.

Present status of water quality

Test results of the samples collected from the surface water bodies have shown that the water quality of surface water bodies is matching with the standards prescribed by MoEF.

Results of various quality checks have been furnished below in tabular format.

DRINKING WATER QUALITY REPORT: NA**MINE WATER QUALITY****EFFLUENT WATER QUALITY MONITORING DATA**

NAME OF THE COMPANY : WCL YEAR : 2012
 NAME OF THE AREA : KANHAN Q.E. : JUN.
 NAME OF THE PROJECT : AMBARA OC PATCH

Name of the Location : Mine water discharge(Mohan OC) : KAOW-1

Month	Date of Sample collection	Analysis Results			
		pH	TSS (mg/l)	COD (mg/l)	O & G (mg/l)
APR. 2012	23.04.12	7.36	50	80	BDL
MAY. 2012	12.05.12	7.12	34	60	BDL
JUN. 2012	06.06.12	7.51	56	100	BDL
TLV as per Env.(Protection) Amendment rule 2000		5.5 - 9.0	100	250	10

(BDL - Below Detectable Level- Value < 1.0 mg/l)

Well Water Level monitoring report

Groundwater monitoring data of dugwells in Ambara OC buffer zone area

Well No.	Name of village	Well location	Owner	Utility	Well dia (m)	Height of measuring point (m agl)	Well depth (m bmp)	WATER TABLE(m-bmp)				Formation Tapped
								May' 11	Aug' 11	Nov' 11	Jan'1 2	
K												
1	DUGARIA (3.5)	In the compound of Mr. B.S. Rajput South of Road	G.P.	Domestic	4.20	0.75	6.55	Dry	1.30	1.80	4.60	M/B sandstone
25	JUNAR DEV	Side of Tambia Road near Mandir outer limit of municipality	Deep chan Pawar	Domestic	4.75	0.85	12.20	10.45	2.65	3.80	8.25	M/B sandstone
26	GARAD EI	Near Mandir on junction of Tambia & Umrai Road	G.P.	Domestic	2.65	0.75	7.65	4.05	0.55	1.05	1.25	M/B sandstone
31	KARAN PIPARI YA	100 M back of G.P office	G.P.	Domestic	2.80	0.60	4.45	4.30	0.20	0.45	0.50	Basalt
32	MOARI	Back side of Budhanlal & near BHUDAMA NSA	G.P.	Domestic	3.60	0.75	5.95	4.75	0.80	1.35	4.05	Basalt
33	KHAM RA	About 100 m East of school in open land across nala.	G.P.	Domestic	3.55	0.35	2.95	1.20	0.15	0.45	1.15	Basalt

34	GUDDAM	Near G.P. office in low lying near Nala	G.P.	Domestic	5.30	0.65	4.95	Dry	1.05	1.25	1.80	Basalt
35	MANDAKADAI	In the openfield about 300 m away from village	Private	No pump	4.50	0.35	5.25	Dry	1.55	2.75	2.95	Basalt
36	MOHARIYA	In the low lying area North of LP School 100 m from Shivlalone	G.P.	Domestic	3.80	0.75	4.25	3.45	1.05	2.05	2.55	Basalt/sandstone
37	GHUTTI	Near LP school	G.P.	Domestic	3.25	0.65	9.75	2.80	0.40	0.25	1.55	M/B sandstone
38	KEVLARI	About 100 m NE of G.P office openfield of Shobharam	SOBHARAM	Irrigation	6.10	0.55	9.80	7.78	1.50	2.55	6.65	M/B S.stone with Dyke
39	RICHHORA	Near Bajrang Mandir & Phulchand Mistra	G.P.	Domestic	5.00	0.60	11.10	7.25	2.65	2.95	3.20	M/B sandstone
40	SUKRICHOWKI	Back side of house of Saukar Near Parasia Junardeve Road	SANKAR YADUBANSI	Domestic	1.60	GL	5.55	3.50	GL	GL	1.10	M/B sandstone
41	SUKRICHOWKI NALA	In the openfield Near Nala on Parasis-Jurdeo Road	SANKAR YADUBANSI	Irrigation	6.15	GL	11.00	5.30	2.45	3.70	8.80	M/B sandstone
42	CHIKALMAU	In the centre of village Near house HARICHANDRA DHURVE	G.P.	Domestic	3.15	0.80	9.50	7.75	2.40	2.60	3.30	M/B sandstone
44	HANOTIYA	In the compound of school Near Hospital	G.P.	Domestic	6.70	0.75	4.45	1.70	1.00	1.05	1.15	Talchir

47	MAURI	About 100 m East of Hingula Mandir near O/C patch Mauri	G.P.	Domestic	4.00	1.20	6.50	4.80	0.60	1.20	1.85	Barakar sandstone
48	MAYRI	Near Milk Dairy Depo. House of Roshan Vishkarma single house	Roshan Vishkarma	Irrigation	7.15	GL	7.45	6.75	1.90	2.55	4.25	Barakar sandstone
49	SILADEHI	Outside village towards Umreth Road Back of house of Panchu Lal	Panchu Lal	Irrigation	6.90	G.L	11.50	8.90	2.35	4.05	7.70	Barakar sandstone
57	AMBARA	Side of Road to Parasia about 100 south in the field of Farukh Bhai	Farukh Bhai	Irrigation	8.20	0.70	11.50	10.80	5.10	6.65	8.55	Barakar sandstone
Pench Area												
P												
7	UMRATH	About 1 km from Umrath on Sila Devi Road in openfield of Narayan pawar	Narayan Pawar	Irrigation	5.60	G.L.	18.50	14.35	7.05	7.60	9.55	Basalt
8	DIWADHANA	West of Umrath Sukri Road in openfield of Premchand Yadav	Premchand Yadav	D	3.55	0.40	11.25	9.80	4.85	5.75	7.30	Metamorphics
9	UPLI ROAD	West of Umrath-Sukri Road in the field of Raja cycle store	Atal Lal Bhoi	D	5.00	G.L.	10.95	Dry	6.00	6.40	7.35	Metamorphics
10	SUKRI	Back side of Kherapati	Mandir Trust	D	4.00	0.45	16.45	3.65	0.15	0.60	1.00	Motur

		Mandir										
11	JAMGU NDA	On PWD Road to Sukri- Parasia opp. Talab	Govt.	D	2.75	1.25	18.45	17.00	11.80	12.15	13.25	Motur
26	BAR KU HI	Back side of officess club Pench Area out side of club boundary	WCL	D	4.00	0.80	15.35	12.10	6.50	3.55	4.83	Motur

Note: m.bmp-meter below measuring point, m agl-meter above ground level, m.bgl-meter below ground level , D-Domestic, I-Irrigation, GP-Gram Panchayat, DCB-Dug cum borewell, TW-Tube well

Practice after the closure

The above practice of monitoring of quality of water would be continued for a period of 3 years after cessation of mining activities. If required, corrective action/steps would be taken to mitigate any adverse effect on local water regime. The responsibility of maintaining the quality of drinking water will be entrusted on the State Authorities after 3 years of mine closure.

3.3 Air quality management

3.3.1 Present practice

a. At present air borne dust is suppressed by:

- Sprinkling water on the various roads of the mine where vehicles ply.
- Water sprinkling at the various points where coal is handled.
- Proper loading of trucks to avoid any spillage of coal
- Proper maintenance of I.C. engines.

b. Further, the quality of air is also monitored on regular basis by drawing samples from the various residential and non-residential areas of the project. The test results are compared with the standards prescribed by the MoEF & CPCB.

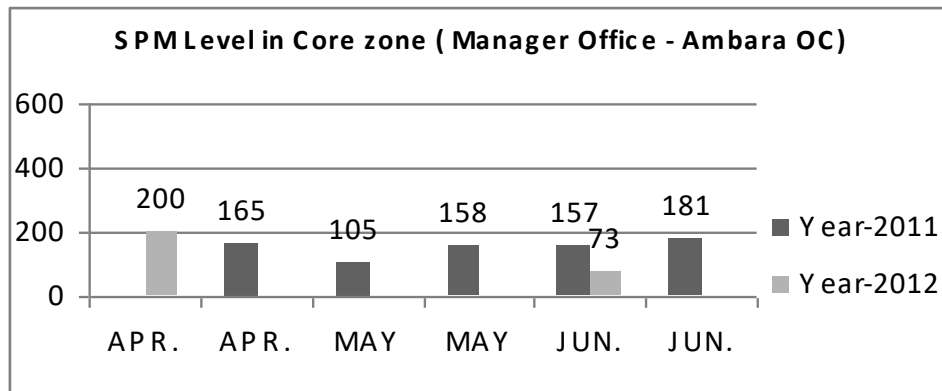
The test results of recent sampling are as under:

AIR QUALITY MONITORING DATA

NAME OF THE COMPANY : WCL YEAR : 2012
 NAME OF THE AREA : KANHAN Q.E. : JUN.
 NAME OF THE PROJECT : AMBARA OC PATCH

1. Manager Office		: KAOA-1		(24 hourly values in $\mu\text{g}/\text{m}^3$)			
Month	Dates of Sampling		Parameters				
	From	To	SPM	PM-10	NO _x	SO ₂	
APR.2012	09.04.12	10.04.12	200	83	3	2	
JUN.2012	11.06.12	12.06.12	73	23	2	2	
TLV as per Env.(Protection) Amendment Rule 2000			600	300	120	120	
2. Pit Office (Mohan)		: KAOA - 2		(24 hourly values in $\mu\text{g}/\text{m}^3$)			
Month	Dates of Sampling		Parameters				
	From	To	SPM	RPM	NO _x	SO ₂	
APR. 2012	09.04.12	10.04.12	483	260	5	4	
JUN. 2012	16.06.12	17.06.12	102	59	3	2	
TLV as per Env.(Protection) Amendment Rule 2000			600	300	120	120	
3. Colony Health Center		: KAOA-3		(24 hourly values in $\mu\text{g}/\text{m}^3$)			
Month	Dates of Sampling		Parameters				
	From	To	SPM	PM-10	NO _x	SO ₂	
APR. 2012	03.04.12	04.04.12	112	25	3	2	
APR. 2012	18.04.12	19.04.12	123	66	3	3	
MAY. 2012	03.05.12	04.05.12	146	41	2	2	
MAY. 2012	24.05.12	25.05.12	194	95	4	3	
JUN. 2012	11.06.12	12.06.12	67	29	2	1	
PERMISSIBLE LIMIT			200	100	80	80	

4. Ambara Village		: KAOA-4					
		(24 hourly values in $\mu\text{g}/\text{m}^3$)					
Month	Dates of Sampling			Parameters			
	From	-	To	SPM	PM-10	NO _x	SO ₂
APR. 2012	03.04.12	-	04.04.12	121	49	3	2
APR. 2012	18.04.12	-	19.04.12	107	17	3	1
MAY. 2012	03.05.12	-	04.05.12	192	89	4	1
MAY. 2012	18.05.12	-	19.05.12	145	71	3	2
JUN. 2012	11.06.12	-	12.06.12	45	28	2	1
JUN. 2012	16.06.12	-	17.06.12	63	42	2	1
PERMISSIBLE LIMIT				200	100	80	80



FUGITIVE DUST MONITORING DATA

1. CHP

		(24 hourly values in $\mu\text{g}/\text{m}^3$)		
Month	Dates of Sampling			Parameters
	From	-	To	SPM
JUN. 2012	25.06.12	-	26.06.12	288
				PM-10
				52

NOISE LEVEL DATA

NAME OF THE COMPANY : WCL YEAR : 2012
 NAME OF THE AREA : KANHAN Q.E. : JUN.
 NAME OF THE PROJECT : AMBARA OC PATCH

Name of the Location : Manager Office - KAON-1

Month	Date of Data collection	Noise Level in dB(A)		Remarks
		Day Time	Night Time	
APR. 2012 APR. 2012	08.04.12 24.04.12	56.2 54.2	52.7 44.3	
MAY. 2012 MAY. 2012	09.05.12 22.05.12	61.3 56.3	51.7 46.9	
JUN. 2012 JUN. 2012	11.06.12 22.06.12	49.5 55.7	44.2 46.2	
Noise Level Standard as per Env. (Protection) Amendment rule 2000		75	70	

Name of the Location : Colony - KAON-2

Month	Date of Data collection	Noise Level in dB(A)		Remarks
		Day Time	Night Time	
APR. 2012 APR. 2012	08.04.12 19.04.12	50.5 52.2	40.9 41.2	
MAY. 2012 MAY. 2012	09.05.12 22.05.12	51.9 50.6	41.6 40.9	
JUN. 2012 JUN. 2012	11.06.12 22.06.12	52.4 50.2	42.9 39.2	
Permissible Limit		55	45	

3.3.2 Practice after the closure of the mine

- a. As the sources of dust and fume generation would no longer be present, the present practice of arresting the air pollution, as enumerated above at the Para-3.3.1 would no longer be required after the closure of the mine.
However, water sprinkling would be done on the roads, which remain in use after the mine closure.
- b. Quality of air would be monitored for a period of 3 years after the cessation of mining activities. Efforts would be made to bring the air quality to the pre-mining standard.

3.4 Dump Reclamation

External dump

There is no external dump at present.

Internal Dumps

Backfilling has already started in the OCP and the final level of reclaimed backfill will be matched with the levels of surrounding ground level leaving a final residual void which will also serve as a lagoon may be utilized as water reservoir for the locality. Most of the back filled area shall be afforested by selecting proper plant species in consultation with state forest department.

3.5 Disposal of Buildings, Plants & Machineries

3.5.1 Infrastructure details

a. CHP – Coal handling arrangement at surface with capacity of surface bunkers

There is no CHP in the mine.

b. Workshop – Size with major equipment

There is no workshop in the mine and work is done contractually.

c. Railway Sidings

There is no railway siding in the Project. The coal is transported to Railway siding of Ambara Colliery which is about 4 Km through tippers.

d. Colony (number and type of quarters)

There is no separate colony in the mine. Colony of Ambara UG is being used for the residential purpose.

e. Water supply arrangement (source & facilities available like treatment plant and its capacity)

There is no water treatment plant in the mine.

f. Details of non-residential building – office building, sub-station, winder house, haulage room, boiler house, any other building

The establishment of Ambara UG mine is used.

3.5.2 Post closure disposal/re-use of the Buildings, Plants & Machineries

a. Disposal or reuse of existing HEMM, CHP, Workshop and railway siding for OC mines.

Infrastructure not available hence not applicable.

b. Disposal or reuse of transmission lines and sub-station

As per the electricity demand of the existing neighboring projects, an analysis would be made as to whether the existing sub-station and transmission lines could be gainfully used or not. If the scope of gainful utilization is not found, they will be dismantled and the usable items/spares/conductors etc. would be dispatched to needy Areas/projects

c. Disposal or reuse of residential and non-residential buildings

There is no residential and non-residential building in the Mine.

3.6 Safety and security arrangement

3.6.1 Details of fencing around abandoned quarry.

As explained earlier a major portion of the quarry will be backfilled and the remaining void will act as water reservoir. It is proposed to develop a water lagoon in the dip side area of the quarry, which could not be back filled. The water lagoon will be handed over to state authorities for conversion into picnic spot.

The remaining void of the quarry would be properly fenced to avoid inadvertent entry of animals or human beings. Sufficient boards and danger signs shall be placed all around.

Later on, the responsibility of keeping the fencing secured would be entrusted on the state authorities .The entry into the mine is the haul road, it will remain for entry into the picnic spot. Both side of this haul road will be afforested.

3.6.2 Slope stability arrangement for high wall and back filled dumps

During operation of the mine, overall slope will be maintained at an angle not exceeding 25-28 degrees. Vegetation cover will also be provided along the slopes to arrest any failure.

As regards stability of back-filled dumps, the final level of reclaimed backfill will be matched with the levels of surrounding hill ranges leaving a final residual void for the locality . For the stability of the back-filled dump the slope of the dump will be maintained at the stable angle of 25-28 degrees. Vegetation cover will also be provided along slopes to arrest any failure.

3.7 Survey records of workings

All the mine workings including quarry, roads, ponds, tanks, etc. shall be resurveyed and records shall be updated. Copy of such records shall also be submitted to the appropriate competent authorities, such as DGMS and state authorities.

3.8 Disposal / Management of hazardous material

At the time of closure, assessment would be made as to find whether there are any hazardous material that could cause problem. Such hazardous material e.g. explosives, chemicals, oil, etc. shall be appropriately disposed off.

3.9 Re-deployment of work force

At present the Mine is discontinued. Presently there is no manpower (as on 31.03.2013) in the roll of Ambara OC therefore the issue of redeployment does not arise.

3.10 Emancipation from the community facilities and the facilities to the PAPs

3.10.1 The local communities are being provided many civic facilities, such as educational facilities, health facilities, and drinking water. At the time of final closure after exhaustion of entire mineable reserve these facilities will be entrusted upon the local people and state authorities so that the same could continue even after mine closure if needed, a lump sum amount would also be paid to the local bodies/trust of people/state bodies for proper upkeep and maintenance of various community facilities.

3.10.2 To ensure that no financial loss due to the closure of mining activity in the presently worked seam occurs to the local community engaged indirectly to the exhausting mine, following steps would be taken:

It has been seen in the past that in the event of closure of a mine, the local people indirectly dependent on the mine switch over their economic/professional activities in the existing/new or expansion mines located in the nearby area. Local Management, if needed, extends some basic helps to them for switching over. Hence, it is expected that in this case also the transition of the local people from one area to the other area for their sustenance would not be any problem.

It is proposed that afforested land will be handed over to State Forest Department for the benefit of local ecosystem. The forest wealth can also be utilized by local people or tribal in the form of fruits and fodders.

3.11 Plantation Details

Sl.No.	Financial year	No. of Plants
1.	2010-11	Nil
2.	2009-10	5000
3.	2008-09	20000
4.	2007-08	25000
5.	2006-07	28000
6.	2005-06	Nil
7.	2004-05	Nil
8.	2003-04	Nil
9.	2002-03	Nil
10.	2001-02	3500

Chapter - 3

ECONOMIC REPURCUSSION OF CLOSURE OF MINE

4.1. Manpower of the project: - There is no manpower in the roll of Ambara OC as on 31.03.2013

4.2. Assessment of income scenario of local resident employee: -

People engaged in indirect employment / ancillary activities will find no financial loss due to the mine closure as their activities will be shifted in the new or expansion mines located in the coalfield area. As such the direct and indirect manpower will not be affected due to mine closure.

Note: After the closure of the mine, the reclaimed leasehold area and any structure thereon, which is not to be utilized by the mine owner, shall be surrendered to the state Govt. Concerned following a laid down procedure as in vogue at that point of time.

The forest wealth can also be utilized by local people or tribal in the form of fruits and fodders.

The water reservoir in the mine voids will be utilized for pisciculture, irrigation, domestic drinking water or stabilizing the ground water regime. Landscaping during closure of mine will make the spot for tourist attraction.

Chapter 5 TIME SCHEDULING FOR ABANDONMENT

IMPLEMENTATION SCHEDULE FOR MINE CLOSURE

LIFE OF THE MINE: 8 YEARS FROM 1.04.2013

SL. NO.	Activity	Time Frame	years													
			1 st Phase					Final Phase			Post Closure Programme					
			1	2	3	4	5	6	7	8	PC1	PC2	PC3			
A	Dismantling of Structures															
	Service Buildings	2 years														
	Industrial structures like Field Sub-Station, etc.	2 & ½ years														
B	Permanent Fencing of mine void and other dangerous area															
	Random rubble masonry of height 1.2 metre including levelling up in cement concrete 1:6:12 in mud mortar	2 years														
C	Grading of Highwall slopes															
	Levelling and grading of highwall slopes	2 years														
D	OB Dump Reclamation															
	Handling/Dozing of OB Dump into mine void and preparation of Internal dump for reclamation.	Throughout the life of mine including after cessation of mine operation	3 years													
	Technical and Bio-reclamation including plantation and post care	Throughout the life of mine including after cessation of mine operation	3 years													
E	Landscaping															
	Landscaping of the open space in the leasehold area for improving its esthetics and eco value	Throughout the life of mine including after cessation of mine operation	3 years													
F	Plantation															
	Plantation over cleared area obtaining after dismantling	2 years														
	Plantation around the quarry area and in safety zone	Throughout the life of mine including after cessation of mine operation	3 years													
	Plantation over the external OB Dump	Throughout the life of the mine														
G	Post Closure Env. Monitoring / testing of parameters for three years															
	Air Quality	3 years														
	Water Quality	3 years														
H	Entrepreneurship Development (Vocational / skill development training for sustainable income of affected people	Throughout the life of the mine														
I	Miscellaneous and other mitigative measures															
	Throughout the life of mine including after cessation of mine operation	3 years														
J	Post Closure Manpower cost for supervision															
		3 years														

PCI: Post Closure Year 1,

PC2: Post Closure Year 2,

PC3: Post Closure Year 3

Chapter - 6

MINE CLOSURE COST

- 6.1 The mine closure cost will cover the following activities for which a corpus fund will be created by opening an escrow account with the coal controller organization in nationalized bank. In case of occurrence of acid mine drainage, post closure acid mine drainage management cost shall also be included in the total closure cost. An amount @ Rs 6.00 lakhs per Ha of the project area will be deposited in this account for final mine closure. Progressive mine closure will be done with the fund provided in approved report.
- 6.2 The balance life of the project is 9 years and mine closure fund has been assessed based on existing project life. However the mine is likely to be extended and the project under reference will get dovetailed into the future /extension project. As such the progressive closure under the extension will continue and final closure will be planned at the cessation of mining activity.
- 6.3 The above rate has been taken from Circular No. 55011-01-2009-CPAM, Government of India, Ministry of Coal, Dated 27 August 2009 duly updated on 7th January 2012
- 6.4 Type of Mine : Open Cast. Life of Mine(as on 1.04.2012) 9 years
- Total project area of the mine: 162.153 Ha
The financial provision for closure of Ambara OC Mine comes to around Rs. 1503.69 lakhs (based on April 2012 WPI at the @ Rs 6 lakh/ Ha.
- 6.5 Mine closure cost break – up for Ambara OC mine is hereunder-

Sl. No.	Activity	% of Total Mine closure Cost	Amount (Rs.in Lakhs)
A	Dismantling of structures		
	Industrial Structures like Field substation, etc.	0.3	4.51
B	Permanent Fencing of mine void and other dangerous area		
	Random rubble masonry of height 1.2 meter including leveling up in cement concrete 1:6:12 in mud mortar	1.5	22.56
C	Grading of highwall slopes		
	Levelling and grading of highwall slopes	1.77	26.62
D	OB Dump Reclamation		
	Handling/Dozing of OB Dump into mine void and preparation of Internal dump for reclamation.	88.66	1333.17
	Technical and Bio-reclamation including plantation and post care.	0.4	6.01
E	Landscaping		
	Landscaping of the open space in leasehold area for improving its aesthetic and eco value.	0.3	4.51
F	Plantation		
	Plantation over cleared area obtained after dismantling.	0.5	7.52
	Plantation around the quarry area and in safety zone.	0.2	3.01
	Plantation over the external OB Dump	0.02	0.301
G	Post Closure Env Monitoring/Testing of Parameters for three years.		
	Air Quality	0.22	3.31
	Water Quality	0.2	3.01
H	Entrepreneurship development (vocational/ skill development) Training for sustainable income of affected people.	0.26	3.91
I	Miscellaneous and other mitigative measures.	4.87	110.48
J	Post Closure Man power cost for supervision	0.8	12.03
TOTAL		100%	1503.69

Note-

1. Mining is to be carried out in a phased manner initiating afforestation/ reclamation work in the minedout area of first phase while commencing mining in the 2nd phase.
2. Upto 80% of the total deposited amount including interest accrued in the ECSROW account may be released after every 5 years. The amount released should be equal to expenditure incurred on Progressive Mine closure in past 5 years or 80% whichever is less.
3. The above cost/expenditure will be met from the corpus fund deposited in the escrow account by the mine operator. However, the additional amount beyond the escrow account will be provided by the mine operator after estimating the final mine closure cost (as per the mine closure guideline).
4. The amount indicated separately under each head is indicative only and based on actual expenditure the amount may change.

6.7 Estimate of proposed escrow fund.

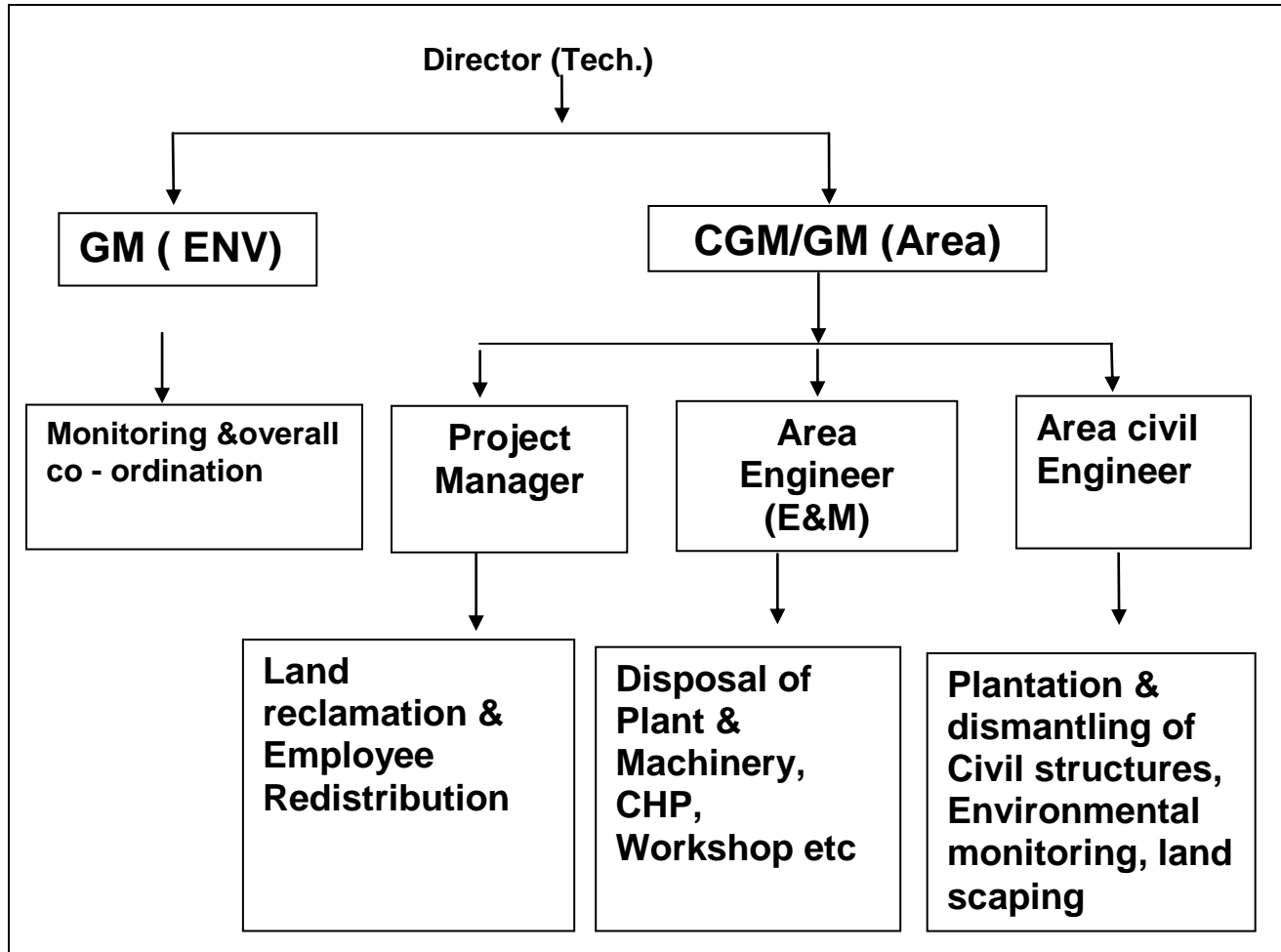
The total project area is 162.153 Ha. So the corpus based on August, 2009 rate is 972.91 Lakh @ 6.0 Lakh Rs/ha of project Area. The wholesale price Index in August, 2009 is 129.6 and the WPI, for the month of April 2012 available in the website of Office of Economic Adviser, Ministry of Commerce, Government of India is 163.5. So the current value of corpus is Rs. 972.91 *163.5/129.6 Lakhs, which comes to Rs. 1227.39 lakhs. This Corpus is to be divided by the life mine i.e. 9 years. So dividing by 9 years, the annual corpus comes to Rs 136.37 lakhs. This amount is to be deposited in escrow account every year with 5% escalation.

S.NO.	FINANCIAL YEAR	AMOUNTS IN LAKHS
1	2012-13	136.37
2	2013-14	143.19
3	2014-15	150.35
4	2015-16	157.87
5	2016-17	165.76
6	2017-18	174.05
7	2018-19	182.75
8	2019-20	191.89
9	2020-21	201.48
	Total	1503.69

Chapter - 7

IMPLEMENTATION PROTOCOL

For implementing the mine closure activities, the following organizational structure has been proposed:



Environmental monitoring for three years after closure of mine will be carried out to evaluate the environmental quality of the area. If need be, proper mitigative measures will be taken up after evaluating the environmental quality. The funds for this have been provided in the cost estimate. Before closure of the mine, Area GM will prepare survey and disposal report and the same will be submitted to DGMS for acceptance.
