CENTRAL COALFIELDS LIMITED

(A Mini Ratna Company)
SIX MONTHLY COMPLIANCE REPORT

EMP CLEARANCE

[J-11015/508/2008-IA. II(M)]

FOR THE PERIOD APRIL 2024—SEPTEMBER 2024



Dhori (Khas) UG

(DHORI GROUP OF 3 MINES - DHORI AREA)

Status of compliance with the terms and conditions given in the Environmental clearance letter No. J-11015/508/2008- IA. II(M) dt. 03.05.2011 issued by MOEF, Govt. of India New Delhi for Dhori Group of Mines (1.282 MTPA in 918.33 ha) for the period from – **For the period April 2024-September 2024.**

A.	SPECIFIC CONDITIONS					
Sl.No	Condition	Status				•
• (i)	There shall be no expansion in production beyond that for which environmental clearance has been granted.	EC for Dhori Go been granted by The details are as Name of Mine	MOEF. s follows:	is for 1.282 N	MTPA (Peak) ha	as
			Till Tillea (Tia)	(MTPA)	Cupacity	
				Normal	Peak	
		Dhori OCP	251.72	0.60	1.00	
		NSD UG	456.75	0.08	0.092	
		Dhori (K) UG	209.86	0.166	0.19	
(ii)	Mining shall be carried out as per statute from the streams /nallahs flowing along the lease boundary. A safety barrier of a minimum 60 m with shall be maintained along the nallahs below which no depillaring shall be carried out.	Mining is being Report. There is boundary	_			7.0
(iii)	Topsoil, if, any, generated in the balance life of Dhori OCP shall be stacked properly with proper slope at the earmarked topsoil dump of 36.30 ha and shall not kept active and shall be used within a year of excavation for reclamation and development of green belt and for reclamation.	This is an operati	ng Under Ground	l Mine. Hence	Not Applicable.	
(iv)	OB generated from Dhori OCP shall be stored in earmarked external ob dump site. The ultimate slope of the dumps shall not exceed 28 monitoring and management of reclaimed dumpsites shall continue until the vegetation becomes self- sustaining. Compliance status shall be submitted to the ministry of Environment & forest and its regional office located at Bhubaneswar on yearly basic.		ng Under Ground	l Mine. Hence	Not Applicable.	
(v)	Catch drains and siltation ponds of appropriate size shall be constructed to arrest silt and sediment flows from soil OB dumps. The water collected shall be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted and maintained properly garland drains (size, gradient and length) and sump capacity rainfall and maximum discharge in the area adjoining the mine site. Sump capacity shall also provide adequate retention period to allow		ng Under Ground	Mine. Hence	Not Applicable.	

	proper setting of silt material.	
(vi)	Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation shall be based on the rainfall data.	This is an operating Under Ground Mine. Hence Not Applicable.
(vii)	Water sprinkling system (mist spray type) shall be provided to check fugitive emission from conveyor system haulage roads transfer points etc.	Arrangement for proper sprinkling has been made to check fugitive emission from conveyor system etc.
(viii)	Drills shall be wet operated.	Complied Wet Drilling is carried out in drilling operations.
(ix)	Controlled blasting shall be practiced only during day time with use of delay detonators. The mitigative measures for control of ground vibrations and boulders shall be implemented.	This is an operating Under Ground Mine. Hence Not Applicable.
(x)	Area brought under afforestation from the three mines shall not be less than 393.78 ha which includes reclaimed area (255.760 green belt (138.02) by plating native species in consultation with local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha.	by planting of native species in consultation with the DFO in an area of 9.5 Ha in NSD UG mine. -In FY 2021-22, Approx 26,475 Nos of plants in the area of 10.59 Ha.in Dhori Khas UG Mine has been done by Forest department.
		© GPS Map Camera

Plantation Near Dhori (Khas) Colliery

21/09/24 10:12 AM GMT +05:30

Q2M6+8VC, Central Colony, Jharkhand 829144, India

Bokaro, Jharkhand, India

Lat 23.783424°

Google

Long 86.012401°









Eco - Park Near Dhori (Khas) Colliery, Under Construction

No groundwater shall be used for the mining activities. Additional water required if, any, shall be met from mine water or by recycling/ reuse of the water from the exiting activities and from rainwater harvesting measures. The project authorities shall meet water requirement of nearby village (s) in case the village wells go dry due to dewatering of mine.

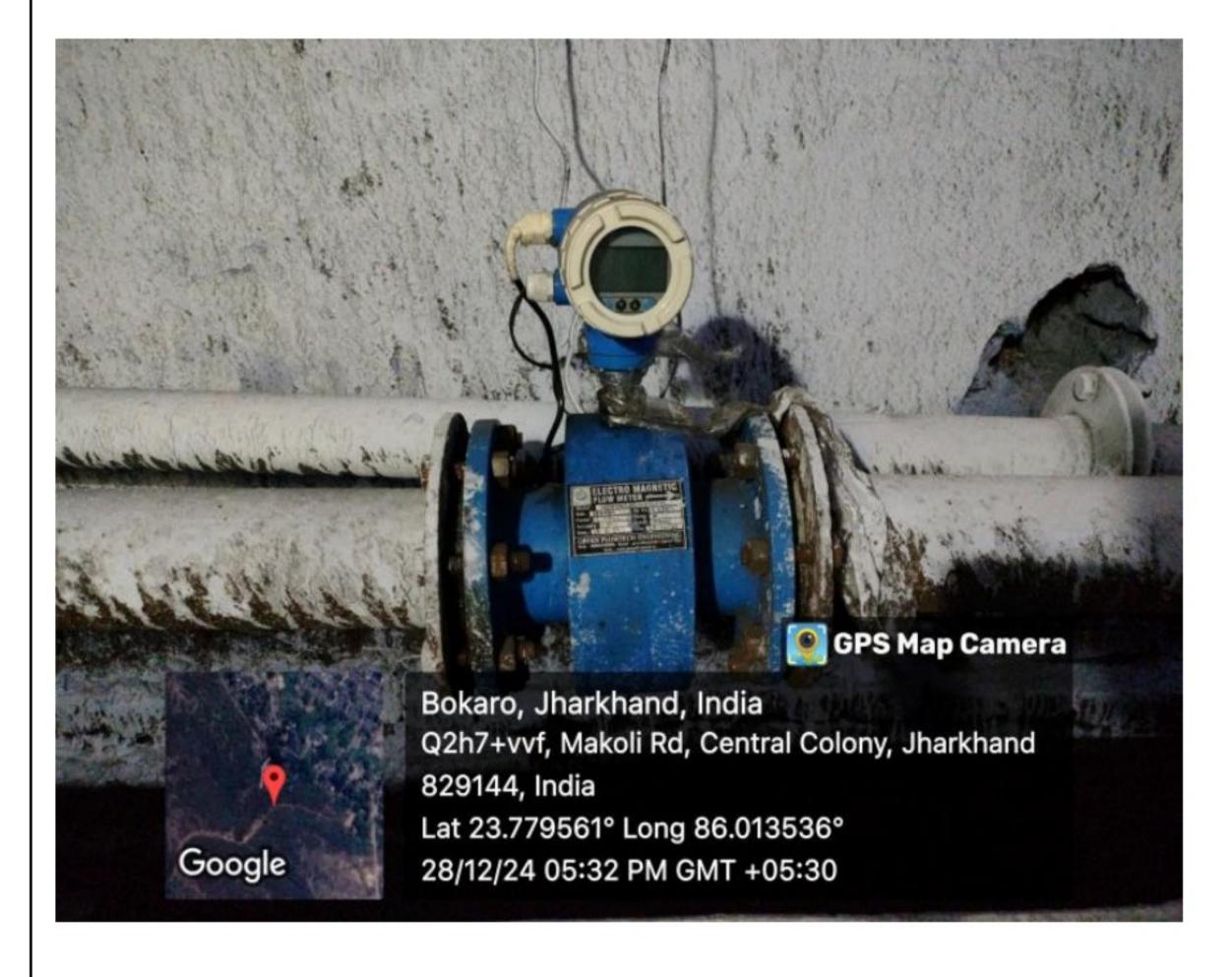
(xii)

No groundwater (bore well) is being used for mining operations.

Regular monitoring of groundwater level and quality shall be carried out establishing network of existing wells and construction of new piezometers. The monitoring for quality shall be done four time a year in premonsoon (May) monsoon (August) postmonsoon month of May. Data thus collected shall be submitted to the ministry of Environment & forests and to the Central pollution control Board /SPCB quarterly within one month of monitoring Rainwater harvesting measures shall be undertaken in case of monitoring water table indicate a declining trend.

Ground water monitoring of level and quality is being carried out by CMPDIL.

The Monitoring of well water level (approx. 12 ft) is being done according to schedule.





Digital Flow Meter Installed in Dhori (Khas) Colliery

(xiii) ETP shall also be provided for workshop and CHP Effluents shall be treated to confirm to prescribed standards as in case of discharge into any water course outside the lease. The quality of the water discharge shall be monitored at the outlet points and proper records maintained thereof and uploaded regularly on the company website.

This is an operating Under Ground Mine. Hence Not Applicable.

(xiv)	A detailed plan for CSR with the specific budgetary allocation (capital and revenue) for various skill development and alternate livelihood programs and schemes shall be implemented and the impacts of activities under CSR monitored based on the scientific methodology. An amount of Rs 5 per ton of coal produced shall be utilized for CSR activities with budgetary provision for the village—wise various activities and expenditures thereon shall be uploaded on the company website every year.	as per the p		Amount Spent (In Rs Lakhs) on CSR 373.54 131.34 33.24 37.80 43.57 61.42 105.00 38.49 105.19 149.96
			2023-24	110.65
(xv)	For monitoring land use patterns and for post-mining land use, a time series of land use maps based on the satellite imagery (on a scale of 1:5000) of the core zone and the buffer zone of any one particular season which is consistent in the time series) and the report was submitted to MOEF and it's the regional office at Bhubaneswar.	This is an o		ound Mine. Hence Not Applicable.
(xvi)	A final mine closure plane along with the plane for habitat Restoration and with details of corpus fund shall be submitted to the ministry of Environmental & forest for approval 5 years in advance of final mine closure for approval. The specific selected for habitat Restoration for post-mining land shall include a specific plane for development of agro-forestry using a mix of native species found in the study area.	Ministry.	Iine closure plan	has been already submitted to
(xvii)	Corporate Environment Responsibility: a). The company shall have a well laid down Environment policy approved by the Board of Directors. b). The Environment policy shall prescribe for standard operating process / procedures to bring into the focus any infringements / deviation /violation of the Environmental or forest norms / condition. c). The hierarchical system or administrative order of the company to the deal with environmental issues and for using ensuring compliance with the environmental clearance condition shall be furnished. d). To have proper checks and balance the company shall have well laid down system of reporting of non-compliance /violations of environmental norms to the Board of Directors of the company and /or shareholders or stakeholders at large.		plied.	

B.	GENERAL CONDITION	
Sl.No.	Condition	Status
(i)	No change in technology and scope of working shall be made without prior approval of the Ministry of Environment & Forests.	No change is being done in mining technology and scope of working.
(ii)	No change in the calendar plan including quantum of mineral coal and waste being produced shall be made.	No change is being done in the calendar plan including excavation, quantum of mineral coal and waste.
(iii)	as in the buffer zone for monitoring PM10,	office, Workshop, Chapri Guest house and Amlo Village for monitoring various parameters like SPM, RPM, SO2, NOx etc. The results of Air Quality report for the period from QE Jun - 24 to Sept -24 are enclosed.
(iv)	SOX and heavy metals such as Hg, As, Ni, Cr etc) and other monitoring data shall be regularly submitted to the ministry including	Ambient air quality (PM10, PM2.5, SOX and heavy metals such as As, Ni, Cr, Pb, Cu, Cd etc) monitoring being done regularly by CMPDIL (NABL Accredited laboratory) and latest report enclosed.
(v)	of noise levels below 85 dba in the work	Adequate measures are being taken. Noise levels are regularly monitored and kept below 85 dBA in the work environment. Noise Quality report for QE Jun - 24 to Sept -24 are enclosed.
(vi)	Industrial wastewater (workshop and wastewater from the mine) shall be properly collected and treated so as to confirm to the standards including for heavy metals before discharge prescribed under GSR 422(e) DATED 19 TH May 1993 and 31 st December 1993 or as amended from time to time. oil and grease trap shall be installed before discharge of workshop effluents.	
(vii)	Vehicular emission shall be kept under control and regularly monitored vehicles used for transportation of the mineral shall be covered with tarpaulins and optimally loaded.	

(viii)						
(ix)	Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate trailing and information on safety and health aspects. Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contraction due to exposure to dust and to take corrective measure, if needed.	Initial and periodic medical examination of employees is also carried out on regular basis every year.				
(x)	A separate Environmental Management cell with suitable qualified personnel shall be set up under the control of senior Executive who will report directly to the head of the company.	An Environment Management Cell has been established in this project, headed by Project Officer, DHORI K (UG) who is				
(xi)	The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose year-wise expenditure shall be	The funds earmarked for not being diverted for other		•	res are	
	reported to this ministry and its regional office at Bhubaneshwar.	Activity	EMP Cost (Lakhs)	EMP Cost (Lakhs)	_	
		Cost of restoration (Reclamation of mined out area)	200.40	22.60		
		Cost of anti pollution measures in mine & ind. Areas and green belt development	100.00	25.00		
		Cost of anti pollution measures in town ship and aboriculture	30.00	27.00		
		Other provision like RWH	10.00	5.00		
		Mine closure plan	1510.32 1850.72	209.33 288.93		
		Total	1030.72	200.33	J	
(xii)	The project authorities shall advertise at least in two local newspapers widely circulated around the project one of which shall be in the vernacular language of the locality accorded environmental clearance and copy of the clearance letter is available with the state pollution control Board and may also be		in Dainik Jag	gran Newsletter is enclo	osed.	

	seen at the website of the ministry of	— दावक जाग्रगा _न '
	Environment & Forest at http://envfor.nic.in	बोकारो धर्मल : बोकारो धर्मल थाना क्षेत्र अंतर्गत सीसीएल गोविंदपुर कॉलोमी में सोमवार की रात दो दुकान का शरद दुकान के मालिक त्रिलोकी प्रसाद ने बताया कि मंगलवार को सुबह जब वे दुकान पहुँचे तो देखा कि ताला टूटा पड़ा है। चोरों ने इस दुकान के बाद सड़क किनारे स्थित शिवा मेडिकल हॉल को निशाना बनाया। स्थानीय पुलिस ने दोनों दुकानों में जाकर घटना की जानकारी ली। प्रशंक एवं वन मंत्रालय (एसऔइएफ) नई रिल्ली द्वारा पर्यावरणीय स्वीकृति प्रदान की गाई है। क. सं परियोजना का नाम तारमी खुली खदान (1.00 MTPA in 258.70 ha) 2. अमली खुली खदान (1.00 MTPA in 258.70 ha) 3. बोरी समुह की तीन परियोजना को विस्तारीकरण (1.50 to 2.50 MTPA with a peak production Capacity of 3.00 MTPA in an ML Area of 247.59 ha) 3. बोरी समुह की तीन परियोजना, डोरी खुली खदान परियोजना, जुना 1015/508/2008-IA.II(M) Dt03.05.2011. 5. पर्यावर क्षमता का 0.846 MTPA (Nominal) and a peak Capacity of 1.282 MTPA in a combined ML area of 918.33 ha.
(xiii)	A copy of the environmental clearance letter shall be marked to concerned panchayat/zila parishad, municipal corporation or, urban local Body and local NGO, if, any from whom any suggestion /representation has been received while processing the proposal. A copy of the clearance letter shall also be	स्थीकृति को देख सकते है MOEF के बेबसाइट पर http://envfor.nic.in देखा जा सकता है। Complied.
(xiv)	displayed on the company website. A Copy of the clearance letter shall be sent to regional office of the MOEF, the respective Zonal offices of the CPCB and the SPCB. The concerned State pollution control Board shall display a copy of the clearance letter on their website. Copies shall also be displayed at the District Industry center and collector's office/Tehsildar's office for 30 days. A copy of the clearance letter may also be seen at the website of the Ministry of Environment & Forest at http://envfor.nic.in.	
(xv)	The Project authority shall advertise at least in two local newspapers widely circulated around the Project, one of which shall be in the vernacular language of the locally concerned within seven days of the clearance letter informing that the Project has been accorded environment clearance.	Copy of Advt. published in Newsletter attached above.

(xvi)	A copy of the EC letter shall be uploaded on the company's website. The compliance status of environmental clearance conditions shall also be uploaded by the project authorities to their web site so as to bring the same in the Public domain and regularly updated at least once every six months. The monitoring data of environmental quality parameters such as air (SPM, RPM, NOx and Sox), water, noise and soil or critical sectoral parameters indicated for the project shall also be displayed at the entrance of the project premises and mine office and in corporate office and also regularly uploaded on the company's website.	EC copy available in company's website. http://www.centralcoalfields.in/sutbs/envr clrnce.php
(xvii)	Infomitive reports on the status of combinance	been submitted to MOEF.
(xviii)	The Regional office of this Ministry located at Bhubhneswar shall monitor compliance of the stipulated conditions. The project authorities shall extend full cooperation to office(s) of the regional office by furnishing the requisite data/information/monitoring reports.	Agreed.
(xix)	The environmental statement for each financial year ending 31st March in Form-V is mandated to be submitted by the project proponent tot the concerned State pollution control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be uploaded on the company's website.	Complied. http://www.centralcoalfields.in/sutbs/envr_stmnt.php
(xx)	The ministry or any other competent authority may stipulate any further condition for Environmental protection.	
(xxi)	Failure to comply any of the conditions above may result in withdrawal of the clearance and attract the provisions of the Environment (Protection) Act, 1986.	Agreed.

(XXii)		
	The above conditions will be enforced inter-	Noted
	alia, under the provision of the water	
	(prevention & control of pollution) Act 1974,	
	the Air (prevention & control of pollution)	Trie de la companya
	Act 1981, the Environment (protection) Act	
	1986 and the public liability insurance Act	
	1991 along with their amendments and rules.	
	The proponent shall ensure to provide for the	
	costs incurred for taking remedial measures in	
	case of soil contamination, contamination of	
	ground water and surface water and	
	occupational and other diseases due to the	
	mining operations.	
		1

Project Officer

Dhori Khas (UG)

Dhori Area

Scanned with OKEN Scanner





TEST REPORT

06/24 Test Report No. Met	al / 01	Job No. 094323120	2024-25		
Type of Sample Ambient Air		Quarter Ending	June'24		
Customer	CCL	Date of Receipt of Sample:	15/04/2024		
Mode of Receipt of Sample:	Joint sampling with customer	Date of Analysis:	06/05/24-15/06/24		
Sampling Protocol:	USEPA IO-3.2: 1999, LQR 32				
Remarks & Observation:	All samplers placed 1.5 m above ground level				

TEST RESULT

The sample has been tested with the following results: -

S.N o	Test Parameters	Units	Test Resul	t			Method detectio	Limit (NAA	Test Method	
Station	ns:		1	2	3	4	n Limit	QS- 2011)	i est ivieti iou	
1	Conc. of As in Air	ng/m ³	1.43	1.12	1.17	0.59	0.1	6.00	USEPA IO- 3.2:1999	
2	Conc. of Ni in Air	ng/m ³	4.17	4.50	4.13	6.20	0.1	20.00	USEPA IO- 3.2:1999	
3	Conc. of Pb in Air	μg/m³	0.024	0.020	0.023	0.021	0.005	1.0	USEPA IO- 3.2: 1999	
4	Conc. of Cu in Air	ng/m³	0.32	0.19	0.43	0.29	0.1	-	USEPA IO- 3.2: 1999	
5	Conc. of Cd in Air	ng/m ³	0.073	0.034	0.076	0.086	0.02	-	USEPA IO- 3.2: 1999	
6	Conc. of Cr in Air	ng/m ³	0.20	0.23	0.18	0.15	0.1	-	USEPA IO- 3.2: 1999	
7	Conc. of Hg in Air	ng/m³	<0.005	<0.005	<0.005	<0.005	0.005	-	USEPA IO- 3.2: 1999	

Note: 1) This Report refers to the values obtained at the time of testing and results related to the items tested

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³⁾ This is computer generated report and requires no signature.





TEST REPORT

09/24 Test Report no. 1600	Job No. 094324145	Year	2024-25				
Type of Sample	Ambient Air	Quarter Ending	Sept-24				
Customer	CCL	CCL					
Mode of Receipt of Sample:	Joint sampling with customer	Joint sampling with customer					
Testing/Sampling Protocol:	IS 5182 (part 14): 2000 ,R -2010, Methods for Measurement of Air Pollution, LQR 32						
Remarks & Observation:	All samplers placed 1.5 m abo	All samplers placed 1.5 m above ground level					

TEST RESULT

The sample has been tested with the following results: -

Area: Dhori Project: Dhori Khas Colliery Stations: Sarda Colony

					Parame	ters (in µg/	m ³)		**** 1
Month	Date of Sampling	Date of receipt of sample	Date of analysis	Total Particulate Matter (PM ₁₀ + >PM ₁₀)TPM	Particulate Matter (PM ₁₀)	Particulate Matter (PM _{2.5})	Sulphur Dioxide (SO ₂)	Nitrogen Oxides (as NO _x)	Wind Direction (from) & Weather
Jul-24 1st FN	09/07/24- 10/07/24	16-07-2024	16/07/24- 19/07/24	111	51	26	< 25	< 6	East Sunny
Jul-24 2nd FN	24/07/24- 25/07/24	01-08-2024	01/08/24- 03/08/24	114	45	24	< 25	< 6	East Sunny
Aug-24 3rd FN	08/08/24- 09/08/24	16-08-2024	16/08/24- 19/08/24	122	61	34	< 25	< 6	East Sunny
Aug-24 4th FN	25/08/24- 26/08/24	02-09-2024	02/09/24- 04/09/24	128	57	27	< 25	< 6	East Sunny
Sep-24 5th FN	08/09/24- 09/09/24	16-09-2024	16/09/24- 18/09/24	133	68	31	< 25	< 6	East Sunny
Sep-24 6th FN	22/09/24- 23/09/24	01-10-2024	01/10/24- 04/10/24	138	64	33	< 25	< 6	East Sunny

Note:

- 1. Gazette Notification No. G.S.R 742(E) dt.25th Sept.'2000 is applicable in core zone.
- 2. Gazette Notification No. G.S.R 826 (E) dt.Nov.'2009 is applicable in buffer zone.

Analysed By

³⁾ This is computer generated report and requires no signature.





TEST REPORT

09/24 Test Report no. 1601	Job No. 094324145	Year	2024-25
Type of Sample	Ambient Air	Quarter Ending	Sept-24
Customer	CCL		
Mode of Receipt of Sample:	Joint sampling with customer	r	
Testing/Sampling Protocol:	IS 5182 (part 14): 2000 ,R -2	2010, Methods for Measurement of	Air Pollution, LQR 32
Remarks & Observation:	All samplers placed 1.5 m ab	ove ground level	

TEST RESULT

The sample has been tested with the following results: -

Area:	Dhori	Project:	Dhori Khas Colliery	Stations:	Makuli Colony
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					Parame	ters (in µg/n	n ³)		Wind
Month	Date of Sampling	Date of receipt of sample	Date of analysis	Total Particulate Matter (PM ₁₀ + >PM ₁₀)TPM	Particulate Matter (PM ₁₀)	Particulate Matter (PM _{2.5})	Sulphur Dioxide (SO ₂)	Nitrogen Oxides (as NO _x)	Wind Direction (from) & Weather
Jul-24 1st FN	09/07/24- 10/07/24	16-07-2024	16/07/24- 19/07/24	125	64	37	< 25	< 6	East Sunny
Jul-24 2nd FN	24/07/24- 25/07/24	01-08-2024	01/08/24- 03/08/24	110	53	32	< 25	~6	East Sunny
Aug-24 3rd FN	08/08/24- 09/08/24	16-08-2024	16/08/24- 19/08/24	116	58	30	< 25	< 6	East Sunny
Aug-24 4th FN	25/08/24- 26/08/24	02-09-2024	02/09/24- 04/09/24	139	66	33	< 25	< 6	East Sunny
Sep-24 5th FN	09/09/24- 10/09/24	16-09-2024	16/09/24- 18/09/24	153	59	27	< 25	76	East Sunny
Sep-24 6th FN	23/09/24- 24/09/24	01-10-2024	01/10/24- 04/10/24	145	70	36	< 25	< 6	East Sunny

Note:

- 1. Gazette Notification No. G.S.R 742(E) dt.25th Sept.'2000 is applicable in core zone.
- 2. Gazette Notification No. G.S.R 826 (E) dt.Nov.'2009 is applicable in buffer zone.

Analysed By





TEST REPORT

09/24 Test Report no. 1602	Job No. 094324145	Year	2024-25				
Type of Sample	Ambient Air	Quarter Ending	Sept-24				
Customer	CCL						
Mode of Receipt of Sample:	Joint sampling with customer						
Testing/Sampling Protocol:	IS 5182 (part 14): 2000 ,R -2010, Meth	IS 5182 (part 14): 2000 ,R -2010, Methods for Measurement of Air Pollution, LQR 32					
Remarks & Observation:	All samplers placed 1.5 m above groun	d level					

TEST RESULT

The sample has been tested with the following results: -

Area: Dhori Project: Dhori Khas Colliery Stations: Pichari Village

				3	Parame	ters (in µg/n	n ³)		XX7' 1
Month	Date of Sampling	Date of receipt of sample	Date of analysis	Total Particulate Matter (PM ₁₀ + >PM ₁₀)TPM	Particulate Matter (PM ₁₀)	Particulate Matter (PM _{2.5})	Sulphur Dioxide (SO ₂)	Nitrogen Oxides (as NO _x)	Wind Direction (from) & Weather
Jul-24 1st FN	09/07/24- 10/07/24	16-07-2024	16/07/24- 19/07/24	129	74	39	< 25	< 6	East Sunny
Jul-24 2nd FN	24/07/24- 25/07/24	01-08-2024	01/08/24- 03/08/24	134	64	33	< 25	< 6	East Sunny
Aug-24 3rd FN	08/08/24- 09/08/24	16-08-2024	16/08/24- 19/08/24	127	68	37	< 25	< 6	East Sunny
Aug-24 4th FN	25/08/24- 26/08/24	02-09-2024	02/09/24- 04/09/24	143	71	28	< 25	< 6	East Sunny
Sep-24 5th FN	09/09/24- 10/09/24	16-09-2024	16/09/24- 18/09/24	149	72	38	< 25	< 6	East Sunny
Sep-24 6th FN	23/09/24- 24/09/24	01-10-2024	01/10/24- 04/10/24	144	58	27	< 25	< 6	East Sunny

Note:

- 1. Gazette Notification No. G.S.R 742(E) dt.25th Sept.'2000 is applicable in core zone.
- 2. Gazette Notification No. G.S.R 826 (E) dt.Nov.'2009 is applicable in buffer zone.

Analysed By





TEST REPORT

09/24 Test Report no. 1603	Job No. 094324145	Year	2024-25
Type of Sample	Ambient Air	Quarter Ending	Sept-24
Customer	CCL		
Mode of Receipt of Sample:	Joint sampling with customer		
Testing/Sampling Protocol:	IS 5182 (part 14): 2000 ,R -2010, Method	ls for Measurement of	of Air Pollution, LQR 32
Remarks & Observation:	All samplers placed 1.5 m above ground l	level	

TEST RESULT

The sample has been tested with the following results: -

Area: Dhori Project: Dhori Khas Colliery Stations: Central Colony (filter plant)

					Parame	ters (in µg/n	n ³)		XX7' 1
Month	Date of Sampling	Date of receipt of sample	Date of analysis	Total Particulate Matter (PM ₁₀ + >PM ₁₀)TPM	Particulate Matter (PM ₁₀)	Particulate Matter (PM _{2.5})	Sulphur Dioxide (SO ₂)	Nitrogen Oxides (as NO _x)	Wind Direction (from) & Weather
Jul-24 1st FN	10/07/24- 11/07/24	16-07-2024	16/07/24- 19/07/24	116	59	28	< 25	< 6	East Sunny
Jul-24 2nd FN	25/07/24- 26/07/24	01-08-2024	01/08/24- 03/08/24	121	61	30	< 25	Z 6	West Sunny
Aug-24 3rd FN	09/08/24- 10/08/24	16-08-2024	16/08/24- 19/08/24	134	71	41	< 25	< 6	East Sunny
Aug-24 4th FN	26/08/24- 27/08/24	02-09-2024	02/09/24- 04/09/24	133	68	33	< 25	< 6	East Sunny
Sep-24 5th FN	09/09/24- 10/09/24	16-09-2024	16/09/24- 18/09/24	139	65	27	< 25	< 6	East Sunny
Sep-24 6th FN	23/09/24- 24/09/24	01-10-2024	01/10/24- 04/10/24	136	60	29	< 25	< 6	East Sunny

Note:

- 1. Gazette Notification No. G.S.R 742(E) dt.25th Sept.'2000 is applicable in core zone.
- 2. Gazette Notification No. G.S.R 826 (E) dt.Nov.'2009 is applicable in buffer zone.

Analysed By





TEST REPORT

09/24 Test Report no. 1604	Job No. 094324145	Year	2024-25
Type of Sample:	Noise	Quarter Ending	Sept-24
Customer	CCL	•	
Testing/Sampling Protocol:	'The noise pollution (Reg	gulation and Control), R	ules,2000, LQR34
Remarks:			

TEST RESULT

The sample has been tested with the following results: -

Area: Dhori Colliery Project: Dhori Khas Colliery

	Noise Level	Noise Level dB(A) Leq									
Station Name	Jul-24 1st FN	Jul-24 2nd FN	Aug-24 3rd FN	Aug-24 4th FN	Sep-24 5th FN	Sep-24 6th FN					
	Day/Night	Day/Night	Day/Night	Day/Night	Day/Night	Day/Night					
Date of recording	09-07-2024	24-07-2024	08-08-2024	25-08-2024	08-09-2024	22-09-2024					
1. Sarda Colony	51.9/49.6	52.1/46.2	50.9/48.7	50.5/48/.5	50.3/47.5	46.3/40.4					
Date of recording	09-07-2024	24-07-2024	08-08-2024	25-08-2024	09-09-2024	23-09-2024					
2. Makuli Colony	51.7/49.3	53.4/47.1	51.3/49.5	51.1/48.9	49.8/47.2	47.4/41.2					
Date of recording	09-07-2024	24-07-2024	08-08-2024	25-08-2024	09-09-2024	23-09-2024					
3. Pichari Village	50.9/48.7	52.6/45.1	51.8/49.4	51.9/49.5	47.3/45.4	45.8/39.9					
Date of recording	10-07-2024	25-07-2024	09-08-2024	26-08-2024	09-09-2024	23-09-2024					
4. Central Colony (Filter Plant)	51.9/49.4	54.6/47.2	51.6/49.1	51.6/49.2	50.8/48.1	52.5/47.2					

Ambient Air Quality Standards in respect of Noise as per 'The noise pollution (Regulation and Control), Rules, 2000									
Time Frame Limits in dB(A) Leq									
	Day Time 6.00 AM to 10.00 PM	Night Time 10.00 PM to 6.00 AM							
Industrial Area	75	70							
Commercial Area	65	55							
Residential area	55	45							
Silence Zone	50	40							

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TEST REPORT

09/24 Test Report no. 1605	Job No. 094324145	Year	2024-25
Type of Sample:	Effluent Water	Quarter Ending	Sept-24
Customer	CCL		
Mode of Receipt of Sample:	Joint sampling with customer		
Testing/Sampling Protocol:	MOEF -SCH-VI STANDARDS	S, Class 'A'. LQR 33	
Remarks & Observation:	Samples received in 5 ltrs plastic	Jerri cane, Colour as observed is	transparent

TEST RESULT

The sample has been tested with the following results: -

Area: Dhori Project: Dhori Khas Colliery Stations: Lagoon Discharge

Parameters >				COD	O & G	pH value	TSS
Detection Limit				4	2	0.2	10
MOE	F -SCH-VI, ST	ANDARDS, Clas	s 'A'	250	10	5.5 to 9.0	100
Month Date of Receipt of Sample Date of Analysis			AND CONTROL OF THE PROPERTY OF	Value in mg/l, except pH			
Jul-24 1st FN	14/07/24	16/07/24	16/07/24- 31/07/24	16	<2.00	6.01	32
Jul-24 2nd FN	30/07/24	01/08/24	01/08/24- 16/08/24	12	<2.00	6.57	25
Aug-24 3rd FN	14/08/24	16/08/24	16/08/24- 31/08/24	8	<2.00	6.28	29
Aug-24 4th FN	31/08/24	02/09/24	02/09/24- 16/09/24	20	<2.00	6.35	35
Sep-24 5th FN	13/09/24	16/09/24	16/09/24- 30/09/24	12	<2.00	6.32	31
Sep-24 6th FN	29/09/24	01/10/24	01/10/24- 10/10/24	16	<2.00	6.29	26
BIS Standard & Method				APHA, 23rd Edition, Closed Reflux, Titrimetric Method, 2017	R : 2003, Partition	IS- 3025/11:1983, R-1996, Electrometric	IS 3025/17:1984, R:1996, Gravimetric Method

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TEST REPORT

09/24 Test Report no. 1606	Job No. 094324145	Year	2024-25					
Type of Sample:	Surface Water	Quarter Ending	Sept-24					
Customer	CCL	Date of Receipt:	16-07-2024					
Mode of Receipt of Sample:	Joint sampling with customer	Date of Analysis:	16/07/24-17/09/24					
Testing/Sampling Protocol:	LQR 33	•						
Remarks & Observation:	Samples received in 5 ltrs plastic	Samples received in 5 ltrs plastic Jerri cane, Colour as observed is transparent						

TEST RESULT

The sample has been tested with the following results: -

Area: Dhori Khas Colliery
Stations: Date of Sampling:

1.Jhoria Nala U/S 2.Jhoria Nala D/S 14/07/2024

Sl.	Parameter		Sampling Statio	ns	Detection	BIS Standard & Method	
No		1	2 3	4	Limit		
1	Arsenic (as As), mg/l	<0.002	<0.002		0.002	IS 3025/37:1988 R: 2003, AAS-VGA, Method	
2	BOD (3 days 27°C), mg/l	<2.0	<2.0		2.00	IS 3025 /44: 1993, R: 2003 3 day incubation at 27°C	
3	Cadmium(as Cd), mg/l	<0.0004	<0.0004		0.0004	APHA, 23rd Edition AAS-GTA Method, 2017	
4	Chlorides (as Cl ⁻), mg/l	6	6		2.00	IS-3025/32:1988, R-2007, Argentometric Method	
5	Copper (as Cu), mg/l	<0.02	<0.02		0.02	IS 3025/42: 1992, R : 2009, AAS (Air-Ac-Flame)	
6	Disolved Oxygen	6.5	6.9		0.10	IS 3025/38: 1989, R:2003, Winkler Azide Method	
7	Fluoride (as F ⁻) mg/l	0.58	0.59		0.02	APHA, 23rd Edition, SPADNS Method, 2017	
8	Hexavalent Chromium, mg/l	<0.01	<0.01		0.01	APHA, 23rd Edition, 2017 Diphenylcarbohydrazide,	
9	Iron (as Fe), mg/l	<0.04	<0.04		0.04	IS 3025 /53: 2003, R : 2009, AAS (Air-Ac-Flame)	
10	Lead (as Pb), mg/l	<0.001	<0.001		0.001	APHA, 23rd Edition AAS-GTA Method, 2017	
11	N ₃ trate (as NO ⁻), mg/l	2.06	3.43		0.50	APHA, 23rd Edition, UV - Spectrophotometric, 2017	
12	pH value	7.09	7.93		1.0	IS-3025/11:1983, R-1996, Electrometric Method	
13	Phenolic compounds (as C ₆ H ₅ OH), mg/l	<0.001	<0.001		0.001	APHA, 23rd Edition, 2017, 4-Amino Antipyrine Method,	
14	Selenium (as Se), mg/l	<0.0005	<0.0005		0.0005	IS 3025/56:2003 AAS-VGA Method	
15	Sulphate (as SO ⁻²) mg/l	37	38		2.00	APHA, 23rd Edition Turbidity Method, 2017	
16	Total Dissolved Solids, mg/l	138	154		25.00	IS 3025 /16:1984 R: 2006, Gravimetric Method	
17	Total Suspended Solids, mg/l	67	58		10.00	IS 3025 /17:1984, R :1996, Gravimetric Method	
18	Zinc (as Zn), mg/l	0.021	0.012		0.005	IS 3025 /49: 1994, R : 2009, AAS (Air-Ac-Flame)	

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Stations:

ENVIRONMENT LABORATORY, CMPDI (HQ), RANCHI



Date of Sampling:

TEST REPORT

09/24 Test Report no. 1607	Job No. 094324145	Year	2024-25					
Type of Sample:	Drinking Water	Quarter Ending	Sept-24					
Customer	CCL	Date of Receipt:	16-07-2024					
Mode of Receipt of Sample:	Joint sampling with customer	Date of Analysis:	16/07/24-17/09/24					
Testing/Sampling Protocol:	IS:10500 Drinking Water Stan	IS:10500 Drinking Water Standards, LQR 33						
Remarks & Observation:	Samples received in 5 ltrs plastic	Samples received in 5 ltrs plastic Jerri cane, Colour as observed is transparent						

TEST RESULT

The sample has been tested with the following results: -

Area: Dhori Khas Colliery

1. Central Colony Filter Plant, Near DAV Makoli 14/07/2024

Sl.N	Parameter	Sampling Stations		Detection	IS:10500	Standard / Test Method	
0		1 2 3		Limit	Standards		
1	Boron (as B), mg/l	<0.20		0.20	0.5, Max	APHA, 23rd Edition Carmine Method; 2017	
2	Cadmium (as Cd), mg/l	<0.0004		0.0004	0.003, Max	APHA, 23rd Edition AAS-GTA Method, 2017	
3	Calcium (as Ca), mg/l	20.8		1.60	75, Max	IS-3025/40:1991, EDTA	
4	Chloride (as Cl ⁻), mg/l	10		2.00	250, Max	IS-3025/32:1988, R-2007, Argentometric Method	
5	Copper (as Cu), mg/l	<0.02		0.02	0.05, Max	IS 3025/42: 1992, R : 2009, AAS (Air-Ac-Flame)	
6	Fluoride (as F ⁻) mg/l	0.47		0.02	1.0, Max	APHA, 23rd Edition, SPADNS Method, 2017	
7	Free Residual Chlorine, mg/l	0.03		0.02	0.2, Min	APHA, 23rd Edition, DPD Method, 2017	
8	Iron (as Fe), mg/l	<0.04		0.04	0.3, Max	IS 3025 /53: 2003, R : 2009, AAS (Air-Ac-Flame)	
9	Lead (as Pb), mg/l	<0.001		0.001	0.01, Max	APHA, 23rd Edition AAS-GTA Method, 2017	
10	Manganese (as Mn), mg/l	<0.01		0.01	0.1, Max	IS-3025/59:2006, AAS (Air- Ac-Flame) Method	
11	Nickel (as Ni), mg/l	0.003		0.003	0.02 , Max	APHA, 23rd Edition, 3120 B, ICP Method: 2017	
12	Nitrate (as NO ₃), mg/l	2.20		0.5	45, Max	APHA, 23rd Edition, UV- Spectrophotometric, 2017	
13	Odour	Agreeable		Qualitative	Agreeable	IS 3025 /05:1983, R-2012, Qualitative	
14	pH value	8.28		1.0	6.5 to 8.5	IS-3025/11:1983, R-1996, Electrometric Method	
15	Phenolic compounds (as C ₆ H ₅ OH), mg/l	<0.001		0.001	0.001, Max	APHA, 23rd Edition,4-Amino Autipyrine, 2017	
16	Selenium (as Se), mg/l	<0.0005		0.0005	0.01, Max	IS 3025/56:2003 AAS-VGA Method	
17	Sulphate (as SO ₄) mg/l	24		2.00	200, Max	APHA, 23rd Edition. Turbidity Method, 2017	
18	Total Alkalinity (CaCO ₃), mg/l	68		4.00	200, Max	IS-3025/23:1986,R: 2009, Titration Method	
19	Total Arsenic (as As), mg/l	<0.002		0.002	0.01, Max	IS 3025/ 37:1988 R: 2003, AAS-VGA: 1998	
20	Total Chromium (as Cr), mg/l	<0.002		0.002	0.05, Max	APHA, 23rd Edition, 3120 B, ICP Method: 2017	
21	Total Dissolved Solids, mg/l	164		25.00	500, Max	IS 3025 /16:1984 R: 2006, Gravimetric Method	
22	Total Hardness (CaCO ₃), mg/l	84		4.00	200, Max	IS-3025/21:1983, R-2009, EDTA Method	
23	Turbidity, NTU	1		1.0	1.0, Max	IS-3025/10:1984 R-1996, Nephelometric Method	
24	Zinc (as Zn), mg/l	0.01		0.005	5.0, Max	IS 3025 /49: 1994, R : 2009, AAS (Air-Ac-Flame)	

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TEST REPORT

09/24 Test Report no. 1608	Job No. 094324145	Year	2024-25			
Type of Sample	Ambient Air	Quarter Ending	Sept-24			
Customer	CCL					
Mode of Receipt of Sample:	Joint sampling with customer					
Testing/Sampling Protocol:	IS 5182 (part 14): 2000 ,R -2010, Methods for Measurement of Air Pollution, LQR 32					
Remarks & Observation:	All samplers placed 1.5 m above groun	nd level				

TEST RESULT

The sample has been tested with the following results: -

Area: Dhori Project: Selected Dhori Stations: Colony

				Parameters (in µg/m³)					W I
Month	Date of Sampling	Date of receipt of sample	Date of analysis	Total Particulate Matter (PM ₁₀ + >PM ₁₀)TPM	Particulate Matter (PM ₁₀)	Particulate Matter (PM _{2.5})	Sulphur Dioxide (SO ₂)	Nitrogen Oxides (as NO _x)	Wind Direction (from) & Weather
Jul-24 1st FN	10/07/24- 11/07/24	16-07-2024	16/07/24- 19/07/24	123	68	33	< 25	< 6	East Sunny
Jul-24 2nd FN	25/07/24- 26/07/24	01-08-2024	01/08/24- 03/08/24	131	56	24	< 25	< 6	West Sunny
Aug-24 3rd FN	09/08/24- 10/08/24	16-08-2024	16/08/24- 19/08/24	141	67	30	< 25	< 6	East Sunny
Aug-24 4th FN	26/08/24- 27/08/24	02-09-2024	02/09/24- 04/09/24	135	72	35	< 25	- 6	East Sunny
Sep-24 5th FN	10/09/24- 11/09/24	16-09-2024	16/09/24- 18/09/24	145	62	24	< 25	< 6	East Sunny
Sep-24 6th FN	24/09/24- 25/09/24	01-10-2024	01/10/24- 04/10/24	143	64	32	< 25	< 6	East Sunny

Note:

- 1. Gazette Notification No. G.S.R 742(E) dt.25th Sept.'2000 is applicable in core zone.
- 2. Gazette Notification No. G.S.R 826 (E) dt.Nov.'2009 is applicable in buffer zone.

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TEST REPORT

09/24 Test Report no. 1622	Job No. 094324145	Year	2024-25			
Type of Sample	Ambient Air	Quarter Ending	Sept-24			
Customer	CCL	•				
Mode of Receipt of Sample:	Joint sampling with customer					
Testing/Sampling Protocol:	IS 5182 (part 14): 2000 ,R -2010, Methods for Measurement of Air Pollution, LQR 32					
Remarks & Observation:	All samplers placed 1.5 m above ground	level				

TEST RESULT

The sample has been tested with the following results: -

Area: Dhori Project: Amlo Stations: Chapri Guest House

				Parameters (in µg/m³)					Wind
Month	Date of Sampling	Date of receipt of sample	Date of analysis	Total Particulate Matter (PM ₁₀ + >PM ₁₀)TPM	Particulate Matter (PM ₁₀)	Particulate Matter (PM _{2.5})	Sulphur Dioxide (SO ₂)	Nitrogen Oxides (as NO _x)	Wind Direction (from) & Weather
Jul-24 1st FN	12/07/24- 13/07/24	16-07-2024	16/07/24- 19/07/24	211	71	32	< 25	< 6	East Sunny
Jul-24 2nd FN	27/07/24- 28/07/24	01-08-2024	01/08/24- 03/08/24	245	80	46	< 25	< 6	East Sunny
Aug-24 3rd FN	10/08/24- 11/08/24	16-08-2024	16/08/24- 19/08/24	207	65	37	< 25	< 6	North Sunny
Aug-24 4th FN	28/08/24- 29/08/24	02-09-2024	02/09/24- 04/09/24	218	75	42	< 25	< 6	East Sunny
Sep-24 5th FN	12/09/24- 13/09/24	16-09-2024	16/09/24- 18/09/24	238	76	44	< 25	< 6	East Sunny
Sep-24 6th FN	26/09/24- 27/09/24	01-10-2024	01/10/24- 04/10/24	190	60	36	< 25	< 6	East Sunny

Note:

- 1. Gazette Notification No. G.S.R 742(E) dt.25th Sept.'2000 is applicable in core zone.
- 2. Gazette Notification No. G.S.R 826 (E) dt.Nov.'2009 is applicable in buffer zone

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