



WESTERN COALFIELDS LIMITED

MAJRI AREA

NEW MAJRI UNDER GROUND to OPENCAST

COAL MINE

EC COMPLIANCE REPORT

AS ON 17.11.2016

WESTERN COALFIELDS LIMITED
ENVIRONMENTAL CLEARANCE COMPLIANCE REPORT

PART-I

Name of the project	New Majri UNDERGROUND to OPEN CAST COAL MINE
Location and Address	Office of the Sub Area Manager, New Majri Sub Area, Majri Area, PO: Shivji Nagar, Tehsil: Bhadrawati, Dist: Chandrapur, Maharashtra
Address for correspondence	Office of the Sub Area Manager, New Majri Sub Area, Majri Area, PO: Shivji Nagar, Tehsil: Bhadrawati, Dist: Chandrapur, Maharashtra
MOEF's clearance letter no. & date	J-11015/25/2008.IA.II(M) DT.18.02.2011
Date of last report submitted	05.05.2016 (Letter no. WCL/MA/AGM/ENV/2016/135 dtd 05.05.16)
Date of commencement of project work	30.10.2015

STATUS OF LAND ACQUISITION:

Type of land	Required as per EMP (Ha)	Actual acquired (Ha) as on 31.10.2016
Forest	3.68*	NIL
Agriculture	460.24	405.11
Other	15.24	15.24
Total	479.16	420.35

* Tahsildar, Bhadrawati has informed vide letter no. K.V./A.K./Prastu-1/2016/1172 dated 15.11.2016, the said forest land of 3.68 Ha bearing survey no. 14, 19 & 20 is not forest land as per clarification given by RFO Bhadrawati and as such same is under revenue department i.e. it is Government Land

STATUS OF LEGAL COMPLIANCES:

A	Consent under Water (Prevention & Control of Pollution) Act	Consent to Operate for 0.80 MTPA Capacity has been granted by MPCB upto 31.03.2016 vide letter no BO/CAC_Cell/EIC No. CH-1722-15/CAC/CAC-15042 dated 03.12.15. Renewal of CTO applied Online upto 31.03.2019 (submitted vide UAN No. 1177 on dtd 13.03.2016).
B	Consent under Water (Prevention & Control of Pollution) Cess Act	
C	Environment (Protection) Act	Env. Clearance obtained for 0.80 MTY vide letter no. J-11015/25/2008.IA.II(M) dated 18.02.2011.
D	Forest (Conservation) Act	Tahsildar, Bhadrawati has informed vide letter no. K.V./A.K./Prastu-1/2016/1172 dated 15.11.2016, the said forest land of 3.68 Ha bearing survey no. 14, 19 & 20 is not forest land as per clarification given by RFO Bhadrawati and as such same is under revenue department i.e. it is Government Land (copy of letter enclosed).

PART – II

STATUS OF ENVIRONMENT

AIR POLLUTION CONTROL:-

- a. No. of ambient air monitoring stations: Four
- b. Name of the location: ---
1. Pit Office, New Majri –III UG
2. Near play ground
3. Manager Office, New Majri –II OC
4. Pit Office, Naglone UG
- c. Ambient air quality status for the parameters prescribed by State Pollution Control Boards (Average 95% time weighted values):

Sl.No	Location	SPM	RPM	SO2	NOx
1)	Pit Office, New Majri –III UG	The CMPDIL Monitoring report is enclosed for the month of July and August 2016. It can be seen that all the parameters are within the prescribed standards			
2)	Near play ground				
3)	Manager Office, New Majri –II OC				
4)	Pit Office, Naglone UG				

WATER POLLUTION CONTROL:

- a. No. of stations and frequency of monitoring: Mining activities started from 30.10.2015 & there is no mine water discharge as of now, hence the water pollution monitoring reports will be provided once mine water discharge encountered for the mine
- b. Description of locations: --
- c. Average concentration of major pollutants prescribed by State Pollution Control Board (fig. in mg/lit except pH) :

Sl. No	Location	pH	BOD	COD	DO	TSS	O/G
1.	Mine water discharge	Mining activities started from 30.10.2015 & there is no mine water discharge as of now hence the water pollution monitoring reports will be provided once mine water discharge encountered for the mine					

NOISE POLLUTION CONTROL:

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

Sl. No	Location	Day	Night
1.	Fan House, New Majri- III UG	Enclosed CMPDIL monitoring reports for the month of July and August 2016. . It can be seen that all the parameters are within the prescribed standards	
2.	Colony		

PART-III

STATUS OF IMPLEMENTATION OF PROVISIONS OF EMP

LAND USE STATUS:-

Area reclaimed biologically: Nil

Sl No	Particulars	As per EMP	01.04.2016 to 31.10.2016	Progressive as on 31.10.2016
1.	Area excavated (Ha)	114.35	14.90	40.90
2.	OB removed (Mm3)	43.05	1.987 incl. Top Soil	4.701 incl. Top Soil
	Top soil removed (Mm3)	Incl. in sl. no. 2	0.50	1.50
3.	OB backfilled (Mm3)	Nil	Nil	Nil
4.	OB dumped (Mm3)	43.05	1.987 incl. Top Soil	4.701 incl. Top Soil
5.	Area recovered for reclamation (physical reclamation)	Nil	Nil	Nil

* Status of Top Soil:

2015-16: Top Soil Dump (0.60 Mm³), Embankment (0.40 Mm³)

2016-17 as on 31.10.16: Top Soil Dump (Nil), Embankment (0.50 Mm³)

PRODUCTION:-

- (i) Targeted Capacity: - 0.80 MTY (sanctioned capacity)
- (ii) Present Capacity: - 0.80 MTY

AFFORESTATION : -

Sl.No	Location	01.04.2016 to 31.10.2016	Progressive (nos.) upto 31.10.2016
1.	OB Dumps & embankments	Nil	Nil
2.	Safety zones	Nil	Nil
3.	Backfilled areas	Nil	Nil
4.	Other areas	20,000	20,000
	Total	20,000	20,000

Area under plantation (Progressive): - 8.00 Ha

Species planted: Jamun, Amla, Neem, Karanj, Baheda, Sirius, Peltafarm, Safed Sirius, Sissoo, Gulmohar, Casia

REHABILITATION & RESETTLEMENT :-

Sl.No	Particulars	Total
1.	No. of land oustees	330 (Agricultural Land of 330 farmers)
2.	No. of land oustees rehabilitated	--
3.	No. of PAPS/PAFS to be resettled	--
4.	No. of PAPS/PAFS resettled	--
5.	Area of new site (Ha)	--
6.	Status of development	--
7.	Civic amenities provided at new resettlement site	--

Organizational setup at project level :-
(Name and designation of the personnel to be given)

1. Shri A.K. Dixit
Sub Area Manager
2. Shri A.Venkataramana
Mine Manager
3. Shri S.P. Tiwary
Sr. Manager (Civil)/ Nodal officer (Env)

EXPENDITURE :-

Account head	01.04.2016 to 31.10.2016	Progressive upto 31.10.2016
Afforestation	Rs 11.53 Lakhs	Rs 11.53 Lakhs
Monitoring	Rs 2.42 Lakhs	Rs 3.72 Lakhs
Statutory expenses	Nil	Rs 18.30 Lakhs
Reclamation (HEMM)	Nil	Nil
Air pollution control Equipments *	Nil	Nil
Water pollution control Equipments **	Nil	Nil
<i>Others</i>		
Cost of operation & maintenance of mobile tankers	Rs 10.50 Lakhs	Rs 10.50 Lakhs
Rain water harvesting pond	Nil	Rs 7.62 Lakhs
Garland drain	Rs 4.37 Lakhs	Rs 4.37 Lakhs

Note:

* Fixed Sprinklers installed at Coal stockyard (payment to be made)

** Construction of Sedimentation tank under progress

PART - V

Clearance letter No.

: J-11015/25/2008-IA.II (M)

Date

: 18th Feb 2011

1 SPECIFIC CONDITIONS		
Sl.No	Conditions	Compliance
i.	No mining operations shall be undertaken in 3.68 ha forest land, until forestry clearance has been obtained under the provisions of FC Act, 1980	1. Not Applicable as this land belongs to revenue deptt. of GoM i.e. Government land. 2. Tahsildar, Bhadrawati has informed vide letter no. K.V./A.K./Prastu-1/2016/1172 dated 15.11.2016, the said forest land of 3.68 Ha bearing survey no. 14, 19 & 20 is not forest land as per clarification given by RFO Bhadrawati and as such same is under revenue department i.e. it is Government Land. (Copy of letter enclosed as Annexure XV)
ii.	Prior approval of the Flood and Irrigation Department shall be obtained for diversion of a nalla of 2.5 km stretch flowing within the ML Areas. Mining operations shall be undertaken maintaining a minimum safe distance from river/ nalla. Stone pitching should be done on the embankment of nalla/ river side. OB for construction of embankment shall be first ascertained for suitability for construction purpose. Stone pitching shall be undertaken along the river/ nalla	Diversion plan/ design is obtained from CDO, Nashik vide letter no. CDO/Dam/ED-2/(59)/90/2016 dated 29.03.2016. Enclosed as Annexure XVI As per the design approved by CDO Nashik, the construction of diverted nalla has been completed before onset of monsoon. Moreover the diverted nalla has discharged monsoon water amicably without any hindrance or flood. Grass seeding has been done on the embankment and sand bags are placed on rain cuts to prevent soil erosion. Pitching will be done in next financial year
iii.	Top soil shall be stored in the earmarked site(s) and shall be used within a year of its generation for green belt development and for plantation / reclamation.	1.50 Mm ³ Top soil has been excavated till 31.10.2016 and is being stored in the earmarked site (photograph enclosed) and will be utilized as per the plantation programme
iv.	OB shall be stacked at the earmarked one external OB dumpsite of 101.70 ha. The ultimate slope of the dump shall not exceed 28°. Monitoring & management of existing reclaimed dumpsites shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests & its Regional Office, located at Bhopal on yearly basis. An action plan to reclaim the old OB dump along the river Wardha be prepared and implemented. Action plan for reclamation of old abandoned dump should be furnished to ministry.	3.201 Mm ³ OB (excl. top soil) has been excavated till 31.10.2016 and is being stacked at the earmarked dump site only (photograph enclosed). Ultimate slope is being maintained as per the approval of DGMS, Gol. Since, there is only one external OB Dump, hence the reclamation of the OB dump will be done at the end of mine life only

vii.	Garland drains (size, gradient & length) around the safety areas & low lying areas. Sump capacity shall be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity should also be provided adequate retention period to allow proper settling of silt material.	The project is conversion of Underground to Opencast, as such there is a huge void of underground galleries which accumulate water. There is no face pumping as no discharge of mine water. However, Garland drains of dimension (Length: 1090 mtr, Avg. width: 2.50 mtr, Avg. Depth: 1.50 mtr) is provided around the mine. The work of same was completed in July 2016
ix.	Catch drains and siltation ponds of appropriate size shall be constructed to arrest silt & sediment flows from soil, OB & mineral dumps. The water so 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 & length) and sump capacity should be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material.	Catch drain of dimension (Length: 885 mtr, Avg. width: 2.50 mtr, Avg. Depth: 1.50 mtr) provided around OB dumps & siltation pond of dimension (50 m x 30 m x 1.20 mtr) provided for settling of suspended particles. Garland drains of dimension (Length: 1090 mtr, Avg. width: 2.50 mtr, Avg. Depth: 1.50 mtr) is provided around the mine.
x.	Dimensions of the retaining wall at the toe of dumps and OB benches within the mine to checkup run-off and siltation shall be based on the rainfall data.	The mine has started its operation on 30.10.2015. At present major OB has been used for construction of embankment. Embankment of dimension (Length: 5.50 Km, Top width: 30 mtr, Bottom width: 50 mtr, Avg. Height: 8 mtr) is provided around the mine (photograph enclosed). Total cost incurred in construction of same is Rs 13.874 crores Presently, garland drain around quarry & catch drain with siltation pond around OB dump has been made to control / arrest the runoff. Once the OB dump takes proper shape, appropriate control measures will be taken in addition to catch drain.
xi.	Crushers at the CHP shall be operated with high efficiency bag filters/ water sprinkling system shall be provided to check fugitive emission from crushing operations, conveyor system which shall be closed, haulage roads, transfer points etc.	CHP of New Majri UG to OC Mine is yet to be constructed. On date, the coal is transported to adjacent Majri railway siding. Dust suppression measures such as fixed sprinklers at Railway Siding, Coal stockyard etc are provided. In addition, 3 nos. mobile water tankers are used for water sprinkling on haul roads/ coal transportation road (photograph enclosed).
xii.	Drills shall be wet operated.	Drills are wet operated
xiii.	Controlled blasting shall be practiced with the use of delay detonators and only during day time. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders shall be implemented.	Controlled blasting is being done as per DGMS guidelines with delay detonators and shock tubes.

xiv.	Transportation of coal from mine pit to railway siding for a distance of 2 kms shall be by closed conveyors only. Roads used for transportation of coal from CHP to Railway siding shall be black topped and developed with 3-tier avenue plantation using a mix of species suitable for controlling fugitive dust emissions.	Coal transportation is being done with tarpaulin covered trucks to the CHP of adjacent New Majri OC Mine. Roads used for transportation of coal from CHP to Railway siding are already black topped. Avenue Plantation is being done on both sides of Railway Siding & Coal transportation road in phased manner.
xv.	No groundwater or water from River Wardha shall be used for mining operations. Any additional water requirement shall be met from mine pit water and from Rain Water Harvesting system.	No groundwater or water from River Wardha is being used for mining operations.
xvi.	Regular monitoring of ground water level and quality shall be carried out by establishing a network of existing wells and construction of new piezometers. The monitoring for Water Level shall be done at least 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 shall be submitted to the Ministry of Environment & Forests and the Central Pollution Control Board quarterly within one month of monitoring.	Well water monitoring for assessing the ground water level in the villages of buffer zone is carried out through CMPDIL. Report of the same has been submitted to your good office vide our letter no. WCL/ENV/HQ/20-J/139 dated 18.04.2016 (copy of letter enclosed as Annexure XVII)
xvii.	The company shall put up artificial groundwater recharge measures for augmentation of groundwater resources, in case monitoring of ground water level indicate decline of water table. Any additional water requirement for mining operation shall be met from Rain Water / recycling of water only. The project authorities should meet water requirement of nearby village (s) in case the village wells go dry due to de-watering of the mine.	Rain Water Harvesting Pond of dimension 88 mtr x 18 mtr x 1.20 m and costing Rs 7.62 Lakhs has been made to recharge ground water (photograph enclosed). Moreover, the galleries of old abandoned Underground mine (New Majri UG mine no. III) acts as a ground water recharge structure. On date, no village has reported any shortage of water for domestic use. The project will provide drinking water to the nearby villages in case of village wells go dry due to dewatering of the mine.
xviii.	ETP shall also be provided for treatment of effluents from workshop, CHP and a STP shall be provided for treating waste water from township and the treated effluent shall be used for greenbelt development. Waste water generated from the mine shall be treated and recycled for mine operations to the extent possible and the balance shall be treated to prescribed standards before discharge into the surface water/ agricultural use.	ETP of adequate capacity will be provided for Workshop effluent along with the construction of workshop. At present the 100 KLD ETP at workshop of New Majri II (A) OC Mine is used. However, Site of workshop of New Majri UG to OC Mine has been finalised, work awarded and the same will be commissioned during 2016-17
xix.	Besides carrying out regular periodic health checkup of their workers, 10% of the workers identified from work force engaged in active mining operation shall be subjected to health checkup for occupational diseases and hearing impairment, if any, through an agency such as NIOH, Ahmadabad within a period of 1 year and the results reported to this Ministry & to DGMS.	PME is being conducted at Area Hospital & report of same periodically submitted to the DGMS (Record enclosed as Annexure XVIII)
xx.	A plan for afforestation of the mine lease of an area not less than 133 ha shall be implemented, which	Noted for compliance.

	includes reclaimed external OB dump (90 ha), vacant land (43 ha) along ML boundary, along roads and infrastructure (3 ha), green belt and area for rationalization within the lease and vacant land (40ha) and within the township by planting native species in consultation with local DFO/ agriculture department. The density of the trees shall be around 2500 plants/ ha.	20,000 nos. of plantation has been done during 2016-17 (Photographs enclosed) Plantation programme as follows: <table border="1"> <tr> <th>Year</th> <th>Area (Ha)</th> <th>Nos.</th> </tr> <tr> <td>1st Year</td> <td>8.00</td> <td>20,000</td> </tr> <tr> <td>At the end 7th Yr</td> <td>40.00</td> <td>1,00,000</td> </tr> <tr> <td>At the end of mine life</td> <td>133.00</td> <td>3,32,500</td> </tr> </table>	Year	Area (Ha)	Nos.	1 st Year	8.00	20,000	At the end 7 th Yr	40.00	1,00,000	At the end of mine life	133.00	3,32,500
Year	Area (Ha)	Nos.												
1 st Year	8.00	20,000												
At the end 7 th Yr	40.00	1,00,000												
At the end of mine life	133.00	3,32,500												
xxi.	The entire decoaled void of 114.35 ha being left as a water body shall be reclaimed along the upper slopes of the void/ water body which is gently sloped with grass and plantation. The quality of water in the water body shall be closely monitored.	Noted for Compliance.												
xx.	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.	Land use pattern of the mine is studied every 3 year through Satellite imagery and report of same for year 2013-14 is enclosed as annexure XIX.												
xxi.	R&R for the expansion project for the Dafai village involving 261 houses of WCL and 129 houses of private owners shall be completed within agreed timeframe. R&R shall follow the norms of the national R&R policy or the R&R policy of the state government whichever is higher.	<table border="1"> <thead> <tr> <th></th> <th>Status as on date</th> </tr> </thead> <tbody> <tr> <td>Total Land holding</td> <td>330 Land losers</td> </tr> <tr> <td>Employment given</td> <td>173 Employment given 107 employment balance</td> </tr> <tr> <td>Monetary Compensation (MC) paid against employment</td> <td>29 MC given 21 MC balance</td> </tr> <tr> <td>House Oustees</td> <td>Nil</td> </tr> </tbody> </table>		Status as on date	Total Land holding	330 Land losers	Employment given	173 Employment given 107 employment balance	Monetary Compensation (MC) paid against employment	29 MC given 21 MC balance	House Oustees	Nil		
	Status as on date													
Total Land holding	330 Land losers													
Employment given	173 Employment given 107 employment balance													
Monetary Compensation (MC) paid against employment	29 MC given 21 MC balance													
House Oustees	Nil													
xxii.	The socio-economic development of the villages covered under CSR shall be not less than Rs 5/tonne of coal and shall be monitored over the life of the project using UNDP Human Development Indices and reported as a part of the report submitted to MOEF RO, Bhopal	Activities like tarring of roads, borewell at Majri Basti, construction of class rooms, toilets, bathroom block at Hindi, Marathi & Telugu school at Majri Basti, and various Skill development programme for the PAPs. Details of Expenditure incurred on CSR is enclosed as Annexure VII												
xxiii.	A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment and Forest 3 years before the completion of the project. A Habitat Restoration Plan of the Mine area shall be prepared and implemented using a mix of native species found in the original ecosystem, which were conserved in-situ and ex-situ in an identified area within the lease for reintroduction in the mine during mine reclamation and the post mining stage for habitat restoration including grazing land and agricultural land	Final Mine Closure Plan is a part of Project Report & it has been approved by WCL Board on 23.05.2015. As on 31.03.2016, an amount of Rs 2,42,90,268.00 has been deposited in Escrow account (A/c no. 08973161006001)												
2	GENERAL CONDITIONS													
Sl. No	Condition	Compliance												
i.	No change in technology and scope of working shall be made without prior approval of the Ministry of Environment and Forests.	On date, there is no change in technology, scope of the project.												
ii.	No change in the calendar plan including quantum of mineral coal & waste shall be made.	On date, there is no change in calendar plan including coal & OB production.												

iii.	Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring PM ₁₀ , PM _{2.5} , SO ₂ and NO _x monitoring. Location of the stations shall be decided based on the meteorological data, topographical features, and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr in particulate matter shall be carried out atleast once in six months	The ambient air quality monitoring stations are established in consultation with the RO Maharashtra Pollution Control Board, Chandrapur. Monitoring reports for the month of July and August 2016 is enclosed as annexure XX It can be seen that all the parameters are within the prescribed standards
iv.	Data on ambient air quality, (PM ₁₀ , PM _{2.5} , SO ₂ , NO _x and heavy metals such as Hg, As, Ni, Cr etc) and other monitoring data shall be regularly submitted to the Ministry including its Regional Office at Bhopal and to the State Pollution Control Board & the Central Pollution Control Board once in six months. Random verification of samples through analysis from independent laboratories recognized under EP Rules, 1986 shall be furnished as part of compliance report	Reports on ambient air quality is being submitted quarterly to Maharashtra Pollution Control Board, Regional office Chandrapur (Copy of forwarding letter enclosed as annexure XXI). The same has also been submitted to MoEF, Regional Office, Nagpur along with six monthly report. (Copy of AAQ monitoring report incl. incl. Heavy metals) is monitored separately & report of same is enclosed as annexure V)
v.	Adequate measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operations of HEMM, etc should be provided with ear plugs/muffs.	Adequate measures namely proper maintenance of HEMM and controlled blasting is being taken so as to control noise levels below 85 dB(A). The workers engaged in noisy environment are provided with ear plugs/muffs. Noise Monitoring stations are established for monitoring the noise level data.
vi.	Industrial waste water (workshop and waste water from the mine) shall be properly collected and treated so as to conform to the standards including 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.	There is no mine water discharge from the mine as of now. The workshop will be provided with an ETP of adequate capacity with facility of re-circulation of water will be provided along with the construction of Workshop.
vii.	Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transporting the mineral shall be covered with tarpaulins and optimally loaded.	All the light vehicles namely jeep & trucks etc. having valid PUC certificate for vehicular emission through RTO approved agency are used (PUC Certificates enclosed as Annexure XXII). Vehicles used for transportation of coal are covered with tarpaulin & optimally loaded as per the rated carrying capacity.
viii.	Monitoring of environmental quality parameters shall be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with state pollution control board and data got analysed through a laboratory recognized under EP Rules, 1986.	A full fledged Environmental laboratory under CMPDIL (NABL Accrediated) exists at Nagpur, which monitor the air, Noise and water quality at the mine.

ix.	<p>Personnel working in dusty areas should wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects.</p> <p>Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed & records maintained thereof.</p>	<p>Personnel working in dusty areas are provided with dust masks. The workers are given training/refresher training in VTC on safety and health aspects which is also a statutory requirement under Mines Act 1952 (Copy of Record enclosed as Annexure XXIII).</p> <p>Periodic medical Examination for all workers once in every five years is being carried out and records are maintained to observe any disease and to take corrective measures (Last 3 years PME Record enclosed as Annexure XVIII)</p>
x.	<p>A separate environmental management cell with suitable qualified personnel shall be set up under the control of a Senior Executive, who will report directly to the Head of the Company.</p>	<p>Environment Cell exists at HQ, Area, & project level. GM (Environment) of HQ directly reports to the head of the Organization.</p> <div style="border: 1px solid black; padding: 5px; text-align: center; margin-bottom: 5px;"> GM (ENVIRONMENT) at HO Level </div> <div style="text-align: center; margin-bottom: 5px;"> </div> <div style="border: 1px solid black; padding: 5px; text-align: center; margin-bottom: 5px;"> Area Nodal Officer (ENV)/ Sr. Manager (C) At AREA LEVEL </div> <div style="text-align: center; margin-bottom: 5px;"> </div> <div style="border: 1px solid black; padding: 5px; text-align: center;"> Nodal Officer (ENV)/ Sr. Manager (C) At UNIT LEVEL </div>
xi.	<p>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 reported to this Ministry and its Regional Office at Bhopal.</p>	<p>Funds have been earmarked for environment protection measures and is kept in separate account and is not diverted for other purpose.</p>
xii.	<p>The project authorities shall advertise at least in two local newspapers widely circulated around the project, one of which shall be in vernacular language of the locality concerned within seven days of issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and may also be seen at web site of the Ministry of Environment & Forests at http://envfor.nic.in.</p>	<p>Complied. Advertisement given in following 2 Newspapers :-</p> <ol style="list-style-type: none"> 1. The Hitwada (English) dated 15.03.2011 2. Mahavidharbha (Marathi) dated 13.03.2011 (Copy enclosed as Annexure XXIV)
xiii.	<p>A copy of the environment clearance shall be marked to concerned Panchayat/ Jila Parishad/ Municipal Corporation/ Urban Local Body/ Local NGO if any, from whom any suggestions/ representation has been received while processing the proposal.</p> <p>A copy of the environmental clearance letter shall be displayed on the company's website</p>	<p>A copy of clearance letter given to concerned Panchayats. (copy of letter enclosed as Annexure XXV)</p>
xiv.	<p>A copy of the environmental clearance letter shall be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industry Sector and Collector's Office/ Tahasildar's Office for 30 days.</p>	<p>Complied. A copy of clearance letter given to RO, Maharashtra Pollution Control Board, Chandrapur vide letter no. WCL/MA/GM/ENV/2011/251 dated 24.03.2011 (copy enclosed as Annexure XXVI).</p>
xv.	<p>The clearance letter shall be uploaded on the company's website. The compliance status of the stipulated environmental clearance conditions shall also be uploaded by the project authorities on their website & updated at least once every six months so as to bring the same in public domain. The monitoring data of environmental quality parameters (air, water, noise & soil) & critical pollutants such</p>	<p>Complied.</p>

	as PM10, PM2.5, SO2, & NOx shall also be displayed at the entrance of the project premises & mine office & in corporate office & on company's website.	
xvi.	The project proponent shall submit six monthly compliance reports on status of compliance of the stipulated environmental clearance conditions (both in hard copy & in e-mail) to the respective Regional Office of the MoEF, the respective Zonal Offices of CPCB & the SPCB.	It is being submitted on regular basis to the Regional office (WCZ), Nagpur, Ministry of Environment And Forests, Govt. Of India and RO, MPCB Chandrapur (Copy of letter enclosed as Annexure XXVII)
xvii.	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 officer(s) of the Regional Office by furnishing the requisite data/information/ monitoring reports.	Agreed.
xviii.	The Environmental statement for each financial year ending 31st March in Form-V is mandated to be submitted by the project proponent to 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 along with the status of compliance of EC conditions & shall be sent to the respective Regional Offices of the MOEF by e-mail.	Environment Statement for 2015-16 has been submitted to MPCB on dated 06.09.2016. Copy of same is enclosed as XXXII
3	The ministry or any other competent authority may stipulate any further condition for environment protection.	Noted.
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.	Noted.
5	The above conditions will be enforced, <i>inter-alia</i> , 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. The proponent shall ensure to provide for the costs incurred for taking up remedial measures in case of soil contamination, contamination of groundwater and surface water and occupational and other diseases due to the mining operations.	Noted.

Sub Area Manager
New Majri UG to OC Mine
New Majri Sub Area

Monitoring the Implementation of Environmental Safeguards
Ministry of Environment, Forests & Climate Change
West Central Zone, Regional Office, Nagpur
MONITORING REPORT
PART – I
DATA SHEET

1.	Project type: River-valley/ Mining/ Industry/ Thermal/ Nuclear/ Other(specify)	:	Mining
2.	Name of the project	:	New Majri UG to OC Mine
3.	Clearance letter (s)/OM No. & date	:	Letter no:- J/11015/25/2008-IA.II(M) dated 18th february, 2011
4.	Location: a) District (s) b) States (s) c) Location Latitude/ Longitude	:	Chandrapur Maharashtra Latitude:- 20° 6' 34" to 20° 8' 37" N Longitude:- 79° 0' 30" to 79° 2' 20"E
5.	Address for correspondence a) Address of the Concerned Project Chief Engineer (with pin Code & telephone/ telex/ fax numbers). b) Address of Executive Project Engineer Manager (with Pin Code/ fax numbers)	:	Sub Area Manager, New Majri Sub Area, PO- Shivjinagar, Tah- Bhadrawati Dist- Chandrapur (Maharashtra) 442503. Sub Area Manager, New Majri Sub Area, PO- Shivjinagar, Tah- Bhadrawati Dist- Chandrapur (Maharashtra) 442503.
6.	Salient features a) Of the project	:	The salient features of project report for New Majri UG to OC Mine with 0.80 MTY capacity are as below; 1. Date of Sanction: Initial project Report was approved by WCL Board on 15-11-2007 for a capacity of 0.80 MTY on cost plus basis due to non viability of project at notified price. After cost plus agreement was executed with MAHAGENCO the updated PR approved by Board on 23.05.2015 2. Mine closure plan approved by Board on 23.05.2015 along with approval of updated PR. 3. Sanction of capital (Rs. in Cr) : 339.7642 incl. W.D.V; 4. Duration of construction in years : 02; 5. Extractable coal reserves (in MT): 12.00 as per PR; 6. Target capacity as per PR(in MT/yr): 0.80 MTY; 7. Life in years: 19 years; 8. Coal seams: One composite seam; 9. Average thickness:

	<p>b) Of the Environment Manage Plans</p>	<p>Seam I – 15.03m (min.) – 18.89m (max.)</p> <p>10. Gradient of the seam : 1 in 5 to 1 in 6</p> <p>11. Stripping ratio: Avg. 3.59 m³/t</p> <p>12. Quality of Grade of Coal : G11 (Weighted average) : 4115 K Cal/Kg;</p> <p>13. Quarry Depth(PR) : Maximum = 90 mtrs; Minimum = 20 mtrs</p> <p>14. Quarry Area(PR): On surface = 114.35 Ha, On floor = 74.35 Ha;</p> <p>15. Average strike length of quarry(PR): 1900 mtr</p> <p>16. Width of quarry (PR) : = Max. 550 mtr, Min. 375m;</p> <p>17. Over Burden (in PR): 43.05 Mm³;</p> <p>18. Overall stripping ratio (As per PR): 3.59 m³/t</p> <p>19. Manpower: 361 Persons (as per PR)</p> <p>20. OMS (PR) : 8.394</p> <p>The EMP includes:</p> <ol style="list-style-type: none"> 1. Plantation will be carried out within premises; 2. Frequency of air, water & noise level monitoring is done as per EP Rule 2000; 3. Controlled blasting is practiced as per DGMS norms so as to minimize the adverse effects due to ground vibration & haul roads are regularly sprayed with water. 																				
<p>7.</p>	<p>Breakup of the project area</p> <p>a) Submergence area: Forest & Non-forest</p> <p>b) Others</p>	<p>:</p> <table border="1" data-bbox="831 1162 1418 1503"> <thead> <tr> <th>S.N.</th> <th>Type of Land</th> <th>Required as per EMP (ha)</th> <th>Actual acquired (ha) as on 30.09.2016</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Agriculture land</td> <td>460.24</td> <td>405.11</td> </tr> <tr> <td>2</td> <td>Forest land</td> <td>3.68 *</td> <td>Nil</td> </tr> <tr> <td>3</td> <td>Other Land</td> <td>15.24</td> <td>15.24</td> </tr> <tr> <td></td> <td>Total</td> <td>479.16</td> <td>420.35</td> </tr> </tbody> </table> <p>* Tahsildar, Bhadrawati has informed vide letter no. K.V./A.K./Prastu-1/2016/1172 dated 15.11.2016, the said forest land of 3.68 Ha bearing survey no. 14, 19 & 20 is not forest land as per clarification given by RFO Bhadrawati and as such same is under revenue department i.e. it is Government Land.</p>	S.N.	Type of Land	Required as per EMP (ha)	Actual acquired (ha) as on 30.09.2016	1	Agriculture land	460.24	405.11	2	Forest land	3.68 *	Nil	3	Other Land	15.24	15.24		Total	479.16	420.35
S.N.	Type of Land	Required as per EMP (ha)	Actual acquired (ha) as on 30.09.2016																			
1	Agriculture land	460.24	405.11																			
2	Forest land	3.68 *	Nil																			
3	Other Land	15.24	15.24																			
	Total	479.16	420.35																			
<p>8.</p>	<p>Breakup of the project affected population with enumeration of those losing houses/dwelling units only agricultural land only, both dwelling units & agricultural land & landless laborers/ artisans:</p> <p>a) SC, ST/ Adivasi</p> <p>b) Others</p> <p>(Please indicate whether these figures are based on any scientific and systematic survey carried out or only provisional</p>	<p>:</p> <p>Following compensation have been provided as per CIL R&R policy:-</p> <p>Total nos. of land holdings = 330</p> <p>WCL Board has approved 330 Employment / Monetary Compensation</p> <p>Nos. of employment given as on date = 173</p> <p>Monetary compensation against employment given as on date = 29</p> <p>Balance Employment under consideration = 107</p>																				

	figures, if a survey is carried out give details & year of survey)		Balance MC under consideration = 21
9.	<p>Financial details:</p> <p>a) Project cost as originally planned and subsequent revised estimates and the year of price reference</p> <p>b) Allocation made for EMP with item wise and year wise break-up</p> <p>c) Benefit Cost ratio/ Internal Rate of Return and the year of assessment</p> <p>d) Whether (c) includes the cost of Environment Management as shown in the above</p> <p>e) Actual expenditure incurred on project so far</p> <p>f) Actual expenditure incurred on Environment Management Plans so far</p>	:	<p>a) Initial Estimate (2007)- Rs 77.1055 Crores Revised Estimate (2014)- Rs. 339.7642 Crores incl. W.D.V</p> <p>b) Rs. 97.09 Lakhs (EMP – Capital Works)</p> <p>c) Desired price at 12% IRR at 100% capacity was Rs 1620. Cost plus agreement with MAHAGENCO has been done</p> <p>d) Yes</p> <p>e) Actual Capital Exp.: 145.92 Crores (as on 31.10.2016)</p> <p>f) Rs.56.04 Lakhs for Environmental Management Plan Revenue Works (as on 31.10.2016)</p>
10.	<p>Forest land requirement</p> <p>a) The status of approval for diversion of forest land for non-forestry use</p> <p>b) The status of clearing felling.</p> <p>c) The status of compensatory afforestation, if any</p> <p>d) Comments on the viability & sustainability of compensatory afforestation program in the light of actual field experience so far</p>	:	<p>Application has been submitted to Forest Department for Diversion of Forest land measuring 3.68 Ha vide letter no. WCL/MA/CGM/Planning/12/565 dated 18.06.2012.</p> <p>As per Tahsildar, Bhadrawati's letter no. K.V./A.K./Prastu-1/2016/1172 dated 15.11.2016, the said forest land of 3.68 Ha bearing survey no. 14, 19 & 20 is under revenue department i.e. it is Government Land & not forest land</p>
11.	The status of clear felling in non-forest areas (Such as submergence area or reservoir, approach Roads.), if any with quantitative information required.	:	Nil
12.	<p>Status of construction (Actual &/or planned)</p> <p>a) Date of commencement</p> <p>b) Date of completion</p>	:	<p>New Majri UG to OC Mine with 0.80 MTY capacity started in Oct 2015</p> <p>Date of commencement: 30.10.2015</p> <p>Date of completion: 31.03.2017</p>
13.	Reasons for delay if the project is yet to start	:	Not applicable

Mine Manager
New Majri UG to OC Mine
New Majri Sub Area

Sub Area Manager
New Majri UG to OC Mine
New Majri Sub Area



पर्यावरण व वन

Ministry of Environment & Forests (MOEF)

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

No.J-11015/25/2008-IA.II (M)

Dated: 18th February 2011

To,
Chief General Manager
M/s Western Coalfields Ltd.,
Coal Estate, Civil Lines,
NAGPUR – 440001.

Sub: New Majri UG to OC Mine (0.35 MTPA to 0.8MTPA ML area from 479.16 ha) of M/s Western Coalfields Ltd. (WCL), located in village Shivji Nagar Majri, Tehsil Bhadrawati, District Chandrapur, Maharashtra - environmental clearance – reg.

Sir,

This is with reference to letter No43011/129/2007-CPAM dated 09.01.2008 of Ministry of Coal forwarding the application for Terms of Reference (TOR) and this Ministry's letter dated 19.03.2008 granting TOR to the above-mentioned project and subsequent letter No. WCL/ENV/HQ/5-H/225 dated 8.06.2010 for environmental clearance and letters dated 27.07.2010, 12.11.2010 and 31.12.2010 on the aforesaid subject. The Ministry of Environment & Forests has considered the application. It is noted that the present proposal is to **convert existing New Majri Underground mine to Opencast Mine project and for expansion in production from 0.35 MTPA to 0.8MTPA in an ML area from 479.16 ha.** There are no ecologically sensitive areas such as National Parks, Wildlife Sanctuary, Biosphere Reserves found in the 10 km buffer zone. The mine is located at a distance of 28.5km, 15.4km and 37.2 km from the critically polluted areas of MIDC Chandrapur, Ghuggus and Ballarpur which also fall in between the mine and the Tadoba Andheri Tiger Reserve. River Wardha flows at distance of 1.5 km to 2.5 km. The project involves diversion of Koradi nalla of 2.5 km length. As the whole mine area falls below HFL of the river, an embankment has been proposed at the periphery of mine.

Of the total lease area of **479.16 ha**, 24.50 ha is in possession of the company and the balance 435.74 ha is to be acquired. The lease area consists of the 460.24 ha agricultural land, 15.24 ha of wasteland and 3.68 ha of forest land. Forest land of 3.68 ha is judpi jungle. Forestry clearance has been applied for. Coal grade is 'C-D'. ultimate working depth mining will be 300m bgl. Mining will be opencast by mechanised method involving shovel-dumper. Of the total ML area of 479.16 ha, area for excavation is 114.35 ha, external OB dump area 101.70 ha, infrastructure 10.00 ha, blasting zone/safety zone-64.62 ha, area for future extension 137.10 ha, area for rationalization of boundary 51.39 ha. Water table is in the range of 10-15.90 m bgl during pre-monsoon and 9.80-15.60m bgl during post-monsoon. Estimated peak water requirement is 256 m³/day which will be met from mine pit water. Peak mine water discharge is estimated to be 5000m³/day. Estimated total OB generation from the mine is 43.05 Mm³ over the life; which is to be stored almost entirely in one external OB dump of 101.07 ha of a max. height of 60m and a small quantity of 1.5 Mm³ OB is proposed to be used in construction of embankment. No internal dumping is proposed due to steepness of gradient. At the post mining stage, the decoaled void of 114.35 ha would be left as a water body. An estimated 2424 TPD of coal from CHP is to be transported by truck to New Majri UG/and thereafter by rail. Balance life of the project is about 20 years. The project involves R&R of one village-Dafai comprising 261 houses of WCL employees and 129 Private houses. Public Hearing was held on 9.09.2008. Project was approved by WCL on 17.12.2007. Capital cost of the project is **Rs. 77.1055 crores.**

M/1

2. The Ministry of Environment & Forests hereby accords environmental clearance for the above-mentioned **New Majri UG to OC Mine of M/s Western Coalfields Ltd. (WCL), for change of method of mining from underground to opencast and for expansion in production from 0.35 MTPA to 0.8 MTPA ML in area 479.16 ha** under the provisions of the Environmental Impact Assessment Notification, 2006 and subsequent amendments thereto and Circulars there under and subject to conditions specified below:

A. Specific Conditions

- (i) No mining operations shall be undertaken in 3.68 ha forestland, until forestry clearance has been obtained under the provisions of FC Act, 1980.
- (ii) Prior approval of the Flood and Irrigation Dept. shall be obtained for diversion of a Nala of 2.5 km stretch flowing within the ML areas. Mining operations shall be undertaken maintaining a minimum safe distance from river/nala. Stone pitching should be done on the embankment of nalla/river side. OB for construction of embankment shall be first ascertained for suitability for construction purpose. Stone pitching shall be undertaken along the river/nala.
- (iii) Top soil shall be stored in the earmarked site and shall be used within a year of its generation for green belt development and for plantation/reclamation.
- (iv) OB shall be stacked at the earmarked one external OB dumpsite of 101.70 ha. Ultimate slope of the dump shall not exceed 28°. Monitoring and management of reclaimed dumpsite shall continue until the vegetation in all the dumps becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests and its Regional office located at Bhopal on an yearly basis. An Action Plan to reclaim the old OB dumps along River Wardha be prepared and implemented. Action Plan for reclamation of old abandoned dump should be furnished to ministry.
- (vii) Garland drains (size, gradient and length) around the safety areas and low lying areas sump capacity shall be designed keeping 50% safety margin over an above the peak sudden rainfall and maximum discharge in the area adjoining the mine sites. Sump capacity shall also be provided adequate retention period to allow proper settling of silt material.
- (ix) Catch drains and siltation ponds of appropriate size shall be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so 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 shall be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity shall also provide adequate retention period to allow proper settling of silt material.
- (x) 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.
- (xi) Crushers at the CHP shall be operated with high efficiency bag filters/water sprinkling system shall be provided to check fugitive emissions from crushing operations, conveyor system which shall be closed, haulage roads, transfer points, etc.
- (xii) Drills shall be wet operated only.
- (xiii) Controlled blasting shall be practiced with use of delay detonators and only during daytime. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders shall be implemented.

- (xiv) Transportation of coal from mine pit to railway siding for a distance of 2 km shall be by closed conveyors only. Road used for transportation of coal from CHP to railway siding shall be black topped and developed with 3-tier avenue plantation using a mix of species suitable for controlling fugitive dust emissions.
- (xv) No groundwater of water from River Wardha shall be used for mining operations. Any additional water requirement shall be met from mine pit water and from rainwater harvesting systems.
- (xvi) Regular monitoring of groundwater level and quality shall be carried out by establishing a network of existing wells and construction of new piezometers. The monitoring for quantity shall 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 shall be submitted to the Ministry of Environment & Forests and to the Central Pollution Control Board quarterly within one month of monitoring.
- (xvii) The Company shall put up artificial groundwater recharge measures for augmentation of groundwater resource in case monitoring of groundwater levels indicate decline of water table. Any additional water requirement for mining operation shall be met from rainwater/recycling of water only. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.
- (xviii) ETP shall also be provided for treatment of effluents from workshop, CHP and an STP shall be provided for treating wastewater from the township and the treated effluents shall be used for green belt development. Wastewater generated from the mine shall be treated and recycled for mine operations to the extent possible and the balance shall be treated to prescribed standards before discharge into the surface waters/agricultural use.
- (xix) 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, Ahmadabad within a period of one year and the results reported to this Ministry and to DGMS.
- (xx) A Plan for afforestation of the mine lease of an area not less than 133 ha shall be implemented; which includes reclaimed external OB dump (90 ha), vacant land (43ha) along ML boundary, along roads & infrastructure (3 ha), green belt, and area for rationalisation area within the lease and vacant land (40 ha) and within the in township by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha.
- (xxi) The entire decoaled void of 114.35 ha being left as a water body shall be reclaimed along the upper slopes of the void/water body which is gently sloped with grass and plantation. The quality of water in the water body shall be closely monitored.
- (xx) 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.
- (xxi) R&R for the expansion project for the Dafai village involving 261 houses of WCL & 129 houses of private owners shall be completed within agreed time frame. R&R shall follow the norms of the National R&R Policy or the R&R Policy of the State Government whichever is higher.

- (xxii) The socio-economic development of the villages covered under CSR shall be not less than Rs 5/tonne of coal and shall be monitored over the life of the project using UNDP Human Development Indices and reported as part of the Report submitted to MOEF RO, Bhopal.
- (xxiii) A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests three years before completion of this project. A Habitat Restoration Plan of the mine area shall be prepared and implemented using a mix of native species found in the original ecosystem, which were conserved in-situ and ex-situ in an identified area within the lease for reintroduction in the mine during mine reclamation and at the post mining stage for habitat restoration. including grazing land and agricultural land.

B. General Conditions

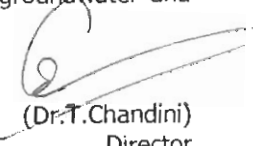
- (i) No change in technology and scope of working shall be made without prior approval of the Ministry of Environment and Forests.
- (ii) No change in the calendar plan including quantum of mineral coal and waste being produced shall be made.
- (iii) Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring PM10, PM2.5, SO2 and NOx. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, in particulates shall be carried out at least once in six months.
- (iv) Data on ambient air quality (PM10, PM 2.5, SO2 and NOx and heavy metals such as Hg, As, Ni, Cr, etc) and other monitoring data shall 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. Random verification of samples through analysis from independent laboratories recognised under the EP Rules, 1986 shall be furnished as part of the compliance report.
- (v) Adequate measures shall 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 shall be provided with ear plugs/muffs.
- (vi) Industrial wastewater (workshop and wastewater from the mine) shall be properly collected, and treated so as to conform to the standards including for heavy metals before discharge prescribed under GSR 422 (E) dated 19th May 1993 and 31st December 1993 or as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluents.
- (vii) Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transportation of the mineral shall be covered with tarpaulins and optimally loaded.
- (viii) Monitoring of environmental quality parameters shall be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board and data got analysed through a laboratory recognised under EP Rules, 1986.
- (ix) Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects.
Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed.

M/S

- (x) A separate environmental management cell with suitable qualified personnel shall be set up under the control of a Senior Executive, who will report directly to the Head of the company.
 - (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 reported to this Ministry and its Regional Office at Bhopal.
 - (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 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>
 - (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 displayed on the company's website.
 - (xiv) A copy of the clearance letter shall be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industry Centre and Collector's Office/Tehsildar's Office for 30 days.
 - (xv) The clearance letter shall be uploaded on the company's website. The compliance status of the stipulated EC conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in the public domain. The monitoring data of environmental quality parameters (air, water, noise and soil) and critical parameters such as PM10, PM2.5, SO₂ and NO_x shall also be displayed at the entrance of the project premises and mines office and in corporate office and on the company's website.
 - (xvi) The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions (both in hard copy and in e-mail) to the respective Regional Office of the MOEF, the respective Zonal offices of CPCB and the SPCB.
 - (xvii) 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.
 - (xviii) The environmental statement for each financial year ending 31st March in Form-V is mandated to be submitted by the project proponent to 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 along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MOEF by E-mail.
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. The proponent shall ensure to undertake and provide for the costs incurred



for taking up remedial measures in case of soil contamination, contamination of groundwater and surface water, and occupational and other diseases due to the mining operations.


(Dr. T. Chandini)
Director

Copy to:

1. Secretary, Ministry of Coal, New Delhi.
2. Secretary, Department of Environment, Government of Maharashtra, 15th Floor, New Admn. Bldg., Madam Cama Road, MUMBAI – 400032.
3. Chief Conservator of Forests, Regional office (EZ), Ministry of Environment & Forests, E-2/240 Arear Colony, Bhopal – 462016.
4. Chairman, Maharashtra State Pollution Control Board, Kalapataru Point, 3rd & 4th Floors, Sion, Matunga Scheme Road No. 8, Opp. Cine Planet Cinema, Near Sion Circle, Sion (E), Mumbai – 400002.
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, 4th Floor, Vikas Marg, Laxminagar, New Delhi.
8. District Collector, Chandrapur, Government of Maharashtra.
9. Monitoring File 10. Guard File 11. Record File.

M-6

**STRICTLY RESTRICTED
FOR COMPANY USE ONLY**

The information given in this report is not to be communicated either directly or indirectly to the press or to any person not holding an official position in the CIL / Government

ENVIRONMENTAL MONITORING REPORT

NEW MAJRI UG to OC

(MAJRI AREA)

WESTERN COALFIELDS LTD.

(JOB No. 8000002)



QUARTER ENDING – JUNE 2016

Environment Laboratory
NABL Accredited vide Cert. No. T-2969

CMPDI

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

AN ISO 9001:2000 COMPANY

INDEX

SL.NO	PARTICULARS	PAGE NO.
1.	INTRODUCTION	i-iii
2.	AIR QUALITY MONITORING DATA	1-2
3.	EFFLUENT WATER QUALITY MONITORING DATA	3
4.	DRINKING WATER QUALITY MONITORING DATA	4-5
5.	NOISE LEVEL DATA	6

INTRODUCTION

Location :

New Majri UG to OC Project is located in Chandrapur district of Maharashtra state. The project is administered by Majri Area of Western Coalfields Limited.

Communication :

Project is well connected by both rail & road communications. New Majri railway station is the nearest railway station.

Drainage :

The Wardha river is the main drainage channel for the surrounding area.

Climate :

The climate of the area is tropical. May is the hottest month with temperature rising to a maximum of 48°C. December is the coldest month when the temperature falls down to 10°C.

Other Sources of Pollution :

Transportation roads, agricultural and local activities ,vehicular traffic etc also contributes to the pollution.

Sampling Locations :

Ambient Air Quality Monitoring locations :

<u>S.No.</u>	<u>Location Details</u>	<u>Location Code</u>
1.	Pit Office, New Majri – III UG -	MMUA-1
2.	Pit office - Naglon UG -	MMUA-2
3.	Near Play-ground -	MMUA-3
4.	Manager Office, New Majri OC -	MMUA-4

Water Quality Monitoring location :

<u>S.No.</u>	<u>Location Details</u>	<u>Location Code</u>
1.	Mine water discharge- New Majri UG -	MMUW-1
2.	Mine water discharge- Naglon UG -	MMUW-2

Noise Level Monitoring location :

<u>S.No.</u>	<u>Location Details</u>	<u>Location Code</u>
1.	Fan house, New Majri UG -	MMUN-1
2.	Fan house, Naglon UG -	MMUN-2
3.	Colony -	MMUN-3

Frequency of Monitoring :

Air : Frequency of monitoring is as per the Env. (Protection) Amendment Rules published vide Gazette dt. 25.9.2000.

Water : Water quality is monitored on fortnightly basis.

Noise : Noise level is monitored on fortnightly basis.

Methodology of Sampling and Analysis :

Air : 24 hourly air samples are collected with Respirable Dust Sampler at selected locations to monitor ambient air quality w.r.t. Suspended particulate matter (TPM), Respirable Particulate Matter (PM-10), Sulphur di-oxide (SO₂) and Oxides of

nitrogen (NO_x) etc.

TPM : Ambient air laden with suspended particulate enters the Respirable Dust Sampler through the inlet pipe of sampler by means of a high flow rate blower. As the air passes through the cyclone, coarse, non-respirable dust (size >10 μ) is separated from the air stream by centrifugal forces acting on the solid particles. These separated particles fall through the cyclone's conical hopper and collect in the sampling bottle placed at bottom. The fine dust forming the respirable fraction (size <10 μ) of the Total Suspended Particulate passes through the cyclone and is carried by the air stream to the Glass Micro Fiber Filter Paper. The Respirable dust (PM-10) is retained by the filter and the carrier air exhausted from the system through the blower. The mass concentration (μg/m³) of Suspended Particulate Matter (non-respirable dust and respirable dust) and Respirable Particulate Matter in the ambient air is computed by measuring the mass of collected particulates and the volume of air sampled.

PM-2.5 Ambient air enters the Fine dust sampler through an omni-directional air inlet designed to provide a clear aerodynamic cut point for particles greater than 10 microns. Particles in the air stream finer than 10 microns proceed to a second impactor that has an aerodynamic cut point at 2.5 microns. The air sample and fine particulates exiting from the PM 2.5 impactor are passed through a 47 mm diameter Teflon filter membrane that retains the PM-2.5. The mass concentrations (μg/m³) of PM-2.5 in the ambient air are computed by measuring the mass of collected particulates and the volume of air sampled.

NO_x : Determination of oxides of Nitrogen is based on the procedure of "Jacobs and Hochheiser method". In this method the air sample is collected 24 hourly in the field and analysed in the laboratory using spectronic 20 D+ Spectrophotometer. Nitrogen oxides as Nitrogen di-oxide are collected by bubbling air through a Sodium hydroxide solution to form a stable solution of Sodium nitrite. The nitrite ion produced during sampling is determined colorimetrically (with the help of Spectrophotometer, measuring absorbance at 540 nm) by reacting the exposed absorbing reagent with Phosphoric acid, Sulphanilamide and N(1-naphthyl) ethylenediamine dihydrochloride. The interference of Sulphur di-oxide is eliminated by converting it to Sulphuric acid with Hydrogen peroxide before analysis.

SO₂ : Determination of SO₂ is based on the procedure of West and Gaeke method. Sulphur di-oxide from the air stream is absorbed in a Sodium tetrachloromercurate solution to form a stable solution of Dichlorosulphitomercurate. The amount of Sulphur dioxide is then estimated by the colour produced when P-Rosaniline hydrochloride is added to the solution. The colour is estimated by a reading of absorbance at 560 nm in the Spectrophotometer.

Water : Mine water discharge is collected on fortnightly basis in plastic zaricane and is transported to the laboratory for analysis. As per the Env. (Protection) Amendment Rules published vide Gazette dt. 25.9.2000, water samples are analysed fortnightly for the parameters - pH, TSS, Oil & Grease and COD and once in a year for all parameters as per Schedule VI, Env. Protection rule.

Noise : Daytime and Night time Noise level data are recorded fortnightly.

Remarks :

Air : All parameters of air samples monitored during this quarter are within permissible limit except TPM and PM-10. Values of TPM and PM-10 have been observed high in respect of location no. MMUA-3.

Water : All parameters of water samples monitored in this quarter are within permissible limit. Due to non-availability, mine water discharge could not be monitored regularly during this quarter.

Noise : Recorded Noise level data have been observed mostly within permissible limits during this quarter.

Recommendations :

Air : 1. Regular water sprinkling is required to keep the TPM level within TLV.
2. Green barrier may be developed around village and colony area.

Water 1. Mine discharge to be treated properly to maintain pH & TSS before discharge into natural water course.

Noise 1. Noise levels should be kept below TLV at industrial as well as residential site.

Environment Laboratory CMPDI, RI IV, Nagpur	Test Report	
--	--------------------	---

Test Report No. : RIN/TR/QE-J16/A-49 Date of Issue : 16.08.16
 Name of the Customer : Env.,CMPDI,Nagpur Sampling method : IS-5182
 Customer letter Ref. No. : क्षे.स.4/प.अ./पा.का./16-167
 Sample Description : Air sample No. of pages : 2
 Test Required : IS-5182 [PM-10(04:1999), NO_x(06:2006), SO₂(02:2001)] , PM-2.5 & TPM*.

AIR QUALITY MONITORING DATA

NAME OF THE COMPANY : WCL YEAR : 2016
 NAME OF THE AREA : MAJRI Q.E. : JUNE.
 NAME OF THE PROJECT : NEW MAJRI UG to OC

1. Pit Office, New Majri – III UG : MMUA-1								
(24 hourly values in µg/m ³)								
Month	Dates of Sampling		Parameters					
	From	To	TPM	PM-10	NO _x	SO _x	PM-2.5*	
APRIL.2016	12.04.16	13.04.16	268	132	7	22	43	
MAY.2016	24.05.16	25.05.16	311	234	8	39	-	
JUNE.2016	20.06.16	21.06.16	261	168	9	30	-	
TLV as per Env.(Protection) Amendment Rule 2000			600	300	120	120	60	
2. Pit Office, Naglone UG : MMUA-2								
(24 hourly values in µg/m ³)								
Month	Dates of Sampling		Parameters					
	From	To	TPM	PM-10	NO _x	SO _x	PM-2.5*	
APRIL.2016	12.04.16	13.04.16	292	215	6	30	51	
MAY.2016	07.05.16	08.05.16	211	118	7	28	50	
JUNE.2016	21.06.16	22.06.16	154	84	6	31	50	
TLV as per Env.(Protection) Amendment Rule 2000			600	300	120	120	60	

Test Report No. : RIN/TR/QE-J16/A-49


3. Near Playground				: MMUA-3 (24 hourly values in $\mu\text{g}/\text{m}^3$)				
Month	Dates of Sampling		Parameters					
	From	To	SPM	PM-10	NO _x	SO _x	PM-2.5*	
APRIL.2016	12.04.16	13.04.16	278	103	6	19	38	
APRIL.2016	22.04.16	23.04.16	242	134	6	25	55	
MAY.2016	08.05.16	09.05.16	262	185	5	14	23	
MAY.2016	25.05.16	26.05.16	208	125	7	28	-	
JUNE.2016	06.06.16	07.06.16	213	101	12	28	-	
JUNE.2016	20.06.16	21.06.16	172	102	9	21	-	
PERMISSIBLE LIMIT			200	100	80	80	60	

4. Manager Office – New Majri II OC				: MMUA-4 (24 hourly values in $\mu\text{g}/\text{m}^3$)				
Month	Dates of Sampling		Parameters					
	From	To	SPM	PM-10	NO _x	SO _x	PM-2.5*	
APRIL.2016	12.04.16	13.04.16	215	154	5	11	-	
MAY.2016	25.05.16	26.05.16	243	138	8	34	-	
JUNE.2016	20.06.16	21.06.16	159	114	11	33	50	
TLV as per Env.(Protection) Amendment Rule 2000			600	300	120	120	60	

Scientific Assistant)

(Technical Manager)

- Note: 1) This Report refers to the values related to the items tested as received.
 2) This Report cannot be reproduced in part or full without written permission of the management.
 3) * - Test parameter not under NABL scope.

Environment Laboratory CMPDI, RI IV, Nagpur	Test Report	
--	--------------------	---

Test Report No. : RIN/TR/QE-J16/W-49 Date of Issue : 16.08.16
Name of the Customer : Env.,CMPDI,Nagpur Sampling method : By the party
Customer letter Ref. No. : क्षे.स.4/प.अ./पा.का./15-16
Sample Description : Water sample No. of pages : 1

EFFLUENT WATER QUALITY MONITORING DATA


NAME OF THE COMPANY : WCL YEAR : 2016
NAME OF THE AREA : MAJRI Q.E. : JUNE.
NAME OF THE PROJECT : NEW MAJRI UG to OC
Name of the Location : Mine water discharge- New Majri-III UG - MMUW-1

Month	Date of Sample collection	Analysis Results			
		pH	COD (mg/l)	TSS (mg/l)	O & G (mg/l)
Below Detection Limit		0.2	4.0	10.0	2.0
APRIL.2016	13.04.16	7.23	48	70	<2
TLV as per Env.(Protection) Amendment rule 2000		5.5 - 9.0	250	100	10

(Scientific Assistant)

(Technical Manager)

Note: 1) This Report refers to the values related to the items tested as received.
2) This Report cannot be reproduced in part or full without written permission of the management.

Environment Laboratory CMPDI, RI IV, Nagpur	Test Report	 T - 2969
--	--------------------	--

Test Report No. : RIN/TR/QE-J16/W-49a Date of Issue : 16.08.16
 Name of the Customer : Env.,CMPDI,Nagpur Sampling method : By the party
 Customer letter Ref. No. : क्षे.स.4/प.अ./पा.का./16-17
 Sample Description : Water sample No. of pages : 2
 Test Required : IS 10500:2012

DRINKING WATER QUALITY MONITORING DATA

NAME OF THE COMPANY : WCL YEAR : 2016
 NAME OF THE AREA : MAJRI Q.E. : JUNE
 NAME OF THE PROJECT : NEW MAJRI UG to OC Sampling Date : 12.04.16
 NAME OF LOCATION : **DRINKING WATER FROM FILTER PLANT**

Sl. No	Parameters	Test Method	Limits of Detection	Analysis Result	Standard (IS : 10500 : 2012)	
					Desirable limit	PLV in the absence of alternate source
1	Colour (Hz)	APHA, 22 nd Edition Platinum Cobalt	1	1	5	15
2	Odour	IS 3025 /05:1983, Physical, Qualitative	Qualitative	Unobjectionable	Unobjectionable	Unobjectionable
3	Turbidity (NTU)	IS-3025/10:1984 Nephelometric	1.0	2	1	5
4	pH Value	IS-3025/11:1983 Electrometric	0.2	7.51	6.5 to 8.5	No relaxation
5	Total Hardness as CaCO ₂ -mg/l	IS-3025/21:1983 EDTA	4.0	328	200	600
6	Iron (as Fe) -mg/l	IS-3025/53:2003 AAS-Flame	0.06	<0.06	0.3	No relaxation
7	Chlorides (as Cl)- mg/l	IS-3025/32:1988, Argentometric	2.0	72	250	1000
8	Residual Chlorine -mg/l (min)	APHA, 22 nd Edition DPD	0.02	0.01	0.2	1
9	Fluoride (as F)- mg/l	APHA, 22 nd Edition SPADNS	0.02	0.272	1.0	1.5
10	TDS -mg/l	IS-3025/16:1984 Gravimetric	25.0	620	500	2000
11	Calcium (as Ca) -mg/l	IS-3025/40:1991 EDTA	1.6	67.2	75	200
12	Magnesium (as Mg) - mg/l*	IS-3025/40:1991 EDTA	3	38.8	30	100
13	Copper as(Cu) -mg/l	IS-3025/42:1992 AAS-Flame	0.03	<0.03	0.05	1.5
14	Manganese as (Mn)- mg/l	APHA, 22 nd Edition AAS-Flame	0.02	<0.02	0.1	0.3
15	Sulphate (as SO ₄) -mg/l	APHA, 22 nd Edition Turbidity	2.0	157	200	400
16	Nitrates (as NO ₃) - mg/l	IS-3025/34:1988 Nessler's	0.5	18	45	No relaxation

Test Report No. : RIN/TR/QE-J16/W-49a

Sl. No	Parameters	Test Method	Limits of Detection	Analysis Result	Standard (IS : 10500 : 2012)	
					Desirable limit	PLV in the absence of alternate source
17	Cadmium as (Cd)-mg/l	APHA, 22 nd Edition AAS-GTA	0.0005	<0.0005	0.003	No relaxation
18	Lead as (Pb) -mg/l	APHA, 22 nd Edition AAS-GTA	0.005	<0.005	0.01	No relaxation
19	Selenium (Se) –mg/l*	APHA, 22 nd Edition AAS-VGA	0.005	<0.005	0.01	No relaxation
20	Arsenic (Ar)-mg/l*	APHA, 22 nd Edition AAS-VGA	0.005	<0.005	0.05	No relaxation
21	Zinc as (Zn) -mg/l	IS-3025/49:1994 AAS-Flame	0.01	<0.01	5	15
22	Total Chromium -mg/l	IS 3025 (Part 52) : 2003 AAS-Flame	0.01	<0.01	0.05	No relaxation
23	Boron as (B) -mg/l	APHA, 22 nd Edition Carmine	0.2	<0.2	0.5	1.0
24	Alkalinity -mg/l	IS-3025/23:1986, Titration	4.0	88	200	600
25	Nickel-mg/l	IS 3025 (Part 54) : 2003, AAS-Flame	0.02	<0.02	0.02	No relaxation
26	Aluminum (Al)-mg/l	APHA, 22 nd Edition AAS-VGA	0.03	<0.03	0.1	0.2

(Scientific Assistant)

(Technical Manager)

- Note: 1) This Report refers to the values related to the items tested as received.
2) This Report cannot be reproduced in part or full without written permission of the management.
3) * - Test parameter not under NABL scope.

NOISE LEVEL DATA

NAME OF THE COMPANY : WCL YEAR : 2016
 NAME OF THE AREA : MAJRI Q.E. : JUNE.
 NAME OF THE PROJECT : NEW MAJRI UG TO OC
Name of the Location : Fan House(New Majri UG) - MMUN-1

Month	Date of Data collection	Noise Level in dB(A)	
		Day Time	Night Time
APRIL.2016	12.04.16	70.9	69.8
APRIL.2016	25.04.16	43.6	43.4
MAY.2016	09.05.16	58.9	57.9
MAY.2016	27.05.16	70.7	69.8
JUNE.2016	07.06.16	43.3	42.3
JUNE.2016	21.06.16	50.3	49.6
Noise Level Standard as per Env. (Protection) Amendment rule 2000		75	70

Name of the Location : Colony - MMUN-3

Month	Date of Data collection	Noise Level in dB(A)	
		Day Time	Night Time
APRIL.2016	12.04.16	45.9	44.7
APRIL.2016	25.04.16	42.7	42.3
MAY.2016	09.05.16	43.5	42.7
MAY.2016	27.05.16	45.8	44.7
JUNE.2016	07.06.16	43.7	43.4
JUNE.2016	21.06.16	43.6	42.0
Permissible Limit		55	45



Maharashtra Pollution Control Board

महाराष्ट्र प्रदूषण नियंत्रण मंडळ

FORM V

Environmental Audit Report for the financial Year ending the 31st March 2016

Company Information

Company Name

New Majri Underground to OC Mine

Application UAN number

MPCB-CONSENT-0000001177

Address

New Majri UG to OC Mine, At: Majri, PO: Shivjinagar,
Ta: Bhadrawati, District: Chandrapur, Maharashtra

Plot no

235-249

Taluka

Bhadrawati

Village

Shivjinagar

Capital Investment (In lakhs)

7281.39

Scale

L.S.I

City

Chandrapur

Pincode

442503

Person Name

BALMIKI PRASAD

Designation

SUB AREA MANAGER

Telephone Number

8275967116

Fax Number

07175285088

Email

newmajriugtooc@gmail.com

Region

SRO-Chandrapur

Industry Category

Red

Industry Type

R49 Mining and ore beneficiation

Last Environmental statement submitted online

yes

Consent Number

BO/COC-CELL/EIC no. CH-1772-15/R/CAC-15042

Consent Issue Date

31.12.2015

Consent Valid Upto

31.03.2016

Product Information

Product Name

COAL

Consent Quantity

800000

Actual Quantity

800000

UOM

Ton/Y

By-product Information

By Product Name

NA

Consent Quantity

-

Actual Quantity

-

UOM

CMD

1) Water Consumption in m3/day

Water Consumption for Process**Consent Quantity in m3/day**

128

Actual Quantity in m3/day

128

Cooling

-

-

Domestic

5

5

All others

-

-

Total

133

133

1) Effluent Generation in CMD / MLD

Particulars

DAILY TRADE EFFLUENT

Consent Quantity

8372

Actual Quantity

0

UOM

CMD

2) Product Wise Process Water Consumption (cubic meter of process water per unit of product)

Name of Products (Production)	During the Previous financial Year	During the current Financial year	UOM
COAL(CUBIC METER/TONNE)	-	0.0584	CMD

3) Raw Material Consumption (Consumption of raw material per unit of product)

Name of Raw Materials	During the Previous financial Year	During the current Financial year	UOM
EXPLOSIVES (KG/TONNE)	-	0.44	

4) Fuel Consumption

Fuel Name	Consent quantity	Actual Quantity	UOM
HSD	-	1.367	KL/A

Pollution discharged to environment/unit of output (Parameter as specified in the consent issued)

[A] Water

Pollutants Detail	Quantity of Pollutants discharged (kL/day) Quantity	Concentration of Pollutants discharged(Mg/Lit) Except PH,Temp,Colour Concentration	Percentage of variation from prescribed standards with reasons %variation	Standard	Reason
WATER REPORT ATTACHED IN PART I	-	-	-	-	-

[B] Air (Stack)

Pollutants Detail	Quantity of Pollutants discharged (kL/day) Quantity	Concentration of Pollutants discharged(Mg/NM3) Concentration	Percentage of variation from prescribed standards with reasons %variation	Standard	Reason
NO AIR STACK MONITORING	-	-	-	-	-

HAZARDOUS WASTES

1) From Process

Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
5.1 Used /spent oil	MINE NOT FUNCTIONAL	19.2	KL/A
0	-	-	CMD

2) From Pollution Control Facilities

Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
34.3 Chemical sludge from waste water treatment	MINE NOT FUNCTIONAL	0	Ton/Y
0	-	-	CMD

SOLID WASTES

1) From Process

Non Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
OVERBURDEN	MINE NOT FUNCTIONAL	30792	CMD

2) From Pollution Control Facilities

Non Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
-	-	-	CMD

3) Quantity Recycled or Re-utilized within the unit

Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
0	-	-	CMD

Please specify the characteristics(in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

1) Hazardous Waste

Type of Hazardous Waste Generated	Qty of Hazardous Waste	UOM	Concentration of Hazardous Waste
5.1 Used /spent oil	19.2	KL/A	AGREEMENT COPY ATTACHED
0	-	CMD	-

2) Solid Waste

Type of Solid Waste Generated	Qty of Solid Waste	UOM	Concentration of Solid Waste
OVERBURDEN	30792	CMD	ONSITE CAPTIVE LANDFILL

Impact of the pollution Control measures taken on conservation of natural resources and consequently on the cost of production.

Description	Reduction in Water Consumption (M3/day)	Reduction in Fuel & Solvent Consumption (KL/day)	Reduction in Raw Material (Kg)	Reduction in Power Consumption (KWH)	Capital Investment(in Lacs)	Reduction in Maintenance(in Lacs)
Impact of the pollution Control measures	PREVIOUS YEAR MINE WAS NOT FUNCTIONAL	PREVIOUS YEAR MINE WAS NOT FUNCTIONAL	PREVIOUS YEAR MINE WAS NOT FUNCTIONAL	PREVIOUS YEAR MINE WAS NOT FUNCTIONAL	12.6	-

Additional measures/investment proposal for environmental protection abatement of pollution, prevention of pollution.

[A] Investment made during the period of Environmental Statement

Detail of measures for Environmental Protection	Environmental Protection Measures	Capital Investment (Lacks)
CAPITAL AND REVENUE EXPENDITURE	CAPITAL AND REVENUE EXPENDITURE	12.6

[B] Investment Proposed for next Year

Detail of measures for Environmental Protection	Environmental Protection Measures	Capital Investment (Lacks)
CAPITAL INVESTMENT	FOR ENVIRONMENTAL MEASURES	18

Any other particulars in respect of environmental protection and abatement of pollution.

Particulars

environmental protection and abatement of pollution

Name & Designation

BALMIKI PRASAD, DGM(MIN)