

कार्यालय वनमंडलाधिकारी, पश्चिम छिंदवाड़ा वनमंडल

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क्रमांक/तकनीकी/2026/ 11

छिंदवाड़ा दिनांक 02/01/26

प्रति,

वन संरक्षक

छिंदवाड़ा वन वृत्त

छिंदवाड़ा

विषय :- वनमंडल पश्चिम छिंदवाड़ा के परिक्षेत्र जामई के ग्राम जुन्नारदेव विशाला के कक्ष क्रमांक पी 454 के रकबा 14.00 हे० वनभूमि में भारत खुली खदान फेस-2 कोयला उत्खनन हेतु मेसर्स वेस्टर्न कोलफील्ड्स लिमि का व्यपवर्तन का ऑनलाईन प्रस्ताव क्रमांक FP/MP/MIN/26356/2017

संदर्भ :- 1. भारत सरकार पर्यावरण वन एवं जलवायु परिवर्तन मंत्रालय नई दिल्ली के पत्र दिनांक 8-112/2006-एफसी/-I/103203/2025 दिनांक 24.03.2025
2. वेस्टर्न कोलफील्ड्स लिमि० कन्हान क्षेत्र डुंगरिया के पत्र क्रमांक 328 दिनांक 23.12.2025

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विषयांकित संदर्भित पत्र के तारतम्य में निवेदन है कि पश्चिम छिंदवाड़ा वनमंडल अंतर्गत परिक्षेत्र जामई के ग्राम जुन्नारदेव विशाला के कक्ष क्रमांक आर एफ 454 (वनविकास निगम को हस्ता.) के रकबा 14.00 हे० वनभूमि में भारत खुली खदान फेस-2 कोयला उत्खनन हेतु प्रकरण ऑनलाईन प्रस्तुत किया गया है।

प्रकरण में भारत सरकार पर्यावरण वन एवं जलवायु परिवर्तन मंत्रालय नई दिल्ली के पत्र दिनांक 24.03.2025 से सैद्धान्तिक स्वीकृति जारी की गई हैं।

स्वीकृति में अधिरोपित शर्तों का पालन प्रतिवेदन आवेदक विभाग से प्राप्त कर आपकी ओर निम्नानुसार संलग्न संप्रेषित है :-

S.No.	Condition	Compliance
i	Legal status of the diverted forest land shall remain unchanged	शर्त के पालन हेतु आवेदक विभाग वचनबद्ध है।
ii	Compensatory Afforestation (CA)	
ii(a)	Compensatory Afforestation over the identified degraded forest area (twice in extent to the forest land diverted) on Compartment No. 475 of Jamai Range, Chhindwara Forest Division of Madhya Pradesh State shall be raised at the project cost under the supervision of the State Forest Department and afforestation works shall start within two years from the date of final approval and maintained thereafter in accordance with the approved CA scheme in consultation with the State Forest Department	वनपरिक्षेत्र जामई अंतर्गत कक्ष क्रमांक 475 में शर्त के पालन हेतु वैकल्पिक वृक्षारोपण की राशि रु. 1,38,85,489/- कैम्पा मद में आवेदक विभाग द्वारा दिनांक 18.11.2025 से जमा की जा चुकी है जिसका UTR No. SBINR12025111806305835 है . एवं शर्त के पालन हेतु पर्यवेक्षण शुल्क की राशि रु. 13,88,549.00 आवेदक विभाग द्वारा कोषालय के माध्यम से दिनांक 18.11.2025 से जमा की जा चुकी है। जिसका चालान संलग्न है।

ii(b)	The User Agency shall transfer the cost of raising and maintaining the compensatory afforestation as per the approved CA scheme at the current wage rate in consultation with State Forest Department in the account of CAMPA of the concerned State through online portal;	शर्त के पालन हेतु वैकल्पिक वृक्षारोपण की राशि रु. 1,38,85,489/- कैम्पा मद में आवेदक विभाग द्वारा दिनांक 18.11.2025 से जमा की जा चुकी है जिसका UTR No. SBINR12025111806305835 है।
ii(c)	The cost of survey, demarcation and erection of permanent pillars, if required on the identified CA land, shall be deposited in advance with the Forest Department by the user agency. The CA will be maintained for 10 years. The scheme may include afforestation of indigenous species with appropriate provision for anticipated cost increase for works scheduled for subsequent years;	वनपरिक्षेत्र जामई अंतर्गत कक्ष क्रमांक 475 में शर्त के पालन हेतु वैकल्पिक वृक्षारोपण की राशि रु. 1,38,85,489/- कैम्पा मद में आवेदक विभाग द्वारा दिनांक 18.11.2025 से जमा की जा चुकी है जिसका UTR No. SBINR12025111806305835 है।
ii(d)	The land identified for the purpose of CA shall be clearly depicted on Survey of India toposheet map of 1:50,000 scale	शर्त का पालन किया जावेगा।
iii	Net Present Value (NPV)	
iii(a)	The User Agency shall transfer the funds towards the cost of Net Present Value (NPV) of the forest land being diverted under this proposal in accordance with the MoEF&CC's guidelines	शर्त के पालन हेतु नेट प्रेजेंट वैल्यू की राशि रु. 1,72,00,260.00/- कैम्पा मद में आवेदक विभाग द्वारा दिनांक 18.11.2025 से जमा कराई गई है जिसका UTR No. SBINR12025111806305835 है।
iii(b)	At the time of payment of the Net Present Value (NPV) at the present rate, the User Agency shall furnish an undertaking to pay the additional amount of NPV, if so determined, as per the final decision of the Hon'ble Supreme Court of India	शर्त के पालन हेतु आवेदक विभाग वचनबद्ध है। विवरण संलग्न है।
iv	All the funds received from the user agency under the proposal shall be transferred/deposited in CAMPA account only through e-portal (http://parivesh.nic.in) Amount deposited through other mode will not be accepted as compliance of the Stage-I clearance	आवेदक विभाग द्वारा शर्त क्रमांक iii(a) के पालन हेतु नेट प्रेजेंट वैल्यू की राशि रु. 1,72,00,260.00/- शर्त क्रमांक 2(a) के पालन में वैकल्पिक वृक्षारोपण की राशि रु. 1,38,85,489/- एवं शर्त क्रमांक 13 के पालन में माईन के 100 मी. परिधि में गैप प्लांटिंग की राशि रु. 69,75,753/- कुल राशि रु. 3,80,61,502.00/- ई-पोर्टल के माध्यम से कैम्पा मद में जमा करायी गई है जिसका UTR No. SBINR12025111806305835 है।
v	The State Government shall upload the KML files of the area under diversion in the e-Green watch portal of FSI, before handing over forest land to the user agency	व्यपवर्तित वन भूमि रकबा 14.00 हे० वन भूमि की के.एम.एल. फाईल ई-ग्रीन वॉच पोर्टल पर अपलोड कर दी गई है।
vi	The User Agency shall obtain the Environment Clearance as per the provisions of the Environmental (Protection) Act; 1986; if required	आवेदक विभाग ने पर्यावरण (संरक्षण) अधिनियम 1986 के प्रावधानों के अनुसार MoEF के पत्र संख्या J-11015/367/2008-IA.II(M) दिनांक 26

		दिसंबर 2008 से पर्यावरण स्वीकृति ली है। विवरण संलग्न है।
vii	The User Agency shall undertake mining in a phased manner after taking due care for reclamation of the mined out area. The User Agency shall prepare a detailed plan for life of project as per mining plan, clearly linking the progress of mining and felling of the trees. Felling of trees shall be done, when it is absolutely necessary in phase-wise manner in the areas which become due for mining as per mining plan. The concurrent Reclamation Plan as per the approved Mining Plan shall be executed by the User Agency from the very first year, and an annual report on implementation thereof shall be submitted to the Nodal Officer, Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980, in the concerned State Government and the concerned Regional Office of the Ministry. If it is found from the annual report that the activities indicated in the concurrent reclamation plan are not being executed by the User Agency, the Nodal Officer or the Chief Conservator of Forests (Central) may direct that the mining activities shall remain suspended till such time, such reclamation activities are satisfactorily executed	शर्त के पालन हेतु आवेदक विभाग वचनबद्ध है। विवरण संलग्न है।
viii	The user agency shall prepare a schedule for surrender of the mined out and reclaimed forest land in accordance with existing mining plan and submit the same along with an undertaking to surrender the mined out and reclaimed forest land as per such schedule to the MoEF&CC before grant of 'Final' approval under the Adhiniyam for diversion of the said forest land	शर्त के पालन हेतु आवेदक विभाग वचनबद्ध है। विवरण संलग्न है।
ix	The rehabilitated forest area after closure of mining operations shall be handed over to the State Forest Department for sustainable forest management in the future	शर्त के पालन हेतु आवेदक विभाग वचनबद्ध है। विवरण संलग्न है।
x	Safety Zone Management: Following activities, at project cost, shall be undertaken by the user agency for the management of safety zone as per relevant guidelines issued by the Ministry's guidelines	शर्त के पालन हेतु आवेदक विभाग वचनबद्ध है।
x(a)	User agency shall ensure demarcation of safety zone (7.5 meter strip all along the inner boundary of the mining lease area), and its fencing, protection and regeneration by erecting adequate number of 6 feet high RCC boundary pillars inscribed with DGPS coordinates with barbed wire fencing and deploying adequate number of watchers under the supervision of the. State Forest Department;	शर्त के पालन हेतु आवेदक विभाग वचनबद्ध है। विवरण संलग्न है।
x(b)	Boundary of the safety zone of the mining lease, adjacent to habitation/roads, should be properly fenced by the user agency	शर्त के पालन हेतु आवेदक विभाग वचनबद्ध है। विवरण संलग्न है।
x(c)	Safety zone shall be maintained as green belt around mining lease and to ensure dense canopy in the area, regeneration shall be taken up in this area by the user	शर्त के पालन हेतु आवेदक विभाग वचनबद्ध है। विवरण संलग्न है।

	agency at project cost under the supervision of the State Forest Department; and	
x(d)	The State Government and the user agency shall ensure that safety zone is maintained as per the prescribed norms	शर्त के पालन हेतु आवेदक विभाग वचनबद्ध है।
xi	Following activities, as per approved plan / schemes, shall be undertaken in the lease area by the User Agency under the supervision of the State Forest Department	शर्त के पालन हेतु आवेदक विभाग वचनबद्ध है। विवरण संलग्न है।
xi(a)	Mitigative measures to minimize soil erosion and choking of stream shall be implemented within a period of three year with effect from the issue of 'Final' approval in accordance with the approved Plan/Scheme in consultation with the State Forest Department;	शर्त के पालन हेतु आवेदक विभाग वचनबद्ध है। विवरण संलग्न है।
xi(b)	Planting of adequate drought hardy plant species and sowing of seeds, in the appropriate area within the mining lease to arrest soil erosion in accordance with the approved Plan/scheme	शर्त के पालन हेतु आवेदक विभाग वचनबद्ध है। विवरण संलग्न है।
xi(c)	Construction of check dams, retention / toe walls to arrest sliding down of the excavated material along the contour in accordance with the approved Plan/Scheme	शर्त के पालन हेतु आवेदक विभाग वचनबद्ध है। विवरण संलग्न है।
xi (d)	Stabilize the overburden dumps by appropriate grading/benching, in accordance with the approved scheme, so as to ensure that angles of repose at any given place is less than 280; and	जानकारी संलग्न है।
xi (e)	No damage shall be caused to the top-soil and the user agency will follow the top soil management plan	जानकारी संलग्न है।
xii	The validity of approval granted under the Adhiniyam shall be for a period coterminus with the validity of the mining lease proposed to be granted under the Mines and Minerals (Development and Regulation) Act, 1957, as amended from time to time or Rules framed there under, or for such period as may be specified by the Central Government	शर्त के पालन हेतु आवेदक विभाग वचनबद्ध है। विवरण संलग्न है।
xiii	The User Agency either himself or through the State Forest Department shall undertake gap planting and soil and moisture conservation activities to restock and rejuvenate the degraded open forests (having crown density less than 0.40), if any, located within the periphery of 100 m from outer perimeter of the mining lease as per approved plan for plantation and SMC activities submitted along with compliance of 'in-principle' approval	शर्त कर्मांक 13 के पालन में माईन के 100 मी. परिधि में गैप प्लांटिंग की राशि रु. 69,75,753/- कैम्पा मद में जमा करायी गई है जिसका UTR No. SBINR12025111806305835 है।
xiv	The User Agency shall regularly undertake desilting of village tanks and other water bodies, located within five km from the mine lease boundary, as per approved plan, to mitigate the impact of project on such tanks/water bodies	शर्त के पालन हेतु आवेदक विभाग वचनबद्ध है। विवरण संलग्न है।
xv	The User Agency shall comply with the Hon'ble Supreme Court order on re- grassing, and re-grass the mining area and any other areas which may have been disturbed due to mining to restore them to a condition which is fit for growth of fodder, flora, fauna, etc. in a	शर्त के पालन हेतु आवेदक विभाग वचनबद्ध है। विवरण संलग्न है।

	timely manner	
xvi	Adequate care shall be taken to check any rolling of overburden/dumps beyond the designated area and to check soil erosion caused due to mining activities	शर्त के पालन हेतु आवेदक विभाग वचनबद्ध है। विवरण संलग्न है।
xvii	The User agency will undertake comprehensive soil conservation measures at the project cost in consultation with the State Forest Department. A scheme of the same shall be submitted to the Regional Office along with the 'in-principle' approval;	शर्त के पालन हेतु आवेदक विभाग वचनबद्ध है। विवरण संलग्न है।
xviii	The R&R Plan shall be implemented as per the R&R Policy of State Government in consonance with National R&R Policy, Government of India before the commencement of the project work and implementation. The said R&R Plan will be monitored by the State Government/Regional Office of MoEF&CC along with indicators for monitoring and expected observable milestones	शर्त के पालन हेतु आवेदक विभाग वचनबद्ध है। विवरण संलग्न है।
xix	The user agency shall explore the possibility of translocation of maximum number of trees identified to be felled	शर्त के पालन हेतु आवेदक विभाग वचनबद्ध है। विवरण संलग्न है।
xx	The cost of felling of trees shall be deposited by the User Agency with the State Forest Department	शर्त क्रमांक 20 के पालन हेतु चिन्हांकित 160 वृक्षों के विदोहन कार्य में होने वाले व्यय की राशि रु. 11,71,851.00 एवं परिवहन कार्य में होने वाले व्यय की राशि रु. 2,50,145.00 कुल राशि रु. 14,21,996/- को आवेदक विभाग द्वारा कोषालय के माध्यम से दिनांक 10.11.2025 से जमा कराया गया है। विवरण संलग्न है।
xxi	The User Agency shall obtain the Environment Clearance as per the provisions of the Environmental (Protection) Act, 1986, if required	शर्त के पालन हेतु आवेदक विभाग वचनबद्ध है। विवरण संलग्न है।
xxii	No labour camp shall be established on the forest land and the User Agency shall provide fuels preferably alternate fuels to the labourers and the staff working at the site so as to avoid any damage and pressure on the nearby forest areas	शर्त के पालन हेतु आवेदक विभाग वचनबद्ध है। विवरण संलग्न है।
xxiii	The boundary of the diverted forest land, mining lease and safety zone, as applicable, shall be demarcated on ground at the project cost, by erecting four feet high reinforced cement concrete pillars, each inscribed with its serial number, distance from pillar to pillar and GPS coordinates	शर्त के पालन हेतु आवेदक विभाग वचनबद्ध है। विवरण संलग्न है।
xxiv	The layout plan of the mining plan/ proposal shall not be changed without the prior approval of the Central Government and the forest land shall not be used for any purpose other than that specified in the proposal	विवरण संलग्न है।
xxv	The forest land proposed to be diverted shall under no circumstances be transferred to any other agency, department or person without prior approval of the Central Government;	शर्त के पालन हेतु आवेदक विभाग वचनबद्ध है। विवरण संलग्न है।
xxvi	No damage to the flora and fauna of the adjoining area	शर्त के पालन हेतु आवेदक विभाग वचनबद्ध है।

	shall be caused	विवरण संलग्न है।
xxvii	The user agency shall comply all the provisions of the all Acts, Rules, Regulations, Guidelines, Hon'ble Court Order (s) and NGT Order (s) pertaining to this project, if any, for the time being in force, as applicable to the project	शर्त के पालन हेतु आवेदक विभाग वचनबद्ध है। विवरण संलग्न है।

सहपत्र :- उपरोक्तानुसार।

वनमंडलाधिकारी
पश्चिम छिंदवाड़ा वनमंडल छिंदवाड़ा

पृष्ठा.क्रमांक/ तकनीकी/2025/ 12

छिंदवाड़ा, दिनांक/ 02/01/26

- प्रतिलिपि :- 1. प्रधान मुख्य वन संरक्षक (कक्ष भू-प्रबंध) वन भवन भोपाल की ओर सूचनार्थ संप्रेषित।
2. महाप्रबंधक वेस्टर्न कोलफील्ड्स लिमिटेड कन्हान क्षेत्र डुंगरिया की ओर सूचनार्थ अग्रेषित।

वनमंडलाधिकारी
पश्चिम छिंदवाड़ा वनमंडल छिंदवाड़ा

केवल नागपुर कोर्ट के अधिकार क्षेत्र में

Under jurisdiction of Nagpur Court Only



वेस्टर्न कोल्फील्ड्स लिमिटेड/ Western Coalfields Limited

मिनिरल कम्पनी/ (A Miniratna Company)

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

CIN-U10100MH1975GO1018626

उपक्षेत्रीय प्रबंधक का कार्यालय, घोरावाड़ी तानसी उपक्षेत्र
पता: बेकोलि, कान्हा क्षेत्र, पोस्ट: दुर्गारिया, जिला: चिंदवाड़ा, म.प्र. 480553

Email: subareamanagerdn@gmail.com

Office of the Sub Area Manager, Ghorawari Tandsi Sub Area
Address: WCL Kanhan Area, PO. Durgaria, Dist-Chhindwara, MP, PIN-480553

Phone: 07160-231064



संदर्भ सं: बेकोलि/कान्हा/उपक्षेत्र/2025-26/ 328

दिनांक: 23-12-2025

To,

The Divisional Forest Officer,
Chhindwara (West), Forest Division
Chhindwara.

Sub : Proposal for seeking prior approval of the Central Government under Section 2(1)(ii) of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 for diversion of 14.0 Ha. Reserved Forest land in Compartment No. 454 of Junnardev Vishala village of Jamai Range for Bharat Open Cast Coal Mine Phase-II in favor of M/s Western Coalfields Limited in Chhindwara District , Madhya Pradesh State (Online No. FP/MP/MIN/26356/2017.)

Ref. No. 01. Online Application No. FP/MP/MIN/26356/2017

02. in-principle' approval under Section 2 (1) (ii) of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 vide letter No. 8-112/2006-FCVol- I/103203/2025 Dated 24.03.2025

03. Demand Note of DFO 5.No./Takniki/2025/2047 Chhindwara Dtd 13/10/2025

Dear Sir,

With reference to the above-mentioned Letter No.2, the Ministry of Environment, Forests and Climate Change (MoEF & CC) has granted Stage-I (in-principle) approval for the diversion of 14.0 Ha. Reserved Reserved Forest land in Compartment No. 454 of Junnardev Vishala village of Jamai Range for Bharat Open Cast Coal Mine Phase-II in favor of M/s Western Coalfields Limited in Chhindwara District , Madhya Pradesh State. WCL has deposited the compensatory levies as per the demand letter cited above. Point-wise compliance report ,payment details and other relevant documents enclosed herewith in 06 sets.

Is it therefore requested to kindly forward the compliance report to the Government of India for obtaining Stage-II Final Approval as early as possible.

Thanking You.

Sub Area Manager / Project Proponent
Ghorawari Tandsi Sub Area

Kanhan Area, WCL

उपक्षेत्रीय प्रबंधक

घोरावाड़ी तानसी उपक्षेत्र

Encl : as above

Copy To :

01. The Nodal Officer / APCCF Bhopal, Satpura Bhawan , Bhopal
02. The Chief Conservator of Forest, Chhindwara
03. Area General Manager, Kanhan Area
04. General Manager (Forest), WCL Hq. Nagpur
05. General Manager (L&R), WCL Hq. Nagpur
06. General Manager (Env.), WCL Hq. Nagpur



**COMPLIANCE REPORT AGAINST DIVERSION OF 14.0 HA. RESERVED FOREST LAND FOR
BHARAT OPEN CAST MINE PHASE-II
IN THE DISTRICT OF CHHINDWARA, MADHYAPRADESH-STATE**

MoEF &CC Stage I Letter No.

8-112/2006-FCVol- I/103203/2025 Dated 24.03.2025

S.No.	Condition	Compliance
i	Legal status of the diverted forest land shall remain unchanged	Agreed, Legal status of the diverted forest land will remain unchanged. An undertaking for the same is enclosed at page No. 9
ii	Compensatory Afforestation (CA)	
ii(a)	Compensatory Afforestation over the identified degraded forest area (twice in extent to the forest land diverted) on Compartment No. 475 of Jamai Range, Chhindwara Forest Division of Madhya Pradesh State shall be raised at the project cost under the supervision of the State Forest Department and afforestation works shall start within two years from the date of final approval and maintained thereafter in accordance with the approved CA scheme in consultation with the State Forest Department	Noted by User Agency. As per the demand raised by MP Forest Deptt. User Agency has paid an amount of Rs. 1,38,85,489/- vide UTR No. SBINR12025111806305835 Dated 18/11/2025. Copy of the online receipt enclosed as Page No. 39 & Challan of Supervision fee vide Challan No. 051/999999/0406/11/25/002489 for Rs. 20,86,124 enclosed at Page No. 40
ii(b)	The User Agency shall transfer the cost of raising and maintaining the compensatory afforestation as per the approved CA scheme at the current wage rate in consultation with State Forest Department in the account of CAMPA of the concerned State through online portal;	The amount of Rs. 1,38,85,489/- for Compensatory afforestation has been deposited to Campa Head vide UTR No. SBINR12025111806305835 Dated 18/11/2025. Copy of the online receipt enclosed as Page No. 39
ii(c)	The cost of survey, demarcation and erection of permanent pillars, if required on the identified CA land, shall be deposited in advance with the Forest Department by the user agency. The CA will be maintained for 10 years. The scheme may include afforestation of indigenous species with appropriate provision for anticipated cost increase for works scheduled for subsequent years;	The amount of Rs. 1,38,85,489/- for Compensatory afforestation has been deposited to Campa Head vide UTR No. SBINR12025111806305835 Dated 18/11/2025. Copy of the online receipt enclosed as Page No. 39
ii(d)	The land identified for the purpose of CA shall be clearly depicted on Survey of India toposheet map of 1:50,000 scale	Related to Forest Department.
iii	Net Present Value (NPV)	
iii(a)	The User Agency shall transfer the funds towards the cost of Net Present Value (NPV) of the forest land being diverted under this proposal in accordance with the MoEF&CC's guidelines	As per the demand raised by DFO, Chhindwara (West) vide letter S.No. /Takniki/ 2025/2047 Chhindwara Dated 13/10/2025. an amount of Rs. 1,72,00,260.00/- has been deposited in Campa Head vide UTR No. SBINR12025111806305835 Dated 18/11/2025. Copy of the online receipt enclosed as Page No. 39
iii(b)	At the time of payment of the Net Present Value (NPV) at the present rate, the User Agency shall furnish an undertaking to pay the additional amount	Agreed. An undertaking to pay the additional amount of NPV, if so determined , as per the final decision

	of NPV, if so determined, as per the final decision of the Hon'ble Supreme Court of India	of the Hon'ble Supreme Court of India enclosed as Page No. 10
iv	All the funds received from the user agency under the proposal shall be transferred/deposited in CAMPA account only through e-portal (http://parivesh.nic.in) Amount deposited through other mode will not be accepted as compliance of the Stage-I clearance	Complied . User agency has generated E-challan through Parivesh Portal and transferred Rs. 3,80,61,502.00/- by UTR No. No. SBINR12025111806305835 Dated 18/11/2025. Copy of the online receipt enclosed as Page No. 39
v	The State Government shall upload the KML files of the area under diversion in the e-Green watch portal of FSI, before handing over forest land to the user agency	The KML files of the area under diversion has been uploaded in the E-Green watch portal of FSI, Screenshot of the same is enclosed as Page No. 42-43
vi	The User Agency shall obtain the Environment Clearance as per the provisions of the Environmental (Protection) Act; 1986; if required	Complied. User agency has obtained Environment Clearance vide MoEF letter No. No.J-11015/367/2008-IA.II(M) Dated 26 th Dec 2008 as per the provisions of the Environmental (Protection) Act, 1986. Copy of the same enclosed as Page No. 60 to 65
vii	The User Agency shall undertake mining in a phased manner after taking due care for reclamation of the mined out area. The User Agency shall prepare a detailed plan for life of project as per mining plan, clearly linking the progress of mining and felling of the trees. Felling of trees shall be done, when it is absolutely necessary in phase-wise manner in the areas which become due for mining as per mining plan. The concurrent Reclamation Plan as per the approved Mining Plan shall be executed by the User Agency from the very first year, and an annual report on implementation thereof shall be submitted to the Nodal Officer, Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980, in the concerned State Government and the concerned Regional Office of the Ministry. If it is found from the annual report that the activities indicated in the concurrent reclamation plan are not being executed by the User Agency, the Nodal Officer or the Chief Conservator of Forests (Central) may direct that the mining activities shall remain suspended till such time, such reclamation activities are satisfactorily executed	The User Agency is committed. Approved Mining plan enclosed from Page No. 99 to 180 With an undertaking for this condition has been enclosed at Page No.11
viii	The user agency shall prepare a schedule for surrender of the mined out and reclaimed forest land in accordance with existing mining plan and submit the same along with an undertaking to surrender the mined out and reclaimed forest land as per such schedule to the MoEF&CC before grant of 'Final' approval under the Adhiniyam for diversion of the said forest land	Land Surrender schedule in accordance with approved mining plan enclosed as page No. 99 to 180 and an Undertaking has been enclosed as Page No. 12
ix	The rehabilitated forest area after closure of mining	Agreed. An Undertaking has been

	operations shall be handed over to the State Forest Department for sustainable forest management in the future	enclosed for the same as Page No. 13
x	Safety Zone Management: Following activities, at project cost, shall be undertaken by the user agency for the management of safety zone as per relevant guidelines issued by the Ministry's guidelines	
x(a)	User agency shall ensure demarcation of safety zone (7.5 meter strip all along the inner boundary of the mining lease area), and its fencing, protection and regeneration by erecting adequate number of 6 feet high RCC boundary pillars inscribed with DGPS coordinates with barbed wire fencing and deploying adequate number of watchers under the supervision of the. State Forest Department;	Agreed. An Undertaking has been enclosed as Page No. 14, A report for fencing and plantation within safety zone with consultation of State Govt. has been prepared and enclosed here with at Page No. 181 to 190 as instructed by DFO, West Chhindwara vide his letter No /Takniki/ 2025/2047 Chhindwara Dated 13/10/2025
x(b)	Boundary of the safety zone of the mining lease, adjacent to habitation/roads, should be properly fenced by the user agency	Agreed. An Undertaking has been enclosed as Page No. 15
x(c)	Safety zone shall be maintained as green belt around mining lease and to ensure dense canopy in the area, regeneration shall be taken up in this area by the user agency at project cost under the supervision of the State Forest Department; and	Agreed. An Undertaking has been enclosed as Page No. 16
x(d)	The State Government and the user agency shall ensure that safety zone is maintained as per the prescribed norms	Agreed. An Undertaking has been enclosed as Page No. 17
xi	Following activities, as per approved plan / schemes, shall be undertaken in the lease area by the User Agency under the supervision of the State Forest Department	
xi(a)	Mitigative measures to minimize soil erosion and choking of stream shall be implemented within a period of three year with erect from the issue of 'Final' approval in accordance with the approved Plan/Scheme in consultation with the State Forest Department;	An undertaking enclosed at Page No. 18 and a Plan to minimize soil erosion and choking of stream enclosed as Page No. 44 To 46
xi(b)	Planting of adequate drought hardy plant species and sowing of seeds, in the appropriate area within the mining lease to arrest soil erosion in accordance with the approved Plan/scheme	An undertaking enclosed at Page No. 19 and a plan for plantation of adequate drought hardy plant species and sowing of seeds is enclosed as Page No. 47 to 48
xi(c)	Construction of check dams, retention /toe walls to arrest sliding down of the excavated material along the contour in accordance with the approved Plan/Scheme	An undertaking is enclosed at Page No. 20 and a Plan for construction of check dams, retention / toe walls is enclose as Page No. 49 to 50
xi (d)	Stabilize the overburden dumps by appropriate grading/benching, in accordance with the approved scheme, so as to ensure that angles of repose at any given place is less than 280; and	An undertaking (enclosed at Page No. 21) and a Plan to stabilize the overburden dumps by appropriate grading / benching is enclosed as Page No. 51 to 53

		A detailed (slope stability study) had been conducted by the IIT Khargpur in May 2019 for Mohan No. 5& 6 OC Patch, Kanhan Area which is nearby mine of Bharat OC Patch Phase II is enclosed from Page No. 66 to 98
xi (e)	No damage shall be caused to the top-soil and the user agency will follow the top soil management plan	An undertaking is enclosed at Page No. 22 and a Top Soil Management Plan is enclosed as Page No. 54 To 56
xii	The validity of approval granted under the Adhiniyam shall be for a period coterminus with the validity of the mining lease proposed to be granted under the Mines and Minerals (Development and Regulation) Act, 1957, as amended from time to time or Rules framed there under, or for such period as may be specified by the Central Government	Agreed. An Undertaking has been enclosed as Page No. 23
xiii	The User Agency either himself or through the State Forest Department shall undertake gap planting and soil and moisture conservation activities to restock and rejuvenate the degraded open forests (having crown density less than 0.40), if any, located within the periphery of 100 m from outer perimeter of the mining lease as per approved plan for plantation and SMC activities submitted along with compliance of 'in-principle' approval	As per the demand raised by DFO, Chhindwara (West) vide letter No. S.No. /Takniki/ 2025/2047 Chhindwara Dated 13/10/2025 an amount of Rs. 69,75,753/- for Gap Planting has been deposited to Campa Head vide UTR No. SBINR12025111806305835 Dated 18/11/2025. Copy of the online receipt enclosed as Page No. 39
xiv	The User Agency shall regularly undertake desilting of village tanks and other water bodies, located within five km from the mine lease boundary, as per approved plan, to mitigate the impact of project on such tanks/water bodies	Agreed. An undertaking has been enclosed as Page No. 24 Also, a Desilting plan prepared as per the approved EMP is enclosed at Page No.57 to 58. A detailed plan and a geo-tagged map showing village tanks and waterbodies within 5km radius of the Project with GPS Co-ordinates are enclosed as Page No. 59
xv	The User Agency shall comply with the Hon'ble Supreme Court order on re- grassing, and re-grass the mining area and any other areas which may have been disturbed due to mining to restore them to a condition which is fit for growth of fodder, flora, fauna, etc. in a timely manner	Agreed. An Undertaking has been enclosed as Page No. 25
xvi	Adequate care shall be taken to check any rolling of overburden/dumps beyond the designated area and to check soil erosion caused due to mining activities	Agreed. Overburden will be stored in designated locations within permissible height as per the approved Project Report / Mining Plan. Garland Drains and Trenches are provided along the toe of the dumps to arrest and flow of slit and soil beyond the designated. An undertaking is enclosed for the same as Page No. 26
xvii	The User agency will undertake comprehensive soil	Agreed, A scheme for comprehensive

	conservation measures at the project cost in consultation with the State Forest Department. A scheme of the same shall be submitted to the Regional Office along with the 'in-principle' approval;	soil conservation measures at the project in consultation with the State Forest Department is enclosed herewith at Page No. 44 to 46 and an undertaking is enclosed at Page No. 27, A copy of same scheme also submitted to Regional Office Bhoopal along with the 'in-principle approval. Receipt attached at Page No. 191
xviii	The R&R Plan shall be implemented as per the R&R Policy of State Government in consonance with National R&R Policy, Government of India before the commencement of the project work and implementation. The said R&R Plan will be monitored by the State Government/Regional Office of MoEF&CC along with indicators for monitoring and expected observable milestones	Agreed. An undertaking against the same is enclosed as Page No. 28
xix	The user agency shall explore the possibility of translocation of maximum number of trees identified to be felled	Agreed. An undertaking against the same is enclosed as Page No. 29
xx	The cost of felling of trees shall be deposited by the User Agency with the State Forest Department	The DFO Chhindwara(West) has raised a demand note of an amount Rs. 14,21,996/- vide S.No. /Takniki/2025/2201 Chhindwara Dated 10/11/2025. The User agency has deposited amount of Rs. 14,21,996/- in mp treasury vide Challan No. 051/999999 /0406/12/25/000380 Copy of Challan enclosed at Page No. 39
xxi	The User Agency shall obtain the Environment Clearance as per the provisions of the Environmental (Protection) Act, 1986, if required	Complied. User agency has obtained Environment Clearance vide MoEF letter No. No.J-11015/367/2008-IA.II(M) Dated 26 th Dec 2008 as per the provisions of the Environmental (Protection) Act, 1986. Copy of the same enclosed as Page No. 60 to 65
xxii	No labour camp shall be established on the forest land and the User Agency shall provide fuels preferably alternate fuels to the labourers and the staff working at the site so as to avoid any damage and pressure on the nearby forest areas	Agreed. An undertaking is enclosed for the same as Page No. 30
xxiii	The boundary of the diverted forest land, mining lease and safety zone, as applicable, shall be demarcated on ground at the project cost, by erecting four feet high reinforced cement concrete pillars, each inscribed with its serial number, distance from pillar to pillar and GPS coordinates	Agreed. An undertaking against the same is enclosed as Page No. 31
xxiv	The layout plan of the mining plan/ proposal shall not be changed without the prior approval of the Central Government and the forest land shall not be used for any purpose other than that specified in the	Agreed. Layout Plan of the mining plan/ proposal will not be changed without prior approval of the Central Government. It is submitted that the

	proposal	Forest Land will not be used for any other purpose other than that specified in the proposal. An Undertaking for the same is enclosed as Page No. 32
xxv	The forest land proposed to be diverted shall under no circumstances be transferred to any other agency, department or person without prior approval of the Central Government;	Agreed. An undertaking is enclosed for same as Page No. 33
xxvi	No damage to the flora and fauna of the adjoining area shall be caused	Agreed. An undertaking is enclosed for same as Page No. 34
xxvii	The user agency shall comply all the provisions of the all Acts, Rules, Regulations, Guidelines, Hon'ble Court Order (s) and NGT Order (s) pertaining to this project, if any, for the time being in force, as applicable to the project	Agreed. An undertaking is enclosed for same as Page No. 35
xxviii	The User Agency shall submit the annual self-compliance report in respect of the above stated conditions to the State Government, concerned Regional Office and to this Ministry by the end of March every year regularly;	Agreed. Once the forest land is handed over for mining purpose. WCL will submit Annual self-compliance Report by the end of March every year regularly. An undertaking is enclosed for same as Page No. 36
xxix	Any other condition that the Ministry of Environment, Forests & Climate Change may stipulate from time to time in the interest of conservation, protection and development of forests & wildlife	Agreed. An undertaking is enclosed for same as Page No. 37
xxx	Violation of any of these conditions will amount to violation of Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 and action would be taken as prescribed in para 1.16 of consolidated guidelines and clarifications issued under Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 as issued by this Ministry on dated 29.12.2023;	Agreed. An undertaking is enclosed for same as Page No. 38
xxxi	The compliance report shall be uploaded on e-portal (https://parivesh.nic.in/)	Complied. The compliance report has been uploaded on e-portal.

This is for your kind information and needful please.

(S.K. Kanth)
23.12.25

Sub Area Manager / Project Proponent
Ghorawari Tandsi Sub Area

Encl. : As above.

STAGE I COMPLIANCE REPORT
FOR DIVERSION 14.0 HA. RESERVED FORED LAND
FOR BHARAT OPEN CAST MINE PHASE-II
WESTERN COALFIELDS LIMITED, KANHAN AREA

LIST OF ENCLOSURE

Annexure No.	Related Condition No.	Particulars	Page No.
1	II(a), III(a), XIII	Receipt of Payment of Campa Head for CA, NPV & Gap Planting	39
2	II(a), XIII	Copy of Challan for Supervision fee of CA & Gap Planting	40
3	XX	Copy of Challan for tree felling	41
4	V	Screen-shot of E-Green watch portal	42-43
5	VI, XXI	Copy of Environmental Clearance dated 26 th Dec 2008	60-65
6	VII, VIII	Copy of Approved Mining Plan of Bharat OC Patch	99-180
7	XI(a), XVII	PLAN TO MITIGATE SOIL EROSION , CHOCKING OF STREAMS & SOIL CONSERVATION MEASURES	44-46
8	XVII	Copy of Received of Scheme of Soil Conservation Measures from Regional Office, Bhopal	191
9	XI(b)	PLAN FOR PLANTING ADEQUATE DROUGHT HARDY PLANT SPECIES AND SOWING OF SEEDS TO ARREST SOIL EROSION.	47-48
	XII	PLAN FOR CONSTRUCTION OF CHECK DAMS, RETENTION / TOE WALLS TO ARRED SLIDING DOWN OF THE EXCAVATED MATERIAL	49-50
10	XI(d)	PLAN TO STABILIZE THE OVERBURDEN DUMPS BY APPROPRIATE GRADING / BENCHING TO ENSURE THAT ANGLES OF REPOSE AT ANY GIVEN PLACE IS LESS THAN 28DEGREE	51-53
11	XI(d)	SCIENTIFIC STUDY FOR SLOPE STABILITY ASSESSMENT STUDY OF NEARBY MINE OF BHARAT OPEN CAST COAL MINE PHASE-II i.e. MOHAN NO 5&6 OC PATCH, KANHAN AREA WCL	66-98
12	XI(e)	TOP SOIL MANAGEMENT PLAN	54-56
	XIV	PLANT TO DESILTING OF VILLAGE TANKS & WATER BODIES WITHIN 5KM RADIUS OF MINE & SCREEN SHOT OF GOOGLE MAP	57-59
13	X(a)	Report for fencing and plantation within safety zone with consultation of State Govt.	181-190
14		Copy of Demand Note of DFO, West Chhindwara	192-194

केवल नागपुर कोर्ट के अधिकार क्षेत्र में

Under jurisdiction of Nagpur Court Only



वेस्टर्न कोल्फील्ड्स लिमिटेड/ Western Coalfields Limited

मिनिरल कम्पनी/ (A Miniratna Company)

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

CIN-U10100MH1975GO1018626

उपक्षेत्रीय प्रबंधक का कार्यालय, घोड़ावाडी तानसी उपक्षेत्र

पता: वेकोलि, कन्हान क्षेत्र, पोस्ट: दुंगरिया, जिला: छिंदवाड़ा, म.प्र. पिन: 480553

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Phone: 07160-231064

संदर्भ सं: वेकोलि/कन्हान/उपक्षेत्र/2025-26/

दिनांक: 06-12-2025

Name of the Proposal : Proposal for seeking prior approval of the Central Government under Section 2(1) (ii) of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 for diversion of 14.00 ha Reserved Forest land in Compartment No. 454 of Junnadev Vishala Village of Jamai Range for Bharat Open Cast Coal Mine Phase-II in favor of M/s Western Coalfield Limited in Chhindwara District, Madhya Pradesh State.

Proposal No. : FP/MP/MIN/26356/2017

Ministry File No. 8-112/2006-FC Vol

UNDERTAKING

(Condition No. I of Stage-I Clearance)

(Regarding Legal Status of the diverted forest land)

On behalf of M/s Western Coalfields Limited, Kanhan Area, we hereby undertake that the Legal Status of the diverted forest land will remain unchanged for which Stage I Forest Clearance vide Order No. No. 8-112/2006-FCVol- I/103203/2025 Dated 24.03.2025 for diversion of 14.0 Ha. Forest Land for Bharat Open Cast Coal Mine Phase-II, Kanhan Area


(S.K. Kanth)

Sub Area Manager / Project Proponent
Ghorawari Tandsi Sub Area

Date :

Place : Junnardeo

केवल नागपुर कोर्ट के अधिकार क्षेत्र में

Under jurisdiction of Nagpur Court Only



वेस्टर्न कोल्फील्ड्स लिमिटेड/ Western Coalfields Limited
मिनिरल कम्पनी/ (A Miniratna Company)
कोल इंडिया लिमिटेड की अनुषंगी कम्पनी/ (A Subsidiary of Coal India Limited)
CIN-U10100MH1975GO1018626



5 DECADES OF UNEARTHING ENERGY

उपक्षेत्रीय प्रबंधक का कार्यालय, घोड़ावाडी तानसी उपक्षेत्र
पता: वेकोलि, कन्हान क्षेत्र, पोस्ट: दुंगरिया, जिला: छिंदवाड़ा, म.प्र. पिन: 480553

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Proposal No. : FP/MP/MIN/26356/2017

Ministry File No. 8-112/2006-FC Vol

UNDERTAKING

(Condition No. III(b) of Stage-I Clearance)
(Regarding payment of the additional amount of NPV)

On behalf of M/s Western Coalfields limited, Kanhan Area, we are hereby agreed to pay the additional amount of NPV, if so determined, as per the final decision of the Hon'ble Supreme Court of India


(S.K.Kanth)

Sub Area Manager / Project Proponent
Ghorawari Tandsi Sub Area

Date :

Place : Junnardeo

केवल नागपुर कोर्ट के अधिकार क्षेत्र में

Under jurisdiction of Nagpur Court Only



वेस्टर्न कोल्फील्ड्स लिमिटेड/ Western Coalfields Limited

मिनिरल कम्पनी/ (A Miniratna Company)

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

CIN-U10100MH1975GO1018626

उपक्षेत्रीय प्रबंधक का कार्यालय, घोड़ावाडी तानसी उपक्षेत्र

पता: वेकोलि, कन्हान क्षेत्र, पोस्ट: दुंगरिया, जिला: छिंदवाड़ा, म.प्र.पिन: 480553

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संदर्भ सं: वेकोलि/कन्हान/उपक्षेत्र/2025-26/

दिनांक: 06-12-2025

Name of the Proposal : Proposal for seeking prior approval of the Central Government under Section 2(1) (ii) of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 for diversion of 14.00 ha Reserved Forest land in Compartment No. 454 of Junnadev Vishala Village of Jamai Range for Bharat Open Cast Coal Mine Phase-II in favor of M/s Western Coalfield Limited in Chhindwara District, Madhya Pradesh State.

Proposal No. : FP/MP/MIN/26356/2017

Ministry File No. 8-112/2006-FC Vol

UNDERTAKING

(Condition No. VII of Stage-I Clearance)

(Regarding mining in phased manner after taking due care of reclamation)

On behalf of M/s Western Coalfields limited, Kanhan Area, we are hereby agreed to undertake mining in a phased manner after taking due care for reclamation of the mined out area. The User Agency will prepare a detailed plan for life of project as per mining plan, clearly linking the progress of mining and felling of the trees. Felling of trees will only be done, when it is absolutely necessary in phase-wise manner in the areas which become due for mining as per mining plan. The concurrent Reclamation Plan as per the approved Mining Plan will be executed by the User Agency from the very first year, and an annual report on implementation thereof will be submitted to the Nodal Officer, Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980, in the concerned State Government and the concerned Regional Office of the Ministry.

(Signature)
(S.K.Kanth)

Sub Area Manager / Project Proponent
Ghorawari Tandai Sub Area

Date :

Place : Junnardeo

केवल नागपुर कोर्ट के अधिकार क्षेत्र में

Under jurisdiction of Nagpur Court Only



वेस्टर्न कोल्फील्ड्स लिमिटेड/ Western Coalfields Limited

मिनिरल कम्पनी/ (A Miniratna Company)

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

CIN-U10100MH1975GO1018626

उपक्षेत्रीय प्रबंधक का कार्यालय, घोड़ावाडी तानसी उपक्षेत्र

Office of the Sub Area Manager, Ghorawari Tandsi Sub Area

पता: वेकोलि, कन्हान क्षेत्र, पोस्ट: दुंगरिया, जिला: छिंदवाड़ा, म.प्र.पिन: 480553

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दिनांक: 06-12-2025

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Proposal No. : FP/MP/MIN/26356/2017

Ministry File No. 8-112/2006-FC Vol

UNDERTAKING

(Condition No. VIII of Stage-I Clearance)

(Regarding Surrender of mined out and reclaimed forest land)

On behalf of M/s Western Coalfields limited, Kanhan Area, we are hereby agreed to surrender the mined out and reclaimed forest land 14.00 Ha forest will be surrendered as per the land surrender schedule prepared by the project authority for which Stage-I Forest Clearance accorded vide Order No. No. 8-112/2006-FCVol- I/103203/2025 Dated 24.03.2025 for diversion of 14.0 Ha. Forest Land for Bharat Open Cast Coal Mine Phase-II , Kanhan Area.

(Signature)
10-12-25
(S.K.Kanth)

Sub Area Manager / Project Proponent
Ghorawari Tandsi Sub Area

Date :

Place : Junnardeo

केवल नागपुर कोर्ट के अधिकार क्षेत्र में

Under jurisdiction of Nagpur Court Only



वेस्टर्न कोल्फील्ड्स लिमिटेड/ Western Coalfields Limited

मिनिरत्न कम्पनी/ (A Miniratna Company)

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

CIN-U10100MH1975GO1018626

उपक्षेत्रीय प्रबंधक का कार्यालय, घोड़ावाडी तानसी उपक्षेत्र

पता: वेकोलि, कन्हान क्षेत्र, पोस्ट: दुंगरिया, जिला: छिंदवाड़ा, म.प्र.पिन: 480553

Email:subareamanagerdn@gmail.com

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5 DECADES OF UNREARTHING ENERGY

संदर्भ सं: वेकोलि/कन्हान/उपक्षेप/2025-26/

दिनांक: 06-12-2025

Name of the Proposal : Proposal for seeking prior approval of the Central Government under Section 2(1) (ii) of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 for diversion of 14.00 ha Reserved Forest land in Compartment No. 454 of Junnadev Vishala Village of Jamai Range for Bharat Open Cast Coal Mine Phase-II in favor of M/s Western Coalfield Limited in Chhindwara District, Madhya Pradesh State.

Proposal No. : FP/MP/MIN/26356/2017

Ministry File No. 8-112/2006-FC Vol

UNDERTAKING

(Condition No. IX of Stage-I Clearance)

(Regarding handing over of rehabilitated forest area)

On behalf of M/s Western Coalfields limited, Kanhan Area, we are hereby agreed that 14.0 Ha Forest Land will be handed over to the State Forest Department after closure of mining operations for which Stage I Forest Clearance accorded vide Order No. No. 8-112/2006-FCVol-I/103203/2025 Dated 24.03.2025 for diversion of 14.0 Ha. Forest Land for Bharat Open Cast Coal Mine Phase-II , Kanhan Area.

S.K. Kanth
10.12.25

(S.K.Kanth)

Sub Area Manager / Project Proponent
Ghorawari Tandsi Sub Area

Date :

Place : Junnardeo

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5 DECADES OF UNEARTHING ENERGY

संदर्भ सं: वेकोलि/कन्हान/उपक्षेत्र/2025-26/

दिनांक: 06-12-2025

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Proposal No. : FP/MP/MIN/26356/2017

Ministry File No. 8-112/2006-FC Vol

UNDERTAKING

(Condition No. X(a) of Stage-I Clearance)

(Regarding demarcation of Safety Zone)

On behalf of M/s Western Coalfields limited, Kanhan Area, we are hereby agreed that 7.5 meter strip safety zone, all along the inner boundary of the mining lease area will be demarcated with RCC Boundary Pillars inscribed with DGPS co-ordinates with barbed wire fencing for which Stage I Forest Clearance accorded vide Order No. No. 8-112/2006-FCVol- I/103203/2025 Dated 24.03.2025 for diversion of 14.0 Ha. Forest Land for Bharat Open Cast Coal Mine Phase-II , Kanhan Area.


(S.K.Kanth)

Sub Area Manager / Project Proponent
Ghorawari Tandsi Sub Area

Date :

Place : Junnardeo

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Proposal No. : FP/MP/MIN/26356/2017

Ministry File No. 8-112/2006-FC Vol

UNDERTAKING

(Condition No. X(b) of Stage-I Clearance)

(Regarding fencing of the boundary of safety zone, adjacent to habitation / roads)

On behalf of M/s Western Coalfields limited, Kanhan Area, we are hereby agreed that the boundary of the Safety zone of the mining lease, adjacent to habitations / road will be properly fenced at the cost of the User Agency for which Stage I Forest Clearance accorded vide Order No. No. 8-112/2006-FCVol- I/103203/2025 Dated 24.03.2025 for diversion of 14.0 Ha. Forest Land for Bharat Open Cast Coal Mine Phase-II , Kanhan Area.

(Signature)
10-12-25
(S.K.Kanth)

Sub Area Manager / Project Proponent
Ghorawari Tandsi Sub Area

Date :

Place : Junnardeo

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Proposal No. : FP/MP/MIN/26356/2017

Ministry File No. 8-112/2006-FC Vol

UNDERTAKING

(Condition No. X(c) of Stage-I Clearance)

(Regarding maintenance of green belt around mining lease, canopy density and regeneration of Safety zone)

On behalf of M/s Western Coalfields limited, Kanhan Area, we are hereby agreed that the safety zone will be maintained as green belt around mining lease and canopy density and regeneration in the area will be ensured at project cost under the supervision of the State Forest Department for which Stage I Forest Clearance accorded vide Order No. No. 8-112/2006-FCVol-I/103203/2025 Dated 24.03.2025 for diversion of 14.0 Ha. Forest Land for Bharat Open Cast Coal Mine Phase-II, Kanhan Area.


(S.K. Kanth)

Sub Area Manager / Project Proponent
Ghorawari Tandsi Sub Area

Date :

Place : Junnardeo

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50 DECADES OF UNEARTHING ENERGY

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Proposal No. : FP/MP/MIN/26356/2017

Ministry File No. 8-112/2006-FC Vol

UNDERTAKING

(Condition No. X(d) of Stage-I Clearance)

(Regarding maintenance of Safety Zone as per the norms)

On behalf of M/s Western Coalfields limited, Kanhan Area, we are hereby agreed that maintenance of Safety zone as per the prescribed norms will be ensured by the WCL for which Stage I Forest Clearance accorded vide Order No. No. 8-112/2006-FCVol- I/103203/2025 Dated 24.03.2025 for diversion of 14.0 Ha. Forest Land for Bharat Open Cast Coal Mine Phase-II , Kanhan Area.

(Signature)
(S.K.Kanth)

Sub Area Manager / Project Proponent
Ghorawari Tandsi Sub Area

Date :

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Proposal No. : FP/MP/MIN/26356/2017

Ministry File No. 8-112/2006-FC Vol

UNDERTAKING

(Condition No. XI(a) of Stage-I Clearance)

(Regarding mitigative to minimize soil erosion and chocking of streams)

On behalf of M/s Western Coalfields limited, Kanhan Area, we are hereby agreed that mitigative measures to minimize soil erosion and chocking of stream will be implemented within a period of three years with effect from the date of issue of 'Final' approval in accordance with the approved plan in consultation with the State Forest Department for which Stage I Forest Clearance accorded vide Order No. No. 8-112/2006-FCVol- I/103203/2025 Dated 24.03.2025 for diversion of 14.0 Ha. Forest Land for Bharat Open Cast Coal Mine Phase-II , Kanhan Area.


(S.K.Kanth)

Sub Area Manager / Project Proponent
Ghorawari Tandsi Sub Area

Date :

Place : Junnardeo

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UNDERTAKING

(Condition No. XI(b) of Stage-I Clearance)

(Regarding plantation of drought hardy plant species and sowing of seeds)

On behalf of M/s Western Coalfields limited, Kanhan Area, we are hereby agreed that the planting of adequate drought hardy plant species and sowing of seeds in the appropriate area within the mining lease to arrest soil erosion in accordance with the approved scheme for which Stage I Forest Clearance accorded vide Order No. No. 8-112/2006-FCVol- I/103203/2025 Dated 24.03.2025 for diversion of 14.0 Ha. Forest Land for Bharat Open Cast Coal Mine Phase-II , Kanhan Area.

(S.K.Kanth)

Sub Area Manager / Project Proponent
Ghorawari Tandsi Sub Area

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Proposal No. : FP/MP/MIN/26356/2017

Ministry File No. 8-112/2006-FC Vol

UNDERTAKING

(Condition No. XI(c) of Stage-I Clearance)

(Regarding construction of check dams, retention / toe walls)

On behalf of M/s Western Coalfields limited, Kanhan Area, we are hereby agreed that we shall construct check dams , retention / toe walls along the contour to arrest sliding down of the excavated material wherever required in accordance with the approved scheme for which Stage I Forest Clearance accorded vide Order No. No. 8-112/2006-FCVol- I/103203/2025 Dated 24.03.2025 for diversion of 14.0 Ha. Forest Land for Bharat Open Cast Coal Mine Phase-II , Kanhan Area.


(S.K. Kanth)

Sub Area Manager / Project Proponent
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5 DECADES OF UNCEARTHING ENERGY

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Proposal No. : FP/MP/MIN/26356/2017

Ministry File No. 8-112/2006-FC Vol

UNDERTAKING

(Condition No. XI(d) of Stage-I Clearance)

(Regarding stabilization of overburden dumps)

On behalf of M/s Western Coalfields limited, Kanhan Area, we are hereby agreed to stabilize the overburden dumps by appropriate grading / benching in accordance with the approved scheme, so as to ensure that angles of repose at any given place is less than 28degree for which Stage I Forest Clearance accorded vide Order No. No. 8-112/2006-FCVol- I/103203/2025 Dated 24.03.2025 for diversion of 14.0 Ha. Forest Land for Bharat Open Cast Coal Mine Phase-II , Kanhan Area.


(S.K.Kanth)

Sub Area Manager / Project Proponent
Ghorawari Tandsi Sub Area

Date :

Place : Junnardeo

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UNDERTAKING

(Condition No. XI(e) of Stage-I Clearance)
(Regarding top soil management)

On behalf of M/s Western Coalfields limited, Kanhan Area, we are hereby agreed that we shall undertake that no damage be caused to the top-soil and the user agency will follow the top soil management plan for which Stage I Forest Clearance accorded vide Order No. No. 8-112/2006-FCVol- I/103203/2025 Dated 24.03.2025 for diversion of 14.0 Ha. Forest Land for Bharat Open Cast Coal Mine Phase-II , Kanhan Area.


(S.K.Kanth)

Sub Area Manager / Project Proponent
Ghorawari Tandsi Sub Area

Date :

Place : Junnardeo

केवल नागपुर कोर्ट के अधिकार क्षेत्र में

Under jurisdiction of Nagpur Court Only



वेस्टर्न कोल्फील्ड्स लिमिटेड/ Western Coalfields Limited

मिनिरल कम्पनी/ (A Miniratna Company)

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

CIN-U10100MH1975GO1018626

उपक्षेत्रीय प्रबंधक का कार्यालय, घोड़ावाडी तानसी उपक्षेत्र

Office of the Sub Area Manager, Ghorawari Tandsi Sub Area

पता: वेकोलि, कन्हान क्षेत्र, पोस्ट: दुंगरिया, जिला: खिंदवाड़ा, म.प्र.पिन: 480553

Address: WCL, Kanhan Area, PO: Dungaria, Dist: Chhindwara, MP, PIN: 480553

Email: subareamanagerdn@gmail.com

Phone: 07160-231064

संदर्भ सं: वेकोलि/कन्हान/उपक्षेत्र/2025-26/

दिनांक: 06-12-2025

Name of the Proposal : Proposal for seeking prior approval of the Central Government under Section 2(1) (ii) of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 for diversion of 14.00 ha Reserved Forest land in Compartment No. 454 of Junnadev Vishala Village of Jamai Range for Bharat Open Cast Coal Mine Phase-II in favor of M/s Western Coalfield Limited in Chhindwara District, Madhya Pradesh State.

Proposal No. : FP/MP/MIN/26356/2017

Ministry File No. 8-112/2006-FC Vol

UNDERTAKING

(Condition No. XII of Stage-I Clearance)

(Regarding the validity of approval)

On behalf of M/s Western Coalfields limited, Kanhan Area, we are hereby agreed that the The validity of approval granted under the Adhiniyam shall be for a period coterminus with the validity of the mining lease proposed to be granted under the Mines and Minerals (Development and Regulation) Act, 1957, as amended from time to time or Rules framed there under, or for such period as may be specified by the Central Government for which Stage I Forest Clearance accorded vide Order No. No. 8-112/2006-FCVol- I/103203/2025 Dated 24.03.2025 for diversion of 14.0 Ha. Forest Land for Bharat Open Cast Coal Mine Phase-II , Kanhan Area.

(S.K.Kanth)

Sub Area Manager / Project Proponent
Ghorawari Tandsi Sub Area

Date :

Place : Junnardeo

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Proposal No. : FP/MP/MIN/26356/2017

Ministry File No. 8-112/2006-FC Vol

UNDERTAKING

(Condition No. XIV of Stage-I Clearance)

(Regarding desilting of village tanks and other water bodies)

On behalf of M/s Western Coalfields limited, Kanhan Area, we are hereby agreed that the WCL shall regularly undertake desilting of village tanks and other water bodies, located within five km from the mine lease boundary , as per approved plan to mitigate the impact of project on such tanks / water bodies for which Stage I Forest Clearance accorded vide Order No. No. 8-112/2006-FCVol- I/103203/2025 Dated 24.03.2025 for diversion of 14.0 Ha. Forest Land for Bharat Open Cast Coal Mine Phase-II , Kanhan Area.

(Signature)
10-12-25
(S.K.Kanth)

Sub Area Manager / Project Proponent
Ghorawari Tandsi Sub Area

Date :

Place : Junnardeo

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5 DECADES OF UNEARTHED ENERGY

संदर्भ सं: वेकोलि/कन्हान/उपक्षेत्र/2025-26/

दिनांक: 06-12-2025

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Proposal No. : FP/MP/MIN/26356/2017

Ministry File No. 8-112/2006-FC Vol

UNDERTAKING

(Condition No. XV of Stage-I Clearance)

(Regarding re-grassing the mining area and restoration of the land)

On behalf of M/s Western Coalfields limited, Kanhan Area, we are hereby agreed that after ceasing mining operations, WCL shall undertake re-grassing the mining area and any other areas which may have been disturbed due to mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. for which Stage I Forest Clearance accorded vide Order No. No. 8-112/2006-FCVol- I/103203/2025 Dated 24.03.2025 for diversion of 14.0 Ha. Forest Land for Bharat Open Cast Coal Mine Phase-II , Kanhan Area.

(S.K.Kanth)

Sub Area Manager / Project Proponent
Ghorawari Tandsi Sub Area

Date :

Place : Junnardeo

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Proposal No. : FP/MP/MIN/26356/2017

Ministry File No. 8-112/2006-FC Vol

UNDERTAKING

(Condition No. XVI of Stage-I Clearance)

(Regarding adequate care to check overburden / dumps)

On behalf of M/s Western Coalfields limited, Kanhan Area, we are hereby agreed that adequate care will be taken to check any rolling of overburden / dumps beyond the designated area and to check soil erosion caused due to mining activities for which Stage I Forest Clearance accorded vide Order No. No. 8-112/2006-FCVol- I/103203/2025 Dated 24.03.2025 for diversion of 14.0 Ha. Forest Land for Bharat Open Cast Coal Mine Phase-II , Kanhan Area.


(S.K.Kanth)

Sub Area Manager / Project Proponent
Ghorawari Tandsi Sub Area

Date :

Place : Junnardeo

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5 DECADES OF UNEARTHED ENERGY

संदर्भ सं: वेकोलि/कन्हान/उपक्षेत्र/2025-26/

दिनांक: 06-12-2025

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Proposal No. : FP/MP/MIN/26356/2017

Ministry File No. 8-112/2006-FC Vol

UNDERTAKING

(Condition No. XVII of Stage-I Clearance)

(Regarding Soil Conservation Measures)

On behalf of M/s Western Coalfields limited, Kanhan Area, we are hereby agreed that WCL will undertake comprehensive soil conservation measures at the project cost in consultation with the State Forest Department. A scheme for the same is submitted against thick condition for which Stage I Forest Clearance accorded vide Order No. No. 8-112/2006-FCVol- I/103203/2025 Dated 24.03.2025 for diversion of 14.0 Ha. Forest Land for Bharat Open Cast Coal Mine Phase-II , Kanhan Area.

(Signature)
10.12.25
(S.K.Kanth)

Sub Area Manager / Project
Proponent
Ghorawari Tandsi Sub Area

Date :

Place : Junnardeo

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Proposal No. : FP/MP/MIN/26356/2017

Ministry File No. 8-112/2006-FC Vol

UNDERTAKING

(Condition No. XVIII of Stage-I Clearance)

(Regarding implementation of R&R Plan)

On behalf of M/s Western Coalfields limited, Kanhan Area, we are hereby agreed that we shall implement the R&R Plan as per the R&R Policy of State Government of India before the commencement of the project work and implementation. The Said R&R Plan may be monitored by the State Government / Regional Office of MoEF along with the indicators for monitoring and expected observable milestone for which Stage I Forest Clearance accorded vide Order No. No. 8-112/2006-FCVol- I/103203/2025 Dated 24.03.2025 for diversion of 14.0 Ha. Forest Land for Bharat Open Cast Coal Mine Phase-II , Kanhan Area.

(Signature)
10-12-25
(S.K.Kanth)

Sub Area Manager / Project Proponent
Ghorawari Tandsi Sub Area

Date :

Place : Junnardeo

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5 DECADES OF UNEARTHING ENERGY

उपक्षेत्रीय प्रबंधक का कार्यालय, घोड़ावाडी तानसी उपक्षेत्र

Office of the Sub Area Manager, Ghorawari Tandsi Sub Area

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Proposal No. : FP/MP/MIN/26356/2017

Ministry File No. 8-112/2006-FC Vol

UNDERTAKING

(Condition No. XIX of Stage-I Clearance)

(Regarding translocation of tress)

On behalf of M/s Western Coalfields limited, Kanhan Area, we are hereby agreed that we shall explore the possibility of translocation of maximum number of trees identified to be felled and felling if necessary it will carried out under the strict supervision of the State Forest Department for which Stage I Forest Clearance accorded vide Order No. No. 8-112/2006-FCVol-I/103203/2025 Dated 24.03.2025 for diversion of 14.0 Ha. Forest Land for Bharat Open Cast Coal Mine Phase-II , Kanhan Area.


(S.K. Kanth)

Sub Area Manager / Project Proponent
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Proposal No. : FP/MP/MIN/26356/2017

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UNDERTAKING

(Condition No. XXII of Stage-I Clearance)

(Regarding non-establishment of labour camp in the forest land)

On behalf of M/s Western Coalfields limited, Kanhan Area, we are hereby agreed that no labour camp will be established on the forest land for which Stage I Forest Clearance accorded vide Order No. No. 8-112/2006-FC Vol- I/103203/2025 Dated 24.03.2025 for diversion of 14.0 Ha. Forest Land for Bharat Open Cast Coal Mine Phase-II, Kanhan Area.


(S.K. Kanth)

Sub Area Manager / Project Proponent
Ghorawari Tandsi Sub Area

Date :

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Proposal No. : FP/MP/MIN/26356/2017

Ministry File No. 8-112/2006-FC Vol

UNDERTAKING

(Condition No. XXIII of Stage-I Clearance)

(Regarding demarcation of diverted forest land)

On behalf of M/s Western Coalfields limited, Kanhan Area, we are hereby agreed that the boundary of the diverted forest land, mining lease and safety zone, as applicable will be demarcated on ground at the project cost, as per direction given in the Stage I Stage I Forest Clearance (in-principle approval) accorded vide Order No. No. 8-112/2006-FC Vol- I/103203/2025 Dated 24.03.2025 for diversion of 14.0 Ha. Forest Land for Bharat Open Cast Coal Mine Phase-II , Kanhan Area.


(S.K.Kanth)

Sub Area Manager / Project Proponent
Ghorawari Tandsi Sub Area

Date :

Place : Junnardeo

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Ministry File No. 8-112/2006-FC Vol

UNDERTAKING

(Condition No. XXIV of Stage-I Clearance)

(Regarding layout of plan of the mining plan /proposal)

On behalf of M/s Western Coalfields limited, Kanhan Area, we are hereby agreed that the layout plan of the proposal will not be changed without the prior approval of the Central Government and the forest land will not be used for any other purpose other than that specified in the prposal accorded vide Order No. No. 8-112/2006-FCVol- I/103203/2025 Dated 24.03.2025 for diversion of 14.0 Ha. Forest Land for Bharat Open Cast Coal Mine Phase-II , Kanhan Area.

(Signature)
10/12-25
(S.K.Kanth)

Sub Area Manager / Project Proponent
Ghorawari Tandsi Sub Area

Date :

Place : Junnardeo

केवल नागपुर कोर्ट के अधिकार क्षेत्र में

Under jurisdiction of Nagpur Court Only



वेस्टर्न कोल्फील्ड्स लिमिटेड/ Western Coalfields Limited

मिनिरल कम्पनी/ (A Miniratna Company)

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

CIN-U10100MH1975GO1018626

उपक्षेत्रीय प्रबंधक का कार्यालय, घोड़ावाडी तानसी उपक्षेत्र

पता: वेकोलि, कन्हान क्षेत्र, पोस्ट: दुंगरिया, जिला: छिंदवाड़ा, म.प्र.पिन: 480553

Email:subareamanagerdn@gmail.com

Office of the Sub Area Manager, Ghorawari Tandsi Sub Area

Address: WCL, Kanhan Area, PO: Dungaria, Dist: Chhindwara, MP, PIN: 480553

Phone: 07160-231064

संदर्भ सं: वेकोलि/कन्हान/उपक्षेत्र/2025-26/

दिनांक: 06-12-2025

Name of the Proposal : Proposal for seeking prior approval of the Central Government under Section 2(1) (ii) of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 for diversion of 14.00 ha Reserved Forest land in Compartment No. 454 of Junnadev Vishala Village of Jamai Range for Bharat Open Cast Coal Mine Phase-II in favor of M/s Western Coalfield Limited in Chhindwara District, Madhya Pradesh State.

Proposal No. : FP/MP/MIN/26356/2017

Ministry File No. 8-112/2006-FC Vol

UNDERTAKING

(Condition No. XXV of Stage-I Clearance)

(Regarding transfer of forest land to other agencies)

On behalf of M/s Western Coalfields limited, Kanhan Area, we are hereby agreed that the forest land shall under no circumstances be transfer to any other agency, department or person without prior approval of the Central Government for which Stage I Forest Clearance accorded vide Order No. No. 8-112/2006-FCVol- I/103203/2025 Dated 24.03.2025 for diversion of 14.0 Ha. Forest Land for Bharat Open Cast Coal Mine Phase-II , Kanhan Area.

(Signature)
10.12.25
(S.K.Kanth)

Sub Area Manager / Project Proponent
Ghorawari Tandsi Sub Area

Date :

Place : Junnardeo

केवल नागपुर कोर्ट के अधिकार क्षेत्र में

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वेस्टर्न कोल्फील्ड्स लिमिटेड/ Western Coalfields
Limited

मिनिरल कम्पनी/ (A Miniratna Company)

कोल इंडिया लिमिटेड की अनुषंगी कम्पनी/ (A Subsidiary of
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उपक्षेत्रीय प्रबंधक का कार्यालय, घोड़ावाडी तानसी उपक्षेत्र
पता: वेकोलि, कन्हान क्षेत्र, पोस्ट: दुंगरिया, जिला: छिंदवाड़ा,
म.प्र.पिन: 480553

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Email: subareamanagerdn@gmail.com

Phone: 07160-231064

संदर्भ सं: वेकोलि/कन्हान/उपक्षेत्र/2025-26/

दिनांक: 06-12-2025

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Proposal No. : FP/MP/MIN/26356/2017

Ministry File No. 8-112/2006-FC Vol

UNDERTAKING

(Condition No. XXVI of Stage-I Clearance)

(Regarding no damage to the flora and fauna of the adjoining area)

On behalf of M/s Western Coalfields limited, Kanhan Area, we are hereby agreed that no damage to the flora and fauna of the adjoining area shall be caused for which Stage I Forest Clearance accorded vide Order No. No. 8-112/2006-FC Vol- I/103203/2025 Dated 24.03.2025 for diversion of 14.0 Ha. Forest Land for Bharat Open Cast Coal Mine Phase-II , Kanhan Area.


(S.K. Kanth)

Sub Area Manager / Project Proponent
Ghorawari Tandsi Sub Area

Date :

Place : Junnardeo

केवल नागपुर कोर्ट के अधिकार क्षेत्र में

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वेस्टर्न कोल्फील्ड्स लिमिटेड/ Western Coalfields Limited

मिनिरल कम्पनी/ (A Miniratna Company)

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

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उपक्षेत्रीय प्रबंधक का कार्यालय, घोड़ावाडी तानसी उपक्षेत्र

पता: बेकोलि, कन्हान क्षेत्र, पोस्ट: दुंगरिया, जिला: छिंदवाड़ा, म.प्र.पिन: 480553

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संदर्भ सं: बेकोलि/कन्हान/उपक्षेत्र/2025-26/

दिनांक: 06-12-2025

Name of the Proposal : Proposal for seeking prior approval of the Central Government under Section 2(1) (ii) of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 for diversion of 14.00 ha Reserved Forest land in Compartment No. 454 of Junnadev Vishala Village of Jamai Range for Bharat Open Cast Coal Mine Phase-II in favor of M/s Western Coalfield Limited in Chhindwara District, Madhya Pradesh State.

Proposal No. : FP/MP/MIN/26356/2017

Ministry File No. 8-112/2006-FC Vol

UNDERTAKING

(Condition No. XXVII of Stage-I Clearance)

(Regarding complying acts, rules , regulations, guidelines etc.)

On behalf of M/s Western Coalfields limited, Kanhan Area, we are hereby agreed that we will comply all the provisions of the all Acts, Rules, Regulations, Guidelines, Hon'ble Court Order(s) and NGT Order(s) pertaining to this project, if any, for the time being in force, as applicable for which Stage I Forest Clearance accorded vide Order No. No. 8-112/2006-FCVol-I/103203/2025 Dated 24.03.2025 for diversion of 14.0 Ha. Forest Land for Bharat Open Cast Coal Mine Phase-II , Kanhan Area.

(Signature)
10.12.25
(S.K.Kanth)

Sub Area Manager / Project Proponent
Ghorawari Tandsi Sub Area

Date :

Place : Junnardeo

केवल नागपुर कोर्ट के अधिकार क्षेत्र में

Under jurisdiction of Nagpur Court Only



वेस्टर्न कोल्फील्ड्स लिमिटेड/ Western Coalfields Limited

मिनिरल कम्पनी/ (A Miniratna Company)

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

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उपक्षेत्रीय प्रबंधक का कार्यालय, घोड़ावाडी तानसी उपक्षेत्र

Office of the Sub Area Manager, Ghorawari Tandsi Sub Area

पता: वेकोलि, कन्हान क्षेत्र, पोस्ट: दुंगरिया, जिला: छिंदवाड़ा, म.प्र.पिन: 480553

Address: WCL, Kanhan Area, PO: Dungaria, Dist: Chhindwara, MP, PIN: 480553

Email: subareamanagerdn@gmail.com

Phone: 07160-231064

संदर्भ सं: वेकोलि/कन्हान/उपक्षेत्र/2025-26/

दिनांक: 06-12-2025

Name of the Proposal : Proposal for seeking prior approval of the Central Government under Section 2(1) (ii) of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 for diversion of 14.00 ha Reserved Forest land in Compartment No. 454 of Junnadev Vishala Village of Jamai Range for Bharat Open Cast Coal Mine Phase-II in favor of M/s Western Coalfield Limited in Chhindwara District, Madhya Pradesh State.

Proposal No. : FP/MP/MIN/26356/2017

Ministry File No. 8-112/2006-FC Vol

UNDERTAKING

(Condition No. XXVIII of Stage-I Clearance)

(Regarding Annual Self-Compliance Report)

On behalf of M/s Western Coalfields limited, Kanhan Area, we are hereby agreed that we will submit the annual self-compliance report in respect of the Stage II conditions to the State Government, concerned Regional Office and to MoEF &CC by end of March every year for which Stage I Forest Clearance accorded vide Order No. No. 8-112/2006-FCVol- I/103203/2025 Dated 24.03.2025 for diversion of 14.0 Ha. Forest Land for Bharat Open Cast Coal Mine Phase-II , Kanhan Area.

(S.K.Kanth)
10-12-25

Sub Area Manager / Project Proponent
Ghorawari Tandsi Sub Area

Date :

Place : Junnardeo

केवल नागपुर कोर्ट के अधिकार क्षेत्र में

Under jurisdiction of Nagpur Court Only



वेस्टर्न कोल्फील्ड्स लिमिटेड/ Western Coalfields Limited

मिनिरल कम्पनी/ (A Miniratna Company)

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

CIN-U10100MH1975GO1018626

उपक्षेत्रीय प्रबंधक का कार्यालय, घोड़ावाडी तानसी उपक्षेत्र

पता: बेकोलि, कन्हान क्षेत्र, पोस्ट: दुंगरिया, जिला: छिंदवाड़ा, म.प्र.पिन: 480553

Email:subareamanagerdn@gmail.com

Office of the Sub Area Manager, Ghorawari Tandsi Sub Area

Address: WCL, Kanhan Area, PO: Dungaria, Dist: Chhindwara, MP, PIN: 480553

Phone:07160-231064



संदर्भ सं: बेकोलि/कन्हान/उपक्षेत्र/2025-26/

दिनांक: 06-12-2025

Name of the Proposal : Proposal for seeking prior approval of the Central Government under Section 2(1) (ii) of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 for diversion of 14.00 ha Reserved Forest land in Compartment No. 454 of Junnadev Vishala Village of Jamai Range for Bharat Open Cast Coal Mine Phase-II in favor of M/s Western Coalfield Limited in Chhindwara District, Madhya Pradesh State.

Proposal No. : FP/MP/MIN/26356/2017

Ministry File No. 8-112/2006-FC Vol

UNDERTAKING

(Condition No. XXIX of Stage-I Clearance)

(Regarding other conditions of the MoEF &CC)

On behalf of M/s Western Coalfields limited, Kanhan Area, we are hereby agreed that we will comply to any other conditions that stipulated by the Ministry of Environmnet, Forest & Climate Change from time to time, in the interest of conservation, protection and development of forests & wildlife for which Stage I Forest Clearance accorded vide Order No. No. 8-112/2006-FCVol- I/103203/2025 Dated 24.03.2025 for diversion of 14.0 Ha. Forest Land for Bharat Open Cast Coal Mine Phase-II , Kanhan Area.


(S.K.Kanth)

Sub Area Manager / Project Proponent
Ghorawari Tandsi Sub Area

Date :

Place : Junnardeo

केवल नागपुर कोर्ट के अधिकार क्षेत्र में

Under jurisdiction of Nagpur Court Only



वेस्टर्न कोल्फील्ड्स लिमिटेड/ Western Coalfields Limited

मिनिरल कम्पनी/ (A Miniratna Company)

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

CIN-U10100MH1975GO1018626

उपक्षेत्रीय प्रबंधक का कार्यालय, घोड़ावाडी तानसी उपक्षेत्र

पता: वेकोलि, कन्हान क्षेत्र, पोस्ट: दुंगरिया, जिला: छिंदवाड़ा, म.प्र.पिन: 480553

Email:subareamanagerdn@gmail.com

Office of the Sub Area Manager, Ghorawari Tandsi Sub Area

Address: WCL, Kanhan Area, PO: Dungaria, Dist: Chhindwara, MP, PIN: 480553

Phone:07160-231064



संदर्भ सं: वेकोलि/कन्हान/उपक्षेत्र/2025-26/

दिनांक: 06-12-2025

Name of the Proposal : Proposal for seeking prior approval of the Central Government under Section 2(1) (ii) of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 for diversion of 14.00 ha Reserved Forest land in Compartment No. 454 of Junnadev Vishala Village of Jamai Range for Bharat Open Cast Coal Mine Phase-II in favor of M/s Western Coalfield Limited in Chhindwara District, Madhya Pradesh State.

Proposal No. : FP/MP/MIN/26356/2017

Ministry File No. 8-112/2006-FC Vol

UNDERTAKING

(Condition No. XXX of Stage-I Clearance)

(Regarding violation of any of the conditions)

On behalf of M/s Western Coalfields limited, Kanhan Area, we are hereby agreed that Violation of any of these conditions will amount to violation of Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 and action would be taken as prescribed in para 1.16 of consolidated guidelines and clarifications issued under Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 as issued by this Ministry on dated 29.12.2023 for which Stage I Forest Clearance accorded vide Order No. No. 8-112/2006-FCVol- I/103203/2025 Dated 24.03.2025 for diversion of 14.0 Ha. Forest Land for Bharat Open Cast Coal Mine Phase-II , Kanhan Area.

(Signature)
20/12/25
(S.K.Kanth)

Sub Area Manager / Project Proponent
Ghorawari Tandsi Sub Area

Date :

Place : Junnardeo

e-PayOrder Details

e-PayOrder Number AOZ7588674

Debit Status Success

Scheduled Time 18-Nov-2025 [08:46 PM] IST

18-Nov-2025

MADHYA PRADESH CAMPA

Three Crores Eighty Lakhs Sixty One Thousand 3,80,61,502.00

Five Hundred and Two only

00000011235960462

	SFTPH2HUploader	Devender Singh	GUPTANITESH
	Maker	Authorizer 1	Authorizer 2
"AOZ7588674"		CMP00000001303215240	

Counterfoil Description 11235960462

Transaction Type Fund Transfer

Debit Account Details

Account No.	Branch	Amount
00000011235960462	01473	3,80,61,502.00

Credit Account Details

Beneficiary Name	Beneficiary A/C	Beneficiary IFSC Code	Amount	Credit Status	UTR No.
MADHYA PRADESH CAMPA	150765826356131	UBIN0996335	3,80,61,502.00	Success	SBINR12025111806305835

[Print](#) [Close](#)



Department of Finance, Government of Madhya Pradesh
Acknowledgement Receipt for Online Tax Payment
to M.P. State Government



TIN (Tax payment Identification Number) / Enrollment / Registration No.	-
Depositor/Dealer Name	AGM OFFICE KANHAN AREA
Address	CHHINDWARA, AGM OFFICE KANHAN AREA, CHHINDWARA, Chhindwara, Madhya Pradesh - 480551
District selected for Payment	Chhindwara
Unique Registration Number (URN)	MPTURN181120250000990
Department and Office Name	Common Challan Entry, Forest
Challan Payment Period	2025-2026

Purpose Details

CRN	Assessment/ Concerning Period	Head of Account	Challan Identification Number (CIN)	Challan No.	Amount(Rs.)
MPT040618112025000033	2025-11-18 to 2025-11-25	0406-01-800-0229 (Other Receipts- Miscellaneous receipts)	SBIN0006159040618112025492654	051/9999999/0406/11/25/002489	2086124.00

Total Amount(in figures)	20,86,124.00
Total Amount(in words)	Twenty Lakh Eighty Six Thousand One Hundred Twenty Four Rupees Only
Name and Code of the Bank	STATE BANK OF INDIA (2)
Bank Reference Number	CK00MBJGW0
Scroll No	49261
Scroll Date	18/11/2025
Date of Transaction / Time of Transaction (HH24:mm:ss)	18/11/2025 11:33:03
Transaction Status	Success



Department of Finance, Government of Madhya Pradesh
Acknowledgement Receipt for Online Tax Payment
to M.P. State Government



TIN (Tax payment Identification Number) / Enrollment / Registration No.	
Depositor/Dealer Name	AGM OFFICE KANHAN AREA
Address	GM OFFICE WCL KANHAN, GM OFFICE DUNGARIYA, CHHINDWARA, Chhindwara, Madhya Pradesh - 480551
District selected for Payment	Chhindwara
Unique Registration Number (URN)	MPTURN031220250000679
Department and Office Name	Common Challan Entry, Forest
Challan Payment Period	2025-2026

Purpose Details

CRN	Assessment/ Concerning Period	Head of Account	Challan Identification Number (CIN)	Challan No.	Amount(Rs.)
MPT040603122025000011	2025-12-03 to 2025-12-10	0406-01-800-0229 (Other Receipts- Miscellaneous receipts)	SBIN0006159040603122025574365	051/9999999/0406/12/25/000380	1421996.00

Total Amount(in figures)	14,21,996.00
Total Amount(in words)	Fourteen Lakh Twenty One Thousand Nine Hundred Ninety Six Rupees Only
Name and Code of the Bank	STATE BANK OF INDIA (2)
Bank Reference Number	CK00MIDRSS
Scroll No	57435
Scroll Date	03/12/2025
Date of Transaction / Time of Transaction (HH24:mm:ss)	03/12/2025 11:04:56
Transaction Status	Success



FCA Projects, Diverted Land, CA Land Management

[Home](#) [FCA-1980 Projects](#) [Diverted Lands](#) [CA Lands](#) [Reports](#)

Back

Detailed Summary of Selected FCA Project

Info

Project Basic Details

S.No.	Project Name	Project Year	Project Type	Purpose of Diversion	Total Land Diverted	User Agency
1	BHARAT OPEN CAST PHASE 2 (14.00 HAC.)	2025	Mining	OPEN CAST COAL MINE	14.000	WCL KANHAN AREA DUNGARIYA, WCL KANHAN AREA DUNGARIYA, agmkanhan@westerncoal.gov.in, 7160231245,

Details of Diverted forest land

S.No.	Site Name	Area Diverted (In Ha.)	Division	Range	Forest Type	Location
1	RF 454	14.000	Chhindwara West(T)	Jamai	Reserved Forest (RF)	RF 454, RANGE J

Details of Lands received from user agency for Compensatory Afforestation

S.No.	Site Name	Land Type	Area(in Ha)	District	Range	Notification order No.
Data Not Available						

Details of the amount demanded from UA against the FCA project

S.No.	FCA Proj. File No	Project Name	State	Proj. Year	Order No.	Date	NPV	CA	ACA	PCA	PAF	CAT	SZ	Others	Total Demand
Data Not Available															

Details of the amount received from UA against the FCA project.

S.No.	FCA Project File No	Proj. Name	State	Proj. Year	Ref. No.	Ref. Date	Receipt Date	NPV	CA	ACA	PCA	PAF
1	FP/MP/MINE/26356/2017	BHARAT OPEN CAST PHASE 2 (14.00 HAC.)	MP	2025	SBINR12025111806305835	18/11/2025	18/11/2025	17200260	13885489	0	0	0
							Total	17200260	13885489	0	0	0

WESTERN COALFIELDS LIMITED

KANHAN AREA

BHARAT OPEN CAST COAL MINE

PLAN TO MITIGATE SOIL EROSION , CHOKING OF STREAMS & SOIL CONSERVATION MEASURES

(Condition No. 11(a) & 17)

INTRODUCTION :

Bharat Open Cast Patch is a part of Ghorawari Patches within Datla West Coal Block of Pench-Kanhan coalfields valley. The mine is located between 22°12'22'' to 22°12'49'' latitude and 78°32'59'' to 78°34'37'' longitudes . The Bharat OC Patch is Situated in Tehsil Junnardeo of Chhindwara District. The area is covered in the Survey of India Toposheet No. 55J12. Bharat OC Patch is connected by all weather road and also by rail. Nearest railway station is Junnardeo (JNO) which is connected by broad gauge line with Amla Jn. (approx. 68 km) on the main line of Central railway. Junnardeo is also linked to Chhindwara town by broad gauge line of South Eastern Railway. Chhindwaratown is 120 km by road from Nagpur. Nearest Airport is Dr. Baba sahib Ambedkar International airport, Nagpur situated 170 km approx. away from the mine.

OBJECTIVE :

- To plan mining operation in such a way that No or MINIMUM Soil Erosion and Choking of Streams within the mine lease boundary
- To plan mining operation is sub a way that No or minimum silting occur in the water bodies / ponds within 5.0 Km. of the mine lease boundary. For desilting of identified tank and water bodies if any so as to mitigate the impact of siltation on such tanks/ water bodies.

THE PLAN :

The Bharat Open Cast coal mine of WCL-Kanhan Area have taken effective precautions as mentioned in their Environment Management Plan and Environment clearance conditions. Environment Clearance obtained for Bharat Open Cast Coal Patch under Ghorawari OC Patches from the Ministry of Environment , Forest Clearance & Climate Change vide Letter No. J-11015/367/2008-IA(II)M Dated 26th Dec 2008 for 1.5 MTPA. According to the EC obtained and as per Environment Management Plan of the Ghorawari OC Patches the following activities have been proposed.

(I) Suppressive Measures for controlling Air Pollution

The dust generated during the mining operation viewed as one of the reason for choking of streams and nearby water bodies. It is to inform that the Coal produced by Bharat Open Cast Coal Mine will be transported to Hirdagarh Siding through Road Transport. Following measures will be taken for controlling Air Pollution in and around the project area.

- a. Water spraying will be carried out on haul road at regular interval during each shift.
- b. Water spraying arrangement at dust generating points in CHP, feeder breaker, conveyor transfer point etc.
- c. Proper maintenance of all internal combustion engines to reduce smoke and exhaust fumes.
- d. Coal transportation in trucks covered with tarpaulin.
- e. Multi cultural tree plantation (native species) over OB dumps, along road side, around coal stock yard.
- f. Monitoring of ambient air quality at mine activity area every fortnight as per Environment (Protection) Amendment Rule 2000.

(II) Industrial Effluent.

The used water from the industrial area comprising CHP etc. may contained with coal dust, dirt etc. This water will be allowed to settle and then pumped out surface sedimentation pond that allows settlement of remaining suspended particles. The treated water is then partly used within the mine premises & balance is let off into local naalah for use in agricultural & domestic activities by local residents. The quality of treated mine pumped out water will be monitored every fortnight as per Environment (Protection) Amendment Rule, 2000.

(III) Mine Water

The quantity of mine water pumped out would vary according to the season. The mine water may contain various impurities like coal dust, traces of grease, oil etc. in various proportions. The mine water would be allowed to collect in quarry sump where primary settling would take place. The water then will be pumped in to surface sedimentation tank. The treated water will be used for dust suppression, watering of plant etc. The remaining water will be let off into local nallah for use in agricultural & domestic activities by local residents. The quality of treated mine pumped out water will be monitored every fortnight as per Environment (Protection) Amendment Rule, 2000.

(IV) Plantation

Plantation is an important tool to combat air pollution, noise pollution and to prevent soil erosion. In Plantation on the dumps helps in preventing contamination of water and soil erosion. In addition to this it gives an aesthetic look to the area.

Adequate numbers of vegetation will be grown on the top surface and slopes of the dumps in order to arrest the erosion of soil and it also reduces surface run-off, which helps averting siltation of natural watercourses.

Catch drains of suitable size have been provided around periphery of the OB dump as well as soil dumps to arrest slide and sediment flows from the respective dump sites.

MONITORING ORGANISATION

To have a close watch on the environmental condition and implementation of the various measures suggested, a multi-disciplinary approach is being followed.

WCL, has an Environment Deptt. headed by General Manager (Env.) at its HQs. The department acts as an apex body which supervises and provides necessary support that are required for environmental management of various mining projects under the jurisdiction of the company.

- (a) Area General Manager of the Kanhan area coordinates the activities of various disciplines in the area to render all necessary assistance at the implementing level i.e. Project.
- (b) Area Nodal Officer (Environment) monitors all aspects of environment on behalf of the Area General Manager. He will also take suitable steps for generation of environmental data along with CMPDI team for its analysis and interpretations.
- (c) Project Officer is responsible for mechanical reclamation of the area. He is also responsible for biological reclamation with the assistance of GM's office.

ORGANISATION FOR MANAGEMENT

Sl.No.	Measures / Action	AGENCY
1	Environmental Control	1 Area General Manager, Kanhan Area
		2 Area Nodal Officer (Environment), Kanhan Area
		3 SAM / Project Officer, Ghorawari Tandsi Sub Area
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(Signature)
10.12.25
(Aashutosh Gupta)
Area Nodal Officer(Env.)
Kanhan Area

(Signature)
10.12.25
(S.K.Kanth)
SAM/Project Proponent
Ghorawari Tandsi Sub Area

(Signature)
10/12/25
(L.K.Mahapatra)
Area General Manager
Kanhan Area

(Signature)
Divisional Forest Officer
Chhindwara West

WESTERN COALFIELDS LIMITED

KANHAN AREA

BHARAT OPEN CAST COAL MINE

PLAN FOR PLANTING ADEQUATE DROUGHT HARDY PLANT SPECIES AND SOWING OF SEEDS TO ARREST SOIL EROSION.

(Condition No. 11(b))

Generally soil erosion is less severe in forest land than in arable lands. The canopy cover provided by the trees and extensive tree roots are the stabilising forces in forest plantations which keep erosion checked. Fine roots serve as cohesive binders for topsoil and where larger roots penetrate surface layers, they anchor the topsoil to the subsoil. This is the reason why poor or other sites with limitations are put under trees to fulfil a protective function like erosion control.

Prevention is better than cure approach is apt in low-input forest plantations and here erosion management requires proper action at the proper time. In this case, Environment Clearance obtained for Bharat Open Cast Coal Patch under Ghorawari OC Patches from the Ministry of Environment, Forest Clearance & Climate Change vide Letter No. J-11015/367/2008-IA(II)M Dated 26th Dec 2008 for 1.5 MTPA.

The mine has been planned to minimize degradation of land during operation. The excavated land is proposed to be backfilled as per geo mining parameters & backfilled area is also proposed to be covered with plantation with native species / grasses. The most ob OB dumps have already been partly covered with excavated topsoil & multi cultural tree plantation developed over it to minimize erosion of soil and flow of sediments and improve upon the aesthetic value. The balance OB dumps are also proposed to be biologically reclaimed during life of the mine.

The plantation is key of arresting soil erosion. Till date we have done 481,500 Tree plantation over OB dumps as mitigative measures for arresting soil erosion and restoring the environment as well as.

In addition to the above, financial provision have also been made in the approved mine closure plan for augmentation / strengthening of existing plantations given below.

S.No.	Activity	Amount (Rs. In Lakh)
1	Plantation over cleared area obtained after dismantling	93.64
2	Plantation around the quarry area and in safety zone	37.46
3	Plantation over the external ob dumps	3.746
4	Technical and bio-reclamation including plantation and post care	74.97

MONITORING ORGANISATION


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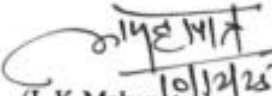
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 (Ashutosh Gupta)
 Area Nodal Officer (Env.)
 Kanhan Area


 (S.K. Kanth)
 SAM/Project Proponent
 Ghorawari Tandsi Sub Area


 (L.K. Mahapatra)
 Area General Manager
 Kanhan Area


 Divisonal Forest Officer
 Chhindwara West

WESTERN COALFIELDS LIMITED

KANHAN AREA

BHARAT OPEN CAST COAL MINE

PLAN FOR CONSTRUCTION OF CHECK DAMS, RETENTION / ARREST WALLS TO ARREST SLIDING DOWN OF THE

EXCAVATED MATERIAL

(Condition No. 11(c))

INTRODUCTION :

Bharat Open Cast Patch is a part of Ghorawari Patches within Datla West Coal Block of Pench-Kanhan coalfields valley. The mine is located between 22°12'22" to 22°12'49" latitude and 78°32'59" to 78°34'37" longitudes. The Bharat OC Patch is Situated in Tehsil Junnardeo of Chhindwara District. The area is covered in the Survey of India Toposheet No. 55J12. Bharat OC Patch is connected by all weather road and also by rail. Nearest railway station is Junnardeo (JNO) which is connected by broad gauge line with Amla Jn. (approx. 68 km) on the main line of Central railway. Junnardeo is also linked to Chhindwara town by broad gauge line of South Eastern Railway. Chhindwaratown is 120 km by road from Nagpur. Nearest Airport is Dr. Baba sahib Ambedkar International airport, Nagpur situated 170 km approx. away from the mine.

OBJECTIVE :

- To arrest the sliding down of the excavated material.

THE PLAN :

The proposed diversion of 14.0 Ha. forest land is located in Bharat OC Phase II of Bharat Open Cast Coal Mine under Ghorawari OC Patches. There is one no seasonal nallah exists at western side of OC Patch which flows north to south which discharge at Takia Nallah at distance of 1.5Km. The H.F.L. of Seasonal Nallah is 774.131 M. Pench river flows at a distance of 7.0km from the mine on the North-Eastern side.

Once the mine comes into operation, suitable places for construction of Check Dams and Retention walls will be provided wherever it required. Also, the sliding down of excavated material, i.e. overburden will be arrested through proper benching, plantation, mitigative measures to soil erosion, etc.

Following activities will be incorporated in this plan :

1. A check dam will be constructed on downstream of nallah to arrest the sliding down of excavated material and to control water velocity, conserve soil and improve land.
2. A Embankment against this nallah has been already constructed 3m wide at the top, 6m above HFL.
3. This embankment against the nallah is being maintained by Bharat Open Cast Coal Mine. Prior to onset of monsoon, the embankment will be inspected by competent person to ensure that there is no breach in embankment.
4. A flood alarm connected to float in seasonal nallah will be provided at token office. The floats in the nallah will activate the alarms as soon as the water level in the nallah crosses the danger mark.
5. Catch drain around the dumps for avoiding siltation
6. For the protection of excavated material sliding down, step dumping procedure will be followed.
7. The maximum height of OB dump proposed above ground level is 45m. The maximum overall slope of the OB dump will be about 28degree. The individual dump bench will be 30mtr height and there will be two such benches in the OB dump with a berm of 30m with in between the two benches. Each individual bench of 30m height will be made in two tier of 15m height with a berm of 6m between this two layers.
8. Before dumping, place of dumping will be made free from loose material.
9. After completion of dumping operations, dumps will be stabilized by growing vegetation.

MONITORING ORGANISATION

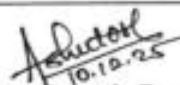
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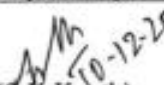
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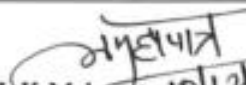
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(Aashutosh Gupta)
Area Nodal Officer (Env.)
Kanhan Area


(S.K. Kanth)
SAM/Project Proponent
Ghorawari Tandsi Sub Area


(L.K. Mahapatra)
Area General Manager
Kanhan Area


Divisional Forest Officer
Chhindwara West

WESTERN COALFIELDS LIMITED
KANHAN AREA
BHARAT OPEN CAST COAL MINE

PLAN TO STABILIZE THE OVERBURDEN DUMPS BY APPROPRIATE GRADING / BENCHING TO ENSURE THAT
ANGLES OF REPOSE AT ANY GIVEN PLACE IS LESS THAN 28DEGREE
(Condition No. 11(d))

INTRODUCTION :

Bharat Open Cast Patch is a part of Ghorawari Patches within Datla West Coal Block of Pench-Kanhan coalfields valley. The mine is located between 22°12'22" to 22°12'49" latitude and 78°32'59" to 78°34'37" longitudes. The Bharat OC Patch is Situated in Tehsil Junnardeo of Chhindwara District. The area is covered in the Survey of India Toposheet No. 55J12. Bharat OC Patch is connected by all weather road and also by rail. Nearest railway station is Junnardeo (JNO) which is connected by broad gauge line with Amla Jn. (approx. 68 km) on the main line of Central railway. Junnardeo is also linked to Chhindwara town by broad gauge line of South Eastern Railway. Chhindwara town is 120 km by road from Nagpur. Nearest Airport is Dr. Baba sahib Ambedkar International Airport, Nagpur situated 170 km approx. away from the mine.

OBJECTIVE :

- To stabilize the overburden dumps by appropriate grading / benching to ensure that angles of repose at any given place is less than 28degree.

THE PLAN :

In Bharat open cast mine, total volume of OB works out to 15.70 M.Cu.m., Planning of the Bharat Open Cast mine has been done to ensure full internal dumping.

SLOPE STABILITY :

As per Environmental Management Plan of Ghorawari OC Patches as per Clause 7(ii) of EIA Notification of Sept 06 following action is to be taken to maintain slope stability.

- i) Vulnerable area may be identified and marked on quarry plan.
- ii) Observation of actual alignment of fault, its throw, joints, etc. may be recorded during the process of exploitation.
- iii) Water drainage system may be properly implemented to prevent accumulation of water in cracks. Also dumps shall be leveled to prevent accumulation of water over it. Proper drainage in dumps shall also be provided to prevent erosion of toe of dump.
- iv) Regular monitoring of tension cracks, horizontal and vertical movement of strata in critical area may be done.
- v) Rise side slope to be reinforced if required because it has to stand throughout quarry life. No dumps/surface structures to be located within 15m of quarry edge as it will act as surcharge there by destabilizing the slope.
- vi) No undercutting of slopes to be done.

- vii) Proper hydrogeological studies to be done and if water table is at level of slope it should be brought down by using submersible pumps to prevent hydrostatic pressure.
- viii) Proper selection of site for dumping to be done before dumping place shall be made free from loose material. Dumping shall not be done at an angle more than angle of repose of material being dumped. The angles of repose at any given place will be maintained as less than 28degree only.
- ix) After completion of dumping operations dumps to be stabilized by growing vegetation.

SLOPE MONITORING METHOD :

- i) Slope monitoring should be done by regular inspection and regular measurement for displacement as per the DGMS circular No. 2 of 2020.
- ii) All OB dumps and pit area should be physically inspected in all shifts by mine officials authorized for the purpose. Also OB dump monitoring should be done by fixing bench marks at appropriate location in a grid pattern.
- iii) Reports of physical inspections & readings recorded by Total Station should be maintained and analysed.

MONITORING ORGANISATION

To have a close watch on the environmental condition and implementation of the various measures suggested, a multi-disciplinary approach is being followed.


WCL, has an Environment Deptt. headed by General Manager (Env.) at its HQs. The department acts as an apex body which supervises and provides necessary support that are required for environmental management of various mining projects under the jurisdiction of the company.

- (j) Area General Manager of the Kanhan area coordinates the activities of various disciplines in the area to render all necessary assistance at the implementing level i.e. Project.
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ORGANISATION FOR MANAGEMENT

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 Kanhan Area


 (S.K. Kanth)
 SAM/Project Proponent
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 (L.K. Mahapatra)
 Area General Manager
 Kanhan Area


 Divisional Forest Officer
 Chhindwara West

WESTERN COALFIELDS LIMITED
KANHAN AREA
BHARAT OPEN CAST COAL MINE
TOP SOIL MANAGEMENT PLAN
(Condition No. 11(e))

INTRODUCTION :

Bharat Open Cast Patch is a part of Ghorawari Patches within Datla West Coal Block of Pench-Kanhan coalfields valley. The mine is located between 22°12'22" to 22°12'49" latitude and 78°32'59" to 78°34'37" longitudes. The Bharat OC Patch is Situated in Tehsil Junnardeo of Chhindwara District. The area is covered in the Survey of India Toposheet No. 55J12. Bharat OC Patch is connected by all weather road and also by rail. Nearest railway station is Junnardeo (JNO) which is connected by broad gauge line with Amla Jn. (approx. 68 km) on the main line of Central railway. Junnardeo is also linked to Chhindwara town by broad gauge line of South Eastern Railway. Chhindwara town is 120 km by road from Nagpur. Nearest Airport is Dr. Baba sahib Ambedkar International airport, Nagpur situated 170 km approx. away from the mine.

SCOPE :

Top soil will be stacked properly with proper slopes at each marked site adequate measure and should be used for reclamation and rehabilitation of reclaimed areas. The top soil and external overburden shall be removed separately and stored in a separate heap, duly covered with grass and vegetation or utilized for reclamation of mined out area. Internal overburden shall be utilized for backfilling of mined out area. The backfilled area shall be biologically reclaimed. Checkdams shall be constructed at strategic points in order to guide all surface runoff water containing sediments for settlement of suspended solids before discharge on land or any surface water body during monsoon.

TOPSOIL GEOMETRY

To Maintain a maximum level of biological activity, the topsoil heaps should be constructed as follows :

- 01- To provide maximum surface area.
- 02- To have slope capable of avoiding erosion and gully formation.

SLOPE

A slope of 1:3 (i.e. 18.5 Degree to Horizontal)

GUIDELINES FOR IMPLEMENTATION OF TOP SOIL HANDLING PROCEDURE:

All personnel from top management to contractor companies involved in mining projects need to be aware of; and are required to abide by the Topsoil Handling Procedure. The responsibilities of persons at different level of management include the following:

- ☐ Ensure the Topsoil Handling Procedure and its contents are communicated and enforced throughout the Project lease area and its entire project life.
- ☐ Review and approve the Topsoil Handling Procedure.
- ☐ Ensure appropriate surveys are undertaken by employees or contractors prior to stripping.
- ☐ Designate the areas for topsoil storage.
- ☐ Determine lengths and width and height of topsoil stockpiles.

- Ensure topsoil quality is analyzed in a laboratory approved by State Pollution Control Board.
- Provide job instructions for employees and contractors as per necessity with the purpose to raise Environmental awareness and ensure effective operations of the workers involved in the earthworks.
- Review and amend the Top soil handling procedure (THP) with respect to legal compliance with International standards and Indian laws, Environmental clearance conditions, Consent to Operate Conditions, other regulations and standards.

The legal requirements and amendments relevant to the subject will be communicated with the Mines Manager, Environmental Manager and Supervisor for implementation.

- Ensure specialist advice on topsoil handling is communicated to Heavy Earth Moving Machineries (HEMM) operators and project managers.
- Ensure contractors are inducted with site requirements applicable in this plan.
- Verify topsoil is removed and stockpiled in accordance with the Top soil handling procedure (THP).
- Conduct regular inspections of topsoil stockpiles and ensure they are properly demarcated.
- Ensure soil is stripped and relocated in accordance with a particular work plan and as specified in the Land Development Plan for proposed works.
- Keep records of topsoil movement and storage.
- Perform topsoil stockpile quality monitoring & Communicate results of the topsoil quality monitoring with Regulatory authorities in a timely manner.

EARMARKED PLACE OF TOPSOIL STORAGE

As per the Stage-wise Land Use and Reclamation given in the approved Mining Plan, 1.792 M.Cu.m. Top Soil will be spread over backfilled dump for further plantation, which will be use as biological reclamation.

GPS CO-ORDINATES OF TOP SOIL DUMP		
S.No.	Latitude	Longitude
1	22.212187°	78.561150°
2	22.210760°	78.563326°
3	22.210173°	78.562876°
4	22.211394°	78.560790°

MONITORING ORGANISATION

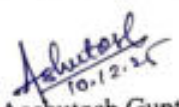
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Chhindwara West

WESTERN COALFIELDS LIMITED
KANHAN AREA
BHARAT OPEN CAST COAL MINE
DESILTING OF VILLAGE TANKS & WATER BODIES WITHIN 5KM RADIUS OF MINE
(Condition No. 14)

INTRODUCTION :

Bharat Open Cast Patch is a part of Ghorawari Patches within Datla West Coal Block of Pench-Kanhan coalfields valley. The mine is located between 22°12'22'' to 22°12'49'' latitude and 78°32'59'' to 78°34'37'' longitudes. The Bharat OC Patch is Situated in Tehsil Junnardeo of Chhindwara District. The area is covered in the Survey of India Toposheet No. 55J12. Bharat OC Patch is connected by all weather road and also by rail. Nearest railway station is Junnardeo (JNO) which is connected by broad gauge line with Amla Jn. (approx. 68 km) on the main line of Central railway. Junnardeo is also linked to Chhindwara town by broad gauge line of South Eastern Railway. Chhindwara town is 120 km by road from Nagpur. Nearest Airport is Dr. Baba sahib Ambedkar International airport, Nagpur situated 170 km approx. away from the mine.

SCOPE :

As per the Stage-I Condition no. 14- De-silting of village tanks & water bodies will be carried out to mitigate the impact of mining activities. The dust generated due to the mining operations usually suppressed by dust control measures such as water sprinklers.

Top Soil will be stacked properly with proper slopes at earmarked site with adequate measure and will be used for reclamation and rehabilitation of reclaimed areas. The top soil and external overburden will removed separately and stored in a separate heap, duly covered with grass and vegetation or utilized for reclamation of mined out area. Internal overburden shall be utilized for backfilling of mined out area. The backfilled area will be biologically reclaimed. Checkdams will be constructed at strategic points in order to guide all surface runoff water containing sediments for settlement of suspended solids before discharge on land or any surface water body during monsoon.

The WCL has identified following water bodies within the 05jn area of mine lease boundary. During the monitoring process, if any silt deposition is found it will be de-silted in consultation with State Government / Irrigation department as and when required. GPS Co-ordinates of identified water bodies are as follows :

S.No.	Name of Village Tank / Water body	Latitude	Longitude
01	Talav at Kolhia	22.201509°	78.542573°
02	Talav at Bichua Khurd	22.190001°	78.541791°
03	Talav at Junnardeo	22.193002°	78.598009°
04	Talav at Chhabri Dawami	22.172800°	78.559949°

A google plan showing the location of Bharat open cast coal mine, 5km radius area and the proposed village tanks/ water bodies for de-silting is enclosed along with this plan as Annexure-I.

WCL regularly paying Royalty and District Mineral Fund which is being used for various purpose aimed at improving the welfare of communities, development and managing the impact of mining activities. One of the key uses of royalty & District Mineral fund collected from coal mining includes, Environmental Management and Rehabilitation. Detail of latest Royalty & DMF enclosed for reference.

- The royalty funds are used to address the environmental impact of coal mining, such as land reclamation, afforestation, and the restoration of ecosystems damaged by mining activities.
- It helps in funding projects aimed at controlling air and water pollution, soil conservation, and preventing further degradation of mining areas.

- District Mineral Fund is used for the reclamation and rehabilitation of land that has been degraded due to mining activities. This includes activities such as reforestation, land reclamation, and the restoration of water bodies.

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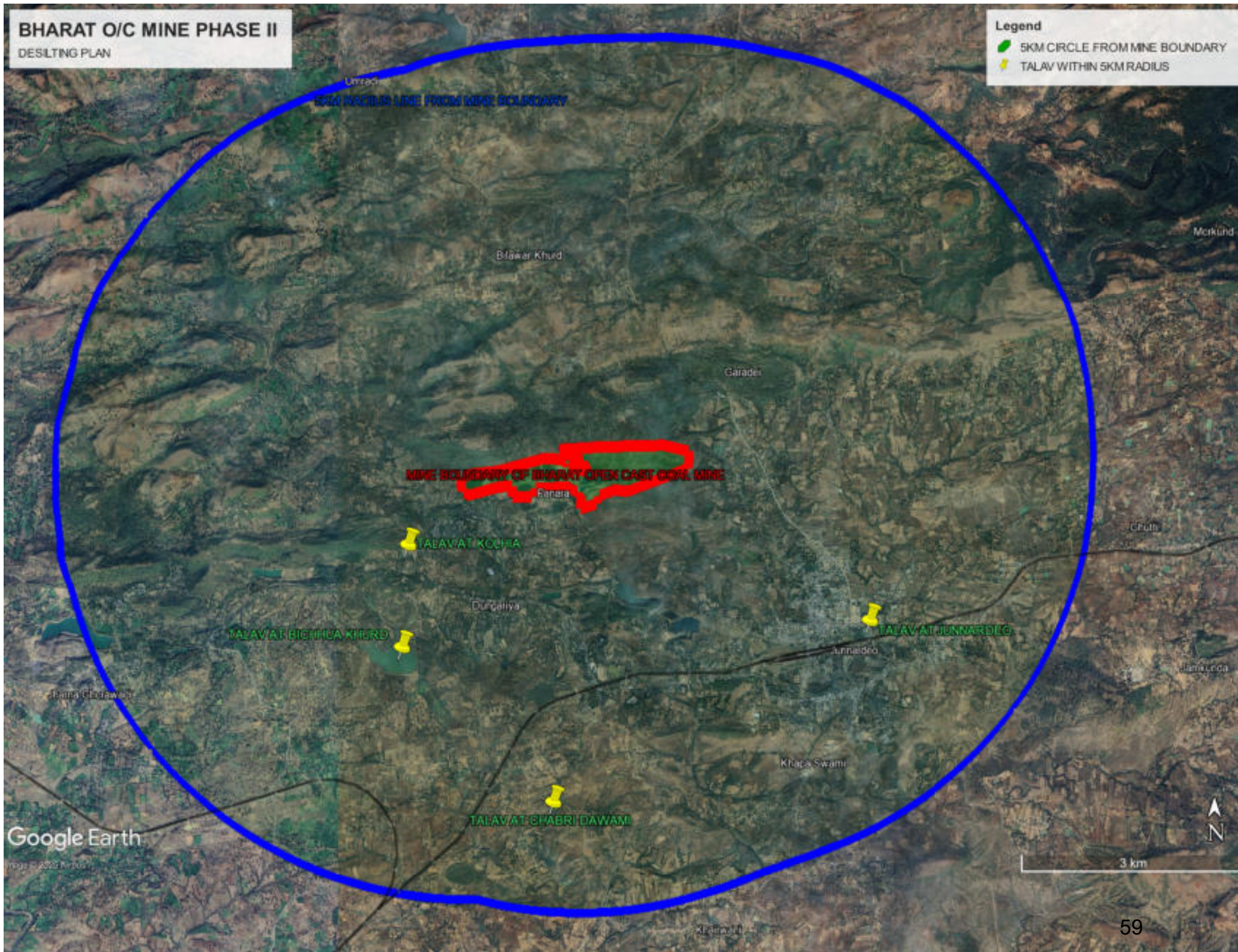
BHARAT O/C MINE PHASE II

DESILTING PLAN

Legend

5KM CIRCLE FROM MINE BOUNDARY

TALAV WITHIN 5KM RADIUS



No.J-11015/367/2008-IA.II(M)
Government of India
Ministry of Environment & Forests

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

Dated: 26th December 2008

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

Sub: Ghorawari Opencast Coal Mine Project (from 0.45 MTPA to 1.50 MTPA) of M/s Western Coalfields Ltd. (WCL), located in village Ghorwari Khurd, Tehsil Junnardeo, District Chindwara, Madhya Pradesh - Environmental clearance – reg.

Sir,

This has reference to letter No. 43011/65/2008-CPAM dated 30.07.2008 forwarding the application and letters dated 18.11.2008 and 18.11.2008 on the above-mentioned subject. The Ministry of Environment & Forests has considered the application. It has been noted that the project proposal is to mine coal from patches of old UG workings by opencast operations **and expansion in production of coal from 0.45 MTPA to 1.50 million tonnes per annum(MTPA)**. EC was granted for 0.45 MTPA capacity project on 19.02.2008. The total lease area is 1296.011 ha of which 178.10 ha is agricultural land, 593 ha is forestland, 192 ha is grazing land, and 332.911 ha is Govt. land. Forestry clearance has been applied for for renewal of lease. There area no National Parks, Wildlife Sanctuary, Biosphere Reserves found in the 10 km buffer zone. River Kanhan flows at a distance of 6-7km from the ML. It is not proposed to modify the existing natural drainage.

There is no change in the geo-mining characteristics of the working of the various patches within the ML. Of the total lease area, area for excavation is 750.36 ha, area for OB dumps 217.86 ha, infrastructure is 12.34 ha, roads is 2.65 ha, area for green belt is 497.049 ha, area for township is 140 ha, and area for rationalisation is 172.80 ha. The proposal is to mine coal from patches of old UG workings by opencast operations as given below:

S.N.	Name of OC Patch	Quarry Area (ha)	TOTAL		Quarry Depth (m)		Final Backfilled Area (ha)	Final Void (ha)
			Balance Coal in LTPA	Balance OB in Lakh M3	Present	Max.		
A. Present Working Patches								
1.	No. 16/17	17	Nil	Nil	45	50	9.50	7.50
2.	No. 6A & 6B	20	0.89	17.45	30	52	18	2
	TOTAL =	37	0.89	17.45			27.50	9.50
B. Proposed upto 2015-16								
1.	No. 16 & 17 B. Ph.III	40.50	8.57	60.75	--	54	40.50	Nil
2.	Ghogra OC Patch	8.0	2.99	13.13	--	53	6	2
3.	Kathideo OC Patch	12.50	5.12	17.83	--	34	10	2.50
	TOTAL =	61	16.68	91.71			56.50	4.50

C. Proposed beyond 2015-16 upto 2025-26

1.	Ghorawari Kalan OC Patch	15	4.50	28.45	--	30	10.44	4.56
2.	Dungariya OC Patch	39	10.60	109.50	--	50	27.13	11.87
3.	Panara OC Patch	12.50	4.25	39.75	--	54	8.70	3.0
4.	Bharat Colliery OC Patch	79.20	24.0	198.0	--	48	55.10	24.10
5.	Chikalam AU OC Patch	21.25	6.55	61.58	--	67	14.61	6.39
6.	South Panara OC Patch	21.25	7.69	81.29	--	62	14.778	6.472
TOTAL =		187.95	55.84	518.48			130.758	57.192

D. Proposed beyond 2015-16 upto 2025-26

1.	Vegin Patch	168	Individual Schemes will be firmed up after 2014-15					
2.	Datla East	139.994						
TOTAL =		424.594						

E. Abandoned Patches

1.	No. 16 & 17 OC Patch Phase-I	12.50	Not Applicable				12.50	Nil
2.	No. 6 & 7 OC Patch Ph.I & II	7.50					7.50	Nil
3.	Gh-2 OC Patch	6.0					6.0	Nil
4.	Gh-3 OC Patch	4.50					4.50	Nil
5.	Kolhlya OC Patch	4					4	Nil
6.	DQ-3 OC Patch	5.316					5.316	Nil
TOTAL =		39.816					39.816	Nil
GRAND TOTAL (A+B+C+D+E)		750.36	82.90	679.11			254.574 =552.074	71.192 = 198.288

Mineral transportation of **1100 TPD** of coal is by road to railway siding covering a distance of 12 km and the balance 270 TPD is by road. Ultimate working depth of the mine is 45m below ground level (bgl). Present working depth is 40m bgl. Water table is in the range of 4.05m-17.20 m bgl during pre-monsoon season and 0.05-8m bgl during post-monsoon. Mining has intersected water table. Peak water requirement is 440 m³/d, which will be met from mine-pit water. Presently a total of 11.82 Mm³ of OB has been generated of which 11 Mm³ has been used for backfilling and 0.82 Mm³ has been dumped in ext. OB dump. An estimated 64.64 Mm³ of OB would be generated in the balance life of mine, which be backfilled simultaneously.

Of the total quarry area of 750.36 ha, of which 552.07 ha would be backfilled and plantation developed thereon as per table below:

S.N.	Area (ha)	Existing	Status upto 2015-16	Status upto 2025-26	Status beyond 2025-26	Status at the end of mine life
1.	Excavation	83.36	81.00	187.95	424.594	750.36
2.	Backfilled	59.316	64.50	130.758	297.500	552.074

Balance life of the mine at the rated capacity is 12 years. A void of 198.286 ha with a max. depth of 10-15m would be left at the end of mine life which would be converted into a reservoir. Public Hearing was held on 22.11.2005. The project was approved by M/s WCL on 05.11.2008. The capital cost of the project is **Rs. 1.37 crores.**

2. The Ministry of Environment & forests hereby accords environmental clearance for the above-mentioned **Ghorawari Opencast Coal Mine Project of M/s WCL for production of coal at 1.50 MTPA rated capacity** under section 7.2 of the Environmental Impact Assessment Notification, 2006 and subsequent amendments thereto subject to the compliance of the terms and conditions mentioned below:

A. Specific Conditions

- (i) No mining operations shall be undertaken in the forestland until clearance for renewal has been obtained under the provisions of FC Act, 1980.
- (ii) The environmental clearance is only for the specific patches consisting of details submitted to the Committee and summarised in the table.
- (iii) OC mining should be carried out at a safe distance for old UG workings.
- (iv) Prior permission of DGMS shall be obtained before start of the working based on the Environmental Clearance.
- (v) Safe distance shall be maintained for working adjacent to agricultural fields.
- (vi) The entire OB being generated in the balance life of mine shall be backfilled.
- (vii) No OB generated in the balance life of the mine shall be dumped in the external OB dumps. Reclamation, monitoring and management of the existing external OB dumpsite should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forests and its Regional office located at Bhopal on yearly basis.
- (viii) Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected should be utilised for watering the mine area, roads, green belt development, etc. The drains should be regularly desilted and maintained properly.
Garland drains (size, gradient and 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 provided adequate retention period to allow proper settling of silt material.
- (ix) Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation should be based on the rainfall data.
- (x) Mining shall be carried out as per statuette at a safe distance from the Pench River flowing adjacent to the lease boundary.
- (xi) The road for coal transport shall be black topped and avenue trees developed on both sides.
- (xii) Drills should be wet operated or with dust extractors.
- (xiv) Controlled blasting should be practiced with use of delay detonators. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders should be implemented.

- (xv) Area brought under afforestation shall be not less than 769.93 ha and includes area external OB dump (217.86 ha), backfilled area (552.074 ha), along ML boundary, infrastructure along roads and safety zone located within and outside the lease by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha.
- (xvi) A Progressive Mine Closure Plan shall be implemented by reclamation of decoaled quarry area of 750.36 ha of which 552.074 ha shall be concurrently backfilled with 67.778 Mm³ of OB generated in the balance life of mine and reclaimed with plantation using native plant species in consultation with the local DFO/Agriculture Department. The number of the trees should be around 2500 plants per ha. The balance 198.286 ha of decoaled void would be converted into a water reservoir of a maximum depth of 15m, the upper benches of which shall be gently sloped and stabilised with plantation and a peripheral fencing erected all around the reservoir.
- (xvii) Regular monitoring of groundwater level and quality should be carried out by establishing a network of existing wells and construction of new piezometers. The monitoring for quantity should be done four times a year in pre-monsoon (May), monsoon (August), post-monsoon (November) and winter (January) seasons and for quality in May. Data thus collected should be submitted to the Ministry of Environment & Forests and to the Central Pollution Control Board quarterly within one month of monitoring.
- (xviii) Besides carrying out regular periodic health check up of their workers, 10% of the workers identified from workforce engaged in active mining operations shall be subjected to health check up for occupational diseases and hearing impairment, if any, through an agency such as NIOH, Ahmedabad within a period of one year and the results reported to this Ministry and to DGMS.
- (xix) 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.
- (xx) Digital processing of the entire lease area using remote sensing technique should be done regularly once in 3 years for monitoring land use pattern and report submitted to MOEF and its Regional office at Bhopal.
- (xxi) The detailed Final Mine Closure Plan along with details of Corpus Fund should be submitted within six months to the Ministry of Environment & Forests Regional Office, Bhopal.

B. General Conditions

- (i) No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment and Forests.
- (ii) No change in the calendar plan including excavation, quantum of mineral coal and waste should be made.
- (iii) Four ambient air quality monitoring stations should be established in the core zone as well as in the buffer zone for monitoring SPM, RPM, SO₂ and NO_x and heavy metals such as Hg, As, Pb, etc. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board.
- (iv) Fugitive dust emissions (SPM and RPM and heavy metals such as Hg, As, Pb, etc.) from all the sources should be controlled regularly monitored and data recorded properly. Water

spraying arrangement on haul roads, wagon loading, dump trucks (loading and unloading) points should be provided and properly maintained.

- (v) Data on ambient air quality (SPM, RPM, SO₂, NO_x and heavy metals such as Hg, As, Pb, etc) should be regularly submitted to the Ministry including its Regional Office at Bhopal and to the State Pollution Control Board and the Central Pollution Control Board once in six months.
- (vi) Adequate measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc should be provided with ear plugs/muffs.
- (vii) Industrial wastewater (workshop and wastewater from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May 1993 and 31st December 1993 or as amended from time to time before discharge. Oil and grease trap should be installed before discharge of workshop effluents.
- (viii) Vehicular emissions should be kept under control and regularly monitored. Vehicles used for transporting the mineral should be covered with tarpaulins and optimally loaded.
- (ix) Environmental laboratory should be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board.
- (x) Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.
Occupational health surveillance programme of the workers should be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed.
- (xi) A separate environmental management cell with suitable qualified personnel should be set up under the control of a Senior Executive, who will report directly to the Head of the company.
- (xii) The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year-wise expenditure should be reported to this Ministry and its Regional Office at Bhopal.
- (xiii) The Regional Office of this Ministry located at Bhopal shall monitor compliance of the stipulated conditions. The Project authorities shall extend full cooperation to the office(s) of the Regional Office by furnishing the requisite data/ information/monitoring reports.
- (xiv) A copy of the will be marked to concerned Panchayat/ local NGO, if any, from whom any suggestion/representation has been received while processing the proposal.
- (xv) State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industry Centre and Collector's Office/Tehsildar's Office for 30 days.
- (xvi) The Project authorities should advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within seven days of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution control Board and may also be seen at the website of the ministry of Environment & Forests at <http://envfor.nic.in>. The compliance status shall also be uploaded by the project authorities in their website so as to bring the same in the public domain.

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

Scientific Study for Slope Stability Assessment Study of Mohan No 5 & 6 OC Patch, Kanhan Area, WCL

Final Report – May-2019

By

Dr. Debashish Chakravarty

Dr. Biswajit Samanta

Dr. Kaushik Dey



Department of Mining Engineering
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DISCLAIMER

It is appropriate to mention here that neither the day-to-day mining operations would be under the control of the authors of this report, nor it is possible to have any such control on the execution of the recommendations mentioned in this report. The authors of this report would in no way be held responsible for any untoward incident, which might occur due to the implementation of the recommendations of this report. This report merely contains (i) Analysis of pit slope, and (ii) analysis of dump slope stability estimated using the theoretically established approaches. Due to the dearth of data, some essential properties are taken from the literature for numerical analyses and appropriately mentioned in the report. The factors of safety for different slopes calculated based on those assumed parameters are mentioned in the report. The alteration of assumed geotechnical data may significantly change the safety factor. Time to time testing of geotechnical properties and modification in the analysis is required.

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1.0 Introduction

The present geotechnical engineering report for study of the slope stability of the different structures is carried out by Department of Mining Engineering, IIT Kharagpur towards partly fulfilling the condition in Mohan No. 5 & 6 OC Patch, Kanhan Area, and WCL. This report analyses the slope stability of all the proposed mining / pit benches, OB dumps of the area, under lease hold of the Mines. The data of the available profiles have been analyzed as of now, taking into account the proposed excavation, developmental activities etc. in and around the mining area.

The IIT KGP study team went for a detailed field visit and overall site reconnaissance purpose in the month of February 2019, where the locations and approximate structural details of important structures were reviewed.

2.0 Brief Background

Mohan Opencast Phase III is a part of Mohan Colliery, Kanhan Area of Western Coalfields Ltd. in District Chhindwara of Madhya Pradesh. The mine has 3 coal seams i.e. No. I, II & III of which seam I is partly depillared and partly virgin, Seam II is partly depillared and Seam III is partly depillared and mostly developed.

Mohan OC Patch had started on 10.10.2005 and Phase I & II had been completed in the year 2008. Phase III of Patch had started on 11.02.2016 and will be completed on 30.04.2019. After completion of Phase III, next Patch i.e. Phase IV is proposed for extraction of coal in Mohan OC.

The existing Mohan OC is situated in Kanhan Area of WCL which lies between Lat. N22°12' 4" to 22°12'56" and Long. Of 78°37'39" to 78°41'54". The area covered by survey of India Topo Sheet No. 55J/ 12. Mohan Colliery is surrounded by artificial boundary represented by departure E2965220 in the west, East boundary is represented by departure E2969260.

3.0 Physiography

The area mostly undulates with few mounds. The elevation of the area varies in the range of 830 To 870 mtrs. above mean sea level. Pench River flowing at a distance of

6 Km in N-E of the mine site controls the main drainage of the area towards south, which is controlled by seasonal nullahs ultimately discharging in Kanhan River.

3.1 Climatology

The climate of the area is tropical. Maximum temperature in summer is about 45° Celsius. Winter is mild, monsoon is starts from mid of June and continue up to October. Average annual Rainfall is about 800 mm to 1000 mm. The climate is pleasant on account of its elevation. In summer, the temperature touches up to 44° Celsius. In winter, the night temperature touches a low of about 3° Celsius. Region year-wise rainfall for the area is presented in Table 1.

Table 1: Regional year-wise rainfall data for the interest zone

Month/Year	2018-19	2017-18	2016-17	2015-16	2014-15
Apr	7.500	0.00	0.00	23.00	0.00
May	0.00	49.00	0.00	0.00	0.00
June	140.50	160.50	209.50	334.50	22.00
July	239.50	362.50	918.50	243.25	420.25
Aug	205.50	151.00	240.00	455.95	195.25
Sept	108.00	173.00	150.00	177.50	227.50
Oct	0.00	0.00	22.50	41.00	0.00
Nov	0.00	0.00	0.00	0.00	34.50
Dec	4.50	2.00	0.00	0.00	0.95
Jan	6.00	0.00	0.00	0.00	36
Feb	3.00	46.50	0.00	0.00	58.5
Mar	0.00	0.00	0.00	26.00	57
Total	714.50	944.50	1540.50	1301.25	1051.95

4.0 Regional Geology and Local Geology with structure.

The Pench Kanhan Valley coalfields extends over a strike length of about 64 Km. The Talchirs are exposed all along the southern limit of basin, while the Moturs with thin strips of Barakars in between, occur in the central part. In the northern part Bijori and Panchmarhi formations overlie the lower Gondwanas. Over lying the lower Gondwanas sediments, the Jabalpurs are exposed in small patches in eastern part of the coalfield. The regional strike of the sedimentaries is ENE-WSW with northerly dip ranging between 5° and 15°. The Pench valley area is affected by network of faults in which the strike faults are dominant. As a result of these faults of varying amounts of throw, local change in dip and strike are common. The faults zone have prominent topographical expressions in the form of linear ridges, fractured and slickenside rocks and faulted/unconformable

contact with Precambrian crystallines in the southern part of the basin. The coal bearing Barakars so conformable relation with the upper laying motor, but having distinct unconformity with Jabalpur.

The Mohan OC block occupies a central part of East-west elevated flat platue. The highest R.L. is 850 m and lowest R.L. is 748m (No. III Seam Floor). In a width of 500 m, an elevation dropped to 748 m. In the extreme north side. Two faults exist between the patch running in East west direction having a throw of 5m and 9 m, respectively and is proved during excavation of the mine. Table 2 provides the startigraphical sequence of the formation

Table 2: Geological formation of the area

Age	Formation	Lithology
Sub recent to resent	Soil	Sandy and clayey soil
Jurassic	Jabalpurs	Gritty Sand stone And clays with red jasper fragment
Permian	Moturs	Brick red, purple, grayish clay/ clay stone with sandstone bands and places
	Barakars	Sandstone with kaolinised feldspars interbedded with shale and coal seams
Lower Permian	Talchirs	Fine grained argillaceous sandstone and splintery shales.

5.0 Lithology and Mineralization

Details of various formation are as follows:

a. Talchirs

Talchirs formations generally consist of grayish green sand stone and olive green shale. During execution of open cast mine it was found below the soil.

b. Barakars

The coal bearing Barakars overlie the Talchirs and are represented by felaspathic (often Kaolinised) sandstone, shales and coal seams. The Barakars can be divided into three columns with reference to

occurrence of coal seams. These have been designed as Lower, Middle and Upper Barakars.

i. Lower Barakars

The medium to coarse grained grayish white sand stone with thin shale and coal band from Talchirs contact to the base of lower most coal seam.

ii. Middle Barakars

The coal bearing horizon from the floor of Seam III to roof of seam I is designated as Middle Barakars. The top set comprising column between roof of seam I and Floor of seam III, varies in thickness from 13.92 m to 20.57 m.

iii. Upper Barakars

From the roof of seam I to the Moturs contact the strata has been classified as upper Barakars. In Mohan OC Patch, the Moturs along with the part of Upper Barakars has been found completely eroded. Hence geological contact between Motur and Barakars is not available. Upper Barakar is mainly composed of fine grained sand stone and shale.

c. Moturs

The Thickness of this formation varies from 5.0 m to 23.30 m. The borehole cores indicate the moturs to be predominantly a thick column brick red to brownish clays with thin beds of fine grained sand stone.

d. Jabalpurs

Overlaying the Barakars unconformably are Jabalpurs consisting of gritty sand stone and clay. The sand stone have coarse fragments of red Jaspers, which in fact, differentiate it from other formations. Since there was has been a time break after deposition of Jabalpur and upper Barakars before the flows f Basalt. The formation at places has been heavily eroded and even completely washed out. The range of thickness is 0.31 m to 17.55m. Details of coal seams and seam sequence are given in Table 3.

Table 3: Coal seams and seam sequence

S.No.	Name of Seam	Avg. Thickness
1	Seam I	5.00 m (Virgin) 3.50 m (Goaf)
2	Seam II	1.0 m
3	Seam III	1.10 m

6.0 Objectives

Investigation for this project has been devoted to the two main areas: (i) stability analysis of mine pit slopes, (ii) stability analysis of internal dump slopes for the mine, On this basis, the following specific objectives are defined for this study:

- a) Stability Analysis of the five pit slope sections identified by the mine authority using numerical modeling approach.
- b) Stability Analysis of three dump slope sections through numerical modeling

7.0 Scope of Work

- a) Field visit: A three-member study team of the IIT Kharagpur made a visit to the mine in the month of February 2019 to comprehend the different aspects pertaining to this study. Other purpose of this visit was also to physically understand the extent, geographical location, geometry, mine boundaries of the site.
- b) Data collection: Information and data in the forms of maps, proposed plan of mining, geotechnical investigation reports of earlier studies were collected from the mine. Some of the pertinent information extracted from those data were used for developing the numerical models.
- c) Numerical Modeling for stability study of different mining structures: The physical model of the pit slopes, internal dump slopes are replicated as a numerical model in the computer and ‘Geoslope’ software tool was used for the stability analysis of these structures using the available geotechnical data from the mine site as well as from the literature.

8.0 Theoretical background for slope stability assessment

Morgenstern-Price method (developed on basis of limit equilibrium) is used for kinematic assessment of stability of each of the proposed pits and dumps in the study area. This method of stability assessment considers both shear and normal inter-slice forces between the blocks. It also satisfies both moment and force equilibrium, and allows for a variety of user-selected inter-slice force function. This approach was used in the dumps for dry and saturated geo-technical conditions when they were subject to seismic and wind loading along with pore water pressure.

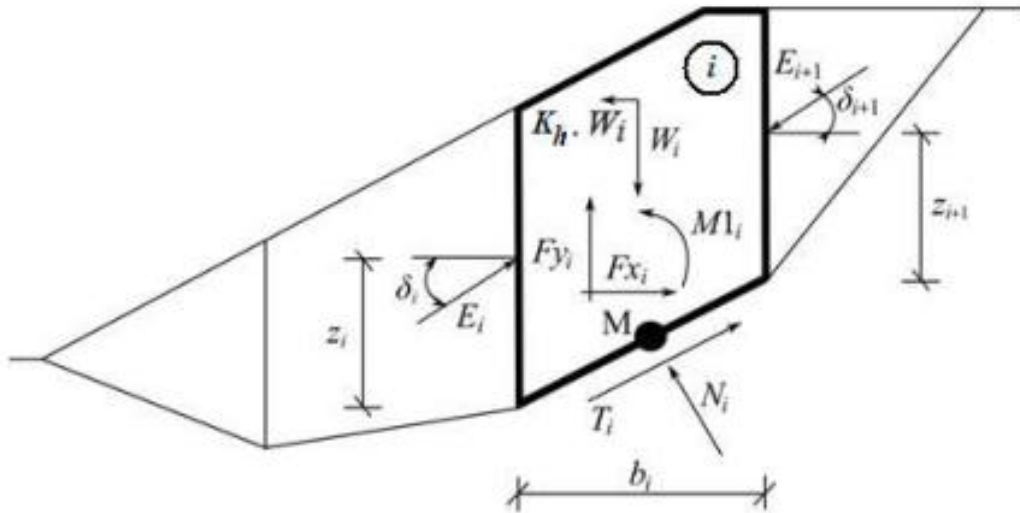


Figure 1: Static scheme: Morgenstern-price analysis

Morgenstern-Price Analysis

Morgenstern-Price is a general method of slices developed on the basis of limit equilibrium. It requires satisfying equilibrium of forces and moments acting on individual blocks. The blocks are created by dividing the soil above the slip surface by dividing planes. Forces acting on individual blocks are displayed in Figure 1. Each block is assumed to contribute due to the same forces as in Spencer method. The choice of inclination angles δ_i of forces E_i acting between the blocks is realized with the help of Half-sine function - one of the functions in the following Figure 2 is automatically chosen. This choice of the shape of function has a minor influence on final results, but suitable choice can improve the convergence of method. Functional value of Half-sine function $f(x_i)$ at boundary point x_i multiplied by parameter λ results the value of inclination angle δ_i .

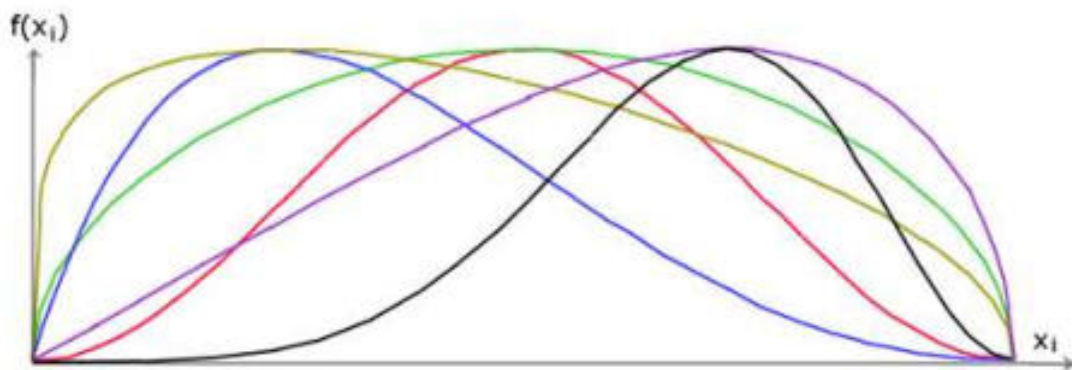


Figure 2: The half-sine function

$$Z_{i+1} = \frac{\frac{b_i}{2} [E_{i+1} (\sin \delta_{i+1} - \cos \delta_{i+1} \cdot \tan \alpha_i) + E_i (\sin \delta_i - \cos \delta_i \cdot \tan \alpha_i) + E_i \cdot Z_i \cdot \cos \delta_i - M_i]}{E_{i+1} \cdot \cos \delta_{i+1}} \quad (1)$$

This formula allows to calculate all arms Z_i of forces acting between blocks for a given values of δ_i , knowing the value on the left at the slip surface origin, where $z_1 = 0$.

The factor of safety SF is determined by employing the following iteration process:

- The initial value of angles δ_i is set according to Half-sine function ($\delta_i = \lambda * f(x_i)$).
- The factor of safety SF for a given value of δ_i , while assuming the value of $E_{n+1} = 0$ at the end of the slip surface.
- The value of δ_i is provided by equation (1) using the values of E_i determined in the previous step with the requirement of having the moment on the last block equal to zero. Functional values $f(x_i)$ are same all the time during the iteration, only parameter λ is iterated. Equation (1) does not provide the value of z_{n+1} as it is equal to zero.

Steps b and c are then repeated until the value of δ_i (resp. parameter λ) does not change.

9.0 Stability assessment of Structures in Mohon OCP

In Mohan OCP, both pit slopes and internal dump slopes are analyzed for stability assessment purpose. The mine authority has identified three critical sections for pit slopes, A-A', C-C', D-D'. Again each of A-A' and C-C' sections contain two slopes right and left. Hence, total five sections of pit slopes are analyzed. These sections are marked in the mine working plan as presented in Figure 3.

,



Figure 3: Working plan of Mohan OCP, where different slope sections are marked

Along with these five pit slope sections, three internal dump sections are analyzed. These are also marked in Figure 3 (B-B', C-C' two sections). Table 4 provides the information about the different structures studied in this investigation. Due to non-availability of detailed geotechnical parameters these are assumed in the study. Different material properties of concern are primarily the properties that characterize the shear strength and the density (unit weight) of the different formations that make up the combined slope structures and the intervening ground.

Table 4 Details of mining structures analysed

SI No	Number of sections analysed
Pit slope	Five
OB Dump	Two

The sections are analyzed using numerical modeling using Morgenstern-Price Method. This LEM based technique is used in each of the slopes for predicting Factor of Safety of the slopes for different geotechnical conditions. Geotechnical properties of the material present on different structures have been assumed based on literature review. The different loading conditions studied in this slope stability

assessment are described below. Each of the loading conditions are further subject to wind load as described below.

- a) **Static (dry) condition:** In completely dry conditions, the slopes are assumed to be in completely dry conditions. The materials of the slope are assumed to be fully dry. In these conditions, the pore water pressure present in the slope is zero.
- b) **Static (dry) condition with seismic loading:** Here, the dry slope is subject to seismic loading. Here, seismic loading coefficient is considered to be 0.1g for the horizontal stress loading, and the vertical loading is considered to be zero.
- c) **Saturated condition:** Here, the slopes are subject to fully saturated conditions where water table is assumed to be up to the height of the slope. No drainage system is considered and the materials of the slope are considered to be undrained.
- d) **Rain and wind loading:** In this analysis, the slope is subjected to loading due to rainfall and wind. This is one of the possible worst case scenarios in assessment of slope stability, where the slope is loaded with heavy rainfall and is also subject to wind loading.
- e) **Cloud burst condition:** In this analysis, the slope is subjected to loading due to extremely heavy and sudden rainfall for a relatively short period of time.

9.1 Assumptions for Morgenstern–Price method of slope stability assessment

The following assumptions are introduced in the Morgenstern-Price method to calculate the limit equilibrium of forces and moment on individual blocks:

- Dividing planes between blocks are always vertical.
- The line of action of weight of block W_i passes through the center of the i^{th} segment of slip surface represented by point M.
- The normal force N_i is acting in the center of the i^{th} segment of slip surface, at point M.
- Inclination of forces E_i acting between blocks is different on each block (δ_i) at slip surface end points is $\delta = 0$.

9.2 Analysis of Pit slopes

In this section, the outputs of numerical analysis of the identified pit slope sections of the open pit mine are presented. The numerical models for all these profiles / sections have been analysed under five different conditions as mentioned here. At

first the model is analysed under static loading (only dry static loading condition). This has been followed by running the model under fully saturated (wet) condition. Following which, the model has been run on additional loading due to wind and rainfall conditions along with static loading. The average wind speed values are taken in the range of 10-15 m/s and that of average rainfall values in the range of 5-12 mm/h for 24 hours. Additionally, the model is run to examine stability under loading due to cloud burst scenarios. Here, to simulate the cloud burst condition, the rainfall value is taken as 100 mm/h for a period of 30 minutes. Finally, the model has been run under seismic loading due to blasting where the maximum Peak Particle Velocity (PPV) is taken as 80 mm/sec. The conventional LEM based Morgenstern-Price method has been used to determine FOS of the slopes to obtain different critical slip surfaces.

9.2.1 Analysis of pit slope profile

There are five critical sections identified by the mine authority. These five sections are A-A` (left and right slopes), C-C' (left and right slopes) and D-D`. Two profiles for each of A-A' and C-C' are analyzed as mentioned as left and right because of varying profiles on left and right side of the section. These profiles are analyzed using the numerical modeling approach for the factor of safety (FOS) values. Figures 4 and 5 present the derived section on A-A` for left slope of the pit and the corresponding model geometry for numerical analysis using Geo Studio software tool, respectively. Table 5 presents the material properties of different strata.

Table 5 Material properties for A-A`

Material	Unit weight (kN/m³)	Cohesion (kPa)	Φ(degrees)
Sandstone	26	200	35
Coal	14	80	24

The resulting failure surface and the corresponding FOS value for each of the above conditions are summarized in Figures 6(a) to 6(e) and in Table 6, respectively.

Analyses of section A-A' (Left)

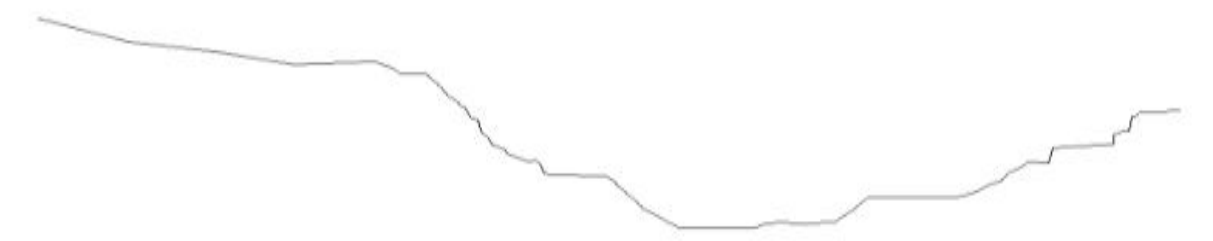


Figure 4: Cross-section of A-A'

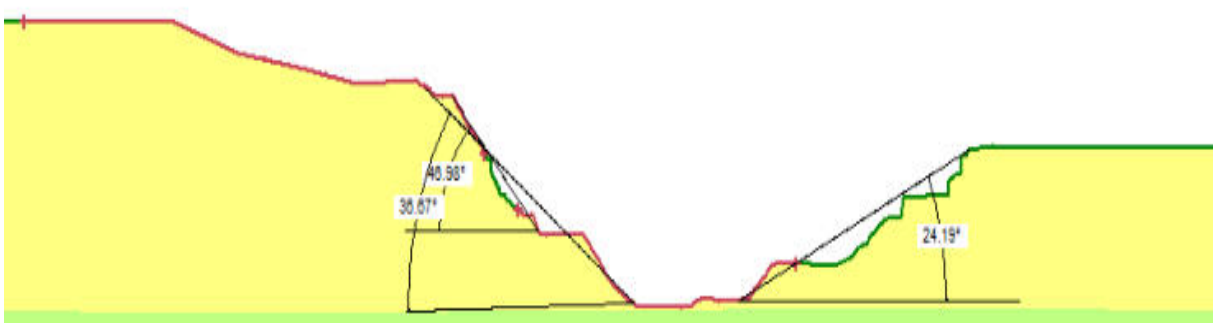
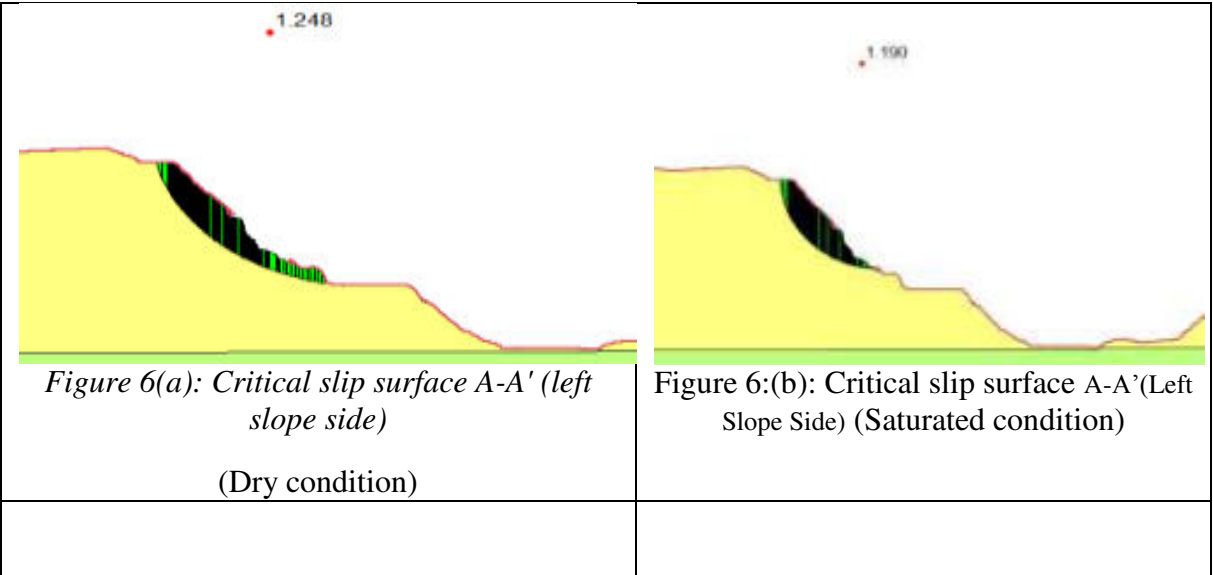


Figure 5: Model geometry of A-A'



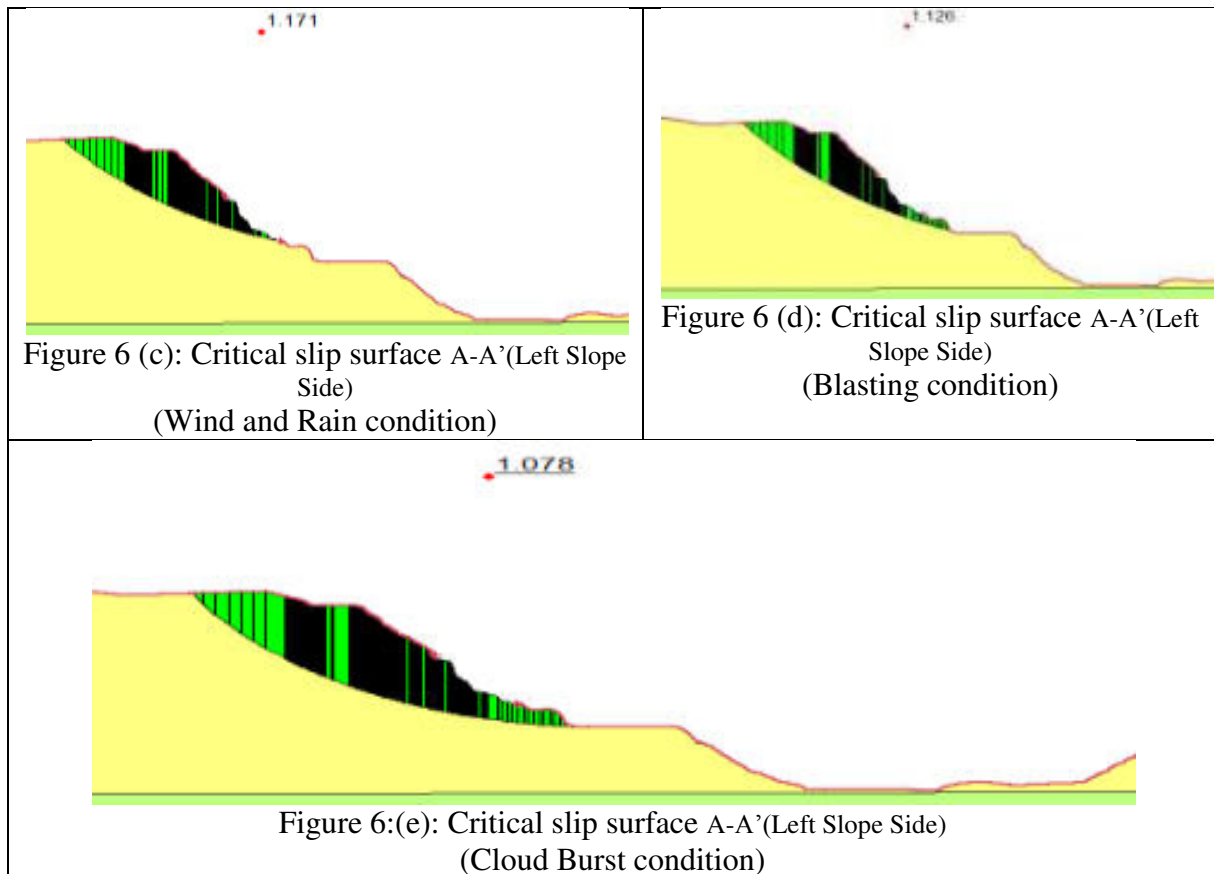


Figure 6 Displaying the most critical slip surfaces for the section, for dry condition, saturated condition, rain and wind condition, blasting condition and cloud burst condition respectively. The FOS values obtained from the numerical modeling runs are provided in Table 6

Table 6 Critical FOS values for A-A' (Left)

Dry condition	1.248
Saturated condition	1.190
Rain and wind condition	1.171
Blasting condition	1.125
Cloud Burst condition	1.078

Analyses of section A-A' (Right)

Figures 7 and 8 present the derived section of right pit slopes on A-A' and the corresponding model geometry for numerical analysis using Geo Studio software tool, respectively. The resulting failure surface and the corresponding FOS value for each of the above conditions are summarized in Figures 9(a) to 9(e) and Table 7, respectively.



Figure 7 Pit cross-section of A-A' right slope

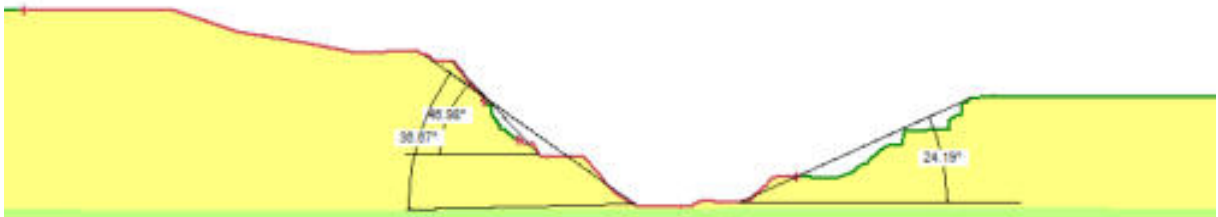
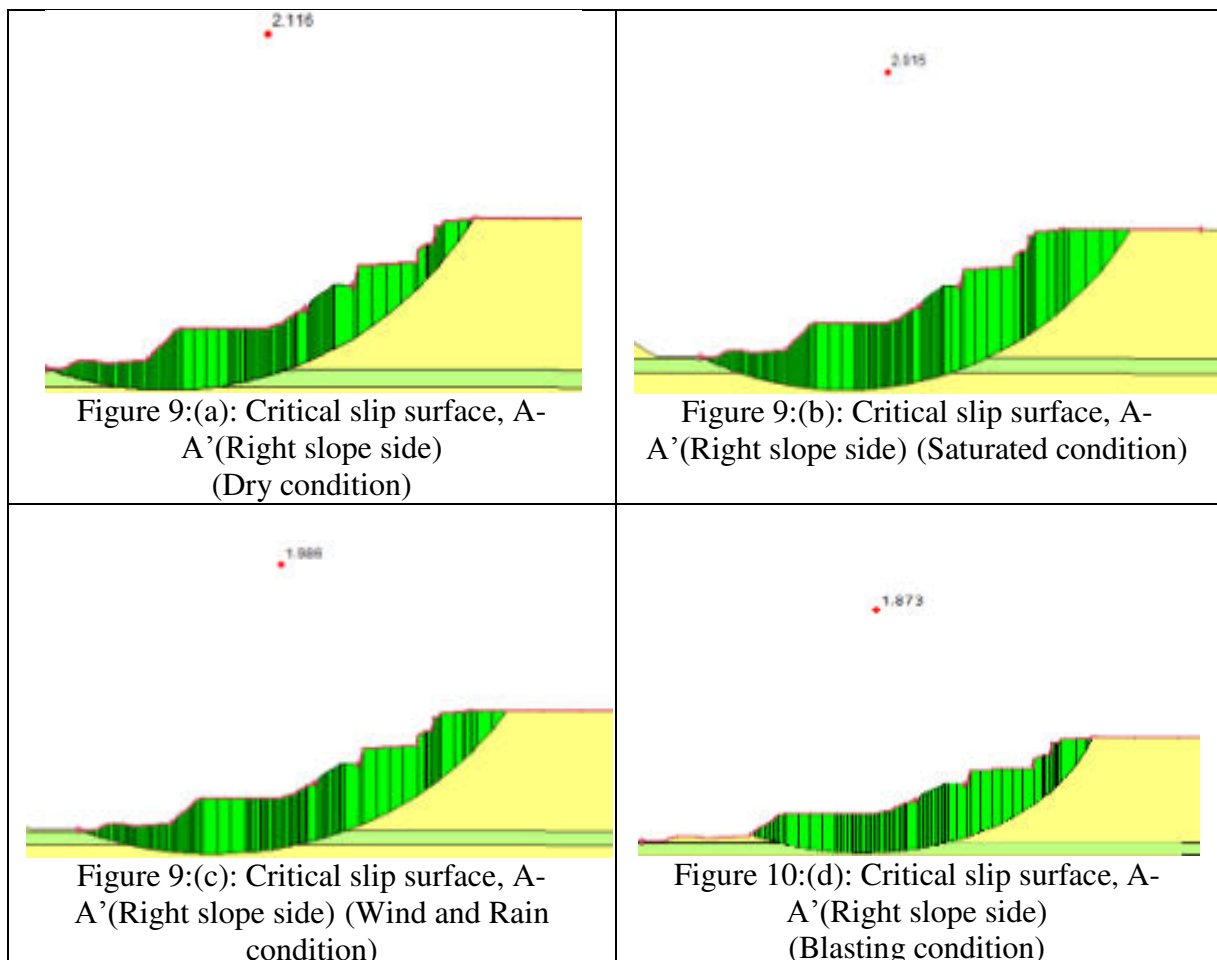


Figure 8: Model Geometry of A-A' right slope



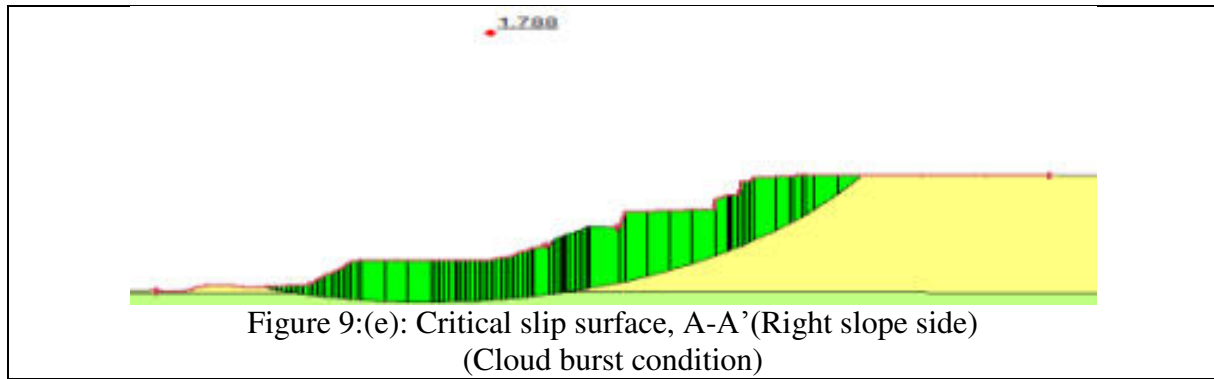


Figure 9 presents the most critical slip surfaces for the section, for dry condition, saturated condition, rain and wind condition, blasting condition and cloud burst condition respectively. The FOS values obtained are presented in Table 7

Table 7 Critical FOS values for A-A' (Right)

Dry condition	2.115
Saturated condition	2.015
Rain and wind condition	1.986
Blasting condition	1.873
Cloud burst condition	1.788

Analyses of section C-C' (Left)

Figures 10 and 11 respectively present the derived section on C-C' and the corresponding model geometry for numerical analysis using Geo Studio software tool. The resulting failure surface and the corresponding FOS value for each of the above conditions are summarized in Figures 12(a) to 12(e) and Table 8, respectively.



Figure 10: Cross-section of C-C'

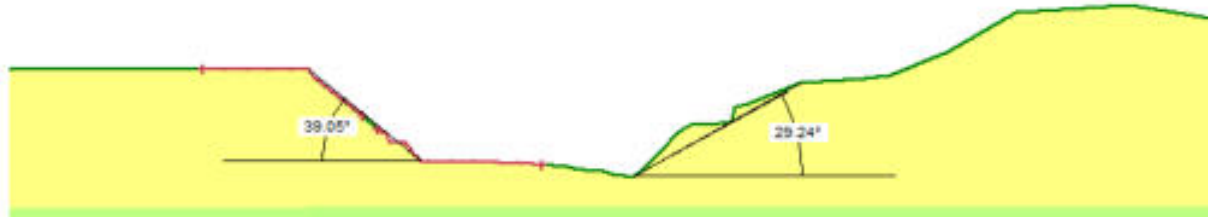


Figure 11: Model Geometry of C-C'

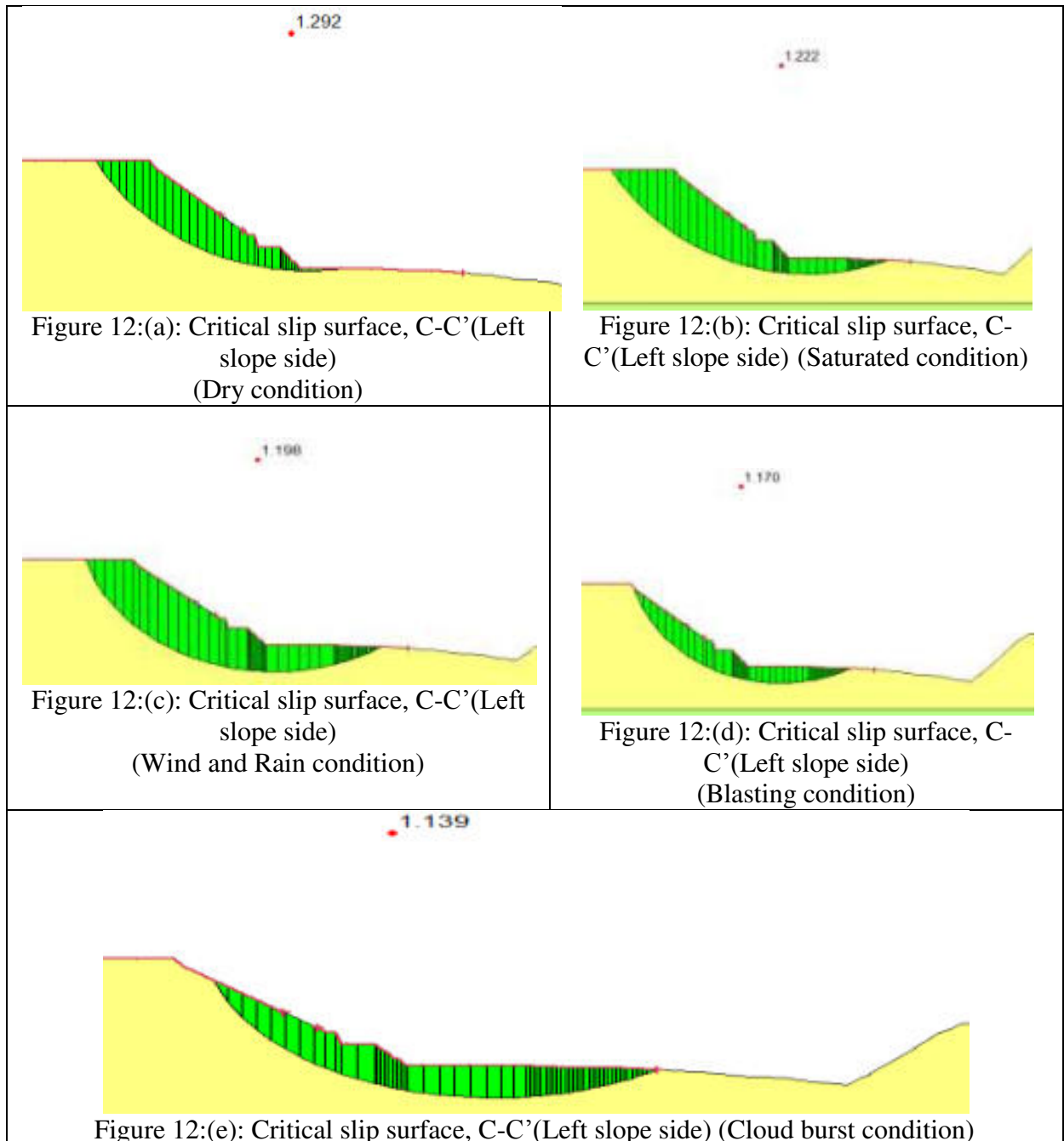


Figure 12: present the most critical slip surfaces for the section, for dry condition, saturated condition, rain and wind condition, blasting condition and cloud burst condition respectively. The FOS values obtained are presented in Table 8

Table 8: Critical FOS values for C-C'(Left)

Dry condition	1.292
Saturated condition	1.222
Rain and wind condition	1.198
Blasting condition	1.170
Cloud burst condition	1.139

Analyses of section C-C' (Right)

Figures 13 and 14 respectively present the derived section on C-C' and the corresponding model geometry for numerical analysis using Geo Studio software tool. The resulting failure surface and the corresponding FOS value for each of the above conditions are summarized in Figures 15(a) to 15(e) and Table 9, respectively.



Figure 13: Cross-section of C-C'

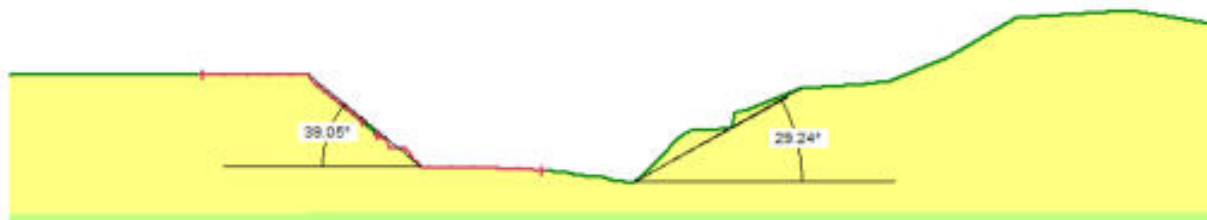


Figure 14: Model Geometry of C-C'

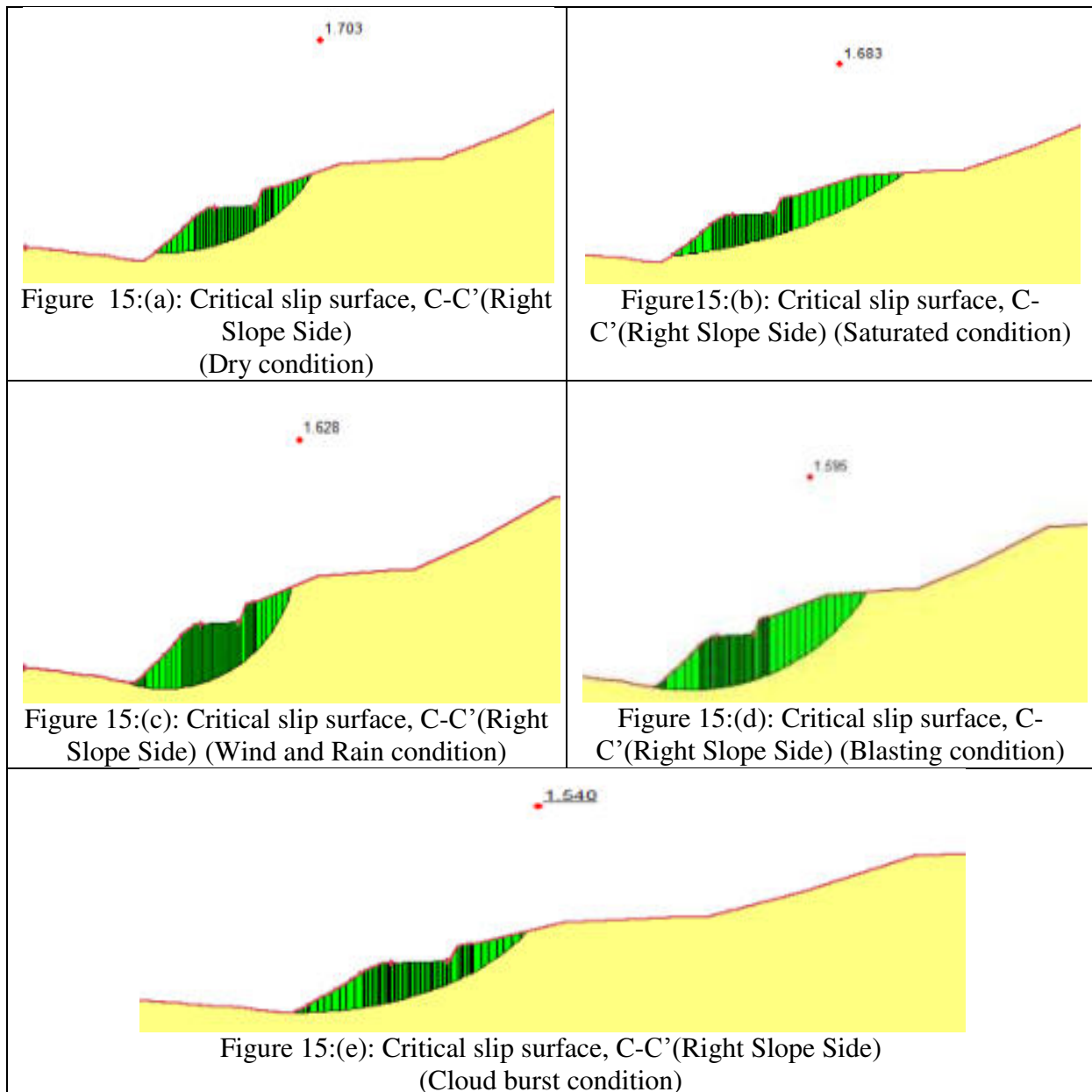


Figure 15: present the most critical slip surfaces for the section, for dry condition, saturated condition, rain and wind condition, blasting condition and cloud burst condition respectively. The FOS values are provided in Table 9

Table 9 Critical FOS values for C-C'(Right)

Dry condition	1.703
Saturated condition	1.683
Rain and wind condition	1.628
Blasting condition	1.595
Cloud burst condition	1.540

Analyses of section D-D'

Figures 16 and 17 respectively present the derived section on D-D' and the corresponding model geometry for numerical analysis using Geo Studio software tool. The resulting failure surface and the corresponding FOS value for each of the above conditions are summarized in Figures 18(a) to 18(e) and Table 10, respectively.

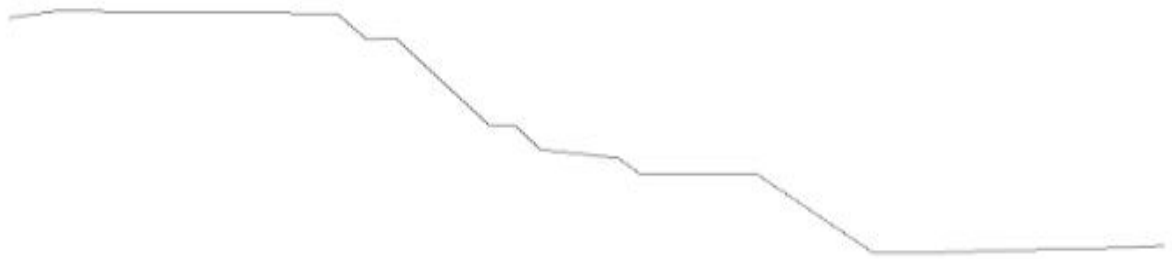
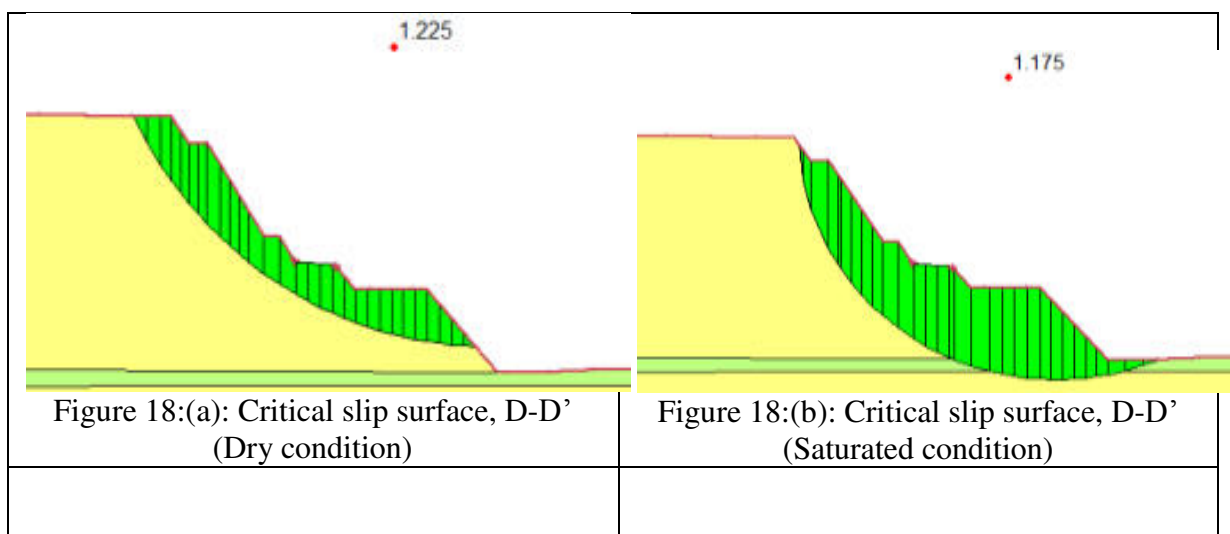


Figure 16: Cross-section of D-D'



Figure 17: Model Geometry of D-D'



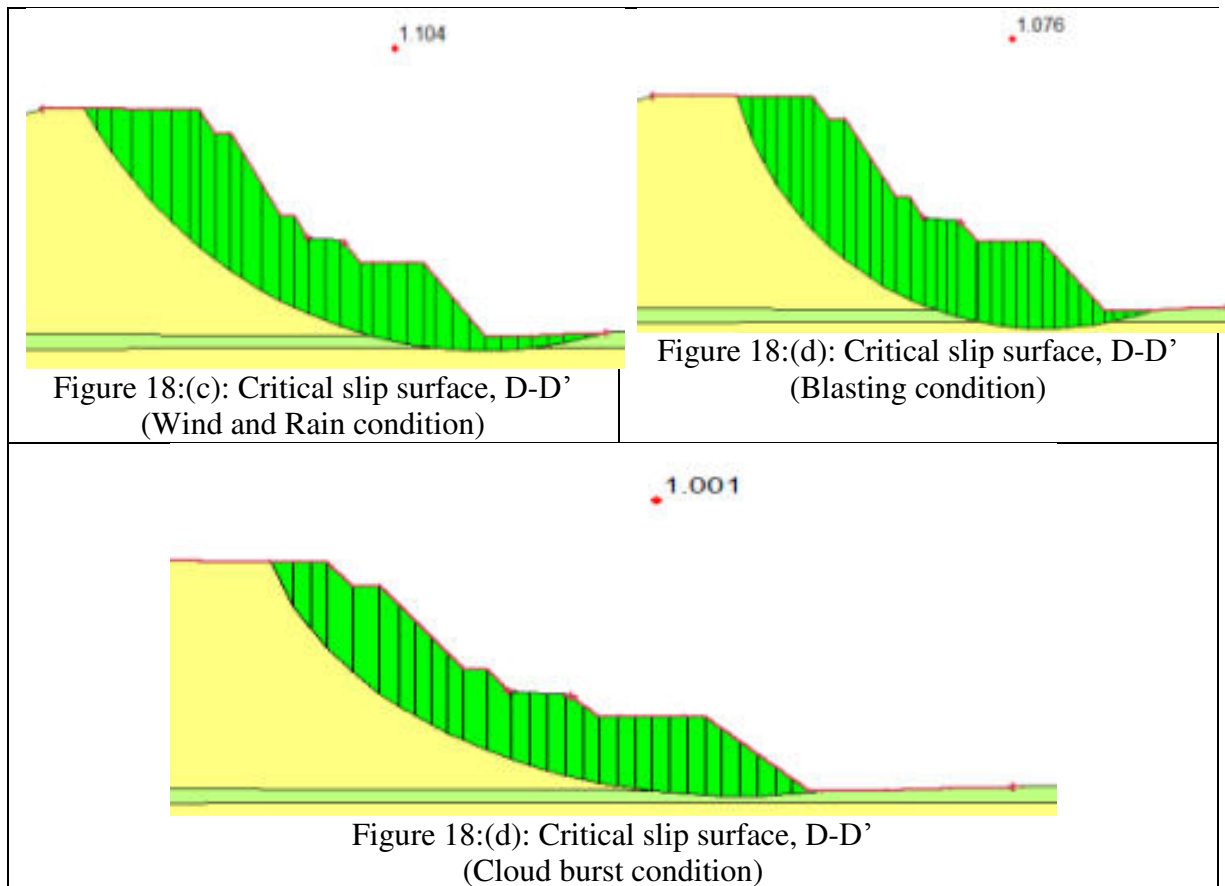


Figure 18: present the most critical slip surfaces for the section, for dry condition, saturated condition, rain and wind condition, blasting condition and cloud burst condition respectively. The FOS values are provided in Table 10

Table 10 Critical FOS values for D-D'

Dry condition	1.225
Saturated condition	1.175
Rain and wind condition	1.104
Blasting condition	1.076
Cloud burst condition	1.001

9.3 Analysis of OB / Waste Dump Slopes

The excavated waste material will be deposited in the dump. A designated location is identified by the mine authority for this purpose. The dumping has been done concurrently with pit extraction. The dump slope profile (provided by the authority) is analyzed. There are two dump profiles namely B-B' and C-C' analyzed under this section and also the profile C-C' has been analyzed for left

and right side separately due to varying profiles on both sides. The details are provided below.

9.3.1 Analysis of Dump Slope Section B-B'

The configuration and the geometric model of dump are shown in Figures 19 and 20 respectively. The material properties for analysis of the section are presented in Table 11.

Material property: This dump is made of Shale and Sandstone overburden. The following material properties connected to geo-technical analysis have been used, as can be seen in Table 11.

Table 11 Material properties of internal Dump

Material	Unit weight (kN/m ³)	Cohesion (kPa)	Φ (degrees)
OB	28	200	31



Figure 19: Cross-section of Overburden Dump B-B'



Figure 20: Model Geometry of Overburden Dump B-B'

The associated critical failure surface and the corresponding FOS values for different loading conditions are presented in Figures 21(a) to 21(e) and Table 12 below.

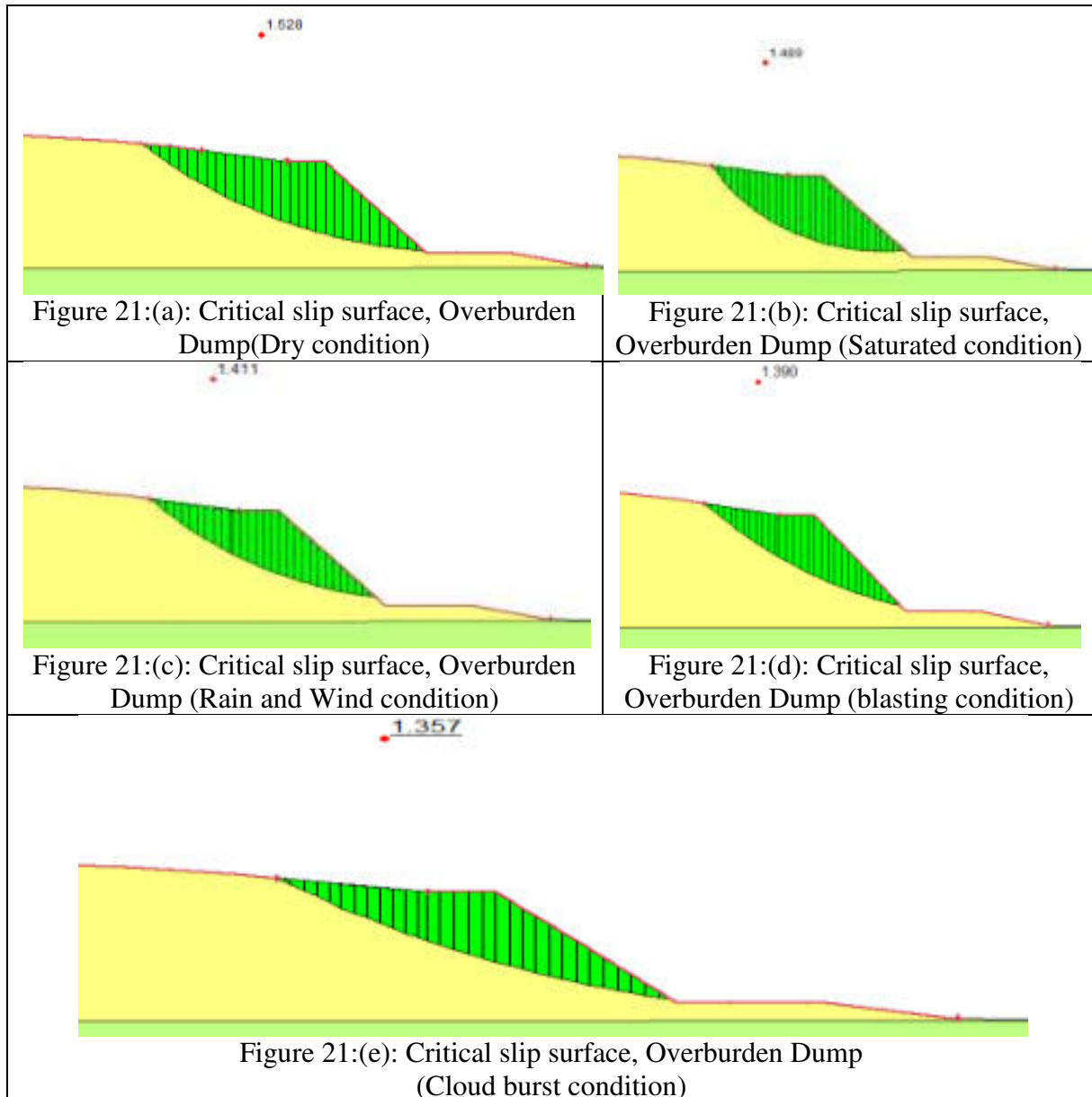


Figure 21: present the most critical slip surfaces for the External Dump, for dry condition, saturated condition, rain and wind condition and cloud burst condition. The FOS values are provided in Table 12.

Table 12 Critical FOS values for internal Dump

Dry condition	1.528
Saturated condition	1.489
Rain and wind condition	1.411
Blasting condition	1.390
Cloud burst condition	1.357

From Table 12, it can be seen that the structure is found to be stable for all the loading conditions studied, as FOS values are above the reference value of 1.5 for long term stability.

Analyses of section C-C' Dump Side Slope (Left)

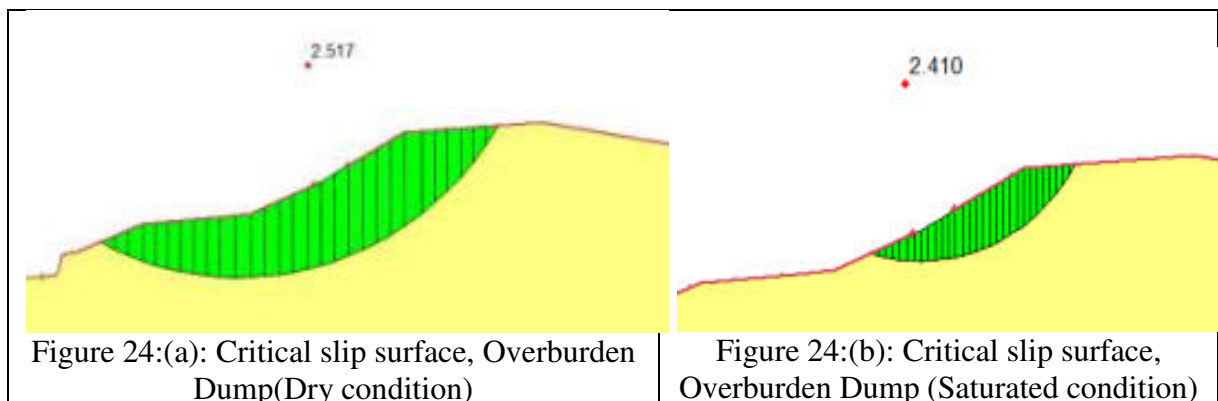


Figure 22: Cross-section of Overburden Dump C-C'



Figure 23: Model Geometry of Overburden Dump C-C'

The associated critical failure surface and the corresponding FOS values for different loading conditions are presented in Figures 24(a) to 24(e) and Table 13 below.



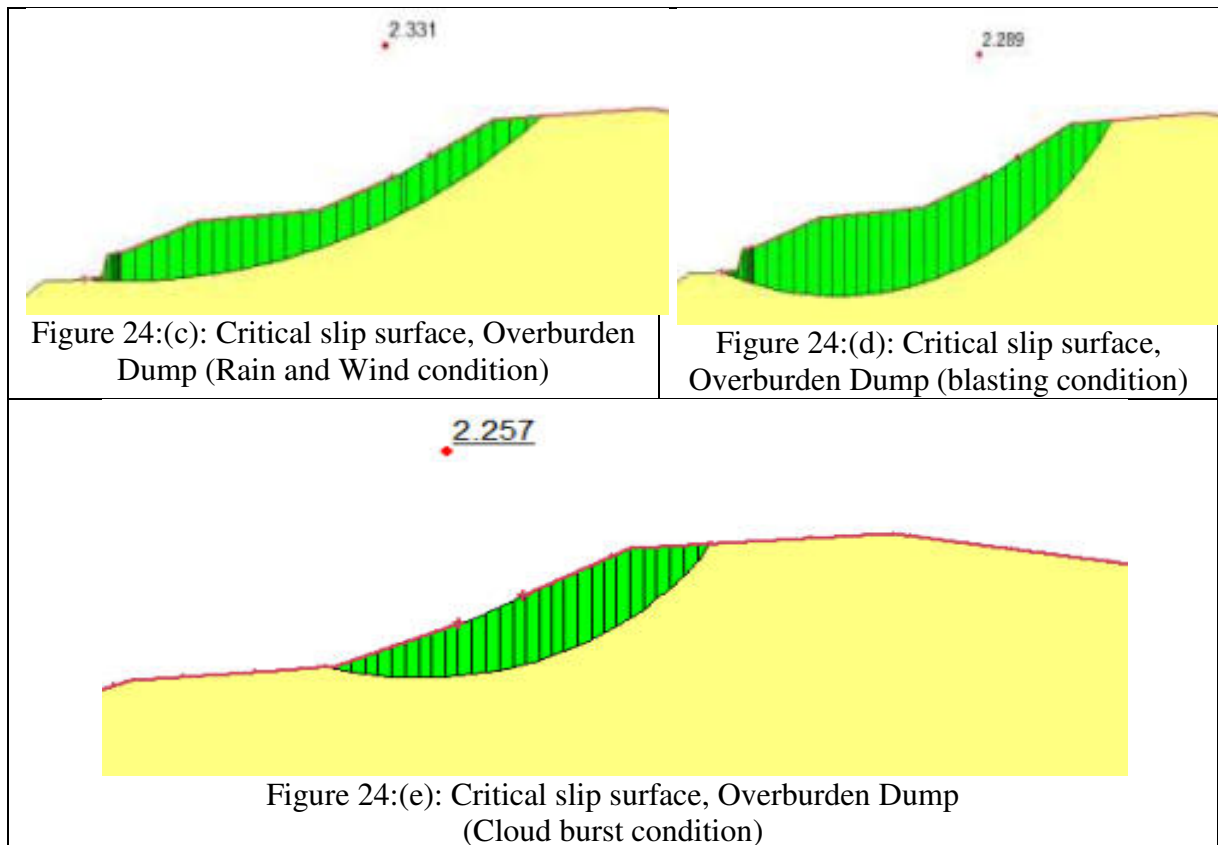


Figure 24: present the most critical slip surfaces for the External Dump, for dry condition, saturated condition, rain and wind condition and cloud burst condition. The FOS values are provided in Table 13.

Table 13 Critical FOS values for internal Dump

Dry condition	2.517
Saturated condition	2.410
Rain and wind condition	2.331
Blasting condition	2.289
Cloud burst condition	2.257

From Table 13, it can be seen that the structure is found to be stable for all the loading conditions studied, as FOS values are above the reference value of 1.5 for long term stability.

Analyses of section C-C' Dump Side Slope (Right)

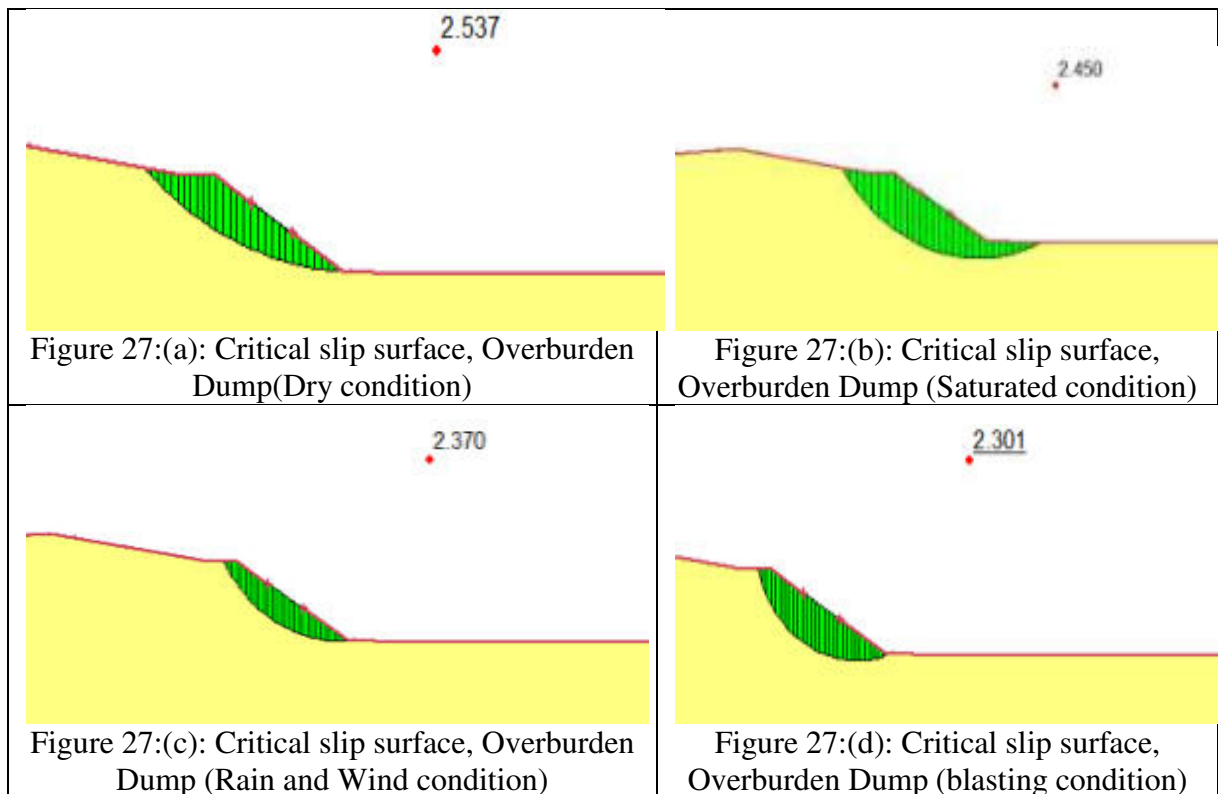


Figure 25: Cross-section of Overburden Dump C-C'



Figure 26: Model Geometry of Overburden Dump C-C'

The associated critical failure surface and the corresponding FOS values for different loading conditions are presented in Figures 27(a) to 27(e) and Table 14 below.



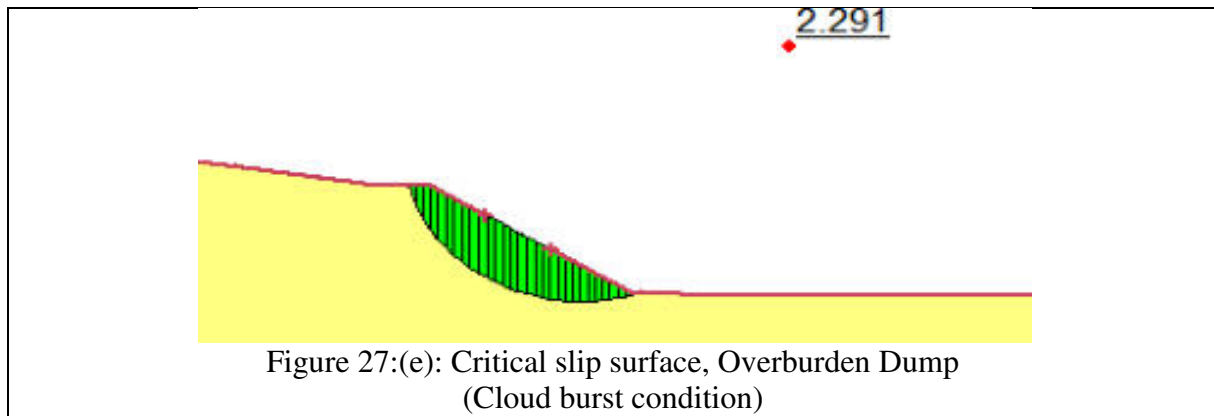


Figure 27: present the most critical slip surfaces for the External Dump, for dry condition, saturated condition, rain and wind condition and cloud burst condition. The FOS values are provided in Table 14.

Table 14 Critical FOS values for internal Dump

Dry condition	2.537
Saturated condition	2.450
Rain and wind condition	2.370
Blasting condition	2.301
Cloud burst condition	2.291

From Table 14, it can be seen that the structure is found to be stable for all the loading conditions studied, as FOS values are above the reference value of 1.5 for long term stability.

9.3.4 Suggested Method of mining and dumping practices

Since the pit slope analysis on the selected slopes indicates that some of pit slopes are unstable, proper slope angle should be maintained to make the working practices safe. As per the specification of equipment fleet to be used by the mine management, the bench height should be 6 m. It is believed that the shovel boom can reach up to this height. The bench width would be 6m (safety or catch bench, not the working bench) for both safety and economic reason at the ultimate pit limit. However, working slope during mining operation might be little bit flatter than the final pit slope. The bench slope angle should be 70°, which is roughly equivalent to angle of repose of broken material. A 20 m ramp with gradient of 1 in 12 is proposed to be used. It is hoped that the kind of dumper that is proposed to be used in mine, can be conveniently used to transport the material through this ramp.

Since the internal and external slope dump slopes are found to be safe. The current practices of dumping should be maintained.

10.0 Conclusion

The slope stability analysis of the pit slopes and dump slopes in mines are done using Morgenstern-Price method. The FOS values of the studied structures were estimated in different conditions, as mentioned earlier. The FOS values for the all the sections analyzed have shown mixed effect. Some of the pit slopes such as A-A` and C-C (right) are found to be safe as the values are above the reference value of 1.5 for long-term stability. However, the slope sections like D-D`, A-A` and C-C` left are unstable from both short-term and long-term stability point of view as FOS values go below the reference value of 1.25 for short-term stability.

Therefore, proper slope angle should be maintained to make the working practices safe. The bench height and bench width should be maintained as 6 m. each at final pit limit. However, working slope during mining operation might be little bit flatter than the final pit slope. The bench slope angle should be 70°, which is roughly equivalent to angle of repose of broken material.

On the other hand, the dump slopes are found to be safe. Therefore, the management should take proper precautionary measure to make the pit slopes stable.

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MINING PLAN
(INCLUDING MINE CLOSURE PLAN)

FOR

BHARAT OC PATCHES
(UNDER GHORAWARI OC)

(TARGET: 0.47 MTPA IN ML AREA OF 111.489 Ha.)
(KANHAN AREA)

WESTERN COALFIELDS LIMITED
(JOB No. - 4020424009)

(TEXT, ANNEXURES & PLANS)



JUNE - 2024

CMPDI

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

AN ISO 9001:2000 COMPANY

CERT. NO.: C I /8656

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2	Chapter 1- Project Information
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4	Chapter 3- Mining
5	Chapter 4- Safety Management
6	Chapter 5- Infrastructure Facilities Proposed and their location
7	Chapter 6- Land requirement
8	Chapter 7- Environment Management
9	Chapter 8- Progressive & Final Mine Closure Plan
10	List of Abbreviations used

List of Annexure (As applicable as per guidelines dated 29-05-2020):

SN	Name of Annexure
I	WCL Board Approval of Mining Plan of Bharat OC Patches Extension (ML Area 111.489 Ha)
II	Approved Mine Closure Plan
III	Environmental Clearance MOEF Ref. Letter No. J-11015/367/2008-IA.II(M) , Dated 26-Dec-2008
IV	MCR Lease Grant

List of Plate (As applicable as per guidelines dated 29-05-2020):

SN	Name of Plate
I	Location Plan
II	Plan showing existing working and other detail of Bharat OC Patches
III	KML Plan showing Project Boundary / Block Boundary and MCR Lease Boundary
IV	Proposed Quarry and Surface Layout Plan


MANAGER
 Ghorawari Colliery No.

CHAPTER- 1: PROJECT INFORMATION

	Parameters	Details
1.1 INTRODUCTION		
1.1.1	Name of Coal/Lignite Block	Name of the Mine: Bharat OC Patch Name of Coal Block: Datla West
1.1.2	Name of the Coalfield/ Lignite Field	PenchKanhantawa valley Coalfield
1.1.3	Base date of Mining Plan/ Mine Closure Plan	1) Mine Closure plan of Ghorawari OC Patch approved by WCL Board vide resolution dated 06/02/2014 on 252 nd meeting and Bharat OC Patch is a part of Ghorawari OC Patch.
1.1.4	Linked End Use Plant	The coal is supplied to Thermal Power Plants of MPGCL and other miscellaneous consumers.
1.1.5	Distance of End use plant from the pit head of the project in "km"	The Sarni TPS is at a distance of 50 km (approx.) from the mine pit head.
1.1.6	Mode of Coal Transport	Coal by Rail and Road.

1.2 LOCATION, TOPOGRAPHY AND COMMUNICATION

1.2.1	Location of coal deposit (District and State)	The mine is located between 22°12'22" to 22°12'49" latitude and 78°32'59" to 78°34'37" longitudes . The Bharat OC Patch is Situated in Tehsil Junnardeo of Chhindwara District.
1.2.2	Communication: PWD roads, railway lines, Air	Bharat OC Patch is connected by all weather road and also by rail. Nearest railway station is Junnardeo (JNO) which is connected by broad gauge line with Amla Jn. (approx. 68 km) on the main line of Central railway. Junnardeo is also linked to Chhindwara town by broad gauge line of South Eastern Railway. Chhindwaratown is 120 km by road from Nagpur. Nearest Airport is Dr. Baba sahib Ambedkar International airport, Nagpur situated 170 km approx. away from the mine.
1.2.3	Availability of powersupply, water etc.	The source of power supply of Bharat OC Patch from 11 kV Sub Station Situated at Pit Head of Mine & the Sub Station is connected from MPEB. The water requirement for the project is met from the mine discharge water.
1.2.4	Prominent physiographic features, drainage pattern, natural water courses, rainfall data, highest flood level	The area has hilly terrain with generally undulating in the mineable area of the mine with surface elevation ranging from 770m to 830m. There is one number seasonal nallah exists at western side of OC Patch which flows north to south which discharge at Takia Nallah at distance of 1.5km. The H.F.L. of Seasonal Nallah is 774.131 m. Pench river flows at a distance of 7.0 km from the mine on the North-Eastern side.
1.2.5	Important surface features Within the project area and major diversion or shifting involved	Bharat OC Patch is a opencast mine with temporary Operational and service building only. There is no major diversion or shifting involved in the project.

1.3 DETAILS OF THE ALLOTMENT AGREEMENT

1.3.1	Name the Allottee	Western Coalfields Limited WCL is a Category - I Mini Ratna Company, CPSU and Subsidiary of Coal India Limited (MahaRatna) under Ministry of Coal, Government of India.
1.3.2	Details of allotment/ vesting order	MCR Lease No. 11 are vested to Coal India under Coal Mines Nationalisation Act 1973. After formation of WCL on 01.11.1975 the mines automatically come under administrative control of WCL. As per Section 3 of the Coal India, Reg of Transfer and Validation Act 2000, these leases were deemed to be fresh mining lease w.e.f. 01/11/1975 MCR 1960 and valid till year 31/03/2030
1.3.3	Name and address of the applicant	Western Coalfields Limited, Coal Estate , Civil Lines, Nagpur (MS) - 440001
1.3.4	Name of the Previous Allottee of the Block	Not Applicable
1.3.5	Starting Date of the Mine as per CMDPA	Not Applicable as WCL is Govt. PSU
1.3.6	Rated Capacity as per CMDPA	Not Applicable as WCL is Govt. PSU
1.3.7	Production Schedule as per opening permission (meeting provisions of CMDPA if any)	Not Applicable as WCL is Govt. PSU
1.3.8	End Use of Coal/Lignite as per allotment order if any	Power Generation / miscellaneous consumption in Non-Power sector
1.3.9	Cardinal points co-ordinates of the Block boundary	Kml of boundary of Block Boundary Enclosed.

Add.

 MANAGER
 Ghorawari Colliery No.

1.4 DETAILS OF THE PREVIOUS APPROVAL OF MINING PLAN

1.4.1	Date of Approval	Scheme was approved in the year 24.09.2012 (Phase-I)				
1.4.2	Conditions, if any	Nil				
1.4.3	Scheduled year of start of production	Mine is in operation since 28.06.2015				
1.4.4	Proposed year of achieving the targeted production	1 st year				
1.4.5	Date of actual commencement of mining operations, if operations already started	Mine operation started in 28.06.2015 (After approval of Phase-I in land area under physical possession in 62.285 ha. (Forest land 19.5ha. after forest clearance+Non Forest land 42.785 ha) and further this area is also a part of project Area of 111.489 Ha in this mining plan.				
1.4.6	Likely date of mining operations, if operations not yet started & reasons for non-commencement of operations.	Not applicable.				
1.4.7	Planned production and actual levels achieved in last 3 years (Coal in Mte, OB in MM ³):	Phase	Year	Planned Coal Production (MT)	Actual Production (MT)	Actual OB excavation Mm ³
		Ph-I	2015-16	0.200	0.257	1.143
			2016-17	0.254	0.104	0.662
			2017-18	0.209	0.042	0.009
			2018-19	0.000	0.000	0.000
			2019-20	0.075	0.086	0.251
			2020-21	0.040	0.040	0.064
			2021-22	0.000	0.000	0.000
			2022-23	0.000	0.000	0.000
1.4.8	Statutory obligations vis- a-vis compliance status in a tabular form	<p>Existing coal mining operations are being carried out as per the following:</p> <p>1. EC secured vide MoEF& CC letter No. J-11015/382/2007-IA.II(M) dated 19-02-2008 with production capacity of 1.50 MTPA and total lease area is 1296.011ha for Ghorawari OC coal mine and Bharat OC Patch(Land area 111.489 ha.) is also part of aforesaid Ghorawari OC coal mine.</p> <p>2. Consent: CTO secured vide Consent No. AW-59782 valid upto 31st Jan 2026 for Ghorawari OC Patch.</p> <p>3. Environment Monitoring: Complying, as per EC conditions.</p>				
1.4.9	Reasons for difference between the planned and actual production levels.	Due to adverse geo-mining conditions such as faults and dewatering of water from the UG galleries hampered productions.				

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1.5 PARAMETERS OF APPROVED MINING PLAN VIS-A-VIS PROPOSED MINING PLAN

S.No	Parameters	Proposed Mining Plan
1.5.1	Block Area in "Ha"	111.489 Ha.
1.5.2	Block Area Projectised "Ha"	111.489 Ha.
1.5.3	Lease area "Ha"	111.489 Ha.
1.5.4	Project Area "Ha"	111.489 Ha.
1.5.5	Life of the Project "Years"	06 Years as on 01.04.2024 (including 2 years for land acquisition)
1.5.6	Minimum and Maximum Depth of working "m"	Min Depth = 15 Mtr. Max Depth = 90Mtr.
1.5.7	Net Geological Block "Ha"	111.489 Ha.
1.5.8	Production Target "MTPA"	Coal - 0.47 MTPA
1.5.9	Seams Available "As per GR"	One No. Seam i.e. MEC-III
1.5.10	Seams not considered for Mining with Reasons	Nil
1.5.11	Gross Geological Reserve "Mt"	Coal- 3.908 (MEC-III)
1.5.12	Net Geological Reserve "Mt"	3.908
1.5.13	Blocked Reserve "Mt"	1.649
1.5.14	Minable Reserve "Mt"	2.259
1.5.15	Extractable Reserves "Mt"	2.259
1.5.16	% of Extraction/ recovery	100%
1.5.17	Reserve Depleted (till the base date) Reserves " Mt"	0.529 Mt as on 01.04.2024
1.5.18	Balance Extractable reserve "Mt"	Balance reserves as on 01-04-2024 is 1.73
1.5.19	Average Grade (Proposed in approved Scheme of Phase-II & III)	80 % of Grade G-13 for Power sector and 20% of Grade (G-10 (60%) + G11 (40%)) for Non Power Sector
1.5.20	OB in Mm ³	16.316
1.5.21	SR Mm ³ /te	9.43
1.5.22	Mining Technology	Opencast mining method
1.5.23	Coal Beneficiation envisaged	Nil
1.5.24	Handling of Rejects	Nil
1.5.25	Land use pattern "Ha"	Nil
1	External OB Dump	Nil
2	Excavation / Quarry Area (12.86 Ha. already excavated (phase-I) + 40.12 Ha. to be excavated) * Excluding the area of previous quarry. In Bharat OC phase-I, backfilling in 5.08 ha has already done	52.98 Ha.
3	Infrastructure including Roads	4.00 Ha.


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4	Blasting Zone & Rationalization Area	12.519 Ha.
5	Embankment	4.5 Ha.
6	Dumping in void of previous quarry (26.39 Ha. already backfilled + 8.50 Ha. to be backfilled)	34.89 Ha.
7	Other (Green Belt)	2.60 Ha.
8	Total	111.489 Ha.
9	Proposed Back filed Area (8.50 Ha. at previous quarry + 35.55 Ha at Bharat OC)	44.05 Ha.
1.5.26	Reasons for revision	<ul style="list-style-type: none"> • Mining Plan of Bharat OC Patch consist of Phase-I ,II & III including land area of old quarries (42.785 ha). Total land area works out to 111.489 ha. Out of 111.489 ha of land, Forest land is 68.704 and Non Forest is 42.785 ha. Total land in physical possession is 62.285 ha. (Forest land 19.5ha. +Non Forest land 42.785 ha). Balance land to be acquired is 49.204 ha . which is totally forest land. • In acquired land, Phase-I mine working with statutory approvals was worked and exhausted. • In addition to the above phase-I, mine has been proposed to worked in phases, namely Phase-II &Phase-III in 49.204 ha forest land (Phase-II :14.0 ha . and Phase-III : 35.204 ha.). A scheme for phase-II OC mine has already been approved by competent authority and a combined scheme for Phase-II and Phase-III is being prepared. • In view of the above proposed mining workings, Mining Plan of Bharat OC Patch has been prepared. • The application for diversion 14.0 Ha. forest land was submitted to MOEF vide Online Application No. FP/MP/MIN/26356/2017. • The Letter of MOEF Ref No. 8-112/2006-FCVOI Dated 18-Sept-2023 the MOEF is asked for Submitting the Mining Plan of Bharat OC Patch.



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CHAPTER- 2: EXPLORATION, GEOLOGY, SEAM SEQUENCE, COAL QUALITY AND RESERVE

Parameters		Details
2.1	DETAILS OF THE BLOCK	
2.1.1	Particulars of adjacent blocks: North, South, East, West	Jharna Extension block is adjacent The detail of mine boundaries are given below; North = Forest South = Residential Area East = Junnardeo Township West = Jharna UG
2.1.2	Location of the Block District/ State	District – Chhindwara, State – Madhya Pradesh
2.1.3	Area of the Block "Ha"	111.489 Ha.
2.1.4	Area of the geological block projectized "inHa" (Area of the geological block considered for liquidation of coal reserve)	111.489 Ha.
2.1.5	Balance area yet to be projectized "Ha"	Nil
2.1.6	Likely Reserve in the area yet to be projectized	Nil
2.1.7	(Duly certified in line with para 1.9 of the Guideline, if fresh mining lease required)	Cardinal Point Co-ordinates of the non-coal/lignite bearing area/existing mining lease outside the allotted Geological Coal/Lignite block
		(In decimal degree)
		S.No. Longitude Latitude
		1 78.5643960400 22.2111160300
		2 78.5630865364 22.2113617771
		3 78.5623003269 22.2116369336
		4 78.5620204455 22.2120045248
		5 78.5614826010 22.2123221780
		6 78.5604305170 22.2124996911
		7 78.5592777699 22.2125030192
		8 78.5555581170 22.2115422043
		9 78.5536295660 22.2110641982
		10 78.5510106515 22.2108195493
		11 78.5499483968 22.2106464595
		12 78.5494996827 22.2102040760
		13 78.5493583240 22.2096286129
		14 78.5496030054 22.2088029908
		15 78.5503035576 22.2084422738
		16 78.5539196726 22.2093556285
		17 78.5553775919 22.2094898020
		18 78.5554396700 22.2082755098

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Parameters		Details		
		19	78.5578600024	22.2082940857
		20	78.5580362579	22.2075243249
		21	78.5587963872	22.2071274689
		22	78.5586548938	22.2062374865
		23	78.5594335156	22.2060982603
		24	78.5605736393	22.2060903851
		25	78.5615359920	22.2064057828
		26	78.5620326374	22.2069880383
		27	78.5638012600	22.2069848100
		28	78.5656715531	22.2074869548
		29	78.5659788994	22.2084045190
		30	78.5677089106	22.2089832722
		31	78.5696033847	22.2089283547
		32	78.5767343227	22.2114368439
		33	78.5768218609	22.2133278128
		34	78.5737529126	22.2138440046
		35	78.5706147800	22.2138182457
		36	78.5658502965	22.2137310841
		37	78.5614716600	22.2134974300
		38	78.5643960400	22.2111160300
2.1.8	Certificate of Qualified person/ Accredited Mining Plan preparing agency (MPPA) if the project area is confined within the vested/allotted block boundary/existing mining lease and	MCR Lease No. 10 & 11 are vested to Coal India under Coal Mines Nationalisation Act 1973. After formation of WCL on 01.11.1975 the mines automatically come under administrative control of WCL. As per Section 3 of the Coal India, Reg of Transfer and Validation Act 2000, these leases were deemed to be fresh mining lease w.e.f. 01/11/1975 MCR 1960 and valid till year 31/03/2030		
	Where the project area extends beyond the block boundary, a certificate of Qualified person/ Accredited Mining Plan preparing agency (MPPA) should be supported with a certificate of State Government mines and Geology department must be attached, which should specify (a) intent of the state government for grant of lease beyond the vested geological boundary; (b) non-existence of Coal/ Lignite in the area beyond the vested/allotted geological block boundary/existing			

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	Parameters	
	<u>mining lease</u> to rule out the issue of encroachment and use of coal bearing area/beyond the vested/allotted block boundary/existing mining lease in the mining plan. The Project area, Lease area and geological block area in "Ha" shall also be envisaged.	
	Any other adjacent block, and non-coal bearing certificate of the area in case any proposed infrastructure or OB dump is outside the block	Not Applicable
2.1.9	KML file of the Proposed lease area, Project Area and Geological block.	Enclosed as Annexure – I
2.1.10	Whether the proposed project area is confined Within the allotted block boundary/ <u>existing mining lease</u> , if not, the reason for deviation from allotted block boundary may be given.	The proposed project is confined within the allotted block.
2.1.11	If the project area extends outside the allotted block boundary/existing mining lease, confirmation about non-occurrence of coal/lignite in the area under reference needs to be furnished	Nil
2.1.12	Type of the Project (Operating /under Implementation) and year of Starting.	Bharat OC Patch is in operation since 29.06.2015 & the opencast mining is being carried out in small patches thereby extracting the erstwhile left out coal pillars in the old underground workings. In this sequence 19.50 Ha quarry in Phase-I has got exhausted. The OB generated from this Phase-I has been filled in internal dump of adjoining Old quarry located in west (6A & 6B). Bharat OC Patch in Phase- II is an already approved scheme which will be work in quarry in 14.0 Ha. The void created in Phase-I will be utilized by

into the picnic spot. Both side of this haul road will be afforested.

3.6.2 Slope stability arrangement for high wall and back filled dumps

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

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

3.7 Survey records of workings

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

3.8 Disposal management of hazardous material

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

3.9 Re- deployment of work force

3.9.1 The current manpower of the project is 134 as on 1.04.2013.

3.9.2 However , at the time of final closure, after exhaustion of entire mineable reserve, following steps would be taken for effective management of available manpower at the time of closure:

- A). First, option of VRS would be given to the age group of + 50 years. Some may accept, others will be gainfully utilized in other projects.
- B). After exhausting the above portion, the middle aged group workforce (between 40 – 50 years) would be transferred to the similar projects.
- C). If vacancy in similar nature projects gets exhausted. The relatively young workforce would be re-trained and re-deployed in other projects.

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

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

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

- Will be given option to shift in the new or expansion mines located in the nearby area.
- They will be given vocational training for continuance / sustenance of income level.
- It is proposed that reclaimed and afforested land may be handed over to state forest dept. for the benefit of local ecosystem as per rules in vogue. The forest wealth can also be utilized by local people or tribal in the form of fruits and fodders.

Parameters		Details																																	
		proposed scheme in Phase-II & III working for internal dumping of OB. Top soil generated from Phase-II (14.0 ha land area) & Phase-III (35.204 ha) will be dumped in aforesaid Internal dump of adjoining Old quarry (6A & 6B). The above dumping schedule has been shown in point no.3.1.7																																	
2.2	EXPLORATION, GEOLOGY AND ASSESSMENT OF RESERVE																																		
2.2.1	Regional geological set up of the area, local geology, structure, stratigraphic sequence, characteristics of the litho-logical units (coal seams/ partings /overburden).	<p>Regional Geology : The PanchKanhani Valley Coalfields extend over a strike length of about 64Km. The Talchirs are exposed all along the southern limit of basin, while the motors with thin strips of Barakars in between, occur in the central part. In the northern part, Bijori and Panchmarhi formations overlie the lower Gondwanas. Overlying the lower gondwana sediments, the Jabalpurs are exposed in small patches in eastern part of the coalfield. While the Deccan traps covers the Gondwanasendiments over a greater parts in east. A number of Dolerite dykes have also intruded in the coal bearing formations. The archaean occurring in the south demarcates the southern limit of basin. The regional strike of the sedimentaries is ENE-WSW with northerly dip ranging between 5 Degree and 15 Degree. The Panch Valley area is affected by a network of faults in which the strike faults are dominant. As a result of these faults of varying amounts throw, local changes in dip and strike are common. The fault zones have prominent topographical expressions in the form of linear ridges, fractured and slickenside rocks and faulted / The coal bearing Barakars show conformable relation with the overlying Moturs, but having distinct unconformity with Jabalpur.</p> <p>The Regional Geological sequence of the Satpura-Gondwana is given below :</p> <table><tr><th>Age</th><th>Formation</th><th></th><th>Lithology</th></tr><tr><td>Recent</td><td>Alluvium</td><td></td><td>Sandy & Clayey soil</td></tr><tr><td>Upper Cretaceous to Eocene</td><td>Deccan Traps</td><td></td><td>Basalt flow with intertrappean beds, dykes & sills of dolerite</td></tr><tr><td>Upper Cretaceous</td><td>Lameta</td><td></td><td>Conglomerate, Limestone & Clays</td></tr><tr><td colspan="4">UNCONFORMITY</td></tr><tr><td>Jurassic</td><td>Jabalpur</td><td></td><td>Sandstone, Jasper bearing conglomerates with soft white clays</td></tr><tr><td colspan="4">UNCONFORMITY</td></tr><tr><td>Rhaetic</td><td>Mahadeva Group</td><td>Bagra Conglomerate</td><td>Coarse, conglomerate with quartz pebbles in matrix of sandy clay</td></tr></table>		Age	Formation		Lithology	Recent	Alluvium		Sandy & Clayey soil	Upper Cretaceous to Eocene	Deccan Traps		Basalt flow with intertrappean beds, dykes & sills of dolerite	Upper Cretaceous	Lameta		Conglomerate, Limestone & Clays	UNCONFORMITY				Jurassic	Jabalpur		Sandstone, Jasper bearing conglomerates with soft white clays	UNCONFORMITY				Rhaetic	Mahadeva Group	Bagra Conglomerate	Coarse, conglomerate with quartz pebbles in matrix of sandy clay
Age	Formation		Lithology																																
Recent	Alluvium		Sandy & Clayey soil																																
Upper Cretaceous to Eocene	Deccan Traps		Basalt flow with intertrappean beds, dykes & sills of dolerite																																
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Rhaetic	Mahadeva Group	Bagra Conglomerate	Coarse, conglomerate with quartz pebbles in matrix of sandy clay																																

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		Details			
Parameters					
		Triassic		Denwa clays	Thick beds of soft variegated clay interstratified with subordinate bands of white sandstone.
		Lower Triassic		Pachmarhi Sandstone	Coarse white soft sandstone with layers of white subangular quartz pebbles
		UNCONFORMITY			
		Upper Permian	Bijori		Sandstone, micaceous shales, carbonaceous shales with streaks of coal.
		Lower Permian	Barakar		Feldspathic sandstone shales carbonaceous shales fire clays and coal seams.
		Upper Carboniferous	Talchir		Basal boulder bed followed by alternation of graded sandstone and greenish arenaceous micaceous shales.
		UNCONFORMITY			
		Archaeans	Gneisses and granites		Porphyritic streaky biolite gneisses and granite.
2.2.2	Local geology, Structure, Stratigraphic sequence, Characteristics of the lithological units (coal seams/partings/overburden).	Local Geology : In Bharat OC Patch, The northern hilly region is occupied by the dark coloured basaltic rocks of the Deccan Trap. A dyke is passing through middle of the Bharat OC Patch in E-W to SW-NE trend. The Bharat OC Patch has been proposed to work in Phases namely Phase-I, II & III from old underground working of Datla West Colliery & Bharat Colliery. The old Datla West Colliery is abandoned since 1989. The left out coal in goved & standing on pillar is being extracted in Bharat OC Patch. Phase-I OC patch has been exhausted. Phase-II & III has been proposed to work in the future.			


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Parameters		Details				
		<p>STRUCTURE : Bharat OC Patch is affected by One no. major faults (40mtr) in direction of SE-NW at western part of the block. A few minor faults also exists.</p> <p>Coal Seam details : The quality of coal is designated as G-13</p> <p>Balance Extractable Coal Reserves : The Balance Mineable Reserve of Phase II & III as on 01.04.2024 is 1.730 Mt.</p>				
2.2.3	Geological Block Area " Ha"	111.489 Ha.				
2.2.4	Status of Exploration of the block	Explored				
2.2.5	Area covered by 'detailed' exploration within the block (sq. km)	111.489 Ha.				
2.2.6	Whether entire lease area has been covered by 'Detailed' exploration.	Yes				
2.2.7	No. of boreholes drilled within the block	<p>02 Nos. Borehole (1/75 and 2/75) Drilled by CMPDI.</p> <p>* The Block area of Bharat OC Patch is covered from old UG working of Bharat Colliery & Datla West Colliery, The reserve estimation is done on the basis of old Abandoned Mine Plan.</p>				
2.2.8	Whether any further exploration/study is required or suggested and time frame in which it is to be completed	No				
2.2.9	Year wise future program of exploration	No				
2.2.10	Overall borehole density within the block(no./ sq. km) approx.	2.91				
2.2.11	No of Seams available as per GR	One No. Seam (MEC-III Top)				
2.2.12	Seams not considered for Mining	Nil				
2.2.13	Dip of the Seam	Gradient 1 in 4 to 1 in 5 Towards N 14 W				
2.2.14	Seam wise thickness, depth and reserve	Seam	Thickness Range	Depth	Grade	Reserve
		MEC-III	3.50 m - 6.50m	10m to 90m	G-13	1.73 Mt as on 01.04.24

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	Parameters	Details
2.2.15	Methodology of reserves estimation (also Mention if any software package been used).	AUTOCAD
2.2.16	Average GCV "KCal/kg"	G-13 – 3400 to 3700 kCal/kg
2.2.17	Gross Geological Reserve of the block "Mte"	3.908 Mt
2.2.18	Net Geological Reserve of the block "Mte"	3.908 Mt
2.2.19	Minable Reserve of the block "Mte"	2.259 Mt
2.2.20	Blocked Reserve "Mte"	1.649 Mt
2.2.21	Corresponding extractable reserve of the Block	Balance Reserves as on 01-04-2024 is 1.73 Mt
2.2.22	Percentage of Extraction	100 %
2.2.23	Reserve already depleted (till the base data of Mining Plan) "Mte"	0.529 Mt
2.2.24	Balance Reserve (as on Base Date) "Mte"	1.73 Mt (Balance reserves as on (01-04-2024)

CHAPTER- 3: MINING

	Parameters	Details
3.1	MINING METHOD	
3.1.1	Existing method of mining if the mine is under operation	The mine is being worked by inclined slice method i.e. conventional benching system with shovel dumper combination, with main sump at the floor of the seam. The thickness of composite seam is about 3.50 – 6.50 m.
3.1.2	Proposed method of mining with justification on suitability of method of mining	There is no change in method of mining for coal extraction.
3.1.3	Coal production capacity proposed "MTPA"	Coal – 0.470 MTPA
3.1.4	Justification for optimizing coal production capacity	There is no coal production from Bharat Col patch since June, 2020.
3.1.5	Calendar year from which the production will start	Production will start in 3 rd year
3.1.6	Year of Achieving rated production	Mine will achieve planned coal production 4 th year.


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3.1.7 A

Tentative Coal production Plan "Mt"

Total Hiring Option

The calendar program of Excavation showing year-wise coal and OB in total Hiring Option are tabulated below.

Note: Calendar Plan/Production for the entire life of the mine.

Year	Coal in Mt.	Total OB in Mm ³	Remarks
Phase-I in 19.50 ha forest land has been exhausted			
Year-1	Land Acquisition		
Year-2	Land Acquisition		
Year-3	0.392	3.329	Phase-II
Year-4	0.470	4.275	Phase-II & Phase III
Year-5	0.438	4.975	Phase-III
Year-6	0.430	3.737	Phase-III
Total	1.730	16.316	

3.1.7 B Dump Capacity

Sl.	Type of Dump	Name of Dump	Existing Status		Additional		Total Volume (Mm ³)
			Ht (m)	Volume (Mm ³)	Ht (m)	Volume (Mm ³)	
A	External Dump	Nil					
B	Internal Dump	D1 (6A & 6B Quarry) Soft OB	GL+20	0.245		0.00	0.245
		D2 (6A & 6B Quarry) Soft OB	GL+25	0.931	GL+30	0.406	1.337
		D3 (Bharat OC) Hard OB	GL+20	0.953	GL+45	12.167	13.120
		J1 (6A & 6B Quarry) Soft OB	Below GL	0.00	25 (Up to GL)	0.998	0.998
		J2 (6A & 6B Quarry) Hard OB	Below GL	0.00	25 (Up to GL)	2.000	2.000
		J3 (6A & 6B Quarry) Dyke	GL+20	0.00	30 (Up to GL)	0.745	0.745
	Total			2.129		16.316	18.445

3.1.7 C Proposed Dumping Schedule

Year	OB (Mm ³)	External Dump (Mm ³)	Internal Dump (Mm ³)					
			D1 (6 A & 6B Quarry) (Soft OB)	D2 (6 A & 6B Quarry) (Soft OB)	D3 (Bharat OC Quarry) (Hard OB)	J1 (6 A & 6B Quarry) (Soft OB)	J2 (6 A & 6B Quarry) (Hard OB)	J3 (6 A & 6B Quarry) (Dyke)
1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	3.329	0.000	0.000	0.400	2.929	0.000	0.000	0.000
4	4.275	0.000	0.000	0.006	1.875	0.394	2.000	0.000
5	4.975	0.000	0.000	0.000	3.830	0.400	0.000	0.745
6	3.737	0.000	0.000	0.000	3.533	0.204	0.000	0.000
Total	16.316	0.000	0.000	0.406	12.167	0.998	2.000	0.745

3.1.8	Rated Capacity "Mtpa"		
	-	By OC	0.470 MTPA
	-	By UG	Nil
	-	Overall	0.470 MTPA
3.1.9	Life of the mine: Years"		
	-	By OC	6 Years including 2 years for land acquisition
	-	By UG	NA
	-	Overall	6 Years including 2 years for land acquisition
3.1.10	Whether the proposed external OB dump site is coal/ lignite bearing: If so, whether coal/lignite below Waste disposal area is extractable.		No External OB Dump Site is proposed.
3.1.11	Whether negative proving for coal / lignite in the proposed site for OB dump/ infrastructure has been done.		No
3.1.12	Results of any investigation carried out for scientific mining, conservation of minerals and protection of Environment; future Proposals.		Regular monitoring of Environment parameters (Air, water, noise) at being carried out.
3.1.13	Type of Equipment HEMM proposed		Excavator, Dumper, Dozer, Driller Payloader Sprinkler etc.

MANAGER
Ghorawari Colliery No.

CHAPTER 4: SAFETY MANAGEMENT

	Parameters	Details																
4.1	Safety Management																	
4.1.1	<p>Important safety aspects: Major Risks and uncertainties to the project viz. Proximity to river, adjacent working, geo-mining disturbances, slope stability and remedial measures suggested.</p> <p>It should also include proposed overall slope of the quarry and OB dump, dump height, strata control, fire and spontaneous heating, gas monitoring, disaster management, danger from inrush of water etc.</p>	<p>Bharat OC Patch an Opencast Mine where the seam thickness varies from 3.50 Mtr to 6.50 Mtr. and method of working is Extraction of Old Depillared Pillars by Opencast using HEMM.</p> <p>Proposed Bharat OC patch will adhere to the coal mine act 1952 , bylaws and CMR 2017 for safety of mine working to eliminate any risk, hazards associated with uncertainties.</p> <p>Inundation:</p> <p>1. Precautionary measures against inundation from surface, such as cutting of garland drains, clearing of Nallah etc. is being done every year before the onset of monsoon.</p> <p>2. No any river or major water body exist near the mine and only seasonal nallah is flowing through the North-West side of mine boundary which is generally active during monsoon and a strong Embankment is maintained for this purpose.</p> <p>3. Precautionary measures are also taken from inrush of water/inundation from old developed galleries by maintaining another roadway with high altitude so that inrush water cannot reach there.</p> <p>4. Description of Seasonal Nallah.</p> <table><tr><td colspan="2">HFL</td><td>774.131 M</td></tr><tr><td colspan="2">Withdrawal level</td><td>773.131 M</td></tr><tr><td colspan="2">Warning level</td><td>772.131 M</td></tr><tr><td rowspan="3">Embankment</td><td>Min. Top RL Req'd.</td><td>777.131 M</td></tr><tr><td>Present Min. RL</td><td>780.660 M</td></tr><tr><td>Min. Top width reqd.</td><td>3 M</td></tr></table> <p>5. No any adjacent mines or workings situated near the mines.</p> <p>In addition to the above, all precautionary measures as laidout in CMR-2017 and DGMS Technical</p>	HFL		774.131 M	Withdrawal level		773.131 M	Warning level		772.131 M	Embankment	Min. Top RL Req'd.	777.131 M	Present Min. RL	780.660 M	Min. Top width reqd.	3 M
HFL		774.131 M																
Withdrawal level		773.131 M																
Warning level		772.131 M																
Embankment	Min. Top RL Req'd.	777.131 M																
	Present Min. RL	780.660 M																
	Min. Top width reqd.	3 M																

Parameters	Details
	<p>Circulars will continue to be carried out.</p> <p>6. Precautions should be taken while Working by Opencast mining method over underground developed pillar</p> <p>7. Dewatering of waterlogged quarry will be done before dumping of OB in void of quarry</p> <p>Slope Stability:</p> <ol style="list-style-type: none"> 1. Scientific study will be done for pit design and OB dump design. 2. The height of individual dumps are not exceeding 30m. Wherever the dump height is exceeding 30m are benched in such a manner that no bench exceeds 30m in height and the general slope in no case exceed 1 in vertical & 1.5 Horizontal. 3. No Toe of dump near to approach any railway lines/public roads. <p>Dust Suppression:</p> <ol style="list-style-type: none"> 1. The dust suppression is controlled at its origin by regular water spraying through water sprinkler tanker. 2. Monitoring of dust concentration by PDS so that permissible dust concentration cannot be exceeded. 3. All Safety Equipment such as Masks Ear-plugs are provided for protection from dust. <p>Fire & Spontaneous Heating</p> <ol style="list-style-type: none"> 1. There is no danger of Fire & Spontaneous heating during extraction of coal from old developed pillars because all these galleries are waterlogged. 2. Also SOP has been devised for working in hot strata. 3. Proper Arrangements of firefighting pipe lines has been laid at coal stock yard. 4. Regular monitoring of all places/points in coal stock yard to prevent the spontaneous heating. <p>In Ghorawari Colliery No.2 there is no such risk of fire and spontaneous heating, In spite of this All the provisions of CMR-2017 and DGMS Technical circulars will continue to be followed</p> <p>Disaster Management</p> <ol style="list-style-type: none"> 1. The detailed Safety Management Plan, Emergency response Plan has been prepared

	Parameters	Details
		and implemented. 2. Principal Hazards of mine has been identified and Principal Hazard Management Plan (PHMP) has been prepared and implemented. Every risk and hazards associated with it are briefly investigated, control measures implemented and monitoring procedures devised in Safety Management Plan for mine.
4.1.2	A Commitment from the Company Board that entire mining operation will be carried out as per the Statutory provision given under Mines Act 1952, Coal Mine Regulation 2017 and & wherever specific permission will be required the company will approach the Concerned authorities.	All the statutory provision has been to be adhered for the future mining operation

CHAPTER 5: INFRASTRUCTURE FACILITIES

	Parameters	Details
5.1	Mine infrastructure required e.g. Equipment maintenance planning, Office buildings, Workshop, Power supply arrangement, Water supply etc.	Mine is in operation since 28.06.2015. All existing infrastructure like Office buildings, Workshop, sub station for power supply arrangement, railway siding at Hridagarh, Water supply will be utilised. In this Mining Plan, no additional infrastructure is proposed.
5.2.	Power supply & illumination.	POWER SUPPLY, ILLUMINATION & COMMUNICATION The source of power supply to Ghorawari OC coal mine is from 24 KV Sub Station situated near Jharna UG & 11 KV Sub Station Situated at Bharat OC are part of Ghorawari OC Patches. Both the Sub Station are connected with MPEB.
5.3	Drainage & Pumping Assessment of Volume of Water for Pumping, Pumping Capacity and Pump Selection	A major portion of the quarry is backfilled and the remaining decoaled void will act as water reservoir. It is proposed to develop a water lagoon in the dip side area of the quarry, which could not be back filled. The water lagoon will be handed over to State Authorities for conversion into a picnic spot with proper fencing and security. If necessary, the lagoon may also be used by the State Authority for supplying water to

		local community after proper treatment of the same. The existing water supply facilities would be handed over to the State authorities for future upkeep and maintenance. If required local authorities may use the lagoon as a source of domestic water supply for the local community.
5.4	Coal Handling Arrangement: Brief detail of the CHP/Mode of Dispatch, Coal quality and Coal staking and handling arrangement	<p>COAL HANDLING ARRANGEMENT</p> <p>-100mm CHP is installed at Hirdagarh Siding, Produced coal from Ghorawari OC mine is being sent to Hirdagarh Siding for crushing.</p> <p>After Crushing the coal, it is dispatched to various consumers.</p>
5.5	Coal washing and the proposed handling/disposal of rejects.	Not applicable.

CHAPTER 6: LAND REQUIREMENT

	Parameters	Details												
6.1	LAND REQUIREMENT													
6.1.1	Total Land requirement for the mine in "Ha"	<p>Bharat OC Patch is an Open Cast Coal mine under Ghorawari OC Patches. The detail of Land involved are as under :</p> <table border="1"> <thead> <tr> <th>Land Type</th><th>Area in Ha.</th><th>Remarks</th></tr> </thead> <tbody> <tr> <td>Forest Land</td><td>68.704 Ha.</td><td>Quarries of exhausted Phase-I (19.5 ha) and proposed Phase - II (14.0 ha) & Phase-III (35.204 ha)</td></tr> <tr> <td>Non-Forest Land</td><td>42.785 Ha.</td><td>Located in Adjoining old quarries of 6A & 6B</td></tr> <tr> <td>Total</td><td>111.489 Ha.</td><td></td></tr> </tbody> </table>	Land Type	Area in Ha.	Remarks	Forest Land	68.704 Ha.	Quarries of exhausted Phase-I (19.5 ha) and proposed Phase - II (14.0 ha) & Phase-III (35.204 ha)	Non-Forest Land	42.785 Ha.	Located in Adjoining old quarries of 6A & 6B	Total	111.489 Ha.	
Land Type	Area in Ha.	Remarks												
Forest Land	68.704 Ha.	Quarries of exhausted Phase-I (19.5 ha) and proposed Phase - II (14.0 ha) & Phase-III (35.204 ha)												
Non-Forest Land	42.785 Ha.	Located in Adjoining old quarries of 6A & 6B												
Total	111.489 Ha.													

6.1.2 During mining Land use details:

Activity	Area in Ha.	Remarks
Excavation	52.98 Ha.	(12.86 Ha. already excavated + 40.12 to be excavated) * Excluding the area of previous quarry
OB Dump in void of previous quarry	34.89 Ha.	(26.39 Ha. already backfilled + 8.50 Ha. to be backfilled)
Infrastructure	3.00 Ha.	
Road	1.00 Ha.	
Green belt	2.60 Ha.	
Township	Nil	
Rationalisation	17.019 Ha.	Including Blasting zone and embankment
Total	111.489 Ha	

6.13 Progressive Phase Wise Land Use Plan :

Activity	Phase-I : Existing (Within 19.50 Ha Forest Land)+ (42.785 Ha Non Forest Land	Bharat OC Extension		Total (Ha.)	Remarks
		Phase-II : (Within 14.0 Ha. Forest Land) + (42.785 Ha. Non Forest Land of Old Quarry)	Phase-III : (Within 35.204 Ha. Forest Land) + (42.785 Ha. Non Forest Land of Old Quarry)		
Excavation	12.86	11.62	28.5	52.98	(12.86 Ha. already excavated + 40.12 to be excavated) * Excluding the area of previous quarry
External Dump	0.00	0.00	0.00	0.00	
Infrastructure incl. Coal stock and Road	4.00	0.00	0.00	4.00	
Green Belt	0.75	0.75	1.10	2.60	Incl. 7.50 m safety zone against

						Forest land
	Embankment	1.20	1.50	1.80	4.50	
	Undisturbed Area	0.69	0.13	3.804	4.624	
	Sub Total (A)	19.50	14.0	35.204	68.704	
	Already Excavated Area	35.60			35.60	
	Undisturbed Area	7.185			7.185	
	Dumping in void of old quarry within excavated Area	4.00			4.00	
	Sub Total (B)	42.785			42.785	
	Total (A+B)	62.285	76.285	111.489	111.489	
6.14	Surface features over the block area		Surface features viz. manager office, coal stockyard, internal roads for transportation etc. have been provided.			
6.1.5	No. of villages/Houses to be shifted		This Mining Plan will not involve any shifting.			
6.1.6	Population to be affected by the project		Not applicable			
6.1.7	Proposed Rehabilitation program		R& R is not applicable since only forest land is involved in the project.			
6.2	DETAILS OF LEASE					
6.2.1	Status of Lease		The Coal Block of Bharat OC Patch is within the MCR Lease No. 10 & 11			
6.2.2	Existing Lease Area "Ha"		111.489 Ha.			
6.2.3	Period for which Mining Lease has been granted/is to be renewed/is to be applied for.		As per Section 3 of the Coal India, Reg of Transfer and Validation Act 2000, these leases were deemed to be fresh mining lease w.e.f. 01/11/1975 MCR 1960 and valid till year 31/03/2030			
6.2.4	Date of expiry of earlier Mining Lease, if any		31/03/2030			
6.2.5	Whether the lease boundary/ required boundary is same as mentioned in the allotment order.		The Coal Block Area of Bharat OC Patch is within the Mining Lease.			
6.2.6	Lease Area (applied/ required) as per the Mining Plan under consideration (Ha)		Not applicable.			
6.2.7	Whether the applied lease Area falls within the allotted block		Not applicable.			
6.2.8	Area (Ha) of lease which falls outside the delineated Block Boundary/Existing Mining Lease		Nil			
6.2.9	Details of outside area:					
	Whether forms part of Any other coal block		No			
	Whether it contains any coal/lignite reserves		Yes			


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Purpose for which it is required, e.g. roads/ OB dumps/ service buildings/ colony/ safety zone/ others (specify)	Not required
Whether some part(s) of the allotted block has not been applied for mining lease.	Not applicable.
- Total area in Ha of Such part(s).	Not applicable.
- Total reserves in such part(s). (Mt)	Not applicable.
- Brief reasoning for leaving such part(s)	Heavily Populated zone, coal mining is not viable at present.

Chapter 7: ENVIRONMENTAL MANAGEMENT

	Parameters	Details
7	ENVIRONMENTAL MANAGEMENT	
7.1	Commitment from the project proponent that the company will comply Environment Forest Condition stipulated in the respective clearances.	Certificate


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 Ghorawari Colliery No.



वेस्टर्न कोलफील्ड्स लिमिटेड
Western Coalfields Limited
(मिनीरल कंपनी)(A Miniratna Company)
(A Subsidiary of Coal India Limited)



उपक्षेत्रीय प्रबंधक कार्यालय, घोरावाड़ी
उपक्षेत्र
पो. घोरावाड़ी, जिला-छिन्दवाड़ा
CIN- U10100MH1975GOI018626

OFFICE OF THE SUB AREA MANAGER,
GHORAWARI SUB AREA
PO- Ghorawari, Distt. Chhindwara (MP) 480555
Ph. No. 07160-266311, email -
samgsakan@gmail.com

पंजी.कार्या.:कोल इस्टेट, सिविल लाइन्स, नागपुर -
४४०००१

Regd. Office: Coal Estate, Civil lines,
Nagpur-440001

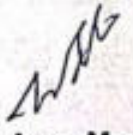
स.क्र: वेकोलि/क.क्ष./घो.उ.क्ष./उ.क्ष.प्र/2023 -

दिनांक:

CERTIFICATE

This is to certify that the Bharat OC patch of Ghorawari OC patches mine, during its operations will comply with the conditions stipulated in the Environment clearance and forest clearance.


Mine Manager
Ghorawari OC mine


Sub Area Manager
Ghorawari Sub Area

CHAPTER 8: PROGRESSIVE & FINAL MINE CLOSURE PLAN


	Parameters	Details							
8.1	Land Degradation and restoration Schedule								
8.1.1	Tentative Land Degradation and Technical Reclamation (Commutative Area "Ha")								
	Year/Stage (Life of the mine plus post closure period)	Land Degraded				Technically Reclaimed Area			
		Excavated	External Dump including Embankment)	Infra/ Others	Total	Backfill	External Dump	Others (Previous Quarry)	Total
	Upto 01.04.2024	12.86	4.50	4.00	21.36	5.08	-	26.39	31.47
	Year-1	0.00	0	0.00	0.00	0.00	0	0	0.00
	Year-2	0.00	0	0	0.00	0.00	0	0	0.00
	Year-3	11.43	0	0	11.43	9.00	0	5.0	14.00
	Year-4	11.43	0	0	11.43	6.00	0	1.5	7.50
	Year-5	11.43	0	0	11.43	10.50	0	1.5	12.0
	Year-6	5.83	0	0	5.83	10.05	0	0.5	10.55
	Total	52.98	4.50	4.00	61.48	40.63	0	34.89	75.52
	Post Closure								
	Year-1	0	0	0	0	0	0	0	0
	Year-2	0	0	0	0	0	0	0	0
	Year-3	0	0	0	0	0	0	0	0
	*- Considering mine life of 06 years from base year								
8.1.2	Tentative Biological Reclamation (Cumulative in "Ha")								
	Year/Stage (Life of the mine plus post closure period)	Biologically Reclaimed Area							
		Agriculture	Plantation	Water Body (Void – area)	Public/ Company use	Total	Un Disturbed/ To be left for Public/ company use*	Total	
	Upto 01.04.2024		5.04						
	Year-1	0	0.00	0	0	0		0	
	Year-2	0	0.00	0	0	0		0	
	Year-3	0	0.00	0	0	0		0	
	Year-4	0	5.00	0	0	5.00		5.00	
	Year-5	0	7.00	0	0	7.00		7.00	
	Year-6	0	7.00	0	0	7.00		7.00	

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	Total		24.04			24.04			24.04	
	Post Closure									
	Year-1	0	20.00	0	0	20.0		0	20.0	
	Year-2	0	20.00	0.00	0	20.00		0.0	20.0	
	Year-3	0	11.48	12.35	4.00	27.83		19.619	47.449	
8.2	Post Closure Water Quality management		Water quality of the effluent will continue to be analyzed till 3 yrs after intended closure of the mine as being done during the operation stage and all the pollution control measures presently in operation will continue to be maintained and operated.							
8.3	Post Closure Air Quality management		Air quality of the mine and surroundings will continue to be analyzed till 3 yrs. after intended closure of the mine as being done during the operation stage and all the pollution control measures presently in operation will continue to be maintained and operated.							
8.4	Waste Management (Figures in mm ³) (Tentative)									
	Year/Stage (Life of the mine plus post closure period)	OB Removal (Absolute)			Technically Reclaimed Area		Internal Back filling (Absolute)		Embankment & top soil dump (Absolute)	
		OB	RH	Total	OB	RH	OB	RH	Top soil	OB
	Upto 2023-24									
	Year-1	0.000	0	0.000	0.000	0	0.000	0	0	0
	Year-2	0.000	0	0.000	0.000	0	0.000	0	0	0
	Year-3	2.929	0	2.929	2.929	0	2.929	0	0.400	0
	Year-4	3.875	0	3.875	3.875	0	3.875	0	0.400	0
	Year-5	4.570	0	4.570	4.570	0	4.570	0	0.400	0
	Year-6	3.533	0	3.533	3.533	0	3.533	0	0.204	0
	Post Closure									
	Year-1	0	0	0	0	0	0	0	0	0
	Year-2	0	0	0	0	0	0	0	0	0
	Year-3	0	0	0	0	0	0	0	0	0
8.5	To Top Soil Management – (Including Action plan for Top Soil management) (Tentative) (Absolute)									
	Year/Stage (Life of the mine plus post closure period)	Top Soil Removal Plan (mm ³)	Top Soil Used					Total Utilized		
			Spreading Over Embankment	Spreading over Backfill OB Dump area	Spreading over External OB Dump area	Used in Green Belt area				
	Upto 01.04.2024	0.245		0.245			0.245			
	Year-1	0.000	0	0.000	0	0	0.000			
	Year-2	0.000	0	0.000	0	0	0.000			
	Year-3	0.400	0	0.400	0	0	0.400			
	Year-4	0.400	0	0.400	0	0	0.400			
	Year-5	0.400	0	0.400	0	0	0.400			


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	Year-6	0.204	0	0.204	0	0	0.204									
	Post Closure															
	Year-1	0	0	0	0	0	0									
	Year-2	0	0	0	0	0	0									
	Year-3	0	0	0	0	0	0									
8.6	Management of Coal Rejects	No such coal beneficiation facility is proposed in mine.														
8.7	Restoration of Land used for Infrastructure	The subject of retaining and dismantling of infrastructure depends upon the future needfulness. The same will be reassessed at the time of preparation of Final Mine Closure Plan. <table><tr><td>S.No.</td><td>Particular</td><td>Details</td></tr><tr><td>1</td><td>Infrastructure to be retained</td><td>No structure will be retained.</td></tr><tr><td>2</td><td>Infrastructure to be dismantled</td><td>Office buildings like pit office, token office, etc.</td></tr></table>						S.No.	Particular	Details	1	Infrastructure to be retained	No structure will be retained.	2	Infrastructure to be dismantled	Office buildings like pit office, token office, etc.
S.No.	Particular	Details														
1	Infrastructure to be retained	No structure will be retained.														
2	Infrastructure to be dismantled	Office buildings like pit office, token office, etc.														
8.8	Disposal of Mining Machinery	Departmental mining machinery will be either shifted to other mines of WCL and work or will be surveyed off.														
8.9	Safety and Security	-Safety management Plan is prepared and implemented. -Barbed wire fencing is proposed for preventing any inadvertent entry in mining area. All safety practices as per mining statue will continue to be taken during the balance life of the mine as well as in post closure period.														
8.10	Abandonment Cost and Financial Assurance															
8.10.1	Abandonment Cost: Cost of Activities to be taken up for closure of the mine:															
		Weightage as per MCP		Amount available in respective head (In Lakhs)												
	Dismantling of structures															
	Service Buildings	0.3		21.11												
	Industrial structures like CHP, Office buildings, etc	0.5		35.18												
	Permanent Fencing of Mine Void and other dangerous Areas															
	Random rubble masonry of height 1.2 meters including leveling up in Cement Concrete 1:6:12 in mud mortar	2.8		197.02												
	Grading of Highwall slopes															
	Levelling and grading of highwall slopes	1.77		124.54												


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8.10.1 Abandonment Cost: Cost of Activities to be taken up for closure of the mine:

	Weightage as per MCP	Amount available in respective head (In Lakhs)
OB Dump Reclamation		
Handling and dozing of OB dump into Mine Void and the preparation of internal dump for reclamation	88.66	6238.38
Technical and Bio Reclamation including plantation and post care	0.5	35.18
Landscaping		
Landscaping in open spaces in the leasehold area for improving its aesthetics and Eco-value	0.4	28.15
Plantation		
Plantation over cleared Area obtained after dismantling	0.5	35.18
Plantation around the quarry area and in the safety zone	0.3	21.11
Plantation over the external OB Dump	0.09	6.33
Post Closure Environment Monitoring/Testing of parameters for three years		
Air Quality	0.22	15.48
Water Quality	0.2	14.07
Entrepreneurship development (vocational/skill development) training for sustainable income of affected peoples	0.26	18.29
Miscellaneous and other mitigative measures	2.5	175.91
Post Closure Manpower cost of supervision	1	70.36
TOTAL	100	7036.30

8.10.2 Financial Assurance: Amount to be deposited in Escrow account as a security against the mine activities to be carried out for the closure of the mine in 1296.011 ha of Ghorawari patches

The mine closure corpus deposited vis-à-vis provision made in earlier approved MCP is as below-

Year	Provision in approved MCP (Rs Lakh)	Corpus deposited in escrow account (Rs Lakh)
2012-13	392.40	
2013-14	412.02	
2014-15	432.62	804.42
2015-16	454.25	432.62
2016-17	476.96	454.25
		476.96

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Ghorawari Colliery No.

8.10.2 Financial Assurance: Amount to be deposited in Escrow account as a security against the mine activities to be carried out for the closure of the mine in 1296.011 ha of Ghorawari patches

The mine closure corpus deposited vis-à-vis provision made in earlier approved MCP is as below-

Year	Provision in approved MCP (Rs Lakh)	Corpus deposited in escrow account (Rs Lakh)
2017-18	500.81	500.81
2018-19	525.85	525.85
2019-20	552.15	552.15
2020-21	579.75	579.75
2021-22	608.74	608.74
2022-23	639.18	639.18
2023-24	646.17	646.17
	6220.91	6220.91

S.No.	Details	Quantity	Unit
1	WPI as on April 2019	121.1	
2	WPI as on March, 2024	151.4	
3	Ratio of WPI = (2)/(1)	1.25020644	
4	Total land area requirement for the project (ha)	1296.011	Ha
5	MCP already deposited(up to 2023-24) for 1296.011 Ha	6220.91	INR Lakhs
6	Mine closure cost @ Rs 9 lakhs /ha for 111.489 ha prorata	1003.401	INR Lakhs
7	Mine closure cost after indexing for Yr 2023-24 for 111.489 Ha	1254.46	INR Lakhs
8	Total Mine Closure balance corpus deposited in Escrow Account of Ghorawari OC upto 2023-24 (Proprata w.r.t. 111.489 ha)	535.15	INR Lakhs
9	Net Mine Closure balance corpus estimated for the proposed Bharat OC (part of Ghorawari OC Patches)	719.31	INR Lakhs
10	Life of mine	06	Years
11	Annual Contribution to Escrow fund for first year (2024-25)= (8)/(9)	119.88	INR Lakhs



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Sl No.	Financial Year	Amount to be deposited (INR Lakhs)
1	2024-25	119.88
2	2025-26	125.87
3	2026-27	132.16
4	2027-28	138.77
5	2028-29	145.71
6	2029-30	153.00
	Total	815.39

Total corpus fund = Rs 6220.91 (Upto 2023-24) + Rs 815.39
= Rs 7036.30 Lakhs

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Ghorawary Colliery No.

LIST OF ABBREVIATIONS USED

ABBREVIATION USED	Explanation
CMPDIL	Central Mine Planning and Design Institute Ltd.
WCL	Western Coalfields Limited
MECL	Mineral Exploration Corporation Limited
PR	Project Report
HDPE	High Density Polymeric Ethylene
OC	Opencast
UG	Underground
CMR	Coal Mine Regulation
MTY	Million Tonne per Year
QP	Qualified Person
MPPA	Mining Plan Preparing Agency
MoEF& CC	Ministry of Environment Forest and Climate Change
EC	Environmental Clearance
FC	Forest Clearance
EIA	Environmental Impact Assessment


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 Ghorawari Colliery No.

ANNEXURES



वेस्टर्न कोलफील्ड्स लिमिटेड
Western Coalfields Limited

पंजी.का.: कोयला विहार, सिविल लाइन्स, नागपुर (महाराष्ट्र)-440001
Regd. Off: Coal Estate, Civil Lines, Nagpur (MS) - 440001
CIN - U10100MH1975GOI018626 www.westerncoal.in

कंपनी सचिव का कार्यालय
Office of the Company Secretary

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BOARD MATTER
CONFIDENTIAL

REF: WCL/Office of CS/BM-366/2024-25/389

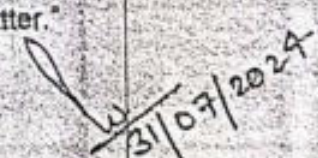
DATE: 31.07.2024.

Reproduced below is the relevant excerpt from the minutes of 366th meeting of the Board of Directors of WCL held on 20th July, 2024:

ITEM NO.366/C-4

SUB Proposal for Mining Plan including Mine Closure Plan of Bharat OC Patch, Kanhan Area.

- i) While deliberating on the proposal as brought out in the agenda note, Shri Anil Kumar Singh, Director (Technical) P&P and OP apprised the salient features of the Mining Plan including Mine Closure Plan of Bharat OC Patch, Kanhan Area to the Board.
- ii) The Board, after deliberation agreed to the proposal and accorded approval to the Mining Plan including Mine Closure Plan of Bharat OC Patches, Kanhan Area with total land area of 111.489 Ha and Coal production capacity of 0.47 MTPA without any additional requirement of land and capital investment for forestry clearance of 49.204 Ha forestry land as brought out in the agenda note.
- iii) General Manager (P&P) to take necessary action in the matter."


COMPANY SECRETARY

GENERAL MANAGER(P&P)

CC: DIRECTOR (TECHNICAL) P&P
DIRECTOR (PERSONNEL)
DIRECTOR (TECHNICAL) P&P
DIRECTOR (FINANCE)


MANAGER

Ghorawari Colliery No.

Chapter - 1 INTRODUCTION

1.1 About the Mine

Ghorawari Opencast Mine is under Kanhan Area of Western Coalfields Limited, a subsidiary of Coal India Limited. The method of mining adopted is Open Cast Mining by Shovel Dumper combination. Mine produced 0.59 MTPA during 2012-13.

The total project area is 1296.011ha. The financial provision for Mine Closure Plan of this mine at present works out to around Rs 18728.11 lakhs (Based on April 2012 WPI)

The salient features of the mine are as under:-

1.1.1 Name of mine owner/company

Mine : Ghorawari Opencast Mine
Area : Kanhan Area
Company : Western Coalfields Limited
Mine Owner : (Director.Tech.)(P&P), WCL.

1.1.2 Address for Communication and Phone Nos.

Mine : Ghorawari Opencast Mine
PO : Ghorawari Khurd (Via- Junnardeo)
District : Chhindwara,
State : Madhya Pradesh
Telephone : 07160-266311

1.1.3 Location of mine

Mine : Ghorawari Opencast Mine
Area : Kanhan Area
Latitude : N 22° 10' 53" - 22° 11' 44"
Longitude : E 78° 28' 51" - 78° 31' 54"

1.1.4 Date of start :

Date of start of development work : 1982

Date of start of Production : 1982

1.1.5 Total Project Area of the mine: 1296.011 Ha

1.1.6 Communication

Road: The mine is well approachable from Junnardeo town which is on state highway about 60 km away from Chhindwara town.

Rail: Nearest railway station is Junnardeo which is about 10 km from the mine. Junnardeo railway station is located on Amla-Chhindwara line of Western - central railways.

Airways: The nearest airport is Nagpur which is about 180 km away from the mine.

1.1.7 Topography of the area

The project has gently undulating slope, the elevation varies from 780.00 m to 800.00 m. Drainage of the area is mainly controlled by Kanhan river lying about 6 -7 Km away from Project.

1.2 Reasons for Closure

The reason for closure of mine will be exhaustion of coal reserve from approved PR/scheme limits.

1.3 Need of Mine Closure Planning

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

1.3.2 Mine closure encompasses rehabilitation process designed to restore physical, chemical and biological quality disturbed by the mining activities. Mine closure is not just something that happens at the end of a mine's life rather mine closure is an ongoing series of decisions and activities beginning in the pre-mining stage of mine and ending with a sustainable site that can be returned to the community.

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

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

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

1.4 Mine closure planning strategy in respect of Ghorawari OC mine based on existing set of parameters.

The life of the mine as on 1.04.2012 is 25 years and coal production Programme from 2013-14 is given below.

S.No.	Year	Coal production(Mt)	S.No.	Year	Coal production(Mt)
1.	2013-14	0.65	13.	2025-26	0.75
2.	2014-15	0.60	14.	2026-27	0.65
3.	2015-16	0.70	15.	2027-28	0.65
4.	2016-17	0.60	16.	2028-29	0.55
5.	2017-18	0.55	17.	2029-30	0.50
6.	2018-19	0.65	18.	2030-31	0.50
7.	2019-20	0.70	19.	2031-32	0.50
8.	2020-21	0.70	20.	2032-33	0.50
9.	2021-22	0.75	21.	2033-34	0.55
10.	2022-23	0.65	22.	2034-35	0.55
11.	2023-24	0.65	23.	2035-36	0.65
12.	2024-25	0.70	24.	2036-37	0.697
				Total	14.947

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

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

1.5 Statutory Obligations

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

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

Some obligations relating to the mine management companies arise as follows:

- Health and safety:** Regulation Nos. 6, 61, 106, 112 of coal mines regulations, 1957 and its related DGMS circulars.

b) Environment:

- i) Water (prevention and control of pollution act 1974)
- ii) Air (prevention and control of pollution act 1981)
environmental protection act , 1980 and environmental
protection act 1986 and environmental protection (amendment)
2000 and DGMS directives on noise and ground vibrations :

c) Forest: Forest conservation Act , 1980 – not applicable

d) Rehabilitation: CIL'S R & R policy.

Chapter - 2

MINE DESCRIPTION/MINING PARAMETERS

2.0 Geology in brief:-

A. Part of lease 29, Lease Nos. 9,10,11 & 13:

In Ghorawari Area the sediments encountered in the drilled boreholes are represented by Moturs, Barakars, & Talchir. Northern peripheral parts are covered by flows of basalts and underneath which the sediment occurs.

In the West, the hilly region is occupied by basaltic rock of Deccan trap. Besides this few prominent Dolerite dykes traverse through the area having EW to NE-SW trend. Few boreholes drilled by MECL have encountered the dykes.

B. Part of lease 26 & west of lease 26 :-

Based on the sediments encountered in the drilled boreholes in the area. It is observed that they represent Moturs below solid cover followed by Barakar & Talchir. A small outcrop of Barakar sandstone is noted in the North Eastern part of the block. The eastern part is covered by Deccan trap.

C. Lease 5,6,7,8,14,15 & 16 :-

Based on the data of drilled boreholes, it reveals that soil is mostly followed by coal bearing Barakars which is followed by Talchir, however few boreholes encountered Moturs above Barakars.

AGE		FORMATION	LITHOLOGY
Sub Recent	Recent to	Soli/ Detrital Mantle	Sandy clays & Black cotton soil
-----UNCONFORMITY-----			
MIDDLE PERMIAN		Moturs	Greenish purplish, & Variegated clays
LOWER PERMIAN		Barakar	Intercalated with cgd.sst. White to grayish mgd to cgd sst. Shale, car, shale and Coal
-----UNCONFORMITY-----			

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UPPER CARBONIFEROUS	TAICHIR	Greenish to splintery shale, boulder beds	blackish sst. &
-----UNCONFORMITY-----			
ARCHEANS	METAMORPHICS	Schist & gneisses	

Structure of the area

A. Part of lease 29, Lease Nos. 9,10,11 & 13:

Strike (on the basis of drawn floor contours) is almost EW with minor swings while at places it is NE- SW & ESE- WNW with Northerly dip varying from 6° to 7° .

B. Part of lease 26 west of lease 26 :-

Strike is almost EW to N 70° E – S 70° W. at places it is NE-SW. dip is northerly which varies from 5° to 13° .

C. Lease 5,6,7,8,14,15 & 16 :-

Strike is almost EW to NE-SW. Dip is Northerly with varying from 8° to 9° (Gradient 1 in 6 to 1 in 7.8)

2.1 Brief description of mining system:

The mine is being worked by inclined slicing method i.e. conventional benching system with shovel dumper combination, with main sump at the floor of the seam. The thickness of composite seam is about 5 – 8 m.

2.2 Seam-wise Mine Details

Prospecting for the area under consideration for this project was done by MECL, IBM & NCDC and as per reports it has been correlated that the workable coal seams from top to bottom as Seam I, II & III. In the area two of these seams viz. seam –I & II occur in splits sections and are designated as I A, I B, II B (split of seam II) etc, but due to thickness are declared unworkable seams. As such only Seam –III has been considered for extraction by opencast method. The quality of coal is designated as Grade – D.

Details about the MEC III (TOP) which is being worked with production figures and has been shown in the following tables:

Table-1

Seam	Thickness Range	Depth (m)	Gr.	Balance Mineable Reserves as on 1.04.2013
MEC III (TOP)	5 - 8 M	10 m to 90 m	D	14.947 Mt

Table-2 Performance for last 5 years

Particulars	Unit	Year				
		2008-09	2009-10	2010-11	2011-12	2012-13
Production	Mt	0.5441	0.3900	0.4386	0.534	0.591
OMS	t	16.81	12.01	17.44	22.75	17.04
CPT	Rs/t	526.11	768.63	747.82	675.46	1176.04
SPT	Rs/t	914.76	975.85	1082.54	862.82	1083.00
Profit	Rs/t	388.65	207.22	334.72	187.36	-93.04
Total Profit	Rs Lakhs	2114.64	808.15	1468.08	1000.58	-549.87

2.3 Mine boundary details

North : Forest

South : Residential Area

East : Junnardeo Town

West : Damua Town

2.4 Surface water bodies and their status

Kanhan River which flows southwesterly at a distance of 6-7 Km from lease boundary, controls the master drainage of the area.

2.5 OB dumps and their status

External Dump			
S.NO.	Dump Area(ha)	Dump Height(m)	Volume(Mm3)
1.	24.02	20-30	13.95

Internal Dump			
S.NO.	Dump Area(ha)	Dump Height(m)	Volume(Mm3)
1.	76.75	20-30	55.80

2.6 Maximum depth of the OCM workings

The maximum depth of workings is 90m

2.7 Coal processing/beneficiation operation

A Coal Handling Plant at Hirdagarh is under construction for Ghorawari OC.

Chapter - 3

Closure Plan and Related Activities

3.1 Mined out Land & proposed final land use

3.1.1 Management of mined out area

- a. Total Mined out area (ha)—Present:59.50ha Proposed-690.86ha
Total-750.360ha.
- b. Backfilled area (ha) - present : 47.60ha. Proposed : 504.48ha.
Total-552.48ha
- c. Balance mined out area (ha) which will not be backfilled – 198.28ha.
- d. Land use of balanced mine out area:
A part of the land will be backfilled and remaining decoaled void will be developed into a water lagoon. The water lagoon will be handed over to State Authorities for conversion into a picnic spot with proper fencing and security. If necessary the lagoon may also be used by the State authority for supplying water to local community after proper treatment of the same.
- e. Details of past subsidence – Not applicable because it is an open cast mine.

3.2 Water Regime Management

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

Existing drainage pattern:

Kanhan river which flows southeasterly at a distance of 6-7 Km from lease boundary, controls the master drainage of the area.

Some part of the mine water is discharged through settling pond into seasonal nalas which leads ultimately to the Kanhan River.

Post Closure drainage pattern

In course of mining throughout the life, the general drainage pattern would not be disturbed. As regards the drainage from the mined out area and the OB Dumps,

Garland drain of appropriate cross section would be provided around the quarry edge and toe of external OB dump of the project. This drain would be connected to the above natural seasonal nalas, which would carry the run-off water to the Kanhan River.

3.2.2 Mine water discharge details.

Existing mine water discharge details

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

Post closure Mine water discharge

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

3.2.3 Water Quality Monitoring

Present Practice

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

Present status of water quality.

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

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

Drinking water quality report

DRINKING WATER QUALITY MONITORING DATA

NAME OF THE COMPANY
NAME OF THE AREA
NAME OF THE PROJECT

WCL
KANHAN
GHORAWARI OC

YEAR : 2012
Q.E. : JUN.
DATE : 23.05.12

Name of the Location

Drinking water from Manager office

Sl. No.	Parameter	Analysis Result	Standard (IS 10500 : 1991)	
			Desirable limit	Permissible limit in the absence of alternate source
1.	Colour (Hazen)	3	5	25
2.	Odour	Unobject.	Unobject.	-
3.	Taste	Agreeable	Agreeable	-
4.	Turbidity (NTU)	4	5	10
5.	pH value	7.57	6.5 to 8.5	No relaxation
6.	Total Hardness(as CaCO ₃) (mg/l)	324	300	600
7.	Iron (mg/l)	BDL	0.3	1.0
8.	Chlorides (mg/l)	22	250	1000
9.	Residual, Free Chlorine (mg/l)	BDL	0.2	-
10.	Dissolved Solids (mg/l)	430	500	2000
11.	Calcium (mg/l)	81	75	200
12.	Copper (mg/l)	BDL	0.05	1.5
13.	Manganese (mg/l)	0.02	0.1	0.3
14.	Sulphate (mg/l)	78	200	400
15.	Nitrate (mg/l)	3.52	45	100
16.	Fluoride (mg/l)	0.57	1.0	1.5
17.	Selenium (mg/l)	BDL	0.01	No relaxation
18.	Arsenic (mg/l)	BDL	0.05	No relaxation
19.	Cadmium (mg/l)	BDL	0.01	No relaxation
20.	Lead (mg/l)	BDL	0.05	No relaxation
21.	Zinc (mg/l)	0.02	5	15
22.	Chromium (Cr ⁶⁺) (mg/l)	BDL	0.05	No relaxation
23.	Alkalinity (mg/l)	148	200	600
24.	Aluminium (mg/l)	BDL	0.03	0.2
25.	Boron (mg/l)	BDL	1	5
26.	Phenolic Compounds (mg/l)	BDL	0.001	0.002
27.	Coliform (MPN / 100 ml)	NIL	Shall be absent	-

(BDL – Below Detectable Limit)

Mine water quality report

EFFLUENT WATER QUALITY MONITORING DATA

NAME OF THE COMPANY : WCL
 NAME OF THE AREA : KANHAN
 NAME OF THE PROJECT : GHORAWARI OC

YEAR : 2012
 Q.E. : JUN.

Name of the Location : Mine water discharge - KGOW-1

Month	Date of Sample collection	Analysis Results			
		pH	TSS (mg/l)	COD (mg/l)	O & G (mg/l)
APR. 2012	08.04.12	7.25	58	120	BDL
MAY. 2012	23.05.12	7.56	36	60	BDL
JUN. 2012	24.06.12	7.54	60	120	BDL
TLV as per Env.(Protection) Amendment rule 2000		5.5 - 9.0	100	250	10

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

EFFLUENT WATER QUALITY MONITORING DATA

NAME OF THE COMPANY : WCL
 NAME OF THE AREA : KANHAN
 NAME OF THE PROJECT : GHORAWARI OC

YEAR : 2012
 DATE : 08.01.12

1. Name of the Location : Mine water discharge

Sl. No.	Parameters	Analysis Results	Standards for discharge Part A, Schedule VI
1	pH	7.52	5.5 - 9.0
2	Temperature ($^{\circ}$ C)	17.4	$T_e < T_s + 5^{\circ}$ C
3	Colour (Hz)	1	*
4	Odour	UNOBJECT	Unobjectionable
5	Turbidity (NTU)	1	*
6	Conductivity (μ s/cm)	889	*
7	Total Suspended Solids (mg/l)	26	100
8	Oil & Grease (mg/l)	BDL	10
9	Dissolved Oxygen (mg/l)	6.07	*
10	C.O.D. (mg/l)	40	250
11	B.O.D. 3 days at 27° C (mg/l)	2	30
12	Total Residual Chlorine (mg/l)	BDL	1 (Max.)
13	Ammonical Nitrogen (mg/l)	0.26	50
14	Total kjeldahl Nitrogen (mg/l)	2.1	100
15	Free Ammonia (mg/l)	BDL	5.0
16	Arsenic (mg/l)	BDL	0.2
17	Lead (mg/l)	BDL	0.1
18	Hexavalent Chromium (mg/l)	BDL	0.1
19	Total Chromium (mg/l)	BDL	2
20	Copper (mg/l)	BDL	3
21	Zinc (mg/l)	BDL	5
22	Selenium (mg/l)	BDL	0.05
23	Nickel (mg/l)	BDL	3
24	Cadmium (mg/l)	BDL	2
25	Dissolved Phosphate (mg/l)	0.23	5
26	Sulphide (mg/l)	BDL	2
27	Iron (mg/l)	BDL	3
28	Manganese (mg/l)	BDL	2
29	Nitrate Nitrogen (mg/l)	1.9	10
30	Phenolics Compounds (mg/l)	BDL	1

1. BDL - Below Detectable Level, 2. * - Limit not specified.

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Well Water Level monitoring report

TABLE V-A: Groundwater monitoring data of dugwells in buffer zone of Ghorawari OC mine, Kanhan Area

Well No.	Name of village	Well location	Owner	Utility	Well dia (m)	Height of measuring point (m agl)	Well depth (m bmp)	WATER TABLE(m-bmp)				Formation Tapped
								May' 11	Aug' 11	Nov' 11	Jan' 12	
K												
1	DUGARIA (3.5)	In the compound of Mr. B.S. Rajput South of Road	G.P.	Domestic	4.20	0.75	6.55	Dry	1.30	1.80	4.60	M/B sand stone
2	KOLIYA (Nishtari talab)	Back side of H/O ASHARU NARE Near small Dam	G.P.	Domestic	4.60	0.70	12.00	7.25	0.35	1.25	0.55	M/B sand stone
3	NIMDHANA	North of junction of Damua & Nayagao n Road (Hirdagar h Rly. Siding)	G.P.	Domestic	3.40	0.85	8.55	5.45	0.05	1.30	1.75	M/B sand stone
4	BICHHUA	In the openfield of Mr Budhu Near G.P. office	Private	Domestic	3.45	0.40	4.55	2.80	0.00	0.50	0.90	Talchir
5	HIRDAGARH CHOWK	Near chowk in the compound of Mr. Blnod kumar Vayas	Private	Irrigation	7.20	0.40	8.05	5.85	1.20	2.40	3.00	Talchir

6	CHINDIKAMAT (Road)	About 200 m North of Kanhan bridge centre of small village	Mr. Shewak Ram	Domestic	8.50	0.65	12.55	11.15	6.25	7.65	8.65	Talchir
8	GHORAWARI (CGWB)	In the openfield near School side of road Jamai KM/11	GP	Domestic	4.00	0.80	8.50	2.40	0.50	0.70	0.70	MB Sand stone
9	GHORAWARI BAZAR	Opposite CHANIPAN PALACE	Rakesh Suryabansi	Domestic	8.25	0.60	11.45	5.55	0.35	0.70	3.40	M/B sand stone
11	DAMUA (UPKARCHOWK)	About 100 m North of Khan Niwas	G.P.	Domestic	2.90	0.90	17.55	10.80	1.40	5.25	7.40	M/B sand stone
12	DONGARIA (BHARTAGARH)	Near G.P. office	G.P.	Domestic	4.25	0.70	6.55	Dry	1.35	1.80	Dry	Talchir
13	MANDAI	Back side of House of Shakti Lal Partik	Shakti Lal Partik	Domestic	4.25	G.L.	12.20	11.70	7.40	8.95	9.50	Talchir
14	BIRAJ PURA	In the openfield Near Road Junction opp. Chaman Lal house	Chhanulal	Irrigation	2.80	G.L.	10.85	14.05	NA	NA	13.55	Talchir with Dolomite dyke
15	HARYAGARH	Near L.P school & big talab	Ramesh Yadubansi	Domestic	4.80	G.L.	10.75	Dry	NA	NA	10.50	Talchir
19	MARKADHAN	On Road to Rakhikol in the openfield	Private	Irrigation	6.05	0.95	7.57	1.75	0.60	1.05	1.20	Talchir
20	RAKHIKOL	Opposite manager's office	WCL	Domestic	3.35	0.85	7.10	3.35	1.35	2.95	3.45	M/B sand stone

21	CHIKATWARI	Extreme North of village about 100 m west of Eklama Road in the field	Rojgar Yojna	Domestic	5.40	0.60	9.00	Dry	Dry	Dry	4.70	
23	BHAKRA	In the house of Dilip Behari	Private	Domestic	3.90	0.45	12.00	10.75	2.85	3.95	9.35	M/B sand stone
24	BHARDE	In the house of Munibai	Shymla I	Domestic	3.90	0.45	9.05	6.80	3.60	4.40	5.85	M/B sand stone
25	JUNARDEV	Side of Tambla Road near Mandir outer limit of municipality	Deep chan Pawar	Domestic	4.75	0.85	12.20	10.45	2.65	3.80	8.25	M/B sand stone
26	GARADEI	Near Mandir on junction of Tambla & Umrai Road	G.P.	Domestic	2.65	0.75	7.65	4.05	0.55	1.05	1.25	M/B sand stone
27	UMRAI	In the compound of Ramesh	G.P.	Domestic	4.35	0.75	10.50	5.85	1.30	4.65	5.05	M/B sand stone
28	BIJORI	Centre of village in the field of Montilal	G.P.	Domestic	3.90	0.70	8.90	6.10	1.25	1.90	3.05	Weathered Basalt
32	MOARI	Back side of Budhanla I & near BHUDAMANSA	G.P.	Domestic	3.60	0.75	5.95	4.75	0.80	1.35	4.05	Basalt
44	HANO TIYA	In the compound of school Near Hospital	G.P.	Domestic	6.70	0.75	4.45	1.70	1.00	1.05	1.15	Talchir

Pench area

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P												
10	SUKRI	Back side of Kherapati Mandir	Mandir Trust	D	4.00	0.45	16.45	3.65	0.15	0.60	1.00	Motur

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

Practice after the closure

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

3.3 Air quality management:

3.3.1 Present practice :

a. At present air borne dust is suppressed by:

- Sprinkling water on the main haul roads and other roads of the mine where vehicles ply.
- Wet drilling and provision of dust collect in drilling machine
- Water sprinkling at the various points of the CHP, where coal is handled.
- Sufficient numbers of dust extractors have been provided in CHP.
- Avoiding overcharging of shot holes.
- Proper maintenance of I.C. engines.

b. Further, the quality of air is also monitored on regular basis by drawing Samples from the various residential and non-residential areas of the project. The test results are compared with the standards prescribed by the MoEF. The test results of recent sampling are as under:

AIR QUALITY MONITORING DATA

NAME OF THE COMPANY : WCL
 NAME OF THE AREA : KANHAN
 NAME OF THE PROJECT : GHORAWARI OC

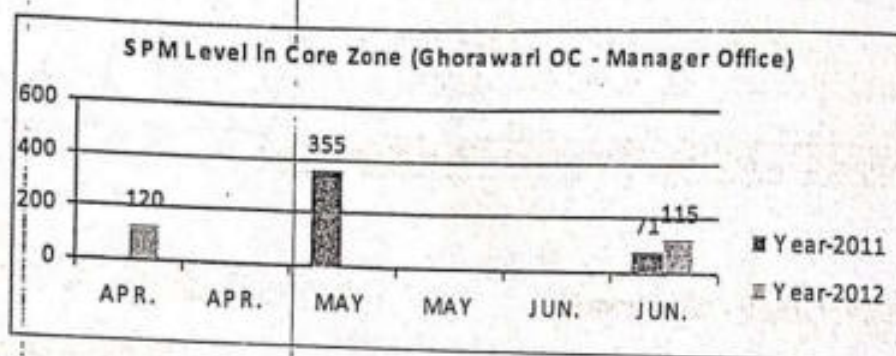
YEAR : 2012
 Q.E. : JUN.

1. Manager Office - Ghorawadi OC : KGOA-1						
(24 hourly values in $\mu\text{g}/\text{m}^3$)						
Month	Dates of Sampling		Parameters			
	From	To	SPM	PM-10	NOx	SO ₂
MAY. 2012	11.05.12	12.05.12	120	61	2	1
JUN. 2012	25.06.12	26.06.12	115	63	3	1
TLV as per Env.(Protection) Amendment Rule 2000			600	300	120	120
2. SAM Office - Ghorawadi : KGOA-2						
(24 hourly values in $\mu\text{g}/\text{m}^3$)						
Month	Dates of Sampling		Parameters			
	From	To	SPM	PM-10	NOx	SO ₂
MAY. 2012	11.05.12	12.05.12	445	213	5	3
JUN. 2012	24.06.12	25.06.12	111	56	3	2
TLV as per Env.(Protection) Amendment Rule 2000			600	300	120	120

3. Colony : KGOA-3						
(24 hourly values in $\mu\text{g}/\text{m}^3$)						
Month	Dates of Sampling		Parameters			
	From	To	SPM	PM-10	NOx	SO ₂
APR. 2012	08.04.12	09.04.12	186	81	3	2
APR. 2012	23.04.12	24.04.12	144	52	3	1
MAY. 2012	11.05.12	12.05.12	110	40	2	1
MAY. 2012	24.05.12	25.05.12	155	43	3	1
JUN. 2012	06.06.12	07.06.12	173	76	4	2
JUN. 2012	24.06.12	25.06.12	183	88	3	2
PERMISSIBLE LIMIT			200	100	80	80

4. Panara Village : KGOA-4

Month	Dates of Sampling		(24 hourly values in $\mu\text{g}/\text{m}^3$)			
			Parameters			
	From	To	SPM	PM-10	NOx	SO ₂
APR. 2012	08.04.12	09.04.12	77	21	2	1
APR. 2012	24.04.12	25.04.12	66	25	2	1
MAY. 2012	11.05.12	12.05.12	67	22	2	2
MAY. 2012	24.05.12	25.05.12	153	41	3	2
JUN. 2012	11.06.12	12.06.12	54	17	2	1
JUN. 2012	25.06.12	26.06.12	55	24	2	1
PERMISSIBLE LIMIT			200	100	80	80



FUGITIVE DUST MONITORING DATA

1. PALACHURI SIDING

Month	Dates of Sampling		Parameters	
	From	To	SPM	PM-10
MAY. 2012	12.05.12	13.05.12	260	48

NOISE LEVEL DATA

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

Name of the Location : Manager Office - KGON-1

Month	Date of Data collection	Noise Level in dB(A)		Remarks
		Day Time	Night Time	

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APR. 2012 APR. 2012	08.04.12 23.04.12	57.2 59.2	46.7 47.5		
MAY. 2012 MAY. 2012	09.05.12 22.05.12	52.3 60.1	46.9 55.3		
JUN. 2012 JUN. 2012	11.06.12 22.06.12	52.4 56.2	48.1 46.2		
Noise Level Standard as per Env. (Protection) Amendment rule 2000		75	70		

Name of the Location : Colony - KGON-2

Month	Date of Data collection	Noise Level in dB(A)		Remarks	
		Day Time	Night Time		
APR. 2012 APR. 2012	08.04.12 24.04.12	49.1 51.5	40.9 42.8		
MAY. 2012 MAY. 2012	09.05.12 22.05.12	50.6 52.3	41.7 43.8		
JUN. 2012 JUN. 2012	11.06.12 22.06.12	49.3 51.3	40.0 41.7		
Permissible Limit		55	45		

3.3.2 Practice after the closure of the mine.

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

3.4 Dump Reclamation

External dump

It is estimated that around 217.86 ha of land shall be occupied by the external dump. The external OB dump shall be formed in suitable lifts of appropriate height keeping an overall slope not exceeding 28° from the horizontal. In course of mining and after the completion of the final lift, the external OB dump shall biologically be reclaimed. The dumps shall be afforested by selecting proper plant species in consultation with state Forest Department.

Internal Dumps:

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

3.5 Disposal of Buildings, Plants & Machineries

3.5.1 Infrastructural details

Presently, the Project has following infrastructure and it is most likely that these infrastructures will remain till the completion of the Project.

a. **CHP-Coal handling arrangement at surface with capacity of surface Bunkers.**

There is no CHP in the project area.

b. **Workshop-Size with major equipment & P&M items**

There is no workshop. Work is contractually operated.

c. **Railway Sidings**

There is no railway siding in the Project. The coal is transported Railway siding of Hirdagarh, which is about 10 Km, by tippers.

d. **Colony (number and type of quarters)**

There are 800 company quarters and 1700 private quarters in the project area.

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

There is one water treatment plant of 1.35 MLD and one sewage treatment plant, which is under construction in the project.

- f. **Details of non-residential building-Office building, sub-station and any other building.**

Area Workshop-01

Area Store-01

Sub Station-02

Dispensary-02

Shool-04

Filter Plant-01

Overhead Water tank-02

3.5.2 **Post closer disposal / re-use of the buildings , plants and machineries**

- a) **Disposal or reuse of existing HEMM , CHP , workshop and railway sidling for OC mines.:**

At the time of closure of the mine, it is expected that most of the equipments would complete its rated life and would be surveyed off as per the company's guidelines., The surveyed off equipments would be auctioned.

However, if some of the equipments would not have covered their rated life, they would be diverted to the neighboring projects for gainful utilization.

There are neither CHP nor railway siding in the project area hence these provisions are not applicable in this case.

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

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

dispatched to needy areas / projects.

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

At the time of closure, a list of surface buildings would be prepared in detail. Thereafter following steps would be taken in chronological order in respect of the available buildings:

- An assessment would be made to find that whether the available buildings can be used by the existing neighboring projects or any new project that might have come up in the vicinity.
- Thereafter the state agencies/ local agencies may be asked to take possession of the building, if required by them.
- When there are no takers, the buildings would be demolished and usable items would be recovered for future use.

3.6 Safety and security arrangement

3.6.1 Details of fencing around abandoned quarry.

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

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

Later on, the responsibility of keeping the fencing secured would be entrusted on the state authorities. The entry into the mine is the haul road; it will remain for entry

into the picnic spot. Both side of this haul road will be afforested.

3.6.2 Slope stability arrangement for high wall and back filled dumps

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

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

3.7 Survey records of workings

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

3.8 Disposal management of hazardous material

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

3.9 Re- deployment of work force

3.9.1 The current manpower of the project is 134 as on 1.04.2013.

3.9.2 However , at the time of final closure, after exhaustion of entire mineable reserve, following steps would be taken for effective management of available manpower at the time of closure:

- A). First, option of VRS would be given to the age group of + 50 years. Some may accept, others will be gainfully utilized in other projects.
- B). After exhausting the above portion, the middle aged group workforce (between 40 – 50 years) would be transferred to the similar projects.
- C). If vacancy in similar nature projects gets exhausted. The relatively young workforce would be re-trained and re-deployed in other projects.

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

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

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

- Will be given option to shift in the new or expansion mines located in the nearby area.
- They will be given vocational training for continuance / sustenance of income level.
- It is proposed that reclaimed and afforested land may be handed over to state forest dept. for the benefit of local ecosystem as per rules in vogue. The forest wealth can also be utilized by local people or tribal in the form of fruits and fodders.

- The proposed picnic spot would be handed over to society of local people for commercial use of picnic spot by them.

3.11 Plantation Details of Last Five Years

Sr.No	Year	No. of Plants
1	2007-08	50,000
2	2008-09	Nil
3	2009-10	20,000
4	2010-11	20,000
5	2011-12	40,000
Total		1,30,000

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Chapter - 4

ECONOMIC REPURCUSSION OF CLOSURE OF MINE

4.1. Manpower of the project: -The current manpower of the mine is 134 as on 1.04.2013.

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

- (a) Local employees will be redeployed in other projects of the company
- (b) People engaged in indirect employment / ancillary activities will find no financial loss due to the mine closure as their activities will be shifted in the new or expansion mines located in the coalfield area. As such the direct and indirect manpower will not be affected due to mine closure.
- (c) Resettlement / Redeployment of (a) & (b)
 - Compensation for loosing employment or income.
 - Vocational training for continuance / sustenance of income level.

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

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

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

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CHAPTER - V
TIME SCHEDULING FOR ABANDONMENT

IMPLEMENTATION SCHEDULE FOR MINE CLOSURE**(LIFE OF THE MINE: 24 YEARS FROM 1.04.2013)**

Sl. NO.	ACTIVITY	TIME FRAME																									Post Closure Programme		
			1 st Phase				2 nd Phase				3 rd Phase				4 th Phase				FINAL PHASE								PC1	PC2	PC3
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
A	Dismantling of Structures																												
	Service Buildings	2 years																											
	Residential Buildings	2 & ½ years																											
	Industrial structures (like CHP, Workshop, Field Sub-Station, etc.)	2 & ½ years																											
B	Permanent Fencing of mine void and other dangerous area																												
	Random rubble masonry of height 1.2 metre including leveling up in cement concrete 1:5:12 in mud mortar	2 years																											
C	Grading of Highwall slopes																												
	Leveling and grading of highwall slopes	2 years																											
D	OB Dump Reclamation																												
	Handing/Dozing of OB Dump into mine void and preparation of internal dump for reclamation.	Throughout the life of mine including 3 years after cessation of mine operation																											
	Technical and Bio-reclamation including plantation and post care	Throughout the life of mine including 3 years after cessation of mine operation																											
E	Landscaping																												
	Landscaping of the open space in the leasehold area for improving its aesthetics and eco value	Throughout the life of mine including 3 years after cessation of mine operation																											
F	Plantation																												
	Plantation over cleared area obtaining after dismantling	2 years																											
	Plantation around the quarry area and in safety zone	Throughout the life of mine including 3 years after cessation of mine operation																											
	Plantation over the external OB Dump	Throughout the life of the mine																											
G	Post Closure Env. Monitoring / testing of parameters for three years																												
	Air Quality	3 years																											
	Water Quality	3 years																											
H	Entrepreneurship Development (Vocational / skill development training for sustainable income of affected people)	Throughout the life of the mine																											
I	Miscellaneous and other mitigative measures	Throughout the life of mine including 3 years after cessation of mine operation																											
J	Post Closure Manpower cost for supervision	3 years																											

PC1: Post Closure Year 1,

PC2: Post Closure Year 2,

PC3: Post Closure Year 3

Chapter-6 MINE CLOSURE COST

- 6.1 The mine closure cost will cover the following activities for which a corpus fund will be created by opening an escrow account with the coal controller organization in nationalised bank. In case of occurrence of acid mine drainage, post closure acid mine drainage management cost shall also be included in the total closure cost. An amount @ Rs 6.00 lakhs per Ha of the project area will be deposited in this account for final mine closure. Progressive mine closure will be done with the fund provided in approved report.
- 6.2 The balance life of the project is 25 years and mine closure fund has been assessed based on project life. However the mine is likely to be extended and the project under reference will get dovetailed into the future /extension project. As such the progressive closure under the extension will continue and final mine closure plan will be prepared 5 years before the cessation of mining activity.
- 6.3 The above rate has been taken from Circular No. 55011-01-2009-CPAM, Government of India, Ministry of Coal, Dated 27 August 2009 duly updated on 7th January 2013.
- 6.4 Type of Mine : Open Cast. Life of Mine(as on 1.04.2012) 25 years
Total project area of the mine: 1296.011ha
The financial provision for closure of Ghorawari OC Mine comes to around Rs. 18728.11 lakhs (based on April 2012 WPI at the @ Rs 6 lakh/ Ha.
- 6.5 Mine closure cost break – up for Ghorawari OC mine is hereunder:-

Sl. No.	Activity	% of Total Mine closure Cost	Amount (Rs.in Lakhs)
A	Dismantling of structures		
	Service Building	0.2	37.46
	Residential Building	2.67	500.04
	Industrial Structures like, Workshop, Field substation, etc.	0.3	56.18
B	Permanent Fencing of mine void and other dangerous area		
	Random rubble masonry of height 1.2 meter including levelling up in cement concrete 1:6:12 in mud mortar	1.5	280.92
C	Grading of highwall slopes		
	Levelling and grading of highwall slopes	1.77	331.49
D	OB Dump Reclamation		
	Handling/Dozing of OB Dump into mine void and preparation of Internal dump for reclamation.	88.66	16604.34
	Technical and Bio-reclamation including plantation and post care.	0.4	74.91
E	Landscaping		
	Landscaping of the open space in leasehold area for improving its aesthetic and eco value.	0.3	56.18
F	Plantation		
	Plantation over cleared area obtained after dismantling.	0.5	93.64
	Plantation around the quarry area and in safety zone.	0.2	37.46
	Plantation over the external OB Dump.	0.02	3.746
G	Post Closure Env Monitoring/Testing of Parameters for three years.		
	Air Quality	0.22	41.20
	Water Quality	0.2	37.46
		0.26	48.69
H	Entrepreneurship development (vocational/skill development) Training for sustainable income of affected people.		
		2	374.56
I	Miscellaneous and other mitigative measures.		
		0.8	149.82
J	Post Closure Man power cost for supervision		
		100%	18728.11
	TOTAL		

1. Mining is to be carried out in a phased manner Initiating afforestation/ reclamation

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work in the minedout area of first phase while commencing mining in the 2nd phase.

2. Upto 80% of the total deposited amount including interest accrued in the ECSROW account may be released after every 5 years. The amount released should be equal to expenditure incurred on Progressive Mine closure in past 5 years or 80% whichever is less.
3. The above cost/expenditure will be met from the corpus fund deposited in the escrow account by the mine operator. However, the additional amount beyond the escrow account will be provided by the mine operator after estimating the final mine closure cost (as per the mine closure guideline).
4. The amount indicated separately under each head is indicative only and based on actual expenditure the amount may change.

6.6 Estimate of proposed escrow fund.

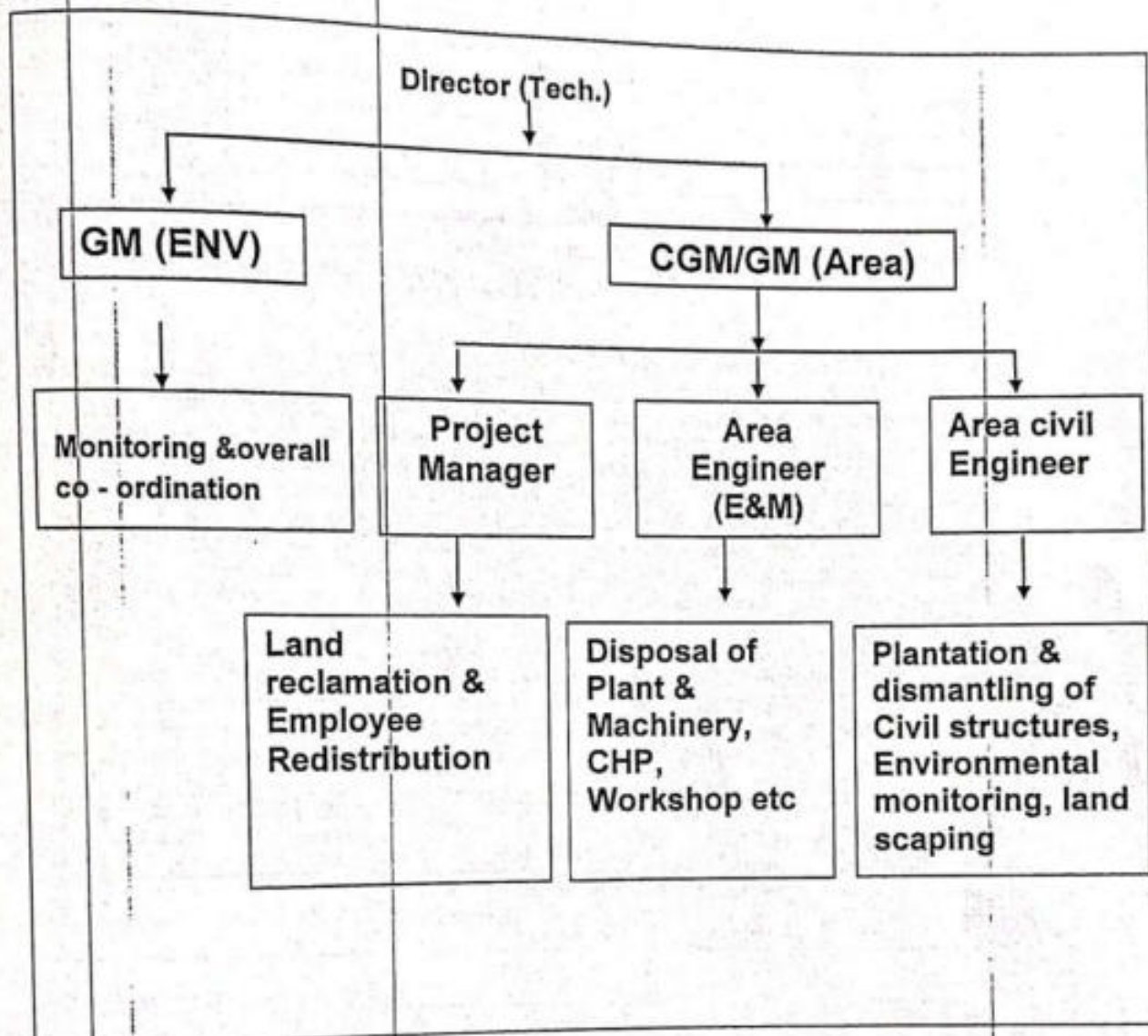
The total project area is 1296.011 Ha. So the corpus based on August, 2009 rate is 7776.06 Lakhs @ Rs 6.0 Lakh /ha of project Area. The wholesale price Index in August, 2009 is 129.6 and the WPI, for the month of April 2012 available in the website of Office of Economic Adviser, Ministry of Commerce, Government of India is 163.5. So the current value of corpus is Rs. $7776.06 \times 163.5 / 129.6$ Lakhs, which comes to Rs. 9810.07 lakhs. This corpus is to be divided by the life of mine i.e. 25 years. So dividing by 25 years, the annual corpus comes to Rs 392.40 lakhs. This amount is to be deposited in escrow account every year with 5% escalation.

S.NO.	FINANCIAL YEAR	AMOUNTS IN LAKHS
1	2012-13	
2	2013-14	392.40
3	2014-15	412.02
4	2015-16	432.62
5	2016-17	454.25
6	2017-18	476.96
7	2018-19	500.81
8	2019-20	525.85
9	2020-21	552.15
10	2021-22	579.75
11	2022-23	608.74
12	2023-24	639.18
13	2024-25	671.14
14	2025-26	704.69
		739.93

Chapter-7

IMPLEMENTATION PROTOCOL

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



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

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MCP/Ghorawari OC/Kanhan Area

		776.93	
15	2026-27	815.77	
16	2027-28	856.56	
17	2028-29	899.39	
18	2029-30	944.36	
19	2030-31	991.58	
20	2031-32	1041.15	
21	2032-33	1093.21	
22	2033-34	1147.87	
23	2034-35	1205.27	
24	2035-36	1265.53	
25	2036-37	18728.11	
	Total		

No.J-11015/367/2000-IA.II(M)
Government of India
Ministry of Environment & Forests

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

Dated: 26th December 2008

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

Sub: Ghorawari Opencast Coal Mine Project (from 0.45 MTPA to 1.50 MTPA) of M/s Western Coalfields Ltd. (WCL), located in village Ghorwari Khurd, Tehsil Junnardeo, District Chhindwara, Madhya Pradesh - Environmental clearance - reg.

Sir,

This has reference to letter No. 43011/65/2008-CPAM dated 30.07.2008 forwarding the application and letters dated 18.11.2008 and 18.11.2008 on the above-mentioned subject. The Ministry of Environment & Forests has considered the application. It has been noted that the project proposal is to mine coal from patches of old UG-workings by opencast operations and expansion in production of coal from 0.45 MTPA to 1.50 million tonnes per annum (MTPA). EC was granted for 0.45 MTPA capacity project on 19.02.2008. The total lease area is 1296.011 ha of which 178.10 ha is agricultural land, 593 ha is forestland, 192 ha is grazing land, and 332.911 ha is Govt. land. Forestry clearance has been applied for for renewal of lease. There are no National Parks, Wildlife Sanctuary, Biosphere Reserves found in the 10 km buffer zone. River Kanhan flows at a distance of 6-7 km from the ML. It is not proposed to modify the existing natural drainage.

There is no change in the geo-mining characteristics of the working of the various patches within the ML. Of the total lease area, area for excavation is 750.36 ha, area for OB dumps 217.86 ha, infrastructure is 12.34 ha, roads is 2.65 ha, area for green belt is 497.049 ha, area for township is 140 ha, and area for retinalisation is 172.80 ha. The proposal is to mine coal from patches of old UG workings by opencast operations as given below:

S.N.	Name of OC Patch	Quarry Area (ha)	TOTAL		Quarry Depth (m)		Final Backfilled Area (ha)	Final Void (ha)
			Balance Coal In LTPA	Balance OB In Lakh M3	Present	Max.		
A. Present Working Patches								
1.	No. 16/17	17	Nil	Nil	45	50	9.50	7.50
2.	No. 6A & 6B	20	0.89	17.45	30	52	18	2
	TOTAL =	37	0.89	17.45			27.50	9.50
B. Proposed upto 2015-16								
1.	No. 16 & 17 B. Ph.III	40.50	8.57	60.75	--	54	40.50	Nil
2.	Ghogra OC Patch	8.0	2.99	13.13	--	53	6	2
3.	Kathideo OC Patch	12.50	5.12	17.83	--	34	10	2.50
		61	16.68	91.71			56.50	4.50
	TOTAL =							

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C. Proposed beyond 2015-16 upto 2025-26								
1.	Ghorawari Kalan OC Patch	15	4.50	28.45	--	30	10.44	4.56
2.	Dungaya OG Patch	39	10.60	189.50	--	50	27.13	11.87
3.	Panara OG Patch	12.50	4.25	39.75	--	54	8.70	3.0
4.	Bharat Colliery OC Patch	79.20	24.0	198.0	--	48	55.10	24.10
5.	Chikalam AU OC Patch	21.25	6.55	61.58	--	67	14.61	6.39
6.	South Panara OG Patch	21.25	7.69	81.29	--	62	14.778	6.472
TOTAL =		187.95	55.84	518.48			130.758	57.192
D. Proposed beyond 2015-16 upto 2025-26								
1.	Vegri Patch	168	Individual Schemes will be firmed up after 2014-15					
2.	Datia East	139.994						
TOTAL =		424.594						
E. Abandoned Patches								
1.	No. 16 & 17 OC Patch Phase-I	12.50	Not Applicable				12.50	NII
2.	No. 6 & 7 OC Patch Ph.I & II	7.50					7.50	NII
3.	Gh-2 OC Patch	6.0					6.0	NII
4.	Gh-3 OC Patch	4.50					4.50	NII
5.	Kolhiya OC Patch	4					4	NII
6.	DQ-3 OC Patch	5.316					5.316	NII
TOTAL =		39.816					39.816	NII
GRAND TOTAL (A+B+C+D+E)		750.36	82.90	679.11			254.574 =552.074	71.192 =198.288

Mineral transportation of 1100 TPD of coal is by road to railway siding covering a distance of 12 km and the balance 270 TPD is by road. Ultimate working depth of the mine is 45m below ground level (bgl). Present working depth is 40m bgl. Water table is in the range of 4.05m-17.20 m bgl during pre-monsoon season and 0.05-8m bgl during post-monsoon. Mining has intersected water table. Peak Mm3 of OB has been generated of which 11 Mm3 has been used for backfilling and 0.82 Mm3 has been dumped in ext. OB dump. An estimated 64.64 Mm3 of OB would be generated in the balance life of mine, which be backfilled simultaneously.

Of the total quarry area of 750.36 ha, of which 552.07 ha would be backfilled and plantation developed thereon as per table below:

S.N.	Area (ha)	Existing	Status upto 2015-16	Status upto 2025-26	Status beyond 2025-26	Status at the end of mine life
1.	Excavation	83.36	81.00	187.95	424.594	750.36
2.	Backfilled	59.316	64.50	130.758	297.500	552.074

MANAGER
Ghorawari Colliery No.

Balance life of the mine at the rated capacity is 12 years. A void of 198.286 ha with a max. depth of 10-15m would be left at the end of mine life which would be converted into a reservoir. Public Hearing was held on 22.11.2005. The project was approved by M/s WCL on 05.11.2008. The capital cost of the project is Rs. 1.37 crores.

2. The Ministry of Environment & forests hereby accords environmental clearance for the above-mentioned **Ghorawari Opencast Coal Mine Project of M/s WCL for production of coal at 1.50 MTPA rated capacity** under section 7.2 of the Environmental Impact Assessment Notification, 2006 and subsequent amendments thereto subject to the compliance of the terms and conditions mentioned below:

A. Specific Conditions

- (i) No mining operations shall be undertaken in the forestland until clearance for renewal has been obtained under the provisions of FC Act, 1980.
- (ii) The environmental clearance is only for the specific patches consisting of details submitted to the Committee and summarised in the table.
- (iii) OC mining should be carried out at a safe distance for old UG workings.
- (iv) Prior permission of DGMS shall be obtained before start of the working based on the Environmental Clearance.
- (v) Safe distance shall be maintained for working adjacent to agricultural fields.
- (vi) The entire OB being generated in the balance-life of mine shall be backfilled.
- (vii) No OB generated in the balance life of the mine shall be dumped in the external OB dumps. Reclamation, monitoring and management of the existing external OB dumpsite should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forests and its Regional office located at Bhopal on yearly basis.
- (viii) Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected should be utilised for watering the mine area, roads, green belt development, etc. The drains should be regularly desilted and maintained properly.
Garland drains (size, gradient and 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 provided adequate retention period to allow proper settling of silt material.
- (ix) Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation should be based on the rainfall data.
- (x) Mining shall be carried out as per statuette at a safe distance from the Pench River flowing adjacent to the lease boundary.
- (xi) The road for coal transport shall be black topped and avenue trees developed on both sides.
- (xii) Drills should be wet operated or with dust extractors.
- (xiv) Controlled blasting should be practiced with use of delay detonators. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders should be implemented.

Att.
MANAGER

Ghorawari Colliery No.

- (xv) Area brought under afforestation shall be not less than 769.93 ha and includes area external OB dump (217.85 ha), backfilled area (552.074 ha), along ML boundary, Infrastructure along roads and safety zone located within and outside the lease by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha.
- (xvi) A Progressive Mine Closure Plan shall be implemented by reclamation of decoaled quarry area of 750.36 ha of which 552.074 ha shall be concurrently backfilled with 67,778 Mm³ of OB generated in the balance life of mine and reclamation with plantation using native plant species in consultation with the local DFO/Agriculture Department. The number of the trees should be around 2500 plants per ha. The balance 198.286 ha of decoaled void would be converted into a water reservoir of a maximum depth of 15m, the upper beriches of which shall be gently sloped and stabilised with plantation and a peripheral fencing erected all around the reservoir.
- (xvii) Regular monitoring of groundwater level and quality should be carried out by establishing a network of existing wells and construction of new piezometers. The monitoring for quantity should be done four times a year in pre-monsoon (May), monsoon (August), post-monsoon (November) and winter (January) seasons and for quality in May. Data thus collected should be submitted to the Ministry of Environment & Forests and to the Central Pollution Control Board quarterly within one month of monitoring.
- (xviii) Besides carrying out regular periodic health check up of their workers, 10% of the workers identified from workforce engaged in active mining operations shall be subjected to health check up for occupational diseases and hearing impairment, if any, through an agency such as NIOH, Ahmedabad within a period of one year and the results reported to this Ministry and to DGMS.
- (xix) 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.
- (xx) Digital processing of the entire lease area using remote sensing technique should be done regularly once in 3 years for monitoring land use pattern and report submitted to MOEF and its Regional office at Bhopal.
- (xxi) The detailed Final Mine Closure Plan along with details of Corpus Fund should be submitted within six months to the Ministry of Environment & Forests Regional Office, Bhopal.
- B. General Conditions**
- (i) No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment and Forests.
- (ii) No change in the calendar plan including excavation, quantum of mineral coal and waste should be made.
- (iii) Four ambient air quality monitoring stations should be established in the core zone as well as in the buffer zone for monitoring SPM, RPM, SO₂ and NO_x and heavy metals such as Hg, As, Pb, etc. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board.
- (iv) Fugitive dust emissions (SPM and RPM and heavy metals such as Hg, As, Pb, etc) from all the sources should be controlled regularly monitored and data recorded properly. Water

MANAGER

Ghorawari Colliery No.

spraying arrangement on haul roads, wagon loading, dump trucks (loading and unloading) points should be provided and properly maintained.

- (v) Data on ambient air quality (SPM, RPM, SO₂, NO_x and heavy metals such as Hg, As, Pb, etc.) should be regularly submitted to the Ministry including its Regional Office at Bhopal and to the State Pollution Control Board and the Central Pollution Control Board once in six months.
- (vi) Adequate measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc should be provided with ear plugs/muffs.
- (vii) Industrial wastewater (workshop and wastewater from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May 1993 and 31st December 1993 or as amended from time to time before discharge. Oil and grease trap should be installed before discharge of workshop effluents.
- (viii) Vehicular emissions should be kept under control and regularly monitored. Vehicles used for transporting the mineral should be covered with tarpaulins and optimally loaded.
- (ix) Environmental laboratory should be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board.
- (x) Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance programme of the workers should be undertaken periodically to observe any contraindications due to exposure to dust and to take corrective measures, if needed.
- (xi) A separate environmental management cell with suitable qualified personnel should be set up under the control of a Senior Executive, who will report directly to the Head of the company.
- (xii) The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year-wise expenditure should be reported to this Ministry and its Regional Office at Bhopal.
- (xiii) The Regional Office of this Ministry located at Bhopal shall monitor compliance of the stipulated conditions. The Project authorities shall extend full cooperation to the office(s) of the Regional Office by furnishing the requisite data/ information/monitoring reports.
- (xiv) A copy of the will be marked to concerned Panchayat/ local NGO, if any, from whom any suggestion/representation has been received while processing the proposal.
- (xv) State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industry Centre and Collector's Office/ Tehsildar's Office for 30 days.
- (xvi) The Project authorities should advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within seven days of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and may also be seen at the website of the Ministry of Environment & Forests at <http://envfor.nic.in>. The compliance status shall also be uploaded by the project authorities in their website so as to bring the same in the public domain.

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.

MANAGER

Ghorawari Colliery No.

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

MANAGER

Ghorawani Colliery No.

MINING PLAN
OF
GHORAWARI OC PATCHES
&
JHARNA UNDERGROUND
COLLIERY
FOR
RENEWAL OF COAL MINING LEASE
(MCR LEASES NO - 5,6,7,8,9,10,
11,12,13,14,15,16,26,29,35&36)
OF KANHAN AREA
UNDER RULE 22 (3) OF MINERAL
CONCESSION RULES 1960
DISTRICT - CHINDWARA,
MADHYAPRADESH
KANHAN AREA



WESTERN COALFIELDS LIMITED

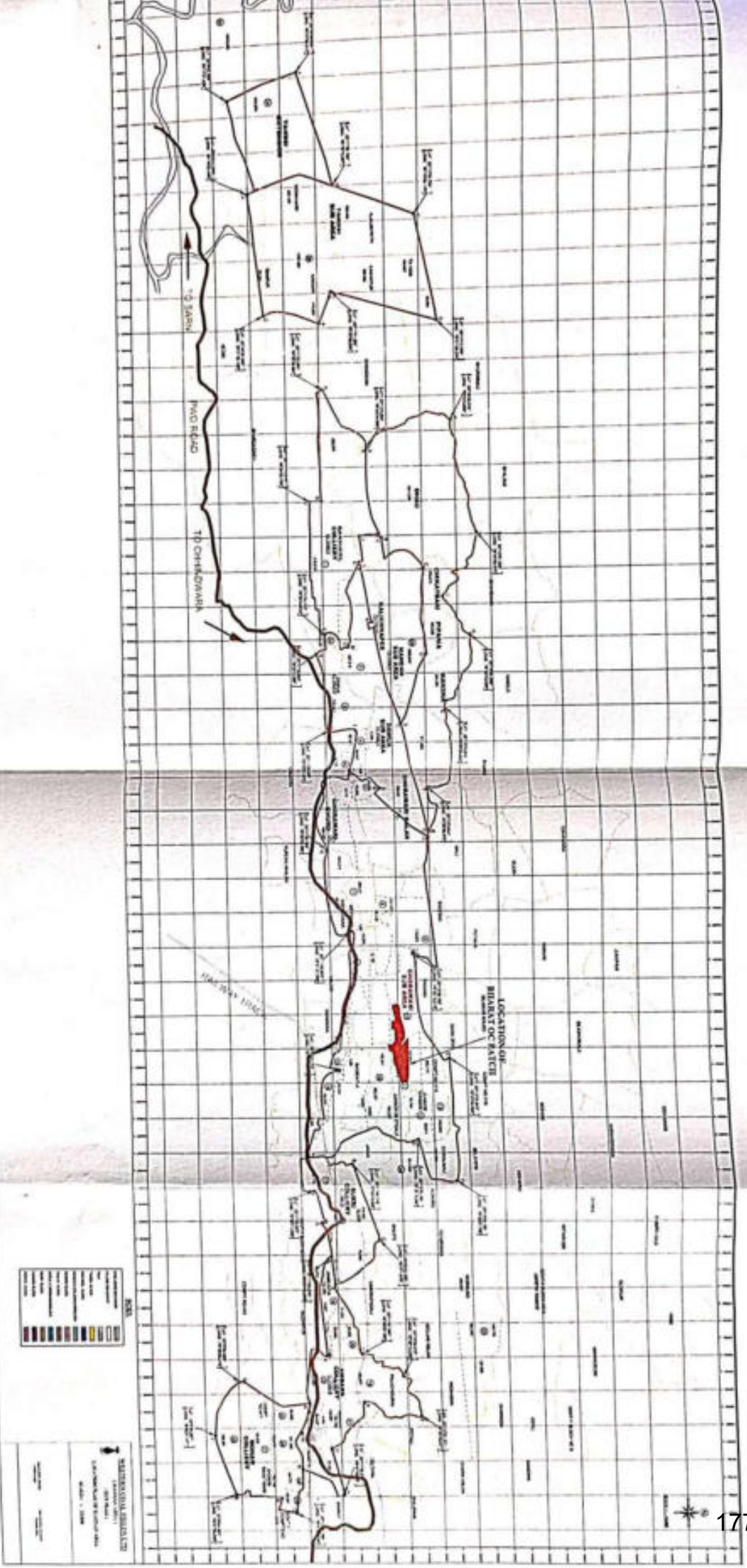
(A Subsidiary of Coal India Limited)
Coal Estate, Civil Lines,
Nagpur - 440001

V. K. MACHHARIA
B.Sc. (Mining), A.M. (Mining), FCCM
Mining Consultant / RQP

MANAGER
Ghorawari Colliery No. 1

PLANS

K.T.1.
 MANAGER
 Ghorewari Colliery No.



7

**ALREADY ACQUIRED LAND
(NON FOREST LAND :42,785 HA)**

SUBJECT BOUNDRY 1.51468 HA.

**ALREADY ACQUIRED LAND
(FOREST LAND 19.50 HA)**

WESTERN COALFIELDS LIMITED
KANSASA AREA
CHOWANAH SEC AREA
CHOWANAH COLLIERY NO. 2
SCALE 1:5000
PLAN SHOWING EXISTING WORKING PORTION OF BLOCK OF PITCH UNDER
CHOWANAH SEC PATENTS

KML PLAN

BHARAT OC PATCHES EXTENSION (111,489 Ha.)

Legend
Polygon

N22°13'22.08"

N22°13'56.16"

N22°13'30.24"

TOTAL NON FOREST LAND (42,785 Ha.)

TOTAL FOREST LAND (68,704 Ha.)

Google Earth

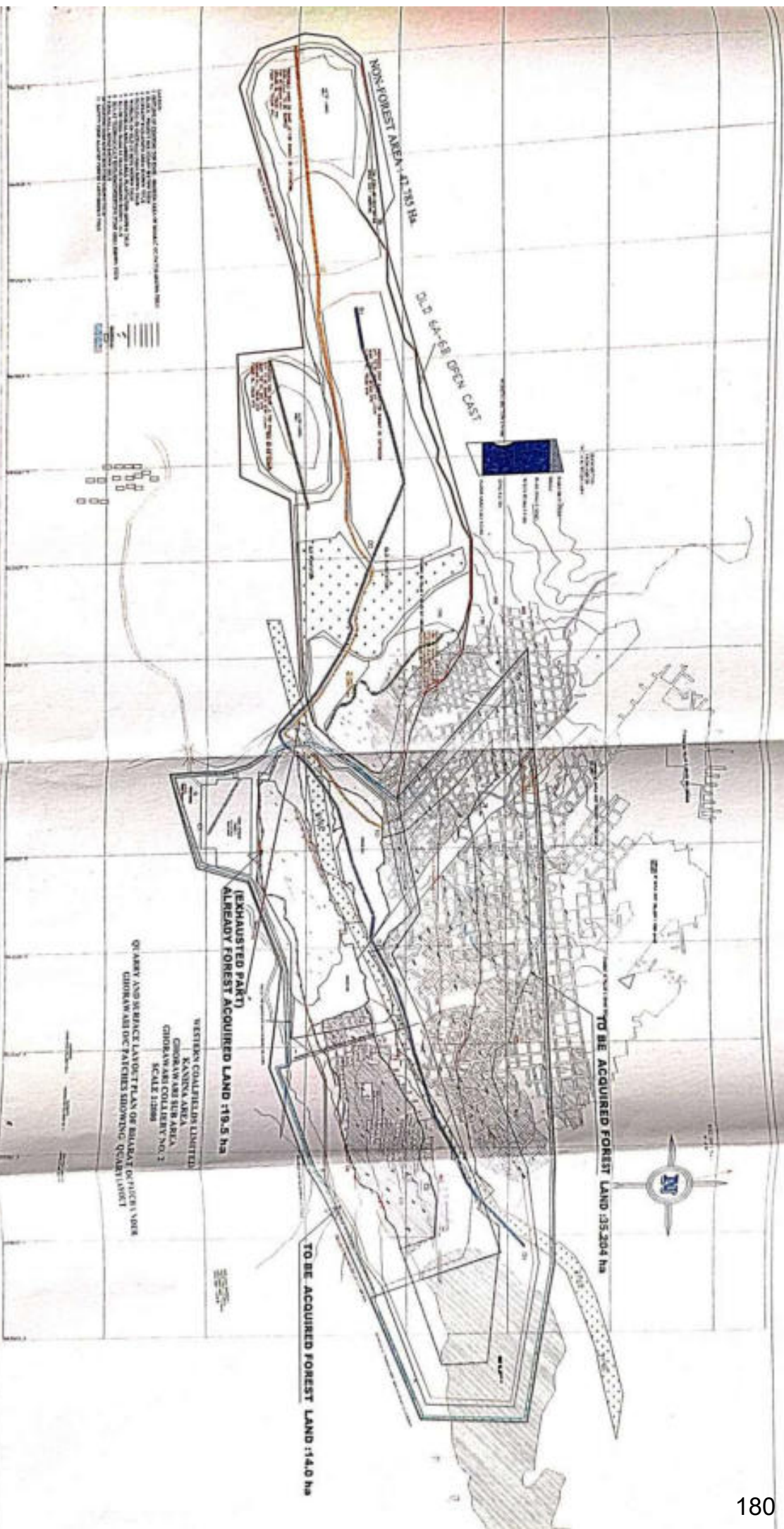
1 km



Map © 2023 Google

CHORAWAT
Culinary No

AAH.



जामई ब्लॉक के अन्तर्गत आर.एफ. 454 में उपरी तल में कोयला खदान की 7.5 मीटर व परिधी में सागौन रोप प्लांटिंग रकबा 14.00 है.

प.स. वृत्त - बडकुही, बीट - जामई, कक्ष क्र. - RF 454 घेराव रकबा - 0.942 है.

वृक्षारोपण क्षेत्र का विवरण मा.दि 467 रकबा 0.942 हेक्टेयर

800 पौधे प्रति

क्षेत्र तैयारी वर्ष-योजना का प्रथम वर्ष

क्र.	कार्य का विवरण	कार्य की मात्रा		दर प्रति ईकाई (मा.दि.)		राशि	कुल मानव दिवस	टिप्पणी
		मात्रा	इकाई	मा.दि	दर			
1	सर्वे एवं सीमांकन है.	0.942	ha	0.45	210.15	198	0	जॉबदर
2	पक्के मुनारों का निर्माण	0	मुनारा	16	7472.00	0	0	गणना के आध
3	ट्रीटमेंट टाइप का क्षेत्र में सीमांकन (सामग्री सहित) हैक्ट.	0	ha	1.00	467.00	0	0	अनुमानित
4	क्षेत्र सफाई (है.)	0.942	ha	4.00	1868.00	1760	4	जॉबदर
5	लेप्टाना उन्मूलन कार्य क्षेत्र की आवश्यकता अनुसार		ha	0.00		0	0	जॉबदर
	सघन	0	ha	22.0	10274.00	0	0	जॉबदर
	मध्यम	0	ha	12.5	5837.50	0	0	जॉबदर
	विरल	0	ha	8.0	3736.00	0	0	जॉबदर
6	बारबेड वायर फेंसिंग कार्य	1250	rmt	प्राक्कलन संलग्न है।		600720	1289	गणना के आध
7	गड्ढा खुदाई हेतु स्टेकिंग एवं एलाइनमेंट	754	चिन्ह	2.5	1.1675	880	13	जॉबदर
8	रोपण हेतु गड्ढा खुदाई संख्या एवं अंतराल							
	45x45x45 cm..(3x2)	754	गड्ढे	5	23.35	17606	37.7	जॉबदर
9	गड्ढों में मिट्टी बदलना (गड्ढों के आयतन का 25 प्रतिशत)	17.177	घ.मी.	0	341	5857	341	टेण्डर दर
10	गोबर खाद डालने हेतु (गड्ढों के आयतन का 25 प्रतिशत)	17.177	घ.मी.	0	611	10495	611	टेण्डर दर
11	नीम खली (@ 30 gm per pit)	22.62	कि.ग्रा.	0	60	1357	1	बाजार दर
12	बोन मील खली (@ 30 gm per pit)	22.62	कि.ग्रा.	0	60	1357	1	बाजार दर
13	बर्मी कम्पोस्ट गड्ढों में डालना (250 ग्राम गड्ढा)	189	कि.ग्रा.	0	10	1885	10	बाजार दर
14	उपजाऊ मिट्टी, स्थानीय मिट्टी एवं आर्गेनिक खाद का मिश्रण तैयार कर गड्ढों में डालना	754	गड्ढे	1.5	7.005	5282	11	जॉबदर
15	हट निर्माण		L.S.			15000	32	अनुमानित
16	प्रथम रोपण हेतु पौधा क्रय 10 प्रतिशत कंज्युलिटी सहित	829	पौधा		13	10777.00	13	बाजार दर
17	निरीक्षण पथ निर्माण कार्य		L.S.			18000.00	39	
18	सूचना बोर्ड निर्माण कार्य		L.S.			15000.00	32	
19	गेट निर्माण कार्य		L.S.			16000.00	34	

क्र.	कार्य का विवरण	कार्य की मात्रा	दर प्रति ईकाई (मा.दि.)	राशि	कुल	टिप्पणी
20	अन्य आकरिमक व्यय			25000.00	54	अनुमानित
			कुल योग	747175	1600	

वनमंडलाधिकारी
पश्चिम छिन्दवाड़ा वनमंडल

उपवनमंडलाधिकारी
परासिया उपवनमंडल सा.

वनपरिक्षेत्राधिकारी
जामई वनपरिक्षेत्र सा.


Sr. Manager(M)/Manager
Ghorawadi Colliery No.1

उपक्षेत्रीय प्रमुख
घोरावाड़ी तानसी उपक्षेत्र


कैम्पा मद के अन्तर्गत सागौन गेप वृक्षारोपण

जामई ब्लांक के अन्तर्गत आर.एफ. 454 मे उपरी तल मे कोयला खदान की 7.5 मीटर की परिधी मे सागौन गेप प्लांटिंग रकबा 14.00 हे.

क्र.	सेड्यूल ऑफ रेटस्, पेज क्र./ आइटम न.	कार्य का विवरण		ईकाई	मात्रा	दर	राशि
1	2	3		4	5	6	7
1		सीमा घेराबंदी —बारबेड फेंसिंग :-1250 रमी.		1250	3646		
	LUN SMM 260103, 300114	Barbed wire item no SMM 260103 5 row & 2 cross 2 row with RCC poles fancing		per kg	3646	71.98	262439
		Total		poles	550	236.00	129800
2	MP PWD SOR ITEM NO 4.1.1.3 (15.09.22)	Material for pole fixing as per csr noms excluding Labour rate					
		550 x 0.30 x 0.30 x 0.10 =	4.95				
		पोल्स फिक्सिंग हेतु कांक्रीट ग्राउंड सतह से 5 से. मी. ऊपर तक					
		550 x 0.30 x 0.30 x 0.40 =	19.80				
		योग	24.75				
		पोल्स कटौति					
		(-)550 x 0.10 x 0.10 x 0.40 =	2.20				
		वास्तविक कांक्रीट कार्य & Pole fixing using pcc - M-15 grade concrete	22.55	घमी.	22.55	4471/-	100821
4	Market rate	a - Cement Bag		नग	134	275	36835
		b- Sand		घमी.	9.302	1998	18585
		c - Metal 20 mm		घमी.	18.604	1400	26045
							81466
5		Pole fixing work		नग	poles	-	19355
6		Diging of pits 30 x30x45	3.8	नग	poles	17.75	9760
7		fixing 5 row barbed wire+ 2 cross row brebed wire etc.complete (Labure)		र.मी.	1250	74.72	93400
8		Other Expnse.poles local Transport. Gi wire purchase . Pole pinting etc.					4500
						योग	600720


परिषेत्र अधिकारी
जामई परिषेत्र


Sr. Manager(M)/Manager
Ghorawadi Colliery No.1


उपक्षेत्रीय प्रबन्धक
घोरावाड़ी तानसी उपक्षेत्र

योजना का द्वितीय वर्ष

क्र.	कार्य का विवरण	कार्य की मात्रा		दर प्रति इकाई (भा. दि.)		राशि	कुल मानव दिवस	रिमार्क
		मात्रा	इकाई	मादि	दर			
1	पौधों का परिवहन (संख्या)					0		
	ट्रक / ट्रैक्टर द्वारा	829	पौधा	1.5	7.005	5807	12	
	सिर बोझ द्वारा 1 कि०मी०	754	पौधा	0.4	1.868	1408	3	
2	लेटाना मापिंग 50 प्रतिशत	0	हे	8	3736	0	0	जॉबदर
3	पौधा रोपण कार्य							
	45x45x45 cm	754	गड़दे	1.8	8.406	6338	14	जॉबदर
4	बीज बुवाई कार्य				L/S	0	0	बाजार दर
5	प्रथम निंदाई							
	पौधों में	754	पौधा	1.25	5.8375	4401	9	जॉबदर
6	द्वितीय निंदाई					0		
	पौधों में	754	पौधा	1	4.67	3521	8	जॉबदर
7	खाद एवं कीटनाशक दवा डलवाई	754	पौधा	0.6	2.802	2113	5	जॉबदर
8	आन्तरिक अग्नि सुरक्षा लाईन					0		
	6 मीटर चौड़ी	1200	mtr	3.35	1.5645	1877	4	जॉबदर
	3 मीटर चौड़ी	1000	mtr	2.25	1.0508	1051	2	जॉबदर
9	सुरक्षा 1 श्रमिक 9 माह	9	9 Month	1	12142	109278	235	अनुमानित
10	अ. रोपण के दौरान जून माह में पौधे लगाते समय मानसून के आने पर प्रत्येक पौधे में 25 लीटर पानी ट्रेक्टर टैंकर द्वारा दिया जावेगा। जिसके लिये 18850 लीटर पानी की आवश्यकता होगी। 1 टैंकर जिसकी क्षमता 5000 लीटर होगी के द्वारा पानी दिया जावेगा। (एक सिंचाई व्यवस्था में 4 टैंकर पानी का उपयोग किया जावेगा)	754	टैंकर		1000	8000	17	अनुमानित
	ब. अक्टूबर माह में एक सिंचाई व्यवस्था की जावेगी।							
11	अन्य आकस्मिक व्यय					24000	52	अनुमानित
						योग:-	167795	359
	6 प्रतिशत की वृद्धि लेने पर गुणांक 1.06					177863	381	
						कुलयोग	345658	

योजना का तृतीय वर्ष

क्र.	कार्य का विवरण	कार्य की मात्रा		दर प्रति ईकाई (पा. दि.)		राशि	कुल मानव दिवस	टिप्पणी
		मात्रा	इकाई	मादि	दर			
1	रोपणी व्यय (10 प्रतिशत पौधों के पुनरोपण हेतु)	75	पौ		13	980	2	बाजार दर
2	पौधों का परिवहन (संख्या)							बाजार दर
	ट्रक/ट्रेक्टर द्वारा	75	प्र से पौ	1.5	7.005	528	1	जॉबदर
	सिर बोझ द्वारा 1 कि०मी०	75	प्र से पौ	0.4	1.868	141	0	जॉबदर
3	पौधों में सिंचाई व्यवस्था (माह - अप्रैल एवं मई में)	8	टैंकर		1000	8000	17	बाजार दर
4	बारबेड वायर फेंसिंग मरम्मत कार्य	0	रमी	0.16	74.72	0	0	अनुमानित
5	प्रथम निंदाई					0		
	पौधों में	754	प्र से पौ	1.25	5.8375	4401	9	जॉबदर
6	खाद एवं कीटनाशक दवा डलवाई	754	प्र से पौ	0.6	2.802	2113	5	जॉबदर
7	आन्तरिक अग्नि सुरक्षा लाइन					0		
	6 मीटर चौड़ी	1200	mtr	3.35	1.5645	1877	4	जॉबदर
	3 मीटर चौड़ी	1000	mtr	2.25	1.0508	1051	2	जॉबदर
8	1 सुरक्षा श्रमिक	12	प्र माह	1	12142	145704	313	अनुमानित
9	अन्य आकस्मिक व्यय				L/S	23000	49	अनुमानित
	योग:-					187795	402	
	6 प्रतिशत की वृद्धि लेने पर गुणांक 1.1236					211007	452	
					कुलयोग	398803		

to -----

योजना का चतुर्थ वर्ष

क्र.	कार्य का विवरण	कार्य की मात्रा		दर प्रति इकाई (मा. दि.)		राशि	कुल मानव दिवस	रिमार्क
		मात्रा	इकाई	मानव दिवस	दर			
1	रोपणी व्यय (10 प्रतिशत पौधों के पुनरोपण हेतु)	0	पौ		13	0	0	बाजार दर
2	पौधों का परिवहन (संख्या)		पौ					बाजार दर
	ट्रक/ट्रेक्टर द्वारा	0	पौ	1.5	7.005	0	0	जॉबदर
	सिर बोझ द्वारा 1 कि०मी०	0	पौ	0.4	1.868	0	0	जॉबदर
3	प्रथम निंदाई		पौ					
	पौधों में	754	पौ	1.25	5.838	4401	9	जॉबदर
4	पौधों में सिंचाई व्यवस्था (माह – अप्रैल एवं मई में)	8	टैकर		1000	8000	17	बाजार दर
5	लैंटाना मापिंग 50 प्रतिशत	0	हे	8	3736	0	0	
6	खाद एवं कीटनाशक दवा डलवाई	754	पौ	0.6	2.802	2113	5	जॉबदर
7	आन्तरिक अग्नि सुरक्षा लाईन					0		
	6 मीटर चौड़ी	1200	mtr	3.35	1.564	1877	4	जॉबदर
	3 मीटर चौड़ी	1000	mtr	2.25	1.051	1051	2	जॉबदर
8	1 सुरक्षा श्रमिक	12	माह	1	12142	145704	312	जॉबदर
9	अन्य आकस्मिक व्यय				L/S	20000	43	
योग:-						183146	392	
6 प्रतिशत की वृद्धि लेने पर गुणांक 1.191						218127.2	467	
कुलयोग						401273		

to -----

क्षेत्र तैयारी वर्ष-योजना का पंचम वर्ष

क्र.	कार्य का विवरण	कार्य की मात्रा		दर प्रति ईकाई (मा.दि)		राशि	कुल मानव दिवस	रिमार्क
		मात्रा	ईकाई	मानव दिवस	दर			
1	बारबेड वायर फेंसिंग मरम्मत कार्य	100	रमी	0.16	74.72	7472	16.0343	जॉबदर
2	प्रथम निंदाई		पी					
	पीछों में	0	पी	1.25	5.8375	0	0	जॉबदर
3	द्वितीय निंदाई		पी			0		
	पीछों में	0	पी	1	4.67	0	0	जॉबदर
4	तृतीय निंदाई		पी			0		
	पीछों में	0	पी	1	4.67	0	0	जॉबदर
5	खाद एवं कीटनाशक दवा डलवाई	0	पीछे	0.6	2.802	0	0	जॉबदर
6	आन्तरिक अग्नि सुरक्षा लाईन							
	6 मीटर चौड़ी	1200	mtr	3.35	1.56445	1877	4	जॉबदर
	3 मीटर चौड़ी	1000	mtr	2.25	1.05075	1051	2	जॉबदर
7	1 सुरक्षा श्रमिक	12	माह	1	12142	145704	312	जॉबदर
8	अन्य आकस्मिक व्यय				L/5	20000	43	
	योग:-					176104	377	
	6 प्रतिशत की वृद्धि लेने पर गुणांक 1.2625					222331.4	476	
			कुलयोग			398436		

to ----

योजना का षष्ठम वर्ष

क्र.	कार्य का विवरण	कार्य की मात्रा		दर प्रति ईकाई (मा.दि.)		राशि	कुल मानव दिवस	रिमार्क
		मात्रा	ईकाई	मा दि	दर			
1	आन्तरिक अग्नि सुरक्षा लाईन							
	6 मीटर चौड़ी	1200	mtr	3.35	1.564	1877	4	जॉबदर
	3 मीटर चौड़ी	1000	mtr	2.25	1.0508	1051	2	जॉबदर
2	लैंटाना मापिंग 50 प्रतिशत	0	हे	8	3736	0	0	जॉबदर
3	1 सुरक्षा श्रमिक	12	माह	1	12142	145704	312	जॉबदर
4	अन्य आकस्मिक व्यय					15000	32	अनुमानित
	योग:-					163632	351	
	6 प्रतिशत की वृद्धि लेने पर गुणांक 1.3382					218972	470	
				कुलयोग		382605		

योजना का सप्तम वर्ष

क्र.	कार्य का विवरण	कार्य की मात्रा		दर प्रति ईकाई		राशि	कुल मानव दिवस	रिमार्क
		मात्रा	ईकाई	मानव दिवस	दर			
1	आन्तरिक अग्नि सुरक्षा लाईन							
	6 मीटर चौड़ी	1200	mtr	3.35	1.564	1877	4	जॉबदर
	3 मीटर चौड़ी	1000	mtr	2.25	1.0508	1051	2	जॉबदर
2	1 सुरक्षा श्रमिक	12	माह	1	12142	145704	312	अनुमानित
3	अन्य आकस्मिक व्यय					12000	26	अनुमानित
	योग:-					160632	345	
	6 प्रतिशत की वृद्धि लेने पर गुणांक 1.4185					227857	489	
				कुलयोग		388489		

योजना का अष्टम वर्ष

क्र.	कार्य का विवरण	कार्य की मात्रा		दर प्रति ईकाई		राशि	कुल मानव दिवस	रिमार्क
		मात्रा	ईकाई	मानव दिवस	दर			
1	आन्तरिक अग्नि सुरक्षा लाईन							
	6 मीटर चौड़ी	1200	mtr	3.35	1.564	1877	4	जॉबदर
	3 मीटर चौड़ी	1000	mtr	2.25	1.0508	1051	2	जॉबदर
2	1 सुरक्षा श्रमिक	12	माह	1	12142	145704	312	अनुमानित
3	अन्य आकस्मिक व्यय					12000	26	अनुमानित
	योग:-					160632	344	
	6 प्रतिशत की वृद्धि लेने पर गुणांक 1.504					241591	517	
				कुलयोग		402223		

योजना का नवम वर्ष

क्र.	कार्य का विवरण	कार्य की मात्रा		दर प्रति ईकाई (मा.दि.)		राशि	कुल मानव दिवस	रिमार्क
		मात्रा	इकाई	मा दि	दर			
	आन्तरिक अग्नि सुरक्षा लाईन							
1	6 मीटर चौड़ी	1200	mtr	3.35	1.564	1877	4	जॉबदर
	3 मीटर चौड़ी	1000	mtr	2.25	1.0508	1051	2	जॉबदर
2	1 सुरक्षा श्रमिक	12	माह	1	12142	145704	312	जॉबदर
3	अन्य आकस्मिक व्यय					10000	21	अनुमानित
	योग:-					158632	340	
	6 प्रतिशत की वृद्धि लेने पर गुणांक 1.594					252860	541	
				कुलयोग		411492		

योजना का दशम वर्ष

क्र.	कार्य का विवरण	कार्य की मात्रा		दर प्रति ईकाई		राशि	कुल मानव दिवस	रिमार्क
		मात्रा	इकाई	मानव दिवस	दर			
	आन्तरिक अग्नि सुरक्षा लाईन							
1	6 मीटर चौड़ी	1200	mtr	3.35	1.564	1877	4	जॉबदर
	3 मीटर चौड़ी	1000	mtr	2.25	1.0508	1051	2	जॉबदर
2	1 सुरक्षा श्रमिक	12	माह	1	12142	145704	312	अनुमानित
3	अन्य आकस्मिक व्यय					10000	21	अनुमानित
	योग:-					158632	340	
	6 प्रतिशत की वृद्धि लेने पर गुणांक 1.69					268088	574	
				कुलयोग		426720		

योजना का ग्यारवा वर्ष

क्र.	कार्य का विवरण	कार्य की मात्रा		दर प्रति ईकाई		राशि	कुल मानव दिवस	रिमार्क
		मात्रा	इकाई	मानव दिवस	दर			
	आन्तरिक अग्नि सुरक्षा लाईन							
1	6 मीटर चौड़ी	1200	mtr	3.35	1.564	1877	4	जॉबदर
	3 मीटर चौड़ी	1000	mtr	2.25	1.0508	1051	2	जॉबदर
2	1 सुरक्षा श्रमिक	12	माह	1	12142	145704	312	अनुमानित
3	अन्य आकस्मिक व्यय					10000	21	अनुमानित
	योग:-					158632	340	
	6 प्रतिशत की वृद्धि लेने पर गुणांक 1.79					283951	609	
				कुलयोग		442584		

वनमंडलाधिकारी
पश्चिम छिन्दवाड़ा वनमंडल

उपवनमंडलाधिकारी
परासिया उपवनमंडल सा.

वनपरिक्षेत्राधिकारी
जामई वनपरिक्षेत्र सा.

Sr Manager (M)/Manager
Ghorawadi Colliery No.2

उपक्षेत्री 189 वचक
घोरावाड़ी तानुसी उपक्षेत्र

कक्ष आर.एफ. 454 रकवा 0.942 हे. गोश्वारा,					
वर्ष	प्रस्तावित (मानव दिवस)	प्रस्तावित राशि	6 प्रतिशत प्रतिवर्ष की वृद्धि लेने पर गुणांक	प्रस्तावित मानव दिवस	प्रस्तावित राशि
प्रथम	1600	747175	1	1600	747175
द्वितीय	359	167795	1.06	381	177863
तृतीय	402	187795	1.1236	452	211007
चतुर्थ	392	183146	1.191	467	218127
पंचम	377	176104	1.2625	476	222331
षष्ठम	351	163632	1.3382	470	218972
सप्तम	345	160632	1.4185	489	227857
अष्टम	344	160632	1.504	517	241591
नवम	340	158632	1.594	541	252860
दशम	340	158632	1.69	574	268088
ग्यारवा	340	158632	1.79	609	283951
कुल योग	5190	2422809		6577	3069822
आस्थामूलक कार्य (राशि का 5 प्रतिशत) कुल योग राशि का				5%	153491
मानव संसाधन विकास कार्य (राशि का 1 प्रतिशत) कुल योग राशि का				1%	30698
मूल्यांकन / अनुश्रवण राशि (राशि का 4 प्रतिशत) कुल योग राशि का				4%	122793
				TOTAL	3376805

वनमंडलाधिकारी
पश्चिम छिन्दवाड़ा वनमंडल

उपवनमंडलाधिकारी
परासिया उपवनमंडल सा.

वनपरिक्षेत्राधिकारी
जामई वनपरिक्षेत्र सा.

Sr. Manager(N)/Manager
Ghorawadi Colliery No.2

उपक्षेत्रीय प्रबन्धक
घोरावाही तानसी उपक्षेत्र

केवल नागपुर कोर्ट के अधिकार क्षेत्र में

Under jurisdiction of Nagpur Court Only



वेस्टर्न कोलफील्ड्स लिमिटेड/ Western Coalfields Limited

मिनिरातना कम्पनी/ (A Miniratna Company)

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

CIN-U10100MH1975GO1018626

उपक्षेत्रीय प्रबंधक का कार्यालय, घोड़ावाडी तानसी उपक्षेत्र

पता: वेकोलि, कन्हान क्षेत्र, पोस्ट: दुंगरिया, जिला: छिंदवाड़ा, म.प्र.पिन: 480553

Email:subareamanagerdn@gmail.com

Office of the Sub Area Manager, Ghorawari Tandsi Sub Area

Address: WCL, Kanhan Area, PO: Dungaria, Dist: Chhindwara, MP, PIN: 480553

Phone: 07160-231064



5 DECADES OF UNEARTHED ENERGY

संदर्भ सं: वेकोलि/कन्हान/उपक्षेत्र/2025-26/ 318

दिनांक: 23-12-2025

प्रति,

श्रीमान उप वन महानिदेशक (केन्द्रीय),
पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय,
रीजनल ऑफिस, ई-5, केन्द्रीय पर्यावरण भवन,
ई-5 अरेरा कॉलोनी, लिंक रोड -3, रवीशंकर नगर, भोपाल - 462016

विषय :-वनमंडल पश्चिम छिंदवाड़ा के परिक्षेत्र जामई के PF-454 के रकबा 14.000 हे० वनभूमि में भारत खुली खदान फेस- 2 कोयला उत्खनन हेतु-मेसर्स वेस्टर्न कोलफील्ड्स लिमिटेड को उपयोग पर देने बावत्। आनलाईन प्रस्ताव क्र० FP/MP/MIN/26356/2017 (Submission of Scheme of Soil Conservation Measures)

Ref. No. 01: Online Application No. FP/MP/MIN/26356/2017

02. in-principle' approval under Section 2 (1) (ii) of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 vide letter No. 8-112/2006-FCVol- I/103203/2025 Dated 24.03.2025

03. Demand Note of DFO S.No./Takniki/2025/2047 Chhindwara Dtd 13/10/2025

महोदय,

विषयांकित पत्र के संबंध में लेख है कि, पश्चिम छिंदवाड़ा वनमंडल के अंतर्गत वनपरिक्षेत्र जामई के कक्ष क्र० आर आफ 454 में से रकबा 14 हे० वनभूमि भारत ओपन कास्ट खोयला खान फेस 2 वेस्टर्न कोलफील्ड्स लिमिटेड हेतु व्यर्पन के लिये पर्यावरण एवं वन मंत्रालय भारत सरकार के पत्र क्रं 8-112/2006-FCVol- I/103203/2025 Dated 24.03.2025 के द्वारा प्रथम चरण की सैध्यांतिक स्वीकृति जारी की गयी है।

प्रथम चरण की स्वीकृति में अधिरोपित शर्त क्र० 17 के पालन में वेकोलि द्वारा (Soil Conservation Measures Scheme) की योजना तैयार कर शर्त क्र० 17 के अनुसार आपकी और सादर प्रेषित है।

24/12/2025
RECEIVED
क्षेत्रीय कार्यालय / Regional Office
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
Ministry of Environment Forest & Climate Change
भारत सरकार / Govt. of India
नगर / Shreejani 482016, M.P.

उपक्षेत्रीय प्रबंधक / परियोजना प्रस्तावक
घोड़ावाडी तानसी उपक्षेत्र
कन्हान क्षेत्र, वेकोलि
उपक्षेत्रीय प्रबंधक
घोरावाडी तानसी उपक्षेत्र

कार्यालय वनमंडलाधिकारी, पश्चिम छिंदवाड़ा वनमंडल

E-mail ID :: dfotwechwara@mp.gov.in Fax (07162)246996

कमांक/तकनीकी/2025/ 2047

छिंदवाड़ा दिनांक 13/10/25

प्रति,

मुख्य महाप्रबंधक

वे.को.फी.लिमि.

कन्हान क्षेत्र डुंगरिया

विषय :- वनमंडल पश्चिम छिंदवाड़ा के परिक्षेत्र जामई के ग्राम जुन्नारदेव विशाला के कक्ष कमांक पी 454 के रकबा 14.00 हे० वनभूमि में भारत खुली खदान फेस-2 कोयला उत्खनन हेतु मेसर्स वेस्टर्न कोलफील्डस लिमि का व्यपवर्तन का ऑनलाईन प्रस्ताव कमांक FP/MP/MIN/26356/2017

संदर्भ :-

1. भारत सरकार पर्यावरण वन एवं जलवायु परिवर्तन मंत्रालय नई दिल्ली के पत्र दिनांक 24.03.2025
2. अपर प्रधान मुख्य वनसंरक्षक (कक्ष भू-प्रबंध) भोपाल के पत्र क. एफ-1/FP/MP/MIN/26356/2017/1025 दिनांक 24.03.2025
3. इस कार्यालय के पत्र कमांक 603 दिनांक 02.04.2025 एवं 1159 दिनांक 26.05.2025 एवं 1203 दिनांक 03.07.2025 एवं 1824 दिनांक 07.08.2025 एवं 1632 दिनांक 25.08.2025 एवं 1897 दिनांक 23.09.2025 एवं 1952 दि. 29.09.2025

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विषयांकित पत्र के तारतम्य में लेख है कि, पश्चिम छिंदवाड़ा वनमंडल अंतर्गत परिक्षेत्र जामई के ग्राम जुन्नारदेव विशाला के कक्ष कमांक आर एफ 454 (वनविकास निगम को हस्ता.) के रकबा 14.00 हे० वनभूमि में भारत खुली खदान फेस-2 कोयला उत्खनन हेतु प्रकरण ऑनलाईन प्रस्तुत किया गया है।

प्रकरण में भारत सरकार पर्यावरण वन एवं जलवायु परिवर्तन मंत्रालय नई दिल्ली के पत्र दिनांक 24.03.2025 से सैद्धांतिक स्वीकृति जारी की गई हैं। स्वीकृति में अधिरोपित शर्त कमांक 1 से 31 का पालन आवेदक विभाग द्वारा किया जाना है एवं शर्तवार वचनपत्र के साथ शर्तों का पालन प्रतिवेदन प्रस्तुत किया जाना है।

स्वीकृति में अधिरोपित शर्त कमांक III a, एवं b के पालन हेतु नेट प्रजेन्ट वेल्यू की राशि का निर्धारण भारत शासन पर्यावरण एवं वन मंत्रालय नई दिल्ली के आदेश दिनांक 06.01.2022 के अनुसार वनों का Eco-Class -III के अनुसार नेट प्रजेन्ट वेल्यू की राशि प्रति हे० 12,28,590.00 लाख रु. के आधार पर किया गया है।

व्यपवर्तित वनभूमि वन कक्ष कमांक आर.एफ. 454 के रकबा 14.00 हे. खुली खदान फेस-2 में भारत शासन पर्यावरण एवं वन मंत्रालय नई दिल्ली के आदेश दिनांक 06.01.2022 के अनुसार नेट प्रजेन्ट वेल्यू की राशि प्रति हेक्टेयर राशि रु. 12,28,590.00 लाख की दर से राशि रु. 1,72,00,260.00 का आंकलन

ok

किया गया है। शर्त क्रमांक 2 (a) वैकल्पिक वृक्षारोपण की राशि रु. 1,38,85,489.00 एवं शर्त क्रमांक 13 माईन एरिया के 100 मी. परिधि में गैप प्लांटिंग राशि रु. 69,75,753.00 का निर्धारण किया गया है।

निर्धारित की गई राशियों को ई-पोर्टल के माध्यम से ऑनलाईन कैम्पा मद के खाता में जमा कराया जाना है।

राशि का विवरण निम्नानुसार है :-

स.क्र.	मद	रकबा (हेक्टेयर में)	घनत्व (Density)	इको क्लास श्रेणी	राशि	रिमार्क (यदि कोई हो तो)
1	नेट प्रेजेन्ट वैल्यू	14.00	0.4	III	1,72,002,60.00	
2	वैकल्पिक वृक्षारोपण शर्त क्रमांक 2 (a)	28	-	-	1,38,85,489.00	
3	भारत खुली खदान रकबा 14 हे. उपरी तल माईन के 100 मी. परिधि में गैप प्लांटिंग शर्त क्रमांक 13	14	-	-	69,75,753.00	
	वैकल्पिक वृक्षारोपण की पर्यवेक्षण शुल्क की राशि शर्त क्रमांक 2 (a)				13,88,549.00	राशि कोषालय के माध्यम से राजस्व मद में जमा किया जावे।
	उपरी तल माईन के 100 मी. परिधि में गैप प्लांटिंग पर्यवेक्षण शुल्क शर्त क्रमांक 13				6,97,575.00	राशि कोषालय के माध्यम से राजस्व मद में जमा किया जावे।

अतः नेट प्रेजेन्ट वैल्यू की राशि रु. 1,72,00,260.00 (एक करोड़ बहत्तर लाख दो सौ साठ रुपये), शर्त क्रमांक 2(a) के पालन में वैकल्पिक वृक्षारोपण की राशि रु. 1,38,85,489.00 (एक करोड़ अड़तीस लाख पच्चासी हजार चार सौ नवासी) एवं शर्त क्रमांक 13 के पालन में माईन के 100 मी. परिधि में गैप प्लांटिंग की राशि रु. 69,75,753.00 (उनहत्तर लाख पचहत्तर हजार सात सौ तिरेपन) कुल राशि रु. 3,80,61,502.00 (तीन करोड़ अस्सी लाख इकसठ हजार पांच सौ दो) को ई-पोर्टल के माध्यम से कैम्पा मद

में जमा कराते हुये 72 घंटे बाद बैंक का स्टेटमेंट , यू.टी.आर. नंबर सहित चालान की छायाप्रति इस कार्यालय में प्रस्तुत करें।

शर्त क्रमांक 2(a)10 प्रतिशत पर्यवेक्षण शुल्क की राशि रुपये 13,88,549.00 एवं 13 में प्रावधानित 10 प्रतिशत पर्यवेक्षण शुल्क की राशि रुपये 6,97,575.00 कुल राशि रुपये 20,86,124.00 (बीस लाख छियासी हजार एक सौ चौबीस) को कोषालय के माध्यम से राजस्व मद मुख्य शीर्ष/उप मुख्य शीर्ष 0406 वानिकी और वन्य जीवन लघु शीर्ष 800 अन्य प्राप्तियों में जमा होने के उपरांत चालान जिला कोषालय द्वारा सत्यापित कर प्रस्तुत करें।

स्वीकृति में अधिरोपित शर्त क्रमांक X(a), (b), (c) के पालन में लीज एरिया के सेफटी जोन के 7.5 मी० परिधि में आरसीसी पिलर एवं फेंसिंग कार्य साथ ही सेफटी जोन एरिया को हरा-भरा करने हेतु उपवनमंडलाधिकारी परासिया के मार्गदर्शन में प्रोजेक्ट रिपोर्ट तैयार कर शर्तों का पालन करना सुनिश्चित करें। उक्त अधिरोपित शर्त अनुसार कार्य वन विभाग की निगरानी में किया जावेगा।

स्वीकृति में अधिरोपित शर्त क्रमांक I से XXXI की पूर्ति होने के उपरांत समस्त शर्तों का पालन प्रतिवेदन मय वचन पत्र एवं अभिलेख के इस कार्यालय में प्रस्तुत करें, ताकि अंतिम स्वीकृति हेतु शर्तों का पालन प्रतिवेदन शासन की ओर प्रेषित किया जा सकें।

वनमंडलाधिकारी

पश्चिम छिंदवाड़ा वनमंडल छिंदवाड़ा

छिंदवाड़ा, दिनांक/ 13/10/25

पृष्ठा.क्रमांक/ तकनीकी/2025/2048

प्रतिलिपि :- 1. प्रधान मुख्य वन संरक्षक (कक्ष भू-प्रबंध) वन भवन भोपाल की ओर सूचनार्थ संप्रेषित।

2. वन संरक्षक छिंदवाड़ा वन वृत्त छिंदवाड़ा की ओर सूचनार्थ संप्रेषित।

3. संभागीय प्रबंधक छिंदवाड़ा परियोजना मंडल वनविकास छिंदवाड़ा की ओर सूचनार्थ एवं आवश्यक कार्यवाही हेतु अग्रेषित।

4. उपवनमंडलाधिकारी परासिया सा.उपवनमंडल की ओर सूचनार्थ। स्वीकृति में अधिरोपित शर्त क्रमांक X(a), (b), (c) के पालन में लीज एरिया के सेफटी जोन के 7.5 मी० परिधि में आरसीसी पिलर एवं फेंसिंग कार्य साथ ही सेफटी जोन एरिया को हरा-भरा करने हेतु आपके मार्गदर्शन में वे.को.फि. लिमि. कन्हाण क्षेत्र जुंगरिया को प्रोजेक्ट रिपोर्ट तैयार किया जाना सुनिश्चित करें, एवं सैद्धांतिक स्वीकृति में अधिरोपित समस्त शर्तों का पालन आवेदक विभाग से कराकर शर्तवार पालन प्रतिवेदन आवेदक विभाग द्वारा इस कार्यालय में भिजवाना सुनिश्चित करें।

5. वनपरिक्षेत्राधिकारी जामई सा. वनपरिक्षेत्र की ओर सूचनार्थ एवं आवश्यक कार्यवाही हेतु अग्रेषित।

वनमंडलाधिकारी

पश्चिम छिंदवाड़ा वनमंडल छिंदवाड़ा