

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL PRINCIPAL  
BENCH, NEW DELHI

Original Application No.287 of 2024

Abhishek Shukla S/O Sri Keshav Prasad Shukla, R/O Village Jarar,  
PS-Girwan, Tahsil Naraini, District-Banda.

.....Applicant

Versus

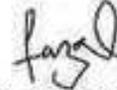
Shivarpan Trading Company

.....Respondent

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Dated 26 July, 2024



(SYED MOHD. FAZAL)

Advocate

(Enrollment No.U.P.03881/08)

Office cum residence C-207

GTB Nagar, Kareli,

Allahabad/Prayagraj UP 211016,

Mobile no.9889010500



BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL PRINCIPAL  
BENCH, NEW DELHI

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PS-Girwan, Tahsil Naraini, District-Banda.

.....Applicant

Versus

Shivarpan Trading Company

.....Respondent

**REPLY AFFIDAVIT ON BEHALF OF RESPONDENT in compliance to  
the order dated 20 May, 2024 passed by this Hon'ble Tribunal.**

I, Lavlesh Singh Son of Shri Lochan Singh, Resident of Kalukuwa,  
Baberu Road, Tehsil and District Banda (UP), the deponent do hereby  
solemnly affirm and State on oath as under :-

1. That it is relevant to submit herein that vide order dated 26.04.2024 cost was imposed on the applicant for delay in filing of reply before this Hon'ble Tribunal and the matter was again posted on 20.05.2024 for further consideration.
2. That it is worthwhile the mention herein that on 26.04.2024 in five of the connected matter i.e. Original Application No.285/2024 (Abhishek Shukla Vs. M/s Ureca Mines and Mineral LLP and others), Original Application no.290/2024 (Abhishek Shukla Vs. Sulabh Saxena), Original Application No.295/2024 (Abhishek Shukla Vs. Kunwar Vinod Ram), Original Application No.297/2024 (Abhishek Shukla Vs. Maa Vindwasini Stone Works) and Original Application No.299/2024 (Abhishek Shukla Vs. M/s A.H.V.S. Ifra LLP and others) arising out of the lead consolidated matter i.e. Original Application no.422/2023 (Abhishek Shukla Vs. Safdar Ali and others) were finally disposed of with directions mentioned in the judgment and orders dated 26.04.2024.

It is worthwhile to mention herein that the matter of the applicant is identical to the above mentioned five cases and the applicant seeks parity of the order of the order dated 26.04.2024 passed in all the above five cases before this Hon'ble Court and the applicant prays that the present matter may also be disposed of in terms of the order mentioned therein. A true copy of the one of the order dated 26.04.2024 passed in one of the Original Application



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शिवरपण ट्रेडिंग कंपनी  
बन्दा, उत्तर प्रदेश-207-819

No.295/2024 (Abhishek Shukla Vs. Kunwar Vinod Ram) is being filed herewith and marked as Annexure No.1 to this affidavit.

3. That in compliance of the order dated 20.05.2024; the applicant is bringing on record a copy of the Environment Impact Assessment Report (EIA) on record. A true copy of the final EIA Report is being filed herewith and marked as Annexure No.2 to this affidavit.
4. That certain relevant facts regarding the mining operations of minor mineral by the answering respondent wherein the mining operations are being conducted by way of cutting of hills, certain necessary facts which are necessary for the queries regarding mining operations made by this Hon'ble Tribunal, is being brought before this Hon'ble Court as mentioned below:-
  - I. The mining activities of minor minerals in the leased area of the answering respondents are allowed in pursuant to the district survey report prepared by the mining department after getting joint inspection of Forest Department, Irrigation Department and other departments and only after district survey report is conducted then only, the present leased area was put to auction by way of advertisement.
  - II. The mining plan was prepared by the project proponent for scientific mining activities for conducting mining operations in a scientific manner which was subject to approval from Director General Mines and Safety Lucknow and after such approval was accorded to the applicant then only the lease deed was registered.
  - III. The leased area of the answering respondent is a pure waste land having undulating surface surrounded by barren land which has less vegetation of low economic value as such there is no loss to vegetation by the mining operations of the applicant.
  - IV. There is no eco sensitive zone and eco sensitive area within the 10 Kms of the leased area so there is no ecological loss from the mining operations of the answering respondent.
  - V. The Environmental Impact Assessment has been done in case of the answering respondent in which all adverse impact and there mitigation measures have been studied.
  - VI. The reclamation of mined out land will be given due importance as a step for sound land resource management in the form of reclaimed



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land and water body. This activity will act as the natural rain water collection pond which will help to reduce the water crisis of the nearby area.

VII. Mining activity will help in the Nation building and developmental activities.

VIII. Stone mined out from the mine is being and continued to be used as boulders of different sizes for River Anti erosion, Dam construction, embankment works etc.

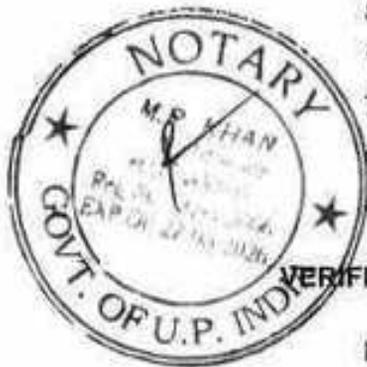
IX. After crushing into different sizes of aggregates from 6mm to 63mm, the product can be used in construction and road projects, infrastructure etc.

X. It is a major source of State Revue generation.

XI. Local people get employment from it.

1-31-

5. That it is also relevant to submit herein that environmental clearance to the applicant was considered finally on 30.05.2023 in the 734<sup>th</sup> meeting of the State Level Environmental Impact Assessment Authority in pursuant to the recommendations by SEAC to grant the environmental clearance vide meeting dated 11.05.2023 of its 747<sup>th</sup> SEAC meeting. A true copy of the minutes 734<sup>th</sup> meeting dated 30.05.2023 alongwith 747<sup>th</sup> meeting of SEAC dated 11.05.2023 are collectively being filed herewith and marked as Annexure No.3 to this affidavit.



VERIFICATION:

I, the above named deponent do verify that the content of my above affidavit are true to the best of knowledge and belief and there is nothing concealed therefrom.

Verified at Banda on this 26 day of July, 2024.

Handwritten notes and signatures in Hindi, including a date '26/7/24' and a signature.

Deponent signature and stamp for Mohd. Rafique Khan, Notary/Advocate, Banda (U.P.).

Item No. 17

(Court No. 2)

**BEFORE THE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI**

(Through Physical Hearing with Hybrid VC Option)

Original Application No. 295/2024

**1. Abhishek Shukla,**  
S/o Keshav Prasad Shukla,  
Resident of Village Jarar,  
Police Station Girwas,  
Tehsil Nareni, District Banda,  
Uttar Pradesh.

...Applicant

Versus

**1. M/S Kunwar Vinod Ram, Gata No. 332,**  
Khand No -01, Village Badokhar Khurd,  
Tehsil Nareni, District Banda,  
Uttar Pradesh.

**2. State of Uttar Pradesh,**  
Through Chief Secretary, Government of Uttar Pradesh,  
Secretariat, 5th Floor, Lucknow-226001,

**3. Principal Secretary, Environment, Forest and Climate Change  
Department,**  
State of Uttar Pradesh,  
17, Rana Pratap Marg, Lucknow, (U.P.), 226001,

**4. Director, Directorate of Geology and Mining, Uttar Pradesh,**  
Khanij Bhawan 27/8, Raja Ram Mohan Rai Marg,  
Lucknow-226001 Phone No. - 0522-2205904,  
Email: dgmupexp@gmail.com.

**5. Director General of Mines Safety,**  
Ministry of Labour and Employment, Dhanbad, Jharkhand,  
Hirapur, Dhanbad, Jharkhand, 826001,  
Email: dir.soma@dgms.gov.in.

**6. Uttar Pradesh Pollution Control Board.**  
Through Member Secretary,  
Vishnu Khand, Gomti Nagar, Uttar Pradesh-221301,  
Email: ms@uppcb.com.

**7. District Magistrate, Banda**  
District Magistrate Office, Collectorate, Banda-210001 (UP),



शिवराम प्रोडिया कं.  
 कानपुर, उत्तर प्रदेश-बारा

O.A. No. 295/2024

Abhishek Shukla Vs. Kunwar Vinod Ram &amp; Ors.

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Email : [dmban@nic.in](mailto:dmban@nic.in).

...Respondents

Date of hearing: 26.04.2024

**CORAM: HON'BLE MR. JUSTICE ARUN KUMAR TYAGI, JUDICIAL MEMBER.  
HON'BLE DR. AFROZ AHMAD, EXPERT MEMBER.**

Applicant: None for the applicant.

Respondents: Mr. Manoj Kumar, Advocate for respondent no.1-  
Mr. Gi. Gi. C. George and Ms. Barkha Singh, Advocates  
for Respondents No.2, 3, 5 and 7.  
Mr. Mukesh Verma, Advocate for Respondent No. 4.  
Mr. Pradeep Mishra, Advocate for Respondent No.6.

**Application is registered based on a letter petition received by Post**

**ORDER**

1. Abhishek Shukla s/o Keshav Prasad Shukla resident of Village Jarar, Police Station Girwas, Tehsil Nareni, District Banda, Uttar Pradesh has sent the present letter petition which was treated and registered as Original Application No. 422/2023.

been allotted in two hills situated in the area of village Jarar. Five crushers have been established in Village Jarar and Chhancha Purwa. Mining is being done by resorting to illegal blasting which has resulted in damage to the houses of villagers. The crushers are being operated day and night. The crushers do not have any boundary wall. There is no sprinkling of water during operation thereof. The crushers are causing dust and noise pollution due to which the residents are suffering from Asthma and other diseases. Illegal blasting has also affected old temples located on the hills. Illegal mining and blasting are also adversely affecting the wildlife in the area. The roads to the above said villages have been damaged by the overloaded vehicles used for



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कानपुर, उत्तर प्रदेश

transportation of excavated minor minerals.

3. The relevant part of the letter petition enumerating grievances of the applicant is reproduced as under:-

विषय: पहाड़ों में अवैध ब्लास्टिंग, मानक विपरीत चल रही क्रेसर से बरबाद हो रही फसलें, नष्ट हो रहा पर्यावरण, संकट में जनजीवन और जिम्मेदारों की अनदेखी के सम्बन्ध में।

महोदय,

बिन्दु-1 थाना गिरवां ग्राम जरर में स्थित दो पहाड़ों में लगभग 6 पट्टे स्वीकृत हैं जिनमें 6 इंच का होल करके ब्लास्टिंग की जाती है। जिससे पूरा गांव हिल जाता है, ब्लास्टिंग का कोई समय भी निर्धारित नहीं है गांव के कई घरों में दरारें भी आ गयी हैं। ब्लास्टिंग के दौरान पत्थर के टुकड़े लोगों के घरों और खेतों में गिरते हैं जिससे हर समय जान का खतरा बना रहता है। छोटे से पहाड़ में 5 पट्टों का स्वीकृत किया जाना एक घनघोर लापरवाही है। पहाड़ समाप्त होने से पर्यावरण को व जीव जन्तुओं को भारी नुकसान हो रहा है।

बिन्दु-2 ग्राम जरर स्थित पहाड़ में पौराणिक शिव मंदिर है जिसमें प्रतिवर्ष बसंत पंचमी में मेला लगता है यहां बहुतायत संख्या में राष्ट्रीय पक्षी मोर विचरण करते हैं, हजारों लोगों की आस्था जुड़ी हुई है पर जब से अवैध ब्लास्टिंग आरंभ हुई है तब से सभी मोर गायब हैं और पहाड़ में रहने वाले बंदर, सांप व पक्षी भी नहीं बचे हैं। ब्लास्टिंग की वजह से पहाड़ में रहने वाले बंदर लोगों के घरों में घुस रहे हैं और नुकसान पहुंचा रहे हैं।

बिन्दु-3 ग्राम जरर व उसके मजरा छनिहापुरवा में 5 क्रेसर लगी हुई है किसी भी क्रेसर में बाउण्ड्रीवाल नहीं है, पानी नहीं छिड़का जाता है रात और दिन बराबर डस्ट उड़ती है, पत्थर की डस्ट से हजारों बीधा उपजाऊ जमीन स्थायी रूप से नष्ट होने की कगार पर है। वहीं ग्रामीण लोग सिलकोसिस और अस्थमा जैसी बीमारियों का शिकार हो रहे हैं। बगल में ही प्राइमरी विद्यालय है जहां बच्चों के स्वास्थ्य पर असर पड़ रहा है।

बिन्दु-4 ग्राम जरर मजरा छनिहा पुरवा, रधवापुरवा में उपजाऊ जमीन के बीच सभी क्रेसर लगी हुई हैं प्रशासन व संबंधित विभागों द्वारा आंख मूंदकर व आफिस में बैठकर सर्वे करके अनुमति दी गयी है। किसान अपनी आखों के सामने फसलों को बरबाद होते देख रहा है रात दिन चलने वाली क्रेसरों से ध्वनि प्रदूषण हो रहा है ग्रामीण रात में सो नहीं पाते हैं।

बिन्दु-5 ग्राम जरर मजरा छनिहापुरवा, रधवापुरवा के सभी रास्ते पूरी तरह से जर्जर हो चुके हैं ओवर लोड परिवहन से सड़के ध्वस्त हो चुकी हैं यहां से निकलने वाले ओवरलोड ट्रक धूल उड़ाते है जो खेतों में और लोगों के फेफड़ों में जमा होती है।

बिन्दु-6 ऐसी ही स्थिति गिरवां के पहाड़ों व क्रेसरों में भी है गिरवां स्थित गिरवां में गाये मर रही हैं और गिरवां स्थित पौराणिक मंदिर भूतेश्वर बाबा खतरे में है। गिरवां के ग्रामीण ब्लास्टिंग की वजह से मौत के साये में जी रहे हैं।

बिन्दु-7 थाना गिरवां ग्राम पतरहा के पहाड़ में स्थित शिव मंदिर किशंगुर गांव का प्रांगण दरक रहा है और यह पौराणिक मंदिर खतरे में है। पतरहा गांव में होने वाले अवैध ब्लास्ट से लोगों के घरों की छत दरक गयी है और लोग अपने घरों के आंगन व छतों में नहीं जा पाते हैं।

श्रीमान जी यदि गिरवां, पतरहा व जरर में अवैध ब्लास्टिंग मानक विहीन क्रेसर संचालन, ओवर लोड परिवहन नहीं रोका गया तो हजारों की संख्या में लोग



*(Signature)*

शिवार्याण रेडिंग केंद्र  
कानपुर-205002

पलायन कर जायेंगे, मौते होंगी और भयानक पर्यावरण असंतुलन पैदा होगा जिससे दैवीय आपदाएँ आयेगी इसलिए जल्द ही कार्यवाही सुनिश्चित करें। उपरोक्त लिखे गये पत्र के संबंध में सभी साक्ष्य संलग्न हैं।”

7. THIS HONORABLE COURT CONSTITUTION AND VIDE ORDER DATED 01.08.2023 constituted a joint committee to verify the factual position and take appropriate remedial action in accordance with law and submit factual and action taken report. The relevant part of the order reads as under:-

“...3. *Prima facie*, the averments made in the application raise questions relating to environment arising out of the implementation of the enactments specified in Schedule I to the

4. *In view of the averments made in the application, we consider it appropriate that a Joint Committee be constituted to verify the factual position and take appropriate remedial action. Accordingly, we constitute a Joint Committee comprising of*

*State PCB and District Magistrate, Banda and direct the same to meet within one week, undertake visits to the site, look into the grievances of the applicant, associate the applicant and representative of the concerned project proponents, verify the factual position and take appropriate remedial action by following due course of law and giving opportunity of being heard to the project proponents. The Committee shall also give factual status on compliance by the Project Proponents with EC and CTE/CTO conditions and shall also report about damage caused to the houses of villagers and environment due to illegal blasting and suggest remedial measures. The State PCB will be the nodal agency for coordination and compliance.*

5. *Factual and Action taken Report may be submitted within one month by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/OCR Supported PDF and not in the form of Image PDF...*”

5. In compliance of order dated 01.08.2023, report of the Joint Committee has been filed vide email dated 08.09.2023. The relevant part of the report is reproduced below:-

**“Hon'ble National Green Tribunal, Principal Bench, New Delhi passed order on dated 01.08.2023 in the matter of**



*Handwritten signature and stamp:*  
शिवप्रसाद सिंह  
कायस्थ, बंडा नगर-बंडा

**O.A. No- 422/2023, Abhishek Shukla versus State of Uttar Pradesh and others. The operative part of the order is as follows: -**

X X X X  
2. In compliance of direction issued by Hon'ble National Green Tribunal following members have been nominated for the said Joint Committee by the concern departments regarding compliance of above Hon'ble National Green Tribunal order: -

Sr. No	Name	Designation	Member nominated by
1	Shri Umakant Tripathi	ADM(F/R), District - Banda	District Magistrate, Banda
2	Shri B. P. Yadav	Senior Mine Officer	Geology and Mining, Uttar Pradesh
4	Shri Rajendra Prasad	Regional Officer, U.P. Pollution Control Board,	UPPCB

3. Hon'ble NGT vide order dated 01.08.2023, the Joint Committee is directed to undertake visits the site and look into the grievances of the applicant, associate the applicant and representative of the concerned project proponents, verify the factual position and take appropriate remedial action by following due course of law and giving opportunity of being heard to the project proponents. It is also directed to Committee to give factual status on compliance by the Project Proponents with EC and CTE/CTO conditions and report about damage caused to the houses of villagers and environment due to illegal blasting and suggest remedial measures.

4. The nominated Joint Committee Members has carried out the field survey on 17.08.2023 and 18.08.2023. During the field visit/survey, the committee members interacted with the applicant, Mr. Abhishek Shukla and representative of the concerned project proponents of mining lessee and stone crusher.

5. As per information provided by Mining Officer, Banda, the following lease mining are allotted at hill of village- Jarar, Girawa and Pataraha, Tehsil- Naraini, District- Banda on identified place by applicant. Annexure-1. The issued date of Environmental Clearance (EC), Registered Lease Agreement (MM6), DGMS permission and Consent to Operate (CTO) to lease mining are given as below: -



शिवानंद सिंह को  
आज्ञाप्त, नंबर 1115-2023

O.A. No. 295/2024

Abhishek Shukla Vs. Kunwar Vinod Ram &amp; Ors.

6

Sr No	Location of mining lease	Sanctions lease area and capacity	Date of EC issued by SEIAA	Lease Agreement date	Date of DGMS Permission	Date of CTO issued by UPPCB
1	2	3	4	5	6	7
1	Safdar Ali S/o Late Shri Farzand Ali, Gata No.-2450, Khanda No.-03, at Village-Jarar	Lease Area- 2.0 Hac, Capacity-20000 Cub. Mtr/ Year	05.10.2020	09.11.2020	27.04.2023	20.04.2023
2	Mumtaj Ali S/o Late Farzand Ali, Gata No.- 2450, Khanda No.- 05, Village-Jarar	Lease Area- 2.0 Hac, Capacity-20000 Cub. Mtr/ Year	05.10.2020	09.11.2020	01.06.2023	31.05.2023
3	EUREKA MINES AND MINERALS LLP, GATA No. 2451, KHAND No. 01; Village-Jarar	Lease Area- 2.5 Hac, Capacity-25000 Cub. Mtr/ Year	30.12.2021	05.01.2022	29.07.2022	06.11.2022 <sup>1-3</sup>
4	Athary Construction company (Shri Shrawan Kumar Singh S/o Shri Vishnupal Singh), Gata No.-2451, Khand No.-02, at Village-Jarar	Lease Area- 1.21 Hac, Capacity-12100 Cub. Mtr/ Year	06.05.2022	22.07.2022	-	05.08.2023
5	SHIVARPAN TRADING COMPANY, Gata No. 2450, Khand No. 06, Vill. Jarar	Lease Area- 2.0 Hac, Capacity-20000 Cub. Mtr/ Year	05.06.2023	17.04.2023	-	15.07.2023
6	Jasmit Kaur Malhotra, Gata No - 1876, Khand no- 5, Village-Girwan	Lease Area- 1.21 Hac, Capacity- 12100 Cub. Mtr/ Year	23.06.2020	22.10.2020	11.04.2023	9.06.2022
7	SANGRAM SINGH, GATA No. 1876, KHAND No.- 01; Village-Girwan	Lease Area- 2.02 Hac, Capacity- 20200 Cub. Mtr/ Year	11.08.2022	09.11.2020	11.04.2022	16.12.2022



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शिवारण अडिगा कं.  
बन्दा, उ.प्र. 221-बन्दा

8	Sulabh Saxena Gata No.- 1876 (Khand No.- 02), Village- Girwan	Lease Area- 0.8 Hac. Capacity- 8000 Cub. Mtr/ Year	08.11.2020	18.12.2020	11.06.2023	09.06.2022
9	Bajrang Road Lines (Shri Suresh Pratap Singh), Gata No.- 1876, Khand No.- 03, Village-	Lease Area- 1.41 Hac. Capacity- 14100 Cub. Mtr/ Year	14.12.2021	03.01.2022	-	03.06.2023
10	Bajrang Road Lines (Shri Suresh Pratap Singh), Gata No.- 1876, Khand No.- 04, Village- Girwan	Lease Area- 1.21 Hac. Capacity- 12100 Cub. Mtr/ Year	14.12.2021	03.01.2022	30.09.2022	03.06.2023
	BUNDELKHA ND ROCKS, Gata No- 1876, (Khand No.09), Village- Girwan	Lease Area-05 Hac. Capacity-5000 Cub. Mtr/Year	07.05.2022	08.07.2022	-	26.02.2023

X X X X  
6. As per information provided by Mining Officer, Banda, mining lease mention in serial number — 1, 2, 3, 6, 7, 8 and 10 have obtained DGMS permission for blasting and rest lease mining have applied for DGMS permission.

As per information provided by Mining Officer, Banda based on MM11, out of 05 mining lease on hill of village- Jarar, 04 mining lease are operational and 01 mining lease (Shivarpan Trading Company, Gata No. 2450, Khand No. 06, Vill. Jarar) is not operational. Out of 07 mining lease on hill of village- Girwan, 06 mining lease are operational and 01 mining lease (Bundelkhand Rocks, Gata No-1876, Khand No- 07), Village- Girwan) is not operational. Out of 04 mining lease on hill of village-Badokhar Khurd (Pataraha), all mining lease are operational. The production reported based on the eMM11 is given on the basis of detail provided by Mining Officer, Banda at Annexure I.

7. During the committee visit, applicant raised his allegation that blasting is carried out any time with 4 inches holes, cracks made in home due to blasting, stone pieces fall in village and farmer field, damage village road and damage the wild animal and environment, damage the temple situated on hills of village — Jarar, Girwan and Badokhar Khurd (Pataraha). It is also informed by applicant that due to generating dust during operation of stone crusher in village- Jarar (Chhaneha Purwa, Raghupurwa), the crops are damaged and dust suppression system is not operated.



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The committee interacted with the applicant & villagers and also visited the point of concerns raised in the application. It was observed by the committee during the site visit, details are given as below: -

7.1) The main habitation of village- Jarar is situated 135 meters away from the nearest allotted lease mining on hill of village- Jarar, but some houses are made near the allotted lease M/s Safdar Ali S/o Late Shri Farzand Ali, Gata No -2450, Khanda No.- 03, at Village-Jarar. Temple is situated 235 meters away from the allotted lease mining on other part of hill of village- Jarar.

7.2) The main habitation of village- Girwan is situated 175 meters away from the allotted lease (Bundelkhand Rocks, Gata No-1876, (Khand No.09, Village- Girwan), 36 meters away from the allotted lease (Sangram Singh, Gata no- 1876, Khand no. 01, Vill. Girwan), 139 meters-away from the allotted lease (Bajrang Road Lines, Gata No.- 1876, Khand No.- 03, Village- Girwan) and 90 meters away from the allotted lease (Bajrang Road Lines, Gata No.- 1876, Khand No.- 04, Village- Girwan) on hill of village- Girwan but some houses are made near the allotted lease M/s Sangram Singh, Gata no- 1876, Khand no. 01, Vill. Girwan, Bajrang Road Lines, Gata No.- 1876, Khand No.- 03, Village- Girwan.

Temple is situated 70 meters away from the allotted lease (Bundelkhand Rocks, Gata No-1876, Khand No.09, Village- Girwan). Temple is situated 53 meters away from the allotted lease mining (M/s Sangram Sigh, Gata No. 1876, Khand No. 01, Vill-Girwan) on other part of hill of village- Girwan. It is reported by Mine Officer, Banda that mining lease of M/s Sangram Sigh, Gata No. 1876, Khand No. 01, Girwan, Gata is allotted on same

hill part where temple is made but mining is not in operation.

7.3) Gaushala is situated 100 meters away from the allotted lease mining area on hill of village- Girwan.

7.4) The main habitation of village- Badokhar Khurd (Pataraha) is situated 75 meters away from the nearest allotted lease mining on hill of village- Badokhar Khurd (Pataraha), Temple is situated 100 meters away from allotted lease mining Kuwar Vinod Raja, Gata No. 332, Khand No -01, Vill. Badokhar Khurd on hill of village-Badokhar Khurd.

7.5) It was informed by the villagers to committee member during the visit that blasting work in lease area is done in any time with 4 inches holes by lessee and stone pieces are falling on his home and effected the animal and human being. But it was informed by lease holders that blasting is done in allowed time duration between 2.0 PM to 3.0 PM with one-inch holes and proper safety.

7.6) Crack in home could not been shown by applicant to committee members.

7.7) During the committee visit, stone pieces were not found in agriculture field and habitant area. The possibility of vibrations due the blasting at nearby houses of villagers and falling the stone pieces in nearby agriculture field and habitant area during blasting cannot be ruled out.

7.8) During the committee visit, Village Road was not found in



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good condition due to movement of heavy vehicles

7.9) Wild animal was not appeared on hill/ lease area during committee visit.

7.10) The agricultural lands are surrounded by most of these mining lease areas and the mining activities in such close vicinity can affect the crop yield in these areas. Similarly, the boulder stones can be thrown into these crops during the blasting operations for mining.

7.11) 05 stone crushers were identified in village- Jarar (Chhaneha Purwa, Raghwapurwa), out of 5 stone crushers 4 stone crushers were found in operation and one stone crusher was found under construction.

8. From the details given at the annexure-2, it reveals that Residential area is located 17 meters from M/s Sangram Singh, Gata no- 1876, Khand no. 01, Vill. Girwan and 11 meters from M/s Bajrang Road Lines, Gata No.- 1876, Khand No.- 03, Village- Girwan, remaining all the lease areas are located within 500 m from the nearest residential area. As per the lease is allotted beyond 50 m from habitant area.

9. The public road is passing through the said mining lease area.

10. One Pond/ Lake is located in adjacent the hill of Girwan.

11. During the committee visit, excavated deep pit was found on each mining lease area. It was informed by Mining Officer, Banda and Mining Lessee to committee members that mining has been done by previous mine lease holders before re-allotment to present lessee on same place.

12. In compliance of direction issued by Hon'ble National Green Tribunal, observation of non-compliance of Environmental Clearance and CTE/CTO are given as below: -

12.1) The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year wise expenditure shall be reported to the MoEF, Gol, Lucknow, and State. Pollution Control Board

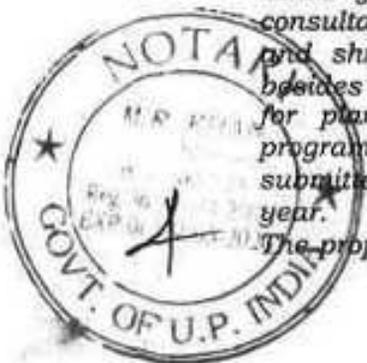
None of the mine have provided the details about the funds earmarked for environmental protection measures to UPPCB. It was informed by mining lessee that expenditure allotted in EMP head is being utilized in same purpose.

12.2) Sprinkling of water on haul roads to control dust will be ensured by the project proponent

During the visit, it is reported by lessee that arrangement for sprinkling of water through tanker on haul roads to control dust is done. Tanker was found on lease mining place.

12.3) Green belt development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the local DFO / Agriculture Department. Herbs and shrubs shall also form a part of afforestation program besides tree plantation. The company shall involve local people for plantation program. Details of year wise afforestation program including rehabilitation of mined out area shall be submitted to the Regional Office, MoEF&CC, Gol, Lucknow every year.

The proposal for tree plantation and green belt development has



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been mentioned in the Environmental Management plans submitted by these mines. However, to date, no related activity has been initiated on the ground by any of the mines.

12.4) Appropriate arrangement for shelter and drinking water for the mining workers must be ensured at the mining site.

Arrangement for shelter and drinking water has been provided by lease mine.

12.5) Maintenance of village roads used for transportation of minerals are to be done by the company regularly at its own expenses. The roads shall be black topped.

None of the village road near these mining sites have been maintained and black topped by the proponents.

12.6) Ground and surface water, if any in and near the core zone (within 5.0 km of the lease) shall be regularly monitored for contamination and depletion due to mining activity and records maintained. The monitoring data shall be submitted to the Regional Office, MoEF, Gol, Lucknow and U P Pollution Control Board regularly. Further, monitoring points shall be located between the mine and drainage in the direction of flow of ground water shall be set up and records maintained.

Committee found one pond/lake is located within 5 KM from these mines. The monitoring of this pond/lake has not carried out by any of the mine.

12.7) Fugitive dust generation shall be controlled. Fugitive dust emission shall be regularly monitored at locations of nearest human habitation (including schools and other public amenities located nearest to sources of dust generation as applicable) and records submitted to the Regional Office, MoEF&CC, Gol, Lucknow and U.P. Pollution Control Board regularly. Monitoring report have not been submitted regularly to UPPCB. Some lessees have submitted compliance report and monitoring report presently.

12.8) Corporate Environmental Responsibility (CER) shall be by the project proponent and the details of the various heads of expenditure to be submitted as per the guidelines provided in the recent CER notification No. 22- 65/2017-1A.111 dated 01/05/2018. Work to be executed with installation of five hand pumps of drinking water, solar light in villages of streets, construction of two numbers of toilets at the primary school with name displayed and address and details of beneficiary and gram Pradhan along with phone number, photographs should be submitted to Directorate as well as to the district magistrate / Chief Development officers.

The details of the activities carried out by these mining projects under CSR/CER activities are found at ground during the visit. It was informed by the Mine Office, Banda that CSR/CER activities is being initiated with district administration and mining lessee.

12.9) Transportation of minerals shall be done by covering the trucks with tarpaulin or other suitable mechanism so that no spillage of mineral/dust takes place.

During any visit of the committee, transportation was not found at the site. Hence, the status could not be verified. However, in general, it has been observed covering is not being used by most of vehicle during transportation.



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12.10) Hydro geological study of the area shall be reviewed by the project proponent annually. In case adverse effect on ground water quality and quantity is observed mining shall be stopped and resumed only after mitigating steps to contain any adverse impact on ground water is implemented.

No such study has been carried out by these mines.

12.11) The following conditions are mentioned about blasting: -

12.11.1) Controlled blasting techniques with sequential blasting shall be adopted. The blasting shall be carried out in the day time only.

12.11.2) Blast vibrations study shall be conducted and an observation report submitted to the regional office, MoE&CC, GoI, Lucknow and UPPCB within six months. The report shall also include measures for prevention of blasting associated impact on nearby houses and agricultural fields.

12.11.3) The blasting will be done only after getting the permission, from the Mining Department.

The blast vibration study reports have not been submitted by any of the mine to UPPCB. And as informed by the mining department, some mines are not obtaining approval for blasting from them.

12.12) The condition of progressive mine with 6m bench has been mentioned in the Environment Clearance and mining lease document. However, on ground no such bench/progressive mining operations were found in any of the mining project lease area.

12.13) The lease allotment was done only based on environmental clearance. Although proponent had not obtained consent under the Water (Prevention & Control of Pollution), Act 1974 and Air (Prevention and Control of Pollution), Act 1981 before the start of mining operations however the all-project proponent have obtained the consent to Operate (CTO) in present.

X X X X

## 21. Finding and recommendations:

21.1) The mining department can be asked to restrict the mining activities in those mines wherein the required minimum distance criteria are not meeting. If mining is allowed on allotted near vicinity of habitant, habitant will be relocated to other specific place with consultation of nearby villagers/ civil society.

21.2) The mining department can be asked to restrict the mining activities in part of hill where temple is located. If mining is permitted at this place, the temple and habitant will be relocated to other specific place with consultation of nearby villagers/ civil society/ priest of temple.

21.3) The mining department can be asked to restrict the mining activities through blasting in those mines who have not taken permission by DGMS for use the blasting and mechanical instrument/ machine.

21.4) The mining department can be asked to provision made for construction the main village road by DMF fund.



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21.5) UPPCB can be asked to take necessary action against the stone crusher who have not operated the dust suppression system during the operation of stone crusher.

21.6) The project proponent can be asked to maintain the village road near these mining sites.

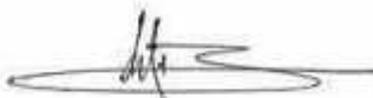
21.7) The project proponent can be asked for blasting will be done in allowed time duration with one-inch holes and proper safety arrangement after obtaining the valid permission of the DGMS and Department of Mines.

21.8) The project proponent of mining lease and stone crusher can be asked to strictly comply with the conditions prescribed in the Environmental Clearance/ consent/ mining lease allotment letter and submit the status to the concerned authorities regularly."

6. Vide order dated 03.10.2023 this Tribunal impleaded State of Uttar Pradesh through Chief Secretary, Government of Uttar Pradesh; Principal Secretary, Environment, Forest and Climate Change Department, State of Uttar Pradesh; Director, Directorate of Geology and Mining, Uttar Pradesh; Director General of Mines Safety, Directorate General of Mines Safety, Ministry of Labour and Employment, Dhanbad, Jharkhand; Uttar Pradesh State Pollution Control Board; District Magistrate, Banda and all the 21 (twenty one) project proponents and ordered issuance of notices to them with further directions that notices be served on respondents no. 6 to 27 through the District Magistrate, Banda.

7. Vide order dated 08.02.2024 cases against each of the Project Proponents were ordered to be separated and to be separately registered as original applications so that separate proceedings are conducted for considering the question of environmental violations, verifying compliance and taking remedial measures against each of the Project Proponents separately.

8. In order to avoid duplicacy of names in the cause titles of the cases so separated, it was directed that in cases so separated name of the Project Proponent be kept at serial no.1 while preparing the memo of parties and names of other respondents be mentioned at serial no. 2 onwards. The



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Registry was directed to prepare and attach memo of parties accordingly.

9. Accordingly, the cases have been separated and separate O.A. No. 295/2024 has been registered against Project Proponent- M/s Kunwar Vinod Ram.

10. Vide order dated 03.10.2023 the Director General, Mines Safety, Dhanbad, Jharkhand, Director, Geology and Mining, Uttar Pradesh and the District Magistrate, Banda were directed to look into the recommendations made by the Joint Committee in its report and take appropriate remedial steps and file action taken reports in this regard within one month.

11. Reports/responses have been filed by the Director General, Mines Safety (DGMS), Dhanbad vide email dated 01.11.2023; by District Magistrate, (DM), Banda vide email dated 21.11.2023 and by Uttar Pradesh Pollution Control Board (UPPCB) vide email dated 23.11.2023.

12. The relevant part of the report filed by DGMS, Dhanbad vide email dated 01.11.2023 is reproduced below:-

***Action Taken Report in compliance of Hon'ble National Green Tribunal order dated 03.10.2023 in the matter of Original Application No. 422/2023 Abhishek Shukla Vs State of Uttar Pradesh and Others***

X

X

X

X

***Action Taken by the Directorate General of Mines Safety (DGMS)***

***1. The Directorate General of Mines Safety (DGMS) oversees the enforcement of the Mines Act, 1952 and the rules and regulations made therein in mines.***

***2. The mines/leases listed under Annexure-1 of the Joint Committee's Report are covered under the Mines Act, 1952; however, the stone crushers listed under Annexure-2 are not covered under it. Hence, the Action Taken Report by DGMS is restricted to Annexure-1 of the Joint Committee's Report. Further, as per para No. 4 of the Order passed on 03.10.2023 by the Hon'ble NGT read with the para no. 21.3 and 21.7 of the Joint Committee's Report, DGMS has been directed to take necessary***



*[Handwritten Signature]*

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actions and file action taken report.

3. The status of Action Taken by DGMS in respect of the mines/leases listed under Annexure-1 of the Joint Committee's Report is summarised in the table below:

Sl. No.	Name of Mine, Owner & its Location/Area	Date of Submission of Notice of opening	Status of Appointment/ Authorisation of Manager	Status of permissions granted		Remarks
				Use of HEMM without deep hole blasting	Use of HEMM with deep hole blasting	
13	Kunwar Vinod Gata No. 352, No. 01, Village Badokhar Khurd, Lease Area-1.61 Hec.	Submitted, but incomplete (surface plan of the mine not submitted and other deficiencies).	Foreman's appointment notice submitted, but without appointing mining mate.	Not Applied	Not Applied	Letter sent on 31.10.2023 to lessee, DM & DMO for stoppage of mine until compliance of the provisions mentioned.

4. The leaseholder of the mining leases mentioned at serial no. 4, 5, 11, 12, 13 and 15 of the above table had neither submitted the "Notice of Opening" of the mine, as required under Section 16 of the Mines Act, 1952 and Regulation 3 of the MMR 1961, nor appointed manager of the mine, as required under Section 17 of the Mines Act, 1952 and Regulation 34(1) of the MMR 1961. Letters were sent on 23 & 25.10.2023 to the District Magistrate and District Mining Officer of Banda district and the concerned lease holders for stoppage of all mining operations until compliance of the above provisions. However, subsequently the leaseholder at serial no. 5 has submitted Notice of Opening of the mine on 26.10.2023 with intended date of opening as 26.11.2023, enclosing therewith notice of appointment of foreman/manager, but online application for manager's authorisation is still pending. Letter has been sent to the lessee on 31.10.2023 directing him for online registration of mine (LIN & Mine Code generation) and submitting online application for manager's authorisation. Similarly, the leaseholder at serial no. 13 has submitted Notice of Opening of the mine on 25.10.2023 without surface plan and appointment of mining mate. Letter has been sent to the lessee (endorsing copy thereof to the District Magistrate and District Mining Officer of Banda district) on 31.10.2023 directing him to submit all relevant documents/details and thereafter to do online registration of mine and submit online application for manager's authorisation. He has also been directed to stop all mining operations until compliance of the above provisions.

5. The leaseholder of the mining lease mentioned at serial no. 2 of the above table has not appointed manager after resignation submitted by his previous manager on 19.06.2023. Letter has been sent to the concerned leaseholder endorsing copy thereof to the District Magistrate and District Mining Officer of Banda district



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for stoppage of all mining operation until compliance of the above provision.

6. The online application submitted by the mine owner at serial no. 10 in the above table for grant of Manager's Authorisation has been rejected on 23.10.2023 as the Mate's certificate which was submitted with the application was not valid. Letter has been sent to the mine owner endorsing copy thereof to the District Magistrate and District Mining Officer of Banda district for stoppage of mining operation until compliance of the above provision.

7. Based on the online applications made by the respective mine owners, the mining leases mentioned at serial no. 1, 6 and 7 of the above table have been granted permission under Regulation 106(2)(b) of the MMR 1961 for use of Heavy Earth Moving Machinery (HEMM) without deep hole blasting in their mines.

8. Online application was made by the owner of the mining lease mentioned at serial no. 3 of the table for granting permission under Regulation 106(2)(b) of the MMR 1961 for use of HEMM with deep hole blasting by using holes of diameter 100 mm; however, he has been granted permission for use of HEMM without deep hole blasting by using shot holes of depth not exceeding 3m and diameter not exceeding 100 mm.

9. Permission for deep hole blasting under Regulation 106(2)(b) and permission for use of SME/SMS/ANFO explosives under Regulation 155(1) & 162(5) of MMR, 1961 has not been granted in any of the mining leases mentioned at serial no. 1 to 16 of the above table.

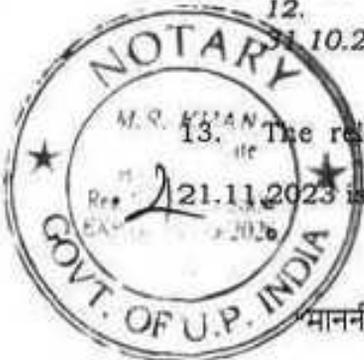
10. Permission under Regulation 164(1B) of MMR, 1961 for blasting within danger zone of 300 m from any permanent building or structure of permanent nature, not belonging to the owner of the mine, by using more than 2 kg of aggregate maximum explosive charge in all holes fired at one time or more than 2 kg of maximum explosive charge in each hole where blasting is done with delay detonators or other means and that there is a delay of at least half a second between successive shots fired, has not been granted in any of the mining leases mentioned at serial no. 1 to 16 of the above table.

11. In the authorisations/letters for manager appointment issued to the owners of mining leases mentioned at serial no. 8, 9, 14 and 16 of the above table, the conditions for prohibiting use of HEMM & deep hole blasting, SME/SMS/ANFO explosives and explosives in excess of quantity mentioned under para 10 unless separate permission under Regulations 106(2)(b), 155(1) & 162(5) and 164(1B) respectively of MMR, 1961 is obtained have been clearly stipulated.

12. The above status of action taken is updated upto 31.10.2023."

13. The relevant part of the report filed by DM, Banda vide email dated 21.11.2023 is reproduced below:-

माननीय राष्ट्रीय हरित अधिकरण नई दिल्ली द्वारा दिनांक 03.10.2023 को पारित



*[Handwritten Signature]*

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आदेश के अनुपालन में की गयी कार्यवाही का विवरण निम्नवत् है:-

1. माननीय एन०जी०टी० के आदेश के बिन्दु संख्या-3 के अनुपालन में क्रमांक 01 से 04 एवं 06 से 27 पर अंकित खनन पट्टा धारक/स्टोन क्रशर इकाई धारक को माननीय राष्ट्रीय हरित अधिकरण नई दिल्ली द्वारा दिनांक 03.10.2023 को पारित आदेश के अनुपालन में निर्धारित समयावधि में अपना पक्ष प्रस्तुत किये जाने हेतु पत्र कार्यालय जिलाधिकारी, बाँदा (खनिज अनुभाग) के पत्रांक 691/ खनिज-30, बाँदा दिनांक 19.10.2023 द्वारा प्रेषित किया गया है। पत्र की छापाप्रति संलग्न है।

2. माननीय राष्ट्रीय हरित अधिकरण नई दिल्ली द्वारा दिनांक 03.10.2023 को पारित आदेश के बिन्दु संख्या-4 के अनुपालन में संयुक्त जाँच कमेटी की निरीक्षण आख्या में दिये गये रिकमन्डेशन पर कार्यवाही किये जाने हेतु कार्यालय जिलाधिकारी, बाँदा (खनिज अनुभाग) के पत्रांक 690 / खनिज-30, बाँदा दिनांक 19.10.2023 द्वारा निम्नलिखित सदस्यों की कमेटी का गठन किया गया:-

1. उपजिलाधिकारी नरैनी।
2. क्षेत्रीय अधिकारी, उ०प्र० प्रदूषण नियन्त्रण बोर्ड, बाँदा।
3. अधिशाषी अभियन्ता, लोक निर्माण विभाग, प्रान्तीय खण्ड- 2, बाँदा।
4. खान अधिकारी / खान निरीक्षक, बाँदा।

3- माननीय राष्ट्रीय हरित अधिकरण नई दिल्ली द्वारा दिनांक 03.10.2023 को पारित आदेश अनुपालनार्थ माननीय राष्ट्रीय हरित अधिकरण नई दिल्ली द्वारा दिनांक 01.08.2023 को पारित आदेश के अनुपालन में माननीय एन०जी०टी० में दाखिल संयुक्त जाँच कमेटी की निरीक्षण आख्या में दिये गये रिकमन्डेशन के क्रम में कार्यालय जिलाधिकारी, बाँदा (खनिज अनुभाग) के पत्रांक 690/खनिज-30, बाँदा दिनांक 19.10.2023 द्वारा गठित कमेटी द्वारा खनन स्थल का निरीक्षण दिनांक 17.11.2023 को किया गया।

4- माननीय एन०जी०टी० में दाखिल संयुक्त जाँच कमेटी की निरीक्षण आख्या में दिये गये रिकमन्डेशन के क्रम में बिन्दुवार कृत कार्यवाही का विवरण निम्नवत् है:-

क्रम सं०	संयुक्त जाँच कमेटी की निरीक्षण आख्या में दिये गये रिकमन्डेशन	अनुपालनार्थ कार्यवाही का विवरण
21.1	<i>The mining department can be asked to restrict the mining activities in those mines wherein the required minimum distance criteria are not meeting. If mining is allowed on allotted near vicinity of habitant, habitant will be relocated to other specific place with consultation of villagers/</i>	1. ग्राम-जरर, तहसील-नरैनी, जनपद-बाँदा स्थित पहाड़ी पर कुल 5 खनन पट्टों को खनन विभाग द्वारा माइनिंग लीस आवंटित की गयी है, जिसमें ग्राम-जरर की मुख्य आबादी मैसर्स सफदर अली पुत्र स्व० श्री फरजन्द अली, गाटा नं०-2450, खण्ड नं०-03 ग्राम-जरर, जनपद-बाँदा से 135 मी० की दूरी पर स्थित है परन्तु खनन पट्टे के समीप 05 कच्चे मकान निर्मित पाये गये, जिसे नियमानुसार विस्थापित किये जाने की कार्यवाही प्रचलित है। शेष अन्य 4 खनन पट्टों से मुख्य आबादी



*[Signature]*

शिवाराम इंडिया कं०  
शावकुआ, बनेर रोड-बाँदा

	<i>civil society.</i>	<p>50 मी० से अधिक दूरी पर स्थित है।</p> <p>2. ग्राम—गिरवा, तहसील-नरैनी, जनपद-बाँदा स्थित पहाड़ी पर कुल 7 खनन पट्टों को खनन विभाग द्वारा माइनिंग लीस आवंटित की गयी है, जिसमें ग्राम--गिरवा की आबादी मैसर्स संग्राम सिंह, गाटा नं०-1876, खण्ड नं०-01 ग्राम-गिरवा, जनपद- बाँदा से 36 मी० की दूरी पर स्थित है। मैसर्स बजरंग रोड लाइन (सुरेन्द्र प्रताप सिंह), गाटा नं०- 1876, खण्ड नं०- 03 ग्राम- गिरवा, जनपद- बाँदा से 15 मी० की दूरी पर स्थित है। वर्तमान में आबादी अधिक होने के दृष्टिगत आबादी को विस्थापित कराये जाने की कार्यवाही किया जाना उचित नहीं है। ऐसी स्थिति में शासन / निदेशालय से दिशा-निर्देश प्राप्त कर खनिज नियमावली में अनुमन्य आबादी की दूरी तक खनन पट्टे का क्षेत्रफल कम किये जाने की कार्यवाही किया जाना नियमानुसार उचित प्रतीत होता है।</p> <p>शेष अन्य 5 खनन पट्टों से मुख्य आबादी 50 मी० से अधिक दूरी पर स्थित है।</p> <p>3. ग्राम- बडोखर खुर्द, तहसील-नरैनी, जनपद- बाँदा स्थित पहाड़ी पर कुल 4 खनन पट्टों को खनन विभाग द्वारा माइनिंग लीस आवंटित की गयी है। सभी खनन पट्टे खनिज नियमावली में अनुमन्य आबादी की दूरी से अधिक दूरी पर स्थित है।</p>
21.2	<p><i>The mining department can be asked to restrict the mining activities in part of hill where temple is located. If mining is permitted at this place, the temple and habitant will be relocated to other specific place with consultation of nearby villagers/ civil society/priest of temple.</i></p>	<p>1. ग्राम- जरर, तहसील- नरैनी, जनपद- बाँदा स्थित पहाड़ी पर कुल 5 खनन पट्टों को खनन विभाग द्वारा माइनिंग लीस आवंटित की गयी है।</p> <p>ग्राम- जरर की पहाड़ी पर स्थित मंदिर से निकटतम खनन पट्टा मैसर्स सफदर अली पुत्र स्व० श्री फरजन्द अली, गाटा नं०- 2450, खण्ड नं०- 03 ग्राम- जरर, जनपद- बाँदा से 235 मी० की दूरी पर स्थित है। शेष अन्य 4 खनन पट्टे मंदिर से 340 मी० से अधिक की दूरी पर स्थित है।</p> <p>उपरोक्त सभी पट्टे मानक के अनुसार हे परन्तु ग्रामीण आस्था को देखते हुये मंदिर परिसर के आस-पास कोई नया खनन पट्टा दिया जाना उचित नहीं है।</p>



*[Signature]*

शिवारिण देहिंग के  
नायकशा, बनेर रोड-बाँदा

		<p>2. ग्राम गिरवा, तहसील- नरैनी, जनपद- बौदा स्थित पहाड़ी पर कुल 7 खनन पट्टों को खनन विभाग द्वारा माइनिंग लीस आवंटित की गयी है।</p> <p>ग्राम- गिरवा की पहाड़ी पर स्थित मंदिर से निकटतम खनन पट्टा मैसर्स संग्राम सिंह, गाटा नं०- 1876, खण्ड नं०- 01 ग्राम- गिरवा, जनपद- बौदा से 85 मी० की दूरी पर स्थित है। शेष अन्य 6 खनन पट्टे मंदिर से 100 मी० से अधिक की दूरी पर स्थित है।</p> <p>उपरोक्त सभी पट्टे मानक के अनुसार है परन्तु ग्रामीण आस्था को देखते हुये मंदिर परिसर के आस-पास कोई नया खनन पट्टा दिया जाना उचित नहीं है।</p> <p>3. ग्राम- बडोखर खुर्द, तहसील नरैनी, जनपद- बौदा स्थित पहाड़ी पर कुल 4 खनन पट्टों को खनन विभाग द्वारा माइनिंग लीस आवंटित की गयी है।</p> <p>ग्राम- बडोखर खुर्द की पहाड़ी पर स्थित मंदिर से निकटतम खनन पट्टा मैसर्स कुंवर विनोद राजा, गाटा नं०- 332, खण्ड नं०-01 ग्राम बडोखर खुर्द, जनपद- बौदा से 100 मी० की दूरी पर स्थित है। शेष अन्य 6 खनन पट्टे भी मंदिर से 100 मी० से अधिक की दूरी पर स्थित है।</p> <p>उपरोक्त सभी पट्टे मानक के अनुसार है परन्तु ग्रामीण आस्था को देखते हुये मंदिर परिसर के आस-पास कोई नया खनन पट्टा दिया जाना उचित नहीं है।</p>
21.3	<p>The mining department can be asked to restrict the mining activities through blasting in those mines who have not taken permission by DGMS for use the blasting and mechanical instrument / machine.</p>	<p>डॉक्टर जनरल माइन्स ऑफ सेफ्टी, डायरेक्ट जनरल ऑफ माइन्स सेफ्टी, मिनिस्ट्री ऑफ लेबर एण्ड इम्प्लायमेंट, धनवाद, झारखण्ड से ब्लास्टिंग सम्बन्धी लाइसेन्स प्राप्त कर ब्लास्टिंग द्वारा खनन कार्य किये जाने हेतु नोटिस खनन विभाग बौदा के पत्रांक-820 दिनांक 02.11.2023 समस्त पट्टा धारक को प्रेषित किया गया है।</p>



*(Handwritten signature)*

शिवार्णव इंद्रिया क.०  
फावुकुआ, बबक रोड-बौदा

21.4	<i>The mining department can be asked to provision made for construction the main village road by DMF fund.</i>	ग्राम- जरर स्थित लिंक रोड का निर्माण डी०एम०एफ० फण्ड से कराये जाने हेतु मार्ग का सर्वेक्षण जांच की तिथि को समिति द्वारा किया गया एवं उसे बनाने हेतु प्रस्ताव तैयार किये जाने की कार्यवाही अधिशाषी अभियन्ता, लोक निर्माण विभाग, प्रान्तीय खण्ड- 2, बाँदा द्वारा किया जाना प्रक्रियाधीन है।
X	X	X X
21.6	<i>The project proponent can be asked to maintain the village road near these mining sites.</i>	खनन स्थल के समीप के रोड को मैनटेन किये जाने हेतु खनन विभाग बाँदा के पत्रांक-834 दिनांक 03.11.2023 द्वारा पत्र समस्त पट्टा धारक को प्रेषित किया गया है।
21.7	<i>The project proponent can be asked for blasting will be done in allowed time duration with one-inch holes and proper safety arrangement after obtaining the valid permission of the DGMS and Department of Mines.</i>	डिरेक्टर जनरल माइन्स ऑफ सेफ्टी, डिरेक्ट्रेट जनरल ऑफ माइन्स सेफ्टी, मिनिट्री ऑफ लेवर एण्ड इमप्लायमेंट, धनवाद, झारखण्ड द्वारा जारी परमीशन के अनुसार खनन हेतु ब्लास्टिंग का कार्य किये जाने तथा ब्लास्टिंग का कार्य निर्धारित समयावधि में किये जाने हेतु खनन विभाग बाँदा के पत्रांक-820 दिनांक 02.11.2023 द्वारा पत्र समस्त पट्टा धारक को प्रेषित किया गया है।
21.8	<i>The project proponent of mining lease and stone crusher can be asked to strictly comply with the conditions prescribed in the Environmental Clearance consent/ mining lease allotment letter and submit the status to the concerned authorities regularly.</i>	X X X X राज्य स्तरीय पर्यावरणीय संघात निर्धारण प्राधिकरण, उ०प्र०, द्वारा जारी पर्यावरणीय स्वीकृति तथा उ०प्र० प्रदूषण नियंत्रण बोर्ड द्वारा जारी सहमति (जल एवं वायु) आदेश में अंकित शर्तों का अनुपालन किये जाने हेतु, उ०प्र० प्रदूषण नियन्त्रण बोर्ड, बाँदा के पत्र दिनांक 14.11.2023 द्वारा ग्राम- जरर, गिरवा एवं बडोखर खुर्द स्थित समस्त खनन पट्टा धारक को नोटिस प्रेषित किया गया है।

The relevant part of the report filed by UPSPCB vide email dated 23.11.2023 is reproduced below:-

Uttar Pradesh Pollution Control Board response in compliance of order dated 03.10.2023 passed by Hon'ble



*[Signature]*

शिवापिंग ट्रेडिंग कं०  
वासुदेव, बनेरु रोड-बाँदा

**National Green Tribunal, New Delhi in the matter of O.A. No-422/2023 Abhishek Shukla Vs State of Uttar Pradesh and Others**

X X X X

4. That it is submitted that as per the Joint Committee report, 16 mining lease of Village- Jarar, Girwan and Badokhar Khurd, Tehsil- Naraini, District- Banda, were awarded after issuance of environmental clearance. During joint survey, these mining lease holders had not obtained consent to operate (CTO) under the Water (Prevention & Control of Pollution), Act 1974 and Air (Prevention and Control of Pollution), Act 1981 before the start of mining operation. But before submitting the Joint Committee Inspection report, all 16-mining lease holder had obtained the Consent to Operate (CTO). Notices are also issued to each Lease Holder to comply the conditions of Environmental Clearance and Consent to Operate (CTO) vide letter dated 14.11.2023. The copy of Notices dated 14.11.2023 are enclosed herewith and marked as Annexure- 3."

15. Vide order dated 24.11.2023 the Mining Department and the District Magistrate Banda were granted time to file reply and the mining lease holders were directed to cease and desist from carrying out any mining by way of blasting without obtaining requisite permission from DGMS, Dhanbad and in violation of environmental norms prescribing siting criteria.

16. Reports have been filed by DM, Banda vide email dated 04.12.2023 and by Mining Department, U.P. vide email dated 05.12.2023.

17. The relevant part of report filed by the DM, Banda vide email dated 04.12.2023 reads as under:

विषय मा० राष्ट्रीय हरित अधिकरण, नई दिल्ली में योजित ओ०ए० नं०-422/2023 अभिषेक शुकला बनाम उ०प्र० राज्य व अन्य में पारित आदेश दिनांक 24.11.2023 के अनुपालन के सम्बन्ध में

X X X X X

उक्त के सम्बन्ध में अनुपालन आख्या निम्नवत है :-

17. खनन पट्टाधारको, जिनके द्वारा खान सुरक्षा महानिदेशालय परिक्षेत्र वाराणसी से ब्लास्टिंग की अनुमति प्राप्त नहीं की गयी है, जिन्हे कार्यालय आदेश सं०-1046/खनिज-30, बांदा दिनांक 30.11.2023 (संलग्नक-05) द्वारा निर्देशित किया गया है कि खान सुरक्षा महानिदेशालय परिक्षेत्र वाराणसी से परमीशन प्राप्त किये बिना ब्लास्टिंग द्वारा खनन कार्य न



शिवार्पण इंडिया सं. ६  
बॉम्बे रोड-बांदा

किया जाय तथा मा० अधिकरण के आदेशो का अक्षरशः अनुपालन किया जाना सुनिश्चित किया जाय, जिनका विवरण निम्नवत है :-

क्रम सं०	पट्टाधारक का नाम व पता	तहसील	खण्ड क्षेत्र	गाटा संख्या	रक बा (हे० मे)	पट्टा अवधि
1	2	3	4	5	6	7
1.	श्री मुमताज अली पुत्र स्व० श्री फरजन्द अली निवासी नु०-खूटी चौराहा, अलीगंज, शहर व जिला बांदा	नरैनी	जरर	2450 (खण्ड सं०-5)	2.00	09.11.2020 से 08.11.2030 तक
2.	मेसर्स अर्धर्व कांस्ट्रक्शन कम्पनी प्रो० श्री श्रवण कुमार सिंह पुत्र श्री विष्णुपाल सिंह निवासी प्लॉट न०-03, आशुतोष हाउसिंग सोसायटी रामपुरम फेस-1, दहेली सुजानपुर, जिला कानपुर नगर पिनकोड-208013	नरैनी	जरर	2451 (खण्ड सं०-2)	1.21	22.07.2022 से 21.07.2032 तक
3.	मेसर्स शिवापन ट्रेडिंग कम्पनी प्रो० श्री लवलेश सिंह पुत्र श्री 3. लोचन सिंह निवासी मु०-कालुकुआ, बबेरू रोड, तहसील व जिला बांदा	नरैनी	जरर	2450 (खण्ड सं०-06)	2.00	14.07.2023 से 13.07.2033 तक
4.	मे० सुलभ सक्सेना पहाड़ी पट्टेदार प्रो० श्री सुलभ सक्सेना पुत्र श्री सूरजसहाय सक्सेना निवासी मो० गांधीनगर महोबा, तहसील व जिला महोबा	नरैनी	गिरवा	1876 (खण्ड सं०-02)	0.80	18.12.2020 से 17.12.2030 तक
5.	श्री बजरंग रोड लाइन्स पार्टनर श्री सुरेश प्रताप सिंह पुत्र श्री तेज प्रताप सिंह निवासी ग्राम व पोस्ट-मऊ, 584, कटरा लालगंज, तहसील गौरीगंज, जिला अमेठी	नरैनी	गिरवा	1876 (खण्ड सं०-04)	1.21	03.01.2022 से 02.01.2032 तक
6.	मेसर्स बुन्देलखण्ड रॉक्स प्रो० श्रीमती दीपाली सिंह पत्नी श्री के०पी० सिंह निवासी-आशीवाद पैलेस, नयापुरा नैकाना, तहसील गिरवा व जिला महोबा	नरैनी	गिरवा	876 ((खण्ड सं०-09)	0.50	08.07.2022 से 07.07.2032 तक
	मेसर्स बुन्देलखण्ड रॉक्स प्रो० श्रीमती दीपाली सिंह पत्नी श्री के०पी० सिंह निवासी-आशीवाद पैलेस, नयापुरा नैकाना, तहसील गिरवा व जिला महोबा	नरैनी	गिरवा	1876 (खण्ड सं०-07)	0.80	12.05.2023 से 11.05.2033 तक
	श्री कुंवर विनोद राजा पुत्र स्व० श्री रामकृपाल सिंह निवासी-एम०आई०जी०बी०, 74 बी०एस०एन०एल० टॉवर के	नरैनी	बडोखर खुर्द	332 (खण्ड सं०-01)	1.61	01.03.2021 से 28.02.2031 तक



शिवार्पण ट्रेडिंग नं०  
कालुकुआ, बबेरू रोड-बांदा

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	पास, इंदिरा नगर, बांदा					
9.	मे० दिशा इन्टर प्राइजेज प्रो० श्रीमती सुधा सिंह पत्नी श्री सुनील सिंह निवासी-नोनिया मुहाल छावी तालाब, शहर व जिला-बांदा।	नरेनी	बड़ोखर खुर्द	332 (खण्ड सं०-2)	1.61	05.11.2020 से 04.11.2030 तक
10.	मे० मां विध्यवासिनी स्टोन वर्क्स प्रो० श्री समीर सिंह पुत्र श्री फूल 10. सिंह निवासी मु०- सिविल लाइन टी०एम० कालोनी, थाना कोतवाली नगर, जिला बांदा	नरेनी	बड़ोखर खुर्द	332 (खण्ड सं०-5)	0.40	04.01.2020 से 03.01.2030 तक
11.	श्री दीपक सिंह पुत्र श्री रामपाल सिंह निवासी अकबरपुर बांदा रोड, भरतकूम, तहसील कर्वी, जिला चित्रकूट	नरेनी	बड़ोखर खुर्द	332 (खण्ड सं०-03)	0.56	25.11.2020 से 24.11.2030 तक

(2). 02 खनन पट्टाधारको, जिनके द्वारा खान सुरक्षा महानिदेशालय परिक्षेत्र वाराणसी ब्लास्टिंग की अनुमति प्राप्त है, जिन्हे कार्यालय आदेश सं०-1048/खनिज-30, बांदा दिनांक 30.11.2023 (संलग्नक-06) द्वारा निर्देशित किया गया है कि प्राप्त परमीशन के अनुसार ब्लास्टिंग द्वारा खनन कार्य किया जाय तथा मा० अधिकरण के आदेशों का अक्षरशः अनुपालन किया जाना सुनिश्चित किया जाय, जिनका विवरण निम्नवत है :-

क्रम सं०	पट्टाधारक का नाम व पता	तहसील	खनन क्षेत्र	गाटा संख्या	रकबा (हे० में)	पट्टा अवधि
1	2	3	4	5	6	7
1	श्रीमती जसमीत कौर मल्होत्रा पत्नी श्री रसमीत सिंह मल्होत्रानिवासी-नेहरू वार्ड, अलका टाकीज के पास, तह० पिपरिया, जिला हीशंगाबाद (म०प्र०)।	नरेनी	गिरवा	1876 (खण्ड सं०-5)	1.21	22.10.2020 से 21.10.2030 तक
2	मे० चुरेका माइन्स एण्ड मिनरल्स एल०एल०पी० पार्टनर श्री चन्द्रशेखर चौरसिया पुत्र श्री दीनदयाल चौरसिया निवासी-28, ब्रह्मपुरी कालोनी निपर जुगली क्रासिंग, फैजाबाद रोड, जिला नरेनी लखनऊ तथा श्री हिमांशु मीणा पुत्र श्री रामजीलाल मीणा निवासी नौदंड, हर्मादा, जयपुर (राजस्थान)	नरेनी	जरर	2451 (खण्ड सं०-01)	2.50	05.01.2022 से 04.01.2032 तक



(3). 03 खनन पट्टाधारको के सम्बन्ध में कमेटी द्वारा प्रस्तुत आख्या दिनांक 17.11.2023 द्वारा उपरोक्त खनन पट्टा क्षेत्र को नजदीक स्थित आबादी के निकट पाया है। ऐसी स्थिति में

श्री विनायक शुकला, नरेश रोड-बांदा

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कार्यालय आदेश सं0-1047/खनिज-30, बांदा दिनांक 30.11.2023 (संलग्नक-07) द्वारा उक्त खनन पट्टा क्षेत्र से खनन/परिवहन का कार्य मा० राष्ट्रीय अधिकरण, नई दिल्ली द्वारा पारित उपरोक्त आदेश दिनांक 24.11.2023 के अनुपालन में अग्रिम आदेशों तक प्रतिबन्धित किया गया है तथा निर्देशित किया जाता है कि अपने खनन क्षेत्र में खनन संक्रियायें प्रत्यक्ष अथवा अप्रत्यक्ष रूप से किसी भी दशा में न किया जाय एवं मा० अधिकरण के आदेशों का अक्षरशः अनुपालन किया जाना सुनिश्चित किया जाय, जिनका विवरण निम्नवत है :-

क्रम सं०	पट्टाधारक का नाम व पता	तहसील	खनन क्षेत्र	गाटा संख्या	रकबा (हे० मे)	पट्टा अवधि
1	2	3	4	5	6	7
1	श्री सफदर अली पुत्र स्व० श्री फरजन्द अली निवासी मु०-खुंटी चौराहा, अलीगंज, शहर व जिला बांदा	नरैनी	जरर	2450 (खण्ड सं०-3)	2.00	09.11.2020 से 08.11.2030 तक
2	श्री बजरंग रोड लाइन्स पार्टनर श्री सुरेश प्रताप सिंह पुत्र श्री तेज प्रताप सिंह निवासी ग्राम व पोस्ट-मऊ, 584, कटरा तालगंज, तहसील गौरीगंज, जिला अमेठी	नरैनी	गिरवा	1876 (खण्ड सं०-3)	1.41	03.01.2022 से 02.01.2032 तक
3	श्री संग्राम सिंह पुत्र श्री जयवन्त सिंह निवासी ग्राम-पहरा तहसील व जिला महोबा।	नरैनी	गिरवा	1876 (खण्ड सं०-1)	2.02	09.11.2020 से 08.11.2030 तक

अतः उपरोक्तानुसार अनुपालन आख्या प्रेषित है।

18. In the report filed by Uttar Pradesh Mining Department vide email dated 05.12.2023 reference has been made to letter dated 04.12.2023 relevant part of which is reproduced below:-



विषय:-ओ०ए० संख्या-422 वर्ष 2023 अभिषेक शुक्ला बनाम उत्तर प्रदेश राज्य व अन्य में मा० राष्ट्रीय हरित अधिकरण, नई दिल्ली द्वारा पारित आदेश दिनांक 23.10.2023 के सम्बन्ध में।

महोदय,

उपरोक्त विषयक रजिस्ट्रार, मा० राष्ट्रीय हरित अधिकरण, नई दिल्ली को सम्बोधित तथा शासन व निदेशालय को पृष्ठांकित अपने पत्र संख्या-970/ खनिज-30 बांदा दिनांक 21.11.2023 का सन्दर्भ ग्रहण करें जिसके साथ ओ०ए० संख्या-422 वर्ष 2023 अभिषेक शुक्ल बनाम उत्तर प्रदेश राज्य व अन्य में मा० राष्ट्रीय हरित

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अधिकरण, नई दिल्ली द्वारा पारित आदेश दिनांक 03.10.2023 के बिन्दु संख्या-4 के अनुपालन में आपके द्वारा गठित जनपद स्तरीय समिति द्वारा प्रस्तुत अनुपालन आख्या / कृत कार्रवाई रिपोर्ट (Action Taken Report) दिनांक 17.11.2023 प्रेषित किया गया है।

मा० राष्ट्रीय हरित अधिकरण के आदेश दिनांक 01.08.2023 द्वारा गठित संयुक्त समिति द्वारा प्रस्तुत आख्या में Finding and Recommendations से सम्बन्धित बिन्दु संख्या-21.1 के क्रम में जनपद स्तरीय समिति द्वारा प्रस्तुत उक्त अनुपालन आख्या/कृत कार्रवाई रिपोर्ट (Action Taken Report) दिनांक 17.11.2023 के बिन्दु संख्या-2 में उल्लेख किया गया है कि:-

"ग्राम-गिरवाँ, तहसील-नरैनी, जनपद-बाँदा स्थित पहाड़ी पर कुल 7 खनन पट्टों को खनन विभाग द्वारा माइनिंग लीज आवंटित की गयी है, जिसमें ग्राम गिरवाँ की आबादी मैसर्स संग्राम सिंह, गाटा नं०-1876, खण्ड नं०-01 ग्राम- गिरवाँ, जनपद-बाँदा से 36 मी० की दूरी पर स्थित है। मैसर्स बजरंग रोड लाइन (सुरेन्द्र प्रताप सिंह), गाटा नं०-1876, खण्ड नं०- 03 ग्राम गिरवाँ, जनपद- बाँदा से 15 मी० की दूरी पर स्थित है। वर्तमान में आबादी अधिक होने के दृष्टिगत आबादी को विस्थापित कराये जाने की कार्यवाही किया जाना उचित नहीं है। ऐसी स्थिति में शासन/निदेशालय से दिशा-निर्देश प्राप्त कर खनिज नियमावली में अनुमन्य आबादी की दूरी तक खनन पट्टे का क्षेत्रफल कम किये जाने की कार्यवाही किया जाना नियमानुसार उचित प्रतीत होता है। शेष अन्य 5 खनन पट्टों से मुख्य आबादी 50 मी० से अधिक दूरी पर स्थित है।"

इस सम्बन्ध में अवगत कराना है कि उ०प्र० उपखनिज (परिहार) नियमावली-2021 के Rule-42(e) में उल्लिखित प्राविधान निम्नवत् हैं:-

"No mining operation shall be carried out on at or to any point within a distance 50 meters from any railway line except with the previous written permission of the Railway Administration concern, or from any reservoir, canal or other public works, such as public roads and buildings or inhabited site except with the previous written permission of the District Officer or any other officer authorised by the State Government in this behalf and otherwise than in accordance with such instructions and conditions either general or special, which may be attached to such permission. The said distance of 50 metres shall be measured in case of railway, reservoir, canal or road horizontally from the outer toe of the bank or the other edge of the cutting, as the case may be, and in case of a building horizontally from plinth thereof.

Provided that the distance in the case of a village road shall be 10 metres from the outer edge of the cutting."

अतः उपरोक्त प्रकरण में नियमावली-2021 के उक्त Rule-42(e) में उल्लिखित प्राविधानों के अन्तर्गत आवश्यक कार्यवाही करने का कष्ट करें।"

19. Vide order dated 08.02.2024 DGMS was directed to file a complete up-to

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date status report regarding compliance by all the 16 mining leases within one month and the Director, Mining and Geology, Uttar Pradesh was directed to take appropriate steps for implementation of the recommendations made by the Joint Committee and cancellation of the leases granted in violation of the siting criteria prescribed in the rules and file action taken report within one month. The Director, Mining and Geology, Uttar Pradesh was also directed to ensure that mining leases violative of siting norms and also mining leases not having requisite permissions for blasting be closed and the concerned mining lessees be not allowed to carry out any mining in the same till further orders.

20. The relevant part of the report filed by DM, Banda vide email dated 13.03.2024 is reproduced below:-

विषय : मा० राष्ट्रीय हरित अधिकरण, नई दिल्ली में योजित ओ०ए० नं०-422/2023 अभिषेक शुक्ला बनाम उ०प्र० राज्य व अन्य में पारित आदेश दिनांक 08.02.2024 के अनुपालन के सम्बन्ध में।

महोदय,

कृपया उपर्युक्त विषयक मा० राष्ट्रीय हरित अधिकरण, नई दिल्ली में योजित ओ०ए० नं०-422 / 2023 अभिषेक शुक्ला बनाम उ०प्र० राज्य व अन्य में पारित आदेश दिनांक 08.02.2024 का मुख्य अंश निम्नवत है :-

मा० राष्ट्रीय हरित अधिकरण, नई दिल्ली द्वारा पारित उपरोक्त आदेश दिनांक 08.02.2024 के क्रम में अनुपालन आख्या बिन्दुवार निम्नवत है :-

1. उपरोक्त वाद में मा० न्यायाधिकरण द्वारा पारित आदेश दिनांक 24.11.2023 के क्रम में 03 खनन पट्टाधारको के सम्बन्ध में गठित कमेटी द्वारा प्रस्तुत आख्या दिनांक 17.11.2023 के दृष्टिगत उपरोक्त खनन पट्टा क्षेत्र को नजदीक स्थित आबादी के निकट पाये जाने के कारण कार्यालय आदेश सं०-1047 / खनिज-30, बाँदा दिनांक 30.11.2023 (संलग्नक-01) द्वारा उक्त खनन पट्टा क्षेत्रों से खनन / परिवहन का कार्य अग्रिम आदेशों तक प्रतिबन्धित किया गया।

2. उपरोक्त वाद में मा० न्यायाधिकरण द्वारा पारित आदेश दिनांक 03.10.2023 के क्रम में निदेशक, भूतत्व एवं खनिकर्म निदेशालय, उ०प्र०, लखनऊ के पत्र सं०-1461/एम०-एन०जी०टी० वाद/2023 दिनांक 04.12.2023 (संलग्नक-02) द्वारा प्रभाग प्रकरण में उ०प्र० उपखनिज (परिहार) नियमावली-2021 के नियम-42 (e) में उल्लिखित प्राविधानों के अन्तर्गत कार्यवाही किये जाने के निर्देश दिये गये, जिसके क्रम में कार्यालय आदेश सं०-245/ खनिज-30, बाँदा दिनांक 30.01.2024 द्वारा



शिवायण रेडिंग सं०  
काठजूवा, बरेल्ल गोंड-बोंदा

कमेटी का गठन करते हुये प्रकरण की संयुक्त जांच कर आख्या उपलब्ध कराने हेतु निर्देशित किया गया। उक्त के क्रम में गठित कमेटी द्वारा उपरोक्त खनन पट्टा क्षेत्रों की जांच दिनांक 20.02.2024 को की गयी तथा संयुक्त जांच आख्या सं0-572/खनिज-30, बाँदा दिनांक 23.02.2024 प्रस्तुत किया गया, जिसमें प्रश्रगत खनन पट्टा क्षेत्रों हेतु आबादी से निकट 50 मीटर क्षेत्र में आ रहे रकबा को छोड़कर शेष रकबा भूक्षेत्र पर खनन / परिवहन किये जाने हेतु आख्या प्रस्तुत की गयी।

3. उपरोक्त समस्त तथ्यों को दृष्टिगत रखते हुये कार्यालय आदेश सं0-1047/खनिज-30 बाँदा दिनांक 30.11.2023 द्वारा उक्त 03 खनन पट्टा क्षेत्रों पर खनन / परिवहन हेतु लगे प्रतिबन्ध को हटाते हुये कार्यालय आदेश सं0-768/खनिज-30 बाँदा दिनांक 11.03.2024 (संलग्नक-03), कार्यालय आदेश सं0-769/खनिज-30 बाँदा दिनांक 11.03.2024 (संलग्नक-04) व कार्यालय आदेश सं0-770/खनिज-30 बाँदा दिनांक 11.03.2024 (संलग्नक-05) द्वारा प्रश्रगत खनन क्षेत्रों हेतु आबादी से निकट 50 मीटर क्षेत्र में आ रहे रकबा को छोड़कर / प्रतिबन्धित करते हुये शेष रकबा भूक्षेत्र पर संशोधित जियोकोआर्डिनेट्स के अनुसार खनन / परिवहन कार्य करने की अनुमति प्रदान की गयी।  
अतः उपरोक्तानुसार अनुपालन आख्या प्रेषित है।"

21. The relevant part of the report filed by DGMS, Dhanbad vide email dated 14.03.2024 is reproduced below:-

***\*Updated Action Taken Report on behalf of Director General of Mines Safety, in compliance of order dated 03.10.2023, 15.01.2024 and 08.02.2024 passed by the Hon'ble National Green Tribunal, Principal Bench, New Delhi in Original Application No. 422/2023 Abhishek Shukla Vs State of Uttar Pradesh and Others***

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**III. Action Taken by the Directorate General of Mines Safety (DGMS)**

1. The Directorate General of Mines Safety (DGMS) oversees the enforcement of the Mines Act, 1952 and the rules and regulations made therein in mines.

2. As per para No. 4 of the Order passed on 03.10.2023 by the Hon'ble NGT read with the para no. 21.3 and 21.7 of the Joint Committee's Report, DGMS has been directed to take necessary actions and file action taken report. The mines/leases listed under **Annexure-1** of the Joint Committee's Report are covered under the Mines Act, 1952; however, the stone crushers listed under **Annexure-2** are not covered under it. Hence, this Action Taken Report by DGMS is restricted to the mines/leases listed under **Annexure-1** of the Joint Committee's Report.

3. The status of Action Taken by DGMS in respect of the mines/leases listed under Annexure-1 of the Joint Committee's Report is summarised in **Annexure-A** enclosed herewith.

4. No permission for deep hole blasting under Regulation 106(2)(b); or for use of SME/SMS/ANFO explosives under Regulation 155(1) & 162(5); or for blasting within danger zone from permanent surface structures (as mentioned in para 4(iii) of



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section II above) under Regulation 164(1B) of MMR, 1961 have been granted to any of the mines mentioned at serial no. 1 to 16 of the table in **Annexure-A**.

5. The above status of action taken is updated upto 11.03.2024.

Annexure – A

Summary of the Status of Action Taken by DGMS in Respect of the Mines/Leases Listed under Annexure-1 of the Joint Committee's Report:

SL N <sup>o</sup>	Name of Mine, Owner & its Location/Area	Date of Submission of Notice of opening	Status of Appointment/ Authorisation of Manager	Use of HEMM* without deep hole blasting	Use of HEMM* with deep hole blasting	Remarks	Action Taken Report (ATR)
13	Kunwar Vinod Raju, Gato No. 332, Khand No. 01, Village - Badakharkhand, Lease Area-1.61 Hec.	25.10.2023	Appointed, Authorisation issued on 18.12.2023	Granted on 06.02.2024	Not applied by the management for permission	N-115m Hutments and House E-75m Hutments and House S-100m Temple W-140m 11KV HT Line NE-100m Hutments and House and 250m Temple SW-180m Hutment and House NW-210m Hutment and House	<p>Notice issued under Section 22A(1) of Mines Act, 1952 vide this Directorate letter No. संख/सा/29013/सांख्य/उ०-मं०/BN-38/2024/बंदि/557, दिनांक 07.03.2024. (Annexure-27)</p> <p>Reg. 106(2)(a)&amp;(3) of MMR, 1961: The side of the opencut on west side was not properly benched, sloped and secured by the previous lease holder to prevent dangers due to fall of sides. The height of bench on west side was found about 35m, which is more than the stipulated bench height of 1m.</p> <p>Violation letter issued under MMR, 1961, Mines Rules, 1955 &amp; Mines Vocational Training Rules, 1966 vide this Directorate letter No. संख/सा/29013/सांख्य/उ०-मं०/BN-38/2024/बंदि/555, दिनांक 07.03.2024. (Annexure-28)</p> <p>a) Reg.106(2)(b) of MMR, 1961: Impressions were observed that the mine was being worked with use of Heavy Earth Moving Machinery (excavators and tippers) without obtaining permission from this Directorate. No HEMM shall be used in the mine without obtaining permission from this Directorate.</p> <p>b) Reg.111(2) of MMR, 1961: Excavation was found extended within 7.5m of the lease boundary of the mine on north and south of the mine. All such excavations shall be immediately stopped.</p> <p>c) Reg.115(3)(a) of MMR, 1961: The</p>



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						<p>approaches to the use of the west side high bench was not adequately fenced to prevent inadvertent entry of any person or machinery to avoid dangers due to fall of slides.</p> <p>d) Reg. 164 (1B) of MMR, 1961: Haulages and houses not belonging to the owner of the mine were found existed at about 100m, 160m, 280m and 240m away from the north, east, south and north-west boundaries of the mine respectively within the blasting danger zone of 500m. A temple was found existed at about 170m away from the south boundary of the mine. A 11 KV HT power transmission line was existed at about 185m away from the west boundary of the mine. No blasting shall be conducted in the mine within danger zone of 300 m from any permanent surface structures not belonging to the owner without obtaining permission under Regulation 164(1B)(ii), except with the limited aggregate maximum charge in all holes fired at one time not in excess of 2 kg or if the blasting is done with delay detonators or other means and that there is a delay of at least half a second between successive shots fired, maximum charge of two kilograms can be used in each hole. Provided that irrespective of the amount of explosives used, no blasting shall be done at any place in the mine which is within 50 m any such permanent surface structures.</p> <p>e) Rule 29B of the Mines Rules, 1955: Persons employed in the mine were not undergone initial or periodical medical examination.</p> <p>f) Rule 6 of MFTR, 1966: Persons employed in the mine were not imparted vocational training.</p>
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Respondent no. 1 has filed replies vide emails dated 29.11.2023 and 16.04.2024. The relevant part of the reply filed vide email dated 16.04.2024 is reproduced below:-

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**"REPLY AFFIDAVIT ON BEHALF OF PROJECT PROPONENT**

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2. That the Project Proponent had obtained the approval on the mining plan from the Director, Geology & Mining U.P. Lucknow and thereafter obtained the environmental clearance from State Level Environment Impact Assessment Authority, Uttar Pradesh Lucknow (hereinafter called as 'SEIAA) and thereafter the mining lease deed was executed on 01-03-2021 by the District Officer, Banda in favour of the Project Proponent and deed was registered on 15-03-2021 in the office of the Sub Registrar Naraini Distt. Banda.

The copy of the said EC dated 15-01-2021 and copy of CTO dated 28-02-2023 are being annexed herewith as Annexure No.1 and Annexure No.2 respectively.

3. That by way of present letter petition the applicant complaining about illegal mining blasting and crushing in violation of environmental norms in villages Jarar, Chhaneha Purwa, Raghwa Purwa, Girwan. Patraha Tehsil Naraini, District Banda.

4. That the applicant vide complaint dated 12-03-2023 has also submitted that six mining leases have been allotted in two hills in the area situate of village Jarar and five crushers have been established in Village Jarar and Chhaneha Purwa and mining is being done by resorting to illegal blasting which has resulted in damage to the houses of villagers, the applicant further alleged that the crushers are being operated day and night and the crushers do not have any boundary wall. There is no sprinkling of water during operation thereof. The crushers are causing dust and noise pollution due to which the residents are suffering from 'Asthma' and other diseases. Illegal blasting has also affected old temples located on the hills. Illegal mining and blasting are also adversely affecting the wildlife in the area. The roads to the above said villages have been damaged by the over loaded vehicles used for transportation of excavated minor minerals.

5. That on the application dated 12-03-2023, submitted by the applicant, this Hon'ble Tribunal vide order dated 01-08-2023 constituted a joint committee comprising of representative of Director, Geology & Mining U.P. Pollution Control Board, Lucknow. District Magistrate, Banda to verify the factual position and take appropriate remedial action and factual and JCV action taken report may be submitted within one month by e-mail before this Hon'ble Tribunal.

6. That in compliance of order dated 01-08-2023 the joint committee visited the site from 17-08-2023 to 18-08-2023 and vide his joint inspection report 30-08-2023 following recommendation have been made

21.1) The mining department can be asked to restrict the mining activities in those mines wherein the required minimum distance criteria are not meeting. If mining is allowed on allotted near vicinity of habitant, habitant will be relocated to other specific place with consultation of nearby villagers/ civil society.

21.2) The mining department can be asked to restrict the mining activities in part of hill where temple is located. If mining is permitted at this place, the temple and habitant will be relocated to other specific place with consultation of nearby villagers/ civil



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with holes more than 3 m in depth), as required under Regulation 106(2)(b) of the MMR 1961.

(ii) Permission for using explosives in non-cartridge form or for using more than one type of explosives (other than fuse or detonator) in the same hole (for example use of ANFO, SMS, SME along with cast booster), as required under Regulation 155(1) and 162(5) of the MMR 1961; and

(iii) Permission for blasting within danger zone of 300 m from permanent building or structure of permanent nature, not belonging to the owner of the mine, by using more than 2 kg of aggregate maximum explosive charge in all holes fired at one time or more than 2 kg of maximum explosive charge in each hole where blasting is done with delay detonators or other means and that there is a delay of at least half a second between successive shots fired, as required under Regulation 164(1B). However, if the shortest distance from the place of firing to any part of such building or structure is less than 50 meters, prior permission for blasting is required to be obtained under Regulation 164(1B) of the MMR 1961 irrespective of the amount of the charge used.

For blasting in mine under circumstances other than the above, no permission is required to be obtained from DGMS under the MMR 1961 and the blasting may be carried out in the mine by observing the precautions as prescribed under the provisions of Regulations 153-170 and other provisions of the MMR 1961.

In view of above it is evident that there are no requirement for obtaining permission for blasting from DGMS if blasting is done less than 3 m depth hole which is doing by the Project Proponent.

11. That DGMS Regional Office Varansi vide order dated 06-02-2024 also granted permission for deployment of Heavy Earth Moving Machineries (HEMM) to the project proponent.

The copy of said order dated 06-02-2024 is being Annexed as Annexure No.4 to this reply.

12. That DGMS Regional office Varansi vide notice dated 07-03-2024 informed the project proponent that:-

(1) The side of the opencast on west side was not properly benched, sloped and secured by the previous lease holder to prevent danger due to fall of sides. The height of top bench on west side was found about 38m, which is more than the stipulated bench height of 6 m Hereby give you Notice to rectify the aforesaid contravention within 3 months from the date of issue of this letter i.e. on or before 06-06-2024.

Work of removal of dangers shall be subject to the following conditions being strictly complied with -

a) Benches of height not more than 6 m and breath thereof not less than the height shall be formed by working from top downward only.

b) No person shall be engaged at the quarry floor or at the bottom of the high wall, or on ledges made in the high walls.

c) Work of removing the dangers, shall be done in the mine under personal supervision of a duly qualified manager and the same shall be kept suspended whenever the manager is absent for any reason whatsoever.

d) All approaches to the bottom of high wall sides and also the top edges of such highwalls shall be kept securely and effectively



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fenced so as to prevent any inadvertent entry of persons.

13. That the project proponent is excavating the mineral in accordance with the terms and condition of the E.O and consolidated consent issued under Section-25 of the water (Prevention & Control of Pollution) Act 1974 and Section-21 of the Air (Prevention & central of Pollution) Act 1981 and DGMS itself mentioned that sloped and secured by the previous lease holder and the project proponent is obeying the directions of DGMS. It is further submitted that the project proponent has already file reply/compliance report dated 09-04-2024.

The reply/compliance report dated 09-04-2024 is being annexed as ANNEXURE No.5 to this reply affidavit.

14. That the committee interacted with the applicant & villagers and also visited the point of concerns raised in the application. It was observed by the committee during the site visist, details are given as below

"7.1) The main habitation of village-Jarar is situated 135 meters away from the nearest allotted lease mining on hill of village-Jarar, but some houses are made near the allotted lease M/s Safdar Ali S/o Late Shri Farzand Ali, Gata No.-2450, Khanda No.-03, at Village-Jarar. Temple is situated 235 meters away from the allotted lease mining on other part of hill of village-Jarar.

7.2) The main habitation of village-Girwan is situated 175 meters away from the allotted lease Bundelkhand Rocks, Gata No.-1876, (Khand No.09, Village-girwan), 36 meters away from the allotted lease (Sangram Singh, Gata No.1876, Khand No. 01, Vill-Girwan), 139 meters away from the allotted lease (Bajrang Road Lines, Gata No.-1876, Khand No.-03, Village-Girwan) and 90 meters away from the allotted lease (Bajrang Road Lines, Gata No.-1876, Khand No.-04, Village-girwan) on hill of village-Girwan but some houses are made near the allotted lease M/s Sangram Singh, Gata No.-1876, Khand Mo.-01, Vill. Girwan, Bajrang Road Lines, Gata No.-1876, Khand No.-03, Village-Girwan. Temple is situated 70 meters away from the allotted lease (Bundelkhand Rocks, Gata No.-1876, Khand No.-09, Village-Girwan). Temple is situated 53 meters away from the allotted lease mining (M/s Sangram Singh, Gata No.-1876, Khand No.-01, Village-Girwan) on other part of hill of village-Girwan. It is reported by Mine Officer, Banda that mining lease of M/s Sangram Singh, Gata No.-1876, Khand No.-01, Vill-Girwan, Gata is allotted on same hill part where temple is made but mining is not in operation.

7.3) Gaushala is situated 100 meters away from the allotted lease mining area on hill of village-Girwan.

7.4) The main habitation of village-Badokhar Khurd (Pataraha) is situated 75 meters away from the nearest allotted lease mining on hill of village-Badokhar Khurd (Pataraha), Temple is situated 100 meters away from allotted lease mining Kuwar Vinod Raja, Gata No. 232, Khand No.-01, Vill. Badokhar Khurd on hill of village Badokhar Khurd.

7.5) It was informed by the villagers to committee member during the visit that blasting work in lease area is done in any time with 4 inches holes by lessee and stone pieces are falling on his home and effected the animal and human being. But it was informed by lease holders that blasting is done in allowed time duration



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between 2.0 PM to 3.0 PM with one-inch holes and proper safety.

7.6) Crack in home could not been shown by applicant to committee members.

7.7) During the committee visit, stone pieces were not found in agriculture field and habitant area. The possibility of vibrations due the blasting at nearby houses of villagers and falling the stone pieces in nearby agriculture field and habitant area during blasting cannot be ruled out.

7.8) During the committee visit, village Road was not found in good condition due to movement of heavy vehicles.

7.9) Wild animal was not appeared on hill/lease area during committee visit.

7.10) The Agricultural lands are surrounded by most of these mining lease areas and the mining activities in such close vicinity can affect the crop yield in these areas. Similarly, the boulder stones can be thrown into these crop during the blasting operations for mining.

7.11) 05 stone crushers were identified in village Jarar (Chhaneha Purwa, Raghwapurwa), out of 5 stone crushers 4 stone crushers were found in operation and one stone crusher was found under construction"

15. That from the perusal of the recommendations of the joint committee it is undisputed fact that 75 meter is far from habitation of village Badokhar Khurd (Pataraha) and Temple is situated 100 meter away from allotted lease area of the deponent. It is also pertain to mention here that the provision of rule 42(e) of the Uttar Pradesh Minor Minerals (Concession) Rules 2021 is permitted to the lessee to do the mining operation out of distance of 50 meters from any public pleasure ground and the lease of the deponent is situate to much far distance from habitation of Village Badokhar Khurd (Pataraha) and all norms are being followed by the deponent and there are no complaint regarding working of the project proponent and deponent also submitted compliance report to the Uttar Pradesh Pollution Control Board Lucknow on 25-08-2023.

16. That in view of aforesaid averment there is no violation which require interference of this Hon'ble Tribunal against the deponent as per reports submitted before this Hon'ble Tribunal by the joint committee."

23. None has appeared for the applicant in the course of hearing of the Original Application.

24. We have heard learned counsels for the respondents and also gone through the material on record carefully.

25. Banda District in Uttar Pradesh is part of Vindhyan Plateau having regular uplands with outcrops of rocks intermingling with low lands. The



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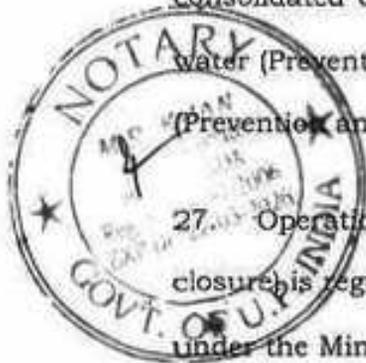
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Baghein River traverse the District from South-West to North-East, Ken in the east and Yamuna to the North. The District is poor in ground water and also does not possess major lakes. The District is rich in Minerals and the leased areas of villages Badokhar Khurd form moderate to high slopes, stony topography, isolated small hills which is waste/barren land. The area is dominated by boulders and in situ outcrops of Bundelkhand Granite. The Barren hills and undulated terrains are devoid of soil cover and represent only morrum on the top of the deposit with no vegetation. The agricultural land is limited due to topography of the area and about 50% is unirrigated. The industries and other avenues of employments /livelihoods are lacking in the area. The Ministry of Panchayati Raj, Government of India has named District Banda as one of the 250 most Backward Districts out of 640 Districts of the country and District Banda is covered under Backward Regions Grants Fund Programme (BRGF). It is, therefore, of utmost importance that scientific mining continues in the leased areas in accordance with environmental norms.

26. Respondent No.1 the Project Proponent was granted environmental clearance by State Environment Impact Assessment Authority, Uttar Pradesh, Lucknow (SEIAA) vide letter dated 15.01.2021. Mining lease deed in favour of the Respondent No.1 the Project Proponent was executed by the District Officer, Banda on 01.03.2021. Respondent no. 1-Project Proponent obtained consolidated consent from UPSPCB under the provisions of Section-25 of the Water (Prevention and Control of Pollution) Act, 1974 and Section-21 of the Air (Prevention and Control of Pollution) Act, 1981 vide letter dated 28.02.2023.

27. Operation of mine, other than a coal or an oil mine (from opening to closure) is regulated by the Metalliferous Mines Regulations (MMR), 1961 made under the Mines Act, 1952. Before commencement of mining operations in any allotted mining lease the owner, agent or manager of the mine is required to



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submit "Notice of Opening" of the mine at least 30 days to DGMS, as required under Section 16 of the Mines Act, 1952 and Regulation 3 of the MMR 1961 and the owner or agent of the mine has to appoint a person possessing the prescribed qualifications as "Manager" of the mine as required under Section 17 of the Mines Act, 1952 and Regulation 34(1) of the MMR 1961.

28. Permissions for conducting blasting in mines are required to be obtained from DGMS under the MMR 1961 in the following special circumstances:

(i) Permission for conducting deep hole blasting (blasting with holes more than 3 m in depth), as required under Regulation 106(2)(b) of the MMR 1961;

(ii) Permission for using explosives in non-cartridge form or for using more than one type of explosives (other than fuse or detonator) in the same hole (for example use of ANFO, SMS, SME along with cast booster), as required under Regulation 155(1) and 162(5) of the MMR 1961; and

(iii) Permission for blasting within danger zone of 300 m from any permanent building or structure of permanent nature, not belonging to the owner of the mine, by using more than 2 kg of aggregate maximum explosive charge in all holes fired at one time or more than 2 kg of maximum explosive charge in each hole where blasting is done with delay detonators or other means and that there is a delay of at least half a second between successive shots fired, as required under Regulation 164(1B) of the MMR 1961.

For blasting in mine under circumstances other than the above, no permission is required to be obtained from DGMS under the MMR 1961 and the blasting may be carried out in the mine by observing the precautions as prescribed under the provisions of Regulations 153-170 and other provisions of the MMR 1961.



30. Permission for using Heavy Earth Moving Machinery (HEMM) in the mine

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is required to be obtained from DGMS under Regulation 106(2)(b) of the MMR 1961.

31. In his reply respondent no. 1-Project Proponent has submitted that DGMS Regional Office, Varanasi vide order dated 06.02.2024 granted permission for use of HEMM without deep hole blasting.

32. As per DGMS report filed vide email dated 14.03.2024 respondent no.1 Project Proponent appointed Mines Foreman and authorization was issued on 18.12.2023.

33. Respondent no.1 Project Proponent is conducting mining operation under the supervision of Sri Vikash Singh, Mines Foreman appointed by the DGMS Regional Office, Varanasi vide order dated 18.12.2023. It is not disputed by DGMS that there is no requirement for obtaining permission for blasting from DGMS as blasting is being done by less than 3 m depth hole by the Project Proponent.

34. The lease of respondent no.1-Project Proponent is at the distance of more than 75 meters from habitation of Village Badokar Khurd (Pataraha) and 100 meters from Temple and does not violate the siting criteria.

35. No objections have been filed by the applicant or respondent no. 1-Project Proponent against the reports filed by the Joint Committee and by DGMS. We accept the reports filed by the Joint Committee and DGMS and direct that the findings and recommendations contained in these reports be fully complied with by the Project Proponent, Department of Mines and Geology and URSPDS in time bound manner.

36. In the present case the violations noticed and recommendations made by



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the Joint Committee in its report and compliance report filed regarding the remedial measures taken/to be taken by respondent no.1 Project Proponent are required to be examined/considered for issuance of appropriate directions.

**CER Activities**

37. Condition was imposed that Corporate Environmental Responsibility (CER) shall be by the project proponent and the details of the various heads of expenditure to be submitted as per the guidelines provided in the recent CER notification No. 22- 65/2017-1A.111 dated 01/05/2018. Work to be executed with installation of five hand pumps of drinking water, solar light in villages of streets, construction of two numbers of toilets at the primary school with name displayed and address and details of beneficiary and gram Pradhan along with phone number, photographs should be submitted to Directorate as well as to the District Magistrate/ Chief Development Officers.

38. In its report the Joint Committee has submitted that the details of the activities carried out by these mining projects under CSR/CER activities are found at ground during the visit and that it was informed by the Mine Office, Banda that CSR/CER activities are being initiated with district administration and mining lessees but the details of the activities and expenses incurred were not given in the report. In its report the Joint Committee has mentioned that Respondent No.1 did not provide the details about the funds earmarked for environmental protection measures and expenses incurred by it to UPSPCB.

We are of considered view that the CSR/CER activities implemented/being implemented by respondents no. 1 should be oriented to social and environmental management goals and CER activities should be carried in the vicinity of the project and surrounding areas with active participation of the Gram Panchayats of the affected/neighbouring villages and



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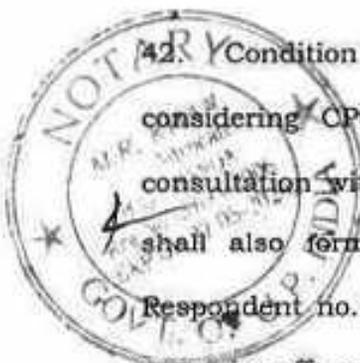
the District Environment Committee and the budget earmarked for CER activities should be meaningfully utilized for restoration/protection and improvement of environment.

40. The Project Proponent should comply with the Corporate Social Responsibility (CSR) and Environmental Management Programme (EMP) stipulated by UP SEIAA while granting EC to the Project Proponent in letter and spirit. The CSR/EMP cost estimated/allocated in the EC of SEIAA should be invested/incurred for Environmental Management, Nature Conservation and Community Development activities in Banda District in the area where Mining activities are taking place and such activities related to Environmental Management, Nature Conservation and Community Development required to be undertaken/implemented in the field may include afforestation programme with native tree species to be undertaken and Soil and Water Conservation works to be implemented in the area.

41. Compliance report with details regarding afforestation and rehabilitation of mined out area shall be submitted to the Regional Office, MoEF & CC, GoI, Lucknow and UPSPCB within three months and periodically thereafter as mandated by EC/CTO conditions.

#### Green Belt

42. Condition was imposed that Green belt development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the local DFO/Agriculture Department. Herbs and shrubs shall also form a part of afforestation program besides tree plantation. Respondent no.1 shall involve local people for plantation program. Details of year wise afforestation program including rehabilitation of mined out area shall be submitted to the Regional Office, MoEF&CC, GoI, Lucknow every year.



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43. The proposal for tree plantation and green belt development is stated to have been mentioned in the Environmental Management plans submitted by the mining lease holders.

44. In its report the Joint Committee observed that to date, no related activity has been initiated on the ground by respondent No. 1.

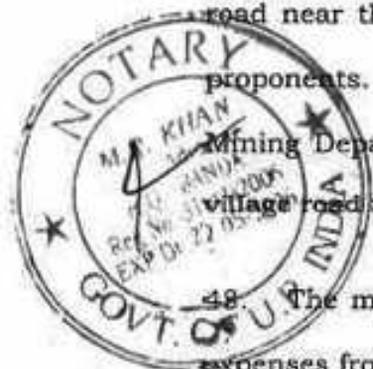
45. Respondent no.1 is directed to carry-out development of green belt during forth coming monsoon season as per EC/consent conditions considering CPCB guidelines including the guidelines regarding selection of plant species in consultation with local DFO/Agriculture Department and also by involving local people in the plantation program. Compliance report with details regarding afforestation and rehabilitation of mined out area shall be submitted to the Regional Office, MoEF & CC, GoI, Lucknow and UPSPCB within three months and every year thereafter.

**Maintenance of roads**

46. Condition was imposed that maintenance of village roads used for transportation of minerals is to be done by the project proponents regularly at their own expenses and the roads shall be black topped.

47. In its report the Joint Committee has mentioned that none of the village road near these mining sites has been maintained and black topped by the proponents. In its report the Joint Committee has recommended that the Mining Department be asked to make provision for construction of the main village road from District Mineral Fund (DMF).

48. The main village road can be ordered to be constructed by meeting the expenses from DMF but the haul roads and roads to the mining leases have to



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be maintained and blacktop by the mining lease holders including respondent no. 1.

49. In his report filed vide email dated 21.11.2023 District Magistrate, Banda has mentioned that Executive Engineer, PWD, Provincial Division-II, Banda was in the process of preparing the detailed project report and that letter no. 834 dated 03.11.2023 has been written to the mining lease holders to maintain the haul roads to the mining sites.

50. The respondents no. 2 to 4 and 7 are directed to take requisite measures for construction of main village road from DMF within six months.

51. The respondent no. 1 is directed to blacktop and maintain road to its mining lease site at its own expenses and to blacktop and maintain haul road shared by other mining lease holders by sharing the expenses with them. Respondent no.1 is directed to ensure that the road to lease and haul road is blacktopped within four months.

52. Compliance report be submitted by respondent No.1 in this regard to the Regional Office, MoEF & CC, GoI, Lucknow and UPSPCB within six months.

**Monitoring of ground and surface water and Hydro geological study of the area**

53. Condition was imposed that Ground and surface water, if any in and near the core zone (within 5.0 km of the lease) shall be regularly monitored for contamination and depletion due to mining activity and records maintained.

The monitoring data shall be submitted to the Regional Office, MoEF, GoI, Lucknow and U.P Pollution Control Board regularly. Further, monitoring points shall be located between the mine and drainage in the direction of flow of ground water shall be set up and records maintained. Hydro geological study of



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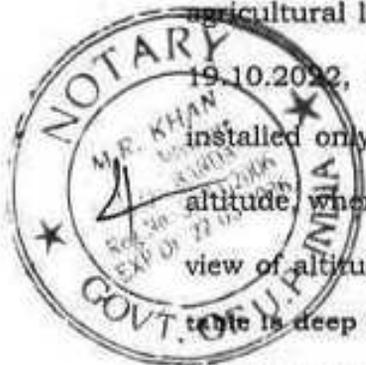
the area shall be reviewed by the project proponent annually. In case adverse effect on ground water quality and quantity is observed mining shall be stopped and resumed only after mitigating steps to contain any adverse impact on ground water is implemented.

54. The Joint Committee found that one pond/lake is located within 5 KM from the mines. In its report the Joint Committee has mentioned that monitoring of the pond/lake has not been carried out by respondent no.1 and other mining lease holders and that no Hydro geological study of the area has been carried out by these mines.

55. Respondent no. 1 is directed to comply with EC condition regarding Monitoring of ground and surface water and Hydro geological study of the area.

56. Compliance report be submitted by respondent No.1 in this regard to the Regional Office, MoEF & CC, GoI, Lucknow and UPSPCB within six months.

57. The lease areas form moderate to high slopes, stony topography and isolated small hills known as Wasteland/Barren land. The water table in the hillocks are deep and does not include seasonal perennial drainage. In spite of this, mining drainage need to be implemented to ensure that it does not carry particulate materials generated from mining to natural streams /waterbody or agricultural land. According to the report of Ground Water Department dated 19.10.2022, the Peizometer for measuring ground water level has been installed only in the plain area of Jarar village. The hillocks located at high altitude, where mining will be undertaken have ground water in deep aquifer in view of altitude, topography and geo-hydrology of the hills. Though the water table is deep on the hillocks where mining is undertaken, monitoring of ground water on regular intervals as precautionary measure needs to be ensured also by Ground Water Department of U.P. Government so that, there should not be



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any adverse impact/ interception of ground water during mining operation.

**Control of dust pollution**

58. Condition was imposed that fugitive dust generation shall be controlled. Fugitive dust emission shall be regularly monitored at locations of nearest human habitation (including schools and other public amenities located nearest to sources of dust generation as applicable) and records submitted to the Regional Office, MoEF&CC, GoI, Lucknow and UPSPCB regularly.

59. In its report the Joint Committee has mentioned that monitoring reports have not been submitted regularly by mining lease holders to UPSPCB. Some mining lessees are stated to have submitted compliance report and monitoring report 'presently' but copies of the same have not been attached with the report of the Joint Committee. Ambient Air Quality Monitoring was not done by the Joint Committee by drawing samples and getting the same analyzed.

60. Respondent no. 1 is directed to ensure that effective safeguard measures for prevention of dust generation and suppression are carried out in areas prone to air pollution such as haul road, loading and unloading point and ensure that the Fugitive dust emissions from all sources are regularly controlled by installation of required equipment/machineries and preventive maintenance and that air pollution level conform to the standards prescribed by the MoEF & CC/Central Pollution Control Board.

Compliance report be submitted by respondent No.1 in this regard to the Regional Office, MoEF & CC, GoI, Lucknow and UPSPCB within three months and periodically thereafter as mandated by EC/CTO conditions.

**Transportation through covered vehicles.**



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62. Condition was imposed that transportation of minerals shall be done by covering the trucks with tarpaulin or other suitable mechanism so that no spillage of mineral/dust takes place.

63. During its visit the Joint Committee could not verify compliance with the condition but has made general observation that covering is not being used by most of the vehicles during transportation.

64. Respondent no. 1 is directed to ensure that transportation of minerals shall be done by covering the trucks with tarpaulin or other suitable mechanism so that no spillage of mineral/dust takes place.

65. Compliance status be mentioned by respondent No.1 in this regard in report to be submitted to the Regional Office, MoEF & CC, GoI, Lucknow and UPSPCB within three months and periodically thereafter as mandated by EC/CTO conditions.

#### **Blasting operations**

66. In its report the Joint Committee has observed that the blast vibration study reports have not been submitted by any of the mine lease holders to UPSPCB. The condition of progressive mine with 6m bench has been mentioned in the Environment Clearance and mining lease document.

However, on ground no such bench/progressive mining operations were found in any of the mining project lease area.

DGMS, Regional Office, Varanasi had issued violation letter dated 07.03.2024 to respondent no. 1 as mentioned in report filed vide email dated

14/03/2024.



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68. Respondent no. 1 had sent reply dated 09.04.2024 undertaking to construct a strong berm to restrict entry to the area ensuring that no work is conducted without proper safety precautions and working on proper benching, sloping and securing the benches of the mine to prevent any potential dangers from falling sides. Respondent no. 1 also mentioned excavations pointed out to be old working. Respondent no. 1 further stated that it has engaged services of the professional surveyor who is assisted in accurately demarcating the danger zone from any structure not belonging to the mining owner. Respondent no. 1 has also stated in its reply that it has prepared a list of workmen who require the initial/periodical medical examination and finding a qualified doctor to complete the medical examination and sought 45 days time for this purpose. In its reply respondent no. 1 also mentioned that it is in the process of arranging vocational training for its workmen.

69. Respondent no. 1 is directed to get its workmen medically examined and provide requisite vocational training to them as undertaken.

70. Blasting in the mine be undertaken only by suitable/permmissible explosives with due permission/approval of Chief Controller of Explosive and after following all necessary rules, regulations and procedure required for the purpose. All the precautions suggested in MMR 1961 must be strictly adhered

Respondent no. 1 is directed to ensure that blasting is carried out by giving advance intimation to residents of the locality and blowing siren and the requisite precautionary measures are also undertaken to prevent any untoward incident in the Mining Leases and surrounding areas close to the habitation.

72. Compliance report be submitted by respondent No.1 in this regard to the Regional Office, MoEF & CC, GoI, Lucknow, UPSPCB and DGMS periodically



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thereafter as mandated by EC/CTO/Blasting Permission conditions.

73. Keeping in view the ground realities and to ensure Sustainable Mining Operations, livelihoods and ecologically Sustainable Development in the area, we also direct the concerned Departments/Instrumentalities of the State to ensure that the Mining operations are carried out strictly in the sanctioned leased areas demarcated/earmarked with boundary pillars by Revenue & Mining Department as per geo coordinates mentioned at the time of sanctioning of lease by using GPS and to strengthen, Mechanism for monitoring/securing compliance with EC/CTO/Blasting permission conditions. The Director, Geology and Mining Uttar Pradesh is also directed to ensure installation of weighment bridge by the mining lease holders and compliance with guidelines issued by MOEF&CC and CPCB.

74. The present original application is disposed of with the directions as mentioned above leaving the parties to bear their own costs.

75. A copy of this order be forwarded by email to the Member Secretary, Uttar Pradesh State Pollution Control Board, Directorate, Mining and Geology, Uttar Pradesh, Director Mines and Safety, Varanasi Division and respondent no.1-Project Proponent for requisite compliance.

April, 26<sup>th</sup>, 2024

Ag

Arun Kumar Tyagi, JM

Dr. Afroz Ahmad, EM

 शिवार्णव : डिग्न कं०  
कालुहुआ, मकर रोड-बंदा



 शिवार्पण ट्रेडिंग कं०  
कालूकुआ, बबेरु रोड-बांदा

From,

Date: 08.05.2023

M/s Shivarpan Trading Company  
 Proponent: - Shri Lavlesh Singh, S/o-Shri Lochan Singh,  
 R/o- Muhalla- Kalukuwan, Baberu Road,  
 Tehsil- Banda, District- Banda (U.P)  
 Pin Code-210001

To,  
 The Director & Secretary (SEAC)  
 Directorate of Environment,  
 Government of Uttar Pradesh  
 Dr. Bhimrao Ambedkar Paryavaran Parisar,  
 Vineet Khand-I, Gomti Nagar,  
 Lucknow-226010  
 Uttar Pradesh.

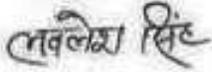
Subject: Submission of EIA report for proposed Building Stone, Khandas & Gitti, Boulder Mining Project at Gata No. 2450 Khand No.-06 (Area 2.0 Ha.) in Village Jarar, Tehsil Naraini & District- Banda, Uttar Pradesh

Dear Sir/ Madam,

Kindly find the EIA report which has been prepared for the above mentioned Minor Mineral Building Stone, Khandas & Gitti, Boulder Mining Project at Gata No. 2450 Khand No.-06 (Area 2.0 Ha.) in Village Jarar, Tehsil Naraini & District- Banda, Uttar Pradesh.  
 It is my humble request to consider this project and precede it for the process of Environment clearance.

Thanking You

Sincerely,

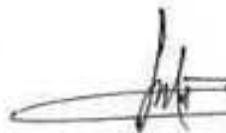


Lavlesh Singh  
 (Proponent)

Enclosed as Annexure-

- Letter of Intent(LOI), Proponent ID ,TOR Letter
- Approved Mining Plan
- Public Hearing Advertisement & Letter
- Khasra Map
- Clustering Certificate
- District Survey Report(DSR)
- Mou Between Era & Project Proponent
- A3 Google Map With Gps Coordinates
- Lab Certificate Of Accreditation
- Lab Scope Of Accreditation
- Monitoring Lab Report
- Questionnaire



  
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# Environmental Impact Assessment

&

## Environmental Management Plan (EIA REPORT)

Building Stone, Khandas & Gitti, Boulder Mining Project

At

Gata No. 2450 Khand No.-06

(Area 2.0 Ha.)

Village Jarar

Tehsil Naraini & District- Banda, Uttar Pradesh

Production Capacity 20000 m<sup>3</sup> per year

### M/s Shivarpan Trading Company

Project Proponent: - Shri Lavlesh Singh, S/o-Shri Lochan Singh,

R/o- Mohalla- Kalukuwan, Baberu Road,

Tehsil- Banda, District- Banda (U.P)

Pin Code-210001

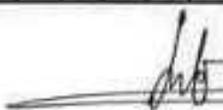


Prepared By:-

**Environmental Research and Analysis, Lucknow (U.P.)**

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QCI-NABET Accredited Organization,  
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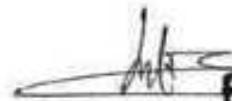


  
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III	Public Hearing Advertisement & Letter
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## ABBREVIATIONS

EIA	Environmental impact assessment
EMP	Environment management plan
MOEF & CC	Ministry of environment, forest & climate change
TOR	Term of reference
EAC	Expert appraisal committee
SEAC	State expert appraisal committee
SPCB	State pollution control board
CPCB	Central pollution control board
NOC	No objection certificate
BGL	Below ground level
GLC	Ground level concentration
NH	National highway
SH	State highway
DB	Decibel
LEQ	Equivalent noise level
HA	Hectare
UNFC	United nations framework classification
HFL	High flood level
LFL	Low flood level
KLD	Kilo litre per day
T/CUM	Tons per cubic meter
KM	Kilo meter
RL	River level
EPA	The environment protection act
HAM	Hectare meter
BOD	Biochemical oxygen demand
DO	Dissolved oxygen



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COD	Chemical oxygen demand
TKN	Total kjeldahl nitrogen
PM	Particulate matter
AAQ	Ambient air quality
TPA	Tonnes per annum
R & R	Rehabilitation & resettlement
CER	Corporate environment responsibility
VWG	Village working group
EMC	Environmental management cell
DIC	Department of industries and commerce
RBM	River bed material
NGO	Non-governmental organization
PCU	Passenger car unit
LOS	Level of service
PUC	Pollution under control
NABET	National accreditation board for education and training
QCI	Quality council of india
OSHA	Occupational safety and health administration



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शिवपदा रेड्डी कं०  
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## CHAPTER-1 INTRODUCTION

### 1.0 PURPOSE OF THE REPORT

Environmental Impact Assessment (EIA) is a decision making tool to the authorities, which brings forth the factual position about a project that enables them in arriving at an appropriate conclusion for the proposed projects, to retain them if environmentally sound, and reject if found having deleterious overall impact. EIA identifies the extent of the environmental, social and economic impacts of a project prior to decision-making. EIA systematically examines both beneficial and adverse impacts of the proposed project over and above the prevailing conditions of environmental parameters and ensure that these impacts are taken into account during the project designing stage itself and the values of the combined impacts are never allowed to exceed and remain within the statutory norms.

Environmental Impact Assessment report is prepared to comply with the Terms of Reference (TOR) received from SEIAA/SEAC vide Letter no. - 468/parya/SEAC/5043/2019 on dated 13-12-2019 under EIA notification of the MoEF (Feb, 2010) and also the EIA Guidance Manual for Mining of Minerals of MoEF, Govt. of India, for seeking environmental clearance for Building Stone Khanda, Gitti, Boulder Mining Project which applied mining lease area is 2.0 hectares falling under category "B1". The lease area lies near Village: Jarar, Tehsil: Naraini District: Banda, Uttar Pradesh.

### 1.1 IDENTIFICATION OF PROJECT PROPONENT

The project of M/s Shivarpan Trading Company is proposed by Shri Lavlesh Singh S/o- Shri Lochan Singh, The EIA/EMP report is prepared as per the TOR granted under the EIA Notification. In order to assess the impact on environment due to proposed mine, it is necessary to ascertain present status of environment prevailing at the project site and identification and assessment of impacts on the environment of the proposed operations.

### 1.2 BRIEF DESCRIPTION OF PROJECT

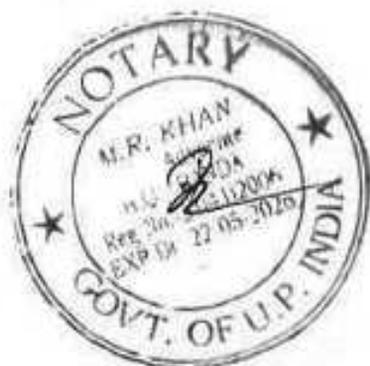
The proposed project is Building Stone Khanda, Gitti, Boulder Mining Project and the estimated project cost is Rs 98,00,000/-. The proponent has applied for mining lease for Building Stone Khanda, Gitti, Boulder Mining Project over an area of 2.0 Hectare at Village: Jarar, Tehsil: Naraini District: Banda, Uttar Pradesh.

### PROJECT NATURE, SIZE & LOCATION-

#### Nature

The proposed project is Building Stone Khanda, Gitti, Boulder Mining Project.

#### Size



*(Signature)*

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## EIA/EMP CHAPTER-1- INTRODUCTION

It has been proposed to prepare 20000 m<sup>3</sup>/Year of Building Stone Khandas, Gitti, Boulder annually over an area 2.0 Hectare.

**Location**

The mining project area is located in Gata No. 2450 Khand No.-06 in Village: Jarar, Tehsil: Naraini District: Banda, Uttar Pradesh. The mining lease / proposed project area falls in Survey of India Toposheet No. 63C/7. The mine lease area is located between as follows:

Project Site co-ordinates	Points. No.	Latitude	Longitude
	A	25° 18' 53.47"	80° 21' 42.37"
	A1	25° 18' 52.87"	80° 21' 43.49"
	B	25° 18' 52.33"	80° 21' 44.46"
	B1	25° 18' 51.19"	80° 21' 45.05"
	B2	25° 18' 50.28"	80° 21' 45.51"
	B3	25° 18' 49.28"	80° 21' 46.02"
	C	25° 18' 48.49"	80° 21' 46.42"
	C1	25° 18' 48.96"	80° 21' 47.58"
	D	25° 18' 49.51"	80° 21' 48.79"
	D1	25° 18' 50.84"	80° 21' 48.49"
	D2	25° 18' 52.17"	80° 21' 48.19"
	E	25° 18' 53.56"	80° 21' 47.82"
	F	25° 18' 54.01"	80° 21' 48.96"
	F1	25° 18' 54.90"	80° 21' 48.52"
	G	25° 18' 55.80"	80° 21' 48.04"
	G1	25° 18' 55.19"	80° 21' 46.61"
	G2	25° 18' 54.62"	80° 21' 45.20"
	G3	25° 18' 54.06"	80° 21' 43.81"
<b>Minerals of mine</b>	Building Stone, Khandas & Gitti, Boulder Mining Project Mining Project		
<b>Nearest Railway Station</b>	Dingwahi Railway Station about 12.5 Km North direction from the project site.		
<b>Nearest Airport</b>	Kanpur Airport is 120 Km towards North direction.		
<b>Nearest National/State Highway</b>	MDR-11B about 3.13km towards West direction		

**Project's importance to the country and the region**

Building Stone, Khandas & Gitti, Boulder Mining Project being used for construction material and other various constructional projects. There is large demand of Gitti- Boulder for roads, railway tracks, building construction etc. As per requirement of Gitti-Boulder resource is available under permissible limits. Such mining projects boost up the local as well as the economy of state because of rapid and cost effective infrastructural development.

This project operation will generate employment to the people residing in vicinity for about 250 days annually and approximately 28 peoples employed will be benefited directly and indirectly from the project.



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## EIA/EMP CHAPTER-I- INTRODUCTION

**1.3 REGULATORY COMPLIANCES & APPLICABLE LAWS/REGULATIONS**

- a) There is no legal case against the project and project proponent.
- b) There is no any national park / Sanctuary within 10 Kms radius from the project site.

**1.4 SCOPE OF THE STUDY**

The Expert Appraisal Committee (EAC) for mining projects considered the project during its meeting. Based on the information contained in the documents submitted and the presentation made, the SEIAA/SEAC-Uttar Pradesh prescribed the Terms of Reference (TOR) vide Letter no.: 468/parya/SEAC/5043/2019 on dated 13-12-2019.

**1.5 POINT WISE COMPLIANCE OF TOR**

The points have been raised by the SEAC-Uttar Pradesh in the TOR and its compliance given as under:

S. No.	TOR	Compliance
1	All pages of technical documents/ EIA/EMP etc. should be signed by the consultant and project proponent both.	All the technical documents which is requisite and part of EIA will be signed by both consultant and project proponent at the time of final report submission.
2	Copy of all the analysis reports signed by analyst approved by NABL or MoEF&CC shall be annexed with the EIA report and original analysis reports should be presented at the time of presentation.	Copy of lab report will be submitted with EIA report and originals will be provided during the time of presentation.
3	MOU signed between the project proponent and the consultant should be submitted.	It will be attached with the EIA report.
4	The project proponent shall obtain the forest clearance and permission of Central and State Government as per law under the provisions of Forest (conservation) Act 1980 and submit along with EIA	The land of the Mining lease area is Government land on the Stony area and this area is free from any reservation of Forest Department Uttar Pradesh Government. Hence it is not applicable.
5	The lease area, its address and production per annum should match with as mentioned in DSR and LOI. In case there is any difference clarification/ amendments letter from competent authority shall be submitted along with EIA. EIA and public hearing shall be conducted as per the lease area its address and production per annum mentioned in DSR and LOI.	Each and every detail is matched in all the documents like LOI, DSR. The lease area, address, production per annum in DSR & LOI Also identical with DSR. Public hearing was conducted as per the detail given in LOI & DSR. There are no changes or any difference in LOI & DSR. LOI (Copy) & DSR is attached as Annexure I & VI.
6	Project proponent should bring KML file at the time of EIA presentation.	It will be presented with final EIA presentation.
7	Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification, 1994 came into force w.r.t the	LOI has been issued by DM Banda, U.P vide Letter No. 4073/ खनिज-30, Banda Date - 06/03/2019 in favour M/s Shivurpan trading company Proprietor Shri Lavlesh Singh S/o Shri Lochan Singh R/o Mohalla- Kallukuwan, Baberu Road, Tehsil & District- Banda for mining of Building Stone (Sand Stone)

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	highest production achieved prior to 1994.	Mining 20,000 m <sup>3</sup> /year.																																																									
8	A copy of document in support of fact that the proponent is the rightful lessee of the mine should be given.	LOI has been issued by DM Banda, U.P vide Letter No. 4073/ खनिज-30, Banda Date - 06/03/2019 in favour M/s Shivarpan trading company Proprietor Shri Lavlesh Singh S/o Shri Lochan Singh R/o Mohalla- Kallukuwan, Baberu Road, Tehsil & District- Banda for mining of Building Stone (Sand Stone) Mining 20,000 m <sup>3</sup> /year.																																																									
9	All documents including approved mine, EIA and public hearing should be compatible with one and other in terms of the mine lease area, production level, waste generation and its management and mining technology etc. and should be in the name of lessee.	Mining Plan and Progressive Mine Closure Plan of proposed mining lease area has been approved by Director General of Mines and Geology Department, Lucknow (U.P.). vide Letter No. 953(1)/ खनिज / 2016 on dated 4/09/2019. Approved Mining Plan (Copy) is attached as Annexure II.																																																									
10	All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/Toposheet, topographic sheet, geomorphology and geology of the should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).	All corners of the coordinates of ML area are superimposed on survey of India Toposheet No. 63C/7. Coordinates of the mine lease area as given below. <table border="1"> <thead> <tr> <th>Points</th> <th>Latitude(N)</th> <th>Longitude(E)</th> </tr> </thead> <tbody> <tr><td>A</td><td>25° 18' 53.47"</td><td>80° 21' 42.37"</td></tr> <tr><td>A1</td><td>25° 18' 52.87"</td><td>80° 21' 43.49"</td></tr> <tr><td>B</td><td>25° 18' 52.33"</td><td>80° 21' 44.46"</td></tr> <tr><td>B1</td><td>25° 18' 51.19"</td><td>80° 21' 45.05"</td></tr> <tr><td>B2</td><td>25° 18' 50.28"</td><td>80° 21' 45.51"</td></tr> <tr><td>B3</td><td>25° 18' 49.28"</td><td>80° 21' 46.02"</td></tr> <tr><td>C</td><td>25° 18' 48.49"</td><td>80° 21' 46.42"</td></tr> <tr><td>C1</td><td>25° 18' 48.96"</td><td>80° 21' 47.58"</td></tr> <tr><td>D</td><td>25° 18' 49.51"</td><td>80° 21' 48.79"</td></tr> <tr><td>D1</td><td>25° 18' 50.94"</td><td>80° 21' 48.49"</td></tr> <tr><td>D2</td><td>25° 18' 52.17"</td><td>80° 21' 48.19"</td></tr> <tr><td>E</td><td>25° 18' 53.56"</td><td>80° 21' 47.82"</td></tr> <tr><td>F</td><td>25° 18' 54.01"</td><td>80° 21' 48.96"</td></tr> <tr><td>F1</td><td>25° 18' 54.90"</td><td>80° 21' 48.52"</td></tr> <tr><td>G</td><td>25° 18' 55.80"</td><td>80° 21' 48.04"</td></tr> <tr><td>G1</td><td>25° 18' 55.19"</td><td>80° 21' 46.61"</td></tr> <tr><td>G2</td><td>25° 18' 54.62"</td><td>80° 21' 45.20"</td></tr> <tr><td>G3</td><td>25° 18' 54.06"</td><td>80° 21' 43.81"</td></tr> </tbody> </table> <p>Imagery of the proposed area clearly shows the land use and other ecological features of the study area (core and buffer zone) for Land use and High resolution Imagery FCC maps are prepared with use a RS-GIS technique.</p>	Points	Latitude(N)	Longitude(E)	A	25° 18' 53.47"	80° 21' 42.37"	A1	25° 18' 52.87"	80° 21' 43.49"	B	25° 18' 52.33"	80° 21' 44.46"	B1	25° 18' 51.19"	80° 21' 45.05"	B2	25° 18' 50.28"	80° 21' 45.51"	B3	25° 18' 49.28"	80° 21' 46.02"	C	25° 18' 48.49"	80° 21' 46.42"	C1	25° 18' 48.96"	80° 21' 47.58"	D	25° 18' 49.51"	80° 21' 48.79"	D1	25° 18' 50.94"	80° 21' 48.49"	D2	25° 18' 52.17"	80° 21' 48.19"	E	25° 18' 53.56"	80° 21' 47.82"	F	25° 18' 54.01"	80° 21' 48.96"	F1	25° 18' 54.90"	80° 21' 48.52"	G	25° 18' 55.80"	80° 21' 48.04"	G1	25° 18' 55.19"	80° 21' 46.61"	G2	25° 18' 54.62"	80° 21' 45.20"	G3	25° 18' 54.06"	80° 21' 43.81"
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11	Information should be provided in survey of India Toposheet 1:50,000 scale indicating geological map of the area, geomorphology of landform of the area,	Key plan is enclosed as plate no. I Geomorphology of landform of the area is given in Chapter no 3 of EIA/EMP report as per 1:50,000 scale.																																																									

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	existing minerals and history of the area, important water bodies, streams and rivers and soil characteristics.	
12	Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the state; land diversion for mining should have approval from state land use board or the concerned authority.	Yes, mining will be done as per the guideline of central / state govt. Policy.
13	It should be clearly stated whether the proponent company has a well laid down Environment policy approved by its Board of directors? If so, it may be spelt out in the EIA report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/violation of the environmental of forest norms/conditions? The hierarchical system or administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances/ violations of environmental norms to the board of Directors of the company and/or shareholders or stakeholders at large may also be indicated in the EIA report.	Yes, lessee has a well laid down Environment Policy. Follow-up environmental awareness among the employees and encourage them to work in an environmentally Responsible Manner. Trained, educate and inform our employees about environmental management issues that may not affect their work and Health. Where required by legislation or where significant health, safety or environmental hazards exist, develop and maintain appropriate emergency and spill response programmes. The Company shall be aware about environmental issued and insuring compliances and conditions which applicable for the project.
14	Issues relating to mine safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.	Mining is being done by open cast mining so no subsidence study is required. All the safe guards measures shall be provided whose details are given in Chapter No-4.
15	The study area will comprise of 10 km zone around the mine lease from the lease periphery and data contained in the EIA such as waste generation etc. should be for the life of mine / lease period.	Waste generated are ordinary daily use material like sachet, newspapers, food waste, disposal material, packing material etc. shall be generated and it shall be stored in dustbins and this waste disposed in low land filling area. Study area comprises of 10 Km radius around the mine lease boundary. Topographic Map showing 10 Km radius around the ML area has been furnished in the EIA report. All the data contained in the EIA/EMP Report are for lease period of mine Study area selected for monitoring encompasses the area/location around 10 Kms (aerial) radius.
16	Certificate from Mining Officer that there is no other mining area exit within 500 m periphery.	Cluster certificate no 4311/Khanij-30, Bunda Dated 02. 04.2019 shows project falls under B1 category.
17	CER cost to be calculated for individual	CER details attached in Chapter 8.

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	lease.	
18	An intimation regarding conducting the monitoring to be sent to concerned District Magistrate/State Pollution Control Board office/SELAA	Intimation letter stating the project monitoring seasons is submitted to UPPCB office.
19	The lab conducting the analysis should be authenticated and registered.	Ultra testing and research Laboratory is an NABL approved lab.
20	Public hearing to be conducted as per EIA Notification, 2006	public hearing was done as per the EIA notification 2006 on 28.03.2023.
21	A copy of document in support of fact that the proponent is the rightful lessee of the mine should be given.	Copy of LOIm stating the lessee details will be submitted during EIA presentation
22	Land use of the study area delineating forest area, agricultural land, grazing land, wild life sanctuary and national park, migratory route of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of course of land use should be given	Land use patter and other relevant data are incorporated in Chapter 3 and 4.
23	Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any should be given.	Some of over burden shall be removed during mining activity and this over burden is used for filling of the pits after the mine closure. The mining lease area is Government land and as per the Socio- Economic Survey, there is no Project Affected Person (PAP) by the proposed mining activities. Hence, no R&R Plan is envisaged; as there is no displacement of people from their respective areas.
24	A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.	The Mining Lease area does not involve any forest land. The land of the Mining lease area is Government land (Stony area). Hence it is not applicable.
25	Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also	The land of the Mining lease area is Government land on the Stony area and this area is free from any reservation of Forest Department Uttar Pradesh Government. Hence it is not applicable.

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	be furnished.	
26	Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.	There is no involvement of forest land in the project area Hence it is not applicable.
27	The vegetation in the RF/ PF areas in the study area, with necessary details, should be given.	Project area not falling under Reserve forest/Protected Forest in the core zone area. Not applicable
28	A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly detailed mitigative measures required, should be worked out with cost implications and submitted.	The study areas have No any Wildlife sanctuary within 10 Kms Radius. Therefore, Not Applicable.
29	Location of national parks, sanctuaries, biosphere reserves, wild life corridors, Ramsar site tiger/elephant reserves (existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated supported by a location map duly authenticated by chief wild life warden. Necessary clearance, as may be applicable to such projects due to the proximity of the ecologically sensitive areas as mentioned above, should be obtained from the standing committee of national board of wildlife and copy furnished.	There is no National Parks, Sanctuaries, Biosphere Reserves, wildlife Corridors, Tiger/Elephant, Reserves within 10 Kms within the proposed mine lease area.
30	A detailed biological study for the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled- I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.	A detailed biological study (of 10 Kms radius study area) was conducted by Ecology and Biodiversity Expert and the details are incorporated in the EIA/EMP Report. The detailed biological study in the 10 Kms periphery has been described in Chapter 4.
31	Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required,	The project site is neither falling in proximity area declared as Critically Polluted nor falling in Aravali Range. The valid and lawful LOI of this project site has been granted to the lease holder by the

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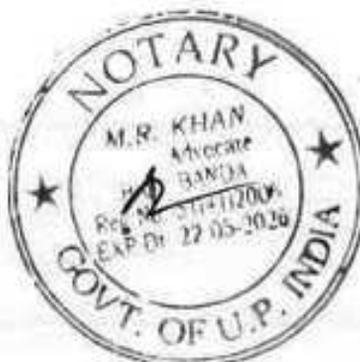


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	clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Dept. Should be secured and furnished to the effect that the proposed mining activities could be considered.	Mining Department of U.P. Government is enclosed as Annexure-I.
32	Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease w.r.t. CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority.)	Not applicable.
33	R & R plan/compensation details for the project affected people (PAP) should be furnished. While preparing the R & R plan, the relevant State /National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the villages(s) located in the mine lease area will be shifted or not. The issues relating to shifting of villages including their R&R and socio-economic aspects should be discussed in the report.	There will be no significant Project Affected Person (PAP) by the proposed mining activities. Hence, there is no need of R&R Plan study. Not applicable
34	One season (Non Monsoon) (i.e March – May (summer season); October-December (post monsoon); December-February (winter season) primary baseline data on ambient air quality as per CPCB Notification of 2009 water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented data-wise in the EIA and EMP report. Site –specific meteorological data should also be collected. The location of the monitoring station should be such as to represent whole of the study area and justified keeping in view the predominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the predominant downwind direction. The mineralogical composition of	One season (Non Monsoon) primary baseline data on ambient air quality (PM <sub>2.5</sub> , PM <sub>10</sub> , SO <sub>x</sub> and NO <sub>x</sub> ), water quality, noise level, soil and flora and fauna monitoring was carried in the monitoring sites of 10 Kms periphery whereas monitoring site near lease area was also considered as site within 500 m radius. The monitoring was done from 01 October, 2021 to 31 December, 2021 by Ultra Testing Research Laboratory (MoEF & CC approved Laboratory). The details have been given in the report where required and the test reports are attached as Annexure V.

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	PM10, particularly for free silica, should be given.	
35	Air quality modeling should be carried out for prediction of impact of project on the air quality of the area. It should also take into account the impact of movement of vehicle for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind rose showing pre-dominant wind direction may also be indicated on the map.	Air quality modeling was carried out impact of Air quality has been incorporated in Chapter 3 of EIA/EMP report. Wind Rose Diagram shown in Chapter 3.
36	The water requirement for the project, its availability and source to be furnished. Fresh water requirement for the project should be indicated.	The Total Water requirement in this project site is approx. 5.08 KLD which consumed for various purpose as follows- Dust Suppression = 2.7 KLD, Plantation= 2.0 KLD, Domestic Purpose= 0.38 KLD The water requirement for the project is given in Chapter 2.
37	Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.	Not Applicable Water will be taken from near villages through tankers.
38	Details of water conservation measures proposed to be adopted in the projected should be given.	The lease period is of 20 years after completion of lease period, lease shall be handover to the local administrative authority, the pit shall be used for rain water harvesting unit and other purposes by the government. Water will be procured from near villages/local authorities through tankers.
39	Details of rainwater harvesting proposed, if any, should be provided.	The lease period is of 20 years after completion of lease period, lease shall be handover to the local administrative authority ,The pit shall be used for rain water harvesting unit and other purposes by the government.
40	Impact of the project on the water quality both surface and groundwater should be assessed and necessary safeguard measures, if any required should be provided.	<b>Surface Water</b> There is no significant adverse impact on surface water due to project activity. <b>Ground Water</b> The ground water quality will not be affected due to mining activity.
41	Based on the actual monitored data, it may clearly be shown whether working will intersect groundwater.	The maximum working depth of mining will be bench wise width 6 m, height 6m in Stone. So mining depth will not intersect the ground water table. Hence permission is not required from CGWA
42	Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed hydro geological study should be	Groundwater will not be disturbed by the mining activities of the proposed project. The maximum working depth of mining will be 6m in plan period. Groundwater will not be

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	undertaken and report furnished. The report interlaid, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of groundwater should also be obtained and copy furnished.	disturbed by the mining activities of the proposed project. The maximum working depth of mining will be 6m in plan period. So mining depth will not intersect the ground water table. Hence permission is not required from CGWA. Water requirement will be met by tanker supply by local sellers.
43	Details of any stream, seasonal or otherwise, passing through the lease area and modification /diversion proposed, if any, and the impact of the same on the hydrology should be brought out.	There is no any stream, seasonal or otherwise, passing through the lease area and modification, diversion modification required to canal stream.
44	Information on site elevation, working depth, ground water table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.	The highest and lowest point in the leasehold is 180.95 mRL towards South-West direction and 1149.10 mRL towards North-East direction. Working Depth: 6m
45	A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.	Total 2000 Saplings will be planted in haul & in gram samaj land. Sapling shall be done on the both side of haul road and nearby the proposed lease. Before planning of the sapling plantation demarcated spots for pits (distance between two plants) pits were digged out using Earth auger with drill bit upto depth of 5 feet and width of pit 2.5-3 feet. All stony soil digged out and pit filled with one-part agricultural field soil and second part Mycorrhiza & addition of essential nutrients for better survival of plants. The pit soil wetted with adequate water, after one week selected species of sapling planted followed by tree guards for protection. Then irrigated timely with monitoring.
46	Impact on local transport infrastructure due to the project should be indicated. Projected increase in truck traffic as a result of the project in the present road network (including those outside the project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct impact of Transportation study as per Indian Road Congress Guidelines.	Impact on local transport infrastructure due to the project has been assessed. There will not so much impact on local transport.
47	Details of the onsite shelter and facilities to be provided to the mine workers should be included in EIA Report.	Temporary shelter along with temporary toilet connected to the soak pit at certain distance and drinking water from the mining lease area

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		will be provided to the mine workers.
48	Conceptual post mining land use and Reclamation and Restoration of mined out area (with plans and with adequate number of sections) should be given in the EIA report.	The mined out lease area is a stony scrub. After mining the permanent pit shall be formed, it shall not be reclaimed & restoration is not possible. Only the mined out pit shall be used as rainwater harvesting unit, pisciculture etc. with the consultation with local administrative authority. So no Reclamation and Rehabilitation is shall be required. Conceptual post mining land use is incorporated in Chapter 8 of the EIA/EMP Report. The soil is also generated from joints cracks due to mining will be stacked in a temporary stack yard will be used for Land Filling purpose.
49	Occupational health impact of project should be anticipated and proposed preventive measures spelt out in details. Details of pre-placement medical examination and periodical medical examination scheduled should be incorporated in the EMP. The project specific Occupational health mitigation measures with required facilities proposed in the mining area may be detailed.	All Relevant Personal Protective measures provided to the all workers. Pre-medical examination and periodical medical examination schedules have been furnished in the management plan of EIA/EMP Report.
50	Public health implications of the project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.	The proposed site is away from the nearest habitat and there is not adverse health impact over the local people is anticipated, even though periodically health check-up camp will be organized under the EMP activity.
51	Measures of social-economic significance and influence to the local community proposed to be provided by project proponent should be indicated. As far as possible, quantitative dimensions may be given with time frame for implementation.	Socio economic measures for the local people have been proposed under the component of the Environmental Management Plan along with the budgetary allocation have been incorporated in the EIA/EMP Report. Proposed project will provide the employment opportunity to the local community hence project will have positive impact on the surrounding local community. An amount of 11,78,257/- will be allocated for EMP activities and developmental budget is Rs 4,90,000/- of the total project 98,00,000. Detailed break up is incorporated in the EIA/EMP Report.
52	Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural land and grazing land, if any, occupational health impacts beside other impacts specific to the proposed projects.	Environmental management plan to mitigate the environmental impacts which inter-alia included the impacts of change of land use, loss of agricultural and grazing land, is discussed and given in Chapter 8.



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53	Public hearing points raised and commitment of the project proponent on the same along with the time bound action plan with budgetary provision to implement the same should be provided and also incorporated in the final EIA/EMP report of the project.	The Public hearing was conducted and all the suggestions and commitments were incorporated in EIA report.
54	Details of litigation pending against the project, if any, with direction / order passed by any Court of Law against the project should be given.	There is no litigation pending against this project.
55	The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should clearly be spell out.	Proposed detailed capital cost and recurring cost for the project is discussed in Chapter 7. Budgetary provision has been given in EMP in Chapter 8.
56	A Disaster Management Plan shall be prepared and included in the EIA/ EMP Report.	There is no such risk due to this mining activity No such Disaster Management Plan is required.
57	Benefits of the project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.	The proposed project is beneficial for availability of building material, green belt will develop, and employment generation and construction material will be available. The project benefits have been discussed in details in Chapter 7.
58	The company must have a system of reporting of non-compliance/violations of environmental norms to the Board of Directors of the company and/ or shareholders or stakeholders at large. This reporting mechanism should be detailed EIA reports.	The company is bound to compliance of all conditions as per norms. The reporting mechanism is explained in Chapter-7 of EIA report.
59	Consultant should bring raw data at the time of presentation.	It will be complied during EIA presentation.
60	In surface water quality aquatic study of phytoplankton and zooplankton.	Surface water analysis report is discussed in Chapter 3
61	The baseline data should be signed by NABL/MOEF&CC accredited analyst.	Ultra testing and research Laboratory is an NABL approved lab.
62	The meteorological data should be site specific.	It is being complied.
63	Details of Kuccha haul road to be made Motorable. Plan should be submitted.	As suggested in EMP that project proponent will maintain haul road and regular scraping of mineral from roads will be done to continue smooth transportation.
64	Details of the infrastructure facilities to be provided for the mine workers should be included in the EIA report.	Temporary shelter along with temporary toilet connected to the soak pit at certain distance and drinking water from the mining lease area will be provided to the mine workers.
65	Besides the above, the below mentioned general points are also	
a	Executive Summary of the EIA/EMP Report	Attached with EIA report as Chapter 9.
b	All documents to be properly referenced with index and continuous page numbering	Complied
c	Where data are presented in the Report	Indicated

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	especially in Tables, the period in which the data were collected and the sources should be indicated.	
d	Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All original analysis/testing reports should be available during appraisal of the project.	Enclosed
e	Where the documents provided are in language other than English, an English translation should be provided.	Provided
f	The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall be filled and submitted.	Enclosed
g	While preparing the EIA report, the instructions for the proponents and instructions for the Consultants issued by MOEF & CC vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.	Followed
h	Changes, if any made in the basic scope and project parameters (as submitted in Form-1 and the PFR for securing TOR) should be brought to the attention of MoEF&CC with reasons for such changes and the permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the Final EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.	No Modifications Done
i	As per the circular No. J-11011/618/2010-IA.II(I) dated 30.05.2012, certified report of the status of compliance of the condition stipulated in the environment clearance for the existing operations of the projects, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.	Not Applicable
j	The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.	Included

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## CHAPTER- 2

### PROJECT DESCRIPTION

#### 2.0 GENERAL

Environmental Impact Assessment report has been prepared in terms of EIA notification of the MoEF dated 14th Sept 2006, as amended on 1st Dec 2009 & 4th April 2011 and the EIA Guidance Manual for Mining of Minerals (Feb, 2010) of MoEF, Govt. of India, for seeking environmental clearance.

#### 2.1 DESCRIPTION OF THE PROJECT

The estimated project cost is Rs 98,00,000/- The proponent has applied for mining lease over an area of 2.0 Hectare at village- Jarar, Tehsil: Naraini & District- Banda, Uttar Pradesh.

#### 2.2 NEED FOR THE PROJECT

Building Stone Khanda, Gitti, Boulder is used for construction material and in other various infrastructural projects. There is large demand of Gitti- Boulder for road, railway track, building construction etc. Abundant Gitti- Boulder resource is available under permissible limits. Such mining projects boost up the local as well as the economy of state because of rapid and cost effective infrastructural development.

**Letter of Intent:** The Letter of Intent (LOI) has been issued by the District Magistrate, Banda, U.P. vide letter no. Letter No. 4073/ Khanij-30, Banda, dated 06-03-2019 in favour of Prop. - Shri Lavlesh Singh S/o- Shri Lochan Singh, for mining of Building Stone Khanda, Gitti, Boulder (Copy of LOI has been enclosed as Annexure-I).

**Lease Period:** 20 Years

#### **Mine Plan and Progressive Mine Closure Plan:**

Mining Plan and Progressive Mine Closure Plan of proposed mining lease area has been approved by Director General of Mines and Geology Department, Lucknow U.P. Vide Letter No. 953 (1)/Mine plan/2016 on dated 04/09/2019 enclosed as Annexure-II.

The total lease life of the proposed project is 20 years and the mineable depth of the lease is 42 m from the tip of the hill to below the ground. The highest & lowest mRL of the mining lease is 180.95m & 149.10m respectively & surface mrl is 160m, therefore the total height from the surface to tip of the lease will be 20.95m & the proposed total depth for achieve mineable quantity for the 20 years is 48 m.

As per the approved mining plan from the UPDGM following process will adapt by the project proponent as post mining activity-

- After completion of mining the outer periphery of mining pit shall be fenced.



  
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- Plantation shall be done Haul road 240 sapling shall be planted at a distance of 3 meter during mine closure plan.
- Six monthly compliance report according EC letter condition issued by DOE,(U.P.)
- As per the approved mining plan the total estimated height of the top of the hill is 180.95 m

As per the MMCR 2021 of the completion of the lease period lease holder will fulfil all post mining activities and handover the lease again to the District magistrate for e-tender cum e-auction.

## 2.3 LOCATION DETAILS

The mining project area is located in Gata No. 2450 Khand No.-06 in Village: Jarar, Tehsil: Naraini, District: Banda, Uttar Pradesh. The mining lease / proposed project area falls in Survey of India Toposheet No. 63C/7. The mine lease area is located between as follows:

Project Site co-ordinates	Points. No.	Latitude	Longitude
	A	25° 18' 53.47"	80° 21' 42.37"
	A1	25° 18' 52.87"	80° 21' 43.49"
	B	25° 18' 52.33"	80° 21' 44.46"
	B1	25° 18' 51.19"	80° 21' 45.05"
	B2	25° 18' 50.28"	80° 21' 45.51"
	B3	25° 18' 49.28"	80° 21' 46.02"
	C	25° 18' 48.49"	80° 21' 46.42"
	C1	25° 18' 48.96"	80° 21' 47.58"
	D	25° 18' 49.51"	80° 21' 48.79"
	D1	25° 18' 50.84"	80° 21' 48.49"
	D2	25° 18' 52.17"	80° 21' 48.19"
	E	25° 18' 53.56"	80° 21' 47.82"
	F	25° 18' 54.01"	80° 21' 48.96"
	F1	25° 18' 54.90"	80° 21' 48.52"
	G	25° 18' 55.80"	80° 21' 48.04"
	G1	25° 18' 55.19"	80° 21' 46.61"
	G2	25° 18' 54.62"	80° 21' 45.20"
	G3	25° 18' 54.06"	80° 21' 43.81"
Minerals of mine	Building Stone, Khandas & Gitti, Boulder Mining Project Mining Project		
Nearest Railway Station	Dingwahi Railway Station about 12.5 Km North direction from the project site.		
Nearest Airport	Kanpur Airport is 120 Km towards North direction.		
Nearest Highway/State Highway	MDR-11B about 3.13km towards West direction		

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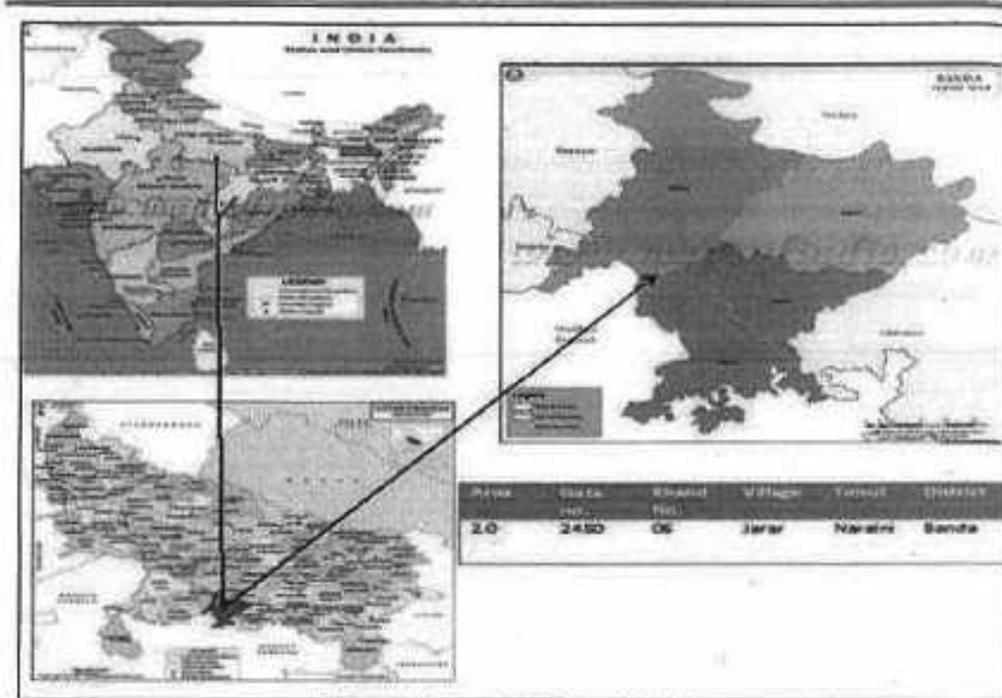


Figure 2.1 Location Map of Project

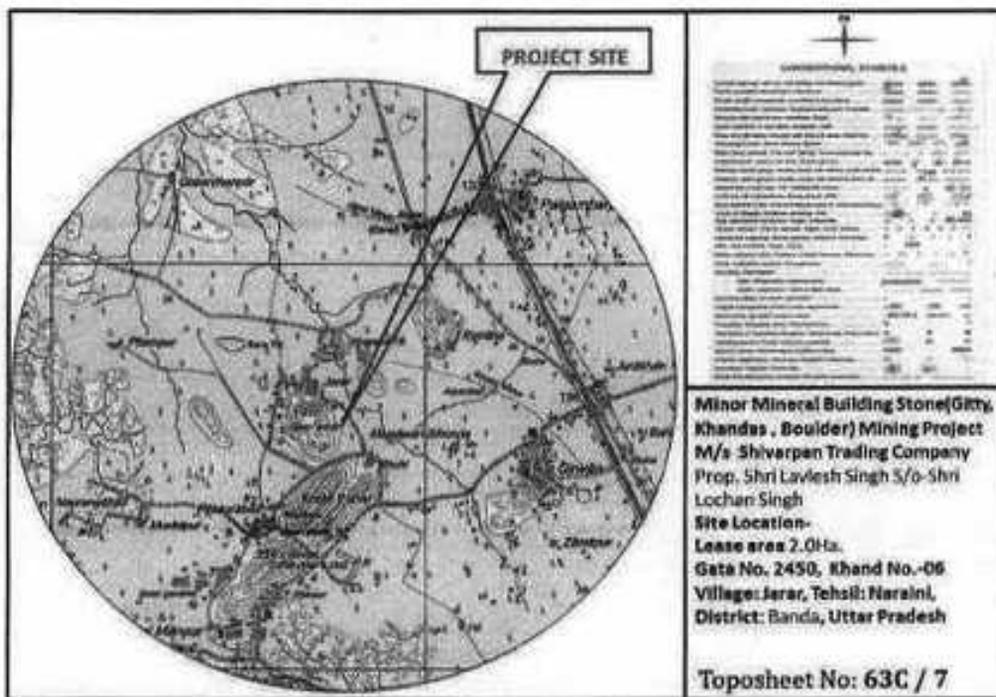


Figure 2.2 Toposheet Map of Project Site



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**2.4 LEASE HOLD AREA**

The entire lease hold area of 2.0 ha lies in the rock of Building Stone, Khandas & Gitti, Boulder Mining Project. The breakup of the land use for ancillary feature around the mining area is given below: -

Sr. No.	Land use	Agriculture land (ha)	Forest Land (ha)	Waste land (ha)	Grazing Land (ha)
1	Mining pits Quarry	-	-	0.432	-
2	Approach Road	-	-	0.001	-
3	Dumps	-	-	-	-
4	Office, Resht Shelter etc.	-	-	-	-
5	Balance undisturbed land	-	-	1.567	-
	<b>Total</b>	-	-	<b>2.0</b>	-

**2.5 TOPOGRAPHY**

The district largely consists of irregular uplands with outcrops of rocks intermingling mostly with Low lands, frequently under water during rainy season. The Ken River traverses the district from south-west to north-east. The tract lying to the right of the river is intersected by numerous smaller river and rivulets, but to its left is a flat expanse, most part of which is made up of Mar and Kabar soils, eroded and converted into ravines along the banks of the rivers Ken and the Yamuna.

**2.6 GEOLOGY OF THE AREA:**

The general slope of lease area is from South-West to North-East direction. No seasonal & perennial drainage exists within the lease area. Due to past mining the lease is degraded by mining pit & depth of pit varies 3m to 5m. The highest and lowest point in the leasehold is 149.80 mRL towards South-West direction and 145.10mRL towards North-East direction. Banda district lies between latitude 25° 00'00" and 25°59'00" north and longitude 80°06'00" and 81°00'00" east. Total geographical area of the district is 4460 sq. km. District headquarter is at Banda having 04 tehsils and 8 blocks. As per the 2001 census the district has population of 1501610 of which 807320 males and 694290 females. Scheduled caste population is 311660. Literacy rate of the district is 54.2%.

Geologically the area comprises Precambrian Bundelkhand granites unconfirmably overlain by Vindhyan and quaternary alluvium. The main and major drainage of the district are Yamuna, Ken and Baghain which are part of Yamuna river system.

Physiographically the area can be divided into three physiographic units-

- (1) Alluvial Plain
- (2) Marginal Alluvial
- (3) High Land (Hard rock) area.

Agriculture is the main source of economy of the district. Both surface and ground water are used for irrigation. The net irrigated area is 153804 Ha and the net area sown is 336000 Ha, which shows that 45.77% area is irrigated by ground water and the surface water while the rest depends on rainfall. Length of canal network in the district is 1193 Km. and the number of government tubewells is 460.

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Banda district is drained by Yamuna, Ken and Baghain rivers. River Yamuna bifurcates the district Banda from Fatehpur in north and flows from west to east in the entire district. River Ken meets Yamuna at Chilla. River Baghain also bifurcates Banda from Chitrakoot in southeast.

### 2.7 GEOMORPHOLOGY & SOIL

#### a) Geomorphology:

The district is characterised by alluvial, hard rock as well as marginal alluvium. The district can be broadly classified into three physiographic units. (i) The alluvial Plain, (ii) Marginal Alluvial, (iii) High Land Area.

#### b) Soil:

In Banda district loose sediments as well as black cotton soil is found. Black cotton soil is prominent in the central part. Four major type of soil a) Rakar, b) Mar, c) Kabar and d) Padua are dominant in the district.

### 2.8 HYDROGEOLOGY:

On the basis of hydrogeological information ground water occurs in unconfined conditions in shallow depths and confined conditions in deeper depth in alluvium. The thickness of alluvium varies from 45.00 to 200.00 mbgl in the district. Granites (Bundelkhand) has also good potential and yield at economical discharge. Ground water occurs in fractures and joints in the hard rock. The potential fractures are encountered from around 28.00 to 96.00 meters in some places.

#### Depth to Water Level:

As per the depth to water level data of 27 permanent ground water monitoring stations in the year 2009, pre monsoon water level ranges from 2.75 mbgl (Khurand) to 26.95 mbgl (Bhitar Kerdera). In the post monsoon period, depth to water level varies from 0.95 mbgl (Girwan) to 22.50 mbgl (Pailani). Water level fluctuation varies from 0.0 in Rolyhdyajue to 8.02 m at Naraini. It is observed that the hilly and rocky area the fluctuation is higher than the plain. Fluctuation is more where less order streams are found

#### Long Term Water Level Trend:

Long term water level trend records in the area from 27 National hydrographic stations (2000-2009) in ten years show that (except Mataudh) all other wells are showing declining trend. The falling trend ranges from 0.0979 m/yr (Girwan) to 1.5087 m/yr at Paprenda.

#### Rainfall & Climate:

The average annual rainfall is 902.00 mm. The climate is typical subtropical penetrated by long and intense summers. About 80% of the annual rainfall is received from south-west monsoon. May is the hottest month with mercury shooting upto 47.0°C. With the advance of monsoon by mid-June, temperature starts decreasing. January is usually the coldest month with temperature going upto 5.8°C. The relative humidity is highest in August about 85% and lowest in April.

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**2.9 MINING:**

**Proposed Mining Method:** The proposed mining method will include the following steps:

It shall be opencast semi-mechanized mine. To meet required production wagon drilling with deep hole blasting shall be carried out. The blasted material will be handled with excavator & loaded into dumpers. The height & width of bench shall be kept 6m with face slopes 70°. Secondary blasting with jackhammer drilling shall be carried out if required.

Indicate quantum of development & tonnage & grade of production expected pit wide as in table below:

Year	Overburden (cum)	ROM Gitty, Khandas, Boulder (cum)	Salable Gitty, Khandas, Boulder (cum)	Sub grade mineral	Mineral reject	Ore to overburden ratio
1st	Nil	20000	20000	Nil	Nil	Nil
2nd	Nil	20000	20000	Nil	Nil	Nil
3rd	Nil	20000	20000	Nil	Nil	Nil
4th	Nil	20000	20000	Nil	Nil	Nil
5th	Nil	20000	20000	Nil	Nil	Nil
Total		100000	100000			

**Drilling:**

The drilling will be done with the help of compressor and jackhammer. In this mine the diameter of hole will be 32-34 mm and depth of hole will be kept from 0.8m to 3.3m in a single hole.

**Blasting:**

The hole will be blasted by using ANFO.

("Ammonium Nitrate Fuel Oil Explosive (ANFO)" means an explosive mixture of ammonium nitrate and fuel oil which is not cap sensitive, but does not include emulsion or slurry explosive or site mixed explosive (SME))

**Loading and Transportation:**

Loading of stone block will be done with help of the winch and crane at both face and on truck. Small stone block (patia) is loaded in truck with the help of Excavator. The trucks will be used for transportation of stone block and Khandas from mine site to destination.

*(Note: -Blasting shall be carried out after the permission of District Magistrate, Banda (U.P.) and Directorate General of Mines Safety, Gwalior (U.P))*

*Blasting shall be done under the supervision of blaster and necessary preventive measures shall be taken as per the guidelines of Directorate General of Mines Safety, Gwalior (U.P))*

**No. of Trucks Required (maximum):**

Total capacity of mine	:	20000 m <sup>3</sup> per year
Total no. of working days	:	250 days
Building Stone, Khandas & Gitti, Boulder extracted in a day	:	80 cum
Building Stone, Khandas & Gitti, Boulder extracted in one truck	:	13 cum (approx.)

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*(Signature)*  
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No. of truck required per day : Approximately 6-7  
Truck/tippers

**Restriction of mining:**

The target testing and advanced stages of exploration require larger field camps and the use of heavy equipment at the worksite. Only trained workers or authorized visitors shall be permitted onto worksites where heavy equipment is operating.

Only properly licensed and trained personnel shall operate heavy equipment. Workers shall be constantly vigilant and never approach heavy equipment unless they are certain the operator knows where they are, what they intend to do and where they intend to go.

Crews shall be fully trained for the job. They shall be provided with appropriate personal protective equipment (e.g., hard hats, steel-toed boots, hearing protection, gloves, goggles and dust masks) Drill rigs shall comply with all safety requirements (e.g., guards that cover all moving parts of machinery, high pressure air hoses secured with clamps and safety chains)

**2.10 GENERAL FEATURES:****Vehicular Traffic Density:**

The roads connect from the mine site to MDR-11B about 3.13km towards West direction. So, a pass way at every 100 m distance will be provided to facilitate easy and smooth movement of heavy duty trucks.

The State Highway has traffic density less than 6-7 trucks per day. On these Highway trucks/trolleys ply regularly and these will easily accommodate additional trucks/tippers per day.

**Township:**

Since this mining is intermittent and laborer employed would be mostly from adjoining areas, no permanent establishment of a colony is proposed.

**Power, Water Supply and Other Infrastructure Requirement Power:**

All the activities will be carried out manually i.e. extraction and loading by the working people, only during the day time. Hence there is no power requirement for the project. However solar power panels will be provided for lighting in the shelter at the mining bench for the guards in night time.

**Water Supply:**

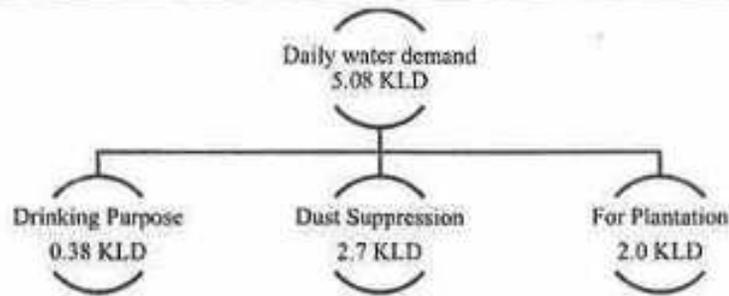
In the projects there is as such no need of water to carry out operations. Water will be required for drinking purpose and dust suppression. The number of working people is 28 so the water required for drinking purpose for the workers will be around 0.38 KLD, for Plantation will be 2.0 KLD & for the dust suppression will be 2.7 KLD, making the total water requirement will be 5.08 KLD. This water will be supplied from the nearby area.

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**Infrastructure /Site Services:**

The workers are mostly locals living in the close proximity of area and will work in shifts during day time only thus there is no requirement of major infrastructural facilities at the site. The following infrastructure facilities will be made available for the workers.

The site services like temporary shelter, first aid box, drinking water and portable toilets facilities will be provided to workers at the mine site.

- a) **Manager's Office:** The activities shall be supervised by one competent person as overall manager. In addition, one mining mate cum blaster is proposed to supervise the drilling and blasting operation. Main administrative office is proposed to be set up in nearby locality on rental accommodation. However, at site one office of Manager is proposed of about 5 x 3 mtrs Size which shall also provide accommodation for key supervisory staff as well.
- b) **Canteen -cum-rest shelter:** In order to provide the rest shelter for the personnel working in the mine and also to provide tea/refreshment etc. as per the Mines Act, 1952. The arrangement shall be made to install a rest shelter-cum-canteen as shown in plate no.4 and shall be utilized by the workers. The rest shelter will be for having rest during the lunch hours by the operators/ labor. The size of rest shelter shall be about 15 x 3 meter to accommodate the working labors.
- c) **First Aid Room:** To provide the first aid for any sort of injuries encountered during the mining operation, one small first aid room will be provided at mine site. First aid kit and sufficient stock of material/medicines needed for first aid will be provided as per requirement. As the Mining Engineer/Manager and Mining Mates are qualified first aides, they can provide first aid to the labor on the spot.
- d) **Crèche:** At present provision of crèche is not provided, however in future if women workers are employed, arrangement for a small crèche shall be made as per the requirement.
- e) **Water Supply:** The water supply for drinking purpose proposed will be made available by hired tanker. The water will be taken from the village Public water supply which is just 1.0 Km. away from the mine site and is controlled by the public health department of the state

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Government. The water from supply tube well is used for the entire village Banda. Therefore, the same arrangement shall continue for the mines as well.

- f) **Store:** Since the mining operation will involve heavy earth moving machinery, a small storeroom will be provided for day to day operations. No provisions for a separate workshop are being made as the heavy repairs will be carried out elsewhere.

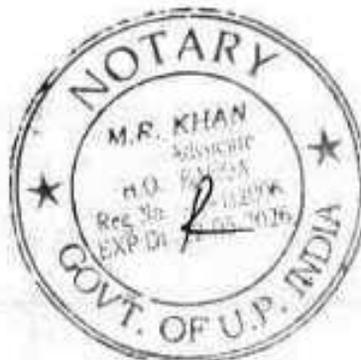
**Manpower Requirement:**

The manpower requirement for the proposed project will be around 28. Apart from these the local manpower may also be required for excavation, transportation and loading/unloading in dumpers/trucks/trolleys.

S. No.	Category	Numbers
1.	Mining Engineer(Full time)	01
2.	Geologist(Full time)	01
3.	Mines mate / Blaster	01
4.	Drivers	06
5.	Supervisor	01
6.	Time Keeper	01
7.	Office Assistant/Dispatch Supervisor	01
8.	Compressor operator	01
9.	Wagon Drill operator	01
10.	Piece rated workers	15
<b>TOTAL</b>		<b>28</b>

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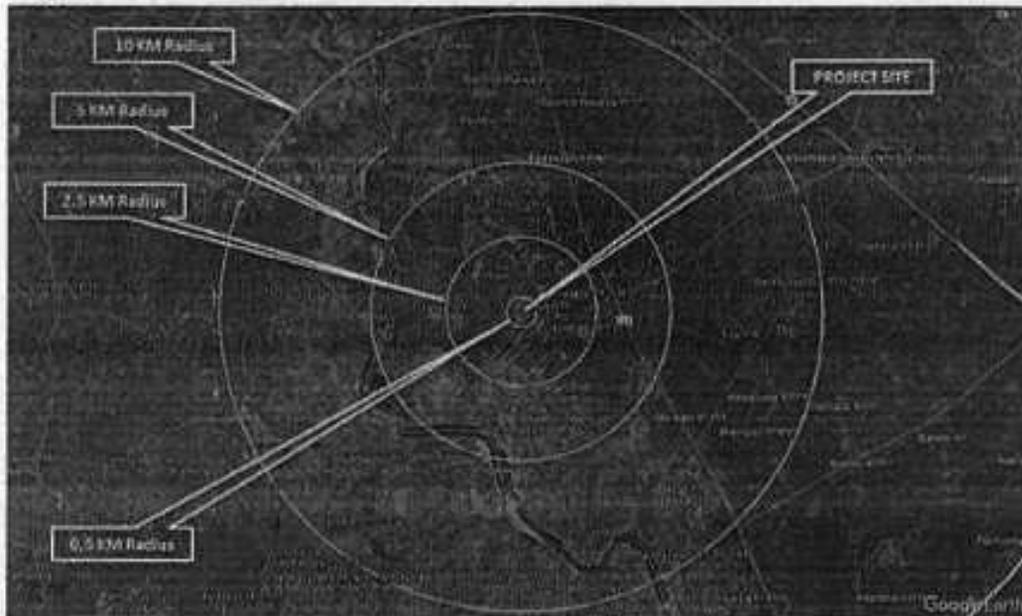
**CHAPTER-3**  
**DESCRIPTION OF ENVIRONMENT**

**3.0 INTRODUCTION**

This section contains the description of baseline studies of the area within 10 Km radius, surrounding the Building Stone, Khandas & Gitti, Boulder Mining Project, Aruzi No, 2450 Khand No.-06, Village- Jarar, Tehsil Naraini, District Banda, Uttar Pradesh. The study was undertaken for prevailing environment in respect of land, air, water (both ground and surface), soil, noise, biological (both flora and fauna). The data collected has been used to understand the existing environment scenario around the proposed mining project against which the potential impacts of the proposed project can be assessed.

**3.1 STUDY AREA AND PERIOD**

Studies of various environmental parameters have been done within 10 km radius area of the proposed project site. The impact identification always commences with the collection of baseline data such as Ambient Air Quality, Meteorology, Ground and Surface Water Quality, Noise levels, Soil Quality, Land use pattern, Biological Environment and Socio-economic aspects, within the study zone of 10 km. radius.



**3.2 LAND ENVIRONMENT**

**LAND USE PATTERN**

The land use pattern will mainly deal with the land use and land cover study within project site and surrounding buffer area. Land use refers to Man's activity and various uses which are carried out on



  
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land. Land cover refers to natural physical characteristics of earth surface like natural vegetation, water bodies, rock/soil, artificial cover and others result to land transformation.

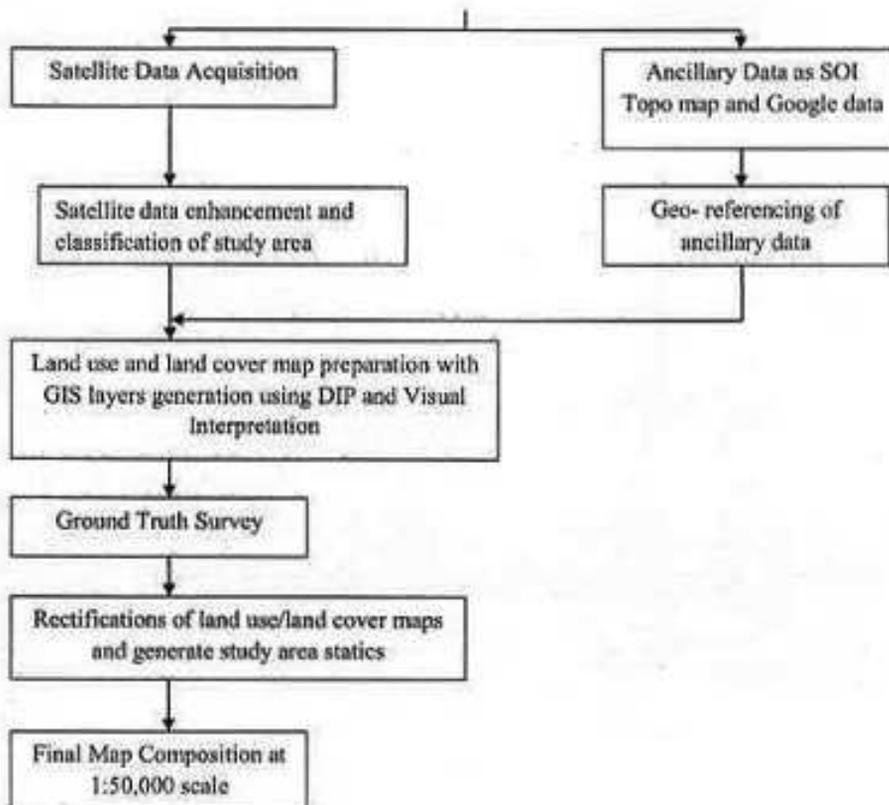
Land use and land cover are interchangeable process due to man's activities interference.

10 km radius study buffer area has taken for preparation and analysis of land use pattern.

**Adopted Methodology****Data Used**

- ✓ Satellite Image- Resourcesat-1
- ✓ Sensor- LISS III
- ✓ Band Combination- 2,3,4
- ✓ Ancillary SOI Toposheet and other reference map

Salient features of the adopted methodology for land use maps preparation of study area are given below:



Mine Lease Area: 2.0 Ha.

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ANALYSIS OF LAND USE PATTERN

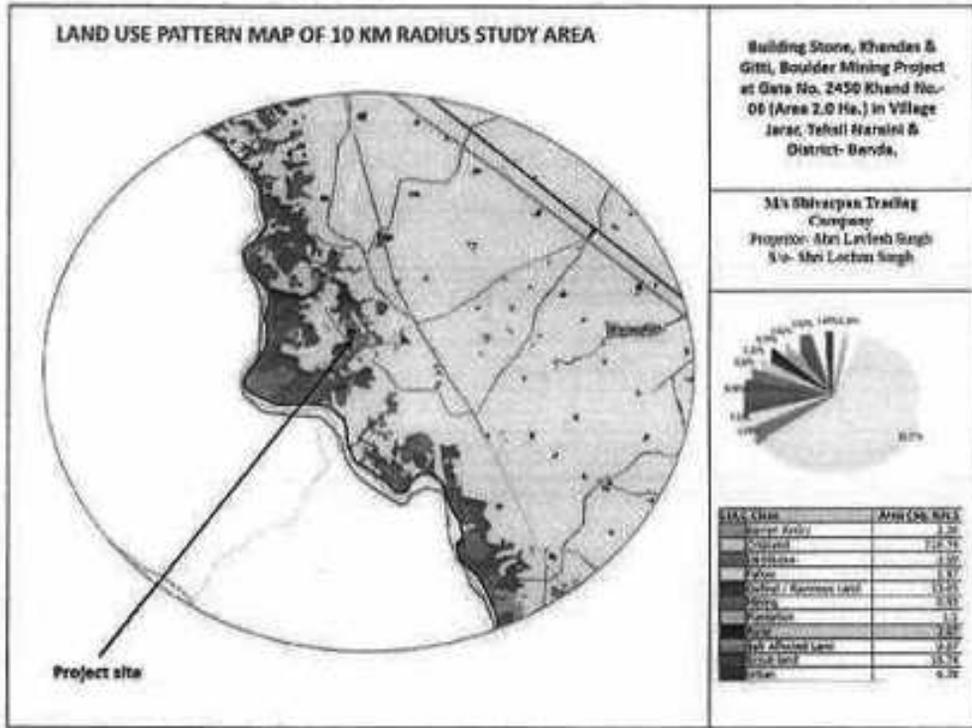
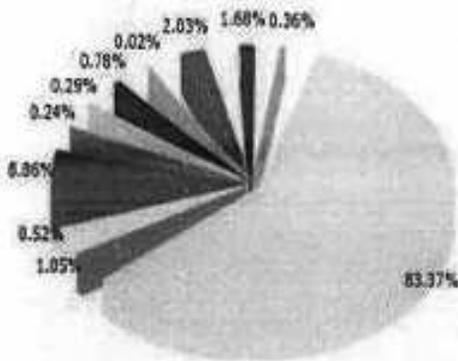


Table 3.1 Land Use/Land Cover Area Statics of Buffer Zone

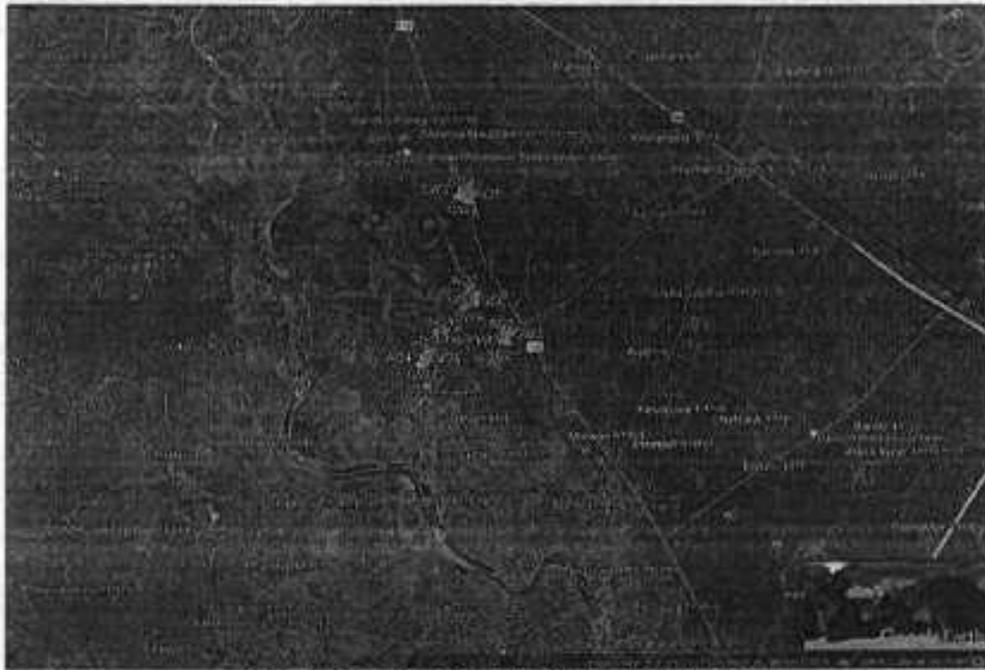


Pie Chart of LULC 10 km Radius Buffer Study Area



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Google Map showing Monitoring Locations

3.3 AIR ENVIRONMENT

Selection of Air Quality Monitoring Stations

Ambient air quality monitoring stations were selected primarily on the basis of surface influence, demographic influence and meteorological influence. From the meteorological data already available at the near-most site the frequency and duration of wind is preliminary determined, from which the likely wind rose diagram is first drawn. Out of four, two monitoring stations were selected in the direction of the most predominant wind direction (Up wind): one in the downwind side, one closer to the project site.

19 hourly monitoring was carried out for SO<sub>2</sub>, NO<sub>2</sub>, PM<sub>2.5</sub> & PM<sub>10</sub> twice a week at each station for a study period of 3 months (Monitoring Period – 1/10/2021 to 31/12/2021)



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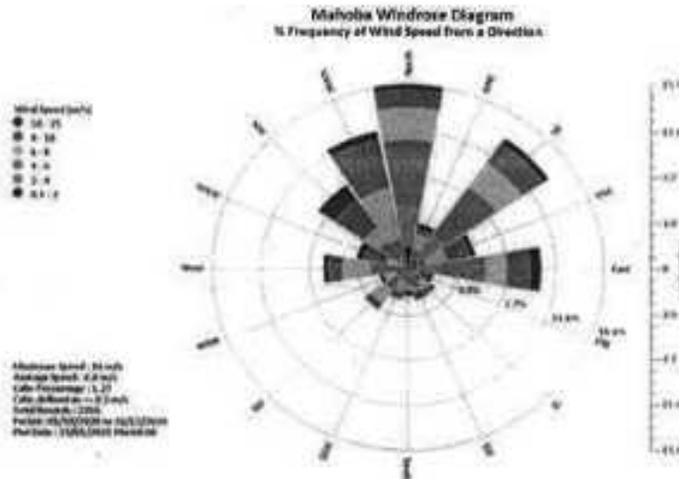


Fig- 3.1 Wind rose Diagram

3.3.1 Wind Speed

Wind speed and wind direction data recorded during the study period is useful in identifying the influence of meteorology on the air quality of the area. Based on the collected meteorological data, relative percentage frequencies of different wind directions are calculated and plotted as wind roses of Sixteen directions viz., N, NNE, NE, ENE, E, ESE, SE, SSE, S, SSW, SW, WSW, W, WNW, NW and NNW for eight hourly and twenty-four-hour durations respectively. The observed wind pattern during the study period is described below and is plotted for the study period. The predominant over all wind patterns for the study period is from West to East direction.

Methods for monitoring

The Central Pollution Control Board (CPCB) has published comprehensive document on emission testing regulations ("Emission Regulations Part-3, 1985"). Those procedures relevant to the particulate monitoring are summarized in Table 3.2(i):

Table 3.2(i): Methods adopted for PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub> (as NO<sub>2</sub>)

Parameters	Technique	Technical Protocol	Minimum Detectable Limit
PM <sub>2.5</sub>	Gravimetric method	US EPA Method	5 (µg/m <sup>3</sup> )
PM <sub>10</sub>	Gravimetric method	IS 5182 (Part-XXIII)	5 (µg/m <sup>3</sup> )
Sulphur Dioxide	West and Gaeke	IS-5182 (Part-II)	4 (µg/m <sup>3</sup> )
Nitrogen Oxide	Jacob & Hochheiser	IS-5182 (Part-VI)	7 (µg/m <sup>3</sup> )

I. Particulate Matter (PM): -



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The CPCB method and IS 5182 (Part-XXIII) adopt a very similar approach to particulate sampling. There are some differences in the expressions used, but they are generally of no practical significance. It is recommended that CPCB method is adapted.

**ii. Equipment calibration:**

For accurate testing of emission sources, the components of the sampling train is calibrated by outsource and supplier (Master Calibrator) standards and solutions are used, calibrated under certified reference material.

Detail of Air Monitoring Locations			
Station Code	Name of the station	Approx. Distance of Sampling location from the project site	GPS Coordinates
AQ1	Jarar	0.28kms towards East	25°18'53.56"N 80°21'56.15"E
AQ2	Barokhar khurd	1.69 kms towards North-East	25°19'34.65"N 80°22'28.32"E
AQ3	Girwan	2.34 kms towards East	25°18'43.74"N 80°23'08.52"E
AQ4	Jahangirabad	1.06 kms towards South	25°18'23.69"N 80°21'26.16"E
AQ5	Barokhar buzurg	4.67 kms towards North	25°21'19.71"N 80°22'42.01"E

The ambient air quality primary data were collected to find the existing emissions / conditions. The data is given in Table No. 3.2 (ii) and the ambient air quality Secondary data is used. The data is given in Table No. 3.2 (iii)

**Table 3.2 (ii)- Ambient air quality Primary data monitoring stations**

**LOCATION: AQ-1 JARAR**

S.No	Date	Particulate Matter PM10 ( $\mu\text{g}/\text{m}^3$ )	Particulate Matter PM2.5 ( $\mu\text{g}/\text{m}^3$ )	Sulphur Dioxide $\text{SO}_2$ ( $\mu\text{g}/\text{m}^3$ )	Nitrogen Dioxide $\text{NO}_2$ ( $\mu\text{g}/\text{m}^3$ )	Carbon monoxide CO ( $\text{mg}/\text{m}^3$ )	Silica ( $\mu\text{g}/\text{m}^3$ )
		IS:5182(Part-23)	IS:5182(Part-24)	IS:5182(Part-2)	IS:5182(Part-6)	IS:5182(Part-X)	
1	01-10-2021	79.84	41.42	11.83	21.30	0.58	3.19
2	05-10-2021	80.27	38.84	14.20	24.15	0.56	3.21
3	08-10-2021	78.69	39.13	11.63	21.46	0.55	3.15
4	12-10-2021	80.76	41.03	13.51	23.23	0.58	3.23
5	15-10-2021	79.41	40.14	10.41	20.60	0.55	3.18
6	19-10-2021	82.29	41.58	12.98	22.55	0.56	3.29
7	22-10-2021	81.29	43.03	14.45	24.71	0.59	3.25
8	26-10-2021	80.36	39.53	13.44	23.49	0.55	3.21
9	29-10-2021	83.16	42.01	11.29	21.80	0.59	3.33
10	02-11-2021	81.61	40.59	11.83	21.32	0.56	3.26
11	05-11-2021	78.65	39.54	13.30	23.61	0.60	3.15
12	09-11-2021	80.15	43.49	12.09	22.38	0.56	3.21
13	12-11-2021	82.39	39.48	13.56	23.46	0.58	3.30
14	16-11-2021	79.41	38.00	11.69	21.30	0.54	3.18
15	19-11-2021	79.36	40.53	12.38	22.53	0.55	3.17
16	23-11-2021	81.13	40.14	10.69	20.60	0.56	3.25
17	26-11-2021	78.75	41.74	13.18	23.52	0.56	3.15
18	30-11-2021	80.52	39.62	13.88	24.03	0.58	3.22

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19	03-12-2021	80.97	40.27	13.40	23.36	0.59	3.24
20	07-12-2021	81.53	42.25	11.98	21.81	0.60	3.26
21	10-12-2021	79.70	39.42	10.61	20.82	0.59	3.19
22	14-12-2021	81.49	42.24	11.96	21.84	0.55	3.26
23	17-12-2021	82.56	41.71	13.59	23.51	0.59	3.30
24	21-12-2021	83.65	43.51	14.18	24.38	0.58	3.35
<b>Minimum</b>		<b>78.65</b>	<b>38.00</b>	<b>10.41</b>	<b>20.60</b>	<b>0.54</b>	<b>3.15</b>
<b>Maximum</b>		<b>83.65</b>	<b>43.51</b>	<b>14.45</b>	<b>24.71</b>	<b>0.60</b>	<b>3.35</b>
<b>Average</b>		<b>80.75</b>	<b>40.80</b>	<b>12.59</b>	<b>22.57</b>	<b>0.57</b>	<b>3.23</b>
<b>98<sup>th</sup> Percentile</b>		<b>83.42</b>	<b>43.50</b>	<b>14.34</b>	<b>24.56</b>	<b>0.60</b>	<b>3.34</b>
<b>NAAQS, For 24 Hourly Monitoring</b>		<b>100.0</b>	<b>60.0</b>	<b>80.0</b>	<b>80.0</b>	<b>4.0</b>	<b>--</b>

**LOCATION: AQ-2 BAROKHAR KHURD**

S.No	Date	Particulate Matter PM10 ( $\mu\text{g}/\text{m}^3$ )	Particulate Matter PM2.5 ( $\mu\text{g}/\text{m}^3$ )	Sulphur Dioxide SO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	Nitrogen Dioxide NO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	Carbon monoxide CO ( $\text{mg}/\text{m}^3$ )	Silica ( $\mu\text{g}/\text{m}^3$ )
		IS:5182(Part-23)	IS:5182(Part-24)	IS:5182(Part-2)	IS:5182(Part-6)	IS:5182(Part-X)	
1	01-10-2021	80.41	41.27	10.68	22.34	0.55	3.22
2	05-10-2021	79.98	40.42	12.75	22.20	0.56	3.20
3	08-10-2021	81.84	42.42	11.17	20.45	0.53	3.27
4	12-10-2021	82.13	43.43	10.65	21.27	0.54	3.29
5	15-10-2021	84.28	43.43	8.97	18.84	0.56	3.37
6	19-10-2021	81.57	39.70	13.36	21.16	0.59	3.26
7	22-10-2021	83.16	44.61	13.83	23.49	0.60	3.33
8	26-10-2021	80.13	37.28	12.57	22.31	0.58	3.21
9	29-10-2021	81.13	40.57	10.13	20.22	0.60	3.25
10	02-11-2021	80.41	42.97	9.70	19.38	0.59	3.22
11	05-11-2021	77.58	41.12	8.98	20.60	0.55	3.10
12	09-11-2021	79.56	39.99	9.29	18.46	0.58	3.18
13	12-11-2021	78.84	37.71	11.03	21.57	0.60	3.15
14	16-11-2021	82.54	43.40	13.03	22.52	0.61	3.30
15	19-11-2021	80.40	39.99	10.84	21.92	0.56	3.22
16	23-11-2021	82.13	41.71	9.25	18.66	0.55	3.29
17	26-11-2021	79.27	39.85	12.15	21.57	0.54	3.17
18	30-11-2021	83.81	42.97	12.34	22.70	0.58	3.35
19	03-12-2021	84.07	44.78	13.08	23.64	0.55	3.36
20	07-12-2021	80.40	41.25	10.97	20.46	0.53	3.22
21	10-12-2021	79.41	38.43	9.74	18.89	0.54	3.18
22	14-12-2021	82.11	43.40	10.95	19.94	0.52	3.28
23	17-12-2021	79.98	38.72	9.29	17.72	0.53	3.20
24	21-12-2021	81.67	42.52	11.39	20.64	0.55	3.27
<b>Minimum</b>		<b>77.58</b>	<b>37.28</b>	<b>8.97</b>	<b>17.72</b>	<b>0.52</b>	<b>3.10</b>
<b>Maximum</b>		<b>84.28</b>	<b>44.78</b>	<b>13.83</b>	<b>23.64</b>	<b>0.61</b>	<b>3.37</b>
<b>Average</b>		<b>81.12</b>	<b>41.33</b>	<b>11.09</b>	<b>20.87</b>	<b>0.56</b>	<b>3.24</b>
<b>98<sup>th</sup> Percentile</b>		<b>84.18</b>	<b>44.70</b>	<b>13.61</b>	<b>23.57</b>	<b>0.60</b>	<b>3.37</b>
<b>NAAQS, For 24 Hourly Monitoring</b>		<b>100.0</b>	<b>60.0</b>	<b>80.0</b>	<b>80.0</b>	<b>4.0</b>	<b>--</b>

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LOCATION: AQ-3 GIRWAN

S.No	Date	Particulate Matter PM10 ( $\mu\text{g}/\text{m}^3$ )	Particulate Matter PM2.5 ( $\mu\text{g}/\text{m}^3$ )	Sulphur Dioxide SO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	Nitrogen Dioxide NO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	Carbon monoxide CO (mg/m <sup>3</sup> )	Silica ( $\mu\text{g}/\text{m}^3$ )
		IS:5182(Part-23)	IS:5182(Part-24)	IS:5182(Part-2)	IS:5182(Part-6)	IS:5182(Part-X)	
1	01-10-2021	77.90	36.41	8.97	19.29	0.52	3.12
2	05-10-2021	79.16	40.22	7.81	20.79	0.53	3.17
3	08-10-2021	81.01	42.21	9.86	21.27	0.55	3.24
4	12-10-2021	80.27	40.56	11.55	22.60	0.56	3.21
5	15-10-2021	79.53	38.48	10.31	20.59	0.58	3.18
6	19-10-2021	78.15	38.22	12.59	20.49	0.58	3.13
7	22-10-2021	77.57	37.49	12.92	22.44	0.56	3.10
8	26-10-2021	76.43	39.28	10.02	19.82	0.55	3.06
9	29-10-2021	80.30	41.65	9.79	18.63	0.58	3.21
10	02-11-2021	82.13	40.64	7.73	18.37	0.54	3.29
11	05-11-2021	79.73	37.12	8.25	19.58	0.52	3.19
12	09-11-2021	81.28	40.22	10.62	20.57	0.51	3.25
13	12-11-2021	79.73	38.80	11.81	22.01	0.54	3.19
14	16-11-2021	76.57	36.38	11.58	21.47	0.53	3.06
15	19-11-2021	78.69	38.50	9.51	20.56	0.54	3.15
16	23-11-2021	80.87	40.65	10.60	19.68	0.56	3.23
17	26-11-2021	79.62	39.59	11.65	22.54	0.54	3.18
18	30-11-2021	79.59	38.10	12.28	20.76	0.56	3.18
19	03-12-2021	78.56	37.81	11.64	21.69	0.53	3.14
20	07-12-2021	76.63	36.41	8.55	19.65	0.52	3.07
21	10-12-2021	78.58	39.08	10.35	20.12	0.51	3.14
22	14-12-2021	80.44	41.49	9.66	18.18	0.53	3.22
23	17-12-2021	81.71	41.06	10.62	19.47	0.55	3.27
24	21-12-2021	82.11	42.31	12.15	21.45	0.58	3.28
<b>Minimum</b>		<b>76.43</b>	<b>36.38</b>	<b>7.73</b>	<b>18.18</b>	<b>0.51</b>	<b>3.06</b>
<b>Maximum</b>		<b>82.13</b>	<b>42.31</b>	<b>12.92</b>	<b>22.60</b>	<b>0.58</b>	<b>3.29</b>
<b>Average</b>		<b>79.44</b>	<b>39.28</b>	<b>10.45</b>	<b>20.50</b>	<b>0.54</b>	<b>3.18</b>
<b>98<sup>th</sup> Percentile</b>		<b>82.12</b>	<b>42.26</b>	<b>12.77</b>	<b>22.57</b>	<b>0.58</b>	<b>3.28</b>
<b>NAAQS, For 24 Hourly Monitoring</b>		<b>100.0</b>	<b>60.0</b>	<b>80.0</b>	<b>80.0</b>	<b>4.0</b>	<b>--</b>

LOCATION: AQ4 JAHANGIRABAD

S.No	Date	Particulate Matter PM10 ( $\mu\text{g}/\text{m}^3$ )	Particulate Matter PM2.5 ( $\mu\text{g}/\text{m}^3$ )	Sulphur Dioxide SO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	Nitrogen Dioxide NO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	Carbon monoxide CO (mg/m <sup>3</sup> )	Silica ( $\mu\text{g}/\text{m}^3$ )
		IS:5182(Part-23)	IS:5182(Part-24)	IS:5182(Part-2)	IS:5182(Part-6)	IS:5182(Part-X)	
1	02-10-2021	81.53	42.25	10.32	20.34	0.56	3.26
2	06-10-2021	80.70	39.71	11.97	22.60	0.58	3.23

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3	09-10-2021	83.81	43.82	9.70	20.30	0.59	3.35
4	13-10-2021	82.11	45.52	10.95	20.67	0.61	3.28
5	16-10-2021	84.54	44.40	12.94	23.16	0.62	3.38
6	20-10-2021	80.13	40.28	14.24	25.28	0.59	3.21
7	23-10-2021	82.56	43.43	13.73	21.83	0.55	3.30
8	27-10-2021	82.11	41.69	10.40	19.38	0.58	3.28
9	30-10-2021	83.73	43.80	9.79	22.73	0.59	3.35
10	03-11-2021	83.22	44.36	11.84	21.08	0.60	3.33
11	06-11-2021	81.67	40.83	12.21	23.20	0.56	3.27
12	10-11-2021	80.69	40.98	10.88	21.81	0.54	3.23
13	13-11-2021	81.69	41.69	12.34	23.07	0.56	3.27
14	17-11-2021	79.00	39.71	13.49	24.19	0.58	3.16
15	20-11-2021	81.53	41.40	15.28	24.19	0.59	3.26
16	24-11-2021	83.26	43.12	12.10	22.97	0.61	3.33
17	27-11-2021	84.66	45.10	11.09	21.78	0.62	3.39
18	01-12-2021	82.38	41.82	11.01	20.16	0.60	3.30
19	04-12-2021	80.96	40.69	10.94	20.93	0.59	3.24
20	08-12-2021	79.84	39.29	11.29	22.54	0.55	3.19
21	11-12-2021	82.70	41.56	13.13	23.80	0.53	3.31
22	15-12-2021	84.91	43.93	12.25	22.36	0.55	3.40
23	18-12-2021	83.09	44.09	10.91	20.05	0.58	3.32
24	22-12-2021	82.51	41.68	10.29	19.73	0.60	3.30
<b>Minimum</b>		<b>79.00</b>	<b>39.29</b>	<b>9.70</b>	<b>19.38</b>	<b>0.53</b>	<b>3.16</b>
<b>Maximum</b>		<b>84.91</b>	<b>45.52</b>	<b>15.28</b>	<b>25.28</b>	<b>0.62</b>	<b>3.40</b>
<b>Average</b>		<b>82.22</b>	<b>42.30</b>	<b>11.80</b>	<b>22.01</b>	<b>0.58</b>	<b>3.29</b>
<b>98<sup>th</sup> Percentile</b>		<b>84.80</b>	<b>45.33</b>	<b>14.80</b>	<b>24.78</b>	<b>0.62</b>	<b>3.39</b>
<b>NAAQS, For 24 Hourly Monitoring</b>		<b>100.0</b>	<b>60.0</b>	<b>80.0</b>	<b>80.0</b>	<b>4.0</b>	<b>--</b>

LOCATION: AQ5 BAROKHAR BUJURG

S.No	Date	Particulate Matter PM10 ( $\mu\text{g}/\text{m}^3$ )	Particulate Matter PM2.5 ( $\mu\text{g}/\text{m}^3$ )	Sulphur Dioxide SO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	Nitrogen Dioxide NO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	Carbon monoxide CO (mg/m <sup>3</sup> )	Silica ( $\mu\text{g}/\text{m}^3$ )
		IS:5182(Part-23)	IS:5182(Part-24)	IS:5182(Part-2)	IS:5182(Part-6)	IS:5182(Part-X)	
1	02-10-2021	80.83	41.68	9.60	19.54	0.59	3.23
2	06-10-2021	82.96	43.40	10.81	21.60	0.58	3.32
3	09-10-2021	79.70	40.70	8.98	18.39	0.55	3.19
4	13-10-2021	78.43	37.73	9.95	20.05	0.53	3.14
5	16-10-2021	81.26	42.12	12.48	22.34	0.55	3.25
6	20-10-2021	80.70	40.99	13.91	23.16	0.56	3.23
7	23-10-2021	79.70	39.85	14.24	24.35	0.53	3.19
8	27-10-2021	76.73	37.73	13.12	22.99	0.52	3.07
9	30-10-2021	78.41	40.71	11.03	21.38	0.53	3.14
10	03-11-2021	79.56	40.83	10.97	20.09	0.55	3.18
11	06-11-2021	80.96	43.21	11.21	22.75	0.58	3.24
12	10-11-2021	82.51	42.10	9.60	20.09	0.56	3.30
13	13-11-2021	82.25	43.24	8.57	17.47	0.59	3.29
14	17-11-2021	79.14	41.25	10.70	20.46	0.60	3.17

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15	20-11-2021	78.72	38.73	13.86	22.28	0.58	3.15
16	24-11-2021	81.69	40.42	13.45	24.37	0.56	3.27
17	27-11-2021	82.67	42.82	12.30	21.15	0.53	3.31
18	01-12-2021	77.46	38.73	11.66	22.28	0.54	3.10
19	04-12-2021	76.50	37.62	9.54	21.58	0.55	3.06
20	08-12-2021	80.83	39.57	9.88	18.81	0.57	3.23
21	11-12-2021	81.98	41.42	11.69	21.86	0.59	3.28
22	15-12-2021	82.09	43.78	13.44	23.20	0.56	3.28
23	18-12-2021	82.38	42.67	11.29	20.34	0.58	3.30
24	22-12-2021	79.28	39.43	11.35	20.38	0.59	3.17
Minimum		76.50	37.62	8.57	17.47	0.52	3.06
Maximum		82.96	43.78	14.24	24.37	0.60	3.32
Average		80.28	40.86	11.40	21.29	0.56	3.21
98 <sup>th</sup> Percentile		82.83	43.60	14.09	24.36	0.60	3.31
NAAQS, For 24 Hourly Monitoring		100.0	60.0	80.0	80.0	4.0	-

Table 3.2(iii) Ambient Air Quality Status

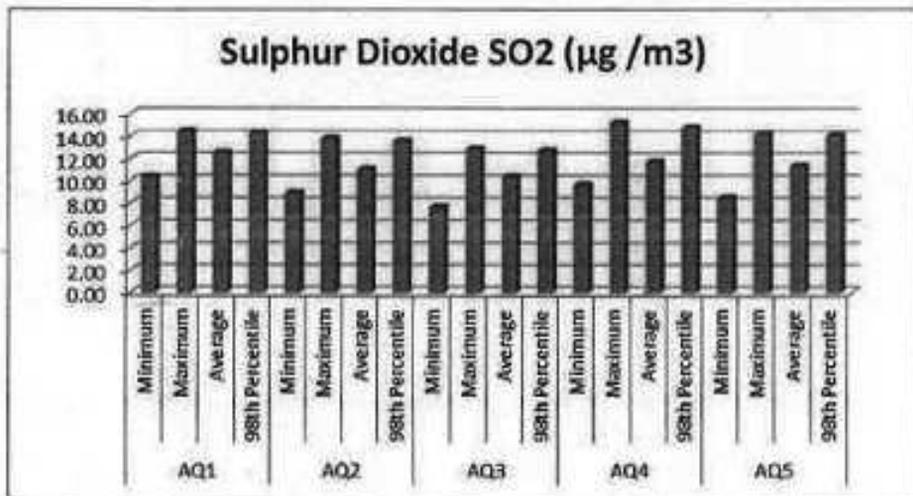
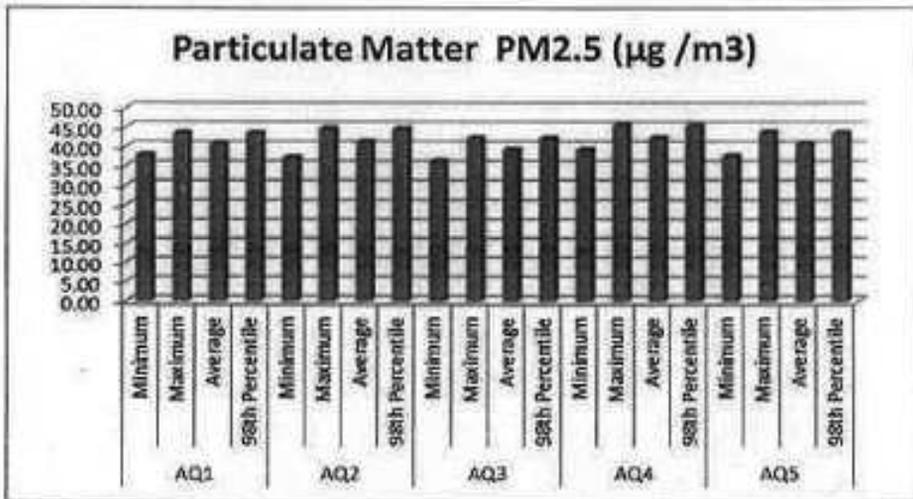
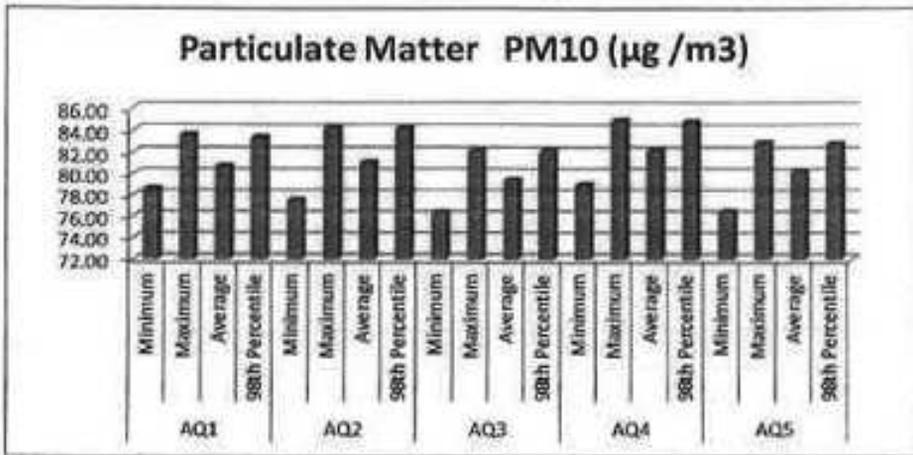
S.No	Date	Particulate Matter PM10 ( $\mu\text{g}/\text{m}^3$ )	Particulate Matter PM2.5 ( $\mu\text{g}/\text{m}^3$ )	Sulphur Dioxide SO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	Nitrogen Dioxide NO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	Carbon monoxide CO (mg /m <sup>3</sup> )	Silica ( $\mu\text{g}/\text{m}^3$ )
		IS:5182(Part-23)	IS:5182(Part-24)	IS:5182(Part-2)	IS:5182(Part-6)	IS:5182(Part-X)	
AQ1 Jarar	Minimum	78.65	38.00	10.41	20.60	0.54	3.15
	Maximum	83.65	43.51	14.45	24.71	0.60	3.35
	Average	80.75	40.80	12.59	22.57	0.57	3.23
	98 <sup>th</sup> Percentile	83.42	43.50	14.34	24.56	0.60	3.34
AQ2 Barokhar Khurd	Minimum	77.58	37.28	8.97	17.72	0.52	3.10
	Maximum	84.28	44.78	13.83	23.64	0.61	3.37
	Average	81.12	41.33	11.09	20.87	0.56	3.24
	98 <sup>th</sup> Percentile	84.18	44.70	13.61	23.57	0.60	3.37
AQ3 Girwan	Minimum	76.43	36.38	7.73	18.18	0.51	3.06
	Maximum	82.13	42.31	12.92	22.60	0.58	3.29
	Average	79.44	39.28	10.45	20.50	0.54	3.18
	98 <sup>th</sup> Percentile	82.12	42.26	12.77	22.57	0.58	3.28
AQ4 Jahangirabad	Minimum	79.00	39.29	9.70	19.38	0.53	3.16
	Maximum	84.91	45.52	15.28	25.28	0.62	3.40
	Average	82.22	42.30	11.80	22.01	0.58	3.29
	98 <sup>th</sup> Percentile	84.80	45.33	14.80	24.78	0.62	3.39
AQ5 Barokhar Bujurg	Minimum	76.50	37.62	8.57	17.47	0.52	3.06
	Maximum	82.96	43.78	14.24	24.37	0.60	3.32
	Average	80.28	40.86	11.40	21.29	0.56	3.21
	98 <sup>th</sup> Percentile	82.83	43.60	14.09	24.36	0.60	3.31



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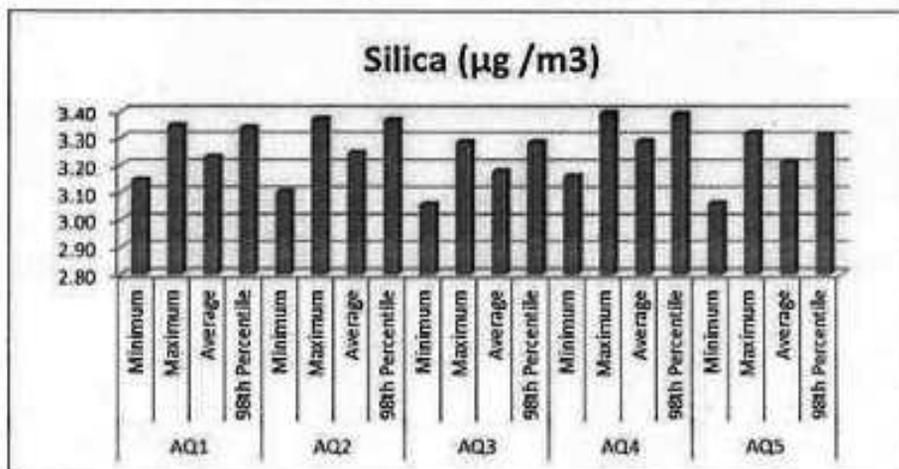
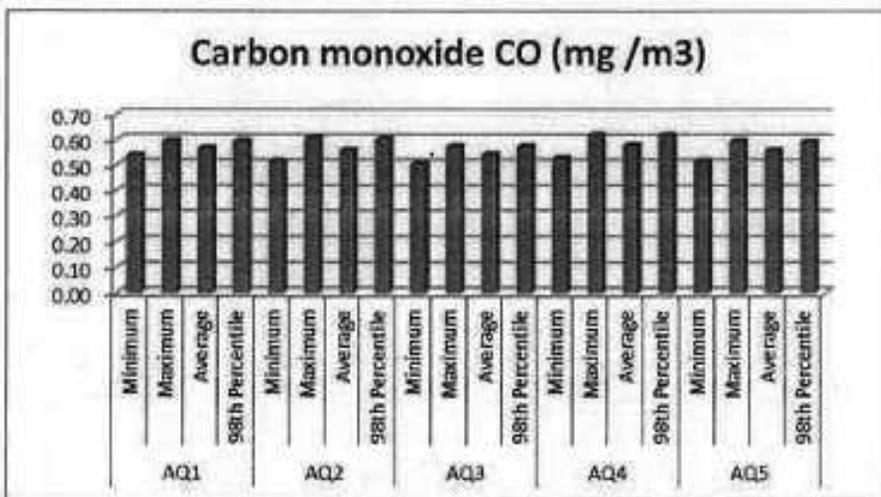
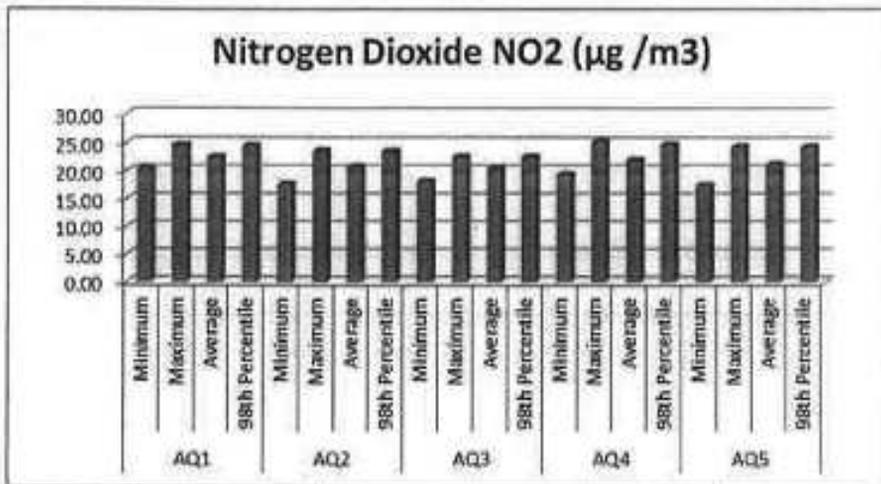
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**EIA/EMP CHAPTER-3- DESCRIPTION OF ENVIRONMENT**

**Observations:**

Ambient Air Quality Monitoring reveals that the minimum & maximum concentrations of PM10 for all the 5 AQ monitoring stations were found to be 76.43  $\mu\text{g}/\text{m}^3$  to 84.91  $\mu\text{g}/\text{m}^3$  & PM2.5 for all the 5 location were found to be 36.38  $\mu\text{g}/\text{m}^3$  to 45.52  $\mu\text{g}/\text{m}^3$  respectively.

As far as the gaseous pollutants SO<sub>2</sub> and NO<sub>x</sub> are concerned, the prescribed CPCB limit of 80  $\mu\text{g}/\text{m}^3$  for residential and rural areas has never surpassed at any station. The maximum & minimum concentrations of SO<sub>2</sub> were found to be 07.73  $\mu\text{g}/\text{m}^3$  & 15.28  $\mu\text{g}/\text{m}^3$  respectively. The maximum & minimum concentrations of NO<sub>x</sub> were found to be 17.47  $\mu\text{g}/\text{m}^3$  & 25.28  $\mu\text{g}/\text{m}^3$  respectively. The air environment around this area is also affected by agriculture activities in the area.

**Free SiO<sub>2</sub>:**

The NAAQ standards prescribed for Industrial, Residential, Rural and other areas do not define limits for standards of free silica in ambient air. Silica is a component of PM10, standards for which are prescribed under the NAAQ. Crystalline silica is composed of SiO<sub>2</sub> whereas SiO<sub>2</sub> in the pure form (not combined with cations) is free silica.

Rock quarries, sand /minerals mining and rock crushing are potential crystalline silica sources. The size of crystalline silica particles is smaller than 4  $\mu\text{m}$  (PM4). There are no generally accepted methods of monitoring in ambient PM4 air.

Inhaling finely divided crystalline silica dust in very small quantities overtime can lead to silicosis, bronchitis or cancer. The American Conference of Governmental Industrial Hygienists recommends 0.1  $\text{mg}/\text{m}^3$  (10  $\mu\text{g}/\text{m}^3$ ) crystalline silica as respirable free silica as exposure limits.

Free silica content should not exceed 5% as prescribed by Directorate General of Mines Safety.

**3.4 WATER ENVIRONMENT**

**3.4.1 GROUND WATER**

Ground water samples were collected from the study area. The location of sampling points is shown in Table 3.4.1 (i) and the physico-chemical analysis of the water samples is given in the Table 3.4.1 (ii).

Station Code	Name of the station	Approx. Distance of Sampling location from the project site	GPS Coordinates
GW1	Jarar	0.34 kms towards East	25°18'55.85"N 80°21'57.35"E
GW2	Girwan	2.43 kms towards East	25°18'41.29"N 80°23'12.23"E
GW3	Jahangirabad	0.87 kms towards South	25°18'28.15"N 80°21'31.08"E
GW4	Barokhar buzurg	4.92 kms towards North	25°21'25.99"N 80°22'37.03"E

**Table 3.4.1 (i) Ground water sampling locations**



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**BUILDING STONE, KHANDAS & GITTA BOULDER MINING PROJECT OF  
DISTRICT BANDA**

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**MONITORING DURATION 18/10/2021 to 23/10/2021**

S.No	Parameter	Test Method	Results		Units	Acceptable Limit	Permissible Limit in the Absence of Alternate Source
			Location				
			W-1	W-2			
1	pH	IS:3025(Part-11)	7.24	7.28	-	6.5-8.5	-
2	Colour	IS:3025(Part-04)	<5.0	<5.0	Hazen	5	15
3	Odour	IS:3025(Part-05)	Agreeable	Agreeable	-	Agreeable	Agreeable
4	Taste	IS:3025(Part-07)	Agreeable	Agreeable	-	Agreeable	Agreeable
5	Turbidity	IS:3025(Part-10)	<0.5	<0.5	NTU	1	5
6	Total Hardness (as CaCO <sub>3</sub> )	IS:3025(Part-21)	212	324	mg/l	200	600
7	Calcium(as Ca)	IS:3025(Part-40)	60.80	107.20	mg/l	75	200
8	Magnesium(as Mg)	IS:3025(Part-46)	14.58	13.61	mg/l	30	100
9	Chloride(as Cl)	IS:3025(Part-32)	170.25	45.01	mg/l	250	1000
10	Iron(as Fe)	IS:3025(Part-53)	0.073	0.095	mg/l	0.3	No Relaxation
11	Fluoride(as F)	IS:3025(Part-60)	0.24	0.48	mg/l	1	1.5
12	Free Residual chlorine	IS:3025(Part-26)	<0.1	<0.1	mg/l	0.2	1
13	Total Dissolved Solid	IS:3025(Part-16)	588	499	mg/l	500	2000
14	Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH)	IS: 3025 (Part-43)	<0.001	<0.001	mg/l	0.001 max	0.002 Max
15	Anionic Detergents (as MBAS)	Annex K of IS 13428	<0.1	<0.1	mg/l	0.2	1.0
16	Sulphate (as SO <sub>4</sub> )	IS:3025(Part-24)	25.62	21.94	mg/l	200	400
17	Nitrate (as NO <sub>3</sub> )	IS: 3025 (Part-34)	3.44	5.84	mg/l	45	No Relaxation
18	Alkalinity(as CaCO <sub>3</sub> )	IS:3025(Part-23)	138.60	114.84	mg/l	200	600
19	Chloramines (as Cl <sub>2</sub> )	IS:3025(Part-26)	< 1.0	< 1.0	mg/l	4	No Relaxation
20	Cadmium (as Cd)	IS:3025(Part-41)	<0.001	<0.001	mg/l	0.003	No Relaxation
21	Lead ( as Pb)	IS:3025(Part-47)	<0.01	<0.01	mg/l	0.01	No Relaxation
22	Total Chromium (as Cr)	IS:3025(Part-52)	<0.01	<0.01	mg/l	0.05	No Relaxation
23	Copper (as Cu)	IS:3025(Part-42)	<0.01	<0.01	mg/l	0.05	1.5
24	Total Ammonia	IS: 3025 (Part-34)	<0.5	<0.5	mg/l	0.5	No Relaxation
25	Sulphide (as H <sub>2</sub> S)	IS:3025(Part-29)	<0.05	<0.05	mg/l	0.05	No Relaxation
26	Zinc (as Zn )	IS:3025(Part-49)	0.26	<0.1	mg/l	5	15
27	Manganese (as Mn)	IS:3025(Part-59)	<0.1	<0.1	mg/l	0.1	0.3
28	Boron (as B)	IS:3025(Part-57)	<0.2	<0.2	mg/l	0.5	1
29	Selenium (Se)	IS:3025(Part-56)	<0.01	<0.01	mg/l	0.01	No Relaxation
30	Arsenic (as As)	IS:3025(Part-37)	<0.01	<0.01	mg/l	0.01	0.05

S.No	Parameter	Test Method	Results		Units	Requirements
			W-1	W-2		
1	E.coli	IS-1622	Not Detected (<2)	Not Detected (<2)	E.Coli/100ml	Shall not be detectable in 100 ml sample
2	Total Coliform	IS-1622	Absent	Absent	MPN/100ml	Shall not be detectable in 100 ml sample



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EIA/EMP CHAPTER-3- DESCRIPTION OF ENVIRONMENT

S.No	Parameter	Test Method	Results		Units	Acceptable Limit	Permissible Limit in the Absence of Alternate Source
			Location				
			W-3	W-4			
1	pH	IS:3025(Part-11)	7.27	7.20	-	6.5-8.5	-
2	Colour	IS:3025(Part-04)	<5.0	<5.0	Hazen	5	15
3	Odour	IS:3025(Part-05)	Agreeable	Agreeable	-	Agreeable	Agreeable
4	Taste	IS:3025(Part-07)	Agreeable	Agreeable	-	Agreeable	Agreeable
5	Turbidity	IS:3025(Part-10)	<0.5	<0.5	NTU	1	5
6	Total Hardness (as CaCO <sub>3</sub> )	IS:3025(Part-21)	252	188	mg/l	200	600
7	Calcium(as Ca)	IS:3025(Part-40)	78.40	51.20	mg/l	75	200
8	Magnesium(as Mg)	IS:3025(Part-46)	13.61	14.58	mg/l	30	100
9	Chloride(as Cl)	IS:3025(Part-32)	35.22	54.79	mg/l	250	1000
10	Iron(as Fe)	IS:3025(Part-53)	0.067	0.082	mg/l	0.3	No Relaxation
11	Fluoride(as F)	IS:3025(Part-60)	0.46	0.31	mg/l	1	1.5
12	Free Residual chlorine	IS:3025(Part-26)	<0.1	<0.1	mg/l	0.2	1
13	Total Dissolved Solid	IS:3025(Part-16)	514	474	mg/l	500	2000
14	Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH)	IS: 3025 (Part-43)	<0.001	<0.001	mg/l	0.001mu x	0.002 Max
15	Anionic Detergents (as MBAS)	Annex K of IS 13428	<0.1	<0.1	mg/l	0.2	1.0
16	Sulphate (as SO <sub>4</sub> )	IS:3025(Part-24)	35.91	28.10	mg/l	200	400
17	Nitrate (as NO <sub>3</sub> )	IS: 3025 (Part-34)	1.95	3.77	mg/l	45	No Relaxation
18	Alkalinity(as CaCO <sub>3</sub> )	IS:3025(Part-23)	104.00	160.00	mg/l	200	600
19	Chloramines (as Cl <sub>2</sub> )	IS:3025(Part-26)	< 1.0	< 1.0	mg/l	4	No Relaxation
20	Cadmium (as Cd)	IS:3025(Part-41)	<0.001	<0.001	mg/l	0.003	No Relaxation
21	Lead ( as Pb)	IS:3025(Part-47)	<0.01	<0.01	mg/l	0.01	No Relaxation
22	Total Chromium (as Cr)	IS:3025(Part-52)	<0.01	<0.01	mg/l	0.05	No Relaxation
23	Copper (as Cu)	IS:3025(Part-42)	<0.01	<0.01	mg/l	0.05	1.5
24	Total Ammonia	IS: 3025 (Part-34)	<0.5	<0.5	mg/l	0.5	No Relaxation
25	Sulphide (as H <sub>2</sub> S)	IS:3025(Part-29)	<0.05	<0.05	mg/l	0.05	No Relaxation
26	Zinc (as Zn )	IS:3025(Part-49)	0.18	0.22	mg/l	5	15
27	Manganese (as Mn)	IS:3025(Part-59)	<0.1	<0.1	mg/l	0.1	0.3
28	Boron (as B)	IS:3025(Part-57)	<0.2	<0.2	mg/l	0.5	1
29	Selenium (Se)	IS:3025(Part-56)	<0.01	<0.01	mg/l	0.01	No Relaxation
30	Arsenic (as As)	IS:3025(Part-37)	<0.01	<0.01	mg/l	0.01	0.05

S.No	Parameter	Test Method	Results		Units	Requirements
			W-3	W-4		
1	E.coli	IS-1622	Not Detected (<2)	Not Detected (<2)	E.Coli/100ml	Shall not be detectable in 100 ml sample
2	Total Coliform	IS-1622	Absent	Absent	MPN/100ml	Shall not be detectable in 100 ml sample

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## EIA/EMP CHAPTER-3- DESCRIPTION OF ENVIRONMENT

## MONITORING DURATION - 19/11/2021 to 23/11/2021

S.No	Parameter	Test Method	Results		Units	Acceptable Limit	Permissible Limit in the Absence of Alternate Source
			Location				
			W-1	W-2			
1	pH	IS:3025(Part-11)	7.30	7.24	-	6.5-8.5	-
2	Colour	IS:3025(Part-04)	<5.0	<5.0	Hazen	5	15
3	Odour	IS:3025(Part-05)	Agreeable	Agreeable	-	Agreeable	Agreeable
4	Taste	IS:3025(Part-07)	Agreeable	Agreeable	-	Agreeable	Agreeable
5	Turbidity	IS:3025(Part-10)	<0.5	<0.5	NTU	1	5
6	Total Hardness (as CaCO <sub>3</sub> )	IS:3025(Part-21)	244	308	mg/l	200	600
7	Calcium(as Ca)	IS:3025(Part-40)	65.60	100.80	mg/l	75	200
8	Magnesium(as Mg)	IS:3025(Part-46)	19.44	13.61	mg/l	30	100
9	Chloride(as Cl)	IS:3025(Part-32)	178.07	60.66	mg/l	250	1000
10	Iron(as Fe)	IS:3025(Part-53)	0.107	0.073	mg/l	0.3	No Relaxation
11	Fluoride(as F)	IS:3025(Part-60)	0.32	0.46	mg/l	1	1.5
12	Free Residual chlorine	IS:3025(Part-26)	<0.1	<0.1	mg/l	0.2	1
13	Total Dissolved Solid	IS:3025(Part-16)	590	461	mg/l	500	2000
14	Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH)	IS: 3025 (Part-43)	<0.001	<0.001	mg/l	0.001max	0.002 Max
15	Anionic Detergents (as MBAS)	Annex K of IS 13428	<0.1	<0.1	mg/l	0.2	1.0
16	Sulphate (as SO <sub>4</sub> )	IS:3025(Part-24)	28.15	20.38	mg/l	200	400
17	Nitrate (as NO <sub>3</sub> )	IS: 3025 (Part-34)	4.04	5.54	mg/l	45	No Relaxation
18	Alkalinity(as CaCO <sub>3</sub> )	IS:3025(Part-23)	158.40	114.84	mg/l	200	600
19	Chloramines (as Cl <sub>2</sub> )	IS:3025(Part-26)	< 1.0	< 1.0	mg/l	4	No Relaxation
20	Cadmium (as Cd)	IS:3025(Part-41)	<0.001	<0.001	mg/l	0.003	No Relaxation
21	Lead ( as Pb)	IS:3025(Part-47)	<0.01	<0.01	mg/l	0.01	No Relaxation
22	Total Chromium (as Cr)	IS:3025(Part-52)	<0.01	<0.01	mg/l	0.05	No Relaxation
23	Copper (as Cu)	IS:3025(Part-42)	<0.01	<0.01	mg/l	0.05	1.5
24	Total Ammonia	IS: 3025 (Part-34)	<0.5	<0.5	mg/l	0.5	No Relaxation
25	Sulphide (as H <sub>2</sub> S)	IS:3025(Part-29)	<0.05	<0.05	mg/l	0.05	No Relaxation
26	Zinc (as Zn)	IS:3025(Part-49)	0.21	<0.1	mg/l	5	15
27	Manganese (as Mn)	IS:3025(Part-59)	<0.1	<0.1	mg/l	0.1	0.3
28	Boron (as B)	IS:3025(Part-57)	<0.2	<0.2	mg/l	0.5	1
29	Selenium (Se)	IS:3025(Part-56)	<0.01	<0.01	mg/l	0.01	No Relaxation
30	Arsenic (as As)	IS:3025(Part-37)	<0.01	<0.01	mg/l	0.01	0.05

S.No	Parameter	Test Method	Results		Units	Requirements
			W-1	W-2		
1	E.coli	IS-1622	Not Detected (<2)	Not Detected (<2)	E.Coli/100ml	Shall not be detectable in 100 ml sample
2	Total Coliform	IS-1622	Absent	Absent	MPN/100ml	Shall not be detectable in 100 ml sample

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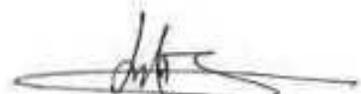
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S.No	Parameter	Test Method	Results		Units	Acceptable Limit	Permissible Limit in the Absence of Alternate Source
			Location				
			W-3	W-4			
1	pH	IS:3025(Part-11)	7.47	6.92	-	6.5-8.5	-
2	Colour	IS:3025(Part-04)	<5.0	<5.0	Hazen	5	15
3	Odour	IS:3025(Part-05)	Agreeable	Agreeable	-	Agreeable	Agreeable
4	Taste	IS:3025(Part-07)	Agreeable	Agreeable	-	Agreeable	Agreeable
5	Turbidity	IS:3025(Part-10)	<0.5	<0.5	NTU	1	5
6	Total Hardness (as CaCO <sub>3</sub> )	IS:3025(Part-21)	272	196	mg/l	200	600
7	Calcium(as Ca)	IS:3025(Part-40)	84.80	46.40	mg/l	75	200
8	Magnesium(as Mg)	IS:3025(Part-46)	14.58	19.44	mg/l	30	100
9	Chloride(as Cl)	IS:3025(Part-32)	48.92	56.75	mg/l	250	1000
10	Iron(as Fe)	IS:3025(Part-53)	0.107	0.072	mg/l	0.3	No Relaxation
11	Fluoride(as F)	IS:3025(Part-60)	0.52	0.25	mg/l	1	1.5
12	Free Residual chlorine	IS:3025(Part-26)	<0.1	<0.1	mg/l	0.2	1
13	Total Dissolved Solid	IS:3025(Part-16)	530	510	mg/l	500	2000
14	Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH)	IS: 3025 (Part-43)	<0.001	<0.001	mg/l	0.001max	0.002 Max
15	Anionic Detergents (as MBAS)	Annex K of IS 13428	<0.1	<0.1	mg/l	0.2	1.0
16	Sulphate (as SO <sub>4</sub> )	IS:3025(Part-24)	37.85	24.77	mg/l	200	400
17	Nitrate (as NO <sub>3</sub> )	IS: 3025 (Part-34)	2.16	3.50	mg/l	45	No Relaxation
18	Alkalinity(as CaCO <sub>3</sub> )	IS:3025(Part-23)	124.00	140.00	mg/l	200	600
19	Chloramines (as Cl <sub>2</sub> )	IS:3025(Part-26)	< 1.0	< 1.0	mg/l	4	No Relaxation
20	Cadmium (as Cd)	IS-3025(Part-41)	<0.001	<0.001	mg/l	0.003	No Relaxation
21	Lead ( as Pb)	IS:3025(Part-47)	<0.01	<0.01	mg/l	0.01	No Relaxation
22	Total Chromium (as Cr)	IS:3025(Part-52)	<0.01	<0.01	mg/l	0.05	No Relaxation
23	Copper (as Cu)	IS:3025(Part-42)	<0.01	<0.01	mg/l	0.05	1.5
24	Total Ammonia	IS: 3025 (Part-34)	<0.5	<0.5	mg/l	0.5	No Relaxation
25	Sulphide (as H <sub>2</sub> S)	IS:3025(Part-29)	<0.05	<0.05	mg/l	0.05	No Relaxation
26	Zinc (as Zn)	IS:3025(Part-49)	0.10	0.20	mg/l	5	15
27	Manganese (as Mn)	IS:3025(Part-59)	<0.1	<0.1	mg/l	0.1	0.3
28	Boron (as B)	IS:3025(Part-57)	<0.2	<0.2	mg/l	0.5	1
29	Selenium (Se)	IS:3025(Part-56)	<0.01	<0.01	mg/l	0.01	No Relaxation
30	Arsenic (as As)	IS:3025(Part-37)	<0.01	<0.01	mg/l	0.01	0.05

S.No	Parameter	Test Method	Results		Units	Requirements
			W-3	W-4		
1	E.coli	IS-1622	Not Detected (<2)	Not Detected (<2)	E.Coli/100ml	Shall not be detectable in 100 ml sample
2	Total Coliform	IS-1622	Absent	Absent	MPN/100ml	Shall not be detectable in 100 ml sample



  
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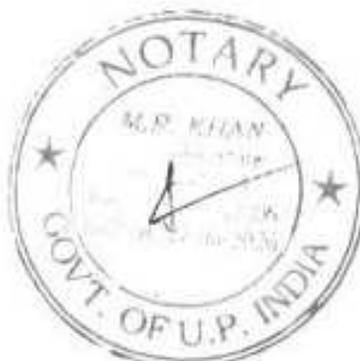
MONITORING PERIOD - 13/12/2021 to 18/12/2021

S.No	Parameter	Test Method	Results		Units	Acceptable Limit	Permissible Limit in the Absence of Alternate Source
			Location				
			W-1	W-2			
1	pH	IS:3025(Part-11)	7.14	7.28	-	6.5-8.5	-
2	Colour	IS:3025(Part-04)	<5.0	<5.0	Hazen	5	15
3	Odour	IS:3025(Part-05)	Agreeable	Agreeable	-	Agreeable	Agreeable
4	Taste	IS:3025(Part-07)	Agreeable	Agreeable	-	Agreeable	Agreeable
5	Turbidity	IS:3025(Part-10)	<0.5	<0.5	NTU	1	5
6	Total Hardness (as CaCO <sub>3</sub> )	IS:3025(Part-21)	208	296	mg/l	200	600
7	Calcium(as Ca)	IS:3025(Part-40)	56.00	97.60	mg/l	75	200
8	Magnesium(as Mg)	IS:3025(Part-46)	16.52	12.64	mg/l	30	100
9	Chloride(as Cl)	IS:3025(Part-32)	160.46	41.09	mg/l	250	1000
10	Iron(as Fe)	IS:3025(Part-53)	0.051	0.067	mg/l	0.3	No Relaxation
11	Fluoride(as F)	IS:3025(Part-60)	0.23	0.44	mg/l	1	1.5
12	Free Residual chlorine	IS:3025(Part-26)	<0.1	<0.1	mg/l	0.2	1
13	Total Dissolved Solid	IS:3025(Part-16)	569	492	mg/l	500	2000
14	Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH)	IS: 3025 (Part-43)	<0.001	<0.001	mg/l	0.001max	0.002 Max
15	Anionic Detergents (as MBAS)	Annex K of IS 13428	<0.1	<0.1	mg/l	0.2	1.0
16	Sulphate (as SO <sub>4</sub> )	IS:3025(Part-24)	25.43	20.38	mg/l	200	400
17	Nitrate (as NO <sub>3</sub> )	IS: 3025 (Part-34)	3.62	5.15	mg/l	45	No Relaxation
18	Alkalinity(as CaCO <sub>3</sub> )	IS:3025(Part-23)	136.68	122.76	mg/l	200	600
19	Chloramines (as Cl <sub>2</sub> )	IS:3025(Part-26)	< 1.0	< 1.0	mg/l	4	No Relaxation
20	Cadmium (as Cd)	IS:3025(Part-41)	<0.001	<0.001	mg/l	0.003	No Relaxation
21	Lead ( as Pb)	IS:3025(Part-47)	<0.01	<0.01	mg/l	0.01	No Relaxation
22	Total Chromium (as Cr)	IS:3025(Part-52)	<0.01	<0.01	mg/l	0.05	No Relaxation
23	Copper (as Cu)	IS:3025(Part-42)	<0.01	<0.01	mg/l	0.05	1.5
24	Total Ammonia	IS: 3025 (Part-34)	<0.5	<0.5	mg/l	0.5	No Relaxation
25	Sulphide (as H <sub>2</sub> S)	IS:3025(Part-29)	<0.05	<0.05	mg/l	0.05	No Relaxation
26	Zinc (as Zn )	IS:3025(Part-49)	0.24	<0.1	mg/l	5	15
27	Manganese (as Mn)	IS:3025(Part-59)	<0.1	<0.1	mg/l	0.1	0.3
28	Boron (as B)	IS:3025(Part-57)	<0.2	<0.2	mg/l	0.5	1
29	Selenium (Se)	IS:3025(Part-56)	<0.01	<0.01	mg/l	0.01	No Relaxation
30	Arsenic (as As)	IS:3025(Part-37)	<0.01	<0.01	mg/l	0.01	0.05

S.No	Parameter	Test Method	Results		Units	Requirements
			W-1	W-2		
1	E.coli	IS-1622	Not Detected (<2)	Not Detected (<2)	E.Coli/100ml	Shall not be detectable in 100 ml sample
2	Total Coliform	IS-1622	Absent	Absent	MPN/100ml	Shall not be detectable in 100 ml sample

S.No	Parameter	Test Method	Results		Units	Acceptable Limit	Permissible Limit in the Absence of
			Location				
			W-3	W-4			

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							Alternate Source
1	pH	IS:3025(Part-11)	7.35	7.20	-	6.5-8.5	-
2	Colour	IS:3025(Part-04)	<5.0	<5.0	Hazen	5	15
3	Odour	IS:3025(Part-05)	Agreeable	Agreeable	-	Agreeable	Agreeable
4	Taste	IS:3025(Part-07)	Agreeable	Agreeable	-	Agreeable	Agreeable
5	Turbidity	IS:3025(Part-10)	<0.5	<0.5	NTU	1	5
6	Total Hardness (as CaCO <sub>3</sub> )	IS:3025(Part-21)	264	184	mg/l	200	600
7	Calcium(as Ca)	IS:3025(Part-40)	83.20	44.80	mg/l	75	200
8	Magnesium(as Mg)	IS:3025(Part-46)	13.61	17.50	mg/l	30	100
9	Chloride(as Cl)	IS:3025(Part-32)	37.18	54.79	mg/l	250	1000
10	Iron(as Fe)	IS:3025(Part-53)	0.062	0.072	mg/l	0.3	No Relaxation
11	Fluoride(as F)	IS:3025(Part-60)	0.52	0.22	mg/l	1	1.5
12	Free Residual chlorine	IS:3025(Part-26)	<0.1	<0.1	mg/l	0.2	1
13	Total Dissolved Solid	IS:3025(Part-16)	508	480	mg/l	500	2000
14	Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH)	IS: 3025 (Part-43)	<0.001	<0.001	mg/l	0.001max	0.002 Max
15	Anionic Detergents (as MBAS)	Annex K of IS 13428	<0.1	<0.1	mg/l	0.2	1.0
16	Sulphate (as SO <sub>4</sub> )	IS:3025(Part-24)	37.85	26.20	mg/l	200	400
17	Nitrate (as NO <sub>3</sub> )	IS: 3025 (Part-34)	2.22	3.17	mg/l	45	No Relaxation
18	Alkalinity(as CaCO <sub>3</sub> )	IS:3025(Part-23)	108.00	150.00	mg/l	200	600
19	Chloramines (as Cl <sub>2</sub> )	IS:3025(Part-26)	< 1.0	< 1.0	mg/l	4	No Relaxation
20	Cadmium (as Cd)	IS:3025(Part-41)	<0.001	<0.001	mg/l	0.003	No Relaxation
21	Lead (as Pb)	IS:3025(Part-47)	<0.01	<0.01	mg/l	0.01	No Relaxation
22	Total Chromium (as Cr)	IS:3025(Part-52)	<0.01	<0.01	mg/l	0.05	No Relaxation
23	Copper (as Cu)	IS:3025(Part-42)	<0.01	<0.01	mg/l	0.05	1.5
24	Total Ammonia	IS: 3025 (Part-34)	<0.5	<0.5	mg/l	0.5	No Relaxation
25	Sulphide (as H <sub>2</sub> S)	IS:3025(Part-29)	<0.05	<0.05	mg/l	0.05	No Relaxation
26	Zinc (as Zn)	IS:3025(Part-49)	0.19	0.20	mg/l	5	15
27	Manganese (as Mn)	IS:3025(Part-59)	<0.1	<0.1	mg/l	0.1	0.3
28	Boron (as B)	IS:3025(Part-57)	<0.2	<0.2	mg/l	0.5	1
29	Selenium (Se)	IS:3025(Part-56)	<0.01	<0.01	mg/l	0.01	No Relaxation
30	Arsenic (as As)	IS:3025(Part-37)	<0.01	<0.01	mg/l	0.01	0.05

S.No	Parameter	Test Method	Results		Units	Requirements
			W-3	W-4		
1	E.coli	IS-1622	Not Detected (<2)	Not Detected (<2)	E.Coli/100ml	Shall not be detectable in 100 ml sample
2	Total Coliform	IS-1622	Absent	Absent	MPN/100ml	Shall not be detectable in 100 ml sample

Table 3.3.1 (ii) Physico-chemical properties of ground water Study Area

BDL: Below Detection limit.

Observation:

Analysis of results of ground water reveals the following: -



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- pH was found to be ranging between 6.92 to 7.47.
- Total hardness varies from 184 mg/l to 324 mg/l.
- Total dissolved solids vary from 461 mg/l to 590 mg/l.

The ground water from all sources remains suitable for drinking purposes as all the constituents are within the limits prescribed by drinking water standards promulgated by Indian Standards IS: 10500.

**3.4.2 SURFACE WATER**

surface water samples were collected from the study area. The location of surface water samples is given in Table 3.4.2 (iii). The physico-chemical analysis of these samples are given in the Table 3.4.2 (iv)

**Table 3.4.2 (iii) Surface water sampling locations**

Station code	Name of village	Distance of village from gata	Latitude and longitude
SW1	Jarar	1.14 kms towards East	25°19'14.05"N 80°22'19.68"E
SW2	Girwan	2.34 kms towards South East	25°18'48.83"N 80°23'07.54"E
SW3	Barokhar buzurg	4.87 kms towards North East	25°21'25.72"N 80°22'29.78"E
SW4	Barokhar Khurd	1.67 kms to towards North	25°19'26.67"N 80°22'32.83"E

Monitoring duration - 18/10/2021 To 23/10/2021.

**LOCATION SW1 Pond Near Jarar Village**

S.No	Parameter	Test Method	Results	Units	Tolerance Limit as per IS:2296				
					Class A	Class B	Class C	Class D	Class E
1	pH	IS:3025(Part-11)	7.68	-	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5
2	Temperature	IS:3025(Part-09)	22.2	°C	-	-	-	-	-
3	Turbidity	IS:3025(Part-10)	10.2	NTU	-	-	-	-	-
4	Conductivity @25°C	IS:3025(Part-14)	648.4	µs/cm.	-	-	-	1000	2250
5	Total Suspended Solid	IS:3025(Part-17)	29	mg/l	-	-	-	-	-
6	Total Alkalinity (as CaCO <sub>3</sub> )	IS:3025(Part-23)	112	mg/l	-	-	-	-	-
7	Biological Oxygen Demand (Max.) (at 270C for 3 days)	IS:3025(Part-44)	7.00	mg/l	2	3	3	-	-
8	Dissolved Oxygen (as O <sub>2</sub> ) Min.	IS:3025(Part-38)	6.9	mg/l	6	5	4	4	-
9	Calcium(as Ca)	IS:3025(Part-40)	30.40	mg/l	80	-	-	-	-
10	Magnesium(as Mg)	IS:3025(Part-46)	12.64	mg/l	24	-	-	-	-
11	Chloride(as Cl),Max	IS:3025(Part-32)	63.64	mg/l	250	-	-	-	600
12	Iron(µs Fe),Max	IS:3025(Part-53)	0.57	mg/l	0.3	-	50	-	-
13	Fluoride(as F),Max	IS:3025(Part-60)	0.35	mg/l	1.5	1.5	1.5	-	-

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14	Total Dissolved Solid	IS:3025(Part-16)	402	mg/l	500	-	1500	-	2100
15	Total Hardness (as CaCO <sub>3</sub> )	IS:3025(Part-21)	128.00	mg/l	300	-	-	-	-
16	Sulphate (as SO <sub>4</sub> )Max	IS:3025(Part-24)	41.61	mg/l	400	-	400	-	1000
17	Phosphate (as P)	IS:3025(Part-31)	2.44	mg/l	-	-	-	-	-
18	Sodium (as Na)	IS:3025(Part-45)	31.82	mg/l	-	-	-	-	-
19	Manganese (as Mn)	IS:3025(Part-59)	<0.1	mg/l	0.5	-	-	-	-
20	Total Chromium (as Cr)	IS:3025(Part-52)	<0.05	mg/l	0.05	0.05	0.05	-	-
21	Zinc (as Zn)	IS:3025(Part-49)	0.25	mg/l	15	-	15	-	-
22	Potassium (as K)	IS:3025(Part-45)	6.36	mg/l	-	-	-	-	-
23	Nitrate (as NO <sub>3</sub> ) <sub>3</sub> Max	IS: 3025 (Part-34)	7.07	mg/l	20	-	50	-	-
24	Cadmium (as Cd)	IS-3025(Part-41)	<0.01	mg/l	0.01	-	0.01	-	-
25	Lead ( as Pb)	IS:3025(Part-47)	<0.01	mg/l	0.1	-	0.1	-	-
26	Copper (as Cu)	IS:3025(Part-42)	<0.01	mg/l	1.5	-	1.5	-	-
27	Chemical Oxygen Demand (asO <sub>2</sub> )	IS-3025(Part-58)	52.00	mg/l	-	-	-	-	-
28	Arsenic (as As )	IS:3025(Part-37)	<0.01	mg/l	0.05	0.2	0.2	-	-

S.No	Parameter	Test Method	Results	Units	Tolerance Limit as per IS:2296				
					Class A	Class B	Class C	Class D	Class E
1	Total Coli Form	IS:1622	1200	MPN/100ml	50	500	5000	-	-

**LOCATION SW2 Pond Near Girwan Village**

S.No	Parameter	Test Method	Results	Units	Tolerance Limit as per IS:2296				
					Class A	Class B	Class C	Class D	Class E
1	pH	IS:3025(Part-11)	7.40	-	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5
2	Temperature	IS:3025(Part-09)	22.1	°C	-	-	-	-	-
3	Turbidity	IS:3025(Part-10)	9.2	NTU	-	-	-	-	-
4	Conductivity @25°C	IS:3025(Part-14)	466.1	µs/cm.	-	-	-	1000	2250
5	Total Suspended Solid	IS:3025(Part-17)	16	mg/l	-	-	-	-	-
6	Total Alkalinity (as CaCO <sub>3</sub> )	IS:3025(Part-23)	100	mg/l	-	-	-	-	-
7	Biological Oxygen Demand (Max.) (at 270C for 3 days)	IS:3025(Part-44)	4.50	mg/l	2	3	3	-	-
8	Dissolved Oxygen (as O <sub>2</sub> ) Min.	IS:3025(Part-38)	7.4	mg/l	6	5	4	4	-
9	Calcium(as Ca)	IS:3025(Part-40)	19.20	mg/l	80	-	-	-	-
10	Magnesium(as Mg)	IS:3025(Part-46)	12.64	mg/l	24	-	-	-	-
11	Chloride(as)	IS:3025(Part-32)	52.07	mg/l	250	-	-	-	600

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EIA/EMP CHAPTER-3- DESCRIPTION OF ENVIRONMENT

	Cl),Max								
12	Iron(as Fe),Max	IS:3025(Part-53)	0.27	mg/l	0.3	-	50	-	-
13	Fluoride(as F),Max	IS:3025(Part-60)	0.21	mg/l	1.5	1.5	1.5	-	-
14	Total Dissolved Solid	IS:3025(Part-16)	289	mg/l	500	-	1500	-	2100
15	Total Hardness (as CaCO <sub>3</sub> )	IS:3025(Part-21)	100.00	mg/l	300	-	-	-	-
16	Sulphate (as SO <sub>4</sub> )Max	IS:3025(Part-24)	23.55	mg/l	400	-	400	-	1000
17	Phosphate (as P)	IS:3025(Part-31)	1.94	mg/l	-	-	-	-	-
18	Sodium (as Na)	IS:3025(Part-45)	27.60	mg/l	-	-	-	-	-
19	Manganese (as Mn)	IS:3025(Part-59)	<0.1	mg/l	0.5	-	-	-	-
20	Total Chromium (as Cr)	IS:3025(Part-52)	<0.05	mg/l	0.05	0.05	0.05	-	-
21	Zinc (as Zn)	IS:3025(Part-49)	0.12	mg/l	15	-	15	-	-
22	Potassium (as K)	IS:3025(Part-45)	5.52	mg/l	-	-	-	-	-
23	Nitrate (as NO <sub>3</sub> ),Max	IS: 3025 (Part-34)	3.80	mg/l	20	-	50	-	-
24	Cadmium (as Cd)	IS-3025(Part-41)	<0.01	mg/l	0.01	-	0.01	-	-
25	Lead ( as Pb)	IS:3025(Part-47)	<0.01	mg/l	0.1	-	0.1	-	-
26	Copper (as Cu)	IS:3025(Part-42)	<0.01	mg/l	1.5	-	1.5	-	-
27	Chemical Oxygen Demand (asO <sub>2</sub> )	IS-3025(Part-58)	36.00	mg/l	-	-	-	-	-
28	Arsenic (as As )	IS:3025(Part-37)	<0.01	mg/l	0.05	0.2	0.2	-	-

S.No	Parameter	Test Method	Results	Units	Tolerance Limit as per IS:2296				
					Class A	Class B	Class C	Class D	Class E
1	Total Coli Form	IS:1622	680	MPN/100ml	50	500	5000	-	-

LOCATION SW3 Pond Near Barokhar Bujurg Village

S.No	Parameter	Test Method	Results	Units	Tolerance Limit as per IS:2296				
					Class A	Class B	Class C	Class D	Class E
1	pH	IS:3025(Part-11)	7.36	-	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5
2	Temperature	IS:3025(Part-09)	22.5	°C	-	-	-	-	-
3	Turbidity	IS:3025(Part-10)	8.5	NTU	-	-	-	-	-
4	Conductivity @25°C	IS:3025(Part-14)	923.6	µs/cm	-	-	-	1000	2250
5	Total Suspended Solid	IS:3025(Part-17)	33	mg/l	-	-	-	-	-
6	Total Alkalinity (as CaCO <sub>3</sub> )	IS:3025(Part-23)	132	mg/l	-	-	-	-	-
7	Biological Oxygen Demand (Max.) (at 270C for 3 days)	IS:3025(Part-44)	3.20	mg/l	2	3	3	-	-
8	Dissolved Oxygen (as O <sub>2</sub> ) Min.	IS:3025(Part-38)	7	mg/l	6	5	4	4	-

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**EIA/EMP CHAPTER-3- DESCRIPTION OF ENVIRONMENT**

9	Calcium(as Ca)	IS:3025(Part-40)	52.80	mg/l	80	-	-	-	-
10	Magnesium(as Mg)	IS:3025(Part-46)	8.75	mg/l	24	-	-	-	-
11	Chloride(as Cl),Max	IS:3025(Part-32)	86.18	mg/l	250	-	-	-	600
12	Iron(as Fe),Max	IS:3025(Part-53)	0.11	mg/l	0.3	-	50	-	-
13	Fluoride(as F),Max	IS:3025(Part-60)	0.24	mg/l	1.5	1.5	1.5	-	-
14	Total Dissolved Solid	IS:3025(Part-16)	508	mg/l	500	-	1500	-	2100
15	Total Hardness (as CaCO <sub>3</sub> )	IS:3025(Part-21)	168.00	mg/l	300	-	-	-	-
16	Sulphate (as SO <sub>4</sub> )Max	IS:3025(Part-24)	65.81	mg/l	400	-	400	-	1000
17	Phosphate (as P)	IS:3025(Part-31)	1.26	mg/l	-	-	-	-	-
18	Sodium (as Na)	IS:3025(Part-45)	16.83	mg/l	-	-	-	-	-
19	Manganese (as Mn)	IS:3025(Part-59)	<0.1	mg/l	0.5	-	-	-	-
20	Total Chromium (as Cr)	IS:3025(Part-52)	<0.05	mg/l	0.05	0.05	0.05	-	-
21	Zinc (as Zn)	IS:3025(Part-49)	0.34	mg/l	15	-	15	-	-
22	Potassium (as K)	IS:3025(Part-45)	5.36	mg/l	-	-	-	-	-
23	Nitrate (as NO <sub>3</sub> ),Max	IS: 3025 (Part-34)	2.04	mg/l	20	-	50	-	-
24	Cadmium (as Cd)	IS-3025(Part-41)	<0.01	mg/l	0.01	-	0.01	-	-
25	Lead ( as Pb)	IS:3025(Part-47)	<0.01	mg/l	0.1	-	0.1	-	-
26	Copper (as Cu)	IS:3025(Part-42)	<0.01	mg/l	1.5	-	1.5	-	-
27	Chemical Oxygen Demand (asO <sub>2</sub> )	IS-3025(Part-58)	40.00	mg/l	-	-	-	-	-
28	Arsenic (as As )	IS:3025(Part-37)	<0.01	mg/l	0.05	0.2	0.2	-	-

S.No	Parameter	Test Method	Results	Units	Tolerance Limit as per IS:2296				
					Class A	Class B	Class C	Class D	Class E
1	Total Coli Form	IS:1622	440	MPN/100ml	50	500	5000	-	-

**LOCATION SW4 Canal Upstream Near Barokhar Khurd Village**

S.No	Parameter	Test Method	Results	Units	Tolerance Limit as per IS:2296				
					Class A	Class B	Class C	Class D	Class E
1	pH	IS:3025(Part-11)	7.67	-	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5
2	Temperature	IS:3025(Part-09)	20.1	°C	-	-	-	-	-
3	Turbidity	IS:3025(Part-10)	10.6	NTU	-	-	-	-	-
4	Conductivity @25°C	IS:3025(Part-14)	538.7	µs/cm.	-	-	-	1000	2250
5	Total Suspended Solid	IS:3025(Part-17)	37	mg/l	-	-	-	-	-
6	Total Alkalinity (as CaCO <sub>3</sub> )	IS:3025(Part-23)	112	mg/l	-	-	-	-	-
7	Biological Oxygen Demand (Max.)	IS:3025(Part-44)	3.50	mg/l	2	3	3	-	-

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**EIA/EMP CHAPTER-3- DESCRIPTION OF ENVIRONMENT**

(at 270C for 3 days)									
8	Dissolved Oxygen (as O <sub>2</sub> ) Min.	IS:3025(Part-38)	7.6	mg/l	6	5	4	4	-
9	Calcium(as Ca)	IS:3025(Part-40)	24.00	mg/l	80	-	-	-	-
10	Magnesium(as Mg)	IS:3025(Part-46)	14.58	mg/l	24	-	-	-	-
11	Chloride(as Cl),Max	IS:3025(Part-32)	61.71	mg/l	250	-	-	-	600
12	Iron(as Fe),Max	IS:3025(Part-53)	0.23	mg/l	0.3	-	50	-	-
13	Fluoride(as F),Max	IS:3025(Part-60)	0.28	mg/l	1.5	1.5	1.5	-	-
14	Total Dissolved Solid	IS:3025(Part-16)	334	mg/l	500	-	1500	-	2100
15	Total Hardness (as CaCO <sub>3</sub> )	IS:3025(Part-21)	120.00	mg/l	300	-	-	-	-
16	Sulphate (as SO <sub>4</sub> )Max	IS:3025(Part-24)	22.13	mg/l	400	-	400	-	1000
17	Phosphate (as P)	IS:3025(Part-31)	3.20	mg/l	-	-	-	-	-
18	Sodium (as Na)	IS:3025(Part-45)	32.71	mg/l	-	-	-	-	-
19	Manganese (as Mn)	IS:3025(Part-59)	<0.1	mg/l	0.5	-	-	-	-
20	Total Chromium (as Cr)	IS:3025(Part-52)	<0.05	mg/l	0.05	0.05	0.05	-	-
21	Zinc (as Zn)	IS:3025(Part-49)	0.25	mg/l	15	-	15	-	-
22	Potassium (as K)	IS:3025(Part-45)	6.54	mg/l	-	-	-	-	-
23	Nitrate (as NO <sub>3</sub> ),Max	IS: 3025 (Part-34)	5.31	mg/l	20	-	50	-	-
24	Cadmium (as Cd)	IS:3025(Part-41)	<0.01	mg/l	0.01	-	0.01	-	-
25	Lead ( as Pb)	IS:3025(Part-47)	<0.01	mg/l	0.1	-	0.1	-	-
26	Copper (as Cu)	IS:3025(Part-42)	<0.01	mg/l	1.5	-	1.5	-	-
27	Chemical Oxygen Demand (asO <sub>2</sub> )	IS-3025(Part-58)	28.00	mg/l	-	-	-	-	-
28	Arsenic (as As )	IS:3025(Part-37)	<0.01	mg/l	0.05	0.2	0.2	-	-

S.No	Parameter	Test Method	Results	Units	Tolerance Limit as per IS:2296				
					Class A	Class B	Class C	Class D	Class E
1	Total Coli Form	IS:1622	942	MPN/100ml	50	500	5000	-	-

Monitoring duration - 19/11/2021 To 23/11/2021

LOCATION SW1 Pond Near Jarar Village

S.No	Parameter	Test Method	Results	Units	Tolerance Limit as per IS:2296				
					Class A	Class B	Class C	Class D	Class E
1	pH	IS:3025(Part-11)	7.34	-	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5
2	Temperature	IS:3025(Part-09)	18.5	°C	-	-	-	-	-
3	Turbidity	IS:3025(Part-10)	10.8	NTU	-	-	-	-	-
4	Conductivity @25°C	IS:3025(Part-14)	712.9	µs/cm.	-	-	-	1000	2250
5	Total Suspended	IS:3025(Part-17)	31	mg/l	-	-	-	-	-



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EIA/EMP CHAPTER-3- DESCRIPTION OF ENVIRONMENT

Solid									
6	Total Alkalinity (as CaCO <sub>3</sub> )	IS:3025(Part-23)	128	mg/l	-	-	-	-	-
7	Biological Oxygen Demand (Max.) (at 270C for 3 days)	IS:3025(Part-44)	5.50	mg/l	2	3	3	-	-
8	Dissolved Oxygen (as O <sub>2</sub> ) Min.	IS:3025(Part-38)	6.8	mg/l	6	5	4	4	-
9	Calcium(as Ca)	IS:3025(Part-40)	38.40	mg/l	80	-	-	-	-
10	Magnesium(as Mg)	IS:3025(Part-46)	11.66	mg/l	24	-	-	-	-
11	Chloride(as Cl),Max	IS:3025(Part-32)	73.28	mg/l	250	-	-	-	600
12	Iron(as Fe),Max	IS:3025(Part-53)	0.60	mg/l	0.3	-	50	-	-
13	Fluoride(as F),Max	IS:3025(Part-60)	0.44	mg/l	1.5	1.5	1.5	-	-
14	Total Dissolved Solid	IS:3025(Part-16)	442	mg/l	500	-	1500	-	2100
15	Total Hardness (as CaCO <sub>3</sub> )	IS:3025(Part-21)	144.00	mg/l	300	-	-	-	-
16	Sulphate (as SO <sub>4</sub> )Max	IS:3025(Part-24)	42.32	mg/l	400	-	400	-	1000
17	Phosphate (as P)	IS:3025(Part-31)	2.53	mg/l	-	-	-	-	-
18	Sodium (as Na)	IS:3025(Part-45)	36.64	mg/l	-	-	-	-	-
19	Manganese (as Mn)	IS:3025(Part-59)	<0.1	mg/l	0.5	-	-	-	-
20	Total Chromium (as Cr)	IS:3025(Part-52)	<0.05	mg/l	0.05	0.05	0.05	-	-
21	Zinc (as Zn)	IS:3025(Part-49)	0.22	mg/l	15	-	15	-	-
22	Potassium (as K)	IS:3025(Part-45)	7.33	mg/l	-	-	-	-	-
23	Nitrate (as NO <sub>3</sub> ),Max	IS: 3025 (Part-34)	7.14	mg/l	20	-	50	-	-
24	Cadmium (as Cd)	IS-3025(Part-41)	<0.01	mg/l	0.01	-	0.01	-	-
25	Lead ( as Pb)	IS:3025(Part-47)	<0.01	mg/l	0.1	-	0.1	-	-
26	Copper (as Cu)	IS:3025(Part-42)	<0.01	mg/l	1.5	-	1.5	-	-
27	Chemical Oxygen Demand (asO <sub>2</sub> )	IS-3025(Part-58)	56.00	mg/l	-	-	-	-	-
28	Arsenic (as As )	IS:3025(Part-37)	<0.01	mg/l	0.05	0.2	0.2	-	-

S.No	Parameter	Test Method	Results	Units	Tolerance Limit as per IS:2296				
					Class A	Class B	Class C	Class D	Class E
1	Total Coli Form	IS:1622	1300	MPN/100ml	50	500	5000	-	-

LOCATION SW2 Pond Near Girwan Village

S.No	Parameter	Test Method	Results	Units	Tolerance Limit as per IS:2296				
					Class A	Class B	Class C	Class D	Class E
1	pH	IS:3025(Part-11)	7.45	-	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5
2	Temperature	IS:3025(Part-09)	17.7	°C	-	-	-	-	-
3	Turbidity	IS:3025(Part-10)	9.6	NTU	-	-	-	-	-
4	Conductivity @25°C	IS:3025(Part-14)	440.3	µs/cm.	-	-	-	1000	2250



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## EIA/EMP CHAPTER-3- DESCRIPTION OF ENVIRONMENT

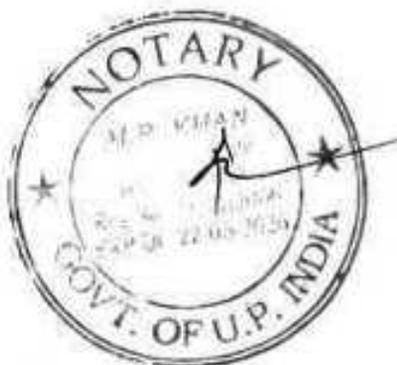
5	Total Suspended Solid	IS:3025(Part-17)	29	mg/l	-	-	-	-	-
6	Total Alkalinity (as CaCO <sub>3</sub> )	IS:3025(Part-23)	108	mg/l	-	-	-	-	-
7	Biological Oxygen Demand (Max.) (at 270C for 3 days)	IS:3025(Part-44)	5.50	mg/l	2	3	3	-	-
8	Dissolved Oxygen (as O <sub>2</sub> ) Min.	IS:3025(Part-38)	7.2	mg/l	6	5	4	4	-
9	Calcium(as Ca)	IS:3025(Part-40)	22.40	mg/l	80	-	-	-	-
10	Magnesium(as Mg)	IS:3025(Part-46)	14.58	mg/l	24	-	-	-	-
11	Chloride(as Cl),Max	IS:3025(Part-32)	59.78	mg/l	250	-	-	-	600
12	Iron(as Fe),Max	IS:3025(Part-53)	0.33	mg/l	0.3	-	50	-	-
13	Fluoride(as F),Max	IS:3025(Part-60)	0.34	mg/l	1.5	1.5	1.5	-	-
14	Total Dissolved Solid	IS:3025(Part-16)	273	mg/l	500	-	1500	-	2100
15	Total Hardness (as CaCO <sub>3</sub> )	IS:3025(Part-21)	116.00	mg/l	300	-	-	-	-
16	Sulphate (as SO <sub>4</sub> )Max	IS:3025(Part-24)	25.67	mg/l	400	-	400	-	1000
17	Phosphate (as P)	IS:3025(Part-31)	2.20	mg/l	-	-	-	-	-
18	Sodium (as Na)	IS:3025(Part-45)	31.68	mg/l	-	-	-	-	-
19	Manganese (as Mn)	IS:3025(Part-59)	<0.1	mg/l	0.5	-	-	-	-
20	Total Chromium (as Cr)	IS:3025(Part-52)	<0.05	mg/l	0.05	0.05	0.05	-	-
21	Zinc (as Zn)	IS:3025(Part-49)	0.19	mg/l	15	-	15	-	-
22	Potassium (as K)	IS:3025(Part-45)	6.34	mg/l	-	-	-	-	-
23	Nitrate (as NO <sub>3</sub> ),Max	IS: 3025 (Part-34)	4.36	mg/l	20	-	50	-	-
24	Cadmium (as Cd)	IS-3025(Part-41)	<0.01	mg/l	0.01	-	0.01	-	-
25	Lead ( as Pb)	IS:3025(Part-47)	<0.01	mg/l	0.1	-	0.1	-	-
26	Copper (as Cu)	IS:3025(Part-42)	<0.01	mg/l	1.5	-	1.5	-	-
27	Chemical Oxygen Demand (asO <sub>2</sub> )	IS-3025(Part-58)	40.00	mg/l	-	-	-	-	-
28	Arsenic (as As )	IS:3025(Part-37)	<0.01	mg/l	0.05	0.2	0.2	-	-

S.No	Parameter	Test Method	Results	Units	Tolerance Limit as per IS:2296				
					Class A	Class B	Class C	Class D	Class E
1	Total Coli Form	IS:1622	680	MPN/100ml	50	500	5000	-	-

## LOCATION SW3 Pond Near Barokhar Bujurg Village

S.No	Parameter	Test Method	Results	Units	Tolerance Limit as per IS:2296				
					Class A	Class B	Class C	Class D	Class E
1	pH	IS:3025(Part-11)	7.53	-	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5
2	Temperature	IS:3025(Part-09)	18.4	°C	-	-	-	-	-
3	Turbidity	IS:3025(Part-10)	8.9	NTU	-	-	-	-	-

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4	Conductivity @25°C	IS:3025(Part-14)	976.4	µs/cm.	-	-	-	1000	2250
5	Total Suspended Solid	IS:3025(Part-17)	36	mg/l	-	-	-	-	-
6	Total Alkalinity (as CaCO <sub>3</sub> )	IS:3025(Part-23)	136	mg/l	-	-	-	-	-
7	Biological Oxygen Demand (Max.) (at 270C for 3 days)	IS:3025(Part-44)	3.40	mg/l	2	3	3	-	-
8	Dissolved Oxygen (as O <sub>2</sub> ) Min.	IS:3025(Part-38)	6.9	mg/l	6	5	4	4	-
9	Calcium(as Ca)	IS:3025(Part-40)	52.80	mg/l	80	-	-	-	-
10	Magnesium(as Mg)	IS:3025(Part-46)	10.69	mg/l	24	-	-	-	-
11	Chloride(as Cl),Max	IS:3025(Part-32)	106.46	mg/l	250	-	-	-	600
12	Iron(as Fe),Max	IS:3025(Part-53)	0.15	mg/l	0.3	-	50	-	-
13	Fluoride(as F),Max	IS:3025(Part-60)	0.27	mg/l	1.5	1.5	1.5	-	-
14	Total Dissolved Solid	IS:3025(Part-16)	537	mg/l	500	-	1500	-	2100
15	Total Hardness (as CaCO <sub>3</sub> )	IS:3025(Part-21)	176.00	mg/l	300	-	-	-	-
16	Sulphate (as SO <sub>4</sub> )Max	IS:3025(Part-24)	68.13	mg/l	400	-	400	-	1000
17	Phosphate (as P)	IS:3025(Part-31)	1.27	mg/l	-	-	-	-	-
18	Sodium (as Na)	IS:3025(Part-45)	21.64	mg/l	-	-	-	-	-
19	Manganese (as Mn)	IS:3025(Part-59)	<0.1	mg/l	0.5	-	-	-	-
20	Total Chromium (as Cr)	IS:3025(Part-52)	<0.05	mg/l	0.05	0.05	0.05	-	-
21	Zinc (as Zn)	IS:3025(Part-49)	0.36	mg/l	15	-	15	-	-
22	Potassium (as K)	IS:3025(Part-45)	3.74	mg/l	-	-	-	-	-
23	Nitrate (as NO <sub>3</sub> ),Max	IS: 3025 (Part-34)	2.24	mg/l	20	-	50	-	-
24	Cadmium (as Cd)	IS:3025(Part-41)	<0.01	mg/l	0.01	-	0.01	-	-
25	Lead ( as Pb)	IS:3025(Part-47)	<0.01	mg/l	0.1	-	0.1	-	-
26	Copper (as Cu)	IS:3025(Part-42)	<0.01	mg/l	1.5	-	1.5	-	-
27	Chemical Oxygen Demand (asO <sub>2</sub> )	IS:3025(Part-58)	48.00	mg/l	-	-	-	-	-
28	Arsenic (as As )	IS:3025(Part-37)	<0.01	mg/l	0.05	0.2	0.2	-	-

S.No	Parameter	Test Method	Results	Units	Tolerance Limit as per IS:2296				
					Class A	Class B	Class C	Class D	Class E
1	Total Coli Form	IS:1622	490	MPN/100ml	50	500	5000	-	-

LOCATION SW4 Canal Upstream Near Barokhar Khurd Village

S.No	Parameter	Test Method	Results	Units	Tolerance Limit as per IS:2296				
					Class A	Class B	Class C	Class D	Class E
1	pH	IS:3025(Part-11)	7.46	-	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5
2	Temperature	IS:3025(Part-09)	17.3	°C	-	-	-	-	-
3	Turbidity	IS:3025(Part-10)	10.9	NTU	-	-	-	-	-

  
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4	Conductivity @25°C	IS:3025(Part-14)	585.5	µs/cm.	-	-	-	1000	2250
5	Total Suspended Solid	IS:3025(Part-17)	47	mg/l	-	-	-	-	-
6	Total Alkalinity (as CaCO <sub>3</sub> )	IS:3025(Part-23)	128	mg/l	-	-	-	-	-
7	Biological Oxygen Demand (Max.) (at 270C for 3 days)	IS:3025(Part-44)	5.50	mg/l	2	3	3	-	-
8	Dissolved Oxygen (as O <sub>2</sub> ) Min.	IS:3025(Part-38)	7.2	mg/l	6	5	4	4	-
9	Calcium(as Ca)	IS:3025(Part-40)	27.20	mg/l	80	-	-	-	-
10	Magnesium(as Mg)	IS:3025(Part-46)	14.58	mg/l	24	-	-	-	-
11	Chloride(as Cl),Max	IS:3025(Part-32)	71.35	mg/l	250	-	-	-	600
12	Iron(as Fe),Max	IS:3025(Part-53)	0.34	mg/l	0.3	-	50	-	-
13	Fluoride(as F),Max	IS:3025(Part-60)	0.35	mg/l	1.5	1.5	1.5	-	-
14	Total Dissolved Solid	IS:3025(Part-16)	363	mg/l	500	-	1500	-	2100
15	Total Hardness (as CaCO <sub>3</sub> )	IS:3025(Part-21)	128.00	mg/l	300	-	-	-	-
16	Sulphate (as SO <sub>4</sub> )Max	IS:3025(Part-24)	29.74	mg/l	400	-	400	-	1000
17	Phosphate (as P)	IS:3025(Part-31)	3.62	mg/l	-	-	-	-	-
18	Sodium (as Na)	IS:3025(Part-45)	37.82	mg/l	-	-	-	-	-
19	Manganese (as Mn)	IS:3025(Part-59)	<0.1	mg/l	0.5	-	-	-	-
20	Total Chromium (as Cr)	IS:3025(Part-52)	<0.05	mg/l	0.05	0.05	0.05	-	-
21	Zinc (as Zn)	IS:3025(Part-49)	0.41	mg/l	15	-	15	-	-
22	Potassium (as K)	IS:3025(Part-45)	7.56	mg/l	-	-	-	-	-
23	Nitrate (as NO <sub>3</sub> ),Max	IS: 3025 (Part-34)	6.00	mg/l	20	-	50	-	-
24	Cadmium (as Cd)	IS-3025(Part-41)	<0.01	mg/l	0.01	-	0.01	-	-
25	Lead ( as Pb)	IS:3025(Part-47)	<0.01	mg/l	0.1	-	0.1	-	-
26	Copper (as Cu)	IS:3025(Part-42)	<0.01	mg/l	1.5	-	1.5	-	-
27	Chemical Oxygen Demand (asO <sub>2</sub> )	IS-3025(Part-58)	40.00	mg/l	-	-	-	-	-
28	Arsenic (as As )	IS:3025(Part-37)	<0.01	mg/l	0.05	0.2	0.2	-	-

S.No	Parameter	Test Method	Results	Units	Tolerance Limit as per IS:2296				
					Class A	Class B	Class C	Class D	Class E
1	Total Coli Form	IS:1622	994	MPN/100ml	50	500	5000	-	-

Monitoring duration - 13/12/2021 To 18/12/2021

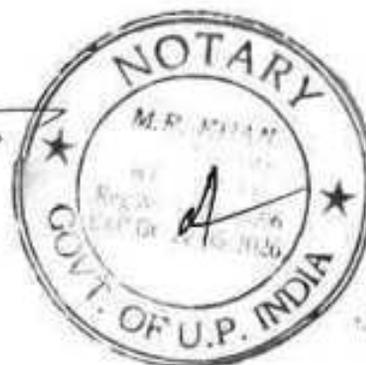
LOCATION SW1 Pond Near Jarar Village

S.No	Parameter	Test Method	Results	Units	Tolerance Limit as per IS:2296				
					Class A	Class B	Class C	Class D	Class E
1	pH	IS:3025(Part-11)	7.66	-	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5
2	Temperature	IS:3025(Part-09)	14.5	°C	-	-	-	-	-

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3	Turbidity	IS:3025(Part-10)	12.7	NTU	-	-	-	-	-
4	Conductivity @25°C	IS:3025(Part-14)	641.9	µs/cm.	-	-	-	1000	2250
5	Total Suspended Solid	IS:3025(Part-17)	26	mg/l	-	-	-	-	-
6	Total Alkalinity (as CaCO <sub>3</sub> )	IS:3025(Part-23)	112	mg/l	-	-	-	-	-
7	Biological Oxygen Demand (Max.) (at 270C for 3 days)	IS:3025(Part-44)	5.50	mg/l	2	3	3	-	-
8	Dissolved Oxygen (as O <sub>2</sub> ) Min.	IS:3025(Part-38)	7	mg/l	6	5	4	4	-
9	Calcium(as Ca)	IS:3025(Part-40)	32.00	mg/l	80	-	-	-	-
10	Magnesium(as Mg)	IS:3025(Part-46)	12.64	mg/l	24	-	-	-	-
11	Chloride(as Cl),Max	IS:3025(Part-32)	69.43	mg/l	250	-	-	-	600
12	Iron(as Fe),Max	IS:3025(Part-53)	0.59	mg/l	0.3	-	50	-	-
13	Fluoride(as F),Max	IS:3025(Part-60)	0.38	mg/l	1.5	1.5	1.5	-	-
14	Total Dissolved Solid	IS:3025(Part-16)	398	mg/l	500	-	1500	-	2100
15	Total Hardness (as CaCO <sub>3</sub> )	IS:3025(Part-21)	132.00	mg/l	300	-	-	-	-
16	Sulphate (as SO <sub>4</sub> )Max	IS:3025(Part-24)	41.96	mg/l	400	-	400	-	1000
17	Phosphate (as P)	IS:3025(Part-31)	2.88	mg/l	-	-	-	-	-
18	Sodium (as Na)	IS:3025(Part-45)	34.71	mg/l	-	-	-	-	-
19	Manganese (as Mn)	IS:3025(Part-59)	<0.1	mg/l	0.5	-	-	-	-
20	Total Chromium (as Cr)	IS:3025(Part-52)	<0.05	mg/l	0.05	0.05	0.05	-	-
21	Zinc (as Zn)	IS:3025(Part-49)	0.31	mg/l	15	-	15	-	-
22	Potassium (as K)	IS:3025(Part-45)	6.94	mg/l	-	-	-	-	-
23	Nitrate (as NO <sub>3</sub> ),Max	IS: 3025 (Part-34)	7.24	mg/l	20	-	50	-	-
24	Cadmium (as Cd)	IS:3025(Part-41)	<0.01	mg/l	0.01	-	0.01	-	-
25	Lead ( as Pb)	IS:3025(Part-47)	<0.01	mg/l	0.1	-	0.1	-	-
26	Copper (as Cu)	IS:3025(Part-42)	<0.01	mg/l	1.5	-	1.5	-	-
27	Chemical Oxygen Demand (asO <sub>2</sub> )	IS-3025(Part-58)	48.00	mg/l	-	-	-	-	-
28	Arsenic (as As )	IS:3025(Part-37)	<0.01	mg/l	0.05	0.2	0.2	-	-

S.No	Parameter	Test Method	Results	Units	Tolerance Limit as per IS:2296				
					Class A	Class B	Class C	Class D	Class E
1	Total Coli Form	IS:1622	1450	MPN/100ml	50	500	5000	-	-

LOCATION SW2 Pond Near Girwan Village

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S.No	Parameter	Test Method	Results	Units	Tolerance Limit as per IS:2296				
					Class A	Class B	Class C	Class D	Class E
1	pH	IS:3025(Part-11)	7.48	-	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5
2	Temperature	IS:3025(Part-09)	14.7	°C	-	-	-	-	-
3	Turbidity	IS:3025(Part-10)	10.9	NTU	-	-	-	-	-
4	Conductivity @25°C	IS:3025(Part-14)	462.9	µs/cm.	-	-	-	1000	2250
5	Total Suspended Solid	IS:3025(Part-17)	26	mg/l	-	-	-	-	-
6	Total Alkalinity (as CaCO <sub>3</sub> )	IS:3025(Part-23)	104	mg/l	-	-	-	-	-
7	Biological Oxygen Demand (Max.) (at 270C for 3 days)	IS:3025(Part-44)	6.00	mg/l	2	3	3	-	-
8	Dissolved Oxygen (as O <sub>2</sub> ) Min.	IS:3025(Part-38)	7	mg/l	6	5	4	4	-
9	Calcium(as Ca)	IS:3025(Part-40)	20.80	mg/l	80	-	-	-	-
10	Magnesium(as Mg)	IS:3025(Part-46)	16.52	mg/l	24	-	-	-	-
11	Chloride(as Cl),Max	IS:3025(Part-32)	59.78	mg/l	250	-	-	-	600
12	Iron(as Fe),Max	IS:3025(Part-53)	0.29	mg/l	0.3	-	50	-	-
13	Fluoride(as F),Max	IS:3025(Part-60)	0.22	mg/l	1.5	1.5	1.5	-	-
14	Total Dissolved Solid	IS:3025(Part-16)	287	mg/l	500	-	1500	-	2100
15	Total Hardness (as CaCO <sub>3</sub> )	IS:3025(Part-21)	120.00	mg/l	300	-	-	-	-
16	Sulphate (as SO <sub>4</sub> )Max	IS:3025(Part-24)	26.38	mg/l	400	-	400	-	1000
17	Phosphate (as P)	IS:3025(Part-31)	2.34	mg/l	-	-	-	-	-
18	Sodium (as Na)	IS:3025(Part-45)	31.68	mg/l	-	-	-	-	-
19	Manganese (as Mn)	IS:3025(Part-59)	<0.1	mg/l	0.5	-	-	-	-
20	Total Chromium (as Cr)	IS:3025(Part-52)	<0.05	mg/l	0.05	0.05	0.05	-	-
21	Zinc (as Zn)	IS:3025(Part-49)	0.22	mg/l	15	-	15	-	-
22	Potassium (as K)	IS:3025(Part-45)	6.34	mg/l	-	-	-	-	-
23	Nitrate (as NO <sub>3</sub> ),Max	IS: 3025 (Part-34)	4.71	mg/l	20	-	50	-	-
24	Cadmium (as Cd)	IS-3025(Part-41)	<0.01	mg/l	0.01	-	0.01	-	-
25	Lead ( as Pb)	IS:3025(Part-47)	<0.01	mg/l	0.1	-	0.1	-	-
26	Copper (as Cu)	IS:3025(Part-42)	<0.01	mg/l	1.5	-	1.5	-	-
27	Chemical Oxygen Demand (asO <sub>2</sub> )	IS-3025(Part-58)	44.00	mg/l	-	-	-	-	-
28	Arsenic (as As )	IS:3025(Part-37)	<0.01	mg/l	0.05	0.2	0.2	-	-

S.No	Parameter	Test Method	Results	Units	Tolerance Limit as per IS:2296				
					Class A	Class B	Class C	Class D	Class E
1	Total Coli Form	IS:1622	674	MPN/100ml	50	500	5000	-	-

LOCATION SW3 Pond Near Barokhar Bujurg Village



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S.No	Parameter	Test Method	Results	Units	Tolerance Limit as per IS:2296				
					Class A	Class B	Class C	Class D	Class E
1	pH	IS:3025(Part-11)	7.45	-	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5
2	Temperature	IS:3025(Part-09)	14.3	°C	-	-	-	-	-
3	Turbidity	IS:3025(Part-10)	9.6	NTU	-	-	-	-	-
4	Conductivity @25°C	IS:3025(Part-14)	927.3	µs/cm.	-	-	-	1000	2250
5	Total Suspended Solid	IS:3025(Part-17)	36	mg/l	-	-	-	-	-
6	Total Alkalinity (as CaCO <sub>3</sub> )	IS:3025(Part-23)	140	mg/l	-	-	-	-	-
7	Biological Oxygen Demand (Max.) (at 270C for 3 days)	IS:3025(Part-44)	3.40	mg/l	2	3	3	-	-
8	Dissolved Oxygen (as O <sub>2</sub> ) Min.	IS:3025(Part-38)	6.6	mg/l	6	5	4	4	-
9	Calcium(as Ca)	IS:3025(Part-40)	54.40	mg/l	80	-	-	-	-
10	Magnesium(as Mg)	IS:3025(Part-46)	11.66	mg/l	24	-	-	-	-
11	Chloride(as Cl),Max	IS:3025(Part-32)	91.25	mg/l	250	-	-	-	600
12	Iron(as Fe),Max	IS:3025(Part-53)	0.16	mg/l	0.3	-	50	-	-
13	Fluoride(as F),Max	IS:3025(Part-60)	0.28	mg/l	1.5	1.5	1.5	-	-
14	Total Dissolved Solid	IS:3025(Part-16)	510	mg/l	500	-	1500	-	2100
15	Total Hardness (as CaCO <sub>3</sub> )	IS:3025(Part-21)	184.00	mg/l	300	-	-	-	-
16	Sulphate (as SO <sub>4</sub> )Max	IS:3025(Part-24)	68.72	mg/l	400	-	400	-	1000
17	Phosphate (as P)	IS:3025(Part-31)	1.35	mg/l	-	-	-	-	-
18	Sodium (as Na)	IS:3025(Part-45)	19.30	mg/l	-	-	-	-	-
19	Manganese (as Mn)	IS:3025(Part-59)	<0.1	mg/l	0.5	-	-	-	-
20	Total Chromium (as Cr)	IS:3025(Part-52)	<0.05	mg/l	0.05	0.05	0.05	-	-
21	Zinc (as Zn)	IS:3025(Part-49)	0.44	mg/l	15	-	15	-	-
22	Potassium (as K)	IS:3025(Part-45)	6.58	mg/l	-	-	-	-	-
23	Nitrate (as NO <sub>3</sub> ),Max	IS: 3025 (Part-34)	2.17	mg/l	20	-	50	-	-
24	Cadmium (as Cd)	IS-3025(Part-41)	<0.01	mg/l	0.01	-	0.01	-	-
25	Lead ( as Pb)	IS:3025(Part-47)	<0.01	mg/l	0.1	-	0.1	-	-
26	Copper (as Cu)	IS:3025(Part-42)	<0.01	mg/l	1.5	-	1.5	-	-
27	Chemical Oxygen Demand (asO <sub>2</sub> )	IS-3025(Part-58)	52.00	mg/l	-	-	-	-	-
28	Arsenic (as As )	IS:3025(Part-37)	<0.01	mg/l	0.05	0.2	0.2	-	-

S.No	Parameter	Test Method	Results	Units	Tolerance Limit as per IS:2296				
					Class A	Class B	Class C	Class D	Class E
1	Total Coli Form	IS:1622	498	MPN/100ml	50	500	5000	-	-

LOCATION SW4 Canal Upstream Near Barokhar Khurd Village

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S.No	Parameter	Test Method	Results	Units	Tolerance Limit as per IS:2296				
					Class A	Class B	Class C	Class D	Class E
1	pH	IS:3025(Part-11)	7.60	-	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5
2	Temperature	IS:3025(Part-09)	15.1	°C	-	-	-	-	-
3	Turbidity	IS:3025(Part-10)	11.4	NTU	-	-	-	-	-
4	Conductivity @25°C	IS:3025(Part-14)	535.5	µs/cm.	-	-	-	1000	2250
5	Total Suspended Solid	IS:3025(Part-17)	38	mg/l	-	-	-	-	-
6	Total Alkalinity (as CaCO <sub>3</sub> )	IS:3025(Part-23)	120	mg/l	-	-	-	-	-
7	Biological Oxygen Demand (Max.) (at 270C for 3 days)	IS:3025(Part-44)	5.00	mg/l	2	3	3	-	-
8	Dissolved Oxygen (as O <sub>2</sub> ) Min.	IS:3025(Part-38)	7.4	mg/l	6	5	4	4	-
9	Calcium(as Ca)	IS:3025(Part-40)	25.60	mg/l	80	-	-	-	-
10	Magnesium(as Mg)	IS:3025(Part-46)	13.61	mg/l	24	-	-	-	-
11	Chloride(as Cl),Max	IS:3025(Part-32)	61.71	mg/l	250	-	-	-	600
12	Iron(as Fe),Max	IS:3025(Part-53)	0.29	mg/l	0.3	-	50	-	-
13	Fluoride(as F),Max	IS:3025(Part-60)	0.28	mg/l	1.5	1.5	1.5	-	-
14	Total Dissolved Solid	IS:3025(Part-16)	332	mg/l	500	-	1500	-	2100
15	Total Hardness (as CaCO <sub>3</sub> )	IS:3025(Part-21)	120.00	mg/l	300	-	-	-	-
16	Sulphate (as SO <sub>4</sub> )Max	IS:3025(Part-24)	32.75	mg/l	400	-	400	-	1000
17	Phosphate (as P)	IS:3025(Part-31)	3.38	mg/l	-	-	-	-	-
18	Sodium (as Na)	IS:3025(Part-45)	32.71	mg/l	-	-	-	-	-
19	Manganese (as Mn)	IS:3025(Part-59)	<0.1	mg/l	0.5	-	-	-	-
20	Total Chromium (as Cr)	IS:3025(Part-52)	<0.05	mg/l	0.05	0.05	0.05	-	-
21	Zinc (as Zn)	IS:3025(Part-49)	0.41	mg/l	15	-	15	-	-
22	Potassium (as K)	IS:3025(Part-45)	6.54	mg/l	-	-	-	-	-
23	Nitrate (as NO <sub>3</sub> ),Max	S: 3025 (Part-34)	5.65	mg/l	20	-	50	-	-
24	Cadmium (as Cd)	IS-3025(Part-41)	<0.01	mg/l	0.01	-	0.01	-	-
25	Lead ( as Pb)	IS:3025(Part-47)	<0.01	mg/l	0.1	-	0.1	-	-
26	Copper (as Cu)	IS:3025(Part-42)	<0.01	mg/l	1.5	-	1.5	-	-
27	Chemical Oxygen Demand (asO <sub>2</sub> )	S-3025(Part-58)	32.00	mg/l	-	-	-	-	-
28	Arsenic (as As)	IS:3025(Part-37)	<0.01	mg/l	0.05	0.2	0.2	-	-

S.No	Parameter	Test Method	Results	Units	Tolerance Limit as per IS:2296				
					Class A	Class B	Class C	Class D	Class E
1	Total Coli Form	IS:1622	989	MPN/100ml	50	500	5000	-	-

Table 3.3 (iv) Physico-chemical properties of surface water

**Observation:**

The analysis results indicate that the pH ranges between 7.34 to 7.67. Dissolved Oxygen (DO) was

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observed in the range of 6.6 to 7.6 mg/l against the minimum requirement of 4 mg/l. BOD values were observed to be in the range of 3.20 to 6.0 mg/l. The chlorides and Sulphates were found to be in the range of 59.71 to 106.46 mg/l and 22.13 to 68.72 mg/l respectively.

Bacteriological examination of surface water samples revealed the presence of total coliform in range of 440 MPN/100ml to 1450 MPN/100ml.

Based on the results it is evident that most of the parameters of the samples comply with 'Category 'B' standards of CPCB indicating their suitability for Outdoor Bathing.

**Conclusion:**

The surface water quality of the study area found agreeable range. The water quality parameter like DO, BOD and other parameters are within the range of permissible limit for irrigation, aquatic life survival and other purpose.

**Surface water quality criteria for different uses  
(specified by CPCB, 1979 and the Bureau of Indian Standards, 1982)**

S. No	Water quality parameter	Characteristic of water body				
		A *	B *	C *	D *	E *
1	Dissolved Oxygen (DO) mg/l (minimum)	6	5	4	4	3
2	Biochemical Oxygen Demand (BOD), mg/l (max)	2	3	3	-	-
3	Total Coliform organisms ** MPN/100ml (max)	50 **	500	500	-	-
4	Total Dissolved Solids (TDS) mg/l (max)	500	-	1500	-	2100
5	Chlorides (as Cl <sup>-</sup> ) mg/l (max)	250	-	600	-	600
6	Colour, Hazen units (max)	-	10	300	300	-
7	Sodium Absorption Ratio (max)	-	-	-	-	20
8	Boron (as B), mg/l (max)	-	-	-	-	-
9	Sulphates (as SO <sub>4</sub> <sup>2-</sup> ), mg/l (max)	400	-	400	-	1000
10	Nitrates (as NO <sub>3</sub> <sup>-</sup> ) mg/l (max)	20	-	30	-	-
11	Free Ammonia (as NH <sub>3</sub> ) mg/l (max)	-	-	-	1.2	-
12	Conductivity at 25°C micro mhos/cm (max)	-	-	-	1000	2500
13	pH value	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.0-8.5
14	Arsenic (as As), mg/l (max)	0.05	0.2	0.2	-	-
15	Iron (as Fe), mg/l (max)	0.3	-	-	0.5	-
16	Fluoride (as F), mg/l (max)	1.5	1.5	1.5	-	-
17	Lead (as Pb), mg/l (max)	0.1	-	0.1	-	-

Note: \* Classes of water use:

- A Drinking water source without conventional treatment but after disinfection
- B Out door bathing (organised)
- C Drinking water source with conventional treatment followed by disinfection.
- D Propagation of wild life, fisheries.
- E Irrigation, industrial cooling, controlled waste disposal.

\*\* If the coliform is found to be more than the prescribed tolerance limits, the criteria for coliforms shall be satisfied if not more than 20 percent of samples show more than the tolerance limits specified and not more than 5 percent of samples show values more than 4 times the tolerance limits. There should be no visible discharge of domestic and industrial waste into class "A" waters. In case of classes "B" and "C" the discharge shall be so regulated / treated as to ensure maintenance of the stream standards.

**3.5 SOIL ENVIRONMENT**

Soil may be defined as a thin layer of earth's crust, medium for the growth of plants. The soil characteristics include both physical and chemical properties. The soil survey and soil samples were

  
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carried out / collected to assess the soil characteristics of the study area. Soil samples were collected from 4 locations (project site, one upstream & one downstream side) as shown in Table 3.4(i) and analyzed as per CPCB norms.

The physico-chemical characteristics of these soil samples are given in Table No. 3.4(ii).

Station code	Name of village	Distance of village from gata	Latitude and longitude
SQ1	Jarar	0.29 kms towards East	25°18'51.52"N 80°21'56.75"E
SQ2	Girwan	2.24 kms towards South East	25°18'42.45"N 80°23'05.41"E
SQ3	Jahangirabad	0.77 kms towards South	25°18'31.89"N 80°21'31.32"E
SQ4	Barokhar Buzurg	4.84 kms to towards North	25°21'23.97"N 80°22'34.32"E

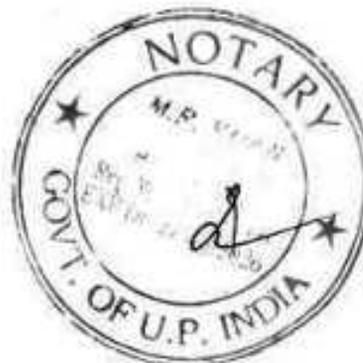
**Table No. 3.5 (i) Description of soil sampling locations**

**ANALYSIS DURATION – 18/10/2021 to 22/10/2021**

S.No	Parameter	Units	Result		Test Method
			Location		
			SQ-1	SQ-2	
1	Texture	-	Sandy Clay Loam	Sandy Clay	UTRL/LAB/SOIL/SOP/05
	Sand	%	49.89	46.81	UTRL/LAB/SOIL/SOP/05
	Clay	%	32.78	37.32	UTRL/LAB/SOIL/SOP/05
	Silt	%	17.33	15.87	UTRL/LAB/SOIL/SOP/05
2	pH(1:2.5 Suspension)	-	8.35	7.78	IS: 2720 (Part-26),1987
3	Electrical Conductivity	µmhos/cm	309.9	285.6	IS: 14767
4	Potassium ( as K)	mg/kg	130.56	116.38	UTRL/LAB/SOIL/SOP/07
5	Sodium (as Na)	mg/kg	177.04	228.55	UTRL/LAB/SOIL/SOP/06
6	Calcium (as Ca)	mg/kg	4093.07	4533.34	UTRL/LAB/SOIL/SOP/08
7	Magnesium (as Mg)	mg/kg	837.15	409.96	UTRL/LAB/SOIL/SOP/08
8	Sodium Absorption Ratio	-	0.66	0.87	UTRL/LAB/SOIL/SOP/14
9	Water Holding Capacity	%	32.57	30.36	UTRL/LAB/SOIL/SOP/11
10	Total Kjeldahl Nitrogen	%	0.066	0.069	UTRL/LAB/SOIL/SOP/15
11	Phosphorous	mg/kg	77.14	71.80	UTRL/LAB/SOIL/SOP/09
12	Bulk Density	gm/cc	1.28	1.23	UTRL/LAB/SOIL/SOP/10
13	Organic Matter	%	0.96	1.15	IS: 2720 (Part-22)
14	Porosity	%	43.16	43.15	UTRL/LAB/SOIL/SOP/17

S.No	Parameter	Units	Result		Test Method
			Location		
			SQ-3	SQ-4	
1	Texture	-	Sandy Clay Loam	Sandy Clay	UTRL/LAB/SOIL/SOP/05

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	Sand	%	48.08	46.31	UTRL/LAB/SOIL/SOP/05
	Clay	%	33.49	38.84	UTRL/LAB/SOIL/SOP/05
	Silt	%	18.43	14.85	UTRL/LAB/SOIL/SOP/05
2	pH(1:2.5 Suspension)	-	8.35	7.86	IS: 2720 (Part-26),1987
3	Electrical Conductivity	µmhos/cm	319.8	282.8	IS: 14767
4	Potassium ( as K)	mg/kg	112.92	116.64	UTRL/LAB/SOIL/SOP/07
5	Sodium (as Na)	mg/kg	186.01	230.74	UTRL/LAB/SOIL/SOP/06
6	Calcium (as Ca)	mg/kg	3826.65	4554.37	UTRL/LAB/SOIL/SOP/08
7	Magnesium (as Mg)	mg/kg	590.41	480.50	UTRL/LAB/SOIL/SOP/08
8	Sodium Absorption Ratio	-	0.74	0.87	UTRL/LAB/SOIL/SOP/14
9	Water Holding Capacity	%	26.65	29.70	UTRL/LAB/SOIL/SOP/11
10	Total Kjeldahl Nitrogen	%	0.064	0.077	UTRL/LAB/SOIL/SOP/15
11	Phosphorous	mg/kg	76.91	70.29	UTRL/LAB/SOIL/SOP/09
12	Bulk Density	gm/cc	1.25	1.25	UTRL/LAB/SOIL/SOP/10
13	Organic Matter	%	1.17	1.11	IS: 2720 (Part-22)
14	Porosity	%	44.38	40.63	UTRL/LAB/SOIL/SOP/17

**Table 3.5 (ii) Physico-chemical properties of soil**

**Observations:**

Monitoring data shows that the texture of soil at all locations is Sandy Loam. The monitoring sites have sand ranging from 46.81 % to 49.89 % in soil samples. Silt content varies from 14.85 % to 18.43 %, while Clay content varies from 32.78 % to 38.84 % in the soil samples.

- The data shows that value of pH ranges from 7.78 to 8.35 at Project Site indicating that all soil samples are Basic in nature.
- Maximum conductivity of 282.8 µmhos/cm, minimum conductivity of 319.8 µmhos/cm.
- Magnesium values ranges from 409.96 meq/100g as lowest 837.15meq/100g as highest.
- The average concentration of Phosphorus and Potassium in the soil samples varies from 70.29 to 77.14 mg/kg and 112.92 to 130.56 mg/kg.

**3.6 NOISE ENVIRONMENT**

The noise levels within the study area were recorded using Sound Level Meter and noise monitoring results were compared with the Ambient Noise Quality Standard notified under Environment Protection Act, 1986. The noise level monitoring locations are shown in Table 3.6 (i) and the levels recorded are as stated in Table 3.6 (ii).

**Table 3.6 (i) Noise quality monitoring stations**

Station code	Name of village	Distance of village from gate	Latitude and longitude
NQ1	Jarar	0.26 kms towards East	25°18'51.00"N 80°21'55.09"E



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NQ2	Barokhar Khurd	1.79 kms towards North East	25°19'27.48"N 80°22'37.80"E
NQ3	Girwan	2.34 kms towards South East	25°18'45.25"N 80°23'09.14"E
NQ4	Jahangirabad	0.77 kms to towards South	25°18'30.05"N 80°21'34.92"E
NQ5	Barokhar Buzurg	4.98 kms to towards North	25°21'30.70"N 80°22'40.16"E

**ANALYSIS DURATION – 19/11/2021 To 20/11/2021**

S.No	Location	Observed Value Leq dB(A)			Limit as per CPCB Guidelines Leq. dB(A)		Zone
		Day*	Night*	Day/Night	Day*	Night*	
1	Jarar	51.9	41.5	51.8	55.0	45.0	Residential
2	Barokhar Khurd	52.3	40.0	51.6	55.0	45.0	Residential
3	Girwan	50.2	39.3	49.9	55.0	45.0	Residential
4	Jahangirabad	52.1	40.1	51.5	55.0	45.0	Residential
5	Barokhar Buzurg	52.4	39.8	51.7	55.0	45.0	Residential
*Day Time		Leq(6.00AM TO 10.00 PM)					
*Night Time		Leq(10.00PM TO 6.00 AM)					

**Table No. 3.6 (ii) Noise level status**

**Results**

**Residential Area**

In residential area, noise level is ranging between 50.2 dB (A) to 52.4 dB (A) recorded during day time whereas 39.3 dB (A) recorded to 41.5 dB (A) recorded near project site during night time. During daytime and night time noise level within the residential area are well within the prescribed limit.

There are several other sources in the 10 km radius of study area, which contributes to the local noise level of the area. Traffic activities as well as activities in nearby villages and agricultural fields add to the ambient noise level of the area.

**Table 3.6 (iii): Ambient Noise Quality Standards in respect of Noise**

Area Code	Category of Area	Noise dB (A) Leq	
		Daytime*	Night time*
A	Industrial Area	75	70
B	Commercial Area	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

Note: Daytime from 6.00am to 10.00 pm and Night time from 10.0 0pm to 6.0

Silence zone is defined as area up to 100 meters around premises of hospitals, educational institutions and courts. Use of vehicle horns, loud speakers and bursting of crackers are banned in these zones.

**3.6 THE TRAFFIC STUDY**

The lease area is connected to MDR-11B about 3.13km towards West direction from the project site.



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These roads are wide enough to facilitate easy and smooth movement of heavy duty trucks.  
The Detailed traffic study has been discussed under Chapter-4.

**During mine operation**

Proposed Production of mine	20,000 m <sup>3</sup> /year
No. of working days	250 days
Per day Production of mine	80 m <sup>3</sup> /day
Per Truck capacity	13 cum
No. of trucks deployed	Approx. 06-07 trucks
Working hours per day	08 hours (During daytime only)
No. of trucks deployed/hr	1-2 trucks (Approximately)
Increase in PUC/hr	2 trucks (Approximately)

At present the traffic load at highway is less than 2 trucks per hour, in particular. Due to the proposed project there will be addition in the existing trucks having the capacity of 13-14 cum load that is 06-07 trucks/hr, hence the changes will be at small level and will not affect the existing environment.

**3.7 BIOLOGICAL ENVIRONMENT**

Biological environment of any area constitute all living beings of that area, it is an integral part of the environment. Hence, any change in the surrounding environment could cause loss of species or decrease in biodiversity of the area. Therefore, the present study is proposed to assess the impact of the proposed projects on biological environment of the project site and surrounding area within 10km radius. Accordingly, mitigation measures are evolved to sustain the biological diversity. In general, biological environment is represented by flora and fauna. Flora constitutes the herbs, shrubs and trees and fauna constitutes the mammals, birds, reptiles, arthropods, amphibians, fishes etc.

**3.7.1 Status of Flora**

**Taxonomic Status of plant species:**

**STUDY AREA:** The floral species in Jarar mine lease (2.0 ha.) study area covering 10 km radius is reported as listed in table.

**Core Zone:** The core zone comprises of barren stony waste land, where mining operation is proposed. Shrubs on the mining site are naturally occurring but are very few in number. Most among them are weeds. No ecologically sensitive plant species has been reported from this area. The faunal variety is rather poor.

**Buffer Zone:** Buffer zone of the proposed project is mainly agricultural land. The flora of buffer zone comprises of plants growing on the edges of agricultural land, village woodlots and trees planted along the roads. Many tree species are planted in the area because of their usefulness.



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economic and aesthetic values. Many important species such as Neem (*Azadirachta indica*), Sisam (*Dalbergia sissoo*), *Terminalia tomentosa* (T. elliptica), and Khair (*Acacia catechu*) with other associated tree species like Palash (*Butea monosperma*), *Bombax ceiba*, *Aegle marmelos*, *Adina cordifolia*, *Syzigium cumini*, *Azadirachta indica*, etc. The area is also characterized by tall grasses like *Saccharum spontaneum*, and *Pectiveria zizanioides*. In waste land and along the road side weeds like *Argemone mexicana*, *Cannabis sativa*, *Cenchrus ciliaris*, *Heteropogon contortus*, *Parthenium hysterophorus*, etc. are very common.

**Overall taxonomic status of Flora in the study area**

S.N.	Botanical Name	Common Name	Family Name
<b>TREES</b>			
1.	<i>Acacia nilotica</i> (Willd)	Babool	Fabaceae
2.	<i>Acacia catechu</i>	khair	Fabaceae
3.	<i>Adina cordifolia</i>	Kadam	Rubiaceae
4.	<i>Aegle marmelos</i>	Bael	Rutaceae
5.	<i>Albizia lebbek</i> (Benth)	Kala Siras	Fabaceae
6.	<i>Azadirachta indica</i> A. (Juss)	Neem	Meliaceae
7.	<i>Bombax ceiba</i>	Semal	Bombacaceae
8.	<i>Dalbergia sissoo</i> (Roxb)	Shisham	Fabaceae
9.	<i>Ficus benghalensis</i>	Bargad	Moraceae
10.	<i>Ficus religiosa</i> (Linn)	Pipal	Moraceae
11.	<i>Flacourtia indica</i> (Eurm.F) Merr.	Kakar	Salicaceae
12.	<i>Pithecellobium dulce</i> (Benth)	Jangal Jalebi	Fabaceae
13.	<i>Shorea robusta</i>	Sal	Dipterocarpaceae
14.	<i>Syzigium cumini</i>	Jamun	Myrtaceae
15.	<i>Terminalia tomentosa</i> W. & A.	Arjun	Combretaceae
16.	<i>Terminalia bellirica</i>	behera	Combretaceae
17.	<i>Toona ciliata</i> (Roem).	Tun	Meliaceae
18.	<i>Ziziphus xylopyra</i> (Retz.) Willd.	Katber	Rhamnaceae
<b>HERBS AND SHRUBS</b>			
1.	<i>Achyranthes aspera</i> .	Chirchita	Amaranthaceae
2.	<i>Berberis</i> spp.	Kinjora	Berberidaceae
3.	<i>Calotropis procera</i> R.Br. <i>Capparis deciduas</i> (Forsk) Edgw.	Aak Kureel	Apocynaceae Brassicaceae
4.	<i>Cassia alata</i> (Linn).	Dodmari	Fabaceae
5.	<i>Cassia occidentalis</i> (Linn).	Chakunda	Fabaceae
6.	<i>Clerodendron viscosum</i> (Vent)	Bhat	Verbenaceae
7.	<i>Lantana camara</i> (Linn)	Kuri	Verbenaceae
8.	<i>Ocimum sanctum</i> (Linn)	Tulasi	Lamiaceae
9.	<i>Smilax prolifera</i>	Ramdaton	Liliaceae
10.	<i>Zizyphusnummularia</i> (Sumr.f.)W.& A.	Khorbaer	Rhamnaceae
<b>CLIMBERS</b>			
1.	<i>Asparagus racemosus</i> (Willd)	Satawar	Asparagaceae
2.	<i>Coesalpinia decapetala</i>	Alai	Fabaceae



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3.	<i>Coccoloba indica</i> W. & A.	Kundaru	Rubiaceae
4.	<i>Combretumdecandrum</i> (Roxb)	Kali bel	Combretaceae
5.	<i>Cryptostegiagrandiflora</i> (Roxb.) R.Br.	Chabukhari	Apocynaceae
6.	<i>Cymbopogon martini</i> (Roxb.)	Mahur	Poaceae
7.	<i>Phragmiteskarka</i> (Trin)	Beensa	Poaceae
8.	<i>Smilax prolifera</i> (Roxb)	Randatum	Smilacaceae
9.	<i>Vitis repanda</i> W. & A	Panibel	Vitaceae
10.	<i>Zizyphus oenoptia</i> (Mill).	Makoha	Rhamnaceae
<b>GRASSES</b>			
1.	<i>Cenchrus ciliaris</i> (Linn).	Anjan	Poaceae
2.	<i>Chrysopogon fulvus</i>	Kush	Poaceae
3.	<i>Cymbopogon martini</i> (Roxb)	Saidar	Poaceae
4.	<i>Cynodon dactylon</i> (Linn.) Pers.	Dub	Poaceae
5.	<i>Desmostachya bipinnata</i> (Stapf).	Dab	Poaceae
6.	<i>Imperata cylindrica</i> (Linn) P.Beauv	Siru	Poaceae
7.	<i>Saccharum munja</i> (Roxb) Jesweit.	Mung	Poaceae
8.	<i>Saccharum spontaneum</i> (Linn)	Kansa	Poaceae
9.	<i>Setaria nervosum</i> (Rott) Stapf.	Sain/Seta	Poaceae
10.	<i>Setariaglauca</i> (Linn.) P. Beauv.	Vindra	Poaceae
11.	<i>Sporbolummarginatus</i> (Hochst). ex. A. Rich.	Usari	Poaceae
12.	<i>Vetiveria zizanioides</i> (Linn) Nash	Khas	Poaceae
<b>BAMBOO</b>			
1.	<i>Dendrocalamus strictus</i> (Roxb)	Bans	Poaceae
2.	<i>Bambusa arundinacea</i> (Willd)	Burma	Poaceae

**STATUS OF CROP SPECIES**

Status of agriculture crops was assessed only in the buffer zone covering outside the sanctuary area. The list of species was prepared based on the casual observation while collecting data in and around the agriculture habitat. Based on the survey a total of 36 crop species were reported in the study area of Jarar mine lease area and based on their use value they have been grouped into four categories. Among the species list 8 species fall under grain crops, 10 species fruit crops, 11 vegetable crops and 6 commercial crops of the study area. Within the grain crops, Bajri, Juwar, Makai and Arenda were cultivated extensively. Though, 10 fruit yielding species were reported, they grown in small extent of areas along the agricultural hedges and mainly for local use and market. All the six commercial crops cultivate extensively and they for major income of the local agriculturalists.

**List of cash crops in the study area**

S. No.	Botanical Name	Family	Local Name	Habit
Grain crops				
1	<i>Pennisetum typhoides</i> A. Rich.	Poaceae	Bajra	Herb
2	<i>Sorghum bicolor</i> (L.) Moench.	Poaceae	Jawar	Grass
3	<i>Cajanus cajan</i> (L.) Millsp.	Fabaceae	Pigeon pea Tuver	Herb

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4	<i>Triticum aestivum</i> L.	Poaceae	Wheat	Grass
5	<i>Vigna radiate</i> (L.)wiltczek. Var. <i>radiata</i>	Fabaceae	Udad	Herb
6	<i>Ricinus communis</i> L.	Euphorbiaceae	Arando, Dival	Shrub
7	<i>Vigna trilobata</i> (L.) Verdcourt	Fabaceae	Mung, Math	Herb
8	<i>Zea mays</i> L.	Poaceae	Makai	Grass
<b>Fruit crops</b>				
1	<i>Annona squamosa</i> L.	Annonaceae	Sitafal	Small Tree
3	<i>Psidium guajava</i> L.	Myrtaceae	Jamphal	Tree
4	<i>Citrus aurantifolia</i> (Chr.) Swingle	Rutaceae	Kag Ji Nibu	Small Tree
5	<i>Limonia elephantum</i> (Correa)Panigrahi	Rutaceae	Kotha	Tree
6	<i>Citrus limon</i> (L.) Burn. f.	Rutaceae	Nibu	Shrub
7	<i>Musa paradisiacal</i> L.	Musaceae	Kela	Small Tree
8	<i>Punica granatum</i> L.	Punicaceae	Dadam	Small Tree
9	<i>Phyllanthus embelica</i>	Euphorbiaceae	Amala	Small tree
10	<i>Morus alba</i> L.	Moraceae	Shetur	Tree
<b>Vegetable Crops</b>				
1	<i>Abelmoschus esculentus</i> (L.) Moench	Malvaceae	Bhinda, Bhindo	Under Shrub
2	<i>Capsicum annum</i> L. var <i>acuminatum</i> Fingerh.	Solanaceae	Marchi	Herb
3	<i>Cucumis sativus</i> L.	Cucurbitaceae	Kakadi	Climber
4	<i>Lageneria leucantha</i> (Duch.) Rusby.	Cucurbitaceae	Dudhi	Herb
5	<i>Cicer arietinum</i> L.	Fabaceae	Chana	Herb
6	<i>Momordica charantia</i> L.	Cucurbitaceae	Karela	Climber
7	<i>Allium sativum vineale</i>	Liliaceae	Lasun	
8	<i>Moringa oleifera</i> Lam.	Moringaceae	Mitho Sangvo	Tree
9	<i>Lycopersicon lycopersicum</i> (L.) Karst.	Solanaceae	Tamatar.	Herb
10	<i>Solanum melongena</i> L.	Solanaceae	Ringana.	Under Shrub
11	<i>Daucus carota</i> L. var <i>sativa</i>	Apiaceae	Gajar	Under Shrub
<b>Cash/Commercial crops</b>				
1	<i>Saccharum officinarum</i> L.	Poaceae	Sherdi, Gunna	Grass
2	<i>Gossypium herbaceum</i> auct. Non L. var. <i>acerifolium</i> (Guill. & Perr.) Chevalier	Malvaceae	Kapns,Desi Kapas	Shrub
3	<i>Arachis hypogea</i> L.	Fabaceae	Magphali	Herb
4	<i>Cocos nucifera</i> L.	Arecaceae	Neriel, Tarafoo	Tree

**3.7.2 Status of Fauna**

This section includes the discussion of major faunal groups like amphibians, reptiles, birds (terrestrial and aquatic) and mammals. Among the groups, due to taxa specific nature of life, direct sightings of herpetofauna and mammalian fauna are always lower than the avifauna which is comparatively more active. Therefore, status of herpetofauna and mammal's groups were discussed at species richness and abundance levels predominately based on indirect evidences for mammals reported within the sample area.

**STATUS OF HERPETOFAUNA:**

**TAXONOMIC STATUS-AMPHIBIANS:**

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During the study period only three species of amphibians were reported from the study area. They belong to three genus under single family. Within buffer zone the area falling inside the sanctuary had these species. Due to the absence of perennial water resources within the core zone resulted no amphibian species within the proposed mine lease area. Below table represents the status of the Amphibian's in the study area.

Status of amphibian species in the study area

S.No	Zoological name	Common Name	WL Act, 1972 Schedule	Presence in Core Zone	Presence in Buffer Zone
1.	<i>Euphlyctis cyanophlyctis</i>	Indian skipping frog	IV	-	√
2.	<i>Fejervarya limnocorais</i>	Cricket frog	IV	-	√
3.	<i>Hoplobatrachus tigerinus</i>	Indian bull frog	IV	-	√

## TAXONOMICAL STATUS – REPTILES:

Status of Reptiles in the study area shows moderate species richness with overall 10 species belonging to 08 genera and 05 families. Core zone area identifies only two reptilian species. However, all 10 species were reported from the buffer zone. *Hemidactylus flaviviridis*, *Calotes versicolor*, *Mabuya carinata*, *Mabuya macularia*, is some common reptiles of the area. Detailed status of the reptiles is given in the table below.

Status of reptiles in the study area

S.No.	Zoological name	Common Name	WL Act, 1972 Schedule	Presence in Core Zone	Presence in Buffer Zone
1.	<i>Calotes Sp.</i>	-	-	-	√
2.	<i>Calotes versicolor</i>	Indian garden lizard *	-	√	√
3.	<i>Cyrtopodion Sp.</i>	-	-	-	
4.	<i>Echis carinatus</i>	Indian saw scaled viper	IV	-	
5.	<i>Hemidactylus flaviviridis</i>	Yellow-green house gecko*	-	-	√
6.	<i>Mabuya carinata</i>	Keeled grass skink *	-	√	√
7.	<i>Mabuya macularia</i>	Common bronze- back skink	-	-	√
8.	<i>Naja naja</i>	Spectacled cobra	I	-	√
9.	<i>Ptyas mucosa</i>	Indian rat snake	I	-	√
10.	<i>Sitana ponticeriana</i>	Fan-throated lizard		-	√

## STATUS OF AVIFAUNA

The study area covering both the core and buffer zone represents a total of 21 bird species under 21 genera. Out of these 21 species, 05 were reported from the core area during the survey.

Status of avifauna reported from the study area

Sl. No	Zoological name	Common Name	Presence in Core Zone	Presence in Buffer Zone
1.	<i>Acridotheres tristis</i>	Common Myna	√	√



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2.	<i>Alcedo atthis</i>	Small Blue Kingfisher	-	√
3.	<i>Anas strepera</i>	Gadwall	-	√
4.	<i>Columba livia</i>	Rock Pigeon	√	√
5.	<i>Dendrocygna javanica</i>	Lesser Whistling Duck	-	√
6.	<i>Eudynamys scolopacea</i>	Asian Koel	-	√
7.	<i>Francolinus pondicerianus</i>	Grey Francolin	-	√
8.	<i>Grus grus</i>	Common Crane	-	√
9.	<i>Halcyon smyrensis</i>	White-throated Kingfisher	-	√
10.	<i>Lanius schach</i>	Long-tailed Shrike	-	√
11.	<i>Lonchura malabarica</i>	Indian Silverbill	-	√
12.	<i>Merops orientalis</i>	Green Bee-eater	√	√
13.	<i>Milvus migrans</i>	Black Kite	-	√
14.	<i>Nectarinia asiatica</i>	Purple Sunbird	-	√
15.	<i>Passer domesticus</i>	House Sparrow	√	√
16.	<i>Pavo cristatus</i>	Indian Peafowl	-	√
17.	<i>Ploceus philippinus</i>	Baya Weaver	-	√
18.	<i>Pseudibis papillosa</i>	Black Ibis	-	√
19.	<i>Psittacula krameri</i>	Parakeet	-	√
20.	<i>Pycnonotus cafer</i>	Red-vented Bulbul	-	√
21.	<i>Upupa epops</i>	Common Hoopoe	√	√

**STATUS OF MAMMALS**

Status of mammalian fauna in the study area shows moderate level of species richness with overall 9 species under 9 genera and 8 families. The core zone shows comparatively less no of species richness than the buffer area. It has six species under six genera and six families. The list of mammalian species is given in the following table.

Status of the mammalian species in the area

Sl. No	Zoological name	Common Name	WL Act, 1972 Schedule	Presence in Core Zone	Presence in Buffer Zone
1.	<i>Boselaphustragoca melus</i>	Nilgai *	III	-	√
2.	<i>Canis aureus</i>	Jackal	II	-	√
3.	<i>Felis chaus</i>	Jungle Cat *	II	-	√
4.	<i>Funambulus pennant</i>	Five-striped Palm Squirrel *	IV	√	All around
5.	<i>Herpestes edwardsi</i>	Common mongoose*	IV	-	
7.	<i>Hystrix indica</i>	Porcupine	IV	-	√
8.	<i>Lepus nigricollis</i>	Indian Hare *	IV	-	All around
9.	<i>Rattus rattus</i>	House Rat *	IV	√	All around

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## CHAPTER- 4

## ANTICIPATED ENVIRONMENTAL IMPACT AND MITIGATION MEASURES

**4.0 GENERAL**

All development projects whether new, under modernization or renovation, do have an impact on the natural set up of the environment. This impact may be beneficial or adverse, depending on the improvement or the deterioration it brings about change in the status of air, water, land, ecology, natural systems, socio-cultural life styles and economics of the population. Depending on the nature of activities and baseline environment status, the impacts are assessed for their importance. On the basis of the impact analysis, the mitigating action and future monitoring requirement are focused in the Environmental Management Plan for countering or minimizing the impacts.

Keeping in mind, the environmental baseline scenario as detailed in Chapter 3 and the proposed mining activity described in Chapter 2, it is attempted to assess the likely impact and its extent on various environmental parameters and likely mitigation measures to be adopted.

**4.1 LAND ENVIRONMENT**

The Mining and allied activities involved the rocky stones. The clearance of overburden such as weeds and other accumulated matter like wood end crops, animal bones and those intentionally thrown garbage, other than soil, gravel and pebbles are cause of pollution and result in environmental degradation. Time takes care of it and once again gets turned to a changed ecology of the region. As the time passes it turns into a place of shelter, food and of reproduction of many life forms. The disturbance to the new form of biota and to the riparian habitat by man originated mining activities lead once again to the environmental degradation.

**Impact on Soil**

There is generation of gritty soil is negligible as the area is not covered by top soil cover hence few rejects will be developed which is used for lease boundary barrier plantation and haul road dressing.

**Impact on Land Use**

The area is having undulating surface surrounded by barren land. The area is partially covered by alluvial soil. The proposed area and surround areas are mostly private land owned by individual. Presently the existing quarry lies in 2.0 ha area. The potential adverse impact of



opencast stone mining will be in the form of change in land use pattern. So reclamation of mined out land will be given due importance as a step for sound land resource management in the form of reclaimed land and water body.

No adverse impact is anticipated on land use of buffer zone associated due to the existing stone mine project, as all the activities will be confined within the project site only. Stone mined out from the mine is being and continued to be used as boulders of different sizes for River Anti-erosion, Dam construction, embankment works etc. After crushing into different sizes of aggregates from 6mm to 63mm, the product can be used in construction and road projects.

#### 4.2 WATER ENVIRONMENT

##### 4.2.1 Impact on Surface Water

At present scenario there is no any seasonal or perennial source of water is passing through the lease area. During the rainy season, there may be accumulation of surface water, which is proposed to be pumped out to keep the working area dry and it is being utilized for dust suppression.

The stone mineral found in the area is non-toxic in nature. There will be no outside discharge of liquid effluent from the mine site. It is, therefore, apparent that there will be negligible impact of mining on the surface water regime.

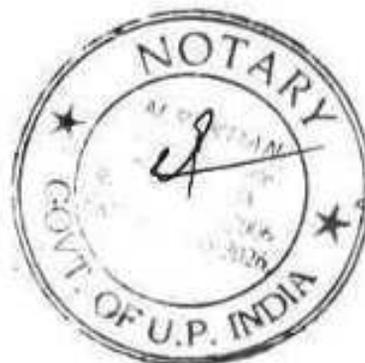
##### 4.2.2 Impact on Ground Water

Ground water pollution can take place only if the mining rejects contain toxic substances, which get leached by the precipitation water and percolate to the ground water table thus polluting it. Any nearby wells or other sources of water can be rendered unfit for drinking and even for industrial use.

This is not the case with this deposit as the mineral or topsoil does not contain any harmful ingredients. Moreover, stone constitutes of fairly inert and chemically non-reactive ingredients.

It is noticed from nearby dug wells and bore wells that the ground water table is available below 30 meters of the normal surface level. As the mining operation has been proposed to be carried out much above the ground water table there would not be any adverse effect on the ground water.

The ground water available in the nearby well, borewell is analysed and it is found within the prescribed standard of CPCB and it is also being and will be continued to be adopted the remedial measures to keep the water quality within the prescribed standard.



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#### 4.2.3 Mitigation Measures for Water Environment

- Adequate control measures are being and will be continued to be adopted to check not only the wash-off from soil erosion but also uncontrolled flow of mine water. The measures to be adopted are-
- Garland drain will be provided at the toe of the dumps, to channelize the runoff water from dumps into the water reservoir (i.e. mined out pits) & around the active pits to restrict rainy water from entering in to the working pit.
- Retaining walls having water holes will be provided along the toe of the dumps to avoid the soil wash out & around the active pit to prevent fall of human/animal in to the working pit.
- Dumps slopes are being stabilized followed by plantation to avoid soil erosion.
- No waste water is being discharged from the mining activities.

#### 4.3 AIR ENVIRONMENT

##### Anticipated impacts and evaluation

Information on air quality was studied and various modeling techniques predicted that the mining activity is not likely to affect the air quality in a significant manner. However, loading of Granite, Khandas & Gitti, Boulder, its transportation and unloading operations may cause some deterioration in air quality due to handling dry materials. In the present case, only wet materials will be handled, thus eliminating problems of fugitive dust. Also, the collection and lifting of minerals will be done manually without any blasting. Therefore, the dust generated is likely to be insignificant as compared to mining processes involving drilling, blasting, mechanized loading etc.

##### Air Modeling

In general, mining operations generate substantial quantities of airborne Respirable dust, which may lead to the development of impairment of respiratory system of mine workers. The increasing trend of mining leads to release of huge amount of dust. These air borne dust particles, generally below 100 microns in size, are nuisance particulates and cause health hazards as an ill effect of mining activities. Extraction activities like drilling, blasting, material handling and transport are a potential source of air pollution. Therefore, a detailed study on emission sources and quantification of pollutant concentration by means of dispersion modeling is required to assess the environmental impact of a mine. On the basis of the



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predicted increments to air pollutant concentrations, an effective mitigation and environmental plan can be devised for sensitive areas. In case of Gitty/Patthar & Pahadi Morrum mining, blasting and drilling is involved activities, the impacts may also be caused by material handling and transportation activities of mostly wet Gitty/Patthar & Pahadi Morrum Mine and the same are minimal.

#### FUGITIVE DUST- MODELING

Air quality modeling was done using line source model as published by USEPA "Workbook of Dispersion Modeling" by Turner, for transportation through roads and the empirical emission factor equations from USEPA. Emission factors to be used in Line Source Dispersion equation is adopted from formula as given below:

$$E = k * (1.7) * (s/12) * (S/48) * (W/2.7)^{0.7} * (w/4)^{0.5} * (365-p/365) \text{ kg/VKT} \text{----- (1)}$$

Where

E = Emission Rate (kg/VKT)

k = Particle size multiplier = (0.36)

s = Silt Content of the Road surface material (%) = 10%

S = Mean Vehicle Speed (km/hr) = 20 km/hr

W = Mean Vehicle Weight (tonnes) = 10 tonnes

w = Mean number of wheels = 8

p = Number of days with at least 0.254 mm of precipitation per year = 60

f = frequency of Vehicle movement in no per hour = 2 vehicles / hour

Thus using equation (1)

$$E = 0.61766 \text{ kg/VKT}$$

$$E = 0.0003 \text{ g/sec/m}$$

Concentration of the fugitive dust was calculated using the empirical equations for unpaved roads published by USEPA- AP42. The Concentration of the fugitive Dust is given below:

$$C = (2/\pi)^{1/2} (E / \sigma z u) \text{ Exp-} [(h^2) / (2 \sigma z^2)] \times 10^6 \text{----- (2)}$$

Where

C = Hourly Concentration in microgram/ m<sup>3</sup>

E = Emission Rate = 0.0003 g/sec/m



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$v$  = Wind Speed =4 m/s

$h$  = 0 m

Modeling was done for an infinite line source assuming unpaved road. For conservative calculation wind was assumed to blow at a velocity of 4 m/s perpendicular to the road. The results for 24 hourly concentration values are given in the Fig. 4.1:

#### Mitigation measures

The only air pollution sources are the road transport network of the trucks/dumpers. The dust suppression measures like the following will be resorted:

- Water sprinkling will be done on the roads regularly. This will reduce dust emission further by 75%.
- Care will be taken to prevent spillage by covering the carrying vehicles with tarpaulin and sprinkling of water, if dry.
- Fortnightly scraping of road in order to keep the roads almost leveled. This will ensure smooth flow of vehicles and also prevent spillage.
- Overloading will be kept under check by giving prior awareness.
- Proper Tuning of vehicles to keep the gas emissions under check.
- Plantation of trees along the road sides helps to reduce the impact of dust in the nearby villages.

#### 4.4 NOISE ENVIRONMENT

Day and night sound pressure levels  $Leq$  is often used to describe the community noise exposure, which includes 10 dB (A) night time penalty.

The monitored noise level during the base line period within the core zone and buffer zone has been found to be within the prescribed CPCB standards which will also be confined within the limit by undertaking more plantations within the mining area especially in the direction of habitation to act as a sound barrier.

##### 4.4.1 Impact due to Ground Vibrations

Ground vibration, fly rock, air blast, noise, dust and fumes are the deleterious effects of blasting on environment. The explosive energy sets up a seismic wave in the ground, which can cause significant damage to structures and disturbance to human occupants. It causes major damages to the pit configuration too.

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When an explosive charge is fired inside the blast hole, it is instantly converted into hot gases, which exert intense pressure on the blast hole walls. High intensity shock waves propagate radically in all directions and cause the rock particles to oscillate. This oscillation is felt as ground vibration. The proposed mining operations using deep hole drilling and blasting using delay detonators are bound to produce ground vibrations.

Ground vibration from mine blasting is expressed by amplitude, frequency and duration of blast. The variables, which influence ground vibrations, are controllable and non-controllable. The non-controllable variables include general surface terrain, type and depth of overburden and wind. Similarly, the controllable variables include type of explosives, charge per delay, delay interval, direction of blast progression, burden, spacing and specific charge and coupling ratio.

The oscillation of rock particles is called Particle Velocity and its maximum value is called Peak Particle Velocity (PPV), which is measured in millimeter per second.

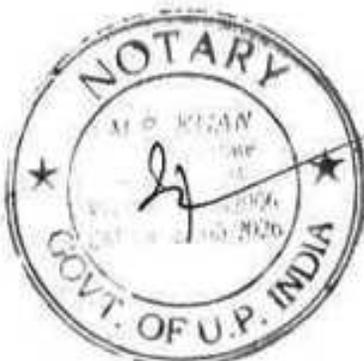
As the distance increases, the PPV value is likely to reduce. The ground vibrations generated by blasting during the mining operations will be well within the standards prescribed by DGMS by controlled blasting. Ground vibrations are not likely to affect the structures in the vicinity of mine lease area.

By adopting controlled blasting, the problems will be greatly minimized at mines. The impacts are also minimized by choosing proper detonating system, optimizing total charge and charge/delay.

#### 4.4.2 Measures for Minimizing Adverse Impacts

##### > Noise Control Measures

- The following control measures are being and will be continued to be adopted to keep the ambient noise levels well below the limits:
- Drilling is being carried out with the help of sharp drill bits which will help in reducing noise.
- Secondary blasting is being totally avoided and Hydraulic rock breaker is being used for breaking boulders.
- Controlled blasting with proper spacing, burden, stemming and optimum charge/delay is being maintained.
- The blasting is being carried out during favorable atmospheric condition and less human activity timings;



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- Minimum quantity of detonating fuse is being consumed by using alternatively Excel non-electrical initiation system;
- Proper maintenance, oiling and greasing of machines at regular intervals is being done to reduce generation of noise.
- The prime mover's/diesel engines are properly maintained;
- Provision of sound insulated chambers for the workers deployed on machines (HEMM) producing higher levels of noise;
- Proper designing of plant & machinery by providing inbuilt mechanism like silencers, mufflers and enclosures for noise generating parts and shock absorbing pads at the foundation of vibrating equipment.
- Green Belt/Plantation is being developed around the mining activity area and along haul roads. The plantation minimizes propagation of noise.
- Personal Protective Equipment (PPE) like ear muffs/ear plugs is being provided to the operators of HEMM (Heavy Earth Moving Machinery) and persons working near HEMM;
- Reducing the exposure time of workers to the higher noise levels.
- Periodical monitoring of noise will be done.

#### ➤ Measures to Control Ground Vibration

The blasting operations in the mine is carried out by deep hole drilling and blasting using delay detonators, which reduce the ground vibrations. The measures that are generally followed and currently proposed for abatement of ground vibration, air blast and fly rocks are detailed below:

- Proper quantity of explosive, suitable stemming materials and appropriate delay system are being adopted to avoid overcharging and for safe blasting.
- Adequate safe distance from blasting is being maintained.
- Blasting operations is carried out only during day time.
- The charge per delay is minimized and preferably more number of delays is used per blasts;
- During blasting, other activities in the immediate vicinity is temporarily stopped;
- Drilling parameters like overburden, depth, diameter and spacing is properly designed to give proper blast.

#### 4.5 BIOLOGICAL ENVIRONMENT

##### Ecological Impacts

Mining which leads to the removal of channel substrate, re-suspension of streambed sediment and stockpiling on the streambed, will have ecological impacts. These impacts may have an



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effect on the direct loss of stream reserve habitat, disturbances of species attached to streambed deposits, reduced light penetration, reduced primary production, and reduced feeding opportunities.

**Table 4.1 Impact Prediction & Mitigation Measures – Biological Environment**

Environmental Parameter	Aspects	Potential Impact	Mitigation Measures
Biological Environment	Dust emission due to mining activity	Dust deposition on vegetation & Agriculture crop around periphery of ML area may retard the photosynthetic activities of plants subsequently may reduce the crop productivity specifically within 500m from mine lease area.	Truck will be covered. Sprinkler will be installed at crusher loading & unloading point; regular water sprinkling within the mining area and also on haulage road will be carried out.  Extensive plantation will be carried out around safety zone.  The waste material/OB will be stacked on the opposite of the sloping face of the designated location.

**Plantation along the Safety Zone**

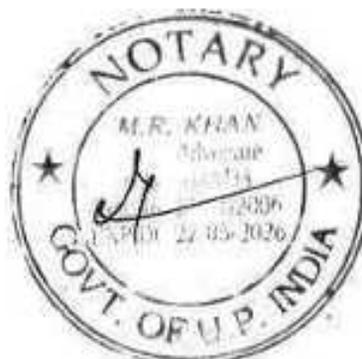
Plantation along the periphery of the existing (nonoperational) mine developed as follows:

Sr. No.	Scientific Name	Local Name	Quantity
1.	<i>Mangifera indica</i>	Aam	500
2.	<i>Tectonagrandis</i>	Sagon	500
3.	<i>Psidium guajava</i>	Amrood	500
4.	<i>Syzizium cumini</i>	Jamun	500
Total			2000

At the end on life of mine further plantation shall be carried out in same area (0.20 Ha) and also be haul road as per mine plan. Around 2000 saplings within the safety zone (7.5 m) will be planted to the end of life of mine.

**Selection of plant species with special reference**

Sr. No.	Plant species	Purpose of plantation of species
	<i>Aegle marmelos</i>	Pollution Tolerant Plants
	<i>Albizia lebbeck</i>	
	<i>Butea frondosa</i>	
	<i>Alstonia scholaris</i>	Best dust filtering capacity Plants
	<i>Allanthus excelsa</i>	
	<i>Ficus benghalensis</i>	
	<i>Azadirachta indica</i>	
	<i>Cassia fistula</i>	Automobile Exhaust pollution Control Plants
	<i>Delonixregia</i>	
	<i>Phyllanthus emblica</i>	
		Medicinal value Plants



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<i>Terminalia arjuna</i>	Economic value Plants
<i>Azadiracta indica</i>	
<i>Tectona grandis</i>	
<i>Pongamia pinnata</i>	
<i>Shorea robusta</i>	
<i>Cymbopogon martini</i>	Soil Conservation Plants
<i>Ziziphus jujube</i>	Fruit bearing Plants
<i>Psidium guava</i>	
<i>Syzygium cumini</i>	
<i>Mangifera indica</i>	
<i>Dalbergia sisso</i>	Nitrogen Assimilation Plants
<i>Cassia siamea</i>	
<i>Cassia fistula</i>	Aesthetic beautification Plants
<i>Polyalthia longifolia</i>	
<i>Delonix regia</i>	

It is to be noted that preference will be given to indigenous plant species. Mixed plantations will be done keeping optimum spacing between the saplings.

#### Impact on Local Transport Infrastructure

After getting the EC, when the mine will be in operation stage, the excavated stone will be transported to adjacent crusher outside the lease area (50 mtr distance) where as a distance of 950 mtr (approx.) will be covered by the tippers within the mining lease area over the haul roads.

The distance covered outside the mining lease area is since only 50 mtr. Approx. and the road will be the dedicated one for exclusive use, the existing transportation infrastructure will not at all be used.

The movement of excavated and sized stone from the crusher will be through MDR 116 approach road covering a distance of 3.0 km. along with other traffic. The incremental traffic is expected to be 4 nos. Per hour which is also expected not cause any significant impact either on existing roads or in the pollution load.

#### Impact on Socio - Economic Aspects

The existing project would create certain impacts with beneficial as well as adverse effects on the socio economic environment. The likely impacts due to mining are described below:

Impact on employment pattern Employment is main aspect for enhance the quality of life in any region. Employment opportunity is being and continued to be given to only local people in the form of skilled and unskilled labor. Mining activity will generate some indirect jobs and business opportunities as hotel, small shops kiosk etc. It will help to reduced poverty and

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improved living standard in the study area. It will help to improve economic condition of the study area.

**Impacts on socio-economic environment and mitigation measures**

Impact	Mitigation Measure
Due to mining and transportation of stone will generate the small shops, dhabas, garage, restaurant, vegetable shops etc. along the road and generate direct employment.	Positive Impact.
Mining activity will generate direct employment by recruiting 28 people which will be employed locally and preference will be given to local people.	Positive Impact.
Such shops along the roads will generate solid waste and waste water which will have adverse impact on human health.	4 nos. of Garbage bins will be provided for proper disposal of solid waste. The municipal wastewater will be disposed off into septic tanks and soak pit.
Extraction of stone resultant generation of fugitive dust cause workers of the mine to suffer from occupational hazards like skin allergies, eye and respiratory problems etc	Dust mask will be provided to the workers engaged at dust generation points like excavation and loading points. Regular water sprinkling on unpaved roads to avoid dust generation. The mined out area will be convert into water reservoir and barricade with wire fencing.
This creates serious threat to residents in the area who depend on river water for their domestic purposes.	The mining is planned in non-monsoon seasons only.
Major source of socio-health impacts of transportation will generate from truck, dust etc. Increase in accidents as a result of rash driving of dumpers carrying mineral through the roads may be possible.	It is proposed to plant 2000 No. of local species per year with consultation of Forest department with some fruit bearing and medicinal trees, along the haul roads, outer periphery within the mining area to control the dust. Planning transportation routes of mined material so as to reach the nearest paved roads by shortest route. (Minimize transportation over unpaved road). Alternatively, gravelled road may be constructed between mine lease area and nearest paved road connectivity; The speed of trucks plying on the haul road should limited to



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	<p>avoid generation of dust; and Covering of material during transportation on trucks to prevent spillage of stone from the trucks. The trucks will be covered by tarpaulin. Overloading will be avoided.</p> <p>Regular water sprinkling on unpaved roads to avoid dust generation during transportation.</p>
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**Impact on population growth:**

The existing mining project will cause migration of outside people also in search of their food, shelter and livelihood due to which there will be positive impact on population growth of the study area.

**Impact on lifestyle:**

The study area is mainly tribal dominant. Increased economic activities in the project area can bring addictions. In the tribal areas the ethnic people may also get affected by additional addictions.

**Impact on quality of life:**

Due to mining activity study area would progress in terms of develop housing, education, medical, health, sanitation, power supply, electrification and transport in the area, which may improve the quality of life in the region. Existing project is expected to contribute improvement of quality of life in the region it may help to improve human index of the study area.

**Impact on human settlement:**

The villages and their inhabitants in the buffer zone will not be disturbed from their settlements due to the mining operations. There is no inhabitation within the lease area. Therefore, neither villages nor any part of village or any hamlet will be disturbed during the entire life of the mine. As the mining operations will not disturb or relocate any village or settlement, no adverse impact is anticipated on any human settlement.

**Impact after mining:**

Mine pit of mining area after excavation will converted into a water pond and used as a natural water harvesting system for collection of rain water. In addition, fishing activity can be performed through fisherman in water pond, it will generate employment opportunity.

**Mitigation Measures:**

In order to mitigate the adverse impact likely to arise in social, cultural and economic aspects in the surrounding region certain line of action is being and continued to be adopted related to:



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Ensure that roads are properly signed, vehicles are well maintained and drivers are well trained and safety conscious.

Cohesive relation should be maintained with the concerned community so that in future any mishap may not disturb the harmony of the region.

Enhancement of community development through implementation of development programme, which will ensure the provision of basic facilities that are lacking and improvement of existing ones.

**Occupational Health (Impacts and Mitigation Measures)**

EISQ (Enzymatic Indicators of Salt Quality) has concern and takes full responsibility for the protection of the workers against sickness, disease and injury arising out of their employment and have adopted certain principles with regard to occupational health services, like establishing and maintaining a safe and healthy working environment which will facilitate optimal physical and mental health in relation to work.

**Impacts on occupational health and safety**

<b>Impact</b>	<b>Mitigation Measure</b>
The mining of stone (minor mineral) can cause the lung disease and respiratory disorder due to dust exposure.	Dust masks will be provided as additional personal protection equipment (helmet and safety shoes) to the workers working in the dust prone area. Regular water sprinkling will be done and dust masks will be provided to the workers.
Due to noise exposure, hearing disorder may be resulted.	Ear-muffs will be provided to the workers and good maintenance of vehicles will be provided
The accident at the site due to mining operation may be anticipated.	Workers are informed, kept aware and trained about possible accidents during the mining operation and personal protective equipment's will be provided viz. gloves, safety shoes, dust mask, safety jackets, helmet etc. In addition to, the awareness about the occupational health hazards due to mining activities to avoid any incident will be provided to the workers Pre- placement health check-up will be made mandatory and periodic health check-up will be done quarterly

**The following occupational health measures shall also be adopted: -**

Identification and assessment of the risks from health hazards in the workplace;

Surveillance of the factors in the working environment and working practices which may affect workers' health, including sanitary installations, canteens and housing; and Advice on planning and organization of work, including the design of workplaces, on the choice, maintenance and condition of machinery and other equipment and on substances used in work.

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**Identification of Work Related Health Hazards**

Details of the principle environmental and occupational risks that are likely to be created are given in Table 4.1.

**TABLE 4.2 WORK RELATED HEALTH HAZARDS**

Sr. No.	Hazardous Activities	Type of Hazards	Severity of Injury
1	Drilling	Exposed to high level of Noise	Hearing impairment
		Exposed to dusty environment	Dust related diseases
2	Blasting	Struck by fly rock	Serious Physical injury
		Exposed to dusty environment	Dust related diseases
		Exposed to high level noise	Hearing impairment
		Exposed to excessive vibration	
3	Loading	Struck by rolling big boulders	Serious injury, and equipment damage
		Struck by fall of objects	Serious Physical injury
4	Transportation	Accidental runaway of vehicle	Serious injury, and equipment damage
		Fall of vehicle from height while reversing	
		Exposed to high level noise	Hearing impairment
		Fire in engine due to over heating	Serious Physical injury
5	Storage of oil, lubricant	Leaks and spills	Fire & vigorous chemical reaction
6	Battery maintenance handling	Acid spillage	Acid burns
7	Use/repair of hydraulic jacks & pumps	High pressure operation	Physical injury
		Oil spillage	
		Rupture of hydraulic hoses	

**4.6 IMPACTS ON HYDROLOGY**

Impact	Mitigation Measure
The mining in the mine site area may cause the ground water contamination due to intersection of the water table.	The water table will not be intersected during mining as depth of pit. Proper analysis/Monitoring will be done to check the ground and surface water quality.
Change the topography will divert the water flow.	There is no proposal of any stream modification/diversion due to this mining activity hence there will be no any impact on flow of water.

**4.7 IMPACTS ON GEOLOGY AND MITIGATION**

Impact	Mitigation Measure
Degradation of land	Adopting methods that are less wasteful, use of technologies that are user and environmentally friendly.
Degradation of stone reserves	Rehabilitation of quarries after use.

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Geomorphic impacts and/ or visual intrusion.	Minimizing geomorphic disturbance by maximizing stone reserves through deep quarrying and avoidance of establishing small and haphazardly located quarries that contribute to environmental degradation.
--	--

#### 4.8 TRAFFIC ANALYSIS

Traffic analysis is carried out by understanding the existing carrying capacity of the roads near to the project site and the connecting main roads in the area. Then depending on the capacity of the mine, the number of trucks that will be added to the present scenario will be compared to the carrying capacity.

Table 4.3 (i): Existing Traffic Scenario & LOS

Road	V (Volume in PCU/hr)	C (Capacity in PCU/hr)	Existing V/C Ratio	LOS
Unnamed Connecting Road	122	500	0.24	B
MDR-11B	187	900	0.21	B

V= Volume in PUC's/hr & C= Capacity in PUC's/ hr

The existing Level of Service (LOS) at Near Village and at highway is "A" i.e. excellent, as per classification.

V/C	LOS	Performance
0.0 - 0.2	A	Excellent
0.2 - 0.4	B	Very Good
0.4 - 0.6	C	Good / Average / Fair
0.6 - 0.8	D	Poor
0.8 - 1.0	E	Very Poor

Note: Capacity as per IRC: 106-1990

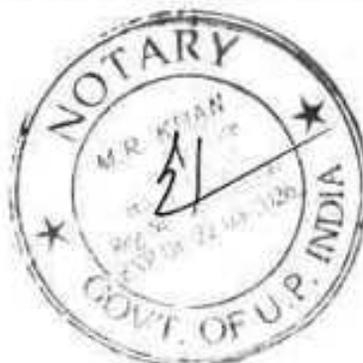
#### No. of Trucks Required (maximum)

Total capacity of mine	:	20000 m <sup>3</sup> per year
Total no. of working days	:	250 days
Granite, Khandas & Gitti, Boulder extracted in a day	:	80 cum
Granite, Khandas & Gitti, Boulder extracted in one truck	:	13 cum (approx.)
No. of truck required per day	:	Approximately 6-7 Truck/tippers

Table 4.3 (ii): Modified Traffic Scenario & LOS

Road	Volume(V)	Capacity(C)	Modified V/C Ratio	LOS
Unnamed Connecting Road	122	500	0.25	B
MDR-11B	187	900	0.21	B

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**Results**

From the above analysis it can be seen that the V/C ratio is likely to change to 0.21 and 25 with LOS both being "B" which means 'Very Good' as per classification. So the additional load on the carrying capacity of the concerned roads is not likely to have any significant adverse effect.

**4.8. STATUTORY REQUIREMENTS**

It is accepted that effective resource management cannot be done in isolation. The Department therefore vigorously pursues approaches towards coordination and integration where possible, so as to lead to coordinated regulatory systems.

A regulatory system consists of both statutory and non-statutory components. In the Sectorial-specific strategy for prospecting and mining, the Department participates within an integrated environmental management system which is administered in terms of the Acts and Rules. Other Acts dealing with matters relating to the conservation and protection of the environment and which a holder of a mining authorization must also take cognizance of, include inter alia, the following:

- The Mines Act, 1952
- The Mines and Mineral (Development and Regulation) Act, 1957
- Mines Rules, 1955
- Mineral Concession Rules, 1960
- Mineral Conservation and Development Rules, 1988
- State Minor Mineral Concession Rules, U.P., 1963
- The Water (Prevention and Control of Pollution) Act, 1974
- The Air (Prevention and Control of Pollution) Act, 1981
- The Environment (Protection) Act, 1986
- The Forest (Conservation) Act, 1980
- The Wildlife (Protection) Act, 1972

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**CHAPTER- 5**  
**ENVIRONMENTAL MONITORING PROGRAMME**

**5.0 INTRODUCTION**

Success of any post-project environmental monitoring programme depends upon the efficiency of the organizational set up responsible for the implementation of the programme. Regular monitoring of the various environmental parameters is also necessary to evaluate the effectiveness of the management programme so that the necessary corrective measures can be taken in case there are some drawbacks in the proposed programme. Since environmental quality parameters at work zone and surrounding areas are important for maintaining sound operating practices of the project in line with conformity with environmental regulations, the post project monitoring work, therefore, forms a part of EMP.

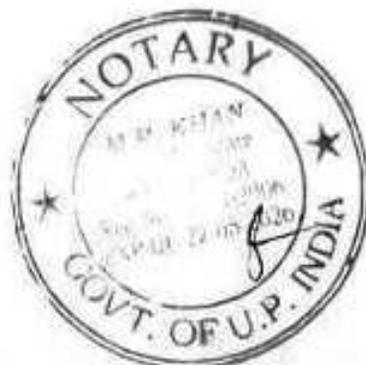
**5.1 PROPOSED SET UP**

Keeping the utility of monitoring results in the implementation of the environmental management program in view, an organizational chart has been proposed, headed by General Manager as shown in Fig. 5.1.

The said team will be responsible for:

- a. Collecting water and air samples from surrounding area and work zone monitoring for pollutants.
- b. Analyzing the water and air samples.
- c. Implementing the control and protective measures.
- d. Co-ordinating the environment related activities within the project as well as with outside agencies.
- e. Collecting statistics of health of workers and population of surrounding villages.
- f. Monitoring the progress of implementation of environmental management program. Greenbelt development, etc.

The laboratory will be suitably equipped for sampling/testing for various environmental pollutants.



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## EIA/EMP CHAPTER-5- ENVIRONMENTAL MONITORING PROGRAMME

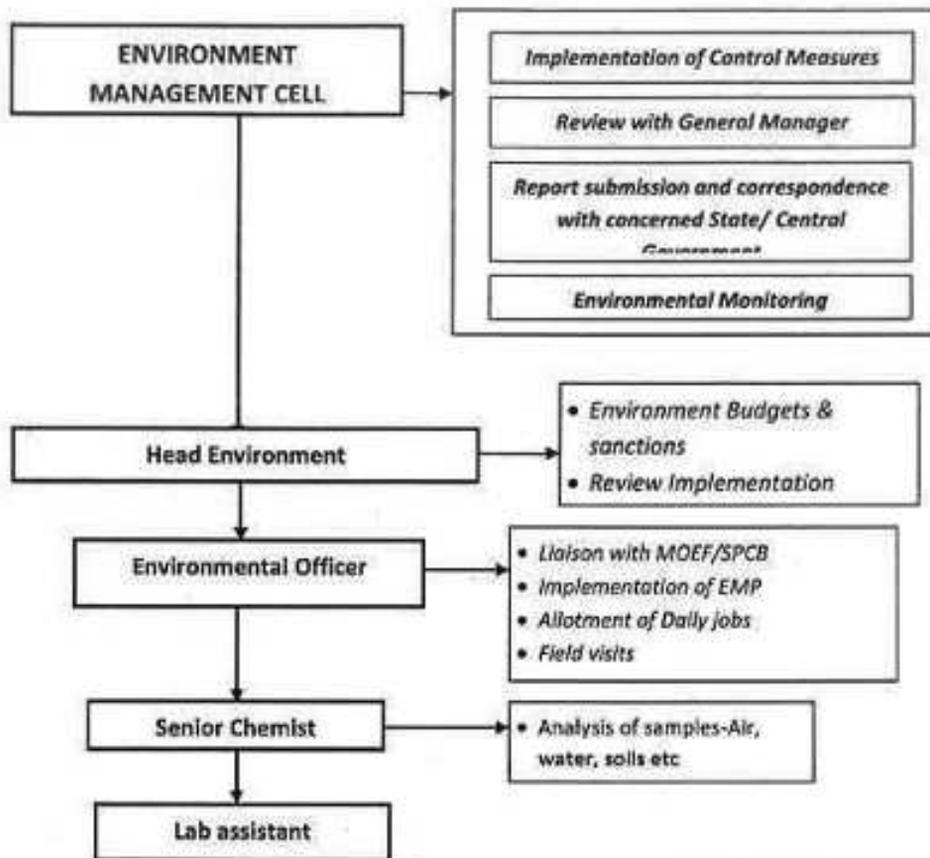


Fig. 5.1 Organization for implementation of Control Measures

## 5.2 MONITORING SCHEDULE AND PARAMETERS

## Air Quality Monitoring

Air Quality monitoring is essential for evaluation of the effectiveness of abatement programmes and to develop appropriate control measures. The project proponent will monitor ambient air quality in and around the proposed Gitty/Pathar & Pahadi Morrum Mining Project at a frequency mentioned in the monitoring schedule for various parameters and take appropriate air pollution control measures in order to ensure that the concentration of  $PM_{2.5}$ ,  $PM_{10}$ ,  $SO_2$  and  $NO_2$  are within limits.

## Water Quality monitoring

Water quality monitoring involves periodical assessment of quality of surface water and the ground water near the mining project. Surface water samples will be analyzed for all the parameters as per EPA, 1986 and ground water samples will be analyzed for all the parameters as per IS-10500.

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**EIA/EMP CHAPTER-5- ENVIRONMENTAL MONITORING PROGRAMME**

**Noise Level Monitoring**

Noise level monitoring will be done for achieving the following objectives:

- a) To compare sound levels with the values specified in noise regulations
- b) To determine the need and extent of noise control measures of various noise generating sources

Noise level monitoring will be done at the work zone to assess the occupational noise exposure levels. Noise levels will also be monitored at the noise generating sources like mineral handling arrangements, vehicle movements and also nearby villages for studying the impact due to higher noise levels for taking necessary control measures at the source.

**Table 5.1 Monitoring Schedule and Parameters**

S No	Description of Parameters	Schedule and Duration of Monitoring/Execution
1	Air Quality: a) In the vicinity of the mine b) In the vicinity of the transportation Network c) Dust suppression on roads d) Scraping/ bulldozing of road to shift accumulated dust to the sides	24 hourly samples twice a week for one month in each season except monsoon season  Regularly in non- monsoon months and whenever occurrence of fugitive dust takes place  Fortnightly
2	Water Quality near or around the site: a) Surface water quality b) Ground water quality	Once in a season for 4 seasons in a year
3	Ambient Noise Level	Twice a year for two years & then once a year
4	Soil Quality	Once in two years on project monitoring area
5	Inventory of Flora(tree plantation, survival etc) & Fauna	Once in two years on project monitoring area
6	Socio-economic condition of local, population, physical survey	Once in 3 years



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**CHAPTER-6**  
**ADDITIONAL STUDIES**

**PUBLIC HEARING & ITS PROCEEDINGS**

The news regarding the public hearing was published on 24/02/2023 and 25/02/2023 in newspapers The Times of India (English) and Dainik Jagran LLP Jhansi (Hindi), after one month which Public hearing was conducted on 28.03.2023 in Sahlgar Banda, Tehsil & District- Mahoba, U.P. as per the EIA notification 2006 organized by Uttar Pradesh Pollution Control Board, Regional Office, Banda) in the presence of *Shri. Ashish Kumar Shukla* (Nayab Tehsildar) Banda, *Mr. Manoj Kumar* (Surveyor, Mining Department, Naraini Banda), *Shri Ram Das* (vyagyanik Sahayak, UPPCB, Banda), *Shri Sushil Kumar* (Additional Engineer, UPPCB, Banda) *Shri Lavlesh Singh* (Proponent) and *Ms. Manjusha Tripathi* (Environment Consultant, Environmental Research and Analysis, Lucknow) and Local peoples of the Village from the surrounding village were present at the venue.

The presentation was given by the environment consultant before the villagers, consultant invited to local people present, to raise queries/suggestions and its problem due to the proposed mining activity under the buffer area (10.0 Km). Main queries rose regarding the dust suppression, reduce usage of horn unnecessarily, tree plantation, employment generation and other development indicators. However, in last minutes of public hearing, project proponent committed to fulfill all the commitment/quarries-replies raised during public hearing and if it is mandated to cover under the EMP plan (given in EIA report).

**Public Hearing Photograph-**



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EIA/EMP CHAPTER-6- ADDITIONAL STUDIES



Advertisement of Public Hearing –

**उत्तर प्रदेश प्रस्ताव नियंत्रण बोर्ड**  
 उत्तर प्रदेश प्रस्ताव नियंत्रण बोर्ड द्वारा प्रस्तावित नए परियोजनाओं के लिए पर्यावरण प्रभाव मूल्यांकन (EIA) की आवश्यकता है।

**पर्यावरण प्रभाव मूल्यांकन की प्रक्रिया की प्रमुख विशेषताओं की सूची**

क्र.सं.	परियोजना का नाम	परियोजना का स्थान	परियोजना का प्रकार	परिणाम	आवक्यता
1.	...	...	...	...	...
2.	...	...	...	...	...
3.	...	...	...	...	...

... (Additional text and details regarding the public hearing process and project specifics) ...

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## EIA/EMP CHAPTER-6- ADDITIONAL STUDIES

Point Wise-Quarries & its commitment is given below-

S No.	Query
1.	सर्वप्रथम क्षेत्रीय अधिकारी (प्रतिनिधि), उ०प्र० प्रदूषण नियंत्रण बोर्ड, बाँदा द्वारा लोक सुनवाई पर संक्षिप्त प्रकाश डालते हुए अवगत कराया गया कि पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार, नई दिल्ली द्वारा जारी अधिसूचना संख्या एस०ओ० 1533 दिनांक 14 सितम्बर 2006 के अनुसार खनन किये जाने सम्बन्धी प्रस्ताव लोक सुनवाई प्रक्रिया के अन्तर्गत आच्छादित है। किसी भी खनन परियोजना को प्रारम्भ करने से पूर्व उ०प्र० सरकार द्वारा गठित स्टेट इनवायरमेन्ट इम्पैक्ट एसेसमेन्ट अथॉरिटी से पर्यावरणीय स्वीकृति प्राप्त किया जाना अनिवार्य है।
2.	क्षेत्रीय अधिकारी (प्रतिनिधि), उ०प्र० प्रदूषण नियंत्रण बोर्ड, बाँदा द्वारा अवगत कराया गया, कि पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार, नई दिल्ली द्वारा जारी अधिसूचना संख्या एस०ओ० 1533 दिनांक 14 सितम्बर, 2006 के अनुसार लोक सुनवाई के सम्बन्ध में विज्ञप्ति उ० प्र० प्रदूषण नियंत्रण बोर्ड, बाँदा द्वारा दिनांक 24.02.2023 एवं 25.02.2023 को दैनिक समाचार पत्रों कानन: द टाइम्स आफ इण्डिया एवं दैनिक जागरण एल०एल०पी० झांसी में प्रकाशित करायी गयी थी तथा आक्षेप / सुझाव / आपत्ति विज्ञप्ति प्रकाशन की तिथि से 30 दिन के भीतर आमंत्रित किए गये थे। उक्त निर्धारित अवधि में कोई आक्षेप / सुझाव / आपत्ति प्राप्त नहीं हुयी है। उक्त परियोजना के सम्बन्ध में उपस्थित जनसमुदाय को विस्तृत विवरण से अवगत कराने हेतु क्षेत्रीय अधिकारी द्वारा बैठक में उपस्थित परामर्शी से आग्रह किया गया।
3.	लोक सुनवाई की कार्यवाही को आगे बढ़ते हुये परियोजना के पट्टेधारक द्वारा नियुक्त परामर्शी मैसर्स इनवायरमेन्टल रिसर्च एण्ड इन्फॉर्मेटिक्स, लखनऊ के प्रतिनिधि सुश्री मंजूसा त्रिपाठी द्वारा अवगत कराया गया कि परियोजना के पट्टेधारक द्वारा परियोजना से सम्बन्धित पर्यावरणीय प्रभाव मूल्यांकन एवं पर्यावरणीय प्रबंधन योजना हेतु परामर्शी नियुक्त किया गया है। उक्त परियोजना से सम्बन्धित पर्यावरणीय प्रभाव मूल्यांकन एवं पर्यावरणीय प्रबंधन योजना तैयार कर उ०प्र० प्रदूषण नियंत्रण बोर्ड में प्रस्तुत की गई तथा उक्त की एक-एक प्रति उक्त सन्दर्भित अधिसूचना में वर्णित प्राविधानों के अनुसार विज्ञप्ति में अंकित स्थलाकार्यालय में जनता के आपत्ति, सुझाव, विचार एवं टीका-टिप्पणी प्रेषित करने हेतु उपलब्ध करायी गयी है। सन्दर्भित प्रस्तावित खनन परियोजना के खनन हेतु कार्यालय, जिलाधिकारी, बाँदा (खनिज अनुभाग) के पत्रांक-4073 / खनिज-30, बाँदा दिनांक 06.03.2019 द्वारा आशय पत्र जारी किया गया है। निदेशक भूतत्व एवं खनिकर्म निदेशालय, उ०प्र० खनिज भवन लखनऊ के पत्रांक-953(1)/भा० प्लान/2016 दिनांक 04.09.2019 द्वारा मायूनिंग प्लान जारी किया गया है। उक्त प्रस्तावित परियोजना को राज्य स्तरीय पर्यावरण प्रभाव निर्धारण प्राधिकरण समिति उ०प्र० में प्रस्तुतिकरण के पश्चात पत्र संख्या-468/पर्या/ एस. ई.आई.ए.ए. // 5043 / 2019 दिनांक 13.12.2019 टर्म्स ऑफ रिफरेंस (टोर) प्रदान किया गया है।
4.	परामर्शी द्वारा अवगत कराया गया कि सन्दर्भित प्रस्तावित स्थल पर खनन का कार्य किया जाना प्रस्तावित है, जिसका पट्टा 20 वर्षों के लिए स्वीकृत है। परियोजना की सी०ई०आर० लागत रु० 3,09,000 एवं ई०एम०पी० हेतु आवंटित धनराशि रु० 61.80,000 है।

The entire proceeding was recorded and a copy was made available to the regional office, UPPCB, Banda, Head Office, UPPCB, Lucknow and Directorate of Environment, Uttar Pradesh, Lucknow, U.P.

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## EIA/EMP CHAPTER-6- ADDITIONAL STUDIES

The details are described in Annexure I along with annexed UPPCB letter, advertisement copy and copy of public hearing letter.

Conclusion- The Public Hearing conducted without any objection in the presence of Shri. Ashish Kumar Shukla (Nayab Tehsildar) Banda, Mr. Manoj Kumar (Surveyor, Mining Department, Naraini Banda), Shri Ram Das (vyagyanik Sahayak, UPPCB, Banda), Shri Sushil Kumar (Additional Engineer, UPPCB, Banda) Shri Lavlesh Singh (Proponent) and Ms. Manjusha Tripathi (Environment Consultant, Environmental Research and Analysis, Lucknow) and Local peoples of the Village.

All the commitments made by the project proponent will be provided by photographic evidence during the submission of first compliance report.

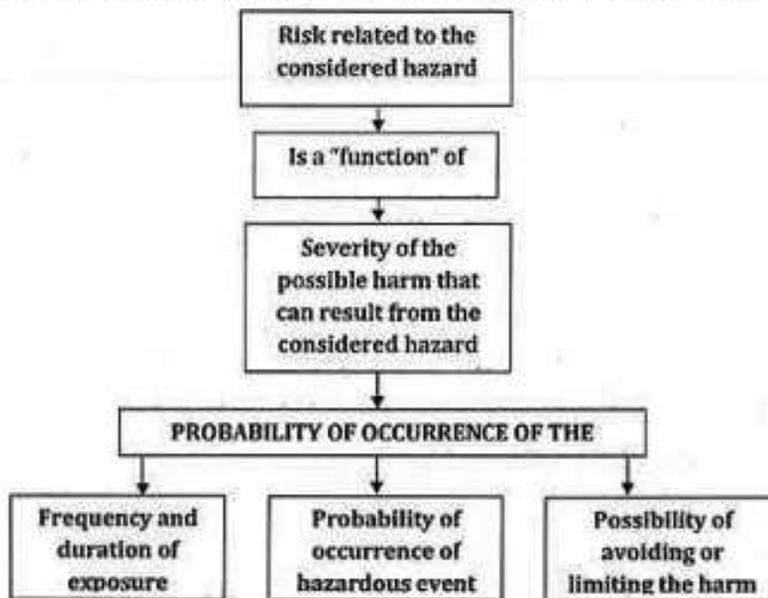
Advertisement Copy and Public Hearing Minutes are attached as Annexure I.

The details are described in Annexure I along with annexed UPPCB letter, advertisement copy and copy of public hearing letter.

### 6.1 HAZARD IDENTIFICATION AND RISK ASSESSMENT METHODOLOGY

#### A) RISK

Risk concerns the deviation of one or more results of one or more future events from their expected value.



**Tolerable risk:** Risk which is accepted in a given context based on the current values of society

**Protective measure:** The combination of risk reduction strategies taken to achieve at least the tolerable risk. Protective measures include risk reduction by inherent safety, protective devices, and personal protective equipment, information for use and installation and training.

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**Severity:** Severity is used for the degree of something undesirable.

**Risk Analysis:** A systematic use of available information to determine how often specified events may occur and the magnitude of their likely consequences.

**The different steps of risk assessment procedure are as given below:**

**Step I: Hazard Identification**

The purpose of hazard identification is to identify and develop a list of hazards for each job in the organization that are reasonably likely to expose people to injury, illness or disease if not effectively controlled. Workers can then be informed of these hazards and controls put in place to protect workers prior to them being exposed to the actual hazard.

**Step II: Risk Assessment**

Risk assessment is the process used to determine the likelihood that people exposed to injury, illness or disease in the workplace arising from any situation identified during the hazard identification process prior to consideration or implementation of control measures.

Risk occurs when a person is exposed to a hazard. Risk is the likelihood that exposure to a hazard will lead to injury or health issues. It is a measure of probability and potential severity of harm or loss.

**Step III: Risk Control**

Risk control is the process used to identify, develop, implement and continually review all practicable measures for eliminating or reducing the likelihood of an injury, illness or diseases in the workplace.

**Step IV: Implementation of risk controls**

All hazards that have been assessed should be dealt in order of priority in one or more of the following hierarchy of controls

The most effective methods of control are:

- i. Elimination of hazards
- ii. Substitute something safer
- iii. Use engineering/design controls
- iv. Use administrative controls such as safe work procedures
- v. Protect the workers i.e. By ensuring competence through supervision and training, etc.

Each measure must have a designated person and date assigned for the implementation of controls. This ensures that all required safety measures will be completed.

**Step V: Monitor and Review**

Hazard identification, risk assessment and control are an on-going process. Therefore, regularly review the effectiveness of your hazard assessment and control measures. Make sure that you undertake



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a hazard and risk assessment when there is change to the workplace including when work systems, tools, machinery or equipment changes. Provide additional supervision when the new employees with reduced skill levels or knowledge are introduced to the workplace.

**B) RISK ANALYSIS**

The risk assessment portion of the process involves three levels of site evaluation:

- a) Initial Site Evaluation,
- b) Detailed Site Evaluation,
- c) Priority Site Investigations and Recommendations.

The risk assessment criteria used for all levels of site evaluation take into account two basic factors:

- The existing site conditions
- The level of the travelling public's exposure to those conditions.

The Initial Site Evaluation and Detailed Site Evaluation both apply weighted criteria to the existing information and information obtained from one site visit. The Initial Site Evaluation subdivides the initial inventory listing of sites into 5 risk assessment site groups. The Detailed Site Evaluation risk assessment is then performed on each of the three highest risk site groups in order of the group priority level of risk. The result of the Detailed Site Evaluation process is a prioritized listing of the sites within each of the three highest risk site groups.

**Risk analysis is done for:**

- Forecasting any unwanted situation
- Estimating damage potential of such situation
- Decision making to control such situation
- Evaluating effectiveness of control measures

**C) ACCEPTABLE RISK**

Risk that is acceptable to regulatory agency and also to the public is called acceptable risk. There are no formally recognized regulatory criteria for risk to personnel in the mining industry. Individual organizations have developed criteria for employee risk and the concepts originally arising from chemical process industries and oil and gas industries. Because of the uncertainties linked with probabilistic risk analysis used for quantification of the risk levels the general guiding principle is that the risk be reduced to a level considered **as Low as Reasonably Practicable (ALARP)**. It can be seen that there are three tiers:

- a. A tolerable region where risk has been shown to be negligible and comparable with everyday risks such as travel to work.

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b. A middle level where it is shown the risk has been reduced to as Low as Reasonably Practicable level and that further risk reduction is either impracticable or the cost is grossly disproportionate to the improvement gained. This is referred as the ALARP region.

c. An intolerable region where risk cannot be justified on any grounds. The ALARP region is kept sufficiently extensive to allow for flexibility in decision making and allow for the positive management initiatives which may not be quantifiable in terms of risk reduction.

-The risk acceptability criteria are given in following table:

1	Risk un acceptance and must be reduced. The actions may include equipment and people or procedural measures. If risk cannot be reduced to ALARP level, operating philosophy must be fundamentally reviewed by the management.	<b>Intolerable Region</b>
2	Efforts must be made to reduce risk further and to as low as reasonably practicable, without expenditure that is grossly disproportionate to the benefit gained	<b>ALARP Region (As Low as Reasonably Practicable)</b>
3	Risk level is so low as to not require actions to reduce its magnitude further.	<b>Tolerable Region</b>

TABLE – 6.1 Risk Likelihood Table for Guidance

Step 1: Assess the Likelihood			Step 2: Assess the Consequences			
L1	Happens every time we operate	Almost Certain	Common repeating occurrence	or C1	Fatality	Catastrophic
L2	Happens regularly (often)	Likely	Known to have occurred "has happened"	C2	Permanent disability	Major
L3	Has happened (occasionally)	Possible	Could occur or "heard of it happening"	C3	Medical/hospital or lost time	Moderate
L4	Happens irregularly (almost never)	Unlikely	Not likely to occur	C4	First aid or no lost time	Minor
L5	Improbable (never)	Rare	Practically impossible	C5	No injury	Insignificant

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A logical systematic process is usually followed during a qualitative risk assessment to identify the key risk events and to assess the consequences of the events occurring and the likelihood of their occurrence (TABLE-6.2)

Risk Rank Likelihood x Consequence	L1 Almost certain	L2 Likely	L3 Possible	L4 Unlikely	L5 Rare
C1 Catastrophic	1	2	4	7	11
C2 Major	3	5	8	12	16
C3 Moderate	6	9	13	17	20
C4 Minor	10	14	18	21	23
C5 Insignificant	15	19	22	24	25

## RISK RATING:

- HIGH RISK 1-6
- MEDIUM RISK 7-15
- LOW RISK 16-25

## 6.2 POTENTIAL HAZARDS &amp; 'ALARP' CONDITION

Mining and allied activities are associated with several potential hazards and risk to both the employees and the public at large. A worker in a mine should be able to work under "ALARP" conditions (as stated above), which are adequately safe and healthy. At the same time the environmental conditions should be such as not to be impair his working efficiency. This is possible only when there is adequate safety in mines.

## 6.3 RISK PRIORITISATION BASED ON HAZARDS

There are various factors, which can create unsafe working conditions/hazards in mining of minor minerals from Gitty/Patthar & Pahadi Morrum mining.

The key risk (hazard x probability) event rating associated with Gitty/Patthar & Pahadi Morrum mining and to assess its consequences of such events occurring and the likelihood based on above Table-2 are as:-

The Risk rating of such hazards is as follows:

- Inundation / Flooding (C1 xL3=4)
- Quick Granite Khandas & Giti, Boulder Condition (C2 x L3=8)
- Drowning. (C5 xL5=25)
- Accident due to vehicular movement. (C3 xL3=13)



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- Accident during blasting, loading, transporting and dumping, etc.

#### 6.4 ADDITIONAL STUDIES

##### 6.4.1 Occupational Health and Safety

For any industry, where multifarious activities are involved during construction, erection, testing, commissioning, operation and maintenance; the men, materials and machines are the basic inputs. Along with the boons, industrialization generally brings several problems like occupational health and safety. Mining Industry is not an exception and above also holds good.

Therefore, proper plan and steps are required to be taken to minimize the impact of mining and for ensuring appropriate occupational health and safety during the constructional and operational phases.

##### 6.4.2 Occupational Health

Occupational health needs attention during construction, operation and mine decommissioning phases. However, the problem varies both in magnitude and variety in the above phases.

###### • Construction

The occupational health problems envisaged at this stage can mainly be due to constructional accident and noise. To overcome these hazards, in addition to arrangements to reduce it within Threshold Limit Values (TLV's), necessary protective equipment will have to be supplied to workers.

In the instant case the mine is existing but non-operative and hence this phase as such is not applicable.

###### • Operational

The problem of occupational health, in the operation phase is primarily due to dust and noise which could affect breathing and hearing. The necessary personnel protective equipment will have to be given to all the workers working the dusty and noise areas. The working personnel will be given the following appropriate equipment.

- Industrial safety helmet;
- Face shield with replacement acrylic vision;
- Zero power goggles with cut type filters on both sides and blue color glasses;
- Ear muffs;
- Safety belt/line man's safety belt;
- Leather hand gloves;
- Industrial safety shoes with steel toe.
- Personal Dust Masks.

All working personnel will be medically examined as per provisions of the Mines Act. This will be in addition to the pre-employment medical examination.

##### 6.4.3 Safety Plan

It is envisaged that all safety precautions during the mining operations, posting of sufficient number of statutory officials and persons, disaster management, etc shall be undertaken, for which sufficient funds



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shall be provided to deal with all safety provisions. An effective organization of the mine shall be prepared and implemented as per DGM Guidelines/ Circulars.

Mining is a hazardous industry and hence, necessary measures shall be taken to prevent accident due to following anticipated hazardous/risk prone activities.

- Slope failure;
- Handling of explosives;
- Fly-rocks during blasting;
- Movement of HEMM;
- Inundation due to surface water;
- Dust hazards;
- Hazards associated with use of electricity/ Diesel Generator Sets; and
- Flooding of lower benches

#### 6.4.4 Statutory Rules

Deployment of HEMM in any mine for excavation of stone / OB needs planning of various activities in confirmation with the prevailing statutory provisions as per Mines Act 1952, Metaliferous Mines Regulation 1957, various DGMS circulars & bye-laws.

All applicable statutory rules, regulations, bye-laws etc. and statutory requirement related to Govt. licenses, worker's compensation, insurance, etc., including minimum wage act for workers employed by the outside agency shall have to be adhered. Any other rule imposed by local/state/central authorities shall also be complied by user of HEMM equipment and then shall have to supply various protective equipment viz. helmets, shoes, safety gear for welding, working at height, electrical apparatus handling, etc. to the workmen at their cost.

#### 6.4.5 Safety Aspects for HEMM/Equipment and Workers

Special precaution shall be taken in case of outsourcing the HEMM and workers in the mine. Some of the major safety aspects before outsourcing of workers & HEMM to the mine are enumerated as follows:

##### (A) For Workers

- No worker shall be deployed unless he is skilled enough to take up the designated assignment and trained at VTC;
- Records in Form- B and Form- D shall be maintained;
- Records of vocational training certificate and driving license of operators shall be kept by HEMM outsourcing agency and shall be made readily available for inspection by management;
- No persons shall be employed unless person holds VTC certificate and management is informed. A record of it shall be maintained;

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- Adequate supervision shall be maintained by qualified competent persons;
- Outside agency shall follow safety guidelines and safety instruction from project authorities;
- All drivers shall obey traffics rules prepared by the management; and
- Before deploying workers, they must be trained and briefed about safety aspects in opencast mine. However, during course of execution of the work, if any accident occurs, whether major or minor, the matter shall have to be immediately informed to the mine management so that notices of accidents in a accordance of (Reg 9 of MMR 1957) and Section-23 of Mines Act, 1952 may be given and other necessary steps may be taken in accordance with the Mines Act, 1952.

**(B) For Machineries as Recommended by DGMS Circular (Tech.) 1 of 1999**

- All machineries to be deployed in mines shall be checked before deployment by competent authority;
- Regular checking of machines deployed shall be done. No unfit machine shall be deployed before the defect is rectified;
- A proper record of repair and maintenance along with inspection done by management and defect pointed out shall be maintained and signed by authorized person;
- The HEMM shall be provided with audio visual alarms, proper light for use at night and period when natural light is not sufficient. Also audio-visual alarms for reversing of HEMM shall be provided;
- RTO certificate photo copies of all vehicles shall be submitted to manager;
- Regular inspection of HEMM shall be done by the agency's mechanic as directed by the management;
- Machine manufacturers shall be asked to give risk analysis details in respect machines deployed by outside agencies;
- Suitable fire extinguishers shall be provided in every machine;
- Transport system will be deployed in such a way so as to minimize pollution in the mine and keep the environmental status as recommended under the approved EMP

**6.4.6 Stability of Benches, Quarry High Walls and Spoil Dumps**

During quarry operations, it is necessary to adopt suggested mining parameters for the stability of benches, high-walls and spoil dumps. It is also mandatory to examine systematically the fencing of mine working, landslides and cracks between benches. It is required to maintain well graded and wide roads

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on benches keeping the width of working areas sufficient for spreading of blasted rock and movement of the mining and transport equipment.

During actual mining operation, systematic observations and regular monitoring of the condition of benches, high-wall slopes and spoil dumps shall be carried out and the dimensions shall be modified if necessary, to suit the local conditions.

#### 6.4.6 Precautions against Danger of Inundation from Surface Water

- A careful assessment shall be made against the danger from surface water before the onset of rainy season. The necessary precautions shall be clearly laid down and implemented. A garland drain will be provided to drain away the surface rain water from coming into the mine. Garland drain shall be provided around working mines to course the rain water to main streams;
- Inspections for any accumulation of rain water, obstruction in normal drainage;
- Standing order for withdrawal of working persons in case of apprehended danger;
- During heavy rain, inspection of vulnerable points is essential. In case of any danger, persons are to be withdrawn to safer places;

#### 6.4.7 Prevention of Flooding of Equipment Deployed at Bottom Horizons

During the heavy monsoon period, the mining operation in the lower-most benches shall be stopped. Adequate pumping capacity on the basis of historical data of maximum rainfall and distribution of rainfall has to be designed. But in case of unprecedented rainfall, machineries shall be withdrawn from lower benches temporarily and redeployed after dewatering in the lower benches again.

#### 6.4.8 Dust Suppression & Dilution of Exhaust Fumes

The following measures shall be adopted for dust suppression at all quarry working places, dump, haul roads, and near other auxiliary mining operations:

- Water sprinklers shall be deployed in haul road.
- Spraying with water on all working faces.
- While drilling holes, drills with necessary dust extraction arrangement shall be used.
- Leveling of spoil dump surface.
- Maintaining the engine and exhaust conditioners properly, so as to keep emission gases within limits and regular checking of exhaust and recording the same.

#### 6.4.9 Fire Fighting and Fire Prevention

In addition to statutory provisions, the measures for firefighting and prevention of fires will be as follows:

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- Provision of fire extinguishers and fire tenders.
- Emergency organization shall be formed to deal with emergency during fire. The organization shall have names of responsible person along with their telephone numbers. Their duties shall be clearly specified and the persons shall be properly trained. Mock – rehearsals shall be held.

**6.4.10 Measures during Drilling and Blasting**

Following measures shall be taken while drilling and blasting operations in the quarry:

1. Drilling and blasting in quarry shall be done in accordance with the provisions of Mines Act, rules and regulations;
2. Adequate safety measures will be taken during blasting operations in the quarry so that men/machines are not affected;
3. Ground vibration due to blasting will be controlled by following:
  - Reducing the explosive charge per delay.
  - Spacing and burden are to be optimized by the blasting engineer.
  - Reducing the amount of explosive charged per blast.
  - Proper controlled rock movement during blast by using suitable initiating sequence and delay.

**6.5 RISK ASSESSMENT AND DISASTER MANAGEMENT PLAN**

Hazard analysis involves the identification and quantification of various hazards (unsafe conditions) that exist in the mines. On the other hand, risk analysis deals with the identification and quantification of risks, mining equipment and personnel are exposed to, due to accidents resulting from the hazards present in the mine.

Risk analysis follows an extensive hazard analysis. It involves the identification and assessment of risks the neighboring populations are exposed to as a result of hazards present.

In the sections below, the identification of various hazards, probable risks, maximum credible accident analysis, and consequence analysis are addressed which gives a broad identification of risks involved. Based on the risk estimation disaster management plan has to be prepared.

The complete mining will be carried out under the management control and direction of a qualified Mine Manager holding a first class manager's certificate of competency. The DGMS have been regularly issuing standing orders, model standing orders and circulars to be followed by the mine management in case of disaster, if any. Moreover, mining staff will be sent to refresher courses from time to time to keep them alert. However, following natural/industrial hazards may occur during normal operation:

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- Accident due to explosives;
- Accident due to heavy mining equipment; and
- Sabotage in case of magazine.

In order to take care of above hazard/disasters, the following control measures will be adopted:

- All safety precautions and provisions of the Mine Act, 1955, and the Mines Rules, 1955 will be strictly followed during all mining operations;
- Entry of unauthorized persons will be prohibited;
- Firefighting and first-aid provisions in the mines office complex and mining area;
- Provisions of all the safety appliances such as safety boot, helmets, goggles etc. will be made available to the employees and regular check for their use;
- Training and refresher courses for all the employees working in hazardous premises; Under mines rules all employees of mines shall have to undergo the training at a regular interval;
- Working of mine, as per approved plans and regularly updating the mine plans;
- Handling of explosives, charging and blasting will be carried out by competent persons only;
- Provision of magazine at a safe place with fencing and necessary security arrangement;
- Regular maintenance and testing of all mining equipment as per manufacturer's guidelines;
- Suppression of dust on the haulage roads;
- Adequate safety equipment will be provided at explosive magazine; and
- Increasing the awareness of safety and disaster through competitions, posters and other similar drives.

#### 6.5.1 Storage of explosives

An explosive Magazine is established in an area that has provided for clear safety as per the norms of explosive department. The magazine has storing capacity about 95 kg of conventional explosives, about 750 m of detonating fuse, 7,500 m of Safety fuse and about 5000 detonators (ordinary detonators). The capacity of the magazine will be as follows.

Class 2	Nitrate Mixture	-	95 kgs.
Class 6	Division 1 Safety fuses	-	7500 meters.
Class 6	Division 3 Detonator	-	5000 nos.
Class 6	Division 2 Detonating Fuse	-	750 m.

The magazine is as per the design laid down in Indian Explosives Rules and safety distances are maintained as per the above rules.

#### Precautionary measures during blasting

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- (a) Although the mine is far away from any population, precaution will be taken to minimize nuisance caused by blasting. All necessary safety precaution is being taken in accordance with the explosive act. Precaution are also taken as per permission given under MMR 1961 106(2) (b) by Director of Mines Safety for deep hole drilling & Blasting and usage of heavy earth moving machinery.
- (b) Drilling and blasting operations will be carried on strictly as per the provision of MMR, 1961 under the strict supervision of qualified persons. For storage and issue of explosives, the relevant provisions of Indian Explosives Rules, 1983 will be followed. Blasting time is generally fixed at lunch interval or after the working shift-taking. All required precautions, like marking the danger zone with red flags, use of warning signals and providing blasting shelters etc.

**Measures to Prevent Accidents due to Trucks and Dumpers**

- All transportation within the main working area would be carried out under the direct supervision and control of the management;
- The vehicles will be maintained in good repairs and checked thoroughly at least once a week by a competent person authorized for this purpose by the management;
- Broad signs would be provided at each and every turning point specially for the guidance of the drivers;
- To avoid dangers while reversing the vehicles, all areas as far as possible, will be made man free. and
- A statutory provision of the fence, constant education, training etc. will go a long way in reducing the incidence of such accidents.

**6.5.2 Objectives of Disaster Management Plan**

The disaster management plan is aimed to ensure safety of life, protection of environment, protection of installation, restoration of production and salvage operations in this order of priorities. For effective implementation of the disaster management plan, it would be widely circulated and personnel training through rehearsals/drills.

The objective of the disaster management plan is to make use of the resources of the mine and the outside services to achieve the following:

1. Effect the rescue and medical treatment of casualties;
2. Safeguard other people;
3. Minimize damage to property and the environment;

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4. Initially contain and ultimately bring the incident under control;
5. Identify any dead;
6. Provide for the needs of relatives;
7. Provide authoritative information to the news media;
8. Secure the safe rehabilitation of affected area; and
9. Preserve relevant records and equipment for the subsequent inquiry into the cause and circumstances of the emergency.

In effect, it is to optimize operational efficiency to rescue rehabilitation and render medical help and to restore normalcy.

#### ➤ Emergency Organization (EO)

It is recommended to setup an emergency organization. The Mine Manager who has control over the affairs of the mine would be heading the emergency organization. He would be designated as Site Controller and Incident Controller.

Incident Controller shall organize a team responsible for controlling the incidence. Shift In-charge would be the reporting officer, who would bring the incidence to the notice of the Incidence Controller and Site Controller.

Emergency coordinators would be appointed who would undertake the responsibilities like firefighting, rescue, rehabilitation, transport and provide essential and support services. For this purposes, Security in-charge, personnel department, essential services personnel would be engaged. All these personnel would be designated as key personnel.

#### 6.6 SOCIAL IMPACT ASSESSMENT

The impacts of the mining project on socio-economic conditions of the people of surrounding villages are assessed based on interactions with EISQ or its representatives and local population. It is anticipated that the existing project after start of operation will further bring following benefits to the people of the surrounding villages:

- Generation of employment and improved standard of living;
- Increased revenue to the State by way of royalty, taxes and duties;
- Superior communication and transport facilities etc.

In addition to above, due to increase in purchasing power of local habitants, there will be significant change in the socio-economic scenario of the area.



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The existing project will enhance the prospects of employment. Recruitment for the unskilled and semiskilled workers for the given project will be from the nearby villages. The strengthening /development of the basic amenities viz. improvement of roads, transportation, electricity, drinking water, proper sanitation, educational institutions, medical facilities, entertainment, etc. will be carried out as far as possible and requirement through the Gram panchayat. Overall the project after start of operation will change living standards of the people and improve the socio-economic conditions of the area.

#### 6.7 REHABILITATION & RESETTLEMENT ASPECTS

There is no R&R activity will be required to be undertaken since it is an existing but non operative mine without any additional land.

#### 6.8 SOCIAL IMPACT ASSESSMENT, REHABILITATION & RESETTLEMENT (R&R) ACTION PLAN

There will be no resettlement or rehabilitation involved in the project being on meandering course of the river. However, a detailed Socio Economic Assessment has been performed, which is given below:

#### INTRODUCTION

In this section of the report an attempt has been made to measure Socio-economic impact of the proposed Project. The various attributes that have been taken into account are population composition, employment generation, occupational shift, household income, consumption pattern, ethnic issue and law & order problem. The key objective of the study is to assess possible impact of the project on socio-economic life of the people in the neighborhood known as study area.

The objectives of the socio-economic impact assessment are as follows:

- a) To collect baseline data of the study area.
- b) To know the socio-economic status of the people living in the study area of the proposed Gitty/Pathar & Pahadi Morrum mining project.
- c) To assess the possible impact of the project on socio-economic aspects in the study area.
- d) To measure the impact of the project on Quality of life of the people in the study area.

#### APPROACH & METHODOLOGY

- a) A mixture of both quantitative and qualitative approach has been adopted in the current socio-economic study.
- b) The study has been conducted based on primary and secondary data. While primary data has been collected through a sample survey of selected households in the study area, the secondary data has

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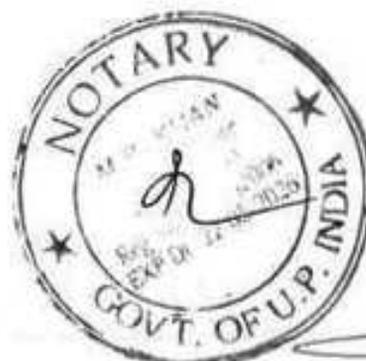
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- been collected from the administrative records of the Government of Uttar Pradesh, Census 2011, district hand books and from the Uttar Pradesh Government portal.
- c) The details regarding population composition, number of literates, workers etc. have been collected from secondary sources and analyzed. Also village/city/town wise details regarding amenities available in the study area have been collected from secondary sources like Census 2011, and analyzed.
  - d) Two stage sampling design has been adopted to select the sampling units. The first stage units are census villages in the rural areas and towns/cities in urban areas. The ultimate stage units are households in the selected villages and towns/cities. Probability sampling has been adopted to select the sampling units.
  - e) Estimation of various parameters has been made based on sample data and bottom top approach has been adopted.
  - f) On the basis of a preliminary reconnaissance survey, two questionnaires were developed to make it suitable to fulfill the objectives of the study. The questionnaires contained both open ended and close ended questions
  - g) The data collected during the above survey was analyzed to evaluate the prevailing socio-economic profile of the area.
  - h) Based on the above data, impacts due to mining operation on the community have been assessed and recommendations for improvement have been made.

## CONCEPT &amp; DEFINITION OF TERMS USED

- a) **Study Area:** The study area, also known as impact area has been defined as the sum total of core area and buffer area with a radius of 10 Kilometers from the periphery of the project site. The study area includes all the land marks both natural and manmade, falling therein.
- b) **QoL:** The Quality of Life (QoL) refers to degree to which a person enjoys the important possibilities of his/her life. The 'Possibilities' result from the opportunities and limitations, each person has in his/her life and reflect the interaction of personal and environmental factors. Enjoyment has two components: the experience of satisfaction and the possession or achievement of some characteristic.
- c) **Household:** A group of persons who normally live together and take their meals from a common kitchen are called a household. Persons living in a household may be related or unrelated or a mix of both. However, if a group of related or unrelated persons live in a house but do not take their meals from the common kitchen, then they are not part of a common household. Each such person is treated as a separate household. There may be one member households, two member households or multi-member households.

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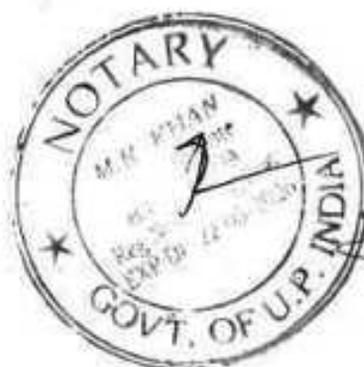
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- d) **Sex Ratio:** Sex ratio is the ratio of females to males in a given population. It is expressed as 'number of females 863 per 1000 males'.
- e) **Literates:** All persons aged 7 years and above who can both read and write with understanding in any language are taken as literate. It is not necessary for a person to have received any formal education or passed any minimum educational standard for being treated as literate. People who are blind but can read in Braille are also treated as literates.
- f) **Literacy Rate:** Literacy rate of population is defined as the percentage of literates to the total population aged 7 years and above.
- g) **Labour Force:** The labour force is the number of people employed and unemployed in a geographical entity. The size of the labour force is the sum total of persons employed and unemployed. An unemployed person is defined as a person not employed but actively seeking work. Normally, the labour force of a country consists of everyone of working age (commencing from 14 to 16 years) and below retirement (around 65 years) that are participating workers, that is people actively employed or seeking employment. People not counted under labour force are students, retired persons, stay-at home people, people in prisons, permanently disabled persons and discouraged workers.
- h) **Work:** Work is defined as participation in any economically productive activity with or without compensation, wages or profit. Such participation may be physical and/or mental in nature. Work involves not only actual work but also includes effective supervision and direction of work. The work may be part time or full time or unpaid work in a farm, family enterprise or in any other economic activity.
- i) **Worker:** All persons engaged in 'work' are defined as workers. Persons who are engaged in cultivation of land or milk production even solely for domestic consumption are also treated as workers.
- j) **Main Workers:** Those workers who had worked for the major part of the reference period (i.e. 6 months or more in the case of a year) are termed as Main Workers.
- k) **Marginal Workers:** Those workers who did not work for the major part of the reference period (i.e. less than 6 months) are termed as Marginal Workers.
- l) **Work participation rate:** The work participation rate is the ratio between the labour force and the overall size of their cohort (national population of the same age range). In the present study the work participation rate is defined as the percentage of total workers (main and marginal) to total population.

**FINDINGS OF THE STUDY**

The field investigation has revealed that the entire study area of the proposed mining project is located in Banda district, Uttar Pradesh. The Sub-district (Tehsil) falling in the study area. The study area comprises of 15 identified villages and there is no urban area.

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## BASELINE DATA OF THE IMPACT AREA

Table 6.2 Demographic Particulars

S.No.	Description	Number	Percentage to respective totals
1	<b>Total Population (District)</b>	74861	100
	Male	40501	54.10
	Female	34360	45.90
2	<b>Sex ratio (No. of females per 1000 males)</b>	863	
3	<b>Total Literates</b>	41514	100
	Male	26171	63.04
	Female	15343	36.96
4	<b>Over all Literacy Rate</b>		66.37
	Male		76.88
	Female		53.81
5	<b>Gender gap in literacy rate</b>		23.06
6	<b>Total Workers</b>	24050	100
	Male	18377	76.41
	Female	5673	23.59
	<b>Total Main Workers</b>	16706	100
7	Male	14968	89.60
	Female	1738	10.40
	<b>Total Marginal Workers</b>	7344	100
8	Male	3409	46.42
	Female	3935	53.58
	<b>Total Agricultural Workers</b>	12639	100
	Cultivators	5624	44.50
9	Agricultural Labours	7015	55.50
	Male workers in total agricultural workers	8724	69.02
	Female workers in total agricultural workers	3915	30.98
	<b>Total Household Industrial Workers</b>	583	100
10	Male	489	83.88
	Female	94	16.12
11	<b>Total Other Workers</b>	10828	100
	Male	9164	84.63
	Female	1664	15.37

Source: Census 2011

Table 6.3 Amenities:

S.no	Amenities	Types	Units
1	Education Facilities		

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		Primary Schools	28
		Middle schools	18
		Secondary Schools	2
		Senior Secondary Schools	1
2	Hospitals		
		Allopathic Hospital	3
		Ayurvedic Hospital	2
		Homeopathic Hospital	1
		Allopathic Dispensary	1
		Ayurvedic Dispensary	1
		Homeopathic Dispensary	1
		PHC	2
		PHSC	1
3	Drinking Water Facilities		
	Variety of purposes	Tap	2
		Well	19
		Tank	3
		Tubewell	19
		Hand pump	
4	Communication Facilities		
		Post Office	7
		Tele Phone	29
5	Transportation Facilities		
		Bus Service	6
		Railway Station	1
6	Banking facilities		
		Commercial banks	4
		Cooperative banks	2
7	Power #		21

# No. of villages provided with the facilities Source: Census 2011

### DEMOGRAPHIC COMPOSITION

#### **Population**

According to Census 2011, the total population of the study area is 74861. As there is no urban area the entire population belongs to rural area. The overall sex ratio has been worked out to 848 females per 1000 males, which is higher than the national average of 933 females per 1000 males. Furthermore, around 17 percent of the total population belongs to Schedule Caste community and the Schedule Tribe population in the study area is very negligible as per Census 2011.

#### **Number of households and household size**

The entire population of the study area has been grouped into 12497 households and the average household size is 6. The household size varies between 6 and 10.

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**Literacy and Literacy rate**

The total number of literates in the study area has been worked out to 12497, which is around 55.45 percent of the total population. The literacy rate of male has been worked out to 63.04 percent as against 36.96 percent for female, creating a gender gap of 23.06 percent.

**Workers and work participation rate**

The total number of working persons in the study area is 24050, which is 32.1 percent of the total population. Among the total workers 69.5 percent are main workers and the remaining 30.5 percent are marginal workers. The percentage of male in the main workers is 89.6 percent, while it is only 46.4 percent in the case of marginal workers. On the other hand, the percentage share of female in the main workers is only 10.4 percent; it is 53.6 percent in the case of marginal workers. This indicates that male dominates the main workers and female dominates the marginal workers.

The Table and the figure below indicate the categorization of workers based on occupation:

**Table 6.4: Categorization of workers on the basis of occupation**

S. No.	Worker category	Number of workers	% to total workers
(1)	(2)	(3)	(4)
1	Agricultural Workers	12639	52.55
a)	Cultivators	5624	23.38
b)	Agricultural labour	7015	29.17
2	Household Industrial Workers	583	2.42
3	Other workers	10828	45.02
	<b>Total</b>	<b>24050</b>	<b>100.0</b>



**Figure 6.4: Categorization of workers on the basis of occupation**



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The classification of workers based on occupation reveals that 52.6percent of the total workers are Agricultural workers. The share of cultivators in the total workers is 23.4 percent and that of Agricultural labours is 29.2 percent. Barely 4 percent of total workers are Household Industrial Workers and 45 percent are 'Other workers' which includes white collar workers, professional workers, shopkeepers, traders and businessmen.

**POSSIBLE IMPACT ASSESSMENT**

**Impact on population composition**

The impact of the proposed mining project on population composition will be marginal as only few skilled and managerial staff will be recruited from outside and the rest will be recruited locally. The impact will be significant if a large number of people from outside get employed in the proposed project. In that case not only the population of the study area will go up but also the skewed sex ratio may make permanent social effects like rise in exploitation of women, higher crime rate, increase in sexual diseases and depression among youth.

**Impact on employment generation**

The proposed Gitty/Patthar & Pahadi Morrur mining project is expected to provide employment opportunities to 24 persons of which three will be skilled workers and the remaining 20 will be unskilled workers. It is understood that all the persons to be deployed for various mining activities will be recruited locally and there is very little scope for migration of people from outside the study area. The employment potentiality of the project is expected to ameliorate the economic condition of the families of those persons who will get employed in the proposed mining project. However, the mining project will provide seasonal employment. Further, the project will provide indirect employment to about 100 people who will be involved in segregation of extracted mining materials, crushing of boulders, petty business and service oriented industries.

**Impact on Health**

Extraction of Gitty/Patthar & Pahadi Morrur may cause serious health risks due to dust generated. The effects will vary depending upon the nature of the dust particles, silica content in it and the size of the particles. Pneumoconiosis is an occupational lung disease often caused to miners, due to the inhalation of dust. Silica content in the Gitty/Patthar & Pahadi Morrur may also lead to Silicosis, which is again an occupational lung disease. Miners may also suffer with occupational respiratory ailments, skin allergies etc. but the same are preventable if exposure is minimized. Further, regular health check-up of the miners is required to prevent any negative impact on their health. In the present mining project, no adverse impact on health is expected if minimum precautions are taken by the miners.

**Impact on income**

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In India poverty is widespread. According to an estimate made by World Bank during 2005, 26 percent of the total Indian population falls below the International poverty Line of US\$ 1.25 a day (PPP, in nominal terms ₹ 21.6 a day in urban areas and ₹ 14.3 in rural areas). Uttar Pradesh is one of the worst poverty ridden states in India, with per capita income of Rs. 26,051. The proposed mining project at Bari is expected to provide casual employment to 42 unskilled workers and 3 skilled workers for a period of 250 days in a year. According to Department of labour, Government of Uttar Pradesh each unskilled worker is eligible to get a minimum basic wage of Rs. 150 per day. In addition, they will get V.D.A amounting to Rs. 65.50 per day. Thus, the total amount an unskilled worker is expected to get is Rs.215.50 per day. Further, a semi-skilled worker will get a basic wage of Rs 164 and V.D.A amounting to Rs.74.69 making the total amount of Rs. 238.69 per day. Lastly, a skilled worker can expect to get a minimum wage of Rs. 176.54 and V.D.A amounting to Rs. 82.92 making the total amount of Rs. 259.46 per day. The impact of the proposed mining activity on household income in the study area is thus positive since it will provide employment to local people, which will result to an increase in household income of those workers who will be recruited for mining operation. However, this impact will be effective for a limited period of 250 days in a year.

**Impact on consumption pattern**

The field survey has revealed that people in the study are poverty ridden. Increased household income may slightly change the consumption pattern of few but majority of the people will continue to be burdened with poverty.

**Impact on road development**

Movement of trucks and other vehicles to and fro the quarry is expected to increase substantially, when mining will start. The existing roads connecting the quarry with the national and state highways are mostly narrow mud roads. There will be mud slide and traffic bottle neck if these roads are not widened and their conditions are not improved by making them paved roads. Hence, there is ample scope for road development in and around the mining areas.

**Impact on law & Order**

As local people will be employed to run the quarry, no law & order problem is envisaged. It is expected that the workers will attend to their duties from their residence and return to their homes after the day's work is over. There would have been law & order problem if the workers were migrants and lived in shanties closed to the mining area. However, to meet any untoward incident one police post may be set up closed to the project area.

**6.9 SUGGESTIONS****Provision of First Aid at mining site**

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Extraction poses serious health risks due to dust. The effects vary depending on the nature of the dust particles, silica content in it and the size of the particle. To meet any emergency during extraction of the minerals from the Gitty/Patthar & Pahadi Morrum mining and subsequent loading in the transport vehicles, provision for First Aid should be made by the project proponent. Before the affected person is reached to a doctor or health institution for necessary medical aid, the miner should be provided with First Aid.

**Tie up with the nearest PHC for medical help**

To meet the medical needs of the mine workers it is suggested that tie-ups with nearest hospital or Primary Health Center (PHC) may be made. Few beds may be exclusively reserved for the mine workers in the above health institutions. This will ensure timely medical aid to the affected persons.

**Supply of Mask, Gloves**

The mine workers are subject to respiratory diseases, muscular-skeletal and gastro-intestinal disorders and skin diseases. For protection from dust it may be made compulsory for all mine workers to wear masks and gloves while working in the mines.

**Regular health checkups**

The miners may be encouraged to undergo health checkups at regular intervals in order to protect themselves from various diseases. The health Department of UP Government must Organize Health Camps at regular intervals preferably in every quarter. Further, free medical facilities may be made available to the workers and their family members.

**Administration of Anti-venom injections**

Provision of Anti-venom therapy must be made available at the near health institution. Anti-venom injections may be administered to the mine workers in case of snake, spider and insect bites, while working in the mines.

**Special telephone number**

A special telephone number may be made available to the mine workers. In case of emergency the miners can dial the above number for medical assistance. Vehicle may be provided to the patients in short duration for shifting to the health institution.

**Special Group Insurance Scheme**

All the mine workers may be covered under a Group Insurance Scheme of LIC or any other Insurance company, if not so far.

**Distribution of Blankets and Quilts**

During winter season the mine workers may be distributed blankets and quilts free of cost.

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### 6.10 CONCLUSIONS

One of most significant mineral contributing to the sustainable development that is "The extraction or recovery of the mineral without limiting the needs and lives of the surrounding flora, fauna and the local villagers/ people residing there as well."

As per the MoEF, New Delhi Gazette dated 14th September 2006 amended in December 2009 April 2011, 16 January, 2016 and 14 August, 2018, the proposed mining project is categorized as category "B1". This mining project has numerous benefits not only on individual level but on a social level too i.e. this project will not only benefit the owners but directly and indirectly will also benefit the people of that region.

This will give employment to thousands of people who are the residents of the principal place of business. Since, manpower is required in every activity and processing from installation of the project to the final product and marketing. The equitable distribution of work according to the skills and potential will be done. Work given will be categorized into skilled, semi-skilled and unskilled employees. Employment preference will be given to the local villagers. The labors will be registered in the district Labor Office as per the U.P. Government Law. Also, according to the Central government policy of labors, medical insurance will be done of all the labors employed. Minimum wage, guaranteed monetary benefits under law will be ensured to the workmen. Safe, healthy, and productive work environment and welfare will be provided to the worker. Abolition of child labor and bonded labor, and rehabilitation of those will be ensured.

Zero accident, safe and productive work places will be encouraged and promoted. Temporary rest shelter, first-aid facilities along with anti-venoms, safe drinking water for the workers/miners and Arrangements for safe and healthy working conditions and facilities of community toilets shall be made available for the workers, medical camps for workers and nearby villagers shall be conducted at regular interval. Workers will be instructed with safety measures and safety equipment's will also be provided. This will provide the employment and aid in managing and surviving their livelihood, reduce the poverty of that region and will provide them a better atmosphere and a better life.

This project will also contribute in rising the economy of the state and ultimately of the nation through the taxes collected through this. This is obvious that taxes collected are used in welfare of the nation and its citizen. A sum of 2% i.e. 16,68,257 of the total project (98,00,000) is also contributed as Corporate Environment Responsibility for difference welfare activities such as roads, plantation, education, sanitation, awareness campaigns, etc.

Last but not the least, this project has also its social impact on the lifestyle, life standards, thinking, personality, etc. of that place. The project will ignite the locals to use their potential and work for improving their economic condition and better life. This project can be a small step in betterment of the local people of that area.

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## CHAPTER- 7 PROJECT BENEFITS

### 7.0 GENERAL

The project is being proposed by Shri Lavlesh Singh S/o- Shri Lochan (U.P.). The estimated project cost is Rs. 9800000/-. The proponent has applied for mining lease in the name of Building Stone Khanda, Gitti, Boulder Mining Project, over an area of 2.0 ha. at Village: Jarr, Tehsil: Naraini & District- Banda, Uttar Pradesh. It has been proposed to collect 20,000 m<sup>3</sup> per year annually as per LOI. As per the MOEF, New Delhi Gazette dated 14th September 2006 amended in December 2009 and April 2011, the proposed mining project is categorized as category "B1".

### 7.1 BENEFITS OF MINING

The required quantity of stone aggregated (a mined out product of stone mining has a very vital role in the infrastructure development of the nation along with other construction materials. Stone mining is minor mineral mining & is usually operated for small leased out area & for small leased period has therefore lot of importance & need to be carried out. There is constant demand of stone aggregate not only for making highways & roads but also in the construction industry as an ingredient of cement concrete. The existence of stone deposits is site specific & mining is to be carried at that location itself along with the crushing unit to meet the demand. Most of the stone quarries are of small magnitude & are operated for the lease period granted by the State Govt. The crushing unit is required to size the stone for different applications.

### 7.2 EMPLOYMENT

The socio-economic conditions of the surrounding villages indicate that employment generation is seasonal. The occupational activities are agriculture, cattle rearing and employment in mines but on daily wages. The mining activity will provide employment to local people which will increase socio-economic status of the area.

### 7.3 IMPROVEMENTS IN PHYSICAL AND SOCIAL INFRASTRUCTURE

The opening of the proposed project will enhance the socio-economic activities in the adjoining areas. This will result in following benefits: -

- a. Improvements in physical infrastructure.
- b. Improvements in Social Infrastructure.
- c. Increase in Employment Potential
- d. Contribution to the Exchequer.
- e. Prevention of illegal mining.
- f. During and Post-mining enhancement of green cover.

#### 7.3(a) IMPROVEMENTS IN PHYSICAL INFRASTRUCTURE



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The opening of the proposed project will improve the physical infrastructure of the adjoining areas. This will include the following: -

- Improved road communication due to opening of the proposed project.
- Strengthening of existing community facilities through the Community Development Programme.
- Creation of community assets (infrastructure) like provision for drinking water, construction of school buildings, village roads/ linked roads, dispensary & health centre, community centre, market place etc.
- Awareness program and community activities, like health camps, medical aids, family welfare programs, immunization camp sports & cultural activities, plantation etc.

**7.3(b) IMPROVEMENTS IN SOCIAL INFRASTRUCTURE**

There will be some obvious changes in various environmental parameters due to mining activity. There will be positive impact in socio-economic area due to increased economic activities, creation of new employment opportunities, infrastructural development and better educational and health facilities. Lessee will also undertake awareness program and community activities like health, camps, medical aids, family welfare camps, AIDS awareness program etc.

**7.3(c) INCREASE IN EMPLOYMENT POTENTIAL:** - There is a possibility of creation of direct and indirect employment opportunities due to working of this mine.

**7.3(d) PREVENTION OF ILLEGAL MINING & CONTRIBUTION TO THE EXCHEQUER:** - Since the quarries will be leased out to successful allottees, mining operation in the state will get legalized and it will fetch income to the state exchequer.

**7.3(e) ENHANCEMENT OF GREEN COVERS**

Plantation/afforestation will be done as per program i.e. along the road sides and near civic amenities, which will be allotted by Government bodies as it is not feasible to plant trees near the mine lease area. Post plantation, the area will be regularly monitored in every season for evaluation of success rate. For selection of plant species local people will also be involved. The management will provide free saplings of fruit and other trees, etc. to local during rain for plantation.

**7.4 HEALTH**

Periodic medical checkups as per Mines Act/ Rules and other social development and promotional activities will be undertaken. All this will lift the general health status of the residents of the area around mines.

**7.5 CORPORATE ENVIRONMENT RESPONSIBILITY**



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Banda district is one of the districts of Uttar Pradesh state of India and Banda town is the district headquarters. The district occupies an area of 2884 km<sup>2</sup>. It has a population of 6,64,064 (2011 census). As of 2011 it is the least populous district of Uttar Pradesh.

One of the greatest problems faced by people is lack of efficient use of resources. Once abundant with forests and vast agricultural lands, now have very little vegetation, because of lack water conservation schemes. Infertile terrain is also one of the major causes. Only 45% of the crop area has any access to irrigation—that too with ground water as the primary source.

Since most of the farmers are already poor and grow crops by taking loans, their inability of payback, forces them to take drastic actions. Local politicians take advantage of illiteracy of farmers in elections. Votes are never casted on the basis of development but caste, creed or religion. Farmers are dying of debts, lands getting barren of over exploitation, uneven rainfalls, increasing poverty and literacy, zero industrial growth. Ignorance by government, corruption has created such a deep web that could not be resolved easily.

The only way to revive this district to its glory is by proper planning at ground level, increase industry increases industrial development and providing water conservation methods on massive scale.

The nearby village does not come under township or urban areas. Since the region is rich in minerals and mainly only undulated land is found, this causes problems for farmers to grow crops and earn their livelihood. The village lives in poverty and nearly 60% of the total population is uneducated. The facility of electricity is minimal, lacks in street lights, if there is no electricity, the whole village sleeps in dark.

Lacks in educational accessory and infrastructure, poor sanitation and shortage of toilets that cause lot of problems for females and males too. There is no shelter for stray animals that destroys agricultural land of farmers.

The part of Corporate Environment Responsibility is one of the major benefits of the project as the 2% of the total cost of the project which is Rs. 16,68,257 (2% of the total Project cost 9800000) considerably a decent amount that will purely go in the welfare of the nearby villages of the project site.



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## CHAPTER - 8

## ENVIRONMENTAL MANAGEMENT PLAN

## 8.0 INTRODUCTION

To mitigate the adverse impacts which are likely to be caused due to the mining operation and overall scientific development of local habitat, environmental management plan (EMP) has been formulated and integrated with the mine planning. The details of the anticipated impacts and mitigative measures have been discussed in Chapter 4 of this report, based on the results of present environmental conditions and environmental impact assessment. The EMP has been made considering implementation and monitoring of environmental protection measures during and after mining operations. The mitigation measures which reduce the impact have already been identified earlier in Chapter 4. To minimize the adverse impact, certain additional EMP is enumerated below for implementation.

## 8.1 ENVIRONMENTAL MANAGEMENT PLAN (EMP)

Proper environmental management plan is proposed for "Building Stone (Khanda, Gitti and Boulder) Mining Project to mitigate the impact during the mining operations.

- a. Building Stone (Khanda, Gitti and Boulder) Mining will be restricted up to the approved depth level by the Department of Geology and Mines Lucknow, Uttar Pradesh.
- b. No activities allowed which caused to increase pollution level during Mining operation like cooking, or burning of woods or open toilet practice will be allowed in the adjoining area.
- c. Prior to mining, short termed awareness program will be conducted for labours to make them aware to way of working.
- d. If some injury to the Person occurs, it will be informed to PMS department and First Aid treatment will be given to person at the project Site.
- e. No tree cutting, chopping, lumbering, uprooting of shrubs and herbs will be allowed.
- f. Maintenance of roads will be done from time to time.
- g. Care will be taken that noise produced during vehicles movements for carrying a Building Stone (Khanda, Gitti and Boulder) Mining Project are within the permissible noise level.

## 8.2 ENVIRONMENTAL MANAGEMENT PLAN IMPLEMENTATION

Environmental Management Plan serves no purpose if it is not implemented with true spirit. Some loopholes in the EMP can also be detected afterwards when it is implemented and monitored. The implementation of periodically monitoring programme prepared and implemented and review the results.



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The major attributes of environment are not confined to the mining site alone. Implementation of proposed control measures and monitoring programme has an implication on the surrounding area as well as for the region. Therefore, mine management should strengthen the existing control measures as elaborated earlier in this report and monitor the efficacy of the control measures implemented within the mining area relating to the following specific areas for eco-friendly mining plan:

- a. Collection of air and water samples at strategic locations with frequency suggested and by analyzing thereof. If the parameters exceed the permissible tolerance limits, corrective regulation measure will be taken.
- b. Collection of soil samples at strategic locations once in every season and analysis thereof with regard to deleterious constituents, if any.
- c. Measurement of water level fluctuations in the nearby ponds dug wells and bore wells.
- d. Measurement of noise levels at mine site, stationary and mobile sources, and adjacent villages will be done quarterly in a year.
- e. Plantation will be done with consultation of Forest department and gram panchayat which possible and plantation made in the gram panchayat land as specified area (because the mining side no place available for plantation due to stony area. The post plantation, the area will be regularly monitored for survival of the new plantation every six months. Ensure the plantation survival rate if less than actual then replacement of the plant by new.
- f. Mine management will be in regular touch with local surrounding villages to update the various developmental schemes made by them. They will also consider any immediate requirement, which could be taken care of in near future.

The Management hired Environmental Management from outsourcing the Environmental cell of the hired Environmental Lab as the Cell is envisaged which will be responsible for monitoring EMP and its implementation. EMC members should meet periodically to assess the progress and analyze the data collected during the month. The EMC will function as per Fig. 5.1 (Chapter 5) and results or environmental monitoring shared with head of the Granite Stone, Crusher Unit.

EMC will be in regular touch with consulting to Unit Head of Environmental Management Cell and will coordinate with State Pollution Control Board, Indian Bureau of Mines and send them any statutory report if required periodically. Any new regulations considered by State/Central Pollution Control Board for the industry will be taken care of by it.

**8.3 PROPOSED SET UP**

In view of monitoring results in the implementation of the environmental management program with consultation and approval by unit head. The said team will be responsible for:

- a. Collecting water and air samples from surrounding area and work zone monitoring for pollutants.
- b. Analyzing the water and air samples.

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- c. Implementing the control and protective measures.
- d. Co-coordinating the environment related activities within the project as well as with outside agencies.
- e. Collecting statistics of health of workers and population of surrounding villages.
- f. Monitoring the progress of implementation of environmental management program.
- g. The laboratory will be suitably equipped for sampling/testing for various environmental pollutants.

**8.4 BUDGET ALLOCATION FOR EMP IMPLEMENTATION**

Annual budget for EMP is very essential for successful implementation of EMP. As there are no pollution control systems, no capital cost of Pollution Control systems are envisaged. Costs will be annual operating costs as given below. The fund allocated will not be diverted for any other purposes and the top management will be responsible for this. The budget will take into consideration the following expenses:

- a. Field cost for monitoring of parameters.
- b. Cost of any defined outsourcing
- c. Cost of chemicals, consumables and transport for data generation
- d. Man power cost for environmental cell
- e. Any other cost as per EC condition.

Table 8.1 Cost of EMP

A) Environment Management Plan (EMP)				
Sr. No.	Particulars	Estimated Cost	Numbers/Quantity	Total Cost
1	Proposed Saplings	Rs. 80 per Sapling	2000 saplings × Rs. 80)	1,60,000
2	Required Tree Guard	Rs. 400 per unit	113 Saplings × Rs. 400	45,200
3	Wire fencing around the area of green belt development	-	1887 sapling (approx. 16983 m <sup>2</sup> (1.6983 Ha approx.) land of Gram Samaj)	42,457
Note: Approx 1.6983 Ha area required for the 1887 sapling planted in spacing of 3x3 m distance.				
4	Water Requirement for plantation (@2000 saplings × 0.5 litres of water* twice per day = 2000 ltrs.)	1.01 per KL or 1.1 per litre	2000 ltrs. Per day × 180 (working days) × 1.1 liter	3,96,000
5	Sprinkling on haulage route for dust suppression (300 m length × 6 m width × 1.5 litres of water per m <sup>2</sup> × 1 times a day = 2.7 KLD (Rs. 1100 for per KLD of water/day)	Rs. 1100 per KL or 1.1 per litre	Rs. 1.1 × 2700 litre of water/day × 180(working days)	5,34,600
Average cost of the EMP Budget				Rs. 11,78,257/-



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B ) Budget allocated for Development Project				
Sr. No.	Particulars	Estimated Cost	Numbers/Quantity	Total Cost
1	Haul Road Maintenance			50,000
2	Installation of hand pump	Rs. 80,000 per hand pump	2 hand pump	1,60,000
3	Construction of (1 Male & 1 Female) Toilet	Rs. 40,000 per Toilet	2 Toilet	80,000
4	Installation of solar street light	Rs. 20,000 per solar street light	5 solar street light	1,00,000
5	Health Check-up camps for the workers/local people.	Twice (at six month) in a year	-	1,00,000
Cost of the Development Budget				Rs. 4,90,000

## 8.5 MONITORING SCHEDULE AND ACTIVITIES

To evaluate the effectiveness of environmental management program regular monitoring of the important environmental activities to be monitored are shown in Table. 5.1. (Chapter 5).

## Cluster EMP

With reference to the Cluster Certificate No: Letter No. 1779/ Khanij-30, Banda Date-05/10/2019 by mining department, Banda-UP. There is six lease falls under the 500-meter cluster area is 8.76 Ha. Described in given table --

S. No	Lease Details (Gata No, Khand No)	Village	Area (Hac)
1	2450 ( Khand No.-01)	Jarar	2.0
2	2450 ( Khand No.-03)	Jarar	2.0
3	2450 ( Khand No.-04)	Jarar	0.60
4	2450 ( Khand No.-05)	Jarar	2.0
5	2451 ( Khand No.-01)	Jarar	2.50
6	2451 ( Khand No.-02)	Jarar	1.21
7	2451 ( Khand No.-03)	Jarar	1.40
8	2451 ( Khand No.-04)	Jarar	0.80
9	2451 ( Khand No.-05)	Jarar	2.75
10	2450 & 2451 ( Khand No.-07)	Jarar	1.21

For the cluster report issued by DMO Banda, U.P. approx 2000 plants will be proposed for plantation around the core and buffer zone of nearby project site as per availability of land as per guideline.

Water Requirement & Its Breakup	
Purpose	Requirement
a. Drinking	$28(\text{Man Power}) \times 10^3 = 280 \pm 100 = 380 \text{ lpcd or } 0.38 \text{ KLD}$
b. Suppression of dust	$300 \text{ m} \times 6 \text{ m} \times 1.5^{\text{DS}} \times 1^{\text{T}} / 1000 = 2.7 \text{ KLD}$
c. Plantation	$2000^{\text{P}} \text{ plants} \times 0.5^{\text{IR}} \times 2^{\text{T}} / 1000 = 2.0 \text{ KLD}$
TOTAL	5.08 KLD approx.

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DW = Amount of drinking water assumed to be required for working personals.  
 DS = Amount of water used for dust suppression.  
 P = No. of plants to be planted.  
 IR = Amount of water required for irrigation of sapling.  
 T = No. of times.

**Water Requirement for the proposed lease:****Plantation Details for proposed lease:**

- Total 2000 Saplings of plants such as *Madhuca longifolia* (Mahua), *Mangifera indica* (Mango), *Syzygium cumini* (Jamun), *buteamono sperma* (Dhak) at a distance of 3.0 m with consultation of gram Pradhan.
- Sapling shall be planted in the monsoon season are suitable environmental conditions and above mention proposed plan are climatically suitable for better survival rate.
- Plantation shall be made by project proponent on the both side of haul road and connecting road to the village Jarar.

Sl. No.	Number of Saplings	Plantation Schedule	
1.	113	(Connecting road to Bhusi Pathraha village) both side of road	All Sapling shall be planted in the 1st year after Environment Clearance
2.	1887	Gram Samj Land	
Total		2000	

- Plantation shall be purposed for the minimization likely impact of the proposed project to the nearby lease area:
- To Minimize Dust suppression, control of Noise level & minimize soil erosion.

**Pit preparation for plantation:**

Sapling shall be done on the both side of haul road and nearby the proposed lease. Before planning of the sapling plantation demarcated spots for pits (distance between two plants) pits were digged out using Earth auger with drill bit upto depth of 5 feet and width of pit 2.5-3 feet. All stony soil digged out and pit filled with one-part agricultural field soil and second part with micorrhiza containing Bio compost fertilizer for better survival of plants. The pit soil wetted with adequate water, after one week selected species of sapling planted followed by tree guards for protection. Then irrigated periodically with monitoring.

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## EIA/EMP CHAPTER-9- EXECUTIVE SUMMARY

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EXECUTIVE SUMMARY

## 9.1 INTRODUCTION OF PROJECT &amp; PROPONENT

The project is being proposed by Shri Lavlesh Singh S/o- Shri Lochan Singh. The estimated project cost is Rs. 98,00,000/-. The proponent has applied for mining lease in the name of Building Stone Khandas, Gitti, Boulder Mining Project, over an area of 2.0 ha. at Jarar, Tehsil: Naraini & District- Banda Uttar Pradesh. It has been proposed to collect 20,000 m<sup>3</sup> per year annually as per LOI. As per the MOEF, New Delhi Gazette dated 14th September 2006 amended in December 2009 and April 2011, the proposed mining project is categorized as category "B1".

## 9.2 LOCATION

The mining project area is located in Gata No. 2450 Khand No.-06 in Village: Jarar, Tehsil: Naraini, District: Banda, Uttar Pradesh. The mining lease / proposed project area falls in Survey of India Toposheet No. 63C/7. The mine lease area is located between as follows:

Project Site co-ordinates	Points. No.	Latitude	Longitude
	A	25° 18'53.47"	80° 21'42.37"
	A1	25°18'52.87"	80°21'43.49"
	B	25° 18' 52.33"	80° 21'44.46"
	B1	25°18'51.19"	80°21'45.05"
	B2	25°18'50.28"	80°21'45.51"
	B3	25°18'49.28"	80°21'46.02"
	C	25°18'48.49"	80°21'46.42"
	C1	25°18'48.95"	80°21'47.58"
	D	25°18'49.51"	80°21'48.79"
	D1	25°18'50.84"	80°21'48.49"
	D2	25°18'52.17"	80°21'48.19"
	E	25° 18'53.56"	80° 21'47.82"
	F	25° 18'54.01"	80° 21'48.96"
	F1	25°18'54.90"	80°21'48.52"
	G	25° 18'55.80"	80° 21'48.04"
	G1	25°18'55.19"	80°21'46.61"
	G2	25°18'54.62"	80°21'45.20"
	G3	25°18'54.06"	80°21'43.81"
Minerals of mine	Building Stone, Khandas & Gitti, Boulder Mining Project Mining Project		
Nearest Railway Station	Dingwahi Railway Station about 12.5 Km North direction from the project site.		
Nearest Airport	Kanpur Airport is 120 Km towards North direction.		
Nearest Highway/State Highway	MDR-11B about 3.13km towards West direction.		

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## 9.3 MINING PROCESS

**Proposed Mining Method:** The proposed mining method will include the following steps:

It shall be opencast semi-mechanized mine. To meet required production wagon drilling with deep hole blasting shall be carried out. The blasted material will be handled with excavator & loaded into dumpers. The height & width of bench shall be kept 6m with face slopes 70°. Secondary blasting with jackhammer drilling shall be carried out if required.

Indicate quantum of development & tonnage & grade of production expected pit wide as in table below:

Year	Overburden (cum)	ROM Gitty, Khanda, Boulder (cum)	Saleable Gitty, Khanda, Boulder (cum)	Sub grade mineral	Mineral reject	Ore to overburden ratio
1st	Nil	20000	20000	Nil	Nil	Nil
2nd	Nil	20000	20000	Nil	Nil	Nil
3rd	Nil	20000	20000	Nil	Nil	Nil
4th	Nil	20000	20000	Nil	Nil	Nil
5th	Nil	20000	20000	Nil	Nil	Nil
Total		100000	100000			

**Drilling:**

The drilling will be done with the help of compressor and jackhammer. In this mine the diameter of hole will be 32-34 mm and depth of hole will be kept from 0.8m to 3.3m in a single hole.

**Blasting:**

The hole will be blasted by using ANFO.

{“Ammonium Nitrate Fuel Oil Explosive (ANFO)” means an explosive mixture of ammonium nitrate and fuel oil which is not cap sensitive, but does not include emulsion or slurry explosive or site mixed explosive (SME)}

**Loading and Transportation:**

Loading of stone block will be done with help of the winch and crane at both face and on truck. Small stone block (patis) is loaded in truck with the help of Excavator. The trucks will be used for transportation of stone block and Khandas from mine site to destination.

*(Note:-Blasting shall be carried out after the permission of District Magistrate, Banda (U.P.) and Directorate General of Mines Safety, Gwalior (U.P))*

*Blasting shall be done under the supervision of blaster and necessary preventive measures shall be taken as per the guidelines of Directorate General of Mines Safety, Gwalior (U.P))*

**No. of Trucks Required (maximum):**

Total capacity of mine	:	20000 m <sup>3</sup> per year
Total no. of working days	:	250 days
Building Stone, Khandas & Gitti, Boulder extracted in a day	:	80 cum
Building Stone, Khandas & Gitti, Boulder extracted in one truck	:	13 cum (approx.)

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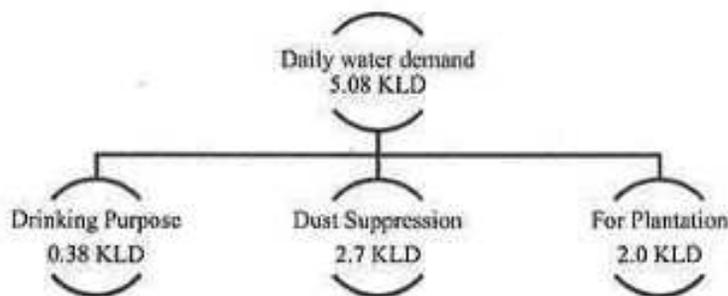



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No. of truck required per day : Approximately 6-7  
Truck/tippers.

**9.4 WATER SUPPLY**

In the projects there is as such no need of water to carry out operations. Water will be required for drinking purpose and dust suppression. The number of working people is 28 so the water required for drinking purpose for the workers will be around 0.38 KLD, for Plantation will be 2.0 KLD & for the dust suppression will be 2.7 KLD, making the total water requirement will be 5.08 KLD. This water will be supplied from the nearby area.

**9.5 BASE LINE DATA**

This section contains the description of baseline studies of the 10 km radius of the area surrounding lease. The site analysis for Air, Water, Noise, Soil, Ecology and Biodiversity and Socio-Economy is already under process and the description given below is the secondary data such that public hearing could be conducted as soon as possible to avert the delay of the project. The intimation of EIA study as required in B1 Category is already been done at the Director & Secretary (SEAC), Directorate of Environment, govt. of U.P, the Regional Officer, Regional Pollution Control Board, District Banda, Uttar Pradesh and District Magistrate District Banda, Uttar Pradesh. The data collected has been used to understand the existing environment scenario around the proposed mining project against which the potential impacts of the project can be assessed.

Environmental data has been collected in relation to proposed mining for :-

- (a) Air
- (b) Noise
- (c) Water
- (d) Soil
- (e) Ecology and Biodiversity
- (f) Socio-economy

Table 9.1: BASELINE ENVIRONMENTAL STATUS

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Attribute	Baseline status
Ambient Air Quality	<p>Ambient Air Quality Monitoring reveals that the minimum &amp; maximum concentrations of PM10 for all the 5 AQ monitoring stations were found to be 76.43 <math>\mu\text{g}/\text{m}^3</math> to 84.91 <math>\mu\text{g}/\text{m}^3</math> &amp; PM2.5 for all the 5 location were found to be 36.38 <math>\mu\text{g}/\text{m}^3</math> to 45.52 <math>\mu\text{g}/\text{m}^3</math> respectively.</p> <p>As far as the gaseous pollutants SO<sub>2</sub> and NO<sub>x</sub> are concerned, the prescribed CPCB limit of 80 <math>\mu\text{g}/\text{m}^3</math> for residential and rural areas has never surpassed at any station. The maximum &amp; minimum concentrations of SO<sub>2</sub> were found to be 07.73 <math>\mu\text{g}/\text{m}^3</math> &amp; 15.28 <math>\mu\text{g}/\text{m}^3</math> respectively. The maximum &amp; minimum concentrations of NO<sub>x</sub> were found to be 17.47 <math>\mu\text{g}/\text{m}^3</math> &amp; 25.28 <math>\mu\text{g}/\text{m}^3</math> respectively. The air environment around this area is also affected by agriculture activities in the area.</p>
Noise Levels	<p><b>Residential Area</b></p> <p>In residential area, noise level is ranging between 50.2 dB (A) to 52.4 dB (A) recorded during day time whereas 39.3 dB (A) recorded to 41.5 dB (A) recorded near project site during night time. During daytime and night time noise level within the residential area are well within the prescribed limit.</p> <p>There are several other sources in the 10 km radius of study area, which contributes to the local noise level of the area. Traffic activities as well as activities in nearby villages and agricultural fields add to the ambient noise level of the area.</p>
Water Quality	<p><b>Ground Water-</b></p> <p>Analysis of results of ground water reveals the following: -</p> <ul style="list-style-type: none"> <li>• pH was found to be ranging between 6.92 to 7.47.</li> <li>• Total hardness varies from 184 mg/l to 324 mg/l.</li> <li>• Total dissolved solids vary from 461 mg/l to 590 mg/l.</li> </ul> <p><b>Surface water-</b></p> <p>The analysis results indicate that the pH ranges between 7.34 to 7.67. Dissolved Oxygen (DO) was observed in the range of 6.6 to 7.6 mg/l against the minimum requirement of 4 mg/l. BOD values were observed to be in the range of 3.20 to 6.0 mg/l. The chlorides and</p>

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	<p>Sulphates were found to be in the range of 59.71 to 106.46 mg/l and 22.13 to 68.72 mg/l respectively.</p> <p>Bacteriological examination of surface water samples revealed the presence of total coliform in range of 440 MPN/100ml to 1450 MPN/100ml.</p> <p>Based on the results it is evident that most of the parameters of the samples comply with 'Category 'B' standards of CPCB indicating their suitability for Outdoor Bathing.</p>
<b>Soil Quality</b>	<p>Monitoring data shows that the texture of soil at all locations is Sandy Loam. The monitoring sites have sand ranging from 46.81 % to 49.89 % in soil samples. Silt content varies from 14.85 % to 18.43 %, while Clay content varies from 32.78 % to 38.84 % in the soil samples.</p> <ul style="list-style-type: none"> <li>• The data shows that value of pH ranges from 7.78 to 8.35 at Project Site indicating that all soil samples are Basic in nature.</li> <li>• Maximum conductivity of 282.8 <math>\mu</math>mhos/cm, minimum conductivity of 319.8 <math>\mu</math>mhos/cm.</li> <li>• Magnesium values ranges from 409.96 meq/100g as lowest 837.15meq/100g as highest.</li> <li>• The average concentration of Phosphorus and Potassium in the soil samples varies from 70.29 to 77.14 mg/kg and 112.92 to 130.56 mg/kg.</li> </ul>
<b>Ecology and Bio-diversity</b>	There are no Ecologically Sensitive Areas present in the study area.
<b>Socio-economy</b>	<p>Will throw opportunities to local people for both direct and indirect employment.</p> <p>The study area is still lacking in education, health, housing, water, electricity etc. It is expected that same will improve to a great extent due to proposed mining project and associated industrial and business activities.</p>

## 9.6 BIOLOGICAL ENVIRONMENT

The proposed project is to mine at Banda district of U.P. Biological diversity comprises the variability of genus, species and ecosystems and is very crucial for maintaining the basic processes on which the life depends. Broadly it can be divided in two types i.e. the floral biodiversity and faunal biodiversity. It

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is a key to the sustainable development as it not only provides the food, fodder, medicine products of commercial and noncommercial use but also provides essential environmental services (Air, water quality, soil fertility, pest & disease control etc). Biological components are one of the most important constituent of our environment. They are the integral part of our life as they provide raw materials for livelihoods, trade, medicines and industrial development. Their conservation and sustainable use is very much essential in today's developmental process. Developmental processes are today's demand and cannot be stopped as such. It has been observed in past that most of our developmental process cost our environment. In order to keep them unaffected or minimum affected while our developmental activity, it is always necessary to know the background of the area from biological point of view. After getting such information we can estimate the impact on the environment by the proposed activities and mitigate them. Similar approach has been adopted for conducting the Biological Environment study for the proposed Project.

**General vegetation of the study area:** The proposed project is to mine at Banda district of U.P, which lies between the Indo-Gangetic plain to the north and the south. Bundelkhand region is a gently sloping upland distinguished by barren hilly terrain with sparse vegetation. Other rivers lying in the district are Ken River. The district cover by river alluvial soil in the north and the remaining part of the district are covered by deep black and sandy red soil.

The proposed project site i.e. core area is the water channel, which has few aquatic plants only. However, the nearby areas i.e. buffer area is having different types of plants (herbs, shrubs and trees). The Banda district covered mixed variety of vegetation mainly bushes. The trees like Shishum, Neem, Mango tree and Jamun tree, Eucalyptus and Babool are also found in sufficient numbers.

**Commonly found flora in the district:-** Dhak (*Butea monosperma*), Teak (*Tectona grandis*), Mahua (*Madhuca indica*), Babool (*Acacia nilotica*) and Tendu (*Diospyros melanoxylon*), Siris (*Albizia lebbeck*), Aam (*Mangifera indica*), Jamun (*Syzygium cumini*), Bail (*Aegle marmelos*), Tut (*Morus alba*), Bargad (*Ficus bengalensis*), Neem (*Azadirachta indica*), Peopal (*Ficus religiosa*), Safedu (*Eucalyptus umbelatus*), Sisam (*Dalbergia sissoo*), etc.

**Commonly found fauna in the district:-** Many domestic mammal species were reported from buffer zone during the field survey. Common domestic animals like Buffalo, cow, goat etc. can be noticed in open grass fields while grazing. Small mammals like Indian palm squirrel (*Funambulus palmarum*) and field mouse (*Apodemus sylvaticus*) are noticed in vicinity of the village. Inquiry from village people regarding wild animals reveals that Monkey (*Macaca mulata*), Indian hare (*Lepus nigricollis*), Mongoose (*Herpestes edwardsii*), Jackal (*Canis aureus*), etc. are often seen in the area.

**Table 9.2 Anticipated impact and mitigation measures for biological environment**

Impact predicted	Suggestive measures
Disturbance to free movement /	• If birds are noticed crossing the core zone, they will not be

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living of wild fauna viz. Birds, Reptiles etc.	<p>disturbed at all;</p> <ul style="list-style-type: none"> <li>• Labourers will not be allowed to discards food, plastic etc., which can attract animals/birds near the core site;</li> <li>• Only low polluting vehicles having PUC will be allowed for carrying mining materials.</li> <li>• Noise level will be maintained within permissible limit (silent zone 50 dB(A) during day time or residential zone 55 dB(A)) as per noise pollution (regulation and control), rules, 2000, of CPCB norms</li> </ul>
Disturbance of riparian ecosystem/wetlands	<ul style="list-style-type: none"> <li>• The riparian ecosystem or the wetlands will not be destroyed by the mine owners</li> </ul>
Monitoring of upstream and downstream water quality	<ul style="list-style-type: none"> <li>• Water quality will be monitored from upstream and downstream area to assess the impact on water quality and plankton. The mining activity will be controlled to maintain the clean water conditions.</li> </ul>

Table 9.3 ANTICIPATED ENVIRONMENTAL IMPACTS AND ACTION PLAN PROPOSED FOR MITIGATION

Environmental Component	Project Activities	Impacts	Action Plan Proposed
Air Quality	Drilling and Blasting	Dust (SPM) and gases (NOx) are produced during drilling and blasting operations	<p>Use of dust aprons on drilling equipment and adopting wet drilling methods.</p> <p>Limited blasting during adverse weather conditions.</p> <p>Optimized confinement of blasting charges.</p> <p>Development of greenbelt.</p>
	Overburden removal, extraction of stone, Loading / unloading of overburden and stone, disposal of overburden at dump site within ML area	Increase in SPM levels in ambient air due to dust generation and NOx concentration levels in ambient air due to vehicular emissions.	<p>Exposed area will be limited to the minimum required for mining operations.</p> <p>Installation of spray systems for dust suppression at dumping yards and stockpiles.</p> <p>Minimization of drop distance for all materials-handling process through appropriate design of operations.</p>
	Transportation of overburden and stone within ML area	Increase in SPM level due to dust generation and NOx	<p>Regular watering of haul and access roads using dedicated water trucks.</p> <p>Maintenance of vehicle.</p> <p>Haul roads will be clearly defined using</p>

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		concentration levels in ambient air due to vehicular emissions.	marker posts so that vehicle traffic are controlled in the area. Roads no longer required will be re-vegetated as soon as possible.  Haul roads to be maintained by surface grading to minimize excessive road surface wearing.
	General equipment operations	Elevated SPM and NOx concentrations in ambient air.	Regular maintenance of all equipment to minimize particulate matter emissions from diesel engines.
	All activities	Excessive occupational exposures to airborne particulate matter.	Occupational exposures to air pollutants will be assessed at regular intervals. Where exposures exceed the permissible limits, appropriate engineered controls, management measures or, as a last resort, the provision of personal protective equipment will be implemented.
Noise Levels and Ground Vibrations	Blasting	High impulsive noise levels, overpressure and ground vibrations impacts and noise related community annoyance	Prior to commencement of normal blasting operations (if required), a series of trial blasts will be undertaken to facilitate accurate prediction of impacts from normal blasting. This will require monitoring of overpressure and ground vibration in at least two locations surrounding the mine. The monitoring will continue throughout the duration of the blasting program. Where monitoring determines a significant impact, blast designs may need to be modified and scheduled to occur during non-enhancing weather conditions.
	General activities including machine operations and transportation of overburden and stone within the ML area.	Increase in noise levels occupational hazard due to noise exposures and increase in ambient noise levels.	An analysis of measured noise levels, meteorological parameters, and site operations will be undertaken to determine the risk of excessive noise impacts during operations. A detailed review of noise emissions and impacts from project activities will be carried out at regular intervals during the project life.  Occupational noise exposures will be assessed. Where Leq (8 hour) noise exposures have the potential to exceed 85 dB(A), mitigation through engineered noise controls, management measures or, as a last resort, through the provision of personal protective equipment will be implemented.  Regular noise monitoring will be carried-out.



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			Procedures to document and act upon community complaints will be implemented.
Water Resources and Quality	—	Changes to hydraulic regime.  Deterioration in surface/ground water quality of receiving body.	Mining will not intersect water table. Garland drains will be constructed to divert the surface water so as not to enter the mine. Diverted water will be joined to the nearest water course so that there is hardly any change to hydraulic regime.  Mine water will be collected in the mine sump which will act as settling tank and then discharged to the surface.
	Water required for mine (dust suppression systems, workshop, domestic facilities and greenbelt development) and domestic consumption at colony	Depletion of natural resource.  Reduction in groundwater availability for domestic and for irrigation purposes.  Changes to hydraulic regime.	Mine sump water will be utilized for industrial purpose in the mine as far as possible.  Water conservation methods will be practiced.  Rainwater collection and reuse system will be implemented.  The volumes of water supplied to the site through extraction from dug bore wells will be monitored to ensure drawdown do not affect adjacent water users.
Hydrogeology and Drainage pattern	Mining activities	May change regional hydrology and drainage pattern of the area.	Garland drains will be constructed all around the mine to lead the surface water to the nearest water course so that there is hardly any change to Hydrogeology and drainage pattern.
Land use and Soil Characteristics	Commencement of Mining operations.	Existing landuse of the core zone will alter.  Impact due to clearing of existing plantations in the mining area.  Impact due to settling of air borne dust.  Land degradation due to disposal of solid wastes.  Exposure of top soils to wind and	Prior to each phase of mining, update and implement the relevant EMP to include phase-specific control and mitigation measures.  Vegetation clearance to occur immediately prior to soil and overburden stripping.  Install diversion drains and sediment fences prior to starting earthworks  Minimize the area and time of ground disturbance by progressively rehabilitating disturbed areas  Dust suppression on exposed areas using water trucks and automatic sprinkling systems  Contour overburden dumps to minimize

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		water erosion.	erosion
Flora and Fauna	Mine development and operations	Displacement or loss of existing fauna.  Loss of vegetation	Disturbed areas will be stabilized as soon as possible. Locally native species will be used in landscaping works for non-hardstand areas.  Compact fencing around mine area will be provided to obstruct unusual entry of animals
Environmental Pollution, Health, Safety	Overall Mining operation	Annoyance, sleep disturbance, and health impacts from noise emissions that exceed the safe limits.  Community annoyance from dust deposition. Potential for risk of harm to personnel and the local community.  Contamination of land and water through inappropriate disposal of waste products, including sewage and hazardous wastes. This may result in adverse impacts on surface water users.	Implementation of noise and fugitive dust emission controls and management measures.  Implementation of water quality management, conservation and control measures.  Development of an emergency response plan that includes installation of emergency response equipment to combat events such as fire. All personnel required to handle hazardous materials will be provided with personal protective equipment suitable for the hazardous material being handled.  On-site first aid facilities will be provided and employees will be extended to the local community in emergencies.
Socio-economic Aspects	Mining operations	Increase in employment opportunities both direct and indirect thereby increasing economic status of people of the region.	Increase of direct employment will be progressive during operational phase of project whereas there will also be financial improvement to the local population who are engaged and would engaged himself in the services to the transport sectors because of increased transportation vehicle and meeting the allied facilities such as carries and vehicle repairing outlets.

## 9.7 LAND ENVIRONMENT

This section includes the study of natural features like topography, climate etc. Land use/ Land cover map.

## Topography

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The district largely consists of irregular uplands with outcrops of rocks intermingling mostly with lowlands, frequently under water during rainy season. The Baghein River traverses the district from south-west to north-east. The tract lying to the right of the river is intersected by numerous smaller river and rivulets, but to its left is a flat expanse, most part of which is made up of Mar and Kabar soils, eroded and converted into ravines along the banks of the rivers Ken and the Yamuna.

**Rainfall & Climate:**

The average annual rainfall is 902.00 mm. The climate is typical subtropical penetrated by long and intense summers. About 80% of the annual rainfall is received from south-west monsoon. May is the hottest month with mercury shooting upto 47.0°C. With the advance of monsoon by mid-June, temperature starts decreasing. January is usually the coldest month with temperature going upto 5.8°C. The relative humidity is highest in August about 85% and lowest in April.

**Impact on Land Use**

The area is having undulating surface surrounded by agricultural and barren land. The area is partially covered by alluvial soil. An old working pit is present in NW of the area. The proposed area and surround areas are mostly private land owned by individual. Presently the existing quarry lies in 1.21 ha area.

The potential adverse impact of opencast stone mining will be in the form of change in land use pattern. So reclamation of mined out land will be given due importance as a step for sound land resource management in the form of reclaimed land and water body.

No adverse impact is anticipated on land use of buffer zone associated due to the existing stone mine project, as all the activities will be confined within the project site only. Stone mined out from the mine is being and continued to be used as boulders of different sizes for Dam construction, embankment works etc. After crushing into different sizes of aggregates from 6mm to 63mm, the product can be used in construction and road projects.

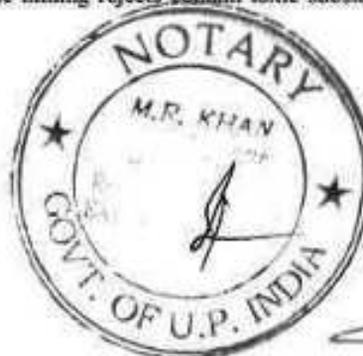
**9.8 WATER ENVIRONMENT****9.8.1 Impact on Surface Water**

At present scenario there is no any seasonal or perennial source of water is passing through the lease area. During the rainy season, there may be accumulation of surface water, which is proposed to be pumped out to keep the working area dry and it is being utilized for dust suppression.

The stone mineral found in the area is non-toxic in nature. There will be no outside discharge of liquid effluent from the mine site. It is, therefore, apparent that there will be negligible impact of mining on the surface water regime.

**9.8.2 Impact on Ground Water**

Ground water pollution can take place only if the mining rejects contain toxic substances, which get



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leached by the precipitation water and percolate to the ground water table thus polluting it. Any nearby wells or other sources of water can be rendered unfit for drinking and even for industrial use.

This is not the case with this deposit as the mineral or topsoil does not contain any harmful ingredients. Moreover, stone constitutes of fairly inert and chemically non-reactive ingredients.

It is noticed from nearby dug wells and bore wells that the ground water table is available below 30 meters of the normal surface level. As the mining operation has been proposed to be carried out much above the ground water table there would not be any adverse effect on the ground water.

The ground water available in the nearby well, borewell is analysed and it is found within the prescribed standard of CPCB and it is also being and will be continued to be adopted the remedial measures to keep the water quality within the prescribed standard.

### 9.8.3 Mitigation Measures for Water Environment

- Adequate control measures are being and will be continued to be adopted to check not only the wash-off from soil erosion but also uncontrolled flow of mine water. The measures to be adopted are Garland drain will be provided at the toe of the dumps, to channelize the runoff water from dumps into the water reservoir (i.e. mined out pits) & around the active pits to restrict rainy water from entering in to the working pit.
- Retaining walls having water holes will be provided along the toe of the dumps to avoid the soil wash out & around the active pit to prevent fall of human/animal in to the working pit.
- Dumps slopes are being stabilized followed by plantation to avoid soil erosion.
- No waste water is being discharged from the mining activities.

## 9.9 AIR ENVIRONMENT

### Anticipated Impacts and evaluation

Information on air quality was studied and various modeling techniques predicted that the mining activity is not likely to affect the air quality in a significant manner. However, loading of Granite, Khandas & Gitti, Boulder, its transportation and unloading operations may cause some deterioration in air quality due to handling dry materials. In the present case, only wet materials will be handled, thus eliminating problems of fugitive dust. Also, the collection and lifting of minerals will be done manually without any blasting. Therefore, the dust generated is likely to be insignificant as compared to mining processes involving drilling, blasting, mechanized loading etc.

### Air Modeling

In general, mining operations generate substantial quantities of airborne Respirable dust, which may lead to the development of Respirable diseases in mine workers. The increasing trend of mining leads to release of huge amount of dust. These air borne dust particles, generally below 100 microns in size, are

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nuisance particulates and cause health hazards as an ill effect of mining activities. Extraction activities like drilling, blasting, material handling and transport are a potential source of air pollution. Therefore, a detailed study on emission sources and quantification of pollutant concentration by means of dispersion modeling is required to assess the environmental impact of a mine. On the basis of the predicted increments to air pollutant concentrations, an effective mitigation and environmental plan can be devised for sensitive areas. In case of Granite, Khandas & Gitti, Boulder mining, as there is no blasting and drilling activities, the impacts may only be caused by material handling and transportation activities of mostly wet Granite, Khandas & Gitti, Boulder and the same are minimal.

FUGITIVE DUST- MODELING

Air quality modeling was done using line source model as published by USEPA "Workbook of Dispersion Modeling" by Turner, for transportation through roads and the empirical emission factor equations from USEPA. Emission factors to be used in Line source Dispersion equation is adopted from formula as given below:

$$E = k * (1.7) * (s/12) * (S/48) * (W/2.7)^{0.7} * (w/4)^{0.5} * (365-p/365) \text{ kg/VKT} \text{----- (1)}$$

Where

E = Emission Rate (kg/VKT)

k= Particle size multiplier = (0.36)

s = Silt Content of the Road surface material (%) = 10%

S = Mean Vehicle Speed (km/hr) = 20 km/hr

W=Mean Vehicle Weight (tonnes) = 10 tonnes

w= Mean number of wheels = 8

p= Number of days with at least 0.254 mm of precipitation per year = 60

f = frequency of Vehicle movement in no per hour = 2 vehicles / hour

Thus using equation (1)

$$E = 0.61766 \text{ kg/VKT}$$

$$E = 0.0003 \text{ g/sec/m}$$

Concentration of the fugitive dust was calculated using the empirical equations for unpaved roads published by USEPA- AP42. The Concentration of the fugitive Dust is given below:

$$C = (2/\pi)^{1/2} (E / \sigma z v) \text{ Exp} - [(h^2) / (2 \sigma z^2)] \times 10^6 \text{----- (2)}$$

Where

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$C$  = Hourly Concentration in microgram/  $m^3$

$E$  = Emission Rate = 0.0003 g/sec/m

$u$  = Wind Speed = 4 m/s

$h$  = 0 m

Modeling was done for an infinite line source assuming unpaved road. For conservative calculation wind was assumed to blow at a velocity of 4 m/s perpendicular to the road. The results for 24 hourly concentration values are given in the Fig. 4.1:

#### Mitigation measures

The only air pollution sources are the road transport network of the trucks/dumpers. The dust suppression measures like the following will be resorted:

- Water sprinkling will be done on the roads regularly. This will reduce dust emission further by 75%.
- Care will be taken to prevent spillage by covering the carrying vehicles with tarpaulin and sprinkling of water, if dry.
- Fortnightly scraping of road in order to keep the roads almost leveled. This will ensure smooth flow of vehicles and also prevent spillage.
- Overloading will be kept under check by giving prior awareness.
- Proper Tuning of vehicles to keep the gas emissions under check.
- Plantation of trees along the road sides helps to reduce the impact of dust in the nearby villages.

#### 9.10 NOISE ENVIRONMENT

Day and night sound pressure levels Ldn is often used to describe the community noise exposure, which includes 10 dB (A) night time penalty.

The monitored noise level during the base line period within the core zone and buffer zone has been found to be within the prescribed CPCB standards which will also be confined within the limit by undertaking more plantations within the mining area especially in the direction of habitation to act as a sound barrier.

##### 9.10.1 Impact due to Ground Vibrations

Ground vibration, fly rock, air blast, noise, dust and fumes are the deleterious effects of blasting on environment. The explosive energy sets up a seismic wave in the ground, which can cause significant damage to structures and disturbance to human occupants. It causes major damages to the pit configuration too.

When an explosive charge is fired inside the blast hole, it is instantly converted into hot gases, which exert intense pressure on the blast hole walls. High intensity shock waves propagate radially in all directions and cause the rock particles to oscillate. This oscillation is felt as ground vibration. The

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proposed mining operations using deep hole drilling and blasting using delay detonators are bound to produce ground vibrations.

Ground vibration from mine blasting is expressed by amplitude, frequency and duration of blast. The variables, which influence ground vibrations, are controllable and non-controllable. The non-controllable variables include general surface terrain, type and depth of overburden and wind. Similarly, the controllable variables include type of explosives, charge per delay, delay interval, direction of blast progression, burden, spacing and specific charge and coupling ratio.

The oscillation of rock particles is called Particle Velocity and its maximum value is called Peak Particle Velocity (PPV), which is measured in millimeter per second.

As the distance increases, the PPV value is likely to reduce. The ground vibrations generated by blasting during the mining operations will be well within the standards prescribed by DGMS by controlled blasting. Ground vibrations are not likely to affect the structures in the vicinity of mine lease area.

By adopting controlled blasting, the problems will be greatly minimized at mines. The impacts are also minimized by choosing proper detonating system, optimizing total charge and charge/delay.

#### 9.10.2 Measures for Minimizing Adverse Impacts

##### > Noise Control Measures

- The following control measures are being and will be continued to be adopted to keep the ambient noise levels well below the limits:
- Drilling is being carried out with the help of sharp drill bits which will help in reducing noise.
- Secondary blasting is being totally avoided and Hydraulic rock breaker is being used for breaking boulders.
- Controlled blasting with proper spacing, burden, stemming and optimum charge/delay is being maintained.
- The blasting is being carried out during favorable atmospheric condition and less human activity timings;
- Minimum quantity of detonating fuse is being consumed by using alternatively Excel non-electrical initiation system;
- Proper maintenance, oiling and greasing of machines at regular intervals is being done to reduce generation of noise.
- The prime movers/diesel engines are properly maintained;
- Provision of sound insulated chambers for the workers deployed on machines (HEMM) producing higher levels of noise;

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- Proper designing of plant & machinery by providing inbuilt mechanism like silencers, mufflers and enclosures for noise generating parts and shock absorbing pads at the foundation of vibrating equipment.
- Green Belt/Plantation is being developed around the mining activity area and along haul roads. The plantation minimizes propagation of noise.
- Personal Protective Equipment (PPE) like ear muffs/ear plugs is being provided to the operators of HEMM and persons working near HEMM; and
- Reducing the exposure time of workers to the higher noise levels.
- Periodical monitoring of noise will be done.

## ➤ Measures to Control Ground Vibration

The blasting operations in the mine is carried out by deep hole drilling and blasting using delay detonators, which reduce the ground vibrations. The measures that are generally followed and currently proposed for abatement of ground vibration, air blast and fly rocks are detailed below:

- Proper quantity of explosive, suitable stemming materials and appropriate delay system are being adopted to avoid overcharging and for safe blasting.
- Adequate safe distance from blasting is being maintained.
- Blasting operations is carried out only during day time.
- The charge per delay is minimized and preferably more number of delays is used per blasts;
- During blasting, other activities in the immediate vicinity is temporarily stopped;
- Drilling parameters like overburden, depth, diameter and spacing is properly designed to give proper blast.

## 9.11 TRAFFIC ANALYSIS

The lease area is connected to MDR 11B about 3.0 km towards East direction from the project site. These roads are wide enough to facilitate easy and smooth movement of heavy duty trucks. The Detailed traffic study has been discussed under Chapter 4.

## 9.12 SOCIO-ECONOMIC ENVIRONMENT

The implementation of the Project will generate both direct and indirect employment. Besides, it will provide a check on existing system of mining operation. Since the quarries will be allotted on lease basis, mining operation will be legally valid and it will bring income to the state exchequer. The project will also provide impetus to industrialization of the area. Where transfer of boulders into bujri is necessary crushing units will come up. It is expected that intending entrepreneurs will venture to set up micro and small scale units in the near future making the area a mixed society, dependent on industry, trade and business. At present agriculture is the main occupation of the people as more than half of the population depends on it. With the implementation of the proposed mining project the occupational

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pattern of the people in the area will change making more people engaged in industrial and business activities rather in agriculture. Thus there will be a gradual shifting of population from agriculture to mining and industry. Further, the mining and industrial activities in the area may lead to rapid increase in population and thereby urbanization. Due to urbanization of the area, employment opportunities will further increase.

**9.13 ENVIRONMENTAL MANAGEMENT PLAN (EMP)**

Proper environmental management plan are proposed for "Granite, Khandas & Gitti, Boulder Mining Project" to mitigate the impact during the mining operation.

- a. Proper blasting pattern will be followed by the blasters for effective rock fragmentation and generation of minimal fine dust to open atmosphere.
- b. Regular water sprinkling at dust emanating sources viz., drilling, blasting and transportation through haulage roads, etc. will be carried out.
- c. Periodic maintenance of transport vehicles and equipment will be carried out to check emission levels.
- d. Greenbelt will be developed that will act as a pollution sink.
- e. Overloading of trucks will be avoided and carrying the rocks in covered trucks will be taken up to minimize pollution level.

**9.14 ENVIRONMENTAL MANAGEMENT PLAN IMPLEMENTATION**

Environmental Management Plan serves no purpose if it is not implemented with true spirit. Some loopholes in the EMP can also be detected afterwards when it is implanted and monitored. Thus, an implementation and monitoring programme has to be prepared.

The major attributes of environment are not confined to the mining site alone. Implementation of proposed control measures and monitoring programme has an implication on the surrounding area as well as for the region. Therefore, mine management will strengthen the existing control measures as elaborated earlier in this report and monitor the efficacy of the control measures implemented within the mining area relating to the following specific areas for eco-friendly mining:

- a. Collection of air and water samples at strategic locations with frequency suggested and by analyzing thereof. If the parameters exceed the permissible tolerance limits, corrective regulation measure will be taken.
- b. Collection of soil samples at strategic locations once in every two years and analysis thereof with regard to deleterious constituents, if any.
- c. Measurement of water level fluctuations in the nearby ponds dug wells and bore wells.

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- d. Measurement of noise levels at mine site, stationary and mobile sources, and adjacent villages will be done in every six months for first two years, thereafter once a year.
- e. Plantation/afforestation will be done as per program i.e. road sides and near civic amenities, which will be allotted by Government bodies. Post plantation, the area will be regularly monitored in every two years for evaluation of success rate. For selection of plant species local people will also be involved.

## 9.15 MONITORING SCHEDULE AND PARAMETERS:

Table 9.5 Monitoring Schedule and Parameters

S No	Description of Parameters	Schedule and Duration of Monitoring/Execution
1	Air Quality: a) In the vicinity of the mine b) In the vicinity of the transportation Network c) Dust suppression on roads d) Scraping/ bulldozing of road to shift accumulated dust to the sides	24 hourly samples twice a week for one month in each season except monsoon season  Regularly in non- monsoon months and whenever occurrence of fugitive dust takes place Fortnightly
2	Water Quality near or around the site: a) Surface water quality b) Ground water quality	Once in a season for 4 seasons in a year
3	Ambient Noise Level	Twice a year for two years & then once a year
4	Soil Quality	Once in two years on project monitoring area
5	Inventory of Flora(tree plantation, survival etc.) & Fauna	Once in two years on project monitoring area
6	Socio-economic condition of local, population, physical survey	Once in 3 years

## 9.16 BENEFITS OF MINING

- i. Generating useful economic resource for construction.
- ii. Generating employment.
- iii. Improvement in socio economic conditions of the people of the study area.
- iv. Improvements in physical infrastructure.
- v. Improvements in Social Infrastructure.
- vi. Increase in Employment Potential.
- vii. Contribution to the Exchequer.
- viii. Prevention of illegal mining.
- ix. During and Post-mining enhancement of green cover.

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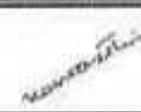
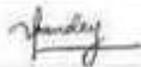
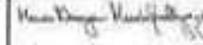
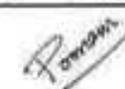
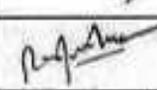
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## DISCLOSURE OF ENVIRONMENTAL CONSULTANTS

Environmental Consultant	ENVIRONMENTAL RESEARCH AND ANALYSIS, LUCKNOW
Name of Environment Consultant	Dr. V. K Awasthi (EIA Coordinator) QCI NABET Accredited Environmental Coordinator Certificate No- NABET/EIA/1922/ RA 0200
Address	Flat No-203, 2nd Floor, Yash Silver Height (opposite Badshah Nagar Railway station) Mahanagar, Lucknow - 226021, U.P
E-mail	eraenvcl@gmail.com
Phone	0522-4078000, +917080999935, 9565508271

## Environment Coordinator, Functional Area Experts, Functional Area Associate

S. No	Functional areas	Name of the expert/s	Signature and date
1	SC, WP	Dr. V. K Awasthi (EIA Coordinator)	
2	AP, AQ, RH	Dr. Gautam K. Banerjee	
3	SHW, NV	Mr. Vikas Pandey	
4	SE	Dr. Vandana Singh	
5	HG, GEO	Mr. Manas N. Mukhopadhyay	
6	WP	Poonam Yadav	
7	LU	Rajveer Singh	
8	EB	Dr. Seema Srivastava	

## Declaration

I declare that above mentioned experts coordinated the preparation of EIA/EMP under the supervision of Dr. V.K Awasthi. For any details one may contact me as a Director of Environmental Research and Analysis Lucknow.

*Amrendra Kumar*

A. K. Tripathi

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*[Signature]*

(Director)



## National Accreditation Board for Education and Training



### Certificate of Accreditation

#### Environmental Research and Analysis, Lucknow

Flat No- 203, Second floor, Yash Silver Height, Opposite site Badshah Nagar Railway station,  
Mahanagar, Lucknow (U.P.) -226006

The organization is accredited as Category-B under the QCI-NABET Scheme for Accreditation of EIA  
Consultant Organization, Version 3: for preparing EIA-EMP reports in the following Sectors -

Sl. No.	Sector Description	Sector (as per)		Cat.
		NABET	MoEFCC	
1.	Mining of Mineral- Opencast only	1	1 (a) (i)	B

Note: Names of approved EIA Coordinators and Functional Area Experts are mentioned in IAAC MoM dated Feb 16, 2021 posted on QCI-NABET website.

The Accreditation shall remain in force subject to continued compliance to the terms and conditions mentioned in QCI-NABET's letter of accreditation bearing no. QCI/NABET/ENV/ACC/21/1707 dated April 19, 2021. The accreditation needs to be renewed before the expiry Environmental Research and Analysis, Lucknow following due process of assessment.

Sr. Director, NABET  
Dated: April 19, 2021

Certificate No.  
NABET/EIA/1922/RA 0200 (Rev 01)

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Jan 21, 2024

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## EIA/EMP CHAPTER-11- CONCLUSION OF THE PROJECT

## CHAPTER-11

## CONCLUSION OF THE PROJECT

## 1.0 INTRODUCTION

The Building Stone Khanda, Gitti, Boulder Mining is one of most significant mineral contributing to the sustainable development that is "The extraction or recovery of the mineral without limiting the needs and lives of the surrounding flora, fauna and the local villagers/ people residing there as well."

It has been proposed to collect approximately 20000 m<sup>3</sup>/year material annually.

As per the MoEF, New Delhi Gazette dated 14th September 2006 amended in December 2009 April 2011, 16 January, 2016 and 14 August, 2018, the proposed mining project is categorized as category "B1".

This Building Stone Khanda, Gitti, Boulder Mining Project has numerous benefits not only on individual level but on a social level too i.e. this project will not only benefit the owners but directly and indirectly will also benefit the people of that region.

This will give employment to thousands of people who are the residents of the principal place of business. Since, manpower is required in every activity and processing from installation of the project to the final product and marketing. The equitable distribution of work according to the skills and potential will be done. Work given will be categorized into skilled, semi-skilled and unskilled employees. Employment preference will be given to the local villagers. The labors will be registered in the district Labor Office as per the U.P. Government Law. Also, according to the Central government policy of labors, medical insurance will be done of all the labors employed. Minimum wage, guaranteed monetary benefits under law will be ensured to the workmen. Safe, healthy, and productive work environment and welfare will be provided to the worker. Abolition of child labor and bonded labor, and rehabilitation of those will be ensured.

Zero accident, safe and productive work places will be encouraged and promoted. Temporary rest shelter, first-aid facilities along with anti-venoms, safe drinking water for the workers/miners and

Arrangements for safe and healthy working conditions and facilities of community toilets shall be made available for the workers, medical camps for workers and nearby villagers shall be conducted at regular interval. Workers will be instructed with safety measures and safety equipment's will also be provided.

This will provide the employment and aid in managing and surviving their livelihood, reduce the poverty of that region and will provide them a better atmosphere and a better life.

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**EIA/EMP CHAPTER-11- CONCLUSION OF THE PROJECT**

This project will also contribute in rising the economy of the state and ultimately of the nation through the taxes collected through this. This is obvious that taxes collected are used in welfare of the nation and its citizen. A sum of Rs. 2% i.e. 16,68,257 of the total project (98,00,000) is also contributed as Corporate Environment Responsibility for difference welfare activities such as roads, plantation, education, sanitation, awareness campaigns, etc.

Last but not the least, this project has also its social impact on the lifestyle, life standards, thinking, personality, etc. of that place. The project will ignite the locals to use their potential and work for improving their economic condition and better life. This project can be a small step in betterment of the local people of that area.

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Minutes of 747<sup>th</sup> SEAC-1 Meeting Dated 11/05/2023

The 747<sup>th</sup> meeting of SEAC-1 was held in the Directorate of Environment, U.P. through dual-mode (physically/virtually) at 10:00 AM on 11/05/2023. Following members participated in the meeting:

1.	Shri Rajive Kumar,	Chairman, SEAC
2.	Dr. Ratan Kar,	Member, SEAC-1
3.	Dr. Brij Bihari Awasthi,	Member, SEAC-1
4.	Shri Umesh Chandra Sharma,	Member, SEAC-1
5.	Shri Ashish Tiwari,	Member-Secretary, SEAC-1

The Chairman welcomed the members to the 747<sup>th</sup> SEAC-1 meeting which was conducted via dual-mode (virtually/physically). Nodal Officer, SEAC-1 informed the committee that the agenda has been approved by the Member Secretary, SEAC-1/Director Environment. Nodal Officer, SEAC-1 placed the agenda items along with the available file and documents before the SEAC-1.

1. Riverbed "Morrum Mining Project" on the riverbed of Son River at Arazi No.- 385, (Khand- 3), Village- Barhmori, Tehsil- Obra, District- Sonbhadra, Shri Vijay Sen, M/s Mastergenie Services Private Limited, Area- 12.146 Ha., File No. 7758/ 6938/ Proposal No. SIA/UP/MIN/424703/2023

**RESOLUTION AGAINST AGENDA NO. 01**

The Secretariat informed the committee that the above project has already been taken in 741<sup>st</sup> SEAC meeting dated 24/04/2023 and recommended for grant of environmental clearance. Hence, no action is required in the matter at SEAC level.

2. "Building Stone Khanda, Boulders, Ballast (Gitti) Mining Project" located at Gata No. -989 (Khand No.- 04), Village-Makarbai, Tehsil- Sadar & District- Mahoba, Shri Anant Ram Shukla, Area- 0.809 ha., File No. 7768/ 6890/ Proposal No. SIA/UP/MIN/425239/2023

**RESOLUTION AGAINST AGENDA NO. 02**

The project proponent or any responsible person from project proponent side did not appear in the meeting. Hence, the committee directed to defer the matter from the agenda. The file shall not be treated as pending at SEAC. The matter will be discussed only after submission of online requests from project proponent on prescribed online portal.

3. Building Stone, Khandas & Gitti, Boulder Mining Project at Gata No.- 2450, Khand No.- 06, Village- Jarar, Tehsil: Naraini & District- Banda, Shri Lavlesh Singh, Area- 2.0 ha., File No. 7770/ 5043/ Proposal No. SIA/UP/MIN/425411/2023

The consultant informed the committee that they are strictly following the rules, regulations and other instructions of QCI/NABET. A presentation was made by the project proponent along with their consultant M/s Environmental Research and Analysis, Lucknow (U.P). Based on the documents submitted and presentation made by the project proponent along with the consultant, the following facts have emerged: -

1. The environmental clearance is sought for Building Stone, Khandas & Gitti, Boulder Mining Project at Gata No. 2450, Khand No. 06, Village- Jarar, Tehsil: Naraini & District- Banda, U.P., (Leased Area- 2.0 ha.).
2. The Terms of Reference in the matter were issued by SEIAA, U.P vide Letter No. 468/Parya/SEIAA/5043/2019, Dated 13/12/2019.



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3. The Public Hearing was organized on 28/03/2023. Final EIA Report was submitted by the Project Proponent on 10/04/2023.

4. Salient features of the project as submitted by the project proponent:

1. On-line proposal No.	SIA/UP/MIN/425411/2023		
2. File No. allotted by SEIAA, UP	7770-5043		
3. Name of Proponent	M/s Shivarpan Trading Company Shri Lavish Singh, S/o-Shri Lochan Singh		
4. Full correspondence address of proponent and mobile no.	R/o- Muhalla- Kalakuwan, Baberu Road, Tehsil- Banda, District- Banda (U.P), Pin Code-210001		
5. Name of Project	Building Stone (Khandas, Gitty, Boulder) Mining Project		
6. Project location (Plot/Khasra/Gata No. / khand No.)	Gata No. 2450 Khand No.-06		
7. Name of River	N.A		
8. Name of Village	Jarar		
9. Tehsil	Naraini		
10. District	Banda (U.P)		
11. Name of Minor Mineral	Stone Mining Project		
12. Sanctioned Lease Area (in Ha.)	2.0 Ha.		
13. Mineable Area (in Ha.)	1.567 Ha (safety margin 0.433 Ha).		
14. Zero level mRL	N.A		
15. Max. & Min mrl within lease area	Maximum mRL 180.95 mRL Minimum mrl 149.10 mRL		
16. Pillar Coordinates (Verified by DMO)	Pillar No	N	E
	A	25° 18' 53.47"	80° 21' 42.37"
	A1	25° 18' 52.87"	80° 21' 43.49"
	B	25° 18' 52.33"	80° 21' 44.46"
	B1	25° 18' 51.19"	80° 21' 45.05"
	B2	25° 18' 50.28"	80° 21' 45.51"
	B3	25° 18' 49.28"	80° 21' 46.02"
	C	25° 18' 48.49"	80° 21' 46.42"
	C1	25° 18' 48.96"	80° 21' 47.58"
	D	25° 18' 49.51"	80° 21' 48.79"
	D1	25° 18' 50.84"	80° 21' 48.49"
	D2	25° 18' 52.17"	80° 21' 48.19"
	E	25° 18' 53.56"	80° 21' 47.82"
	F	25° 18' 54.01"	80° 21' 48.96"
	F1	25° 18' 54.90"	80° 21' 48.52"
	G	25° 18' 55.80"	80° 21' 48.04"
	G1	25° 18' 55.19"	80° 21' 46.61"
	G2	25° 18' 54.62"	80° 21' 45.20"
	G3	25° 18' 54.06"	80° 21' 43.81"
17. Total Geological Reserves	460220 m <sup>3</sup>		
18. Total Mineable Reserves	325434 m <sup>3</sup>		
19. Total Proposed Production (in five year)	100000 m <sup>3</sup> for 5 year		
20. Proposed Production/year	20000 m <sup>3</sup> per year		
21. Sanctioned Period of Mine lease	20 Years		
22. Production for 20 years	400000 m <sup>3</sup> for lease period of 20 years		
23. Method of Mining	Open cast, Semi-Mechanized		
24. No. of working days	250		
25. Working hours/day	8 hours/day		
26. No. Of workers	Approximately 28 workers		
27. No. Of vehicles movement/day	5-6 Vehicles movement/day		
28. Type of Land	Government Land (Stony & undulated)		
29. Ultimate Depth of Mining	18.0 meter for 5 years as per approved mining plan		
30. Nearest metalled road from site	MDR-11B about 3.0 km towards East direction from the project site.		
31. Water Requirement	PURPOSE	REQUIREMENT (KLD)	
	Drinking	0.38 KLD	



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*(Signature)*

	Suppression of dust	2.7 KLD
	Plantation	2.0 KLD
	Others (if any)	-
	<b>Total</b>	<b>5.08 KLD approx.</b>
32. Name of QCI Accredited Consultant with QCI No and period of validity.	Environmental Research and Analysis, Lucknow (U.P) Certificate No. NABET/ EIA/ 1922/RA 0200 (Rev01) valid upto January 21, 2024	
33. Any litigation pending against the project or land in any court	NO	
34. Details of 500 m Cluster Map & certificate issued by Mining Officer	Letter No. 1779/ Khanij -30 dated 05/10/2019 (Showing cluster of 18.47 Ha )	
35. Details of Lease Area in approved DSR	सुद्धि पत्र पत्रांक- 1374/पर्या0 सचि0 बँदा दिनांक: 13/08/2019, Sr. No.- 15	
36. Proposed CER cost	Rs. 1668257/-	
37. Proposed EMP cost/ Total Project cost	Rs. 98,00,000/-	
38. Length and breadth of Haul Road	300 m length and 6 m width	
39. No. of Trees to be Planted	2000	
40. Monitoring season	1 Oct 2021 to 31 Dec 2021 (post monsoon)	

- The mining would be restricted to unsaturated zone only above the phreatic water table and will not intersect the ground water table at any point of time.
- This project does not attract any of the general conditions applicable on mining projects specified in EIA Notification 14/09/2006.
- The mining operation will not be carried out in safety zone of any bridge or embankment or in eco-fragile zone such as habitat of any wild fauna.
- There is no litigation pending in any court regarding this project.
- The project proposal falls under category-1(a) of EIA Notification, 2006 (as amended).

The consultant (EIA Coordinator) also submitted an affidavit dated 08/05/2023 mentioning is as follows:

- I Vishnu Kumar Awasthi S/o Lt. R G Awasthi is EIA Coordinator of M/s Environmental Research and Analysis, Lucknow (U.P.), Accreditation Certificate No. NABET/ EIA/ 1922/RA 0200 (Rev 01), valid till- 21/01/2024.
- I have prepared EIA project report for the Proposal No. SIA/UP/MIN/425411/2023 (File No. - 7770-5043) M/s Shivarpan Trading Company, Proponent- Shri Lavlesh Singh, S/o-Shri Lochan Singh, R/o- Muhalla- Kalukuwan, Baberu Road, Tehsil- Banda, District- Banda (U.P), Pin Code- 210001, proposed "Building Stone (Khanda, Gitty, Boulder) Mining Project" located at Gata No. 2450 Khand No.-06 (Area 2.0 Ha.) in Village- Jarar, Tehsil- Narnini & District- Banda, Uttar Pradesh.) with my team.
- I have personally visited the site of proposal and certify that no Mining activity has been undertaken on the project site for the present proposal.
- I have satisfied with that all the necessary data/information required for EIA/EMP presentations are true and correct.
- I certify that this project proposal has been uploaded for the first time on Parivesh Portal.
- I certify that there will be no mismatch between information/data provided on the online application submitted on Parivesh Portal and the hard copy/presentation which will be submitted after acceptance of application.
- I state that all the TOR points have been complied and all the issues raised during public hearing have been properly addressed in EIA report.
- The EIA/EMP report for the Proposal is prepared by my team as per guidelines laid down by QCI/NABET.

#### **RESOLUTION AGAINST AGENDA NO. 03**

The committee discussed the matter and recommended grant of environmental clearance for the project proposal along with general and specific conditions as annexed at Annexure-1 to these minutes. The committee also stipulated the following specific conditions:



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1. Project proponent has committed to plant 1000 number of trees/hectare. The project proponent/consultant if desires may approach to concerned District Forest Authority to plant 1000 trees/ha on a land available to the Forest Department. The project proponent will deposit the required amount for this entire plantation work (including its maintenance and security) to the Forest Department.
  2. The project proponent shall install solar light in their site office.
  3. During the submission of 6 monthly compliance reports, the project proponent should make sure that the periodically taken site photographs should also be annexed along with the compliance report.
  4. Preference should be given to indigenous local species as per the consultation of the local district Forest Officer.
  5. The maximum height of the bench should be 06 meters and the width of the bench should be at least twice the height of the bench as per the mine plan approval letter by DGM, U.P
  6. In case the blasting is proposed during a mining operation, the project proponent needs to assess its impact on the displacement of human beings/wild animals/birds/other species, and the suitable measures proposed and taken for their rehabilitation and resettlement need to be clearly described in first 6 monthly compliance report.
  7. The project proponent shall submit a final mine closure plan/Exit protocol for rehabilitation of mined-out land to match its surrounding land use 3years before the closure of the mine to SEIAA, UP and Department of Mines and Geology, UP for approval. The project proponent shall ensure the implementation of the approved plan under the supervision of the Dept. of Mines and Geology.
  8. The project proponent shall plan and implement collection drain and siltation basins of adequate size to arrest the silt and sediment flow from the quarry area. The surface runoff rainwater harvesting and other water conservation measures on a long-term basis are to be taken in consultation with the Central/State Groundwater Board. The water so collected should be utilized for watering the haulage area, roads, and green belt development, etc.
  9. The project proponent shall take all suitable measures to prevent pollution of groundwater and nearby water bodies in consultation with the State Pollution Control Board and consent to operate (if applicable) should be obtained from the State Pollution Control Board before the start of production from the mine.
  10. Link Road from the quarry site to the main road shall be constructed as an all-weather road with blacktopping and maintained by the project proponent.
  11. Vehicular emissions should be kept under control and regularly monitored. Suitable measures shall be taken for proper maintenance of vehicles used in a quarry operation and transportation.
  12. The project proponent should explore the possibilities of rainwater harvesting.
  13. Agreement/ Consent between project proponent and competent authority/ landowner for haulage road from lease site to link road.
  14. Latest technology (water sprinklers/ tankers) to be adopted for mitigating dust at source points in lease area and haulage road during operational activity/vehicular movement.
  15. As per the proposed plan, plantation with area specific plant species, number of plants to be Planted and report of green belt development to be submitted to the concerning department
4. "Granite (Khanda, Gitti & Boulder) Mine" Project at Gata No.- 2450 (Khand No.- 01), Village- Jarar, Tehsil- Naraini, District- Banda, Shri Brij Mohan Kirar, Area : 2.0 ha., File No. 7775/ 5019/ Proposal No. SIA/UP/MIN/425891/2023

#### RESOLUTION AGAINST AGENDA NO. 04

The project proponent/consultant did not appear. The committee discussed and deliberated that the project file should be closed and be opened only after request from the project proponent. The file shall not be treated as pending at SEAC. The matter will be discussed only after submission of online requests on prescribed online portal.



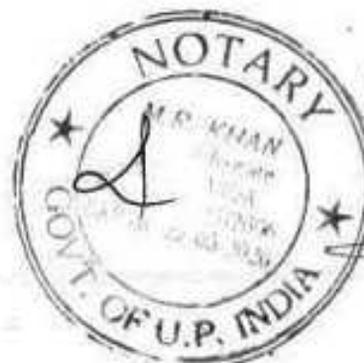
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5. Building stone Sand Stone Mine at Gata No.- 486, Sl. No.- 21, Village- Pattikalan, Tehsil- Chunar, District- Mirzapur, Shri Shailendra Kumar Singh, M/s Pranjal Stone works, Area 0.8090 ha., File No. 7776/7120/ Proposal No. SIA/UP/MIN/424007/2023

The consultant informed the committee that they are strictly following the rules, regulations and other instructions of QCI/NABET. A presentation was made by the project proponent along with their consultant M/s Cognizance Research India Pvt. Ltd. Based on the documents submitted and presentation made by the project proponent along with the consultant, the following facts have emerged: -

- The environmental clearance is sought for Sandstone mining project at Arazi No. 486, Sl. No. 21 Village- Pattikalan, Tehsil- Chunar, District- Mirzapur, State-Uttar Pradesh, (Leased 0.809 Ha), M/s Pranjal Stone Work.
- The Terms of Reference in the matter were issued by SEIAA, U.P vide Letter No. 173/Parya/SEIAA/7120/2022, dated 11/08/2022.
- The Public Hearing was organized on 30/12/2022. Final EIA Report was submitted by the Project Proponent on 13/04/2023.
- Salient features of the project as submitted by the project proponent:

1.	On-line proposal No.	SIA/UP/MIN/424007/2023		
2.	File No. allotted by SEIAA, UP	7776/7120		
3.	Name of Proponent	M/s Pranjal Stone works, Prop. Shri Shailendra Kumar Singh		
4.	Full correspondence address of proponent and mobile No.	R/o Village- Rajpur, Post- Adalhat, Pachegda, District- Mirzapur, and State-Uttar Pradesh		
5.	Name of Project	Proposed Pattikalan Building Sandstone Mining project		
6.	Project location (Plot/Khasra/Gata No.)	Arazi No. 486, Sl. No.21		
7.	Name of River	-		
8.	Name of Village	Pattikalan		
9.	Tehsil	Chunar		
10.	District	Mirzapur		
11.	Name of Minor Mineral	Building Stone (Sandstone)		
12.	Sanctioned Lease Area (in Ha.)	0.809 ha		
13.	Max & Min mRL within lease area	Max- 117.00 mRL and Min- 104.00 mRL		
14.	Pillar Coordinates (Verified by DMO)	Sanctioned Mining Lease Area		
		Pillar No.	Latitude	Longitude
		A	25° 00'24.8"N	83°01'08.7"E
		B	25° 00'25.8"N	83°01'10.7"E
		C	25°00'21.8"N	83°01'12.8"E
	D	25° 00'21.1"N	82°01'10.7"E	
15.	Total Geological Reserves	2,47,772 Cum		
16.	Total Mineable Reserves in LOI	24,270 Cum/year		
17.	Total Proposed Production	24,270 Cum/year		
18.	Proposed Production/year	24,270 Cum/year		
19.	Sanctioned Period of Mine lease	Maximum 20 years		
20.	Method of Mining	Open Cast Semi-mechanized Method		
21.	No. of working days	260 days		
22.	Working hours/day	8 hrs		
23.	No. of workers	22		
24.	No. of vehicles movement/day	13		
25.	Type of Land	Government waste land		
26.	Ultimate Depth of Mining	36		
27.	Nearest metalled road from site	0.5 km		
28.	Water Requirement	PURPOSE	REQUIREMENT (KLD)	
		Drinking	0.22	



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*(Handwritten signature)*

	Suppression of dust	4.98
	Plantation	1.618
	Others	0.22
	Total	7.04
29. Name of QCI Accredited Consultant with QCI No and period of validity.	Cognizance Research India Pvt. Ltd. Certificate no. NABET/EIA/1922/SA 0186, Validity- 10-09-2023	
30. Any litigation pending against the project or land in any court	No	
31. Details of 500 m Cluster Map & certificate issued by Mining Officer	Ref No. 250/Khanij/2022, Dated 27.05.2022	
32. Details of Lease Area in approved DSR	Yes, given in the DSR at Page No. 62, Sl. No. 143	
33. Proposed CER cost	Rs 1,00,000	
34. Proposed EMP cost	EMP Capital Cost = Plantation Cost + CER = Rs. 8,09,000 + 1,00,000 = Rs. 9,09,000/-  EMP Recurring Cost- Rs. 5,18,000/-	
35. Length and breadth of Haul Road	Length: 0.415 km, width: 6 m	
36. No. of Trees to be Planted	809 plants	

- The mining would be restricted to unsaturated zone only above the phreatic water table and will not intersect the ground water table at any point of time.
- This project does not attract any of the general conditions applicable on mining projects specified in EIA Notification 14/09/2006.
- The mining operation will not be carried out in safety zone of any bridge or embankment or in eco-fragile zone such as habitat of any wild fauna.
- There is no litigation pending in any court regarding this project.
- The project proposal falls under category- I(a) of EIA Notification, 2006 (as amended).

The consultant (EIA Coordinator) also submitted an affidavit dated 30/03/2023 mentioning is as follows:

- I, Ankur Sharma S/o Lalit Mohan Sharma am EIA Coordinator of M/s Cognizance Research India Pvt. Ltd,
- I have prepared EIA/EMP report of project for the Proposal (SIA/UP/MIN/424007/2022) of Sandstone mining project at Arazi No. 486, Sl. No. 21 Village- Pattikalan, Tehsil- Chunar, District- Mirzapur, State-Uttar Pradesh, (Leased 0.809 Ha), M/s Pranjal Stone Work with my team.
- I have personally visited the site of proposal and certify that no Mining activity has been undertaken on the project site for the present proposal.
- I am satisfied with that all the necessary data/information submitted along with Application/EIA/EMP project preparations are true and correct.
- I certify that this project proposal has been uploaded for first time on Parivesh Portal.
- I certify that there is no mismatch between information/data provided on the online application submitted on Parivash Portal and hard copy which is submitted after acceptance of application.
- I state that all the TOR points have been complied and all the issues raised during public hearing have been properly addressed in EIA report.
- The EIA/EMP report for the Proposal will be prepared by my team as per guideline laid down by QCI/NABET.

#### RESOLUTION AGAINST AGENDA NO. 05

The committee discussed the matter and recommended grant of environmental clearance for the project proposal along with general and specific conditions as annexed at Annexure-1 to these minutes. The committee also stipulated the following specific conditions:

- Project proponent has committed to plant 1000 number of trees/hectare. The project proponent/consultant if desires may approach to concerned District Forest Authority to plant 1000

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- trees/ha on a land available to the Forest Department. The project proponent will deposit the required amount for this entire plantation work (including its maintenance and security) to the Forest Department.
2. The project proponent shall install solar light in their site office.
  3. During the submission of 6 monthly compliance reports, the project proponent should make sure that the periodically taken site photographs should also be annexed along with the compliance report.
  4. Preference should be given to indigenous local species as per the consultation of the local district Forest Officer.
  5. The maximum height of the bench should be 06 meters and the width of the bench should be at least twice the height of the bench as per the mine plan approval letter by DGM, U.P
  6. In case the blasting is proposed during a mining operation, the project proponent needs to assess its impact on the displacement of human beings/wild animals/birds/other species, and the suitable measures proposed and taken for their rehabilitation and resettlement need to be clearly described in first 6 monthly compliance report.
  7. The project proponent shall submit a final mine closure plan/Exit protocol for rehabilitation of mined-out land to match its surrounding land use 3years before the closure of the mine to SEIAA, UP and Department of Mines and Geology, UP for approval. The project proponent shall ensure the implementation of the approved plan under the supervision of the Dept. of Mines and Geology.
  8. The project proponent shall plan and implement collection drain and siltation basins of adequate size to arrest the silt and sediment flow from the quarry area. The surface runoff rainwater harvesting and other water conservation measures on a long-term basis are to be taken in consultation with the Central/State Groundwater Board. The water so collected should be utilized for watering the haulage area, roads, and green belt development, etc.
  9. The project proponent shall take all suitable measures to prevent pollution of groundwater and nearby water bodies in consultation with the State Pollution Control Board and consent to operate (if applicable) should be obtained from the State Pollution Control Board before the start of production from the mine.
  10. Link Road from the quarry site to the main road shall be constructed as an all-weather road with blacktopping and maintained by the project proponent.
  11. Vehicular emissions should be kept under control and regularly monitored. Suitable measures shall be taken for proper maintenance of vehicles used in a quarry operation and transportation.
  12. The project proponent should explore the possibilities of rainwater harvesting.
  13. Agreement/ Consent between project proponent and competent authority/ landowner for haulage road from lease site to link road.
  14. Latest technology (water sprinklers/ tankers) to be adopted for mitigating dust at source points in lease area and haulage road during operational activity/vehicular movement.
  15. As per the proposed plan, plantation with area specific plant species, number of plants to be Planted and report of green belt development to be submitted to the concerning department
6. Building Stone (Sandstone) Mining Project At Arazi No. 703, Sl. no. 41, Village- Bhagautidei, Tehsil- Chunar District-Mirzapur, Shri Ajay Kumar Singh, Area-1.01 Ha, File No. 7777/6609/ Proposal No. SIA/UP/MIN/425067/2023

The consultant informed the committee that they are strictly following the rules, regulations and other instructions of QCI/NABET. A presentation was made by the project proponent along with their consultant M/s Cognizance Research India Pvt. Ltd. Based on the documents submitted and presentation made by the project proponent along with the consultant, the following facts have emerged: -

1. The environmental clearance is sought for Building Stone Sandstone mining project at Arazi No. 703, Sl. No. 41 Village- Bhagautidei, Tehsil- Chunar, District- Mirzapur, State-Uttar Pradesh, (Leased 1.01 Ha).



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2. The Terms of Reference in the matter were issued by SEIAA, U.P vide Letter No. 389/Parya/SEIAA/6609/2021 dated 30/12/2021.
3. The Public Hearing was organized on 10/02/2023. Final EIA Report was submitted by the Project Proponent on 13/04/2023.
4. Salient features of the project as submitted by the project proponent:

1.	On-line proposal No.	SIA/UP/MIN/425067/2023															
2.	File No. allotted by SEIAA, UP	777/6609															
3.	Name of Proponent	Prop: Shri Ajay Kumar Singh S/o Shri Kamla Singh															
4.	Full correspondence address of proponent and mobile No.	R/o Sheerpur, Bhadkuda, District- Mirzapur, (Uttar Pradesh)															
		Mobile No-															
		Email-															
5.	Name of Project	Proposed Bhagautidei Building Sandstone Mining project															
6.	Project location (Plot/Khasra/Gata No.)	Arazi No. 703, Sl. No.41															
7.	Name of River	-															
8.	Name of Village	Bhagautidei															
9.	Tehsil	Chunar															
10.	District	Mirzapur															
11.	Name of Minor Mineral	Building Stone (Sandstone)															
12.	Sanctioned Lease Area (in Ha.)	1.01 ha															
13.	Max & Min mRL within lease area	Max- 122.00 mRL and Min- 113.00 mRL															
14.	Pillar Coordinates (Verified by DMO)	Sanctioned Mining Lease Area															
		<table border="1"> <thead> <tr> <th>Pillar No.</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>25° 03'53.9"N</td> <td>82°59'58.6"E</td> </tr> <tr> <td>B</td> <td>25° 03'53.8"N</td> <td>83° 00'01.0"E</td> </tr> <tr> <td>C</td> <td>25° 03'48.1"N</td> <td>83° 00'01.3"E</td> </tr> <tr> <td>D</td> <td>25° 03'48.1"N</td> <td>82°59'58.6"E</td> </tr> </tbody> </table>	Pillar No.	Latitude	Longitude	A	25° 03'53.9"N	82°59'58.6"E	B	25° 03'53.8"N	83° 00'01.0"E	C	25° 03'48.1"N	83° 00'01.3"E	D	25° 03'48.1"N	82°59'58.6"E
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C	25° 03'48.1"N	83° 00'01.3"E															
D	25° 03'48.1"N	82°59'58.6"E															
15.	Total Geological Reserves	5,45,616 cum															
16.	Total Mineable Reserves in LOI	10,100 cum/year															
17.	Total Proposed Production	10,100 cum/year															
18.	Proposed Production/year	10,100 cum															
19.	Sanctioned Period of Mine lease	Maximum 20 years															
20.	Method of Mining	Open Cast Semi-mechanized Method															
21.	No. of working days	260 days															
22.	Working hours/day	8 hrs															
23.	No. of workers	28															
24.	No. of vehicles movement/day	06															
25.	Type of Land	Government waste land															
26.	Ultimate Depth of Mining	24															
27.	Nearest metalled road from site	0.8 km															
28.	Water Requirement	PURPOSE															
		REQUIREMENT (KLD)															
		Drinking	0.28														
		Suppression of dust	0.28														
		Plantation	2.02														
	Others	3.40															
	Total	5.98															
29.	Name of QCI Accredited Consultant with QCI No and period of validity.	Cognizance Research India Pvt. Ltd. Certificate no. NABET/EIA/1922/SA 0186, Validity- 10-09-2023,															
30.	Any litigation pending against the project or land in any court	No															
31.	Details of 500 m Cluster Map & certificate issued by Mining Officer	Reference No. 961/Khanij/Sl.No./2021, Dated 24.07.2021															



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32. Details of Lease Area in approved DSR	Yes, given in the DSR at page No. 19 Sl. No. 01
33. Proposed CER cost	Rs 1,10,000
34. Proposed EMP cost	EMP Capital Cost = Plantation Cost + CER = Rs. 10,10,000 + 1,10,000 = Rs. 11,20,000/-  EMP Recurring Cost- Rs. 4,08,000/-
35. Length and breadth of Haul Road	Length: 0.283 km, width: 6 m
36. No. of Trees to be Planted	1010 plants

- The mining would be restricted to unsaturated zone only above the phreatic water table and will not intersect the ground water table at any point of time.
- This project does not attract any of the general conditions applicable on mining projects specified in EIA Notification 14/09/2006.
- The mining operation will not be carried out in safety zone of any bridge or embankment or in eco-fragile zone such as habitat of any wild fauna.
- There is no litigation pending in any court regarding this project.
- The project proposal falls under category-1(a) of EIA Notification, 2006 (as amended).

The consultant (EIA Coordinator) also submitted an affidavit dated 11/04/2023 mentioning is as follows:

- I, Ankur Sharma S/o Lalit Mohan Sharma am EIA Coordinator of M/s Cognizance Research India Pvt. Ltd.
- I have prepared EIA/EMP report of project for the Proposal (SIA/UP/MIN/425067/2022) of Building Stone Sandstone mining project at Arazi No. 703, Sl. No. 41 Village- Bhagauteidei, Tehsil- Chunar, District- Mirzapur, State-Uttar Pradesh, (Leased 1.01 Ha) with my team.
- I have personally visited the site of proposal and certify that no Mining activity has been undertaken on the project site for the present proposal.
- I am satisfied with that all the necessary data/information submitted along with Application/EIA/EMP project preparations are true and correct.
- I certify that this project proposal has been uploaded for first time on Parivesh Portal.
- I certify that there is no mismatch between information/data provided on the online application submitted on Parivash Portal and hard copy which is submitted after acceptance of application.
- I state that all the TOR points have been complied and all the issues raised during public hearing have been properly addressed in EIA report.
- The EIA/EMP report for the Proposal will be prepared by my team as per guideline laid down by QCI/NABET.

#### **RESOLUTION AGAINST AGENDA NO. 06**

The committee discussed the matter and recommended grant of environmental clearance for the project proposal along with general and specific conditions as annexed at Annexure-1 to these minutes. The committee also stipulated the following specific conditions:

- Project proponent has committed to plant 1000 number of trees/hectare. The project proponent/consultant if desires may approach to concerned District Forest Authority to plant 1000 trees/ha on a land available to the Forest Department. The project proponent will deposit the required amount for this entire plantation work (including its maintenance and security) to the Forest Department.
- The project proponent shall install solar light in their site office.
- During the submission of 6 monthly compliance reports, the project proponent should make sure that the periodically taken site photographs should also be annexed along with the compliance report.
- Preference should be given to indigenous local species as per the consultation of the local district Forest Officer.



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कासुआ, बंगल रोड-बलिया

5. The maximum height of the bench should be 06 meters and the width of the bench should be at least twice the height of the bench as per the mine plan approval letter by DGM, U.P
  6. In case the blasting is proposed during a mining operation, the project proponent needs to assess its impact on the displacement of human beings/wild animals/birds/other species, and the suitable measures proposed and taken for their rehabilitation and resettlement need to be clearly described in first 6 monthly compliance report.
  7. The project proponent shall submit a final mine closure plan/Exit protocol for rehabilitation of mined-out land to match its surrounding land use 3years before the closure of the mine to SEIAA, UP and Department of Mines and Geology, UP for approval. The project proponent shall ensure the implementation of the approved plan under the supervision of the Dept. of Mines and Geology.
  8. The project proponent shall plan and implement collection drain and siltation basins of adequate size to arrest the silt and sediment flow from the quarry area. The surface runoff rainwater harvesting and other water conservation measures on a long-term basis are to be taken in consultation with the Central/State Groundwater Board. The water so collected should be utilized for watering the haulage area, roads, and green belt development, etc.
  9. The project proponent shall take all suitable measures to prevent pollution of groundwater and nearby water bodies in consultation with the State Pollution Control Board and consent to operate (if applicable) should be obtained from the State Pollution Control Board before the start of production from the mine.
  10. Link Road from the quarry site to the main road shall be constructed as an all-weather road with blacktopping and maintained by the project proponent.
  11. Vehicular emissions should be kept under control and regularly monitored. Suitable measures shall be taken for proper maintenance of vehicles used in a quarry operation and transportation.
  12. The project proponent should explore the possibilities of rainwater harvesting.
  13. Agreement/ Consent between project proponent and competent authority/ landowner for haulage road from lease site to link road.
  14. Latest technology (water sprinklers/ tankers) to be adopted for mitigating dust at source points in lease area and haulage road during operational activity/vehicular movement.
  15. As per the proposed plan, plantation with area specific plant species, number of plants to be Planted and report of green belt development to be submitted to the concerning department
7. Building stone Sand Stone Mine at Arzi No- 428 (Sl. No. 08), Village- Dhuria, Tehsil- Chunar, District- Mirzapur, Shri Manish Kumar, Area 2.02 Ha., File No. 7778/7027/ Proposal No. SIA/UP/MIN/425105/2023

#### RESOLUTION AGAINST AGENDA NO. 07

The project proponent/consultant did not appear. The committee discussed and deliberated that the project file should be closed and be opened only after request from the project proponent. The file shall not be treated as pending at SEAC. The matter will be discussed only after submission of online requests on prescribed online portal.

8. "Building Stone, (Granite Khanda, Boulder, Ballast (Gitti))" Project at Gata No.- 356 (Khand No.- 05 New, 06 Old), Village- Dhundhayan, Tehsil- Mahoba, District- Mahoba, Shri Satvendra Pratap Singh, Area : 1.214 ha., File No. 7719/ Proposal No. SIA/UP/MIN/422705/2023

The consultant informed the committee that they are strictly following the rules, regulations and other instructions of QCI/NABET. A presentation was made by the project proponent along with their consultant M/s Paramarsh (Servicing Environment and Development), Lucknow, U.P. Based on the documents submitted and presentation made by the project proponent along with the consultant, the following facts have emerged: -



शिवापणा संस्था कं०  
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- The terms of reference is sought for Building Stone, (Granite Khanda, Boulder, Bailast (Gitti)) Mining at Gata No.- 356 (Khand No.- 05 New, 06 Old), Village- Dhundhaiyan, Tehsil- Mahoba, District- Mahoba, U.P., (Leased Area- 1.214 ha.).
- Salient features of the project as submitted by the project proponent:

1.	On-line proposal No.	SIA/UP/MIN/422705/2023	
2.	File No. allotted by SEIAA, UP	7719	
3.	Name of Proponent	Akhil Enterprises, Shri Sutyendra Partap Singh S/o Shri Padam Singh	
4.	Full correspondence address of proponent	R/o- Vill- Khatpita Kahan, Tehsil -Pailani, Distt.- Banda	
5.	Name of Project	Building Stone, (Granite Khanda, Boulder, Bailast (Gitti)) Mining Project	
6.	Project location (Plot/ Khasra /Gata No.)	Gata No.- 356 (Khand No.- 05 New, 06 Old)	
7.	Name of Village	Dhundhaiyan	
8.	Tehsil	Mahoba	
9.	District	Mahoba	
10.	Name of Minor Mineral	Building Stone, (Granite Khanda, Boulder, Bailast (Gitti))	
11.	Sanctioned Lease Area (in Ha.)	1.214 ha.	
12.	Max.& Min mRL within lease area	271 mRL- 254 mRL	
13.	Pillar Coordinates(Verified by DMO)	Pillars	Latitude (N) Longitude (E)
		A	25° 11' 21.03"N 79° 44' 15.78"E
		B	25° 11' 20.72"N 79° 44' 18.62"E
		C	25° 11' 16.45"N 79° 44' 18.02"E
		D	25° 11' 16.17"N 79° 44' 14.60"E
14.	Total Geological Reserves	994645 m <sup>3</sup>	
15.	Total Mineable Reserves	203252 m <sup>3</sup>	
16.	Total Proposed Production (in five year)	177550 m <sup>3</sup>	
17.	Proposed Production / year	Year	Production
		1 <sup>st</sup>	35510 m <sup>3</sup>
		2 <sup>nd</sup>	35510 m <sup>3</sup>
		3 <sup>rd</sup>	35510 m <sup>3</sup>
		4 <sup>th</sup>	35510 m <sup>3</sup>
		5 <sup>th</sup>	35510 m <sup>3</sup>
		Total	177550 m <sup>3</sup>
18.	Sanctioned Period of Mine lease	10 Years	
19.	Method of Mining	Opencast Semi-Mechanized	
20.	No.of working days	300 days	
21.	Working hours/day	8 Hours/Day	
22.	No.Of workers	37 (approx.)	
23.	Type of Land	Govt. revenue land	
24.	Ultimate Depth of Mining	12 meter (average)	
25.	Nearest metalled road from site	102m	
26.	Water Requirement	PURPOSE	REQUIREMENT (KLD)
		Drinking & Others	0.40
		Suppression of dust	0.60
		Plantation	2.00
		Others( if any)	-----
		Total	3.00
27.	Name of QCI Accredited Consultant with QCI No and period of validity.	M/s Paramash (Servicing Environment and Development), Lucknow, U.P. QCI/NABET/EIA/1821/RA0120, Validity-01/05/2021	
28.	Any litigation pending against the project or land in any court	No	
29.	Details of 500 m Cluster Map & certificate Verified by Mining Officer	DMO, Mahoba vide Letter No. 3991/Khanij-30/2022- 23, Dated 03 <sup>rd</sup> February, 2023	
30.	Details of Lease Area in approved DSR	Sudhi Patra No.-154/M.M.C.-30-Khanij (2021-22,	



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		Dated 12-05-2021 at Page No.-02, S.No.- 59
31.	Proposed CER cost	1.40 Lakh
32.	Proposed EMP cost	EMP in First Year – 13.80 Lakh EMP (Recurring Years) – 7.05 Lakh
33.	Length and breadth of Haul Road.	Length- 100m, Width- more than 6.0 m
34.	No. of Trees to be Planted	2000

- The mining would be restricted to unsaturated zone only above the phreatic water table and will not intersect the ground water table at any point of time.
- This project does not attract any of the general conditions applicable on mining projects specified in EIA Notification 14/09/2006.
- The mining operation will not be carried out in safety zone of any bridge or embankment or in eco-fragile zone such as habitat of any wild fauna.
- There is no litigation pending in any court regarding this project.
- The project proposal falls under category-1(a) of EIA Notification, 2006 (as amended).

The consultant (EIA Coordinator) also submitted an affidavit dated 20/03/2023 mentioning is as follows:

- I, Pankaj Srivastava S/o Sri V.V. Srivastava am EIA Coordinator of Paramarsh Servicing Environment and Development.
- I will prepared EIA report for EC in the name of Akhil Enterprises, Prop: Shri Satyendra Pratap Singh, S/o Shri Padam Singh for the Building Stone, (Granite Khanda, Boulder, Bailast (Gitti)) Mining at Gata No.- 356 (Khand No.- 05 New, 06 Old), Village- Dhundhaiyan, Tehsil- Mahoba, District- Mahoba, U.P., (Leased Area- 1.214 ha.) with my team.
- I have personally visited the site of proposal and certify that no Mining activity has been undertaken on the project site for the present proposal.
- I am satisfied with that all the necessary data/information submitted along with EIA are true and correct.
- I certify that this project proposal has been uploaded for the first time on Parivash Portal.
- I certify that there is no mismatch between information/data provided on the online application submitted on Parivash Portal and hard copy which is submitted after acceptance of application.
- I state that all the TOR Points will be complied and all the issues raised during Public Hearing will be properly addressed in EIA report.
- The EIA report for the Proposal will be prepared by my team as per guideline laid down by QCI/NABET.

#### RESOLUTION AGAINST AGENDA NO. 08

The committee discussed the matter and recommended to issue the standard terms of reference for the preparation of EIA as annexed at annexure-2 to the minutes. The committee also stipulated following additional TOR Points:

#### Additional TOR:

- Original Cluster Certificate should be submitted at the time of EIA presentation.
- To ensure proper monitoring, the project proponent/consultant should provide evidence in form of (A) Raw Data (B) Logbook of their site visit along with activities carried out during monitoring (C) Real time photographs showing monitoring machine, public, lab person etc. Proprietor/proprietor representative should be present at the time of monitoring and monitoring should be conducted as per CPCB SOP/NABET/QCI guidelines. Lab responsible person should be present at the time of EIA presentation.



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3. EIA coordinator & FAE should give a notarized affidavit during EIA presentation that they have personally visited the site & they have also taken all the mitigating measures for any critical issues involved in the project.
  4. The project proponent will have to inform the schedule of monitoring/data collection programme to the SEIAA/SEAC, UP before start of data collection. In case of failure, the collected baseline monitoring data will be treated as null and void.
  5. The details of equipment used for baseline monitoring alongwith its photograph mentioning date, time and geo coordinates for preparation of EIA report should be clearly displayed to the people present during public hearing and the complete details related to monitoring period must be mentioned in the minutes of public hearing.
  6. Original lab analysis report of the project proposal along with EIA report should be uploaded on Parivesh Portal.
  7. Combined KML of all mines in a cluster should be submitted at the time of EIA.
  8. The project proponent/Consultant should identify the core & buffer zone (2.5 km) of the mining site.
  9. Agreement/ Consent between project proponent and competent authority/ landowner for haulage road from lease site to link road to be submitted at the time of EIA presentation.
  10. Proponent/Consultant should submit the plan/information along with technology (photographs of water sprinklers/ tankers) to be implemented for mitigating dust at source points in lease area and haulage road during operation activity/vehicular movement. Technology should be displayed at the time of EIA presentation.
  11. Proposed plantation plan with area specific plant species, number of plants to be planted and place of plantation along with a proper map to be submitted at the time of EIA presentation.
  12. Water requirement details along with source of water and the permission/ agreement with the concerning authority/ person to be submitted at the time of EIA presentation.
  13. Proponent/consultant shall present TOR specific/additional conditions compliance, observation/suggestions raised during the public hearing and commitment made by the project proponent in a tabular form with a time bound plan at the time of EIA presentation.
  14. Corporate Social Responsibility (CSR) to be prepared as per the MoEF guidelines and present it at the time of EIA presentation.
9. **"Building Stone Gitti/ Boulder (Sand Stone)" Project at Gata No.- 295/1/2 (Khand No.- 03), Village- Sukrit, Tehsil- Robertsganj, District- Sonbhadra, Shri Ajay Kumar Singh, M/s A.K.S. Highway Projects Pvt. Ltd., Area : 1.8210 ha., File No. 7720/ Proposal No. SIA/UP/MIN/422715/2023**

The consultant informed the committee that they are strictly following the rules, regulations and other instructions of QCI/NABET. A presentation was made by the project proponent along with their consultant M/s Paramarsh (Servicing Environment and Development), Lucknow, U.P. Based on the documents submitted and presentation made by the project proponent along with the consultant, the following facts have emerged: -

1. The terms of reference is sought for Building Stone Gitti/ Boulder (Sand Stone) Mining at Gata No.- 295/1/2 (Khand No.- 03), Village- Sukrit, Tehsil- Robertsganj, District- Sonbhadra, U.P. M/s A.K.S. Highway Project Pvt. Ltd., (Leased Area- 1.8210 ha.).
2. Salient features of the project as submitted by the project proponent:

1.	On-line proposal No.	SIA/UP/MIN/422715/2023
2.	File No. allotted by SEIAA, UP	7720
3.	Name of Proponent	M/s A.K.S. Highway Project Pvt. Ltd., C/o- Shri Ajay Kumar Singh S/o Shri Bajrath Singh
4.	Full correspondence address of proponent	R/o- C.O. Upendra Rai Vrindavan Colony, Magadh, Sasaram, Rohtas
5.	Name of Project	Building Stone Gitti/ Boulder (Sand Stone) Mining Project
6.	Project location (Plot/ Khasra /Gata No.)	Gata No.- 295/1/2 (Khand No.- 03)



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7.	Name of Village	Sukrit															
8.	Tehsil	Robertsganj															
9.	District	Sonbhadra															
10.	Name of Minor Mineral	Building Stone Gitti/ Boulder (Sand Stone)															
11.	Sanctioned Lease Area (in Ha.)	1.8210 ha.															
12.	Max. & Min mRL within lease area	258 mRL- 249 mRL															
13.	Pillar Coordinates(Verified by DMO)	<table border="1"> <thead> <tr> <th>Pillars</th> <th>Latitude (N)</th> <th>Longitude (E)</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>24° 55' 24.83"N</td> <td>83° 03' 10.68"E</td> </tr> <tr> <td>B</td> <td>24° 55' 29.21"N</td> <td>83° 03' 10.00"E</td> </tr> <tr> <td>C</td> <td>24° 55' 29.97"N</td> <td>83° 03' 15.70"E</td> </tr> <tr> <td>D</td> <td>24° 55' 26.71"N</td> <td>83° 03' 15.97"E</td> </tr> </tbody> </table>	Pillars	Latitude (N)	Longitude (E)	A	24° 55' 24.83"N	83° 03' 10.68"E	B	24° 55' 29.21"N	83° 03' 10.00"E	C	24° 55' 29.97"N	83° 03' 15.70"E	D	24° 55' 26.71"N	83° 03' 15.97"E
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14.	Total Geological Reserves	1827701 m <sup>3</sup>															
15.	Total Mineable Reserves	410247 m <sup>3</sup>															
16.	Total Proposed Production (in five year)	273275 m <sup>3</sup>															
17.	Proposed Production / year	<table border="1"> <thead> <tr> <th>Year</th> <th>Production</th> </tr> </thead> <tbody> <tr> <td>1<sup>st</sup></td> <td>54655 m<sup>3</sup></td> </tr> <tr> <td>2<sup>nd</sup></td> <td>54655 m<sup>3</sup></td> </tr> <tr> <td>3<sup>rd</sup></td> <td>54655 m<sup>3</sup></td> </tr> <tr> <td>4<sup>th</sup></td> <td>54655 m<sup>3</sup></td> </tr> <tr> <td>5<sup>th</sup></td> <td>54655 m<sup>3</sup></td> </tr> <tr> <td>Total</td> <td>273275 m<sup>3</sup></td> </tr> </tbody> </table>	Year	Production	1 <sup>st</sup>	54655 m <sup>3</sup>	2 <sup>nd</sup>	54655 m <sup>3</sup>	3 <sup>rd</sup>	54655 m <sup>3</sup>	4 <sup>th</sup>	54655 m <sup>3</sup>	5 <sup>th</sup>	54655 m <sup>3</sup>	Total	273275 m <sup>3</sup>	
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19.	Method of Mining	Opencast Semi-Mechanized															
20.	No. of working days	300 days															
21.	Working hours/day	8 Hours/Day															
22.	No. Of workers	35 (approx.)															
23.	Type of Land	Govt. revenue land															
24.	Ultimate Depth of Mining	6 meter (average)															
25.	Nearest metalled road from site.	400m															
26.	Water Requirement	<table border="1"> <thead> <tr> <th>PURPOSE</th> <th>REQUIREMENT (KLD)</th> </tr> </thead> <tbody> <tr> <td>Drinking &amp; Others</td> <td>0.40</td> </tr> <tr> <td>Suppression of dust</td> <td>2.40</td> </tr> <tr> <td>Plantation</td> <td>2.00</td> </tr> <tr> <td>Others (if any)</td> <td>-----</td> </tr> <tr> <td>Total</td> <td>4.80</td> </tr> </tbody> </table>	PURPOSE	REQUIREMENT (KLD)	Drinking & Others	0.40	Suppression of dust	2.40	Plantation	2.00	Others (if any)	-----	Total	4.80			
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27.	Name of QCI Accredited Consultant with QCI No and period of validity.	M/s Paramarsh (Servicing Environment and Development), Lucknow, U.P. QCI/NABET/EIA/1821/RA0120, Validity-01/05/2021															
28.	Any litigation pending against the project or land in any court	No															
29.	Details of 500 m Cluster Map & certificate Verified by Mining Officer	DMO, Sonbhadra vide Letter No. 1437/Khanij/2022, Dated 21 <sup>st</sup> July, 2022															
30.	Details of Lease Area in approved DSR	Approved DSR letter No.- 1033/M-220/2017(Khanan Nit)-D.S.R. dated 31.10.2022 Pg. No.- 3 Sr. No.- 14 vide letter															
31.	Proposed CER cost	1.40 Lakh															
32.	Proposed EMP cost	EMP in First Year - 13.80 Lakh EMP (Recurring Years) - 7.05 Lakh															
33.	Length and breadth of Haul Road.	Length- 400m, Width- more than 6.0 m															
34.	No. of Trees to be Planted	2000															

- The mining would be restricted to unsaturated zone only above the phreatic water table and will not intersect the ground water table at any point of time.
- This project does not attract any of the general conditions applicable on mining projects specified in EIA Notification 14/09/2006.
- The mining operation will not be carried out in safety zone of any bridge or embankment or in eco-fragile zone such as habitat of any wild fauna.



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6. There is no litigation pending in any court regarding this project.
7. The project proposal falls under category-1(a) of EIA Notification, 2006 (as amended).

The consultant (EIA Coordinator) also submitted an affidavit dated 20/03/2023 mentioning is as follows:

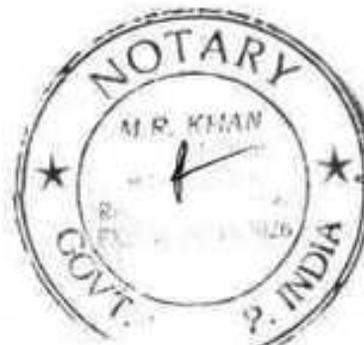
1. I, Pankaj Srivastava S/o Sri V.V. Srivastava am EIA Coordinator of Paramarsh Servicing Environment and Development.
2. I will prepared EIA report for the name of Building Stone Gitti/ Boulder (Sand Stone) Mining at Gata No- 295/1/2 (Khand No.- 03), Village- Sukrit, Tehsil- Robertsganj, District- Sonbhadra, U.P.M/s A.K.S. Highway Project Pvt. Ltd., (Leased Area- 1.8210 ha.) with my team.
3. I have personally visited the site of proposal and certify that no Mining activity has been undertaken on the project site for the present proposal.
4. I am satisfied with that all the necessary data/information submitted along with EIA are true and correct.
5. I certify that this project proposal has been uploaded for the first time on Parivesh Portal.
6. I certify that there is no mismatch between information/data provided on the online application submitted on Parivash Portal and hard copy which is submitted after acceptance of application.
7. I state that all the TOR Points will be complied and all the issues raised during Public Hearing will be properly addressed in EIA report.
8. The EIA report for the Proposal will be prepared by my team as per guideline laid down by QCI/NABET.

#### RESOLUTION AGAINST AGENDA NO. 09

The committee discussed the matter and recommended to issue the standard terms of reference for the preparation of EIA as annexed at annexure-2 to the minutes. The committee also stipulated following additional TOR Points:

#### Additional TOR:

1. Original Cluster Certificate should be submitted at the time of EIA presentation.
2. To ensure proper monitoring, the project proponent/consultant should provide evidence in form of (A) Raw Data (B) Logbook of their site visit along with activities carried out during monitoring (C) Real time photographs showing monitoring machine, public, lab person etc. Proprietor/proprietor representative should be present at the time of monitoring and monitoring should be conducted as per CPCB SOP/NABET/QCI guidelines. Lab responsible person should be present at the time of EIA presentation.
3. EIA coordinator & FAE should give a notarized affidavit during EIA presentation that they have personally visited the site & they have also taken all the mitigating measures for any critical issues involved in the project.
4. The project proponent will have to inform the schedule of monitoring/data collection programme to the SEIAA/SEAC, UP before start of data collection. In case of failure, the collected baseline monitoring data will be treated as null and void.
5. The details of equipment used for baseline monitoring alongwith its photograph mentioning date, time and geo coordinates for preparation of EIA report should be clearly displayed to the people present during public hearing and the complete details related to monitoring period must be mentioned in the minutes of public hearing.
6. Original lab analysis report of the project proposal along with EIA report should be uploaded on Parivesh Portal.
7. Combined KML of all mines in a cluster should be submitted at the time of EIA.
8. The project proponent/Consultant should identify the core & buffer zone (2.5 km) of the mining site.



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9. Agreement/ Consent between project proponent and competent authority/ landowner for haulage road from lease site to link road to be submitted at the time of EIA presentation.
  10. Proponent/Consultant should submit the plan/information along with technology (photographs of water sprinklers/ tankers) to be implemented for mitigating dust at source points in lease area and haulage road during operation activity/vehicular movement. Technology should be displayed at the time of EIA presentation.
  11. Proposed plantation plan with area specific plant species, number of plants to be planted and place of plantation along with a proper map to be submitted at the time of EIA presentation.
  12. Water requirement details along with source of water and the permission/ agreement with the concerning authority/ person to be submitted at the time of EIA presentation.
  13. Proponent/consultant shall present TOR specific/additional conditions compliance, observation/suggestions raised during the public hearing and commitment made by the project proponent in a tabular form with a time bound plan at the time of EIA presentation.
  14. Corporate Social Responsibility (CSR) to be prepared as per the MoEF guidelines and present it at the time of EIA presentation.
10. **"Building Stone (Khanda, Boulder, Ballast (Gitti))" Project at Gata No.- 288 (Khand No.- 06), Village- Majhol, Tehsil- Charkhari, District- Mahoba, Shri Amar Chandra Rajput, Area : 1.619 ha., File No. 7721/ Proposal No. SIA/UP/MIN/422753/2023**

The consultant informed the committee that they are strictly following the rules, regulations and other instructions of QCI/NABET. A presentation was made by the project proponent along with their consultant M/s Paramarsh (Servicing Environment and Development), Lucknow, U.P. Based on the documents submitted and presentation made by the project proponent along with the consultant, the following facts have emerged: -

1. The terms of reference is sought for Building Stone (Khanda, Boulder, Ballast (Gitti)) Mining at Gata No.- 288 (Khand No.- 06), Village- Majhol, Tehsil- Charkhari, District- Mahoba, U.P. (Applied Area- 1.619 ha.)
2. Salient features of the project as submitted by the project proponent:

1. On-line proposal No.	SIA/UP/MIN/422753/2023		
2. File No. allotted by SEIAA, UP	7721		
3. Name of Proponent	Shri Amar Chandra Rajput S/o Shri Jagmohan Singh		
4. Full correspondence address of proponent	R/o- 24, Village – Koiba, Malehata, Danda, District- Hamirpur, U.P.		
5. Name of Project	Building Stone (Khanda, Boulder, Ballast (Gitti)) Mining Project		
6. Project location (Plot/ Khasra /Gata No.)	Gata No.- 288 (Khand No.- 06)		
7. Name of Village	Majhol		
8. Tehsil	Charkhari		
9. District	Mahoba		
10. Name of Minor Mineral	Building Stone (Khanda, Boulder, Ballast (Gitti))		
11. Sanctioned Lease Area (In Ha.)	1.619 ha.		
12. Max. & Min mRL within lease area	112 mRL- 184 mRL		
13. Pillar Coordinates (Verified by DMO)	Pillars	Latitude (N)	Longitude (E)
	A	25° 23' 53.18"N	79° 46' 32.31"E
	B	25° 23' 49.85"N	79° 46' 36.67"E
	C	25° 23' 46.24"N	79° 46' 33.78"E
	D	25° 23' 49.39"N	79° 46' 31.36"E
14. Total Geological Reserves	1929879 m <sup>3</sup>		
15. Total Mineable Reserves	404091 m <sup>3</sup>		
16. Total Proposed Production (in five year)	259040 m <sup>3</sup>		
17. Proposed Production / year	51808 m <sup>3</sup>		
18. Sanctioned Period of Mine lease	10 Years		
19. Method of Mining	Opencast Semi-Mechanized		
20. No. Of workers	37 (approx.)		



श्रीवर्षा २०२३  
 नारायणजी, बरक  
 नारायणजी, बरक

21.	Type of Land	Govt. revenue land												
22.	Ultimate Depth of Mining	18 meter (average)												
23.	Nearest metalled road from site	100m												
24.	Water Requirement	<table border="1"> <thead> <tr> <th>PURPOSE</th> <th>REQUIREMENT (KLD)</th> </tr> </thead> <tbody> <tr> <td>Drinking &amp; Others</td> <td>0.40</td> </tr> <tr> <td>Suppression of dust</td> <td>0.60</td> </tr> <tr> <td>Plantation</td> <td>2.00</td> </tr> <tr> <td>Others( if any)</td> <td>-----</td> </tr> <tr> <td>Total</td> <td>3.00</td> </tr> </tbody> </table>	PURPOSE	REQUIREMENT (KLD)	Drinking & Others	0.40	Suppression of dust	0.60	Plantation	2.00	Others( if any)	-----	Total	3.00
PURPOSE	REQUIREMENT (KLD)													
Drinking & Others	0.40													
Suppression of dust	0.60													
Plantation	2.00													
Others( if any)	-----													
Total	3.00													
25.	Name of QCI Accredited Consultant with QCI No and period of validity.	M/s Paramarsh (Servicing Environment and Development), Lucknow, U.P. QCI/NABET/EIA/2124/RA0224, Validity-01/05/2024												
26.	Any litigation pending against the project or land in any court.	No												
27.	Details of 500 m Cluster certificate Verified by Mining Officer	DMO, Mahoba vide Letter No. 2819/M.M.C.-30/2022-23, Dated 17 <sup>th</sup> January, 2023												
28.	Details of Lease Area in approved DSR.	Sudhi Patra No.-705/M.M.C.-30-Khanj/2022-23 Dated 08-06-2022 at Page No.-02, S.No.- 27												
29.	Proposed CER cost	1.40 Lakh												
30.	Proposed EMP cost	EMP in First Year – 13.80 Lakh EMP (Recurring Years) – 7.05 Lakh												
31.	Length and breadth of Haul Road.	Length- 100m, Width- more than 6.0 m												
32.	No. of Trees to be Planted	2000												

- The mining would be restricted to unsaturated zone only above the phreatic water table and will not intersect the ground water table at any point of time.
- This project does not attract any of the general conditions applicable on mining projects specified in EIA Notification 14/09/2006.
- The mining operation will not be carried out in safety zone of any bridge or embankment or in eco-fragile zone such as habitat of any wild fauna.
- There is no litigation pending in any court regarding this project.**
- The project proposal falls under category-1(a) of EIA Notification, 2006 (as amended).

The consultant (EIA Coordinator) also submitted an affidavit dated 20/03/2023 mentioning is as follows:

- I, Pankaj Srivastava S/o Sri V.V. Srivastava am EIA Coordinator of Paramarsh Servicing Environment and Development.
- I will prepared EIA report for EC in the name of Building Stone (Khanda, Boulder, Bailast (Gitti)) Mining at Gata No.- 288 (Khand No.- 06), Village- Majhol, Tehsil- Charkhari, District- Mahoba, U.P. (Applied Area- 1.619 ha.) with my team.
- I have personally visited the site of proposal and certify that no Mining activity has been undertaken on the project site for the present proposal.
- I am satisfied with that all the necessary data/information submitted along with EIA are true and correct.
- I certify that this project proposal has been uploaded for the first time on Parivash Portal.
- I certify that there is no mismatch between information/data provided on the online application submitted on Parivash Portal and hard copy which is submitted after acceptance of application.
- I state that all the TOR Points will be complied and all the issues raised during Public Hearing will be properly addressed in EIA report.
- The EIA report for the Proposal will be prepared by my team as per guideline laid down by QCI/NABET.



शिवारण प्रसिद्धा कं  
कारुणिकी, ५२५  
रोड-बलर

**RESOLUTION AGAINST AGENDA NO. 10**

The committee discussed the matter and recommended to issue the standard terms of reference for the preparation of EIA as annexed at annexure-2 to the minutes. The committee also stipulated following additional TOR Points:

**Additional TOR:**

1. Original Cluster Certificate should be submitted at the time of EIA presentation.
2. To ensure proper monitoring, the project proponent/consultant should provide evidence in form of (A) Raw Data (B) Logbook of their site visit along with activities carried out during monitoring (C) Real time photographs showing monitoring machine, public, lab person etc. Proprietor/proprietor representative should be present at the time of monitoring and monitoring should be conducted as per CPCB SOP/NABET/QCI guidelines. Lab responsible person should be present at the time of EIA presentation.
3. EIA coordinator & FAE should give a notarized affidavit during EIA presentation that they have personally visited the site & they have also taken all the mitigating measures for any critical issues involved in the project.
4. The project proponent will have to inform the schedule of monitoring/data collection programme to the SEIAA/SEAC, UP before start of data collection. In case of failure, the collected baseline monitoring data will be treated as null and void.
5. The details of equipment used for baseline monitoring alongwith its photograph mentioning date, time and geo coordinates for preparation of EIA report should be clearly displayed to the people present during public hearing and the complete details related to monitoring period must be mentioned in the minutes of public hearing.
6. Original lab analysis report of the project proposal along with EIA report should be uploaded on Parivesh Portal.
7. Combined KML of all mines in a cluster should be submitted at the time of EIA.
8. The project proponent/Consultant should identify the core & buffer zone (2.5 km) of the mining site.
9. Agreement/ Consent between project proponent and competent authority/ landowner for haulage road from lease site to link road to be submitted at the time of EIA presentation.
10. Proponent/Consultant should submit the plan/information along with technology (photographs of water sprinklers/ tankers) to be implemented for mitigating dust at source points in lease area and haulage road during operation activity/vehicular movement. Technology should be displayed at the time of EIA presentation.
11. Proposed plantation plan with area specific plant species, number of plants to be planted and place of plantation along with a proper map to be submitted at the time of EIA presentation.
12. Water requirement details along with source of water and the permission/ agreement with the concerning authority/ person to be submitted at the time of EIA presentation.
13. Proponent/consultant shall present TOR specific/additional conditions compliance, observation/suggestions raised during the public hearing and commitment made by the project proponent in a tabular form with a time bound plan at the time of EIA presentation.
14. Corporate Social Responsibility (CSR) to be prepared as per the MoEF guidelines and present it at the time of EIA presentation.

**11. Riverbed Ordinary Sand Mining from Riverbed of Ganga River Gata No.- 2, Village – Gag BararTari Tehsil- Zamania, District- Ghazipur, Shri Arvind Kumar Singh, Area – 11.0 Ha., File No. 7724/ Proposal No. SIA/UP/MIN/421213/2023**

The consultant informed the committee that they are strictly following the rules, regulations and other instructions of QCI/NABET. A presentation was made by the project proponent along with their consultant M/s AWS Envirotech (OPC) Pvt. Ltd. Based on the documents submitted and presentation made by the project proponent along with the consultant, the following facts have emerged: -



श्रीवापण विडिग केंद्र  
 शासक, संजय गांधी नगर, गाँव-बारा

- The terms of reference is sought for Ordinary Sand Mining from Riverbed of Ganga River from Araji/Gata no.- 02, Village – Gag Barar Tari, Tehsil- Zamania, District- Ghazipur, Uttar Pradesh, (Leased Area- 11.0 ha.).
- Salient features of the project as submitted by the project proponent:

1.	On-line proposal No.	SIA/UP/MIN/421213/2023																																				
2.	File No. allotted by SEIAA, UP	7724																																				
3.	Name of Proponent	Shri Arvind Kumar Singh/375724																																				
4.	Full correspondence address of proponent and E-mail Id	R/o- Deenapur, Ghazipur, Uttar Pradesh E-mail Id- arvindkumarsingh5418@gmail.com																																				
5.	Name of Project	"Ordinary Sand mine" from Riverbed of Ganga River located at Gata No. 2, Area- 11.0 Ha, Village - Gag Barar Tari, Tehsil - Zamania, District - Ghazipur, Uttar Pradesh by Arvind Kumar Singh/375724																																				
6.	Project Location (Plot/Khasra/Gata No.)	Araji/Gata no.- 2, Village - Gag Barar Tari, Tehsil - Zamania, District - Ghazipur, Uttar Pradesh																																				
7.	Name of River	Ganga River-Adjacent																																				
8.	Name of Village	Gag Barar Tari																																				
9.	Tehsil	Zamania																																				
10.	District	Ghazipur																																				
11.	Name of Minor Mineral	Ordinary Sand																																				
12.	Sanctioned Lease Area (in Ha.)	11.0 ha.																																				
13.	Max. & Min mRL within lease area	Highest mRL is 58 & Lowest is 56 mRL																																				
14.	Pillar Coordinates (Verified by DMO)	Coordinates of the sanctioned lease area- <table border="1"> <thead> <tr> <th>Pillars</th> <th>N</th> <th>E</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>25°34'18.86"N</td> <td>83°35'21.46"E</td> </tr> <tr> <td>B</td> <td>25°34'23.79"N</td> <td>83°35'15.24"E</td> </tr> <tr> <td>C</td> <td>25°34'31.60"N</td> <td>83°35'35.94"E</td> </tr> <tr> <td>D</td> <td>25°34'25.50"N</td> <td>83°35'37.46"E</td> </tr> </tbody> </table> Workable Area <table border="1"> <tbody> <tr> <td>A</td> <td>25°34'18.86"N</td> <td>83°35'21.46"E</td> </tr> <tr> <td>E</td> <td>25°34'30.92"N</td> <td>83°35'34.59"E</td> </tr> <tr> <td>C</td> <td>25°34'31.60"N</td> <td>83°35'35.94"E</td> </tr> <tr> <td>D</td> <td>25°34'25.50"N</td> <td>83°35'37.46"E</td> </tr> </tbody> </table> Area Under Active Water Channel <table border="1"> <tbody> <tr> <td>A</td> <td>25°34'18.86"N</td> <td>83°35'21.46"E</td> </tr> <tr> <td>B</td> <td>25°34'23.79"N</td> <td>83°35'15.24"E</td> </tr> <tr> <td>E</td> <td>25°34'30.92"N</td> <td>83°35'34.59"E</td> </tr> </tbody> </table>	Pillars	N	E	A	25°34'18.86"N	83°35'21.46"E	B	25°34'23.79"N	83°35'15.24"E	C	25°34'31.60"N	83°35'35.94"E	D	25°34'25.50"N	83°35'37.46"E	A	25°34'18.86"N	83°35'21.46"E	E	25°34'30.92"N	83°35'34.59"E	C	25°34'31.60"N	83°35'35.94"E	D	25°34'25.50"N	83°35'37.46"E	A	25°34'18.86"N	83°35'21.46"E	B	25°34'23.79"N	83°35'15.24"E	E	25°34'30.92"N	83°35'34.59"E
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15.	Total Geological Reserves	1,86,468 m <sup>3</sup>																																				
16.	Total Mineable Reserve (as per Approved Mine Plan)	1,10,000 m <sup>3</sup>																																				
17.	Total Proposed Production	5,50,000 m <sup>3</sup> (in 5 years)																																				
18.	Proposed Production	1,10,000 m <sup>3</sup> /year																																				
19.	Sanctioned Period of Mine lease	5 years																																				
20.	Method of Mining	Opencast, Semi-Mechanized																																				
21.	Working hours/day	8																																				
22.	No. of worker	55																																				
23.	No. of vehicles movement/day	43																																				
24.	Type of Land	Govt. land/Riverbed																																				
25.	Ultimate of Depth of Mining	Upto 2.86 m																																				
26.	Nearest metalled road from site	500 m																																				
27.	Water Requirement	<table border="1"> <thead> <tr> <th>PURPOSE</th> <th>REQUIREMENT (KLD)</th> </tr> </thead> <tbody> <tr> <td>Drinking</td> <td>0.55 KLD</td> </tr> <tr> <td>Suppression of dust</td> <td>3.0 KLD</td> </tr> <tr> <td>Plantation</td> <td>0.50 KLD</td> </tr> <tr> <td>Others (if any)</td> <td>-</td> </tr> <tr> <td>Total</td> <td>4.05 KLD</td> </tr> </tbody> </table>	PURPOSE	REQUIREMENT (KLD)	Drinking	0.55 KLD	Suppression of dust	3.0 KLD	Plantation	0.50 KLD	Others (if any)	-	Total	4.05 KLD																								
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Drinking	0.55 KLD																																					
Suppression of dust	3.0 KLD																																					
Plantation	0.50 KLD																																					
Others (if any)	-																																					
Total	4.05 KLD																																					



शिवार्पण इंडिया कं.०  
 बल्लभपुरा, बचेंद्र रोड-गंवा

Minutes of 747<sup>th</sup> SEAC-1 Meeting Dated 11/05/2023

28.	Name of QCI Accredited Consultant with QCI No and period of validity.	AWS Envirotech (OPC) Pvt. Ltd. Certificate no. NABET/EIA/2225/IA 0097(Rev.01) Valid Till July 14, 2025
29.	Any litigation pending against the project or land in any court	No
30.	Details of 500 m Cluster Certificate verified by Mining Officer	vide letter no. 408 Dated on 04.03.2023
31.	Baseline data collection period	March to May 2023
31.	Details of Lease Area in approved DSR	11.0 ha.
32.	Proposed CER cost	Rs. 2.8 lakhs
33.	Proposed EMP cost	EMP cost- 8.0 lakhs as Capital Cost and 5.0 lakhs as Recurring Cost
34.	Distance of Haul Road	500 m
35.	No. of Trees to be Planted	250

- The mining would be restricted to unsaturated zone only above the phreatic water table and will not intersect the ground water table at any point of time.
- This project does not attract any of the general conditions applicable on mining projects specified in EIA Notification 14/09/2006.
- The mining operation will not be carried out in safety zone of any bridge or embankment or in eco-fragile zone such as habitat of any wild fauna.
- There is no litigation pending in any court regarding this project.
- The project proposal falls under category-1(a) of EIA Notification, 2006 (as amended).

The consultant (EIA Coordinator) also submitted an affidavit dated 04/03/2023 mentioning is as follows:

- I, Sandeep Kumar, S/o R.K. Verma is EIA Coordinator of M/s AWS Envirotech (OPC) Pvt. Ltd.
- I have prepared TOR report for the proposal Ordinary Sand Mining from Riverbed of Ganga River from Araji/Gata no.- 02, Village – Gag Barar Tari, Tehsil- Zamania, District- Ghazipur, Uttar Pradesh, (Leased Area- 11.0 ha.) with my team.
- I have personally visited the site of proposal and certify that no Mining activity has been undertaken on the project site for the present proposal.
- I have satisfied with that all the necessary data/information submitted along with TOR application are true and correct.
- I certify that this project proposal has been uploaded for the first time on Parivesh Portal.
- I certify that there will be no mismatch between information/data provided on the online application submitted on Parivesh Portal and the hard copy/presentation which will be submitted after acceptance of application.
- I state that all the TOR points have been complied and all the issues raised during public hearing have been properly addressed in EIA report.
- The TOR application for the Proposal is prepared by my team as per guidelines laid down by QCI/NABET.

The project proponent also submitted a letter dated 28/02/2023 to Directorate of Environment through which they have informed that the collection of baseline monitoring data for the said project has already been started for summer season (March 2023 to May, 2023) as per provision of MoEFCC, OM dated 08/06/2022 for your kind consideration.

**RESOLUTION AGAINST AGENDA NO. 11**

The committee discussed the matter and recommended to issue the standard terms of reference for the preparation of EIA as annexed at annexure-2 to the minutes. The committee also stipulated following additional TOR Points:



शिवार्पण ट्रेडिंग कं०  
काठवाडी, बघेल रोड-बलिया

**Additional TOR:**

1. Project proponent should present latest drone videography of the project site mentioning the date, time and geo coordinates at the time of EIA presentation.
  2. Original Cluster Certificate should be submitted at the time of EIA presentation.
  3. NOC from Irrigation Department/Concerning Authority regarding river bed mining to be submitted at the time of EIA presentation.
  4. To ensure proper monitoring, the project proponent/consultant should provide evidence in form of (A) Raw Data (B) Logbook of their site visit along with activities carried out during monitoring (C) Real time photographs showing monitoring machine, public, lab person etc. Proprietor/proprietor representative should be present at the time of monitoring and monitoring should be conducted as per CPCB SOP/NABET/QCI guidelines. Lab responsible person should be present at the time of EIA presentation.
  5. EIA coordinator & FAE should give a notarized affidavit during EIA presentation that they have personally visited the site & they have also taken all the mitigating measures for any critical issues involved in the project.
  6. The project proponent will have to inform the schedule of monitoring/data collection programme to the SEIAA/SEAC, UP before start of data collection. In case of failure, the collected baseline monitoring data will be treated as null and void.
  7. The details of equipment used for baseline monitoring alongwith its photograph mentioning date, time and geo coordinates for preparation of EIA report should be clearly displayed to the people present during public hearing and the complete details related to monitoring period must be mentioned in the minutes of public hearing.
  8. Original lab analysis report of the project proposal along with EIA report should be uploaded on Parivesh Portal.
  9. Combined KML of all mines in a cluster should be submitted at the time of EIA.
  10. The project proponent/Consultant should identify the core & buffer zone (2.5 km) of the mining site.
  11. Agreement/ Consent between project proponent and competent authority/ landowner for haulage road from lease site to link road to be submitted at the time of EIA presentation.
  12. Proponent/ Consultant should submit the plan/information along with technology (photographs of water sprinklers/ tankers) to be implemented for mitigating dust at source points in lease area and haulage road during operation activity/vehicular movement. Technology should be displayed at the time of EIA presentation.
  13. Proposed plantation plan with area specific plant species, number of plants to be planted and place of plantation along with a proper map to be submitted at the time of EIA presentation.
  14. Water requirement details along with source of water and the permission/ agreement with the concerning authority/ person to be submitted at the time of EIA presentation.
  15. Proponent/consultant shall present TOR specific/additional conditions compliance, observation/suggestions raised during the public hearing and commitment made by the project proponent in a tabular form with a time bound plan at the time of EIA presentation.
  16. Corporate Social Responsibility (CSR) to be prepared as per the MoEF guidelines and present it at the time of EIA presentation.
  17. Submit the hydrological study report of lease area that the quantity given in Lol will be mined without affecting the geo-hydrology of the River.
12. Ordinary Sand Mining from Riverbed of Ganga River, located at Gata No.- 103, Village- Ibrahimpur, Tehsil- Gyanpur, District- Bhadohi, Shri Rana Pratap Singh, Area- 4.047 ha., File No. 7726/ Proposal No. SIA/UP/MIN/423037/2023

The consultant informed the committee that they are strictly following the rules, regulations and other instructions of QCI/NABET. A presentation was made by the project proponent along with their consultant M/ AWS Envirotech (OPC) Pvt. Ltd. Based on the documents submitted and presentation made by the project proponent along with the consultant, the following facts have emerged: -



शिवापण देडिग कं०  
कासबा, बनेर रोड-बनेर

- The terms of reference is sought for Ordinary Sand Mining from Riverbed of Ganga River from Gata no./Khand No. 103, Village – Ibrahimpur, Tehsil- Gyanpur, District- Bhadohi, Uttar Pradesh, (Leased Area- 4.047 ha.),
- Salient features of the project as submitted by the project proponent:

1.	On-line proposal No.	SLA/UP/MIN/423037/2023															
2.	File No. allotted by SEIAA, UP	7726															
3.	Name of Proponent	Shri Rana Pratap Singh															
4.	Full correspondence address of proponent and E-mail Id	R/o- Village- Balarpur, Post- Jangiganj, Tehsil- Gyanpur, District- Bhadohi, U.P. E-mail Id- ranapratapsingh5418@gmail.com															
5.	Name of Project	"Ordinary Sand Mining" from Riverbed of Ganga River from Khand No./Gata No. 103, Village – Ibrahimpur, Tehsil- Gyanpur, District- Bhadohi, Uttar Pradesh; Sanctioned Area- 4.047 ha. developed by Shri Rana Pratap Singh															
6.	Project Location (Plot/Khasra/Gata No.)	Khand No./Gata No. 103, Village – Ibrahimpur, Tehsil- Gyanpur, District- Bhadohi, Uttar Pradesh															
7.	Name of River	Ganga River															
8.	Name of Village	Ibrahimpur															
9.	Tehsil	Gyanpur															
10.	District	Bhadohi															
11.	Name of Minor Mineral	Ordinary Sand															
12.	Sanctioned Lease Area (in Ha.)	4.047 ha.															
13.	Max. & Min mRL within lease area	Highest mRL is 71.20 & Lowest is 67.80 mRL															
14.	Pillar Coordinates (Verified by DMO)	Coordinates of the sanctioned lease area <table border="1"> <thead> <tr> <th>Pillar</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>25°13'17.50"N</td> <td>82°20'56.60"E</td> </tr> <tr> <td>B</td> <td>25°13'17.40"N</td> <td>82°21'05.80"E</td> </tr> <tr> <td>C</td> <td>25°13'11.70"N</td> <td>82°21'05.90"E</td> </tr> <tr> <td>D</td> <td>25°13'12.00"N</td> <td>82°20'56.50"E</td> </tr> </tbody> </table>	Pillar	Latitude	Longitude	A	25°13'17.50"N	82°20'56.60"E	B	25°13'17.40"N	82°21'05.80"E	C	25°13'11.70"N	82°21'05.90"E	D	25°13'12.00"N	82°20'56.50"E
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A	25°13'17.50"N	82°20'56.60"E															
B	25°13'17.40"N	82°21'05.80"E															
C	25°13'11.70"N	82°21'05.90"E															
D	25°13'12.00"N	82°20'56.50"E															
15.	Total Geological Reserves	1,21,650 m <sup>3</sup>															
16.	Total Minesable Reserve (as per Approved Mine Plan)	1,21,410 m <sup>3</sup>															
17.	Total Proposed Production	1,21,410 m <sup>3</sup> /year															
18.	Proposed Production	1,21,410 m <sup>3</sup> /year															
19.	Sanctioned Period of Mine lease	4 years (Remaining lease period)															
20.	Method of Mining	Opencast, Semi-Mechanized															
21.	Working hours/day	8															
22.	No. of worker	20															
23.	No. of vehicles movement/day	45															
24.	Type of Land	Govt. land															
25.	Ultimate of Depth of Mining	Upto 3.0 m															
26.	Nearest metalled road from site	980 m															
27.	Water Requirement	<table border="1"> <thead> <tr> <th>PURPOSE</th> <th>REQUIREMENT (KLD)</th> </tr> </thead> <tbody> <tr> <td>Drinking</td> <td>0.20 KLD</td> </tr> <tr> <td>Suppression of dust</td> <td>4.92 KLD</td> </tr> <tr> <td>Plantation</td> <td>0.50 KLD</td> </tr> <tr> <td>Others (if any)</td> <td>-</td> </tr> <tr> <td><b>Total</b></td> <td><b>5.62 KLD</b></td> </tr> </tbody> </table>	PURPOSE	REQUIREMENT (KLD)	Drinking	0.20 KLD	Suppression of dust	4.92 KLD	Plantation	0.50 KLD	Others (if any)	-	<b>Total</b>	<b>5.62 KLD</b>			
PURPOSE	REQUIREMENT (KLD)																
Drinking	0.20 KLD																
Suppression of dust	4.92 KLD																
Plantation	0.50 KLD																
Others (if any)	-																
<b>Total</b>	<b>5.62 KLD</b>																
28.	Name of QCI Accredited Consultant with QCI No and period of validity.	AWS Envirotech (OPC) Pvt. Ltd. Certificate no. NABET/EIA/2225/1A 0097(Rev.01) Valid Till July 14, 2025															
29.	Any litigation pending against the project or land in any court	No															
30.	Details of 500 m Cluster Certificate verified by Mining Officer	vide letter no. 36/Khanan Ilpik/ 2023 Dated on 03.02.2023															
31.	Baseline data collection period	March to May 2023 (intimation letter submitted)															
32.	Details of Lease Area in approved DSR	In approved DSR, Bhadohi details on Page No. 11															



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33.	Proposed CER cost	Rs. 2.76 Lakhs
34.	Proposed EMP cost	EMP Cost is Rs. 10.63 Lakhs as capital cost and Rs. 24.50 lakhs as recurring cost
35.	Distance of Haul Road	980 m
36.	No. of Trees to be Planted	250

- The mining would be restricted to unsaturated zone only above the phreatic water table and will not intersect the ground water table at any point of time.
- This project does not attract any of the general conditions applicable on mining projects specified in EIA Notification 14/09/2006.
- The mining operation will not be carried out in safety zone of any bridge or embankment or in eco-fragile zone such as habitat of any wild fauna.
- There is no litigation pending in any court regarding this project.
- The project proposal falls under category-1(a) of EIA Notification, 2006 (as amended).

The consultant (EIA Coordinator) also submitted an affidavit dated 14/03/2023 mentioning is as follows:

- I, Sandeep Kumar, S/o R.K. Verma is EIA Coordinator of M/s AWS Envirotech (OPC) Pvt. Ltd.
- I have prepared TOR report for the proposal Ordinary Sand Mining from Riverbed of Ganga River from Gata no./Khand No. 103, Village – Ibrahimpur, Tehsil- Gyanpur, District- Bhadohi, Uttar Pradesh, (Leased Area- 4.047 ha.) with my team.
- I have personally visited the site of proposal and certify that no Mining activity has been undertaken on the project site for the present proposal.
- I have satisfied with that all the necessary data/information submitted along with TOR application are true and correct.
- I certify that this project proposal has been uploaded for the first time on Parivesh Portal.
- I certify that there will be no mismatch between information/data provided on the online application submitted on Parivesh Portal and the hard copy/presentation which will be submitted after acceptance of application.
- I state that all the TOR points have been complied and all the issues raised during public hearing have been properly addressed in EIA report.
- The TOR application for the Proposal is prepared by my team as per guidelines laid down by QCI/NABET.

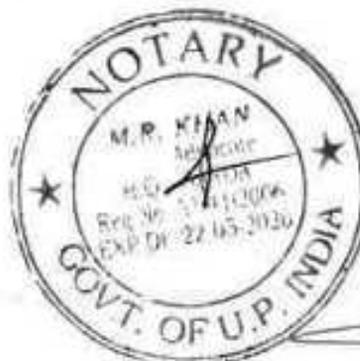
The project proponent also submitted a letter dated 01/03/2023 to Directorate of Environment through which they have informed that the collection of baseline monitoring data for the said project has already been started for summer season (March 2023 to May, 2023) as per provision of MoEFCC, OM dated 08/06/2022 for your kind consideration.

#### **RESOLUTION AGAINST AGENDA NO. 12**

The committee discussed the matter and recommended to issue the standard terms of reference for the preparation of EIA as annexed at annexure-2 to the minutes. The committee also stipulated following additional TOR Points:

#### **Additional TOR:**

- Project proponent should present latest drone videography of the project site mentioning the date, time and geo coordinates at the time of EIA presentation.
- Original Cluster Certificate should be submitted at the time of EIA presentation.
- NOC from Irrigation Department/Concerning Authority regarding river bed mining to be submitted at the time of EIA presentation.
- To ensure proper monitoring, the project proponent/consultant should provide evidence in form of (A) Raw Data (B) Logbook of their site visit along with activities carried out during monitoring (C) Real time photographs showing monitoring machine, public, lab person etc.



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khand No.)					
7. Name of River	NA				
8. Name of Village	Rawan Bujarg				
9. Tehsil	Sambhal				
10. District	Sambhal(U.P)				
11. Name of Minor Mineral	Ordinary Soil Excavation Project				
12. Sanctioned Lease Area (in Ha.)	0.865 Ha.				
13. Mineable Area (in Ha.)	0.6048 Ha (safety margin 0.2602 Ha.)				
14. Zero level mRL	NA				
15. Max. & Min. mrl within lease area	The elevation of the given excavation site is 204 mRL.				
16. Pillar Coordinates (Verified by DMO)	Gata No.	Point	Latitude	Longitude	
	562	A	28°40'54.35"N	78°31'30.77"E	
		B	28°40'53.06"N	78°31'32.29"E	
		C	28°40'49.29"N	78°31'28.76"E	
		D	28°40'50.33"N	78°31'27.12"E	
17. Total Geological Reserves	19030 m <sup>3</sup>				
18. Total Mineable Quantity	12700 m <sup>3</sup> in three months				
19. Total Proposed Production	4233.33 m <sup>3</sup> in one months				
20. Sanctioned Period of Mine lease	3 months				
21. Production of mine/day	NA				
22. Method of Mining	Open cast, Semi Mechanized				
23. No. of working days	90 days				
24. Working hours/day	8 hours/day				
25. No. Of workers	Approximately 20 workers				
26. No. Of vehicles movement/day	Approximately 3- 4 movements per day				
27. Type of Land	Private land(agricultural)				
28. Ultimate Depth of Mining	2.2 meter as per mining plan approval letter				
29. Nearest metalled road from site	Sambhal Joya Road is about 1.24 Km towards East direction from the excavation site.				
30. Water Requirement	PURPOSE		REQUIREMENT (KLD)		
	Drinking		0.30		
	Suppression of dust		1.98		
	Plantation		0.01		
	Others (if any)		-		
Total		2.29 KLD Approx.			
31. Name of QCI Accredited Consultant with QCI No And period of validity.	M/s Environmental Research and Analysis, Lucknow (U.P) Certificate No. NABET/ EIA/ 1922/RA 0200 (Rev 01)Extension Validity Till: 21.01.2024				
32. Any litigation pending against the project or land in any court	No				
33. Details of 500 m Cluster Map & certificate issued by Mining Officer	Letter No. 476/Khanij/2022-23 on dated 06/03/2023				
34. Details of Lease Area in approved DSR	NA				
35. Proposed EMP cost	Rs 2,29,810/- (more than 2% of the total Project cost)				
36. Total Project cost	Rs. 12,00,000/-				
37. Length and breadth of Haul Road	220 m length and 6 m width				
38. No. of Trees to be Planted	10				

- The mining would be restricted to unsaturated zone only above the phreatic water table and will not intersect the ground water table at any point of time.
- This project does not attract any of the general conditions applicable on mining projects specified in EIA Notification 14/09/2006.
- The mining operation will not be carried out in safety zone of any bridge or embankment or in eco-fragile zone such as habitat of any wild fauna.
- There is no litigation pending in any court regarding this project.
- The project proposal falls under category-1(a) of EIA Notification, 2006 (as amended).

The consultant (EIA Coordinator) also submitted an affidavit dated 08/03/2023 mentioning is as follows:



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1. I Vishnu Kumar Awasthi S/o Lt. R G Awasthi is EIA Coordinator of M/s Environmental Research and Analysis, Lucknow (U.P.), Accreditation Certificate No- NABET/ EIA/ 1922/RA 0200 (Rev 01), valid till- 21/01/2024.
2. I have prepared EC (B2) report for the Proposal No. SIA/UP/MIN/422075/2023, File No. 7707, Prop. Shri Chaman Singh S/o Shri Param Singh R/o 10/242, Buddhi Vihar, Avas Vikas phase 2, District - Moradabad (U.P.) proposed "Ordinary Soil Excavation Project" at Gata No. 562. (Total area 0.865 Ha.) located in village- Rawan Bujurg, Tehsil & District - Sambhal, Uttar Pradesh with my team.
3. I have personally visited the site of proposal and certify that no Mining activity has been undertaken on the project site for the present proposal.
4. I have satisfied with that all the necessary data/information required for EC (B2) presentations are true and correct.
5. I certify that this project proposal has not been previously uploaded on parivesh portal.
6. I certify that there will be no mismatch between information/data provided on the online application submitted on Parivesh Portal and the hard copy/presentation which will be submitted after acceptance of application.
7. The EC (B2) report for the Proposal is prepared by my team as per guidelines laid down by QCI/NABET.

#### RESOLUTION AGAINST AGENDA NO. 13

The committee discussed the matter and recommended grant of environmental clearance for the project proposal along with general and specific conditions as annexed at Annexure-3 to these minutes.

#### 14. Tannery Unit Raw to Finished Leather (Capacity: 800 Hides per day / 16.00 MT per day) at Plot no. 1154 & 1402, LIDA Banthar, District- Unnao, U.P., M/s Everest Exports. File No. 7710/5292/ Proposal No. SIA/UP/IND/83149/2019

The consultant informed the committee that they are strictly following the rules, regulations and other instructions of QCI/NABET. A presentation was made by the project proponent along with their consultant M/s Green Enviro Engineers Pvt. Ltd. Based on the documents submitted and presentation made by the project proponent along with the consultant, the following facts have emerged: -

1. The environmental clearance is sought for Tannery Unit Raw to Finished Leather (Capacity: 800 Hides per day / 16.00 MT per day) at Plot no. 1154 & 1402, LIDA Banthar, District- Unnao, U.P., M/s Everest Exports.
2. The terms of reference in the matter were issued by SEIAA, U.P. vide letter no. 195/Parya/SEAC/5292/2018, dated 08/07/2020.
3. Public hearing was organized on 26/11/2022 and final EIA report submitted by project proponent on 17/03/2023.
4. The land has been allotted by Lucknow Industrial Development Authority in favour of project proponent vide letter dated 22/04/2014.
5. Fire NOC obtained by project proponent M/s Everest Exports on 07/08/2020.
6. Consent to operate for dry shoe unit has been issued by UPPCB vide letter no. 161363/UPPCB/Unnao(UPPCBRO)/CTO/Both/Unnao/2022, dated 20/08/2022.
7. Project brief:

Particulars	Details
Name of project	Everest Exports-Leather Unit (raw hide to finish leather)
Location of site	Plot no. 1154 & 1402 of Village Banthar, District Unnao, Uttar Pradesh



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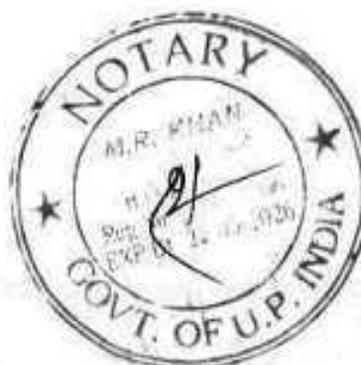
Geo-Coordinates of the site:	Location	Latitude	Longitude
	P1	26°28'48.13"N	80°27'25.29"E
	P2	26°28'43.64"N	80°27'21.21"E
	P3	26°28'41.42"N	80°27'22.94"E
	P4	26°28'44.97"N	80°27'26.36"E
	P5	26°28'44.87"N	80°27'28.34"E
	P6	26°28'46.79"N	80°27'27.71"E
New/expansion/modernization	New Project		
Total proposed Capacity	Capacity 800 Hides per day / 16.00 MT per day		
Land required/available	18,009.60 sq.m. (Approx. 4.4 Acre)		
Greenbelt / Plantation Area (ha)	33% of the total land area 6000 sq.m. ( Approx)		
Estimated project cost	INR 6.09 crore		
Manpower Requirement	During Construction phase: 100-150 Nos. During Operation phase: 300 Nos.		
Nearest highway	NH-25 (Lucknow -Kanpur): 0.17 km W		
Nearest railhead / Railway station	Magarwara about 4.28 km NW from the project site and Unnao Junction, about 6.89 km N/NE from the proposed project site.		
Nearest airport	Kanpur Military Airport, Kanpur- 9.5 km S/SW from the site.		
Defense installations	None		
Archaeological important places	None		
Wild life sanctuaries	Chandra Shekhar Azad/ Nawabganj Bird Sanctuary approximate 25.0 Km NE.		
Nearest major city	Unnao about 7.0 Km NE.		
Rivers in 05-km radius	None (Ganga River approximate 6.5-7.0 Km SW/S)		
Drain	Ganda Nala 1.5 to 2.0 Km W/SW		
Hill ranges	None		
Seismic zone	Seismic zone-III as per UEVRP (Urban Earthquake Vulnerability Reduction Program) Seismic zone map of India and Uttar Pradesh & (IS 1893:2002 (Part-1))		

## 8. Land use details:

Land Use	Total area	% of Total Plot
Area under plots	18000	100
Road and Parking area	3000	16
Common Facilities plant and machinery	7000	38
Green Spaces	6000	34
ETP, Salt recovery and chrome recovery unit	2000	12
Basement	Nil	

## 9. Proposed equipment/machinery details:

S. No.	Name of Equipment/Machinery	Quantity
1.	Salt shaker (Rotary Drum)	01
2.	Soaking and liming drums	02
3.	Fleshing machine	02
5.	Wet blue drums	02
6.	Wet blue sammying machine	01
7.	Splitting machine	02



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8.	Shaving machine	03
9.	Retaining and Drying fat liquor Drum	06
10.	Dyeing fat liquoring drums	05
11.	Setting machine	02
12.	Drying unit	01
13.	Finishing machine	04

## 10. Water requirement details:

Sr. N.	Tanning Processes	Water used KL Per ton of raw hides processed
1	Soaking	6
2	Liming	6
3	Delimiting and Bating	6
4	Pickling	2
5	Chrome Tanning	2
6	Neutralization, Re-Tanning, Dyeing and Fat Liquoring	4
7	Finishing	1
8	Washing	1
	Total	28 KL / Ton (16 MT per Day)
9	Total water requirement in the manufacturing/ industrial process	448 KL/Day
10	Total water requirement for manufacturing / industrial process and other activities	508 KL/Day

## 11. Waste water details:

Sr. N.	Tanning Processes	Wastewater generation in the raw hides processed KL Per ton
1	Soaking	0.6
2	Liming, Delimiting and Bating, Pickling, Neutralization, Re-Tanning, Dyeing and Fat Liquoring, Finishing, washing	21.25
5	Chrome Tanning	0.3
	Total	22.15 KL / Ton (16 MT per Day)
9	Total waste water generation	355 KL/day

## 12. Solid / hazardous waste generation:

Sr. No.	Type of Waste	Category as Per Rule	Quantity Generation (MT/Month)	Utilization / Disposal Plan
1.	Coal Ash (Generated through Boiler)	---	2 - 3	Utilization for as per fly ash rule.
2.	ETP sludge	35.3	2-3	Dispose through TSDF site.
3.	Used Oil (Generated through stand by DG set)	5.1	100 liter/Month	Partial used in Boiler and partial sell to register recycler.
4.	Small pieces of feather	---	2-3	<ul style="list-style-type: none"> <li>Smaller particle (saver dust) will sell to feeder and fertilizer industry.</li> <li>Bigger part will sell to end user.</li> </ul>
5.	Salt recover from MEE and ATFD	37.3	3 - 4 MT per Day	Dispose through TSDF site.

13. The project proposal falls under category-4(f) of EIA Notification, 2006 (as amended).

The project proponent also informed that EC applied for your kind consideration does not cover existing constructed area. The area adjacent to the proposed land is for carrying out other operations and had achieved CTE for dry shoe unit from UPPCB which does not require environmental clearance. The proposed site applied for EC is not having construction and lying vacant, geo coordinates are provided for your kind consideration and this land will have separate boundaries.



शिवानि मेडिया कं०  
कार्यकुर्मा, बनेर रोड-बोहा

The consultant (EIA Coordinator) also submitted an affidavit dated 10/05/2023 mentioning is as follows:

1. I, Hari Om Sharan Dwivedi, S/o Shree A.S. Dwivedi is EIA Coordinator of M/s Green Enviro Engineers Pvt. Ltd.
2. I have prepared the EIA/EMP report for the proposal in Name of Everest Exports with my team.
3. I have personally visited the site of proposal and certify that no Mining/construction activity has been undertaken on the project site for the present proposal.
4. I have satisfied with that all the necessary data/information submitted along with application/EIA/EMP are true and correct.
5. I certify that this project proposal has not been previously uploaded on parivesh portal.
6. I certify that there will be no mismatch between information/data provided on the online application submitted on Parivesh Portal and the hard copy/presentation which will be submitted after acceptance of application.
7. I state that all the TOR points have been complied and all the issues raised during public hearing have been properly addressed in EIA report.
8. The EIA/EMP report for the Proposal is prepared by my team as per guidelines laid down by QCI/NABET.

#### RESOLUTION AGAINST AGENDA NO-14

The committee discussed the matter on the basis of documents and affidavit submitted by the project proponent, consultant and presentation made before SEAC, the committee recommended grant of environmental clearance for the project proposal along with following environmental clearance conditions:

- I. The project proponent shall not discharge any chrome bearing effluent outside the premises and maintain the concept of Zero Liquid Discharge. In case of failure, this environmental clearance shall automatically deem to be cancelled.
- II. The project proponent shall collect, handle and store chrome bearing waste properly in the premises to avoid the percolation in soil and dispose as per the guidelines of CPCB/UPPCB.
- III. The project proponent shall establish a separate Environment Management Cell headed by well qualified person with supporting staff and laboratory to monitor and manage environment management plan as proposed by proponent.
- IV. As per proposal of project proponent, the project proponent shall follow all the possible technologies as incorporated in final draft guidelines of CPCB (March-2019) named "Guidelines for Environmental Improvement in Leather Tannery Sector". Further they shall also adopt salt free pickling techniques.
- V. The project proponent shall install continuous emission monitoring system on the stack of boiler to monitor the parameter named PM, SO<sub>2</sub>, NO<sub>2</sub> & Temp and Online monitoring system will be installed at the outlet of ETP as per CPCB guideline to monitor the parameter named PH, BOD, COD, TSS, DO and will be connected with CPCB server.
- VI. Statutory compliance:
  1. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
  2. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
  3. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (in case of the presence of schedule-I species in the study area)
  4. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air



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(Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee.

5. The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.

VII. Air quality monitoring and preservation:

1. The project proponent shall install emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986.
2. The project proponent shall monitor fugitive emissions (for PM2.5, PM10, NH3 and VOCs) in the plant premises at least once in a year through labs recognized under Environment (Protection) Act, 1986.
3. The project proponent shall submit monthly summary report of monitoring of air quality / fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB in the six-monthly monitoring report.
4. The project proponent shall provide appropriate Air Pollution Control (APC) system for all the emission generating points so as to comply prescribed stack emission standards (if any stack is proposed).
5. Adequate method shall be adopted to control odour and a report submitted to the Ministry's Regional Office.
6. The Company shall provide stacks of adequate height to the D.G. Sets along with acoustic enclosures for noise control as per guidelines. The DG Sets should comply with the norms notified.

VIII. Water quality monitoring and preservation:

1. The project proponent shall install 24x7 continuous effluent monitoring system at discharge points for effluents with respect to standards prescribed in Environment (Protection) Rules 1986 and connect to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
2. The effluent shall monitor manually with respect to standards prescribed in Environment (Protection) Rules 1986 at least once in every quarter through labs recognised under Environment (Protection) Act, 1986.
3. The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers / sampling wells in the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.
4. Ground water monitoring around the solid waste disposal site/secured landfill (SLF), if any, should be carried out regularly.
5. The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
6. The project proponent provide the ETP for effluent to meet the standards prescribed under the Environment (Protection) Rules, 1986 as amended from time to time.
7. The project proponent allows the treated effluent to be discharged in the ambient environment only after exhausting options for reuse in order to minimise freshwater usage. (in case of the large scale tanneries in sensitive / critical areas- implement Zero Liquid Discharge)
8. Provide Sewage Treatment Plant for domestic wastewater in case there is no municipal sewer line to convey sewage for treatment at Municipality sewage treatment plant.
9. Garland drains and collection pits shall be provided for each stock pile to arrest the run-



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- off in the event of heavy rains and to check the water pollution due to surface run off.
10. The project proponent shall practice rainwater harvesting to maximum possible extent.
  11. Water meters shall be provided at the inlet to all unit processes in the steel plants.
  12. The project proponent shall make efforts for reduction in specific water and power consumption and increase in the recycling of the treated effluent.
- IX. Noise monitoring and prevention:
1. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.
- X. Energy Conservation measures:
1. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
  2. Provide LED lights in their offices and residential areas.
- XI. Waste management:
1. Spent chrome liquor should be segregated at the tannery premises and collected separately and processed for recovery and reuse of chromium in the tanneries. The process adopted should be the one involving precipitation of chromium with the help of a suitable alkali. Design of the proposed continuous Chrome Recovery plant should be approved by a Govt. institute such as NEERI, CLRI, IITs, NITs.
  2. In-house various salt control measures shall be adopted by tanneries such as mechanical desulphing of hide, counter current soaking and recycling of pickle liquor to reduce TDS.
  3. The company shall dispose of solid waste in the secured double lined landfill site. The fleshings from the tannery shall be supplied to the manufacturers of dog chew and glue or properly dispose of in environment-friendly manner.
  4. The waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rule s, 2016 and Solid Waste Management Rules, 2016.
- XII. Green Belt:
1. Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant
- XIII. Public hearing and Human health issues:
1. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
  2. ii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- XIV. Corporate Environment Responsibility:
1. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017- IA.III dated 1<sup>st</sup> May 2018, as applicable, regarding Corporate Environment Responsibility.
  2. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation /violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation/ violation of the environmental / forest / wildlife norms / eonditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
  3. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive , who will directly to the head of the organization.
  4. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by



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competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

5. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
6. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the tannery sector shall be implemented.

XV. Miscellaneous:

1. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
2. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
3. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
4. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
5. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
6. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
7. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
8. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
9. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
10. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
11. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
12. The Ministry reserves the right to stipulate additional conditions if found necessary.
13. The Company in a time bound manner shall implement these conditions. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
14. The above conditions shall 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, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public



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Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

15. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

(Dr. Brij Bihari Awasthi)  
Member

(Umesh Chandra Sharma)  
Member

(Dr. Ratan Kar)  
Member

(Om Prakash Srivastava)  
Member

(Ashish Tiwari)  
Member-Secretary, SEAC

(Rajive Kumar)  
Chairman

Nodal, SEAC-I

MoM prepared by Secretariat in consultation with Chairman & Members on the basis of decisions taken by SEAC-I during the meeting.



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Annexure-1General and Specific Conditions for Gitti, Patthar & Boulder Mining Projects: -A. General Conditions:

1. This environmental clearance is subject to allotment of mining lease in favour of project proponent by District Administration/Mining Department.
2. Forest clearance shall be taken by the proponent as necessary under the law.
3. Any addition of the mining area, change of Khasra numbers, enhancement of capacity, change in mining technology, modernization, and scope of working shall again require prior environmental clearance as per EIA notification, 2006.
4. No change in the calendar plan including excavation, the quantum of mineral and waste shall be made.
5. Mining will be carried out as per the approved mining plan. In case of any violation of the mining plan, the Environmental Clearance given by SEIAA will stand cancelled.
6. Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for RSPM, SPM, SO<sub>2</sub>, NO<sub>x</sub> monitoring. The location of the stations should be decided based on the meteorological data, topographical features, and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board. The monitored data for criteria pollutants shall be regularly uploaded on the company's website and also displayed on the website.
7. Data on ambient air quality (RPM, SPM, SO<sub>2</sub>, NO<sub>x</sub>) should be regularly submitted to the Integrated Regional Office, MoEF&CC, GoI, Lucknow and the State Pollution Control Board / Central Pollution Control Board once in six months.
8. Ambient air quality at the boundary of the mine premises shall conform to the norms prescribed in MoEF notification no. GSR/826(E) dated 16.11.09.
9. Fugitive dust emissions from all the sources shall be controlled regularly. Water spraying arrangement on haul roads, loading and unloading, and at transfer points shall be provided and properly maintained.
10. Measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. shall be provided with earplugs/muffs and health records of the workers shall be maintained.
11. Industrial wastewater (workshop and wastewater from the mine) should be properly collected, treated to conform to the standards prescribed under GSR 422 (E) dated 19th May 1993 and 31<sup>st</sup> December 1993 or as amended from time to time. Oil and grease traps shall be installed before the discharge of workshop effluents.
12. Personnel working in areas shall be provided with protective respiratory devices like masks and they shall also be imparted adequate training and information on safety and health aspects.
13. Special measures shall be adopted to prevent the nearby settlements from the impacts of mining activities.
14. The transportation of the materials shall be limited to the day hours' time only.
15. Provision shall be made for housing the laborers within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, safe drinking water, medical health care, crèche, etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
16. A separate Environmental Management Cell with suitably qualified personnel shall be setup under the control of a Senior Executive, who will report directly to the Head of the Organization.
17. The Project Proponent shall inform the Integrated Regional Office, MoEF&CC, GoI, Lucknow and State Pollution Control Board regarding the date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
18. The funds earmarked for environmental protection measures shall be kept in a separate account and shall not be diverted for other purposes. The year-wise expenditure shall be reported to the Integrated Regional Office, MoEF&CC, GoI, Lucknow and State Pollution Control Board



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19. The Integrated Regional Office, MoEF&CC, GoI, Lucknow and State Pollution Control Board shall monitor compliance with the stipulated conditions. A complete set of documents including Environment Impact Assessment Report, Environmental Management Plan, Public hearing, and other documents information should be given to the Integrated Regional Office, MoEF&CC, GoI, Lucknow and State Pollution Control Board
20. A copy of the environmental clearance shall be submitted by the Project Proponent to the Heads of the Local Bodies, Panchayat, and Municipal Bodies as applicable in the matter.
21. The Project Proponent shall advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Level Environment Impact Assessment Authority (SEIAA).
22. The Project Proponent has to submit a regular half-yearly compliance report of the stipulated prior environmental clearance terms and conditions in hard and soft copy to the SEIAA, U.P. on 1<sup>st</sup> June and 1<sup>st</sup> December of each calendar year.
23. The SEIAA may alter/modify the above conditions or stipulate any further condition in the interest of environmental protection.
24. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.

**B. Specific Conditions:**

1. At the time of operation, the project proponent will comply with all the guidelines issued by the Government of India/State Govt./District Administration related to Covid-19.
2. This environmental clearance does not create or verify any claim of the applicant on the proposed site/activity.
3. In case it has been found that the E.C. obtained by providing incorrect information, submitting that the distance between the two adjoining mines is greater than 500mt, and the area is less than 05 ha, but factually the distance is less than 500 mt, and the mine is located in the cluster of area equal to or more than 05 ha, the E.C issued will stand revoked.
4. This environmental clearance shall be subject to a valid lease in favor of the project proponent for the proposed mining proposals. In case, the project proponent does not have a valid lease, this environmental clearance shall automatically become null and void.
5. The Environmental clearance will be co-terminus with the mining lease period/Mining Plan whichever is less. The Mining plan approved by the Dept. of Mines and Geology shall be strictly implemented and shall not be operated beyond the validity period.
6. Explosive cannot be stored on the site. The Project proponent shall take approval from Chief Controller of Explosive, if applicable for use or storage of explosive or any such materials.
7. A comprehensive EIA including mining areas within 15 K.M. to assess the impact of the mining activity on the surrounding area shall be undertaken and a report submitted to this Authority within one year.
8. No two pits shall be simultaneously worked i.e. before the first is exhausted and reclamation work completed, no mineral bearing area shall be worked.
9. After exhausting the first mine pit and before starting mining operations in the next pit, reclamation and plantation work in the exhausted pit shall be completed to ensure that reclamation, forest cover, and vegetation are visible during the first year of mining operations in the next pit. This process will follow till the last pit is exhausted. Adequate rehabilitation of mined pit shall be completed before any new ore-bearing area is worked for expansion.
10. An adequate buffer zone shall be maintained between two consecutive mineral-bearing deposits.
11. The sprinkling of water on haul roads to control dust will be ensured by the project proponent.
12. Green belt development shall be carried out considering CPCB guidelines including the selection of plant species and in consultation with the local DFO / Agriculture Department. Herbs and shrubs shall also form a part of the afforestation programme besides tree plantation. The company shall involve local people in the plantation programme. Details of year-wise



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- afforestation programme including rehabilitation of mined-out area shall be submitted to the Integrated Regional Office, MoEF&CC, GoI, Lucknow every year.
13. Blast vibrations study shall be conducted and an observation report submitted to the Integrated Regional Office, MoEF&CC, GoI, Lucknow and UPPCB within six months. The report shall also include measures for the prevention of blasting associated impact on nearby houses and agricultural fields.
  14. Controlled blasting techniques with sequential blasting shall be adopted. The blasting shall be carried out in the daytime only. The project proponent shall ensure prevention of displacement of human beings/wild animals/birds etc. and in case any such displacement is caused due to blasting/mining operation by any chance the project proponent shall take suitable measures for their rehabilitation and resettlement.
  15. Appropriate arrangement for shelter and drinking water for the mining workers has to be ensured at the mining site.
  16. Maintenance of village roads used for transportation of minerals is to be done by the company regularly at its own expenses. The link roads from mining area to main road shall be constructed as all-weather road with black topping and maintained by the project proponent.
  17. The surface runoff rain water harvesting/rain water recharge and water conservation measures will be taken by project proponent in consultation with central /State ground water Board. The project proponent shall plan and implement collection drain and siltation basins of adequate size to arrest the silt and sediment flows from the mining area. The supernatant of the siltation basin and rain water harvested water shall be utilized for watering the haulage area, roads and green belt development etc.
  18. Status of implementation shall be submitted to the Integrated Regional Office, MoEF&CC, GoI, Lucknow and UP Pollution Control Board within six months and thereafter every year from the next consequent year.
  19. The self-environmental audit shall be conducted annually. Every three years third-party environmental audit shall be carried out.
  20. Measures for prevention and control of soil erosion and management of silt shall be undertaken. Protection of dumps against erosion shall be carried out with geotextile matting or other suitable material, and thick plantations of native trees and shrubs shall be carried out at the dump slopes. Dumps shall be protected by retaining walls.
  21. Trenches/garland drains shall be constructed at foot of dumps and coco filters installed at regular intervals to arrest silt from being carried to water bodies. An adequate number of Check Dams and Gully Plugs shall be constructed across seasonal/perennial nullahs if any flowing through the ML area and silts arrested. De silting at regular intervals shall be carried out.
  22. Garland drain of appropriate size, gradient, and length shall be constructed for both mine pit and waste dump and sump capacity shall be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity shall also provide an adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and de silted at regular intervals.
  23. Ground and surface water, if any in and near the core zone (within 5.0 km of the lease) shall be regularly monitored for contamination and depletion due to mining activity and records maintained. The monitoring data shall be submitted to the Integrated Regional Office, MoEF&CC, GoI, Lucknow and U.P. Pollution Control Board regularly. Further, monitoring points shall be located between the mine, and drainage in the direction of flow of groundwater shall be set up and records maintained.
  24. Fugitive dust generation shall be controlled. Fugitive dust emission shall be regularly monitored at locations of nearest human habitation (including schools and other public amenities located nearest to sources of dust generation as applicable) and records submitted to the Integrated Regional Office, MoEF&CC, GoI, Lucknow and U.P. Pollution Control Board regularly.
  25. Baseline data for ambient air quality shall be generated and maintained and RSPM level in ambient air in the nearby human habitation (villages) shall also be monitored along with other parameters.
  26. Corporate Environmental Responsibility (CER) shall be by the project proponent and the details of the various heads of expenditure are to be submitted as per the guidelines provided in the



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- recent CER notification No. 22-65/2017-IA, III dated 01/05/2018. Work to be executed with the installation of five hand pumps for drinking water, solar light in villages of streets, construction of two numbers of toilets at the primary school with name displayed and address and details of the beneficiary and gram Pradhan along with phone number, photographs should be submitted to Directorate as well as to the District Magistrate / Chief Development officers.
27. Transportation of minerals shall be done by covering the trucks with tarpaulin or other suitable mechanisms so that no spillage of mineral/dust takes place.
  28. Occupational health and safety measures for the workers including identification of work-related health hazards, training on malaria eradication, HIV, and health effects on exposure to mineral dust, etc. shall be carried out. Periodic monitoring for exposure to respirable mineral dust on the workers shall be conducted and records maintained including the health records of the workers. Awareness programmes for workers on the impact of mining on their health and precautionary measures like the use of personal protective equipment etc. shall be carried out periodically. A review of the impact of various health measures shall be conducted followed by follow-up action wherever required.
  29. The project proponent will ensure for employing local people as per requirement, necessary protection measures around the mine pit and waste dump, and garland drain around the mine pit and waste dump.
  30. Topsoil / solid waste shall be stacked properly with proper slope and adequate safeguards and shall be utilized for backfilling (wherever applicable) for reclamation and rehabilitation of the mined-out area. Topsoil shall be separately stacked for utilization later for reclamation and shall not be stacked along with overburden.
  31. Overburden (OB) shall be stacked at the earmarked dump site(s) only and shall not be kept active for long period. The maximum height of the dump shall not exceed 20 m, each stage shall preferably be of a maximum of 10 m and the overall slope of the dump shall not exceed 35°. The OB dump shall be backfilled. The OB dumps shall be scientifically vegetated with suitable native species to prevent erosion and surface runoff.
  32. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Regional Office, Ministry of Environment & Forests, Gof, Lucknow, and U.P. Pollution Control Board on a six-monthly basis.
  33. The slope of the mining bench and ultimate pit limit shall be as per the mining scheme approved by the Indian Bureau of Mines.
  34. Permission for the abstraction of groundwater shall be taken from Central Ground Water Board. Regular monitoring of ground and surface water sources for level and quality shall be carried out by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring shall be carried out four times in a year i.e., premonsoon (April May), monsoon (August), post-monsoon (November), and winter (January), and the data thus collected shall be regularly sent to MoEF&CC, Central Ground Water Authority, and Regional Director, Central Ground Water Board.
  35. The wastewater from the mine shall be treated to conform to the prescribed standards before discharging into the natural stream. The discharged water from the Tailing Dam, if any shall be regularly monitored and report submitted to the Integrated Regional Office, MoEF&CC, Gof, Lucknow, Central Pollution Control Board, and the State Pollution Control Board.
  36. Hydrogeological study of the area shall be reviewed by the project proponent annually. In case the adverse effect on groundwater quality and quantity is observed mining shall be stopped and resumed only after mitigating steps to contain any adverse impact on groundwater is implemented.
  37. Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transportation of minerals and others shall have valid permissions as prescribed under Central Motor Vehicle Rules, 1989 and its amendments. The vehicles transporting minerals shall be covered with a tarpaulin or other suitable enclosures so that no dust particles / fine matters escape during the period of transportation. No overloading of minerals for transportation shall be committed. The trucks transporting minerals shall not pass through the wildlife sanctuary if any in the study area.



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Annexure-2Standard Terms of Reference for the Mining Project prescribed by MoEF&CC, Govt

- 1) Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994.
- 2) A copy of the document in support of the fact that the proponent is the rightful lessee of the mine should be given.
- 3) All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee.
- 4) All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/ toposheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
- 5) Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.
- 6) Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.
- 7) It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/ violation of the environmental or forest norms/ conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the EIA Report.
- 8) Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.
- 9) The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.
- 10) Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
- 11) Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.
- 12) A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committee.
- 13) Status of forestry clearance for the broken up areas and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.
- 14) Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional



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- Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
- 15) The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
  - 16) A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.
  - 17) Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/ Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.
  - 18) A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RIT Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled- I fauna found in the study area, the necessary plan alongwith budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
  - 19) Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Department should be secured and furnished to the effect that the proposed mining activities could be considered.
  - 20) R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.
  - 21) One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season); December-February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.
  - 22) Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
  - 23) The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.
  - 24) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.
  - 25) Description of water conservation measures proposed to be adopted in the Project should be given.
  - 26) Details of rainwater harvesting proposed in the Project, if any, should be provided.
  - 27) Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.
  - 28) Based on actual monitored data, it may clearly be shown whether working will intersect groundwater.



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- 29) Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.
- 30) Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.
- 31) Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
- 32) A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.
- 33) Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.
- 34) Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
- 35) Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.
- 36) Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
- 37) Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
- 38) Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
- 39) Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.
- 40) Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
- 41) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
- 42) The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
- 43) A Disaster management Plan shall be prepared and included in the EIA/EMP Report.
- 44) Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
- 45) Besides the above, the below mentioned general points are also to be followed:-
  - a) Executive Summary of the EIA/EMP Report
  - b) All documents to be properly referenced with index and continuous page numbering.
  - c) Where data are presented in the Report especially in Tables, the period in which the data



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were collected and the sources should be indicated.

- d) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.
- e) Where the documents provided are in a language other than English, an English translation should be provided.
- f) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.
- g) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF&CC vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.
- h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.
- i) As per the circular no. J-11011/618/2010-IA.IR(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.
- j) The EIA report should also include: (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.



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Annexure-3General and Specific Conditions for Soil Earth Mining Projects:-General condition:

1. This environmental clearance does not create or verify any claim of applicant on the proposed site/activity.
2. Any mining activity shall be undertaken only after valid permission from Mining Department/District Administration and written agreement with land owner from where earth excavation is proposed.
3. No change in mining technology and scope of working shall be made without approval of Authority.
4. Personnel working in dusty areas shall be provided with protective respiratory devices and they shall also be imparted adequate training and information on safety and health aspects.
5. The Authority reserves the right to revoke the clearance if conditions stipulated are not implemented. The Authority will also be entitled to impose additional environmental conditions or modify the existing ones, if necessary.
6. In case of any deviation or alteration in the project proposed from those submitted to this Authority for clearance, a fresh reference should be made to the Authority to assess the adequacy of the condition(s) imposed and to add additional environmental protection Measures required, if any.
7. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

Specific Conditions:

1. The Environmental clearance will be co-terminus with the agreement/mining plan whichever is less.
2. Environment management should be in accordance with the present environment status of the project.
3. Approach kachha road should be made motorable and maintained periodically.
4. Transportation of soil should be undertaken in covered containers.
5. Rehabilitation plan with planting of trees to be submitted along with the closure plan.
6. Land to be leveled and handed over to the owners after completion of excavation work.
7. A valid NOC from State Pollution Control Board shall be obtained for the Brick kiln prior to operation as per law and all guidelines must be followed, if applicable.
8. The mining operations shall be strictly limited to the proposed mining sites and proposed purpose.
9. Top soil should be adequately preserved and should be used for landscaping.
10. Excavated soil should be properly stored in a manner not to increase surrounding air pollution level.
11. Water sprinkling should be exercised during excavation and storage of soil for suppression of fugitive dust.
12. Excavated area should be properly reclaimed and ensured that no open bore hole is left.
13. Safety measures for the people working at the site shall be duly taken care of as per law.
14. The excavation work shall be done in day time only.
15. The project boundary shall be properly covered to restrict dust dispersion.
16. Precautionary measures during soil excavation for conservation and protection of rare and endangered flora and fauna found in the study area.
17. Noise level shall be maintained as per standards for both day and night.
18. The route map for soil transportation from excavation plots to work site should be firmed up and necessary permissions shall be sought from District Administration.
19. Vehicles hired for the transportation should be in good condition and should have Pollution Check Certificate and should conform to applicable air and noise emission standards.



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20. Personnel exposure monitoring for respirable mineral dust shall be carried out for the workers and records maintained including health records of the workers. Awareness program for workers on impact of mining on their health and precautionary measures like use of personal protective equipments etc. shall be carried out periodically. First aid facilities and adequate sanitary facility in the form of temporary toilets/septic tanks.
21. Solid waste material viz gutkha rappers, plastic bags, glasses etc. to be generated during project activity will be separately stored in bins and managed as per Solid Waste Management Rules.
22. Project proponent should maintain daily register for information of (a) collection of soil/clay, (b) manpower & (c) transportation purpose.
23. Soil mining shall strictly be undertaken as per rules and regulations/permissions obtained from District Administration/Mining Department
24. Corporate Environmental Responsibility (CER) shall be prepared by the project proponent and the details of the various heads of expenditure to be submitted as per the guidelines provided in the recent CER notification No. 22-65/2017-IA, III dated 01/05/2018. A copy of resolution as above shall be submitted to the authority along with list of beneficiaries with their mobile nos./address.
25. The borrowing/excavation activity shall be restricted to a maximum depth of 2 m. below general ground level at the site.
26. The borrowing/excavation activity shall be restricted to 2 m. above the ground water table at the site.
27. The borrowing/excavation activity shall not alter the natural drainage pattern of the area.
28. The borrowed/excavated pit shall be restored by the project proponent for useful purpose(s).
29. Appropriate fencing all around the borrowed/excavated pit shall be made to prevent any mishap.
30. Measures shall be taken to prevent dust emission by covering of borrowed/excavated earth during transportation.
31. Safeguards shall be adopted against health risks on account of breeding of vectors in the water bodies created due to borrowing/excavation of earth.
32. **Workers/labourers shall be provided with facilities for drinking water and sanitation.**
33. A berm shall be left from the boundary of adjoining field having a width equal to at least half the depth of proposed excavation.
34. A minimum distance of 15 m from any civil structure shall be kept from the periphery of any excavation area.



शिवपिपा देडिगा कं.०  
कावठुजा, बरक रोड-बावा

Directorate of Environment, U.P.

Vineet Khand-1, Gomti Nagar, Lucknow - 226 010

Phone : 91-522-2300 541, Fax : 91-522-2300 543

E-mail : doeuplko@yahoo.com

Website : www.seiaup.com

**Minutes of the 734<sup>th</sup> Meeting of the State Level Environment Impact Assessment Authority, UP (SEIAA) held on 30-05-2023**

The meeting of 734<sup>th</sup> State Level Environment Impact Assessment Authority, UP (SEIAA) was held on-line on 30.05.2023 the Directorate of Environment. The following were present in the meeting:-

- |                           |                              |
|---------------------------|------------------------------|
| 1. Shri Paras Nath        | Member, SEIAA, U.P           |
| 2. Shri Ajay Kumar Sharma | Member Secretary, SEIAA, U.P |

**Agenda :-A- (i) Minutes of 751<sup>th</sup> SEAC-1 Meeting Dated 17/05/2023**

- 1- **"Ordinary Earth Mine", at Khasra/Gata No. - 89 & 112, Village- Baraull, Tehsil- Nawabganj, District- Barabanki, Shri Shubham Yadav, Area- 1.079 Ha., File No. 7732/ Proposal No. SIA/UP/MIN/421669/2023**

In light of discussion held in SEIAA meeting no. 597 dated 05.05.2022. SEIAA opined to accept the recommendation of SEAC-1 and grant EC to the said project along with all the general and specific conditions as suggested by SEAC but EC to be issued only after submission of NDC from bank. SEIAA replaces the specific condition regarding cluster certificate as "If in future during the progressive mining this lease area becomes part of cluster i.e. area equal to or more than 5 ha., limited to B-1 category, then additional conditions based on the EIA conducted by the concerned lease holders shall be imposed and joint EMP shall be implemented. The lease holder shall mandatorily follow all the imposed conditions otherwise it will amount to violation of E.C. conditions. If the certificate related to cluster provided by the competent authority is found false or incorrect then punitive actions as per the law shall be initiated against the authority issuing the cluster certificate" and adding following conditions:-

1. Validity period of this EC is 3 months from the date of issue as the LOI has been issued for a period of 3 months or co-terminus with the validity of current mine plan or current lease period whichever is earlier. After this period the EC will become null and void.
2. A certificate from Forest Department shall be obtained that no forest land is involved in mining or as a route and if forest land is involved the project proponent shall obtain forest clearance and permission of Central and State Government as per the provisions of Forest (conservation) Act, 1980 and submit before the start of work.
3. The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora fauna etc.
4. If the proposed project is situated in notified area of ground water extraction, where creation of new wells for ground water extraction is not allowed, requirement of fresh

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- water shall be met from alternate water sources other than ground water or legally valid source and permission from the competent authority shall be obtained to use it.
5. Project Proponent should submit action plan for carrying out plantation at least @1,000 plants / ha of lease area. In this case, PP should prepare a plan, duly approved either by Forest Department or Horticulture Department, for planting at least 2,000 plants, either on government land or community land, within a periphery of 5 km from the boundary of the lease area along with provision for maintenance for 5 years. Survival of plants should not be less than the survival rate notified by Uttar Pradesh Forest Department otherwise it will be treated as violation of EC condition.
  6. In consultation with District Environment Authority or an Authority nominated by concerned DM, project proponent will prepared a conservation and management plan for rejuvenation and management of water bodies having total surface area of more than 10- ha. Funds for the same will be kept in a separate bank account and six monthly compliance status will be presented by project proponent before the nominated authority in the District.
  7. Department of Geology and Mines, Government of Uttar Pradesh and / or concerned district administration, before releasing the security deposit to Project Proponent will ensure that Project Proponent has fully complied with the EC conditions. Non-compliance, if any, should be reported to UPSPCB for appropriate legal action and recovery of compensation.
  8. Any application for transfer of this EC, during its validity period unless it is cancelled by a competent authority, has to be necessarily accompanied with status of compliance of EC conditions duly certified by IRO, MoEFCC, Govt, Lucknow.
  9. If the air quality deteriorates due to mining, then District Administration & Directorate of Mining should ensure that mining be stopped immediately. Adequate measures be taken for restoring air quality and mining should commence only when air quality attains the prescribed standards.

2- "Ordinary Earth Mine" at Khasra/Gata No.- 2211, Village- Ranmau, Tehsil- Rudauli, District- Avodhya, U.P., Shri Abhimanyu Yadav, Area- 0.61 Ha., File No. 7746/ Proposal No. SIA/UP/MIN/423863/2023

In light of discussion held in SEIAA meeting no. 597 dated 05.05.2022. SEIAA opined to accept the recommendation of SEAC-1 and grant EC to the said project along with all the general and specific conditions as suggested by SEAC but SEIAA replaces the specific condition regarding cluster certificate as "if in future during the progressive mining this lease area becomes part of cluster i.e. area equal to or more than 5 ha., limited to B-1 category, then additional conditions based on the EIA conducted by the concerned lease holders shall be imposed and joint EMP shall be implemented. The lease holder shall mandatorily follow all the imposed conditions otherwise it will amount to violation of E.C. conditions. If the certificate related to cluster provided by the competent authority is found false or incorrect then punitive actions as per the law shall be initiated against the authority issuing the cluster certificate" and adding following conditions:-

1. Validity period of this EC is 3 months from the date of issue as the Lol has been issued for a period of 3 months or co-terminus with the validity of current mine plan or current lease period whichever is earlier. After this period the EC will become null and void.
2. A certificate from Forest Department shall be obtained that no forest land is involved in mining or as a route and if forest land is involved the project proponent shall obtain

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forest clearance and permission of Central and State Government as per the provisions of Forest (conservation) Act, 1980 and submit before the start of work.

3. The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora fauna etc.
4. If the proposed project is situated in notified area of ground water extraction, where creation of new wells for ground water extraction is not allowed, requirement of fresh water shall be met from alternate water sources other than ground water or legally valid source and permission from the competent authority shall be obtained to use it.
5. Project Proponent should submit action plan for carrying out plantation at least @1,000 plants / ha of lease area. In this case, PP should prepare a plan, duly approved either by Forest Department or Horticulture Department, for planting at least 1,000 plants, either on government land or community land, within a periphery of 5 km from the boundary of the lease area along with provision for maintenance for 5 years. Survival of plants should not be less than the survival rate notified by Uttar Pradesh Forest Department otherwise it will be treated as violation of EC condition.
6. In consultation with District Environment Authority or an Authority nominated by concerned DM, project proponent will prepared a conservation and management plan for rejuvenation and management of water bodies having total surface area of more than 5- ha. Funds for the same will be kept in a separate bank account and six monthly compliance status will be presented by project proponent before the nominated authority in the District.
7. Department of Geology and Mines, Government of Uttar Pradesh and / or concerned district administration, before releasing the security deposit to Project Proponent will ensure that Project Proponent has fully complied with the EC conditions. Non-compliance, if any, should be reported to UPSPCB for appropriate legal action and recovery of compensation.
8. Any application for transfer of this EC, during its validity period unless it is cancelled by a competent authority, has to be necessarily accompanied with status of compliance of EC conditions duly certified by IRO, MoEFCC, Govt, Lucknow.
9. If the air quality deteriorates due to mining, then District Administration & Directorate of Mining should ensure that mining be stopped immediately. Adequate measures be taken for restoring air quality and mining should commence only when air quality attains the prescribed standards.

**3- Ordinary earth Mine, at Khasra/Gata No. 422 & 423 in Village- Parsa, Pargana- Dariyabad, Tehsil- SiraulGauspur, District- Barabanki, Shrawan Kumar, Area- 0.662 ha., File No. 7749/ Proposal No. SIA/UP/MIN/424405/2023**

In light of discussion held in SEIAA meeting no. 597 dated 05.05.2022. SEIAA opined to accept the recommendation of SEAC-1 and grant EC to the said project along with all the general and specific conditions as suggested by SEAC but SEIAA replaces the specific condition regarding cluster certificate as "If in future during the progressive mining this lease area becomes part of cluster i.e. area equal to or more than 5 ha., limited to B-1 category, then additional conditions based on the EIA conducted by the concerned lease holders shall be imposed and joint EMP shall be implemented. The lease holder shall mandatorily follow all the imposed conditions otherwise it will amount to violation of E.C. conditions. If the certificate related to cluster provided by the

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competent authority is found false or incorrect then punitive actions as per the law shall be initiated against the authority issuing the cluster certificate" and adding following conditions:-

1. Validity period of this EC is 3 months from the date of issue as the Lol has been issued for a period of 3 months or co-terminus with the validity of current mine plan or current lease period whichever is earlier. After this period the EC will become null and void.
2. A certificate from Forest Department shall be obtained that no forest land is involved in mining or as a route and if forest land is involved the project proponent shall obtain forest clearance and permission of Central and State Government as per the provisions of Forest (conservation) Act, 1980 and submit before the start of work.
3. The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora fauna etc.
4. If the proposed project is situated in notified area of ground water extraction, where creation of new wells for ground water extraction is not allowed, requirement of fresh water shall be met from alternate water sources other than ground water or legally valid source and permission from the competent authority shall be obtained to use it.
5. Project Proponent should submit action plan for carrying out plantation at least @1,000 plants / ha of lease area. In this case, PP should prepare a plan, duly approved either by Forest Department or Horticulture Department, for planting at least 1,000 plants, either on government land or community land, within a periphery of 5 km from the boundary of the lease area along with provision for maintenance for 5 years. Survival of plants should not be less than the survival rate notified by Uttar Pradesh Forest Department otherwise it will be treated as violation of EC condition.
6. In consultation with District Environment Authority or an Authority nominated by concerned DM, project proponent will prepared a conservation and management plan for rejuvenation and management of water bodies having total surface area of more than 5- ha. Funds for the same will be kept in a separate bank account and six monthly compliance status will be presented by project proponent before the nominated authority in the District.
7. Department of Geology and Mines, Government of Uttar Pradesh and /or concerned district administration, before releasing the security deposit to Project Proponent will ensure that Project Proponent has fully complied with the EC conditions. Non-compliance, if any, should be reported to UPSPCB for appropriate legal action and recovery of compensation.
8. Any application for transfer of this EC, during its validity period unless it is cancelled by a competent authority, has to be necessarily accompanied with status of compliance of EC conditions duly certified by IRO, MoEFCC, Govt, Lucknow.
9. If the air quality deteriorates due to mining, then District Administration & Directorate of Mining should ensure that mining be stopped immediately. Adequate measures be taken for restoring air quality and mining should commence only when air quality attains the prescribed standards.

4- Ordinary Soil Excavation Mine at Gata No.- 532, Village – Tendawa Basantpur Tehsil Mahsi District Bahraich, Shri Valbhav Agarwal, M/s Om Sai Concrete, Area – 0.567 Ha., File No. 7760/ Proposal No. SIA/UP/MIN/424939/2023

In light of discussion held in SEIAA meeting no. 597 dated 05.05.2022. SEIAA opined to accept the recommendation of SEAC-1 and grant EC to the said project along with all the general and specific conditions as suggested by SEAC but SEIAA replaces the specific condition regarding cluster certificate as "If in future during the progressive mining this lease area becomes part of cluster i.e. area equal to or more than 5 ha., limited to B-1 category, then additional conditions

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based on the EIA conducted by the concerned lease holders shall be imposed and joint EMP shall be implemented. The lease holder shall mandatorily follow all the imposed conditions otherwise it will amount to violation of E.C. conditions. If the certificate related to cluster provided by the competent authority is found false or incorrect then punitive actions as per the law shall be initiated against the authority issuing the cluster certificate" and adding following conditions:-

1. Validity period of this EC is 3 months from the date of issue as the Lol has been issued for a period of 3 months or co-terminus with the validity of current mine plan or current lease period whichever is earlier. After this period the EC will become null and void.
2. A certificate from Forest Department shall be obtained that no forest land is involved in mining or as a route and if forest land is involved the project proponent shall obtain forest clearance and permission of Central and State Government as per the provisions of Forest (conservation) Act, 1980 and submit before the start of work.
3. The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora fauna etc.
4. Project Proponent should submit action plan for carrying out plantation at least @1,000 plants / ha of lease area. In this case, PP should prepare a plan, duly approved either by Forest Department or Horticulture Department, for planting at least 1,000 plants, either on government land or community land, within a periphery of 5 km from the boundary of the lease area along with provision for maintenance for 5 years. Survival of plants should not be less than the survival rate notified by Uttar Pradesh Forest Department otherwise it will be treated as violation of EC condition.
5. In consultation with District Environment Authority or an Authority nominated by concerned DM, project proponent will prepared a conservation and management plan for rejuvenation and management of water bodies having total surface area of more than 5-ha. Funds for the same will be kept in a separate bank account and six monthly compliance status will be presented by project proponent before the nominated authority in the District.
6. Department of Geology and Mines, Government of Uttar Pradesh and / or concerned district administration, before releasing the security deposit to Project Proponent will ensure that Project Proponent has fully complied with the EC conditions. Non-compliance, if any, should be reported to UPSPCB for appropriate legal action and recovery of compensation.
7. Any application for transfer of this EC, during its validity period unless it is cancelled by a competent authority, has to be necessarily accompanied with status of compliance of EC conditions duly certified by IRO, MoEFCC, GoI, Lucknow.
8. If the air quality deteriorates due to mining, then District Administration & Directorate of Mining should ensure that mining be stopped immediately. Adequate measures be taken for restoring air quality and mining should commence only when air quality attains the prescribed standards.

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 काठमुज, बक रोड-बारा

Minutes of 752<sup>nd</sup> SEAC-1 Meeting Dated 18/05/20231- "Ordinary Soil Excavation" Project at Gata No.- 1581, 1583, 1578 & 1507, Village- Akrauli, Tehsil- Chandausi & District- Sambhal, Shri Phool Prakash, Area- 2.248 Ha., 7783/5IA/UP/MIN/426095/2023

In light of discussion held in SEIAA meeting no. 597 dated 05.05.2022. SEIAA opined to accept the recommendation of SEAC-1 and grant EC to the said project along with all the general and specific conditions as suggested by SEAC but SEIAA replaces the specific condition regarding cluster certificate as "If in future during the progressive mining this lease area becomes part of cluster i.e. area equal to or more than 5 ha., limited to B-1 category, then additional conditions based on the EIA conducted by the concerned lease holders shall be imposed and joint EMP shall be implemented. The lease holder shall mandatorily follow all the imposed conditions otherwise it will amount to violation of E.C. conditions. If the certificate related to cluster provided by the competent authority is found false or incorrect then punitive actions as per the law shall be initiated against the authority issuing the cluster certificate" and adding following conditions:-

1. Validity period of this EC is 3 months from the date of issue as the LoI has been issued for a period of 3 months or co-terminus with the validity of current mine plan or current lease period whichever is earlier. After this period the EC will become null and void.
2. A certificate from Forest Department shall be obtained that no forest land is involved in mining or as a route and if forest land is involved the project proponent shall obtain forest clearance and permission of Central and State Government as per the provisions of Forest (conservation) Act, 1980 and submit before the start of work.
3. The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora fauna etc.
4. If the proposed project is situated in notified area of ground water extraction, where creation of new wells for ground water extraction is not allowed, requirement of fresh water shall be met from alternate water sources other than ground water or legally valid source and permission from the competent authority shall be obtained to use it.
5. Project Proponent should submit action plan for carrying out plantation at least @1,000 plants / ha of lease area. In this case, PP should prepare a plan, duly approved either by Forest Department or Horticulture Department, for planting at least 3,000 plants, either on government land or community land, within a periphery of 5 km from the boundary of the lease area along with provision for maintenance for 5 years. Survival of plants should not be less than the survival rate notified by Uttar Pradesh Forest Department otherwise it will be treated as violation of EC condition.
6. In consultation with District Environment Authority or an Authority nominated by concerned DM, project proponent will prepared a conservation and management plan for rejuvenation and management of water bodies having total surface area of more than 15- ha. Funds for the same will be kept in a separate bank account and six monthly compliance status will be presented by project proponent before the nominated authority in the District.
7. Department of Geology and Mines, Government of Uttar Pradesh and / or concerned district administration, before releasing the security deposit to Project Proponent will ensure that Project Proponent has fully complied with the EC conditions. Non-



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- compliance, if any, should be reported to UPSPCB for appropriate legal action and recovery of compensation.
8. Any application for transfer of this EC, during its validity period unless it is cancelled by a competent authority, has to be necessarily accompanied with status of compliance of EC conditions duly certified by IRO, MoEFCC, GoI, Lucknow.
  9. If the air quality deteriorates due to mining, then District Administration & Directorate of Mining should ensure that mining be stopped immediately. Adequate measures be taken for restoring air quality and mining should commence only when air quality attains the prescribed standards.
- 2- (8) Ordinary Earth Excavation at Gata No. 358, 359 in village- Bastoi, Tehsil- Sikanda Rao, District- Hathras, Shri Indra Singh, Area- 1.012 Ha., 7787/SIA/UP/MIN/ 422939 /2023  
SEIAA agreed with the recommendations of SEAC to close/delist the file as the project proponent did not appear and open only after submission of online request on prescribed online portal.
  - 3- Building Stone (Khanda – Boulder/Gitti- Ballast ) Mining project at Gata/Arail No -996 Khand-1, Village-Gariya, Tehsil- Taalbehat & District-Lalitpur, Shri Swami Prasad, Area:1.618 Ha., 7638/SIA/UP/MIN/ 417841/2023  
SEIAA agreed with the recommendations of SEAC to close/delist the file as the project proponent did not appear and open only after submission of online request on prescribed online portal.
  - 4- (13) Discussion on Complain of Soil Mining Project Gata No : 453, 466, 314, 316 Ka, 317, 334 Ka, 315 Ka, 318 Ka, 333 Ga, 334 Kh, 336 Kh , Village- Angrasi, Tehsil & District-Sitapur, Shri Arvind Kumar, Area : 1.093 ha, File No. 7397/ Proposal No. SIA/UP/MIN/ 408021/2022  
SEIAA noted the comments recorded by SEAC.
  - 5- (14) Dorma Kachhar and Shahpur Kachhar Morrum Mining Project on the riverbed of Yamuna River at Khasra/ Gata No.- 120 & 397 (Khand No.- 15/26 to 15/29) Village- Dorma Kachhar and Shahpur Kachhar, Tehsil- Manihampur, District-Kaushambi, Shri Durgesh Sahu, Area – 20.0ha., File No. 7593/Proposal No. SIA/UP/MIN/416055/2023.  
SEIAA noted the comments recorded by SEAC.

Minutes of 753<sup>th</sup> SEAC-1 Meeting Dated 19/08/2023

- 1- Ordinary Earth Mining Project Gata No.-07, 238 & 199 Mi, Village- Badi, Pargana- Badi, Tehsil- Sidhaul, District- Sitapur, Shri Dharendra Singh., File No. 7808/ Proposal No. SIA/UP/MIN/426871/2023  
SEIAA agreed with the recommendations of SEAC to close/delist the file as the project proponent did not appear and open only after submission of online request on prescribed online portal.
- 2- Ordinary Soil Excavation Project At Gata No.- 11 Village -Aladadpur, Tehsil- Kalsergani, District- Bahraich, Shri Valbhav Agarwal, Area -0.1420 Ha., File No. 7809/ Proposal No. SIA/UP/MIN/426985/2023  
In light of discussion held in SEIAA meeting no. 897 dated 05.05.2023, SEIAA opted to accept the recommendation of SEAC-1 and grant EC to the said project along with all the

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कायस्थ, बंगल रोड-बारा

Minutes of the 234<sup>th</sup> Meeting of the SEIAA, UP held on 30.05.2023

general and specific conditions as suggested by SEAC but EC to be issued only after submission of original notarized agreement between land owner and lease holder. SEIAA replaces the specific condition regarding cluster certificate as "If in future during the progressive mining this lease area becomes part of cluster i.e. area equal to or more than 5 ha., limited to B-1 category, then additional conditions based on the EIA conducted by the concerned lease holders shall be imposed and joint EMP shall be implemented. The lease holder shall mandatorily follow all the imposed conditions otherwise it will amount to violation of E.C. conditions. If the certificate related to cluster provided by the competent authority is found false or incorrect then punitive actions as per the law shall be initiated against the authority issuing the cluster certificate" and adding following conditions:-

1. Validity period of this EC is 3 months from the date of issue as the LoI has been issued for a period of 3 months or co-terminus with the validity of current mine plan or current lease period whichever is earlier. After this period the EC will become null and void.
2. A certificate from Forest Department shall be obtained that no forest land is involved in mining or as a route and if forest land is involved the project proponent shall obtain forest clearance and permission of Central and State Government as per the provisions of Forest (conservation) Act, 1980 and submit before the start of work.
3. The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora fauna etc.
4. Project Proponent should submit action plan for carrying out plantation at least @1,000 plants / ha of lease area. In this case, PP should prepare a plan, duly approved either by Forest Department or Horticulture Department, for planting at least 1,000 plants, either on government land or community land, within a periphery of 5 km from the boundary of the lease area along with provision for maintenance for 5 years. Survival of plants should not be less than the survival rate notified by Uttar Pradesh Forest Department otherwise it will be treated as violation of EC condition.
5. In consultation with District Environment Authority or an Authority nominated by concerned DM, project proponent will prepared a conservation and management plan for rejuvenation and management of water bodies having total surface area of more than 5- ha. Funds for the same will be kept in a separate bank account and six monthly compliance status will be presented by project proponent before the nominated authority in the District.
6. Department of Geology and Mines, Government of Uttar Pradesh and / or concerned district administration, before releasing the security deposit to Project Proponent will ensure that Project Proponent has fully complied with the EC conditions. Non-compliance, if any, should be reported to UPSPCB for appropriate legal action and recovery of compensation.
7. Any application for transfer of this EC, during its validity period unless it is cancelled by a competent authority, has to be necessarily accompanied with status of compliance of EC conditions duly certified by IRO, MoEFCC, Govt, Lucknow.
8. If the air quality deteriorates due to mining, then District Administration & Directorate of Mining should ensure that mining be stopped immediately. Adequate measures be taken for restoring air quality and mining should commence only when air quality attains the prescribed standards.

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शिवापेण रेडिंग कें०  
कासकुवा, बनेक रोड-बाबा

Minutes of 754<sup>th</sup> SEAC-1 Meeting Dated 23/05/2023**1- Soll Mining Project at Khasra No. 747, 751, Village- Khaleelpur Kadeem, Tehsil-Kanth, District- Moradabad, Shri Sumit Chaudhary, Area - 1.0830 ha., File No. 7817/ Proposal No. SIA/UP/ MIN/ 427507 /2023**

In light of discussion held in SEIAA meeting no. 597 dated 05.05.2022. SEIAA opined to accept the recommendation of SEAC-1 and grant EC to the said project along with all the general and specific conditions as suggested by SEAC but SEIAA replaces the specific condition regarding cluster certificate as "If in future during the progressive mining this lease area becomes part of cluster i.e. area equal to or more than 5 ha., limited to B-1 category, then additional conditions based on the EIA conducted by the concerned lease holders shall be imposed and joint EMP shall be implemented. The lease holder shall mandatorily follow all the imposed conditions otherwise it will amount to violation of E.C. conditions. If the certificate related to cluster provided by the competent authority is found false or incorrect then punitive actions as per the law shall be initiated against the authority issuing the cluster certificate" and adding following conditions:-

1. Validity period of this EC is 3 months from the date of issue as the Lol has been issued for a period of 3 months or co-terminus with the validity of current mine plan or current lease period whichever is earlier. After this period the EC will become null and void.
2. A certificate from Forest Department shall be obtained that no forest land is involved in mining or as a route and if forest land is involved the project proponent shall obtain forest clearance and permission of Central and State Government as per the provisions of Forest (conservation) Act, 1980 and submit before the start of work.
3. The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora fauna etc.
4. If the proposed project is situated in notified area of ground water extraction, where creation of new wells for ground water extraction is not allowed, requirement of fresh water shall be met from alternate water sources other than ground water or legally valid source and permission from the competent authority shall be obtained to use it.
5. Project Proponent should submit action plan for carrying out plantation at least @1,000 plants / ha of lease area. In this case, PP should prepare a plan, duly approved either by Forest Department or Horticulture Department, for planting at least 2,000 plants, either on government land or community land, within a periphery of 5 km from the boundary of the lease area along with provision for maintenance for 5 years. Survival of plants should not be less than the survival rate notified by Uttar Pradesh Forest Department otherwise it will be treated as violation of EC condition.
6. In consultation with District Environment Authority or an Authority nominated by concerned DM, project proponent will prepared a conservation and management plan for rejuvenation and management of water bodies having total surface area of more than 10- ha. Funds for the same will be kept in a separate bank account and six monthly compliance status will be presented by project proponent before the nominated authority in the District.
7. Department of Geology and Mines, Government of Uttar Pradesh and / or concerned district administration, before releasing the security deposit to Project Proponent will ensure that Project Proponent has fully complied with the EC conditions. Non-



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शिवाजीपेटा टेडिंग कं०  
 शास्त्रपुरा, नमंरु रोड-बारा

Minutes of the 734<sup>th</sup> Meeting of the SEIAA, UP held on 30.05.2023

compliance, if any, should be reported to UPSPCB for appropriate legal action and recovery of compensation.

8. Any application for transfer of this EC, during its validity period unless it is cancelled by a competent authority, has to be necessarily accompanied with status of compliance of EC conditions duly certified by IRO, MoEFCC, GoI, Lucknow.
9. If the air quality deteriorates due to mining, then District Administration & Directorate of Mining should ensure that mining be stopped immediately. Adequate measures be taken for restoring air quality and mining should commence only when air quality attains the prescribed standards.

**2- Gitti/Stone & Pahadi Morrum for M/s Jai Shri Sankat Mochan Stone Mill located at Gate No. 315 (Khand No. 05) Village- Masani, Tehsil - Naraini, District- Banda, Ram Singh, Area: 2.00 Ha., File No. 7819/6139/ Proposal No. SIA/UP/MIN/412461/2022**

In light of discussion held in SEIAA meeting no. 597 dated 05.05.2022, SEIAA opined to accept the recommendation of SEAC and grant EC to the said project along with all the general and specific conditions as suggested by SEAC adding following specific conditions:-

1. Validity period of this EC is 5 years from the date of issue as the LoI has been issued for a period of 5 years or co-terminus with the validity of current mine plan or current lease period whichever is earlier After this period the EC will become null and void.
2. Directions/suggestions given during public hearing and commitment made by the project proponent should be strictly complied.
3. A certificate from Forest Department shall be obtained that no forest land is involved in mining or as a route and if forest land is involved the project proponent shall obtain forest clearance and permission of Central and State Government as per the provisions of Forest (conservation) Act, 1980 and submit before the start of work.
4. The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora fauna etc.
5. Three tier green shelter belt of 7.5m width should be developed on the periphery of mine lease area. Local and native species should be planted in consultation with Forest/Horticulture Department/Agriculture University.
6. Plan for using the mine void for productive use in consultation with local administration and gram-panchayat.
7. If the proposed project is situated in notified area of ground water extraction, where creation of new wells for ground water extraction is not allowed, requirement of fresh water shall be met from alternate water sources other than ground water or legally valid source and permission from the competent authority shall be obtained to use it.
8. Project Proponent should submit action plan for carrying out plantation at least @1,000 plants / ha of lease area. In this case, PP should prepare a plan, duly approved either by Forest Department or Horticulture Department, for planting at least 2,000 plants, either on government land or community land, within a periphery of 5 km from the boundary of the lease area along with provision for maintenance for 5 years. Survival of plants should not be less than the survival rate notified by Uttar Pradesh Forest Department otherwise it will be treated as violation of EC condition.
9. In consultation with District Environment Authority or an Authority nominated by concerned DM, project proponent will prepared a conservation and management plan for rejuvenation and management of water bodies having total surface area of more than

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शिवारणा रेडिंग केंद्र  
कारखाना, अंचल रोड-बान्ना

Minutes of the 734<sup>th</sup> Meeting of the SEIAA, UP held on 30.05.2023

10 ha. Funds for the same will be kept in a separate bank account and six monthly compliance status will be presented by project proponent before the nominated authority in the District.

10. Department of Geology and Mines, Government of Uttar Pradesh and / or concerned district administration, before releasing the security deposit to Project Proponent will ensure that Project Proponent has fully complied with the EC conditions. Non-compliance, if any, should be reported to UPSPCB for appropriate legal action and recovery of compensation.
11. Any application for transfer of this EC, during its validity period unless it is cancelled by a competent authority, has to be necessarily accompanied with status of compliance of EC conditions duly certified by IRO, MoEFCC, GoI, Lucknow.
12. Number of mining projects are coming up in district. Department of Geology & Mines, GoUP to carry out regional EIA-EMP report including carrying capacity of environmental components to assess the capacity to further bear the pollution load for such areas within a period of 1 year and submit the same to SEIAA, UP for evaluation.
13. Department of Geology & Mines, GoUP in consultation with UPSPCB will establish required number of CAAQMS in district within a period of one year and submit geo-referenced map of these stations along with data. Details of existing CAAQMS, if any, be submitted within a period of three months.
14. Large number of mining projects are ongoing as well as new mining leases are coming up in the district. A reference be sent to DGM and MS, SPCB for preparing mitigation plan for controlling air pollution in the district especially in mining areas.
15. If the air quality deteriorates due to mining, then District Administration & Directorate of Mining should ensure that mining be stopped immediately. Adequate measures be taken for restoring air quality and mining should commence only when air quality attains the prescribed standards.

3- Gliti/Stone & Pahadi Morrum for Shri Rajesh Kumar Tripathi located at Gata No. 315 (Khand No. 04) Village- Masani, Tehsil - Naraini, District- Banda, Rajesh Kumar Tripathi Area: 2.00 ha., File No. 7821/6138/ Proposal No. SIA/UP/MIN/427681/2023

In light of discussion held in SEIAA meeting no. 597 dated 05.05.2022. SEIAA opined to accept the recommendation of SEAC and grant EC to the said project along with all the general and specific conditions as suggested by SEAC adding following specific conditions:-

1. Validity period of this EC is 5 years from the date of issue as the Lol has been issued for a period of 5 years or co-terminus with the validity of current mine plan or current lease period whichever is earlier After this period the EC will become null and void.
2. Directions/suggestions given during public hearing and commitment made by the project proponent should be strictly complied.
3. A certificate from Forest Department shall be obtained that no forest land is involved in mining or as a route and if forest land is involved the project proponent shall obtain forest clearance and permission of Central and State Government as per the provisions of Forest (conservation) Act, 1980 and submit before the start of work.
4. The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora fauna etc.

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शिवारिषण ट्रेडिंग कंपनी  
कारखाना, बंडा - 19-बन्दा

Minutes of the 734<sup>th</sup> Meeting of the SEIAA, UP held on 30.05.2023

5. Three tier green shelter belt of 7.5m width should be developed on the periphery of mine lease area. Local and native species should be planted in consultation with Forest/Horticulture Department/Agriculture University.
6. Plan for using the mine void for productive use in consultation with local administration and gram-panchayat.
7. If the proposed project is situated in notified area of ground water extraction, where creation of new wells for ground water extraction is not allowed, requirement of fresh water shall be met from alternate water sources other than ground water or legally valid source and permission from the competent authority shall be obtained to use it.
8. Project Proponent should submit action plan for carrying out plantation at least @1,000 plants / ha of lease area. In this case, PP should prepare a plan, duly approved either by Forest Department or Horticulture Department, for planting at least 2,000 plants, either on government land or community land, within a periphery of 5 km from the boundary of the lease area along with provision for maintenance for 5 years. Survival of plants should not be less than the survival rate notified by Uttar Pradesh Forest Department otherwise it will be treated as violation of EC condition.
9. In consultation with District Environment Authority or an Authority nominated by concerned DM, project proponent will prepared a conservation and management plan for rejuvenation and management of water bodies having total surface area of more than 10 ha. Funds for the same will be kept in a separate bank account and six monthly compliance status will be presented by project proponent before the nominated authority in the District.
10. Department of Geology and Mines, Government of Uttar Pradesh and / or concerned district administration, before releasing the security deposit to Project Proponent will ensure that Project Proponent has fully complied with the EC conditions. Non-compliance, if any, should be reported to UPSPCB for appropriate legal action and recovery of compensation.
11. Any application for transfer of this EC, during its validity period unless it is cancelled by a competent authority, has to be necessarily accompanied with status of compliance of EC conditions duly certified by IRO, MoEFCC, GoI, Lucknow.
12. Number of mining projects are coming up in district. Department of Geology & Mines, GoUP to carry out regional EIA-EMP report including carrying capacity of environmental components to assess the capacity to further bear the pollution load for such areas within a period of 1 year and submit the same to SEIAA, UP for evaluation.
13. Department of Geology & Mines, GoUP in consultation with UPSPCB will establish required number of CAAQMS in district within a period of one year and submit geo-referenced map of these stations along with data. Details of existing CAAQMS, if any, be submitted within a period of three months.
14. Large number of mining projects are ongoing as well as new mining leases are coming up in the district. A reference be sent to DGM and MS, SPCB for preparing mitigation plan for controlling air pollution in the district especially in mining areas.
15. If the air quality deteriorates due to mining, then District Administration & Directorate of Mining should ensure that mining be stopped immediately. Adequate measures be taken for restoring air quality and mining should commence only when air quality attains the prescribed standards.

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Minutes of the 734<sup>th</sup> Meeting of the SEIAA, UP held on 30.05.2023

4- "Building stone (Sandstone)" Mine at Arazi/Gata No.- 484, Village- Devri Kalan, Tehsil- Madihan, District- Mirzapur, Shri Vikas Kumar Maheshwari, M/s Avinash Enterprises, Sahasepur., (lease area- 1.01 ha) File No. 7823/ Proposal No. SIA/UP/MIN/427672/2023

SEIAA agreed with the recommendation of SEAC to issue additional ToR to the title proposal for conducting EIA studies. SEIAA added following points to ToR-

- 1- Since no Intimation has been submitted regarding available monitoring data, hence data will be collected after issuance of ToR.
- 2- All pages of technical documents/EIA/EMP etc. should be signed by the consultant and project proponent both.
- 3- The lease area its address and production per annum should match with as mentioned in DSR and Lol. In case there is any difference clarification/ amendment letter from competent authority shall be submitted along with EIA. EIA and public hearing shall be conducted as per the lease area its address and production per annum mentioned in DSR and Lol.
- 4- Public hearing shall be conducted as per EIA notification, 2006 (as amended).
- 5- Plan for using the mine void for productive use in consultation with local administration and gram-panchayat.
- 6- SEIAA opined that the project proponent shall submit permission of CGWA or proposal for alternative source of fresh water.
- 7- KML file for the area and mining lease area should be provided.
- 8- Status of leases granted/to be granted in various mining khands along with production since the formulation of DSR, duly certified by the competent authority should be submitted.
- 9- In case project proponent intends to temporarily store mined out material or any tools, equipments or other material outside mine lease area then NOC from competent authority for doing so should be submitted and details of such area and associated Environmental impacts should be included in EIA-EMP report. This should also be clearly mentioned during public hearing.
- 10- Road network to be used by the project should be clearly shown on Survey of India toposheet in 1:50,000 scale. In case road network involves forest road, permission should be obtained from Forest Department and a copy of the same should be submitted at the time of appraisal of EIA-EMP report.
- 11- The project proponent should clearly spell out whether it is a green field or brown field project. In case it is a brown field project and -
  - (I) If the earlier and present lease holder are same then compliance report of previous EC should be submitted.
  - (II) If the earlier and present lease holder are different then environmental footprint of the site and mitigation measures should be included in EIA-EMP report.
- 12- In case of expansion / renewal of earlier EC, following information should be submitted
  - a. Status of compliance of earlier EC conditions by Integrated Regional Office, MoEFCC, Gol, Lucknow.
  - b. Copy of CTE and CTD issued by SPCB.
  - c. Status of submission of six-monthly compliance report to EC granted earlier
  - d. Court cases, if any.
- 13- Observations raised in public hearing, replies submitted by project proponent, suitable modifications carried out in EIA-EMP report.
- 14- Project Proponent should submit action plan for carrying out plantation at least @1,000 plants / ha of lease area. In this case, PP should prepare a plan, duly approved either by

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Minutes of the 734<sup>th</sup> Meeting of the SEIAA, UP held on 30.05.2023

Forest Department or Horticulture Department, for planting at least 2,000 plants, either on government land or community land, within a periphery of 5 km from the boundary of the lease area along with provision for maintenance for 5 years. Survival of plants below Uttar Pradesh Forest Department's survival rate will be treated as violation of EC condition.

- 15- In consultation with District Environment Authority or an authority nominated by concerned DM, Project Proponent will prepare a conservation and management plan for the rejuvenation and management of water bodies having a total surface area of not less than 5 ha. Funds for the same will be kept in a separate bank account and six-monthly implementation status will be presented by the Project Proponent before the nominated authority in the district.
- 16- Number of mining projects are coming up in district. Department of Geology & Mines, GoUP to carry out regional EIA-EMP report including carrying capacity of environmental components to assess the capacity to further bear the pollution load for such areas within a period of 1 year and submit the same to SEIAA, UP for evaluation.
- 17- Department of Geology & Mines, GoUP in consultation with UPSPCB will establish required number of CAAQMS in district within a period of one year and submit geo-referenced map of these stations along with data. Details of existing CAAQMS, if any, be submitted within a period of three months.
- 18- Along with the EIA-EMP report, PP / consultant will also submit in tabular form as to how they have addressed entire ToR while preparing draft EIA-EMP report for PH. Further, PP / consultant will submit in tabular form as to how they have addressed issues raised during public hearing and have incorporated the same in final EIA-EMP report. A presentation to this effect should be made before SEAC at the time of EIA-EMP presentation.
- 19- Project Proponent in consultation with UPSPCB will establish required number of CAAQMS within a period of one year and submit geo-referenced map of these stations along with data on six-monthly basis.
- 5- Sand/Morrum Mining Project at Gata No.- 429 and 430, Village- Bariyari, Tehsil- Naraini, District- Banda, Shri Sanjeev Kumar Gupta, Area: 13.362 ha., File No. 7469/6841/ Proposal No. SIA/UP/MIN/411439 /2022  
SEIAA agreed with the recommendations of SEAC to close/delist the file as the project proponent did not appear and open only after submission of online request on prescribed online portal.
- 6- (7) "Building Stone (Khanda, Boulder, Ballast & Gitti) Mining" Project at Gata No.-323, Khand No.-03, at Village- Mochipura, Tehsil-Sadar, District- Mahoba, Shri Narayan Singharea-1.214 ha., File No. 6401/ Proposal No. SIA/UP/MIN/64131/2021  
SEIAA noted that the comments recorded by SEAC.
- 7- (8) "Building Stone (Granite Khanda, Boulder, Ballast (Gitti))" Project at Arail No.- 01 (Khand No.- 07), Village- Baghawa, Tehsil- Mahoba, District- Mahoba, Shri Somesh Bhardwal, Area : 2.024 ha., File No. 7403/ Proposal No. SIA/UP/MIN/299105/2023  
SEIAA agreed to amend the geo coordinates mentioned in terms of reference letter no. 367/Parya/SEIAA/7403/2022, dated 13/03/2023 as recommended. All the other contents mentioned in terms of reference letter dated 13/03/2023 shall remain the same.

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श्रीवापणा रेडिंग केंद्र  
कायदा अ. २२६ रोड-बाँदा

Minutes of the 724<sup>th</sup> Meeting of the SEIAA, UP held on 30.05.2023

- 8- (9) "Ordinary Sand Mine" at Gata No.- 265 Kl, 265 Ja, Village- Patranga Tehsil- Rudauli, District- Ayodhya, Smt. Krishnavati, M/s Surya Enterprise, Area- 2.690 ha., File No. 7511/ Proposal No. SIA/UP/MIN/ 299187/2023

SEIAA agreed to amend the name of District as Ayodhya instead of Gorakhpur in EC letter dated 24/03/2023. All the other contents mentioned in environment clearance letter dated 24/03/2023 shall remain the same.

- 9- (10) Moram Mining Yamuna Riverbed at Khand No.- 14/07 to 14/10, Village-Katrl, Tehsil- Manhanpur, District- Kaushambi, M/s Vashishth Associates., File No. 6152/ Proposal No. SIA/UP/MIN/299597/20

SEIAA agreed with the recommendations of SEAC to close/delist the file as the project proponent did not appear and open only after submission of online request on prescribed online portal.

Minutes of 755<sup>th</sup> SEAC-1 Meeting Dated 24/05/2023

- 1- Building Stone (Sandstone) Mine At Village- Dhuria, Tehsil- Chunar, District- Mirzapur, Gata No. 177, Shri Amresh Singh, M/S Vasudev & Sons, Area- 0.969 Ha., File No. 7829/ Proposal No. SIA/UP/MIN/ 427829/2023

SEIAA agreed with the recommendations of SEAC to close/delist the file as the project proponent did not appear and open only after submission of online request on prescribed online portal.

- 2- Sand/Morrum Mining Project on Dhasan River, Gata No. 1419, Khand No. 01, Village- Motikatra, Tehsil- Garautha, District- Jhansi, Shri Sanjeev Kumar Gupta, Area 24.0Ha., File No. 7831/6687/ Proposal No. SIA/UP/MIN/427673/2023

SEIAA noted that the comments recorded by SEAC.

- 3- Building Stone (Sandstone) Mining Project at Arazl No. 309, Village- Baradh, Tehsil- Chunar District- Mirzapur, Shri Ram Lakhan Singh Area- 0.8090 Ha., File No. 7833/7185/ Proposal No. SIA/UP/MIN/ 427725/2023

In light of discussion held in SEIAA meeting no. 597 dated 05.05.2022. SEIAA opined to accept the recommendation of SEAC and grant EC to the said project along with all the general and specific conditions as suggested by SEAC adding following specific conditions:-

1. Validity period of this EC is 5 years from the date of issue as the LoI has been issued for a period of 5 years or co-terminus with the validity of current mine plan or current lease period whichever is earlier After this period the EC will become null and void.
2. Directions/suggestions given during public hearing and commitment made by the project proponent should be strictly complied.
3. A certificate from Forest Department shall be obtained that no forest land is involved in mining or as a route and if forest land is involved the project proponent shall obtain forest clearance and permission of Central and State Government as per the provisions of Forest (conservation) Act, 1980 and submit before the start of work.
4. The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora fauna etc.

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**शिवप्रिया डेविंग कं०**  
कायदा, वकालत, न्याय-सहायक

5. Three tier green shelter belt of 7.5m width should be developed on the periphery of mine lease area. Local and native species should be planted in consultation with Forest/Horticulture Department/Agriculture University.
6. Plan for using the mine void for productive use in consultation with local administration and gram-panchayat.
7. If the proposed project is situated in notified area of ground water extraction, where creation of new wells for ground water extraction is not allowed, requirement of fresh water shall be met from alternate water sources other than ground water or legally valid source and permission from the competent authority shall be obtained to use it.
8. Project Proponent should submit action plan for carrying out plantation at least @1,000 plants / ha of lease area. In this case, PP should prepare a plan, duly approved either by Forest Department or Horticulture Department, for planting at least 1,000 plants, either on government land or community land, within a periphery of 5 km from the boundary of the lease area along with provision for maintenance for 5 years. Survival of plants should not be less than the survival rate notified by Uttar Pradesh Forest Department otherwise it will be treated as violation of EC condition.
9. In consultation with District Environment Authority or an Authority nominated by concerned DM, project proponent will prepared a conservation and management plan for rejuvenation and management of water bodies having total surface area of more than 5 ha. Funds for the same will be kept in a separate bank account and six monthly compliance status will be presented by project proponent before the nominated authority in the District.
10. Department of Geology and Mines, Government of Uttar Pradesh and / or concerned district administration, before releasing the security deposit to Project Proponent will ensure that Project Proponent has fully complied with the EC conditions. Non-compliance, if any, should be reported to UPSPCB for appropriate legal action and recovery of compensation.
11. Any application for transfer of this EC, during its validity period unless it is cancelled by a competent authority, has to be necessarily accompanied with status of compliance of EC conditions duly certified by IRO, MoEFCC, GoI, Lucknow.
12. Number of mining projects are coming up in district. Department of Geology & Mines, GoUP to carry out regional EIA-EMP report including carrying capacity of environmental components to assess the capacity to further bear the pollution load for such areas within a period of 1 year and submit the same to SEIAA, UP for evaluation.
13. Department of Geology & Mines, GoUP in consultation with UPSPCB will establish required number of CAAQMS in district within a period of one year and submit geo-referenced map of these stations along with data. Details of existing CAAQMS, if any, be submitted within a period of three months.
14. Large number of mining projects are ongoing as well as new mining leases are coming up in the district. A reference be sent to DGM and MS, SPCB for preparing mitigation plan for controlling air pollution in the district especially in mining areas.
15. If the air quality deteriorates due to mining, then District Administration & Directorate of Mining should ensure that mining be stopped immediately. Adequate measures be taken for restoring air quality and mining should commence only when air quality attains the prescribed standards.

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शिवार्णव डेलिया कं०  
कायस्थाना, बनेर रोड-बोधि

Minutes of the 734<sup>th</sup> Meeting of the SEIAA, UP held on 30.05.2023

4- (5) River bed sand/morrum mining, Gata no. 861, 861/12 and 861 / 12ml. at Village – Sirmiya, Tehsil – Orai, District – Jalaun, Shri Sukh Singh, Area-1.47 ha, File No. 7837/ Proposal No. SIA/UP/MIN/427900/2023

In light of discussion held in 731<sup>st</sup> SEAC meeting and SEIAA meeting no. 597 dated 05.05.2022. SEIAA opined to accept the recommendation of SEAC and grant EC to the said project along with all the general and specific conditions as suggested by SEAC but SEIAA replaces the specific condition regarding cluster certificate as "If in future during the progressive mining this lease area becomes part of cluster i.e. area equal to or more than 5 ha., limited to B-1 category, then additional conditions based on the EIA conducted by the concerned lease holders shall be imposed and joint EMP shall be implemented. The lease holder shall mandatorily follow all the imposed conditions otherwise it will amount to violation of E.C. conditions. If the certificate related to cluster provided by the competent authority is found false or incorrect then punitive actions as per the law shall be initiated against the authority issuing the cluster certificate" and adding following conditions:-

1. Validity period of this EC is 6 months from the date of issue as the LOI has been issued for a period of 6 months or co-terminus with the validity of current mine plan or current lease period whichever is earlier After this period the EC will become null and void.
2. District Mining Officer shall ensure that if mineable quantity mentioned in LOI is amended as per replenishment study report the project proponent shall seek amended/fresh EC.
3. A certificate from Forest Department shall be obtained that no forest land is involved in mining or as a route and if forest land is involved the project proponent shall obtain forest clearance and permission of Central and State Government as per the provisions of Forest (conservation) Act, 1980 and submit before the start of work.
4. The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora fauna etc.
5. If the proposed project is situated in notified area of ground water extraction, where creation of new wells for ground water extraction is not allowed, requirement of fresh water shall be met from alternate water sources other than ground water or legally valid source and permission from the competent authority shall be obtained to use it.
6. Project Proponent should submit action plan for carrying out plantation at least @1,000 plants / ha of lease area. In this case, PP should prepare a plan, duly approved either by Forest Department or Horticulture Department, for planting at least 2,000 plants, either on government land or community land, within a periphery of 5 km from the boundary of the lease area along with provision for maintenance for 5 years. Survival of plants should not be less than the survival rate notified by Uttar Pradesh Forest Department otherwise it will be treated as violation of EC condition.
7. In consultation with District Environment Authority or an Authority nominated by concerned DM, project proponent will prepared a conservation and management plan for rejuvenation and management of water bodies having total surface area of more than 10 ha. Funds for the same will be kept in a separate bank account and six monthly compliance status will be presented by project proponent before the nominated authority in the District.
8. Department of Geology and Mines, Government of Uttar Pradesh and / or concerned district administration, before releasing the security deposit to Project Proponent will ensure that Project Proponent has fully complied with the EC conditions. Non-compliance,

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If any, should be reported to UPSPCB for appropriate legal action and recovery of compensation.

9. Any application for transfer of this EC, during its validity period unless it is cancelled by a competent authority, has to be necessarily accompanied with status of compliance of EC conditions duly certified by IRO, MoEFCC, GoI, Lucknow.

5- Building Stone (Sandstone) Mine At Village- Dhuria, Tehsil- Chunar, District- Mirzapur, Gata No. 177, Shri Amresh Singh, M/s Vasudev& Sons, Area- 0.969 Ha., File No. 7839/ Proposal No. SIA/UP/MIN/427839 /2023

In light of discussion held in SEIAA meeting no. 597 dated 05.05.2022. SEIAA opined to accept the recommendation of SEAC and grant EC to the said project along with all the general and specific conditions as suggested by SEAC adding following specific conditions:-

1. Validity period of this EC is 5 years from the date of issue as the LoI has been issued for a period of 5 years or co-terminus with the validity of current mine plan or current lease period whichever is earlier After this period the EC will become null and void.
2. Directions/suggestions given during public hearing and commitment made by the project proponent should be strictly complied.
3. A certificate from Forest Department shall be obtained that no forest land is involved in mining or as a route and if forest land is involved the project proponent shall obtain forest clearance and permission of Central and State Government as per the provisions of Forest (conservation) Act, 1980 and submit before the start of work.
4. The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora fauna etc.
5. Three tier green shelter belt of 7.5m width should be developed on the periphery of mine lease area. Local and native species should be planted in consultation with Forest/Horticulture Department/Agriculture University.
6. Plan for using the mine void for productive use in consultation with local administration and gram-panchayat.
7. Project Proponent should submit action plan for carrying out plantation at least @1,000 plants / ha of lease area. In this case, PP should prepare a plan, duly approved either by Forest Department or Horticulture Department, for planting at least 1,000 plants, either on government land or community land, within a periphery of 5 km from the boundary of the lease area along with provision for maintenance for 5 years. Survival of plants should not be less than the survival rate notified by Uttar Pradesh Forest Department otherwise it will be treated as violation of EC condition.
8. In consultation with District Environment Authority or an Authority nominated by concerned DM, project proponent will prepared a conservation and management plan for rejuvenation and management of water bodies having total surface area of more than 5 ha. Funds for the same will be kept in a separate bank account and six monthly compliance status will be presented by project proponent before the nominated authority in the District.
9. Department of Geology and Mines, Government of Uttar Pradesh and / or concerned district administration, before releasing the security deposit to Project Proponent will ensure that Project Proponent has fully complied with the EC conditions. Non-compliance, if any, should be reported to UPSPCB for appropriate legal action and recovery of compensation.

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10. Any application for transfer of this EC, during its validity period unless it is cancelled by a competent authority, has to be necessarily accompanied with status of compliance of EC conditions duly certified by IRO, MoEFCC, GoI, Lucknow.
11. Number of mining projects are coming up in district. Department of Geology & Mines, GoUP to carry out regional EIA-EMP report including carrying capacity of environmental components to assess the capacity to further bear the pollution load for such areas within a period of 1 year and submit the same to SEIAA, UP for evaluation.
12. Department of Geology & Mines, GoUP in consultation with UPSPCB will establish required number of CAAQMS in district within a period of one year and submit geo-referenced map of these stations along with data. Details of existing CAAQMS, if any, be submitted within a period of three months.
13. Large number of mining projects are ongoing as well as new mining leases are coming up in the district. A reference be sent to DGM and MS, SPCB for preparing mitigation plan for controlling air pollution in the district especially in mining areas.
14. If the air quality deteriorates due to mining, then District Administration & Directorate of Mining should ensure that mining be stopped immediately. Adequate measures be taken for restoring air quality and mining should commence only when air quality attains the prescribed standards.

**6- "Ordinary Soil Excavation Project" at Gata No.- 1113, 441, 1105, 1085 ni, 472, Village- Purauri, Tehsil-Kaimganj, District- Farrukhabad, Shri Siddharth Singh, Area: 0.8920 Ha., File No. 7674/ Proposal No. SIA/UP/MIN/420111/2023**

In light of discussion held in SEIAA meeting no. 597 dated 05.05.2022. SEIAA opined to accept the recommendation of SEAC-1 and grant EC to the said project along with all the general and specific conditions as suggested by SEAC but EC to be issued only after submission of original notarized agreement between land owner and lease holder. SEIAA replaces the specific condition regarding cluster certificate as "if in future during the progressive mining this lease area becomes part of cluster i.e. area equal to or more than 5 ha., limited to B-1 category, then additional conditions based on the EIA conducted by the concerned lease holders shall be imposed and joint EMP shall be implemented. The lease holder shall mandatorily follow all the imposed conditions otherwise it will amount to violation of E.C. conditions. If the certificate related to cluster provided by the competent authority is found false or incorrect then punitive actions as per the law shall be initiated against the authority issuing the cluster certificate" and adding following conditions:-

1. Validity period of this EC is 3 months from the date of issue as the LoI has been issued for a period of 3 months or co-terminus with the validity of current mine plan or current lease period whichever is earlier. After this period the EC will become null and void.
2. A certificate from Forest Department shall be obtained that no forest land is involved in mining or as a route and if forest land is involved the project proponent shall obtain forest clearance and permission of Central and State Government as per the provisions of Forest (conservation) Act, 1980 and submit before the start of work.
3. The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora fauna etc.
4. If the proposed project is situated in notified area of ground water extraction, where creation of new wells for ground water extraction is not allowed, requirement of fresh

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water shall be met from alternate water sources other than ground water or legally valid source and permission from the competent authority shall be obtained to use it.

5. Project Proponent should submit action plan for carrying out plantation at least @1,000 plants / ha of lease area. In this case, PP should prepare a plan, duly approved either by Forest Department or Horticulture Department, for planting at least 1,000 plants, either on government land or community land, within a periphery of 5 km from the boundary of the lease area along with provision for maintenance for 5 years. Survival of plants should not be less than the survival rate notified by Uttar Pradesh Forest Department otherwise it will be treated as violation of EC condition.
  6. In consultation with District Environment Authority or an Authority nominated by concerned DM, project proponent will prepared a conservation and management plan for rejuvenation and management of water bodies having total surface area of more than 5- ha. Funds for the same will be kept in a separate bank account and six monthly compliance status will be presented by project proponent before the nominated authority in the District.
  7. Department of Geology and Mines, Government of Uttar Pradesh and / or concerned district administration, before releasing the security deposit to Project Proponent will ensure that Project Proponent has fully complied with the EC conditions. Non-compliance, if any, should be reported to UPSPCB for appropriate legal action and recovery of compensation.
  8. Any application for transfer of this EC, during its validity period unless it is cancelled by a competent authority, has to be necessarily accompanied with status of compliance of EC conditions duly certified by IRO, MoEFCC, Gol, Lucknow.
  9. If the air quality deteriorates due to mining, then District Administration & Directorate of Mining should ensure that mining be stopped immediately. Adequate measures be taken for restoring air quality and mining should commence only when air quality attains the prescribed standards.
- 7- Khailar Khanda-Boulder/ Gitti-Ballast Mining project at Gata No 669 (Khand 07) Village-Khailar, Tehsil- Sadar, District: Jhansi, Shri Raleev Mehta, M/s Raj and Company, Area: 2.0 ha. File No. 6657/Proposal No. SIA/UP/MIN/68813/2021

SEIAA agreed with the recommendation of SEAC to issue additional ToR to the title proposal for conducting EIA studies. SEIAA added following points to ToR-

- 1- Since no intimation has been submitted regarding available monitoring data, hence data will be collected after issuance of ToR.
- 2- All pages of technical documents/EIA/EMP etc. should be signed by the consultant and project proponent both.
- 3- The lease area its address and production per annum should match with as mentioned in DSR and Loi. In case there is any difference clarification/ amendment letter from competent authority shall be submitted along with EIA. EIA and public hearing shall be conducted as per the lease area its address and production per annum mentioned in DSR and Loi.
- 4- Public hearing shall be conducted as per EIA notification, 2006 (as amended).
- 5- Plan for using the mine void for productive use in consultation with local administration and gram-panchayat.
- 6- SEIAA opined that the project proponent shall submit permission of CGWA or proposal for alternative source of fresh water.

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- 7- KML file for the area and mining lease area should be provided.
- 8- Status of leases granted/to be granted in various mining khands along with production since the formulation of DSR, duly certified by the competent authority should be submitted.
- 9- In case project proponent intends to temporarily store mined out material or any tools, equipments or other material outside mine lease area then NOC from competent authority for doing so should be submitted and details of such area and associated Environmental impacts should be included in EIA-EMP report. This should also be clearly mentioned during public hearing.
- 10- Road network to be used by the project should be clearly shown on Survey of India toposheet in 1:50,000 scale. In case road network involves forest road, permission should be obtained from Forest Department and a copy of the same should be submitted at the time of appraisal of EIA-EMP report.
- 11- The project proponent should clearly spell out whether it is a green field or brown field project. In case it is a brown field project and -
  - (i) If the earlier and present lease holder are same then compliance report of previous EC should be submitted.
  - (ii) If the earlier and present lease holder are different then environmental footprint of the site and mitigation measures should be included in EIA-EMP report.
- 12- In case of expansion / renewal of earlier EC, following information should be submitted
  - a. Status of compliance of earlier EC conditions by Integrated Regional Office, MoEFCC, Gol, Lucknow.
  - b. Copy of CTE and CTO issued by SPCB.
  - c. Status of submission of six-monthly compliance report to EC granted earlier
  - d. Court cases, if any.
- 13- Observations raised in public hearing, replies submitted by project proponent, suitable modifications carried out in EIA-EMP report.
- 14- Project Proponent should submit action plan for carrying out plantation at least @1,000 plants / ha of lease area. In this case, PP should prepare a plan, duly approved either by Forest Department or Horticulture Department, for planting at least 2,000 plants, either on government land or community land, within a periphery of 5 km from the boundary of the lease area along with provision for maintenance for 5 years. Survival of plants below Uttar Pradesh Forest Department's survival rate will be treated as violation of EC condition.
- 15- In consultation with District Environment Authority or an authority nominated by concerned DM. Project Proponent will prepare a conservation and management plan for the rejuvenation and management of water bodies having a total surface area of not less than 10 ha. Funds for the same will be kept in a separate bank account and six-monthly implementation status will be presented by the Project Proponent before the nominated authority in the district.
- 16- Along with the EIA-EMP report, PP / consultant will also submit in tabular form as to how they have addressed entire ToR while preparing draft EIA-EMP report for PH. Further, PP / consultant will submit in tabular form as to how they have addressed issues raised during public hearing and have incorporated the same in final EIA-EMP report. A presentation to this effect should be made before SEAC at the time of EIA-EMP presentation.

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Atenda: C- Review

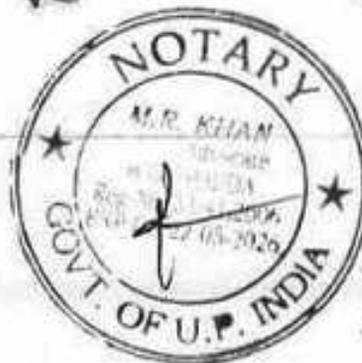
**1. Building Stone, Khandas & Gitti, Boulder Mining Project at Gata No.- 2450, Khand No.- 06, Village- Jarar, Tehsil: Naraini & District- Banda, Shri Lavlesh Singh, Area- 2.0 ha., File No. 7770/5043/ Proposal No. SIA/UP/ MIN/425411/2023**

SEIAA noted that the above project was taken in its 730th meeting in which SEIAA found that ToR is more than 3 years old and nothing has been mentioned regarding extension of ToR. Similarly, LOI has also been revised which is not mentioned in the MoM. In light of discussion held in SEIAA meeting no. 597 dated 05.05.2022. SEIAA opined to accept the recommendation of SEAC and grant EC to the said project along with all the general and specific conditions as suggested by SEAC adding following specific conditions:-

1. Validity period of this EC is 5 years from the date of issue as the LOI has been issued for a period of 5 years or co-terminus with the validity of current mine plan or current lease period whichever is earlier After this period the EC will become null and void.
2. Directions/suggestions given during public hearing and commitment made by the project proponent should be strictly complied.
3. A certificate from Forest Department shall be obtained that no forest land is involved in mining or as a route and if forest land is involved the project proponent shall obtain forest clearance and permission of Central and State Government as per the provisions of Forest (conservation) Act, 1980 and submit before the start of work.
4. The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora fauna etc.
5. Three tier green shelter belt of 7.5m width should be developed on the periphery of mine lease area. Local and native species should be planted in consultation with Forest/Horticulture Department/Agriculture University.
6. Plan for using the mine void for productive use in consultation with local administration and gram-panchayat.
7. If the proposed project is situated in notified area of ground water extraction, where creation of new wells for ground water extraction is not allowed, requirement of fresh water shall be met from alternate water sources other than ground water or legally valid source and permission from the competent authority shall be obtained to use it.
8. Project Proponent should submit action plan for carrying out plantation at least @1,000 plants / ha of lease area. In this case, PP should prepare a plan, duly approved either by Forest Department or Horticulture Department, for planting at least 2,000 plants, either on government land or community land, within a periphery of 5 km from the boundary of the lease area along with provision for maintenance for 5 years. Survival of plants should not be less than the survival rate notified by Uttar Pradesh Forest Department otherwise it will be treated as violation of EC condition.
9. In consultation with District Environment Authority or an Authority nominated by concerned DM, project proponent will prepared a conservation and management plan for rejuvenation and management of water bodies having total surface area of more than 10 ha. Funds for

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कार्यालय, बनेर रोड-बन्दा

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- the same will be kept in a separate bank account and six monthly compliance status will be presented by project proponent before the nominated authority in the District.
10. Department of Geology and Mines, Government of Uttar Pradesh and / or concerned district administration, before releasing the security deposit to Project Proponent will ensure that Project Proponent has fully complied with the EC conditions. Non-compliance, if any, should be reported to UPSPCB for appropriate legal action and recovery of compensation.
  11. Any application for transfer of this EC, during its validity period unless it is cancelled by a competent authority, has to be necessarily accompanied with status of compliance of EC conditions duly certified by IRO, MoEFCC, GoI, Lucknow.
  12. Number of mining projects are coming up in district. Department of Geology & Mines, GoUP to carry out regional EIA-EMP report including carrying capacity of environmental components to assess the capacity to further bear the pollution load for such areas within a period of 1 year and submit the same to SEIAA, UP for evaluation.
  13. Department of Geology & Mines, GoUP in consultation with UPSPCB will establish required number of CAAQMS in district within a period of one year and submit geo-referenced map of these stations along with data. Details of existing CAAQMS, if any, be submitted within a period of three months.
  14. Large number of mining projects are ongoing as well as new mining leases are coming up in the district. A reference be sent to DGM and MS, SPCB for preparing mitigation plan for controlling air pollution in the district especially in mining areas.
  15. If the air quality deteriorates due to mining, then District Administration & Directorate of Mining should ensure that mining be stopped immediately. Adequate measures be taken for restoring air quality and mining should commence only when air quality attains the prescribed standards.

**Nodal Officer**  
**SEIAA, UP**

Must be signed by Secretariat in consultation with  
MSB Member on the basis of decision  
taken by SEIAA during the meeting

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(Ajay Kumar Sharma)  
Member-Secretary  
SEIAA

(Paras Nath)  
Member  
SEIAA

शिवापण ट्रेडिंग कंपनी  
मालविका, बबेरु रोड-बान्दा

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Mohd. Hanique Khan  
NOTARY/ADVOCATE  
BANDA (U.P.)