

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

Original Application No.296 of 2024

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

.....Applicant

Versus

Deepak Singh

.....Respondent

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Dated : July, 2024

*Fazal*  
(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

*Deepak Singh*  
M/s Deepak Singh  
Proprietor

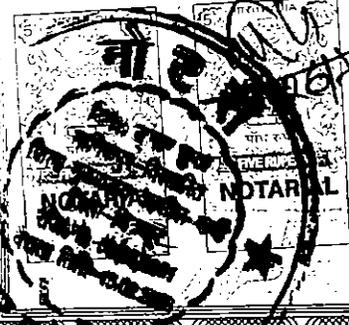


# भारतीय नैर न्यायिक

दस  
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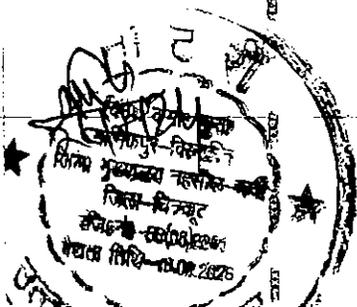


INDIA NON JUDICIAL

उत्तर प्रदेश UTTAR PRADESH

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*Deepak Singh*  
M/s Deepak Singh  
Proprietor



*Deepak Singh*  
26/11/24

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

Original Application No.296 of 2024

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

.....Applicant

Versus

Deepak Singh

.....Respondent

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

I, Deepak Singh, S/o Shri Ram Pal Singh, aged 36 years, Resident of Akbarpur, Banda Road, Bharatkoop, Tehsil Karwi, Chitrakoot, (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



*Deepak Singh*  
M/s Deepak Singh

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 from 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 is 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



*Amr Singh*  
M/s Deepak Singh

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.

5. That it is also relevant to submit herein that environmental clearance to the applicant was considered finally on 14.10.2020 in the 416<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 05.10.2020 of its 497<sup>th</sup> SEAC meeting. A true copy of the minutes 416<sup>th</sup> meeting dated 14.10.2020 alongwith 497<sup>th</sup> meeting of SEAC dated 05.10.2020 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 26/7/24 day of July, 2024.

*Deponent*

*Debal Singh*

Deponent

*26/7/24*

*M/s Deepak Singh*

विषय: कृष्ण गूला  
 मुक्तपुर-विस्तारित  
 जिला मुख्यालय नहसील-कटी  
 जिला-चित्रकूट  
 दिनांक 23/06/2021  
 तिथि-15.02.2026

उत्तर प्रदेश सरकार

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,  
Email: [cs-up@nic.in](mailto:cs-up@nic.in).

**3. Principal Secretary, Environment, Forest and Climate Change  
Department,**  
State of Uttar Pradesh,  
17, Rana Pratap Marg, Lucknow, (U.P.), 226001,  
Email: [pccf-up@nic.in](mailto:pccf-up@nic.in).

**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](mailto: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](mailto:dir.soma@dgms.gov.in).

**6. Uttar Pradesh Pollution Control Board,**  
Through Member Secretary,  
Vibhuti Khand, Gomti Nagar, Uttar Pradesh-221301,  
Email: [ms@uppcb.com](mailto:ms@uppcb.com).

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

*Deepak Singh*  
**M/s Deepak Singh**  
Per Director



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.**

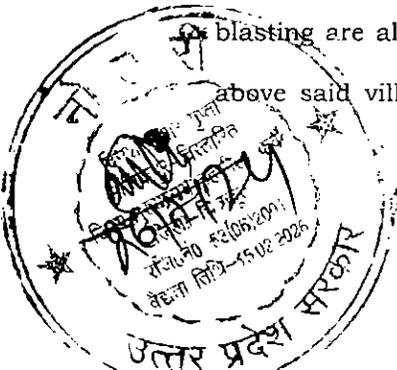
Applicant: None for the applicant.

Respondents: Mr. Manoj Kumar, Advocate for respondent no.1-  
Project Proponent-M/s. Kunwar Vinod Ram.  
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.

2. In the letter petition the applicant submitted that six mining leases have been allotted in two hills situated in the area of village Jarar. Five crushers have been established in Village Jarar and Chhaneha 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



*Signature*  
M/s Deepak Singh  
Practitioner

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 बंसत पंचमी में मेला लगता है यहां बहुतायक 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।

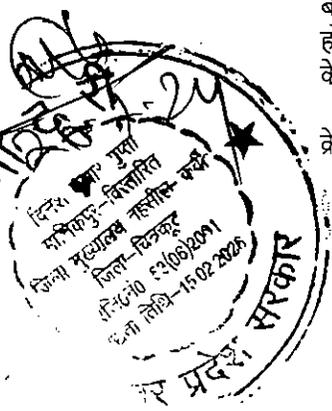
बिन्दु-4 ग्राम जरर मजरा छनिहा पुरवा, रधवापुरवा में उपजाऊ जमीन के बीच सभी क्रेसर लगी हुई हैं प्रशासन व संबंधित विभागों द्वारा आंख मूंदकर व आफिस में बैठकर सर्वे करके अनुमति दी गयी है। किसान अपनी आखों के सामने फसलों को बरबाद होते देख रहा है रात दिन चलने वाली क्रेसरों से ध्वनि प्रदूषण हो रहा है ग्रामीण रात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



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M/s Deepak Singh  
Printer

पलायन कर जायेगें, मौते होगीं और भयानक पर्यावरण असंतुलन पैदा होगा जिससे दैवीय आपदायें आयेगीं इसलिए जल्द ही कार्यवाही सुनिश्चित करें। उपरोक्त लिखे गये पत्र के संबंध में सभी साक्ष्य संलग्न हैं।”

4. This Tribunal took cognizance 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 National Green Tribunal Act, 2010.*

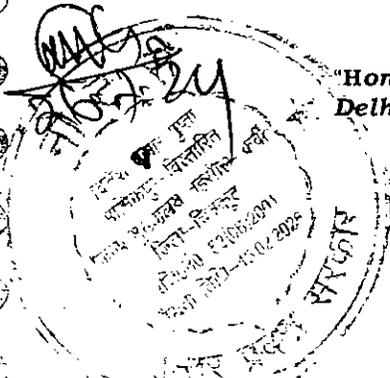
4. *In view of the averments made in the application, we consider it appropriate that a Joint Committee be constituted to verify the factual position and take appropriate remedial action. Accordingly, we constitute a Joint Committee comprising of representative of Director, Geology and Mining, Uttar Pradesh, 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](mailto: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

*Autm Me*  
M/s Deepak Singh  
Proprietor



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

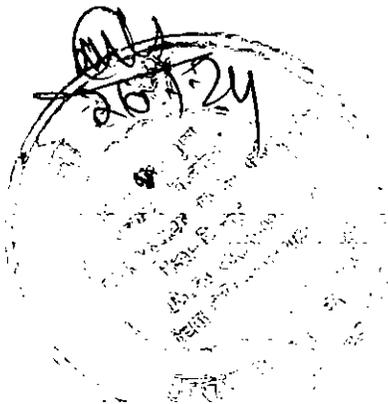
X X X X  
2. In compliance of direction issued by Hon'ble National Green Tribunal following members have been nominated for the said Joint Committee by the concern departments regarding compliance of above Hon'ble National Green Tribunal order: -

| 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.

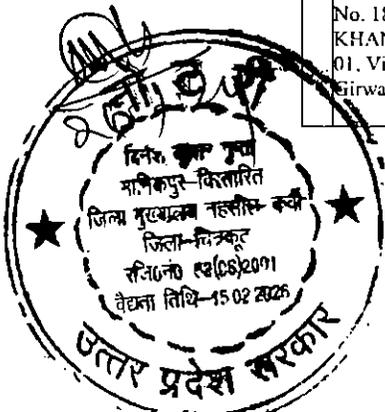
4. The nominated Joint Committee Members has carried out the field survey on 17.08.2023 and 18.08.2023. During the field visit/survey, the committee members interacted with the applicant, Mr. Abhishek Shukla and representative of the concerned project proponents of mining lessee and stone crusher.

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: -



*gumhis*  
M/s Deepak Singh  
Proprietor

| 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                  |
| 4     | Athary Construction company (Shri Shравan 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- 2.01 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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Proprietor



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, Khand 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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M/s Deepak Singh  
Proprietor

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

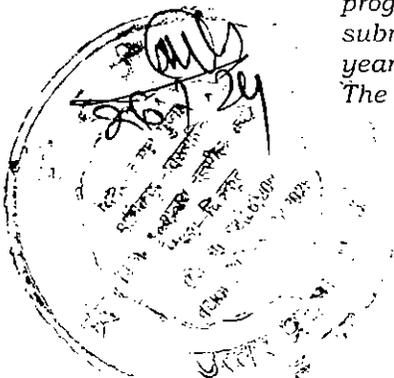
None of the mine have provided the details about the funds earmarked for environmental protection measures to UPPCB. It was informed by mining lessee that expenditure allotted in EMP head is being utilized in same purpose.

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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Proprietor

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, Govt, 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, Govt, 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.



*Sumit*  
M/s Deepak Singh  
Prin. in-charge

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, Gol, 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.

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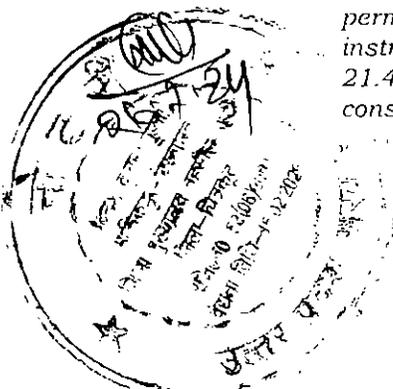
#### 21. Finding and recommendations:

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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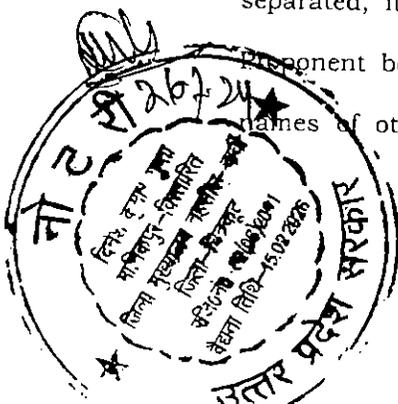
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- 21.5) UPPCB can be asked to take necessary action against the stone crusher who have not operated the dust suppression system during the operation of stone crusher.
- 21.6) The project proponent can be asked to maintain the village road near these 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



*Signature*  
M/s Deepak Singh  
Director

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***

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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. 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



*Signature*  
M/s Deepak Singh  
Printer





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

1. माननीय एन०जी०टी० के आदेश के बिन्दु संख्या-3 के अनुपालन में कमांक 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 छायाप्रति 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।

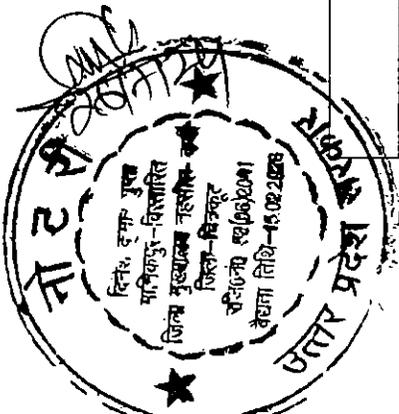
3- माननीय राष्ट्रीय हरित अधिकरण नई दिल्ली द्वारा दिनांक 03.10.2023 को पारित आदेश अनुपालनार्थ माननीय राष्ट्रीय हरित अधिकरण नई दिल्ली द्वारा दिनांक 01.08.2023 को पारित आदेश के अनुपालन में माननीय एन०जी०टी० में दाखिल संयुक्त जाँच कमेटी की निरीक्षण आख्या में दिये गये रिकमन्डेशन के कम में कार्यालय जिलाधिकारी, 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 कम में बिन्दुवार कृत कार्यवाही का विवरण निम्नवत् है:-

| क्रम सं० | संयुक्त जाँच कमेटी की निरीक्षण आख्या में दिये गये रिकमन्डेशन  | अनुपालनार्थ कार्यवाही का विवरण  |
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| 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 |

*Deepak Singh*  
M/s Deepak Singh  
नरैनी

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|      | <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। 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 | <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>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 है परन्तु ग्रामीण आस्था को देखते हुये मंदिर परिसर के आस-पास कोई नया खनन पट्टा दिया जाना उचित नहीं है।</p>   |



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|      |  | <p>2. ग्राम गिरवां, तहसील- नरैनी, जनपद- बाँदा स्थित पहाड़ी पर कुल 7 खनन पट्टों को खनन विभाग द्वारा माइनिंग लीस आवंटित की गयी है।</p> <p>ग्राम- गिरवां की पहाड़ी पर स्थित मंदिर से निकटतम खनन पट्टा मैसर्स संग्राम सिंह, गाटा नं०- 1876, खण्ड नं०- 01 ग्राम- गिरवा, जनपद- बाँदा 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- बाँदा 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 कुँवर विनोद राजा, गाटा नं०- 332, खण्ड नं०-01 ग्राम बडोखर खुर्द, जनपद- बाँदा 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><i>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.</i></p> | <p>डिरेक्टर जनरल माइन्स ऑफ सेफ्टी, डिरेक्टरेट 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 बाँदा के पत्रांक-820 दिनांक 02.11.2023 समस्त पट्टा धारक को प्रेषित किया गया है।</p>  |



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M/s Deepak Singh



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

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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 04.12.023 reads as under:

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

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उक्त के सम्बन्ध में अनुपालन आख्या निम्नवत है :-

1) 11 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



*Signature*  
M/s Deepak Singh

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 | खनन क्षेत्र  | गाटा संख्या        | रक बा (हे० मे०) | 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 अथर्व कांस्ट्रक्शन कम्पनी प्रो० श्री श्रवण कुमार सिंह पुत्र श्री विष्णुपाल सिंह निवासी प्लॉट नं०-03, 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 नु०-कालूकुआं, 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 मे० गांधीनगर महोबा, तहसील व जिला महोबा  | नरैनी | गिरवां       | 1876 (खण्ड सं०-02) | 0.80            | 18.12.2020 से 17.12.2030 तक |
| 5.       | श्री बजरंग रोड लाइन्स पाटनर श्री सुरेश प्रताप सिंह पुत्र श्री तेज प्रताप सिंह निवासी ग्राम व पोस्ट-मऊ, 584, कटरा लालगंज, तहसील गौरीगंज, जिला अमेठी  | नरैनी | गिरवां       | 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-आर्शावाद पैतेस, नयापुरा नैकाना, तहसील गिरवां व जिला महोबा  | नरैनी | गिरवां       | 876 (खण्ड सं०-09)  | 0.50            | 08.07.2022 से 07.07.2032 तक |
| 7.       | मेसर्स बुन्देलखण्ड रॉक्स प्रो० श्रीमती दीपाली सिंह पत्नी श्री के०पी० सिंह निवासी-आर्शावाद पैतेस, नयापुरा नैकाना, तहसील व जिला महोबा   | नरैनी | गिरवां       | 1876 (खण्ड सं०-07) | 0.80            | 12.05.2023 से 11.05.2033 तक |
| 8.       | श्री कुँवर विनोद राजा पुत्र रव० श्री रामकृपाल सिंह निवासी-एम०आई०जी०बी०, 74 बी०एस०एन०एल० टॉवर के   | नरैनी | बड़ोखर खुर्द | 332 (खण्ड सं०-01)  | 1.61            | 01.03.2021 से 28.02.2031 तक |



M/s Deepak Singh

|     | पास, इंदिरा नगर, बांदा  |       |              |                   |      |                             |
|-----|---|-------|--------------|-------------------|------|-----------------------------|
| 9.  | मे० दिशा इन्टर प्राइजेज प्रो० श्रीमती सुधा सिंह पत्नी श्री सुनील सिंह निवासी-नोनिया मुहात छाबी तालाब, शहर व जिला-बांदा।                           | नरैनी | बड़ोखर खुर्द | 332 (खण्ड सं०-2)  | 1.61 | 05.11.2020 से 04.11.2030 तक |
| 10. | मे० मां विंध्यवासिनी स्टोन वर्क्स प्रो० श्री समीर सिंह पुत्र श्री फूल 10. सिंह निवासी मु०- सिविल लाइन डी०एम० कालोनी, थाना कोतवाली नगर, जिला बांदा | नरैनी | 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, भरतकूप, तहसील कर्वी, जिला चित्रकूट  | नरैनी | 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 (संतप्रक-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, अतका टाकीज के पास, तह० पिपरिया, जिला होशंगाबाद (म०प्र०)।  | नरैनी | गिरवां      | 1876 (खण्ड सं०-5)  | 1.21           | 22.10.2020 से 21.10.2030 तक |
| 2        | मे० यूरेका माइन्स एण्ड मिनरल्स एल०एल०पी० पार्टनर श्री चन्द्रशेखर चौरसिया पुत्र श्री दीनदयाल चौरसिया निवासी-28, ब्रम्हपुरी कालोनी नियर जुगली कासिंग, फैजाबाद रोड, जिला नरैनी लखनऊ तथा श्री हिमांशु मीणा पुत्र श्री रामजीलाल मीणा निवासी नीदड, हर्मादा, जयपुर (राजस्थान) | नरैनी | 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



*Deepak Singh*  
M/s Deepak Singh  
District Collector

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 सक्रियायें 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 में) | पट्टा अवधि                  |
|----------|--|-------|-------------|-------------------|----------------|-----------------------------|
| 1        | 2  | 3     | 4           | 5                 | 6              | 7                           |
| 1        | श्री सफ़दर अली पुत्र स्व० श्री फरजन्द अली निवासी मु०-खूँटी 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 03.10.2023 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 शुक्ला बनाम उत्तर प्रदेश राज्य व अन्य में मा० राष्ट्रीय हरित



Sumit  
M/s Deepak Singh  
Proprietor

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 है:-

"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।"



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

*Amrit Singh*  
M/s Deepak Singh

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 प्रश्रुत 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



M/s Deepak Singh  
P. Singh

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**

X X X X X

**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



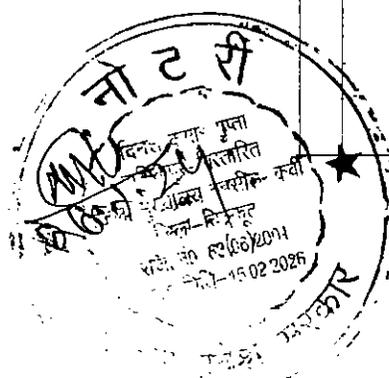
*Signature*  
M/s Deepak Singh  
Proprietor

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. No. | 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 Raja, Gata No. 332, Khand No. 01, Village - Badakharkurd, 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 | X- 115m<br>Hume<br>nts and<br>House<br>E- 75m<br>Hume<br>nts and<br>House<br>S-<br>100m<br>Temple<br>W-<br>140m<br>11KV<br>HT<br>Line<br>NE-<br>100m<br>Hume<br>nts and<br>House<br>and<br>250m<br>Temple<br>SW-<br>180m<br>Hume<br>nts and<br>House<br>NW-<br>210m<br>Hume<br>nts and<br>House | Notice issued under Section 22(1) of Mines Act, 1922 vide this Directorate letter No. लेख पी. 290/23 दिनांक 06.02.2024<br>Reg. 164(1B) of MMR, 1961. The side of the opening on west side was not properly braced. Stipulations secured by the previous lease holder to prevent dangers due to fall of sides. The height of brace on east side was found at out 32m which is more than the stipulated bench height of 6m.<br>Violation after issued under MMR, 1961, Mines Rules, 1955 & Mines Locational Training Rules, 1961 vide this Directorate letter No. लेख पी. 290/23 दिनांक 06.02.2024<br>Reg. 164(1B) 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.<br>Reg. 111(2) of MMR, 1961. Excavation was found extended within 7m of the lease boundary of the mine on east and south of the mine. Such excavations shall be immediately stopped as per Reg. 115(1) of MMR, 1961. The |



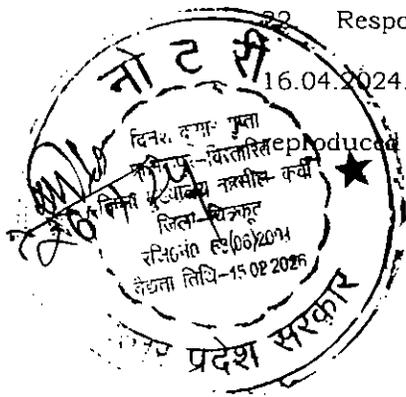
*Autmic*  
**M/s Deepak Singh**  
Proprietor

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | <p>approaches to the toe 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 sides.</p> <p>d) Reg. 164 (1B) of MMIR, 1961: Hutments and houses not belonging to the owner of the mine were found existed at about 150m, 100m, 280m and 240m away from the north, east, south and north-west boundaries of the mine respectively within the blasting danger zone of 300m. A temple was found existed at about 170m away from the south boundary of the mine. 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) 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 from such permanent surface structures.</p> <p>e) Rule 29B of the Mines Rules, 1955: Persons employed in the mine were not undergoing initial or periodical medical examination.</p> <p>f) Rule 6 of MTR, 1966: Persons employed in the mine were not imparted vocational training.</p> |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

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:-



*Autentic*  
**M/s. Deepak Singh**  
 Proprietor

**"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.

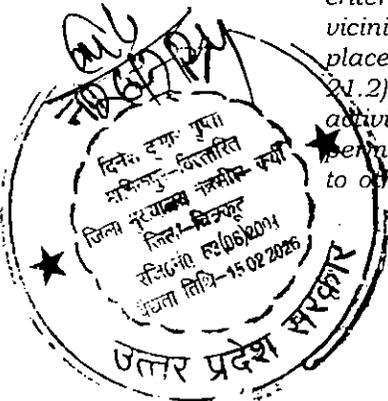
4. That the applicant vide complaint dated 12-03-2023 has also submitted that six mining leases have been allotted in two hills in the area situate of village Jarar and five crushers have been established in Village Jarar and Chhaneha Purwa and mining is being done by resorting to illegal blasting which 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



*Signature*  
M/s Deepak Singh  
Pr. Director

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 blasting and mechanical instrument/machine.

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

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."

7. That in the case of Special Leave Petition (c) No.-19628-19629 of 2009, Deepak Kumar etc Vs. State of Haryana and other etc the Hon'ble Supreme Court vide order dated 27-02-2012 was pleased to pass following direction :-

"19. We in the meanwhile, order that leases of minor mineral including their renewal for an area of less than five hectares be granted by the States/Union Territories only getting environmental clearance from MOEF."

In compliance of the aforesaid direction dated 27-02-2012 given by the Hon'ble Supreme Court, the Project Proponent after getting approval of the Director, Geology 85 Mining U.P. Lucknow on the mining plan, applied for environmental clearance before SEIAA, and EC was granted by the SEIAA after conducting Public hearing vide letter No.-631/Parya/SEIAA/ 6033-5062/2020 dated 15-01-2021 in favour of the Project Proponent.

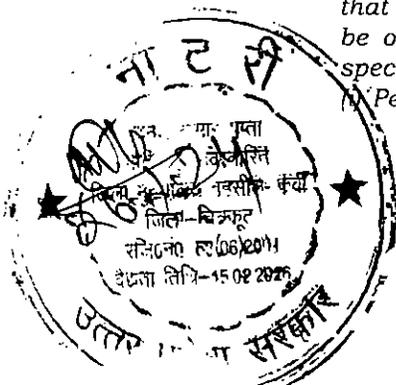
8. That after execution of lease deed the Project Proponent also obtained consolidated consent to operate the mines under section-25 of the water (Prevention & Control of Pollution) Act 1974 and section-21 of the Air (Prevention & Control of Pollution) Act 1981 vide letter dated 28-02-2023 from Uttar Pradesh Pollution Control Board Lucknow which already annexed herewith as ANNEXURE No.2 to this reply affidavit.

9. That the Project Proponent is conducting mining operation under the supervision of Mines Foreman Shri Vikash Singh, appointed by the DGMS Regional Office, Varansi vide order dated 18-12-2023.

The copy of the said order dated 18-12-2023, issued by DGMS is being annexed herewith as ANNEXURE No.3 to this reply.

10. That the Director, DGMS Regional Office, Varansi submitted its report dated 01-02-2024 with mentioning therein that permissions for conducting blasting in mines are required to be obtained from DGMS under the MMR 1961 in the following special circumstances

1) Permission for conducting deep hole blasting (blasting



*Deepak Singh*  
M/s Deepak Singh  
Proprietor

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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M/s Deepak Singh  
Proprietor

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

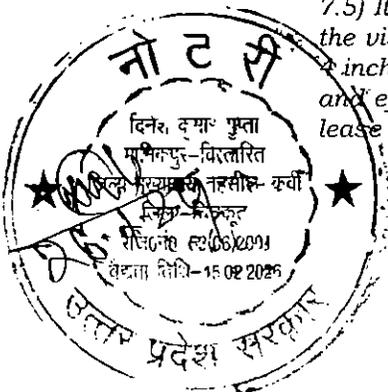
"7.1) The main habitation of village-Jarar is situated 135 meters away from the nearest allotted lease mining on hill of village-Jarar, but some houses are made near the allotted lease M/s Safdar Ali S/o Late Shri Farzand Ali, Gata No.-2450, Khand No.-03, at Village-Jarar. Temple is situated 235 meters 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.-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 2 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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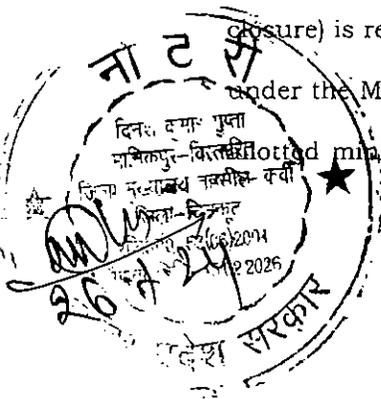


*Deepak Singh*  
**M/s Deepak Singh**  
 Proprietor

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 central 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 leased mining lease the owner, agent or manager of the mine is required to



*M/s Deepak Singh*  
Proprietor

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:

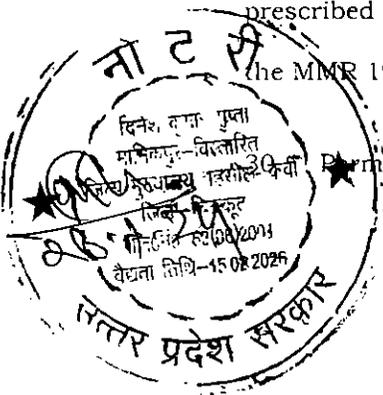
(i) Permission for conducting deep hole blasting (blasting with holes more than 3 m in depth), as required under Regulation 106(2)(b) of the MMR 1961;

(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.

29. 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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M/s Deepak Singh  
Proprietor

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 duly complied with by the Project Proponent, Department of Mines and Geology

and NPS PCB in time bound manner.

In the present case the violations noticed and recommendations made by



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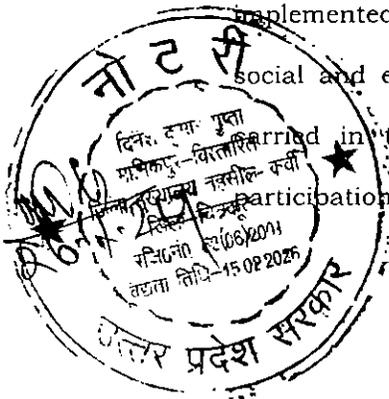
the Joint Committee in its report and compliance report filed regarding the remedial measures taken/to be taken by respondent no.1 Project Proponent are required to be examined/considered for issuance of appropriate directions.

**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.

39. 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.

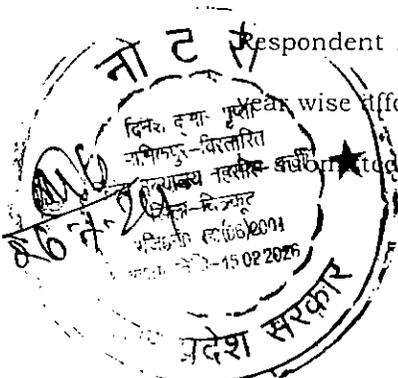
40. The Project Proponent should comply with the Corporate Social Responsibility (CSR) and Environmental Management Programme (EMP) stipulated by UP SEIAA while granting EC to the Project Proponent in letter and spirit. The CSR/EMP cost estimated/allocated in the EC of SEIAA should be invested/incurred 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.



*Signature*  
M/s Deepak Singh  
Proprietor

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.

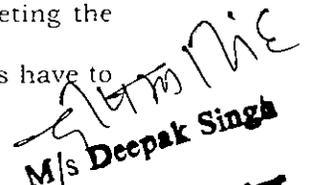
45. Respondent no.1 is directed to carry-out development of green belt during forth coming monsoon season as per EC/consent conditions considering CPCB guidelines including the guidelines regarding selection of plant species in consultation with local DFO/Agriculture Department and also by involving 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

  
M/s Deepak Singh  
Proprietor



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.

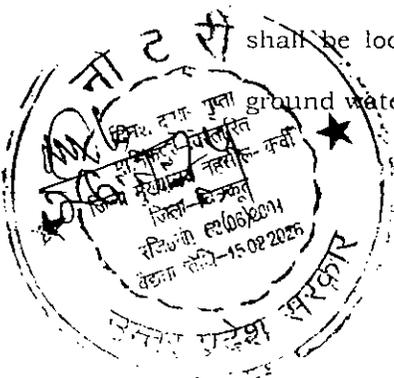
50. The respondents no. 2 to 4 and 7 are directed to take requisite measures for construction of main village road from DMF within six months.

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.

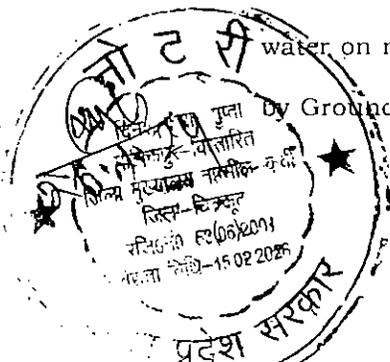
54. The Joint Committee found that one pond/lake is located within 5 KM from the mines. In its report the Joint Committee has mentioned that monitoring of the pond/lake has not been carried out by respondent no.1 and other mining lease holders and that no Hydro geological study of the area has been carried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



M/s Deepak Singh  
Proprietor

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.

61. 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.**

*Deepak Singh*  
M/s Deepak Singh  
Permitter



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.

67. 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.



*Sumit*  
M/s Deepak Singh  
Proprietor

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.

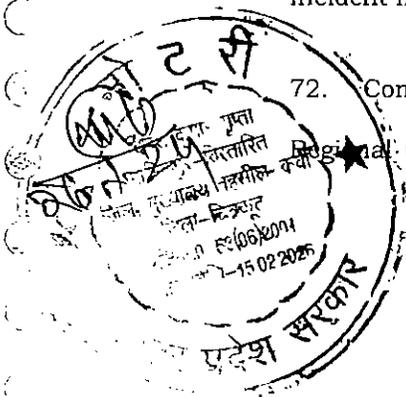
69. Respondent no. 1 is directed to get its workmen medically examined and provide requisite vocational training to them as undertaken.

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 to.

71. 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.

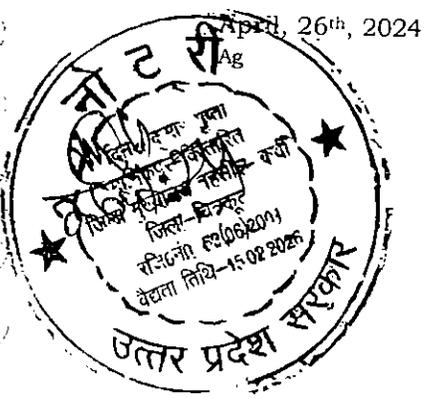
74. The present original application is disposed of with the directions as mentioned above leaving the parties to bear their own costs.

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.

Arun Kumar Tyagi, JM

Dr. Afroz Ahmad, EM

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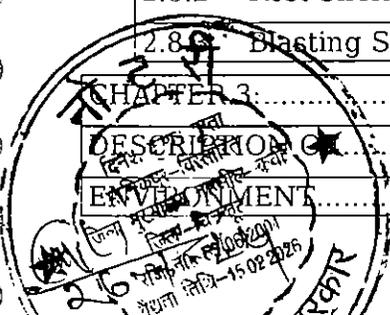


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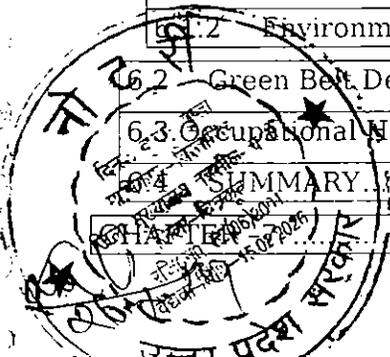
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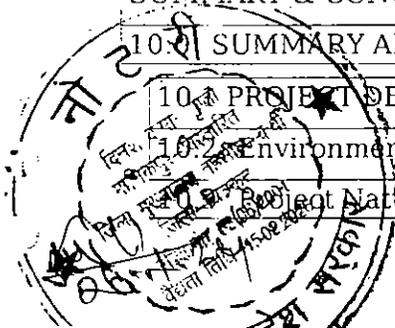
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## ABBREVIATIONS

|       |   |
|-------|---|
| EIA   | Environmental Impact Assessment                         |
| EMP   | Environment Management Plan                             |
| MoEF  | Ministry of Environment and Forest                      |
| 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  |
| COD   | Chemical Oxygen Demand                                  |
| 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 Organisation                           |
| 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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# CHAPTER -1: INTRODUCTION



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## FINAL EIA REPORT FOR GRANITE (KHANDA, GITTI &amp; BOULDER) MINE

# 1. INTRODUCTION

## 1.1 Preamble

Environmental Impact Assessment (EIA) is the management tool to ensure the sustainable development and it is a process, used to identify the environmental, social and economic impacts of a project prior to decision-making. It is a decision making tool, which guides the decision makers in taking appropriate decisions for any project. EIA systematically examines both beneficial and adverse consequences of the project and ensures that these impacts are taken into account during the project designing. It also reduces conflicts by promoting community participation, information, decision makers, and helps in developing the base for environmentally sound project. The Ministry of Environment and Forests, Govt. of India, through its EIA notification No. SO1533 (E) of Sept. 14th 2006 and its subsequent amendments later under the Environment Protection Act, 1986, classified the projects under two categories – A (more than 100 ha) and B (>5 ha but <100 ha) for mining sector. Category-A projects (including expansion and modernization of existing projects) require Environmental Clearance from Central Government (Ministry of Environment and Forests, Govt. of India, New Delhi) while category – B projects are considered by State Level Environmental Impact Assessment Authority (SEIAA), constituted by MoEF, New Delhi. If in case, any category "B" project attracts the "general condition" given in the EIA notification, it shall be treated as category "A" and will be considered at MOEF, New Delhi.

The proposed project is categorized under category "B" Activity 1(a) (Open cast mining of minerals, mining lease area <05 hectare) as the lease area is 0.56 ha. However the GOI order dated 12th Dec. 2018 states that any mining area less than 5 ha, making a cluster of above 5.0 ha within 500 mt. radius the project will be treated as B-1.

In order to assess the likely impacts arising out of the project, the Environmental Impact Assessment (EIA) study is undertaken, which will be followed by preparation of a detailed Environmental Management Plan (EMP) to minimize those adverse impacts.



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FINAL EIA REPORT FOR GRANITE (KHANDA, GITTI & BOULDER) MINE

## 1.2 Identification of Project Proponent

The project is being proposed by, Prop.- Shri Deepak Singh S/o Shri Ram Pal Singh has been progressing forward not only in its financial aspect but also has taken a big leap in the direction of diversification of its activities. The basic details are being furnished herewith-

## 1.3 Details of Mining Activity

Applicant, Prop.- Shri Deepak Singh S/o Shri Ram Pal Singh, R/o- Akbarpur Banda Road, Bharatkoop, Teh.- Karwi, District- Chitrakoot (U.P.) has been given the consent for an area of 0.56 Ha. for extraction of 5600 m<sup>3</sup>/ year Granite (Khanda, Gitti & Boulder), in Gata No.- 332, (Khand No.- 03), Village- Badokhar Khurd, Tehsil- Naraini, District- Banda. U.P. vide letter no. 817/khanij-30, Banda, dated 8<sup>th</sup> June, 2019 for a period of Ten years (Annexure -I)

Mine Plan and Progressive Mine Closure Plan: Approved Mining Plan of proposed mining lease area was submitted to the Director General of Mines and Geology Department, Uttar Pradesh and they have approved the mining plan vide letter no. 658/M. Plan/ 2016. dated 29-07-2019 (Copy enclosed as Annexure-III).

## 1.4 Brief Description of Project

The proposed project is to mine minor mineral Granite (Khanda, Gitti & Boulder) and the estimated project cost is Rs 56.50 Lac. The proponent has applied for mining lease over an area of 0.56 Hectare at Gata No. - 332, (Khand No.- 03), Village- Badokhar Khurd, Tehsil- Naraini, District- Banda. U.P.

The lease area is 0.56 Hect. with mineable reserve of 45752 m<sup>3</sup> out of which approx. 5600 m<sup>3</sup>/ 15120 Tonnes Per Annum will be mined out, making the life of mine approx. 8 years at the same rate of production.



PAN MARCH SERVICES ENVIRONMENT & DEVELOPMENT

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**FINAL EIA REPORT FOR GRANITE (KHANDA, GITTI & BOULDER) MINE**

**1.5 Project Nature, Size & Location:**

**Nature**

The proposed project is Granite (Khanda, Gitti & Boulder) mining project.

**Size**

It has been proposed to collect approximately 5600 m<sup>3</sup>/ 15120 Tonnes Per Annum of Granite (Khanda, Gitti & Boulder) annually over an area of 0.56 Hectare.

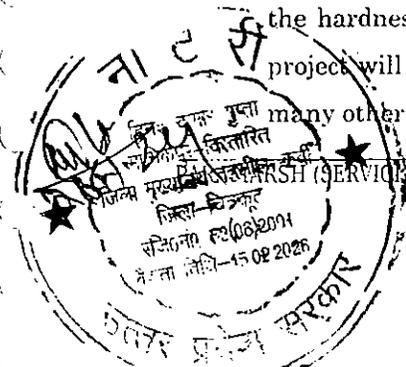
**Location**

The mining area is located at Gata No. - 332, (Khand No.- 03), Village- Badokhar Khurd, Tehsil- Naraini, District- Banda, Uttar Pradesh. The mining lease / proposed project area falls in Survey of India Toposheet No. 63C/07. The mine lease area is located between:

|                         |  |
|-------------------------|--|
| Latitude                | 25° 19' 42.60"N to 25° 19' 45.71"N   |
| Longitude               | 80° 22' 31.69"E to 80° 22' 36.76"E   |
| Nearest Railway Station | Khurhand Railway Station – 11.0 km* (NE) direction.<br>*Aerial Distance in Approximation |
| Nearest Airport         | Khajuraho Airport- 73.0 km* (SW) direction.<br>*Aerial Distance in Approximation         |
| Nearest Highway         | NH- 76- 9.50 km (NE) direction.  |

**1.6 Project Importance**

The economy of India is the eleventh largest in the world by nominal GDP and the third largest by purchasing power capacity. The primary reason for the economic growth can be attributed to the growth in infrastructure. Infrastructure growth is directly proportional to the availability of raw materials such as brick, stone, cement and sand etc. with the growing infrastructural requirement of the India, the demand of raw materials have increased geometrically. In Banda district of Uttar Pradesh, a number of stone mines are there. There is abundance of stone buried in the area hence; it has become a major source of raw material for construction industries. Raw material for the infrastructure development is at high demand in the U.P. & northern India. In Banda district of Uttar Pradesh, numbers of stone mines are there. There is abundance of stone buried in the area; it had become a major raw material for the infrastructure development and is at high demand in the north-west U.P. The mineral-rich colors, and the hardness & density, makes it useful for many applications. The proposed mining project will fulfill its end uses in buildings and construction, paving, monuments and many other exterior projects. Polished slabs and tiles are used in countertops, flooring,



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retaining walls and landscaping around a center fountain / pond, staircase and many other design elements (residential and commercial applications).

The project directly generates the employment for the local people and indirectly for the others. Also the marketing of the product generates the employment for peoples. By this project, approximately 26 persons employed directly on project site.

**1.7 Terms of Reference**

The scope of the study includes a detailed characterization of the environment in an area of 10 Km. radius of the Mine Lease Area for various environmental parameters like Air, Water, Noise, and Land, Biological and Socio-economic aspects.

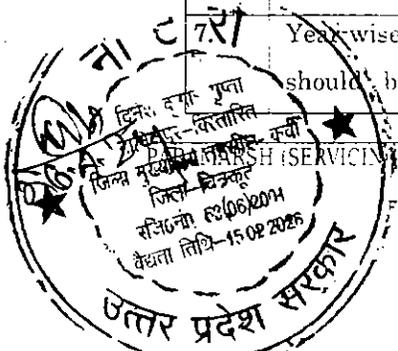
The State Level Environment Impact Assessment Authority (SEIAA) for mining projects considered the project during its meeting. Based on the information contained in the documents submitted and the presentation made, the SEAC-Uttar Pradesh prescribed the Terms of Reference (TOR) vide Letter no. : 424/Parya/SEAC/5028/2019 dated 27<sup>th</sup> Novenber, 2019 is attached as Annexure-I. The points have been raised by the SEAC-Uttar Pradesh in the TOR and its compliance are as under:-



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Table 1.1: Point-wise compliance of prescribed ToR

|    | TOR POINT  | COMPLIANCE OF TOR  |
|----|--|--|
| 1. | All Pages of technical documents/ EIA/ EMP etc. should be signed by the consultant and project proponent both.   | Shall be complied.   |
| 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.   | Baseline data has been collected by NABL/MoEF Accredited lab of study area within 10 Km radius of the project site was collected during One (Non Monsoon) season (Mar- May, 2019).<br>Detail discussed in Section-3. |
| 3. | MOU signed between the project proponent and the consultant should be submitted.   | Shall be complied.   |
| 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.   | Shall be complied.   |
| 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/ amendment letter from competent authority shall be submitted along with EIA. EIA and public hearing shall be conducted as per the lease area as address and production per annum mentioned in DSR and LoI. | The land documents depicting the correct address and lease area. The copy of DSR, LoI and EIA report matches properly. The relevant documents are attached as annexure- III.   |
| 6. | Project proponent should bring KML file at the time of EIA presentation.   | KML file has already been submitted along with EIA report. KML file will also be presented at EIA presentation.  |
|    | Year-wise production details since 1994 should be given, clearly stating the   | Not Applicable.<br>As the proposed area has been freshly   |



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|     | 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.           | allotted for Ten years Letter of Intent (LOI) for ten years granted from the office of District Magistrate Banda (Mining Section) vide letter no 817/khanij-30, Banda, dated 08th June, 2019.  |
| 8.  | A copy of document in support of fact that the proponent is the rightful lessee of the mine should be given.  | Applicant, <b>Shri Deepak Singh</b> , has been granted the consent from the office of District Magistrate Banda (Mining Section) vide letter no. 817/khanij-30, Banda. dated 08th June, 2019 for an area of 0.56 ha. for the extraction of minor mineral Granite (Gitti, Khanda & Boulder) in Village- Badokhar Khurd. Gata No. - 332 (Khand No.- 03), Tehsil- Naraini, District- Banda, U.P. for a period of Ten years ( <b>Annexure -D</b> ) |
| 9.  | All documents including approved mine plan, EIA and public hearing should be compatible with one another 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 the lessee. | All the concerned documents are in the name of lessee. Mine plan is prepared by RQP.<br><br>All the documents are compatible with one another in terms of the mine lease area. production levels, waste generation and its management and mining technology.<br><br>Lessee Name: <b>Shri Deepak Singh S/o Shri Ram Pal Singh</b><br><br>Mine Lease Area: 0.56 ha.<br><br>Proposed Capacity: 5600 cubic meter per annum.                        |
| 10. | All corner coordinates of the mine lease area. superimposed on a High Resolution imagery toposheet.   | The lease area is clearly superimposed over the toposheet and the land use-land cover has been build and indicated in chapter-3 has clearly the  |

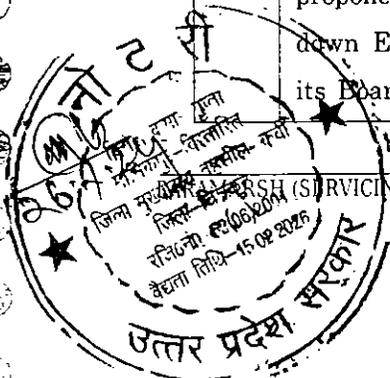


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|     | Geology of the area should be provided. Such an imagery of the proposed area should be provided. Such an imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).                                       | geomorphological features & other ecological features within core and buffer zone of 10 km.   |
| 11. | 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. | Site has been shown over the toposheet clearly indicating the area and other water bodies, stream and rivers. Geomorphology and land forms has been shown in the landuse - landcover map of 10 km buffer zone.  |
| 12. | Details about the land proposed of mining activities should be given with information as to whether mining conforms to the land use policy of the state; land diversion for mining for mining should have approval from State land use board or the concerned authority.             | Applicant, <b>Shri Deepak Singh</b> , has been granted the consent from the office of District Magistrate Banda (Mining Section) vide letter no. 817/khanij-30, Banda, dated 08th June, 2019 for an area of 0.56 ha. for the extraction of minor mineral Granite (Gitti, Khanda & Boulder) in Village- Badokhar Khurd, Gata No. - 332 (Khand No.- 03), Tehsil- Naraini, District- Banda, U.P. for a period of Ten years.<br><br>Lessee Name: <b>Shri Deepak Singh S/o Shri Ram Pal Singh</b><br><br>Mine Lease Area: 0.56 ha.<br><br>Proposed Capacity: 5600 cubic meter per annum. |
| 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   | Detailed Environment Policy stating SOP's in case of any violations/deviation of the environment or forest norms given in <b>Chapter 6</b> .  |



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|     | <p>spelt out in the EIA report with description of prescribed operating process/ procedures to bring into focus any infringement/ deviation/ violation of the environmental or forest norms/ conditions? The hierarchical system Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions and details of this system may be given.</p> <p>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.</p> |  |
| 14. | <p>Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of opencast mining. blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.</p>  | <p>Buffer zone/ Non mineable area of 7.50 mt. around the project site which is 0.2331 ha. left out as per mining norms.</p> <p>i) Helmets to all workers will be provided.</p> <p>ii) Disposable respirators. will be provided to all those working in dusty area where dust concentration is very height.</p> <p>iii) One pair of safety shoes will be provided to all the workers.</p> <p>iv) Safety belts will be provided to all those working at height.</p> <p>v) Warning boards &amp; working hours shall be displaced at conspicuous places.</p> <p>vi) Mines Manager will be employed for the supervision of mining operation.</p> <p>vii) The mining area shall be properly fenced to avoid any inadvertent entry of any live stock.</p> |



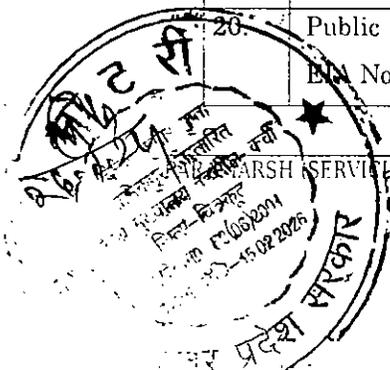
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|     |  | During opencast working, all the precautions are to be observed as per Reg. 106 of MMR, 1961 for safety and security.  |
| 15. | The study area will comprise of 10 km zone around the mine lease from the lease periphery and the data contained in the EIA such as waste generation etc should be for the life of the mine/ lease period. | The study area comprises of 10.0 km zone around the mine lease periphery as shown in the study area Map is given in Figure 3.1 of Chapter 3.<br>No solid waste will be generated. No municipal waste other than domestic sewage shall be generated. Mobile toilets and dustbin will be made available at the mine site.<br>Letter of Intent from the office of District Magistrate Banda (Mining Section) vide letter no. 817/khanij-30, Banda, dated 08th June, 2019 for a period of Ten years. |
| 16. | Certificate from Mining Officer that there is no other mining area exit within 500 m periphery.  | Certificate issued by Mining Officer attached as Annexure IV.  |
| 17. | CER cost to be calculated for individual lease.  | Proposed Corporate Environment Responsibility (CER) Cost is mentioned in Chapter 7.  |
| 18. | An intimation regarding conducting the monitoring to be sent to concerned District Magistrate/ State Pollution Control Board Office/ SEIAA.  | Intimation has been sent to the concerned departments regarding conducting the monitoring.   |
| 19. | The lab conducting the analysis should be authenticated and registered.  | Baseline data has been collected by NABL/MoEF Accredited lab of study area within 10 Km radius of the project site was collected during One (Non Monsoon) season (March- May, 2019).<br>Detail discussed in Section-3.   |
| 20. | Public hearing to be conducted as per EIA Notification, 2006   | Public hearing conducted as per EIA Notification, 2006. The public hearing   |



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|     |  | points are further discussed in Chapter 7 of Final EIA report.  |
| 21. | A copy of document in support of fact that the proponent is the rightful lessee of the mine should be given.   | Applicant, <b>Shri Deepak Singh S/o Shri Ram Pal Singh</b> , has been granted the consent from the office of District Magistrate Banda (Mining Section) vide letter no. 817/khanij-30, Banda, dated 08th June, 2019 for a period of Ten years for an area of 0.56 ha. for the extraction of minor mineral Granite (Gitti, Khanda & Boulder) in Village-Badokhar Khurd. Gata No.-332 (Khand No.- 03), Tehsil- Naraini, District- Banda, U.P. (Annexure -I) |
| 22. | Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of mine lease area should be prepared to encompass pre-operational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given. | Map delineating all the features such as Agricultural Land, water bodies and other features present within 10 km radius has been prepared and given in <b>Figure 3.1 of Chapter 3</b> .<br>Land use classification of 10 Km radius study area around the mine site, is given in <b>Section 3.1.3 of Chapter 3</b> .<br>Impact of change of land use has been given in <b>Section 4.1 of Chapter 4</b> , along with the mitigation measures.               |
| 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.   | As stated earlier, there is no overburden on the Granite (Gitti, Khanda, Boulder) deposit as all the ROM shall be used in making aggregate. Mining has been proposed for the exploitation of Granite (Gitti, Khanda, Boulder) therefore, waste, sub grade mineral rejects shall not be generated during the course of   |



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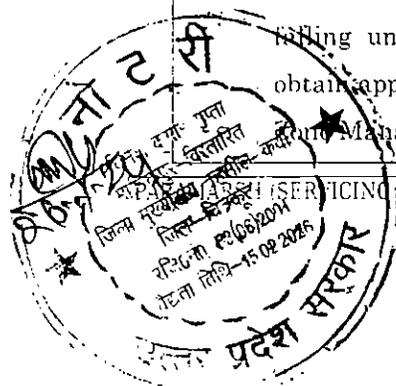
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|     | and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled- I fauna found in the study area. 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. | Detailed study for biological environment is carried out and detail of flora and fauna in core and buffer zone is given in Chapter 3 under Point 3.6 Biological Environment.   |
| 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, 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.  | The proposed area of Granite (Gitti, Khanda, Boulder) of the district Banda which is far away from Aravali Range. No Critically Polluted area is coming within the 10 km rdus. |
| 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 Management Authority.)  | Not applicable.<br>As the proposed project is for Granite (Khanda, Gitti & Boulder), which is not a coastal project.   |

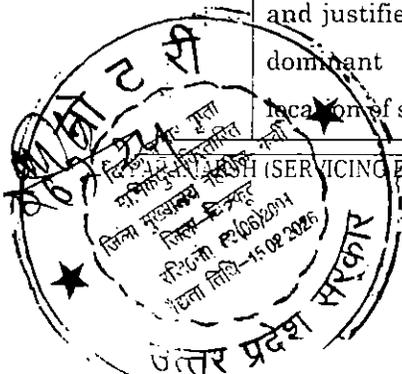


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| <p>33.</p> | <p>R &amp; R plan /compensation details for the Project Affected People (PAP) should be furnished. While preparing the R &amp; R plan, the relevant State/ National Rehabilitation &amp; Resettlement Policy should be kept in view. In respect of SCs / STs and other weaker sections need based sample survey, family wise, should be undertaken to assess their requirement and action programmes prepared accordingly integrating the sectoral programmes of line departments of the State Governments. 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&amp;R and socio economic aspects should be discussed in the Report.</p> | <p>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&amp;R Plan is envisaged; as there is no displacement of people from their respective areas.</p>  |
| <p>34.</p> | <p>One season (Non Monsoon) [i.e. March-May (Summer Season); October to December (Post Monsoon Season); December to February (Winter Season)] primary baseline data on ambient air quality as per CPCB Notification of 2009. water quality, noise level, soil &amp; flora &amp; fauna shall be collected and the AAQ and other data so compiled presented data-wise in the EIA &amp; 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 of the pre-dominant downwind direction and location of sensitive receptors.</p>  | <p>Primary baseline data has been generated for a period of summer season (March 2019 – May 2019). The results of the same have been incorporated in the tabular form in <b>Chapter 3</b>.<br/>Monitoring location map incorporated in <b>Chapter no. 3, Figure no. 3.5</b>.<br/>Monitoring locations are decided considering the pre-dominant wind direction. Free Silica is analysed in Air Quality Parameters.</p> |

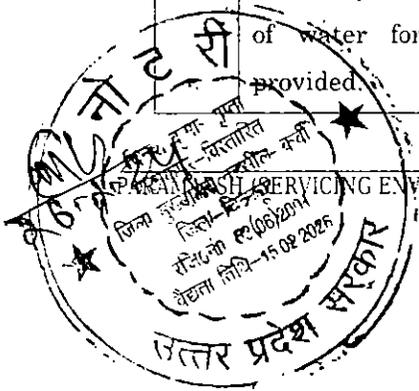


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|     | There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM <sub>10</sub> particularly for free silica should be given.   |  |
| 35. | Air quality 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 vehicle for transportation of mineral. The details of the dispersion 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. | Air quality modeling was carried out and impact of Air quality has been incorporated in the EIA/EMP report. Max. Predicted cumulative ground level concentration (GLC) of PM <sub>10</sub> , SO <sub>x</sub> , NO <sub>x</sub> . The predominant over all wind patterns for the study period is from West to East direction as per Wind rose diagram <b>Figure 3.9</b> |
| 36. | The water requirement for the project, its availability and source to be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.   | Water requirement in this project site is 1.90 KLD. Water will be taken from existing water sources from nearby villages or tanker supplier. The details are incorporated in the EIA/EMP report. <b>Total Water Requirement= 1.90 KLD</b><br>Dust Suppression = 1.50 KLD<br>Plantation= 0.10 KLD<br>Domestic Purpose= 0.30 KLD   |
| 37. | Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.  | The total water requirement will be met through nearby existing borewells/private tankers. Water will be purchased from nearby sources, so   |



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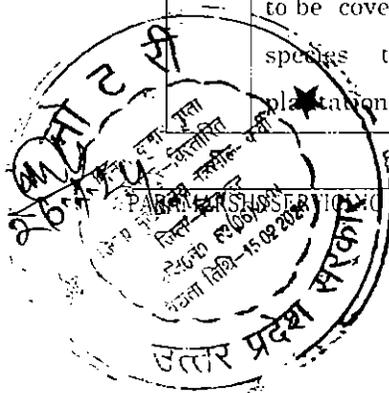
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|     |  | clearance for drawl of water is not required.  |
| 38. | Description of water conservation measures proposed to be adopted in the project should be given.  | Details of Mitigation measures for protecting the water quality of River Ken are given in <b>Chapter 2</b> .   |
|     | Details of rainwater harvesting proposed, if any, in the project should be provided.   | In the end of the conceptual period bottom bench of 141 mRL shall be left open to percolate water to recharge local water table.   |
| 39. | 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. | <u>Surface Water</u><br>No permanent infrastructure will be developed. The proposed granite (minor mineral) mining will not be done in rainy days hence there will not be any adverse impact on nearby surface water.  |
|     |  | <u>Ground Water</u><br>The ground water quality will not be changed because mining activity will not intersect the ground water table as it is restricted to 147.0m AMSL in plan period which does not intersect the ground water table. Impact of the project on the water quality and its mitigation measures has been incorporated in the EIA/EMP report. |
| 40. | Based on actual monitored data, it may clearly be shown whether working will intersect groundwater.  | Groundwater will not be disturbed by the mining activities of the proposed project. The maximum working depth of mining will be 147.0 m bgl in plan period.  |
|     | Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed hydro geological               | Groundwater will not be disturbed by the mining activities of the proposed project. The maximum working depth of mining will be 147.0 m bgl in plan  |



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|     | 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 groundwater should also be obtained and copy furnished.   | 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 therefore permission from Central Ground Water Authority for pumping of groundwater is not required. |
| 41. | Details of any stream, seasonal or otherwise, passing through lease area and modification/ diversion proposed, if any, and the impact of the same on the hydrology should be brought out.   | The proposed project is for the "Granite (Gitti, Khanda, Boulder) Mine" Project. No diversion or modification of water channel is proposed or expected due to mining activities from the proposed project.   |
| 42. | 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.   | Site Elevation: Highest 168.0 m AMSL<br>Lowest: 147.0 m AMSL<br>Ground Level: 145 m AMSL<br>Ultimate depth 147.0 m AMSL (12.0 m depth)<br>Ground water depth at project site: 100.0 m AMSL. (45.0 m bgl)   |
| 43. | 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 details of proposed plantation is given in <b>Chapter 6 at 6.2</b>   |



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|     | 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.   |   |
| 44. | 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. | Due to the operation of proposed project the increased traffic will be easily sustained by the existing roads. The kachcha road will be made and maintained motorable. A separate budget of Rs. 2.0 Lac will be kept to maintain the road.<br><br>Excavated material will be carried to NH 76 via unnamed connecting road. These may be reinforced to facilitate easy and smooth moving heavy duty trucks.<br><br>Traffic analysis is given in Section 4.10 of Chapter 4. |
| 45. | Details of the onsite shelter and facilities to be provided to the mine workers should be included in EIA Report.   | As the site is barren rocky Govt. land. No housing facility will be provided at the site. The site services like temporary rest shelter, first aid box, and drinking water facilities will be provided to workers at the mine site.   |
| 46. | Conceptual post mining land use and Reclamation and Rehabilitation of mined out areas (with plans and with adequate number of sections) should be given in the EIA Report.  | By the end of conceptual period 147-141 mRL benches shall be mine out by the end of conceptual period for reclamation. Whereas, bottom bench of 141 mRL shall be left open to percolate water to recharge local water table.  |
| 47. | Occupational health impacts of project  | There are no adverse impacts of the   |

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|     | 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. | proposed activities on human health. All safety measures prescribed under mining laws will be followed. Regular health checkups will be conducted at site. Budgetary provision has been given in EMP in Chapter 9 of Section 9.2. The Details of Occupational health impacts have been discussed in Chapter 6 of Section 6.3. |
| 48. | Public health implications of the project and related activities for the population in the impact zone should be systematically evolved 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 CSR activity.   |
| 49. | 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.  | Measures of socio-economic significance and influence to the local community provided by lessee during the project duration is mentioned in Chapter 10 of Section 10.11   |
| 50. | 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 9 of Section 9.3.   |
| 51. | Public hearing points raised and commitment of the project proponent on the same along with the time bound action plan with budgetary provisions to   | The public hearing points has been attached as Annexure V.  |

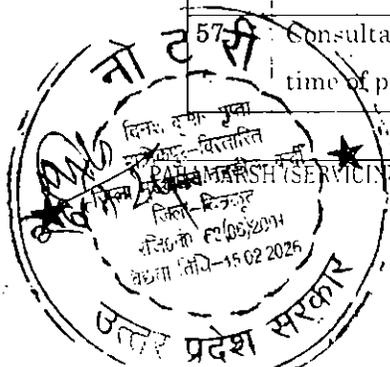


SERVICING ENVIRONMENT &amp; DEVELOPMENT

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FINAL EIA REPORT FOR GRANITE (KHANDA, GITTI & BOULDER) MINE

|     |  |   |
|-----|--|---|
|     | implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.  |   |
| 52. | 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.  |
| 53. | The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should clearly be spelt out.   | Proposed detailed recurring & non-recurring cost for the project is discussed in <b>Chapter 2</b> .<br>Budgetary provision has been given in EMP in <b>Chapter 9 of Section 9.4</b> .   |
| 54. | A Disaster Management Plan shall be prepared and included in the EIA/ EMP Report.  | There is no such risk due to this mining activity because the nearest river Ken – 5.50 Km (West) away from the lease area.<br>Risk Assessment and Disaster Management Plan are discussed in <b>Chapter 7 of Section 7.2</b> .                       |
| 55. | 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 <b>Chapter 8</b> . |
| 56. | The company must have 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 same has been discussed in <b>Chapter 6</b> .   |
| 57. | Consultant should bring raw data at the time of presentation.  | Shall be Complied   |



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|     |   |  |
|-----|---|--|
| 58. | In surface water quality aquatic study of phytoplankton and zooplankton.  | The detailed description of aquatic study is given Section-III.  |
| 59. | The baseline data should be signed by NABL/MoEF&CC accredited analyst.  | The baseline data is signed by accredited lab.   |
| 60. | The meteorological data should be site specific.  | Primary data has been collected at site also. The meteorological data is elaborated in section-3.                          |
| 61. | Details of kachcha haul road to be made motorable. Plan should be Submitted.  | The unmetalled road is of 0.25 km will be maintained motorable A separate Budget of Rs. 2.0 Lac will be allotted for that. |
| 62. | Details of the infrastructure facilities to be provided for the mine workers should be included in the EIA report.  | No such infrastructure facility is proposed as local labour will be employed for the project.                              |
| 63. | Besides the above, the below mentioned general points are also to be followed-  |  |
| a.  | Executive Summary of the EIA/EMP Report   | Attached with EIA report as Chapter 10.  |
| b.  | All documents to be properly referenced with index and continuous page numbering.   | Complied   |
| c.  | Where data are presented in the report especially in the tables, the period in the data was collected and the sources should be indicated.  | Complied   |
| d.  | Project Proponent shall enclose all the analysis/testing report of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing report should be available during appraisal of the project. | Complied   |
| e.  | Where the documents provided are in a language other than English, an English translation should be provided.   | Complied   |



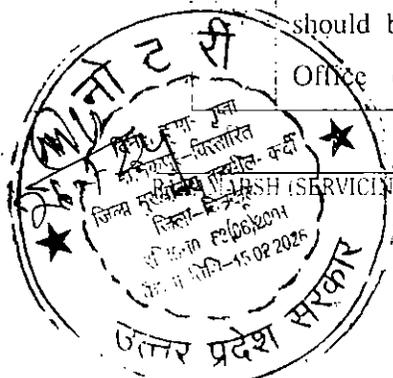
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|    |   |   |
|----|---|---|
| f. | The Questionnaire for environment appraisal of mining projects as devised earlier by the ministry shall also be filled and submitted.   | Complied  |
| g. | While preparing the EIA report, the instruction for the proponents and instruction for the consultant issue by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4 <sup>th</sup> August, 2009, which are available on the website of the ministry should be followed.   | Complied  |
| h. | Changes, if any made in the basic scope and the project parameter (as submitted in Form-1 and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reason 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 conduct the PH again with the revised documents. | All the detailes furnished in Form-1, PFR is same as EIA report. No revised document is required. |
| 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.  | Not Applicable<br>This is freshly allotted mine site and is not existing operation.               |



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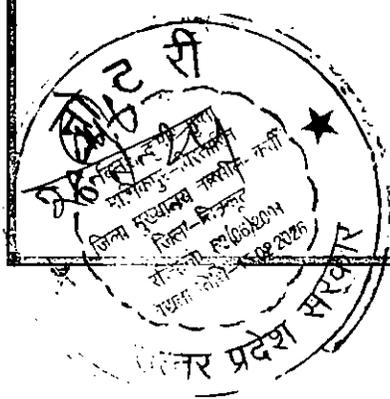
|    |   |  |
|----|---|--|
|    | Forest and Climate Change, as may be applicable.  |  |
| j. | The EIA report should also include:<br>(i) Surface Plan of the area including contours of main topographic features, drainage and mining area.<br>(ii) Geological Map and section<br>(iii) Section of the mining pit and external dumps, if any clearly showing the land features of the adjoining area | The complete mining plan along with all the plates has also been submitted along with EIA report to the Directorate. |



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**CHAPTER 2:**  
**PROJECT**  
**DESCRIPTION**



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 Director

## 2. PROJECT DESCRIPTION

### 2.1 General

The proposed project is for opencast mining of Granite (Khanda, Gitti & Boulder) by semi-mechanized means with drilling and blasting. The project will include of mining of Granite (Khanda, Gitti & Boulder). The Project aims to augment supply of Granite (Khanda, Gitti & Boulder) for its customers. The mine lease area falls in Gata No.- 332, (Khand No.- 03), Village- Badokhar Khurd, Tehsil- Naraini, District- Banda. Banda 18 Km of lease.

### 2.2 Brief description of the project

The proposed project is for Granite (Khanda, Gitti & Boulder) production from 5600 m<sup>3</sup> or 15120 MT / annum by open cast semi-mechanized method. The lease area is 0.56 ha which comprises totally of Govt. waste land. The total geological reserves are 355428 m<sup>3</sup> or 959656 MT and mineable reserves are 45752 m<sup>3</sup> or 123530 MT. The expected life of the mine is 17 years.

#### 2.2.1 Location details

The mine is situated near in Gata No.- 332. (Khand No.- 03). village Badokhar Khurd, Tehsil- Naraini of Banda District (U.P.). Lease area is connected by Banda - Naraini State Highway by metalled road. Paigamberpur is 18 Km then south-west turn after crossing canal for 2.0Km & 250m un-metalled road leads to the area. The lease area is about 21 Km. from Banda. Naraini is about 10 kms away from the area by metalled road. Nearest railway station Khurhand is 20 Km. Location of the mine lease area is given in Figure 2-1. The geographical location of the lease area is as under:-

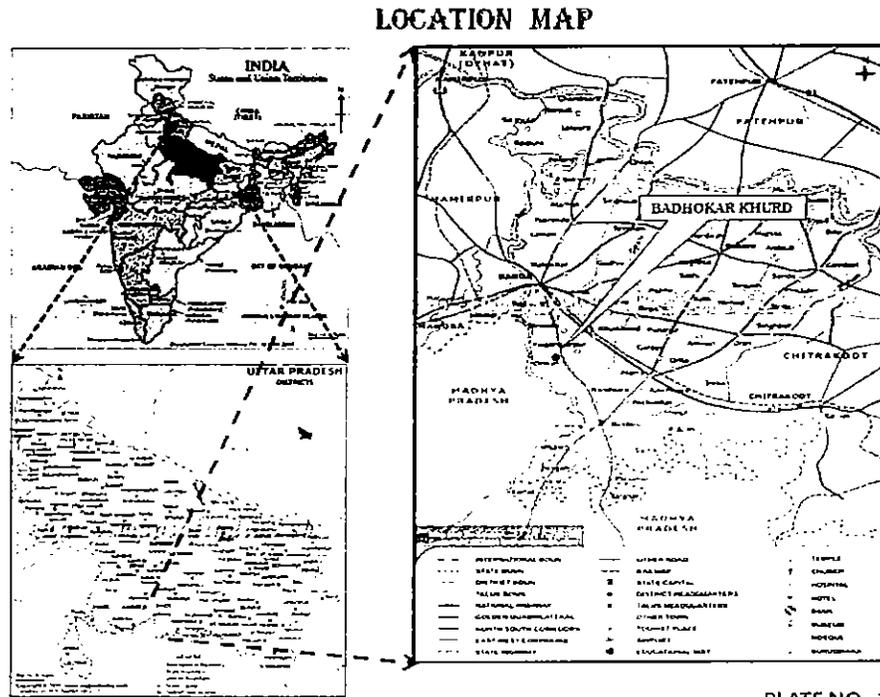
| Pillars | Latitude (N)   | Longitude (E)  |
|---------|----------------|----------------|
| A       | 25° 19' 44.45" | 80° 22' 36.76" |
| B       | 25° 19' 42.60" | 80° 22' 32.61" |
| C       | 25° 19' 43.47" | 80° 22' 31.69" |
| D       | 25° 19' 45.71" | 80° 22' 35.17" |



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*Amme*  
 CHAPTER  
 M/s Deepak Singh

Figure 2- 1: Location of mine site



**2.2.2. Leasehold Area**

The lease area is a government wasteland which falls under the revenue limit of Badokhar Khurd village. There is no reserve forest or protected forestland within the lease area. There is no village or hutment within the lease area. Existing land use pattern is given in Table 2-1.



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Table 2- 1 Present land use pattern of the lease area

| Particulars               | Badokhar Khurd 0.56 Ha Mine |  |  |
|---------------------------|-----------------------------|--|--|
|                           | Area (ha)                   |  |  |
|                           | Preoperational phase        | Operational Phase (after 5 Years)      | Post Mining (Conceptual phase) at the end of Mine Life |
| Mining and Existing pits  | 0.12                        | 0.363                                  | 0.363  |
| Waste Dumps               | Nil                         | Nil                                    | Nil  |
| Road                      | 0.03                        | 0.058                                  | 0.058  |
| Infrastructure facilities | Nil                         | Nil                                    | Nil  |
| Afforestation             | -                           | 0.29 (outside the mine along the road) | 0.29 (outside the mine along the road)                 |
| Balance undisturbed land  | 0.41                        | 0.197                                  | 0.197  |
| <b>Total</b>              | <b>0.56</b>                 | <b>0.56</b>                            | <b>0.56</b>  |

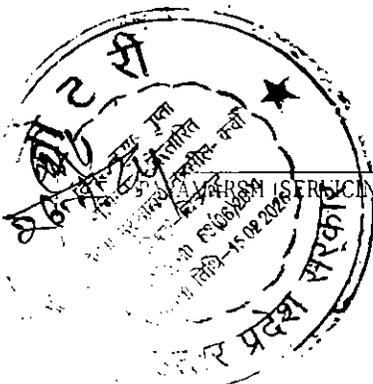
### 2.3 GEOLOGY

#### Geography, Topography & Physiography

The area lies in Survey of India's Topo sheet No. 63C/07 in village Badokhar Khurd. The conspicuous feature of topography of the area is elliptically isolated hills with gentler to sudden steep slope. The area is dominated by boulders and in situ outcrops of Bundelkhand granite. The general slope of lease area is from South-west to North-east directions. Due to past mining one pit of 40m X30m X 5m deep is developed. The highest points in the leasehold is 168mRL in south-west near pillar "B" while lowest 147 mRL in North-east at pillar, "A". The existing land use and break-up of the lease area is given in Table 2-2:

Table 2- 2 Area Break-up of Mining Lease

| Particulars of Mining Activity | Present Site Landuse in Ha. |
|--------------------------------|-----------------------------|
| Mining and Existing pits       | 0.12                        |
| Waste dumps                    | Nil                         |
| Road                           | 0.03                        |
| Infrastructure facilities      | Nil                         |
| Afforestation                  | Nil                         |
| Balance undisturbed land       | 0.41                        |
| <b>Total</b>                   | <b>0.56</b>                 |



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2.3.1 Regional Geology

The regional stratigraphic sequence is given in Table 2-3

Table 2- 3 Regional Stratigraphic Sequence

The general succession of the area is as follows:

|   |   |                            |                                  |
|---|---|----------------------------|----------------------------------|
| <b>Semri Series</b>                                       | <b>Chitrakoot Region</b>                      | <b>Sone velly Region</b>   |                                  |
|   | Trihan Lime stone                             | Rohatas Stage              |                                  |
|   | Gluconitic Sand Stone                         | Khenjua Stage              |                                  |
|   |   | Porcellinite Stage         |                                  |
|   | Pellite Lime Stone                            | Basal Stage                |                                  |
|   | Grey sand Stone                               |                            |                                  |
| <b>General succession after S.N. Singh &amp; O.P Paul</b> |   |                            |                                  |
| <b>Upper vindhyan</b>                                     | <b>Kaimur Series</b>                          | <b>Upper Kaimur</b>        | Sand stone                       |
|   |   | <b>Lower kaimur</b>        | Vijaygarh shale, Upper Quartzite |
|   |   |                            | Quartzite & Shale                |
| <b>Lower Vindhyan</b>                                     | <b>Semri Series</b>                           | <b>Chitrkoot Formation</b> | Trihan Lime stone Members        |
|   |   |                            | Muradpur Members                 |
|   |   |                            | Gluconitic Sand Stone            |
|   |   |                            | Kamtanath Members                |
| -----UNCONFORMITY-----                                    |   |                            |                                  |
| <b>ARCHEANS</b>   | <b>GRANITE WITH XENOLITHS OF AMPHIBOLITES</b> |                            |                                  |

2.3.2 Local geology

In geological sequence the granitic exposures of village Badokhar Khurd is correlated with Kamtanath formation of Banda formation of Bundelkhand Group of rocks which is unconformably rest over Archeans formation and well exposed around Kamtanath hills. Bharatkoop & Rauli kalyanpur of Banda district in U.P under thin layer of semi-weathered Granite with soil/ morram and boulders up to 5-6m.and further solid compact Granite exposures persist in deep. The Granite in isolated hilly exposure has no soil cover except 1m thick semi-weathered Granite cover over the main exposure. The exposure in running pits trending NW-SE are of dark grey in colour, coarse to medium grained showing porphyritic texture. The following joint sets have been measure in Granite.

2.4 Proposed rate of production and expected life of mine

The proposed rate of production for the next five years as per the approved mine plan is given as under:



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Table 2- 4 Proposed rate of production in Cubic meter per Annum

| Year Production                   | First Year | Second Year | Third Year | Fourth Year | Fifth Year |
|-----------------------------------|------------|-------------|------------|-------------|------------|
| Granite (Khanda, Gitti & Boulder) | 5600       | 5600        | 5600       | 5600        | 5600       |

As per the latest mining plan, approved by the Directorate of Geology & Mines, U.P. (DGM),

Table 2- 5 Estimation of Mine life

| S.No. | Particulars  | Details           |
|-------|--|-------------------|
| 1.    | Total mineable reserves of Granite (Khanda, Gitti & Boulder) | 45752 cubic meter |
| 2.    | Total production in next five year                           | 28000 cubic meter |
| 3.    | Remaining reserves at the end of lease period                | 17752 cubic meter |
| 4.    | Rate of production per year                                  | 5600 cubic meter  |
| 5.    | Life of mine at the end of five year period                  | 5 years years     |
| 6.    | Total life of mine   | 8 years           |

## 2.5 Mining

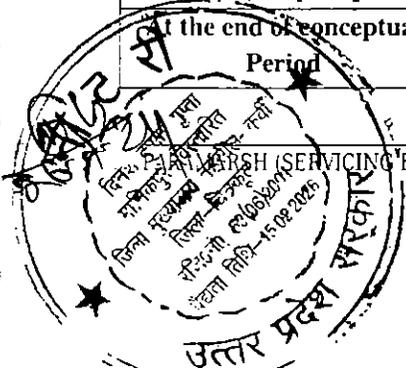
### 2.5.1 Details of Mining process-

Mining shall be done by opencast semi-mechanized means confined within ultimate pit limit demarcated. Road, habitation etc. will require diversion from mining area for the safety of workings. Details of the area are as follows:

28000 M<sup>3</sup> OR 75600 MT quantities of khanda, gitti, boulders shall be exploited by for the period of five years at the rate of 5600 m<sup>3</sup> OR 15120 MT/Year & mining pit shall reach up to 12 mRL in five years plan. Therefore five years development composite plan and conceptual plan have been made separately. The geometry of pit as on date & at the end of plan period & at the end of conceptual period is given below in table no.2.6.

Table 2- 6 Geometry Of Pit As On Date & At The End Of Plan Period & At The End Of Conceptual Period

| Period                          | Pit No | Pit dimension (average in m.) | Shape               | Area Broken in ha. |
|---------------------------------|--------|-------------------------------|---------------------|--------------------|
| As on date                      | I      | 40m X30m X 5m                 | Irregular           | 0.12               |
| At the end of plan period       |        | 110m x 33 m x 12m             | Rectangular e shape | 0.363              |
| At the end of conceptual Period |        | 10m x 33 m x 24m              | Rectangular shape   | 0.363              |



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- a) **Plan period:** - Whole the lease area within 7.5m barrier shall be developed in one pit by bench formation during plan periods & dimension of pit will be 110m x 33 m x 12m. The depth of the pit will be confined to 12 mRL. The height & width of benches shall be kept 6.0 m. slope of faces shall be kept 60°. with over all pit slope of 45°. 28000 m<sup>3</sup> OR 75600 Granite (Khanda, Gitti & Boulder) shall be generated during plan period at the rate of 5600 m<sup>3</sup> OR 15120 MT/Year . The minor mineral exists within the entire lease area shall be used in making aggregate, therefore generation of waste shall be nil.
- b) **Conceptual plan:** During conceptual period, Whole the lease area within 7.5m barrier shall be developed in one pit by bench formation during plan periods & dimension of pit will be 110m x 33 m x 12m. The depth of the pit will be confined to 141 mRL. The height & width of benches shall be kept 6.0 m. slope of faces shall be kept 60°. with over all pit slope of 45°. 45752 m<sup>3</sup> or 123530 M.T Granite (Khanda, Gitti & Boulder) shall be generated during conceptual period at the rate of 5600 m<sup>3</sup> OR 15120 MT/Year. The minor mineral exists within the entire lease area shall be used in making aggregate, therefore generation of waste shall be nil.

**2.5.2 Anticipated life of mine**

Total mineable reserves as on date are of the tune of 45752 m<sup>3</sup> or 123530 M.T.. with proposed rate of production of 5600 m<sup>3</sup> OR 15120 MT/Year of khanda, gitti, boulders per annum .The expected life of mine with above proposed target comes out approximately 8 years.

**2.6 Extent of mechanization**

The requirement of mining equipment is calculated at its maximum production capacity as below-

**Table 2- 7 Mining Machinery Details**

| S. No. | Machinery   | Quantity |
|--------|-------------|----------|
| 1.     | Wagon drill | 1        |
| 2.     | Compressor  | 1        |
| 3.     | Excavator   | 1        |
| 4.     | Tippers     | 2        |

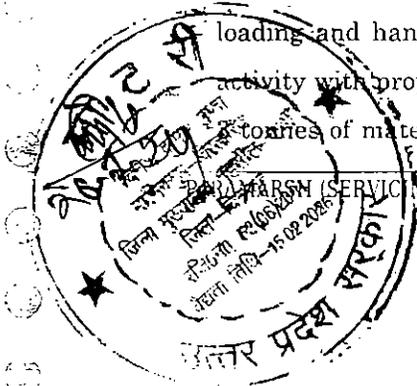
**2.7 Employment Potential**

The local labours shall be engaged for sizing of Granite (Khanda, Gitti & Boulder) and loading and handling of mineral in mining area, besides, watch and ward and plantation activity with proper maintenance. On assumption that one man on and average can size 2 to 3 tonnes of material per man day. The total manpower required for material handling and

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loading works out to 26. Beside this, proponent Shall engage skilled and managerial staff to meet the statutory requirement under MMR 1961 and MCDR 1988. At present, the mine is not functional. The following skilled / unskilled and semi-skilled workers besides managerial and administrative staff shall be employed at the time of re-opening of mine.

**Table 2- 8: Manpower Details**

|                     |                                      |   |           |
|---------------------|--------------------------------------|---|-----------|
| 1.                  | First Class Mines Manager            | : | 1         |
| 2.                  | Machanical Engineer( Part Time)      | : | 1         |
| 3.                  | Mines mate / Blaster                 | : | 1         |
| <b>Skilled:</b>     |                                      |   |           |
|                     | Excavator Diver                      | : | 1         |
|                     | Dumper Drivers                       | : | 1         |
|                     | Drillers                             | : | 1         |
|                     | Supervisor                           | : | 1         |
|                     | Office Assistant/Dispatch Supervisor | : | 1         |
| <b>Semiskilled:</b> |                                      |   |           |
|                     | Time Keeper                          | : | 1         |
|                     | Compressor operator                  | : | 1         |
|                     | Drill operator/helper                | : | 1         |
| <b>Un-skilled:</b>  |                                      |   |           |
|                     | Piece rated workers                  | : | 15        |
| <b>Total:</b>       |                                      |   | <b>26</b> |

**2.7.1 Mineral Beneficiation**

Except manual / semi-semi-mechanized sizing and sorting of the Granite (Khanda, Gitti & Boulder), no other processing is proposed for the Granite (Khanda, Gitti & Boulder) at the mine.

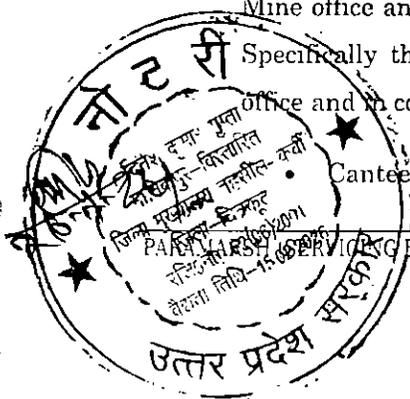
**2.8 Site Facility****2.8.1 Mines Office**

Mine office and rest room will be provided at a center area of Badokhar Khurd lease.

Specifically the following facilities will be provided to mine workers at the mines'

office and in conformance with the Mines Rules, 1952:

Canteen cum Rest room



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## 2.11 Mine Drainage

a) Likely depth of water table based on observations from nearby wells and water bodies:

One dug well is situated at north-west of lease area along road side. The top ground level of the surface is 145 mRL & water table encountered in the well and the expected depth of water table in the region is about 100 mRL.

b) Working expected to be 1m above the ground level during plan period. During plan period, the mine working will be confined up to 12 bgl. Water table will not be intersected by the mining operations.

c) Quantity and quality of water likely to be encountered, the pumping arrangement and places where the mine water is finally proposed to be discharged.

The mining operations will be limited in the upper levels & the lowest bench will be formed at 147 mRL at Plan period & 141 mRL at conceptual period. hence water table will be not be encountered by mining activities during plan as well as in conceptual period.

## 2.12 Water & wastewater management

### 2.12.1 Water Supply & Sanitation

The Badokhar Khurd mine plans to abstract water from nearby privately owner dug well located near Badokhar Khurd mine lease area.

### 2.12.2 Water Source & Requirement

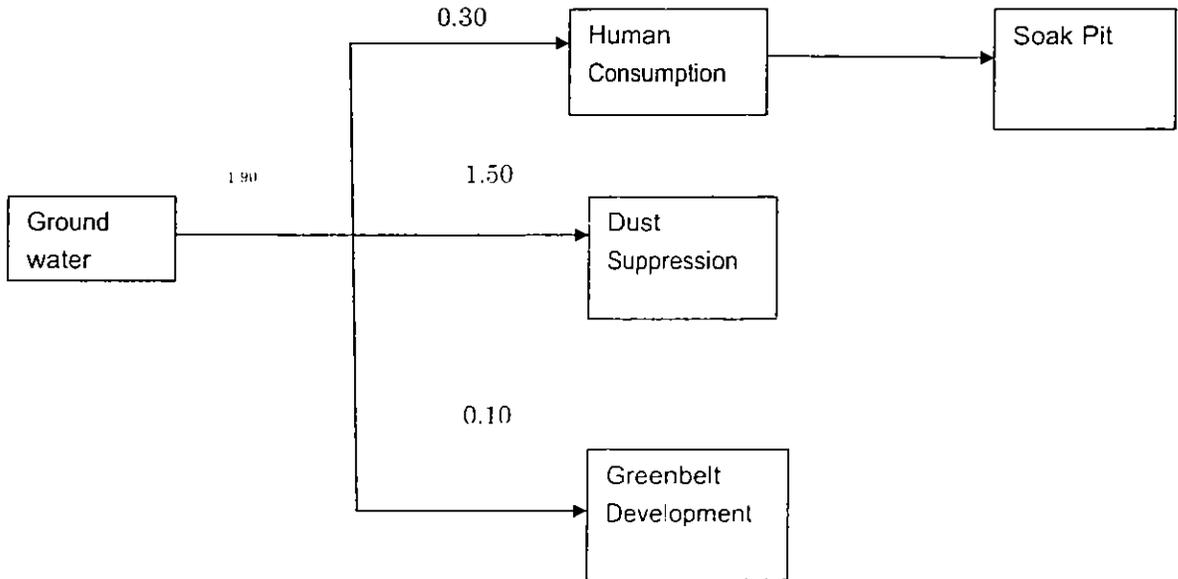
The projected water requirements for the mine site are likely to be in the range of 1.90 KLD. The major areas of water consumption are dust suppression (1.50 KLD), for domestic purposes (0.30 KLD) and green belt development (0.10 KLD). Most of the water consumption proposed will be for dust suppression. It is to be noted that due to mechanical nature of mining in this lease the water requirement for the dust suppression will be optimal. sprinkling will be done by using truck mounted sprinkler system.

The detailed water balance is shown **Figure 2-2**.



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Figure 2- 2: Water Balance Diagram (KLD)

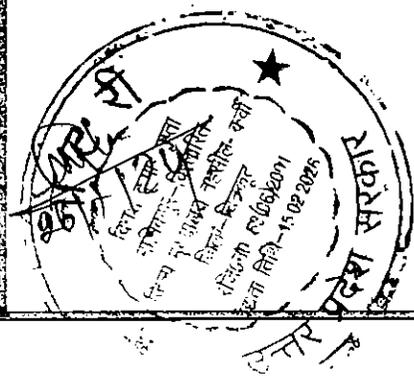


### 2.12.3 Waste water generation & disposal

There will be no wastewater generation from Granite (Khanda, Gitti & Boulder) mining activities; however, marginal quantities of domestic wastewater will be generated, which will be disposed in soak pits.



**CHAPTER 3:**  
**DESCRIPTION OF**  
**ENVIRONMENT**



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*Director*

## 3.0 DESCRIPTION OF ENVIRONMENT

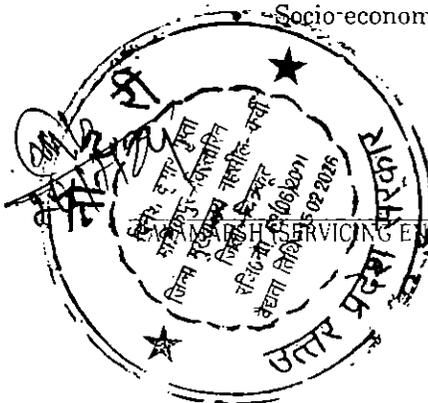
### 3.1 Introduction

This chapter presents a regional background to the baseline data at the very onset, which will help in better appreciation of micro-level field data, generated on several environmental and ecological attributes of the study area. The baseline status of the project environment is described section wise for better understanding of the broad spectrum conditions. The main objectives of describing the environment, which may be potentially affected, are (i) to assess present environmental quality and the environmental impacts and (ii) to identify environmentally significant factors that could preclude Mine development. This chapter discuss about the present scenario of the study area with reference to the prominent environmental attributes. The study area covers 10 Km radius of the mine lease area. Baseline data has been collected out during the Winter Season by NABL Accredited Lab in accordance with the Guidelines for EIA issued by the Ministry of Environment Forests and Climate Change, Govt. of India and CPCB, New Delhi.

The baseline environment quality represents the background environmental scenario of various environmental components such as Land, Water, Air, Noise, Biological and Socio-economic status of the study area. Field monitoring studies to evaluate the base line status of the project site were carried out covering March 2019 – May 2019 with CPCB guidelines. Environmental data has been collected with reference to proposed mine for:-

- Land
- Water
- Air
- Noise
- Biological

Socio-economic status



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**Geographical location of the study area**

The study area comprises of 10 Km radius area around Granite (Khanda, Gitti & Boulder) Mine of 0.56 ha at Village- Badokhar Khurd, Tehsil - Naraini, Distt. -Banda (U.P.) and the total geographical area of study area is ≈31428 ha.

**3.1.2 Methodology adopted for Baseline Study**

The methodology for conducting the baseline environmental survey considered the guidelines given in the EIA Manual of the MoEF. Baseline information with respect to Land, Water, Air, Noise, Biological and Socio-economic quality status in the study area were collected by conducting primary sampling / field studies during winter season March 2019 – May 2019. The characteristics of baseline status of study area with respect to the parameters are discussed.

**3.2 LAND ENVIRONMENT**

Since the mining is carried out by opencast mining method, studies on land environment of eco-system play an imperative role in identifying susceptible issues and taking appropriate action to uphold ecological equilibrium in the region. The main objective of this section is to provide a baseline status of the study area covering 10km radius around the proposed mine site so that temporal changes due to the mining activities on the surroundings can be assessed in future.

**3.2.1 Methodology**

Land use / Land cover map preparation, Base map creation; Geometric and Radiometric correction of satellite image has been processed using ERDAS Imagine 9.2 Software. The methodology used for present LU/LC of study area is shown in Figure 3-2 and is detailed below:

**Methodology adopted for thematic data extraction from the satellite imageries:**

ERDAS image processing software and ARC/GIS Software were used for the project. Erdas 9.2 Image Processing Software was used for digital processing of the spatial data. Digital image processing techniques were applied for the mapping of the land use/land cover classes of the provided area from the satellite data.



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3.2.2. Land Use/ Land Cover

The existing land use pattern of the study area based on the latest satellite imagery is given in Table 3-1 as follows and is shown in Figure 3-3

Table 3- 1: Land use pattern of the study area

| S. no | Land Category            | Area (Ha) | %Land Cover |
|-------|--------------------------|-----------|-------------|
| 1.    | Agriculture              | 23195.85  | 73.81       |
| 2.    | Waste Land/<br>Open land | 6030.46   | 19.19       |
| 3.    | Build-up area            | 1586.98   | 5.05        |
| 4.    | River                    | 491.4     | 1.56        |
| 5.    | Forest                   | 123.79    | 0.39        |
| Total |                          | 31428.48  | 100         |

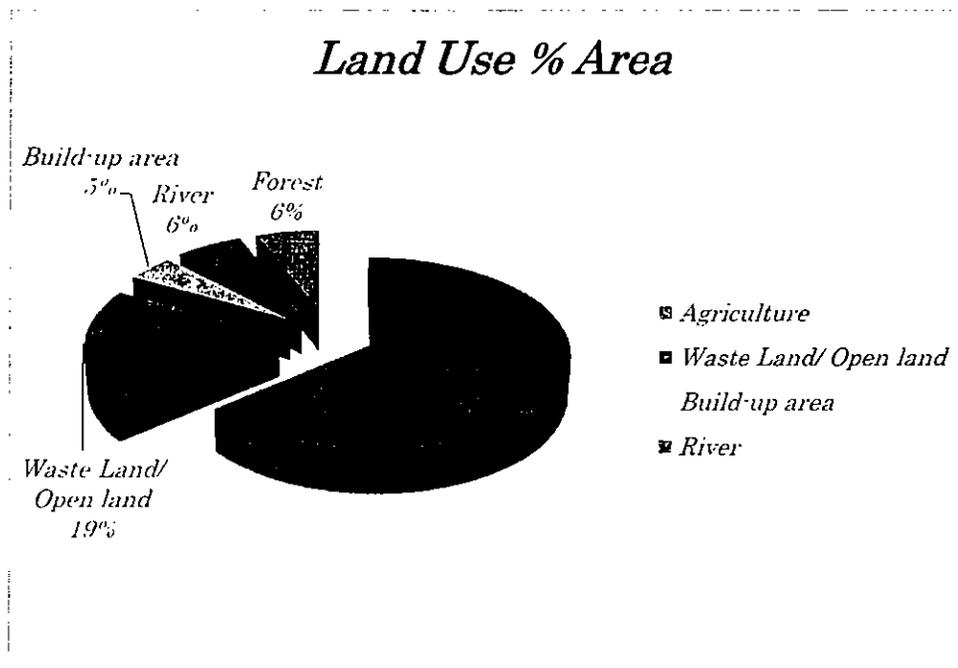


Figure 3- 2: Landuse Pattern of the area under study in district Banda, U.P.



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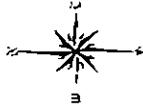
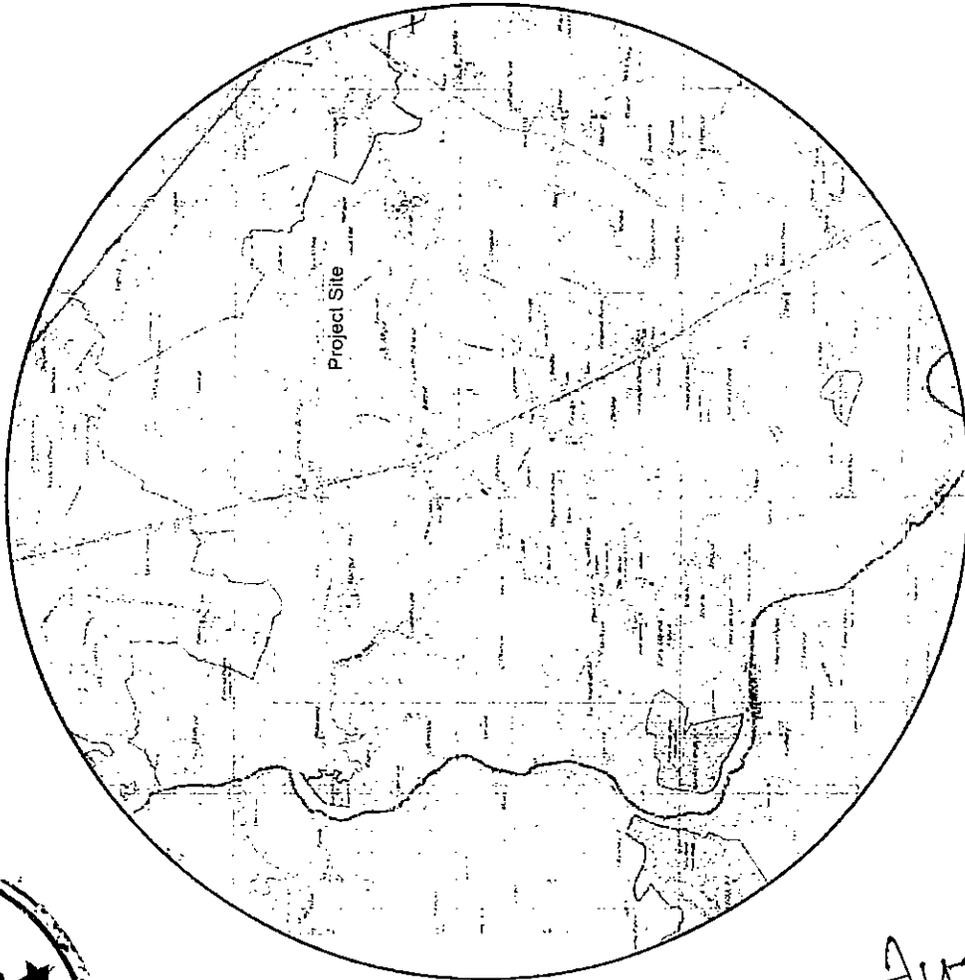
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GATA NO.- 332 (KHAND NO.- 03), VILL.-BADOKHAR KHURD, TEH.-  
NARAINI, DISTT.-BANDA

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Figure 3- 3: Land use/ Land cover Map of study area



| LEGENDS |                           |
|---------|---------------------------|
| 1       | LEASE AREA                |
| 2       | DRAINAGE                  |
| 3       | ROAD/RAIL/ROAD/TRACK/ROAD |
| 4       | VILLAGE WITH POPULATION   |
| 5       | CONTOUR                   |
| 6       | RIVER                     |
| LANDUSE |                           |
| 7       | AGRICULTURE LAND          |
| 8       | WASTE LAND                |

|  |                    |
|--|--------------------|
|  | GW (Ground Water)  |
|  | SW (Surface Water) |
|  | AQ (Air Quality)   |
|  | SQ (Soil Quality)  |
|  | NQ (Noise Quality) |

|   |  |
|---|--|
| 10 KM RADIUS MAP                              |  |
| GRANITE GIITI, KHANDA & BOULDER               |  |
| VILL.-BADOKHAR KHURD, GATA NO.-332, KHAND-03, |  |
| TEH.-NARAINI, DISTT.-BANDA (UP)               |  |
| APPLICANT- SII, DEEPAK SINGH                  |  |
| AREA -2.50 Ha.                                |  |

TOPOSHEET INDEX

|        |
|--------|
| 63 C 7 |
| 63 C 8 |



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### 3.2.2.1 Description of land use

The study area is prominently covered by agricultural land (73.81%). The drainage & water bodies are covering 1.56 % while built-up area covers 5.05 % of the study area. Forest Area along with vegetation and land with semi-arid vegetation covers 0.39% of the study area.

19.19% of land is occupied by the waste barren land and the mine area is also covered in that share. The wheat and maize are main crops of the study area and opium cultivation was also reported in the study area. The above land use analysis indicates that a healthy distribution exists in the area.

### 3.2.2.2 Physiography

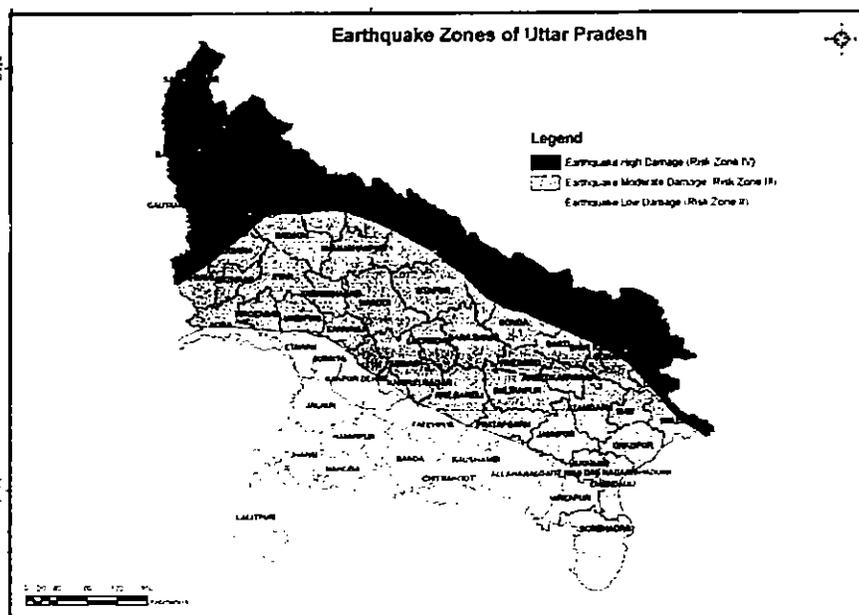
The area lies in Survey of India's Topo sheet No. 63C/07 in village Badokhar Khurd. The conspicuous feature of topography of the area is typical Bundelkhand landscape of elliptically isolated hills with gentler to sudden steep slope. The area is dominated by boulders and in situ outcrops of Bundelkhand Granite. The general slope of lease area is from South-east to North-west directions.

### 3.2.2.3 Seismicity of the area

Many parts of the Indian subcontinent have historically high Seismicity. Seven catastrophic earthquakes of magnitude greater than 8 (Richter scale) have occurred in the western, northern and eastern parts of India and adjacent countries in the past 100 years. By contrast, peninsular India is relatively less seismic, having suffered only infrequent earthquakes of moderate strength. The main seismogenic belts are associated with the collision plate boundary between the Indian and Eurasian plates. The project site as well as study area lies in Zone-II of Seismic Zoning Map, and thus can be said to be located in an area of low seismic hazard by national standards. Hence the risk of earthquake at the site persists though there has to be no incident in the near past.



Figure 3- 4: Seismic Zone Map of U.P.



### 3.2.3 Soil Characteristics

Soil may be defined as a thin layer of earth's crust, which serves as a natural medium for the growth of plants. The soil characteristics include both physical and chemical details. The soil survey was carried out to assess the soil characteristics of the area. The soil survey and soil samples were carried out / collected to assess the soil characteristics of the study area. Soil samples were collected from 5 locations.



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## 3.2.3.1 Methodology of baseline data generation

Soil samples have been taken from 5 sites within the study area. Direction of soil sampling station from the mine site have been given in Table 3-2 & same is shown in Figure 3-1

Table 3- 2: Details of Soil monitoring locations

| S.No. | Location code | Location Name                      | Direction |
|-------|---------------|------------------------------------|-----------|
| 1.    | S1            | Badokhar Khurd<br>(Near Mine site) | NE        |
| 2.    | S2            | Village Khohi                      | SW        |
| 3.    | S3            | Village Pitampur                   | SW        |
| 4.    | S4            | Village Gobardhanpur               | NW        |
| 5.    | S5            | Village Govindpur                  | NW        |
| 6.    | S6            | Village Patraha                    | SE        |

The sample was collected by driving an auger into the soil up to the depth of 90 cm. The present study on the soil quality establishes the baseline characteristics and identifies the incremental concentrations if any, due to the proposed project. The objective of the sampling is:-

- To determine the baseline soil characteristics of the study area;
- To determine the impact of proposed activity on soil characteristics and;
- To determine the impact on soil more importantly agriculture production point of view.

The soil sample is collected from three different depths viz. 30cm, 60cm and 90cm. The sample was then packed in polythene plastic bags and sealed. The sample from three different depths is homogenized and is then analyzed. Main test methodologies used for analysis of Soil are given in Table 3-3 :



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Table 3- 3: Methodologies used for Soil Analysis

| Sampling Parameters        | Sample collection and Frequency   | Sample Analysis       |                               | Methodology        |
|----------------------------|---|-----------------------|-------------------------------|--------------------|
|                            |   | Analytical Equipment  | Sensitivity / Detection Limit |                    |
| Texture                    | Manual sample collection using hammer and container tube for collecting undisturbed top soil and will be collected once in season | As per                | As per                        | IS: 2720 Part 4    |
| Water holding capacity     |   | As per HMSO, UK       | As per HMSO, UK               | HMSO, UK           |
| Porosity                   |   | As per IS: 2720       | As per IS: 2720               | IS: 2720 Part VII  |
| Permeability               |   | Falling Head Method   |                               | IS: 2720 Part XVII |
| Moisture                   |   | Electronic Balance    | 0.001 mg                      | IS: 2720 Part 2    |
| Particle size distribution |   | As per IS: 2720       | As per IS: 2720               | IS: 2720 part 4    |
| Cation Exchange Capacity   |   | As per IS: 2720       | As per IS: 2720               | IS: 2720 part 24   |
| Electrical Conductivity    |   | As per IS: 14767-2000 | As per IS: 14767-2000         | IS: 14767-2000     |
| pH                         |   | pH Meter              |                               | 4500 H+B           |
| Calcium                    |   | EDTA Titration        | -                             | 3500 Ca B          |
| Magnesium                  |   | EDTA Titration        | -                             | 3500 Mg B          |
| Sodium (Na)                |   | Flame Photometer      | 100 µg/l                      | 3500 Na B          |
| Potassium                  |   | Flame Photometer      | 100 µg/l                      | 3500 K B           |



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## 3.2.3.2 Baseline data status

The results of soil analysis are given below in Table 3-4 collected from five different locations.

Table 3- 4: Soil Quality Analysis results (March-2019 to May-2019)

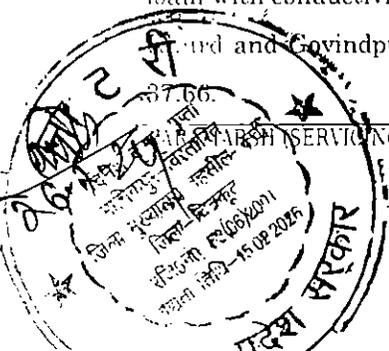
| S. No. | Parameters                  | Units                 | Location   |            |            |            |            |            |
|--------|-----------------------------|-----------------------|------------|------------|------------|------------|------------|------------|
|        |                             |                       | S1         | S2         | S3         | S4         | S5         | S6         |
| 1      | pH                          | -                     | 7.44       | 7.38       | 7.65       | 7.4        | 7.37       | 7.36       |
| 2      | Conductivity                | ( $\mu$ mhos/cm)      | 368.4      | 368.48     | 369.45     | 368.46     | 370.27     | 369.5      |
| 3      | Sodium (as Na)              | (mg/kg)               | 43.71      | 43.72      | 42.35      | 43.7       | 45.59      | 44.54      |
| 4      | Water holding capacity      | %                     | 35.72      | 35.79      | 34.42      | 35.77      | 37.66      | 36.64      |
| 5      | Potassium (as K)            | (mg/kg)               | 248.58     | 248.65     | 248.28     | 248.63     | 250.52     | 249.55     |
| 6      | Texture                     | -                     | Sandy Loam |
| 7      | Sand                        | %                     | 58         | 48         | 51         | 50         | 54         | 51         |
| 8      | Clay                        | %                     | 18         | 29         | 26         | 27         | 24         | 26         |
| 9      | Silt                        | %                     | 24         | 23         | 23         | 23         | 22         | 23         |
| 10     | Calcium (as Ca)             | (mg/kg)               | 152.6      | 154.25     | 150.38     | 152.9      | 152.9      | 152.7      |
| 11     | Magnesium (as Mg)           | (mg/kg)               | 65.1       | 66.57      | 64.18      | 65.57      | 66.6       | 66.5       |
| 12     | SAR                         | -                     | 1          | 1          | 1          | 1          | 1          | 1          |
| 13     | CEC                         | (meq/100gm)           | 2.22       | 2.17       | 2.45       | 2.46       | 2.32       | 2.31       |
| 14     | Available Phosphorus (as P) | (mg/kg)               | 11.74      | 11.76      | 11.81      | 11.93      | 11.89      | 11.91      |
| 15     | Organic carbon              | %                     | 0.58       | 0.56       | 0.5        | 0.5        | 0.46       | 0.51       |
| 16     | Porosity                    | (% by mass)           | 43.96      | 41.8       | 41.76      | 41.8       | 41.99      | 42.21      |
| 17     | Permeability                | (cm/hr)               | 1.73       | 1.4        | 1.57       | 1.54       | 1.59       | 1.65       |
| 18     | Bulk Density                | (kg/cm <sup>3</sup> ) | 1.78       | 1.59       | 1.65       | 1.64       | 1.77       | 1.71       |
| 19     | TKN                         | %                     | 0.08       | 0.08       | 0.09       | 0.1        | 0.1        | 0.09       |

From the above results it may be concluded that texture of the soil in the study area is sandy loam with conductivity ranging from 368.40 to 370.27 Micro mhos/cm at near village Badokhar Khurda and Govindpur respectively. Soil has Water holding capacity in the range of 34.42 to

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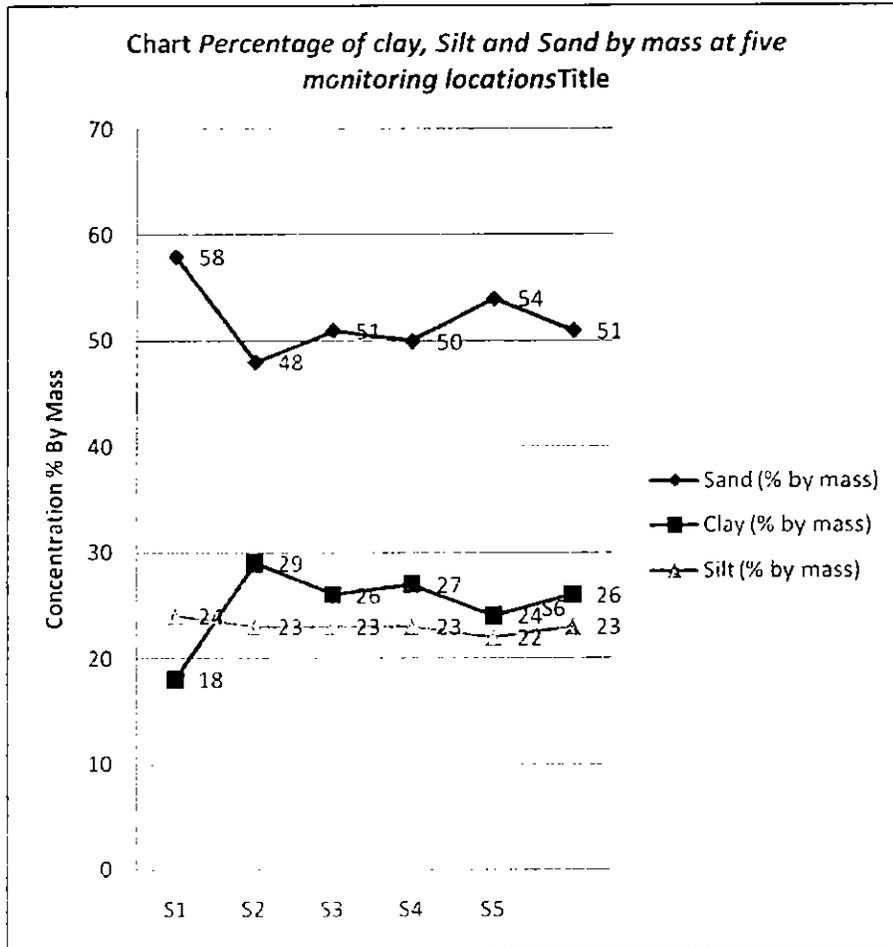
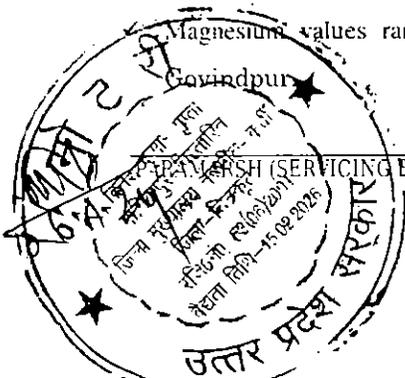


Figure 3- 5: Graph showing content of Percentage of clay, Silt and Sand by mass at five monitoring locations

**Observations:**

Monitoring data shows that the texture of soil at all locations is Sandy Loam. The monitoring sites have sand ranging from 48% to 58% in soil samples. Silt content varies from 22% to 24%, while Clay content varies from 18% to 29% in the soil samples.

- ✓ The data shows that value of pH ranges from 7.37 at village Govindpur to 7.65 at Pitampur indicating that all soil samples are neutral.
- ✓ Govindpur shows maximum conductivity of 370.27 μmhos/cm, while near project site shows minimum conductivity of 368.40 μmhos/cm.
- ✓ Values of CEC ranges from 2.17 meq/100g as lowest at Khohi and 2.46 meq/100g as maximum at Gobardhanpur.
- ✓ Magnesium values ranges from 64.18 meq/100g as lowest at Pitampur and 66.6 meq/100g as highest at Govindpur



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- ✓ The average concentration of Phosphorus and Potassium in the soil samples varies from 11.74 to 11.93 mg/100gm and 248.28 to 250.52 mg/100gm.

### 3.3 WATER ENVIRONMENT

The general water table depth of study area falls between 102-100 mRL during pre-monsoon and post-monsoon periods.

#### 3.3.1 Water consumption & Sources

The projected water requirements for the mine site are likely to be in the range of 1.90 Kld. The major areas of water consumption are dust suppression (1.5 KLD), for domestic purposes (0.30 KLD) and green belt development (0.10 KLD). Most of the water consumption proposed will be for dust suppression. It is to be noted that due to mechanical nature of mining in this lease the water requirement for the dust suppression will be optimal.

#### 3.3.2 Methodology of Baseline data generation

The assessment of present status of water quality within the study area was conducted by collecting water from ground water sources and surface water sources during the period of March 2019 – May 2019. The sampling locations were identified on the basis of their importance. Three ground water samples and two surface water samples were collected during the monitoring period. The locations of sampling stations for ground water and surface water are shown in **Figure 3-1** and details are given in **Table 3-5**

**Table 3- 5: Location of water monitoring station**

| S.No. | Type of sample | Location code | Location Name                   | Direction |
|-------|----------------|---------------|---------------------------------|-----------|
| 1.    | Ground water   | GW1           | Village Khohi                   | SW        |
| 2.    | Ground water   | GW2           | Village Pitampur                | SW        |
| 3.    | Ground water   | GW3           | Village Gobardhanpur            | NW        |
| 4.    | Ground water   | GW4           | Village Govindpur               | NW        |
| 5.    | Surface water  | SW1           | Pond near village Pithaurabad   | SE        |
| 6.    | Surface water  | SW2           | Khaparia Tal near village Jarar | NE        |



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Water samples were collected from all the sampling locations and analyzed for relevant physical, chemical and bacteriological parameters. Collection and analysis of the samples was carried out as per established standard methods and procedures, prescribed by CPCB, relevant IS Codes and Standard Methods of Examination of Water. Analyses of the parameters like temperature; pH, dissolved oxygen and alkalinity were carried out at the sampling stations immediately after collection of samples with the help of Field Analysis Kits. For analysis of other parameters, the samples were preserved and brought to laboratory at Noida. The metallic constituents like arsenic, mercury, lead, cadmium, chromium, copper, zinc, selenium, iron and manganese were analyzed with Atomic Absorption Spectroscope.

**3.3.3 Ground water quality**

The ground water analysis data for the monitoring period i.e. March 2019 – May 2019 is presented in Table 3-8 respectively. The physico-chemical characteristics of Ground water are analyzed with the drinking water standards, prescribed in IS: 10500 (Test Characteristics for Drinking Water).

**Table 3- 6: Ground water quality Analysis results for March-2019 to May-2019**

| Physico-chemical properties of ground water |                   |  |         |        |        |        |
|---|-------------------|--|---------|--------|--------|--------|
| MICROBIOLOGICAL REQUIREMENT RESULT          |                   |  |         |        |        |        |
| S.No.                                       | Parameter         | Requirements<br>as per IS-<br>10500:2012 | Results |        |        |        |
|   |                   |  | GW1     | GW2    | GW3    | GW4    |
| 1.  | Escherichia coli  | Absent/100mi                             | Absent  | Absent | Absent | Absent |
| 2.  | Coliform Bacteria | Absent/100ml                             | Absent  | Absent | Absent | Absent |



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ORGANOLEPTIC & PHYSICAL PARAMETERS

| S. No. | Parameter                   | Requirement (Acceptable Limit) | Permissible Limit in absence of alternate source | Unit  | Result    |           |           |           |
|--------|-----------------------------|--------------------------------|--|-------|-----------|-----------|-----------|-----------|
|        |                             |                                |  |       | GW1       | GW2       | GW3       | GW4       |
| 1.     | Colour                      | 5                              | 15   | Hazen | <1.00     | <1.00     | <1.00     | <1.00     |
| 2.     | Odour                       | Agreeable                      | Agreeable  | -     | Agreeable | Agreeable | Agreeable | Agreeable |
| 3.     | Taste                       | Agreeable                      | -  | -     | Agreeable | Agreeable | Agreeable | Agreeable |
| 4.     | Turbidity                   | 1                              | 5  | NTU   | <1.00     | <1.00     | <1.00     | <1.00     |
| 5.     | pH value                    | 6.5-8.5                        | -  | -     | 7.15      | 7.17      | 7.4       | 7.25      |
| 6.     | Total dissolve solid ( TDS) | 500                            | 2000   | mg/l  | 482       | 463       | 494.3     | 460       |

GENERAL PARAMETERS CONCERNING SUBSTANCES UNDESIRABLE IN EXCESSIVE AMOUNTS

| S. No. | Parameter                         | Unit | Requirement (Acceptable Limit) | Permissible Limit in absence of alternate source   | Result |       |       |       |
|--------|-----------------------------------|------|--------------------------------|--|--------|-------|-------|-------|
|        |                                   |      |                                |  | GW1    | GW2   | GW3   | GW4   |
| 1.     | Aluminium (as Al)                 | mg/l | 0.03                           | 0.2  | <0.01  | <0.01 | <0.01 | <0.01 |
| 2.     | Total Ammonia                     | mg/l | 0.5                            | No Relaxation  | <0.10  | <0.10 | <0.10 | <0.10 |
| 3.     | Anionic Detergents (as MBAS)      | mg/l | 0.2                            | 1.0  | <0.10  | <0.10 | <0.10 | <0.10 |
| 4.     | Barium (as Ba)                    | mg/l | 0.7                            | No Relaxation  | <0.10  | <0.10 | <0.10 | <0.10 |
| 5.     | Boron (as B)                      | mg/l | 0.5                            | 1.0  | <0.10  | <0.10 | <0.10 | <0.10 |
| 6.     | Calcium (as Ca)                   | mg/l | 75                             | 200  | 41.7   | 41.4  | 36.75 | 41.8  |
| 7.     | Chloramines (as Cl <sub>2</sub> ) | mg/l | 1.0                            | No Relaxation  | <1.00  | <1.00 | <1.00 | <1.00 |
| 8.     | Chloride (as Cl)                  | mg/l | 250                            | 1000   | 66     | 72.31 | 77.23 | 77.22 |
| 9.     | Copper (as Cu)                    | mg/l | 0.05                           | 1.5  | <0.05  | <0.05 | <0.05 | <0.05 |
| 10.    | Fluoride (as F)                   | mg/l | 1.0                            | 1.5  | 0.35   | 0.44  | 0.43  | 0.45  |
| 11.    | Free Residual Chlorine            | mg/l | 0.2                            | 1.0  | BDL    | BDL   | BDL   | BDL   |
|        |                                   |      |                                | To be applicable only when water is chlorinated. Tested at consumer end. When protection against viral infection is required, it should be minimum 0.5 mg/l. |        |       |       |       |
| 12.    | Iron (as Fe)                      | mg/l | 0.3                            | No Relaxation  | 0.13   | 0.16  | 0.18  | 0.15  |
| 13.    | Magnesium (as Mg)                 | mg/l | 30                             | 100  | 14.05  | 20.5  | 18.16 | 20.51 |
| 14.    | Manganese (as Mn)                 | mg/l | 0.1                            | 0.3  | <0.10  | <0.10 | <0.10 | <0.10 |



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|     | Mn)   |      |       |               |        |            |            |            |
|-----|---|------|-------|---------------|--------|------------|------------|------------|
| 15. | Mineral Oil   | mg/l | 0.5   | No Relaxation | <0.50  | <0.50      | <0.50      | <0.50      |
| 16. | Nitrate (as NO <sub>3</sub> )                           | mg/l | 45    | No Relaxation | 8.33   | 8.74       | 8.51       | 8.73       |
| 17. | Selenium (as Se)  | mg/l | 0.01  | No Relaxation | <0.01  | <0.01      | <0.01      | <0.01      |
| 18. | Silver (as Ag)  | mg/l | 0.1   | No Relaxation | <0.05  | <0.05      | <0.05      | <0.05      |
| 19. | Sulphate (as SO <sub>4</sub> )                          | mg/l | 200   | 400           | 32.66  | 32.96      | 34.96      | 32.98      |
| 20. | Sulphide(as H <sub>2</sub> S)                           | mg/l | 0.05  | No Relaxation | <0.05  | <0.05      | <0.05      | <0.05      |
| 21. | Alkalinity (as Ca CO <sub>3</sub> )                     | mg/l | 200   | 600           | 182.83 | 178.7      | 178.8<br>6 | 178.7<br>3 |
| 22. | Total Hardness (as CaCO <sub>3</sub> )                  | mg/l | 200   | 600           | 179.6  | 188.8<br>1 | 169.1<br>3 | 192.4      |
| 23. | Zinc (as Zn)  | mg/l | 5.0   | 15            | BDL    | BDL        | BDL        | BDL        |
| 24. | Phenolic Compound as (C <sub>6</sub> H <sub>5</sub> OH) | mg/l | 0.001 | 0.002         | BDL    | BDL        | BDL        | BDL        |

Parameters Concerning Toxic Substances:

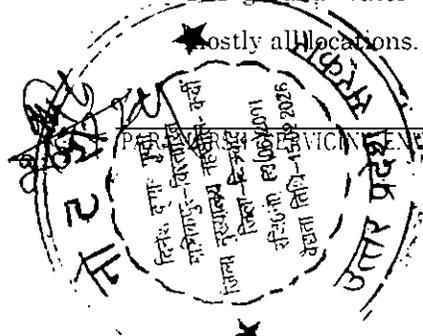
| S.NO. | Parameter                          | Unit | Requirement (Acceptable Limit) | Permissible Limit in absence of alternate source | Result  |         |         |         |
|-------|------------------------------------|------|--------------------------------|--|---------|---------|---------|---------|
|       |                                    |      |                                |  | GW1     | GW2     | GW3     | GW4     |
| 1.    | Cadmium (as Cd)                    | mg/l | 0.003                          | No Relaxation                                    | <0.001  | <0.001  | <0.001  | <0.001  |
| 2.    | Cyanide (as CN)                    | mg/l | 0.05                           | No Relaxation                                    | <0.01   | <0.01   | <0.01   | <0.01   |
| 3.    | Lead (as Pb)                       | mg/l | 0.01                           | No Relaxation                                    | <0.01   | <0.01   | <0.01   | <0.01   |
| 4.    | Mercury (as Hg)                    | mg/l | 0.001                          | No Relaxation                                    | <0.001  | <0.001  | <0.001  | <0.001  |
| 5.    | Molybdenum (Mo)                    | mg/l | 0.07                           | No Relaxation                                    | <0.05   | <0.05   | <0.05   | <0.05   |
| 6.    | Nickel (as Ni)                     | mg/l | 0.02                           | No Relaxation                                    | <0.01   | <0.01   | <0.01   | <0.01   |
| 7.    | Poly Nuclear Aromatic Hydrocarbons | mg/l | 0.0001                         | No Relaxation                                    | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| 8.    | Poly Chlorinated biphenyls         | mg/l | 0.0005                         | No Relaxation                                    | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| 9.    | Total Arsenic (as As)              | mg/l | 0.01                           | 0.05   | <0.01   | <0.01   | <0.01   | <0.01   |
| 10.   | Total Chromium (as Cr)             | mg/l | 0.05                           | No Relaxation                                    | <0.05   | <0.05   | <0.05   | <0.05   |

BDL: Below Detection limit.

The value of pH ranges from 7.15 to 7.40, indicating that water is alkaline in the study area. Total hardness of ground water ranges from 169.13 to 192.4 mg/l. Observed values of Chloride vary from 66.0 mg/l at near Khohi village to 77.23 mg/l at Gobardhan village.

The ground water quality is in general poor (brackish to saline) at deeper levels at

mostly all locations.



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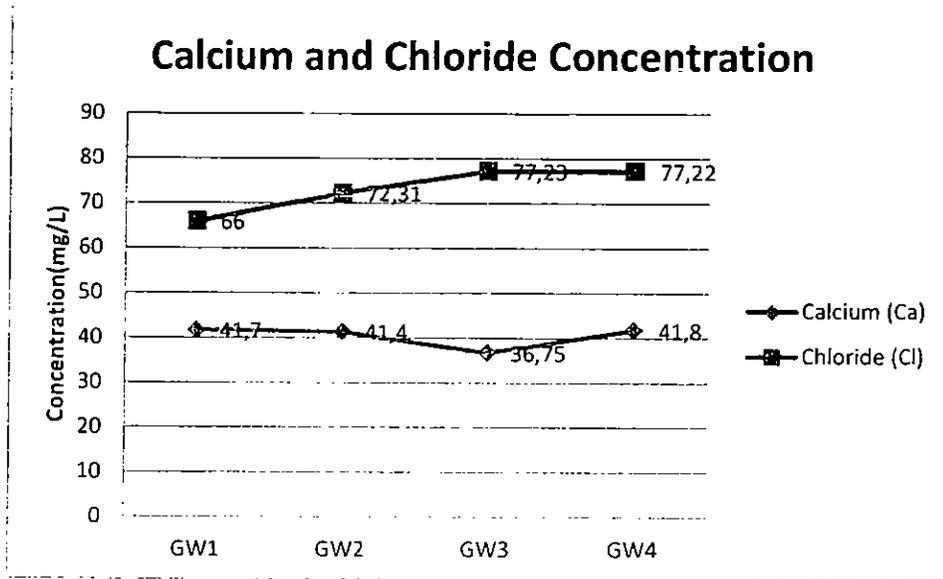


Figure 3- 6: Calcium and Chloride content at three monitoring location in ground water

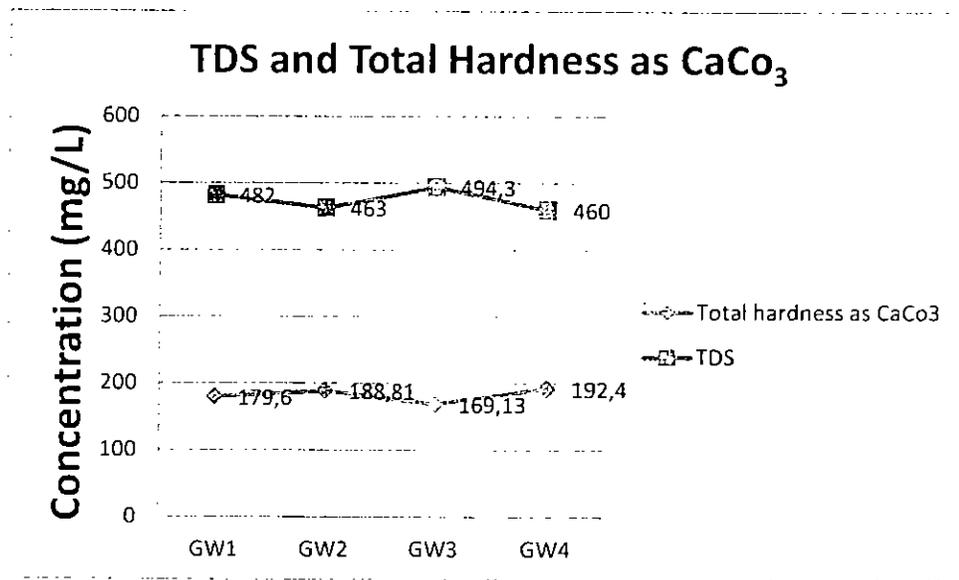
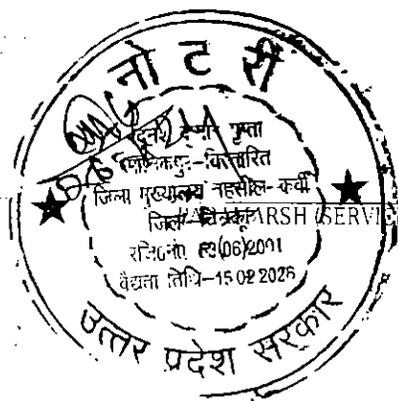


Figure 3- 7: TDS and Total hardness(as CaCO<sub>3</sub>) value at three monitoring location in ground water



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**Observation:**

Analysis of results of ground water reveals the following: -

- pH varies from 7.15 at GW-1 to 7.40 at GW-3.
- Total hardness varies from 169.13 mg/l at GW-3 to 192.4 mg/l at GW-4.
- Total dissolved solids vary from 460 mg/l at GW-4 to 494.3 mg/l at GW-3.

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.

**3.3.4 Surface Water**

The samples of surface water have been collected from two surface water bodies and analyzed for parameters prescribed as per IS 10500.

**3.3.4.1 Existing drainage pattern**

No prominent water course or nallah occur in the lease area. The general slope of lease area is from south to east. During rainy season the surface runoff follows the natural contour and flows in the same direction.

**3.3.4.2 Surface water quality**

The surface water analysis data for the monitoring period i.e. March 2019 – May 2019 is presented in Table 3-7. The physico-chemical characteristics of Surface water are found within the limits, prescribed by CPCB. The surface water quality is in general poor (brackish to saline) at mostly all locations.



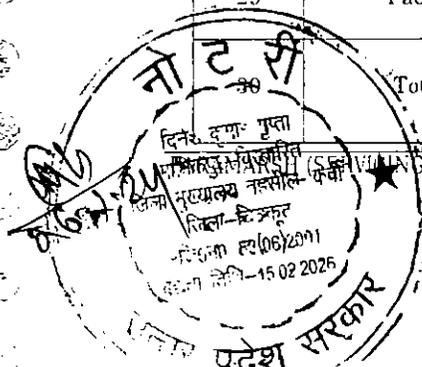
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Table 3- 7: Surface water analysis results (March-2019 to May-2019)

| S. No. | Parameter                    | Unit            | Test Method      | S.W. 1                         | S.W. 2                         |
|--------|------------------------------|-----------------|------------------|--------------------------------|--------------------------------|
| 1      | pH                           | -               | IS:3025(Part-11) | 7.77                           | 7.54                           |
| 2      | Temperature (°C)             | -               | IS:3025(Part-9)  | 28                             | 28                             |
| 3      | Turbidity                    | NTU             | IS:3025(Part-10) | <1.0                           | <1.0                           |
| 4      | Conductivity @250C           | µS/cm           | IS:3025(Part-14) | 460                            | 444                            |
| 5      | Sulphate (as SO4)            | mg/l            | IS:3025(Part-24) | 26                             | 23                             |
| 6      | Nitrate (as NO3)             | mg/l            | IS:3025(Part-34) | 2.47                           | 2.3                            |
| 7      | Total Hardness (as CaCO3)    | mg/l            | IS:3025(Part-21) | 264                            | 254                            |
| 8      | Chloride (as Cl)             | mg/l            | IS:3025(Part-32) | 88.52                          | 87.93                          |
| 9      | Fluoride (as F)              | mg/l            | APHA-4500F       | 0.14                           | 0.05                           |
| 10     | COD                          | mg/l            | APHA-5220 B      | 20.8                           | 21.8                           |
| 11     | Iron (as Fe)                 | mg/l            | IS:3025(Part-53) | 0.2                            | 0.23                           |
| 12     | Dissolved oxygen             | mg/l            | IS:3025(Part-38) | 4.78                           | 5.20                           |
| 13     | Total Dissolved Solids (TDS) | mg/l            | IS:3025(Part-16) | 308.2                          | 302.8                          |
| 14     | BOD (3 Days at 27°C)         | mg/l            | IS:3025 (P-44)   | 6.0                            | 6.30                           |
| 15     | Calcium (as Ca)              | mg/l            | IS:3025(Part-40) | 31.21                          | 30.98                          |
| 16     | Magnesium (as Mg)            | mg/l            | IS:3025(Part-46) | 11.49                          | 11.39                          |
| 17     | Arsenic (as As)              | mg/l            | IS:3025(Part-37) | BDL                            | BDL                            |
| 18     | Lead (as Pb)                 | mg/l            | IS:3025(Part-47) | BDL                            | BDL                            |
| 19     | Copper (as Cu)               | mg/l            | IS:3025(Part-42) | BDL                            | BDL                            |
| 20     | Zinc (as Zn)                 | mg/l            | IS:3025(Part-49) | 1.46                           | 1.33                           |
| 21     | Manganese (as Mn)            | mg/l            | IS:3025(Part-59) | BDL                            | BDL                            |
| 22     | Total Chromium (as Cr)       | mg/l            | IS:3025(Part-52) | BDL                            | BDL                            |
| 23     | Sodium (as Na)               | mg/l            | IS:3025(Part-45) | 24.17                          | 24.5                           |
| 24     | Potassium (as K)             | mg/l            | IS:3025(Part-45) | 2.04                           | 1.9                            |
| 25     | Total Alkalinity (as CaCO3)  | mg/l            | IS:3025(Part-23) | 140.66                         | 140.8                          |
| 26     | Phosphate (as PO4_P)         | mg/l            | IS:3025(Part-31) | 0.12                           | 0.09                           |
| 27     | Nitrate (as NO3)             | mg/l            | IS:3025(Part-34) | BDL                            | BDL                            |
| 28     | Total Suspended Solid        | mg/l            | IS:3025(Part-17) | 4.37                           | 4.3                            |
| 29     | Faecal Coliform              | >1600MPN/100 ml | IS-1622          | 1.6×10 <sup>3</sup> no./100    | 1.6×10 <sup>3</sup> no./100    |
|        | Total Coliform               | MPN/100ml       | IS-1622          | 1.9×10 <sup>3</sup> no./100 ml | 1.9×10 <sup>3</sup> no./100 ml |



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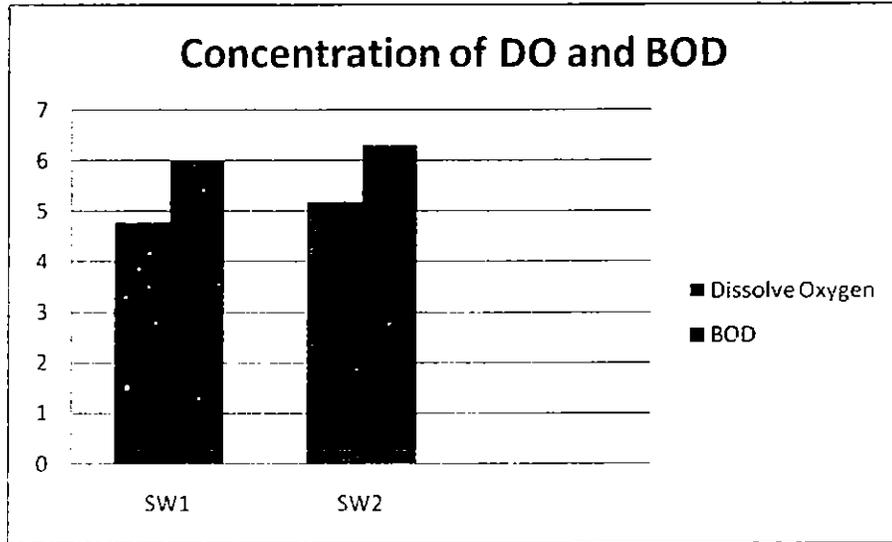


Figure 3- 8: Graph showing concentration of Dissolved Oxygen and Biochemical Oxygen Demand at three monitoring location

**Observation:**

The analysis results indicate that the pH ranges between 7.54 to 7.77. Dissolved Oxygen (DO) was observed in the range of 4.78 to 5.20 mg/l against the minimum requirement of 4 mg/l. BOD values were observed to be in the range of 6.0 to 6.30 mg/l.

The chlorides and Sulphates were found to be in the range of 87.93 to 88.52 mg/l and 23.0 to 26.0 mg/l respectively.

Bacteriological examination of surface water samples revealed the presence of total coliform in range of  $1.9 \times 10^3$  no/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.



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3.4 AIR ENVIRONMENT

3.4.1 Meteorology

The meteorological data helps for appropriate interpretation of the baseline status of the study area as well as for input into prediction models to evaluate air quality dispersion. Chronological data on meteorological parameters also plays an important role in identifying the general meteorological regime of the region.

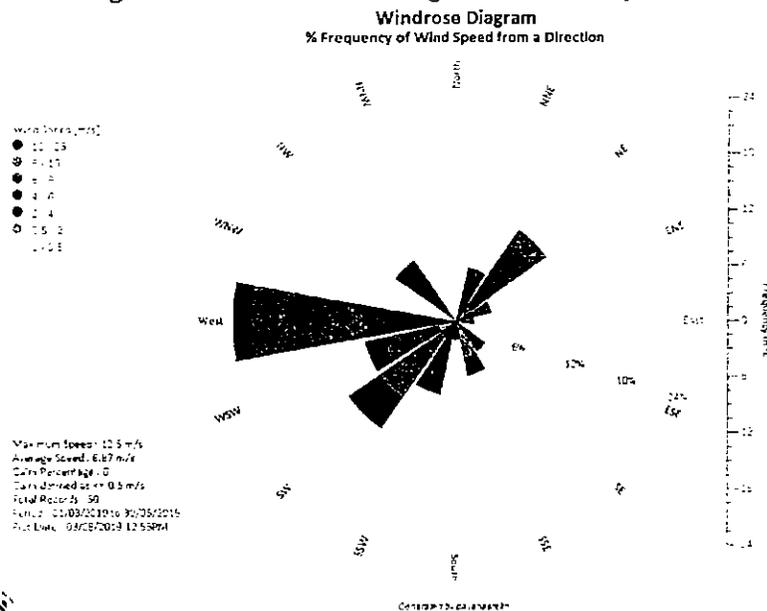
The climate in the region shows broadly four seasonal variations, namely:

- Winter: December – February
- Summer: March – Mid June
- Monsoon: Mid June – September
- Post-monsoon: October - November

3.4.2 Site Specific Meteorology

Site specific meteorology during the study period was recorded by an automated weather station. Wind profile of the area is shown in the form of wind rose diagram given in Figure 3-9. Site specific meteorological data of the study area reveals that predominantly wind is blowing from the west direction accounting approximately 40% of the total wind followed by SW and West contributing 16% to 24% respectively. Calm winds are only 0.60% of the total value. Average wind speed during the study period is 6.87 m/s.

Figure 3- 9: Wind rose diagram of the study area



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### 3.4.3 Climatology

A hot summer and general dryness prevail during the year except, the South west monsoon season. The year may be divided into four seasons. The cold season December to February is followed by hot season from March to middle of June. The period from middle of June to September is the south west monsoon season. October and November are the post monsoon or transition period.

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 average annual rainfall is 902.00 mm. The climate is typical subtropical characterized by long and intense summers. About 80% of the annual rainfall is received from south-west monsoon. The relative humidity is highest in August about 85% and lowest in April.

### 3.4.4 Ambient Air Quality

The prime objective of the baseline study with respect to ambient air quality is to establish the present air quality and its conformity to ambient air quality standards. This section describes the sampling locations, frequency of sampling and methodology adopted for monitoring ambient air quality. The results of monitoring during the study period (Oct. 2019 to Dec. 2019) are presented in the report. The study area represents mostly rural environment. The sources of air pollution in the region are vehicular traffic, dust arising from unpaved village roads and domestic fuel burning.

#### 3.4.4.1 Methodology adopted for the study

##### Sampling locations, parameters and frequency

Calibrated Respirable Dust Samplers were used for the sampling of PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub>. Ambient air sampling for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, and NO<sub>x</sub> was performed continuously for 24 hours to determine 24-hour average concentrations. Ambient air quality monitoring was carried out with a frequency of two days per week at all five locations.

The sampling was performed at a height of 1.5 m (approximately) from the ground level.

Standard methods specified under "National Ambient Air Quality Standards"

Notification G.S.R. 176(E) were adopted for sampling and analysis. Five locations with in



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the study area were scientifically selected and are based on the following considerations:

- Meteorological conditions;
- Topography of the study area;
- The direction of the wind;
- Representation of the region for establishing baseline status; and
- Representation with respect to likely impact areas.

The location of the monitoring stations with reference to the proposed plant site is given in Table 3-8 and shown in Figure 3-1.

**Table 3- 8: Details of Air Monitoring locations**

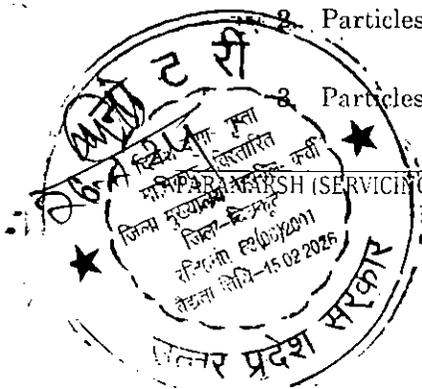
| S.No. | Location code | Location Name                      | Direction |
|-------|---------------|------------------------------------|-----------|
| 1.    | A1            | Badokhar Khurd<br>(Near Mine site) | NE        |
| 2.    | A2            | Village Khohi                      | SW        |
| 3.    | A3            | Village Pitampur                   | SW        |
| 4.    | A4            | Village Gobardhanpur               | NW        |
| 5.    | A5            | Village Govindpur                  | NW        |
| 6.    | A6            | Village Patraha                    | SE        |

**Sampling and analytical techniques**

**Particulate Matter (10), (2.5)**

Calibrated 'Respirable Dust Samplers' with Whatman GF/A microfibre filter paper (size: 8" X 10") was used for the collection of PM (10). APM- 151 air sampler was attached with Respirable Dust Sampler for monitoring particulate matter of size <2.5 microns. A known volume of ambient air is passed through the cyclone to the initially preprocessed filter paper. The centrifugal force in cyclone acts on particulate matter to separate them into two parts and collected as followings: -

1. Particles <10  $\mu$  size (Respirable) : GF/A Filter Paper
2. Particles >10  $\mu$  size (Non Respirable) : Cyclone Cup
3. Particles <2.5  $\mu$  size : Teflonfilter paper 47mm



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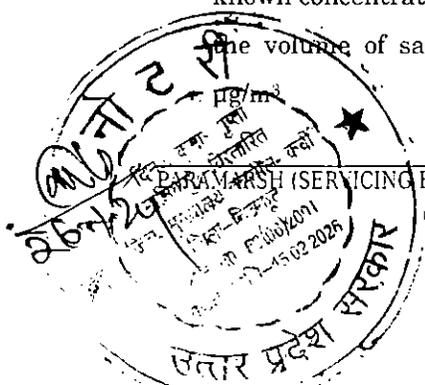
The differences in final and initial weight of filter paper and cyclone cup are used in estimation of particulate matter. The mass of particulates collected on the GF filter, divided by the volume of sampled air, gives the concentration of PM (10) whereas the mass of particulates collected on the Teflon filter, divided by the volume of sampled air, gives the concentration of PM (2.5). The results are expressed in  $\mu\text{g}/\text{m}^3$ .

### Sulphur Dioxide

Sampling and analysis of ambient  $\text{SO}_2$  was performed by adopting the 'Improved West and Gaeke Method'. The ambient air, drawn through the draft created by the RDS, is passed through an impinger, containing a known volume of absorbing solution of *sodium tetrachloromercurate*, at a pre-determined and measured flow rate of 1 liter/minute (L/min).  $\text{SO}_2$  in ambient air reacts with the *tetrachloromercurate* to form a stable complex, *dichlorosulphito mercurate*. On reacting with *formaldehyde* and *p-rosaniline hydrochloride*, the sulphite ion forms an intensely coloured compound, *p-rosaniline methyle sulphonic acid*. The intensity of the colour developed is estimated by spectrophotometer at 560 nm wave length. The measured Optical Density (OD) is used to determine the concentration of  $\text{SO}_2$  from the calibration curve already prepared against known concentrations of sulphite ion. The mass of  $\text{SO}_2$  in the absorbing reagent, divided by the volume of sampled air provides the concentration of  $\text{SO}_2$ , which is expressed as  $\mu\text{g}/\text{m}^3$ .

### Nitrogen Oxides

Sampling and analysis of ambient  $\text{NO}_x$  was performed by adopting the 'Jacob Hochheister Modified' (Na arsenite) method. Ambient air is drawn through an impinger at a pre determined flow rate of 1 ppm. The impinger contains known volume of absorbing solution of *sodium arsenite* and *sodium hydroxide*. Oxides of nitrogen react with the absorbing reagent to form a stable solution of *sodium nitrite*. The nitrate ion produced during the sampling is estimated calorimetrically, after reacting with *phosphoric acid*, *sulphanilamide* and *naphthyl ethylenediamine dihydrochloride* (NEDA), using spectrophotometer at 540 nm wavelength. The measured Optical Density is used to determine the concentration of  $\text{NO}_x$  from the calibration curve already prepared against known concentrations of nitrite ion. The mass of  $\text{NO}_x$  in the absorbing reagent, divided by the volume of sampled air provides the concentration of  $\text{NO}_x$ , which is expressed as



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Table 3- 9: Techniques Used for Ambient Air Quality Monitoring

| Parameters        | Technique                              | Technical Protocol    | Minimum Detectable Limit (ug/m <sup>3</sup> ) |
|-------------------|--|-----------------------|---|
| PM <sub>10</sub>  | CPCB Guideline<br>(Gravimetric method) | IS-5182 (Part-IV)     | 1.0   |
| PM <sub>2.5</sub> | Gravimetric                            | As per CPCB Guideline | 1.0   |
| Sulphur Dioxide   | West and Gacke<br>(Modified)           | IS-5182 (Part-II)     | 5.0   |
| Nitrogen Oxide    | Jacob & Hochheiser<br>(Improved)       | IS-5182 (Part-VI)     | 9.0   |



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*Air Quality Standards*

National Ambient Air quality standards (18 June 2009) along with the prescribed method of measurement is given in Table 3.10

**Table 3- 10: National Ambient Air Quality Standards**

| Pollutants  | Time-weighted average | Concentration in Ambient Air                        |   | Method of measurement   |
|---|-----------------------|---|---|---|
|   |                       | Industrial Areas, residential, rural and other area | Ecologically Sensitive Areas (notified by Central Government) |   |
| Sulphur Dioxide (SO <sub>2</sub> )  | Annual Average*       | 50 µg/m <sup>3</sup>                                | 20 µg/m <sup>3</sup>  | - Improved West and Geake Method<br>-Ultraviolet fluorescence                       |
|   | 24 hours**            | 80 µg/m <sup>3</sup>                                | 80 µg/m <sup>3</sup>  |   |
| Oxides of Nitrogen as (NO <sub>2</sub> )  | Annual Average†       | 40 µg/m <sup>3</sup>                                | 30 µg/m <sup>3</sup>  | - Modified Jacob & Hochheiser (Na-Arsenite) Method<br>- Gas Phase Chemiluminescence |
|   | 24 hours††            | 80 µg/m <sup>3</sup>                                | 80 µg/m <sup>3</sup>  |   |
| Particulate Matter (Size less than 10µm) or PM <sub>10</sub> µg/m <sup>3</sup>      | Annual Average~       | 60 µg/m <sup>3</sup>                                | 60 µg/m <sup>3</sup>  | - Gravimetric<br>-TOEM<br>-Beta attenuation   |
|   | 24 hours*~            | 100 µg/m <sup>3</sup>                               | 100 µg/m <sup>3</sup>   |   |
| Particulate Matter (size less than 2.5 microns) PM <sub>2.5</sub> µg/m <sup>3</sup> | Annual Average†       | 40 µg/m <sup>3</sup>                                | 40 µg/m <sup>3</sup>  | - Gravimetric<br>-TOEM<br>-Beta attenuation   |
|   | 24 hours††            | 60µg/m <sup>3</sup>                                 | 60 µg/m <sup>3</sup>  |   |

\*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

\*\*24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year. 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.

3.4.4.2 Ambient air quality results

The results of ambient air quality monitoring for the period (March 2019 to May 2019) are presented in the report. Data has been compiled for three months. Various parameters monitored during the study have been described by their maximum, minimum and average values from their study site locations. The results for five locations have been discussed under the following pages.



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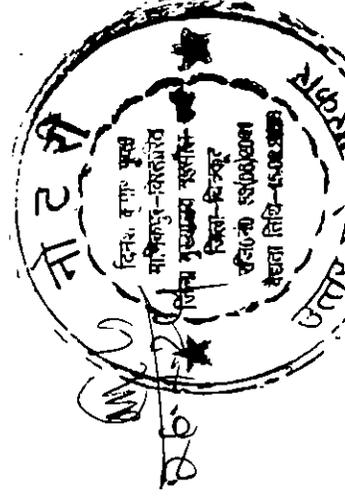
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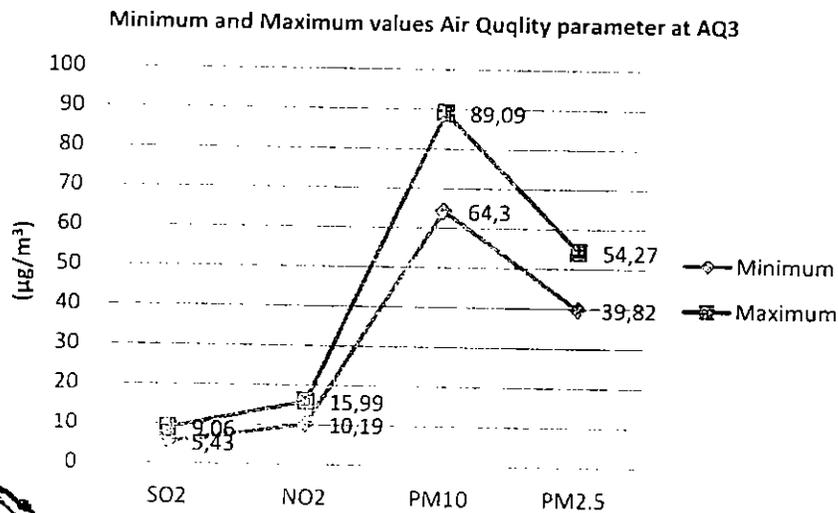
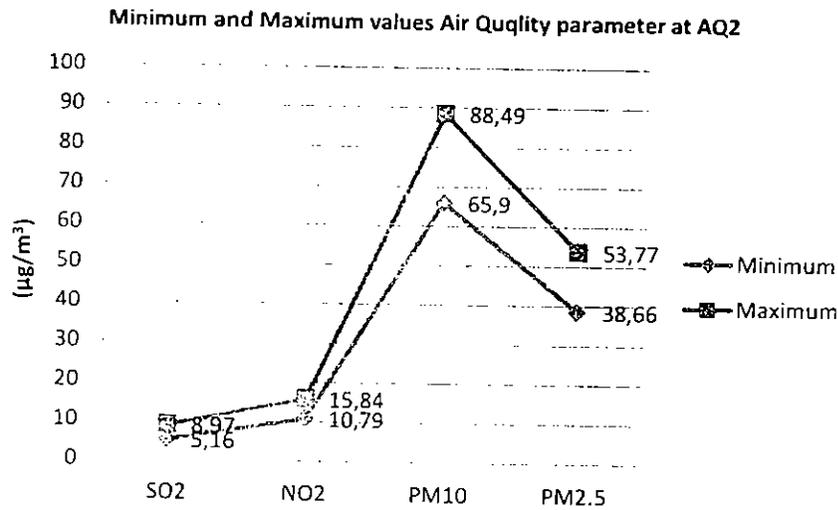
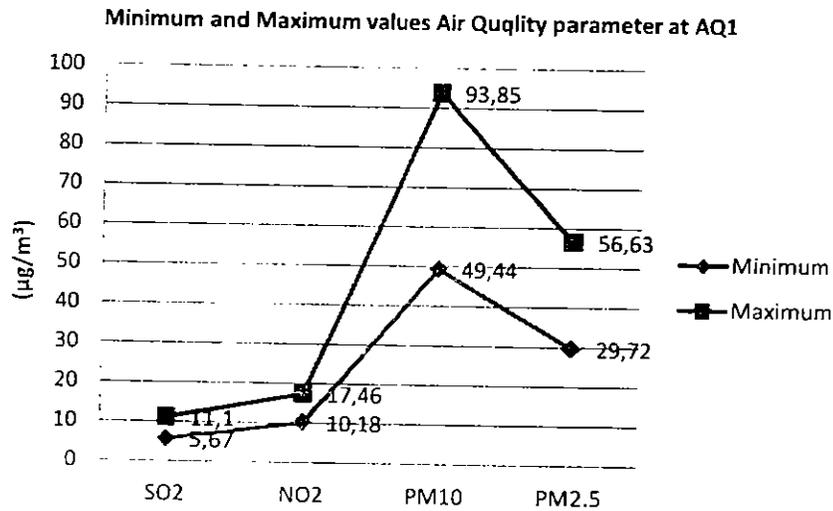
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| S. No. | Pollutant                                 | Location | No. of observation | Minimum | Maximum | Average | CPCB Standards |
|--------|---|----------|--------------------|---------|---------|---------|----------------|
| 1      | SO <sub>2</sub><br>(µg/m <sup>3</sup> )   | AQ1      | 24                 | 5.67    | 11.1    | 8.03    | 80.0           |
|        |   | AQ2      |                    | 5.16    | 8.97    | 7.15    |                |
|        |   | AQ3      |                    | 5.43    | 9.06    | 7.10    |                |
|        |   | AQ4      |                    | 5.45    | 9.1     | 7.20    |                |
|        |   | AQ5      |                    | 5.36    | 9.1     | 6.88    |                |
|        |   | AQ6      |                    | 5.42    | 9.88    | 7.17    |                |
| 2      | NO <sub>x</sub><br>(µg/m <sup>3</sup> )   | AQ1      | 24                 | 10.18   | 17.16   | 13.43   | 80.0           |
|        |   | AQ2      |                    | 10.79   | 15.84   | 13.09   |                |
|        |   | AQ3      |                    | 10.19   | 15.99   | 13.11   |                |
|        |   | AQ4      |                    | 10.07   | 16.06   | 13.26   |                |
|        |   | AQ5      |                    | 10.77   | 15.84   | 13.16   |                |
|        |   | AQ6      |                    | 9.58    | 11.61   | 13.46   |                |
| 3      | PM <sub>10</sub><br>(µg/m <sup>3</sup> )  | AQ1      | 24                 | 49.44   | 93.85   | 71.91   | 100.0          |
|        |   | AQ2      |                    | 65.9    | 88.40   | 76.99   |                |
|        |   | AQ3      |                    | 64.3    | 80.09   | 76.08   |                |
|        |   | AQ4      |                    | 65.63   | 89.51   | 75.89   |                |
|        |   | AQ5      |                    | 65.64   | 89.91   | 77.45   |                |
|        |   | AQ6      |                    | 54.35   | 92.33   | 73.10   |                |
| 4      | PM <sub>2.5</sub><br>(µg/m <sup>3</sup> ) | AQ1      | 21                 | 29.72   | 56.63   | 42.80   | 60.0           |
|        |   | AQ2      |                    | 38.66   | 53.77   | 48.73   |                |
|        |   | AQ3      |                    | 39.82   | 54.27   | 46.83   |                |
|        |   | AQ4      |                    | 39.42   | 54.93   | 47.08   |                |
|        |   | AQ5      |                    | 39.28   | 54.8    | 47.72   |                |
|        |   | AQ6      |                    | 22.83   | 55.55   | 43.75   |                |
| 5      | Free Silicon                              | AQ1      | 24                 | 0.38    | 1.76    | 0.94    |                |
|        |   | AQ2      |                    | 0.50    | 1.74    | 1.18    |                |
|        |   | AQ3      |                    | 0.51    | 1.75    | 1.19    |                |
|        |   | AQ4      |                    | 0.40    | 1.64    | 1.08    |                |
|        |   | AQ5      |                    | 0.71    | 1.95    | 1.39    |                |
|        |   | AQ6      |                    | 0.52    | 1.75    | 1.20    |                |

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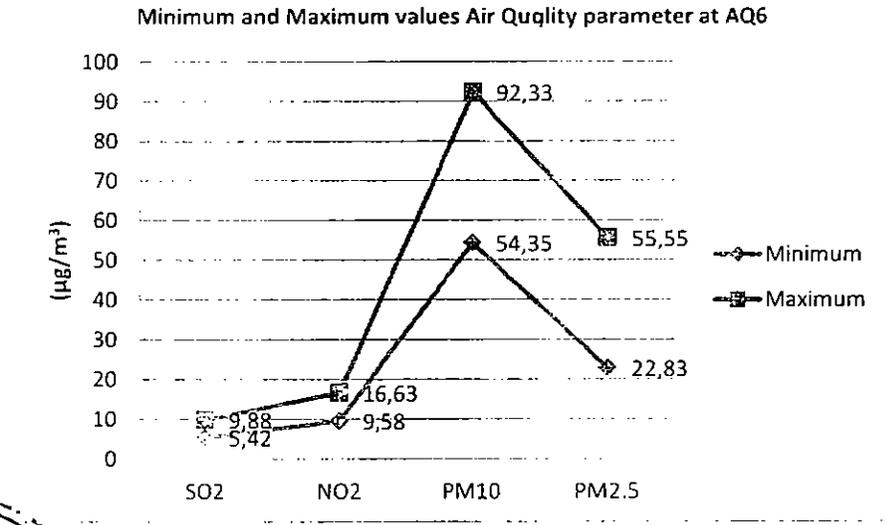
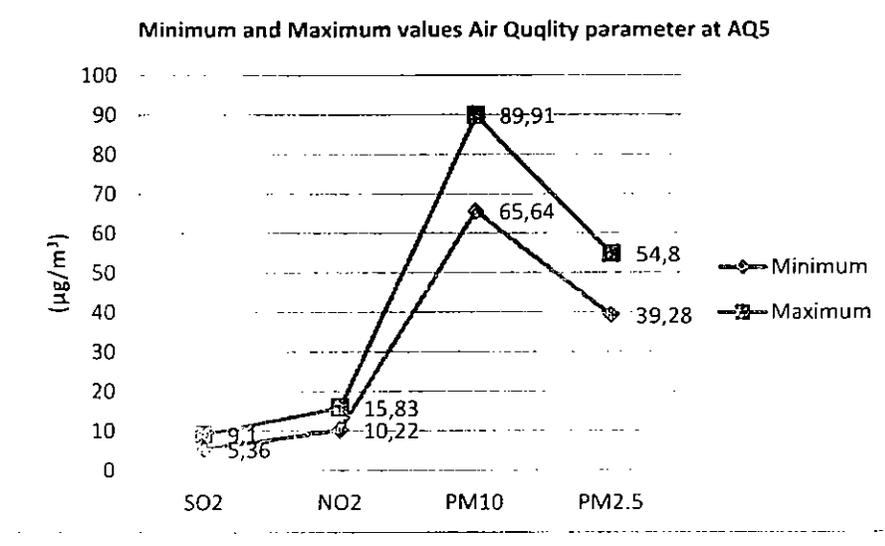
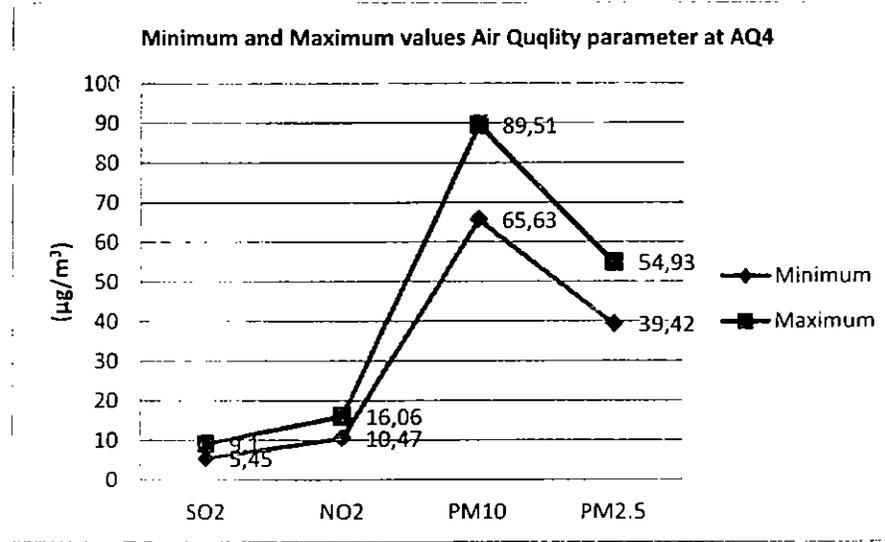
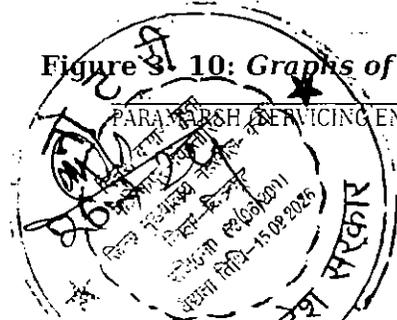


Figure 3. 10: Graphs of SO<sub>2</sub>, NO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub> concentration at six Air Quality monitoring



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**locations**

**Observations:**

Ambient Air Quality Monitoring reveals that the minimum & maximum concentrations of PM<sub>10</sub> for all the 5 AQ monitoring stations were found to be 49.44 µg/m<sup>3</sup> at AQ-1 and 93.85 µg/m<sup>3</sup> at AQ-1, respectively.

As far as the gaseous pollutants SO<sub>2</sub> and NO<sub>x</sub> are concerned, the prescribed CPCB limit of 80 µg/m<sup>3</sup> for residential and rural areas has never surpassed at any station. The minimum & maximum concentrations of SO<sub>2</sub> were found to be 5.16 µg/m<sup>3</sup> at AQ-2 & 11.10 µg/m<sup>3</sup> at AQ-1, respectively. The minimum & maximum concentrations of NO<sub>x</sub> were found to be 9.58 µg/m<sup>3</sup> at AQ-6 & 17.46 µg/m<sup>3</sup> at AQ-1 respectively. The air environment around this area is also affected by agriculture activities in the area.

**Free Silica**

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 PM<sub>10</sub>, 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 µm (PM<sub>4</sub>). There are no generally accepted methods of monitoring in ambient PM<sub>4</sub> 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 mg/m<sup>3</sup> (10 µg/m<sup>3</sup>) crystalline silica as respirable free silica as exposure limits.

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



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### 3.5 Noise Environment

Noise is said to be defined as an unwanted sound. It is, therefore, necessary to measure both the quality as well as the quantity of environment noise in and around the mining site.

**Types of Sound Fields** Based on the distance from the source of sound generation, the types of sound field are identified. They are of three type's viz. (i) Free Field (ii) Near Field and (iii) Far Field.

#### I. Free Field

The sound waves that propagate without obstruction from source to the receiver are free field. The sound waves obey the inverse square law so that sound pressure level decreases by 6 dB (A) as the distance is doubled. Such a field is known as free field.

#### II. Near Field

This field is located within a few wavelengths of the source and it is also influenced by the dimensions of the source. The inverse square law does not apply in this field.

#### III. Far Field

The far field has two parts one is known as free part and the other as reverberation part. In the free part of the far field, the sound pressures level obeys the inverse square law and propagate without obstruction from source to the receiver. The reverberant part of the field exists for enclosed situation where the reflected sound waves are superimposed on the incident sound waves. If there are many reflected waves from all possible direction. a diffuse sound field exists. The intensity of sound energy in the environment is measured in a logarithmic scale and is expressed in a decibel (dB) scale. Ordinary sound level meter measures the sound energy that reaches the microphone by converting it into electrical energy and then measures the magnitude in dB. In a sophisticated type of sound level meter, an additional circuit (filters) is provided, which modifies the received signal in such a way that it replicates the sound signal as received by the human ear and the magnitude of sound level in this scale is denoted as dB (A). The sound levels are expressed in dB (A) scale for the purpose of comparison of noise levels, which is universally accepted by the international community.

Noise levels were measured using an Integrating sound level meter manufactured by

Model No. 2031). It has an indicating mode of Lp and Leq. Keeping the mode in Lp for few minutes and setting the corresponding range and the weighting network in "A"



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weighting set the sound level meter was run for one hour time and Leq was measured at all locations. The day noise levels have been monitored during 6.00am to 10.00pm and night noise levels, during 10.00pm to 6.00am at all the ten locations covered in 10 km radius of the study area.

The L10, L50, L90, Leq, Ld and Ln were computed based on the sound pressure level recorded.

- Leq - 24 Hourly equivalent continuous noise levels
- Ld - Daytime Leq that has computed from 6.00 a.m to 10.00 pm
- Ln - Nighttime Leq that is computed from 10.00 p.m. to 6.00 a.m

**3.5.1 Noise Level Survey**

A preliminary reconnaissance survey was undertaken to identify the major noise generating sources in the area. The noise survey was conducted in the month of May, 2019 to assess the background noise levels in different zones viz. industrial, commercial, and residential and silence zones.

The sampling locations for noise are confined to residential, commercial and sensitive areas; however, no industrial area is present within the 10 km radius of the project site. 05 sampling locations were selected for the sampling of noise and are shown in Figure 3-1 and also given in Table 3-11.

**Table 3- 11: Details of Noise Monitoring Locations**

| S.No. | Location code | Category    | Location Name                   | Direction |
|-------|---------------|-------------|---------------------------------|-----------|
| 1     | NQ1           | Residential | Badokhar Khurd (Near Mine site) | NE        |
| 2     | NQ2           | Residential | Village Khohi                   | SW        |
| 3     | NQ3           | Residential | Village Pitampur                | SW        |
| 4     | NQ4           | Residential | Village Gobardhanpur            | NW        |
| 5     | NQ5           | Residential | Village Govindpur               | NW        |
| 6     | NQ6           | Residential | Village Patraha                 | SE        |

**3.5.2 Ambient Noise Standards**

Ministry of Environment & Forests (MoEF) has notified the noise standards vide gazette notification dated February 14, 2000 for different zones under the Environment Protection Act (1986). These standards are given in Table 3-12



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Table 3- 12: Ambient Noise Quality Standards in respect of Noise

| Area Code | Category of Area | Noise dB (A) $L_{eq}$ |             |
|-----------|------------------|-----------------------|-------------|
|           |                  | Daytime*              | Night time* |
| A         | Industrial Area  | 75                    | 70          |
| B         | Commercial Area  | 65                    | 55          |
| C         | Residential Area | 55                    | 45          |
| D         | Silence Zone     | 50                    | 40          |

Note:

1. Daytime from 6.00am to 10.00pm and Night time from 10.00pm to 6.00a m.
2. 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



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**3.5.3 Noise Quality**

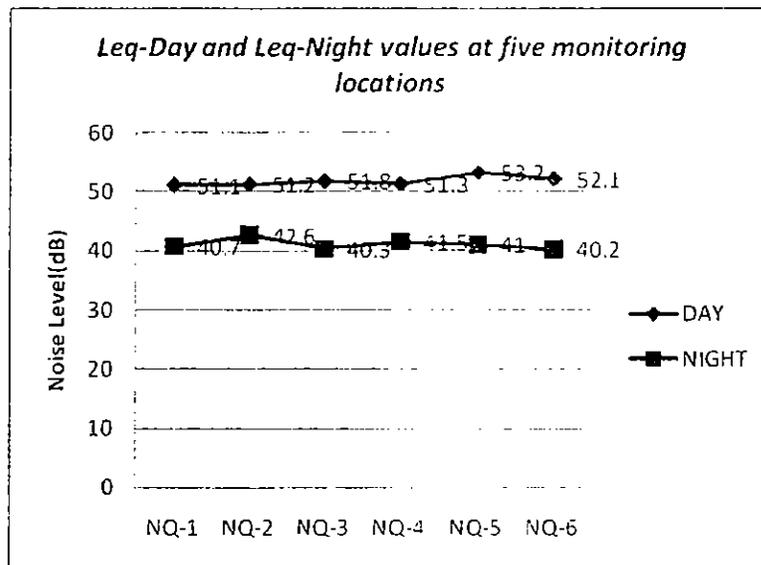
The noise data compiled on noise levels for May. - 2019 is presented in Table 3-13. It can be observed from the table that the noise levels ranges from 51.1 to 53.2 dB (A) during daytime and 40.3 to 42.6 dB (A) during night time.

**Table 3- 13: Noise quality results of the study area**

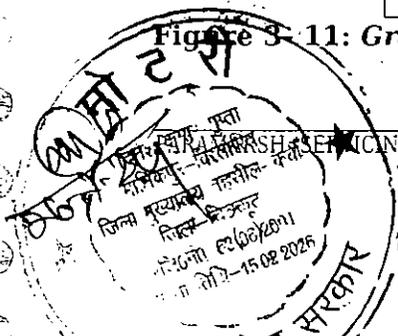
| S. No. | Project Site | Zone                            | Leq LIMIT (as per CPCB Guidelines), in dB(A) |        | Leq Value monitored, in dB(A) |        |
|--------|--------------|---------------------------------|--|--------|-------------------------------|--------|
|        |              |                                 | DAY*   | NIGHT* | DAY*                          | NIGHT* |
| 1      | NQ1          | Badokhar Khurd (Near Mine site) | 55   | 45     | 51.1                          | 40.7   |
| 2      | NQ2          | Village Khohi                   | 55   | 45     | 51.2                          | 42.6   |
| 3      | NQ3          | Village Pitampur                | 55   | 45     | 51.8                          | 40.3   |
| 4      | NQ4          | Village Gobardhanpur            | 55   | 45     | 51.3                          | 41.5   |
| 5      | NQ5          | Village Govindpur               | 55   | 45     | 53.2                          | 41.0   |
| 6      | NQ6          | Village Patraha                 | 55   | 45     | 52.1                          | 40.2   |

\* Day Time Leq in dB(A) (6.00AM TO 10.00PM)

Night Time Leq in dB(A) (10.00PM TO 6.00AM)



**Figure 3- 11: Graph of Leq-Day and Leq-Night values at six monitoring locations**



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**Results**

Noise monitoring reveals that the minimum & maximum noise levels at day time were recorded as 51.1 dB (A) at NQ-1 & 53.2 dB (A) at NQ-5, respectively. minimum & maximum noise levels at night time were found to be 40.3 dB (A) at NQ-3 & 42.6 dB (A) at NQ-2.

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.

**3.6 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.

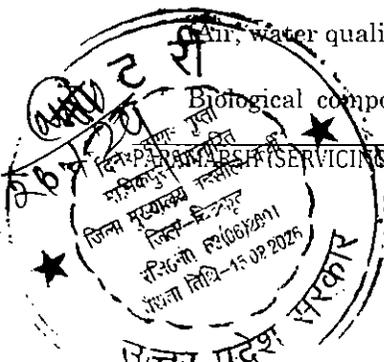
**3.6.1 Objectives of the study**

The ecological study of the area has been conducted in order to understand the existing status of the flora and fauna to generate baseline information and evaluate the possible impacts on biological environment. The present study highlights the various issues pertaining to floristic diversity and faunal wealth in the surrounding area up to 10km radius of the proposed project sites.

**3.6.2 Biogeography and Physiography of the study area:**

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 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.



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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.

**3.6.3 Study Approach & Methodology adopted**

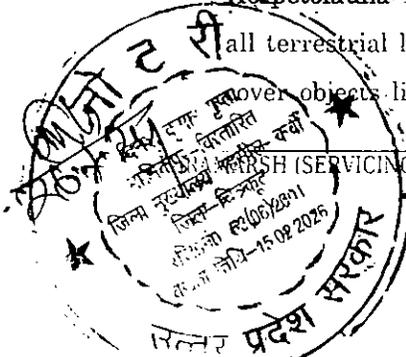
The baseline data for the proposed project was collected during the period of March, 2019 to May, 2019. A participatory and consultative approach was followed. Field visits were undertaken for survey of the vegetation and animals in the study area. The study area has been divided in to two parts as core area consisting of project site and the buffer area as the 10 km radius of the project site.

**Sampling Methodology**

**Flora** Floral status was assessed in different habitat types and project site of the study area. Quantitative data was collected using standard methods of quadrat method. Floral enumeration was done following standard sampling techniques. Random quadrates were laid in order to quantify the vegetation of the study area. Quadrant size for trees was 100 x 100 m. for shrubs it was 5 x 5 m and for herbs it was 1 x 1m. Plots of 1 x 1 m were laid within the tree quadrat at each corner to record grasses. In each of the quadrates, species and their number were recorded.

**Fauna Avifauna:** Standard methods were followed to survey the avifauna. The point count method was followed for counting the birds. Opportunistic surveys were also carried out with respect to avifaunal checklist. Identification by calls was also made for species which were not directly encountered or were hidden in the vegetation or canopy (Sridharan 1989, Bhupathy 1991. Bibby et al.. 1992 and Hutto et al.. 1986).

**Herpetofauna:** Area searches were done in the circular plots of 10 m radius to inventory all terrestrial habitats for reptiles and amphibians. Area searches consisted of turning over objects like logs, boulders etc (Welsh, 1987). Sampling for these species involved



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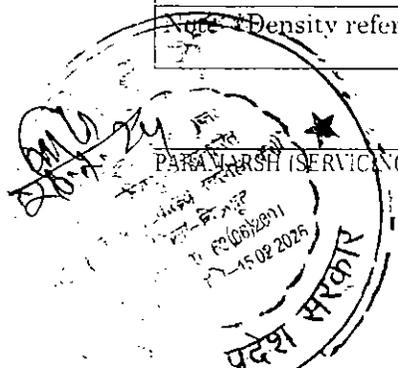
capturing individuals by hand or observation through binoculars and aural surveys.

**Mammals:** Presence of mammals was documented by using both direct and indirect evidences. Opportunistic sightings were also included. Circular Plots were used to search indirect evidence i.e. animal burrows / holes, scat, pellets, feeding signs, and tracks. Photographic (colored pictorial guide) field guide were used for interviews with local residents (Burnham et al. 1980, Rodgers 1991, Sale and Berkmuller, 1988, Daniel, 1992) The data collected in the field was analyzed for secondary parameters such as density, frequency and abundance following standard phyto-sociological methods.

**Table 3- 14: Estimation of Phyto-sociological parameters**  
**Estimation of Phyto-sociological parameters**

|                                |   |  |
|--------------------------------|---|--|
| Frequency (%)                  | = | $\frac{\text{(No. of quadrates of occurrence of the species X 100)}}{\text{Total No. of quadrates sampled}}$ |
| Abundance                      | = | $\frac{\text{Total No. of individuals of the species}}{\text{No. of quadrates of Occurrence}}$               |
| *Density                       | = | $\frac{\text{Total No. of individuals of the species}}{\text{Total No. of quadrates sampled}}$               |
| Relative Frequency             | = | $\frac{\text{(Frequency of the given species X 100)}}{\text{Sum of all frequencies}}$                        |
| Relative Density               | = | $\frac{\text{(Density of the given species X 100)}}{\text{Sum of all densities}}$                            |
| Relative Abundance             | = | $\frac{\text{(Abundance of species X 100)}}{\text{Sum of all abundances}}$                                   |
| Basal Area                     | = | $\frac{\text{(GBH)}^2}{4\pi}$  |
| Dominance                      | = | $\frac{\text{Total Basal Area}}{\text{Total area sampled}}$  |
| Relative Dominance             | = | $\frac{\text{(Dominance of given species X 100)}}{\text{Dominance of all species}}$                          |
| Important Value Index (I.V.I.) | = | Relative Density+Relative Frequency+Relative Dominance   |

Note: \*Density refers to the number of individuals per unit area of a site.



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**Statistical Analysis**

Shannon-Wiener diversity index (Shannon and Wiener, 1963) was calculated for all life forms following:

Shannon-Wiener Information Function:  $D = -\sum p_i \ln p_i$

Where:  $i$  = an index for the number of species sampled,

$p_i = n_i/N$  = percentage of species  $i$  in the entire sample ( $N$ ) of individuals, and

$\ln$  = natural log. Multiply the percentage (or proportion) of each species in the sample times the natural log of that same value, sum the products across all species, and then multiply by minus 1.

**Threat Status Assessment/evaluation Criteria:**

The biodiversity aspects in the form of endemic status, conservation status and life form have been enumerated for all the plant species found in the area during ecological survey. The Red Data Book of the Botanical survey of India has been screened to verify their conservation status. For wild animal species schedule of the Wildlife Protection Act (1972) has been screened.

**Ecosystems/ Habitat & Vegetation of the study area:**

Based on the Survey of India 1:50,000 Toposheet (63C/07), the area falling within 10 km radius (Buffer Zone) from the Badokhar Khurd (0.56 ha) mining site was predominately dominated by three major habitat types such as: agricultural land (Agro-ecosystem), wastelands and forest areas. However, for the study purpose they have been delineated into six sub-habitat types according to the nature of vegetation existing in the area.

1. **AGRO-ECOSYSTEM:** It consists of areas currently under intensive agriculture use (irrigated lands, un-irrigated lands/rain fed irrigation) and its surrounding hedge vegetation (locally known as - wadis) owned by the private people. Since these areas are rich in moisture availability due to continuous cultivation it supports diverse floral and faunal species and formed major habitat of the buffer zone of the study area.
2. **WASTE LAND WITH OPEN SCRUB FOREST:** These are mainly small patches of waste lands (Gauchar lands, cultivable waste) with wild species of scrub vegetation and scattered tree species which belong to revenue /government or private. These patches are not purely designated forest areas.



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3. **WASTE LAND WITH PROSOPIS SCRUB:** All the categories of waste lands (Gauchar land, permanent fallow lands) but purely dominated with *Prosopis juliflora* (gando haval) and *Lantana* belongs to revenue or government.
4. **STREAM BEDS:** This includes the area on the banks of seasonal rivers, streams and small nallahs.
5. **WATER BODIES:** This habitat type includes: village ponds, dams, perennial rivers and streams located within the study area of covering 10 km radius from the core zone of the proposed mine project site.
6. **FOREST LAND:** This includes the forest area of the Barda Sanctuary which is overlapping with the buffer zone of the concerned mine lease project area. This sanctuary area has three major forest types like: *Acacia senegal* dense thorn forest, riverine forest with mixed tree species and mixed forest with *Euphorbia* domination.

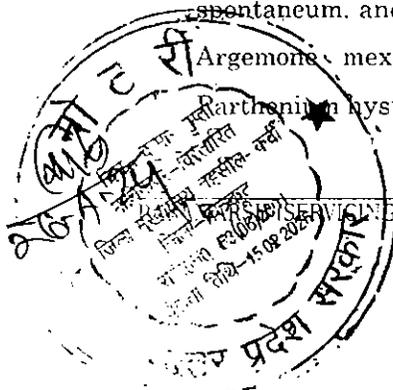
**3.6.4 Status of Flora**

**3.6.4.1 Taxonomic Status of plant species:**

**STUDY AREA:** The floral species in Badokhar Khurd mine lease (0.56 ha) study area covering 10 km radius is reported as listed in table 3.15.

**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, 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 Dhak, 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 *Vetiveria zizanioides*. In waste land and along the road side weeds like *Argemone mexicana*, *Cannabis sativa*, *Cenchrus ciliaris*, *Heteropogon contortus*, *Rarthenia hysterophorus*, etc. are very common.

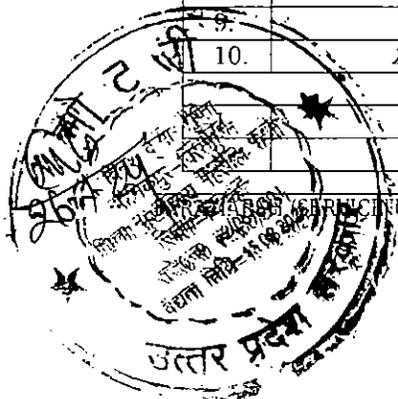


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Table 3- 15: Overall taxonomic status of Flora in the study area

| 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 lebbeck</i> (Bensh)  | Kala Siras    | Fabaceae                    |
| 6.                      | <i>Azadirachta indica</i> A. (Juss)                                       | Neem          | Meliaceae                   |
| 7.                      | <i>Bombax ceiba</i>   | Semal         | Bombacaceae                 |
| 8.                      | <i>Butea monosperma</i> (Lamk.) Taub.                                     | Dhak          | Fabaceae                    |
| 9.                      | <i>Dalbergia sissoo</i> (Roxb)  | Shisham       | Fabaceae                    |
| 10.                     | <i>Ficus benghalensis</i>   | Bargad        | Moraceae                    |
| 11.                     | <i>Ficus religiosa</i> (Linn)   | Pipal         | Moraceae                    |
| 12.                     | <i>Flacourtia indica</i> (Eurm.F) Merr.                                   | Kakar         | Salicaceae                  |
| 13.                     | <i>Pithecellobium dulce</i> (Benth)                                       | Jangal Jalebi | Fabaceae                    |
| 14.                     | <i>Shorea robusta</i>   | Sal           | Dipterocarpaceae            |
| 15.                     | <i>Syzigium cumini</i>  | Jamun         | Myrtaceae                   |
| 16.                     | <i>Terminalia tomentosa</i> W. & A.                                       | Arjun         | Combretaceae                |
| 17.                     | <i>Terminalia bellirica</i>   | behera        | Combretaceae                |
| 18.                     | <i>Toona ciliata</i> (Roem).  | Tun           | Meliaceae                   |
| 19.                     | <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.<br><i>Capparis deciduas</i> (Forsk) Edgw. | Aak<br>Kareel | Apocynaceae<br>Brassicaceae |
| 4.                      | <i>Cassia alata</i> (Linn).   | Dadmari       | 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> (Surm.f.)W. & A.                                | Kharbair      | Rhamnaceae                  |
| <b>CLIMBERS</b>         |   |               |                             |
| 1.                      | <i>Asparagus racemosus</i> (Willd)  | Satawar       | Asparagaceae                |
| 2.                      | <i>Caesalpinia decapetala</i>   | Alai          | Fabaceae                    |
| 3.                      | <i>Coccinea indica</i> W. & A.  | Kundaru       | Rubiaceae                   |
| 4.                      | <i>Combretumdecandrum</i> (Roxb)  | Kali bel      | Combretaceae                |
| 5.                      | <i>Cryptostegiagrandidiflora</i> (Roxb.) R.Br.                            | Chabukchari   | Apocynaceae                 |
| 6.                      | <i>Cymbopogon martini</i> (Roxb.)   | Mahur         | Poaceae                     |
| 7.                      | <i>Phragmiteskarka</i> (Trin)   | Beensa        | Poaceae                     |
| 8.                      | <i>Smilax prolifera</i> (Roxb)  | Ramdatun      | Smilacaceae                 |
| 9.                      | <i>Vitis repanda</i> W. & A   | Panibel       | Vitaceae                    |
| 10.                     | <i>Zizyphus oenophia</i> (Mill).  | Makoha        | Rhamnaceae                  |
| <b>GRASSES</b>          |   |               |                             |
|                         | <i>Cenchrus ciliaris</i> (Linn).  | Anjan         | Poaceae                     |
|                         | <i>Chrysopogon fulvus</i>   | Kush          | Poaceae                     |



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|               |   |           |         |
|---------------|---|-----------|---------|
| 3.            | <i>Cymbopogon martini</i> (Roxb)                    | Saidar    | Poaceae |
| 4.            | <i>Cynodon dactylon</i> (Linn.) Perp.               | 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>Sehima nervosum</i> (Rott) Stapf.                | Sain/Seta | Poaceae |
| 10.           | <i>Setaria glauca</i> (Linn.) P. Beauv.             | Vindra    | Poaceae |
| 11.           | <i>Sporobolus marginatus</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 |



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**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 Badokhar Khurd 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 (Table 3-17).

**Table 3- 16: List of cash crops in the study area**

| S. No.                 | Botanical Name  | Family        | Local Name       | Habit       |
|------------------------|---|---------------|------------------|-------------|
| <b>Grain crops</b>     |   |               |                  |             |
| 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        |
| 4                      | <i>Triticum aestivum</i> L.                                 | Poaceae       | Wheat            | Grass       |
| 5                      | <i>Vigna radiate</i> (L.)wilczek.Var. <i>radiata</i>        | Fabaceae      | Udad             | Herb        |
| 6                      | <i>Ricinus communis</i> L.                                  | Euphorbiaceae | Arando, Divel    | 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 Jimon</i> (L.) Burm. 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>Phyllantus 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 annuum</i> L. var <i>acuminatum</i><br>Fingerh. | Solanaceae    | Marchi           | Herb        |
| 3                      | <i>Cucumis sativus</i> L.                                   | Cucurbitaceae | Kakadi           | Climber     |



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Table 3- 19: 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               | √                     | √                       |
| 2.     | <i>Alcedo atthis</i>             | Small Blue Kingfisher     | -                     | √                       |
|        | <i>Anas strepera</i>             | Gadwall                   | -                     | √                       |
|        | <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             | √                     | √                       |

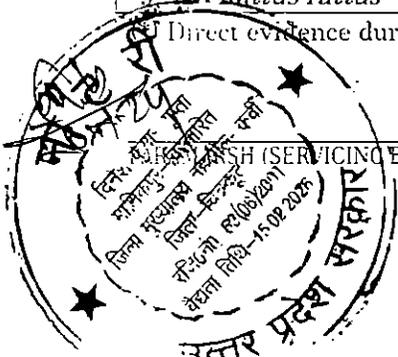
STATUS OF MAMMALS

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.

Table 3- 20: 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              |

Direct evidence during survey



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**3.6.6 Status of threatened Biota Flora:**

No rare, endangered or threatened (RET) plant species is reported from the study area.

**FAUNA (AMPHIBIANS):**

This group is very poorly reported from the study area. No RET species is reported from the area.

**FAUNA (REPTILES):**

No RET species belonging to reptiles is reported.

**AVIFAUNA:**

No rare, endangered or threatened (RET) plant species is reported from the study area.

**MAMMALIAN FAUNA:**

No rare, endangered or threatened (RET) plant species is reported from the study area.

**3.7 Socio-Economic Environment**

In this section of the report an attempt has been made to assess the impact of the proposed Granite (Khanda, Gitti & Boulder) mining project at village Badokhar Khurd on Socio-economic aspect of the study area. 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.

**3.7.1 Objectives**

The objectives of the socio-economic study are as follows:

- ✓ To study the socio-economic status of the people living in the study area of the proposed mining project.
- ✓ To assess the impact of the project on socio-economic environment in the study area.
- ✓ To assess the impact of the project on Quality of life of the people in the study area.
- ✓ To evaluate the community development measures proposed to be taken up by the project proponent, if any.
- ✓ To recommend Community Development measures needs to be taken up in the study area.



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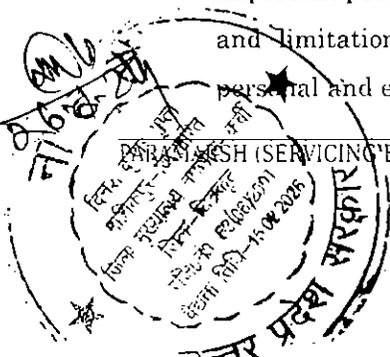
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**3.7.2 Methodology adopted for the study**

- 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, the secondary data has been collected from the administrative records of the Government of U.P., Census 2011.
- 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 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. Simple Random Sampling without Replacement (SRSWOR) 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.

**3.7.3 Concepts & Definition**

- 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 core area. 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



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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.
- d. **Sex Ratio:** Sex ratio is the ratio of females to males in a given population. It is expressed as 'number of females 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 (around 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, and 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, 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 or milk production even solely for domestic consumption are

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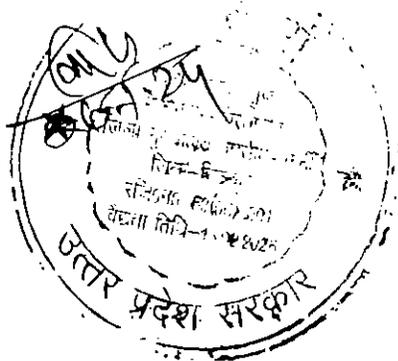
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also treated as workers.

- 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.

**3.7.4 Description of the study area**

The study area covers all the villages/ part of villages located in the 10 Km radius around the mine lease periphery. In case of Granite (Khanda, Gitti & Boulder) mine in an area of 0.56 ha. at village Badokhar Khurd, the study area is spread over Banda in the state of U.P.





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Table 3- 23 (ii): Amenities Data (For Rural Area)

| S. No. | Amenities                | Types                   | Number |
|--------|--------------------------|-------------------------|--------|
| 1      | Educational Institutions | Primary School          | 19     |
|        |                          | Middle school           | 10     |
|        |                          | Secondary School        | 2      |
|        |                          | Senior Secondary School | 1      |
|        |                          |                         |        |
| 2      | Health Institutions      | Allopathic Hospital     | 2      |
|        |                          | Homeopathic Hospital    | 1      |
|        |                          | Allopathic Dispensary   | 1      |
|        |                          | Ayurvedic Dispensary    | 1      |
|        |                          | Homeopathic Dispensary  | 1      |
|        |                          | PHC                     | 2      |
|        |                          | PHSC                    | 1      |
| 3      | Drinking Water #         | Tap                     | 3      |
|        |                          | Well                    | 15     |
|        |                          | Tube well               | 4      |
|        |                          | Hand pump               | 27     |
| 4      | Communication Facilities | Post Office             | 4      |
|        |                          | Telephone               | 12     |
| 5      | Transport Facilities#    | Bus Service             | 5      |
|        |                          | Railway Service         | 0      |
| 6      | Banking facilities       | Commercial bank         | 5      |
|        |                          | Cooperative bank        | 2      |
| 7      | Power #                  |                         | 20     |

# No. of villages provided with the facilities

Source: Census 2011





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Table 3- 24 (iii): 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         | 11145             | 37.38              |
|              | a) Cultivators               | 7214              | 24.20              |
|              | Agricultural labour          | 3931              | 13.19              |
| 2            | Household Industrial Workers | 928               | 3.11               |
| 3            | Other workers                | 17739             | 59.50              |
| <b>Total</b> |                              | <b>29812</b>      | <b>100</b>         |

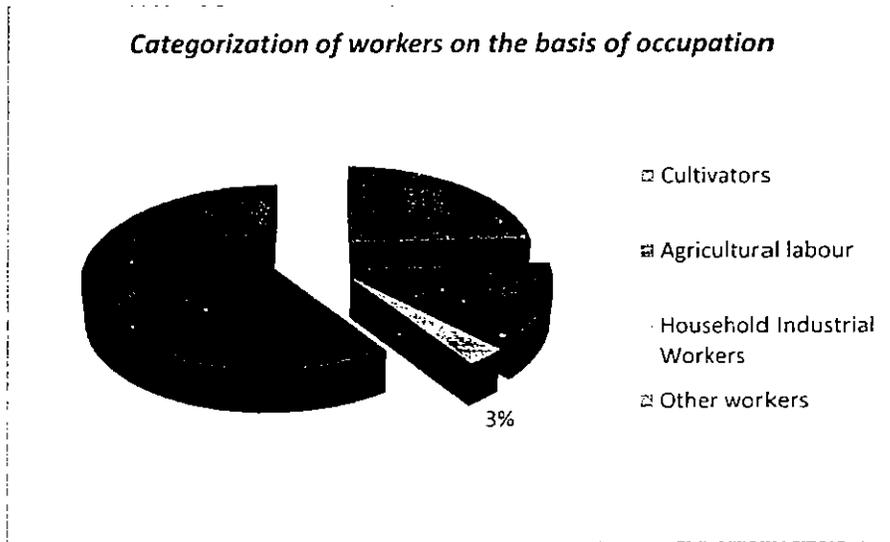
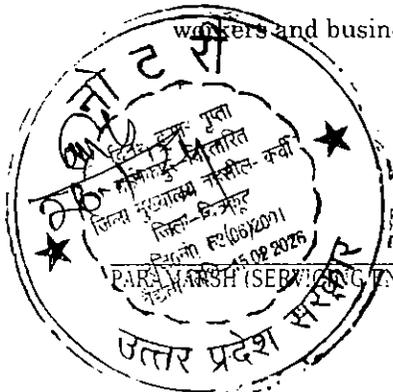


Figure 3- 12: Categorization of workers on the basis of occupation

The classification of workers based on occupation reveals that 37.38 percent of the total workers are Agricultural workers. The share of cultivators in the total workers is 24.20 percent and that of Agricultural labours is 13.19 percent. Barely 3.11 percent of total workers are Household Industrial Workers and 59.50 percent are 'Other workers' which includes white collar workers, professional workers, shopkeepers, traders, Mine workers and businessmen.



  
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## 4.0 ANTICIPATED ENVIRONMENTAL IMPACT & MITIGATION MEASURES

### 4.1 General

Environmental impacts both direct and indirect on various environmental attributes due to proposed mining activity will be created in the surrounding environment, during the preoperational, operational and post-operational phases.

The occurrence of mineral deposits, being site specific, their exploitation, often, does not allow for any choice except adoption of eco-friendly operation. The methods are required to be selected in such a manner, so as to maintain environmental equilibrium ensuring sustainable development.

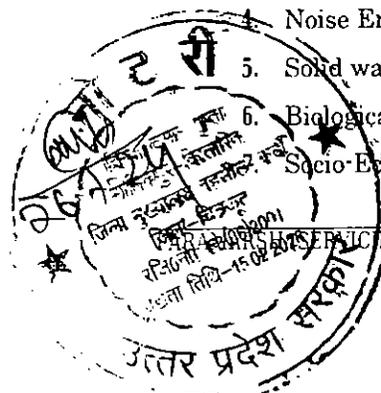
The impacts due to mining operations commence from the exploration activities, extend through extraction and processing of minerals. may continue up to post closure of the operation, with the nature and extent of impacts varying throughout the stages of project development.

In order to maintain the environmental commensuration with the mining operation, it is essential to undertake studies on the existing environmental scenario and assess the impact on different environmental components. This would help in formulating suitable management plans sustainable resource extraction.

Several scientific techniques and methodologies are available to predict impacts of physical environment. Mathematical models are the best tools to quantitatively describe the cause and effect relationships between sources of pollution and different components of environment. In cases where it is not possible to identify and validate a model for a particular situation, predictions have been arrived at based on logical reasoning / consultation / extrapolation.

The following parameters are of significance in the Environmental Impact Assessment and are being discussed in detail.

1. Land Environment
2. Water Environment
3. Air Environment
4. Noise Environment
5. Solid waste
6. Biological
- Socio-Economic



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**4.2. Land Environment**

Since mining is being carried out by opencast method, it is expected to affect the land environment essentially. Impact assessment study on land environment can be done by considering land use pattern/ land cover, Topography, Drainage pattern and geological features of the mine site as well as the study area.

**4.2.1 Anticipated Impact**

**4.2.1.1 Land Use /Land Cover**

Land use pattern for preoperational, operational & conceptual stage of the mining as per approved mine plan for the proposed mine site is given below in **Table 4-1**

**Table 4- 1: Land use pattern of the mine site (as per mine plan)**

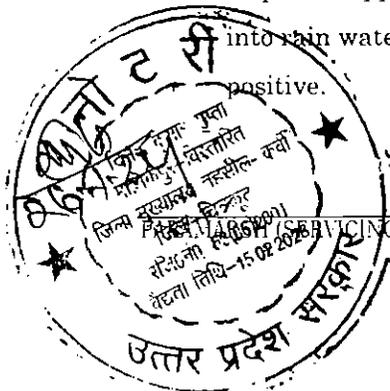
| Particulars               | Badokhar Khurd 0.56 ha. |                                   |  |
|---------------------------|-------------------------|-----------------------------------|--|
|                           | Mine Area (ha)          |                                   |  |
|                           | Pre-operational phase   | Operational Phase (after 5 Years) | Post Mining (Conceptual phase) at the end of Mine Life |
| Mining pits Quarry        | 0.12                    | 0.363                             | 0.363  |
| Approach Road             | 0.03                    | 0.058                             | 0.058  |
| Dumps                     | Nil                     | Nil                               | Nil  |
| Office, Rest Shelter etc. | Nil                     | Nil                               | Nil  |
| Balance undisturbed land  | 0.41                    | 0.197                             | 0.197  |
| <b>Total area</b>         | <b>0.56</b>             | <b>0.56</b>                       | <b>0.56</b>  |

The existing land use / land cover pattern in the study area as studied through satellite imagery is given as follows:

**Table 4- 2: Land use pattern of the study area**

| S. No.       | Land Category         | Area (ha)       | % land cover |
|--------------|-----------------------|-----------------|--------------|
| 1.           | Agriculture           | 23195.85        | 73.81        |
| 2.           | Waste Land/ Open land | 6030.46         | 19.19        |
| 3.           | Build-up area         | 1586.98         | 5.05         |
| 4.           | River                 | 491.4           | 1.56         |
| 5.           | Forest                | 123.79          | 0.39         |
| <b>TOTAL</b> |                       | <b>31428.48</b> | <b>100</b>   |

As per the approved mine plan at conceptual stage most of the waste land will be converted into rain water harvesting pit and green belt Hence impact due to change in land use is positive.



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#### 4.2.1.2 Topography

The conspicuous feature of topography of the area is elliptically isolated hills with gentler to sudden steep slope. The area is dominated by boulders and in situ outcrops of Bundelkhand granite. The general slope of lease area is from South-west to North-east directions. Due to past mining one pit of 40m X30m X 5m deep is developed. The highest points in the leasehold is 168mRL in south-west near pillar "B" while lowest 147 mRL in North-east at pillar, "A".

#### 4.2.1.3 Drainage pattern

The area is dominated by boulders and in situ outcrops of Bundelkhand granite. . The general slope of lease area is from South-west to North-east directions. No seasonal perennial drainage exists within the lease area.

#### Geology

Geology of the study area is studied to ascertain seismic sensitivity and also the effects on soil environment. The study area fall in seismic zone II i.e. Low damage risk zone. Soil samples have been taken and analysis has been carried out and is discussed earlier in Chapter 3. In the mine lease area there is practically no soil cover and overburden that requires stacking or dumping and also no overburden is generated in the form of reject from the mining activity. Hence no impact is expected on the soil cover or geology of the project.

#### 4.2.2 Mitigation Measures

Adopting suitable, site-specific mitigation measures can reduce the degree of impact of mining on land. Some of the land-related mitigation measures are as follows:

- Present land use pattern of the lease area is waste land and at the conceptual stage the land use pattern will remain the same, hence will not be changed.
- As there is no overburden generated from the mining activity

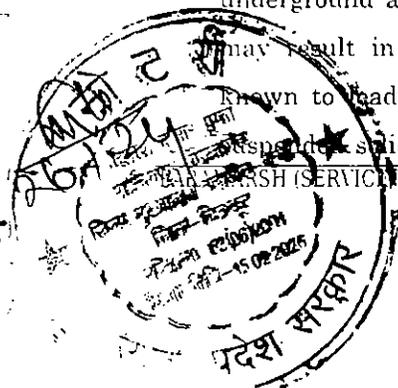
#### 4.3. Water Environment

Mining and its associated activities not only use a lot of water but also likely to affect the hydrological regime of the area. The major impact of deep and large mines (both underground and open cast) is of natural groundwater table. Lowering of water table may result in reduced groundwater availability. Extraction of different minerals is known to lead to water pollution due to heavy metal, acid discharges and increased suspended solids. Deep underground mines directly affect the water table of the area.

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However, the impact of mining project on groundwater hydrology and surface water regime are site specific and depends upon the characteristics of the mineral, hydrogeology and requirement of groundwater for other uses.

**4.3.1 Anticipated Impact**

- As there is no river or nallah passing through the mine site, hence no impact is anticipated on the hydrological regime of the area due to mining activity.
- No natural course of water stream is interrupted or diverted due to mining activity; hence no impact on natural drain is anticipated.
- Practically there is no overburden or reject generating from the mining activity, moreover the excavated mineral itself is non-toxic and hence no effect due to water flow during rains following the contours of the area is expected.
- No water is being drawn from the surface water body.
- Impact on ground water is anticipated as there is provision of consuming ground water for the purpose of various mining activities. Total water demand to be met by ground water is 1.90 KLD.
- At the end of mine life excavated pit will be converted into a water reservoir. This will help in recharging the ground water table. As the mineral is non-toxic so contamination of ground water due to leaching is not anticipated.

**4.3.2 Mitigation Measures**

- Overall drainage planning has been done in such a manner that the existing pre-mining drainage conditions will be maintained to the extent possible so that run off distribution is not affected.
- Domestic sewage will disposed into Soak Pit.
- As there is no generation of overburden or mineral reject from the mining activity; hence the excavated pit will be converted into the water reservoir at the end of mine life. This will help in recharging ground water table by acting as a water harvesting structure.
- Ground water table will not be intersected during the mining activity.

**4.4 Air Environment**

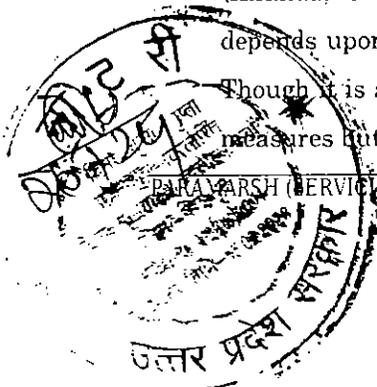
Mining Operation carried out by opencast semi-semi-mechanized method generate dust particles due to various activities like drilling, blasting, Loading & Unloading of Granite (Khanda, Gitti & Boulder). and Transportation. The air quality in the mining area depends upon the nature and concentration of emissions and meteorological conditions.

Though it is an open cast semi-mechanized mine with all possible air quality controlling measures but the major air pollutants from mining include:-

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- Particulate Matter (Dust) of various sizes.
- Gases, such as, Sulphur Dioxide, Oxides of Nitrogen, Carbon Monoxide etc. from vehicular exhaust.
- Dust is the single air pollutant observed in the open cast mines. Diesel operating drilling machines, blasting and movement of machinery/ vehicles produce NO<sub>x</sub>, SO<sub>2</sub> and CO emissions, usually at low levels. Dust can be of significant nuisance to surrounding land users and potential health risk in some circumstances.

#### 4.4.1 Anticipated Impact

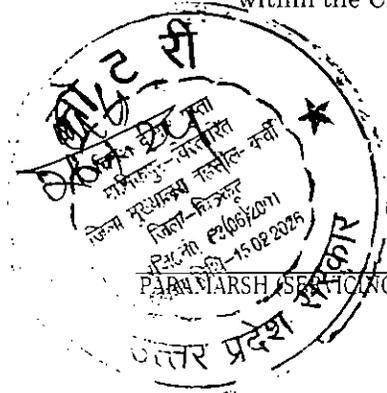
The major sources of air pollution in the proposed mine is dust generation due to drilling, blasting, excavation, loading and transportation of mineral & wind erosion of exposed material. In this present study, United States Environmental Protection Agency (USEPA-42 series) approved mathematical equations have been used to predict concentrations for different operations in mining including the mineral transportation.

In order to predict the particulate emissions, Aermოდ Cloud an interface based on ISCST3 - FDM model was used to predict changes in air quality i.e., maximum ground level concentration (GLC's) of PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>x</sub> & NO<sub>x</sub> due to the proposed mining activity. The inputs required for the model is:

- Hourly meteorological data
- Source data
- Receptor data
- Programme control parameters

The GLC's were predicted for the scenario, with EMP in the mine. The maximum incremental ground level concentrations of Total Suspended Particulate Matter from the different mining activities for study period with EMP were observed to be 11.34 µg/m<sup>3</sup>. The maximum GLC's were falling within the pit area for the given meteorological and topographical conditions.

It is seen that the GLC's obtained at various locations for the study period are well within the CPCB standards (dated 18th November, 2009).



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#### 4.4.2 Mitigation Measures

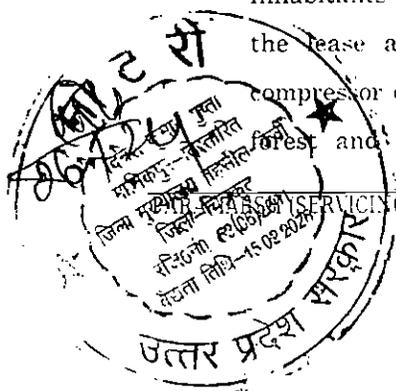
**Drilling:** - To control fugitive dust at source, wet drilling will be provided. Where there is a scarcity of water, suitably designed dust extractor will be provided for dry drilling along with dust hood at the mouth of the drill-hole collar.

**Advantages of Wet Drilling:-**

- In this system dust gets suppressed close to its formation. Dust suppression become very effective and the work environment will be improved from the point of occupational comfort and health.
  - Due to dust free atmosphere, the life of engine, compressor etc. will be increased.
  - The life of drill bit will be increased.
  - The rate of penetration of drill will be increased.
  - Due to the dust free atmosphere visibility will be improved resulting in safer working conditions after day light hours.
- A. **Blasting:** - Establish time of blasting to suit the local conditions. Avoid blasting i.e., when temperature inversion is likely to occur and strong wind blows towards residential areas.
- B. **Haul Road:** -The long life WBM (Water Bound Macadam) haul roads will be constructed and maintained for traffic movement.
- C. **Transport:** - The speed of dumpers/ trucks on haul road will be controlled as increased speed increases dust emissions. Overloading of transport vehicles will be avoided. The trucks/ tippers will have sufficient free board. Spillage of ore on public roads will be cleared immediately and vehicles will maintain safe speed.
- D. **Green Belt:** - Planting of trees all along main mine haul road and regular grading of haul roads will be practiced to prevent the generation of dust due to movement of dumpers/trucks. Green belt of adequate width will be developed around the lease area. Plantation will also be done in dumping area, mineral stockyard.

#### 4.5. Noise Environment

Noise pollution is mainly due to operation of blast hole drilling, blasting and occasional plying of trucks. These activities will not cause any problem to the inhabitants of this area because there is no human settlement in close proximity to the lease area. Noise modeling has been carried out considering blasting and compressor operation. The result indicates that it would have minor impact on near forest and nearby villages. Noise levels at source of blasting and Compressor



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operation; are 90 dB(A) and 75 dB(A) respectively.

For hemispherical sound wave propagation through homogeneous loss free medium, one can estimate noise levels at various locations at different sources using model based on first principle.

$$Lp2 = Lp1 - 20 \log (r2/r1) - Ae1, 2$$

Where:

Lp1 & Lp2 are sound levels at points located at distances r1 & r2 from the source.

Ae1, 2 is the excess attenuation due to environmental conditions. Combined effect of all sources can be determined at various locations by logarithmic addition.

$$Lptotal = 10 \log \{ 10(Lp1/10) + 10(Lp2/10) + 10(Lp3/10) + \dots \}$$

**4.5.1 Anticipated Impact & Mitigation measures**

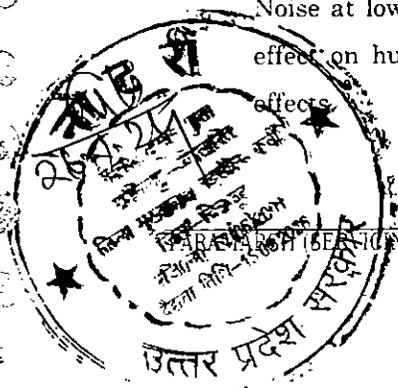
**4.5.1.1 Prediction of Noise quality**

The noise level in the working environment are compared with the standards prescribed by Occupational Safety and Health Administration (OSHA-USA) which has been adopted and enforced by the Govt. of India through model rules framed under Factories Act, 1980 and CPCB 2000 norms. The summary of the permissible exposures in cases of continuous noise as per above rules is given below:

**Table 4- 3 Noise impact**

| Total time of exposure per day in hour | Sound pressure dB(A) | Remarks  |
|--|----------------------|--|
| 1                                      | 2                    | 3  |
| 8.0                                    | 90                   | No exposure in excess of 115 dB(A) is permissible  |
| 6.0                                    | 92                   | --   |
| 4.0                                    | 95                   | For any period of exposure falling in between any figure and lower figure as indicated in column (1), the permissible sound is to be determined by extrapolation or proportionate scale. |
| 3.0                                    | 97                   |  |
| 2.0                                    | 100                  |  |
| 1 ½                                    | 102                  |  |
| 1                                      | 105                  |  |
| ¾                                      | 107                  |  |
| ½                                      | 110                  |  |
| ¼                                      | 115                  |  |

Noise at lower levels (sound pressure) is quite acceptable and does not have any bad effects on human beings, but when it is abnormally high- it incurs some maleficent effects.



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4.5.1.2 a. Mitigation measures

i. On-site

a) **Trained drivers:** Only trained drivers will be allowed to operate vehicles during mining to reduce any chance of safety failures.

b) **Vegetation:** Plantation of trees along the haulage road will be done to dampen the noise, if possible.

c) **Hearing Protection:** Hearing protection will be given to workers working in noisy area like drilling and blasting.

d) **Phasing out** the old and worn out trucks.

ii. Off-site

The off-site receptors are not significantly affected as noise generated is insignificant but some disturbances due to vehicle movement may not be avoidable. However the following measures have been envisaged:

a) The vehicles will be maintained in good running condition so that noise will be reduced to minimum possible level.

b) Employing trucks which are newer or less than 15 years old. Only PUC certified vehicles will be allowed to engage in the operation.

c) In addition, trucks drivers will be instructed to make minimum use of horns at the village area.

d) Where ever space is made available by the authority's plantation will be done and also post plantation care will be provided.

4.5.2 Prediction of Ground vibration

It has been mentioned that limited amount of wagon drill & blasting will be performed in one time slot with optimum hole charge under the guidance of skilled blasters therefore, no increase in vibration level is envisaged.

As the proposed method of mining is semi-mechanized open cast with limited amount of drilling and blasting shall be done under the supervision of competent experts. So the impact on this aspect would negligible.

Vibration due to explosion has been modeled using USBM empirical equation for maximum explosive quantity charged per delay.



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### 4.5.3 Mitigation Measures

- a) **MAINTENANCE OF MACHINERY:** - Good and regular maintenance of machinery will be ensured to keep the noise generated at minimum. The vehicles operating will be maintained and provided with good silencers. All machines will be used at optimum capacity.
- b) **TRAINED OPERATORS:** - Only trained operators will be allowed to operate machines.
- c) **VEGETATION:** Plantation of trees around haul roads will be done to reduce the noise.
- d) **HEARING PROTECTION:** Equipment like ear-muffs, ear-plugs, etc. are commonly used devices for hearing protection. Workers and operators working at drilling sites will be provided with earmuffs.
- e) **BLASTING:** -Blasting will be avoided in the morning and evening hours, on foggy days, at night time and at times of high wind velocity and low cloud cover.
- f) **DRILLING:** -Drilling will be carried out with the help of sharp drill bits.

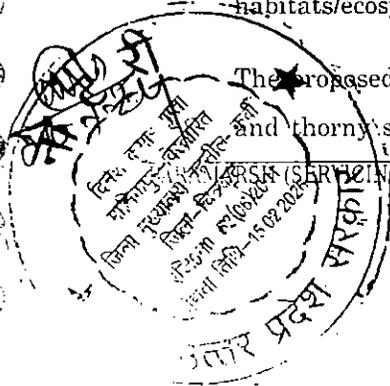
### 4.6. Biological Environment

The impact on biodiversity is not anticipated as the mine site is barren land having only few bushes but there is few protected forest in 10 km radius which also not get affected by this mining activity as this is on a very small scale. but still the mitigation measures will be taken care for any anticipated effect. The impact on biodiversity is difficult to quantify because of its diverse and dynamic characteristics.

#### 4.6.1 Anticipated Impact

Mining activities generally result in the deforestation, land degradation, water, air and noise pollution which directly or indirectly affect the faunal and floral status of the project area. However, occurrence and magnitude of these impacts are entirely dependent upon the project location, mode of operation and technology involved. Impact prediction is the main footstep in impact evaluation and identifies project actions that are likely to bring significant changes in the project environment. The present study was carried out to predict the likely impacts of the proposed Granite (Khanda, Gitti & Boulder) mine project at village Badokhar Khurd in the surrounding environment with special reference to biological attributes covering habitats/ecosystems and associated biodiversity.

The proposed mining activity will include removal of some scattered bushes of Babool and thorny species. Although impacts on key habitat elements will occur on a local



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scale, but on a regional scale they would not be critical for the life cycle needs of the species observed or expected. Moreover the successive reclamation of mined out areas, following completion of mining activities, will replace habitat resources for fauna species in this locality over a longer time. Existing roads will be used; new roads will not be constructed to reduce impact on flora.

**4.6.2 Mitigation Measures**

Keeping all this in mind the following mitigations have been suggested under environmental management plan. With the above understanding of the role of plant species as bio-filter to control air pollution, appropriate plant species (mainly tree species) have been suggested conceding the area/site requirements and needed performance of specific species.

**4.7. Socio-Economic Environment**

The socio-economic impacts of mining are many. Impacts of a mine project may be positive or Negative. The adverse impacts attribute to physical displacement due to land acquisition, which is followed by loss of livelihood, mental agony, changes in social structure, and risk to food security etc. People are also directly affected due to pollution. Social Impact Assessment (SIA) is a process of analysis, monitoring and managing the social consequences of a project. Study on Socio-economic status has already been carried out using primary socio-economic survey for generating the baseline data of Socio-economic status.

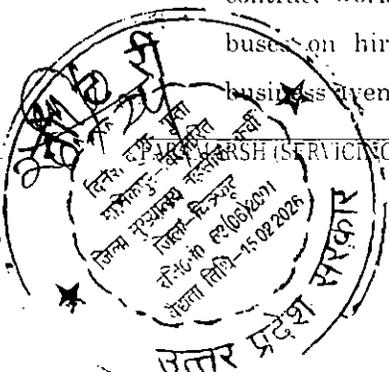
**4.7.1 Anticipated Impact**

From the primary Socio-economic survey & through secondary data available from established literature and census data 2011, it is found that there would be positive impact on Socio-economic condition of the nearby area.

There is no habitation in the mining lease area. Therefore, neither villages nor any part of villages will be disturbed during the entire life of the mine.

**4.7.2 Mitigation Measures**

Mining in this lease will give 33 job opportunities to the local people. Thus, Granite (Khanda, Gitti & Boulder) mining will create beneficial effect on local people. With the operation of mining lease, various indirect employment opportunities will also be generated. Several persons of the neighboring villages have been benefited with contract works, employment through contractors, running jeeps, trucks, tractors and buses on hire, running canteens, different kinds of shops and transport related business revenues.



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Villagers have been provided with either direct employment or indirect employment such as business, contract works and development work like roads etc. Villagers also get access to the other welfare amenities such as drinking water, foods and provisions, shed etc.

**4.8 Mine waste Management**

Practically there is no waste generated in the form of Overburden or Mineral rejects from the mine.

**4.9 Mine Closure**

Mine closure plan is the most important environmental requirement in mineral mining projects. The mine closure plan should cover technical, environmental, social, legal and financial aspects dealing with progressive and post closure activities. The closure operation is a continuous series of activities starting from the decommissioning of the project. Therefore, progressive mine closure plan should be specifically dealt with in the mining plan and is to review every five years in the scheme of mining. As progressive mine closure is a continuous series of activities, it is obvious that the proposals of scientific mining have included most of the activities to be included in the closure plan.

While formulating the closure objectives for the site, it is important to consider the existing or the pre-mining land use of the site; and how the operation will affect this activity. Some operations such as mining in agricultural areas have clearly defined this objective of returning the land to viable agricultural purposes or for bringing the land for economically viable productive purposes.

The primary aim is to ensure that the following broad objectives along with the abandonment of the mine can be successfully achieved:

- ✓ To create a productive and sustainable after-use for the site, acceptable to mine owners, regulatory agencies, and the public.
- ✓ To protect public health and safety of the surrounding habitation.
- ✓ To minimize environmental damage.
- ✓ To conserve valuable attributes and aesthetics.
- ✓ To overcome adverse socio-economic impacts.



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4.9.1 Mine Closure criteria

The criteria involved in mine closure are discussed below:

**Physical Stability**

All anthropogenic structures, which include mine workings, waste dumps, buildings, etc., remaining after mine decommissioning should be physically stable. They should present no hazard to public health and safety as a result of failure or physical deterioration and they should continue to perform the functions for which they were designed. The design periods and factors of safety proposed should take full account of extreme events such as floods, hurricane, winds or earthquakes, etc. and other natural perpetual forces like erosion, etc.

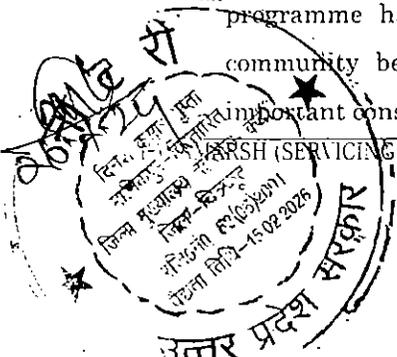
**Chemical Stability**

The solid wastes on the mine site should be chemically stable. This means that the consequences of chemical changes or conditions leading to leaching of metals, salts or organic compounds should not endanger public health and safety nor result in the deterioration of environmental attributes. If the pollutant discharge likely to cause adverse impacts is predicted in advance, appropriate mitigation measures like settling of suspended solids or passive treatment to improve water quality as well as quantity, etc. could be planned. Monitoring should demonstrate that there is no adverse effect of pollutant concentrations exceeding the statutory limits for the water, soil and air qualities in the area around the closed mine.

**Biological Stability**

The stability of the surrounding environment is primarily dependent upon the physical and chemical characteristics of the site, whereas the biological stability of the mine site itself is closely related to rehabilitation and final land use. Nevertheless, biological stability can significantly influence physical or chemical stability by stabilizing soil cover, prevention of erosion/wash off, leaching, etc.

A vegetation cover over the disturbed site is usually one of the main objectives of the rehabilitation programme, as vegetation cover is the best long-term method of stabilizing the site. When the major earthwork components of the rehabilitation programme have been completed, the process of establishing a stable vegetation community begins. For re-vegetation, management of soil nutrient levels is an important consideration. Additions of nutrients are useful under three situations.



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- ✓ Where the nutrient level of spread topsoil is lower than material in-situ e.g. for development of social forestry.
- ✓ Where it is intended to grow plants with a higher nutrient requirement than those occurring naturally e.g. planning for agriculture.
- ✓ Where it is desirable to get a quick growth response from the native flora during those times when moisture is not a limiting factor e.g. development of green barriers.

The mine closure plan should be as per the approved mine plan.

**4.10 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.

- ★ The vehicular movement within the site is inevitable. However, during operation phase, this activity would not cause any significant impact on the ambient air quality.
- ★ The noise levels are also expected to be negligible on account of onsite vehicular movement.
- ★ The safety issues due to onsite vehicular movement would be negligible as the onsite vehicular traffic would follow the safety sign system.

**Table 4- 4 (i): Existing Traffic Scenario & LOS**

| Road                  | V   | C   | Existing V/C Ratio | LOS |
|-----------------------|-----|-----|--------------------|-----|
| MDR (Connecting Road) | 120 | 500 | 0.24               | B   |
| NH- 76                | 190 | 900 | 0.21               | B   |

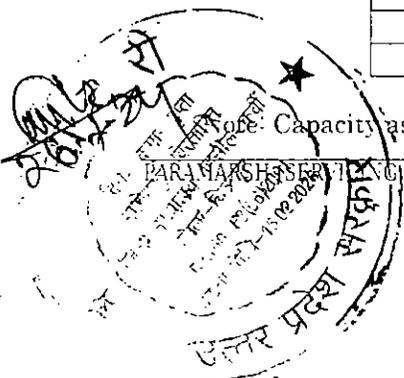
V= Volume in PCU's/hr & C= Capacity in PCU's/ hr

The existing Level of Service at MDR is "A" i.e. excellent and at highway is "A" i.e. excellent

| 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             |

Capacity as per IRC: 106-1990 page no 11 table-2 for arterial road/ Highways

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**During Mine operation**

|                                |   |  |
|--------------------------------|---|--|
| Total Capacity of mine         | : | 5600 m <sup>3</sup> / 15120 Tonnes Per Annum |
| No. of working days            | : | 300 days                                     |
| Truck Capacity                 | : | 10 cum                                       |
| No. of trucks deployed per day | : | 2 trucks (avg.)                              |
| Working Hours per day          | : | 08 hours                                     |
| No. of trucks deployed/hr      | : | 2 trucks/ day (avg.)                         |
| Increase in PCU/hr             | : | 3 PCUs                                       |

**Table 4- 5 (ii): Modified Traffic Scenario & LOS**

| Road                  | V   | C   | Modified V/C Ratio | LOS |
|-----------------------|-----|-----|--------------------|-----|
| MDR (Connecting Road) | 123 | 500 | 0.25               | B   |
| NH- 76                | 193 | 900 | 0.21               | B   |

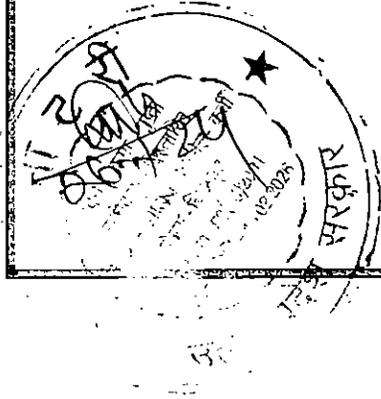
**Results**

From the above analysis it can be seen that the V/C ratio is likely to change to 0.24 to 0.25 & 0.21 to 0.21 with LOS being "B" which is "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 affect.



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**CHAPTER – 5:**  
**ANALYSIS OF**  
**ALTERNATIVES**



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## 5.0 ANALYSIS OF ALTERNATIVES

### 5.1 Introduction

Consideration of alternatives to a project proposal is a requirement of EIA process. During the scoping process, alternatives to a proposal can be considered or refined, either directly or by reference to the key issues identified. A comparison of alternatives help to determine the best method of achieving the project objectives with minimum environmental impacts or indicates the most environmentally friendly and cost effective options.

### 5.2 Factor behind the Selection of Project

Granite (Khanda, Gitti & Boulder) Mine at village Badokhar Khurd is a mining project for excavation of Granite (Khanda, Gitti & Boulder) deposit. which is mineral specific. The mining lease has been granted by Govt. of U.P.

The proposed mining lease area has following advantages:-

- ✓ The mineral deposit occurs in a non-forest area.
- ✓ There is no habitation within the lease area; hence no R & R issues exist.
- ✓ There are no river, stream, nallah and water bodies in the mine lease area.
- ✓ Availability of skilled, semi-skilled and unskilled workers in this region.
- ✓ All the basic amenities such as medical, fire fighting, education, transportation, communication and infrastructural facilities are accessible.
- ✓ The proposed mining operations do not intersect the ground water level. Hence, no impact on ground water environment.
- ✓ Study area falls in seismic zone -- II, however there is no major history of landslides, earthquake, subsidence etc.

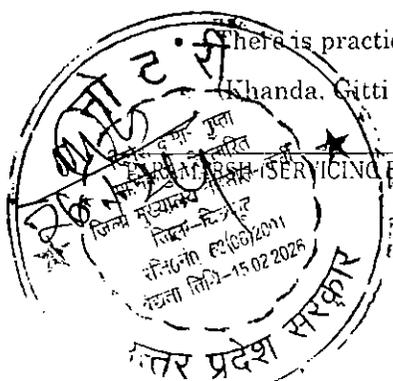
### 5.3 Analysis of Alternative Site

No alternatives are suggested as the mine site is mineral specific.

### 5.4 Factor behind selection of proposed technology

Semi-mechanized open cast mining operation with deep hole drilling and blasting method will be used to extract Granite (Khanda, Gitti & Boulder) in the area. The mining lease area has following advantages:-

There is practically very thin or negligible soil cover and overburden over the Granite (Khanda, Gitti & Boulder) deposit; hence it does not require any blasting.



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- As the mineral deposition is superficial and not deeply embedded, therefore opencast method of working out deposit is preferred over underground method.
- There is lesser chance of subsidence in case of opencast mining.
- The material will be loaded with the help of excavators / JCB into dumpers / trippers and transported to the desired market area.
- Blasting and availability of drills along with controlled blasting technology gives desired fragmentation so that the mineral is handled safely and used with the minimum secondary blasting.
- Availability of power resources in the region makes mechanization a preferred technology over manual method.
- Human resource is easily available from the nearby villages because of presence of other mines in the area.

**IMPROVED BLASTING PRACTICES:**

These include Adoption of suitable explosive charge and short delay detonators, adequate stemming of holes at collar zone and avoiding blasting at foggy days, and at time of high wind speeds, restricting blasting to a particular time of the day i.e. at the time lunch hours, controlled charge per hole as well as charge per round of hole and Adopting muffling (i.e. covering the blast holes by sand bags) when the distance from important features is less than 500 M which will reduce dust noise and ground vibrations in vicinity area. considering the suitability of above options it is proposed controlled blasting, using Non- electric shock tube technology for the subject mine lease which is most suitable in the proposed mine. A comparative statement of Shock Tube with Conventional Blasting showing remarkably less adverse impacts on environment is detailed as below:

**ADVANTAGE OF SHOCK TUBE VIS-A-VIS DETONATING FUSE:**

- It's a Non-electric Initiation System.
- It consists of a hollow polymer tube of desired length containing a very small quantity of reactive explosive powder thinly layered in its annular space, approximately 15 – 20 milligram per meter. The detonation (shock wave) is contained within the tube and hence it doesn't rupture the tube. This tube is generally known as "SHOCK TUBE" or "SIGNAL TUBE" and it is the important component of the system.

• Controlled Blasting with Shock Tube gives "Down The Hole" Initiation.



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- On the other hand, Detonating Fuse (DF) with Electric Detonator (ED) used in Conventional Blasting gives "Above The Hole" Initiation. As ED is initiated, detonation passes through DF from above to bottom of the hole and detonates the primary explosive charge placed at the bottom of the hole. In this process it makes a relief in the entire hole before actual blasting. Thus, it creates air blast, fly rock and poor fragmentation.

**ADVANTAGE OF DOWN THE HOLE DELAY DETONATOR (DTH)**

- 450 ms & Trunk Line Delay Detonator (TLD) - 25ms vis-à-vis Electric delay detonator
  - The factory assembled delay detonator is fixed at one end of the tube. The other end is sealed to prevent ingress of moisture and other foreign matter. Plastic connectors are provided at the free end of the tube.
- a. **Down the Hole Initiation**  
It gives True Bottom Initiation. The detonation (shock wave) is contained within the tube and hence it doesn't rupture the tube.
- b. **Adequate Delay Timing**  
The delay is provided such that each hole breaks the burden rock in front of it and the broken rock moves out before the hole behind it detonates. In case of Conventional Blasting the inter - row delay is too short, the movement of row burdens is restricted which causes excessive burden in the second and subsequent rows and the rock tends to move vertically because of insufficient relief. This causes poor fragmentation, tight muck piles, high ground vibrations and fly-rock generation.
- c. So, the Controlled Blasting using Shock Tube Technology remarkably reduces the adverse effects on environment than the Conventional Blasting generally practiced in mining operations country wide.



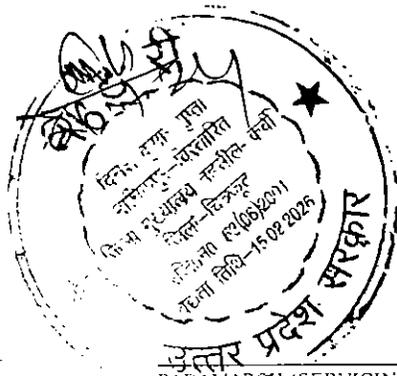
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Comparison of Shock Tube with Conventional Blasting

| S. No. | Feature   | Shock Tube technology  | Conventional blasting Electric Detonator & DF  |
|--------|---|--|--|
| 1      | Air pollution                                   | Low  | High   |
| 2      | Fragmentation/<br>Fly-Rock generation           | Excellent / contained within 75 m from blast site (mainly towards open face)   | Average/extends up to 300 mtr radius from blast site   |
| 3      | Ground Vibration /<br>No.<br>of holes per delay | Very Low / max. 3  | High / max. up to 12   |
| 4      | Air pollution                                   | Low – Nearly entire gaseous energy under pressure remains confined within the hole to dislodge the in-situ rock strata and fragment it to the desired level. | High – nearly 40 % of gaseous energy gets released through the hole under high pressure creating huge cloud of dust and nitrogenous gas causing high air pollution |
| 5      | Air Blast /<br>Noise pollution                  | Non – existent / low   | Average /high  |
| 6      | Initiation                                      | Down the Hole  | Above the Hole   |
| 7      | Blasting Capacity                               | Unlimited  | Unlimited  |
| 8      | External<br>Electri<br>c Hazard                 | None   | Electricity & Radio Energy   |



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**CHAPTER – 6:**  
**ENVIRONMENT**  
**MONITORING**  
**PROGRAMME**



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## 6.0 ENVIRONMENTAL MONITORING PROGRAMME

### 6.1 General

Regular monitoring of environmental parameters is of immense importance to assess the status of environment during project operation. With the knowledge of baseline conditions, the monitoring programme will serve as an indicator for any deterioration in environmental conditions due to operation of the project. to enable taking up suitable mitigatory steps in time to safeguard the environment. Monitoring is important to measure the efficiency of control measures. An environmental impact assessment study is carried over for a specified period of time and the data cannot bring out all variations induced by the natural or human activities. Therefore, regular monitoring programme of the environmental parameters is essential to take into account the changes in the environmental quality. The objectives of monitoring are to:-

- Verify effectiveness of planning decisions:
- Measure effectiveness of operational procedures:
- Conform statutory and corporate compliance: and
- Identify unexpected changes.

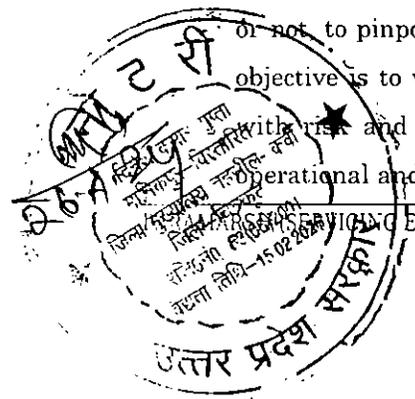
#### 6.1.1 Environmental Monitoring & reporting Procedure

Monitoring will conform that commitments are being met with. This will take the form of direct measurement and recording of quantitative information. such as quantity and concentrations of discharges, emissions and wastes, for measurement against corporate or statutory standards, consent limits or targets. It may also require measurement of ambient environmental quality in the vicinity of a site using ecological/ biological, physical and chemical indicators. Monitoring may include socioeconomic interaction, through local liaison activities or even assessment of complaints.

The preventive approach by management may also require monitoring of process inputs, for example, type and method used, resource consumption, equipment and pollution control performance etc. The key aims of monitoring are, first to ensure that results/ conditions are as per prediction during the planning stage and where they are or not to pinpoint the cause and implement action to remedy the situation. A second objective is to verify the evaluations made during the planning process, in particular

with risk and impact assessments and standard & target setting and to measure operational and process efficiency. Monitoring will also be required to meet compliance

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with statutory and corporate requirements. Finally, monitoring results provide the basis for auditing.

**6.1.2 Environmental monitoring Cell**

In order to maintain the environmental quality within the standards, regular monitoring of various environmental components is necessary. The EMC team will take care of pollution monitoring aspects and implementation of control measures.

**6.1.2.1 Responsibilities of EMC**

The generalized responsibilities of the EMC will be as follows:

- a) Conducting Environmental monitoring of the surrounding area.
- b) Carrying out the Environmental Management Plan.
- c) Organizing meetings of the Environmental Management Committee and reporting to the committee.
- d) Ensuring that prescribed environmental standards are maintained.
- e) Ensure that all different types of statutory returns / compliance report to be submitted to relevant regulatory bodies.
- f) Commissioning of pollution control equipment/ measures.
- g) Specification and regulation of maintenance schedules for pollution control equipment.
- h) Developing the green belt.
- i) Ensuring water use is minimized.

The composition of the environment management cell along with the responsibilities of respective members are given in Figure 6-1 as follows



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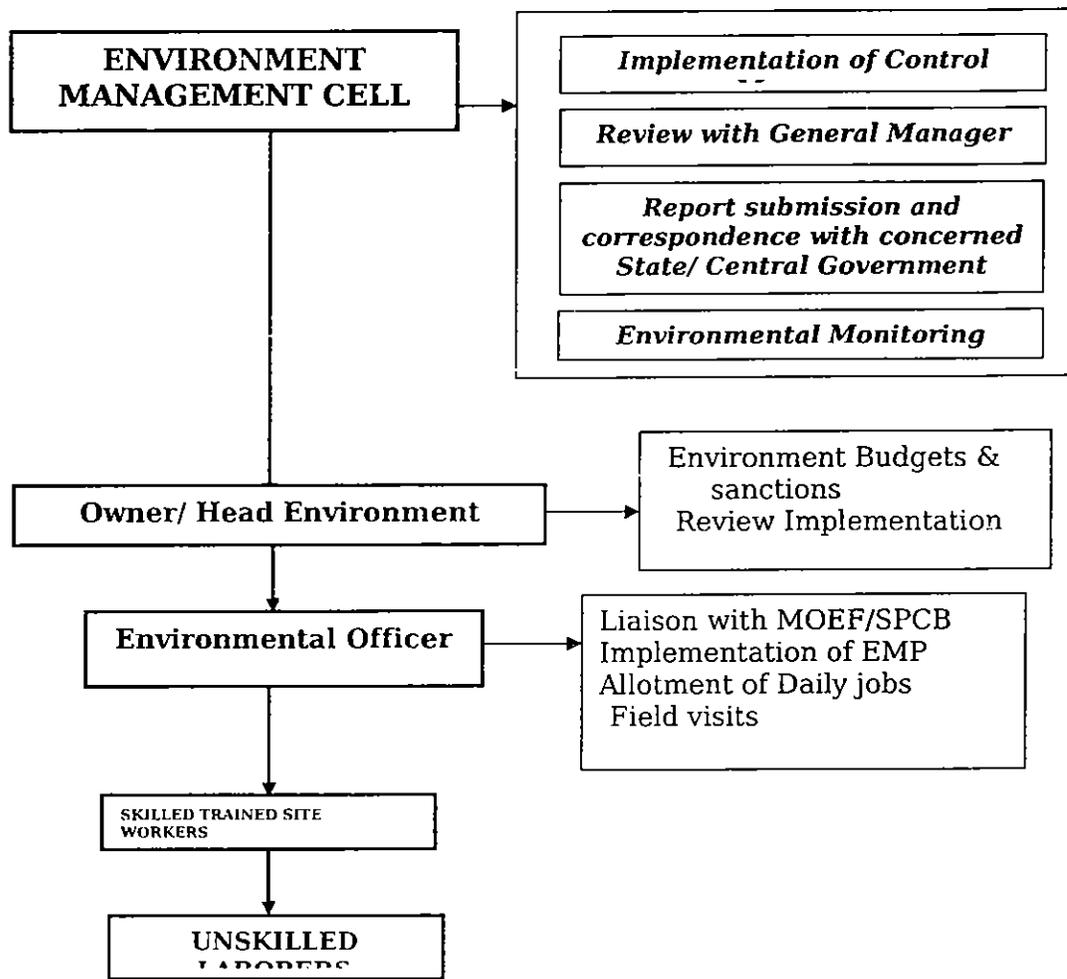


Figure 6- 1: Environment Management Cell



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Table 6- 1Monitoring Schedule and Parameters

| S. No. | Description of Parameters  | Schedule and Duration of Monitoring/Execution  |
|--------|--|--|
| 1      | Air Quality:<br>In the vicinity of the mine<br>In the vicinity of the transportation Network<br>Dust suppression on roads<br>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<br><br>Regularly in non- monsoon months and whenever occurrence of fugitive dust takes place Fortnightly |
| 2      | Water Quality near or around the site:<br>a) Surface water quality<br>b) Ground water quality  | Once in a season for 4 seasons in a year   |
| 3      | Ambient Noise Level  | Twice a year for five years  |
| 4      | Soil Quality   | Twice a year for five years  |
| 5      | Inventory of Flora(tree plantation, survival etc) & Fauna  | Once in years on project monitoring area   |
| 6      | Socio-economic condition of local population, physical survey  | Once in 3 years  |

## 6.2 Green Belt Development

During first five years, about 71 saplings of local varieties of trees will be planted every year in the un-worked area around and the haulage route. Plant species act as bio-monitoring agent to monitor the air environment as well as to keep and maintain the project environ healthy. Trees have substantial inter-specific as well as intra-specific variation in air pollution tolerance. Green Belt development / tree plantation in organized manner will be carried out around the existing mine site by the end of the mining activity. The species suggested are Local tree species in the mine area and nearby villages, to reduce the impact of expansion activities in the surroundings of the existing mine site. The suggested plants are suitable for green belt development have characteristics like, fast growing, thick canopy cover, perennial and evergreen large leaf area, naturally growing, efficient in absorbing pollutants without major effects on natural growth. On the basis of the general principles mentioned and as per the CPCB guidelines for the development of Greenbelts following species are recommended:



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OUTER PERIPHERY TREES

- *Azadirachta indica*
- *Eucalyptus hybrid.*
- *Ficus religiosa*
- *Hetrophragma roxburghii DC*
- *Samanea saman*
- *Tamarindus indica*

INNER PERIPHERY TREES

- *Balanites roxburghii planch*
- *Bougainvillea Spectabilis wild*
- *Derris indica (lam) Bennett*
- *Ficus Benjamina linn*

MEDIUM SIZE TREES

- *Phoenix sylvestris*
- *Sesbania Grandiflora pers*
- *Mimusops hexandra*

SMALL SIZE SHRUBS

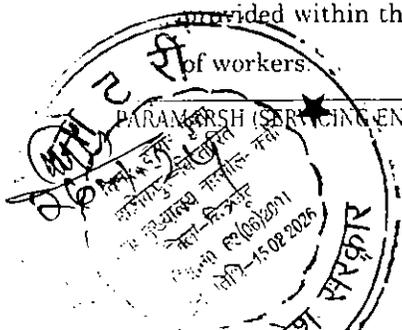
- *Acacia catechu.*
- *Accacia ferruginea DC*
- *Clerodandrum inerme*
- *Callistemon citrinus stapf*

Table 6- 2: Proposed afforestation programme

| Year            | No. of Plants | Area (Ha) |
|-----------------|---------------|-----------|
| 1 <sup>st</sup> | 71            | 0.71      |
| 2 <sup>nd</sup> | 71            | 0.71      |
| 3 <sup>rd</sup> | 71            | 0.71      |
| 4 <sup>th</sup> | 71            | 0.71      |
| 5 <sup>th</sup> | 71            | 0.71      |

6.3.Occupational Health & Safety

The working conditions in the mines are governed by the enactments of the Director General of Mines Safety (DGMS). As per the guidelines of the Mines Act, the management will take all necessary precautions. Normal sanitary facilities will be provided within the lease area. The management will carry out periodic health check up of workers.



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Occupational hazards involved in mines are related to dust pollution, noise pollution, blasting and injuries from moving machineries & equipment and fall from high places.

DGMS has given necessary guidelines for safety against these occupational hazards. The management will strictly follow these guidelines.

All necessary first aid and medical facilities will be provided to the workers. The mine will be well equipped with proper fire protection and firefighting equipment. All operators and mechanics will be trained to handle fire-fighting equipments. Further all the necessary protective equipments such as helmets, safety goggles, earplugs, earmuffs, etc. will be provided to persons working in mines as per Mines Rules, 1955.

**Reporting schedule of monitored data**

It is proposed that voluntary reporting of environmental performance with reference to the EMP.

The Environmental Monitoring Cell will co-ordinate all monitoring programmes at site and data thus generated will be furnished as per statutory requirements.

**6.4 SUMMARY**

In order to maintain the environmental quality within the stipulated standards, regular monitoring of various environmental components is necessary which will comply as per conditions. For this, Prop.- Shri Deepak Singh S/o Shri Ram Pal Singh has taken decision to formulate an Environment Policy of the mine and constitute an Environmental Management Cell and committed to operate the proposed mine with the objectives mentioned in approved Environment Policy. EMP may also require measurement of ambient environmental quality in the vicinity of a site using ecological/biological, physical and chemical indicators. Monitoring may include socio-economic interaction, through local liaison activities or even assessment of complaints. Regular Monitoring of all the environmental parameters viz., air, water, noise and soil as per the formulated program based on CPCB and MoEF & CC guidelines will be carried out every year. The location of the monitoring stations was selected on the basis of prevailing micro meteorological conditions of the area like: wind direction and wind speed, relative humidity, temperature.



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**CHAPTER – 7:**  
**ADDITIONAL STUDIES**



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## 7.0 ADDITIONAL STUDIES

### 7.1 PUBLIC CONSULTATION

Public hearing is a mandatory requirement laid down as per Govt. of India, Ministry of Environment and Forests (MoEF & CC) Notification No. SO 1533 dated 14th September, 2006. and as amended on 15th January 2016 for seeking environmental clearance for mining of Granite (Khanda, Gitti & Boulder) in the applied mining lease area measuring 0.56 hectares falling under category "B". The lease area is located at Gata No.- 332 (Khand No.- 03), Village- Badokhar Khurd, Tehsil- Naraini, District- Banda, Uttar Pradesh. The report is being incorporated to conduct Public Hearing Proceedings. This proposal falls in category "B" sub-category "B1" which requires EIA study. As per the TOR (Terms of reference) issued for the project by the SEAC vide Letter no. : 424/Parya/SEAC/5028/2019 dated 27<sup>th</sup> November, 2019, Public Hearing of Granite (Khanda, Gitti & Boulder) mining project Gata No.- 332 (Khand No.- 03), Village- Badokhar Khurd, Tehsil- Naraini, District- Banda, Uttar Pradesh was conducted by RO, Regional Office, UPPCB, Banda, on 02.07.2020. The minutes of Public hearing attached as Annexure- V.

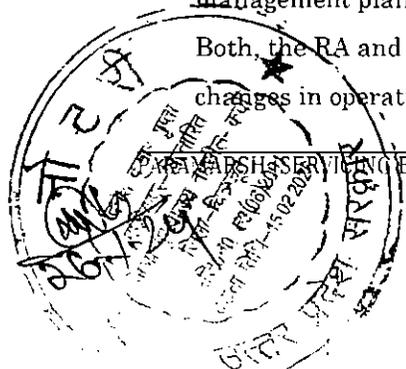
### 7.2 Risk Analysis & Disaster Management Plan

#### 7.2.1 Background

The methodology for the risk assessment has been based on the specific risk assessment guidance issued by the Directorate General of Mine Safety (DGMS), Varanasi, vide Circular No.13 of 2002, dated 31st December, 2002. The DGMS risk assessment process is intended to identify existing and probable hazards in the work environment and all operations and assess the risk levels of those hazards in order to prioritize those that need immediate attention. Further, mechanisms responsible for these hazards are identified and their control measures, set to timetable are recorded along with pinpointed responsibilities.

In the unlikely event that a consequence has occurred, disaster management kicks in. This includes instituting procedures pertaining to a number of issues such as communication, rescue, and rehabilitation. These are addressed in the disaster management plan.

Both, the RA and DMP, are living documents and need to be updated whenever there are changes in operations, equipment, or procedures



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Assessment is all about preventing accidents and taking necessary steps to prevent it from happening.

**7.2.2 Key Definitions**

**Hazard:** Source of potential harm, injury, or loss.

**Consequence:** Size of the loss or damage. In terms of health and safety, it is the degree of harm that could be caused to people exposed to the hazard, the potential severity of injuries or ill health and / or the number of people who could be potentially affected. Consequence of a hazard need not only be in terms of safety criteria but could also be in terms of a money loss, incurred costs, loss of production, environmental impacts as well as public outrage.

**Risk:** Combination of the likelihood of a specific unwanted event and the potential consequences if it should occur.

**Risk Assessment:** Is a process that involves measurement of risk to determine priorities and to enable identification of appropriate level of risk treatment (used also to describe the overall process of risk management).

**Risk Control:** Implementation of strategies to prevent or control hazards

**Risk Rating:** The category or level of risk assigned following risk assessment (e.g. High, Medium or Low).

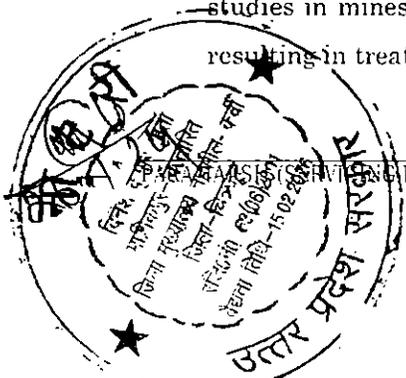
**Risk Management:** Overall description of the steps taken to manage risk, by identifying hazards and implementing controls in the workplace.

**Emergency:** A situation of process deviation that, if uncontrolled, may lead to a major accident /disaster with potential short term and/or long term risk damage consequence to life and property in and/or around the workplace.

**Disaster:** A catastrophic consequence of a major emergency / accident that leads to not only extensive damage to life and property, but also disrupts all normal human activity for a significant period of time and requires a major national and / or international effort for rescue and rehabilitation of those affected.

**7.3 Scope of Work for RA & DMP Study**

The scope of work has been framed as per DGMS requirements for risk and safety studies in mines and includes the hazard identification, risk assessment, and ranking, resulting in treatment controls and action plans.



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**7.3.1 Level 1: Hazard Identification**

Hazard identification includes:

**STUDY OF SAFETY ISSUES PERTAINING TO THE PROJECT**

- Study of operational information, including safety concepts used in design of equipment and storages.
- Listing of hazardous inventory and identification of key hazardous substances to be used.
- Available procedures and the extent to which they are followed in operational mines by the same organization.
- Consultations with employees who carry out or are likely to carry out the jobs.
- Safety statistics for this and other mines, as applicable and available.
- Statutory mine inspection reports, where available.
- Past history of accidents and near misses.

The above are applicable to all the aspects of the mining activities including winning of minerals, crushing – sizing and transport.

**IDENTIFICATION OF HAZARD SCENARIOS**

- Identification of scenarios that can cause damage to life & property.

**7.3.2 Level 2: Risk Assessment & Ranking RISK**

**ASSESSMENT**

As defined earlier, risk is a function of likelihood and consequence. Likelihood is the chance that the hazard might occur. Since the risk of any hazard is dependent upon the chance that it will occur (likelihood) and the impact of an occurrence (consequence):

**Risk Score = Likelihood x Consequence**

In some cases personnel are only exposed to the hazard for part of the time. Hence, a more detailed analysis of the risk ranking can be carried out by taking exposure (% time personnel are present) and probability (chance that they will be injured) into consideration. Thus:

**Risk Score = (Probability x Exposure) x Consequence**

The values used for likelihood, consequence, exposure or probability need to be agreed by the risk assessment team, and there is an element of professional judgment in exercising these choices.

**RISK RANKING**

This ranking can be determined by qualitative and quantitative means. It should

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however be remembered that no one method is best. The best choice of method will depend on the circumstances and preferences at the mine. at the time the exercise is done. However, regardless of the method establishing risk ranking will set priorities for Hazard control. The most important purpose in hazard identification, risk assessment, and ranking is to draw up and implement plans to control these hazards. However, keeping the acceptance of the participants during workshops conducted at different mines, DGMS has suggested a criteria table for quantitative risk ranking to be used as in Table 7.1.



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Table 7- 1: Risk ranking criteria

| Scale for consequence                                  | Scale for exposure      | Scale for probability       |
|--|-------------------------|-----------------------------|
| Several dead: 5  | Continuous: 10          | May well be expected: 10    |
| One dead: 1  | Frequent (daily): 5     | Quite possible: 7           |
| Significant fatality chance: 0.3                       | Seldom (Weekly): 3      | Unusual but possible: 3     |
| One permanent disability/ less chance of fatality: 0.1 | Unusual (Monthly): 2.5  | Only remotely possible: 2   |
| Many lost time injuries: 0.01                          | Occasional (Yearly): 2  | Conceivable but unlikely: 1 |
| One lost time injury: 0.001                            | Once in 5 years: 1.5    | Practically impossible: 0.5 |
| Small injury: 0.0001                                   | Once in 10 years: 0.5   | Virtually impossible: 0.1   |
|  | Once in 100 years: 0.02 |                             |

On the basis of the above scoring format, and after a perusal of the resultant scores, professional judgment was exercised in selecting the following scale for assessing risk levels:

- Level 1: > 15; i.e., requiring immediate action
- Level 2: <15 but > 5; i.e., requiring management action
- Level 3: < 5; i.e., low risks requiring periodic review

7.3.2.1 Hazard Analysis

Broadly, the hazards cover explosive material management, working at heights, slope and bench stability, mineral transport, mineral processing and force majeure conditions (rainfall & flooding). The mechanisms due to which hazards (coming under Risk Levels 1 & 2) may actually occur are covered in Table 7-2.

Table 7- 2: Cause analysis for level 1 & level 2 hazards

| S.No | Hazard Description (Risk)                        | Risk Level | Cause Analysis  |
|------|--|------------|---|
| 1    | Travel in moving vehicle in uneven terrain       | Level 3    | <ul style="list-style-type: none"> <li>• Poor visibility</li> <li>• Incompetent driver</li> <li>• Poorly maintained vehicles</li> </ul>   |
| 2    | Unintended explosions (exposure to overpressure) | Level 1    | <ul style="list-style-type: none"> <li>• Defective explosives</li> <li>• Outdated explosives</li> <li>• Improper storage of explosives</li> <li>• Force majeure conditions such as lightning strike</li> <li>• Fire (can be caused by unsafe practices or as ignition)</li> <li>• Sabotage</li> </ul> |



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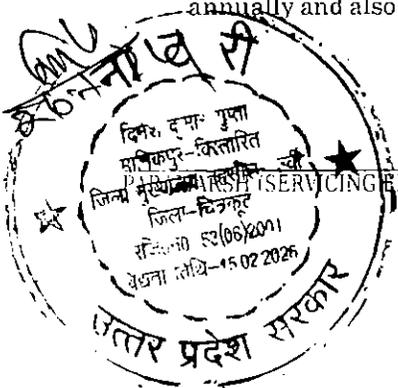
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|   |   |         |  |
|---|---|---------|--|
| 3 | Unintended explosion or exposure (exposure to overpressure)               | Level 3 | <ul style="list-style-type: none"> <li>• Defective explosives</li> <li>• Outdated explosives</li> <li>• Improper storage of explosives</li> <li>• Force majeure conditions such as lightning strike</li> <li>• Fire (can be caused by unsafe practices or as arson)</li> <li>• Sabotage</li> </ul>                       |
| 4 | Hit by fly rock (bodily injuries)   | Level 3 | <ul style="list-style-type: none"> <li>• Poor access control of blast area</li> <li>• Poor blasting practices (leading to excessive fly rock)</li> </ul>   |
| 5 | Rock falls or slide due to lack of bench face stability (bodily injuries) | Level 1 | <ul style="list-style-type: none"> <li>• Improper design of bench</li> <li>• Force Majeure (such as heavy floods or rainfall)</li> <li>• Improper blasting practices</li> <li>• Incompetent blasting personnel</li> </ul>  |
| 6 | Hit by Machineries – Electrical Equipment (bodily injuries)               | Level 2 | <ul style="list-style-type: none"> <li>• Improper design of equipment</li> <li>• Improper maintenance</li> <li>• Non usage of required PPE.</li> <li>• Incompetent Personnel</li> </ul>  |
| 7 | Vehicle Accident (bodily injuries)  | Level 1 | <ul style="list-style-type: none"> <li>• Head on collision between vehicle and another vehicle (due to poor visibility or incompetent drivers)</li> <li>• Poor vehicle maintenance</li> </ul>  |
| 8 | Accidental fire in vehicle (bodily injuries, exposure to heat radiation)  | Level 3 | <ul style="list-style-type: none"> <li>• Accident to vehicle carrying fuel, and subsequent ignition of spilt fuel</li> <li>• Improper storage of fuel, in MS drums, leading to spillage followed by ignition</li> <li>• Driving with loaded material on uneven terrain, and subsequent ignition of spilt fuel</li> </ul> |

7.3.3 Controls and Action Plans

To ensure that causes leading to the possible consequences are prevented from occurring, control and action plans are developed and suggested as described in Table 7-3. It is required that these control and action plans be implemented and reviewed at least annually and also when there are changes to the work plan.



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Table 7- 3: Control & Action Plan

| S. No | Hazard  | Causes  | Control  | Relevant Legislation  | Procedure  | Existing Procedure (Y/N) | Responsible Person (Designation)  |
|-------|---|---|--|---|--|--------------------------|-----------------------------------|
| 1     | Unintended explosions (exposure to over pressure) during storage of explosives in magazines | Defective explosives                              | Explosive used should be purchased only from approved and licensed authority If deteriorated or unserviceable explosive is found, seek advice of licensing authority   | Metalliferous Mine Regulation – 1961. & Explosive act. 1884 | If any defective explosive is found, it is returned back to the original supplier for disposal at their end as per Rule 16 of The Explosive Rules 1983 | Y                        | Authorized supplier of explosives |
|       |   | Outdated explosives                               | Records and accounts of explosive stock and issue is to be maintained Stock should be drawn upon strict rotation Well planning for requirement of explosives shall be exercised Disposal of outdated explosives as the chief controller or controller of explosive may issue | Explosive act. 1884.MMR – 1961.                             | Maintaining registers for Explosives receipt, issue and stock as per Reg. 154,156 of MMR 1961.   | Y                        | Mines Manager                     |
|       |   | Improper storage of explosives                    | Detonator are to be stored separately Explosives shall be stored in dry and well ventilated area<br><br>Protect explosives from extreme temperatures   | Explosive act. 1884.  | Explosives and Detonators are stored separately as per approved design & licensed capacity of magazine under Explosive act. 1884                       | Y                        | Mines Manager                     |
|       |   | Force majeure conditions such as lightning strike | Lightning conductor are to be installed on the top of magazine Lightning conductor should not have resistance more than 10 ohms  | The Explosive Rules 1983                                    | Lightning arrestors are provided and maintained as per the requirement under Rule 116 the Explosive Rules 1983   | Y                        | Mines Manager                     |

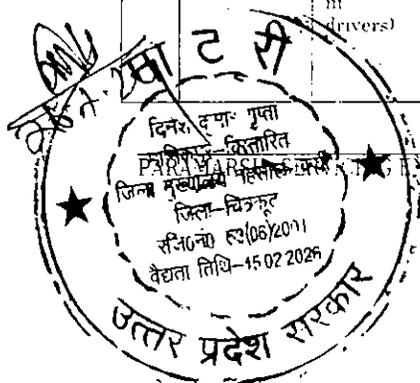


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|   |   |   |   |  |   |   |  |
|---|---|---|---|--|---|---|--|
|   |   | Fire (can be caused by unsafe practices or as arson)  | Empty packages shall be removed immediately and destroyed.<br>No smoking or any source of light or fire shall be allowed near explosives storage          | The Explosive Rules 1983<br>MMR - 1961 | Follow the instructions Specified in Rule 154, 156 and 170 of MMR- 1961 for storage, and handling of Explosives. Rule 97 and 101 of the ER 1983                                   | Y | Mines Manager,<br>Mines Foreman (Blasting) |
|   |   | Sabotage  | Security shall be provided at the magazine<br>Shortage and theft of explosive shall be reported to the nearest police station and the licensing authority | The Explosive Rules, 1983,             | Round the clock security guards provided and immediate reporting to nearest Police Station and Licensing Authority done in case of thefts or sabotage as per Rule- 123 of ER 1983 | Y | Mines Manager                              |
| 2 | Rock falls or slide due to lack of bench face stability (bodily Injuries) | Improper design of bench  | Proper catch bench design and proper blasting pattern reduces over break Maintain the width to height ratio as per DGMS                                   | MMR-1961                               | Procedure for opencast working as per Reg. 106  | Y | Mines Manager                              |
|   |   | Force Majeure (such as heavy floods or rainfall)  | Dewatering or culverting the storm water may reduce slides of bench   | MMR-1961.                              | Following procedures as per Reg. 127 and 130 of MMR -1961 for Dewatering or and culverting the water  | Y | Mines Manager                              |
|   |   | Improper blasting practices   | Good design of blasting network is important to reduce rock fall and slides of bench face   | MMR-1961.                              | Procedure for opencast working as per Reg. 106  | Y | Mines Manager                              |
|   |   | Incompetent blasting personnel  | Shot firer should have shot firer's permit granted under explosive rules  | MMR - 1961                             | Appointment of Shotfirer as provided in Reg. 160 of MMR 1961  | Y | Mines Manager                              |
| 3 | Vehicle accident (bodily injuries)  | Head on collision between vehicle and another vehicle (due to poor visibility or incompetent drivers) | Haul road should be sprinkled Regularly<br><br>Driving at night shall be avoided<br><br>Driver should be RTO licensed holder for driving vehicle          | MMR - 1961<br>Motor Vehicle Act        | Sprinkling of water in haul road as per Reg. 124<br>MMR 1961 and appointment of RTO licensed drivers  | Y | Mines Manager                              |



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|   |                                   |   |  |   |   |                   |
|---|-----------------------------------|---|--|---|---|-------------------|
|   | Poor vehicle maintenance          | Periodic servicing of vehicle Brakes and steering apparatus should be in good condition Headlight and taillight of the vehicle should be in good condition  | MMR 1961                                 | Procedure for Maintenance of Vehicles under Reg. 176 of MMR - 1961  | Y | Mines Manager     |
| Undertended operation or exposure to overpressure e. charging blast holes | Poor access control of blast area | Well planning is required before and after charging of blast holes.<br><br>Blast sites should be secured and warning signs posted before loading boreholes.   | MMR 1961                                 | Procedure for drilling charging stemming and firing of holes as per Reg. 162  | Y | Mines Manager     |
|   | Incompetent blasting personnel    | Shot firer should have shot firer's permit granted under explosive rules  | MMR 1961                                 | Appointment of Shot firer as per Reg. 160 as per MMR 1961   | Y | Mines Manager     |
|   | Poor blasting practices           | Tamping rod of wood must be used, iron or steel rods should not be used.<br><br>No smoking or any source of light or fire shall be allowed near explosives storage.<br><br>Before loading the blast hole blaster should check the driller log<br>Blast sites should be secured and warning signs posted before loading boreholes. | MMR - 1961<br>The Explosive Rules, 1983, | Procedure for drilling charging stemming and firing of holes as per Reg. 161. Rule 14 of ER ISO procedure QSP- 760-06 | Y | Certified Blaster |
|   | Defective explosives              | Explosive used should be purchased only from approved and licensed authority only If deteriorated or unserviceable explosive is found, seek advice of licensing authority   | The Explosive Rules, 1983                | Explosive are purchased from Approved manufactured or authorized license holder from CCE.                             | Y | Mines Manager     |
|   | Outdated explosives               | Stock should be drawn upon strict rotation  | The Explosive Rules 1983                 | Issue of explosives on first come first ISO procedure QSP- 760-06   | Y | Mines Manager     |
|   |                                   |   |  |   |   |                   |

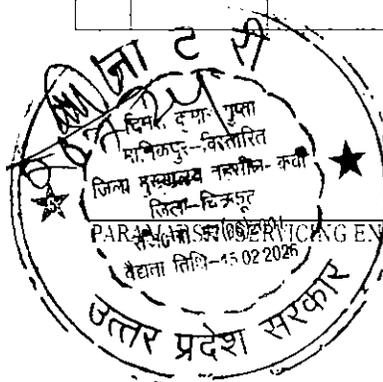


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|   |  |   |  |                               |  |   |   |
|---|--|---|--|-------------------------------|--|---|---|
| 5 | Hit by fly rock (bodily injuries) During blasting            | Poor access control of blast area                       | Adequate blast area security must be provided.<br>Blast sites should be secured and warning signs posted before loading boreholes.<br>Post guards at the access points to prevent unauthorized entry   | MMR - 1961                    | Procedure for tacking shelter etc. during drilling and blasting Reg. 164 of MMR 1961                                   | Y | Mines Foreman (Blasting)                    |
|   |  | Poor blasting practices (leading to excessive fly rock) | Burden, spacing, hole diameter, stemming, sub drilling, initiation system, and type of explosive used matched the characteristics of the rock formation.<br><br>Adequate blasting Shelter must be used for the persons whose presence is required in blasting<br><br>Nobody should be present within 300 m radius of blasting site as per DGMS circular except blasting personnel.<br><br>Practice for controlled blasting Technique with milli-second delay detonators/ electric shock tubes/ cord relays.<br>Training of persons and their helpers engaged in such blasting operation. | DGMS/(Tech) Cir.No.2 of 2003  | Procedure for drilling and blasting. tacking shelter etc. as per Reg. 164 MMR1961. DGMS (SOMA)/(Tech) Cir.No.2 of 2003 | Y | Certified Blaster (MMR)                     |
| 6 | Hit by Machineri es - Electrical Equipment (bodily injuries) | Poor machinery Maintenance                              | Periodic servicing of machineri es Periodic Inspection/ Audit of Machineri es and Structures<br>Non Compliance to SOP  | MMR 1961                      | Procedure laid under Section 174 Chapter XVI - Machinery and Plant of MMR 1961   | Y | Mines Manager                               |
|   |  | Poor Cabling / Earthing To Rotating Equipments          | Periodic servicing of electrical instruments. Periodic Inspection / Audit of Electrical equipments - cables and accessories<br>Non Compliance to SOP   | Indian Electricity Rules 2003 | Section VII - Works of Licensees of Indian Electricity Rules 2003  | Y | Electrical In charge under Mines Rules 1951 |



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7.4 First Aid

First aid facility will always be made available to time mine site with well maintained first aid box. A separate van will also be made available at the site which will deliver the employ to the nearest health center in case of any miss-happening.

7.5 Community Development Policy:

Corporate Environment Responsibility

As per the primary analysis and secondary data available the mine site is located in a remote location with scanty of available social infrastructure available. The break-up of CER is tabulated below:

| Sr. No. | Activity                              | Cost in Rs.<br>(in Lakhs) |
|---------|---------------------------------------|---------------------------|
| 1.      | Facility of Drinking water in village | 1,15,000                  |
|         | <b>Total</b>                          | <b>1,15,000</b>           |

Apart from the motioned activity other suggested activities will be:

- ✓ Medical Camps will be organized for the employees of the project and for the people in the nearby area of mine lease area. It will be done with coordination of the Government Hospital in the nearby area whose equipment facilities can be used for this purpose. Medicines will be provided free of cost.
- ✓ First aid training will be regularly imparted to trainees from the neighboring villages.
- ✓ The Company also distributes saplings to the local villagers as a part of social forestry.
- ✓ Give financial assistance for construction work in schools, for community Centre etc. through gram panchayat.
- ✓ Give financial assistance to Government Hospitals for their modernization and purchase of required equipment.



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# CHAPTER – 8: PROJECT BENEFITS



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## 8.0 PROJECT BENEFITS

### 8.1. General

Various benefits are envisaged while planning for the mining of Granite (Khanda, Gitti & Boulder) at village Badokhar Khurd. This chapter gives a comprehensive description of various advantages and benefits anticipated from the proposed project to the locality, neighbourhood, region and nation as a whole.

Granite (Khanda, Gitti & Boulder) is very important raw material for road and pavements, flooring and many more. The need for mining of the Granite (Khanda, Gitti & Boulder) from the project (mine lease area) has arisen to meet the current situation of demand supply gap.

### 8.2 Improvements in Physical Infrastructure

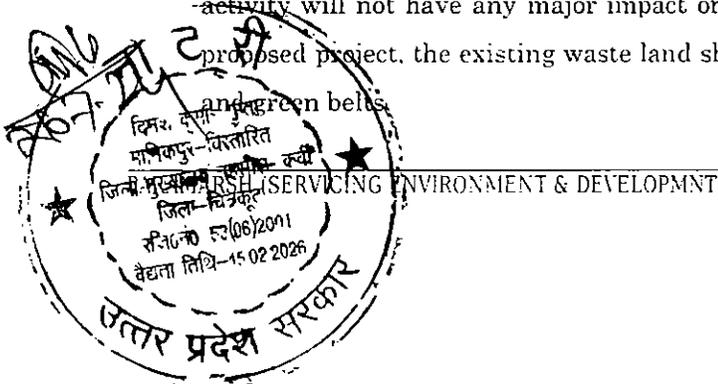
As it is captive Granite (Khanda, Gitti & Boulder) mine, it will have direct and indirect impacts to improve physical infrastructure in nearby community.

The project will improve the physical infrastructure of the adjoining areas. This will include the following:-

- Improved road communication;
- Strengthening of existing community facilities through the existing Community Development Programme;
- Mine pits will be converted into Rain water reservoir to augment the water availability for irrigation and plantation;
- Awareness program and community activities, like health camps, medical aids, family welfare programs, immunization camp sports & cultural activities, plantation etc.

### 8.3 Improvements in Social Infrastructure

The proposed project is expected to provide employment to local people in different activities such as Mining, sizing, transportation and plantation activities. The project activity will not have any major impact on the environment. At Post mining stage of proposed project, the existing waste land shall be converted to water harvesting bodies



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Also the Corporate Environment Responsibility initiatives will have a positive impact on socio economic fabric of the region.

**8.4 Employment Potential**

The local labors shall be engaged for sizing of Granite (Khanda, Gitti & Boulder) and loading and handling of mineral in mining area, besides, watch and ward and plantation activity with proper maintenance. The total manpower required for material handling and loading works out to 26. Beside this, the proponent Shall engage skilled and managerial staff to meet the statutory requirement under MMR 1961 and MCDR 1988. At present, the mine is not functional. The following skilled / unskilled and semi-skilled workers besides managerial and administrative staff shall be employed at the time of re-opening of mine.

**8.5 Tangible social benefits**

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.

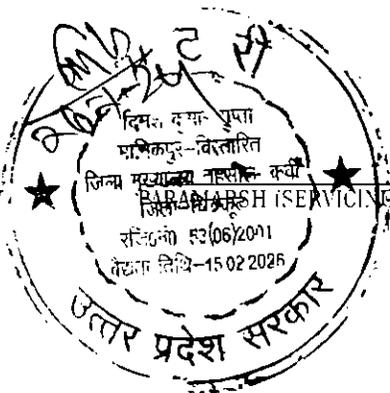
**Health**

Company will undertake awareness program and community activities like health, camps, medical aids, family welfare camps, etc.

Periodic medical checkups as per Mines Act/ Rules and other social development and promotional activities will be undertaken. All this will assist to lift the general health status of the residents of the area around mines.

**Plantation**

A massive plantation is proposed to mitigate the ill-effects of mining and to improve the vicinity and environment of mine and it surrounding area. The management will give emphasis on plantation and will also motivate local persons for plantation during rainy season. This will also increase the consciousness in workers and near-by villagers for greenery. Fruit trees can contribute towards their financial gains.



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8.6 Other Benefits

Apart from all the above mentioned benefits there will be other benefits to the region in terms of up gradation of lifestyle, overall area development etc.

8.7 SUMMARY

The management will recruit the semi-skilled and unskilled workers from the nearby villages. The project activity and the management will definitely support the local Panchayat and provide other form of assistance for the development of public amenities in this region. The company management will contribute to the local schools, dispensaries for the welfare of the villagers. A suitable combination of trees that can grow fast and also have good leaf cover will be adopted to develop the green belt. It is proposed to plant native species along with some fruit bearing and medicinal trees during the mining plan period. Other than this social development of village will be considered as per social activities.



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# CHAPTER – 9: ENVIRONMENT MANAGEMENT PLAN



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## 9.0 ENVIRONMENTAL MANAGEMENT PLAN

### 9.1 General

The environmental management plan consists of a set of mitigation, management, monitoring and institutional measures to be taken during implementation and operation of the project, to eliminate adverse environmental impacts or reduce them to acceptable levels. The present environmental management plan addresses, the components of environment, which are likely to be affected by the different operations in a Granite (Khanda, Gitti & Boulder) mine.

The Objectives of EMP are:

- Overall conservation of environment.
- Minimization of waste generation and pollution.
- Judicious use of natural resources and water.
- Safety, welfare and good health of the work force and populace.
- Ensure effective operation of all control measures.
- Vigilance against probable disasters and accidents.
- Monitoring of cumulative and long term impacts.
- Ensure effective operation of all control measures.

### 9.2 Environment Management System

#### Environment Cell

Company has well established Environmental Management System which is headed by General Manager- Safety, Health & Environment. Company has implemented online Legal Compliance management system with well-defined compliance owners. The system generates Email alerts for meeting compliances and has inbuilt escalation mechanism to keep the senior management informed on compliance updates.



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Table 9- 1: Environment Monitoring Cell

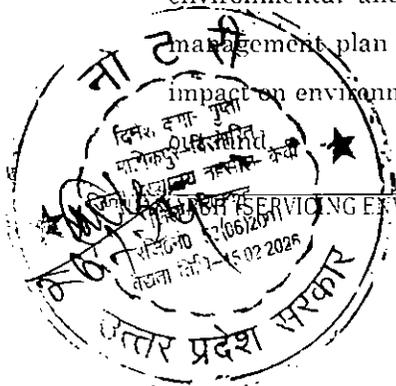
| S. No. | Designation  | Proposed responsibility  |
|--------|--|--|
| 1.     | Owner/Head<br>Environment                              | Overall responsibility for environment management and decision making for all environmental issues   |
| 2.     | Manager – Environment<br>Management System             | Overall in-charge of operation of environment management facilities;<br>Ensuring legal compliance by properly undertaking activities as laid down by various regulatory agencies from time to time and interacting with the same |
| 3.     | Skilled Trained Site<br>Workers & Unskilled<br>Labours | Secondary responsibility for implementing the environment management & ensure the implementations.   |

### 9.3 Proposed Environmental Management Plan

The environment management plan is prepared with a view to facilitate effective environmental management of the project, in general and implementation of the mitigation measures in particular. The EMP provides a delivery mechanism to address potential adverse impacts and to introduce standards of good practice to be adopted for all project works. For each stage of the programme, the EMP lists all the requirements to ensure effective mitigation of every potential biophysical and socio-economic impact identified in the EIA. For each impact or operation, which could otherwise give rise to impact, the following information is presented:

- A comprehensive listing of the mitigation measures (actions):
- The parameters that will be monitored to ensure effective implementation of the action:
- The timing for implementation of action to ensure the objectives of mitigation is fully met.

In order to minimize impacts of mining on different environmental parameters and to keep air and water quality within prescribed limits of CPCB, an Environmental Management Plan (EMP) has been prepared. This will help in resolving all environmental and ecological issues due to mining in the area. The environmental management plan includes all preventive as well as mitigation measures to minimize impact on environment along-with reclamation and rehabilitation measures form in and



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## 9.4 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:

Table 9- 2: Cost of EMP

| S. No.                           | Particulars   | Details   | Total Cost (Rs.) |                       |
|----------------------------------|---|---|------------------|-----------------------|
|                                  |   |   | Capital (Rs)     | Recurring /Years (Rs) |
| <b>A- AIR ENVIRONMENT</b>        |   |   |                  |                       |
| 1.                               | Dust Suppression on haulage road 0.25 km (approach road)* 6.0m (width of road) *1 Litre (1.0 Liter/m <sup>2</sup> ) | 1.50 KLD  |                  | 1,50,000              |
| 2.                               | Afforestation Nos of trees (@500 plants/ha) Total = 71  | Rs 1100/Sapling (including tree guard and maintenance etc.) | 78,100           | 50,000 (Maintenance)  |
| 3.                               | Water Demand for plantation (@ 1lit/plant)  | ~0.10 KLD   | 1,50,000         | 1,20,000              |
| 4.                               | Monitoring of Ambient air   |   | 50,000           | 50,000                |
| <b>B- WATER ENVIRONMENT</b>      |   |   |                  |                       |
| 1.                               | Monitoring of Ground water and Surface water  |   |                  | 60,000                |
| <b>C- NOISE ENVIRONMENT</b>      |   |   |                  |                       |
| 1.                               | Monitoring of Ambient Noise   |   |                  | 30,000                |
| <b>D- LAND ENVIRONMENT</b>       |   |   |                  |                       |
| 1.                               | Monitoring of soil  |   |                  | 25,000                |
| <b>E- SOLID WASTE MANAGEMENT</b> |   |   |                  |                       |
| 1.                               | Color coded Dust Bins as per MSW rule 2016  |   | 15,000           | 5,000                 |
| 2.                               | Mobile Toilet   |   | 1,50,000         | 75,000                |
| <b>Total</b>                     |   |   | <b>4,43,100</b>  | <b>5,65,000</b>       |



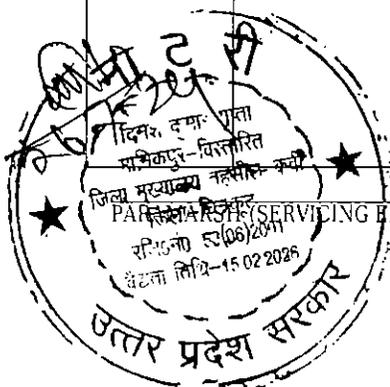
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9.5 Anticipated Environmental Issues & their Mitigation

The likely impacts of the proposed mining and allied activities on the various environmental parameters are discussed as under and tabulated in separate heads.

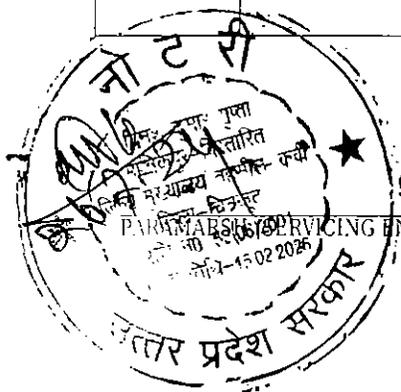
| IMPACT AREA | PROBABLE IMPACTS           | PROBABLE SOURCE   | MITIGATION MEASURES   | REMARKS  |
|-------------|----------------------------|---|---|--|
| LAND USE    | Change in land use pattern | <ul style="list-style-type: none"> <li>• Site preparation</li> <li>• Excavation</li> <li>• Construction of approach and haulage road.</li> <li>• Drilling &amp; Blasting.</li> <li>• Disposal of overburden/waste etc.</li> </ul> | <ul style="list-style-type: none"> <li>• At any point of time, area under reclamation should be kept at minimum by ensuring simultaneous reclamation of land along with mining activity to reduce the time gap between land reclamation and mitigation.</li> <li>• The scheme of Plantation has been proposed all along the approach road of lease area &amp; will be made accordingly. The selection of plant species will be based on the local soil conditions. Post plantation care like watering and protection from grazing will be done by proving tree guard / fencing.</li> <li>• The top soil shall be scraped manually and send to the plantation site directly.</li> <li>• Number of access roads to mining site should be kept minimum.</li> <li>• Stockpiling of stone shall be avoided.</li> <li>• There shall be no waste generated during the mining as all the ROM shall be used in making aggregates.</li> </ul> | <ul style="list-style-type: none"> <li>• The existing land form is hilly barren terrain there is no forest land in the lease area. the land use is waste land and ownership is owned by state government.</li> <li>• There is no agriculture in the vicinity of lease area so mining will not have any impact on agricultural pattern.</li> <li>• Aesthetic environment will also be not affected as the mine lease area is waste land (rocky terrain) with some bushes only.</li> </ul> |



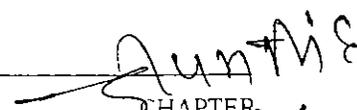
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| IMPACT AREA | PROBABLE IMPACTS   | PROBABLE SOURCE  | MITIGATION MEASURES  | REMARKS  |
|-------------|--|--|--|--|
| AIR QUALITY | <p>Probable contamination of air with dust and exhaust gases of the vehicle transporting stone and by drilling, blasting operations.</p> | <ul style="list-style-type: none"> <li>The dust generated from mining activities is the primary source of air pollution. The emission sources include excavation and mining of stone, drilling, sizing and transportation within the project area.</li> <li>Negligible amount of auto exhaust emissions also expected to be found in the core zone because of vehicular activities arising due to transportation of limestone and waste by dumpers and Excavators.</li> <li>NOx generated from blasting</li> <li>Storage of Mineral</li> </ul> | <ul style="list-style-type: none"> <li>As the primary concern in air quality is emanated dust to dust suppression system mainly water spraying is to be done in and around mining area.</li> <li>Use proper drill bits for drilling holes and wet drilling method to reduce dust generation at source.</li> <li>Loading of mineral should be done at optimum height so as to reduce the dust below.</li> <li>Overloading will be prevented. The trucks and trolley after loading will be covered by suitable cover.</li> <li>Timely maintenance of vehicle used for transportation of mineral shall be ensured.</li> <li>Green belt along the available area &amp; haulage roads shall minimize the impact.</li> </ul> | <p>Spreading of dust particles shall be negligible as the dust shall be suppressed at source. However, plantation all along lease boundary &amp; haulage roads shall act as dust arrester &amp; sink hole for suspended particles.</p> |



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| WATER QUALITY |  |   |   |  |
|---------------|--|---|---|--|
| IMPACT AREA   | PROBABLE IMPACTS   | PROBABLE SOURCE   | MITIGATION MEASURES   | REMARKS  |
| SURFACE WATER | Change in quality as well as quantity.                             | <ul style="list-style-type: none"> <li>Waste generated due to mining.</li> <li>Due to runoff water from the rain.</li> <li>Due to disposal of waste by labors.</li> <li>Due to washing of vehicles used in transportation</li> <li>Due to disposal of excreta.</li> <li>Due to leakage of oil and greases from vehicle and machinery used.</li> </ul> | <ul style="list-style-type: none"> <li>Waste shall not be generated as all the quantity of ROM shall be used in making aggregates.</li> <li>Massive plantation in and around lease area and haulage road.</li> <li>Rainwater accumulated in worked out pit will be collected and will be used for dust suppression and green belt development.</li> <li>Retaining wall &amp; Check dam construction all along slope.</li> <li>Drains all along road side.</li> <li>No open air defecation shall be allowed mobile toilets shall be provided to labours for defecation.</li> <li>Throwing of waste or item in nearby water bodies should be strictly prohibited.</li> <li>Proper maintenance of vehicle used in transportation.</li> </ul> | Mining will be done above the water table in leased area which is waste land and there is no river or surface water exists within this area. However, composition of granitic rock merely reacts with surface water as it contaminates the run-off water during rains.   |
| IMPACT AREA   | PROBABLE IMPACTS   | PROBABLE SOURCE   | MITIGATION MEASURES   | REMARKS  |
| GROUND WATER  | Interception, diversion, contamination and wastage of ground water | <ul style="list-style-type: none"> <li>Digging and excavation.</li> <li>Piling of overburden.</li> </ul>  | <ul style="list-style-type: none"> <li>Regular monitoring of ground water.</li> <li>Piling of overburden will be avoided</li> <li>Whenever the mining reaches the water table the leaseholder should dig a separate well in the lease area itself in which water from mining pit is disposed with objective of recharging water table by doing so there would be no storage of ground water.</li> </ul>   | No interception diversion or contamination of groundwater because Mining will be done above the water table in leased area. There is not any generation of toxic waste from mining site and ground water is not used for any mining activity Except, drinking purpose which shall be procure from nearby hand pump/ tube well.<br>Bottom of the excavated pit will act as recharge well to the ground water. |



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| IMPACT AREA            | PROBABLE IMPACTS  | PROBABLE SOURCE  | MITIGATION MEASURES  | REMARKS  |
|------------------------|---|--|--|--|
| NOISE QUALITY          | Increase in Noise level of the area which will affect the inhabitant residing nearby and there. | <ul style="list-style-type: none"> <li>• Drilling &amp; blasting</li> <li>• Heavy earth moving machinery</li> <li>• Due to vehicle used for transportation of excavated material</li> <li>• Accumulation of labor in mining area, noise is created from their verbal communication and manual excavation.</li> </ul> | <ul style="list-style-type: none"> <li>• Drilling &amp; Blasting shall be performed under the supervision of competent Blaster &amp; Mines Manager with Optimum hole charge by using delay detonators &amp; muffle blasting to minimizes nose impact &amp; rock fly</li> <li>• Care will be taken to produce minimum sound during loading of mineral.</li> <li>• Minimum use of horn and provision of speed limit will be ensured.</li> <li>• Timely maintenance of vehicles and their silencers to minimize sound and vibration.</li> </ul> | Noise limit shall be within 90db limit during mining operation by using these mitigation norms.  |
| ECOLOGICAL /BIOLOGICAL | Loss of flora and fauna residing there and nearby.  | <ul style="list-style-type: none"> <li>• Site preparation</li> <li>• Excavation</li> <li>• Construction of approach and haulage road</li> <li>• Drilling</li> </ul>  | No measure loss has been noticed so no mitigation measure is proposed  | Mining is done on mining lease area which is barren, unfertile. No wildlife of any sort is found within lease hold area. The fauna found in the area are of common variety and no endangered or threatened species are reported in the area. |



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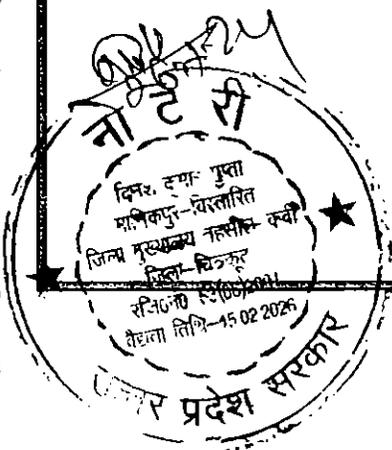
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| IMPACT AREA                   | PROBABLE IMPACTS  | PROBABLE SOURCE   | MITIGATION MEASURES   | REMARKS               |
|-------------------------------|---|---|---|-----------------------|
| OCCUPATIONAL HEALTH           | <ul style="list-style-type: none"> <li>Workers of area likely to get affected by respiratory or pulmonary diseases like bronchitis, silicosis and asthma fungal infection.</li> <li>Water related disease such as diarrhea, dysentery etc.</li> <li>Minor accidents such as cut and bone fracture.</li> </ul> | <ul style="list-style-type: none"> <li>Due to emanation of dust, exhaust and noise from vehicle transport.</li> <li>Due to lack of personnel hygiene</li> <li>Due to lack of personal safety procedure</li> </ul> | <ul style="list-style-type: none"> <li>First aid facility will be provided at mining site.</li> <li>Training of the worker regarding use of safety appliances and first aid.</li> <li>Every six month Periodical medical examination of all workers by experienced medical professional shall be ensured.</li> <li>Training shall also includes emergency response including location and proper use of emergency equipment, procedure for raising alarm and notifying contractor and proper response action for each foreseeable emergency situation.</li> <li>Use of helmets, safety shoes, ear plugs &amp; masks and gloves shall be provided to workers.</li> </ul> |                       |
| DEMOGRAPHY/<br>SOCIO- ECONOMY | Strain on existing amenities like housing, water sources and sanitation, medical and infrastructure Facilities.   | Influx of employees as well as contractor's employee/laborers.  | Only local peoples in limited numbers and residing in nearby area will be employed as man power.  | No additional impacts |



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**CHAPTER – 10:**  
**SUMMARY &**  
**CONCLUSION**



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FINAL EIA REPORT FOR GRANITE (KHANDA, GITTI & BOULDER) MINE

## 10.0 SUMMARY AND CONCLUSION

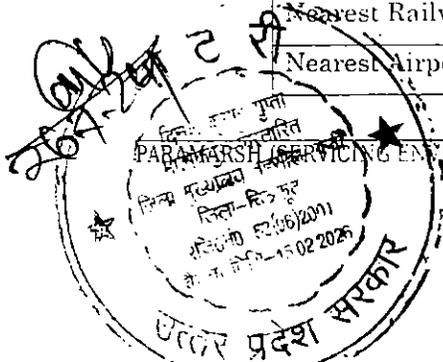
### 10.1 PROJECT DESCRIPTION

The proposed project is for mining of Granite (Khanda, Gitti & Boulder) at village Badokhar Khurd, Tehsil- Naraini, District Banda, U.P., categorized under category "B" 2 (a) (mining lease area <5 hectare- Mining of Minerals) as the lease area is 0.56 ha. However due to the presence of other mining areas within 500 m radius of the mine lease area , the project is categorized as Category "B1" and will be considered at SEIAA/SEAC, Uttar Pradesh.

The production rate of the mine will be 5600 cubic meter Per Annum as per Mining plan approved by DGM, Lucknow. The lease area is 0.56 ha. which comprises totally of Govt. waste land. The total reserves are 355428 m<sup>3</sup> or 959656 MT out of which mineable (proved & probable) reserves are 45752 m<sup>3</sup> or 123530 MT. The expected life of the mine is 8 years. Proposed Project is located near village – Badokhar Khurd, Tehsil- Naraini, District- Banda, U.P.

### 10.2 Environmental Setting of the project in study area

| Particulars                | Details                                  |
|----------------------------|--|
| Village                    | Badokhar Khurd                           |
| Tehsil                     | Naraini                                  |
| District                   | Banda                                    |
| State                      | U.P.                                     |
| Latitude                   | 25° 19' 42.60"N to 25° 19' 45.71"N       |
| Longitude                  | 80° 22' 31.69"E to 80° 22' 36.76"E       |
| Total Mine Lease area      | 0.56 Hectare                             |
| Elevation                  | 168 – 147 M.RL                           |
| Land use of the lease area | Govt. Waste land – 0.56 ha.              |
| Nearest Habitation         | Badokhar Khurd Village 1.0 km.           |
| Nearest Highway            | NH- 76- 9.50 km (NE)                     |
| Nearest Railway station    | Khurhand Railway Station – 11.0 km* (NE) |
| Nearest Airport            | Khajuraho Airport- 73.0 km* (SW)         |



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|                                     |  |
|-------------------------------------|--|
| Nearest educational institutions    | Primary School: Badokhar Khurd – 1.0 km. |
| Nearest Medical facilities          | Banda                                    |
| Nearest communication & post-office | Badokhar Khurd                           |
| Tourist places                      | None                                     |
| Defense installation                | None                                     |
| Seismic Zone                        | Seismic Zone –II                         |
| Water Demand                        | 1.90 KLD                                 |

**10.3 Project Nature, Size & Location**

The mining lease of Granite (Khanda, Gitti & Boulder) mine is categorized as Government waste land. State Government has granted the Lease for mining of Granite (Khanda, Gitti & Boulder). The production rate of the mine will be 5600 cubic meter Per Annum as per Mining plan approved by DGM, Lucknow.

The mine is situated near in Gata No. - 332, (Khand No.- 03), Village Badokhar Khurd, Tehsil- Naraini of Banda District (U.P.). The geographical location of the lease area is as under:-

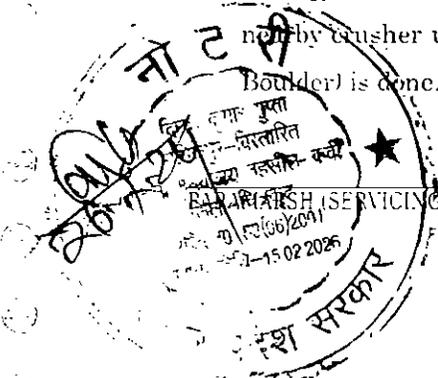
|           |                                    |
|-----------|------------------------------------|
| Latitude  | 25° 19' 42.60"N to 25° 19' 45.71"N |
| Longitude | 80° 22' 31.69"E to 80° 22' 36.76"E |

The lease area is a government waste land on toposheet no.- 63C/07 which falls under the revenue limit of Badokhar Khurd village. There is no reserve forest or protected forestland within the lease area. There is no village or hutment within the lease area.

**10.4 Details of Mining process**

**Method of Mining Primary Mining:**

Primary mining is done by conventional drilling & blasting (using explosives) as per the guidelines of Directorate General of Mines Safety, Varanasi as well as Directorate of Geology & Mines. U.P. Blasted material (ROM) is loaded into tippers and shifted to a nearby crusher unit outside the leasehold area where sizing of Granite (Khanda, Gitti & Boulder) is done.



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**Proposed method of mining:**

- It shall be opencast semi-mechanized mine. Excavators L & T Kamastu 200 OR Hundair 210 shall be deployed for the removal of overburden, excavation & loading the Granite (Khanda, Gitti & Boulder) into Tata tippers to nearby crusher for making aggregates. The soil to be generated in pockets shall be excavated by deployment of an excavator, filled in to tippers and shall be dumped to plantation site. The soil shall be used for the purpose of plantation while waste shall be spread over the approach roads for the maintenance.
- Drilling & blasting shall be carried out with 110 mm. dia Atlas capco & blasting shall be carried out with slurry explosives and DF cord with delay electric detonator (Class 2 explosive) according to condition imply and shall be executed by competent qualified person employed by Applicant.
- The height of running bench shall not be >6m whereas width of the bench shall be >10m.
- Applicant shall obtained the permission for deployment of Heavy Earth Moving Machinery (HEMM) form The Director, Mines Safety, Varanasi Region, Varanasi, U.P. under regulation 106(2) (b) of Mines Act 1961.
- The bench height & width for closing benches shall be kept 6m with face slopes less than 60°. maintaining overall slope of 45°. Blasted material shall be dressed by excavator & big boulders of Granite (Khanda, Gitti & Boulder) will also re-handled by excavator. Blasted material shall be broken by excavator & broken sized of boulders up to 2-3ft size shall be loaded into tippers with the help of excavator & transported to crusher plant.
- Considering the safety and mineral conservation aspect of the area, the ultimate pit limit of 7.5m wide strip along the eastern lease boundary has been exempted as both the Applicant will mined out their areas mutually. Permission for the exemption will be taken from The Director, Mines Safety, Varanasi Region, Varanasi, U.P. under regulation 106(2) (b)& 111 of Mines Act 1961. With this proposal of mining, production of the area can be increased with safety.

**Utilities Required Power Supply**

The mine will work in day shift only, so lighting arrangement will not be required.

**Workshop and Stores**

No major additional facilities will be required to be installed.

**Fuel Detail**

High Speed Diesel (HSD) is used for running equipments and vehicles at the mining site.

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## 10.5 Site Facility

### Mines Office

Mine office and rest room will be provided at leases. Specifically the following facilities will be provided to mine workers at the mines' office and in conformance with the Mines Rules, 1952:

- Canteen cum Rest room
- Toilet
- First Aid

### Rest Shelter

Rest shelters along with first-aid station, complying with relevant provisions of Mines Rules will be provided at mine.

### Blasting Shelter

A portable blasting shelter will be provided for the mine employees to take shelter during blasting operations. Blasting operations will be usually carried out during lunch hours.

## 10.6 Solid waste management

The conspicuous feature of topography of the area is typical Bundelkhand landscape of elliptically isolated hills with gentler to sudden steep slope. The area is dominated by boulders and in situ outcrops of Bundelkhand Granite. The general slope of lease area is from South-east to North -west directions. There is neither any overlying waste stratum nor any overburden. Hence, no overburden or mine reject generation is anticipated during the mining operations.

### Disposal of Waste

There is neither any overlying waste stratum nor any overburden. Hence, no overburden or mine reject generation is anticipated during the mining operations. However, if some top soil is encountered in pot holes, solution channels during mining, then it will be recovered carefully and used for plantation purposes.

## 10.7 Water and Wastewater Management

### Water Supply & Sanitation

The Badokhar Khurd mine plans to abstract water from private water tankers.



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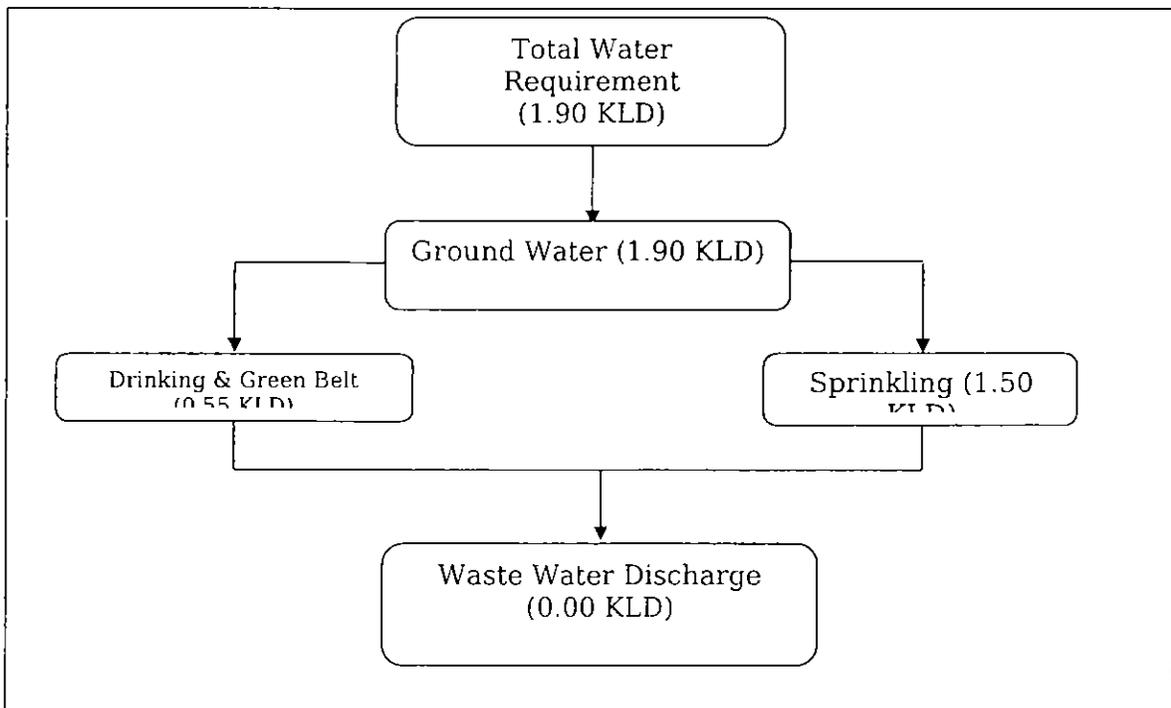
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**Water Source & Requirement**

The projected water requirements for the mine site are likely to be in the range of 1.90 kld. The major areas of water consumption are dust suppression (1.50 KLD), for domestic purposes (0.30 KLD) and green belt development (0.10 KLD). Most of the water consumption proposed will be for dust suppression. It is to be noted that due to mechanical nature of mining in this lease the water requirement for the dust suppression will be optimal. The detailed water balance is shown Figure 10.1

**Figure 10- 1: Water Balance Diagram**



**Wastewater Generation and Disposal**

There will be no wastewater generation from Granite (Khanda, Gitti & Boulder) mining activities; however, marginal quantities of domestic wastewater will be generated, which will be disposed in soak pits.



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FINAL EIA REPORT FOR GRANITE (KHANDA, GITTI & BOULDER) MINE

| Attribute                 | Baseline status  |
|---------------------------|--|
| Ambient Air Quality       | Ambient Air Quality Monitoring reveals that the minimum & maximum concentrations of PM10 for all the 5 AQ monitoring stations were found to be 49.44 µg/m <sup>3</sup> at AQ-1 and 93.85 µg/m <sup>3</sup> at AQ-1, respectively.<br>As far as the gaseous pollutants SO <sub>2</sub> and NO <sub>x</sub> are concerned, the prescribed CPCB limit of 80 µg/m <sup>3</sup> for residential and rural areas has never surpassed at any station. The minimum & maximum concentrations of SO <sub>2</sub> were found to be 5.16 µg/m <sup>3</sup> at AQ-2 & 11.10 µg/m <sup>3</sup> at AQ-1, respectively. The minimum & maximum concentrations of NO <sub>x</sub> were found to be 9.58 µg/m <sup>3</sup> at AQ-6 & 17.46 µg/m <sup>3</sup> at AQ-1 respectively. The air environment around this area is also affected by agriculture activities in the area. |
| Noise Levels              | Noise monitoring was carried out at 5 locations. The results of the monitoring program indicated that both the daytime and night time levels of noise were well within the prescribed limits of NAAQS, at all the four locations monitored.  |
| Water Quality             | 4 Groundwater samples and 3 surface water samples were analyzed and concluded that:<br>The ground water from all sources remains suitable for drinking purposes as all the constituents are within the limits prescribed by drinking water standards by Indian Standards IS: 10500.<br>From the Surface water analysis it is evident that most of the parameters of the samples comply with 'Category 'B' standards of CPCB indicating their suitability for Outdoor Bathing.  |
| Soil Quality              | Samples collected from identified locations indicate the soil is sandy type and the pH value is 7.57-7.69, which shows that the soil is alkaline in nature.  |
| Ecology and Bio-diversity | There are no Ecologically Sensitive Areas present in the study area, but many reserved forests regions surround the project area.  |
| Socio-economy             | The implementation of the Gata No.- 332, (Khand No.- 03), village - Badokhar Khurd, Tehsil- Naraini, District- Banda, U.P. Granite (Khanda, Gitti & Boulder) mining project will throw opportunities to local people for both direct and indirect employment.<br>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.  |



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## FINAL EIA REPORT FOR GRANITE (KHANDA, GITTI &amp; BOULDER) MINE

## 10.9 Land Environment

## LAND USE/ LAND COVER

The existing land use pattern of the study area based on the latest satellite imagery is given below:

Land use pattern of the study area

| S. No. | Land Category         | Area (ha) | % land cover |
|--------|-----------------------|-----------|--------------|
| 1.     | Agriculture           | 23195.85  | 73.81        |
| 2.     | Waste Land/ Open land | 6030.46   | 19.19        |
| 3.     | Build-up area         | 1586.98   | 5.05         |
| 4.     | River                 | 491.4     | 1.56         |
| 5.     | Forest                | 123.79    | 0.39         |
| TOTAL  |                       | 31428.48  | 100.0        |

## 10.10 Seismicity of the area

The project site as well as study area lies in Zone-II of Seismic Zoning Map, and thus can be said to be located in an area of moderate seismic hazard by national standards. Hence the risk of earthquake at the site persists though there has to be no incident in the near past.

## 10.11 Socio-Economic Environment

An attempt has been made to assess the impact of the proposed Granite (Khanda, Gitti & Boulder) mining project at village Badokhar Khurd on Socio-economic aspect of the study area. 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.

Implementation of the Granite (Khanda, Gitti & Boulder) Mine project will generate both direct and indirect employment. Besides, it will provide a check on existing system of mining operation. 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. 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 pattern of the people in the area will change making more people engaged in mining based activities rather in agriculture.



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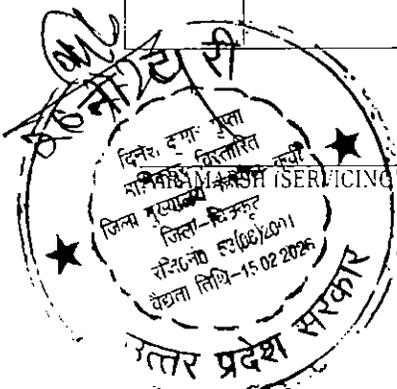
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10.12 Anticipated Impacts & Mitigation measures

| S.No.                       | Aspect                                       | Impact  | Mitigation measure   |
|-----------------------------|--|---|--|
| <b>A. Land Environment</b>  |  |   |  |
| i.                          | Land Use / Land Cover                        | At conceptual stage most of the waste land i.e. a will be converted into rain water harvesting pit and green belt Hence impact due to change in land use is positive.   | --   |
| ii.                         | Topography                                   | --  | --   |
| iii.                        | Drainage                                     | There are no prominent watercourses or nallahs in the lease area. The drainage pattern will not get disturbed due to mining activity.   | --   |
| iv.                         | Geology                                      | No impact is anticipated as the mine lease area lies in Seismic Zone-II and has practically no soil cover.  | --   |
| <b>B. Water Environment</b> |  |   |  |
| i.                          | Hydrological Regime                          | As there is no river or nallah passing through the mine site. hence no impact is anticipated on the hydrological regime of the area due to mining activity.   | --   |
| ii.                         | Diversion of Natural water course            | No natural course of water stream is interrupted or diverted due to mining activity; hence no impact on natural drain is anticipated.   | --   |
| iii.                        | Contamination due to flow of waste generated | Practically there is no overburden or reject generating from the mining activity, moreover the excavated mineral itself is non-toxic and hence no effect due to water flow during rains following the contours of the area is expected. | --   |
| iv.                         | Ground water abstraction                     | Impact on ground water is anticipated as there is provision of consuming ground water for the purpose of various mining activities. Total water demand to be met by ground water is 1.90 KLD.   | The required water will be met by private water tankers. However measures will be taken for optimal use of ground water.<br>At the end of mine life excavated pit will be converted into a water reservoir. This will help in recharging the ground water table. |



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|                           |                            |   |  |
|---------------------------|----------------------------|---|--|
| v.                        | Ground water contamination | As the mineral is non-toxic so contamination of ground water due to leaching is not anticipated.  | Ground water monitoring at regular intervals shall be carried out.   |
| <b>C. Air Environment</b> |                            |   |  |
| i.                        | Drilling                   | Fugitive dust   | Wet drilling will be provided. Suitably designed dust extractor will be provided for dry drilling along with dust hood at the mouth of the drill-hole collar.  |
| ii.                       | Blasting                   | Emission of noxious gases   | Establish time of blasting to suit the local conditions. Avoid blasting i.e., when temperature inversion is likely to occur and strong wind blows towards residential areas.   |
| iii.                      | Haul Road                  | Fugitive dust   | The long life WBM (Water Bound Macadam) haul roads will be constructed and maintained for traffic movement. Regular water spraying shall be done   |
| iv.                       | Transportation             | Gases, such as. Sulphur Dioxide, Oxides of Nitrogen. Carbon Monoxide etc. from vehicular exhaust. | The speed of dumpers/trucks on haul road will be controlled as increased speed increases dust emissions. Overloading of transport vehicles will be avoided. The trucks/ tippers will have sufficient free board. Spillage of ore on public roads will be cleared immediately and vehicles will be in safe speed. |



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|                               |                                |  |  |
|-------------------------------|--------------------------------|--|--|
| <b>D. Noise Environment</b>   |                                |  |  |
| i.                            | Drilling & Blasting            |  | Implement good working practices (equipment selection and sitting) to minimize noise and also reduce its impacts on human health (ear muffs, safe distances and enclosures).<br>Adopt good blasting practices to reduce impact on flora and fauna. Muffling will be done at the time of blasting |
| ii.                           | Mining machineries & Equipment | Noise generated from machineries & equipment   | List of all noise generating machinery onsite along with age to be prepared.<br>Equipment to be maintained in good working order.  |
| iii.                          | Transportation                 | Generation of vehicular noise  | Plantation of dense hedges on the boundary of lease area. these will reduce dust and noise in the vicinity area.   |
| <b>E. Ground vibration</b>    |                                |  |  |
| i.                            | Blasting                       | Ground Vibrations due to Blasting  | Good blasting layout must be adopted Adopting less number of holes per delay   |
| <b>Biological Environment</b> |                                |  |  |
| S.No.                         | Aspect                         | Impact   | Mitigation measure   |
| i.                            | Flora                          | There is no significant vegetation in the mine lease area, so no adverse impact on vegetation is anticipated.<br>However at the conceptual stage Green belt shall be developed which will add to the aesthetics of the study area. | Phase wise plantation shall be carried out to improve the aesthetics of the study area.  |
| ii.                           | Fauna                          | No major species are cited in the mine lease area.   | Conservation plan have been submitted for approval and all the measures shall be taken to minimize any potential impact on the Scheduled fauna.  |
|                               | Socio-Economic Environment     | Practically there is positive impact on Socio-economic conditions of the study area  | All the aspects covered shall be mitigated as per the CSR.   |
| H.                            | Mine Waste Management          | Undersize Granite (Gitti, Boulders) Management   | Undersized mineral will be used as aggregate.  |
|                               |                                | Hazardous waste management   | Hazardous waste (Used oil and oil containers) will be managed as per Hazardous Wastes (Management and Handling)  |



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|  |  | Rules, as amended till date  |
|--|--|--|
|  | Batteries of vehicles                      | Batteries will be managed as per Battery (Management & Handling) Rules; 2000.                        |
|  | Non routine events and accidental releases | Plan to be drawn up, considering likely emergencies and steps required to prevent/limit consequences |

**10.13 PROJECT BENEFITS& COST EVALUATION**

Various benefits are envisaged while planning for the mining of Granite (Khanda, Gitti & Boulder) at village Badokhar Khurd and a comprehensive description of various advantages and benefits anticipated from the proposed project to the locality, neighborhood, region and nation as a whole.

- Improved roadcommunication;
- Strengthening of existing community facilities through the Community Development Programme;
- Rain water reservoir to augment the water availability for irrigation and plantation;
- Creation of community assets (infrastructure) like school buildings, village roads/ linked roads. dispensary & healthcentre. communitycentre, market place etc.;
- Skill development & capacity building like vocational training of teachers
- Awareness program and community activities. like health camps, medical aids, family welfare programs, immunization camps sports & cultural activities, plantation etc.



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Proprietor

# CHAPTER – 11: DISCLOSURE OF CONSULTANTS



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Deputy Director

## FINAL EIA REPORT FOR GRANITE (KHANDA, GITTI &amp; BOULDER) MINE

**11.0 Disclosure of consultant Engaged**

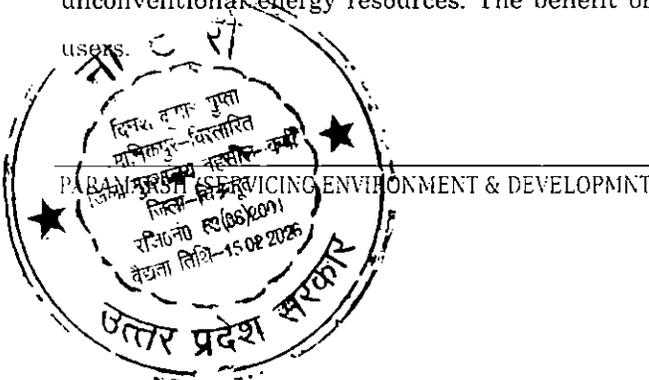
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**FINAL EIA REPORT FOR GRANITE (KHANDA, GITTI & BOULDER) MINE****DECLARATION BY EXPERTS CONTRIBUTING TO B-1 PROJECT REPORT**

Project Detail: "Granite (Khanda, Gitti & Boulder) Mining" Project at Gata No.- 332,  
(Khand No.- 03), Village- Badokhar Khurd, Tehsil- Naraini, District- Banda, U.P.  
(Leased Area : 0.56 ha.)

**Project Proponent Name -**

Prop.- Shri Deepak Singh S/o Shri Ram Pal Singh,

R/o- Akbarpur Banda Road, Bharatkoop. Teh.- Karwi, Chitrakoot (U.P.)

I, hereby, certify that I was a part of the B-1 PROJECT team in the following capacity that developed the above B-1 PROJECT.

**EIA coordinator:**

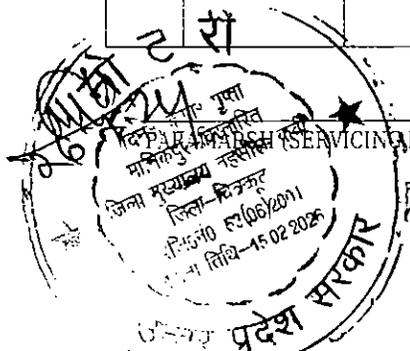
Name : Dr. Surendra Vikram Ghavri

: Dr S Prasad

Period of involvement : March 2019 to May 2019

Contact Information : [paramarsh.env@gmail.com](mailto:paramarsh.env@gmail.com)

| S. No. | Functional Area | Name of the experts | Involvement   |  | Signature and date  |
|--------|-----------------|---------------------|---|--|---------------------|
|        |                 |                     | Period  | Task   |                     |
| 1      | RH              | Mr. Akash Kumar     | March 2019 to May 2019  | Identification of hazards materials, Fire accidents from Diesel storage and lethality damages, DMP and EPP for onsite & offsite were provided. | <i>Manjul</i>       |
| 2      | WP              |                     | Estimating water requirements based on population, suggesting wastewater treatment/disposal schemes and developed the plan for rain water harvesting. |  |                     |
| 3      | EB              |                     | Generating the ground truthing ecological assessment with secondary data from different departments, earmarking rare and endangered species           |  |                     |
| 4      | SW & HW         | Dr. Manjul Gupta    | March 2019 to May 2019  | Inventory of Municipal Solid Waste, suggesting treatment options viz; organic waste convertor technology.                                      | <i>Manjul Gupta</i> |
| 5      | SC              |                     | Proposing the soil management practices during construction and operation phase of project.   |  |                     |
| 6      | AP              |                     | Collected the meteorological data and AAQ data through secondary sources and suggested air pollution control measures during both phase of project.   |  |                     |



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*Manjul Gupta*  
M/s Deepak Singh

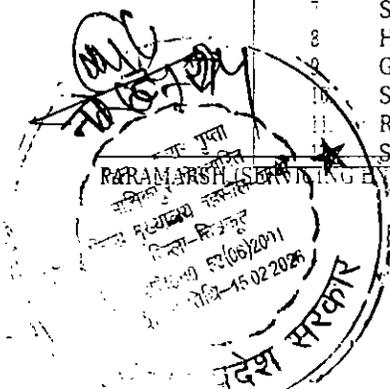
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|    |         |  |                        |  |                             |
|----|---------|--|------------------------|--|-----------------------------|
| 7  | SE & RH | Mr. Pankaj Kumar Srivastava            | March 2019 to May 2019 | Collected the primary data, livestock inventory/ impacts, identified village-wise amenities/ needs.                                      | <i>Pankaj</i>               |
| 8  | AQ & NV | Mr. Vinod Kumar Dwivedi                | March 2019 to May 2019 | Collected the ambient noise data through secondary sources and suggested Noise pollution control measures during both phases of project. | <i>Vinod</i>                |
| 9  | SC      | Dr. S.V. Ghavri                        | March 2019 to May 2019 | Proposing the soil management practices during construction and operation phase of project.  | <i>S.V. Ghavri</i>          |
| 10 | Geo     | Dr Abdul Rahman                        | March 2019 to May 2019 | Input in EIA/EMP report regarding geology of the area.   | <i>AD</i>                   |
| 11 | LU & HG | Mr. S.P. Tiwari                        | March 2019 to May 2019 | Input in EIA/EMP report regarding Land use and Hydro-geology of the area.  | <i>S.P. Tiwari</i>          |
| 12 | SW      | Mr. Promod Kumar Vishwkarma            | March 2019 to May 2019 | Quantification of Solid & Hazardous Waste and Assessment of Impacts and Probable impacts of noise on communities,                        | <i>Promod</i>               |
| 13 |         | Mr. Shamshad Ahmad (Team Member)       | March 2019 to May 2019 | Assisted in drafting and compilation of report with respective FAE   | <i>Shamshad</i>             |
| 14 |         | Mr. Mohammad Arif Ansari (Team Member) | March 2019 to May 2019 | Assisted in drafting and compilation of report with respective FAE   | <i>Mohammad Arif Ansari</i> |

|    |                  |                      |               |
|----|------------------|----------------------|---------------|
| 1. | Mr. Asgrul Hasan | Technical Assistance | <i>Asgrul</i> |
| 2. | Mr. Indra Singh  | R.Q.P.               | <i>Isingh</i> |

**\*List of Functional Areas**

|     |     |  |
|-----|-----|--|
| 1.  | LU  | : Land Use   |
| 2.  | AP  | : Air Pollution Monitoring, Prevention & Control   |
| 3.  | AQ  | : Meteorology, Air Quality Modeling & Prediction   |
| 4.  | WP  | : Water Pollution Monitoring, Prevention & Control |
| 5.  | EB  | : Ecology & Biodiversity                           |
| 6.  | NV  | : Noise & Vibration                                |
| 7.  | SE  | : Socio-Economics                                  |
| 8.  | HG  | : Hydrology, Ground Water & Water Conservation     |
| 9.  | GE  | : Geology  |
| 10. | SC  | : Soil Conservation                                |
| 11. | RH  | : Risk Assessment & Hazard Management              |
| 12. | SHW | : Solid & Hazardous Waste Management               |



*Deepak Singh*  
Proprietor

FINAL EIA REPORT FOR GRANITE (KHANDA, GITTI & BOULDER) MINE




**Quality Council of India**  
**National Accreditation Board for**  
**Education & Training**

**CERTIFICATE OF ACCREDITATION**

**Paramarsh (Servicing Environment & Development)**

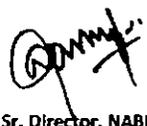
B 1/67, Sector - G, Jankipuram, Lucknow-226021, UP

Accredited as **Category - A** organization under the QCI-NABET Scheme for Accreditation of EIA Consultant Organizations: Version 3 for preparing EIA-EMP reports in the following Sectors:

| Sl. No. | Sector Description   | Sector (as per) |        | Cat. |
|---------|--|-----------------|--------|------|
|         |  | NABET           | MoEFCC |      |
| 1       | Mining of minerals - opencast mining only  | 1               | 1 (d)  | A    |
| 2       | Metallurgical industries (ferrous & non-ferrous)   | 8               | 3(a)   | A    |
| 3       | Cement Plants  | 9               | 3(b)   | B    |
| 4       | Asbestos milling and asbestos based products   | 12              | 4 (c)  | A    |
| 5       | Distilleries   | 22              | 5 (g)  | A    |
| 6       | Pulp & paper industry excluding manufacturing of paper from wastepaper and manufacture of paper from ready pulp without bleaching            | 24              | 5 (i)  | A    |
| 7       | Sugar Industry   | 25              | 5 (j)  | B    |
| 8       | Industrial estates/ parks/ complexes/ Areas, export processing Zones (EPZs), Special economic zones (SEZs), Biotech Parks, Leather Complexes | 31              | 7 (c)  | A    |
| 9       | Building and Construction Projects   | 38              | 8 (a)  | B    |
| 10      | Townships and Area development Projects  | 39              | 8 (b)  | B    |

*Note: Names of approved EIA Coordinators and Functional Area Experts are mentioned in RAAC minutes dated January 04, 2019 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/ACO/19/0911 dated February 15, 2019. The accreditation needs to be renewed before the expiry date by Paramarsh (Servicing Environment & Development), Lucknow, following due process of assessment.*

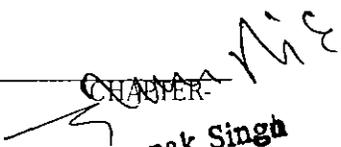
  
 Sr. Director, NABET  
 Dated: February 15, 2019

Certificate No.  
 NABET/ EIA/1821/ RA 0120

Valid till  
 01.05.2021

For the updated List of Accredited EIA Consultant Organizations with approved Sectors please refer to QCI-NABET website.



  
 M/s Deepak Singh  
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**FINAL EIA REPORT FOR GRANITE (KHANDA, GITTI & BOULDER) MINE**

**Declaration by the Head of the Accredited Consultant Organization**

I, Akash Kumar, hereby, confirm that the above mentioned experts prepared the B-1 PROJECT Report for "Granite (Khanda, Gitti & Boulder) Mining" Project at Gata No.- 332, (Khand No.- 03), Village- Badokhar Khurd, Tehsil- Naraini, District- Banda, U.P. (Leased Area : 0.56 ha.). I also confirm that the PARAMARASH (Servicing Environment and Development) organization has been prepared this B-1 PROJECT report with full diligence and within the terms of the contract with the client, incorporating our general terms and conditions of business.

This document is one of a series of overview information documents on the concepts of and approaches to Environmental Impact Assessment (EIA). EIA provides the overarching framework for the integration of Environmental assessment and Management principles into environmental decision-making. It includes the use of several environmental impact assessment and management tools that are appropriate for the various levels of decision-making. The aim of this document series is to provide general information on techniques, tools and processes for environmental impact assessment and management.

PARAMARSH (Servicing Environment and Development) Consult will not take any responsibility or liability for the consequences of this document being used for any other purpose for which it was commissioned. Any person using or relying on the document for such other purpose agrees, and will by such use or reliance be taken to confirm his agreement to underwrite PARAMARSH (Servicing Environment and Development) for all loss or damage resulting there from.

*Akash*

(Akash Kumar)

Authorized Signatory



*Deepak Singh*  
M/s Deepak Singh

Proprietor



# Annexure No.3

## Minutes of 497<sup>th</sup> SEAC Meeting Dated 05/10/2020

The 497<sup>th</sup> meeting of SEAC was held through video in view of the Corona Virus Disease (Covid-19) on 05/10/2020. Following members were participate in the online meeting:

|    |                           |          |
|----|---------------------------|----------|
| 1. | Dr. (Prof.) S.N. Singh,   | Chairman |
| 2. | Dr. Sarita Sinha,         | Member   |
| 3. | Dr. VirendraMisra,        | Member   |
| 4. | Dr. Pramod Kumar Mishra,  | Member   |
| 5. | Dr. Ranjeet Kumar Dalela, | Member   |
| 6. | Dr. Ajoy Kumar Mandal,    | Member   |
| 7. | Shri Rajive Kumar,        | Member   |
| 8. | Shri Meraj Uddin,         | Member   |
| 9. | Prof. S.K. Upadhyay,      | Member   |

The Chairman welcomed the members to the 497<sup>th</sup> SEAC meeting which was conducted online. The SEAC unanimously took following decisions on the agenda points discussed:

1. Building Stone "Sand Stone" at Araji No.-639, at Village- Rampur Sakteshgarh, Tehsil- Chunar, District- Mirzapur, U.P., M/s Shahnai Constrction, Area -3.64 ha, File No.- 4807/Proposal No. SIA/UP/MIN/36042/2019

### RESOLUTION AGAINST AGENDA NO-01

The project proponent/consultant did not circulate the documents to the members of SEAC on time. Hence, the committee directed to defer the matter. The file shall not be treated as pending at SEAC. The matter will be discussed only after submission of online request on prescribed online portal.

2. Building Stone (Khanda, Gitti & Boulder) Mine at Gata No.-587, Khand No.-03, at Village- Nahari, Tehsil-Naraini, District Banda. Shri Ankur Shivhare., Area-2.0 ha., File No.-5844/4784SIA/UP/MIN/56743/2019

### RESOLUTION AGAINST AGENDA NO-02

The project proponent/consultant did not appear in the meeting and also notcirculated the documents to the members of SEAC on time. Hence, the committee directed to defer the matter. The file shall not be treated as pending at SEAC. The matter will be discussed only after submission of online request on prescribed online portal.



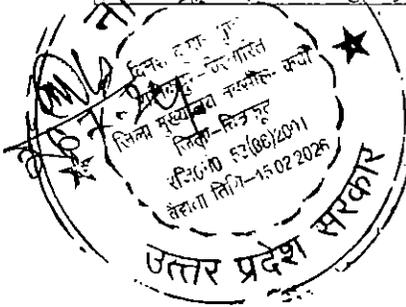
*Deepak Singh*  
M/s Deepak Singh  
Proprietor

**3. "Granite (Khanda, Gitti & Boulder)" Mine at Gata No.-332, Khand No.- 03, Village-Badokhar Khurd, Tehsil- Naraini, Banda, U.P., Shri Deepak Singh., Area -0.56 ha., File No.-5846/5028SIA/UP/MIN/56684/2019**

A presentation was made by the project along with their consultant M/s PARAMARSH (Servicing Environment and Development). The proponent, through the documents submitted and the presentation made informed the committee that:-

1. The environmental clearance is sought for Granite (Khanda, Gitti & Boulder) at Gata No.-332 (Khand No.- 03), Village- Badokhar Khurd, Tehsil- Naraini, District- Banda, U.P.
2. The terms of reference in the matter were issued by SEIAA, U.P. vide letter no. 424/Parya/SEAC/5028/2019, dated: 27<sup>th</sup> November, 2019.
3. The public hearing was organized on 02<sup>nd</sup> July, 2020. Final EIA report submitted by the project proponent on 17<sup>th</sup> September, 2020
4. Salient features of the project as submitted by the project proponent:

|       |   |   |                      |                      |
|-------|---|---|----------------------|----------------------|
| 1.    | On-line proposal No.                                    | SIA/UP/MIN/56684/2019   |                      |                      |
| 2.    | File No. allotted by SEIAA, UP                          | 5846 & 5028   |                      |                      |
| 3.    | Name of Proponent                                       | Shri Deepak Singh S/o Shri Ram Pal Singh                                      |                      |                      |
| 4.    | Full correspondence address of proponent and mobile no. | R/o- Akbarpur Banda Road, Bharatkoop, Teh.- Karwi, District- Chitrakoot, U.P. |                      |                      |
| 5.    | Name of Project   | Granite (Khanda, Gitti & Boulder) Mining Project                              |                      |                      |
| 6.    | Project location (Plot/ Khasra /Gata No.)               | Gata No.- 332 (Khand No.- 03)   |                      |                      |
| 7.    | Name of Village   | BadokharKhurd   |                      |                      |
| 8.    | Tehsil  | Naraini   |                      |                      |
| 9.    | District  | Banda   |                      |                      |
| 10.   | Name of Minor Mineral                                   | Granite (Khanda, Gitti& Boulder)  |                      |                      |
| 11.   | Sanctioned Lease Area (in Ha.)                          | 0.56ha.   |                      |                      |
| 12.   | Max. & Min mrl within lease area                        | 168.0 mRL.- 147.0 mRL.  |                      |                      |
| 13.   | Pillar Coordinates(Verified by DMO)                     | <b>Pillars</b>  | <b>Latitude (N)</b>  | <b>Longitude (E)</b> |
|       |   | A   | 25° 19' 44.45"       | 80° 22' 36.76"       |
|       |   | B   | 25° 19' 42.60"       | 80° 22' 32.61"       |
|       |   | C   | 25° 19' 43.47"       | 80° 22' 31.69"       |
| D     | 25° 19' 45.71"  | 80° 22' 35.17"  |                      |                      |
| 14.   | Total Geological Reserves                               | 3,55,428 m <sup>3</sup>   |                      |                      |
| 15.   | Total Mineable Reserves                                 | 45,752 m <sup>3</sup>   |                      |                      |
| 16.   | Total Proposed Production (in five year)                | 28,000 m <sup>3</sup>   |                      |                      |
| 17.   | Proposed Production / year                              | <b>Year</b>   | <b>Production</b>    |                      |
|       |   | 1 <sup>st</sup>   | 5,600 m <sup>3</sup> |                      |
|       |   | 2 <sup>nd</sup>   | 5,600 m <sup>3</sup> |                      |
|       |   | 3 <sup>rd</sup>   | 5,600 m <sup>3</sup> |                      |
|       |   | 4 <sup>th</sup>   | 5,600 m <sup>3</sup> |                      |
|       |   | 5 <sup>th</sup>   | 5,600 m <sup>3</sup> |                      |
| Total | 28,000 m <sup>3</sup>                                   |   |                      |                      |
| 18.   | Sanctioned Period of Mine lease                         | 10 Years (from the execution of lease deed)                                   |                      |                      |
| 19.   | Production of mine/day                                  | 18.67 m <sup>3</sup> (average)  |                      |                      |
| 20.   | Method of Mining  | Opencast Semi-Mechanized  |                      |                      |
| 24.   | No. of working days                                     | 300 days  |                      |                      |



Acting  
M/s Deepak Singh  
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Proprietor

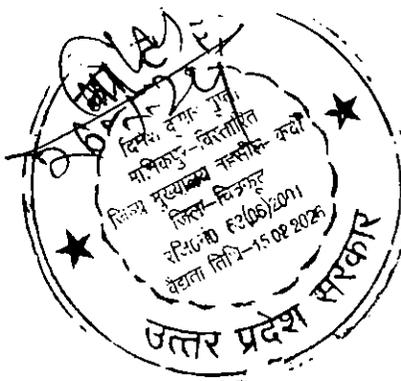
Minutes of 497<sup>th</sup> SEAC Meeting Dated 05/10/2020

|       |  |   |                   |
|-------|--|---|-------------------|
| 22.   | Working hours/day  | 8 Hours/Day   |                   |
| 23.   | No.Of workers  | 26 (average)  |                   |
| 24.   | No.Of vehicle movement /day  | 2 (average)   |                   |
| 25.   | Type of Land   | Govt. Revenue Land  |                   |
| 26.   | Ultimate Depth of Mining   | 12 meter (average)  |                   |
| 27.   | Nearcest metalled road from site   | 0.25 km   |                   |
| 28.   | Water Requirement  | PURPOSE   | REQUIREMENT (KLD) |
|       |  | Drinking & Others   | 0.30              |
|       |  | Suppression of dust   | 1.50              |
|       |  | Plantation  | 0.10              |
|       |  | Others( if any)   | -----             |
| Total | 1.90   |   |                   |
| 29.   | Name of QCI Accredited Consultant with QCI No and period of validity.    | M/s Paramarsh (Servicing Environment and Development), Lucknow, U.P.<br>QCI-NABET/EIA/1821/RA0120. Validity-01/05/2021                            |                   |
| 30.   | Any litigation pending against the project or land in any court          | No  |                   |
| 31.   | Details of 500 m Cluster Map & certificate<br>Verified by Mining Officer | Letter Sanctioned from DMO, Banda vide Letter No. 1017/Khanij-30, Banda, Dated 15 <sup>th</sup> June, 2019  |                   |
| 32.   | Details of Lease Area in approved DSR                                    | Correction Letter Sanctioned from DMO, Banda vide Letter No. 1374/Khanij-30, Banda, Dated 13 <sup>th</sup> August, 2019<br>Page No.- 01, S.No.- 7 |                   |
| 33.   | Proposed CER cost  | 1.20 Lakh   |                   |
| 34.   | Proposed EMP cost  | 10.09 Lakh  |                   |
| 35.   | Length and breadth of Haul Road.   | Length- 0.25 Km. Width- more than 6.0 m   |                   |
| 36.   | No. of Trees to be Planted   | 71  |                   |

5. 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.
6. This project does not attract any of the general conditions applicable on mining projects specified in EIA Notification 14/09/2006.
7. 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.
8. There is no litigation pending in any court regarding this project.
9. The project proposal falls under category-1(a) of EIA Notification, 2006 (as amended).

**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 regarding mining project.



*Autm Aie*  
M/s Deepak Singh  
Proprietor

4. **Building Stone(Khanda, Gitti & Boulder)Mine at Gata No.-587, Khand No.-06,at Village-Nahari, Tehsil-Naraini, Banda. M/s Maa Sharda Associates., Area-2.0 ha. File No.- 5848/4791SIA/UP/MIN/50695/2019**

**RESOLUTION AGAINST AGENDA NO-04**

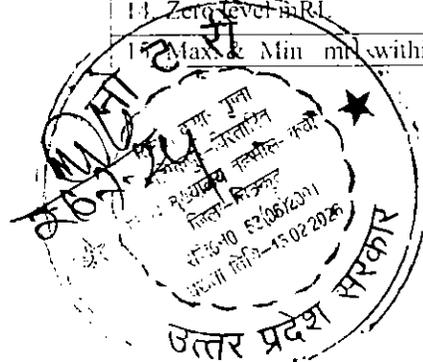
The project proponent/consultant did not appear in the meeting and also not circulated the documents to the members of SEAC on time. Hence, the committee directed to defer the matter. The file shall not be treated as pending at SEAC. The matter will be discussed only after submission of online request on prescribed online portal.

5. **Sand Mining from Yamuna River bed at Gata No.-76Mi, Village- Bela Kalan, Tehsil-Sadar, Gautma Buddh Nagar., M/s H.S.M. Holding Pvt. Ltd., Area-26.76 Ha File No.- 3991SIA/UP/MIN/21635/2018**

A presentation was made by the project along with their consultant ENV Development Assistance Systems (I) Pvt. Ltd. (Servicing Environment and Development). The Proponent through the documents submitted and the presentation made informed the committee that:-

1. The environmental clearance is sought for Sand Mining from Yamuna River bed at Gata No.-76Mi, Village- Bela Kalan, Tehsil- Sadar, Gautma Buddh Nagar., M/s H.S.M. Holding Pvt. Ltd..
2. The terms of reference in the matter were issued by SEIAA, U.P. vide letter no. 261/Parya SEAC 3991/2018 dated 22-03-2018.
3. The public hearing was organized on 05-10-2018. Final EIA report submitted by the project proponent on 16/09/2020.
4. Salient features of the project as submitted by the project proponent:

|  |  |
|--|--|
| 1. On-line proposal No.                                    | SIA/UP/MIN/21635/2018  |
| 2. File No. allotted by SEIAA, UP                          | 3991   |
| 3. Name of Proponent                                       | M/s H.S.M. Holding Pvt. Ltd.<br>ShriAjit Singh Malhotra  |
| 4. Full correspondence address of proponent and mobile no. | ShriAjit Singh Malhotra<br>R/o Nehru Ward, Ward No.13, Near Alka Talkies, Tehsil-<br>Pipariya, District- Hoshangabad, Madhya Pradesh |
| 5. Name of Project   | Sand/Morrum Mining   |
| 6. Project location (Plot/Khasra Gata No.)                 | Gata No. 76 Mi   |
| 7. Name of River   | Yamuna   |
| 8. Name of Village   | BelaKelan  |
| 9. Tehsil  | Sadar  |
| 10. District   | GautamBudh Nagar   |
| 11. Name of Minor Mineral                                  | Sand/Morrum  |
| 12. Sanctioned Lease Area (in ha)                          | 26.758 ha  |
| 13. Mineable Area (in ha)                                  | 26.758 ha  |
| 14. Zero level in RL                                       | 187 mRL  |
| 15. Max & Min ml within lease area                         | 196 mRL and 191 mRL  |



*Deepak Singh*  
M/s Deepak Singh  
Proprietor

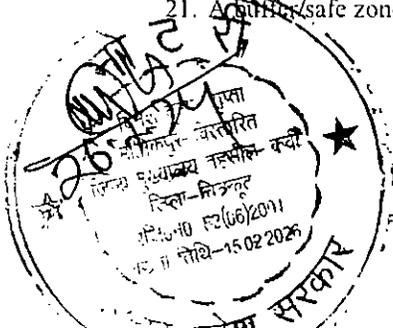


5. The mining would be restricted to unsaturated zone only above the phreatic water table and will not intersect the ground water table at any point of time.
6. This project does not attract any of the general conditions applicable on mining projects specified in EIA Notification 14/09/2006.
7. The mining 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.
8. There is no litigation pending in any court regarding this project.
9. The project proposal falls under category-1(a) of EIA Notification, 2006 (as amended).

#### 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- 2 & 3 to these minutes regarding mining project.

1. Before plantation in a selected area the soil testing should be done and species to be chosen accordingly.
2. At the time of operation, project proponent will comply with all the guidelines issued by Government of India/State Govt./District Administration related to Covid-19.
3. Environment management in according to environmental status and impact of the project.
4. Selection of plants for green belt should be on the basis of pollution removal index.
5. No mining activity should be carried out in-stream channel as per SSMMG, 2016.
6. Pakka motorable haul road to be maintained by the project proponent.
7. A separate Environmental Management Cell with suitable qualified personnel shall be setup under the control of a Senior Executive, who will report directly to the Head of the Organization.
8. Permission from the competent authority regarding evacuation route should be taken.
9. Project proponent should ensure survival of tree saplings. Mortality should be replaced from time to time.
10. Site Pit photographs should be submitted with date, time and point-coordinate within 15 days.
11. One month monitoring report of the area for air quality, water quality, Noise level. Besides flora & fauna should be examined twice a week and be submitted within 45 days for a record.
12. Provision for cylinder to workers should be made for cooking.
13. The capacity of trucks/tractor for loading purpose will be in tonnes as per Transport Department applicable norms and standard fixed by the Government.
14. Provide suitable mask to the workers.
15. Approach road kaccha is to be made motarable and tree saplings to be planted on both sides of the road.
16. Indigenous plants should be planted according to CPCB guidelines and in consultation with Local Divisional Forest Officer.
17. The project proponent shall in 2 years conduct detailed replenishment study duly authenticated by a QCI-NABET accredited consultant, and the District Mines Officer.
18. Provision for two toilets and hand pumps should be made at mining site.
19. Drinking water for workers would be provided by tankers.
20. Mining should be done by Bar scalping methods extraction (typically 0.3-0.6 m or 1 - 2 ft) as per sustainable sand mining management guidelines 2016.
21. A buffer/safe zone shall be maintained from the habitation as per mining guidelines.



*Deepak Singh*  
M/s Deepak Singh  
Proprietor

Minutes of 497<sup>th</sup> SEAC Meeting Dated 05/10/2020

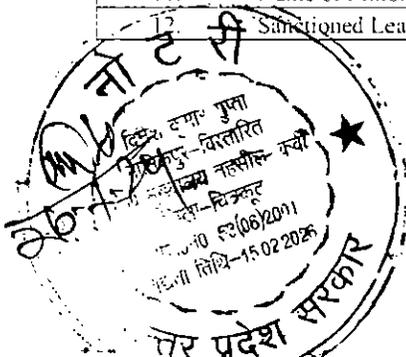
22. Corporate Environmental Responsibility (CER) plan shall be prepared by the project proponent and the details of the various heads of expenditure to be submitted as per the guidelines provided in the recent CER notification No. 22-65/2017-IA.III dated 01/05/2018.
23. Health/Insurance card, Medical claim, regular health check-up camps, facilities shall be provided to the regular/temporary/Contractual or any base workers. Copy of receipt shall be produced to the Directorate of Environment along with the compliance report.
24. Measure for conservation of water through rainwater harvesting and cleaning and maintenance of natural surface water bodies of the nearby areas may be considered as one of the activity in CER.
25. The excavated mining material should be carried and transported in such a way that no obstruction to the free flow of water takes place. Suitable measure should be taken and details to be provided to concern Department.
26. Width of the haul road shall be more than 6 meter.
27. Submit annual replenishment report certified by an authorized agency. In case the replenishment is lower than the approved rate of production, then the mining activity / production levels shall be decreased / stopped accordingly till the replenishment is completed.

**6. Sand/Morrum Mining along Betwa River Bed in Khand No.- 20/1, Village-Tikapur, Tehsil- Maudaha, District- Hamirpur., Shri Anand Kumar Gupta., Area-12.145 Ha File No.-4571SIA/UP/MIN/29932/2018**

A presentation was made by the project along with their consultant M/s PARAMARSH (Servicing Environment and Development). The proponent, through the documents submitted and the presentation made informed the committee that:-

1. The environmental clearance is sought for Sand/Morrum Mining having lease area 12.145 ha (30.00 acre) along River Betwa in Khand No. 20/1 at Village – Tikapur, Tehsil- Maudaha, District- Hamirpur
2. The terms of reference in the matter were issued by SEIAA, U.P. vide letter no. 677-Parya-SEAC.4571/2017 dated 07-02-2019.
3. The public hearing was organized on 19-03-2020. Final EIA report submitted by the project proponent on 16/09/2020.
4. Salient features of the project as submitted by the project proponent:

|     |   |  |
|-----|---|--|
| 1.  | On-line proposal No                                     | SIA/UP/MIN/29932/2018  |
| 2.  | File No. allotted by SEIAA, UP                          | 4571   |
| 3.  | Name of Proponent                                       | Sri Anand Kumar Gupta  |
| 4.  | Full correspondence address of proponent and mobile no. | S/o Sri Laxmi Narain Gupta<br>R/o Maharajpur, District – Kanpur Nagar, Uttar Pradesh |
| 5.  | Name of Project   | Sand/ Morrum Mining Project  |
| 6.  | Project location (Plot/ Khasra Gata No.)                | Khand No. 20/1   |
| 7.  | Name of River   | Betwa River  |
| 8.  | Name of Village   | Tikapur  |
| 9.  | Tehsil  | Maudaha  |
| 10. | District  | Hamirpur   |
| 11. | Name of Minor Mineral                                   | Sand/ Morrum   |
| 12. | Sanctioned Lease Area (in Ha.)                          | 12.45 ha.  |

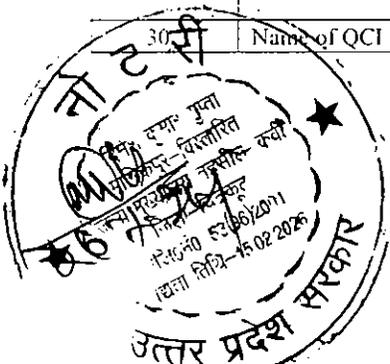


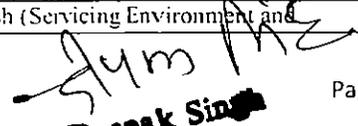
*Sri Anand Kumar Gupta*  
M/s Deepak Singa  
Proprietor

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|       |  |   |                   |                 |
|-------|--|---|-------------------|-----------------|
| 13.   | Max. & Min mrl within lease area         | 103.1 mRL- 93.5mRL  |                   |                 |
| 14.   | Pillar Coordinates(Verified by DMO)      | Pillar No   | Latitude N        | Longitude E     |
|       |  | A   | 25° 54' 11.04"N   | 79° 58' 14.04"E |
|       |  | B   | 25° 54' 35.48"N   | 79° 58' 24.40"E |
|       |  | C   | 25° 54' 36.67"N   | 79° 58' 17.65"E |
|       |  | D   | 25° 54' 31.04"N   | 79° 58' 9.42"E  |
|       |  | <b>Submerged area</b>   |                   |                 |
|       |  | S1  | 25° 54' 21.98"N   | 79° 58' 12.93"E |
|       |  | S2  | 25° 54' 20.54"N   | 79° 58' 18.09"E |
|       |  | S3  | 25° 54' 21.71"N   | 79° 58' 18.55"E |
|       |  | S4  | 25° 54' 23.38"N   | 79° 58' 13.35"E |
|       |  | <b>Working area</b>   |                   |                 |
|       |  | A   | 25° 54' 11.04"N   | 79° 58' 14.04"E |
|       |  | S2  | 25° 54' 20.54"N   | 79° 58' 18.09"E |
|       |  | S1  | 25° 54' 21.98"N   | 79° 58' 12.93"E |
|       |  | D   | 25° 54' 31.04"N   | 79° 58' 9.42"E  |
|       |  | S3  | 25° 54' 21.71"N   | 79° 58' 18.55"E |
| B     | 25° 54' 35.48"N                          | 79° 58' 24.40"E   |                   |                 |
| C     | 25° 54' 36.67"N                          | 79° 58' 17.65"E   |                   |                 |
| S4    | 25° 54' 23.38"N                          | 79° 58' 13.35"E   |                   |                 |
| 15.   | Total Geological Reserves                | 386838 m <sup>3</sup>   |                   |                 |
| 16.   | Total Mineable Reserves                  | 194304 m <sup>3</sup>   |                   |                 |
| 17.   | Total Proposed Production (in five year) | 971520m <sup>3</sup>  |                   |                 |
| 18.   | Proposed Production / year               | 194304 m3   |                   |                 |
| 19.   | Sanctioned Period of Mine lease          | 5 Year  |                   |                 |
| 20.   | Production of mine/day                   | 777 m <sup>3</sup>  |                   |                 |
| 21.   | Method of Mining                         | Bar Scalping or Skimming method (Semi mechanized/OTFM-Other than fully mechanized, as per IBM & SSMG, 2016) using:<br><ul style="list-style-type: none"> <li>• Scraper/light earth movers</li> <li>• Chain based Bulldozer for rescue &amp; salvage</li> <li>• Loader</li> <li>• Truck &amp; tractors for transportation</li> </ul> |                   |                 |
| 22.   | No. of working days                      | 250 days  |                   |                 |
| 23.   | Working hours/day                        | 8 Hours/Day   |                   |                 |
| 24.   | No. of workers                           | 55 (average)  |                   |                 |
| 25.   | No. of vehicle movement /day             | 65 (average)  |                   |                 |
| 26.   | Type of Land                             | River Bed Govt. Land  |                   |                 |
| 27.   | Ultimate Depth of Mining                 | 3.0 meter (average)   |                   |                 |
| 28.   | Nearest metalled road from site          | 0.55 km   |                   |                 |
| 29.   | Water Requirement                        | PURPOSE   | REQUIREMENT (KLD) |                 |
|       |  | Drinking & Others   | 0.55              |                 |
|       |  | Suppression of dust   | 6.6               |                 |
|       |  | Plantation  | 0.28              |                 |
|       |  | Others( if any)   | -----             |                 |
| Total | 7.43                                     |   |                   |                 |
| 30.   | Name of QCI Accredited                   | M/s Paramarsh (Servicing Environment and  |                   |                 |



  
 M/s Deepak Singh  
 Proprietor

|     |  |   |
|-----|--|---|
|     | Consultant with QCI No and period of validity.                           | Development), Lucknow, U.P.<br>QCI/NABET/EIA/1821/RA0120<br>Validity- May 01, 2021    |
| 31. | Any litigation pending against the project or land in any court          | No  |
| 32. | Details of 500 m Cluster Map & certificate<br>Verified by Mining Officer | DMO, Hamirpur vide Letter No-1047/Khamij M.M.C-30-Vividh (2020-21), dated 17/09/2020. |
| 33. | Details of Lease Area in approved DSR                                    | Page No.- 01, S.No.- 92   |
| 34. | Proposed CER cost  | 1.40 Lakh   |
| 35. | Proposed EMP cost  | 6.66 Lakh   |
| 36. | Length and breadth of Haul Road.   | Length- 0.55 km, Width- more than 6.0 m   |
| 37. | No. of Trees to be Planted   | 265   |

5. 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.
6. This project does not attract any of the general conditions applicable on mining projects specified in EIA Notification 14/09/2006.
7. 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.
8. There is no litigation pending in any court regarding this project.
9. The project proposal falls under category-1(a) of EIA Notification, 2006 (as amended).

#### 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-2 & 3 to these minutes regarding mining project.

1. Before plantation in a selected area the soil testing should be done and species to be chosen accordingly.
2. At the time of operation, project proponent will comply with all the guidelines issued by Government of India/State Govt./District Administration related to Covid-19.
3. Environment management in according to environmental status and impact of the project.
4. Selection of plants for green belt should be on the basis of pollution removal index.
5. No mining activity should be carried out in-stream channel as per SSMMG, 2016.
6. Pakka motorable haul road to be maintained by the project proponent.
7. A separate Environmental Management Cell with suitable qualified personnel shall be setup under the control of a Senior Executive, who will report directly to the Head of the Organization.
8. Permission from the competent authority regarding evacuation route should be taken.
9. Project proponent should ensure survival of tree saplings. Mortality should be replaced from time to time.
10. Site Pit photographs should be submitted with date, time and point-coordinate within 15 days.
11. One month monitoring report of the area for air quality, water quality, Noise level. Besides flora & fauna should be examined twice a week and be submitted within 45 days for a record.
12. Provision for cylinder to workers should be made for cooking.



*Signature*  
M/s Deepak Singh  
Proprietor

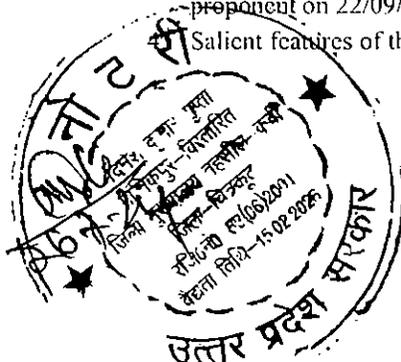
13. The capacity of trucks/tractor for loading purpose will be in tonnes as per Transport Department applicable norms and standard fixed by the Government.
14. Provide suitable mask to the workers.
15. Approach road kaccha is to be made motarable and tree saplings to be planted on both sides of the road.
16. Indigenous plants should be planted according to CPCB guidelines and in consultation with local Divisional Forest Officer.
17. The project proponent shall in 2 years conduct detailed replenishment study duly authenticated by a QCI-NABET accredited consultant, and the District Mines Officer.
18. Provision for two toilets and hand pumps should be made at mining site.
19. Drinking water for workers would be provided by tankers.
20. Mining should be done by Bar scalping methods extraction (typically 0.3 -0.6 m or 1 - 2 ft) as per sustainable sand mining management guidelines 2016.
21. A buffer/safe zone shall be maintained from the habitation as per mining guidelines.
22. Corporate Environmental Responsibility (CER) plan 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.
23. Health/Insurance card, Medical claim, regular health check-up camps, facilities shall be provided to the regular/temporary/Contractual or any base workers. Copy of receipt shall be produced to the Directorate of Environment along with the compliance report.
24. Measure for conservation of water through rainwater harvesting and cleaning and maintenance of natural surface water bodies of the nearby areas may be considered as one of the activity in CER.
25. The excavated mining material should be carried and transported in such a way that no obstruction to the free flow of water takes place. Suitable measure should be taken and details to be provided to concern Department.
26. Width of the haul road shall be more than 6 meter.
27. Submit annual replenishment report certified by an authorized agency. In case the replenishment is lower than the approved rate of production, then the mining activity / production levels shall be decreased / stopped accordingly till the replenishment is completed.

**7. Sand/Morrum Mining on Dhasan River at Gata No.-1419Kha, Khand No.-01, Vill.-Dhamnaud, Tehsil-Garautha, Jhansi. Sri Vipin Kumar Saxena., Area-24.00 Ha File No.-5860/5578SIA/UP/MIN/ 56882/2020**

A presentation was made by the project proponent along with their consultant M/s Ind Tech House Consult. The proponent, through the documents submitted and the presentation made informed the committee that:

1. The environmental clearance is sought for Sand/Morrum Mining from Riverbed at Village-Dhamnaud, Tehsil- Garautha ,District- Jhansi U.P. Sri Vipin Kumar Saxena S/o Sri Om Prakash Saxena (Leased Area – 24.00 Ha)
2. The terms of reference in the matter were issued by SEIAA. U.P. vide letter no. 110/Parya/SEAC/5578/2017 dated 08-06-2020.
3. The public hearing was organized on 22-08-2020. Final EIA report submitted by the project proponent on 22/09/2020.

Salient features of the project as submitted by the project proponent,



*Signature*  
M/s Deepak Singh

Proprietor

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|     |   |   |                                |               |
|-----|---|---|--------------------------------|---------------|
| 1.  | On Line Proposal No.                                    | SIA/UP/MIN/56882/2020   |                                |               |
| 2.  | File No. allotted by SEIAA, UP                          | 5860/5578   |                                |               |
| 3.  | Name of Proponent                                       | Sri Vipin Kumar Saxena S/o Sri Om Prakash Saxena  |                                |               |
| 4.  | Full correspondence address of proponent and mobile no. | R/o- MIG -A/135 , Aashiyana Pratham , Tehsil and District Moradabad U.P   |                                |               |
| 5.  | Name of Project   | Area- (24.00 Ha) On Dhasan River For Sand/ Morrum Mining at Gata No. 1419 Kh Khand No.- 01, Village- Dhamnaud Tehsil- Garautha , District- Jhansi U.P. Sri Vipin Kumar Saxena S/o Sri Om Prakash Saxena |                                |               |
| 6.  | Project Location(Plot.Khsra/Gata No.)                   | Gata No. 1419 Kh Khand No.- 01  |                                |               |
| 7.  | Name of River   | Dhasan River  |                                |               |
| 8.  | Name of Village   | Dhamnad   |                                |               |
| 9.  | Tehsil  | Garautha  |                                |               |
| 10. | District  | Jhansi  |                                |               |
| 11. | Name of Minor Mineral                                   | Sand/Morrum   |                                |               |
| 12. | Sanctioned Lease Area (in Ha.)                          | 24.0 Ha.  |                                |               |
| 13. | Max. & Min mRL within lease area                        | 121.0 mRL & 128.5 mRL   |                                |               |
| 14. | Pillar Coordinates (Verified by DMO)                    | POINT   | LATTITUDE                      | LONGITUDE     |
|     |   | A   | 25°40'42.00"N                  | 79°23'03.70"E |
|     |   | B   | 25°40'51.10"N                  | 79°23'04.40"E |
|     |   | C   | 25°40'59.60"N                  | 79°23'06.10"E |
|     |   | D   | 25°41'04.40"N                  | 79°23'04.10"E |
|     |   | E   | 25°41'08.80"N                  | 79°23'01.50"E |
|     |   | F   | 25°41'11.80"N                  | 79°22'58.40"E |
|     |   | G   | 25°41'15.60"N                  | 79°22'52.10"E |
|     |   | H   | 25°41'22.17"N                  | 79°22'37.78"E |
|     |   | I   | 25°41'25.13"N                  | 79°22'38.44"E |
|     |   | J   | 25°41'20.80"N                  | 79°22'54.50"E |
|     |   | K   | 25°41'16.30"N                  | 79°23'03.60"E |
|     |   | L   | 25°41'07.90"N                  | 79°23'10.00"E |
|     |   | M   | 25°40'57.30"N                  | 79°23'11.60"E |
|     |   | N   | 25°40'54.80"N                  | 79°23'10.90"E |
|     |   | O   | 25°40'48.30"N                  | 79°23'08.40"E |
|     |   | P   | 25°40'40.31"N                  | 79°23'03.62"E |
| 15. | Total Geological Reserves                               | 7,20,000m <sup>3</sup> /Annum   |                                |               |
| 16. | Total Mineable Reserve                                  | 2,55,767m <sup>3</sup> /Annum   |                                |               |
| 17. | Total Proposed Production in LOI                        | 2,50,000 m <sup>3</sup> /Annum  |                                |               |
| 18. | Proposed Production year                                | Year  | Production                     |               |
|     |   | 1 <sup>st</sup>   | 2,50,000 m <sup>3</sup> /Annum |               |
|     |   | 2 <sup>nd</sup>   | 2,50,000 m <sup>3</sup> /Annum |               |
|     |   | 3 <sup>rd</sup>   | 2,50,000 m <sup>3</sup> /Annum |               |
|     |   | 4 <sup>th</sup>   | 2,50,000 m <sup>3</sup> /Annum |               |
|     |   | 5 <sup>th</sup>   | 2,50,000 m <sup>3</sup> /Annum |               |
|     |   | Total   | 12,50,000 m <sup>3</sup>       |               |



*(Signature)*  
M/s Deepak Singh

Proprietor

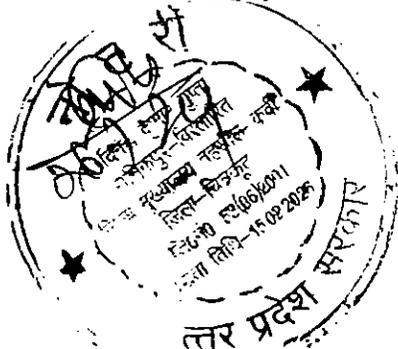
|     |   |   |                   |
|-----|---|---|-------------------|
| 19. | Sanctioned Period of Mine lease                                       | 5 Years   |                   |
| 20. | Production of mine/day  | 1111 m <sup>3</sup> /Day  |                   |
| 21. | Method of Mining  | Open cast Manual / Semi Mechanized Mining Method /Bar Scalping or Skimming Method (as per IBM Rules & SSMMG, 2016 MoEF & CC ,GOI) |                   |
| 22. | No. of working days   | 225 Days  |                   |
| 23. | Working hours/day   | 8 Hours   |                   |
| 24. | No. of worker   | 90 Worker   |                   |
| 25. | No. of vehicles movement day  | 123 Trucks / Day  |                   |
| 26. | Type of Land  | River Bed (Govt. Land)  |                   |
| 27. | Ultimate of Depth of Mining   | 1.3 m   |                   |
| 28. | Nearest metalled road from site                                       | 1.0 Km  |                   |
| 29. | Water Requirement   | PURPOSE   | REQUIREMENT (KLD) |
|     |   | Drinking  | 0.9               |
|     |   | Suppression of dust   | 12.0              |
|     |   | Plantation  | 3.17              |
|     |   | Others (if any)   |                   |
|     |   | Total   | 16.07 KLD         |
| 30. | Name of QCI Accredited Consultant with QCI No and period of validity. | Ind Tech House Consult<br>QCI No.86<br>Period of Validity- 31-01-2021   |                   |
| 31. | Any litigation pending against the project or land in any court       | No  |                   |
| 32. | Details of 500 m Cluster Map & Certificate verified by Mining Officer | Letter No 1630/30 M.M.C /(2019-20)<br>Date-03.02.2020   |                   |
| 33. | Details of Lease Area in approved DSR                                 | Yes (Page No: 52, Table No:13 & Sr, No: 01)   |                   |
| 34. | Proposed CER cost   | 2.80 Lac  |                   |
| 35. | Proposed EMP cost   | 23.01 Lac   |                   |
| 36. | Length and breadth of Haul Road                                       | 1000 mtr Length & 6m width haulage road   |                   |
| 37. | No. of Trees to be Planted  | 792 Trees ..  |                   |

- 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).

#### RESOLUTION AGAINST AGENDA NO-07

The committee observed that a complaint letter dated 04/10/2020 has been received from Shri Gulshan Yadav (ygulshan084@gmail.com). The committee discussed the complaint letter dated 04/10/2020 and decided that a complaint letter should be sent to the District Magistrate, Jhansi and District Mining Officer, Jhansi, Director, Geology and Mining Department, Lucknow and Regional officer, UPPCB Jhansi for providing the factual report on the matter within 15 days.

The committee also directed that a copy of the letter should be sent to the project proponent and for necessary action. **The matter shall be discussed after receipt of factual report.**



M/s Deepak Singh  
Director

**8. Sand/Morrum Mining at the bank of Ken River, Gata No.-28 (Part) & 29, Khand No.-01, Village-Kanwara, Banda., M/s Jai Durge Trading Company, Area -27.0 ha., File No.- 5864/5597SIA/UP/MIN/56930/2020**

A presentation was made by the project proponent along with their consultant M/s P & M Solution. The proponent, through the documents submitted and the presentation made informed the committee that:-

1. The environmental clearance is sought for Kanwara Sand/ Morrum Mining Project at the bank of Ken River, Gata No.-28 (Part) & 29, Khand No.-01, Village-Kanwara, Banda., M/s Jai Durge Trading Company (Shri Suresh Chandra Gupta), Area -27.0 ha
2. The terms of reference in the matter were issued by SEIAA, U.P. vide letter no. 164/Parya/SEAC/5597/2019 dated 30/06/2020.
3. The public hearing was organized on 17/09/2020. Final EIA report submitted by the project proponent on 23/09/2020.
4. Salient features of the project as submitted by the project proponent:

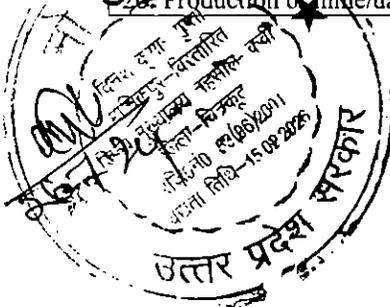
|  |   |                   |                    |
|--|---|-------------------|--------------------|
| 1. On-line proposal No.                                    | SIA/UP/MIN/ 56930/2020  |                   |                    |
| 2. File No. allotted by SEIAA, UP                          | 5597/5864   |                   |                    |
| 3. Name of Proponent                                       | <b>M/s Jai Durge Trading Company</b>  |                   |                    |
| 4. Full correspondence address of proponent and mobile no. | M/s Jai Durge Trading Company<br>Shri Suresh Chandra Gupta<br>Saroj Tower- B Block, Flat No. 307, In front of<br>Morena Talkies, Tehsil & District- Morena. State-<br>MP 476001 |                   |                    |
| 5. Name of Project   | Kanwara Sand/ Morrum Mining Project at Gata<br>No.28 (Part) & 29, Khand No.01   |                   |                    |
| 6. Project location (Plot/Khasra/Gata No.)                 | Gata No.28 (Part) & 29, Khand No.01   |                   |                    |
| 7. Name of River   | Ken River   |                   |                    |
| 8. Name of Village   | Kanwara   |                   |                    |
| 9. Tehsil  | Banda   |                   |                    |
| 10. District   | District Banda, Uttar Pradesh   |                   |                    |
| 11. Name of Minor Mineral                                  | Sand/Morrum Mining  |                   |                    |
| 12. Sanctioned Lease Area (in Ha. )                        | 27.0 ha   |                   |                    |
| 13. Max. & Min mrl within lease area                       | 103.0 mRL&98.5 mRL  |                   |                    |
| 14. Pillar Coordinates (Verified by DMO)                   | <b>Pillar No.</b>   | <b>Latitude N</b> | <b>Longitude E</b> |
|  | A   | 25°33'36.57"N     | 80°17'14.77"E      |
|  | B   | 25°33'38.16"N     | 80°17'9.39"E       |
|  | C   | 25°33'38.69"N     | 80°17'4.82"E       |
|  | D   | 25°33'38.86"N     | 80°16'59.64"E      |
|  | E   | 25°33'38.53"N     | 80°16'51.27"E      |
|  | F   | 25°33'37.99"N     | 80°16'45.75"E      |
|  | G   | 25°33'36.67"N     | 80°16'39.90"E      |



*M/s Deepak Singh*  
M/s Deepak Singh  
Proprietor

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|  |                                    |               |
|--|------------------------------------|---------------|
| H  | 25°33'34.93"N                      | 80°16'37.86"E |
| I  | 25°33'32.55"N                      | 80°16'36.51"E |
| J  | 25°33'29.75"N                      | 80°16'35.71"E |
| K  | 25°33'25.43"N                      | 80°16'35.05"E |
| L  | 25°33'17.40"N                      | 80°16'36.27"E |
| M  | 25°33'9.40"N                       | 80°16'37.12"E |
| N  | 25°33'8.67"N                       | 80°16'34.50"E |
| O  | 25°33'15.10"N                      | 80°16'32.78"E |
| P  | 25°33'25.63"N                      | 80°16'30.53"E |
| Q  | 25°33'34.21"N                      | 80°16'29.37"E |
| R  | 25°33'35.77"N                      | 80°16'32.73"E |
| S  | 25°33'39.03"N                      | 80°16'35.06"E |
| T  | 25°33'44.29"N                      | 80°16'40.08"E |
| U  | 25°33'45.34"N                      | 80°16'41.87"E |
| V  | 25°33'45.90"N                      | 80°16'44.16"E |
| W  | 25°33'46.06"N                      | 80°16'47.01"E |
| X  | 25°33'44.60"N                      | 80°16'53.17"E |
| Y  | 25°33'42.10"N                      | 80°17'0.28"E  |
| Z  | 25°33'40.44"N                      | 80°17'5.27"E  |
| Z'   | 25°33'37.70"N                      | 80°17'15.22"E |
| <b>Submerged Geo coordinate</b>              |                                    |               |
| Sub 1  | 25°33'24.50"N                      | 80°16'30.80"E |
| Sub 2  | 25°33'22.88"N                      | 80°16'31.66"E |
| Sub 3  | 25°33'15.77"N                      | 80°16'34.40"E |
| Sub 4  | 25°33'10.88"N                      | 80°16'35.43"E |
| Sub 5  | 25°33'09.07"N                      | 80°16'35.96"E |
| 15. Total Geological Reserves                | 7.73.140 Tonnes                    |               |
| 16. Total Mineable Reserves in LOI           | 5.40.000 m <sup>3</sup>            |               |
| 17. Total Proposed Production (in five year) | 2700000 m <sup>3</sup>             |               |
| 18. Proposed Production/year                 | 5.40.000 cum/annum or 9.72.000 TPA |               |
| 19. Sanctioned Period of Mine lease          | 5 years                            |               |
| 20. Production of mine/day                   | 2077 cum/day                       |               |



*Signature*  
M/s Deepak Singh

Proprietor

Minutes of 497<sup>th</sup> SEAC Meeting Dated 05/10/2020

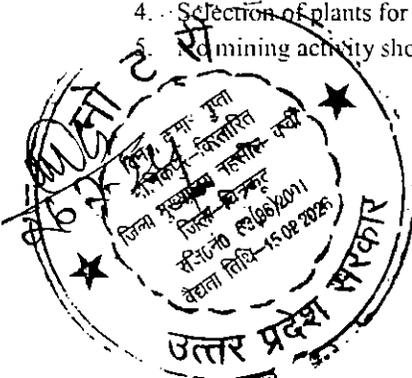
|   |   |                          |
|---|---|--------------------------|
| 21. Method of Mining  | Opencast OTFM                                       |                          |
| 22. No. of working days   | 260   |                          |
| 23. Working hours/day   | 8   |                          |
| 24. No. Of workers  | 141   |                          |
| 25. No. Of vehicles movement/day  | 187   |                          |
| 26. Type of Land  | Govt Land   |                          |
| 27. Ultimate Depth of Mining  | 2.5 m   |                          |
| 28. Nearest metalled road from site                                       | NH-232  |                          |
| 29. Water Requirement   | <b>PURPOSE</b>                                      | <b>REQUIREMENT (KLD)</b> |
|   | Drinking  | 1.41 KLD                 |
|   | Suppression of dust                                 | 6.0 KLD                  |
|   | Plantation  | 1.35 KLD                 |
|   | Others (if any)                                     |                          |
| Total   | 8.76 KLD  |                          |
| 30. Name of QCI Accredited Consultant with QCI No and period of validity. | P & M Solution<br>validity=10-12-2022               |                          |
| 31. Any litigation pending against the project or land in any court       | No  |                          |
| 32. Details of 500 m Cluster Map & certificate issued by Mining Officer   | Letter No. 4160/khanij-30 Banda dated 27-01-2020    |                          |
| 33. Details of Lease Area in approved DSR                                 | Page No.60-66                                       |                          |
| 34. Proposed CSR cost   | RS-1,60,000/-                                       |                          |
| 35. Proposed EMP cost   | Capital Rs-3,95,000/- recurring cost- Rs 5,00,000/- |                          |
| 36. Length and breadth of Haul Road                                       | 290 m, 6 m  |                          |
| 37. No. of Trees to be Planted  | 270 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).

**RESOLUTION AGAINST AGENDA NO-08**

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-2 & 3 to these minutes regarding mining project.

- Before plantation in a selected area the soil testing should be done and species to be chosen accordingly.
- At the time of operation, project proponent will comply with all the guidelines issued by Government of India/State Govt./District Administration related to Covid-19.
- Environment management in according to environmental status and impact of the project.
- Selection of plants for green belt should be on the basis of pollution removal index.
- Mining activity should be carried out in-stream channel as per SSMMG, 2016.



*Signature*  
M/s Deepak Singh

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Proprietor



**9. Soil Mining from Gata No.-289mi, 314mi, 330mi, 105, 147, 368a, 419, Village-Chamra Bojhi, Tehsil-Puwanva, Shahjahanpur., M/s Path Enterprises, Area-3.907 Ha File No.-5851 -SIA/UP/MIN/173714/2020**

A presentation was made by the project proponent along with their consultant M/s Chandigarh Pollution Testing Laboratory – EIA Division (CPTL). The proponent, through the documents submitted and the presentation made, informed the committee that:-

1. The environmental clearance is sought for Soil Excavation at Gata No.- 289मि, 314मि, 330मि, 331मि, 105, 147, 368अ, 419 Village Chamra Bojhi, Tehsil Puwanva, District-Shahjahanpur. U.P., (Leased Area: 3.907ha.).
2. Salient features of the project as submitted by the project proponent:

| 1. On-line proposal No.                                    | SIA/UP/MIN/173714/2020   |                |  |          |           |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |
|--|--|----------------|--|----------|-----------|-----|--|--|---|---------------|----------------|---|---------------|----------------|---|---------------|----------------|---|---------------|----------------|---|---------------|----------------|---|---------------|----------------|-----|--|--|---|---------------|----------------|---|---------------|----------------|---|---------------|----------------|---|---------------|----------------|-----|--|--|---|---------------|----------------|
| 2. File No .allotted by SEIAA,UP                           | 5851   |                |  |          |           |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |
| 3. Name of Proponent                                       | M/s Parth Enterprises  |                |  |          |           |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |
| 4. Registered Address                                      | Nal Wali Gali, Madan Nagar,<br>Jalalabad, Shahjahanpur, Uttar Pradesh  |                |  |          |           |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |
| 5. Full correspondence address of proponent and mobile no. | Mr. Deepu Gupta<br>S/o Harisaran Gupta R/o Madanagar, Jalalabad,<br>shahjahanpur<br>Email: parthsoilspn@gmail.com<br>Mobile no. 8127461493   |                |  |          |           |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |
| 6. Name of Project   | Chamrabojhi soil Mining Project  |                |  |          |           |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |
| 7. Project location (Plot/ Khasra /Gata No.)               | Khasra No- 289मि, 314मि, 330मि, 331मि, 105, 147, 368अ, 419   |                |  |          |           |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |
| 8. Name of Village   | Chamra Bojhi,  |                |  |          |           |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |
| 9. Tehsil  | Puwanaya   |                |  |          |           |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |
| 10 District  | Shahjahanpur   |                |  |          |           |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |
| 11 Name of Minor Mineral                                   | Ordinary soil  |                |  |          |           |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |
| 12. Total Area (in Ha.)                                    | 3.907ha  |                |  |          |           |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |
| 13. Max. & Min mrl within lease area                       | 164.0mRL-161.0mRL  |                |  |          |           |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |
| 14. Lilar Coordinates(Verified by OMO)                     | <table border="1"> <thead> <tr> <th></th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td colspan="3" style="text-align: center;">289</td> </tr> <tr> <td>A</td> <td>28° 9'28.61"N</td> <td>80° 12'21.96"E</td> </tr> <tr> <td>B</td> <td>28° 9'22.22"N</td> <td>80° 12'26.97"E</td> </tr> <tr> <td>C</td> <td>28° 9'21.21"N</td> <td>80° 12'24.36"E</td> </tr> <tr> <td>D</td> <td>28° 9'25.07"N</td> <td>80° 12'21.55"E</td> </tr> <tr> <td>E</td> <td>28° 9'26.07"N</td> <td>80° 12'22.14"E</td> </tr> <tr> <td>F</td> <td>28° 9'27.93"N</td> <td>80° 12'20.67"E</td> </tr> <tr> <td colspan="3" style="text-align: center;">314</td> </tr> <tr> <td>A</td> <td>28° 9'40.59"N</td> <td>80° 12'17.46"E</td> </tr> <tr> <td>B</td> <td>28° 9'39.36"N</td> <td>80° 12'18.51"E</td> </tr> <tr> <td>C</td> <td>28° 9'36.45"N</td> <td>80° 12'14.37"E</td> </tr> <tr> <td>D</td> <td>28° 9'37.54"N</td> <td>80° 12'13.48"E</td> </tr> <tr> <td colspan="3" style="text-align: center;">330</td> </tr> <tr> <td>A</td> <td>28° 9'57.47"N</td> <td>80° 11'56.86"E</td> </tr> </tbody> </table> |                |  | Latitude | Longitude | 289 |  |  | A | 28° 9'28.61"N | 80° 12'21.96"E | B | 28° 9'22.22"N | 80° 12'26.97"E | C | 28° 9'21.21"N | 80° 12'24.36"E | D | 28° 9'25.07"N | 80° 12'21.55"E | E | 28° 9'26.07"N | 80° 12'22.14"E | F | 28° 9'27.93"N | 80° 12'20.67"E | 314 |  |  | A | 28° 9'40.59"N | 80° 12'17.46"E | B | 28° 9'39.36"N | 80° 12'18.51"E | C | 28° 9'36.45"N | 80° 12'14.37"E | D | 28° 9'37.54"N | 80° 12'13.48"E | 330 |  |  | A | 28° 9'57.47"N | 80° 11'56.86"E |
|  | Latitude   | Longitude      |  |          |           |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |
| 289  |  |                |  |          |           |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |
| A  | 28° 9'28.61"N  | 80° 12'21.96"E |  |          |           |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |
| B  | 28° 9'22.22"N  | 80° 12'26.97"E |  |          |           |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |
| C  | 28° 9'21.21"N  | 80° 12'24.36"E |  |          |           |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |
| D  | 28° 9'25.07"N  | 80° 12'21.55"E |  |          |           |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |
| E  | 28° 9'26.07"N  | 80° 12'22.14"E |  |          |           |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |
| F  | 28° 9'27.93"N  | 80° 12'20.67"E |  |          |           |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |
| 314  |  |                |  |          |           |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |
| A  | 28° 9'40.59"N  | 80° 12'17.46"E |  |          |           |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |
| B  | 28° 9'39.36"N  | 80° 12'18.51"E |  |          |           |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |
| C  | 28° 9'36.45"N  | 80° 12'14.37"E |  |          |           |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |
| D  | 28° 9'37.54"N  | 80° 12'13.48"E |  |          |           |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |
| 330  |  |                |  |          |           |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |
| A  | 28° 9'57.47"N  | 80° 11'56.86"E |  |          |           |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |   |               |                |   |               |                |   |               |                |     |  |  |   |               |                |



*Deepak Singh*  
M/s Deepak Singh

Proprietor

|                                     |                          |                   |               |
|-------------------------------------|--------------------------|-------------------|---------------|
|                                     | <b>B</b>                 | 28° 9'52.39"N     | 80°12'1.52"E  |
|                                     | <b>C</b>                 | 28° 9'50.85"N     | 80°11'59.07"E |
|                                     | <b>D</b>                 | 28° 9'56.42"N     | 80°11'54.59"E |
|                                     | <b>331</b>               |                   |               |
|                                     | <b>A</b>                 | 28° 9'50.85"N     | 80°11'59.07"E |
|                                     | <b>B</b>                 | 28° 9'50.85"N     | 80°11'59.07"E |
|                                     | <b>C</b>                 | 28° 9'47.65"N     | 80°11'54.69"E |
|                                     | <b>D</b>                 | 28° 9'53.73"N     | 80°11'48.79"E |
|                                     | <b>105</b>               |                   |               |
|                                     | <b>A</b>                 | 28°10'1.99"N      | 80°12'23.32"E |
|                                     | <b>B</b>                 | 28°10'0.76"N      | 80°12'24.65"E |
|                                     | <b>C</b>                 | 28° 9'57.46"N     | 80°12'20.08"E |
|                                     | <b>D</b>                 | 28° 9'58.74"N     | 80°12'19.36"E |
|                                     | <b>147</b>               |                   |               |
|                                     | <b>A</b>                 | 28° 9'49.88"N     | 80°12'37.21"E |
|                                     | <b>B</b>                 | 28° 9'47.44"N     | 80°12'40.23"E |
|                                     | <b>C</b>                 | 28° 9'44.31"N     | 80°12'35.56"E |
|                                     | <b>D</b>                 | 28° 9'46.70"N     | 80°12'32.80"E |
|                                     | <b>368</b>               |                   |               |
|                                     | <b>A</b>                 | 28° 9'33.44"N     | 80°12'4.49"E  |
|                                     | <b>B</b>                 | 28° 9'31.11"N     | 80°12'3.09"E  |
|                                     | <b>C</b>                 | 28° 9'29.85"N     | 80°12'6.15"E  |
|                                     | <b>D</b>                 | 28° 9'31.22"N     | 80°12'3.08"E  |
|                                     | <b>419</b>               |                   |               |
|                                     | <b>A</b>                 | 28° 9'25.69"N     | 80°12'15.85"E |
|                                     | <b>B</b>                 | 28° 9'25.33"N     | 80°12'16.14"E |
|                                     | <b>C</b>                 | 28° 9'24.81"N     | 80°12'15.20"E |
|                                     | <b>D</b>                 | 28° 9'25.19"N     | 80°12'14.98"E |
| 15. Total Geological Reserves       | 87,907.5 cum             |                   |               |
| 16. Total Mineable Reserves         | 76088.83 cum             |                   |               |
| 17. Proposed Production/year        | 60871.06 cum             |                   |               |
| 18. Sanctioned Period of Mine lease | 6 months                 |                   |               |
| 19. Production of mine/day          | 338.17 cum               |                   |               |
| 20. Method of Mining                | Semi-Mechanized Opencast |                   |               |
| 21. No. of Working Days             | 180                      |                   |               |
| 22. No of working hours             | 8 hrs/day                |                   |               |
| 23. No. Of workers                  | 18                       |                   |               |
| 24. No. of Vehicular movement/day   | 54                       |                   |               |
| 25. Type of Land                    | Pvt. Land (Agriculture)  |                   |               |
| 26. Ultimate Depth of Mining        | 2.25 Meter               |                   |               |
| 27. Nearest metalled road           | 0.75 km                  |                   |               |
| 28. Water Requirement               | Purpose                  | Requirement (kld) |               |
|                                     | Drinking and domestic    | 0.802             |               |
|                                     | Suppression of dust      | 0.75              |               |
|                                     | Plantation               | 0.15              |               |
|                                     | Others( if any)          |                   |               |



*Amrit Singh*  
M/s Deepak Singh

Proprietor

|   |   |      |
|---|---|------|
|   | Total   | 1.70 |
| 29. Name of QCI Accredited Consultant with QCI No and period of validity. | Chandigarh Pollution Testing Laboratory<br>Eia Division<br>E-126, Phase Vii, Industrial Area, Mohali (Punjab)<br>Valid till: 12/02/2022 |      |
| 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   | DMO/ Shahjahnpur. Letter No. 802 dated 24-08-2020   |      |
| Details of Lease Area in approved DSR                                     | NA  |      |
| 32. Proposed CER cost   | 0.36 Lakh   |      |
| 33. Proposed EMP cost   | 0.90Lakh  |      |
| 34. Length and breadth of Haul Road.                                      | Length- 0.75 Km, Width- more than 6.0 m   |      |
| 35. No. of Trees to be Planted  | 128   |      |

3. 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.
4. This project does not attract any of the general conditions applicable on mining projects specified in EIA Notification 14/09/2006.
5. The mining operation will not be carried out in safety zone of any bridge or embankment or in ecofragile zone such as habitat of any wild fauna.
6. There is no litigation pending in any court regarding this project.
7. The project proposal falls under category-I(a) of EIA Notification, 2006 (as amended).

#### RESOLUTION AGAINST AGENDA NO-09

The committee discussed the matter and directed to submit the following information regarding the project:

1. Project proponent should submit the receipt of registration on DGM Portal as per GO No.1542 dated 18.09.2020
2. Mining plan approval letter should be signed by District Magistrate.

10. Soil Mining from Gata No.-422, 428, 431, 432, 447, 448, 449, 451, 452, 453, Village-Gadiya Sareli, Tehsil-Puwanya, Shahjahanpur, U.P., Shri Deepu Gupta, M/s Parth Enterprises, Area-4.588 Ha), File No.- 5853-SIA/UP/MIN/173748/2020

A presentation was made by the project proponent along with their consultant M/s Chandigarh Pollution Testing Laboratory – EIA Division (CPTL). The proponent, through the documents submitted and the presentation made, informed the committee that:-

1. The environmental clearance is sought for Soil Excavation at Gata No.- 422, 428, 431, 432, 447, 448, 449, 451, 452, 453, 454 Village Gadiya Sareli, Tehsil Puwanya, District-Shahjahanpur, U.P., (Leased Area: 4.588ha.).
2. Salient features of the project as submitted by the project proponent:

|                                  |                        |
|----------------------------------|------------------------|
| 1. On-line proposal No.          | SIA/UP/MIN/173748/2020 |
| 2. File No. allotted by SEIAA,UP | 5853                   |

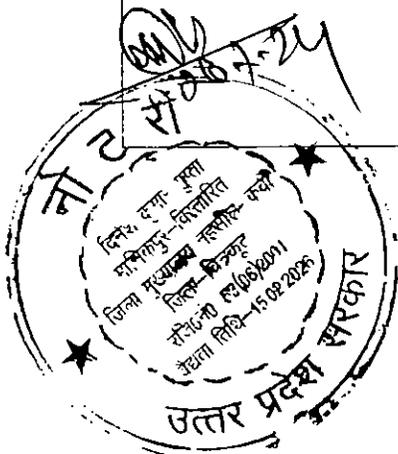
*Signature*  
M/s Deepak Singh



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Minutes of 497<sup>th</sup> SEAC Meeting Dated 05/10/2020

|  |  |                             |
|--|--|-----------------------------|
| 3. Name of Proponent                                       | M/s Parth Enterprises  |                             |
| 4. Registered Address                                      | Nal Wali Gali, Madan Nagar,<br>Jalalabad, Shahjahanpur, Uttar Pradesh  |                             |
| 5. Full correspondence address of proponent and mobile no. | Mr. Deepu Gupta<br>S/o Harisaran Gupta R/o Madanagar, Jalalabad,<br>shahjahanpur<br>Email: parthsoilspn@gmail.com<br>Mobile no. 8127461493 |                             |
| 6. Name of Project   | Gadiya Sareli soil Mining Project  |                             |
| 7. Project location (Plot/ Khasra /Gata No.)               | Khasra No- 422, 428, 431, 432, 447, 448, 449, 451, 452,<br>453, 454  |                             |
| 8. Name of Village   | Gadiya Sareli.   |                             |
| 9. Tehsil  | Puwanaya   |                             |
| 10. District   | Shahjahanpur   |                             |
| 11. Name of Minor Mineral                                  | Ordinary soil  |                             |
| 12. Total Area (in Ha.)                                    | 4.588ha  |                             |
| 13 Max.&Min mrl within lease area                          | 163.0mRL-161.0mRL  |                             |
| 14. Pillar Coordinates(Verified by OMO)                    | Latitude   | Longitude                   |
|  | 422  |                             |
|  | A  | 28°12'35.59"N 80°17'51.91"E |
|  | B  | 28°12'34.55"N 80°17'53.25"E |
|  | C  | 28°12'32.97"N 80°17'51.00"E |
|  | D  | 28°12'34.61"N 80°17'49.64"E |
|  | 428  |                             |
|  | A  | 28°12'34.68"N 80°17'49.21"E |
|  | B  | 28°12'32.86"N 80°17'50.85"E |
|  | C  | 28°12'30.34"N 80°17'47.48"E |
|  | D  | 28°12'32.44"N 80°17'45.21"E |
|  | 431  |                             |
|  | A  | 28°12'30.59"N 80°17'45.46"E |
|  | B  | 28°12'30.23"N 80°17'45.09"E |
|  | C  | 28°12'31.54"N 80°17'42.03"E |
|  | D  | 28°12'31.96"N 80°17'43.46"E |
|  | 432  |                             |
|  | A  | 28°12'29.82"N 80°17'41.72"E |
|  | B  | 28°12'28.85"N 80°17'41.39"E |
|  | C  | 28°12'30.18"N 80°17'38.39"E |
|  | D  | 28°12'30.98"N 80°17'39.05"E |
|  | 447  |                             |
|  | A  | 28°12'23.18"N 80°17'47.38"E |
|  | B  | 28°12'22.09"N 80°17'48.89"E |
|  | C  | 28°12'21.44"N 80°17'48.28"E |
|  | D  | 28°12'22.61"N 80°17'46.75"E |
|  | 448  |                             |
|  | A  | 28°12'22.61"N 80°17'46.75"E |
|  | B  | 28°12'21.44"N 80°17'48.28"E |
|  | C  | 28°12'20.73"N 80°17'47.61"E |



*Signature*  
M/s Deepak Singh

Proprietor

Minutes of 497<sup>th</sup> SEAC Meeting Dated 05/10/2020

|                                     |                          |                   |               |
|-------------------------------------|--------------------------|-------------------|---------------|
|                                     | D                        | 28°12'21.71"N     | 80°17'46.17"E |
|                                     | 449                      |                   |               |
|                                     | A                        | 28°12'25.20"N     | 80°17'44.77"E |
|                                     | B                        | 28°12'24.36"N     | 80°17'46.17"E |
|                                     | C                        | 28°12'23.06"N     | 80°17'45.06"E |
|                                     | D                        | 28°12'23.70"N     | 80°17'43.72"E |
|                                     | 451                      |                   |               |
|                                     | A                        | 28°12'27.74"N     | 80°17'43.90"E |
|                                     | B                        | 28°12'26.26"N     | 80°17'46.05"E |
|                                     | C                        | 28°12'25.16"N     | 80°17'45.01"E |
|                                     | D                        | 28°12'26.52"N     | 80°17'42.98"E |
|                                     | 452                      |                   |               |
|                                     | A                        | 28°12'26.97"N     | 80°17'46.95"E |
|                                     | B                        | 28°12'24.71"N     | 80°17'49.58"E |
|                                     | C                        | 28°12'24.01"N     | 80°17'48.90"E |
|                                     | D                        | 28°12'26.26"N     | 80°17'46.05"E |
|                                     | 453                      |                   |               |
|                                     | A                        | 28°12'28.55"N     | 80°17'46.82"E |
|                                     | B                        | 28°12'26.69"N     | 80°17'48.93"E |
|                                     | C                        | 28°12'26.07"N     | 80°17'48.11"E |
|                                     | D                        | 28°12'27.86"N     | 80°17'46.11"E |
|                                     | 454                      |                   |               |
|                                     | A                        | 28°12'29.83"N     | 80°17'49.77"E |
|                                     | B                        | 28°12'27.67"N     | 80°17'50.12"E |
|                                     | C                        | 28°12'25.80"N     | 80°17'50.09"E |
|                                     | D                        | 28°12'27.95"N     | 80°17'47.58"E |
| 15. Total Geological Reserves       | 1,03,230 cum             |                   |               |
| 16. Total Mineable Reserves         | 89351.30 cum             |                   |               |
| 17. Proposed Production/year        | 71481.04 cum             |                   |               |
| 18. Sanctioned Period of Mine lease | 6 months                 |                   |               |
| 19. Production of mine/day          | 397.11 cum               |                   |               |
| 20. Method of Mining                | Semi-Mechanized Opencast |                   |               |
| 21. No. of Working Days             | 180                      |                   |               |
| 22. No of working hours             | 8 hrs/day                |                   |               |
| 23. No. Of workers                  | 20                       |                   |               |
| 24. No. of Vehicular movement/day   | 63                       |                   |               |
| 25. Type of Land                    | Pvt. Land (Agriculture)  |                   |               |
| 26. Ultimate Depth of Mining        | 2.25 Meter               |                   |               |
| 27. Nearest metalled road           | 0.75 km                  |                   |               |
| 28. Water Requirement               | Purpose                  | Requirement (kld) |               |
|                                     | Drinking and domestic    | 0.887             |               |
|                                     | Suppression of dust      | 0.75              |               |
|                                     | Plantation               | 0.15              |               |
|                                     | Others( if any)          | -----             |               |
|                                     | Total                    | 1.78              |               |



*Deepak Singh*  
M/s Deepak Singh

|   |   |
|---|---|
| 29. Name of QCI Accredited Consultant with QCI No and period of validity. | Chandigarh Pollution Testing Laboratory<br>Eia Division<br>E-126, Phase VII, Industrial Area, Mohali (Punjab)<br>Valid till: 12/02/2022 |
| 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   | DMO/ Shahjahnpur, Letter No. 804 dated 24-08-2020   |
| Details of Lease Area in approved DSR                                     | NA  |
| 32. Proposed CER cost   | 0.40 Lakh   |
| 33. Proposed EMP cost   | 1 Lakh  |
| 34. Length and breadth of Haul Road.                                      | Length- 0.75 Km. Width- more than 6.0 m   |
| 35. No. of Trees to be Planted  | 151   |

3. 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.
4. This project does not attract any of the general conditions applicable on mining projects specified in EIA Notification 14/09/2006.
5. The mining operation will not be carried out in safety zone of any bridge or embankment or in ecofragile zone such as habitat of any wild fauna.
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).

#### RESOLUTION AGAINST AGENDA NO-10

The committee discussed the matter and directed to submit the following information regarding the project:

1. Project proponent should submit the receipt of registration on DGM Portal as per GO No.1542 dated 18.09.2020
2. Mining plan approval letter should be signed by District Magistrate

#### 11. Satyom Soil Mining from Gata No.-62, 92mi, 93, Village-Saharkhas Tukdadaovam, Tehsil-Sadar, Shahjahanpur.,ShriGurudev Mishra,M/s Satya Om Enterprises Area- 4.703 Ha. File No.- 5854-SIA/UP/MIN/174223/2020

A presentation was made by the project proponent along with their consultant M/s Chandigarh Pollution Testing Laboratory – EIA Division (CPTL). The proponent, through the documents submitted and the presentation made, informed the committee that:-

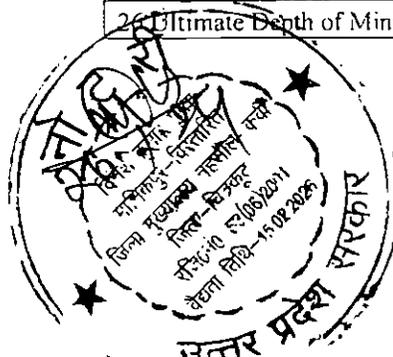
1. The environmental clearance is sought for Soil Excavation at Gata No.- 62, 92mi, 93 Village Saharkhas Tukdadoyam, Tehsil Sadar, District-Shahjahanpur, U.P.. (Leased Area: 4.703 ha.).
2. Salient features of the project as submitted by the project proponent:

|                                  |   |
|----------------------------------|---|
| 1. On-line proposal No.          | SIA/UP/MIN/174223/2020                      |
| 2. File No .allotted by SEIAA,UP | 5854  |
| 3. Name of Proponent             | M/s Satya Om Enterprises                    |
| 4. Registered Address            | Nawada Indepur, Shahjahanpur, Uttar Pradesh |



*Deepak Singh*  
M/s Deepak Singh

|  |   |                             |
|--|---|-----------------------------|
| 5. Full correspondence address of proponent and mobile no. | Mr. Gurudev Mishra<br>Nawada Indepur, Shahjahanpur, Uttar Pradesh<br>satyaomenter@gmail.com |                             |
| 6. Name of Project   | Satyaom soil Mining Project   |                             |
| 7. Project location (Plot/ Khasra /Gata No.)               | Khasra No- 62, 92मि, 93   |                             |
| 8. Name of Village   | Saharkhas Tukdadoyam.   |                             |
| 9. Tehsil  | sadar   |                             |
| 10. District   | Shahjahanpur  |                             |
| 11. Name of Minor Mineral                                  | Ordinary soil   |                             |
| 12. Total Area (in Ha.)                                    | 4.703ha   |                             |
| 13. Max.&Min mrl within lease area                         | 157.0mRL-154.0mRL   |                             |
| 14. Pillar Coordinates(Verified by OMO)                    | Latitude  | Longitude                   |
|  | 62  |                             |
|  | A   | 27°50'24.53"N 79°56'50.69"E |
|  | B   | 27°50'23.84"N 79°56'52.23"E |
|  | C   | 27°50'23.26"N 79°56'52.14"E |
|  | D   | 27°50'19.86"N 79°56'58.61"E |
|  | E   | 27°50'16.12"N 79°56'48.24"E |
|  | F   | 27°50'16.91"N 79°56'48.53"E |
|  | G   | 27°50'17.82"N 79°56'46.93"E |
|  | H   | 27°50'19.04"N 79°56'47.55"E |
|  | I   | 27°50'19.50"N 79°56'47.03"E |
|  | 92 मि   |                             |
|  | A   | 27°50'21.62"N 79°56'41.57"E |
|  | B   | 27°50'18.76"N 79°56'39.84"E |
|  | C   | 27°50'19.41"N 79°56'38.20"E |
|  | D   | 27°50'22.36"N 79°56'39.94"E |
|  | 93  |                             |
|  | A   | 27°50'20.91"N 79°56'43.27"E |
|  | B   | 27°50'17.97"N 79°56'41.52"E |
|  | C   | 27°50'18.53"N 79°56'40.20"E |
|  | D   | 27°50'21.46"N 79°56'41.91"E |
| 15. Total Geological Reserves                              | 1,05,817.5cum   |                             |
| 16. Total Mineable Reserves                                | 91593.36cum   |                             |
| 17. Proposed Production/year                               | 73274.69 cum  |                             |
| 18. Sanctioned Period of Mine lease                        | 6 months  |                             |
| 19. Production of mine/day                                 | 407 cum   |                             |
| 20. Method of Mining                                       | Semi-Mechanized Opencast  |                             |
| 21. No. of Working Days                                    | 180   |                             |
| 22. No of working hours                                    | 8 hrs/day   |                             |
| 23. No. Of workers   | 14  |                             |
| 24. No. of Vehicular movement/day                          | 65  |                             |
| 25. Type of Land   | Pvt. Land (Agriculture)   |                             |
| 26. Ultimate Depth of Mining                               | 2.25 Meter  |                             |



*Deepak Singh*  
M/s Deepak Singh

Proprietor

|   |   |                   |
|---|---|-------------------|
| 27. Nearest metalled road   | 0.75 km   |                   |
| 28. Water Requirement   | Purpose   | Requirement (kld) |
|   | Drinking and domestic   | 0.679             |
|   | Suppression of dust   | 0.75              |
|   | Plantation  | 0.15              |
|   | Others( if any)   | -----             |
|   | Total   | 1.54              |
| 29. Name of QCI Accredited Consultant with QCI No and period of validity. | Chandigarh Pollution Testing Laboratory<br>Eia Division<br>E-126, Phase VII, Industrial Area, Mohali (Punjab)<br>Valid till: 12/02/2022 |                   |
| 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   | DMO/ Shahjahnpur, Letter No. 894 dated 26-09-2020   |                   |
| Details of Lease Area in approved DSR                                     | NA  |                   |
| 32. Proposed CER cost   | 0.34 Lakh   |                   |
| 33. Proposed EMP cost   | 0.75 Lakh   |                   |
| 34. Length and breadth of Haul Road.                                      | Length- 0.75 Km, Width- more than 6.0 m   |                   |
| 35. No. of Trees to be Planted  | 155   |                   |

3. 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.
4. This project does not attract any of the general conditions applicable on mining projects specified in EIA Notification 14/09/2006.
5. The mining operation will not be carried out in safety zone of any bridge or embankment or in ecofragile zone such as habitat of any wild fauna.
6. There is no litigation pending in any court regarding this project.
7. The project proposal falls under category-I(a) of EIA Notification, 2006 (as amended).

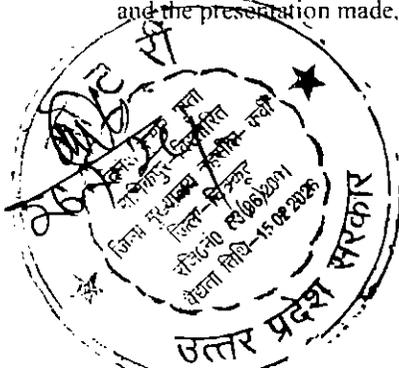
#### RESOLUTION AGAINST AGENDA NO-11

The committee discussed the matter and directed to submit the following information regarding the project:

1. Project proponent should submit the receipt of registration on DGM Portal as per GO No.1542 dated 18.09.2020
2. Mining plan approval letter should be signed by District Magistrate.

#### 12. Soil Mining at Gata No.-657,588,83,586,621,363,468, 322, Village-Tiulak, Maholiya Mundi, Navipur E. Tiulak, Tehsil-Sadar, Shahjahanpur., M/s Balaji Construction and Supplier, Area-2.145 Ha, File No.- 5857-SIA/UP/MIN/174266/2020

A presentation was made by the project proponent along with their consultant M/s Chandigarh Pollution Testing Laboratory – EIA Division (CPTL). The proponent, through the documents submitted and the presentation made, informed the committee that:-



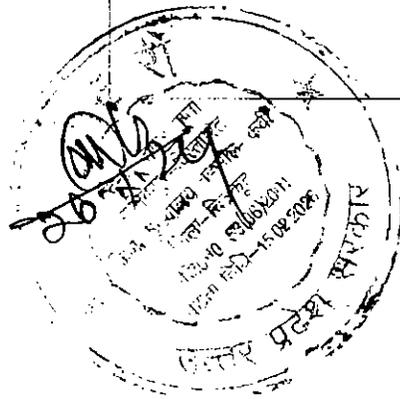
*M/s Deepak Singh*  
M/s Deepak Singh

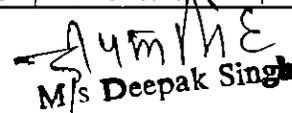
395

Minutes of 497<sup>th</sup> SEAC Meeting Dated 05/10/2020

- 1- The environmental clearance is sought for Soil Excavation at Gata No.- 657, 588, 83, 586, 621, 363, 468, 322 Village Tiulak, Maholiya Mundi, Navipur E. Tiulak, Tehsil Sadar, District-Shahjahanpur, U.P., (Leased Area: 2.145 Ha.).
- 2- Salient features of the project as submitted by the project proponent:

|  |  |                 |                  |
|--|--|-----------------|------------------|
| 1. On-line proposal No.                                    | SIA/UP/MIN/174266/2020                                 |                 |                  |
| 2. File No. allotted by SEIAA,UP                           | 5857   |                 |                  |
| 3. Name of Proponent                                       | M/s Balaji Construction and Suppliers                  |                 |                  |
| 4. Registered Address                                      | Shahjahnpur. U.P                                       |                 |                  |
| 5. Full correspondence address of proponent and mobile no. | Arvind Verma<br>Shahjahnpur, U.P                       |                 |                  |
|  | Email balajispnsoil@gmail.com<br>Mobile no. 8299046452 |                 |                  |
| 6. Name of Project   | Balaji soil Mining Project                             |                 |                  |
| 7. Project location (Plot/ Khasra /Gata No.)               | Khasra No- 657, 588, 83, 586, 621, 363, 468, 322       |                 |                  |
| 8. Name of Village   | Tiulak, Maholiya Mundi, Navipur E. Tiulak              |                 |                  |
| 9. Tehsil  | Sadar  |                 |                  |
| 10. District   | Shahjahanpur   |                 |                  |
| 11. Name of Minor Mineral                                  | Ordinary soil  |                 |                  |
| 12. Total Area (in Ha.)                                    | 2.145ha  |                 |                  |
| 13. Max.&Min mrl within lease area                         | 158.0mRL-149.0mRL                                      |                 |                  |
| 14. Pillar Coordinates (Verified by OMO)                   |  | <b>Latitude</b> | <b>Longitude</b> |
|  |  | <b>657</b>      |                  |
|  | A  | 27°54'49.03"N   | 79°57'7.64"E     |
|  | B  | 27°54'47.67"N   | 79°57'6.12"E     |
|  | C  | 27°54'49.87"N   | 79°57'6.76"E     |
|  | D  | 27°54'48.35"N   | 79°57'5.05"E     |
|  |  | <b>588</b>      |                  |
|  | A  | 27°54'33.26"N   | 79°57'28.14"E    |
|  | B  | 27°54'32.08"N   | 79°57'29.56"E    |
|  | C  | 27°54'27.45"N   | 79°57'24.72"E    |
|  | D  | 27°54'28.49"N   | 79°57'23.13"E    |
|  |  | <b>83</b>       |                  |
|  | A  | 27°54'49.98"N   | 79°57'49.60"E    |
|  | B  | 27°54'48.98"N   | 79°57'48.59"E    |
|  | C  | 27°54'50.39"N   | 79°57'46.83"E    |
|  | D  | 27°54'51.37"N   | 79°57'48.02"E    |
|  |  | <b>586</b>      |                  |
|  | A  | 27°54'32.13"N   | 79°57'24.54"E    |
|  | B  | 27°54'31.42"N   | 79°57'25.29"E    |
|  | C  | 27°54'30.61"N   | 79°57'24.41"E    |
|  | D  | 27°54'31.29"N   | 79°57'23.55"E    |
|  |  | <b>621</b>      |                  |
|  | A  | 27°54'40.54"N   | 79°57'19.46"E    |
|  | B  | 27°54'39.03"N   | 79°57'21.01"E    |



  
 M/s Deepak Singh

Secretary

|   |   |                   |               |
|---|---|-------------------|---------------|
|   | C   | 27°54'38.63"N     | 79°57'20.48"E |
|   | D   | 27°54'40.10"N     | 79°57'18.82"E |
|   | 363   |                   |               |
|   | A   | 27°55'9.99"N      | 79°57'53.67"E |
|   | B   | 27°55'8.20"N      | 79°57'55.85"E |
|   | C   | 27°55'6.70"N      | 79°57'54.40"E |
|   | D   | 27°55'8.50"N      | 79°57'52.15"E |
|   | 468   |                   |               |
|   | A   | 27°54'55.22"N     | 79°57'32.55"E |
|   | B   | 27°54'52.60"N     | 79°57'35.48"E |
|   | C   | 27°54'50.66"N     | 79°57'33.07"E |
|   | D   | 27°54'53.14"N     | 79°57'30.51"E |
|   | 322   |                   |               |
|   | A   | 27°54'33.17"N     | 79°57'9.84"E  |
|   | B   | 27°54'31.45"N     | 79°57'12.17"E |
|   | C   | 27°54'29.14"N     | 79°57'10.10"E |
|   | D   | 27°54'30.95"N     | 79°57'7.61"E  |
| 15. Total Geological Reserves   | 48,262.5cum   |                   |               |
| 16. Total Mincable Reserves   | 41774.52 cum  |                   |               |
| 17. Proposed Production/year  | 33419.62 cum  |                   |               |
| 18. Sanctioned Period of Mine lease                                       | 6 months  |                   |               |
| 19. Production of mine/day  | 185.66 cum  |                   |               |
| 20. Method of Mining  | Semi-Mechanized Opencast  |                   |               |
| 21. No. of Working Days   | 180   |                   |               |
| 22. No of working hours   | 8 hrs/day   |                   |               |
| 23.No.Of workers  | 15  |                   |               |
| 24. No. of Vehicular movement/day   | 29  |                   |               |
| 25.Type of Land   | Pvt. Land (Agriculture)   |                   |               |
| 26.Ultimate Depth of Mining   | 2.25 Meter  |                   |               |
| 27. Nearest metalled road   | 0.75 km   |                   |               |
| 28. Water Requirement   | Purpose   | Requirement (kld) |               |
|   | Drinking and domestic   | 0.675             |               |
|   | Suppression of dust   | 0.75              |               |
|   | Plantation  | 0.15              |               |
|   | Others( if any)   | -----             |               |
|   | Total   | 1.57              |               |
| 29. Name of QCI Accredited Consultant with QCI No and period of validity. | Chandigarh Pollution Testing Laboratory<br>Eia Division<br>E-126, Phase Vii, Industrial Area, Mohali (Punjab)<br>Valid till: 12/02/2022 |                   |               |
| 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   | DMO/ Shahjahnpur, Letter No. 896 dated 26-09-2020   |                   |               |



*Signature*  
M/s Deepak Singh

Proprietor

|                                       |   |
|---------------------------------------|---|
| Details of Lease Area in approved DSR | NA                                      |
| 32. Proposed CER cost                 | 0.32 Lakh                               |
| 33. Proposed EMP cost                 | 0.80Lakh                                |
| 34. Length and breadth of Haul Road.  | Length- 0.75 Km, Width- more than 6.0 m |
| 35. No. of Trees to be Planted        | 70                                      |

- 3- 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.
- 4- This project does not attract any of the general conditions applicable on mining projects specified in EIA Notification 14/09/2006.
- 5- The mining operation will not be carried out in safety zone of any bridge or embankment or in ecofragile zone such as habitat of any wild fauna.
- 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).

#### RESOLUTION AGAINST AGENDA NO-12

The committee discussed the matter and directed to submit the following information regarding the project:

1. Project proponent should submit the receipt of registration on DGM Portal as per GO No.1542 dated 18.09.2020
2. Mining plan approval letter should be signed by District Magistrate

#### 13. Earth Excavation at Khasra/Gata No.-206, at Village & Post-Sarosi, Tehsil & District-Unnao., Shri Sunil Kuamr Yadav (Area:0.4050 Ha) File No.-5859SIA/UP/MIN/172828/2020

#### RESOLUTION AGAINST AGENDA NO-13

The project proponent/consultant did not appear in the meeting and also not circulated the documents to the members of SEAC on time. Hence, the committee directed to defer the matter. The file shall not be treated as pending at SEAC. The matter will be discussed only after submission of online request on prescribed online portal.

#### 14. Brick Earth Mining from Gata No.-168,171,165,187,170,169, Village-Kewal Rampur Chilowa,Jalalabad, Shahjahanpur.,M/s Shri Banke Bihari Ent Udvog, Area-3.422 Ha File No.- 5861-SIA/UP/MIN/173630/2020

#### RESOLUTION AGAINST AGENDA NO-14

The committee discussed the matter and opined that the environmental clearance of the above project proposal is not required as per MoEF&CC, GOI notification S.O. 1224(E) dated 28.03.2020 and Environment, Forest & Climate Change, Section -7, Government of UP G.O. No. 446/81-7-2020-39(parya)/2014 TC-1 dated 01.05.2020.



*Signature*  
M/s Deepak Singh

Proprietor

**15. Brick Earth Mining from Gata No.-256, 309, 232, 261, Village-Dhanela, Tehsil-Tilhar, Shahjahanpur., M/s Kashish Brick Field., Area-2.611 Ha, File No.- 5862-SIA/UP/MIN/173603/2020**

**RESOLUTION AGAINST AGENDA NO15**

The committee discussed the matter and opined that the environmental clearance of the above project proposal is not required as per MoEF&CC, GOI notification S.O. 1224(E) dated 28.03.2020 and Environment, Forest & Climate Change, Section -7, Government of UP G.O. No. 446/81-7-2020-39(parya)/2014 TC-1 dated 01.05.2020.

**16. Soil Mining from Gata No.-92, 92/2, 93/17, 93/20, Village-Bhundi Khadar, Tehsil-Tilhar, Shahjahanpur, Smt.Ashi Parveen, Area-1.772Ha, File No.- 5863-SIA/UP/MIN/174263/2020**

A presentation was made by the project proponent along with their consultant M/s Chandigarh Pollution Testing Laboratory – EIA Division (CPTL). The proponent, through the documents submitted and the presentation made, informed the committee that:-

- 1- The environmental clearance is sought for Soil Excavation at Gata No.- 92, 92/2, 93/17, 93/20 at Village Bhundi Khadar, Tehsil Tilhar, District-Shahjahanpur. U.P.. (Leased Area: 1.772 Ha).
- 2- Salient features of the project as submitted by the project proponent:

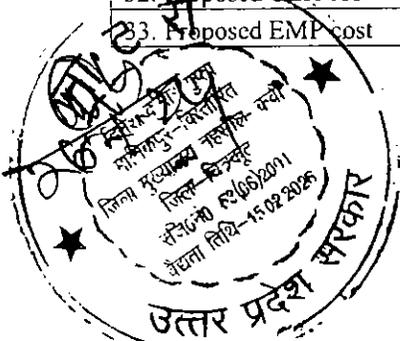
|  |  |              |               |
|--|--|--------------|---------------|
| 1. On-line proposal No.                                    | SIA/UP/MIN/174263.2020   |              |               |
| 2. File No .allotted by SEIAA.UP                           | 5863   |              |               |
| 3. Name of Proponent                                       | Smt. Ashi Parveen  |              |               |
| 4. Registered Address                                      | Khudaganj, Nayaganj, Shahjahanpur, Uttar Pradesh   |              |               |
| 5. Full correspondence address of proponent and mobile no. | Ashi Parveen Khudaganj, Nayaganj, Shahjahanpur, Uttar Pradesh<br>Email: ashiparveensoil@gmail.com<br>Mobile no. 7905580607 |              |               |
| 6. Name of Project   | Ashi Parveen soil Mining Project   |              |               |
| 7. Plot/Lease/Location (Plot/ Khasra /Gata No.)            | Khasra No- 92, 92/2, 93/17, 93/20  |              |               |
| 8. Name of Village   | Bhundi Khadar  |              |               |
| 9. Tehsil  | Tilhar   |              |               |
| 10. District   | Shahjahanpur   |              |               |
| 11. Name of Minor Mineral                                  | Ordinary soil  |              |               |
| 12. Total Area (in Ha.)                                    | 1.772ha  |              |               |
| 13. Max.&Min mrl within lease area                         | 163.0mRL-161.0mRL  |              |               |
| 14. Pillar Coordinates(Verified by OMO)                    |  | Latitude     | Longitude     |
|  |  | 92           |               |
|  | A  | 28°10'6.62"N | 79°44'30.86"E |
|  | B  | 28°10'4.50"N | 79°44'29.29"E |
|  | C  | 28°10'3.88"N | 79°44'30.26"E |
|  | D  | 28°10'4.06"N | 79°44'30.84"E |
|  | E  | 28°10'4.02"N | 79°44'31.12"E |
|  | F  | 28°10'5.87"N | 79°44'32.67"E |



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|   |   |                   |               |
|---|---|-------------------|---------------|
|   |   | 92/2              |               |
|   | A   | 28°10'4.02"N      | 79°44'31.12"E |
|   | B   | 28°10'5.87"N      | 79°44'32.67"E |
|   | C   | 28°10'2.31"N      | 79°44'33.98"E |
|   | D   | 28°10'4.07"N      | 79°44'35.48"E |
|   |   | 93/17             |               |
|   | A   | 28°10'6.30"N      | 79°44'37.47"E |
|   | B   | 28°10'4.68"N      | 79°44'35.90"E |
|   | C   | 28°10'4.34"N      | 79°44'36.54"E |
|   | D   | 28°10'5.89"N      | 79°44'38.05"E |
|   |   | 93/20             |               |
|   | A   | 28°10'6.30"N      | 79°44'37.47"E |
|   | B   | 28°10'4.25"N      | 79°44'35.41"E |
|   | C   | 28°10'5.54"N      | 79°44'33.53"E |
|   | D   | 28°10'7.81"N      | 79°44'35.65"E |
| 15. Total Geological Reserves   | 39,870 cum  |                   |               |
| 16. Total Mineable Reserves   | 34509.70 cum  |                   |               |
| 17. Proposed Production/year  | 27607.76 cum  |                   |               |
| 18. Sanctioned Period of Mine lease                                       | 6 months  |                   |               |
| 19. Production of mine/day  | 153.27 cum  |                   |               |
| 20. Method of Mining  | Semi-Mechanized Opencast  |                   |               |
| 21. No. of Working Days   | 180   |                   |               |
| 22. No of working hours   | 8 hrs/day   |                   |               |
| 23. No. Of workers  | 13  |                   |               |
| 24. No. of Vehicular movement/day   | 24  |                   |               |
| 25. Type of Land  | Pvt. Land (Agriculture)   |                   |               |
| 26. Ultimate Depth of Mining  | 2.25 Meter  |                   |               |
| 27. Nearest metallated road   | 0.75 km   |                   |               |
| 28. Water Requirement   | Purpose   | Requirement (kld) |               |
|   | Drinking and domestic   | 0.592             |               |
|   | Suppression of dust   | 0.75              |               |
|   | Plantation  | 0.15              |               |
|   | Others( if any)   | -----             |               |
|   | Total   | 1.49              |               |
| 29. Name of QCI Accredited Consultant with QCI No and period of validity. | Chandigarh Pollution Testing Laboratory<br>Eia Division<br>E-126, Phase VII, Industrial Area, Mohali (Punjab)<br>Valid till: 12/02 2022 |                   |               |
| 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   | DMO/ Shahjahnpur. Letter No. 861 dated 22-09-2020   |                   |               |
| Details of Lease Area in approved DSR                                     | NA  |                   |               |
| 32. Proposed CER cost   | 0.30 Lakh   |                   |               |
| 33. Proposed EMP cost   | 0.75Lakh  |                   |               |



*Deepak Singh*  
M/s Deepak Singh

Proprietor

|                                      |   |
|--------------------------------------|---|
| 34. Length and breadth of Haul Road. | Length- 0.75 Km, Width- more than 6.0 m |
| 35. No. of Trees to be Planted       | 60                                      |

- 3- 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.
- 4- This project does not attract any of the general conditions applicable on mining projects specified in EIA Notification 14/09/2006.
- 5- The mining operation will not be carried out in safety zone of any bridge or embankment or in ecofragile zone such as habitat of any wild fauna.
- 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).

#### RESOLUTION AGAINST AGENDA NO-16

The committee discussed the matter and directed to submit the following information regarding the project:

1. Project proponent should submit the receipt of registration on DGM Portal as per GO No.1542 dated 18.09.2020
2. Mining plan approval letter should be signed by District Magistrate

#### 17. Expansion of Hospital Block of Heritage Institute of Medical Sciences at Mauza-Bhadwar, Panditpur & Misirpur, Tehsil- Sadar and Dehat Amanat, District- Varanasi, U.P., Shri Sidharth Rai, M/s Heritage Hopitals limited, File No.- 5881SIA/UP/MIS/175483/2020

A presentation was made by the project proponent along with their consultant M/s Ind Tech The proponent. through the documents submitted and the presentation made informed the committee that:-

1. The environmental clearance is sought for Expansion of Hospital Block of "Heritage Institute of Medical Sciences" at Mauza- Bhadwar, Panditpur&Misirpur Tehsil – Sadarand DehatAmanat District – Varanasi. Uttar Pradesh to be developed by Heritage Hospitals Limited.
2. The proposed Project having the plot area of 81,205.15 square meter and Builtup Area will be 43,758.03 square meter.
3. The proposed project having 700 Nos. of beds facility.
4. Proposed Expansion is in Hospital block: G+3 to G+8 (third floor 4584.93 sqm + fourth floor 4584.93 sqm + fifth floor 4584.93 sqm + sixth floor 4584.93 sqm + seventh floor 4584.93 sqm + eighth floor 4584.93 sqm) i.e. addition of 27509.58 sq.m
5. Salient features of the project:-

|   |          |     |
|---|----------|-----|
| Total Plot Area                               | 81205.15 | sqm |
| <b>Existing Hospital Block</b>                |          |     |
| Hospital Block (B+G+2)                        |          |     |
| Basement area                                 | 2493.66  | sqm |
| Ground Floor                                  | 4584.93  | sqm |
| First Floor                                   | 4584.93  | sqm |
| Second Floor                                  | 4584.93  | sqm |
| Total Existing Buildup Area of Hospital Block | 16248.45 | sqm |
| <b>Proposed Project</b>                       |          |     |

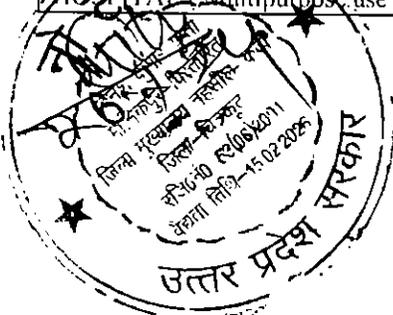


*Signature*  
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 Proprietor

|   |                 |            |
|---|-----------------|------------|
| <b>G+3 and G+8</b>                                    |                 |            |
| Third Floor   | 4584.93         | sqm        |
| Fourth Floor  | 4584.93         | sqm        |
| Fifth Floor   | 4584.93         | sqm        |
| Sixth Floor   | 4584.93         | sqm        |
| Seventh Floor   | 4584.93         | sqm        |
| Eight Floor   | 4584.93         | sqm        |
| Total Proposed Buildup Area of Hospital Block         | 27509.58        | sqm        |
| <b>Buildup Area of hospital block</b>                 |                 |            |
| Existing  | 16248.45        | sqm        |
| Proposed  | 27509.58        | sqm        |
| <b>Total Buildup Area after expansion</b>             | <b>43758.03</b> | <b>sqm</b> |
| <b>Beds</b>   |                 |            |
| No of Beds  | 700             | Nos.       |
| <b>Population</b>                                     |                 |            |
| Patients  | 700             | Nos.       |
| Visitor in OPD  | 1000            | Nos.       |
| Total Population                                      | 1700            | Nos.       |
| <b>Solid Waste</b>                                    |                 |            |
| Total Solid Waste                                     | 1.15            | TPD        |
| Organic Waste   | 0.53            | TPD        |
| Non Organic Waste                                     | 0.36            | TPD        |
| <b>WATER</b>  |                 |            |
| Total Water Requirement                               | 539.579         | kld        |
| Fresh Water Requirement                               | 262             | Kld        |
| Sewage Generation                                     | 319.6           | Kld        |
| ETP Proposed  | 35              | kld        |
| STP Proposed  | 380             | kld        |
| Treated waste water obtained                          | 287.64          | kld        |
| Treated waste water used in flushing/HVAC/Landscape   | 277.579         | kld        |
| Balance treated waste water discharge outside premise | 10              | Kld        |
| <b>Rain Water Harvesting</b>                          |                 |            |
| No. of RWH pits                                       | 13              | Nos.       |
| <b>GREEN</b>  |                 |            |
| Area (Min. 10% of the plot area)                      | 16379           | Sqm        |
| <b>PARKING</b>  |                 |            |
| Required Parking                                      | 1618            | ECS        |
| Parking Provided                                      | 1643            | ECS        |
| <b>POWER</b>  |                 |            |
| Power Load  | 750             | KW         |
| DG sets capacity                                      | 1002            | kVA        |

6. Water requirement details

|  | POPULATION/<br>AREA/UNIT | RATE<br>IN<br>LTS | TOTAL<br>QTY<br>IN KL |       | Sewage |
|--|--------------------------|-------------------|-----------------------|-------|--------|
| HOSPITAL ( 700 Bedded<br>Hospital incl emergency beds) |                          | 450               |                       |       |        |
| HOSPITAL ( Multipurpose use )                          | 700                      | 280               | 196                   | Fresh | 156.8  |



*Sumit*  
M/s Deepak Singh  
Proprietor

|  |       |     |        |          |      |
|--|-------|-----|--------|----------|------|
| LABORATORIES & OT  | 700   | 20  | 14     | Fresh    | 11.2 |
| FLUSHING   | 700   | 150 | 105    | Recycled | 105  |
| LAUNDRY  | 700   | 25  | 17.5   | Fresh    | 14   |
| KITCHEN - (cooking, washing, utensil wash)                   | 700   | 10  | 7      | Fresh    | 5.6  |
| CLINICAL   | 700   | 25  | 17.5   | Fresh    | 14   |
| OPD Patients Fresh   | 1000  | 10  | 10     | Fresh    | 8    |
| OPD Patients Flushing  | 1000  | 5   | 5      | Recycled | 5    |
| Airconditioning  | 700   | 9   | 151.2  | Recycled |      |
| Landscaping  | 16379 | 1   | 16.379 | Recycled |      |
|  |       |     |        |          |      |
| <b>Total Water Requirement</b>                               |       |     | 540    | kld      |      |
| <b>Fresh Water Requirement</b>                               |       |     | 263    | kld      |      |
| <b>Sewage Generation</b>                                     |       |     | 319.6  | kld      |      |
| <b>ETP Proposed</b>  |       |     | 35     | kld      |      |
| <b>STP Proposed</b>  |       |     | 380    | kld      |      |
| <b>Treated waste water obtained</b>                          |       |     | 287.64 | kld      |      |
| <b>Treated waste water used in flushing/HVAC/Landscape</b>   |       |     | 277    | kld      |      |
| <b>Balance treated waste water discharge outside premise</b> |       |     | 10     | kld      |      |

## 7. Waste water details

| Waste Category           | Quantity | Unit |
|--------------------------|----------|------|
| Total Waste Generation   | 1.15     | TPD  |
| Organic Waste Generation | 0.53     | TPD  |
| Non-Organic Waste        | 0.36     | TPD  |
| Bio-Medical waste        | 0.26     | TPD  |

## 8. Solid waste/other waste Details

| Waste Category           | Quantity | Unit |
|--------------------------|----------|------|
| Total Waste Generation   | 1.15     | TPD  |
| Organic Waste Generation | 0.53     | TPD  |
| Non-Organic Waste        | 0.36     | TPD  |
| Bio-Medical waste        | 0.26     | TPD  |

9. The project proposal falls under category - 8(a) as per the MoEF&CC notification dated 14/09/2006 (as amended)

**RESOLUTION AGAINST AGENDA NO-17**

The committee discussed the matter and recommended grant of environmental clearance on the project proposals alongwith general conditions as earlier prescribed by the authority for construction project and following specific conditions:

1. Emergency exit should be provided.
2. Plantation of trees should be of indigenous species and may be as per the consultation of local district Forest Officer.
3. The waste water generated should be treated properly in scientific manner i.e. domestic waste water to be treated in STP and industrial effluent such as RO rejects with high TDS and other chemical bearing effluent shall be treated separately.

*Sumit*  
M/s Deepak Singh

Director





23. Any hazardous waste generated during construction phase should be disposed off as per applicable rules and norms with necessary approvals of the UP Pollution Control Board.
24. The diesel generator sets to be used during construction phase should be low sulphur diesel type and should conform to Environments (Protection) Rules prescribed for air and noise emission standards.

**18. Original Application No. 208/2019 Sandeep Kumar Singh Vs. State of U.P. & Ors (Preparation of Terms of Reference to conduct micro assessment study in compliance of Hon'ble NGT order dated 18/09/2020)**

SEAC noted that the matter was listed in Hon'ble NGT, New Delhi on 18/09/2020 and passed an order. The operating part of the order is as follows:

1. *The issue for consideration is the need for undertaking study of sustainability of an area for mining activities with a view to give effect to 'Precautionary' and 'Sustainable Development' principles. Study of the area where mining is to be permitted is required and based on such study, extent of mining to be permitted may be determined. This question has arisen in the background of allegation of grant of mining in Rivers Kane, Yamuna, Bangey, etc. in Banda District, Uttar Pradesh without adequate study, adversely affecting the environment.....*
  5. *The above report shows that there is non-compliance of the direction as the task has been assigned to the Technical Committee at the District level which does not comprise of experts. The micro assessment of the area is required to be done with the involvement of experts.*
  6. *Accordingly, such study may be conducted by the SEIAA itself along with SEAC. The State authorities may also ensure that no mining is allowed without statutory consent under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981. This Tribunal has already dealt with this vide order dated 13.09.2018 in O.A. No. 186/2016, Satendra Pandey v. MoEF&CC and it has been held that consistent with the directions of the Hon'ble Supreme Court, the issue has to be dealt with by SEIAA and SEAC.*

*An action taken report be furnished before the next by e-mail at [judicial-ngt@gov.in](mailto:judicial-ngt@gov.in) preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF.*

*List for further consideration on 07.01.2021.*

The committee noted that the matter was earlier discussed in Joint Meeting of State Environment Impact Assessment Authority (SEIAA) & State Expert Appraisal Committee (SEAC) held on 29/09/2020 and deliberated that:-

*"The SEIAA and SEAC jointly discussed the matter. The tenure of present SEIAA/SEAC, U.P. will expire on 15 October, 2020. In view of limited time and resources available with SEAC/ SEIAA, the Directorate of Environment, UP and Directorate of Geology and Mining, UP should engage any independent agency (University/ Institute) like (a) Geological Survey of India, Northern Region (b) Lucknow University (c) IIT, BHU (d) Central Mine and Planning Design Institute, Ranchi (e)*



*Dr. Deepak Singh*  
 Mr. Deepak Singh

Director

*Indian Bureau of Mine, Dhanbad to conduct micro assessment study of the area of river bed mining environment of rivers Kene, Yamuna & Bangay etc. of District, Banda including detailed replenishment study as per the Original Application No. 208/2019 Sandeep Kumar Singh Vs. State of U.P. & Ors Hon,ble NGT order dated 18/09/2020 under the supervision of SEIAA and SEAC. The finances and other resources required for the study should be arranged by Directorate of Geology and Mining and Directorate of Environment, UP."*

In continuation of decision taken in joint meeting held on 29/09/2020, the matter is again considered in SEAC meeting held on 05.10.2020. The Committee discussed the matter in depth and recommended the following to conduct micro assessment study in compliance of Hon'ble NGT order dated 18/09/2020:-

1. In pursuance of Hon'ble NGT order 18.09.2020, Directorate of Environment is looking for an institute/ university (hereafter called consultant) to conduct micro-assessment of the sand mining (operational as well as non-operational) leases in the District of Banda under the supervision of SEIAA and SEAC Uttar Pradesh.
2. The study will be in accordance with the procedure for replenishment study of Sand mentioned in "Sand Mining Management Guidelines 2016" issued by MoEF&CC, Govt. of India.
3. The List of operational Mining Leases in the District with location, area, volume of minor minerals and geo-coordinate etc.
4. The List of non-operational Mining Leases in the District with location, area, volume of minor minerals and geo-coordinate etc.

NOTE: Director, Geology & Mining UP is requested to furnish the information pertaining to point 2 & 3 mentioned above to

(Dr. Virendra Misra)  
Member

(Dr. Pramod Kumar Mishra)  
Member

(Dr. Ranjeet Kumar Dalela)  
Member

(Shri Meraj Uddin)  
Member

(Dr. Ajoy Mandal)  
Member

(Shri Rajive kumar)  
Member

(Dr. Sarita Sinha)  
Member

(Prof. S.K. Upadhyay,  
Member

(Dr. (Prof.) S. N. Singh)  
Chairman



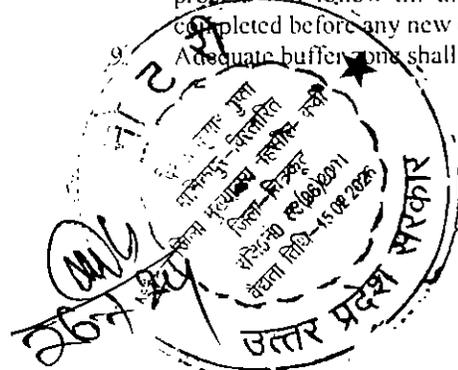
*Deepak Singh*  
M/- Deepak Singh



17. The Project Proponent shall inform to the Regional Office, MoEF, GoI, Lucknow and State Pollution Control Board regarding 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 separate account and shall not be diverted for other purpose. Year wise expenditure shall be reported to the MoEF, GoI, Lucknow and State Pollution Control Board
19. The Regional Office, MoEF, GoI, Lucknow and State Pollution Control Board shall monitor compliance of the stipulated conditions. A complete set a documents including Environment Impact Assessment Report, Environmental Management Plan, Public hearing and other documents information should be given to Regional Office of the MoEF, 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 half yearly compliance report of the stipulated prior environmental clearance terms and conditions in hard and soft copy to the SEIAA,U.P. on 1st June and 1st December of each calendar year.
23. The SEIAA may alter/modify the above conditions or stipulate any further condition in the interest of environment 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 Environment (Protection) Act, 1986.

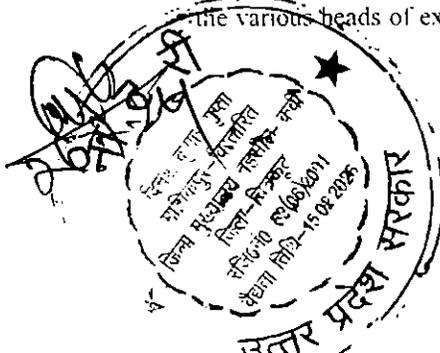
**Specific Conditions:**

1. At the time of operation, project proponent will comply with all the guidelines issued by Government of India/State Govt./District Administration related to Covid-19.
2. This environmental clearance does not create or verify any claim of applicant on the proposed activity.
3. This environmental clearance shall be subject to valid lease in favour of 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.
4. The Environmental clearance will be co-terminus with the mining lease period/Mining Plan.
5. Explosive cannot be stored on the site.
6. A comprehensive EIA including mining areas within 15 K.M. to assess impact of the mining activity on the surrounding area shall be undertaken and report submitted to this Authority within one year.
7. 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.
8. After exhausting the first mine pit and before starting mining operations in the next pit, reclamation and plantation works in the exhausted pit shall be completed so as 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.
9. Adequate buffer zone shall be maintained between two consecutive mineral bearing deposits.



M/s Deepak Singh

10. Sprinkling of water on haul roads to control dust will be ensured by the project proponent.
11. 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 programme besides tree plantation. The company shall involve local people for plantation programme. Details of year wise afforestation programme including rehabilitation of mined out area shall be submitted to the Regional Office, MoEF&CC, GoI, Lucknow every year.
12. Blast vibrations study shall be conducted and a 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.
13. Controlled blasting techniques with sequential blasting shall be adopted. The blasting shall be carried out in the day time only.
14. Appropriate arrangement for shelter and drinking water for the mining workers has to be ensured at the mining site.
15. 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.
16. Rain water harvesting shall be undertaken to recharge the ground water source.
17. Status of implementation shall be submitted to the Regional Office, MoEF&CC, GoI, Lucknow and UP Pollution Control Board within six months and thereafter every year from the next consequent year.
18. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
19. 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 geo textile 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.
20. 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. Adequate number of Check Dams and Gully Plugs shall be constructed across seasonal/perennial nallahs, if any flowing through the ML area and silts arrested. De- silting at regular intervals shall be carried out.
21. Garland drain of appropriate size, gradient and length shall be constructed for both mine pit and for 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 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.
22. 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.
23. 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 U.P. Pollution Control Board regularly.
24. 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.
25. 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



*Signature*  
**M/s Deepak Singh**  
 Proprietor



Minutes of 497<sup>th</sup> SEAC Meeting Dated 05/10/2020

escape during the course of transportation. No overloading of minerals for transportation shall be committed. The trucks transporting minerals shall not pass through wild life sanctuary, if any in the study area.

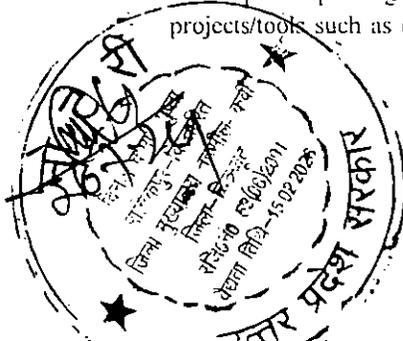
- 37. Prior permission from the Competent Authority shall be obtained for extraction of ground water, if any.
- 38. A final mine closure plan, along with details of Corpus Fund, shall be submitted to the Regional office, Ministry of Environment & Forests, GoI. Lucknow and U.P. Pollution Control Board 5 years in advance of final mine closure for approval.
- 39. Project Proponent shall explore the possibility of using solar energy where ever possible.
- 40. Commitment towards CER has to be followed strictly.
- 41. Regular health check-up record of the mine workers has to be maintained at site in a proper register. It should be made available for inspection whenever asked.
- 42. Project Proponent has to strictly follow the direction/guidelines issued by MoEF&CC, CPCB and other Govt. Agencies from time to time.
- 43. The blasting will be done only after getting the permission from the Mining Department.

*Deepak Singh*  
 M/s Deepak Singh  
 Director



Annexure-2**GENERAL CONDITIONS PRESCRIBED BY SEIAA/SEAC, UP FOR SAND/MORUM  
MINING PROPOSALS****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 law.
3. Any change in mining area, khasra numbers, entailing capacity addition with change in process and or mining technology, modernization and scope of working shall again require prior Environmental Clearance as per the provisions of EIA Notification, 2006 (as amended).
4. Precise mining area will be jointly demarcated at site by project proponent and officials of Mining/Revenue department prior to starting of mining operations. Such site plan, duly verified by competent authority along-with copy of the Environmental Clearance letter will be displayed on a hoarding/board at the site. A copy of site plan will also be submitted to SEIAA within a period of 02 months.
5. Mining and loading shall be done only within day hours time.
6. No mining shall be carried out in the safety zone of any bridge and or embankment.
7. It shall be ensured that standards related to ambient air quality/effluent as prescribed by the Ministry of Environment & Forests are strictly complied with. Water sprinklers and other dust control majors should be applied to take-care of dust generated during mining operation. Sprinkling of water on haul roads to control dust will be ensured by the project proponent.
8. All necessary statutory clearances shall be obtained before start of mining operations. If this condition is violated, the clearance shall be automatically deemed to have been cancelled.
9. Parking of vehicles should not be made on public places.
10. No tree-felling will be done in the leased area, except only with the permission of Forest Department.
11. No wildlife habitat will be infringed.
12. It shall be ensured that excavation of minor mineral does not disturb or change the underlying soil characteristics of the river bed /basin, where mining is carried out.
13. It shall be ensured that mining operation of Sand/Morum will not in any way disturb the, velocity and flow pattern of the river water significantly.
14. It shall be ensured that there is no fauna dependant on the river bed or areas close to mining for its nesting. A report on the same, vetted by the competent authority shall be submitted to the RO, PCB and SEIAA within 02 months.
15. Primary survey of flora and fauna shall be carried out and data shall be submitted to the RO, PCB and SEIAA within six months.
16. Hydro-geological study shall be carried out by a reputed organization/institute within six months and establish that mining in the said area will not adversely affect the ground water regime. The report shall be submitted to the RO, PCB and SEIAA within six months. In case adverse impact is observed /anticipated, mining shall not be carried out.
17. Adequate protection against dust and other environmental pollution due to mining shall be made so that the habitations (if any) close by the lease area are not adversely affected. The status of implementation of measures taken shall be reported to the RO, UPPCB and SEIAA and this activity should be completed before the start of sand mining.
18. Need-based assessment for the nearby villages shall be conducted to study economic measures which can help in improving the quality of life of economically weaker section of society. Income generating projects/tools such as development of fodder farm, fruit bearing orchards, vocational training etc. can



*Signature*  
M/s Deepak Singh  
Proprietor

Minutes of 497<sup>th</sup> SEAC Meeting Dated 05/10/2020

- form a part of such program me. The project proponent shall provide separate budget for community development activities and income generating programmes.
19. Green cover development shall be carried out following CPCB guidelines including selection of plant species and in consultation with the local DFO/Horticulture Officer.
  20. Separate stock piles shall be maintained for excavated top soil, if any, and the top soil should be utilized for green cover/tree plantation.
  21. Dispensary facilities for first-aid shall be provided at site.
  22. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
  23. The District Mining Officer should quarterly monitor compliance of the stipulated conditions. The project proponent will extend full cooperation to the District Mining Officer by furnishing the requisite data/information/monitoring reports. In case of any violations of stipulated conditions the District Mining Officer will report to SEIAA.
  24. The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions including results of monitored data (both in hard & soft copies) to the SEIAA, the District Officer and the respective Regional Office of the State Pollution Control Board by 1st June and 1st December every year.
  25. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad/ Municipal Corporation and Urban Local Body.
  26. Transportation of materials shall be done by covering the trucks / tractors with tarpaulin or other suitable mechanism to avoid fugitive emissions and spillage of mineral/dust.
  27. Waste water, from temporary habitation campus be properly collected & treated before discharging into water bodies the treated effluent should conform to the standards prescribed by MoEF/CPCB.
  28. Measures shall be taken for control of noise level to the limits prescribed by C.P.C.B.
  29. Special Measures shall be adopted to protect the nearby settlements from the impacts of mining activities. Maintenance of Village roads through which transportation of minor minerals is to be undertaken, shall be carried-out by the project proponent regularly at his own expenses.
  30. Measure for prevention & control of soil erosion and management of silt shall be undertaken. Protection of dumps against erosion, if any, shall be carried-out with geo textile matting or other suitable material.
  31. Under corporate social responsibility a sum of 5% of the total project cost or total income whichever is higher is to be earmarked for total lease period. Its budget is to be separately maintained. CER component shall be prepared based on need of local habitant. Income generating measures which can help in upliftment of poor section of society, consistent with the traditional skills of the people shall be identified. The programme can include activities such as development of fodder farm, fruit bearing orchards, free distribution of smokeless Chula etc.
  32. Possibility for adopting nearest three villages shall be explored and details of civic amenities such as roads, drinking water etc proposed to be provided at the project proponent's expenses shall be submitted within 02 months from the date of issuance of Environment Clearance.
  33. The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry of Environment and Forests and its Regional Office located at Lucknow, SEIAA, U.P and UPPCB.
  34. Action plan with respect to suggestion/improvement and recommendations made and agreed during Public Hearing shall be submitted to the District mines Officer, concern Regional Officer of UPPCB and SEIAA within 02 months.
  35. Environmental clearance is subject to obtaining clearance under the Wildlife (Protection) Act, 1972 from the competent authority, if applicable to this project.



*Deepak Singh*  
M/s Deepak Singh  
Proprietor

36. The proponent shall observe every 15 day for nesting of any turtle in the area. Based on the observations so made, if turtle nesting is observed, necessary safeguard measures shall be taken in consultation with the State Wildlife Department. For the purpose, awareness shall be created amongst the workers about the nesting sites so that such sites, if any, are identified by the workers during operations of the mine for taking required safeguard measures. In this regards the safety notified zone should be left so that the habitat/nesting area is undisturbed.
37. The project proponent shall undertake adequate safeguard measures during extraction of river bed material and ensure that due to this activity the hydro geological regime of the surrounding area shall not be affected.
38. The project proponent shall obtain necessary prior permission of the competent Authorities for withdrawal of requisite quantity of water (surface water and groundwater), required for the project.
39. Appropriate mitigative measures shall be taken to prevent pollution of the river in consultation with the State Pollution Control Board. It shall be ensured that there is no leakage of oil and grease in the river from the vehicles used for transportation.
40. Vehicular emissions shall be kept under control and regularly monitored. The vehicles carrying the mineral shall not be overloaded.
41. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. (MoEF circular Dated : 22-09-2008 regarding stipulation of condition to improve the living conditions of construction labour at site).
42. Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.
43. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad/ Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.
44. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the Regional Office of the Ministry of Environment and Forests, Lucknow by e-mail.
45. The green cover development/tree plantation is to be done in an area equivalent to 20% of the total leased area either on river bank or along road side (Avenue Plantation).
46. Debris from the river bed will be collected and stored at secured place and may be utilized for strengthen the embankment.
47. Safety measures to be taken for the safety of the people working at the mine lease area should be given, which would also include measure for treatment of bite of poisonous reptile/insect like snake.
48. Periodical and Annual medical checkup of workers as per Mines Act and they should be covered under ESI as per rule.

*Sumit*  
M/s Deepak Singh

Proprietor





19. Four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for monitoring PM10, PM2.5, SO2 and NOx. Location of the stations 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.
20. Common road for transportation of mineral is to be maintained collectively. Total cost will be shared/worked out on the basis of lease area among users.
21. Proponent will provide adequate sanitary facility in the form of mobile toilets to the labours engaged for the project work.
22. Solid waste material viz., gutkha pouchs, plastic bags, glasses etc. to be generated during project activity will be separately storage in bins and managed as per Solid Waste Management rules.
23. Green area/belt to be developed along haulage road in consultation of Gram Sabha/Panchyat.
24. Natural/customary paths used by villagers should not be obstructed at any time by the activities proposed under the project.
25. Digital processing of the entire lease area in the district using remote sensing technique should be done regularly once in three years for monitoring the change of river course by Directorate of Geology and Mining, Govt. of Uttar Pradesh. The record of such study to be maintained and report be submitted to Regional office of MoEF, SEIAA, U.P. and UPPCB.
26. A copy of clearance letter will be marked to concerned Panchayat / local NGO, if any, from whom suggestion / representation has been received while processing the proposal. The clearance letter shall also be put on the website of the company.
27. State Pollution Control Board shall display a copy of the clearance letter at the Regional office, District Industry Centre and Collector's office/Tehsildar's Office for 30 days.
28. The project authorities 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 Pollution Control Board and also at web site of the SEIAA at <http://www.seiaaup.in> and a copy of the same shall be forwarded to the Regional Office of the Ministry located in Lucknow, CPCB, State PCB.
29. The MoEF/SEIAA or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
30. 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.
31. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Authority Act, 1997.
32. Waste water from potable use be collected and reused for sprinkling.
33. During the school opening and closing time vehicle movement will be restricted.
34. A width of not less than 50 meter or 10% width of river can be restricted for mining activities from river bank. A condition can be imposed that mining will be done from river activities from river bank.

*Deepak Singh*  
**M/s Deepak Singh**  
 Proprietor



## State Level Environment Impact Assessment Authority, Uttar Pradesh

Directorate of Environment, U.P.

Vincent Khand-I, Gomti Nagar, Lucknow - 226 010

Phone: 91-522-2300 541, Fax: 91-522-2300 543

E-mail: doeuplko@yahoo.com

Website: www.seiaaup.com

### Minutes of the 416<sup>th</sup> Meeting of the State Level Environment Impact Assessment Authority, UP (SEIAA) held on 14/10/2020

The meeting of 415<sup>th</sup> State Level Environment Impact Assessment Authority, UP (SEIAA) was held on 14/10/2020 at the Directorate of Environment. The following were present in the meeting:-

- |                              |                              |
|------------------------------|------------------------------|
| 1. Prof. Rana Pratap Singh   | Chairman, SEIAA, U.P         |
| 2. Dr. (Smt.) Madhu Bhardwaj | Member, SEIAA, U.P           |
| 3. Sri Ashish Tiwari         | Member Secretary, SEIAA, U.P |

#### General Discussion:-

Secretary, Geology and mining UP, Lucknow has requested SEIAA vide letter no. – 1818/86-2020 dated 09.10.2020 to dispose off mining projects on priority basis. SEIAA opined to accept it and take mining/Government/Public Interest projects on priority basis.

#### Agenda-A: -Complaints/letters -NIL

#### Agenda-B:-Replies-

#### Agenda-C:- (1) Minutes of 497<sup>th</sup> SEAC Meeting Dated 05.10.2020

1. Building Stone "Sand Stone" at Arajai No.-639, at Village- Rampur Sakteshgarh, Tehsil-Chunar, District- Mirzapur, U.P., M/s Shahnai Constrction, Area -3.64 ha, File No.- 4807/Proposal No. SIA/UP/MIN/36042/2019

SEIAA agreed with the recommendations of the SEAC to defer the matter and to discuss the matter only after submission of online request on prescribed portal.

2. Building Stone (Khanda, Gitti & Boulder) Mine at Gata No.-587, Khand No.-03, at Village- Nahari, Tehsil-Naraini, District Banda. Shri Ankur Shivhare., Area-2.0 ha., File No.-5844/4784/SIA/UP/MIN/56743/2019

SEIAA agreed with the recommendations of the SEAC to defer the matter and to discuss the matter only after submission of online request on prescribed portal.



*Madhu Bhardwaj*  
*Secretary*  
 M/s Deepak Singh

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**3. "Granite (Khanda, Gitti & Boulder)" Mine at Gata No.-332, Khand No.- 03, Village- Badokhar Khurd, Tehsil- Naraini, Banda, U.P., Shri Deepak Singh., Area -0.56 ha., File No.-5846/5028SIA/UP/MIN/56684/2019**

SEIAA agreed with the recommendations of the SEAC to grant the prior Environmental Clearance to the proposed project along with all the general and specific conditions as suggested by the SEAC adding following specific condition as follows:-

1. Directions/suggestions given during public hearing and commitment made by the project proponent should be strictly complied.
2. 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 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.

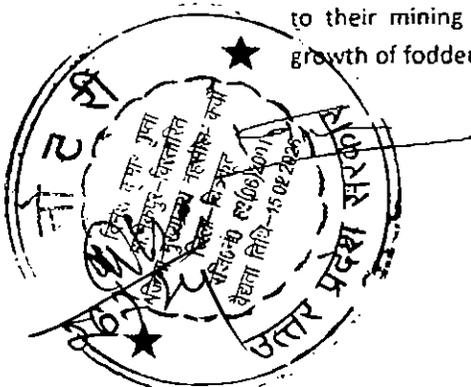
**4. Building Stone(Khanda, Gitti & Boulder) Mine at Gata No.-587, Khand No.-06, at Village- Nahari, Tehsil-Naraini, Banda. M/s Maa Sharda Associates., Area-2.0 ha. File No.-5848/4791SIA/UP/MIN/50695/2019**

SEIAA agreed with the recommendations of the SEAC to defer the matter and to discuss the matter only after submission of online request on prescribed portal.

**5. Sand Mining from Yamuna River bed at Gata No.-76Mi, Village- Bela Kalan, Tehsil- Sadar, Gautma Buddha Nagar., M/s H.S.M. Holding Pvt. Ltd., Area-26.76 Ha File No.-3991/SIA/UP/MIN/21635/2018**

SEIAA agreed with the recommendations of the SEAC to grant the prior Environmental Clearance to the proposed project along with all the general and specific conditions as suggested by the SEAC adding following specific condition as follows:-

1. Directions/suggestions given during public hearing and commitment made by the project proponent should be strictly complied.
2. 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 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.



*Madan Bhandari*  
*RES/Ph*  
**M/s Deepak Singh**

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Director

Minutes of the 416<sup>th</sup> Meeting of the SEIAA, UP held on 14/10/2020

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.
6. Sand/Morrum Mining along Betwa River Bed in Khand No.- 20/1, Village-Tikapur, Tehsil- Maudaha, District- Hamirpur., Shri Anand Kumar Gupta., Area-12.145 Ha File No.-4571 SIA/UP/MIN/29932/2018

SEIAA agreed with the recommendations of the SEAC to grant the prior Environmental Clearance to the proposed project along with all the general and specific conditions as suggested by the SEAC adding following specific condition as follows:-

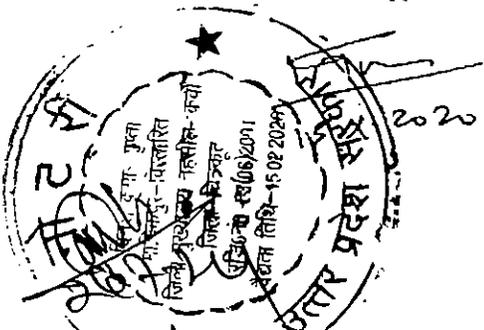
1. Directions/suggestions given during public hearing and commitment made by the project proponent should be strictly complied.
2. The project proponent shall obtain the forest clearance and permission of Central and State Government as per law under the provisions of Forest (conservation) Act, 1980 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.

7. Sand/Morrum Mining on Dhasan River at Gata No.-1419Kha, Khand No.-01, Villi.- Dhamnaud, Tehsil-Garautha, Jhansi. Shri Vipin Kumar Saxena., Area-24.00 Ha File No.- 5860/5578SIA/UP/MIN/ 56882/2020

SEIAA agreed with the recommendation of the SEAC that complaint letter should be sent to the District Magistrate, Jhansi and District Mining Officer, Jhansi, Director, Geology and Mining Department, Lucknow and Regional officer, UPPCB Jhansi for providing the factual report on the matter within 15 days and a copy of the letter should be sent to the project proponent and for necessary action. The matter shall be discussed after receipt of factual report.

8. Sand/Morrum Mining at the bank of Ken River, Gata No.-28 (Part) & 29, Khand No.-01, Village-Kanwara, Banda., M/s Jai Durge Trading Company, Area -27.0 ha., File No.- 5864/5597SIA/UP/MIN/56930/2020

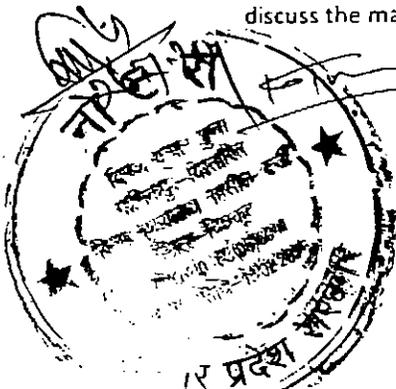
SEIAA agreed with the recommendations of the SEAC to grant the prior Environmental Clearance to the proposed project along with all the general and specific conditions as suggested by the SEAC adding following specific condition as follows:-



*Handwritten signature and name:*  
 Anand Kumar Gupta  
 M/s Deepak Singh

Minutes of the 416<sup>th</sup> Meeting of the SEIAA, UP held on 14/10/2020

1. Directions/suggestions given during public hearing and commitment made by the project proponent should be strictly complied.
  2. 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 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.
9. Soil Mining from Gata No.-289mi, 314mi, 330mi, 105, 147, 368a, 419, Village-Chamra Bojhi, Tehsil-Puwanya, Shahjahanpur., M/s Path Enterprises, Area-3.907 Ha File No.- 5851-SIA/UP/MIN/173714/2020  
SEIAA agreed with the recommendation of SEAC that the matter shall be discussed after submission of required information.
10. Soil Mining from Gata No.-422, 428, 431, 432, 447, 448, 449, 451, 452, 453, Village-Gadiya Sareli, Tehsil-Puwanya, Shahjahanpur, U.P., Shri Deepu Gupta, M/s Parth Enterprises, Area-4.588 Ha), File No.- 5853-SIA/UP/MIN/173748/2020  
SEIAA agreed with the recommendation of SEAC that the matter shall be discussed after submission of required information.
11. Satyaom Soil Mining from Gata No.-62, 92mi, 93, Village-Saharkhas Tukdadaoyam, Tehsil-Sadar, Shahjahanpur., Shri Gurudev Mishra, M/s Satya Om Enterprises Area-4.703 Ha. File No.- 5854-SIA/UP/MIN/174223/2020  
SEIAA agreed with the recommendation of SEAC that the matter shall be discussed after submission of required information.
12. Soil Mining at Gata No.-657, 588, 83, 586, 621, 363, 468, 322, Village-Tiulak, Maholiya Mundi, Navipur E. Tiulak, Tehsil-Sadar, Shahjahanpur., M/s Balaji Construction and Supplier, Area-2.145 Ha, File No.- 5857-SIA/UP/MIN/174266/2020  
SEIAA agreed with the recommendation of SEAC that the matter shall be discussed after submission of required information.
13. Earth Excavation at Khasra/Gata No.-206, at Village & Post-Sarosi, Tehsil & District-Unnao., Shri Sunil Kuamr Yadav (Area:0.4050 Ha) File No.- 5859SIA/UP/MIN/172828/2020  
SEIAA agreed with the recommendations of the SEAC to defer the matter and to discuss the matter only after submission of online request on prescribed portal.



R.S. Singh  
 Madan Bhandari  
 Dr. Deepak Singh  
 Member

Minutes of the 416<sup>th</sup> Meeting of the SEIAA, UP held on 14/10/2020**14. Brick Earth Mining from Gata No.-168,171,165,187,170,169, Village-Kewal Rampur Chilowa,Jalalabad, Shahjahanpur.,M/s Shri Banke Bihari Ent Udyog, Area-3.422 Ha File No.- 5861-SIA/UP/MIN/173630/2020**

SEIAA agreed with the recommendations of the SEAC that the environmental clearance of the above project proposal is not required as per MoEF&CC, GOI notification S.O. 1224(E) dated 28.03.2020 and Environment, Forest & Climate Change, Section -7, Government of UP G.O. No. 446/81-7-2020-39(parya)/2014 TC-1 dated 01.05.2020.

**15. Brick Earth Mining from Gata No.-256, 309, 232, 261, Village-Dhanela, Tehsil-Tilhar, Shahjahanpur., M/s Kashish Brick Field., Area-2.611 Ha, File No.- 5862-SIA/UP/MIN/173603/2020**

SEIAA agreed with the recommendations of the SEAC that the environmental clearance of the above project proposal is not required as per MoEF&CC, GOI notification S.O. 1224(E) dated 28.03.2020 and Environment, Forest & Climate Change, Section -7, Government of UP G.O. No. 446/81-7-2020-39(parya)/2014 TC-1 dated 01.05.2020.

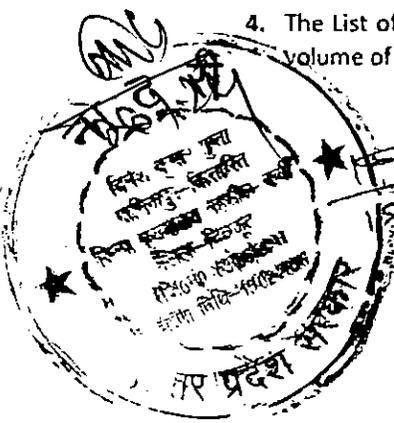
**16. Soil Mining from Gata No.-92, 92/2, 93/17, 93/20, Village-Bhundi Khadar, Tehsil-Tilhar, Shahjahanpur, Smt.Ashi Parveen, Area-1.772Ha, File No.- 5863-SIA/UP/MIN/174263/2020**

SEIAA agreed with the recommendation of SEAC that the matter shall be discussed after submission of required information.

**17. (18) Original Application No. 208/2019 Sandeep Kumar Singh Vs. State of U.P. & Ors (Preparation of Terms of Reference to conduct micro assessment study in compliance of Hon'ble NGT order dated 18/09/2020)**

SEIAA noted that the above case was taken in joint meeting held on 29/09/2020. SEIAA agreed with the recommendation of SEAC to conduct micro assessment study in compliance of Hon'ble NGT order dated 18/09/2020:-

1. In pursuance of Hon'ble NGT order 18.09.2020, Directorate of Environment is looking for an institute/ university (hereafter called consultant) to conduct micro-assessment of the sand mining (operational as well as non-operational) leases in the District of Banda under the supervision of SEIAA and SEAC Uttar Pradesh.
2. The study will be in accordance with the procedure for replenishment study of Sand mentioned in "Sand Mining Management Guidelines 2016" issued by MoEF&CC, Govt. of India.
3. The List of operational Mining Leases in the District with location, area, volume of minor minerals and geo-coordinate etc.
4. The List of non-operational Mining Leases in the District with location, area, volume of minor minerals and geo-coordinate etc.



*Madhu Chandra*  
 M/s Deepak Singh  
 Director

Minutes of the 416<sup>th</sup> Meeting of the SEIAA, UP held on 14/10/2020

**(2) Minutes of 498<sup>th</sup> SEAC Meeting Dated 06.10.2020**

**1. Sand Mining at Gata No.-36 & Smi, Khand-1B, Village-Ram Nagar Kauhan, Fatehpur., ShriTejinder Pal Singh, M/s Indore Property Pvt. Ltd., Area: 40.48 ha, File No.- 4238/Proposal SIA/UP/MIN/25610/2018**

SEIAA noted that LOI has been revised via letter no 915/30/khanij/19-20 dated 17-08-2020 after leaving a distance of 500 m from the bridge by the District magistrate Fatehpur in which area from 34.81 ha. is reduced to 15.904 ha and production reduced from 696200 CUM/Year to 318080 CUM/Year. SEIAA agreed with the recommendations of the SEAC to grant the prior Environmental Clearance to the proposed project along with all the general and specific conditions as suggested by the SEAC adding following specific condition as follows:-

1. Directions/suggestions given during public hearing and commitment made by the project proponent should be strictly complied.
2. 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 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.

**2. Sand/Morrum Mining at Khasra No.-177, 178 Mi, 176, 160, 159A, 162, 161, 158, 157Mi, 156, 155, 163Mi, 154, 148, 146, 147, 145, 144, 143, 138, 142, 141, 139Mi, 140Mi, 129,, Village-GadhiwaMajhigawan, Tehsil-Khaga, Fatehpur., Area:34.00 ha, File No.- 4235/Proposal SIA/UP/MIN/25595/2018**

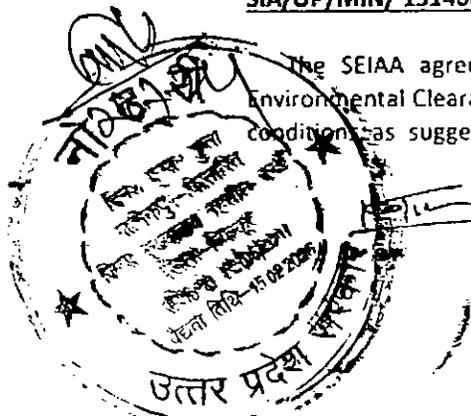
SEIAA agreed with the recommendations of the SEAC that the project proponent should be directed to submit clarification regarding the wrong gata nos .mentioned in application (Form-2)

**3. Sand Mining from Kosi River Bed at Gata No.-90, Village- BhuvraAehatmali, Tehsil-Swaar, District- Rampur, U.P., Area -1.51.00 ha, File No.- 5811/Proposal SIA/UP/MIN/ 171310/2020**

SEIAA noted that the matter has already been taken in its meeting dated 10.10.2020.

**4. Building Stone, (Sand Stone) Mine at Gata No.- 547, Village-BhojpurPahadi, Tehsil-Sadar, District- Mirzapur, U.P., (Leased Area-2.01 ha) File No.- 5385/Proposal SIA/UP/MIN/ 131466/2020**

The SEIAA agreed with the recommendations of the SEAC to grant the prior environmental Clearance to the proposed project along with all the general and specific conditions as suggested by the SEAC but the SEIAA replaces the specific condition



*made available*  
 M/s Deepak Singh

*RPS*

Minutes of the 416<sup>th</sup> Meeting of the SEIAA, UP held on 14/10/2020

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. 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 before the start of work.
2. 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.
3. 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. Building Stone, (Sand Stone) Mining at Gata No.-547, Village-BhojpurPahadi, Tehsil-Sadar, District- Mirzapur, U.P., (Leased Area-1.01 ha) File No.- 5386/Proposal SIA/UP/MIN/131412/2019

SEIAA noted that SEAC has recommended to grant EC to the above project. SEIAA gone through the file and documents and found that application is made for 10100m<sup>3</sup> capacity whereas, in LOI capacity is mentioned as 10000m<sup>3</sup>. Hence, SEIAA opined that project proponent shall clarify the above.

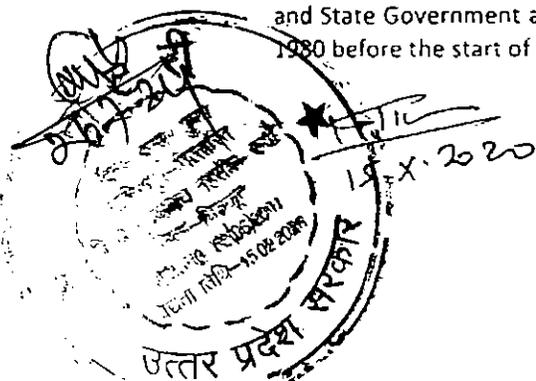
6. Stone (Khandas, Gitti& Boulder)Mining at Gata No.-42 & 44, Khand No.-05, at Village-Baruwasyodha, Tehsil-Naraini, Banda., Area-1.46 ha, File No.- 4938/Proposal SIA/UP/MIN/ 39559/2019

SEIAA noted that Environment Clearance has already been issued by SEIAAUP vide letter no 289/parya/SEIAA/4938 dated 03.09.2020.

7. Stone (Khandas, Gitti& Boulder) Mining at Gata No.-356, Khand No.- 04. at Village-Dudhaiya, Tehsil & District-Mahoba., Area-1.619 ha, File No.- 4999/Proposal SIA/UP/MIN/ 41376/2019

SEIAA agreed with the recommendations of the SEAC to grant the prior Environmental Clearance to the proposed project along with all the general and specific conditions as suggested by the SEAC adding following specific condition as follows:-

1. Directions/suggestions given during public hearing and commitment made by the project proponent should be strictly complied.
2. 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 before the start of work.



*Madan Choudhary*

*R.S. Singh*  
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*Deepak Singh*  
M/s Deepak Singu

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- 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.

**8. Sand/Morrum Mining from Ken River Riverbed at Gata No.-100, Khand No.- 01(Block No.-24) at, Village-KhaptihaKalan, Tehsil- Pailani, District-Banda, Uttar Pradesh. Sanctioned Lease Area-16.0 Ha, File No.- 4383/Proposal SIA/UP/MIN/ 28085/2018**

SEIAA agreed with the recommendations of the SEAC to grant the prior Environmental Clearance to the proposed project along with all the general and specific conditions as suggested by the SEAC adding following specific condition as follows:-

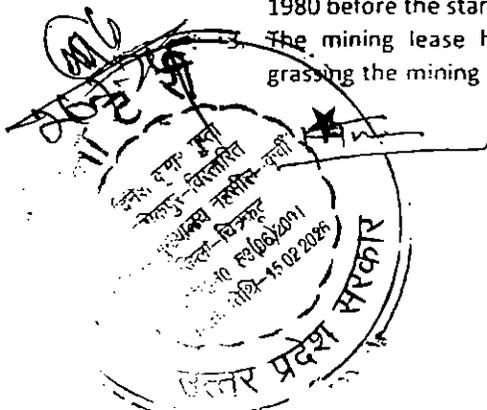
- 1. Directions/suggestions given during public hearing and commitment made by the project proponent should be strictly complied.
- 2. The project proponent shall obtain the forest clearance and permission of Central and State Government as per law under the provisions of Forest (conservation) Act, 1980 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.

**9. Sand/Morrum Mining from Betwa River Bed at Khand No.-22/4, Village-Riruwa Basaria, Tehsil-Sarila, District- Hamirpur, U.P., M/s Malhotra Brothers, Lease Area 22.00 Ha, File No.- 5873/5668/Proposal SIA/UP/MIN/56940/2020**

SEIAA gone through the amended DSR letter no- 1530/khanij-MMC-30-vividh (2018-19) dated 20-12-2019 and agreed with the recommendations of the SEAC to grant the prior Environmental Clearance to the proposed project along with all the general and specific conditions as suggested by the SEAC adding following specific condition as follows:-

- 1. Directions/suggestions given during public hearing and commitment made by the project proponent should be strictly complied.
- 2. 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 before the start of work.

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



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 M/s Deepak Singh

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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.

**10. Sand/Morrum Mining from Yamuna River bed at Gata No.-228, Vill.-Bidauli, Tehsil-Unn, Shamli, M/s Shakumbari Mines, Area-20.469 Ha, File No.- 5874/5235/Proposal SIA/UP/MIN/56938/2019**

SEIAA noted that SEAC has recommended to grant EC to the above project. SEIAA gone through the file and documents and found that the above lease is not present in the DSR. Hence, SEIAA opined that project proponent shall clarify the above.

**11. Sand/Morrum Mining from Yamuna River Bed in Khand No.- D2, Gata No.-93, Vill.-Devlan, District-Fatehpur, U.P., M/s Santosh Kumar and Sons (Leased Area-18.21 Ha) File No.- 5875/5294/Proposal SIA/UP/MIN/56937/2019**

SEIAA agreed with the recommendations of the SEAC to defer the matter as the project proponent did not appear and to discuss the matter only after submission of online request on prescribed portal.

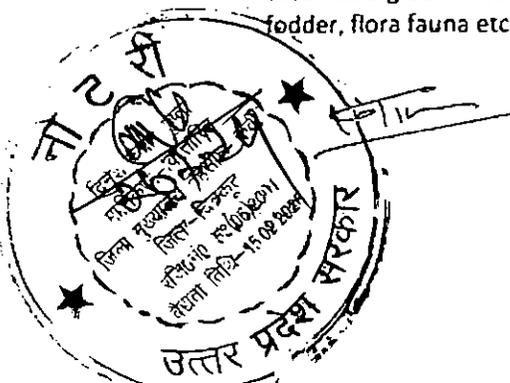
**12. Sand Mining from Garra Riverbed at Gata No.- 634, 633, 632, 630 Kha, 1332, 1869, at Village- KakraKankarkund, Tehsil- Sadar, District- Shahjanpur, U.P., (Area-11.628 Ha), File No.- 5876/5367SIA/UP/MIN/56934/2019**

SEIAA noted that SEAC has recommended to grant EC to the above project. SEIAA gone through the file and documents and found that the above lease is not present in the DSR. Hence, SEIAA opined that project proponent shall clarify the above.

**13. River Bed Sand/Morrum Mining at Gata No.-05A, Gata No.- 2556 & 2557, Village-Bandhauri, Tehsil- Urai, Distt.- Jalaun, U.P., ShriSumit Kumar Singh, M/s A.S. V.P. Construction, Area 36.437 Ha, File No.-5878/5664SIA/UP/MIN/56971/2020**

SEIAA agreed with the recommendations of the SEAC to grant the prior Environmental Clearance to the proposed project along with all the general and specific conditions as suggested by the SEAC adding following specific condition as follows:-

1. Directions/suggestions given during public hearing and commitment made by the project proponent should be strictly complied.
2. 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 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.



*Sumit Singh*  
M/s. Deo Prakash Singh

Proprietor

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Minutes of the 416<sup>th</sup> Meeting of the SEIAA, UP held on 14/10/2020**14. Sand/Morrum Mining at Gata No.- 317 MI, Khand No.- 04, Village- Kurauna, Tehsil- Orai, District-Jalaun., Smt. Archana Gupta (Leased Area-16.194 Ha), File No.- 5885/5309SIA/UP/MIN/57031/2019**

SEIAA agreed with the recommendations of the SEAC to grant the prior Environmental Clearance to the proposed project along with all the general and specific conditions as suggested by the SEAC adding following specific condition as follows:-

1. Directions/suggestions given during public hearing and commitment made by the project proponent should be strictly complied.
2. 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 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.

**15. Sand/Morrum Mining from Betwa River Bed at Gata No.- 317 MI, Khand No.- 03, Village- Kurauna, Tehsil- Orai, District- Jalaun, U.P., ShriDevendra Kumar Gupta., M/s Shaksham Contractors Suppliers., Area-20.242 Ha, File No.5886/5308SIA/UP/MIN/57028/2019**

SEIAA agreed with the recommendations of the SEAC to grant the prior Environmental Clearance to the proposed project along with all the general and specific conditions as suggested by the SEAC adding following specific condition as follows:-

1. Directions/suggestions given during public hearing and commitment made by the project proponent should be strictly complied.
2. 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 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.

**16. Sand Mining from Betwa River Bed at Gata No.-1191/2, Khand No.-04, Village- Sikarivyas, Tehsil-Orai, District-Jalaun, U.P., Shri Sudhir Singh, M/s Gauri-Traders., Lease Area: 20.242 ha, File No.- 5895/5416SIA/UP/MIN/57091/2020**

SEIAA agreed with the recommendations of the SEAC to grant the prior Environmental Clearance to the proposed project along with all the general and specific conditions as suggested by the SEAC adding following specific condition as follows:-

1. Directions/suggestions given during public hearing and commitment made by the project proponent should be strictly complied.
2. 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 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.



R.S. Singh

Madh. Prasad Singh

M/s Deepak Singh

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**17. Sand Mining from Betwa River bed at Gata No.-1396 T, Khand No.-1, Village- BhediKhurd, Tehsil- Kalpi, District-Jalaun, U.P., ShriNirmal Kant Tiwari, M/s Mankameshwar Infrastructure, (Leased Area-20.42 Ha) File No.- 5896/5448SIA/UP/MIN/57084/2020**

SEIAA agreed with the recommendations of the SEAC to grant the prior Environmental Clearance to the proposed project along with all the general and specific conditions as suggested by the SEAC adding following specific condition as follows:-

1. Directions/suggestions given during public hearing and commitment made by the project proponent should be strictly complied.
2. 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 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.

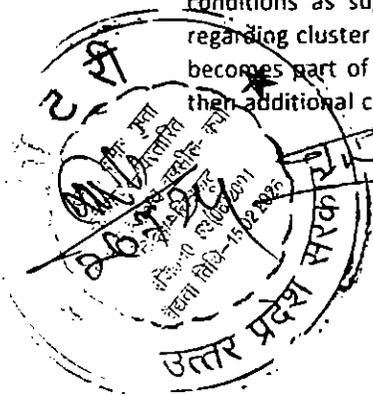
**18. Sand/Morrum Mining along Betwa River Bed in Gata No.- 01, 218 Ka, Village- Kudri, Tehsil- Garautha, District- Jhansi., ShriTarun Gupta., Lease Area: 14.00 ha, File No.- 5905/5541SIA/UP/MIN/57138/2020**

SEIAA agreed with the recommendations of the SEAC to grant the prior Environmental Clearance to the proposed project along with all the general and specific conditions as suggested by the SEAC adding following specific condition as follows:-

1. Directions/suggestions given during public hearing and commitment made by the project proponent should be strictly complied.
2. 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 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.

**19. Sand Mining from Tons River bed, at Khand No.- 42, Village-From Ganga Tons Sangam toBhaganpur, Tehsil- Karchhana, District- Prayagraj, U.P., ShriManoj Kumar Mishra, Area5.00 ha. File No. 5814/Proposal No. SIA/UP/MIN/171643/2020**

SEIAA agreed with the recommendations of the SEAC to grant the prior Environmental Clearance to the proposed project along with all the general and specific conditions as suggested by the SEAC but the 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



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M/s Deepak Singh

Proprietor

