

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI  
Original Application No: 1034 of 2024**

**IN THE MATTER OF**

K SANJEEV DOGRA

..... APPLICANT

-VERSUS-

STATE OF HIMACHAL PRADESH AND ORS.

.....RESPONDENT

**INDEX**

S.NO	PARTICULARS	PG NO
1.	Reply Affidavit on behalf of Respondent No 15	1-7
2.	Copy of Mining lease of the Respondent No.15 is marked as Annexure R-15/1	8-28
3.	Copy of the Mining Plan of the Respondent No.15 is marked as Annexure R-15/2.	29-111
4.	Copy of the Environment Clearance of the Respondent No.15 is marked as Annexure R-15/3.	112-119
5.	Copy of the Annual Demarcation reports of the Respondent No.15 is marked as Annexure R-15/4.	120-123
6.	Vakalatnama	124-125

*Sanjeev*  
**RESPONDENT NO.15**

**THROUGH COUNSEL**

Place: New Delhi

Date: 26.08.2025

*Y.S.*  
**YAGYAWALKYA SINGH**  
Advocate-on-Record  
Supreme Court of India  
Chamber: 203, Setalvad Block, Bhagwan Das Road  
Supreme Court of India  
New Delhi-110001  
Mob.: 7835848157, 9315614163

*Divya*  
**DR. DIVYA SWAMY**  
Advocate  
Reg. No.: D/1160/2014  
Ch. No. 203, Setalvad Lawyers Block  
Supreme Court of India  
Off: A-131, Sector-46, Noida  
Ph.: 8860050449

**YAGYAWALKYA SINGH & DIVYA SWAMY**

**D&Y LAW CHAMBERS**

A-131, Sector 46, Noida

UP, Pin:201301

Mob: (+91)8860050449

**BEFORE THE HONBLE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI  
ORIGINAL APPLICATION NO: 1034 OF 2024**

**IN THE MATTER OF**

K SANJEEV DOGRA

..... APPLICANT

-VERSUS-

STATE OF HIMACHAL PRADESH AND ORS.

.....RESPONDENT

**REPLY IN COMPLIANCE OF ORDER DATED 20.03.2025 ON BEHALF  
OF RESPONDENTS NO. 15 IN THE MATTER OF K. SANJEEV DOGRA  
V. STATE OF HIMACHAL PRADESH AND ORS. (O.A NO. 1034/2024)**

1. The present Affidavit is being filed in terms of the order dated 20.03.2025 passed by this Hon'ble Tribunal in captioned O.A No. 1034 of 2024, wherein the Hon'ble Tribunal held: *"In view of averments made in the original application and the observations made in the reports of the Joint Committee, following 11 mining lease holders and 14 stone crushers are impleaded as respondents no. 5 to 29"*
2. That the Respondent is a licensed Mining leaseholder, who is undertaking mining operations in adherence with all the applicable rules and regulations made by regulating authorities.
3. That the Respondent is not undertaking conventional riverbed sand mining wherein natural sand is extracted directly from the banks of the river. They are instead, extracting stone and bajra from the river bed and producing M-SAND (Manufactured Sand) which is a by-product of crushed stone.
4. That the Joint Committee in its Final report dated 18.03.2025, made observations in response to the illegal and unscientific mining alleged by the

Applicants. Majority of the Illegal mining cases detected by mode of illegal extraction/storage and transportation have nothing to do with the Respondent.

5. That the Joint Committee raised the following issues pertaining to the activities of the Respondent:

- A. Non-demarcation of 6 Mining leases.**
- B. Discharge of waste water containing silt.**
- C. Installation of Dry extraction cum bag filter followed by cyclone in stone crushing units.**
- D. Absence of retaining Structures.**

6. **Para wise reply to each of the issues pointed out by the Joint Committee in respect of the activities of the Respondent are as follows:**

**A. Non-demarcation of 6 Mining leases.**

That the subject of Demarcation of mining leases comes under the purview of mining department. The Mining leases in question are river bed mining leases and therefore demarcation of river bed mining lease is an annual exercise conducted by the Mining Department. The annual demarcation reports of previous years are annexed in the individual replies of the Respondents.

**B. Discharge of waste water containing silt**

That the Respondent has installed a desilt water treatment plant for waste water discharge and the same has been verified by the Joint Committee in its Final report on page no.10.

**2.3.2.** *“8. It was observed during 1<sup>st</sup> inspection that stone crusher were discharging waste water containing silt directly and/or indirectly into the river. However, it was observed during 2<sup>nd</sup> and 3<sup>rd</sup> site inspection that out of 14 stone crushers, 13 stone crushers have made arrangements to desilt the waste water and also for storage for recycling by constructing earthen*

*ponds. Whereas, one crusher namely M/s Bhandral Stone Crusher is using channels for settling the silt followed by pond to store and recycle the clear water. ”*

**C. Installation of Dry extraction cum bag filter followed by cyclone in stone crushing units.**

The dry extraction cum bag filter and cyclones are installed in dry-stone crushers to control/reduce dust emissions generated from dry-stone crusher. It is pertinent to mention, that the Respondent is undertaking stone crushing by way of wet stone crusher plants and not dry-stone crusher plants. Wet stone crusher plants produce stone aggregate and coarse sand through a water-based system that does not lead to emission of dust and air pollutants. The installation of dry extraction cum bag filter followed by cyclone in a wet stone crusher plant is unnecessary and redundant. The Respondent has also provided water sprinkling systems on the periphery of the stone crusher units to curb dust emissions. The same is an inevitable and integral part of the wet stone crusher plant.

**D. Absence of retaining Structures.**

That the Respondent is undertaking mining of stones accumulated on the river bed. Such operations do not involve any activity that may result in unintended ejection of rock fragments/ rock projectiles, potentially causing damage to property or injury to people and therefore do not require retaining structures. That the requirement/ need of construction of retaining structures is specific to the location of the mining lease. The construction of retaining structures where it is not imperative, may disturb the river ecology. It is need based and thus the same has not been constructed when there is no specific direction.

**REPLY ON BEHALF OF RESPONDENT NO 15**

1. That the **Respondent No 15: Bhandral Stone Mining lease Area (bhadroya)** was granted mining lease for an area of **02-03-34 Hectares** situated at **Khasra No:505, 1816/506, 1831/1692/512, 518, 1833/1694/519 & 1823/520 falling in Mauza & Mohal Bhadroya, Tehsil Indora, District- Kangra, H.P.** for excavation of building stone by way of the duly registered lease **dated 05.03.2022** executed by the government of the state of Himachal Pradesh **valid up to 04.03.2032**. The lease deed is annexed as **ANNEXURE R-15/1**.
2. The said lease dated 05.03.2022 was executed in favour of the Respondent after due approval of the mining plan approved by the Govt. of Himachal Pradesh. The **mining plan** is annexed as **ANNEXURE R-15/2**.
3. The Respondent No.15 obtained **Environment Clearance** from the State level impact assessment authority (SEIAA) issued on **18.11.2021** under EC File No/ Identification No: **HPSEIAA/2021/869** annexed as **ANNEXURE R-15/3**.
4. That the Respondent obtained the Consent to Operate (C.T.O) dated **24.03.2025** from the Himachal Pradesh Pollution Control Board which is valid till **11.07.2026**. The CTO is annexed as **ANNEXURE R-29/1**.
5. That the aforementioned facts with respect to the permissions obtained by the Respondent also stand duly confirmed by the report of the Joint Committee constituted by this Hon'ble Tribunal in the present O.A vide order dated 07.11.2024.
6. That the Respondent is carrying out operations of mining /excavation at the allotted mining lease site as per the terms and conditions listed in the required permissions and clearances. The annual demarcation reports of Respondent No.15 are hereby annexed as **ANNEXURE R-15/4**.

7. That the Respondent does not indulge in any illegal, unscientific mining/Crushing or transportation of illegally excavated mining material. The Respondent is undertaking mining/stone crushing operations in compliance with requisite standards provided by the regulating authorities.
8. That the Respondent is carrying out operations of Stone Crushing using excavated stones from the allotted mining lease site as per the terms and conditions listed in the required permissions and clearances.
9. That the Respondent has installed a desilt treatment plant for waste water discharge and the same has been verified by the Joint Committee in its Final report on page 10.
10. That the Respondent is not undertaking any action resulting in diversion of river flow or causing any harm to the environment.
11. That the Respondent is undertaking stone crushing by way of wet stone crusher plants and not dry-stone crusher plants. Wet stone crusher plants produce stone aggregate and coarse sand through a water-based system that does not involve emission of dust and air pollutants. The unnecessary installation of dry extraction cum bag filter followed by cyclone in a wet stone crusher plant will choke the filter and result in improper functioning.
12. That the Respondent has provided water sprinkling systems on the periphery of the stone crusher units and is using a wet process for the production of Stone Aggregate and Coarse Sand due to which no dust emission is caused.
13. That the Mining operations of the Respondent No.15 do not involve any such activities that result in unintended ejection of rock fragments, potentially causing damage to property or injury to people and therefore require retaining structures that can obstruct rock projectiles. The construction of retaining structures where it is not imperative on the river bed, can interfere with the natural flow of the river and disturb its environment.

14. That the Mining operations of the Respondent do not involve any such activities that result in unintended ejection of rock fragments, potentially causing damage to property or injury to people and therefore require retaining structures that can obstruct rock projectiles. The construction of retaining structures where it is not imperative, on the river bed, can interfere with the natural flow of the river and disturb its environment.



**RESPONDENT NO.15**

**THROUGH COUNSEL**

Place: New Delhi  
Date: 26.08.2025



**YAGYAWALKYA SINGH**  
Advocate-on-Record  
Supreme Court of India  
Chamber: 203, Setalvad Block, Bhagwan Das Road  
Supreme Court of India  
New Delhi-110001  
Mob.: 7836848157, 9315614163



**DR. DIVYA SWAMY**

Advocate  
Reg. No.: D/1160/2014  
Ch. No. 203, Setalvad Lawyers Block  
Supreme Court of India  
Off: A-131, Sector-46, Noida  
Ph.: 8860050449

**YAGYAWALKYA SINGH & DIVYA SWAMY**

**D&Y LAW CHAMBERS**

A-131, Sector 46, Noida

UP, Pin:201301

Mob: (+91)8860050449

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI  
Original Application No: 1034 of 2024**

**IN THE MATTER OF**

K SANJEEV DOGRA

..... APPLICANT

**-VERSUS-**

STATE OF HIMACHAL PRADESH AND ORS.

.....RESPONDENT

**AFFIDAVIT**

I, Pawan Kumar Prop:- M/s Bhandral Stone Crusher, Village Gagwal, P. O. Bhadroya, Tehsil Nurpur, Distt. Kangra, H. P hereby solemnly affirm and declare as under: *Presently at New Delhi*

1. I am the authorised representative on behalf of the Respondent No.15 in the aforesaid matter and am well conversant with the facts and circumstances of the case and competent to swear the present affidavit.
2. That the contents of the accompanying reply have read over to me ,which I understood and I state that the contents of the accompanying reply is based on the records.
3. That the documents filed along with the Reply are true copies of their respective originals.

*[Signature]*  
**DEPONENT**

*Justia*  
Identify the Deponent who has signed/our thumb impression in presence  
**VERIFICATION**

**27 AUG 2025**

Verified at New Delhi on \_\_\_\_ day of \_\_\_\_\_, 2025 that the contents of para 1 of 3 of the above affidavit are true and correct to the best of my knowledge and belief and no part of it is false and nothing material has been concealed therefrom.



CERTIFIED THAT THE CONTENTS EXPLAINED TO THE DEPONENT EXECUTANT WHO IS SEEMED PERFECTLY TO UNDERSTAND AFFIRMED & DEPOSED BEFORE ME AT NEW DELHI

*Ashu Deyasany*  
IDENTIFY THE EXECUTANT / DEPONENT WHO HAS SIGNED IN MY PRESENCE  
VINOD KUMAR TIWARI, Advocate, Reg. No. 21416/2020  
NOTARY PUBLIC (NEW DELHI)

*[Signature]*  
**DEPONENT**

**27 AUG 2025**

Annexure R-15/1 143/2022



हिमाचल प्रदेश HIMACHAL PRADESH

FORM 'F'

149069

149069

[See rule 17(3)]

**FORM OF MINING LEASE DEED FOR MINOR MINERALS**

*Se*  
*21/05/22*

This indenture is made on this 5<sup>th</sup> the day of March, 2022 between the Governor, Himachal Pradesh, acting through Director of Industries, H. P. (hereinafter referred to as the 'Government' which expression shall where the context so admits, include the successors and assignees) of the one part and Sh. Pawan Kumar, Prop:- M/s Bhandral Stone Crusher, Village Gagwal, P. O. Bhadroya, Tehsil Nurpur, Distt. Kangra, H.P. (hereinafter referred to as the "lessee" which expression shall where the context so admits, include heirs, executors, administrators, representatives and permitted assignees) of the other part.

*Pawan Kumar*

WHEREAS the Lessee has applied to the Government in accordance with the Himachal Pradesh Minor Minerals (Concession) and Minerals (Prevention of Illegal Mining, Transportation and Storage) Rules, 2015 (hereinafter referred to as the said Rules) for a mining lease for collection/extraction of sand, stone & bajri for use in already established stone crusher unit in respect of the lands hereinafter described in clause(b) and deposited with the Government the sum of Rs. 25,000/- (Rs. Twenty five thousand only) as security. (And whereas the lessee is in possession of a valid Certificate of approval); and

143/2022  
21/05/2022

Sub Registrar

Gangath, Distt. Kangra (H.P.)

  
 Director of Industries  
 Himachal Pradesh



हिमाचल प्रदेश HIMACHAL PRADESH

149047

149047

Now, therefore, this deed witnesseth and the parties hereto hereby agree as follows:-

1.(a) In consideration of the rents and royalties, covenant and agreement hereinafter contained and on the part of the lessee to be paid, observed and performed, the Government hereby grants and demises unto the lessee all those mines/beds/veins/seams of collection/extraction of sand, stone & bajri for use in already established stone crusher unit (hereinafter referred to as the 'said minor minerals' ) situated, lying and being in or under the lands which are referred to in clause (b) together with the liabilities, powers and privileges to be executed or enjoyed in connection herewith which are hereinafter mentioned in Part-I subject to the restrictions and conditions and to exercise and enjoyment of such liberties, powers and privileges which are hereinafter mentioned in Part-II and subject to other provisions of this lease.

(b) **The area of the said lands is as follows:**

All that tract of land situated at Village/Mauza/Mohal Bhadroya in Tehsil Indora, District Kangra, H. P. bearing Khasra Numbers 505, 1816/506, 1831/1692/512, 518, 1833/1694/519 & 1823/520 measuring 02-03-34 Hect. (Pvt. land, Terrace deposit) or thereabouts delineated on the revenue map (Tatima) or site plan hereto annexed and bounded as follows:

143/2022  
21/03/2022

  
Sub Registrar  
Gangath, Distt. Kangra (H.P.)

  
Director of Industries  
Himachal Pradesh



हिमाचल प्रदेश HIMACHAL PRADESH

149045

149046

On the North by As per Revenue Record

On the South by -do-

On the East by -do-

On the West by -do-

(hereinafter referred to as the 'said lands' or 'leased area').

- Area/sum*
- (c) The lessee shall hold the premises hereby granted and demised from the 5<sup>th</sup> day of March, 2022 for the term of ten years thence next ensuing.

**PART - I****LIBERTIES POWERS AND PRIVILEGES TO BE EXERCISED  
AND ENJOYED BY THE LESSEE (S)**

The following liberties, powers and privileges may be exercised and enjoyed by the lessee(s) subject to the other provisions of this lease deed:-

- To enter upon land and search for win, work etc:** Liberties and power at all times during the term hereby demised to enter upon the said lands and to search for mine, bore, dig, drill for win work, dress, process, convert, carry away and dispose of the said minor minerals.

143/2022  
21/03/2022

*[Signature]*  
Sub Registrar  
Gangath, Distt. Kangra (H.P.)

*[Signature]*  
Director of Industries  
Himachal Pradesh



हिमाचल प्रदेश HIMACHAL PRADESH

149031

149031

2. **To sink drive and make pit, shaft and inclines etc.:** Liberty and power for or in connection with any of the purposes mentioned in this clause to sink, drive, make, maintain and use in the said lands and pits, shafts, inclines, drifts, levels, water ways, airways and other works (and to use, maintain, deepen or extend any existing works of the like nature in the said lands).
3. **To bring and use machinery, equipments:** Liberty and power for or in connection with any of the purposes mentioned in this clause to erect, construct, maintain and use on or under the said lands any engine, machinery, plant, dressing floors, furnaces, coke ovens, brick kilns, workshops, store-houses-banglows, godowns, shed and other buildings and other works and conveniences of the like nature on or under the said lands.
4. **To use water from streams, etc.:** Liberty and power for or in connection with any of the purposes mentioned in this clause but subject to the rights of any existing or future lessees and with the written permission of the Collector to appropriate and use water from any streams, water course, springs or other source in or upon the said lands and to divert,

14/3/2022  
21/03/2022

*[Signature]*  
Sub Registrar  
Gangath, Distt. Kangra (H.P.)

*[Signature]*  
Director of Industries  
Himachal Pradesh

N<sup>o</sup> 02415132  
0  
2  
1**Himachal Government Judicial Paper**

step up or dam any such stream or watercourse and collect or impound any such water and to make, construct and maintain any water-course, cultivated land, village buildings or watering places for livestock of a reasonable supply of water as before accustomed nor in any way to foul or pollute any streams or springs:

Provided that the lessee shall not interfere with navigation in any navigable stream nor shall divert such stream without the previous written permission of the Government.

5. **To fell undergrowth and utilize timber and trees, etc.:** Liberty and power for or in connection with any of the purposes mentioned in this lease deed, to clear undergrowth and brush-wood. Lessee shall not fell any trees or timber standing or found on the said lands without obtaining prior permission in writing from the concerned Competent Authority in case of the forest area as per requirement of the Forest Conservation Act, 1980.
6. **To get building and road materials, etc.:** Liberty and power for or in connection with any of the purposes, mentioned in this lease deed, to quarry and get stones, gravel and other building and road materials and ordinary clay and to use and employ the same and to manufacture such clay into bricks or tiles and to use such bricks or tiles but not to sell any such material, bricks, tiles.
7. **To use land for stacking purpose:** Liberty and power to enter upon and use a sufficient part of the surface of the said lands for the purposes of stacking, storing or depositing therein any produce of the mines and works carried on and tools, equipment and other materials needed for mining operations.

**PART-II****RESTRICTIONS AS TO THE EXERCISE OF THE LIBERTIES  
BY THE LESSEE**

The liberties, powers and privileges granted under Part-I, are subject to the following restrictions and subject to the other provisions of this lease deed:-

143/2022  
21/03/2022

  
Sub Registrar  
Gangath, Distt. Kangra (H.P.)

  
Director of Industries  
Himachal Pradesh

N<sup>o</sup> 02415142  
0  
2  
1**Himachal Government Judicial Paper**

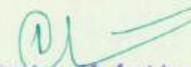
1. **No mining operations within the limit of public works etc.:** The lessee shall not carry on, or allowed to carried on any mining operation at any point with in a distance of 100 (hundred) metres from any railway line except under and in accordance with the previous written permission of the Railway Administration, two kilometres from the limits of Municipal Corporation/Committee, one kilometre from the limit of Nagar Panchayat or 100 (hundred) metres from National Highway/Express way or 25 (twenty five) metres from State Highway or 10 (ten) metres from other roads or 50 (fifty) metres from any reservoir, canal or buildings or inhabited sites except under and in accordance with the previous permission of the Competent Authority. The Railway Administration or the Joint Inspection Committee may in granting such permissions, impose such conditions as may deem fit.
2. **Notice for surface operation in land not already in use:** Before using for surface operations on any land which has not already been Used for such operation, the lessee shall give to the Director of Industries, Himachal Pradesh and the Mining Officer, two calendar months, previous notice in writing, specifying the situation and the extent of the land proposed to be so used and the purpose for which the same is required.
3. **Not to use the land for other purposes:** The lessee shall not cultivate or use the land for purposes other than those specified in the lease deed.
4. **Use of Mechanical Excavator for Mining:** The mechanical mining in river/stream bed shall be undertaken only with the help of tyre mounted front end loader upto 80 Horse Power without backhoe with the permission of the Director of Industries.
5. **Mining Plan:** The lessee(s) shall carryout mining operation in accordance with the approved mining plan.

**PART - III****COVENANTS OF THE LESSEE**

The lessee hereby covenant(s) with the Government as follows:-

143/2022  
27/03/2022

  
Sub Registrar  
Gangath, Distt. Kangra (H.P.)

  
Director of Industries  
Himachal Pradesh

N<sup>o</sup> 02415152  
0  
2  
1

## Himachal Government Judicial Paper

1. **Rate of Royalty:**

- (a) The lessee shall pay royalty on the quantity of the said minor mineral removed from the leased area in advance at the rate specified in the Second Schedule. However, as and when the limestone is supplied by the lessee to the Industries other than lime-kiln, royalty shall be paid by the lessee for limestone as major mineral, whichever is more.
- (b) **Mode of determination of sale price at the pit's mouth:** The sale price of the minor minerals at the pit's mouth shall be the current market price for the mineral of the same grade less-
- (i) Transport charges from the mine head to the nearest rail head;
  - (ii) Railway freight from the rail head to the market; and
  - (iii) Estimated handling charges and other incidental expenditure not exceeding five percent of the market price.
- (c) For calculating the royalty, the lessee shall submit by the 10<sup>th</sup> of every month to the Mining office, a return in **Form-'G'** giving the total quantity of minor mineral(s) raised and despatched from the leased area in the preceding calendar month and its value and in case of mineral based industry the monthly electricity consumption bill and other requisite details also. If the lessee does not deposit royalty due for the preceding month by 10<sup>th</sup> of month, 24% per annum simple interest will be charged for the default period after 10<sup>th</sup> of month.

2. **Surface Rent:** - The lessee shall pay for the surface area occupied by him, surface rent at the rate of as specified by the Government per hectare per annum in two half yearly installments. No surface rent shall be charged in the private lands.
3. **Dead Rent:**-The lessee shall also pay for every year, yearly dead rent at the rate of Rupees as per 3<sup>rd</sup> Schedule of H.P. Minor Minerals (Concession) and Minerals (Prevention of Illegal Mining, Transportation and Storage) Rules, 2015 per hectare per annum and as amended by the Government from time to time.

143/2022  
21/03/2022

  
Sub Registrar  
Gangath, Distt. Kangra (H.P.)

  
Director of Industries  
Himachal Pradesh

N<sup>o</sup> 02415162  
0  
2  
1

## Himachal Government Judicial Paper

Provided that the lessee shall be liable to pay the dead rent or royalty in respect of each mineral, whichever be higher but not both.

4. **Working of newly discovered minerals:** If any minor mineral, not specified in the lease, is discovered in the leased area, the lessee shall report the discovery without delay to the Government and shall not win or dispose of such minor mineral without obtaining a lease therefore. If he fails to apply for such a lease within 6 months from the discovery of the minor mineral, the Government or the authorized officer may give the lease in respect of such mineral to any other person.

5. **To commence mining operations within one year and carry them on properly:** Unless the Government for sufficient cause permits otherwise, the lessee shall commence mining operations within one year, from the date of execution of the lease deed and shall thereafter conduct such operations in a proper, skilful and workman like manner.

**EXPLANATION:** For the purpose of this clause 'Mining Operation' shall include the erection of machinery, laying of a tramway or construction of a road in connection with the working of the mine.

6. **To erect and maintain Boundary Pillars, etc.:** The lessee shall, at his own expense, erect and at all times maintain and keep in good repairs boundary marks and pillars according to the revenue map annexed to the lease.

7. **Accounts:** The lessee shall keep correct accounts showing the quantity and other particulars of all minerals obtained from the mines and the number of persons employed therein and a complete plan of the mine and shall allow any officer authorized by the Himachal Pradesh Government or the Central Government in that behalf to examine at any time any accounts and records maintained by him, and shall furnish to the Himachal Pradesh Government or the Central Government with such information and returns as it may require.

- 143/2022  
21/03/2022
8. **To allow facilities to other lessees, etc.:** The lessee shall allow existing

  
Sub Registrar  
Gangath, Distt. Kangra (H.P.)

  
Director of Industries  
Himachal Pradesh

N<sup>o</sup> 0241517 <sup>2</sup>/<sub>0</sub>/<sub>2</sub>/<sub>1</sub> Himachal Government Judicial Paper

and future licensees or lease holders/contractors of any land which is comprised in or adjoins or is reached by the land, held by the lessee, reasonable facilities for access thereto.

**9. To allow entry to Officers:** The lessee shall allow any officer authorized by the Himachal Pradesh Government and the Central Government to enter upon any building, excavation or land comprised in the lease for the purpose of inspecting the mines.

**10. Returns - The lessee shall,-**

(a) For calculating the royalty the lessee shall submit by the 10<sup>th</sup> of every month to the Mining office, a return in **Form-'G'** giving the total quantity of minor mineral(s) raised and despatched from the leased area in the preceding calendar month and its value and in case of mineral based industry the monthly electricity consumption bill and other requisite details also. If the lessee does not deposit royalty due for the preceding month by 10<sup>th</sup> of month, 24% per annum interest will be charged for the default period after 10<sup>th</sup> of month.

(b) The lessee shall also furnish by the 15<sup>th</sup> April, every year to the Director and other Officer(s) specified in the lease deed, a statement giving information in **Form-'H'** regarding quantity and value of minor mineral(s) obtained during the last financial year, average number of regular labourers employed (men and women separately), number of accidents, compensation paid and number of days worked and wages paid to them separately.

*Lawyer*

**11. To strengthen and support the mines:** The lessee shall strengthen and support to the satisfaction of the State Government, any part of the mine which in its opinion, requires such strengthening or support for the safety of any railway, bridge, national highway, reservoir, tank, canal, road or any other public work or buildings.

**12. Information for using explosive:** The lessee shall immediately give an information in **Form-'I'** for use of explosive as soon as-

14/3/2022  
21/03/2022

Sub Registrar  
Gangath, Distt. Kangra (H.P.)

Director of Industries  
Himachal Pradesh

N<sup>o</sup> 02415182  
0  
2**Himachal Government Judicial Paper**

- (a)<sup>1</sup> the workings in the mine extends below superjacent ground;
- (b) the depth of any open cast excavation measured from its highest to the lowest point reaches six metres;
- (c) the number of persons employed on any day is more than 50(fifty); and
- (d) the explosives which are used.
- 13. Maintenance of Sanitary conditions:** The lessee shall maintain sanitary conditions in the area held in by him under the lease.
- 14. To pay compensation for damage and indemnify the Government:** The lessee/lessees shall make and pay such reasonable satisfaction and compensation as may be assessed by lawful authority in accordance with the law in force on the subject for all damage, injury or disturbance which may be done by him/them in exercise of the powers granted by this lease and shall indemnify and keep indemnified fully and completely the State Government against all claims which may be made by any person or persons in respect of any such damage, injury or disturbance and all costs and expenses in connection therewith.
- 15. Abiding by rules:** The lessee shall abide by all existing Laws (Acts) and Rules made thereunder enforced by the Government of India or the Himachal Pradesh Government and all such other Laws (Acts) or Rules as may be enforced from time to time in respect of working of the mine and other matters affecting safety, health and convenience of the employees of the lessee or of the public.
- 16. To report accident:** The lessee shall without delay report to the Deputy Commissioner of the District concerned and the Mining Officer or any other officer authorized by him, any accident which may occur at or in the leased area.
- 17. Delivery of possession of Land and Mines on the surrender or sooner determination of the lease:** At the end or sooner determination or surrender of the lease, the lessee shall deliver up the said lands and all mines (if any dug therein) in a proper and workable state, save in respect of any working as to which the Government might have sanctioned abandonment.

*Sanjay*14/3/2022  
21/03/2022Sub Registrar  
Gangath, Distt. Kangra (H.P.)Director of Industries  
Himachal Pradesh

N<sup>o</sup> 0241519 <sup>2</sup><sub>0</sub><sub>2</sub><sub>1</sub> Himāchal Government Judicial Paper

18. **To provide weighing machine:** The lessee shall provide and at all times keep at or near the pit-head at which the said mineral shall be brought to bank a properly constructed and efficient weighing machine and shall weigh or cause to be weighed thereon all the said minor minerals from time to time brought to bank sold, exported and converted products, and shall at the close of each day cause the total weights, ascertained by such means of the said minor minerals, ores, products, raised, sold, exported and converted during the previous twenty four hours to be entered in the books of accounts. The lessee shall allow the Government at all times during the said term to employ any person or persons to be present at the weighing of said minor minerals as aforesaid and to keep accounts thereof and to check the accounts kept by the Lessee. The lessee shall give 15 (fifteen) days previous notice in writing to the concerned Mining Officer of every such measuring or weighing in order that he or some officer on his behalf may be present thereat.
19. **To secure pits, shafts, not fill them up:** The lessee shall well and properly secure pits and shafts and will not without permission in writing willfully close, fill up or chock any mine or shafts.
20. **Not to enter upon or to commence operations in the forest land:** The lessee shall not enter upon or commence any mining operations in forest land comprised in the leased area except after previously obtaining permission in writing of the Competent Authority.
21. **To respect water rights and not injure adjoining property:** The lessee shall not injure or cause to deteriorate any sources of water, power or water supply and shall not in any other way render any spring or stream of water unfit to be used or do anything to injure adjoining land, villages or houses.
22. **Stocks lying at the end of the lease:** The lessee shall on the termination or sooner determination of the lease remove all extracted minerals from the premises of the leased areas within three months and thereafter all extracted minerals in the said lands left over indisposed, after the termination or determination of lease shall be deemed to be property of the Government.

*Handwritten signature*

143/2022  
21/03/2022

Sub Registrar  
Gangath, Distt. Kangra (H.P.)

*Handwritten signature*  
Director of Industries  
Himachal Pradesh

N<sup>o</sup> 02415202  
0  
2  
1**Himāchal Government Judicial Paper**

- 23. Payment of Taxes:** The lessee shall duly and regularly pay to the appropriate authority all taxes, cesses and local dues in respect of the leased area.

**PART-IV****RIGHTS OF THE STATE GOVERNMENT**

- 1. Premature Termination of Lease:** Where the State Government is of the opinion that it is expedient in the interest of regulation of mines and mineral development, preservation of natural environment, control of floods, prevention of pollution or to avoid danger to public health or communication or to ensure safety of building, monuments or other structures or for such other purposes, as the State Government may deem fit, it may, by an order, in respect of any minor mineral, make premature termination of mining lease with respect to the area or any part thereof covered by such lease:

Provided that no order making a premature termination of a mining lease shall be, made except after giving the holder of the lease a reasonable opportunity of being heard.

- 2. The Government may determine the lease:** The Government shall have the right to determine the lease after serving a notice on the lessee to pay the dues within 30 (thirty) days from the date of receipt of the notice. If the dead rent or royalty or surface rent reserved or made payable by the lessee is not paid within 15 (fifteen) days next after the date fixed in the lease for payment of the same, Government or any other officer authorized by it in this behalf may also at any time after serving the aforesaid notice, enter upon the said premises and distrains all or any of the minerals or movable property therein and may carry away, detain or order the sale of the property so distrained, or so much of it as will suffice for the satisfaction of the rent or royalty due and all costs and expenses occasioned by the non-payment thereof.
- 3. Determination of lease in public interest:** The Government may by giving 6 (six) months' prior notice in writing determine the lease if the Government consider that the area under the lease is required for establishing an industry beneficial to the public in case of Government

land:

M3/2022  
21/03/2022

Sub-Registrar  
(Gangath, Distt. Kangra (H.P.))

Director of Industries  
Himachal Pradesh

N<sup>o</sup> 0241521 <sup>2</sup>/<sub>0</sub>/<sub>2</sub>/<sub>1</sub> Himāchal Government Judicial Paper

Provided that in the state of National Emergency or war the lease may be determined without giving such notice.

4. **Right of pre-emption:** The Government shall from time to time and at all times during the term of lease shall have the right (to be exercised by notice in writing to the lessee of pre-emption of the said minerals and all products thereof lying) in or upon the said lands hereby demised or elsewhere under the control of the lessee and the lessee shall deliver all minerals or products thereof to the Government at current market rates in such quantities and in the manner, at the place specified in the notice exercising the said right.
5. **Penalty for not allowing entry to Officers:** If the lessee or his transferee or assignee does not allow any entry or inspection under clause (9) of Part-III, the Government may cancel the lease and forfeit in whole or in part the security deposit paid by the lessee under rule 15 of the Himachal Pradesh Minor Minerals (Concession) and Minerals (Prevention of Illegal Mining, Transportation and Storage) Rules, 2015.
6. **Acquisition of land of third parties and compensation thereof:** In case the occupier or owner of a land in respect of which minor mineral rights vest in the Government refuses his consent to the exercise of the right and powers, reserved to the Government and demised to the lessees or contractors, as the case may be, the lessees or contractors shall report to the Government and shall deposit with it the amount offered as compensation and if the Government is satisfied that the amount of compensation offered is fair and reasonable or if it is not so satisfied and the lessee or contractor shall have deposited with it such further amount as the Government shall consider fair and reasonable the Government shall order the occupier to allow the lessee or contractor to enter the land and to carry out such operations as may be necessary for the purposes. In assessing the amount of such compensation, the Government shall be guided by the principles of Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Re-settlement Act, 2013 (Act No. 30 of 2013).

*Not fair*

143/2022  
21/03/2022

  
Sub Registrar  
Gangath, Distt. Kangra (H.P.)

  
Director of Industries  
Himachal Pradesh

N<sup>o</sup> 02415222  
0  
2  
1**Himachal Government Judicial Paper****PART-V****GENERAL**

1. **Cancellation:** The lease shall be liable to be cancelled by the Government if the lessee ceases to work the mine for a continued period of six months without obtaining written sanction of the Competent Authority.
2. **Notices:** Every notice by these presents required to be given to the lessee shall be given in writing to such person resident on the said lands as the lessee may appoint for the purpose of receiving such notices and if there shall have been no such appointment then every such notice shall be sent to the lessee by registered post addressed to the lessee at the address recorded in this lease or at such other address in India as the lessee may from time to time in writing to the Government designate for the receipt of notices and every such services shall be deemed to be proper and valid service upon the lessee and shall not be questioned or challenged by him/them.
3. **Recovery:** Without prejudice to any other mode of recovery authorized by any provision of this lease or by any law, all amounts, falling due hereunder against the lessee may be recovered as arrears of land revenue under the law in force for such recovery.
4. **Forfeiture of property:** The lessee should remove his property lying on the said lands within three months after the expiry or sooner determination of the lease or after the date from which any surrender by the lessee of the said lands under rule 22 of Himachal Pradesh Minor Minerals (Concession) and Minerals (Prevention of Illegal Mining, Transportation and Storage) Rules, 2015 becomes effective, as the case may be. The property left after the aforesaid period of three months shall vest in the Government free from all encumbrances and may be sold or disposed of in such manner as the Government, shall deem fit without liability to pay compensation therefore, to the lessee.
5. **Security and forfeiture thereof:**
  - (a) The Government may forfeit the whole or any part of the security amount of Rs. 25,000/- deposited by the lessee on breach of any covenant to be performed by the lessee under this lease deed.

*Handwritten signature*143/2022  
21/03/2022
  
 Sub Registrar  
 Gangath, Distt. Kangra (H.P.)

  
 Director of Industries  
 Himachal Pradesh

№ 0241523

2  
0  
2  
1

## Himachal Government Judicial Paper

- (b) The rights conferred by this clause shall be without prejudice to the rights conferred on the State Government by any other provision or this lease or by any law.
- (c) On such date as the Government may appoint within twelve calendar months after the expiry of this lease the amount of security deposit paid in respect of this lease shall be refunded to the lessee in case there is no violation of terms & conditions of this lease deed. No interest shall run on the security deposit.
- 6. Survey and demarcation of the area:** When a mining lease is granted by the Government, arrangements shall be made, if necessary, at the expense of the lessee, for the survey and demarcation of the area granted under the lease. The lessee shall have to bear actual expenses of the staff deputed for the work. Actual expense will include traveling allowances and daily allowances and salary of staff plus 10 percent as instruments charges.
- 7. Rights of lessee to determine the lease:** The lessee may determine the lease at any time by giving not less than six calendar months notice in writing to the Government after paying all outstanding dues of the Government.
- 8. Applicability of rules:** The lessee shall work according to Mines and Minerals (Development & Regulation) Act, 1957, the Metalliferous Mines Regulation, 1960, Mines Act, 1952, Himachal Pradesh Minor Minerals (Concession) and Minerals (Prevention of Illegal Mining, Transportation and Storage) Rules, 2015, Himachal Pradesh Minor Mineral Policy, 2013 including other rule of law applicable from time to time. The contravention of any provisions of Act or its sub-ordinate legislation shall amount to cancellation of contract.
- 9.** The lessee shall deposit demarcation expenditure if demarcation needs to be carried out by the Department and the lessee shall enter the land only when the demarcation of the area is got conducted from the Revenue Department in the presence of Departmental officials and boundary pillars are raised.
- 10.** The lessee shall at his own expenses erect and at all times maintain and keep in good condition boundary marks and pillars necessary to indicate

*Handwritten signature*

14/3/2022  
21/03/2022

*Handwritten signature*  
Sub-Registrar  
Gangath, Distt. Kangra (H.P.)

*Handwritten signature*  
Director of Industries  
Himachal Pradesh

N<sup>o</sup> 02415242  
0  
2  
1

## Himāchal Government Judicial Paper

the demarcation shown in the revenue record annexed to the lease deed. Mining operation shall only be allowed after getting a certificate from the concerned Mining Officer that demarcation of the area has been done as per the plan and that concrete boundary pillars of atleast 3 feet height have been raised.

11. The lessee shall have to submit a plan to the Mining Officer for approach road in order to give a reasonable & shortest approach to the mine and to the mines of adjoining lessees.
12. The lessee shall do mining in a scientific and systematic manner, and to ensure the same.
  - (a) Dumping sites for mine waste and top soil shall be provided in such a way so that there is no damage to the adjoining land and the same does not roll down the slope. Top soil shall also be used for afforestation purposes in the barren/exhausted pits.
  - (b) Diversion dams and other engineering structures as advised by the Department from time to time, at different suitable sites shall be got erected to arrest and channelize the flow of water and also to avoid erosion of the land, causing siltation of nearby natural water bodies.
  - (c) The loading/unloading points in the mine areas shall be developed in such a way that no hindrance is caused to the traffic and no material is stacked within the acquired width of P. W. D. road.
  - (d) All precaution shall be taken to check air pollution, water pollution and noise pollution, as per the standards of H. P. State Environment Protection and Pollution Control Board. Further, the lessee shall obtain the consent of H. P. State Environment Protection and Pollution Control Board under the provisions of Water Act, 1974 and Air Act, 1981.
  - (e) Visual impact caused due to dug-out areas and waste disposal areas shall be controlled by undertaking afforestation on worked out areas, waste disposal areas and in the areas where no working is proposed.
  - (f) Labourers shall be provided with safety equipments like boots, helmets, ropes, ear plugs and even filters. Site services like rest shelter, drinking water and first aid facilities shall also be provided at the mining site.
13. The lessee shall pay royalty on the Scheduled rates as specified in H.P.

*Handwritten signature*

143/2022  
21/08/2022

*Handwritten signature*  
Sub Registrar  
Gangath, Distt. Kangra (H.P.)

*Handwritten signature*  
Director of Industries  
Himachal Pradesh

N<sup>o</sup> 02415252  
0  
2  
1**Himachal Government Judicial Paper**

Minor Mineral (Concession) and Minerals (Prevention of Illegal Mining, Transportation and Storage) Rules, 2015. The royalty shall be charged on the basis of actual production which will be computed based on consumption of electricity and other measures.

14. In case the lessee does not pay dead rent/surface rent in two half yearly installments on the 15<sup>th</sup> April, and 15<sup>th</sup> October each year during subsistence of lease, simple interest at the rate of 24% per annum shall be charged for default period.
15. The lessee shall not carry on or allowed to be carried on any mining operation at any point within a distance of 100 metres from any railway line, except under and in accordance with the previous written permission of the Railway Administration or 100 metres from edge of National Highway or 25 metres from edge of State Highway or 10 metres from edge of other roads or 50 metres from edge of any reservoir, canal or buildings or inhabited sites except under and in accordance with the previous permission of the Competent Authority. The Railway Administration or the Joint Inspection Committee may in granting such permissions, impose such conditions as may deem fit.
16. No approach road from P.W.D. road shall be allowed to lease area, unless lessee/ contractor obtains written permission from XEN, PWD for making road leading to all intake places from the PWD roads.
17. The lessee shall be bound to pay Rs. 5/- per trolley and Rs. 10/- per truck on extraction and export of sand, stone & bajri to the concerned Gram Panchayat through the concerned Mining Officer.
18. If necessary, the lessee shall have to erect check dams and other retaining structures to check the banks or soil erosion during mining activities.
19. The lessee shall be bound to fulfill all the conditions as laid down by the Joint Inspection Committee and other Departments and as specified in H. P. Minor Minerals (Concession) and Minerals (Prevention of Illegal Mining, Transportation and Storage) Rules, 2015.

*Four pages*

143/2022  
21/03/2022

*[Signature]*  
Sub Registrar  
Gangath, Distt. Kangra (H.P.)

*[Signature]*  
Director of Industries  
Himachal Pradesh

N<sup>o</sup> 0241526

2  
0  
2  
1

## Himachal Government Judicial Paper

20. The lessee shall work in the mining lease area as per the conditions stipulated in the EIA Clearance issued by the State Level Environment Impact Assessment Authority, SEIAA, Himachal Pradesh, Govt. of India at Department of Environment Science & Technology, Paryavaran Bhawan, Near U. S. Club, Shimla-1 vide letter F. No. HPSEIAA/2021-869 dated 18.11.2021. Before the execution of mining lease the lessee shall furnish an undertaking in the shape of affidavit to effect that he shall be solely responsible for the due observance and compliance of the conditions stipulated in Environment Clearance granted to the said mining lease area. The lessee shall obtain the EIA Clearance after the expiry of EIA Clearance dated 18.11.2021 which is valid for a period of 5 years and submit the same in this office and shall not carry out the mining operation without environment clearance.
21. After expiry of every 5 years of grant of mining lease working in the leased area may further be allowed by the Director of Industries on the basis of review & recommendations of the committee constituted by him for the purpose & after being satisfied that the lease area has been developed by the lessee in a scientific manner & has paid all Govt. dues on regular basis.
22. The lease holder shall submit an application for review of working the leased area before six months of expiry of every five years. On review, if it is found that the lessee has not developed the leased area in a systematic & scientific manner as per the provisions of mining plan & he is in arrears of Govt. dues, the lease shall be liable to be terminated prematurely.
23. The lessee shall obtain consent of the H.P. State Environment Protection and Pollution Control Board before start of mining operation, separately under the consent mechanism.
24. The lessee shall be bound to comply with all the directions and instructions if any issued by the Hon'ble High Court, H.P as well as by the State Government from time to time with regard to mining operation and stone crusher.

*Handwritten signature*

143/2022  
21/03/2022

Sub Registrar  
Gangath, Distt. Kangra (H.P.)

*Handwritten signature*  
Director of Industries  
Himachal Pradesh

N<sup>o</sup> 0241527 <sup>2</sup><sub>0</sub><sub>2</sub><sub>1</sub> Himachal Government Judicial Paper

25. The lessee shall carry out mining operation in the lease area strictly in accordance with approved Mining Plan and as per Himachal Pradesh Minor Minerals (Concession) and Minerals (Prevention of illegal Mining, Transportation and Storage) Rules, 2015.
26. With regard to the local objections if any, raised by the local people, entire responsibility to settle the issue will be of the lease holder.
27. No quarrying operation or mining shall carried on or permitted to be carried on by the Mineral Concession holder upto any point within five meters from the outer periphery of adjoining land as a safety zone.
28. The lease holder shall not store/stack any material in the acquired width of PWD road without the specific permission of the competent authority.
29. No mining shall be allowed in forest land without permission from the competent authority of Forest Department including any other land where there is growth of trees.
30. No mining shall be allowed in areas which may cause aesthetic/visual degradation near any known tourist spot.
31. No mining shall be allowed near to the site of culture, religious, historical, archeological or scenic importance.
32. No mining shall be allowed near habitation, where it is likely to cause noise beyond the permissible limit and vibration problems, due to blasting or operation of machinery.
33. The lessee shall take adequate steps to control and check soil erosion, debris flow etc. by raising various engineering structure.
34. No mining shall be allowed where subsidence of rocks is likely due to steep angle of slope.
35. No blasting shall be resorted to without taking proper license under the Explosive Act, 1984.

*four page*

14/3/2022  
21/03/2022

Sub Registrar  
Gangath, Distt. Kangra (H.P.)

  
Director of Industries  
Himachal Pradesh

N<sup>o</sup> 02415282  
0  
2  
1**Himachal Government Judicial Paper**

36. No quarrying operation or mining shall be carried on or permitted to be carried on by the Mineral Concession holder upto any point within five meters from the outer periphery of adjoining land as a safety zone.
37. The lessee shall employ/retain consultant as per classification specified in rule 55 of Himachal Pradesh Minor Minerals (Concession) and Minerals (Prevention of illegal Mining, Transportation and Storage) Rules, 2015.
38. Any other conditions as required for regulating the mining activities could be incorporated at the time of execution of mining lease deed agreement.
39. The lessee shall install the weighbridge at his complex for weighing the raw material as well as finished material being dispatched and maintain a proper record of the same.
40. The lessee shall procure the clearances/permissions if any required from any other department/agencies at his own level.
41. The party shall settle the dispute, arises if any, between him and land owners/co-sharers/right holders at his own level and shall indemnify the Govt. in this behalf.
42. The execution of this mining lease deed is subject to the final outcome of the proceedings initiated by lodging FIR No. 0082 dated 25.6.2020.
43. The execution of this mining lease deed is subject to final outcome of decision of the Hon'ble High Court in CWP No. 1481/2018-titled as Pawan Kumar V/s State of H. P. & Ors. and compliance of all codal formalities/orders.
44. The lessee shall, after ceasing mining operations, re-grass the mining area and any other area which has been disturbed due to mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc., at its own cost, in compliance to the directions passed by the Hon'ble Apex Court vide order dated 08.01.2020 in Writ Petition (s) (Civil) No (s) 114/2014 titled as Common Cause V/s Union of India & Ors.

143/2022  
21/03/2022  
Sub Registrar,  
Gangath, Distt. Kangra (H.P.)

Director of Industries  
Himachal Pradesh

N<sup>o</sup> 0241529  
2  
0  
2  
1

### Himachal Government Judicial Paper

- 45. The lessee shall pay contribution to District Mineral Foundation Fund and all the applicable taxes/funds in lieu of mineral concession.
- 46. The mining lease deed will be executed at the capital of the State of Himachal Pradesh subject to the provisions of Article-226 of the Constitution of India. It is agreed upon by the lessee and the State Govt. that in the event of any dispute in relation to the area under mining lease, conditions of the lease deed and in respect to all matter touching the relationship of the lessee and the State Govt. suit or petition shall be filed in the Civil Court at Shimla and it is hereby expressly agreed that neither Party shall file a suit or appeal being action at any place other than the Court named above i.e. Shimla.
- 47. As per Rule 16(2) of the Himachal Pradesh Minor Minerals (Concession) and Minerals (Prevention of illegal Mining, Transportation and Storage) Rules, 2015 the lessee shall submit renewal of mining lease application before one year from the expiry of lease period.

IN WITNESS WHEREOF these presents have been executed in the manner hereunder appearing the day and year first above written.

For and on behalf of the lessee

For and on behalf of the

Witnesses:

Governor, Himachal Pradesh

Director of Industries  
Himachal Pradesh

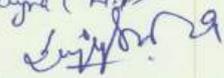
143/2022  
21/03/2022

1.   
Sub Registrar  
Gangath, Distt. Kangra (H.P.)

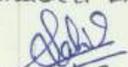


*Manspur*

1.   
Kamesh Bahadur Takwani  
R/o vill. Manspur  
P.O. Bhadrachal Teh. Manspur  
Kangra (H.P.)

2.   
Sanjay Sharma  
vill - Darin, Po - Gagrahar  
Teh - Jaisalmer  
Distt - Kangra

1760 St. Sonu Devi  
Witness No-1 :- Sonu Devi Ex Manspur C.P. Dagle.

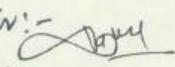
  
Witness - 2 :- Sakal Kumar Ex Manspur C.P. Dagle.

1. \_\_\_\_\_

2. \_\_\_\_\_

2. \_\_\_\_\_

  
Asstt. Geologist  
Deptt. of Industries  
(Geological Wing)  
H.P Shimla-1

Identified :-   
Kamesh Sharma  
Ex Manspur C.P  
Gangra.

## Annexure R-15/2

REGISTERED

No. Udyog-Bhu(Khani-4)Laghu-840/2019  
 Government of Himachal Pradesh  
 Department of Industries  
 "Geological Wing"  
 Dated; Shimla- 171001,

- 3782

18-8- 2021

To

✓ Sh. Pawan Kumar,  
 Prop:- M/s Bhandral Stone Crusher,  
 Village Gagwal, P. O. Bhadroya,  
 Tehsil Nurpur, District Kangra, H. P.

Subject:-

**Approval of Mining Plan of area applied for grant of mining lease for collection/extraction of sand, stone & bajri from Khasra Nos. 505, 1816/506, 1831/1692/512, 518, 1833/1694/519 & 1823/520 over an area measuring 02-03-34 Hect. (Pvt. land, Terrace deposit) falling in Mauza & Mohal Bhadroya of Tehsil Indora, District Kangra, H. P. for which letter of intent has been issued on 17.12.2020.**

Dear Sir,

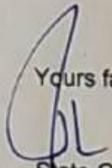
In exercise of powers conferred by Rule 36 of Himachal Pradesh Minor Mineral (Concession) and Minerals (Prevention of Illegal Mining, Transportation and Storage) Rules 2015, I hereby approve the above said Mining Plan for the purpose of obtaining Environment Clearance of the area applied for grant of mining lease for which the letter of intent has been issued on 17.12.2020. The mining plan is approved for a period of five years from the date of execution of mining lease deed. This approval is subject to the following conditions:-

1. That the Mining Plan is approved without prejudice to any other laws applicable to the mine/area from time to time whether made by the Central/State govt. or any other authority.
2. That this approval of the Mining Plan does not in any way imply the approval of Govt. in terms of any other provisions of the H. P. Minor Minerals (Concession) Revised Rules, 1971 now repealed as Himachal Pradesh Minor Mineral (Concession) and Minerals (Prevention of Illegal Mining, Transportation and Storage) Rules 2015 or any other laws including Forest (Conservation) Act, 1980, Environment Protection Act, 1986 and the rules made there under and other relevant statutes, orders and guidelines as may be applicable to lease area from time to time.
3. That the Mining Plan is approved without prejudice to any orders or directions from any Court of competent jurisdiction.
4. That in case State Geologist, Geologist, any other inspecting officer/official of Geological Wing Department of Industries, after field inspection notices that proposals made and workings shown in the mining lease by the RQP need certain corrections/ amendments due to change in conditions either natural or man made, the inspecting officer can recommend necessary amendments in the Mining Plan at any point of time in the interest of environment and mineral conservation.
5. That the lease holder shall procure Environment clearance from the competent authority as per Environmental Impact Assessment notification, 2006 and amendments/notifications issued time to time in this regard.
6. That the approval of proposed mining operations is restricted to the mining lease area only.
7. That in case additional conditions are imposed by the Ministry of Environment & Forests Govt. of India while according clearance under EIA notification dated 14.9.2006 and any condition imposed by the State

- Govt. while granting mining lease the same shall have to be incorporated by making necessary amendments in the Mining Plan by the lessee through R. Q. P.
8. That in case Mining lease is not renewed or is terminated or working is suspended before the expiry of the lease period due to any reason, the approval of Mining Plan shall stand automatically cancelled.
  9. That the lease holder shall carry out production of mineral in accordance to the production shown in Mining Plan and Environmental Clearance which ever is less.
  10. That no person shall undertake mining operations in any mining lease area, except in accordance with a Mining Plan approved under sub rule (2) of Rule 39 of Himachal Pradesh Minor Mineral (Concession) and Minerals (Prevention of Illegal Mining, Transportation and Storage) Rules 2015.
  11. That the lease holder shall carry out working in the mining lease area as per Mining Plan only after obtaining permission to work in the mining lease area from the competent authority.
  12. That if the mining operations are not carried out in accordance with the approved Mining Plan the State Geologist, Geologist, Assistant Geologist and the Mining Officer, may order suspension of all or any of the mining operations and permit continuation of only such operations as may be necessary to restore the conditions in the mine as envisaged under the said Mining Plan.
  13. That if any thing is found to be concealed as required under various Rules and guidelines pertaining to mining in the context of the Mining Plan and the proposal for rectification has not been made, the approval shall be deemed to have been withdrawn with immediate effect.
  14. That in case of any violation of terms and conditions of the approved Mining Plan, the financial assurance deposited by the said lessee shall be liable to forfeited.

Enclosed:- Copy of approved Mining Plan.

Yours faithfully,

  
State Geologist  
Himachal Pradesh  
Dated;

2021

Endst. No. As above.

Copy for kind information to:-

1. The Mining Officer, Nurpur, Distt. Nurpur, H. P. alongwith a copy of Mining Plan for further necessary action.
2. Sh. Subhash Chand Kaura (Ex.DDG, GSI), Flat No.-604, Victoria Tower, Chandigarh Enclave, Zirakpur (Punjab).

  
State Geologist  
Himachal Pradesh

# MINING PLAN



**MINING PLAN FOR EXTRACTION OF SAND, STONE AND  
BAJRI OVER AN AREA SITUATED IN KHASRA NO.  
505, 1816/506, 1831/1692/512, 518,  
1833/1694/519 & 1823/520, MEASURING 02-03-04  
HECTARES (PRIVATE LAND, TERRACE DEPOSIT),  
FALLING IN MAUZA & MOHAL BHADROYA, IN  
TEHSIL INDORA, DISTRICT KANGRA,  
HIMACHAL PRADESH**

**SH. PAWAN KUMAR, PROP. M/S BHANDRAL STONE  
CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA,  
TEHSIL NURPUR, DISTRICT KANGRA,  
HIMACHAL PRADESH**

Prepared By: -

Subhash Chand Kaura, (Ex. DDG, GSI)  
FLAT No.604, Victoria Tower,  
Chandigarh Enclave, Zirakpur (Punjab)  
R.Q.P. No. H.P./RQP/17/1/2011



MINING PLAN OF MINOR MINERAL LEASE OF SH. PAWAN KUMAR, PROP. M/s BHANDRAL STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL MURPHI, DISTRICT KANGRA, HIMACHAL PRADESH; FOR EXTRACTION/COLLECTION OF SAND, STONE AND RAJRI FROM KHASRA NO. 505, 1814/506, 1831/1491/512, 518, 1833/1494/519 & 1823/520, MEASURING 02-03-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MOHAL BHADROYA, MEASURING 02-76-36 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT KANGRA, HIMACHAL PRADESH

### Contents

	5
1. Introduction:.....	6
1. GENERAL.....	6
1.1.1 Name and address of the applicant.....	6
1.1.2 Name of the Applicant.....	6
1.1.3 Address of the Applicant.....	6
1.2 Status of the Applicant.....	6
1.3 Mineral which the Applicant intends to mine.....	6
1.4 Period for which the mining lease is granted.....	6
1.5 Name and Address of H.P.R.Q.P. preparing the Mining Plan.....	6
1.6 Name of Prospecting Agency.....	6
2. Location and Approach of the area (Location Map).....	6
2.1 Toposheet details.....	8
2.2 Location Detail of the area.....	9
2.3 Sub- Divisional Officer (Civil).....	9
2.4 Distance from important places in Kilometers.....	9
2.5 Approach of the Area: -.....	10
3. PHYSIOGRAPHIC ASPECTS OF THE AREA.....	10
3.1 General.....	10
3.2 Altitude, General Terrain Description, with map and Contours Encompassing the Mine area: -.....	11
3.3 Climate of the Area.....	12
3.4 Rainfall.....	13
3.5 Any Other Important Feature: -.....	14
3.6. Description of the Area in which the lease is situated: -.....	14
PART- I.....	15
DESCRIPTION OF GEOMORPHOLOGY AND MINE DEVELOPMENT.....	15
1. Description of the area in which the mine is situated.....	15
1.1 General.....	15
1.2 Slope angle: Description of ridges & valleys.....	15
1.3 Type of drainage in the area.....	15
1.4 Susceptibility of area to land slide.....	16
1.5 Springs in the area.....	16
1.6 Other details:.....	16
2. GEOLOGY.....	17
2.1 Geology of the Lease Area.....	17
2.2 The Local Geology of the area:.....	23
2.3 Details of prospecting work undertaken in the mining area.....	25
2.4 Nature of rocks and description of characteristic and attitude of the rock: -.....	26
3. RESERVES ESTIMATE.....	27
3.1 Estimates of geological reserve of each mineral along with grade.....	27
3.2 Constraining considerations for mining.....	29
3.3 Estimated deposits of the mine area.....	29
3.4 Conceptual Scheme of Mining and life of mine.....	31



MINE PLAN OF MINOR MINERAL LEASE OF SH. PAWAN KUMAR, PROP. M/V BHANDRAL STONE CRUSHER, VILLAGE GADWAL, P.O. BHADROYA, TEHSIL NURPUR, DISTRICT KANGRA, HIMACHAL PRADESH, FOR EXTRACTION/COLLECTION OF SAND, STONE AND RAJHI FROM KHASKA NO. 562, 1816/506, 1831/1092/512, 518, 1823/1094/518 & 1823/520, MEASURING 82-83-84 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MOHAL BHADROYA, MEASURING 82-76-30 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT KANGRA, HIMACHAL PRADESH

4. MINE DEVELOPMENT AND PLAN OF PROGRESSIVE MINING:-	31
4.1 Proposed method of development/working of the deposit	32
4.2 Development and production programme for the five years	32
4.3 Year-wise production, overburden, run of mine, saleable mineral, mineral rejects/ mine waste details to be given with charts and graphs.	33
4.3 (a) Development and Production at the end of the 1st year (Plate No.-4)	33
4.3 (b) Development and production at the end of 2nd year (Plate No-5)	34
4.3(c) Development and production at the end of the 3rd year (Plate No.-7)	36
4.3(d) Development and production at the end of the 4th year (Plate No.-8)	37
4.3(e) Development and production at the end of the 5th year (Plate No.-9)	38
4.4 Proposed rate of production when mine is fully developed and the expected life of the mine after its opening: -	40
4.5 Balance material available in the area after five years of progressive mining and estimated year of mine closure.	41
4.6 Salient feature of mode of working (Manual, semi mechanical, mechanical and use of explosives).	41
4.7 Extent of mechanization: Type of machinery/ equipment to be used.	41
4.8 Blasting	41
4.9 Mine drainage:	41
4.10 Waste Management:	41
4.11 Describe the end use of minerals: Captive consumption, free sale to inter-mediatory/consumers etc.	42
4.12 Road transportation of minerals to industrial unit and market	42
PART -II	43
ENVIRONMENT MANAGEMENT PLAN	43
1. BASE LINE DATA	43
1.1 Detail of Population Distribution	43
1.2 Socio Economy of the Village	43
1.3 Land Use Details of Surrounding Villages near the lease area	44
1.4 AGRICULTURE	45
1.5 HORTICULTURE	50
1.6 ANIMAL HUSBANDRY	52
1.7 FISHERIES	53
1.8 FLORA	53
1.9 Climate of the Area	58
2. ENVIRONMENT MANAGEMENT PLAN	60
2.1 Impact on Air	60
2.2 Impact on Water	60
2.3 Impact on Noise Level	60
2.4 Waste Disposal Arrangement, if Any	60
2.5 Socio Economic benefits	61
2.6 Transport of Mineral	61
PART-III	62
PROGRESSIVE MINE CLOSURE PLAN/ RECLAMATION PLAN	62
1.1 MINE WASTE DISPOSAL	62
1.2 Top Soil Arrangement	63



Mining Plan of Minor Mineral Lease of Sh. Pawan Kumar, Prop. M/s Bhandral Stone Crusher, Village Gagwal, P.O. Bhadrova, Tehsil Nurpur, District Kangra, Himachal Pradesh, for extraction/collection of sand, stone and Bajri from khasra no. 60, 1816/506, 1831/1682/512, 518, 1833/1894/519 & 1823/520, measuring 02-03-04 hectares (Private Land Terrace Deposit) falling in Mauza & Mohal Bhadrova, measuring 02-76-30 hectares (Private Land Terrace Deposit) of Tehsil Indora, District Kangra, Himachal Pradesh

1.3 Preventive Retaining Structures.....	63
1.4 Plantation and Re-grassing Work.....	63
1. Strategy for protection of point of public utility Etc.: - .....	64
2. Man power development: - .....	64
3. Use of Mineral: - .....	64
4. Any other relevant information: - .....	64

### List of Tables

Table 1: Showing Latitude Longitude of the Area .....	7
Table 2: Showing Details of the Area .....	8
Table 3: Climate of Kangra District, Himachal Pradesh .....	12
Table 4: Lithostratigraphy of District Kangra .....	19
Table 5: Showing Geological sequence of Chakki Khad Area.....	23
Table 6: Showing Geological Reserves .....	28
Table 7: Percentage Wise Distribution of Material .....	28
Table 8: Estimated Geological Reserves in Tonnes .....	29
Table 9: Showing Year Wise Proposed Mineral Production .....	30
Table 10: Showing Quantity of Movable Reserve Per Bench .....	31
Table 11: Showing Year wise Proposed Mineral Production .....	32
Table 12: Showing Proposed Mineral Production in First Year .....	34
Table 13: Showing Proposed Mineral Production in Second Year .....	35
Table 14: Showing Proposed Mineral Production in Third Year .....	36
Table 15: Showing Proposed Mineral Production in Fourth Year .....	38
Table 16: Showing Proposed Mineral Production in Fifth Year .....	39
Table 17: Rate of Production When Mine is Fully Developed In Metric Tonnes .....	40
Table 18: Showing Details of Population Distribution .....	43
Table 19: Showing Details of Surrounding Villages .....	44
Table 20: Table Showing Crop Pattern Surrounding Lease Area.....	46
Table 21: Table Showing Agriculture Area Under Major Crops, District, Kangra 2017-18 .....	46
Table 22: Table Showing Agriculture Area Under Major Crops, District, Kangra 2017-18 .....	47
Table 23: Table Showing %age Of Production of Each Crop in District, Kangra (2017-18) .....	47
Table 24: Table Showing Area In Hects Under & Production In Tonnes Of Vegetables .....	49
Table 25: Table Showing Net Irrigated Area of The State During 2006-07 To 2009-10 .....	49
Table 26: Showing Area (Each Fruit) And Production in Distt Kangra (2017-18) .....	51
Table 27: Showing Animal Husbandry Population Kangra District-2017-18 .....	52
Table 28: Showing Total forest cover in Himachal Pradesh .....	55
Table 29: Mammals in District Kangra .....	56
Table 30: General Climate Pattern of District Kangra .....	59
Table 31: Showing Monthly Mean Maximum and Minimum Temperature Data for Dharamshla Year 2013 .....	59
Table 32: Mine Waste Production in metric Tonnes in Five Years .....	62
Table 33: Proposed Plantation .....	63

List of issues

1	Geological Survey of India, New Delhi
2	Director, Geological Survey of India, New Delhi
3	Director, Geological Survey of India, New Delhi
4	Director, Geological Survey of India, New Delhi
5	Director, Geological Survey of India, New Delhi
6	Director, Geological Survey of India, New Delhi
7	Director, Geological Survey of India, New Delhi
8	Director, Geological Survey of India, New Delhi
9	Director, Geological Survey of India, New Delhi
10	Director, Geological Survey of India, New Delhi
11	Director, Geological Survey of India, New Delhi
12	Director, Geological Survey of India, New Delhi
13	Director, Geological Survey of India, New Delhi
14	Director, Geological Survey of India, New Delhi
15	Director, Geological Survey of India, New Delhi
16	Director, Geological Survey of India, New Delhi
17	Director, Geological Survey of India, New Delhi
18	Director, Geological Survey of India, New Delhi
19	Director, Geological Survey of India, New Delhi
20	Director, Geological Survey of India, New Delhi
21	Director, Geological Survey of India, New Delhi
22	Director, Geological Survey of India, New Delhi
23	Director, Geological Survey of India, New Delhi
24	Director, Geological Survey of India, New Delhi
25	Director, Geological Survey of India, New Delhi
26	Director, Geological Survey of India, New Delhi
27	Director, Geological Survey of India, New Delhi
28	Director, Geological Survey of India, New Delhi
29	Director, Geological Survey of India, New Delhi
30	Director, Geological Survey of India, New Delhi
31	Director, Geological Survey of India, New Delhi
32	Director, Geological Survey of India, New Delhi
33	Director, Geological Survey of India, New Delhi
34	Director, Geological Survey of India, New Delhi
35	Director, Geological Survey of India, New Delhi
36	Director, Geological Survey of India, New Delhi
37	Director, Geological Survey of India, New Delhi
38	Director, Geological Survey of India, New Delhi
39	Director, Geological Survey of India, New Delhi
40	Director, Geological Survey of India, New Delhi
41	Director, Geological Survey of India, New Delhi
42	Director, Geological Survey of India, New Delhi
43	Director, Geological Survey of India, New Delhi
44	Director, Geological Survey of India, New Delhi
45	Director, Geological Survey of India, New Delhi
46	Director, Geological Survey of India, New Delhi
47	Director, Geological Survey of India, New Delhi
48	Director, Geological Survey of India, New Delhi
49	Director, Geological Survey of India, New Delhi
50	Director, Geological Survey of India, New Delhi

गामकीय शाख,  
 रद्योग विभाग शिमला  
 Geological wing  
 Dept. of Industries  
 Shimla

**APPROVED**  
 With Condition

गर्तो वे सय्य अनुमोदि  
 Side Letter No. 1088-Bdu CKDANI-4) Ladnu-840/2019. 3782

18/8/21

State Geologist,  
 Shimla Grade 1

MINING PLAN OF MINOR MINERAL LEASE OF SH. PAWAN KUMAR, PROP. M/s BHANDRAL STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL NURPUR, DISTRICT KANGRA, HIMACHAL PRADESH; FOR EXTRACTION/COLLECTION OF SAND, STONE AND BAJRI FROM KHASRA NO. 505, 1816/506, 1831/1692/512, 518, 1833/1694/519 & 1823/520, MEASURING 02-03-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MOHAL BHADROYA, MEASURING 02-76-30 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT KANGRA, HIMACHAL PRADESH

**MINING PLAN OF MINOR MINERAL LEASE OF**  
**SH. PAWAN KUMAR, PROP. M/s BHANDRAL STONE CRUSHER,**  
**VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL NURPUR, DISTRICT KANGRA,**  
**HIMACHAL PRADESH; FOR EXTRACTION/COLLECTION OF SAND, STONE AND**  
**BAJRI FROM KHASRA NO. 505, 1816/506, 1831/1692/512, 518, 1833/1694/519 & 1823/520,**  
**MEASURING 02-03-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING**  
**IN MAUZA & MOHAL BHADROYA, MEASURING 02-76-30 HECTARES**  
**(PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDORA,**  
**DISTRICT KANGRA, HIMACHAL PRADESH**

**1. Introduction:**

Sh. Pawan Kumar, Prop. M/s Bhandral Stone Crusher, Village Gagwal, P.O. Bhadroya, Tehsil Nurpur, District Kangra, Himachal Pradesh has been granted the Letter of Intent (LoI) of mining lease for extraction of Sand, Stone and Bajri over an area situated in Khasra No. 505, 1816/506, 1831/1692/512, 518, 1833/1694/519 & 1823/520, measuring 02-03-04 Hectares (Private Land, Terrace Deposit), falling in Mauza & Mohal Bhadroya, in Tehsil Indora, District Kangra, Himachal Pradesh vide order no. Udyog-Bhu (Khani-4) Laghu-840/2019-7488 dated 17-12-2020. The minor mineral extracted from this quarry shall be used in the stone crusher and screening plant to be established in the name and style of "**M/s. Bhandral Stone Crusher**".

The lease holder approached the undersigned having R.Q.P. No. H.P./RQP/17/1/2011 for preparation of the Mining Plan of the site to fulfil one of the conditions of the Letter of Intent as per the provisions contained in the Himachal Pradesh Minor Minerals (Concession) and Minerals (Prevention of Illegal Mining, Transportation and Storage) Rules, 2015. The Mining Plan of the area has been prepared as per the format circulated (Form-M) by the State Geologist Himachal Pradesh and in accordance with the various provisions made in the Himachal Pradesh Minor Minerals (Concession) and Minerals (Prevention of Illegal Mining, Transportation and Storage) Rules, 2015.

On the request of the applicant (LoI holder) to prepare the Mining Plan, the mapping of the lease area was carried out encompassing topographical, lithological and other features. The Mining Plan includes the systematic and scientific planning for extraction of useful stone and other wastage components from the lease area coupled with a phased programme for afforestation and protection of point of public utility.

Mining Plan of Minor Mineral Lease of Sh. Pawan Kumar, Prop. M/s Bhandral Stone Crusher, Village Gagwal, P.O. Bhadroya, Tehsil Nurpur, District Kangra, Himachal Pradesh; for extraction/collection of sand, stone and Bajri from khasra no. 505, 1816/506, 1811/1892/512, 518, 1833/1694/519 & 1823/520, measuring 02-03-04 hectares (Private Land Terrace Deposit) falling in Mauza & Mohal Bhadroya, measuring 02-76-30 hectares (Private Land, Terrace Deposit) of Tehsil Indora, District Kangra, Himachal Pradesh

## 1. GENERAL

### 1.1.1 Name and address of the applicant

### 1.1.2 Name of the Applicant

Sh. Pawan Kumar

### 1.1.3 Address of the Applicant

M/s. Bhandral Stone Crusher

Village Gagwal, P.O. Bhadroya,

Tehsil Nurpur, District Kangra, H.P.

### 1.2 Status of the Applicant

Private Individual

### 1.3 Mineral which the Applicant intends to mine

The Applicant intends to mine Sand, Stone & Bajri from the lease area. The extracted stone shall be used in already established stone crusher unit in the name and style "*M/s. Bhandral Stone Crusher*".

### 1.4 Period for which the mining lease is granted

The period of mining lease shall be decided in accordance with the provisions contained in "The Himachal Pradesh Minor Minerals (Concession) and Minerals (Prevention of Illegal Mining, Transportation and Storage) Rules, 2015". However as per the LOI of the lease area the lease period is 15 years.

### 1.5 Name and Address of H.P.R.Q.P. preparing the Mining Plan

Subhash Chand Kaura, (Ex. DDG, GSI)

FLAT No.604, Victoria Tower,

Chandigarh Enclave, Zirkakpur (Punjab)

H.P./RQP/17/1/2011

### 1.6 Name of Prospecting Agency

The area has been discovered by the lessee and further investigated by the R.Q.P. as he has a vast experience in mineral exploration.

## 2. Location and Approach of the area (Location Map)

Please see Plate no.-1

### 2.1 Toposheet details

Surveyed by	Survey of India
Topo-sheet Number	43P/11
Scale	1:50000
Surveyed in	1982-83 updated in 2004-05
Published	2010



MINING PLAN OF MINOR MINERAL LEASE OF SH. PAWAN KUMAR, PROP. M/s BHADRAL STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL MURPUR, DISTRICT KANGRA, HIMACHAL PRADESH FOR EXTRACTION, COLLECTION OF SAND, STONE AND RAJRI FROM KHASRA NO. 505, 1816/506, 1833/1692/512, 518, 1833/1694/519 & 1822/520, MEASURING 82-83-84 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MOHAL BHADROYA, MEASURING 82-76-30 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT KANGRA, HIMACHAL PRADESH

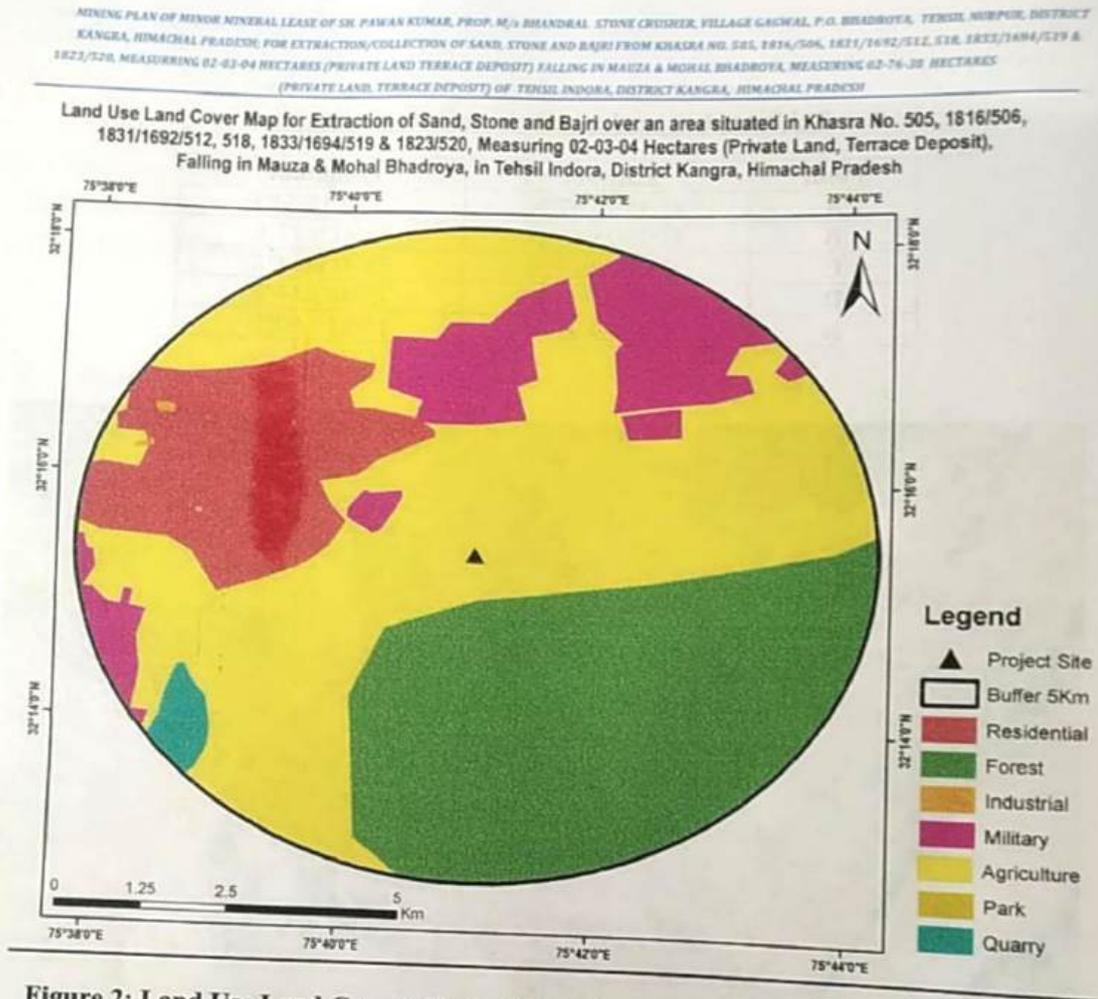
**Table 1: Showing Latitude Longitude of the Area**

Point	Latitude	Longitude
A	32°15'26.67"N	75°41'12.54"E
B	32°15'25.15"N	75°41'9.77"E
C	32°15'24.19"N	75°41'6.64"E
D	32°15'26.78"N	75°41'3.54"E
E	32°15'29.77"N	75°41'7.90"E



**Figure 1: Google Earth Image of the Lease Area showing Boundary Pillars**





**Figure 2: Land Use Land Cover of buffer 5 km showing the lease area and surroundings**

**2.2 Location Detail of the area**

**Table 2: Showing Details of the Area**

SR. NO.	KHASRA NOS.	AREA IN HECT	STATUS	OWNER OF LAND	MAUZA & MOHAL	NAME OF THE PANCHAYAT
1	505	00-92-18	Kuhli Awal	Private Land	Bhadroya	Bhadroya
2	1816/506	00-92-97	Banjar Kadem	Private Land	Bhadroya	Bhadroya



MINING PLAN OF MINOR MINERAL LEASE OF SH. PAWAN KUMAR, PROP, M/V BHADRAL STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL NURPUR, DISTRICT KANGRA, HIMACHAL PRADESH, FOR EXTRACTION/COLLECTION OF SAND, STONE AND RAJRI FROM KHASRA NO. 505, 1816/506, 1831/1692/512, 518, 1833/1694/519 & 1823/520, MEASURING 02-03-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUIZA & MOHAL BHADROYA, MEASURING 02-76-30 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT KANGRA, HIMACHAL PRADESH

3	1831/1692/512	00-01-15	Varani Awal	Private Land	Bhadroya	Bhadroya
4	518	00-06-30	Banjar Kadem	Private Land	Bhadroya	Bhadroya
5	1833/1694/519	00-02-42	Kuhli Awal	Private Land	Bhadroya	Bhadroya
6	1823/520	00-08-32	Banjar Kadem	Private Land	Bhadroya	Bhadroya
<b>TOTAL</b>		<b>02-03-30 Hectares</b>				

#### Address Details

Village	Bhadroya
Patwar Circle	Lodhwan
Post Office	Bhadroya
Tehsil	Indora
District	Kangra

#### 2.3 Sub- Divisional Officer (Civil)

Sub- Divisional Officer (Civil)	Indora
Divisional Forest Officer	Nurpur
Sub-Division (IPH)	Indora
Sub-Division (PWD)	Indora
Forest Range Officer	Indora

#### 2.4 Distance from important places in Kilometers

1. Pathankot	00 Kms.
2. Indora	20 Kms.
3. Nurpur	22 Kms.
4. Shimla	290 Kms.
5. Chandigarh	240 Kms.



Mining Plan of Minor Mineral Lease of Sh. Pawan Kumar, Prop. M/s Bhadrak Stone Crusher, Village Gagwal, P.O. Bhadroya, Tehsil Nurpur, District Kangra, Himachal Pradesh, for extraction/collection of sand, stone and Bajri from khasra no. 505, 1816/506, 1831/1692/512, 518, 1833/1694/519 & 1823/520, measuring 02-03-04 hectares (private land terrace deposit) falling in Mauza & Mohal Bhadroya, measuring 02-74-30 hectares (private land, terrace deposit) of Tehsil Indora, District Kangra, Himachal Pradesh

## 2.5 Approach of the Area: -

The mining lease area is situated near village Bhadroya of Tehsil Nurpur, District Kangra. The lease area is approachable from NH-44 Jalandhar-Pathankot Road, after travelling 8 kms from Damtal. At village Bhadroya just before Chakki bridge take a turn on to Kandwal Damtal Road after travelling 2 kms take a turn towards a unmetalled road of 500 metres which leads to the quarry site.

Location Map for Extraction of Sand, Stone and Bajri over an area situated in Khasra No. 505, 1816/506, 1831/1692/512, 518, 1833/1694/519 & 1823/520, Measuring 02-03-04 Hectares (Private Land, Terrace Deposit), Falling in Mauza & Mohal Bhadroya, in Tehsil Indora, District Kangra, Himachal Pradesh

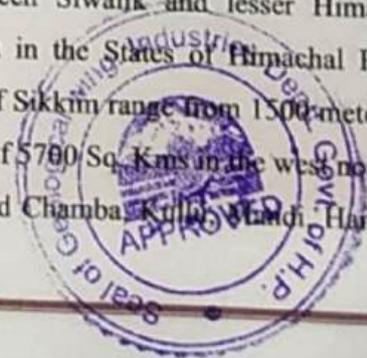


**Figure 3: Satellite Image showing topography around Lease area and approach road for transportation of mineral**

## 3. PHYSIOGRAPHIC ASPECTS OF THE AREA

### 3.1 General

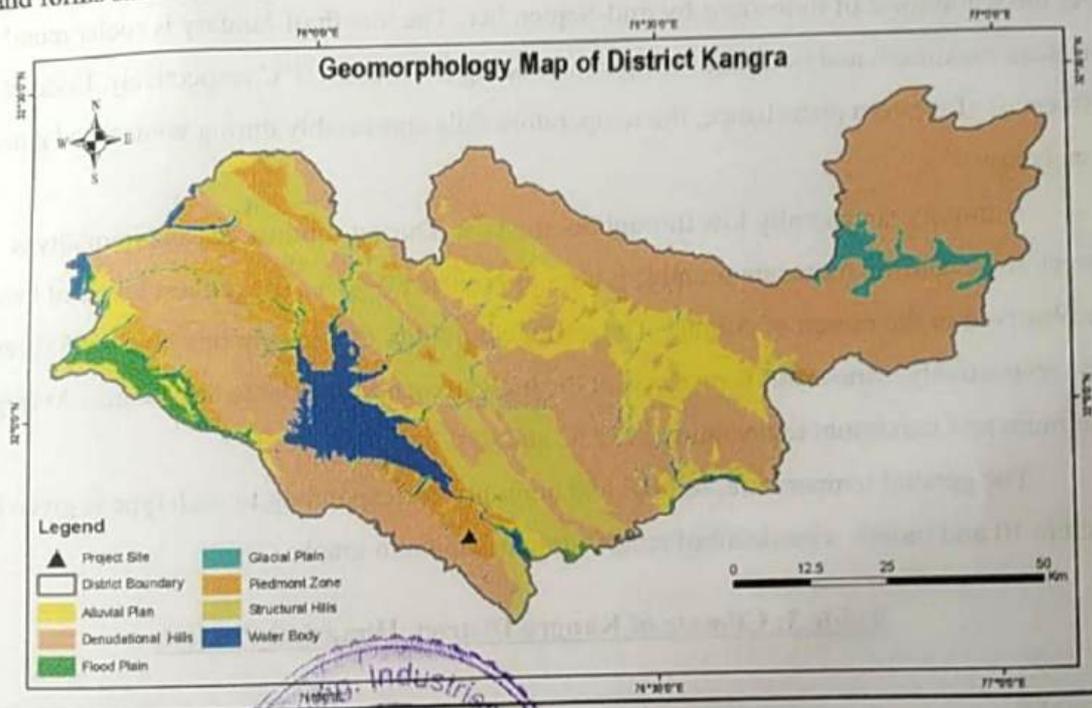
The Kangra district lies between Siwalik and lesser Himalaya. The lesser Himalaya is located in north western India in the States of Himachal Pradesh and Uttar Pradesh, in north central India in the State of Sikkim range from 1500 meters to 5000 meters in height. The Kangra district covers an area of 5700 Sq. Kms in the west north western part of Himachal Himalaya, bordered by Punjab and Chamba, Kullu, Mandi, Hamirpur and Una in



MINING PLAN OF MINOR MINERAL LEASE OF SH. PAWAN KUMAR, PROP. M/S BHANDRAL STONE CRUSHER, VILLAGE GAHWAL, P.O. BHADROYA, TEHSIL HURPIDR, DISTRICT KANGRA, HIMACHAL PRADESH, FOR EXTRACTION/COLLECTION OF SAND, STONE AND RAJRI FROM KHASRA NO. 505, 1816/506, 1871/1692/512, 518, 1832/1694/519 & 1822/520, MEASURING 02-03-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MOHAL BHADROYA, MEASURING 02-74-30 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDOBA, DISTRICT KANGRA, HIMACHAL PRADESH

north, east, south respectively. The elevation of the district above mean sea level (MSL) varies from 500 meters to more than 6000 meters. In the district where the Siwalik rocks are exposed, the topography represents a series of parallel hill ranges separated by longitudinal valleys. These valleys are very fertile. The high peaks where altitude is more than 4000 meters above MSL remains covered with snow. Many streams exist in the district are snow fed and many get water from the rains.

The Dhauladhar Mountains defines the northern limit of the district separated from Chamba district. The peaks of these mountains experience heavy to very heavy snowfall and exhibits precipitation and rugged topography. The Shiwalik ranges are moderately less steep and forms small hillocks.



**Figure 4: Geomorphology Map of District**

### 3.2 Altitude, General Terrain Description, with map and Contours Encompassing the Mine area: -

The map of the mining lease area on 1:1000 scale with one meter contour interval is plate no. - II. The highest altitude of the mining lease area is 343 meters above MSL and the lowest is 342 meters MSL. The mining lease area is a private land and is having hill slope and contains bushes & some trees in form of vegetation.

Mining Plan of Minor Mineral Lease of Sh. Pawan Kumar, Prop. M/s Bhandral Stone Crusher, Village Gagwal, P.O. Bhadrova, Tehsil Nurpur, District Kangra, Himachal Pradesh, for extraction/collection of sand, stone and bari from khasra no. 505, 1816/506, 1831/1692/512, 518, 1833/1694/519 & 1823/520, measuring 02-03-04 hectares (private land terrace deposit) falling in mauza & mohal Bhadrova, measuring 02-76-30 hectares (private land, terrace deposit) of Tehsil Indora, District Kangra, Himachal Pradesh

### 3.3 Climate of the Area

The region has four distinct seasons. The area experiences severe winter from December to March followed by severe summer season lasting from April to June. The area receives rain fall under the influence of south -west monsoon from July to mid-September followed by post - monsoon season lasting up to November.

The terrain in general has profound influence on the temperatures of a region. The temperature generally rises from the beginning of March till June, which is the hottest month of the year with mean minimum and maximum temperature of 25.6°C to 44°C respectively. With the onset of monsoons by the end of the June temperature begins to fall. The drop in day temperature is much more than the drop in night temperature. The night temperature falls rapidly after the withdrawal of monsoons by mid-September. The month of January is cooler month with the mean maximum and minimum temperature being 24°C and 1.7°C respectively. Under the influences of western disturbance, the temperature falls appreciably during winters and it may go even below 0° C.

Humidity is generally low throughout the year. During summer season, humidity is lowest 36 %. During monsoon months, it goes as high as 80-90%. The highest levels of humidity are observed in the month of August. The average humidity during synoptic hours is 53% and 62% respectively. Snow fall is received in the higher reaches of Dhauladhar ranges. Average minimum and maximum temperature are 3°C and 45°C

The general temperature, rainfall and humidity corresponding to each type is given below in table 10 and month wise detail of temperature is shown in graph:

**Table 3: Climate of Kangra District, Himachal Pradesh**

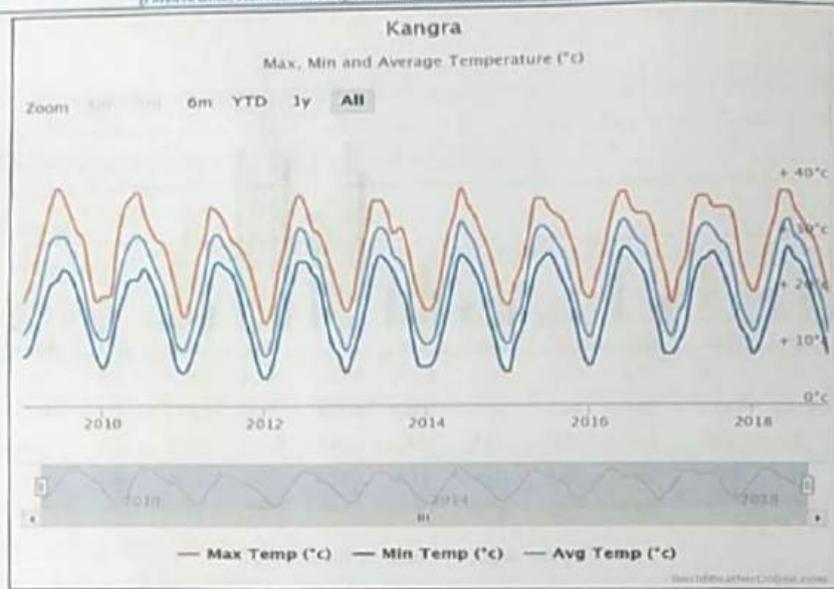
Climate	Winter	Summer	Rainy
Period	Oct.-Mid March	Mid. March-June	July-September
Weather	Cool	Hot	Humid

#### Temperature

Mean monthly maximum and minimum temperature of last five years recorded at Kangra is given in figure 4. Temperature varies from 9°C in winter to maximum of from 39°C in summer.



MINING PLAN OF MINOR MINERAL LEASE OF SH. PAWAN KUMAR, PROP. M/S BHADRALI STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL NURPUR, DISTRICT KANGRA, HIMACHAL PRADESH FOR EXTRACTION/COLLECTION OF SAND, STONE AND BAJRI FROM KHALDA NO. 565, 1816/504, 1821/1492/512, 518, 1822/1694/519 & 1823/520, MEASURING 02-03-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MOHAL BHADROYA, MEASURING 92-76-20 HECTARES (PRIVATE LAND TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT KANGRA, HIMACHAL PRADESH



**Figure 5: Chart Showing Maximum & Minimum Temperature (°C) from Jun, 2016 to Jul,**

### 3.4 Rainfall

The Una district can be divided into three rainfall zones as

High above 1400 mm

Medium between 1400 and 1200 mm

Low less than 1200 mm

As shown in the rainfall map the project site lies in the low rainfall zone.

To have an idea about morphogenetic zone on the basis of rainfall it will not be ideal to classify it on the basis of the annual rainfall, because most of the precipitation of the year is received in the rainy season hence the precipitation of the monsoon season is deciding precipitation for annual replenishment, bank erosion and other factors.

Rainfall varies significantly with altitude of the area. The catchment area receives rainfall due to western disturbances that pass over the north-western part of the country during winter months. Rainfall in valleys is also received during the winter month. Rainy season generally starts from mid-July and extends up to mid-September. During winter the rains are scarce and extend in between 15th December to 15th February. The following Table shows the quantum of rainfall adjoining to the mining lease area.

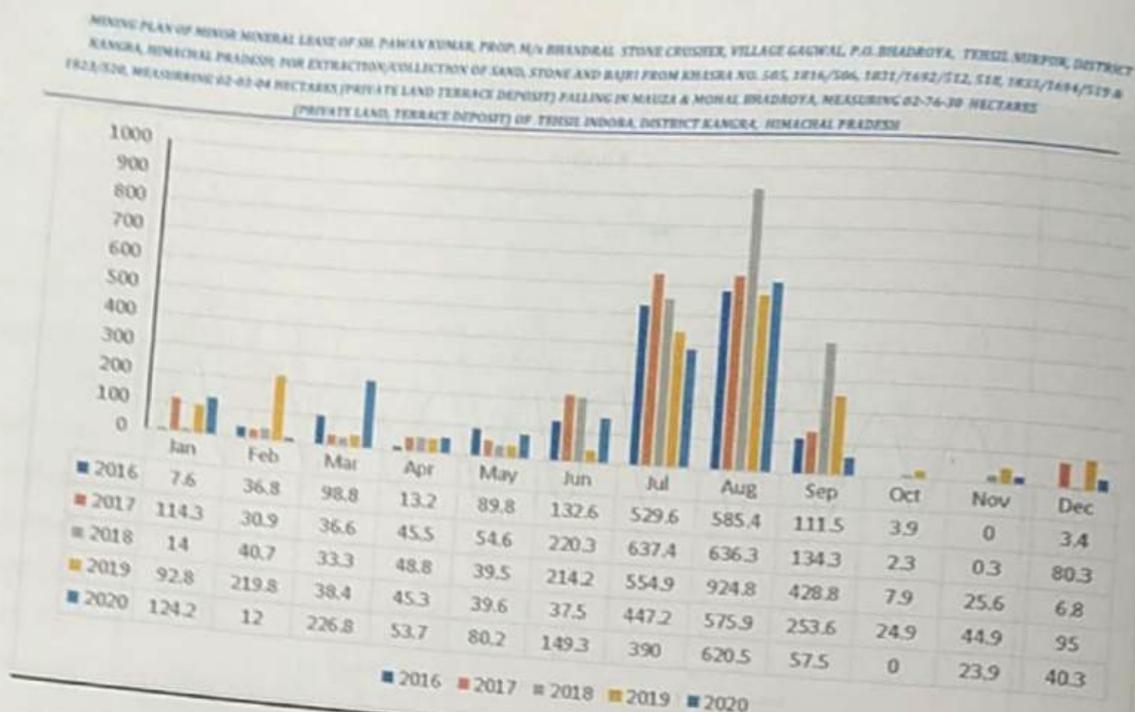


Figure 6: Graph Showing Annual Rainfall of Dist. Kangra from Year 2016-20

### 3.5 Any Other Important Feature: -

The present site falls in the the catchment area of Beas River. The Chakki Khad and other streams such as Baner, Neugal roughly flow parallel to each other and take a general flow direction towards south-west. Although, the other two streams Baner and Neugal are glacier fed from Dhauladhar range but, originates from NW-SE trending ridges. Chakki Khad is a primarily a rainfed Khad. Chakki Khad originates form Barei Jangal at an altitude of about 2800 meters. Chakki Khad catchment area is hilly with steep slopes and narrow deep valleys. There are no glaciers or permanent snow caps in the catchment area.

### 3.6. Description of the Area in which the lease is situated: -

This area lies in the border of Himachal Pradesh and Punjab, the lease area lies in the district Kangra and which is bordered by Gurdaspur district which lies in Punjab. The lease area lies in the Chakki Khad catchment on the left bank of Chakki khad. The lease area lies at a distance of 200 meters from the HFL of the adjoining Chakki khad. The villages that are in the vicinity of the lease area are Bhadroya, Thapkor and Gangwal. The mining lease area is situated in the form of terrace deposits near village Bhadroya is flat top made up of sedimentary deposits.

MINING PLAN OF MINOR MINERAL LEASE OF SH. PAWAN KUMAR, PROP. M/s BHADRAL STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL NURPUR, DISTRICT KANGRA, HIMACHAL PRADESH; FOR EXTRACTION/COLLECTION OF SAND, STONE AND RAJRI FROM KHASKA NO. 505, 1816/506, 1833/1692/512, 518, 1833/1694/519 & 1823/520, MEASURING 02-03-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MOHAL BHADROYA, MEASURING 02-76-30 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT KANGRA, HIMACHAL PRADESH

## PART-I

### DESCRIPTION OF GEOMORPHOLOGY AND MINE DEVELOPMENT

#### 1. Description of the area in which the mine is situated

##### 1.1 General

In geology, a terrace is a step-like landform. River terrace is a bench or step that extends along the side of a present river course and represents a former level of the valley floor. A terrace results from any hydrological or climatic shift that causes renewed down cutting. It generally has a flat top made up of sedimentary deposits and a steep fore edge, and it is the remains of an old floodplain, cut through by the river and left standing above the present floodplain level. Chakki Khad Terrace is formed of Stone, Sand, silt, clay, and gravel in various proportions, with gravel and stone being more predominant.

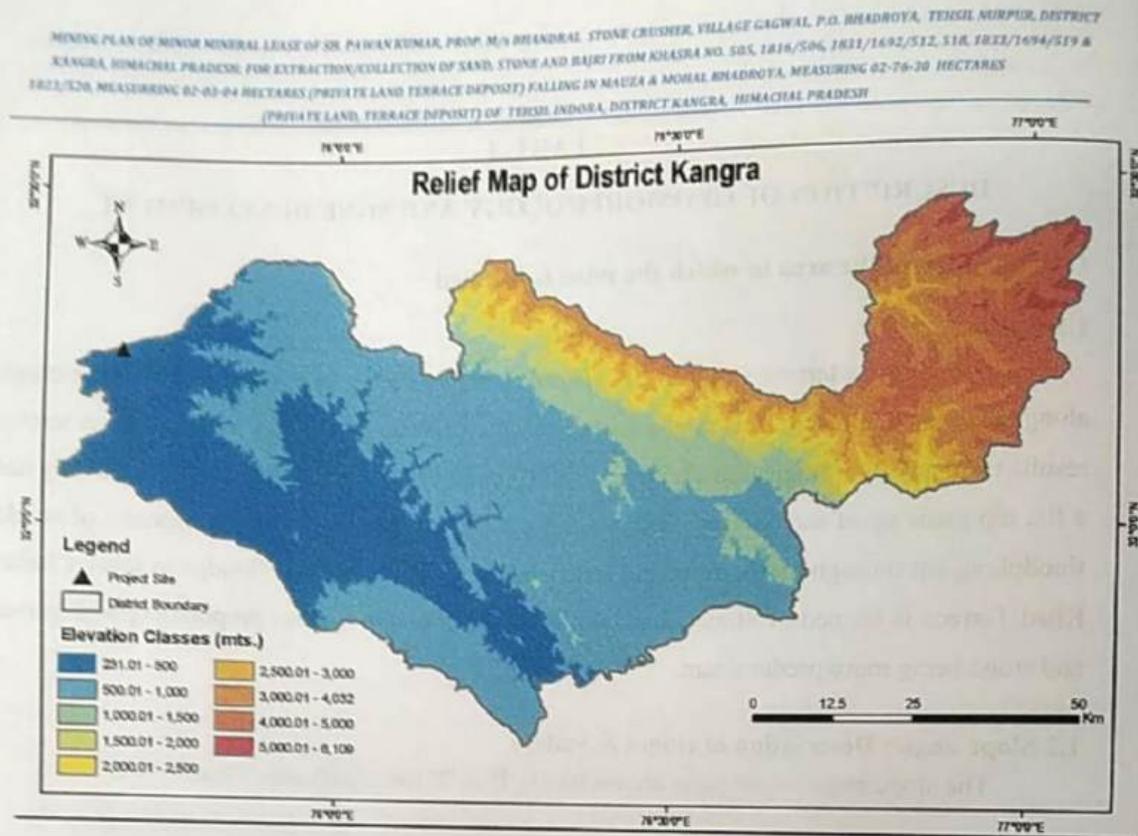
##### 1.2 Slope angle: Description of ridges & valleys

The slope angle of the lease area is hardly  $1^{\circ}$  to  $2^{\circ}$  towards North-West.

##### 1.3 Type of drainage in the area

The drainage pattern is Dendritic. The Chakki Khad passes by the side of the lease area. The Chakki Khad is in its mature stage.





**Figure 7: Relief Map of District Kangra**

#### 1.4 Susceptibility of area to land slide

The entire terrace is having very less slope, therefore, not susceptible to land slide.

#### 1.5 Springs in the area

No spring is noticed within the mining lease area.

#### 1.6 Other details:

Surface map of the mining lease area as well as the adjoining area of the mining lease showing all the surface features are attached as Plate No. - 2.



Mining Plan of Minor Mineral Lease of Sh. Pawan Kumar, Prop. M/s Bhambal Stone Crusher, Village Gagwal, P.O. Bhadrova, Tehsil Nurpur, District Kangra, Himachal Pradesh, for extraction/collection of sand, stone and baji from khasra no. 505, 1816/506, 1831/1692/512, 518, 1833/1684/519 & 1822/320, measuring 02-03-04 hectares (private land terrace deposit) falling in Mauza & Mohal Bhadrova, measuring 02-76-30 hectares (private land terrace deposit) of Tehsil Indora, District Kangra, Himachal Pradesh

## 2. GEOLOGY

### 2.1 Geology of the Lease Area

The Himalayan mountain system roughly surrounds the northern India. The mountain ranges extend for over 2400 km length from west to east. Geology of the Himalayas is extremely complex as it represents a site of continental collision. The collision of the Indian Plate and the Eurasian Plate led to joining of the two continents along a suture zone represented by a lineament. Two rivers - Indus in the west and Tsangpo in the east flow along this lineament which is also known as Indus suture zone. We will study the geology of the terrain between the Indus suture zone in the north and the Indo-Gangetic alluvial plains in the south. Tectonically the Himalayas can be divided into four roughly parallel zones.

From north to south the zones are:

- Tethyan Himalayas
- Central Crystalline Zone
- Lesser Himalayas
- Outer Himalayas

The Central Crystalline Zone is made of Precambrian basement rocks mixed with granitic intrusions of Tertiary age. This zone has the highest mountain ranges of the Himalayas. This zone separates the northern Tethyan Himalayas from the southern Lesser Himalayas. These two zones contain sedimentary rocks of Palaeozoic-Mesozoic ages deposited over Precambrian basement. Whereas the Tethyan Himalayas consists of a fairly continuous succession rich in fossils, the Lesser Himalayas host rocks with scanty fossil records and with gaps in between. The Outer Himalayas forms a separate geological unit consisting of Quaternary sedimentary rocks originating from the rising Himalayas. Each of these zones displays an overly complex geology disturbed by the Himalayan Mountain building processes. The geology of the Lesser Himalayas is particularly difficult to decipher because it contains several thrust sheets and is generally devoid of fossils.

GEOLOGICALLY Himachal Pradesh can be broadly divided into two major geotectonic zones viz. Lesser Himalayan tectogen in the south and the Tethys Himalayan Tectogen in the north. These two tectonic zones are just opposed with each other along a major tectonic break collectively designated as Main Central Thrust in the sense defined by Srikantia (1988). Mandi District lying within the Lesser Hirfiataya and the Shiwalik Foothill comprises rocks

MINING PLAN OF MINOR MINERAL LEASE OF SH. PAWAN KUMAR, PROP. M/S BHADRAL STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL NURPUR, DISTRICT KANGRA, HIMACHAL PRADESH, FOR EXTRACTION/COLLECTION OF SAND, STONE AND RAJRI FROM KHASRA NO. 505, 1014/506, 1031/1492/512, 519, 1033/1494/519 & 1023/520, MEASURING 02-07-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MOHAL BHADROYA, MEASURING 02-76-30 HECTARES (PRIVATE LAND TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT KANGRA, HIMACHAL PRADESH

ranging in age from Proterozoic to Quaternary. The oldest rocks are of undifferentiated Proterozoic age, comprising carbonaceous phyllite, schist, gneiss, quartzite and marble. The Ghoghar Dhar (Undifferentiated Proterozoic age) occurs as an intrusive body within the Chail Group of rock. This granite body is well foliated and composed of gneisses, granite with minor aplite and basic veinlets. The Sundernagar Group of Rocks of Meso- Proterozoic age is represented by quartzite with basic flows. The Shali Group of Rocks (Meso- Proterozoic) comprising limestone, dolomite, (at places stromatolytic) slate, & quartzite. The Subathu consists mainly, of olive-green shales and grey shales. At the top, a band of white quartzite is exposed; this band of white quartzite has been taken as the marker, defining the top of the Subathu sequence. The thick sequence of brackish and freshwater sediments immediately succeeding the fossiliferous marine Subathu are classified as Dharamshala Formation. The Dharamshala Formation are widely exposed in the Mandi parautochthon, further west in the autochthon, these rocks are exposed, in the core of the Sarkaghat anticline. The Shiwalik Group of Middle Miocene of Early Pleistocene age comprises coarse clastic fluviatile deposits of sandstone, clay, and conglomerates. The Quaternary sediments (Older Alluvium and Newer Alluvium) along prominent channels consisting of sand, silt, clay, pebbles, and cobbles occurring along present channels of Middle to Late Pleistocene and Holocene age.

#### Siwalik Group

The Siwalik Group in the Himachal Himalaya forms a parallel foot – hill belt in the Sub-Himalayan zone, extending along the southern margin of the Palaeogene Sirmour Group belt from the Ravi to the Yamuna and forms part of the larger Sub-Himalayan mega belt extending from Potwar basin in NW to the Arunachal foot-hill in SE. In the Himachal Himalaya it has maximum width between Hoshiarpur and Jogindernagar.

The Siwalik sediments, though occurring as an independent structural belt, are also seen to overlie the Muree in the Jammu sector of the Kashmir Himalaya and the Kasauli in the Himachal Himalaya. Pilgrim (1910) recorded a gradual transition from Muree beds to Lower Siwalik in the Rawalpindi and Jhelum districts of Pakistan and from Kasauli to Lower siwalik (Nahan) in the Himachal Himalaya. This fact assumes importance because there is a tendency to ignore this normal relationship between the Siwalik and Sirmour Groups at Dharamshala, Sarkaghat and Nalagarh.



Mining Plan of Minor Mineral Lease of Sh. Pawan Kumar, Prop. M/s Bhadrakal Stone Crusher, Village Gagwal, P.O. Bhadrova, Tehsil Nurpur, District Kangra, Himachal Pradesh for extraction/collection of sand, stone and baji from khasra no. 585, 1816/506, 1831/1692/512, 518, 1833/1894/519 & 1821/528, measuring 02-03-04 hectares (private land terrace deposit) falling in mauza & mohal Bhadrova, measuring 02-76-30 hectares (private land, terrace deposit) of Tehsil Indora, District Kangra, Himachal Pradesh

At Haritalyangar near Bilaspur, the Lower Siwalik is seen resting on the Dagshai with an unconformity, which is described as the most striking discordance in the whole sequence of freshwater deposits and evidently representing a period of considerable earth movements (Pascoe, 1964)

The Siwalik Group is divisible into three subgroups respectively the Lower, Middle and Upper on the basis of lithostratigraphy (Table—Karunakaran and Ranga Rao, 1979).

#### Lower Siwalik Subgroup

The Lower Siwalik subgroup consists essentially of sandstone-clay alternation. The lower boundary of the Lower Siwalik does not crop out at surface in the Jawalamukhi sector. In a deep well drilled in the over thrust block of the Jawalamukhi Thrust, however, the Lower Siwalik is found conformably is also marked by an increase in the percentage of heavy minerals giving a dark appearance to the rock and incoming of less rounded heavy minerals like staurolite and unstable types like zosite and epidote.

**Table 4: Lithostratigraphy of District Kangra**

Sub Group	Lithology	Thickness (approx.)
Upper Siwalik	B) predominantly massive conglomerate with red and orange clay as matrix and minor sandstone and earth, buff and brown clay stone A) Sandstone, clay and conglomerate alternation.	2300 m
Middle Siwalik	B) Massive sandstone with minor conglomerate and local variegated clay stone. A) Predominantly medium to coarse-grained sand stone and red clays alternation, soft pebbly with subordinate clay stone, locally thick prism of conglomerate	1400 m. to 2000 m
Lower Siwalik	B) Alternation of fine to medium-grained sporadically pebbly sandstone, calcareous cement and prominent chocolate and maroon clays tone in the middle part. A) Red and mauve clay stone with thin intercalations of medium to fine-grained sandstone	1600 m

MINING PLAN OF MINOR MINERAL LEASE OF MR. JAWAHAR KUMAR, PROP. 35/3 BHADRAL, STONE CRUSHER, VILLAGE HIGWAL, P.O. BHADROYA, TEHSIL NARPAIR, DISTRICT KANGRA, HIMACHAL PRADESH FOR EXTRACTION/COLLECTION OF SAND, STONE AND RUPI FROM KHASRA NO. 205, 181A/506, 1631/1692/512, 518, 1633/1694/519 & 1825/520, MEASURING 02-01-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) SITING IN MAJURA & MOHAL BHADROYA, MEASURING 02-76-30 HECTARES (PRIVATE LAND TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT KANGRA, HIMACHAL PRADESH

The Lower Siwalik at Jawalamukhi is 1600 m in thickness. Several subdivisions are possible on the basis of sandstone-shale ratio. Clasts are present only locally especially towards the top of the formation, usually consisting of well-rounded, grey coloured quartzite, Kasauli sandstone and Shali dolomite in 1 or 2 cm size. Clasts are present locally in the sand stone especially towards the top and these usually consist of grey and pink coloured quartzarenite possibly belonging to either the Sundernagar Group or the Khairi Formation of the Shali Group.

Further east of Jawalamukhi at the inner edge of the foot-hills, the Lower Siwalik shows a different facies. Immediately overlying the Kausauli, there is an unit of coarse feldspathic sandstone and orange coloured clays. Higher up, angular clasts of quartzarenite and chert are found in the sandstone. The main Lower Siwalik sequence consists of conglomerate ending with boulder bed containing clasts

In the Paror-Sarkaghat area, lying between the inner edge of the foot-hills and Jawalamukhi, the lithology of the Siwalik is intermediate in character. The lower part of the sequence consists of medium grained sub greywacke inter bedded with thick red clays, but higher up in the sequence, sandstones are coarser and clasts become more frequent while clays are less developed. The uppermost horizon consists of conglomerate with well rounded clasts of grey quartzite possibly derived from the Shali Group. The total thickness of the Lower Siwalik in the western flank of the Sarkaghat anticline is 1900 m.

#### Middle Siwalik Subgroup

The middle Siwalik Subgroup comprises of large thickness of coarse micaeous sandstone, some inter beds of earthy clay. It normally succeeds the Lower Siwalik consists of sub greywacke to arkose inter bedded with clay stone and calcareous matter occurring in segregations rather than disseminated throughout the sandstones. The sandstones are less well-sorted than those in Lower Siwalik. Clays are dull coloured and silty. Clasts are common in coarser clastics, especially towards top and consist of fragments of metamorphic rocks occurring in the Dhauladhar range and Mandi Volcanics. The thickness of Middle Siwalik 1390 in the gorge of Banganga river, SW of Kangra. Petrologically the Lower boundary of the Middle Siwalik coincides with the influx of kyanite in the heavy mineral assemblage (Karunakaran and Ranga Rao, 1979).

Lateral facies changes are common. In the Jawalamukhi area, a thick prism of conglomerate occurs in the Middle Siwalik, which within 15 km on either side changes to typical

MINING PLAN OF MINOR MINERAL LEASE OF SH. PAWAN KUMAR, PROP. M/s BHANDRAL STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL NURPUR, DISTRICT KANGRA, HIMACHAL PRADESH, FOR EXTRACTION/COLLECTION OF SAND, STONE AND BAJRI FROM KHASRA NO. 505, 1816/506, 1831/1692/512, 518, 1833/1694/519 & 1823/520, MEASURING 02-03-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MOHAL BHADROYA, MEASURING 02-76-30 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT KANGRA, HIMACHAL PRADESH

Middle Swalik sandy facies. The thickness near the Beas river is 1890 m. In the Jawalamukhi sector, the middle Siwaliks, which are of nature of channel and flood plain deposits in both NW. At the outer margins these areas, Middle Siwalik is transitional to flood plain facies, especially in the lower part of the sequence. Higher up massive arkosic sandstones occur. In the Bhakra gorge section, Middle Siwalik sequence is about 1400 m in thickness, divisible into two lithostratigraphic units. The lower litho-association is 750 m thick with alternations of moderately hard, well-bedded, medium to coarse-grained sandstone and red sandy clays. The overlying unit consists mainly of thick, soft to moderately hard, massive, coarse to medium-grained sandstones with thin intercalations of red and gray clays.

Along the northern edge of the foot hills, the Middle Siwalik becomes predominantly conglomeratic with pebbles derived from Sirmour Group and the Sunder Nagar -Shali Groups. The lack of roundness of the clasts suggests a short distance transport. The conglomerates are generally very thick (2000 m in Mandi area). Such conglomerates, representing piedmont deposits are found at Bilaspur, Sarkaghat, Palampur, Bakloh and other areas, and they indicate that the Himalayan uplift had already begun with antecedent erosion.

In the SE Sirmour areas, on the other hand, the middle Siwalik which is nearly 2000 m thick, consists of alternations of clay and sandstones in the lower part and massive sandstones in the upper part. It contains a moderately rich assemblage of opaques, garnet, tourmaline, epidote, staurolite, zoisite, zircon, rutile, chlorite and kyanite marker attended by Lithological changes in the Siwalik points to a major change in depositional pattern, accompanied by earth movements resulting in the area north of the Siwalik basin.

#### Upper Siwalik Subgroup

The upper Siwalik Subgroup can be easily separated from the under lying Middle Siwalik on the basis of distinct Lithological change. In the Kangra area where the middle Siwalik, the conglomerates contains clasts of basic volcanic rocks of the Mandi - Darla Volcanic with a very thin (10 m) transitional zone between them which may even suggest a local break between Middle and Upper Siwalik. The upper Siwalik conglomerates contain red and orange coloured clay as matrix. NE of Jawalamukhi, in the lambagaon syncline only 600 to 900 m. of upper Siwalik are exposed as the upper part is overlapped by the post-Upper Siwalik, Neugal conglomerates and red clays. In these, the clasts are smaller and well rounded than those of the Upper Siwalik. They probably belong to the first interglacial period of the Pleistocene and

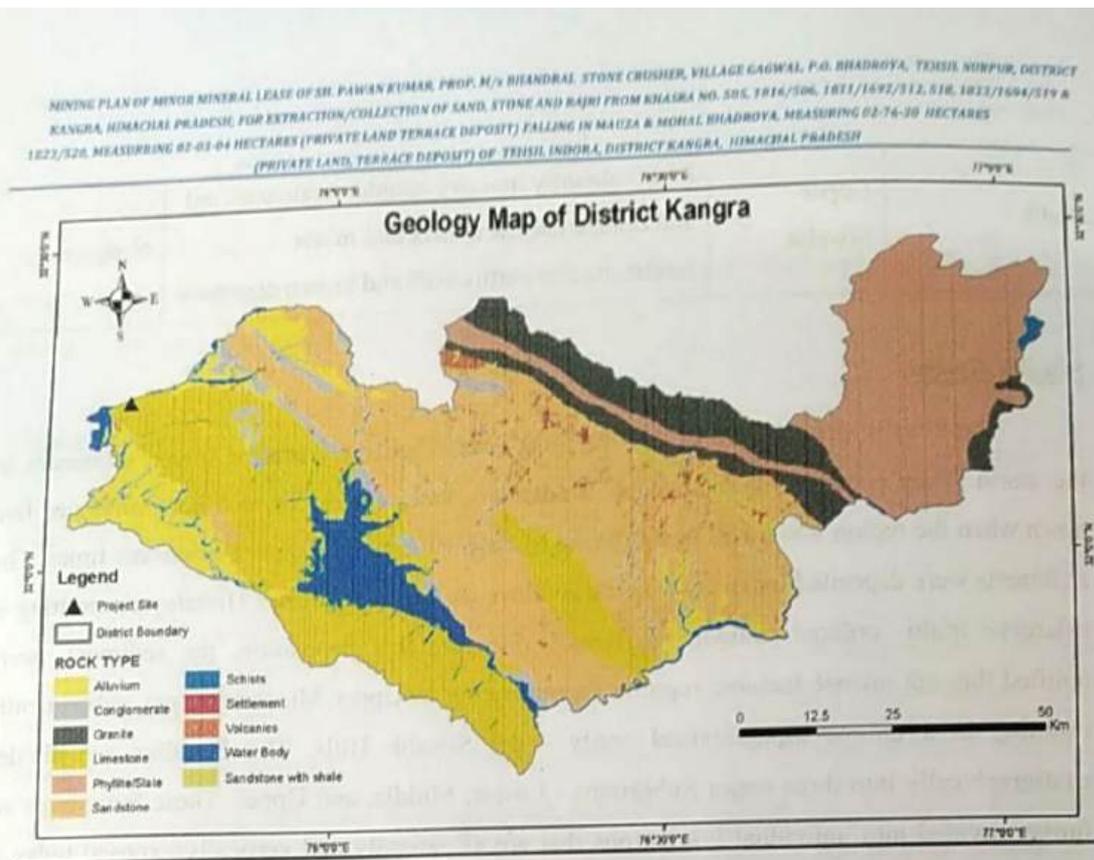
*MINING PLAN OF MINOR MINERAL LEASE OF SH. PAWAN KUMAR, PROP. M/s BHADRAL STONE CRUISHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL SURPUR, DISTRICT KANGRA, HIMACHAL PRADESH, FOR EXTRACTION/COLLECTION OF SAND, STONE AND RAJRI FROM KHASRA NO. 505, 1816/506, 1831/1692/512, 518, 1833/1694/519 & 1823/520, MEASURING 02-03-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MOHAL BHADROYA, MEASURING 02-76-30 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT KANGRA, HIMACHAL PRADESH*

therefore, the top of the Upper Siwalik extends into the Lower Pleistocene. The time interval between the two represents the last phase of the Himalayan orogeny.

The conglomeratic facies of the Upper Siwalik is found in the main Mandi Re-entrant mainly in the Lambagaon syncline and in the area immediately to the SE of the main tectonic divide between the Siwalik belt and the Sirmaur belt. South wards, the conglomeratic facies comes progressively higher in the sequence, underlain by grits and arkoses sandstone. SW of Jawalamukhi, for example, 1500 m Upper Siwalik area exposed consisting of 1040 m lower pebbly sand stone sequence, often with grey and brown clay bands and 460 m of conglomerate overlying them. This situation continues along the Nadaun dun. At Bhakra gorge, the Upper Siwalik is 2350 mtrs thick, divisible into a lower member of 1730 mtrs thickness, and an Upper Member 620 mtrs thick. The Lower Member mainly consists of soft, massive, pebbly, sand stone with thin intercalation of conglomerates, and grey sandy clays become prominent enough at the top of the formation to be identified separately as a Sub-Member, 215 m thick at Bhakra. North west wards, the clays are replaced by massive sand stone and conglomerates which pass once more into a clay, sand stone succession near Pathankot

In the outer foot-hills belt, in Janauri, the Upper Siwalik is mainly a sand stone inter bedded with silts. Conglomerates occur only at the North western part of the structure. The Upper Siwalik is 2300 m thick. Further south-westwards, in the planes, the sandy facies of the Upper Siwalik extends all the way up to the Delhi- Lahore arch which separates the Punjab platform from the Rajasthan Platform. The thickness of the Upper Siwalik decreases steadily from 1610 m at Hoshiarpur to 445 m at Zira near the top of the arch in Punjab. In the planes there is to be no discordance between the post- Siwalik alluvium and the Upper Siwalik.





**Figure 8: Geology Map of District Kangra Showing the Lease Area**

## 2.2 The Local Geology of the area:

The leased-out area forms a part of the terrace deposit consisting boulders, stone, cobbles, pebbles, river born bajri, and sand and clay deposit of Post-Shiwalik Formation. The rocks in the catchments of Chakki Khad are of Siwalik Formation and Dharamshala formation. The area is comprising predominantly the quartzite Boulders, Sand and river born bajri. The boulders are white, spotted white, greenish white, pink, purple and dark green in colour.

The local geological sequence in the area is given in the figure 8 and stratigraphy of the area is given in the table -5

**Table 5: Showing Geological sequence of Chakki Khad Area**

Formation	Group	Lithology	Age
Post Shiwalik	Channel	Grey micaceous, fine to coarse grained sand,	Quaternary
	Alluvium	silt, clay & boulders.	
	Terrace	Cyclic sequence of grey micaceous sand, silt,	
	Alluvium	clay, and boulders	

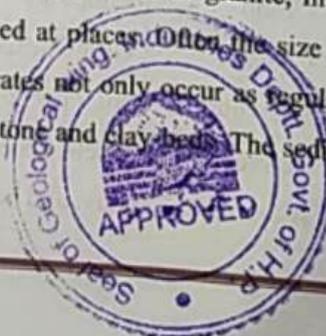
Mining Plan of Minor Mineral Lease of Sh. Pawan Kumar, Prop. M/s Bhandral Stone Crusher, Village Gagwal, P.O. Bhadrova, Tehsil Nurpur, District Kangra, Himachal Pradesh, for extraction/collection of sand, stone and bari from khasra no. 505, 1816/506, 1831/1692/512, 518, 1833/1694/519 & 1823/520, measuring 02-83-04 hectares (Private Land Terrace Deposit) falling in Mauza & Mohal Bhadrova, measuring 02-76-30 hectares (Private Land, Terrace Deposit) of Tehsil Indora, District Kangra, Himachal Pradesh

Siwalik	Upper Siwalik	Predominantly massive conglomerate with red and orange clay as matrix and minor sandstone and earthy buff and brown claystone	Neogene
---------	---------------	---	---------

### Siwalik Group

The Siwalik deposits are one of the most comprehensively studied fluvial sequences in the world. They comprise of mudstones, sandstones, and coarsely bedded conglomerates laid down when the region was a vast basin during Middle Miocene, to Upper Pleistocene times. The sediments were deposited by rivers flowing southwards from the Greater Himalayas, resulting in extensive multi-ordered drainage systems. Following this deposition, the sediments were uplifted through intense tectonic regimes (commencing in Upper Miocene times), subsequently resulting in a unique topographical entity - the Siwalik Hills. The Siwaliks are divided stratigraphically into three major Subgroups - Lower, Middle, and Upper. These Subgroups are further divided into individual Formations that are all laterally and vertically exposed today in varying linear and random patterns.

Ongoing erosion and tectonic activity have greatly affected the topography of the Siwaliks. Their present-day morphology is comprised of hogback ridges, consequent, subsequent, obsequent, and resquent valleys of various orders, gullies, choes (seasonal streams), and earth-pillars, filled earth buttresses of conglomerate formations, semi-circular choe-divides, talus cones, colluvial cones, water-gaps, and choe terraces. Associated badlands feature includes the lack of vegetation, steep slopes, high drainage density, and rapid erosion rates. In the advent of Neogene, a depression was formed in front of the rising mountains (Proto-Himalaya). This depression becomes a repository of a thick sequence of molassic sediments of the Siwalik. The Siwalik Group comprising conglomerates friable micaceous sandstone, siltstone and claystone. The conglomerates in general are poorly cemented but at places they are hard. These consist mainly of pebbles and cobbles of quartzite. The stray pebbles of granite, limestone, sandstone, breccias and lumps of claystone are also observed at places. Often the size of pebbles is large enough to be called as Boulders. The conglomerates not only occur as regular band but also as lenticular bands alternative with micaceous sandstone and clay beds. The sediments were bought



Mining Plan of Minor Mineral Lease of Sh. Pawan Kumar, Prop. M/s Bhandral Stone Crusher, Village Gagwal, P.O. Bhadrova, Tehsil Nurpur, District Kangra, Himachal Pradesh, for extraction/collection of sand, stone and Bajri from khasra no. 505, 1814/506, 1811/1692/512, 518, 1813/1694/519 & 1821/520, measuring 02-03-04 hectares (private land terrace deposit) falling in mauza & mohal Bhadrova, measuring 02-74-30 hectares (private land, terrace deposit) of Tehsil Indora, District Kangra, Himachal Pradesh

down 2 to 25 million years ago by the numerous fast flowing rivers issuing forth from rapidly Rising Mountain mass of the Himalaya, in the north.

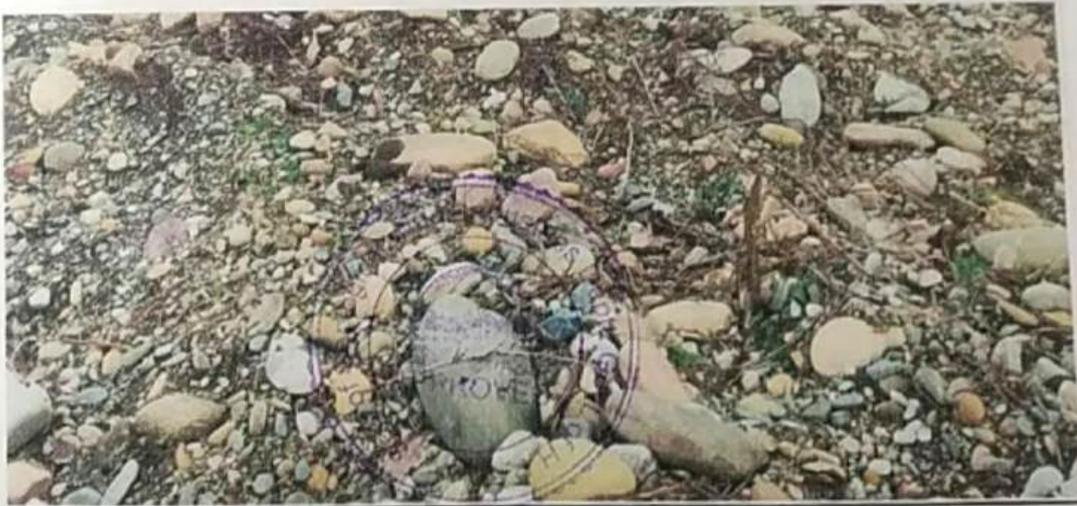
The Siwalik Group is divisible into three sub-groups respectively the Lower, Middle and Upper based on the litho-stratigraphy as given in the table 4.

### Newer Alluvium

Newer Alluvium is composed of cyclic sequence of grey, micaceous, fine to coarse grained sand, silt, boulders, cobble, pebble and clays.

### 2.3 Details of prospecting work undertaken in the mining area

The area was earlier prospected by the RQP, surveyor and the lease holder. The lease area was surveyed by Sh. Raj Kumar, R/o Vill Hari Devi (Balra), P.O. Dangar, Tehsil Ghumarwin, District Bilaspur, Himachal Pradesh. There are abandoned old mines in the terrace in the nearby region indicating more than ten metres depth of RBM; therefore, no further prospecting work was required to be undertaken except for mapping the area on 1:1000 scale with one metre contour interval. Moreover, it was observed that percent of stone, Bajri and sand mixed with silt and clay varies from place to place. Therefore, most representative percentage was adopted for calculation of deposit.



**Figure 9: Mineral at Lease Area**

MINING PLAN OF MINOR MINERAL LEASE OF SH. PAWAN KUMAR, PROP. M/S BHANDRAI STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL NURPUR, DISTRICT KANGRA, HIMACHAL PRADESH, FOR EXTRACTION/COLLECTION OF SAND, STONE AND BAJRI FROM KHASRA NO. 505, 1816/506, 1831/1892/512, 518, 1833/1694/519 & 1877/520, MEASURING 02.01.04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MOHAL BHADROYA, MEASURING 02-76-30 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT KANGRA, HIMACHAL PRADESH

#### 2.4 Nature of rocks and description of characteristic and attitude of the rock: -

The formation belongs to river borne newer Alluvium and is part of old river course now forming a terrace of its right bank of the Chakki Khad.



**Figure 10: View of Lease area**



Mining Plan of Minor Mineral Lease of Mr. Parshv Kumar, Prop. M/s Bhadrail Stone Crusher, Village Gagwal, P.O. Bhadrota, Tehsil Nurpur, District Kangra, Himachal Pradesh, for extraction/collection of sand, stone and baji from khasra no. 585, 1816/506, 1831/1692/SX2, 518, 1833/1894/S19 & 1823/528, measuring 02-01-04 Hectares (Private Land Terrace Deposit) falling in Mauza & Mohal Bhadrota, measuring 02-76-30 Hectares (Private Land, Terrace Deposit) of Tehsil Indora, District Kangra, Himachal Pradesh

#### 2.4 Nature of rocks and description of characteristic and attitude of the rock: -

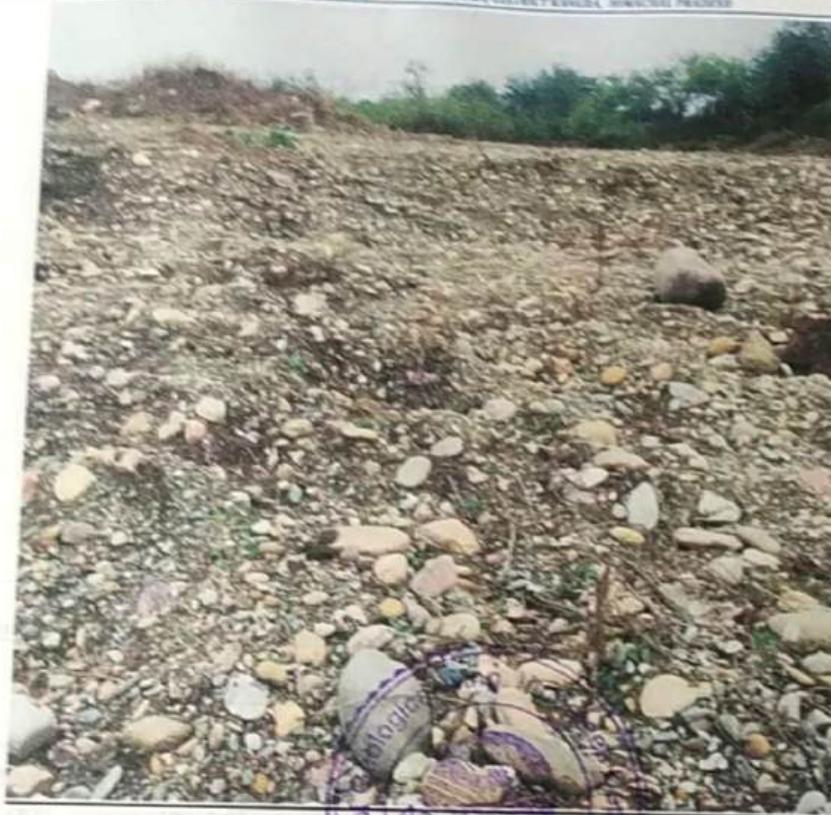
The formation belongs to river borne newer Alluvium and is part of old river course now forming a terrace of its right bank of the Chakki Khad.



**Figure 10: View of Lease area**



MINING PLAN OF MINOR MINERAL LEASE OF SR. THREE STAGE, PLOT NO. 10/10/10/10, STAGE THREE, VILLAGE GADWAL, P.O. BHADRA, TENDU BARPOUR DISTRICT  
 KANGRA, HIMACHAL PRADESH FOR EXTRACTION/COLLECTION OF SAND, STONE AND BARI FROM KARARA NO. 101, 101A/101B, 101C/101D/101E, 101F, 101G/101H/101I &  
 101J/101K, MEASURING 67-67-64 HECTARES (PRIVATE LEAD TERRACE DEPOSIT) FALLING IN NAADA & MORDE BLAGHATA, MEASURING 67-74-59 HECTARES  
 (PRIVATE LEAD TERRACE DEPOSIT) OF TENDU BARPOUR DISTRICT, KANGRA, HIMACHAL PRADESH



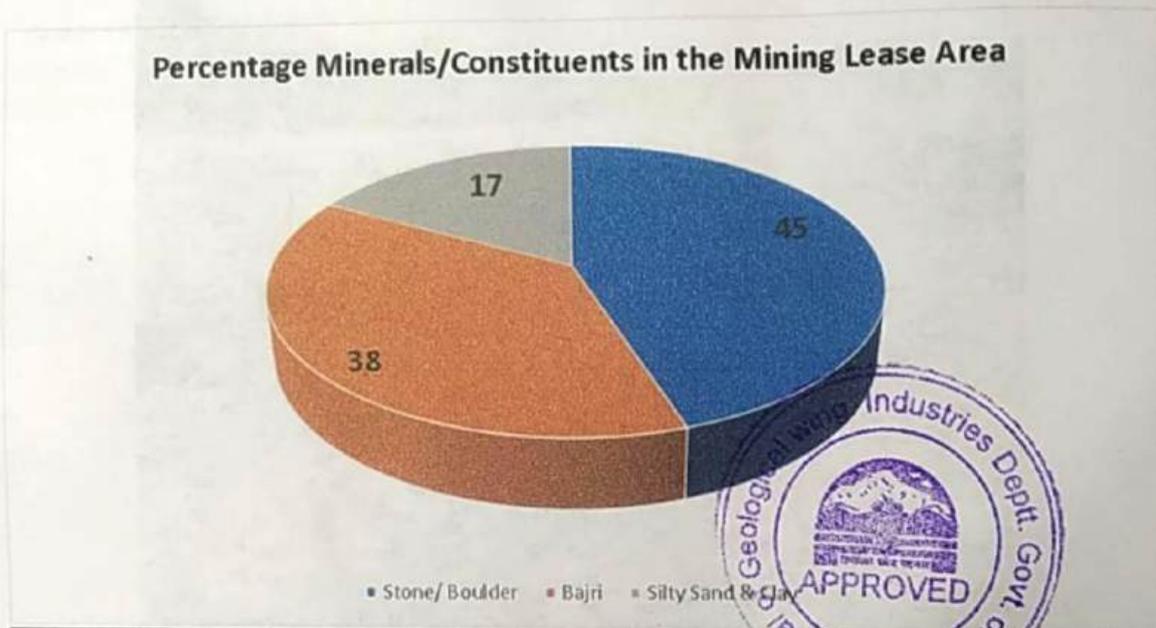
**Figure 11: View of the lease area**

### 3. RESERVES ESTIMATE

#### 3.1 Estimates of geological reserve of each mineral along with grade

The geological reserves have been estimated by the cross-sectional area method and 01 cross section A-A' was plotted at 120 meters interval. The cross-section area of rock was measured separately to obtain the volume and it was multiplied by strike influence of each section. The volume thus obtained was multiplied by the specific gravity to obtain the reserves. Although, the specific gravity of loose terrace deposit is 2.40 however, the lower specific gravity 2.25 has been taken into consideration. As no exploration works by way of drilling have been carried out but, it is implied from the field observations that similar kind of terrace deposits is available at depth and is easily visible all along the surface as well.

MINING PLAN OF MINOR MINERAL LEASE OF SH. PAWAN KUMAR, PROP. M/4 BHANDRAL STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL NURPUR, DISTRICT KANGRA, HIMACHAL PRADESH; FOR EXTRACTION/COLLECTION OF SAND, STONE AND BAJRI FROM KHASRA NO. 505, 1816/506, 1831/1692/512, 518, 1833/1694/519 & 1823/520, MEASURING 02-03-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MOHAL BHADROYA, MEASURING 02-76-30 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT KANGRA, HIMACHAL PRADESH



**Figure 12: Percentage Wise Proportion Commercial Material and Waste**

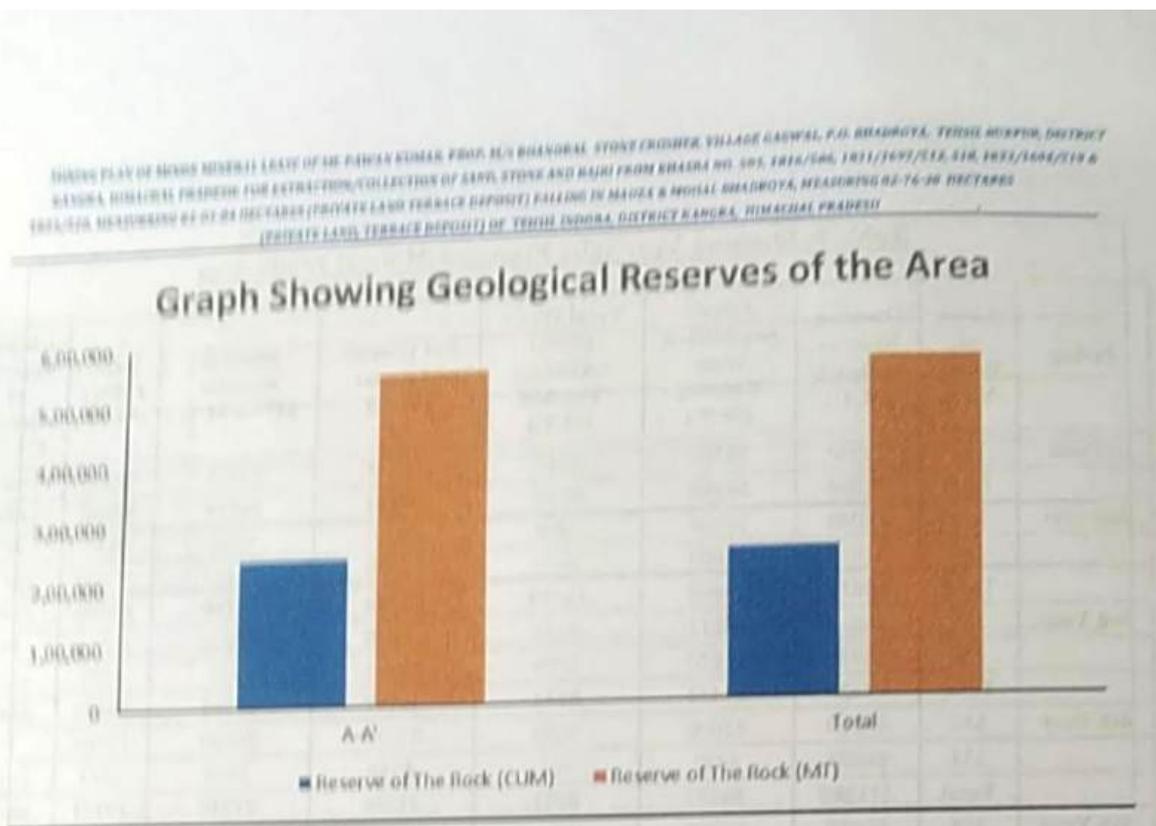
**Table 6: Showing Geological Reserves**

Section Line	Area Cross Section Area (sq. mts.)	Section Interval (mts.)	Reserve of The Rock (CUM)	Reserve of The Rock (M.T.)
A-A'	2012	120	2,41,440	5,43,240
<b>Total</b>			<b>2,41,440</b>	<b>5,43,240</b>

The percentage wise distribution of material is given below:

**Table 7: Percentage Wise Distribution of Material**

Mineral	Percentage
Stone & Pebbles	45
Silty Sand	38
Soil/Clay (Waste)	17
<b>Total</b>	<b>100</b>



**Figure 13: Graph Showing Geological Reserves of the Lease Area**

**3.2 Constraining considerations for mining, (Public roads, adjoining private land, forest, landslide prone area, electric poles or other points of public utility) and precautions proposed for their safety.**

Although no point of public utility exists near the Mining Lease area however, still a safety zone of 5.0 meters from the periphery of the mining lease boundary is kept as safety zone for the adjoining land.

### 3.3 Estimated deposits of the mine area

The estimated geological reserves are shown in the table below: -

**Table 8: Estimated Geological Reserves in Tonnes**

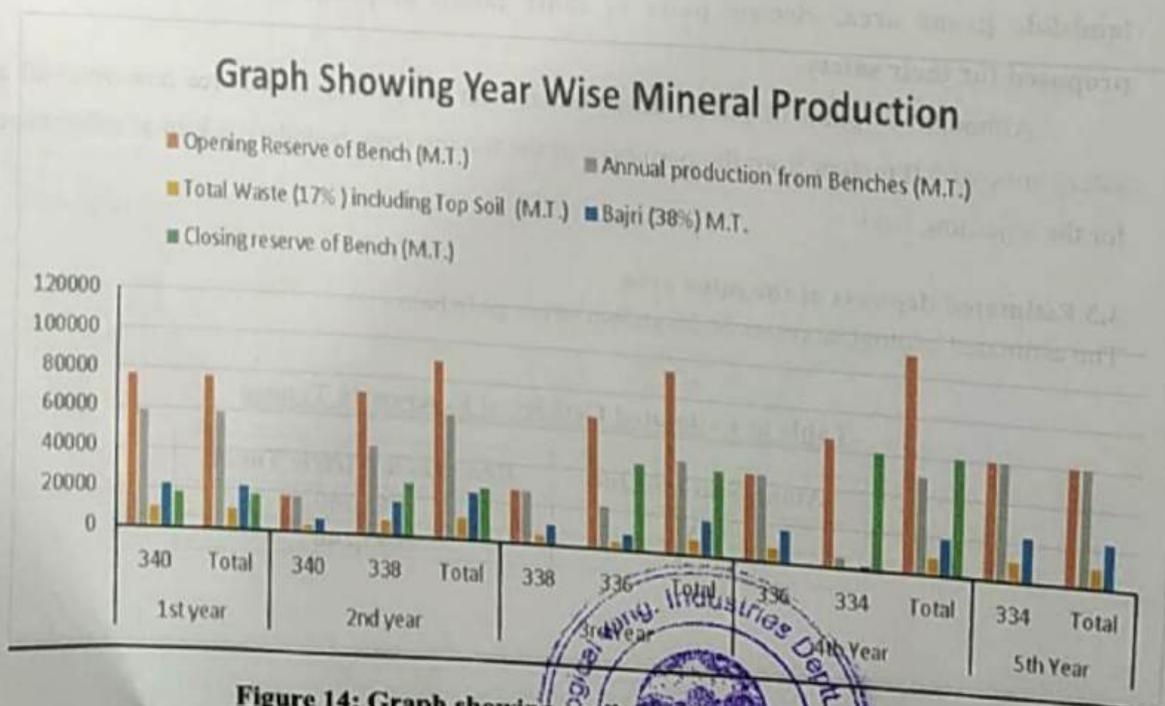
Along Section Line	Reserves in Metric Tones
A-A'	5,43,240
Total	5,43,240

MINING PLAN OF MINOR MINERAL LEASE OF SH. PAWAN KUMAR, PROP. M/s BHADRAL STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL NURPUR, DISTRICT KANGRA, HIMACHAL PRADESH; FOR EXTRACTION/COLLECTION OF SAND, STONE AND BAJRI FROM KHASRA NO. 505, 1816/506, 1831/1692/512, 518, 1833/1694/519 & 1823/520, MEASURING 02-03-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MOHAL BHADROYA, MEASURING 02-76-30 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT KANGRA, HIMACHAL PRADESH

**Table 9: Showing Year Wise Proposed Mineral Production**

Period	Level of Bench MRL	Opening Reserve of Bench (M.T.)	Annual production from Benches (M.T.)	Total Waste (17%) including Top Soil (M.T.)	Net Useable Material (M.T.)	Stone & Boulder (45%) M.T.	Bajri (38%) M.T.	Closing reserve of Bench (M.T.)
1st year	340	76500	58500	9945	48555	26325	22230	18000
	Total	76500	58500	9945	48555	26325	22230	18000
2nd year	340	18000	18000	3060	14940	8100	6840	Nil
	338	71613	45000	7650	37350	20250	17100	26613
	Total	89613	63000	10710	52290	28350	23940	26613
3rd Year	338	26613	26613	4524	22089	11976	10113	Nil
	336	66820	21820	3709	18111	9819	8292	45000
	Total	93433	48433	8234	40199	21795	18405	45000
4th Year	336	45000	45000	7650	37350	20250	17100	Nil
	334	66085	5477	931	4546	2465	2081	60608
	Total	111085	50477	8581	41896	22715	19181	60608
5th Year	334	60608	60608	10303	50305	27274	23031	Nil
	Total	60608	60608	10303	50305	27274	23031	Nil

The plan showing ultimate pit position by the end of 05 years is attached as Plate No. – 3



**Figure 14: Graph showing available mineral reserves**

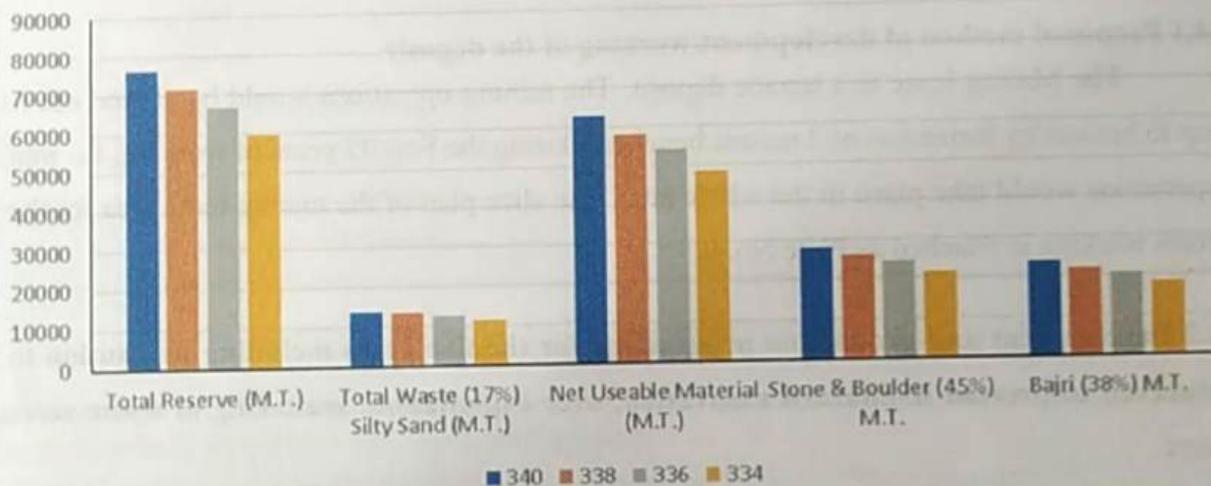


Mining Plan of Mining Mineral Lease of Sh. Pawan Kumar, Prop. M/s Bhadrak Stone Crusher, Village Gagwal, P.O. Bhadrova, Tehsil Nurpur, District Kangra, Himachal Pradesh for extraction/collection of sand, stone and Bajri from khasra No. 505, 1816/506, 1831/1692/512, 518, 1833/1694/519 & 1823/520, measuring 02-03-04 hectares (private land terrace deposit) falling in mauza & mohal Bhadrova, measuring 02-76-30 hectares (private land, terrace deposit) of Tehsil Indora, District Kangra, Himachal Pradesh

**Table 10: Sowing Quantity of Minable Reserve Per Bench**

Bench No.	RL of bench	Area (sq. m)	Specific Gravity	Average Height (m)	Total Reserve (M.T.)	Total Waste (17%) Silty Sand (M.T.)	Net Useable Material (M.T.)	Stone & Boulder (45%) M.T.	Bajri (38%) M.T.
1	340	17000	2.25	2	76500	13728	62773	28248	23854
2	338	15914	2.25	2	71613	13527	58086	26139	22073
3	336	14849	2.25	2	66820	12622	54199	24389	20596
4	334	13217	2.25	2	59477	11234	48242	21709	18332

**Graph Showing Mineable Reserve Per Bench**



**Figure 15: Graph showing Bench wise surface area available**

### 3.4 Conceptual Scheme of Mining and life of mine

The mining operations shall be carried out from the top of the mining lease area from RL 340 onwards by slicing the mining lease area by formation of benches every 2 meters. The life of mine is only five years.

### 4. MINE DEVELOPMENT AND PLAN OF PROGRESSIVE MINING:-

The mining operations would be carried out mechanically with the help of poelain/excavator and breakers. Also, manual help would be required to carry out the mining operations. The mining operations would be mechanical as well as semi – mechanical and manual as per the requirement; however, no blasting shall take place. The following conditions have been taken into consideration while planning the mine development and progressive mining works: -

MINING PLAN OF MINOR MINERAL LEASE OF SH. PAWAN KUMAR, PROP. M/s BHADRAL STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL NURPUR, DISTRICT KANGRA, HIMACHAL PRADESH, FOR EXTRACTION/COLLECTION OF SAND, STONE AND BAJRI FROM KHASRA NO. 505, 1816/506, 1811/1692/512, 518, 1833/1694/519 & 1823/520, MEASURING 02-03-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MOHAL BHADROYA, MEASURING 02-76-30 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT KANGRA, HIMACHAL PRADESH

1. Demarcation of the area as shown in the field by Revenue officials has been taken into consideration while preparing the contour cum Geological Plan.
2. The waste material generated will be stacked at 5.0 m buffer zone of the mining lease area.
3. 300 working days have been considered for the purpose of calculation.
4. Benches are proposed of two-by-two meters.
5. The main commercially exploitable rock is river borne material of new alluvium, in the form of boulders and gravels.

The plan showing working sections during 5 years is attached as Plate No. 10.

#### 4.1 Proposed method of development/working of the deposit

The Mining lease is a terrace deposit. The mining operations would be carried out from top to bottom by formation of 2 meters benches. During the first 05 years of working, the mining operations would take place in the whole area. The slice plan of the mining lease area for the 05 years working is attached as Plate No. 9.

**4.2 Development and production programme for the five years including precaution to be observed to prevent haphazard excavation, over exploitation, scattering of waste scree, if any:**

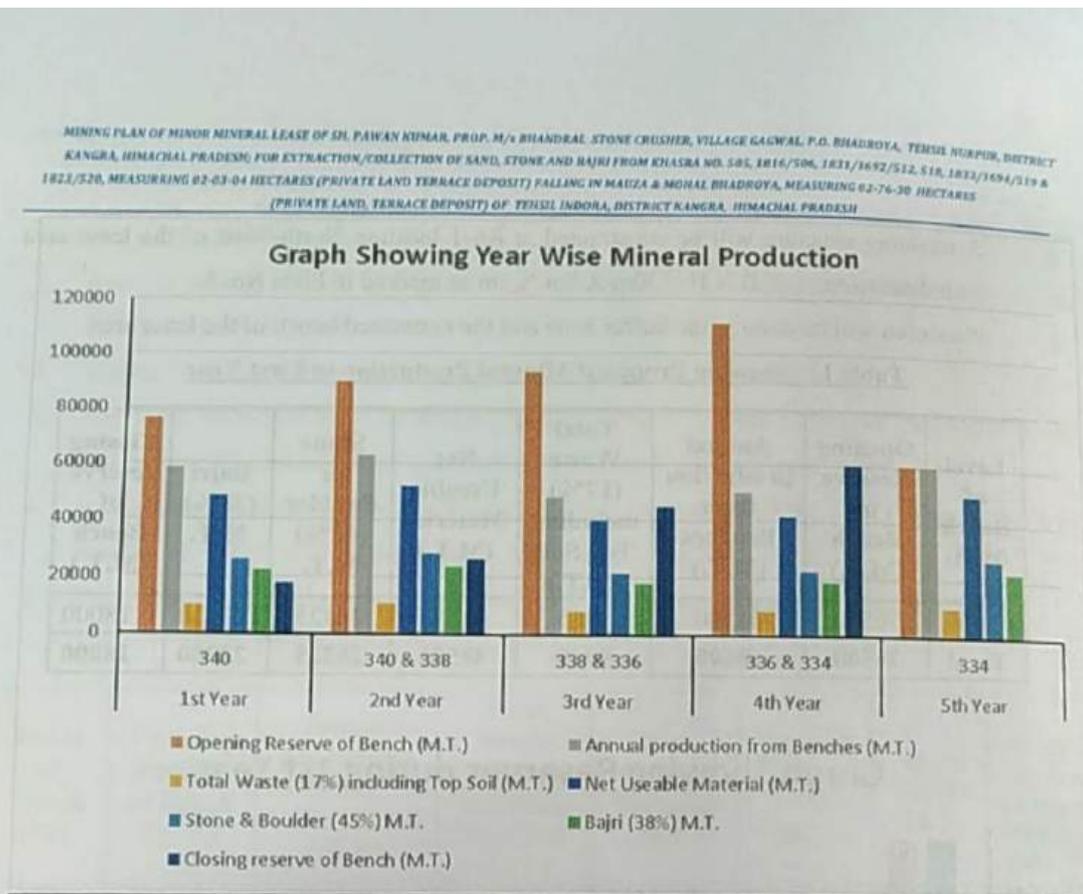
**Year wise production Programme:** - (Refer Plate No. 5, 6, 7, 8, 9)

Details of the production of the Sand, Stone and Bajri from various benches from first to fifth year are given below:

**Table 11: Showing Year wise Proposed Mineral Production**

Year	Bench Level in (Mtrs)	Opening Reserve of Bench (M.T.)	Annual production from Benches (M.T.)	Total Waste (17%) including Top Soil (M.T.)	Net Useable Material (M.T.)	Stone & Boulder (45%) M.T.	Bajri (38%) M.T.	Closing reserve of Bench (M.T.)
1st Year	340	76500	58500	9945	48555	26325	22230	18000
2 <sup>nd</sup> Year	340 & 338	89613	63000	10710	52290	28350	23940	26613
3 <sup>rd</sup> Year	338 & 336	93433	48433	8234	40199	21795	18405	45000
4 <sup>th</sup> Year	336 & 334	111085	50477	8588	41896	22715	19181	60608
5 <sup>th</sup> Year	334	60608	60609	10304	50305	27374	23031	Nil





**Figure 16: Graph Showing Year Wise Proposed Mineral Production**

**4.3 Year-wise production, overburden, run of mine, saleable mineral, mineral rejects/ mine waste details to be given with charts and graphs.**

**4.3 (a) Development and Production at the end of the 1st year (Plate No.-4)**

During this year benches at 340 R.L with opening reserve of 76500 metric tonnes of material. The annual production of 58500 metric tonnes is proposed which will generate waste 9945 metric tonnes and net usable material will be 48555 metric tonnes will be produced. For this, the bench at R.L. 340 will be partially utilized and 18000 metric tonnes of left out material will be used in the following year.

**Activity during the 1<sup>st</sup> year**

1. Raw material generated during the first year shall be used which was extracted from 340 R.L. bench.
2. Mining waste shall be placed at the 2.0 mtrs. buffer zone & dumping site.
3. The waste generated shall be dumped in the mining lease area once total excavation would be done and the mining lease area shall be developed as agricultural fields.

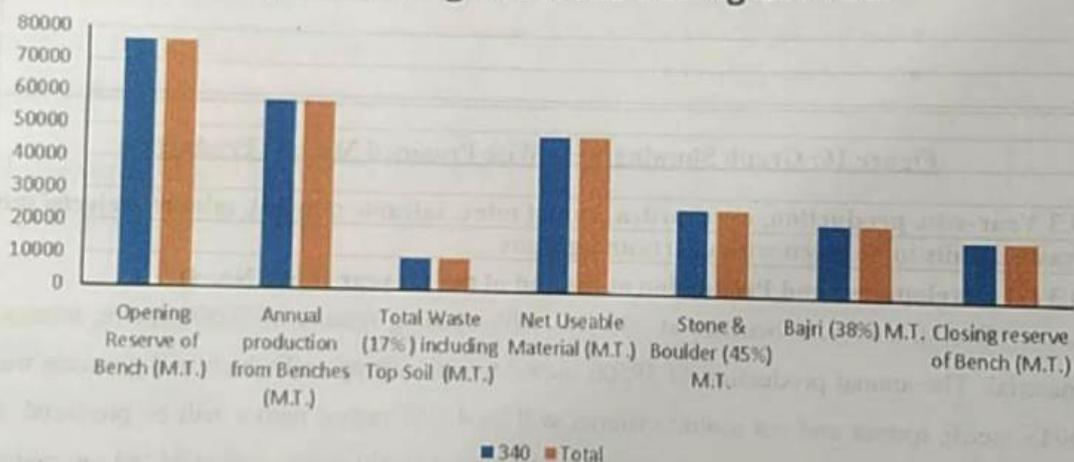
MINING PLAN OF MINOR MINERAL LEASE OF SH. PAWAN KUMAR, PROP. M/S BHADRAL STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL NURPUR, DISTRICT KANGRA, HIMACHAL PRADESH, FOR EXTRACTION/COLLECTION OF SAND, STONE AND BAJRI FROM KHASRA NO. 505, 1016/506, 1031/1692/512, 510, 1023/1694/519 & 1022/520, MEASURING 02-02-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MOHAL BHADROYA, MEASURING 02-76-30 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT SANGRA, HIMACHAL PRADESH

4. A retaining structure will be constructed at RS-1 location North-West of the lease area with dimensions L X B X H = 30m X 5m X 3m as marked in Plate No. 4.
5. Plantation will be done in the buffer zone and the excavated bench of the lease area.

**Table 12: Showing Proposed Mineral Production in First Year**

Level of Bench MRL	Opening Reserve of Bench (M.T.)	Annual production from Benches (M.T.)	Total Waste (17%) including Top Soil (M.T.)	Net Useable Material (M.T.)	Stone & Boulder (45%) M.T.	Bajri (38%) M.T.	Closing reserve of Bench (M.T.)
340	76500	58500	9945	48555	26325	22230	18000
<b>Total</b>	<b>76500</b>	<b>58500</b>	<b>9945</b>	<b>48555</b>	<b>26325</b>	<b>22230</b>	<b>18000</b>

**Graph Showing Reserves during 1st Year**



**Figure 17: Graph Showing Reserves during 1st Year**

**4.3 (b) Development and production at the end of 2nd year (Plate No-5)**

During this year benches at 340 R.L. and 388 R.L. having opening reserve of 89613 M.T. of material. The annual production of 63000 metric tonnes is proposed which will generate waste 10710 metric tonnes and net usable material will be 52290 metric tonnes will be produced. For this, the bench at R.L. 340 will be fully utilized and bench with R.L. 388 R.L. will be partially utilized and 26613 metric tonnes of left out material will be used in the following year.



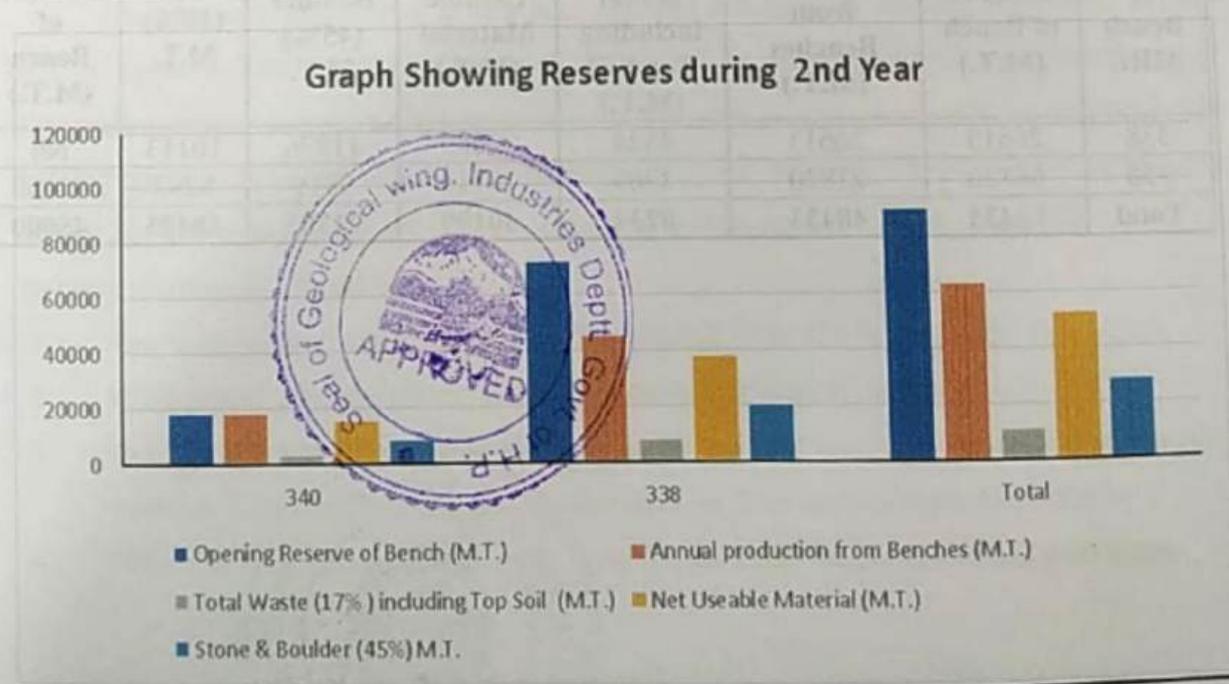
Mining Plan of Minor Mineral Lease of Sh. Pawan Kumar, Prop. M/1 Bhadrak Stone Crusher, Village Gagwal, P.O. Bhadroya, Tehsil Nurpur, District Kangra, Himachal Pradesh, for extraction/collection of sand, stone and bajri from khasra no. 505, 1816/506, 1831/1692/512, 318, 1833/1694/519 & 1823/520, measuring 02-03-04 hectares (private land terrace deposit) falling in mauza & mohal Bhadroya, measuring 02-76-30 hectares (private land, terrace deposit) of Tehsil Indora, District Kangra, Himachal Pradesh

### Activity during the 2nd year

1. Raw material generated during the first year shall be used which was extracted from 340 R.L. and 338 R.L. bench.
2. Mining waste shall be placed at the 2.0 mtrs. buffer zone & dumping site.
3. The waste generated shall be dumped in the mining lease area once total excavation would be done and the mining lease area shall be developed as agricultural fields.
4. A retaining structure will be constructed at RS-2 location South-West of the lease area with dimensions L X B X H = 30m X 5m X 3m as marked in Plate No. 5.
5. Plantation will be done in the buffer zone and the excavated benches of the lease area.

**Table 13: Showing Proposed Mineral Production in Second Year**

Level of Bench MRL	Opening Reserve of Bench (M.T.)	Annual production from Benches (M.T.)	Total Waste (17%) including Top Soil (M.T.)	Net Useable Material (M.T.)	Stone & Boulder (45%) M.T.	Bajri (38%) M.T.	Closing reserve of Bench (M.T.)
340	18000	18000	3060	14940	8100	6840	Nil
338	71613	45000	7650	37350	20250	17100	26613
<b>Total</b>	<b>89613</b>	<b>63000</b>	<b>10710</b>	<b>52290</b>	<b>28350</b>	<b>23940</b>	<b>26613</b>



**Figure 18: Graph Showing Reserves during 2<sup>nd</sup> Year**

Mining Plan of Minor Mineral Lease of Sh. Pawan Kumar, Prop. M/s Bhandral Stone Crusher, Village Gagwal, P.O. Bhadroya, Tehsil Nurpur, District Kangra, Himachal Pradesh, for extraction/collection of sand, stone and Bajri from khasra No. 505, 1816/506, 1831/1692/512, 518, 1833/1694/519 & 1823/520, measuring 02-02-04 hectares (private land terrace deposit) falling in Mauza & Mohal Bhadroya, measuring 02-76-30 hectares (private land, terrace deposit) of Tehsil Indora, District Kangra, Himachal Pradesh

#### 4.3(c) Development and production at the end of the 3rd year (Plate No.-7)

During this year benches at 338 R.L. and 336 R.L. having opening reserve of 93433 M.T. of material. The annual production of 48433 M.T. is proposed which will generate waste 8234 metric tonnes and net usable material will be 40199 metric tonnes will be produced. For this, the bench at R.L. 338 will be fully utilized and bench with R.L. 336 R.L. will be partially utilized and 45000 metric tonnes of left out material will be used in the following year

#### Activity during the 3rd year

1. Raw material generated during the first year shall be used which was extracted from 338 R.L. and 336 R.L. bench.
2. Mining waste shall be placed at the 2.0 mtrs. buffer zone & dumping site.
3. The waste generated shall be dumped in the mining lease area once total excavation would be done and the mining lease area shall be developed as agricultural fields.
4. Plantation will be done in the buffer zone of the lease area and the excavated bench.

**Table 14: Showing Proposed Mineral Production in Third Year**

Level of Bench MRL	Opening Reserve of Bench (M.T.)	Annual production from Benches (M.T.)	Total Waste (17%) including Top Soil (M.T.)	Net Useable Material (M.T.)	Stone & Boulder (45%) M.T.	Bajri (38%) M.T.	Closing reserve of Bench (M.T.)
338	26613	26613	4524	22089	11976	10113	Nil
336	66820	21820	3709	18111	9819	8292	45000
<b>Total</b>	<b>93433</b>	<b>48433</b>	<b>8234</b>	<b>40199</b>	<b>21795</b>	<b>18405</b>	<b>45000</b>

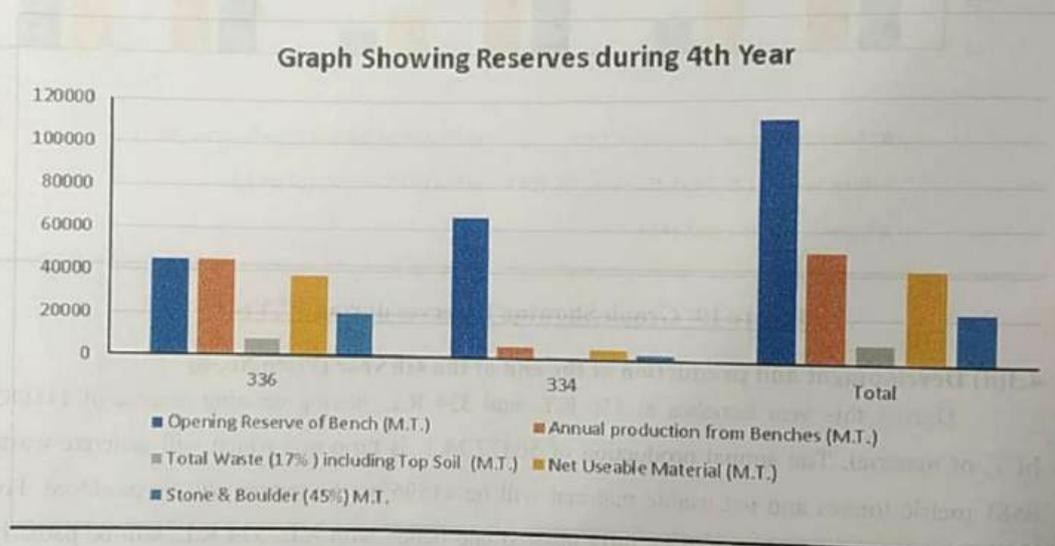


Mining Plan of Minor Mineral Lease of Sh. Pawan Kumar, Prop. M/s Bhandral Stone Crusher, Village Gagwal, P.O. Bhadrova, Tehsil Nurpur, District Kangra, Himachal Pradesh; for extraction/collection of sand, stone and bajri from khasra No. 505, 1816/506, 1831/1692/512, 518, 1833/1694/519 & 1823/520, measuring 02-03-04 hectares (private land terraced deposit) falling in Mauza & Mohal Bhadrova, measuring 02-76-30 hectares (private land terraced deposit) of Tehsil Indora, District Kangra, Himachal Pradesh

**Table 15: Showing Proposed Mineral Production in Fourth Year**

Level of Bench MRL	Opening Reserve of Bench (M.T.)	Annual production from Benches (M.T.)	Total Waste (17%) including Top Soil (M.T.)	Net Useable Material (M.T.)	Stone & Boulder (45%) M.T.	Bajri (38%) M.T.	Closing reserve of Bench (M.T.)
336	45000	45000	7650	37350	20250	17100	Nil
334	66085	5477	931	4546	2465	2081	60608
<b>Total</b>	<b>111085</b>	<b>50477</b>	<b>8581</b>	<b>41896</b>	<b>22715</b>	<b>19181</b>	<b>60608</b>

**Graph Showing Reserves during 4th Year**



**Figure 20: Graph Showing Reserves during 4<sup>th</sup> Year**

**4.3(e) Development and production at the end of the 5th year (Plate No.-9)**

During this year benches at 334 R.L. having opening reserve of 60608 M.T. of material. The annual production of 60608 M.T. is proposed which will generate waste 10304 metric tonnes and net usable material will be 50305 metric tonnes will be produced. For this, the bench 334 R.L. will be fully utilized.

**Activity during 5th year**

1. Raw material for Stone crusher shall be extracted from 334 R.L. Bench.
2. Plantation will be done on the old working area towards South West and West of the lease area.



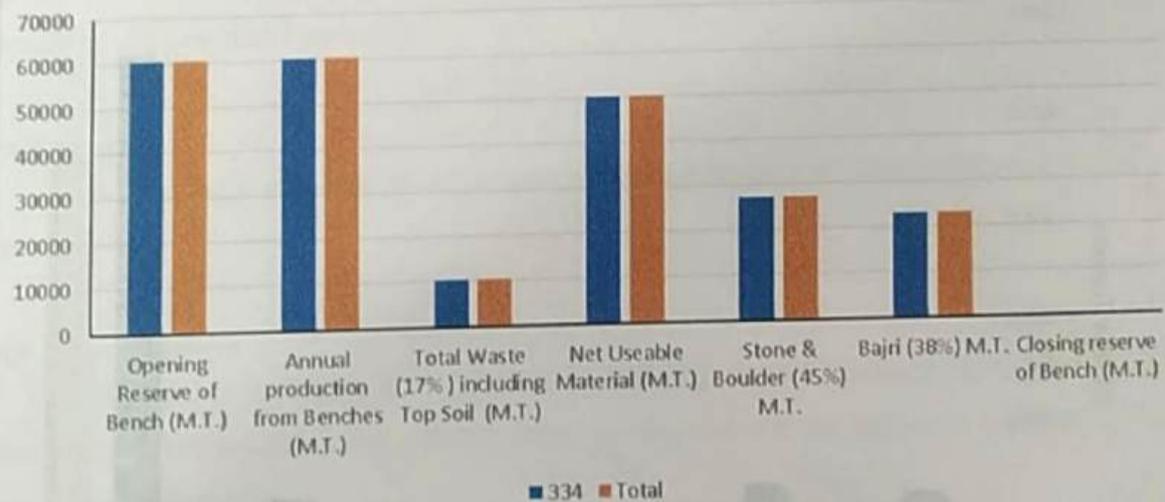
Mining Plan of Minor Mineral Lease of Sh. Pawan Kumar, Prop. M/s Bhandral Stone Crusher, Village Gagwal, P.O. Bhadrova, Tehsil Nurpur, District Kangra, Himachal Pradesh for extraction/collection of sand, stone and bajri from khasra no. 505, 1816/506, 1831/1692/512, 518, 1833/1694/519 & 1821/520, measuring 02-07-04 hectares (private land terrace deposit) falling in mauza & mohal Bhadrova, measuring 02-76-30 hectares (private land terrace deposit) of Tehsil Indora, District Kangra, Himachal Pradesh

3. The previously generated waste from the buffer zone shall be put on the already excavated benches.
4. Plantation will be done in the buffer zone and the excavated bench of the lease area.

**Table 16: Showing Proposed Mineral Production in Fifth Year**

Level of Bench MRL	Opening Reserve of Bench (M.T.)	Annual production from Benches (M.T.)	Total Waste (17%) including Top Soil (M.T.)	Net Useable Material (M.T.)	Stone & Boulder (45%) M.T.	Bajri (38%) M.T.	Closing reserve of Bench (M.T.)
334	60608	60608	10303	50305	27274	23031	Nil
<b>Total</b>	<b>60608</b>	<b>60608</b>	<b>10303</b>	<b>50305</b>	<b>27274</b>	<b>23031</b>	<b>Nil</b>

**Graph Showing Reserves during 5th Year**



**Figure 21: Graph Showing Reserves during 5th Year**



MINEING PLAN OF MINOR MINERAL LEASE OF SH. PAWAN KUMAR, PROP. M/S BHANDRAL STONE CRUISHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL NURPUR, DISTRICT KANERA, HIMACHAL PRADESH FOR EXTRACTION, COLLECTION OF SAND, STONE AND BAJRI FROM KHASRA NO. 503, 1816/506, 1831/1692/512, 518, 1832/1694/519 & 1822/526, MEASURING 02-02-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MUHAL BHADROYA, MEASURING 02-76-30 HECTARES (PRIVATE LAND TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT KANERA, HIMACHAL PRADESH

4.4 Proposed rate of production when mine is fully developed and the expected life of the mine after its opening: -

Table 17: Rate of Production When Mine is Fully Developed In Metric Tonnes

YEAR	1 <sup>ST</sup> YEAR	2 <sup>ND</sup> YEAR	3 <sup>RD</sup> YEAR	4 <sup>TH</sup> YEAR	5 <sup>TH</sup> YEAR	TOTAL
Annual production from Benches (M.T.)	58500	63000	48433	50477	60609	281019
Total Waste (17% ) including Top Soil (M.T.)	9945	10710	8234	8581	10304	47773
Net Useable Material (M.T.)	48555	52290	40199	41896	50305	233246
Stone & Boulder (45%) M.T.	26325	28350	21795	22715	27274	126459
Bajri (38%) M.T.	22230	23940	18405	19181	23031	106787
Closing reserve of Bench (M.T.)	18000	26613	45000	60608	Nil	150221

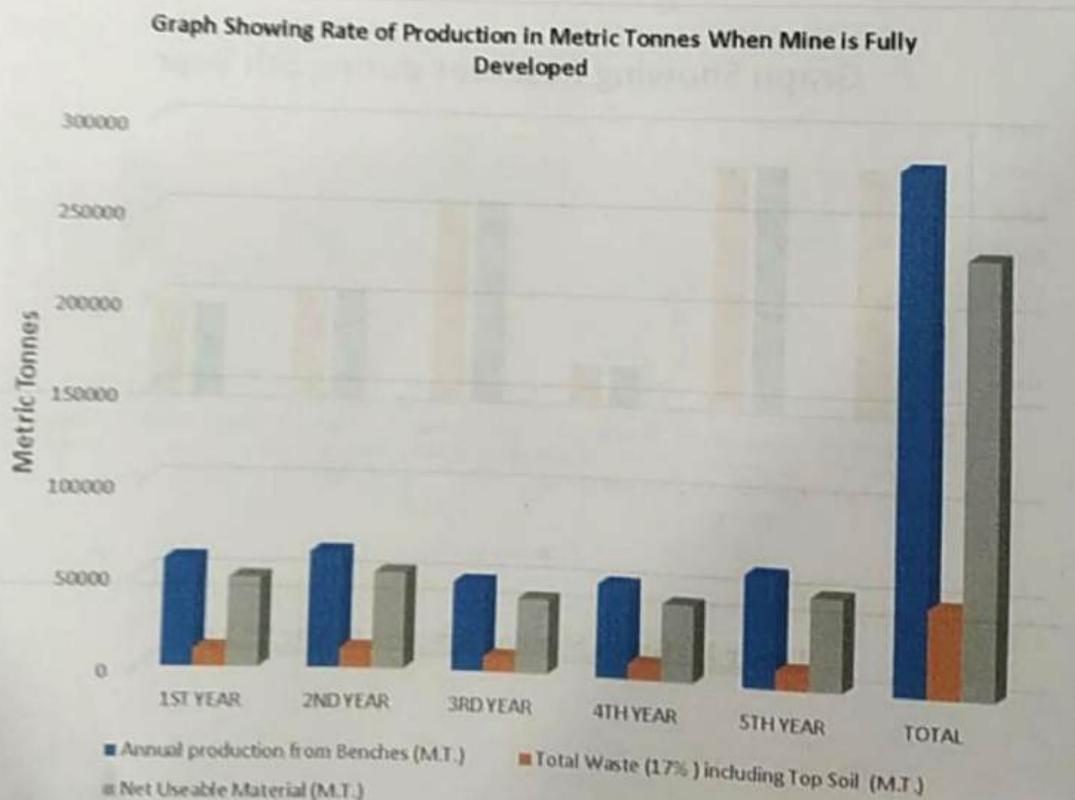
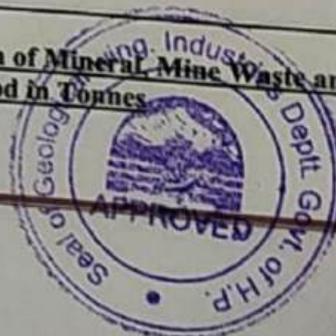


Figure 22: Graph Showing Bench wise Production of Mineral, Mine Waste and Top Soil during Five Years Period in Tonnes



MINING PLAN OF MINOR MINERAL LEASE OF SH. PAWAN KUMAR, PROP. M/S BHADRAL STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL NURPOH, DISTRICT KANGRA, HIMACHAL PRADESH FOR EXTRACTION/COLLECTION OF SAND, STONE AND BAJRI FROM KHASRA NO. 505, 1816/506, 1831/1692/512, 518, 1833/1694/519 & 1824/520 MEASURING 02-03-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAITZA & MOHAL BHADROYA, MEASURING 02-76-30 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDDRA, DISTRICT KANGRA, HIMACHAL PRADESH

#### **4.5 Balance material available in the area after five years of progressive mining and estimated year of mine closure.**

If the proposed rate of production is maintained, then all the proposed four benches be exhausted in next planned five years.

#### **4.6 Salient feature of mode of working (Manual, semi mechanical, mechanical and use of explosives).**

The working of the quarry will be semi mechanical. Whenever felt necessary JCB/Excavator would be deployed to excavate and load stone & bajri in the tippers No explosives will be used.

#### **4.7 Extent of mechanization: Type of machinery/ equipment to be used.**

As the maximum production during day would be about 167 metric tonnes of material shall be extracted with the help of manual labour as well as mechanical excavator like back hoe loader or chain mounted excavator.

#### **4.8 Blasting**

No blasting is proposed for excavation of minor mineral stone from the mining lease area.

#### **4.9 Mine drainage:**

The mining lease area is a terrace deposit having about 83 percent of stone and gravel thus no rainwater is likely to be collected in the mining pits. All the rain water will seep through sandy terrace formation.

#### **4.10 Waste Management:**

The surface mining in shape of benches shall be undertaken being the area a terrace deposit and the waste material shall be dumped within the lease area for the initial four years in the 2.0 mtrs. Buffer Zone left within the mining lease area and during the fifth year of working the whole of the material shall be put on the already excavated benches and the waste material which shall be generated during the fifth year of working shall be stacked at the Buffer Zone and will be ultimately put in the mining lease area to develop agricultural fields by spreading soil over this waste filled material.

Mining Plan of Minor Mineral Lease of Sh. Pawan Kumar, Prop. M/s Bhandral Stone Crusher, Village Gagwal, P.O. Bhadrova, Tehsil Nurpur, District Kangra, Himachal Pradesh, for extraction/collection of sand, stone and Bajri from khasra No. 505, 1816/506, 1831/1692/512, 518, 1833/1694/519 & 1823/520, measuring 02-03-04 Hectares (Private Land Terrace Deposit) falling in Mauza & Mohal Bhadrova, measuring 02-76-30 Hectares (Private Land Terrace Deposit) of Tehsil Indora, District Kangra, Himachal Pradesh

**4.11 Describe the end use of minerals: Captive consumption, free sale to intermediary/consumers etc.**

The extracted Stone shall be used in the stone crusher unit to be established in the name and M/s Bhandral Stone Crusher for manufacturing of Grit, GSB and stone dust.

**4.12 Road transportation of minerals to industrial unit and market**

The average proposed annual production from the lease area is 46650 metric tonnes of useful material per annum which includes average crushable material. Taking 300 working days in a year, the average daily production is around 156 metric tonnes of Stone, pebbles and silty sand is available for which around 10 - 11 trucks of approximately 15 metric tonnes capacity are required to transport the material. The existing road is sufficient and is in good condition to bear this additional traffic load and no improvement in the existing road is required.



MINING PLAN OF MINOR MINERAL LEASE OF SIE PAWAN KUMAR, PROP. M/s BHADRAL STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL NURPUR, DISTRICT KANGRA, HIMACHAL PRADESH; FOR EXTRACTION/COLLECTION OF SAND, STONE AND BAJRI FROM KHASRA NO. 505, 1816/506, 1831/1692/512, 518, 1833/1694/515 & 1833/526, MEASURING 02-03-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MOHAL BHADROYA, MEASURING 02-76-30 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT KANGRA, HIMACHAL PRADESH

## PART -II

### ENVIRONMENT MANAGEMENT PLAN

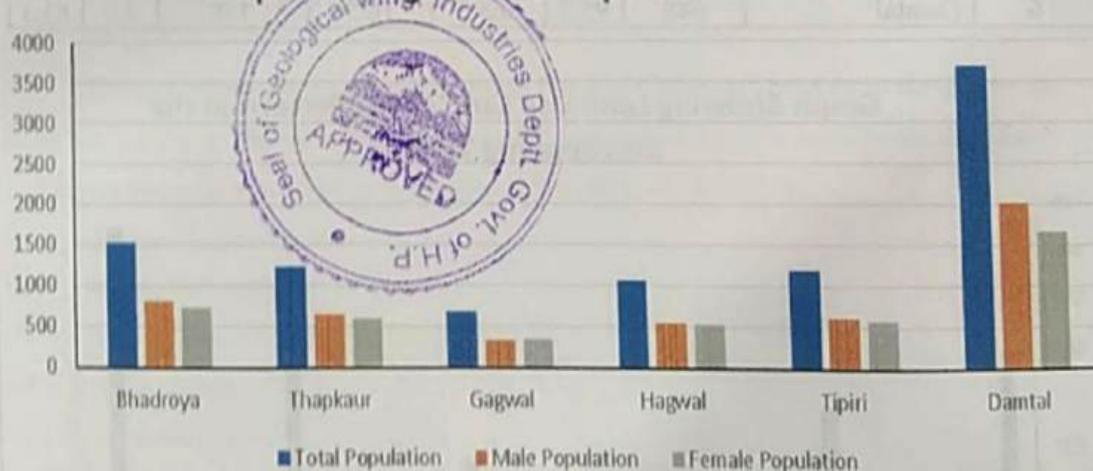
#### 1. BASE LINE DATA

##### 1.1 Detail of Population Distribution

**Table 18: Showing Details of Population Distribution**

Sr. No.	Name of Villages	Total Population	Male Population	Female Population
1	Bhadroya	1525	803	722
2	Thapkaur	1226	637	589
3	Gagwal	671	333	338
4	Hagwal	1065	538	527
5	Tipiri	1189	616	573
6	Damtal	3682	2018	1664

**Graph Showing Details of Population Distribution**



**Figure 23: Graph Showing Details of Population Distribution**

#### 1.2 Socio Economy of the Village

The general economy of the village is agriculture and animal husbandry based and people go to find out job opportunities in for flung industrial area outside the state of Himachal as there is no industry in the nearby area. Therefore, any job opportunity created by any

MINING PLAN OF MINOR MINERAL LEASE OF SRI. PAWAN KUMAR, PROP. M/s BHADRAL STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL NURPUR, DISTRICT KANGRA, HIMACHAL PRADESH, FOR EXTRACTION/COLLECTION OF SAND, STONE AND RAJRI FROM KHASRA NO. 505, 1816/506, 1831/1692/512, 518, 1832/1694/519 & 1822/520, MEASURING 02-03-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MOHAL BHADROYA, MEASURING 02-76-30 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT KANGRA, HIMACHAL PRADESH

entrepreneur may be of small magnitude shall add to the economy of the people. The people who are offered job in the mining as well in the stone crusher, shall be a local employment at the door and such worker in the off hours, shall be able to look after their retinue agriculture and livestock.

### 1.3 Land Use Details of Surrounding Villages near the lease area

**Table 19: Showing Details of Surrounding Villages**

Sr. No.	Name of Villages	Total area (in	Forest	Non-Agricultural Usage	Barren Land	Grazing Land	Irrigated Land	Un-Irrigated Land
1	Bhadroya	397.1	85.6	148.8	4.8	0	46.9	111
2	Thapkaur	286.2	97.2	42.8	37.5	10.1	40.4	58.1
3	Gagwal	131.4	29.3	19.5	4.7	1.4	32.6	43.8
4	Hagwal	166.4	25.3	31.7	13.5	2.5	40.4	58.1
5	Tipiri	354.4	0	94.4	107.1	0	61.1	91.8
6	Damtal	648	95.2	368.5	16.5	1.2	2.7	83.3

**Graph Showing Land Use Land Cover Pattern of the Surrounding Villages**



**Figure 24: Graph Showing General Land Use Pattern of Surrounding Villages**



MINING PLAN OF MINOR MINERAL LEASE OF SRI PAWAN KUMAR, PROP. M/4 BHADRAL STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL NURPUR, DISTRICT KANGRA, HIMACHAL PRADESH, FOR EXTRACTION/COLLECTION OF SAND, STONE AND BAJRI FROM KHASRA NO. 505, 1816/506, 1831/1692/512, 518, 1833/1694/519 & 1823/520, MEASURING 02-03-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MOHAL BHADROYA, MEASURING 02-76-30 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT KANGRA, HIMACHAL PRADESH

#### 1.4 AGRICULTURE

Agriculture is the main occupation of the people in the District, having different types of soil and agro-climate conditions which are quite suitable for the growing of various types of cereals vegetables, temperate and stone fruits and other crops. The major crops grown in the district are wheat, Paddy, Maize, Barley, Millet. Besides these, potato and a variety of vegetable like green-peas, cauliflower, cabbage, spinach tomatoes, etc. are also grown in the district. The economy is mostly agrarian and majority of population depend on agriculture and activities allied to it for earning their lively hood. The most of the land is un-irrigated and depends upon the rainy season. The part of the lands are irrigated and the irrigation facilities are provided by lifting water from streams, shallow Dug wells and medium to deep tubs wells in the valley area. The source of water type of irrigation can be classified in to following five classes.

- 1 Lift irrigation scheme
- 2 Well used for irrigation
- 3 Well use for domestic purpose
- 4 Kuhls
- 5 Tube wells

The water flows throughout the year in this khad. The land holding in the district are small and scattered. The farmers grow more than two crops in a year so as to get maximum production from the land. The crop rotation followed in the district is:

- I. Maize- Toria-Wheat
- II. Maize-Potato-Potato
- III. Maize- Toria-Wheat-BaisakhiMoong
- IV Paddy Wheat
- V Maize-Wheat

Wheat and Maize are major crops of the district. These are followed by gram, Paddy and other pulses. Besides these, Barley, Ragi, Mustered, Seasmum and Sugarcane are also grown in the district. Peas, Carrot, Cabbage, Ladyfinger, Tomato, Brinjal, Capsicum, Cauliflower, Cucumber, Pumpkin etc. Vegetables are also grown. About 95% of the total cultivable area in the district is rain fed. Hence production of the district mainly depends upon rain.

MINING PLAN OF MINOR MINERAL LEASE OF SH. PAHAV KUMAR, PROP. M/S BHADRAL STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL NURPUR, DISTRICT KANGRA, HIMACHAL PRADESH FOR EXTRACTION/COLLECTION OF SAND, STONE AND BAURI FROM KHASRA NO. 505, 1814/506, 1831/1692/512, 518, 1832/1694/519 & 1822/520, MEASURING 02-02-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUSA & MOHAL BHADROYA, MEASURING 02-76-30 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDOORA, DISTRICT KANGRA, HIMACHAL PRADESH

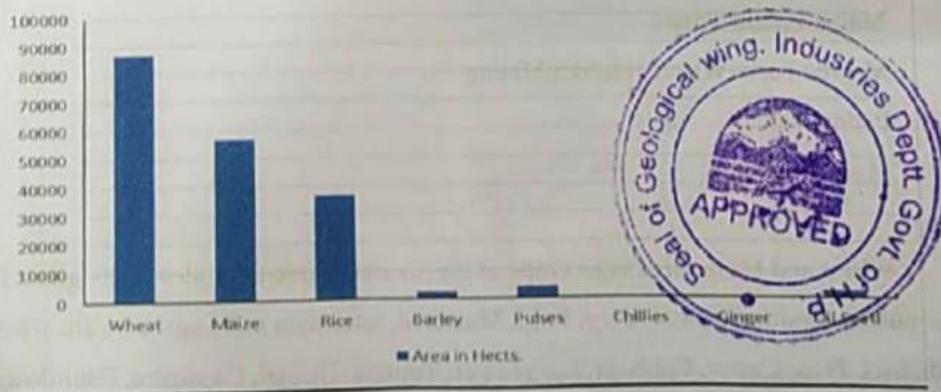
**Table 20: Table Showing Crop Pattern Surrounding Lease Area**

June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Maize				Wheat				Maize			
Maize			Toria			Wheat			Maize		
Maize			Patato			Wheat			Maize		
Maize			Potato			Potato			Maize		
Bhindi				Cauliflower				French Bean/Tomato/brinjal/Capsicum	Cucubits		
							Sarson/Raya/G. Sarson				
							Wheat		Ginger		
							Wheat				
							Barseem				
							Potato				
							B. Sarson/Raya/G. Sarson/Taramira(Eruca Sativa)				
							Wheat				
							Wheat				

**Table 21: Table Showing Agriculture Area Under Major Crops, District, Kangra 2017-18**

In Hectares	Wheat	Maize	Rice	Barley	Pulses	Chillies	Ginger	Oil Seed
Production	86828	56610	36511	2566	4170	2	23	2383
Percentage Area	45.92	29.94	19.31	1.36	2.21	0.00	0.01	1.26

**Agriculture: Area Covered under Major Crops, Dist Kangra 2017-18**

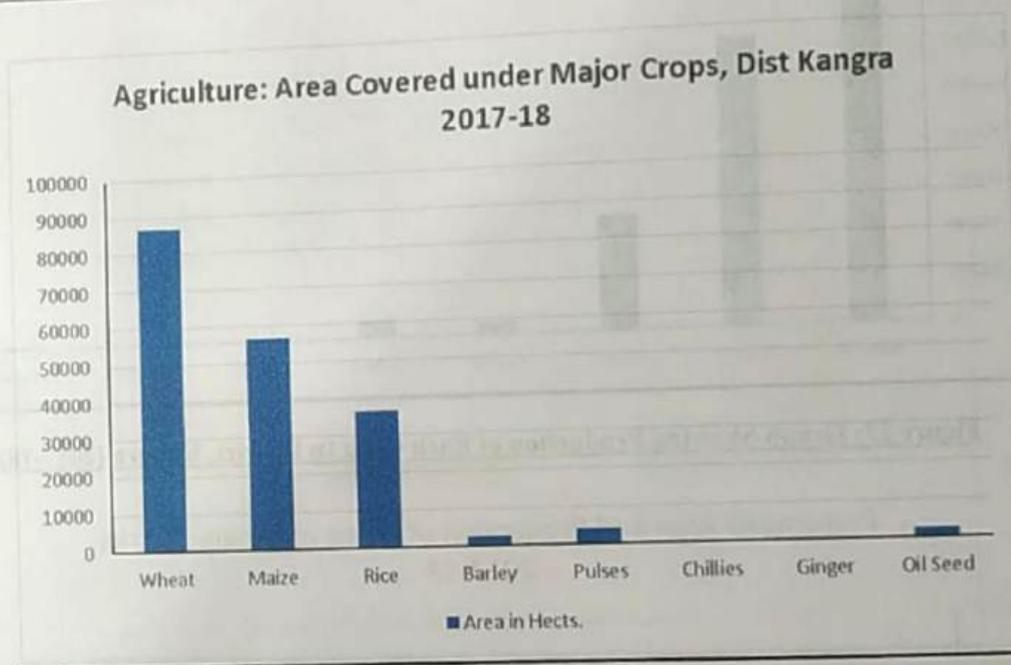


**Figure 25: Graph Showing area and production under Major crops in Kangra District (2017-18)**

MINING PLAN OF MINOR MINERAL LEASE OF SH. PAWAN KUMAR, PROP. M/s BHANDRAL STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL NURPUR, DISTRICT KANGRA, HIMACHAL PRADESH; FOR EXTRACTION/COLLECTION OF SAND, STONE AND RAJRI FROM KHASRA NO. 505, 1814/506, 1831/1692/512, 518, 1831/1694/519 & 1821/520, MEASURING 02-03-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MOHAL BHADROYA, MEASURING 02-76-30 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT KANGRA, HIMACHAL PRADESH

**Table 22: Table Showing Agriculture Area Under Major Crops, District, Kangra 2017-18**

In Hectares	Wheat	Maize	Rice	Barley	Pulses	Chillies	Ginger	Oil Seed
Production	86828	56610	36511	2566	4170	2	23	2383
Percentage Area	45.92	29.94	19.31	1.36	2.21	0.00	0.01	1.26



**Figure 26: Graph Showing area and production under Major crops in Kangra District (2017-18)**

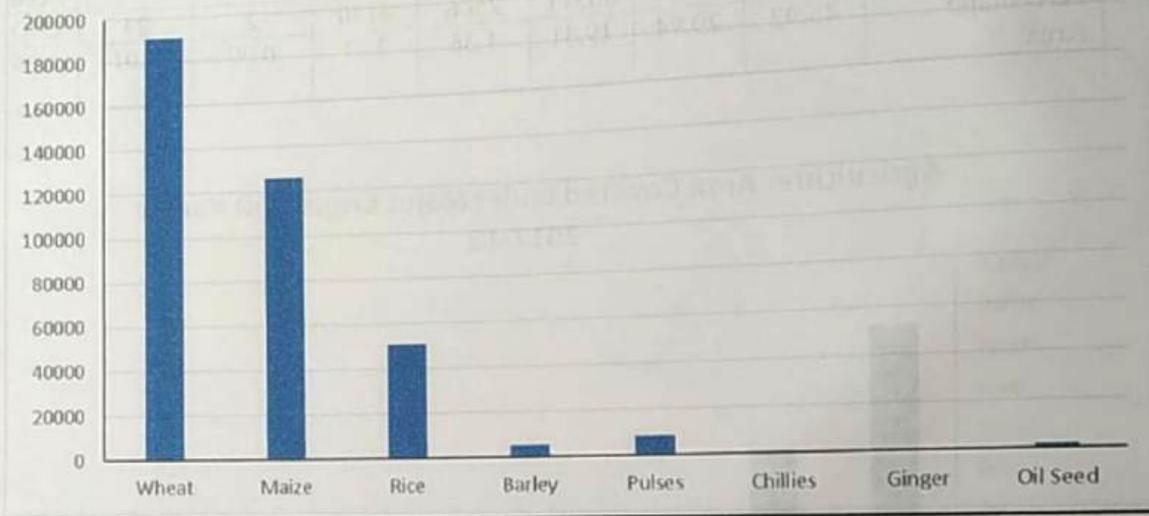
**Table 23: Table Showing %age Of Production of Each Crop in District, Kangra (2017-18)**

In Hectares	Wheat	Maize	Rice	Barley	Pulses	Chillies	Ginger	Oil Seed
Production M.T.	190985	125815	50512	4958	8038	1	162	1377
Percentage Area	50.02	32.95	13.23	1.30	2.11	0.00	0.04	0.36



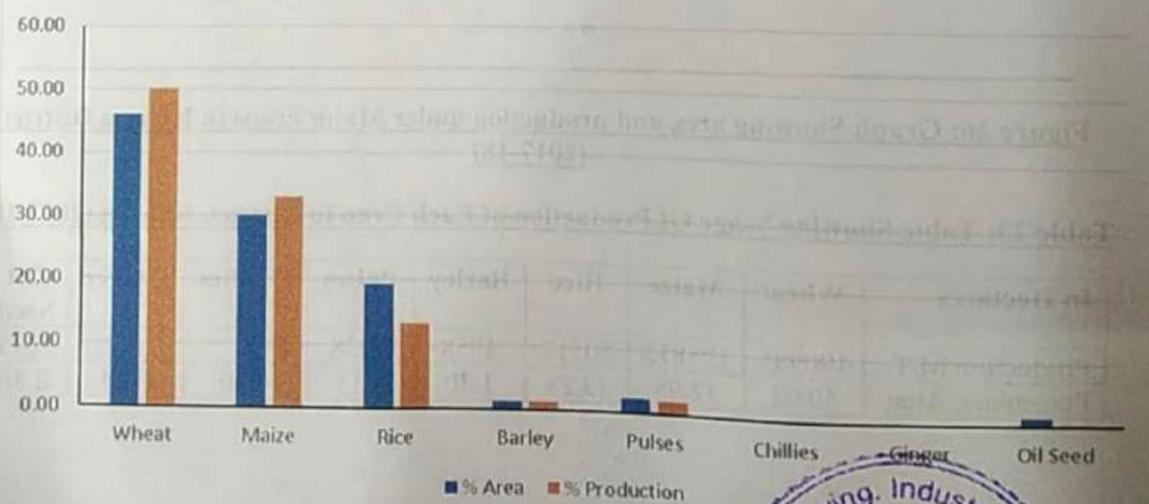
MINING PLAN OF MINOR MINERAL LEASE OF SH. PAWAN KUMAR, PROP. M/s BHANDRAL STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL NURPUR, DISTRICT KANGRA, HIMACHAL PRADESH, FOR EXTRACTION/COLLECTION OF SAND, STONE AND RAJRI FROM KHASRA NO. 505, 1816/506, 1831/1692/512, 518, 1833/1694/519 & 1823/520, MEASURING 02-03-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MOHAL BHADROYA, MEASURING 02-76-30 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT KANGRA, HIMACHAL PRADESH

### Agriculture: Production under Major Crops, Dist Kangra 2017-18



**Figure 27: Graph Showing Production of Each Crop In District, Kangra (2017-18)**

### Percentage Area and Production of Crops in Kangra District 2017-18



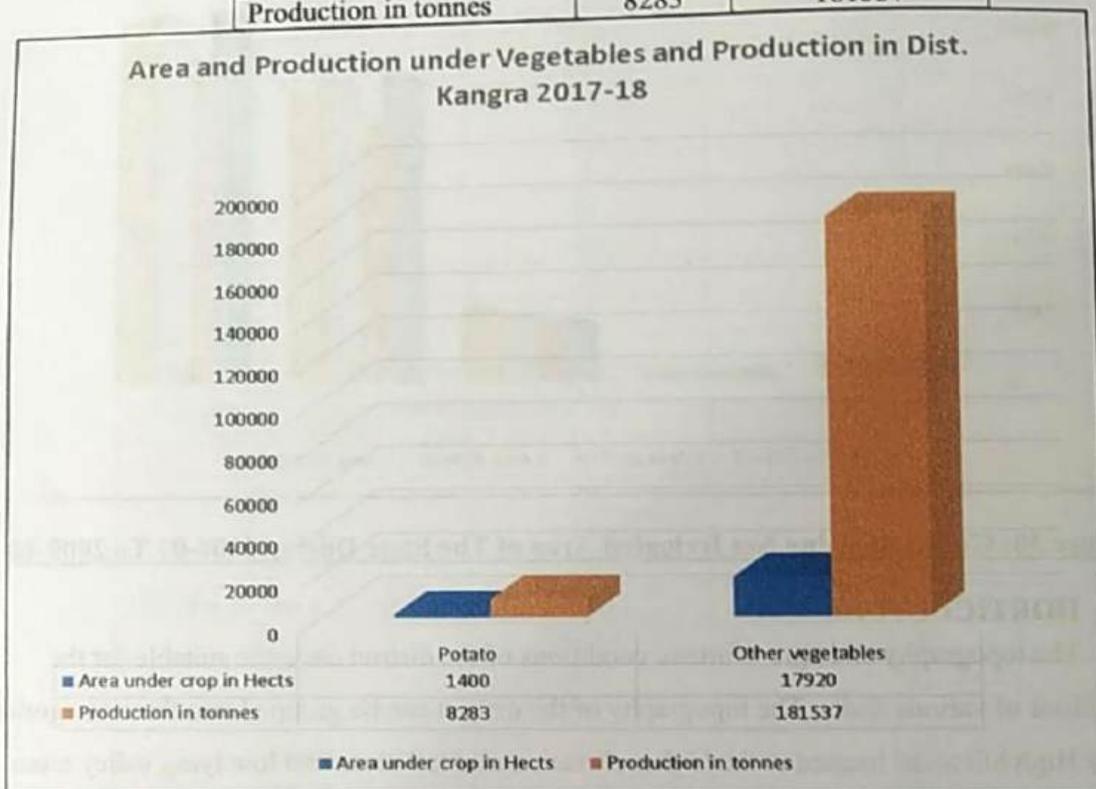
**Figure 28: Graph Showing Percentage production and Percentage Area Of Production Of Each Crop in District, Kangra (2017-18)**



MINING PLAN OF MINOR MINERAL LEASE OF SH. PAWAN KUMAR, PROP. M/V BHADRAL STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL NURPUR, DISTRICT KANGRA, HIMACHAL PRADESH; FOR EXTRACTION/COLLECTION OF SAND, STONE AND RAJRI FROM KHASKA NO. 505, 1816/506, 1811/1692/512, 518, 1823/1694/519 & 1821/520, MEASURING 02-03-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MOHAL BHADROYA, MEASURING 02-76-30 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT KANGRA, HIMACHAL PRADESH

**Table 24: Table Showing Area In Hects Under & Production In Tonnes Of Vegetables**

Name of vegetable	Potato	Other vegetables
Area under crop in Ha.	1400	17920
Production in tonnes	8283	181537



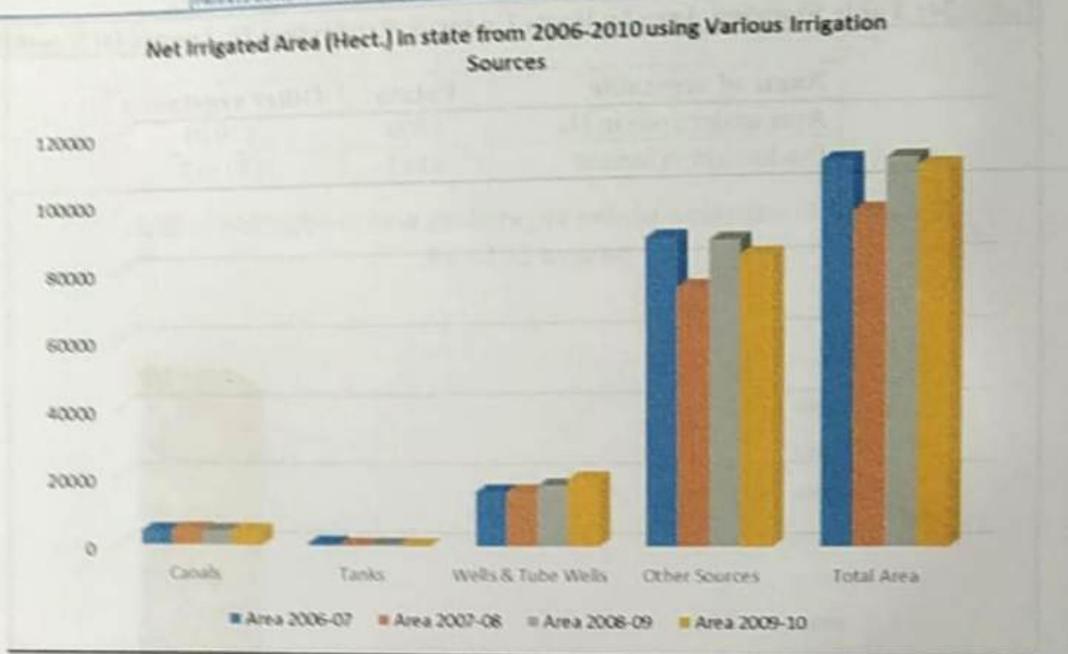
**Figure 29: Graph Showing Area In Ha Under & Production In Tonnes Of Vegetables**

**Table 25: Table Showing Net Irrigated Area of The State During 2006-07 To 2009-10**

Year	Canals	Tanks	Wells & Tube Wells	Other Sources	Total Area in Ha.
2006-07	4107	701	15744	86997	107549
2007-08	4390	236	15752	73172	93550
2008-09	4046	283	17432	86091	107852
2009-10	4104	149	19357	81966	105576



MINING PLAN OF MINOR MINERAL LEASE OF SH. PANKAJ KUMAR, PROP. M/s BHADRAL STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL NERPUR, DISTRICT KANGRA, HIMACHAL PRADESH, FOR EXTRACTION/COLLECTORY OF SAND, STONE AND BARI FROM KHASRA NO. 505, 1834/506, 1831/1692/512, 518, 1831/1684/519 & 1822/520, MEASURING 62-83-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MADGA & MOHAL BHADROYA, MEASURING 62-76-30 HECTARES (PRIVATE LAND TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT KANGRA, HIMACHAL PRADESH



**Figure 30: Graph Showing Net Irrigated Area of The State During 2006-07 To 2009-10**

### 1.5 HORTICULTURE

The topography and agro-climatic conditions of the district are quite suitable for the productions of various fruits. The topography of the district can be grouped into three categories namely High hill areas located at the higher elevation mid hill areas and low lying valley areas. Fruits of various kinds depending upon the terrain climatic condition and soil are grown in the district. The Main horticulture produce of the area can be classified into four categories

- 1 Citrus Fruits
- 2 Sub-tropical Fruits
- 3 Nuts and dry fruits
- 4 Other temperate fruits

The following table shows the area under cultivations of each fruit in district Kangra.

The area under each fruit and percentage area to total district area as well as the percentage of the area under fruit in each category is given in the table below. The table also shows the production of each fruit in district Kangra. Also, the tables below show the area covered under each category and the total production as per survey.



MINING PLAN OF MINOR MINERAL LEASE OF SH. PAWAN KUMAR, PROP. M/S BHANDRAL STONE CRUISHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL NURPUR, DISTRICT KANGRA, HIMACHAL PRADESH FOR EXTRACTION/COLLECTION OF SAND, STONE AND BAJRI FROM KHASRA NO. 505, 1816/506, 1831/1692/512, 518, 1833/1694/519 & 1823/520, MEASURING 02-03-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MOHAL BHADROYA, MEASURING 02-74-30 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT KANGRA, HIMACHAL PRADESH

**Table 26: Showing Area (Each Fruit) And Production in Distt Kangra (2017-18)**

Name of Fruit	Area (In Hectares)	Production (In Tonnes)
Apple	453	502
Plum	416	1113
Peach	217	553
Apricot	37	40
Pear	421	1637
Cherry	0	0
Kiwi	11	0
Pomegranate	69	370
Olive	0	5
Persimmon	4	6
Strawberry	2	0
<b>OTF</b>	<b>1177</b>	<b>3734</b>
Green Almond		0
Almonds	417	146
Walnut	201	113
Piccanut	196	126
Hazelnut	1	0
<b>NUTS &amp; DRY FRUITS</b>	<b>815</b>	<b>384</b>
Orange	5544	12935
Malta	667	1346
K.Lime	2749	2749
Galgal	491	1431
Grapes	14	16
<b>CITRUS</b>	<b>9465</b>	<b>18483</b>
Mango	21245	21028
Lichi	2712	2044
Guava	663	745
Aonala	668	1026
Jackfruit	109	149
Papaya	101	223
Grapes	16	35
Loquat	48	35
Karonda	5	3
Ber	5	6
Sapota	10	3
Fig	2	0
Banana	86	205
Jamun	254	289
Bael	12	16
Deon	33	97
<b>OSTF</b>	<b>25969</b>	<b>25904</b>

MINING PLAN OF MINOR MINERAL LEASE OF SH. PAWAN KUMAR, PROP. M/A BHANDRAL STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL MURPUR, DISTRICT KANGRA, HIMACHAL PRADESH, FOR EXTRACTION/COLLECTION OF SAND, STONE AND RAJRI FROM KHASRA NO. 505, 1874/506, 1831/5492/512, 518, 1831/5494/519 & 1821/528, MEASURING 02-03-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MADGA & MOHAL BHADROYA, MEASURING 02-76-30 HECTARES (PRIVATE LAND TERRACE DEPOSIT) OF TEHSIL JINDORA, DISTRICT KANGRA, HIMACHAL PRADESH

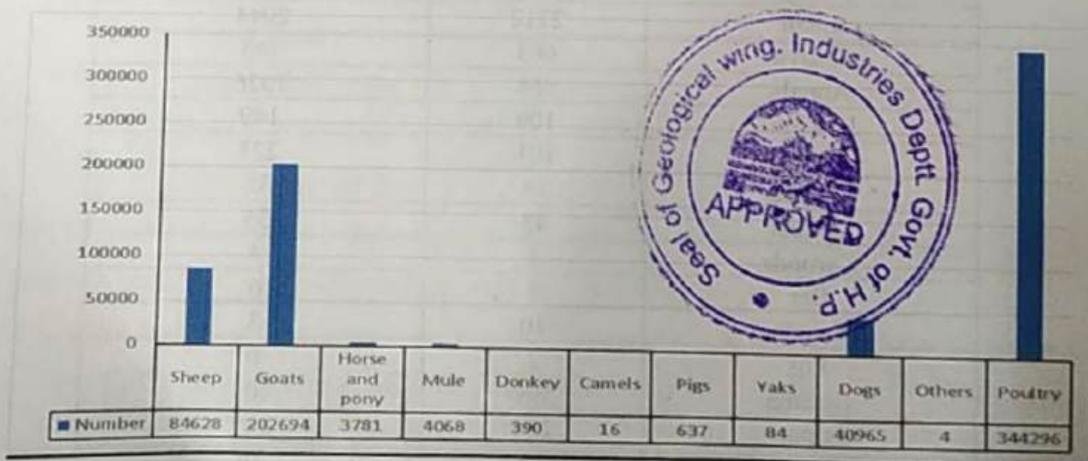
## 1.6 ANIMAL HUSBANDRY

Livestock is the main wealth next to agriculture of the predominant population of the district. The entire terrain in the district is mountainous with high slopes and deep valleys. The development of agriculture, therefore, broadly depends upon the development of animal husbandry. Animal husbandry has several direct and indirect uses for a farmer and so it is an almost integral part of agriculture. To improve the fertility of the soil and to plough the fields, they need animals. Besides this milk and wool is also the need of the people. The people keep the following kind of animals: -

- |   |       |    |                  |
|---|-------|----|------------------|
| 1 | Cow   | 2  | Buffalo          |
| 3 | Sheep | 4  | Horse and Ponies |
| 5 | Mules | 6  | Donkey           |
| 7 | Camel | 8  | Pigs             |
| 9 | Dogs  | 10 | Poultry          |

**Table 27: Showing Animal Husbandry Population Kangra District-2017-18**

Name of animal	Sheep	Goats	Horse and pony	Mule	Donkey	Camels	Pigs	Yaks	Dogs	Others	Poultry
Numbers	84628	202694	3781	4068	390	16	637	84	40965	4	344296



**Figure 31: Graph Showing Animal Husbandry Population Kangra District-2017-18**

MINING PLAN OF MINOR MINERAL LEASE OF SH. PAWAN KUMAR, PROP. M/S BHANDRAL STONE CRUSHER, VILLAGE GAGHWAL, P.O. BHADROYA, TENSIL NURPUR, DISTRICT KANGRA, HIMACHAL PRADESH, FOR EXTRACTION/COLLECTION OF SAND, STONE AND RAJRI FROM KHASRA NO. 505, 1816/506, 1831/1892/512, STR. 1833/1894/519 & 1822/520, MEASURING 02-03-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MALIZA & MOHAL BHADROYA, MEASURING 02-74-30 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TENSIL INHORA, DISTRICT KANGRA, HIMACHAL PRADESH

### 1.7 FISHERIES

Kangra District is blessed with vast and variegated fisheries resources in the vast network of perennial rivers, streams, Khads and fast flowing cold waters, harboring wide variety of tropical species of fish. River system in the District constitutes river Beas and its tributaries namely Gaj Neugal, Manjhi, Benera and many other perennial small Khads. The following prominent varieties of fish family are found in the river and streams of Kangra District.

Mahaseer

Gid

Trout

Mirror carp

The main source of fishery cultivation is in the Pong Dam reservoir. Fishing in these water is regulated by fisheries legislation under the Himachal Pradesh Fisheries Act, 1976. Fisheries development in Pong reservoir has helped in rehabilitation of the families displaced due to inundation. Small fishes are spotted on the Beas river where the water is deep and stagnant.

#### Annual Production of Fisheries and Its Value of Catch In District Kangra

TOTAL PRODUCTION (In Tonnes) 2540.11

TOTAL VALUE OF FISH PRODUCE (Rs. IN LACS) 1330.00

Tor putitora (Mahaseer)

II. Schizothorax plagiostomus (Gulguli)

III. Lebeo dero (Gid)

IV. Labeo Calbasu (Kalbas)

Channa punctatus (Sal)

VI. Mystus senghala (Singhara)

VII. Labeo dicheilus (Kunh)

### 1.8 FLORA

Majority of the Kangra district consist of Chil forest. Under the second category of the forest the Khair is predominant species. The third category consists of broad leaf species but have got lot of bushy growth as well.

The forests in the district have been divided in to three categories:

MINING PLAN OF MINOR MINERAL LEASE OF MR. PARVAT KUMAR, PROP. N/S BHADROVA STONE CRUSHER VILLAGE GADWAL, P.O. BHADROVA, TEHSIL NURPUR, DISTRICT KANGRA, HIMACHAL PRADESH FOR EXTRACTION/COLLECTION OF SAND, STONE AND RAJRI FROM KHAYRA NO. 505, 1818/506, 1831/1892/512, 518, 1833/1894/519 & 1841/520 MEASURING 62-81-84 BHECTARS (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAJDI & MOHAL BHADROVA MEASURING 62-74-30 BHECTARS (PRIVATE LAND) TERRACE DEPOSIT OF TEHSIL MINORA, DISTRICT KANGRA, HIMACHAL PRADESH

1. Lower Siwalik Chil Pine forest
2. Northern dry mixed deciduous scrub forest.
3. Broad leaved forest.

The most prominent varieties of trees found in the area are

Simbal ( Bombex malabaricum)	Mango ( Magniferaindica)
Tun (Cedrela toana )	Several species of acasia and albizia
Salambra (Oдина wodier)	Termnalia
Jamun ( Enginia jambolana)	Larger tour
Bamboo	Shurubs
Vitex	Munj
Ber	Ipomea
Dodenea	

#### Forests:

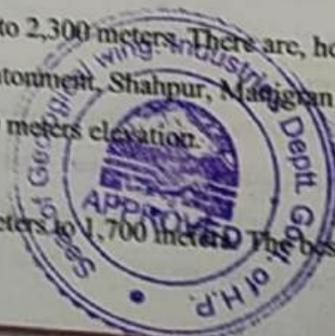
The forests play a vital role in shaping the characteristic conditions of an area. Besides, these also influence the economic and social life of the people considerably. The forests provide valuable timber, medicinal herbs, and raw material for industries and also provide employment and play a vital role in conserving the soil and ensure timely rains. The forests of Kangra district have a great variety of vegetation due to variations in altitude, geological formations and climatic factors. The vegetation varies from dry scrub forests at lower elevation to alpine pasture at higher altitude. In between two extremities occur distinctive vegetation zones of chil, ban-oak, mixed coniferous (kail, spruce, fir) and kharsu, oak forests. Kangra forests have a large number of aromatic and medicinal plants which can be utilized for the pharmaceutical and ayurvedic medicines like dhoop, karu/kour, brahmi, kuth/khuth, bankakni etc. The forests of Kangra can be classified into seven main groups.

#### (i) Ban-Oak Forests:

These forests occur at elevation from 1,600 meters to 2,300 meters. There are, however, a few exceptions like the oak forests of Dhalun near Yol Cantonment, Shahpur, Manigian and Khaniara where these forests have gone down to about 800 meters elevation.

#### (ii) Chil Forests:

The chil forests occur between elevations of 800 meters to 1,700 meters. The best growth is, however, between 1,200 meters to 1,700 meters.



MINING PLAN OF MINOR MINERAL LEASE OF SH. PAWAN KUMAR, PROP. M/S BHANDRAL STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL SURPUR, DISTRICT KANGRA, HIMACHAL PRADESH, FOR EXTRACTION/COLLECTION OF SAND, STONE AND RAJRI FROM KHASRA NO. 505, 1816/506, 1833/1692/512, 518, 1833/1654/519 & 1833/520, MEASURING 92-93-94 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MOHAL BHADROYA, MEASURING 92-76-39 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT KANGRA, HIMACHAL PRADESH

(iii) **Deodar Forests:**

Deodar forests are only found in Dharamkot forests near Mcleodgang town and are exclusively of artificial origin.

(iv) **Kharsu Oak Forests:**

These forests are found between the altitudinal zone of 2,300 meters to 3,800 meters, the upper most limit of tree growth. This oak generally occurs as a pure crop spruce and fir is found scattered individually or in small groups of sites suitable for these species.

(v) **Mixed Coniferous (Kail, Spruce and Fir):**

These forests are only patchy between 2,100 meters to 3,000 meters elevation. Kail forests are practically absent. Towards the upper most extremities Kharsu Oak is found intimately mixed with fir and spruce. The common associates are walnuts, horse chestnut, dun, afar species, alums species etc.

(vi) **Alpine Scrub and Alpine Pastures:**

This type extends in this division above 3,800 meters elevation and is represented by extensive alpine meadows with a few scattered patches of ever green branchy scrub of junipers acurva and rhododendron. The meadows are mostly composed of perennial herbs and grasses.

(vii) **Miscellaneous Scrub Forests:**

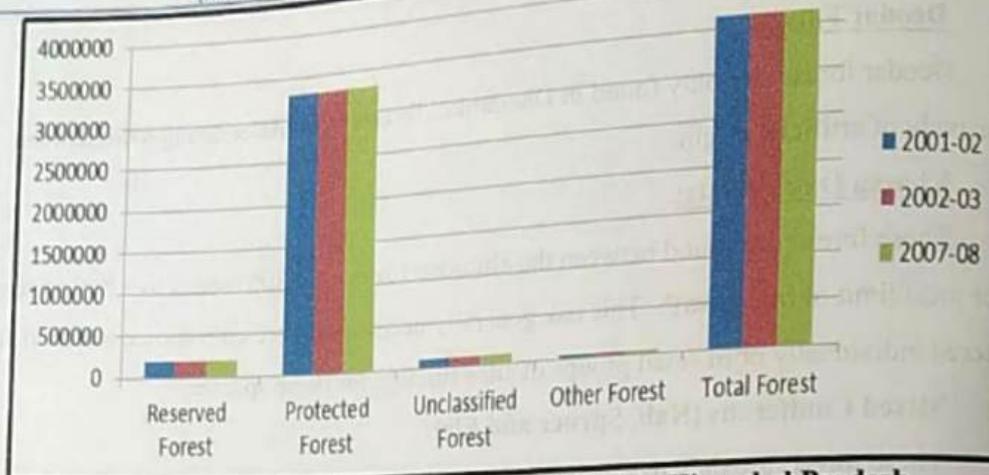
These forests are mainly found between 600 and 1,200-meters elevation and are composed mainly of tree/scrubs of khâir, kachnar, sins, kakrain, thingan, bil, etc. The under-growth consists of garna, mander, basuti, gandla etc. The forests are generally open, degraded due to over grazing and excessive exercise of various rights.

**Table 28: Showing Total forest cover in Himachal Pradesh**

Year	Reserved Forest (In Hect)	Protected Forest	Unclassified Forest	Other Forest	Total Forest (in Hect.)
2001-02	1,89,613	33,04,277	97,657	36,949	36,28,496
2002-03	1,89,613	33,04,277	97,657	36,949	36,28,496
2007-08	1,89,786	33,05,973	97,668	36,949	36,30,676



MINING PLAN OF MINOR MINERAL LEASE OF SRI PAWAN KUMAR, PROP. M/V BHADRAL STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TENSIL NURPUR, DISTRICT KANGRA, HIMACHAL PRADESH, FOR EXTRACTION/COLLECTION OF SAND, STONE AND BAJRI FROM KHASRA NO. 505, 1816/506, 1831/1692/512, 518, 1833/1694/519 & 1821/520, MEASURING 02-02-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MOHAL BHADROYA, MEASURING 02-76-30 HECTARES (PRIVATE LAND TERRACE DEPOSIT) OF TENSIL INDORA, DISTRICT KANGRA, HIMACHAL PRADESH



**Figure 32: Graph Showing Total Forest Cover in Himachal Pradesh**

### FAUNA

The wildlife in an area is directly related to characteristics of the habitat i.e. availability of the food and water, nature and density of flora prevalent in the area along with other factors like slope, Climate, prevalent anthropogenic activities etc. Variation of altitude and slope in the study area has resulted in the proliferation of fauna which adapts with the ruggedness and hard climatic conditions. Due to diverse flora, climate and altitude, the area possesses well unique variety of Himalayan wildlife species. Due to wide variations in the altitude, a large variety of fauna is available in the forest of the district. The thick forest and climate of the district is the best for survival of many animals and birds. The following common animals and birds are found in the Una district:

**Table 29: Mammals in District Kangra**

Zoological Name	English Name	Common Name
Felis bengalensis	Lepard cart	Mirag Bagh
Felis Chane	Jungle Cat	Jangli Billi
Muntucus muntisk	Barking Sear	Kakkar
Vaulpes bengalnsis	Fox	Lomari, Fohiki
Comis aureus	Jackal	Gidlar
Macaca mulatta	Ressus monkey	Lpt Bandar
Preshytes entellus	Langour	Langour

MINING PLAN OF MINOR MINERAL LEASE OF SH. PAWAN KUMAR, PROP. M/s BHADRAL STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL NURPUR, DISTRICT KANGRA, HIMACHAL PRADESH; FOR EXTRACTION/COLLECTION OF SAND, STONE AND BAJRI FROM KHASRA NO. 505, 1816/506, 1831/1692/512, 518, 1833/1694/519 & 1823/320, MEASURING 02-03-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MOHAL BHADROYA, MEASURING 02-76-30 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT KANGRA, HIMACHAL PRADESH

<i>Hystrix indica</i>	Porcupine	Sehal
<i>Lepus nigricoilis</i>	Hare	Khargosh, Sehru, Farru
<i>Axis axis</i>	Spotted Dear	Chital
<i>Cervus unicolor</i>	Samber	Samber
<i>Hylomys fimbriatus</i>	Flying Squirrel	
<i>Panthera pardus</i>	Leopard	Cheeta
<i>Paradoxurus hermaphroditus</i>	Indian civet	Sakralu
<i>Felis chaus</i>	Jungle cat	
<i>Hipposideros armiger</i>	The great Himalyan leafnosed Bat	Chamgadar
<i>Paguma lavarta</i>	Himalyan Palm civet	
BIRDS		
Zoological Name	English Name	Common Name
<i>Milvus migrans</i>	Vulture	Cheel, gidh Eell
<i>Endynamys scolopacca</i>	Koel	Koel
<i>Columba livia</i>	Pigeon	Kabuttar
<i>Coracias bengalenses</i>	Blue jay	Nilkantha
<i>Columba livia</i>	Hawk	Baj
<i>Francolinus francolinus</i>	Black partridge	Kala Tittar
<i>Francolinus pondicerians</i>	Grey partridge	Safed Tittar
<i>Payo crisslatus</i>	Pea cock	Mor
<i>Coturnix coturnix</i>	Common quail	Bater
<i>Alectoris graeca</i>	Chakor	Chakor
<i>Crocorus splendens</i>	Crow	Kanwa
<i>Prattacula karneri</i>	Parrot	Totta
<i>Picopides macei</i>	Fulvous breasted pied woodpecker	Kathfoura
<i>Streptopalia decaocto</i>	Ring dove	Ghugi
<i>Streptopalia chinesis</i>	Spotted dove	
<i>Accipiter badius</i>	Shikra	
<i>Aquila rapax vindhian</i>	Tawny eagle	
<i>Daculabicolor</i>	Green pigeon	

MINING PLAN OF MINOR MINERAL LEASE OF SH. PRAWAN KUMAR, PROP. M/V BHANDAL STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL NURPUR, DISTRICT KANGRA, HIMACHAL PRADESH, FOR EXTRACTION/COLLECTION OF SAND, STONE AND BAJRI FROM KHASKA NO. 505, 1016/506, 1031/1692/512, 510, 1033/1694/519 & 1023/520, MEASURING 02-03-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MOHAL BHADROYA, MEASURING 02-76-30 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDOBA, DISTRICT KANGRA, HIMACHAL PRADESH

Parus rufomuchalis	Titus	Wood pecker
Picus camus	Black napped woodpecker	
Dryocopus javensis	Woodpecker	
Acidotheres tristis	Common Myna	Ghatari
Terpsiphone paradise	Pradise flycatcher	Choti pinja
Passer domesticus	House sparrow	
Arduelis spinoides	Himalyan green finch	Chiria

Around leased out area and surrounding hills following are the common animals and birds

#### ANIMALS

Hare	Wild Bore
Jackal	Barking Deer (kakkar)
Monkey	Samber
Pig	

#### BIRDS

Chakor	Crow
Red Jungli Fowl	Black Partridge ( kala Tittar)
Grey partridge (safed Tittar)	Wood pecker

#### 1.9 Climate of the Area

The region has four distinct seasons. The area experiences severe winter from December to March followed by severe summer season lasting from April to June. The area receives rain fall under the influence of south -west monsoon from July to mid-September followed by post - monsoon season lasting up to November.

The terrain in general has profound influence on the temperatures of a region. The temperature generally rises from the beginning of March till June, which is the hottest month of the year with mean minimum and maximum temperature of 25.6°C to 44°C respectively. With the onset of monsoons by the end of the June temperature begins to fall. The drop in day temperature is much more than the drop in night temperature. The night temperature falls rapidly after the withdrawal of monsoons by mid-September. The month of January is cooler month with the mean maximum and minimum temperature being 24°C and 1.7°C respectively. Under the



MINING PLAN OF MINOR MINERAL LEASE OF SH. PAWAN KUMAR, PROP. M/s BHADRAL STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL NURPUR, DISTRICT KANGRA, HIMACHAL PRADESH, FOR EXTRACTION/COLLECTION OF SAND, STONE AND BAJRI FROM KHASRA NO. 505, 1016/506, 1031/1692/512, 510, 1033/1694/519 & 1023/520, MEASURING 02-03-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAITZA & MOHAL BHADROYA, MEASURING 02-76-30 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT KANGRA, HIMACHAL PRADESH

influences of western disturbance, the temperature falls appreciably during winters and it may go even below 0° C.

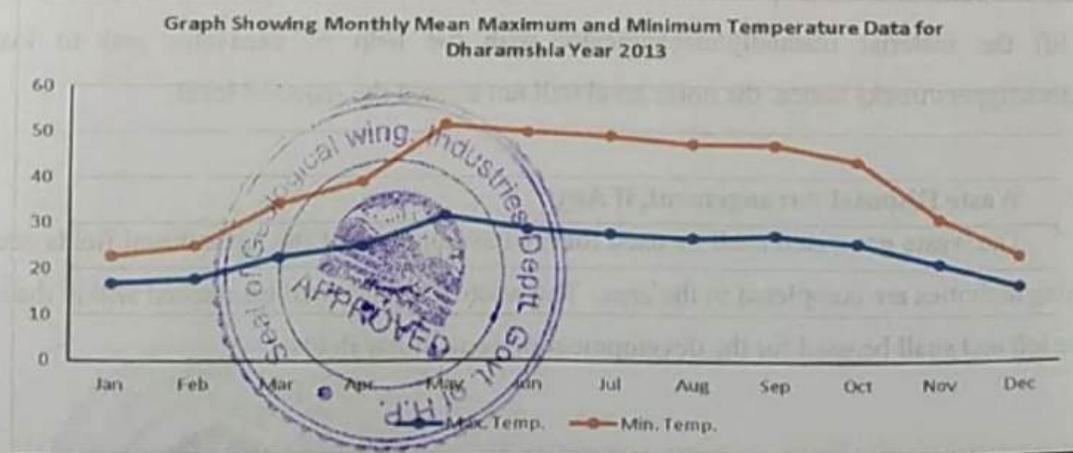
Humidity is generally low throughout the year. During summer season, humidity is lowest 36 %. During monsoon months, it goes as high as 80-90%. The highest levels of humidity are observed in the month of August. The average humidity during synoptic hours is 53% and 62% respectively.

**Table 30: General Climate Pattern of District Kangra**

CLIMATE OF THE LEASED-OUT AREA DISTRICT KANGRA HIMACHAL PRADESH			
CLIMATE	WINTER	SUMMER	RAINY SEASON
PERIOD	OCT.-MID MARCH	MID MARCH -JUNE	JULY-SEPTEMBER
Weather	Cool	Hot	Humid

**Table 31: Showing Monthly Mean Maximum and Minimum Temperature Data for Dharamshla Year 2013**

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max. Temp.	16.8	17.7	22.4	25	31.6	28.8	27.6	26.8	27.4	25.7	21.3	16.5
Min. Temp.	6	7.2	11.7	14.1	20	21.2	21.4	20.6	19.9	18	10	6.8



**Figure 33: Monthly Mean Maximum and Minimum Temperature Data for Dharamshla Year 2013**

MINING PLAN OF MINOR MINERAL LEASE OF SH. PAWAN KUMAR, PROP. M/s BHADRAL STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL NURPUR, DISTRICT KANGRA, HIMACHAL PRADESH, FOR EXTRACTION/COLLECTION OF SAND, STONE AND BAJRI FROM KHASRA NO. 505, 1816/506, 1831/1692/512, 518, 1833/1694/519 & 1822/520, MEASURING 02-02-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MOHAL BHADROYA, MEASURING 02-76-30 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT KANGRA, HIMACHAL PRADESH

## 2. ENVIRONMENT MANAGEMENT PLAN

### 2.1 Impact on Air

The magnitude of mining is not very high and restricted to the limited area as such there is hardly any impact other than dust emission to smaller extent which can be controlled by sprinkling water on the working face so that the dust be suppressed on haul route. Firstly, water will be collected in water tankers from the nearby Chakki khad and sprinkled 2 times in a day in order to suppress dust. Secondly, plantation of broad leaf trees and bushes to filter out dust will be planted in the lease area as well as haul road. Apart from this dust mask will be provided for workers to ensure their safety.

### 2.2 Impact on Water

There is no water source such as well or spring near the lease area. The mining operations are being carried scientifically on the hillocks. Therefore, it has no adverse impact on the flow of the river; neither there is any intake of Kuhl within the lease area or below the lease which could be affected.

### 2.3 Impact on Noise Level

The area is away from the habitation and the noise shall be caused only by plying tractors/tippers/trucks to bring mineral to the stone crusher site, which shall be kept under control by proper lubrication and the working would only be done during day time to keep noise level below the permissible limit prescribed. No blasting operations are involved as the process is only to lift the material manually/mechanically with the help of excavator and to load in tractors/tippers/trucks hence, the noise level will not exceed the required level.

### 2.4 Waste Disposal Arrangement, if Any

The waste generated shall be used for the development of the agricultural fields once the mining activities are completed in the area. The waste material shall be stacked within the buffer zone left and shall be used for the development of agricultural fields.



Mining Plan of Minor Mineral Lease of Sh. Pawan Kumar, Prop. M/s Bhandral Stone Crusher, Village Gagwal, P.O. Bhadroya, Tehsil Nurpur, District Kangra, Himachal Pradesh, for extraction/collection of sand, stone and Bajri from khasra no. 505, 1816/506, 1821/1692/512, 518, 1821/1694/519 & 1821/520, measuring 02-03-04 hectares (Private Land Terrace Deposit) falling in Mauza & Mohal Bhadroya, measuring 02-76-30 hectares (Private Land, Terrace Deposit) of Tehsil Indora, District Kangra, Himachal Pradesh

## 2.5 Socio Economic benefits

The mining shall provide employment to approx. 40 to 45 local people who are unskilled and are in need of additional source of income when they are free from agriculture engagements and shall be helpful in raising additional source of income.

## 2.6 Transport of Mineral

The average proposed annual production from the lease area is 46650 metric tonnes of useful material per annum which includes average crushable material. Taking 300 working days in a year, the average daily production is around 156 metric tonnes of Stone, pebbles and silty sand is available for which around 10 - 11 trucks of approximately 15 metric tonnes capacity are required to transport the material. The existing road is sufficient and is in good condition to bear this additional traffic load and no improvement in the existing road is required.



MINING PLAN OF MINOR MINERAL LEASE OF SH. PAWAN KUMAR, PROP. M/s BHADRAL STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL NURPUR, DISTRICT KANGRA, HIMACHAL PRADESH; FOR EXTRACTION/COLLECTION OF SAND, STONE AND RAJRI FROM KHASRA NO. 505, 1816/506, 1831/1692/512, 518, 1833/1694/519 & 1823/520, MEASURING 02-83-84 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MOHAL BHADROYA, MEASURING 02-76-30 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT KANGRA, HIMACHAL PRADESH

### PART-III

## PROGRESSIVE MINE CLOSURE PLAN/ RECLAMATION PLAN

### 1.1 MINE WASTE DISPOSAL

#### a) Year wise generation of mine waste Production of mine waste during Five Years

**Table 32: Mine Waste Production in metric Tonnes in Five Years**

YEAR	1ST YEAR	2ND YEAR	3RD YEAR	4TH YEAR	5TH YEAR	TOTAL
<b>MINE WASTE (Including Clay and Top Soil)</b>	9945	10710	8234	8581	10304	<b>47773</b>



**Figure 34: Graph Showing Production of Mine waste**

b) The waste material shall be put over the 2.0 meters buffer zone left for initial four years and shall be spread over the benches developed during mining operations and further this area will be developed as agricultural fields.

#### c) Cost of Mine Waste Disposal

The material shall be brought to the dump site mechanically and manually and it shall add a little addition to the mining cost around Rs. 10/- per tonne of waste. The total waste production in 5 years is 47773 tonnes. The total cost of dumping shall be around Rs. 4,77,730 /- in 5 years.



MINING PLAN OF MINOR MINERAL LEASE OF SH. PAWAN KUMAR, PROP. M/A BHADRAL STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL NURPUR, DISTRICT KANGRA, HIMACHAL PRADESH; FOR EXTRACTION/COLLECTION OF SAND, STONE AND BAJRI FROM KHASKA NO. 505, 1816/506, 1831/1692/512, 516, 1833/1694/519 & 1831/520, MEASURING 02-03-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MOHAL BHADROYA, MEASURING 02-76-30 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT KANGRA, HIMACHAL PRADESH

### 1.2 Top Soil Arrangement

Top soil shall be spread over the whole land once mining operations would be completed to develop the mining area into Agricultural fields.

### 1.3 Preventive Retaining Structures.

The preventative retaining structures are required as the mining lease area is a terrace deposit in form of retaining walls. A total number of 2 retaining walls with dimensions  $L \times B \times H = 30m \times 5m \times 3m$  as preventive measure to inhibit landslides and soil erosion are proposed one will be built in each working year.

### 1.4 Plantation and Re-grassing Work

The afforestation programme is the foremost important to improve the environment and ecological balance of the area. Grasses and bushes which have fibrous roots must be grown as these helps in binding of soil and moreover, it provides fodder for the local animals. Furthermore, indigenous trees and plant species will be grown with consultation with the experts, based on the characteristics of soil, topography and climatic conditions. The year wise area proposed for plantation is as under:

**Table 33: Proposed Plantation**

S. No.	Year	Area in Sq. Mts.	No of Plants
1	1 <sup>st</sup> Year	200	Local Grass Seeding and 20 plants
2	2 <sup>nd</sup> year	200	Local Grass Seeding and 20 plants
3	3 <sup>rd</sup> year	200	Local Grass Seeding and 20 plants
4	4 <sup>th</sup> Year	200	Local Grass Seeding and 20 plants
5	5 <sup>th</sup> Year	400	Local Grass Seeding and 40 plants
	<b>Total</b>	<b>1200</b>	<b>Local Grass Seeding 120 Plants</b>

The total cost of plantation and its protection by engaging a part time Gardner shall cost 30,000 per year and in five years, the expenditure shall amount to Rs 1,50,000. The estimated survival rate is about 80% because the area is sandy. However, yearly reviews will be carried out to and the in case of failure in survival for some plants these will be promptly replaced, to ensure an overall survival rate of about 95 percent.

MINING PLAN OF MINOR MINERAL LEASE OF SRI PAWAN KUMAR, PROP. M/s BHADRAL STONE CRUSHER, VILLAGE GAUWAI, P.O. BHADROYA, TEHSIL RUPNOR, DISTRICT KANGRA, HIMACHAL PRADESH, FOR EXTRACTION/COLLECTION OF SAND, STONE AND RAJHI FROM KHASRA NO. 505, 1816/506, 1871/1892/511, 518, 1833/1894/519 & 1822/520, MEASURING 02-02-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MURHAL BHADROYA, MEASURING 03-74-30 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDOORA, DISTRICT KANGRA, HIMACHAL PRADESH

**1. Strategy for protection of point of public utility Etc.: -**

There is no point of public utility or of interest which need to be protected while under taking mining operations.

**2. Man power development: -**

Around 40 to 45 unskilled people shall be employed to carry on the mining and as associated activities and preference shall be given to employ 100% local people.

**3. Use of Mineral: -**

The extracted stone shall be crushed in the stone crusher unit by the name and style of "M/s Bhadrals Stone Crusher" and later on sold for consumption in construction and infrastructure building industry.

**4. Any other relevant information: -**

Lots of construction activities in private and Government sector are going on. Grit is the basic requirement as construction material and there is necessity of such construction activities to flourish. The mining activities and production of Grit would help in meeting the requirement of material locally for the construction activities.



STATE OF MICHIGAN, DEPARTMENT OF LAND AND WATER, DIVISION OF LAND AND WATER, 1500 SPRINGFIELD AVENUE, LANSING, MICHIGAN 48206  
 (PROPERTY TAX, TERRACE DEPOT) OF TRAVIS, INDIAN DISTRICT, ANGLICAN, HINCHINBACH, MICHIGAN



Co-ordinates: 32°15'29.77"N, 75°41'7.90"E



Co-ordinates: 32°15'26.78"N, 75°41'3.54"E

MINING PLAN OF MINOR MINERAL LEASE OF SH. PAWAN KUMAR, PROP. M/S BHADRAL STONE CRUSHER, VILLAGE GAGWAL, P.O. BHADROYA, TEHSIL NURPUR, DISTRICT RANGRA, HIMACHAL PRADESH, FOR EXTRACTION/COLLECTION OF SAND, STONE AND BAJRI FROM KHASRA NO. 505, 1816/506, 1831/1692/512, 518, 1832/1694/519 & 1833/520, MEASURING 02-03-04 HECTARES (PRIVATE LAND TERRACE DEPOSIT) FALLING IN MAUZA & MOHAL BHADROYA, MEASURING 02-76-30 HECTARES (PRIVATE LAND, TERRACE DEPOSIT) OF TEHSIL INDORA, DISTRICT RANGRA, HIMACHAL PRADESH



Co-ordinates: 32°15'25.15"N, 75°41'9.77"E

*PART-IV*  
*CERTIFICATE*  
*&*  
*DECLARATION*



# CERTIFICATE

Certified that the provisions of the Himachal Pradesh Minor Minerals (Concession) and Minerals (Prevention of Illegal Mining, Transportation and Storage) Rules, 2015 Matliferous Mines Regulation 1961 and other guidelines issued from time to time, in this regard have been complied for the preparation of Mining Plan for for extraction of Sand, Stone and Bajri over an area situated in Khasra No. 505, 1816/506, 1831/1692/512, 518, 1833/1694/519 & 1823/520, measuring 02-03-04 Hectares (Private Land, Terrace Deposit), falling in Mauza & Mohal Bhadroya, in Tehsil Indora, District Kangra, Himachal Pradesh, of Sh. Pawan Kumar, Prop. M/s Bhandral Stone Crusher, Village Gagwal, P.O. Bhadroya, Tehsil Nurpur, District Kangra, Himachal Pradesh.

While preparing the mining plan including progressive mine closer plan all statutory rules, regulation, orders made by competent authorities of the State or Central Government or orders passed by Courts have been taken into consideration.

The information provided and the data furnished in this Mining Plan is correct to the best of my knowledge.

Date

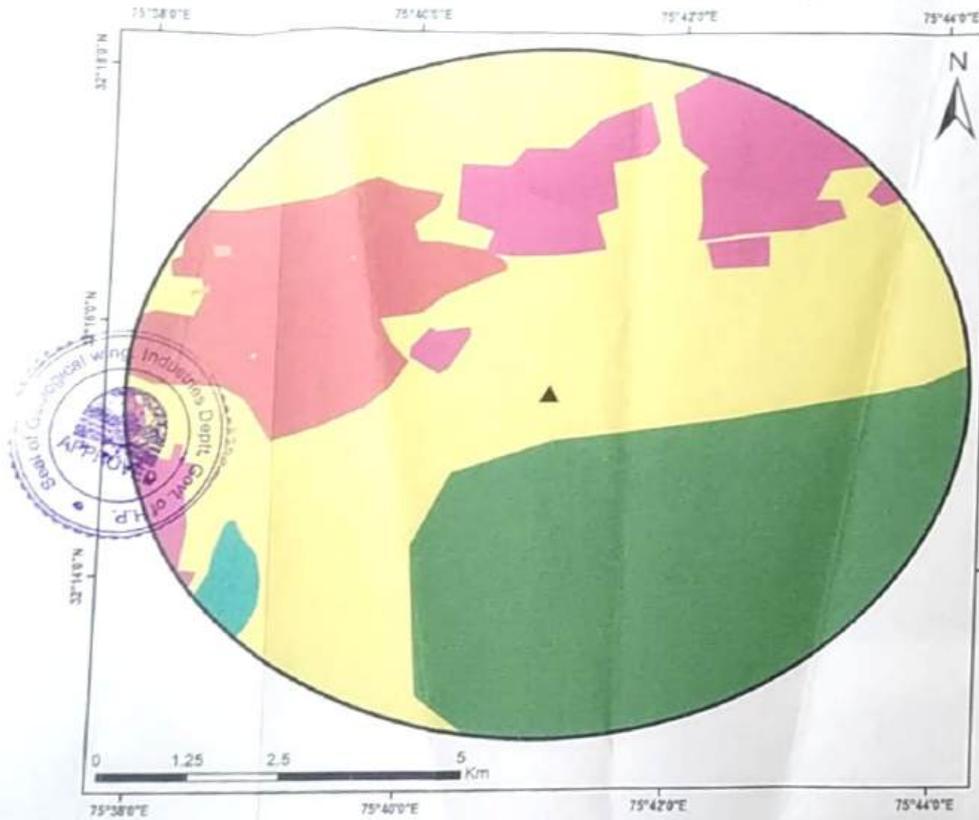
Place



*Subhash Chand Kaura*  
 Subhash Chand Kaura, (Ex. DDG, GSI)  
 FLAT No.604, Victoria Tower,  
 Chandigarh Enclave, Zirakapur (Punjab)  
 R.Q.P. No. H.P./RQP/17/1/2011

Land Use Land Cover Map for Extraction of Sand, Stone and Bajri over an area situated in Khasra No. 505, 1816/506, 1831/1692/512, 516, 1833/1694/519 & 1823/520, Measuring 02-03-04 Hectares (Private Land, Terrace Deposit), Falling in Mauza & Mohal Bhadroya, in Tehsil Indora, District Kangra, Himachal Pradesh

PLATE NO. - 11



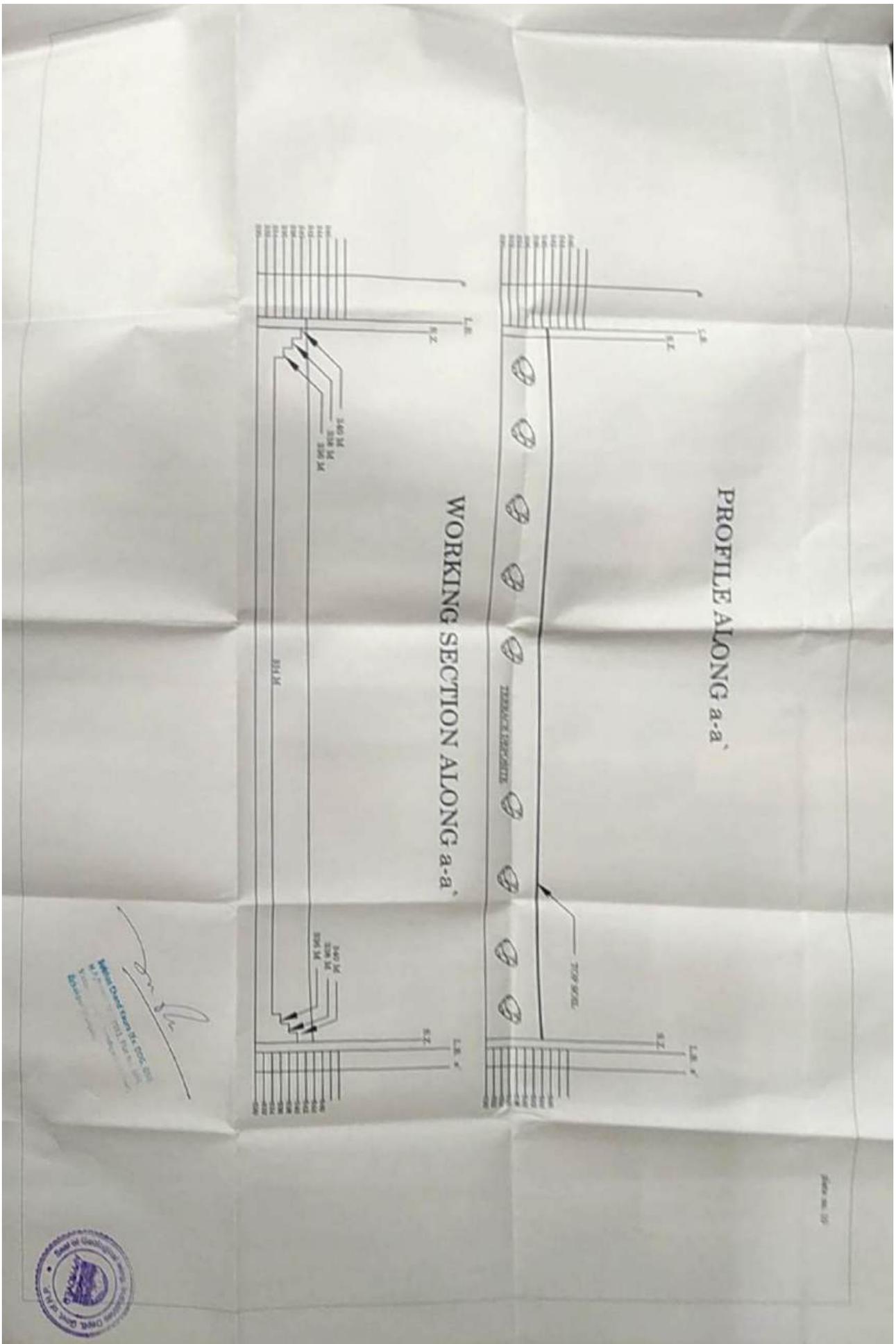
**Legend**

- ▲ Project Site
- Buffer 5Km
- Residential
- Forest
- Industrial
- Military
- Agriculture
- Park
- Quarry

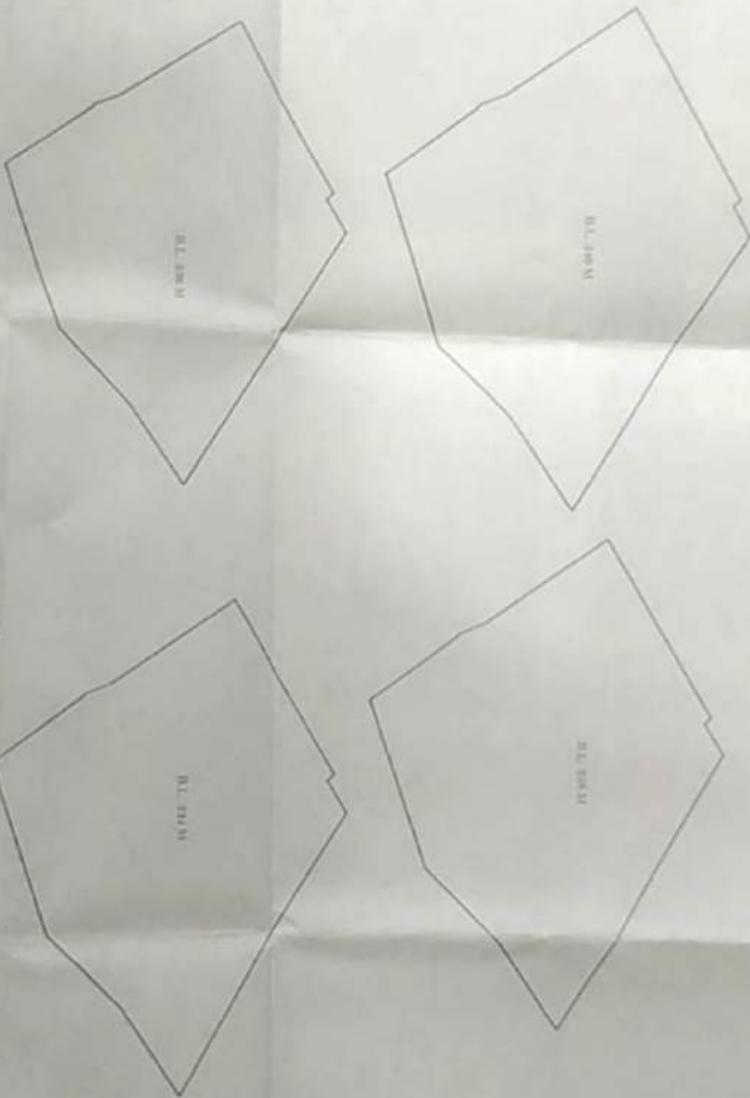
*[Signature]*  
Subhas Chand Kaura (Ex. DDC, GSI)  
H.P./GQP/17/1/2011, Plot No. 601  
Gonia Tower Chandigarh Enclave  
Chandigarh (Punjab)







SLICE PLAN FROM BENCH LEVEL 340 M TO 334

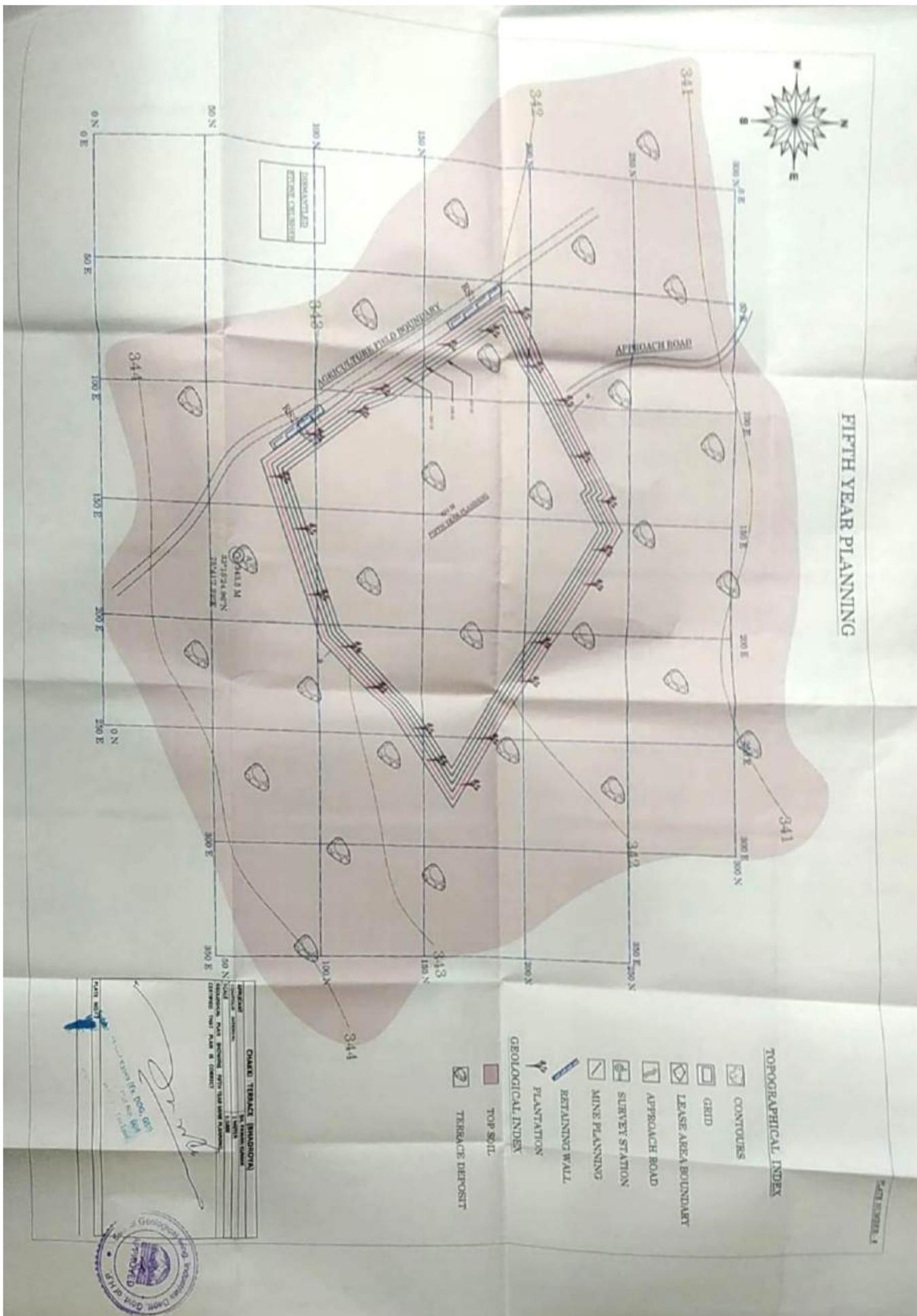


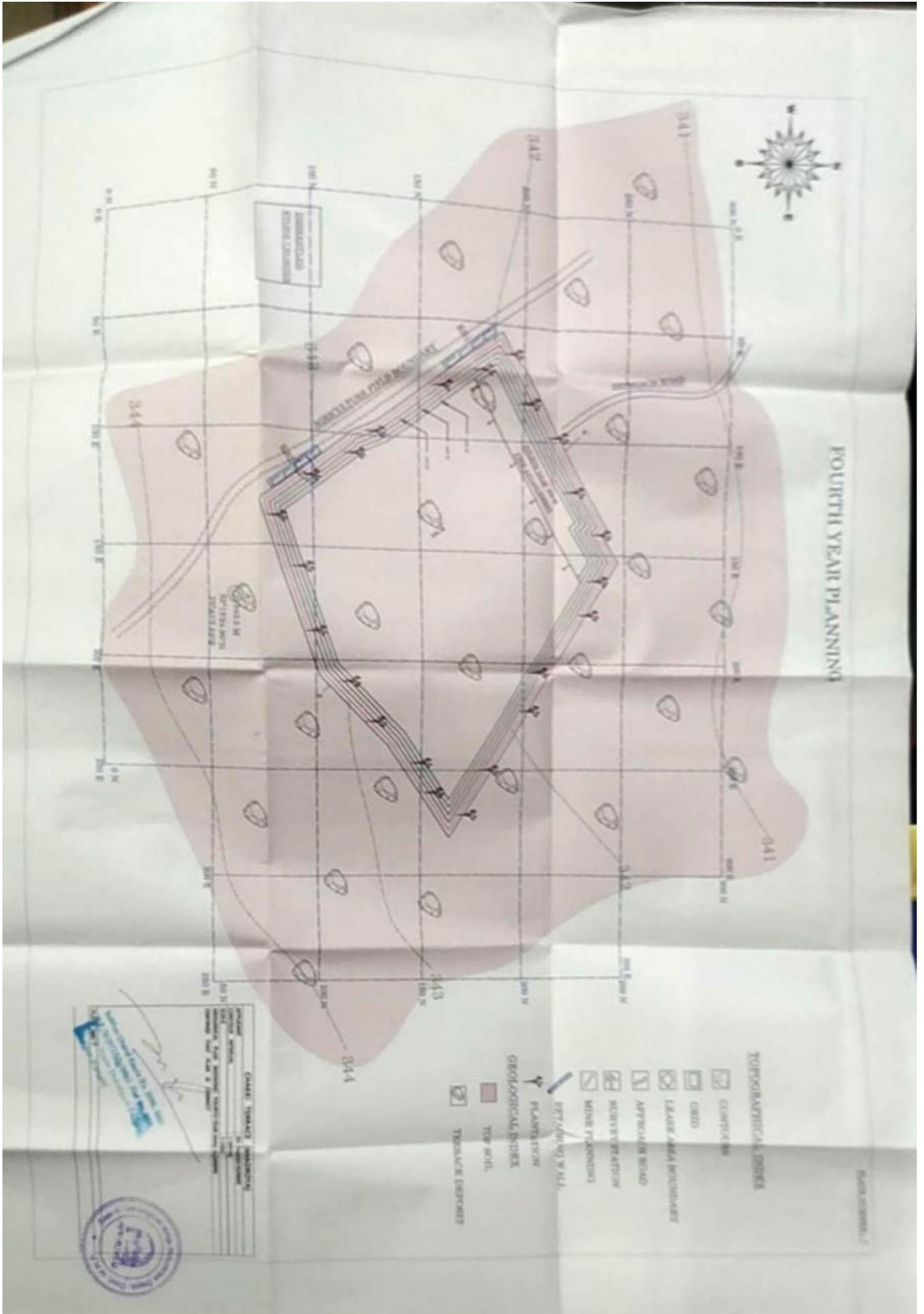
*[Handwritten Signature]*  
 Subhat Chand Kauria (Ex. DDC, GSI)  
 N. 2, Phase - II, (2011) Flat No. 101  
 Vasant Vihar, New Delhi - 110047  
 Zirakpur (Phage)

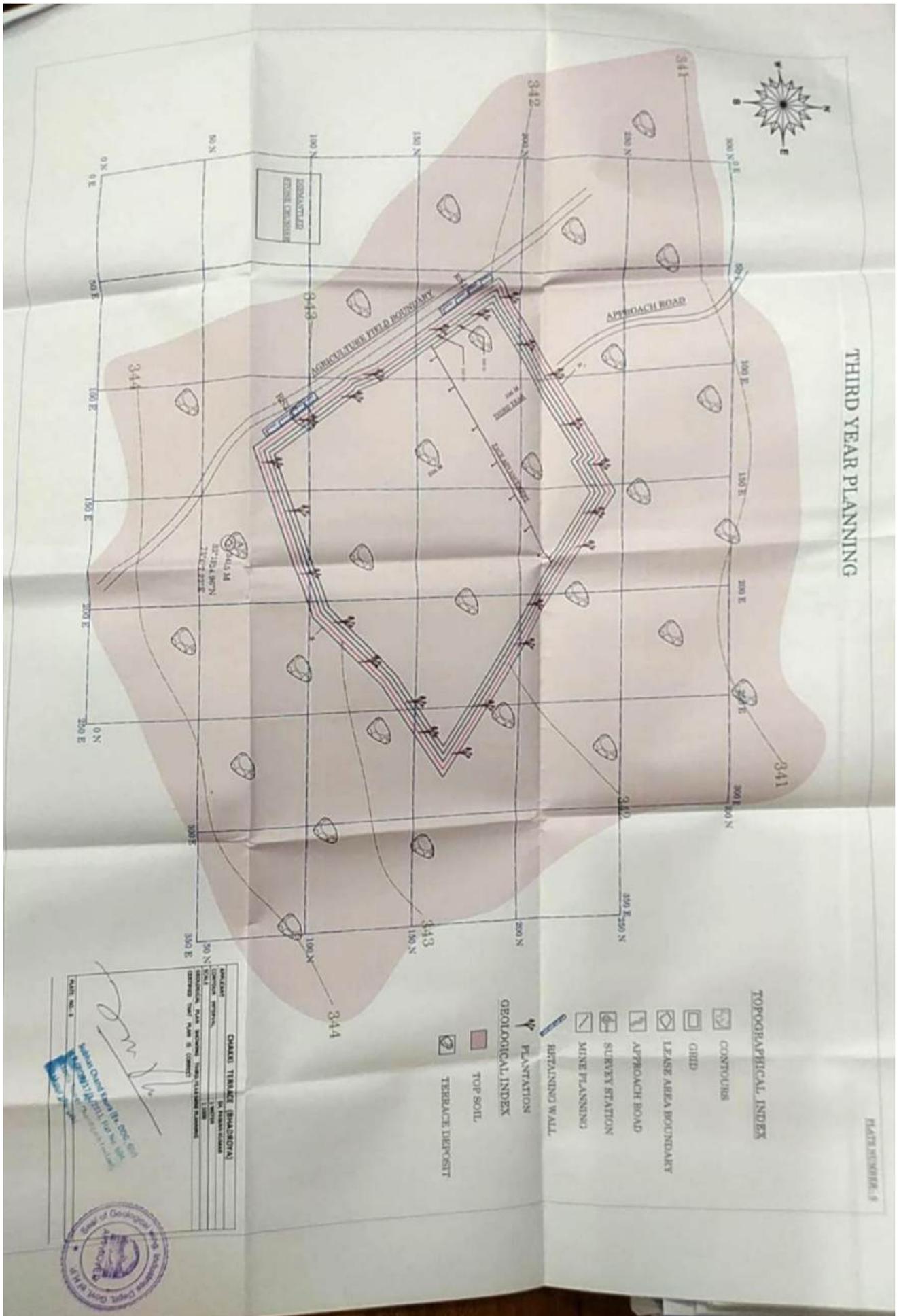
SCALE = 1:2000



PLATE NO. 0







THIRD YEAR PLANNING

TOPOGRAPHICAL INDEX

- CONTOURS
- GRID
- LEASE AREA BOUNDARY
- APPROACH ROAD
- SURVEY STATION
- MINE PLANNING
- RETAINING WALL
- PLANTATION
- GEOLOGICAL INDEX
- TOP SOIL
- TERRACE DEPOSIT

DATE: 10/11/2011

SCALE: 1:1000

PROJECT: CHAKRI TERRACE (SHARADOTA)

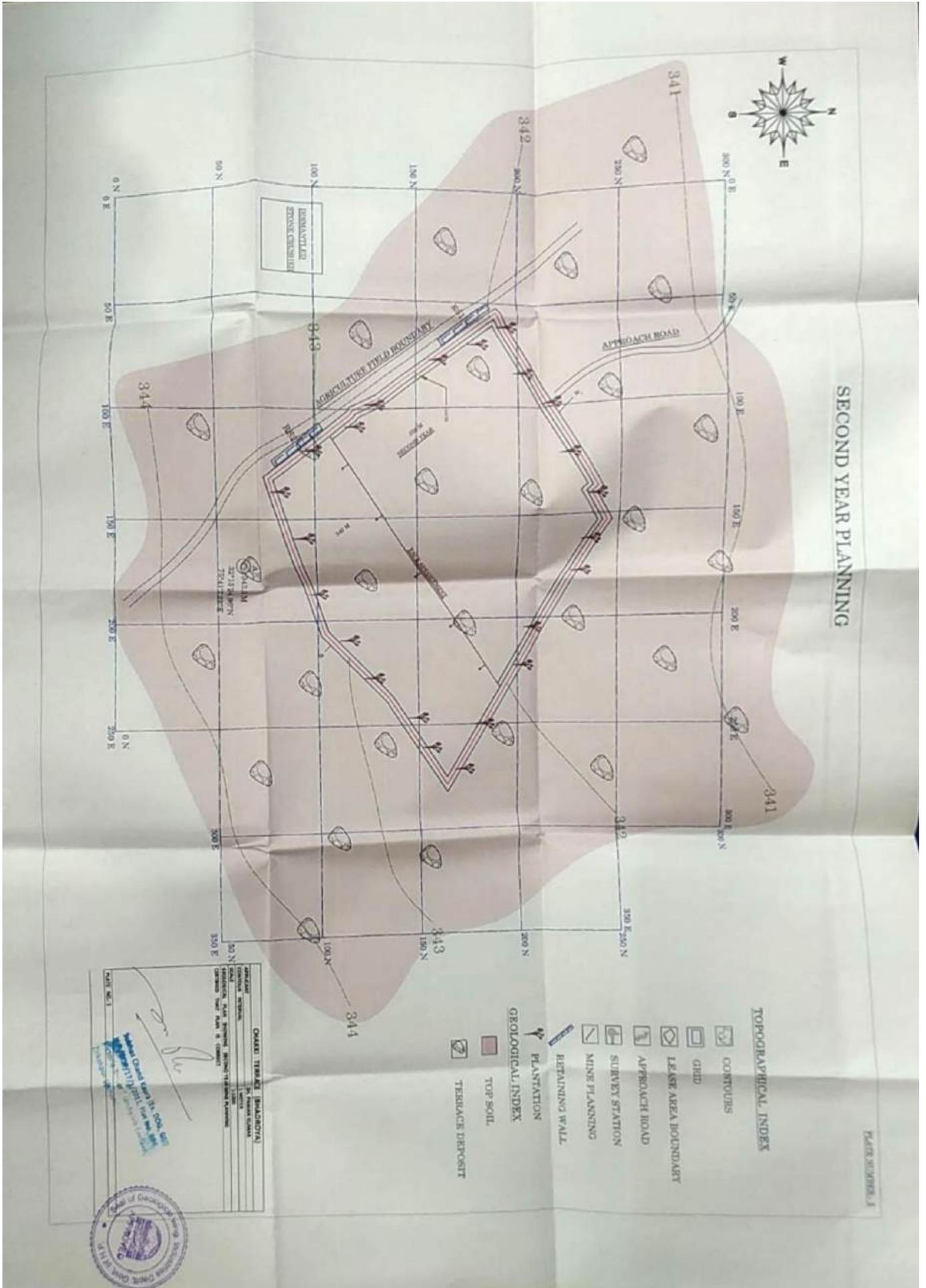
DESIGNER: [Signature]

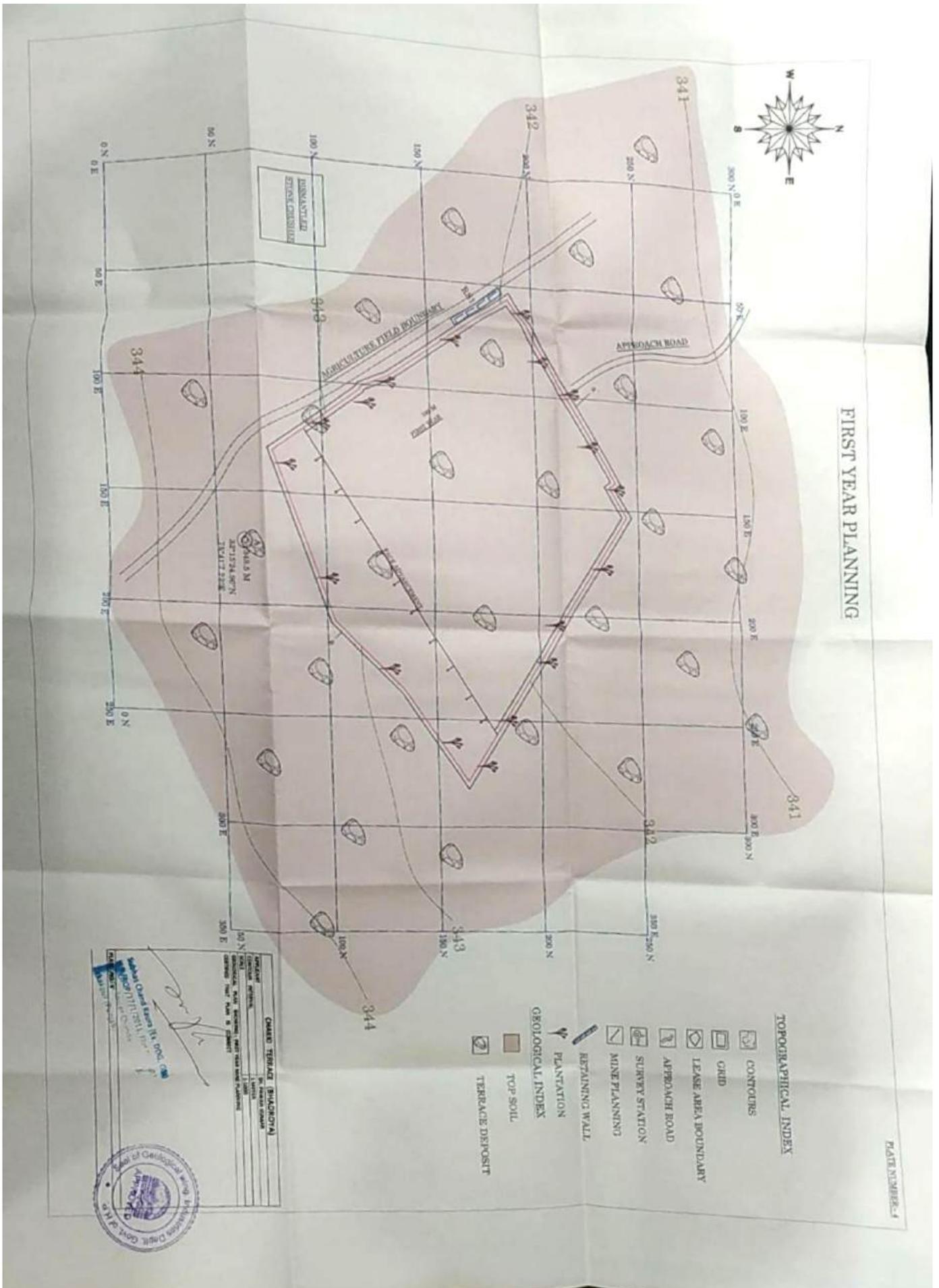
APPROVED: [Signature]

DATE: 10/11/2011



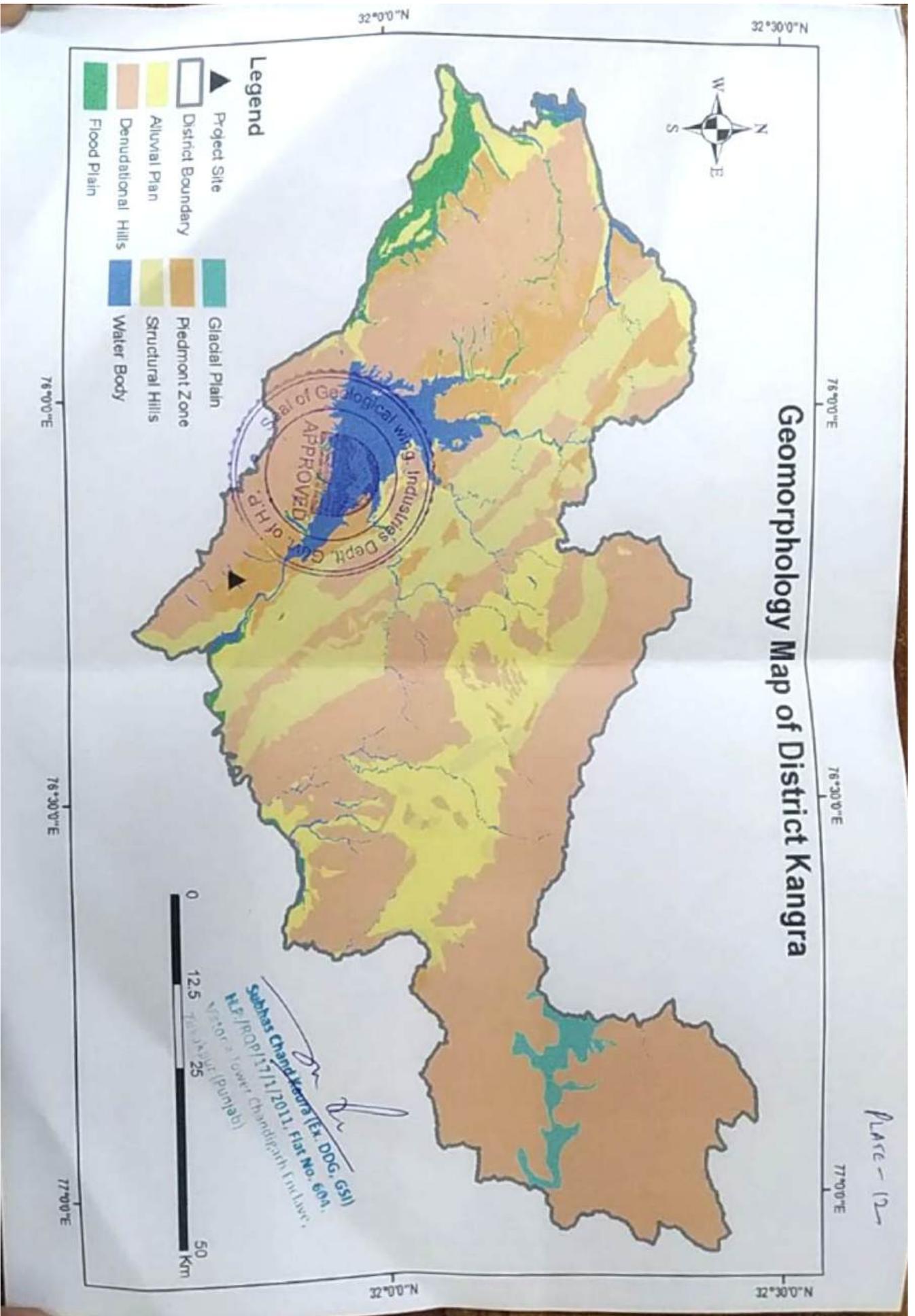
PLATE NUMBER: 8











## Annexure R-15/3



**Government of India**  
**Ministry of Environment, Forest and Climate Change**  
**(Issued by the State Environment Impact Assessment Authority(SEIAA), Himachal Pradesh)**

To,

The LESSEE  
 SHRI PAWAN KUMAR  
 MAUZA BHADROYA, TEHSIL INDORA, DIST KANGRA, HIMACHAL  
 PRADESH -176401

**Subject:** Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the SEIAA vide proposal number SIA/HP/MIN/225739/2021 dated 01 Sep 2021. The particulars of the environmental clearance granted to the project are as below.

1. EC Identification No.	EC21B001HP184979
2. File No.	HPSEIAA/2021/869
3. Project Type	New
4. Category	B2
5. Project/Activity including Schedule No.	1(a) Mining of minerals
6. Name of Project	Sand Stone & Bajri Minig Project
7. Name of Company/Organization	SHRI PAWAN KUMAR
8. Location of Project	Himachal Pradesh
9. TOR Date	N/A

The project details along with terms and conditions are appended herewith from page no 2 onwards.

Date: 18/11/2021

(e-signed)  
 Sudesh Kumar Mokhta  
 Member Secretary  
 SEIAA - (Himachal Pradesh)

*Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH. Please quote identification number in all future correspondence.*

*This is a computer generated cover page.*

This has a reference to your proposal No. SIA/HP/MIN/225739/2021 submitted online for grant of Environment Clearance. The proposal has been appraised as per prescribed procedure in the light of provisions under the Environment Impact Assessment Notification, dated 14<sup>th</sup> September 2006 on the basis of documents viz; Form-I, Pre-feasibility Report, EIA/EMP etc. by the State Expert Appraisal Committee constituted by the competent authority in its 82<sup>nd</sup> Meeting held on 11<sup>th</sup>-12<sup>th</sup> October, 2021 with following features:

- a. **Online SEIAA Proposal No.** : SIA/HP/MIN/225739/2021 File No. HP SEIAA/2021-869
- b. **Name & Address** : Sh. Pawan Kumar, Prop: M/s Bhandral Stone Crusher, Village-Gagwal, P.O. Bhadroya, Tehsil-Nurpur, District-Kangra, H.P.
- c. **Project Location with Khasra Number** : Khasra Number 505, 1816/506, 1831/1692/512, 518, 1833/1694/519 & 1823/520 falling in Mauza & Mohal Bhadroya, Tehsil Indora, District- Kangra, H.P.
- d. **Jamabandi** : Jamabandi for the year 2012-2013
- e. **Land Status** : Private land.
- f. **Project Capacity** : 63,000 TPA.
- g. **Mining Area** : 02-03-34 Ha, Private land, terrace deposit.
- h. **Leases within 500 mtrs.** : No mining lease exists within 500 meters.
- i. **Letter of Intent** : Letter of Intent issued on dated 17.12.2020  
(Valid for one year i.e. up to 16.12.2021)
- j. **Working Plan** : Strictly as per Working-cum-Environment Management Plan approved by Geological Wing of Industries Department, Himachal Pradesh.
- k. **EMP Costs** : Capital Cost: Rs. 2.80 Lakhs; Recurring Cost: Rs. 6.74 Lakhs for five years.
- l. **CER Costs** : Capital Cost: Rs.1.80 Lakhs; Recurring Cost: Rs. 0.30 Lakhs/PA
- m. **Institutional Mechanisms for Env. Protection** : The following will be responsible for maintenance of APCDs and Solid Waste Management sites:  
i) Construction phase: Developer/ Project Proponent.  
ii) Operational Phase: Developer/ Project Proponent.
- n. **Validity period of EC** : 5 Years or upto the date of valid mining plan whichever is earlier.

The SEIAA examined the proposal in its 55<sup>th</sup> meeting held on 8<sup>th</sup> Nov., 2021 and considered the recommendations made by SEAC in its 82<sup>nd</sup> Meeting held on 11<sup>th</sup> - 12<sup>th</sup> October, 2021. After considering the recommendations of the State Level Expert Appraisal Committee, the State level Environmental Impact Assessment Authority accords Environmental Clearance to the project as per provisions of the EIA Notification No. S.O. 1533 dated 14<sup>th</sup> September, 2006 of Ministry of Environment & Forests, GoI subject to strict compliance of terms and conditions as mentioned below. The Authority reserves the right to revise, revoke or impose additional condition at any stage.

#### A. Statutory Compliance

- 1 This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable.
- 2 The Project proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated 2<sup>nd</sup> August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors. before commencing the mining operations.
- 3 The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgment of Hon'ble Supreme Court dated 2<sup>nd</sup> August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors.
- 4 This Environmental Clearance shall become operational only after receiving formal NBWL Clearance from MoEF&CC subsequent to the recommendations of the Standing Committee of National Board for Wildlife, if applicable to the Project.
- 5 This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC) under the provision of Forest Conservation Act, 1980, if applicable to the Project.
- 6 Project Proponent (PP) shall obtain Consent to Operate after grant of EC and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish / Consent to Operate from the concerned State Pollution Control Board/Committee.
- 7 The PP shall adhere to the provision of the Mines Act, 1952, Mines and Mineral (Development & Regulation), Act, 2015 and rules & regulations made there under. PP shall adhere to various circulars issued by Directorate General Mines Safety (DGMS) and Indian Bureau of Mines from time to time.

- 8 The Project Proponent shall obtain consents from all the concerned land owners, before start of mining operations, as per the provisions of MMDR Act, 1957 and rules made there under in respect of lands which are not owned by it.
- 9 The Project Proponent shall follow the mitigation measures provided in MoEFCC's Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled —Impact of mining activities on Habitations-Issues related to the mining Projects where in Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area]].
- 10 The Project Proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and from CGWA for withdrawal of ground water for the project.
- 11 A copy of EC letter will be marked to concerned Panchayat / local NGO etc. If any, from whom suggestion / representation has been received while processing the proposal.
- 12 State Pollution Control Board/Committee shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.
- 13 The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board/Committee and web site of the Ministry of Environment, Forest and Climate Change ([www.parivesh.nic.in](http://www.parivesh.nic.in)). A copy of the advertisement may be forwarded to the concerned MoEFCC Regional Office for compliance and record.
- 14 The Project Proponent shall inform the SEIAA for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred than mining operation shall only be carried out after transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.

**B. Air Quality Monitoring And Preservation**

1. The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. PM10, PM2.5, NO<sub>2</sub>, CO<sub>2</sub> and SO<sub>2</sub> etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/I, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.
2. Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM10 and PM2.5 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipment's/ machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEFCC/ Central Pollution Control Board.

**C. Water quality monitoring and preservation**

- 1 In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEFCC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.
- 2 Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be incorporated to ascertain the impact of mining over ground water table. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board & SEIAA
- 3 Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations

during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.

- 4 The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby/ adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall carryout regular monitoring w.r.t. pH and included the same in monitoring plan. The parameters to be monitored shall include their water quality vis-à-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEFCC. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a year viz. pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data may be sent regularly to Regional Office, MOEFCC, SEIAA, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.
- 5 Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J-20012/1/2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.
- 6 Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office MoEFCC & SEIAA annually.
- 7 Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.
- 8 The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC, SEIAA and State Pollution Control Board/Committee.

**D. Noise and vibration monitoring and prevention**

1. The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.
2. The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day /night hours.
3. The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The workers engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.

**E. Mining plan**

1. The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate

depth of mining etc.) shall not be carried out without prior approval of the SEIAA, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form of Short Term Permit (STP), Query license or any other name.

2. The Project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/Department of Mining & Geology/Department of Industries as required under the Provision of the MMDR Act, 1957 and Rules/ Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change & SEIAA for record and verification.
3. The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-à-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self-sustaining. The compliance status shall be submitted half-yearly to the concerned Regional Office, MoEFCC & SEIAA.

**F. Land reclamation**

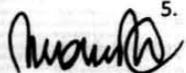
1. The Overburden (O.B.) generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by D.G.M.S w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of top soil/OB dumps. The topsoil shall be used for land reclamation and plantation.
2. The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.
3. The reclamation of waste dump sites shall be done in scientific manner as per the Approved Mining Plan cum Progressive Mine Closure Plan.
4. The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compactors thereby ensuring proper filling/ leveling of dump mass. In critical areas, use of geo textiles/ geo-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump.
5. The Project Proponent shall carry out slope stability study in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional office of MoEF&CC & SEIAA.
6. Catch drains, settling tanks and siltation ponds of appropriate size shall be constructed around the mine working, mineral yards and Top Soil/OB/Waste dumps to prevent run off of water and flow of sediments directly into the water bodies (Nallah/ River/ Pond etc.). The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. The drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.
7. Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/ silt material. The sedimentation pits/ sumps shall be constructed at the corners of the garland drains.
8. The top soil, if any, shall temporarily be stored at earmarked site(s) within the mine lease only and should not be kept unutilized for long. The physical parameters of the top soil dumps like height, width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines framed by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of dumps. The topsoil shall be used for land reclamation and plantation purpose.
9. The mining lease holders shall, after ceasing mining operations, undertake regressing 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.

**G. Transportation**

1. No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a bypass road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers.
2. The Main haulage road within the mine lease should be provided with a permanent water sprinkling arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.

#### H. Green Belt

1. The Project Proponent shall develop greenbelt in 7.5 m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the SEIAA irrespective of the stipulation made in approved mine plan.
2. The Project Proponent shall carryout plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/ Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per Hectare. Adequate budgetary provision shall be made for protection and care of trees.
3. The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/ protected against felling and plantation of such trees should be promoted.
4. The Project Proponent shall undertake all precautionary measures for conservation and protection of endangered flora and fauna and Schedule-I species during mining operation. A Wildlife Conservation Plan shall be prepared for the same clearly delineating action to be taken for conservation of flora and fauna. The Plan shall be approved by Chief Wild Life Warden of the State Govt.
5. And implemented in consultation with the State Forest and Wildlife Department. A copy of Wildlife Conservation Plan and its implementation status (annual) shall be submitted to the Regional Office of the Ministry & SEIAA



#### I. Public hearing and human health issues

1. The Project Proponent shall appoint an Occupational Health Specialist for Regular as well as Periodical medical examination of the workers engaged in the mining activities, as per the DGMS guidelines. The records shall be maintained properly. PP shall also carryout Occupational health check-ups in respect of workers which are having ailments like BP, diabetes, habitual smoking, etc. The check-ups shall be undertaken once in six months and necessary remedial/ preventive measures be taken. A status report on the same may be sent to MoEFCC Regional Office, SEIAA and DGMS on half-yearly basis.
2. The Project Proponent must demonstrate commitment to work towards 'Zero Harm' from their mining activities and carry out Health Risk Assessment (HRA) for identification workplace hazards and assess their potential risks to health and determine appropriate control measures to protect the health and wellbeing of workers and nearby community. The proponent shall maintain accurate and systematic records of the HRA.

The HRA for neighbourhood has to focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, Diarrhoea in children under five, respiratory infections due to bio mass cooking. The proponent shall also create awareness and educate the nearby community and workers for Sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. The Proponent shall carryout base line HRA for all the category of workers and thereafter every five years.

3. The Proponent shall carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigations relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric; for Lead Exposure Blood Lead, For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a Certified Neurologist, and Manganese (Mn) Estimation in Blood; For Inorganic Chromium- Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABH. Records of Health Surveillance must be kept for 30 years, including the results of and the records of Physical examination and tests. The record of exposure due to materials like Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminium, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would be obligatory for the State Mines Departments to make arrangements for the safe and secure storage of the records including X-Ray. Only conventional X-Ray will be accepted for record purposes and not the digital one). X-Ray must meet ILO criteria (17 × 14 inches and of good quality).
4. The Proponent shall maintained a record of performance indicators for workers which includes (a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 -24.9, (b) the Final Chest X-Ray compared with the base line X-Ray should not show any capacities ,(c) At the end of their leaving job there should be no Diminution in their Lung Functions Forced Expiratory Volume in one second (FEV1), Forced Vital Capacity (FVC), and the ratio unless they are smokers which has to be adjusted, and the effect of age, (d) their hearing should not be affected. As a proof an Audiogram (first and last need to be presented), (e) they should not have developed any Persistent Back Pain, Neck Pain, and the movement of their Hip, Knee and other joints should have normal range of movement, (f) they should not have suffered loss of any body part. The record of the same should be submitted to the Regional Office, MoEFCC & SEIAA annually along with details of the relief and compensation paid to workers having above indications.
5. The Project Proponent shall ensure that 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.
6. Project Proponent shall make provision for the housing for workers/labours or shall construct labour camps within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.
7. The activities proposed in Action plan prepared for addressing the issues raised during the Public Hearing shall be completed as per the budgetary provisions mentioned in the Action Plan and within the stipulated time frame. The Status Report on implementation of Action Plan shall be submitted to the concerned Regional Office of the Ministry, SEIAA along with District Administration.

**J. Corporate Environment Responsibility (CER)**

1. The activities and budget earmarked for Corporate Environmental Responsibility (CER) as per Ministry's O.M No 22-65/2017-IA. II (M) dated 01.05.2018 or as proposed by EAC should be kept in a separate bank account. The activities proposed for CER shall be implemented in a time bound manner and annual report of implementation of the same along with documentary proof viz. photographs, purchase documents, latitude & longitude of infrastructure developed & road constructed needs to be submitted to Regional Office MoEF&CC & SEIAA annually along with audited statement.
2. Project Proponent shall keep the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purposes. The Year wise expenditure of such funds should be reported to the MoEFCC and its concerned Regional Office & SEIAA.

**K. Miscellaneous**

1. The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEFCC & SEIAA

2. The Project Authorities should inform to the Regional Office & SEIAA regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
3. The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MOEFCC & its concerned Regional Office, SEIAA, Central Pollution Control Board and State Pollution Control Board.
4. A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEFCC & SEIAA.
5. The concerned Regional Office of the MoEFCC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEFCC officer(s) & competent Authority by furnishing the requisite data / information / monitoring reports.

**L. Additional Conditions**

1. The project proponent shall submit affidavit to provide three plastic waste shredders, three plastic waste compactor & three baling machines to the concerned ULBs/ PRIs through Department of Environment, Science & Technology, GoHP.
2. The project proponent shall submit budgetary provision w.r.t. EMP & CER.
3. The project proponent shall submit compliance of the CER conditions within 1 month from the issuance of EC letter, failing which EC will be withdrawn.
- 4.

  
 (Sudesh Kumar Mokhta, IAS)  
 Member Secretary  
 State Level Environment Impact Assessment Authority  
 Himachal Pradesh

Endst. No. As Above.

Dated:

2021.

Copy to following for further necessary action:

1. The Secretary (Environment), Ministry of Environment, Forests & Climate Change (MoEF&CC), Gol, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi - 110003
2. The Chairman, Central Pollution Control Board, Him Parivesh Bhawan, CBD-cum-office Complex, East Arjun Nagar, New Delhi-110032.
3. The Chairman, Himachal Pradesh State Pollution Control Board, Shimla-171009.
4. The Director (Environment, Science & Technology) to the GoHP, Shimla-171001.
5. The Adviser (IA), MoEF&CC, Gol, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi - 110003.
6. The APCCF (C), Ministry of Env., Forest and Climate Change, Regional Office (NCZ), 25, Subhash Road, Dehradun - 248001
7. The Monitoring Cell, MoEF&CC, Gol, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi - 110003
8. Record File.

  
 (Sudesh Kumar Mokhta, IAS)  
 Member Secretary  
 State Level Environment Impact Assessment Authority  
 Himachal Pradesh

Signature Not Verified

Digitally signed by Sudesh Kumar Mokhta  
 Member Secretary  
 Date: 11/18/2021 11:22:12 AM

Annexure R-15/4

Seal of the Copying Department  
Deputy Commissioner Officer  
Vanora District

निशानदेही फैसला

केस न0 169/NT/2019

दिनांक 16-09-2019

तारिख दायर 16-09-2019

तारिख फैसला 21-09-2019

श्री मान जी,

प्रार्थना पत्र निशानदेही केस न0 169/NT/2019 दिनांक 16-09-2019 शीर्षक मुकदमा पवन कुमार वनाम तरवीज सिंह आदि निवासी भदडोआ उप तहसील गंगथ जिला कांगडा हि0 प्र0 ।

प्रार्थना पत्र निशानदेही क्षेत्रीय कानूनगो सौहडा को भेजी गई थी । मौके पर निशानदेही दिनांक 19-09-2019 को क्षेत्रीय कानूनगो सौहडा के द्वारा की गई । क्षेत्रीय कानूनगो सौहडा ने प्रार्थना पत्र निशानदेही की रिपोर्ट दी है । रिपोर्ट कानूनगो का अवलोकन किया गया। रिपोर्ट अनुसार निशानदेही यादी पवन कुमार पुत्र हरवंश सिंह व प्रतिवादी तरवीज सिंह, बलजीत सिंह पुत्रान राम सिंह व ओंकार , विजय कुमार पुत्रान उधम सिंह आदि को मन्जूर है ।

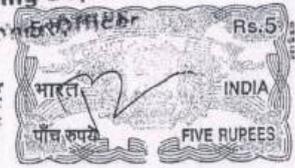
व्यान कलमबन्द करके साथ सलंगन है । इस प्रार्थना पत्र पर अब मजौद कार्यवाही की कोई जरूरत ना है । प्रार्थना पत्र निशानदेही स्वीकार किया जाता है । सुनाया गया । अतः मिसल दाखिल दफतर की जाती है ।

Handwritten signature and stamp of the Deputy Commissioner Officer, Gangath, Kangra District. The stamp includes the text "Seal of the Copying Department" and "Deputy Commissioner Officer, Gangath, Kangra District".

5662  
25/9/2019  
25/9/2019  
25/9/2019  
25/9/2019  
25/9/2019

No 0846162

Himachal Government



In the court of Tehsildar, cum A.C. Ist Grade, ~~Nurpur~~, Gangath Distt, Kangra, HP.

मिशन नं. 169/न/2019

16/9/2019

Pawan Kumar son of Sh. Harbans singh r/o Vill. ~~Rhadr~~ Gagwal Teh. Nurpur, Sub Teh. Gangath Distt, Kangra, HP.



-----Applicant

Vs.

- 1. Farbeej singh } sons of Sh. Ram singh
- 2. Baljeet singh } r/o Bhadroya, Teh Nurpur sub Teh. Gangath.
- 3. Onkar singh )
- 4. Vijay Kumar ) sons of Sh. Udhm singh
- 5. Hamir singh S/O Sh. Bidhi chand r/o Bhadroya, Teh Nurpur, Distt, Kangra, HP.

--- Respondents

Application for getting demarcation of land comprised in khata No.6 Khatauni no.9, Khasra Nos. 505, measuring 0-92-18 HM, 1816/506 measuring 0-92-97 HM, 1831/1692/512 measuring 0-01-15 HM, Khasra no.518, measuring 0-06-30 HM, Khasra No. 1833/1694/519 measuring 0-02-32 HM, Khasra No. 1823/520, ~~situated~~ measuring 0-08-32 HM, situated in mohal Bhadroya Sub Teh. Gangath Distt, Kangra, HP, as per Jamabandi 2012-13, and Aks Musabi is enclosed.

ATTESTED

EXAMINER

DATE 16/9/2019

Sir,

It is submitted as under:-

- 1. That the applicant has taken the above said land from Ajay singh and smt. Radha Rani (son/widow) of Malkiyat singh on Lease(Patta).
- 2. That the applicant does not know the exact boundaries of the said land, so in order to avoid Quarrel the applicant wants to get demarcation of the said land

Reader 16/9/2019

NO 169/NIT Distt 16/9/2019 contd--21

16/9/2019

16/9/2019

16/9/2019

16/9/2019

0मान वादी

Seal of the Copying Department  
Deputy Commissioner Officer

1, 0मान श्री पवन कुमार पत्र श्री हरकथ सिंह निवासी  
गमवाल

0मान किया कि जो निशान देही कुंभक 169/NT  
दिनांक 16-09-2019 को अदालत नाथन तहसीलदार  
गंगथ में भूमि खकल नम्बर 505-1816/506 -  
1831/1692 512 - 518 - 1833/1694/519 - 1823/520  
वाक्या मक्षाल मशहूदा उय तहसील गंगथ की दायर  
की थी आज क्षेत्रीय कानूनगो द्वारा मौका पर  
उक्त नम्बर खकल की निशान देही जरीब लिफ्टमशीन  
करके कौनों पर सिमेंट के पत्थर नक्ष करवाए गए।  
निशान देही ठूसि यजूर ही वक्ष मेरी यही  
0मान ही पर वस्तु लिखा विल मोग

10/8/19  
Rampur

ATTESTED

EXAMINER  
25/9/2019

Attested  
M. P. Singh  
19/9/19

ध्यान प्रतिकारी

Seal of the Copying Department  
Deputy Commissioner Officer  
Kanara District

1. श्री तरवीज सिंह पुत्र राम सिंह उग्र 55 निवासी मयडीआ
2. ५ कलजीत सिंह ५ ५ ५ 32 50 ५ ५
3. ५ विजय कुमार ५ ५ ५ 32 54 ५ ५
4. ५ श्रीकांत सिंह पुत्र ५ ५ ५ 32 62 ५ ५

मुद्रात्रका तौर पर ध्यान दिया कि जो जियान डेवी  
 पवन कुमार पुत्र हरबल सिंह निवासी गगपाल ने श्री  
 खाला नं 6 खाली नं 9 नम्बर खसरा 505-1816/506-  
 183/1694 512-518-1833/1694/519-1823/520 बाकया मंडाल  
 मयडीआ की हमारे वन्त के साथ दायर की थी। आज क्षेत्रीय  
 कानूनगी द्वारा श्रीकांत हमारे वन्त जियान डेवी की  
 श्रीकांत उक्त नम्बर खसरा की लॉटिन्स जारी कर देखाई  
 करके जमाना पर बीमें के फिल्लर लगवाए गए श्रीकांत पर  
 की गई जियान डेवी है कजूर ही वष हमारा नहीं ध्यान है।  
 पद कहुगलिमा वैन भागा

PO & AG

1. [Signature]  
 2. [Signature]  
 3. [Signature]  
 4. [Signature]

Arrested  
 M. S. [Signature]  
 19/19

25/9/19



VAKALATNAMA

IN THE COURT OF Hon'ble National Green Tribunal.

IN THE MATTER OF O.A. No. 1034 of 2024

K Sanjeev Dogra Plaintiff/ Appellant/ Petitioner/Complainant

VERSUS

State of Himachal Pradesh & ORS. Defendant /Respondent/ Opposite Party

KNOW ALL TO whom these presents shall come that I/We R-10, 11, 12, 13, 14, 15, 21, 24, 25, 26, 27, 28, 29

the above-named Respondents do hereby appoint

**YAGYAWALKYA SINGH, Advocate**

Enrollment No. (UP4143A/2014)

Ch: 203, Setalvad Lawyers Block, Supreme Court

Off: A-131(LGF), SECTOR 46, NOIDA, UP-201301

Email: yagyawalkya@dylawchambers.com

Mob no. 7838848157

(Hereinafter called the advocates) to be my/our Advocate(s) in the above- noted cause, to do all the following acts, deeds and things or any of them, that is to say: -

1. To act, appear and plead in the above-noted cause on my/our behalf, in this Court or in any other Court/ Tribunal in which the same may be tried or heard and also in the Appellate Court subject to payment of fees separately for each Court by me/us.
2. To sign, file, verify and present pleadings, appeals, cross-objections or petitions for executions, review, revision, withdrawal, compromise or other petitions or affidavits or other documents as may be deemed necessary or proper for the prosecution of the said cause in all its stages subject to payment of fees for each stage.
3. To file and take back documents, to admit and/or deny the documents of opposite party.
4. To withdraw or compromise the said case or submit to arbitration-any differences or disputes that may arise, touching or any manner relating to the said case.
5. To take execution proceedings.
6. To deposit, draw and receive money, cheques, cash and grant receipt thereof and to do all other acts and things which may be necessary to done for the progress and in the course of the prosecution of the said case.
7. To appoint and instruct any other Legal Practitioner authorizing him to exercise the power and authority hereby conferred upon the Advocate whatever he may think fit to do so and to sign the power of attorney on our behalf.

AND I/we the undersigned do hereby agree to ratify and confirm all, acts done by the Advocate or his substitute in the matter as my/our own acts, as if done by me/us to all intents and purposes.

AND I/we undertake that I/we or my/our duly authorized agent would appear in the Court on all hearings and will inform the Advocate for appearance when the case is called.

AND I/we undersigned do hereby agree not to hold the Advocate or his substitute responsible for the result of the said case. The adjournment & other costs whenever ordered by the Court shall be of the Advocate which he shall receive and retain for himself.

AND I/we the undersigned do hereby agree that in the event of the whole or part of the fee agreed by me/us to be paid to the Advocate remaining unpaid he shall be entitled to withdraw from the prosecution of the said case until the same is paid.

IN WITNESS WHEREOF I/we do here unto set my/our hand these presents the contents of which have been understood by me/us on this date -

Accepted subject to the terms of the fees.

Singh  
Advocate(s)

Dr. Divya Swamy  
ADVOCATE

Reg. No. D/1160/2014

Ch. No. 203, Setalvad Lawyers Block,

Supreme Court of India, New Delhi-110001

Off: A-131, Sector-46, Noida, Ph. 8860050449

For Om Stone Crusher

Honey  
Client(s)

Partner

D/3273/2023  
NIDHI KUMAR

D/3493/2023  
YASH JAIN



- 1) Om Stone Crusher Harsaran S. Maini Partner. R-10, 28 For Om Stone Crusher  
Harsaran  
Partner
- 2) J. V. Stone Crusher Vishal Chaudhary Prop. R-12, 27 M/s. J.V. Stone Crush
- 3) Mankotia Stone Crusher Rajinder Singh Mankotia Prop. R-28 Rajinder Singh  
Prop.
- 4) Goldmine Stone Crusher Sudhir Singh Prop. R-10, 25 M/s. Gold Mine Stone Crusher
- 5) Bhandral Stone Crusher Bhandral Stone Crusher. R-14, 15, 29 Bhandral  
Prop.
- 6) SCS Stone Crusher Gramin Udyog Mankaran Singh Prop. R-24 For SCS Stone Crusher Gramin Udyog  
Distt. Kanara (H.P.)  
Proc
- 7) Shivam Stone Crusher Mahinderpal Partner. R-13, 21 - For Shivam Stone Crusher  
Mahinderpal  
Partner

Supreme Court of India, New Delhi-110001  
 Ct. A-131, Sector-45, Noida, Pin-201304